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DELIVERING EXCELLENCE AT HOME: A DEFENCE FOOTPRINT TO SUPPORT CANADIAN ARMED FORCES CONTINGENCY OPERATIONS IN CANADA'S NORTH

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ABSTRACT

This research paper examines the need for an expanded defence infrastructure footprint in Canada's North so that the Canadian Armed Forces (CAF) will be ready to conduct contingency operations in support of other government departments. The Department of National Defence (DND) and CAF have a long history of developing infrastructure in the North in order to further the needs of defence. This includes the Northwest Territories and Yukon Radio System, the Northwest Highway, and the initial construction of many airfields across the North. During the Cold War, infrastructure development continued with the construction of the Distant Early Warning Line and the later North Warning System. The northern infrastructure that is currently within the DND portfolio was built for defensive purposes and is not well suited to the most likely type of CAF domestic operations, which is providing support to a Whole of Government effort in response to a territorial or provincial request for assistance during a crisis or emergency. If the ability to support other government departments in the Arctic is truly a priority, then the CAF require an expanded defence footprint to "deliver excellence at home."

> *Finally, the Canadian Forces must have the capacity to exercise control over and defend Canada's sovereignty in the Arctic. New opportunities are emerging across the region, bringing with them new challenges. As activity in northern lands and waters accelerates, the military will play an increasingly vital role in demonstrating a visible Canadian presence in this potentially resource-rich region, and in helping other government agencies such as the Coast Guard respond to any threats that may arise.*[1]
>
> —— Canada First Defence Strategy

CHAPTER 1 – INTRODUCTION

In their most basic form, the Canadian Armed Forces (CAF) are an instrument of government, tasked to defend Canada's national interests. Although the notion of what constitutes a national interest is sometimes vague, the Government of Canada (GoC) sets forth a measure of definition in official policy documents. The *Canada First Defence Strategy* lays out government expectations for the CAF. These expectations are as follows: "the Canadian Forces must be able to deliver excellence at home, be a strong and reliable partner in the defence of North America, and project leadership abroad by making meaningful contributions to international security."[2] To "deliver excellence at home" is more than readiness to defend Canadian territory: the CAF must be prepared to assist other government departments (OGD) with various safety and security tasks anywhere in Canada. Examples of tasks to which the CAF could contribute include support to Public Safety on counter-terrorism, support to Public Safety under the Federal Emergency Response Plan, and support to Environment and Climate Change Canada for environmental emergencies.

Providing a coordinated and effective GoC response to emergencies and disasters is complicated in southern Canada. It proves even more challenging in Canada's North where the population is small, geography is massive and government resources are thinly spread. The Sixth

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[1] Department of National Defence, *Canada First Defence Strategy* (Ottawa: DND Canada, 2008), 8.
[2] *Ibid.*, 3.

Report of the Senate's Standing Committee on Energy, the Environment and Natural Resources (2009) provides a solid appreciation of the situation:

> These three territories more or less define the word 'vast'. Canada's seven most easterly provinces, including massive Ontario and enormous Quebec, would fit inside these three and still leave room over… Clearly, when it comes to the North's population, sparse is the word. Of the 75 communities in the three northern territories, 55 are home to fewer than 1,000 residents.[3]

Terminology

The nomenclature used to describe the North is subject to varying definitions. For the purposes of this paper, the 60th parallel is the delineating feature for "the North" or "Canada's North," which fully encompasses the three territories as well as northern areas of Quebec and Labrador.

Depending on the field of study, there are three commonly used definitions for what constitutes the Arctic region: (1) the region above the Arctic Circle (approximately 66.5° latitude), (2) the region above the 10°C isotherm for the month of July, or (3) the region above the tree line. These definitions are illustrated in Figure 1. For this paper, the first definition will be used. Thus, the Arctic is the area above the Arctic Circle, the land in which there is at least one day per year of "midnight sun" (the sun is above the horizon for a full 24 hours) and at least one day per year of full night (the sun never rises above the horizon). For ease of reference, a map of the three territories is shown in Figure 2.

It should be noted that CAF strategic documents refer to the area between the 55th and the 60th parallel as the Subarctic, and the area above the 60th parallel as the Arctic. For the CAF, Canada's North includes the Arctic and Subarctic. The intent of this paper is to focus on the region above the 60th parallel and thus the narrower definition of Canada's North – the three

[3] Senate, *With Respect, Canada's North: Sixth Report of the Standing Senate Committee on Energy, the Environment and Natural Resources* (Ottawa: May 2009), 4.

territories plus northern parts of Quebec and Labrador – will be retained. The term "Arctic" will distinguish the region north of 66.5° latitude.

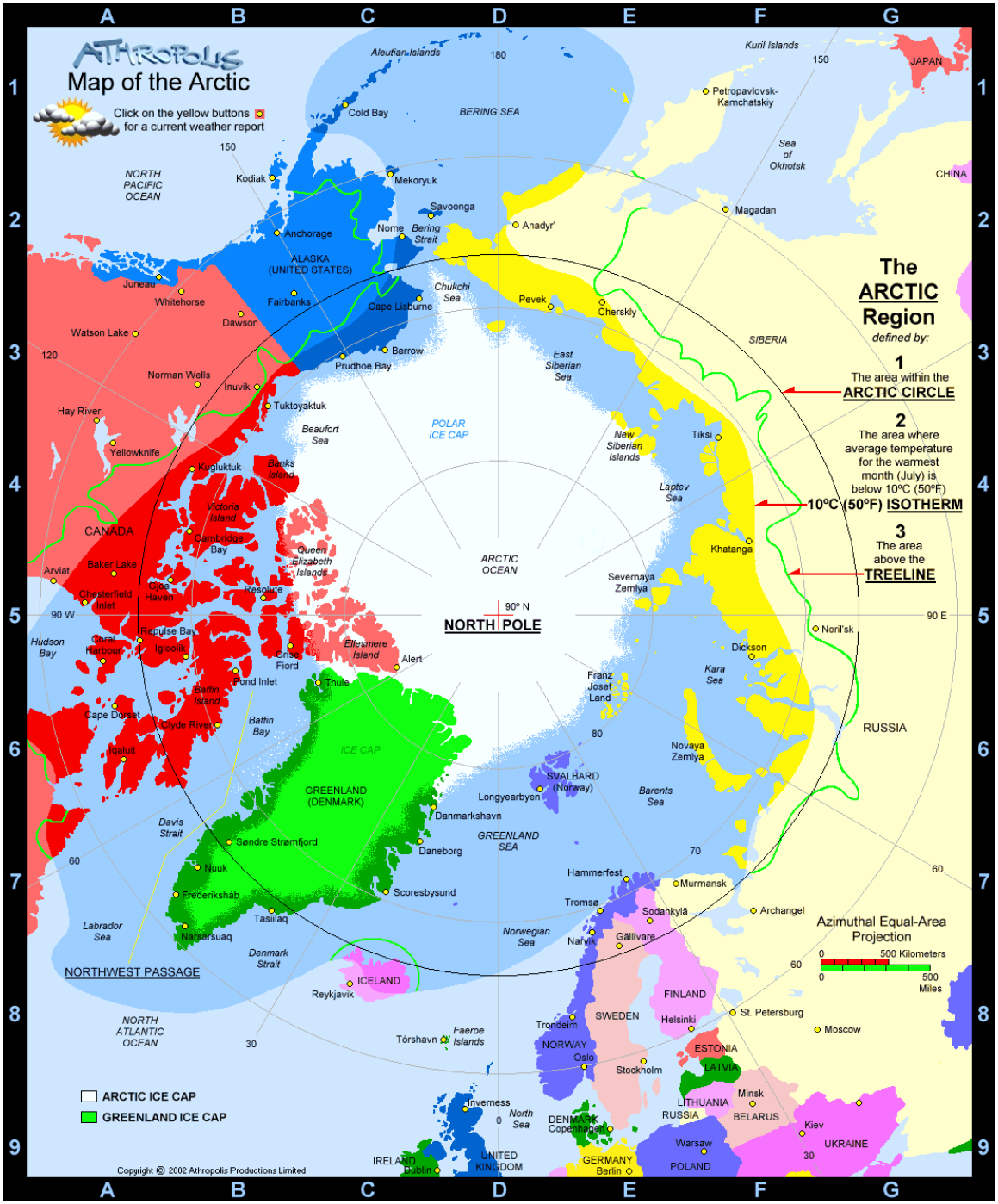

Figure 1 — Definitions of the Arctic Region

Source: Athropolis.com, accessed 12 July 2015.

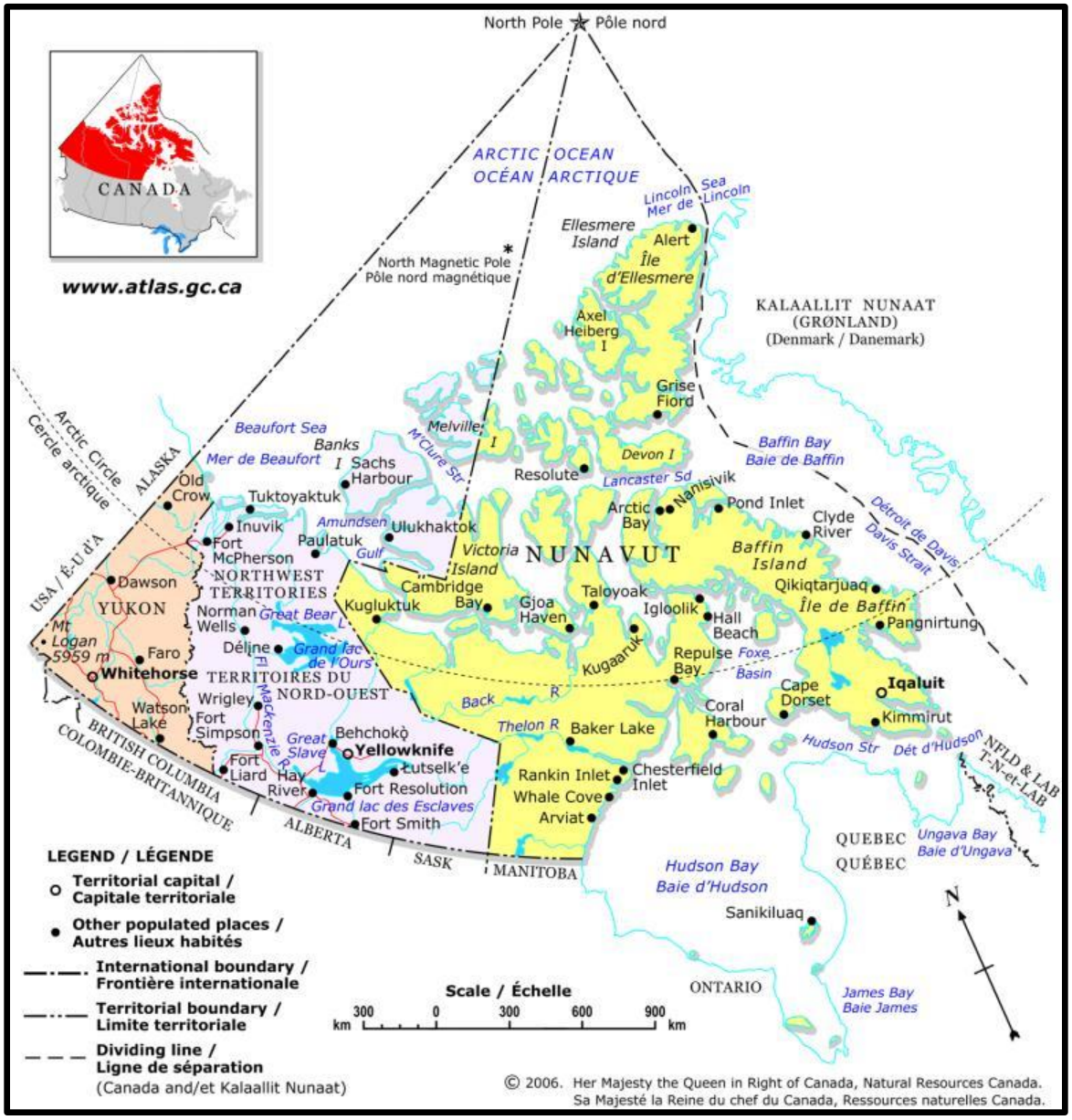

Figure 2 — Map of the Canadian Territories

Source: Natural Resources Canada, accessed 7 December 2015.

It is worthwhile to introduce terminology frequently employed by governments, the media, and in academic circles to describe groups of states or nations that have interests in Arctic issues. These descriptors are useful in the context of continental shelf claims, the Arctic Council, and other bilateral or multilateral initiatives in the Arctic region. The Arctic Five refers to the five nations that have coastlines on the Arctic Ocean: Canada, the United States, Norway, Denmark (Greenland), and the Russian Federation. The Arctic 8 adds three countries that have land territory within the Arctic Circle but no coastline on the Arctic Ocean: Finland, Sweden and Iceland. The Arctic 8 are the core members of the Arctic Council. The term "non-Arctic states" is used by the Arctic Council to denote nations that are not members of the Arctic 8. Lastly, the term "near-Arctic state" has been adopted by China, seemingly to justify its greater interest in the region by reason of closer proximity than more distant countries from the Arctic.

Sovereignty and Defence

Sovereignty is a heady word in Canada. It invokes a protective urge, an instinct to assert that Canada's North is truly Canadian and belongs to no other. Over the decades, while Canada has steadfastly continued to work with its more populous and powerful neighbour to the south on continental defence, doubts have resurfaced again and again about whether this aspect of collective security might represent an abrogation of state power and ultimately of sovereignty. This theme runs through much of the American-funded development of northern infrastructure in Canada, beginning with the Alaska-Canada Highway and Northwest Staging Route during the Second World War, to the Distant Early Warning (DEW) Line in the 1950s, and the construction of North Warning System (NWS) sites under North American Aerospace Defense (NORAD) modernization in the 1980s. These initiatives were spurred on by the security concerns of the

United States with respect to their vulnerability to attack through (or over) a land that cannot be defended in any conventional, "guard the ramparts" sense.[4]

Nevertheless, where Canada cannot defend its physical borders unilaterally, it has worked to establish and then defend them in the construct of international law and in the fields of diplomacy and international relations. That is what the lofty word sovereignty is about – do the other nations of the world acknowledge the lands in Canada's North to be part of Canada? In the maritime realm, how do the other nations of the world consider the waters of the Canadian Arctic Archipelago – is the Northwest Passage "internal waters" or is it an "international strait?" And lastly, what are the outermost limits of Canada's continental shelf beyond its exclusive economic zone (EEZ), in accordance with the United Nations Convention on the Law of the Sea (UNCLOS)? Political scientist Rob Huebert explains that security is the primary national interest, and that it is intertwined with sovereignty: if you do not have control over your sovereign territory then you cannot assure the security of your people, your resources, or your environment.[5]

Canada's outstanding boundary and status of water disputes are sovereignty issues for diplomats, not for the military.[6] As laid out in the *Statement on Canada's Arctic Foreign Policy (CAFPS)*, some are works in progress (for example, Canada continues to work with the UNCLOS mechanism to define and gain international acceptance of its continental shelf) while others are issues to be managed, such as Canada's disagreement with the United States (U.S.)

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[4] See, for example, Ken Coates *et al*., *Arctic Front: Defending Canada in the Far North* (Toronto: Thomas Allen, 2008) and P. Whitney Lackenbauer, ed., *Canada and Arctic Sovereignty and Security: Historical Perspectives* (Calgary: Centre for Military and Strategic Studies, 2011).

[5] Rob Huebert, "Canadian Arctic Sovereignty and Security in a Transforming Circumpolar World," in *Canada and the Changing Arctic: Sovereignty, Security, and Stewardship* (Waterloo, ON: Wilfrid Laurier University Press, 2011), Kindle e-book location 888 of 7741.

[6] On this theme, see P. Whitney Lackenbauer and Peter Kikkert, *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), which includes various documents by international lawyers explaining the distinction between military roles and the legal requirements of sovereignty.

regarding the angle of the maritime extension of the land boundary between Alaska and the Yukon Territory into the Beaufort Sea. The resolution of the latter issue will give one of the nations an additional 6,250 square nautical miles of the Beaufort Sea, under which an abundance of energy resources is expected to be found; this is an area that neither country is in a rush to concede.[7]

Nevertheless, in its desire to assert or to exercise sovereignty, the military often provides visible proof of Canadian government engagement and activity in the North. This was true during the establishment of the Northwest Territories and Yukon Radio System, the long-running operation of Canada's most northerly inhabited site (Canadian Forces Station Alert (CFS Alert)), and continues with the CAF annual N-series exercises – Nanook, Nunalivut, and Nunakput.[8] The military has the resources and reach to literally "fly the flag" and to provide a tangible sign to the world that Canada's North is our sovereign land and sea.

Increased International Interest in the Arctic

In a 2006 *Canadian Military Journal* article, Huebert claimed that there was a "renaissance" in interest in Arctic security that was prompted by three reasons: climate change and increased areas of open water during summer, increased demand for natural resources (fossil fuels and mineral extraction), and the Western nations' sense of vulnerability to acts of terror following the events of 9/11 (resulting in a desire for increased surveillance capability as well as demands for tighter borders and physical security).[9] In the decade since that article appeared, all

[7] Department of Foreign Affairs, Trade and Development Canada, *Statement on Canada's Arctic Foreign Policy: Exercising Sovereignty and Promoting Canada's NORTHERN STRATEGY Abroad* (Ottawa: DFATD Canada, 2010), 7.

[8] See, for example, Lackenbauer, "The Military as Nation-Builder: The Case of the Canadian North – The 2013 Ross Ellis Memorial Lecture in Military and Strategic Studies," *Journal of Military and Strategic Studies* 15, no.1 (Summer 2013): 1-32.

[9] The third reason is phrased as "geopolitical transformation" by Rob Huebert in *Canada and the Changing Arctic: Sovereignty, Security and Stewardship* (Kindle e-book location 962 of 7741).

three themes have garnered significant media, political and academic attention. The visibility of Arctic issues is greater than ever before. To Huebert's list, one should also add a "renaissance" in re-ignited security concerns between the Russian Federation and North Atlantic Treaty Organization (NATO) nations, arising from the actions of Russia in Crimea and southeastern Ukraine, and the counter-actions by western nations and NATO.

Canadian Military Role in the North

The Harper government refreshed the missions and roles for the CAF in its 2008 *Canada First Defence Strategy* (*CFDS*). In basic ways, this policy does not stray far from previous white papers or policy statements on defence; the first priority is always the defence of Canada, with heavy emphasis on the bilateral relationship with the United States for the defence of North America, and a nod to participation in multilateral institutions such as NATO and the United Nations for collective defence and international security. As a relatively small nation in terms of population, multilateralism is a mechanism that allows Canada to invest proportionately less in defence. The people of Canada enjoy a sense of security because there is a broad safety net of agreements with allies. Multilateralism was reaffirmed in *CFDS,* in defence of North America and contributing to peace and security, and keeps the door open to "participate . . . in missions with like-minded states as a responsible member of the international community."[10] Although not explicitly mentioned in that context, multilateralism is equally important when discussing Arctic region issues.

Defence Footprint in the North

Working in concert with *Canada's Northern Strategy* and the *CAFPS*, the *CFDS* identifies long-term investments to increase capabilities in certain areas. The CAF have the

[10] *CFDS*, 9.

assigned role to defend Canada – all of Canada – and also to support OGDs in safety and security tasks. While the geography of Canada's North is expansive and the population is sparse, the CAF resources that are permanently based in Canada's North remain minimal. This reflects the perception of threat in the region (the need for defence), and also the historical demand for support which, commensurate with the small population, has been relatively low. With increased activity in the North such as mineral exploration and extraction, tourism, long-haul commercial aircraft overflights, and possible future Northwest Passage transits, the CAF is increasingly likely to be called upon to offer support in a time of need. Accordingly, the ability of the CAF to respond quickly to the challenges of geography and climate will be under scrutiny.[11]

There is a limited amount of Department of National Defence (DND) and CAF infrastructure distributed across the North. The vast majority is related to the NORAD mission and is not suitable or well located for land-based CAF operations or activities in support of other government departments. Unlike southern Canada, there are no bases with resident support services, such as transport, vehicle maintenance, lodging and food services. Without bases, the CAF must plan to be self-sustaining for any exercises or operations in the North; that is to say that they must bring all necessary equipment, temporary shelters, consumable materials, plus vehicles or aircraft for transport from their southern bases.

The most economical means to move large quantities of equipment, vehicles and supplies from the southern part of Canada to the North is via maritime shipping. Maritime shipping has a long lead time and is not sufficiently agile for the movement of goods in response to an urgent situation. Further, there are no trans-modal nodes in the North, where sea containers could be taken from ships and transferred to aircraft or to road networks. There are also no deep water

[11] See, for example, Chief of Force Development, *Arctic Integrating Concept* (Ottawa, 2010); *CDS/DM Directive for DND/CF in the North* (2011); and Canadian Joint Operations Command, *CJOC Plan for the North* (February 2015).

ports in Canada's North that can harbour RCN ships.[12] The GoC has promised a deep-water berthing and refuelling facility at Nanisivik, but it will be an austere re-supply point vice a location that could be used to stage CAF operations. Until the Arctic/Offshore Patrol Ships (AOPS) come on line, the current RCN fleet is highly restricted in its ability to operate even during the so-called navigable season of June to mid-September and thus there is a geographic limit to where the ships can sail.[13] RCN submarines are diesel-powered and cannot operate below Arctic ice. In sum, the ability of the Royal Canadian Navy (RCN) to operate in the North is limited by both infrastructure and by vessel capability.

There are no regular force Canadian Army (CA) units that are garrisoned in Canada's North. The CA has a reserve sub-unit (a company of the Loyal Edmonton Regiment) in Yellowknife and Canadian Ranger patrols in almost every hamlet in Canada's North (see Figure 3).[14] With the exception of a headquarters element in Yellowknife, the Canadian Rangers have no permanent infrastructure in local communities: unlike southern Canada, there are no armouries distributed across the North.

[12] Robert Sibley, "Canada ignores Arctic sovereignty at its peril," *Ottawa Citizen*, 2 October 2015.

[13] Jenna M. Alexander and Lieutenant-Colonel Dalton Cote, *Leadership in Whole-of-Government Operations: A Case Study of Security in the Canadian Arctic*, Canadian Forces Leadership Institute Monograph 2011-01 (Kingston, ON: Canadian Defence Academy, May 2011), 20-21.

[14] On the Rangers, see P. Whitney Lackenbauer, *The Canadian Rangers: A Living History* (Vancouver: UBC Press, 2013).

Figure 3 — Patrols of 1 Canadian Ranger Patrol Group

Source: http://www.army-armee.forces.gc.ca/en/1-crpg/patrols.page, accessed 5 September 2015.

which could become staging points for operations. In 2013, the CAF Arctic Training Centre was opened in Resolute Bay with a mandate to support training in the North, but it is staffed only when training is conducted. Therefore, when the GoC needs "boots on the ground" for anything more than minor local operations (which can be handled by minimally-trained, community-based Canadian Ranger patrols) in the North, it requires the movement of the land forces from their southern home bases to the designated area of operations.

The deployment of CAF to the North is akin to CAF deploying to other remote parts of the globe. They must travel great distances and be prepared to be self-sustaining so that the CAF presence is not a burden on local communities who themselves are under stress, and who do not have abundant local commercial supplies. Depending on destination and season, this may be accomplished by road, but is much more likely to require air movement. The logistical challenge of moving a CA Arctic Response Company Group (ARCG), for instance, cannot be overestimated – they travel with everything they will require for initial operations: each soldier with their individual kit, plus tented accommodation, cooking supplies and rations, medical support, all-terrain vehicles or snowmobiles, generators for power, communications equipment and the fuel to keep everything running.[15]

While there are military installations to support the deployment of fighter aircraft in the defence of Canada and North America, there is no dedicated military infrastructure to support other roles of the Royal Canadian Air Force (RCAF) in Canada's North – and very little civil infrastructure to support CAF operations. The region is well served by minor airfields, many of which were initially built as defence projects. Those airfields welcome sturdy short-take-off-and-landing aircraft (including the RCAF CC-138 Twin Otter), but are often unpaved and without the

[15] CA has one ARCG in each of its four divisions, assigned to a reserve brigade; the size of an ARCG can range from 150 to 400 personnel.

instrumentation and lighting systems that allow for larger aircraft. Unpaved runways are subject to seasonal restrictions and possible closure during periods of freeze-up or thaw. In addition, the small communities adjacent to those austere runways tend not to have aircraft hangars which could shelter a CC-130 Hercules aircraft should it require maintenance or repairs, nor the material handling equipment to offload larger items. Thus, the number of airfields which can receive a CC-130 Hercules transportation aircraft is limited. Far fewer can receive the capacious CC-177 Globemaster III. This restricts the ability of the RCAF to transport personnel, equipment and materiel to the North in support of CAF operations.

The Case for Expanding the Defence Footprint in Canada's North

Writing in the *Canadian Military Journal* in 2011, Tony Balasevicius discusses the gap between what the GoC has asked the CAF to do in Canada's North (through the *CFDS* and the *Northern Strategy*) and what the CAF can actually do. He identifies the ever-present challenges of climate and geography in projecting CAF capability to the North, adding that "currently, any attempt to mount even a small scale operation would be difficult, since the region is lacking even the most basic infrastructure in terms of road networks, airfields, staging/supply bases, and medical facilities."[16]

The concept that Balasevicius describes – having infrastructure ready to enable CAF operations – could be provided through permanently established bases. Within its current force posture, however, the CAF has insufficient forces to permanently assign field units and other resources to the North. Therefore, it needs multi-purpose forces capable of rapid deployment, and select locations in which to set up their operations for extended employment in the North.[17]

[16] Tony Balasevicius, "Towards a Canadian Forces Arctic Operating Concept," *Canadian Military Journal* 11, no. 2 (2011): 26.

[17] *Ibid*., 27.

The CAF have permanent bases spread across southern Canada, but they are exceedingly expensive to operate and maintain in terms of financial resources and personnel (military, civil servant or contracted services). The high cost of initial development and recurring sustainment makes it difficult to argue the case for new bases to support CAF contingency operations in the North. There is insufficient demand for CAF support to justify drawing the required resources away from other priority CAF tasks and roles.

There is an existing defence footprint in Canada's North, largely developed to support Cold War missions. It is not well suited to the likely CAF role of supporting OGDs in the GoC response to crises or emergencies. Expanding the defence footprint to support CAF contingency operations in Canada's North does not mean building large structures that sit empty, awaiting only CAF usage. Rather, the CAF need to maximize their use of existing defence installations in the North and create partnerships with OGDs to develop and share existing or new facilities in key locations.

By their very nature, contingency operations require a rapid deployment of CAF capabilities and an efficient transition of personnel, equipment and materiel through a staging site to the actual area of operations. While the CAF have transportable, expedient equipment (e.g. shelters, power generation and communications), it takes precious time to transport and then set up equipment. The timeline to prepare a staging site can be shortened significantly either by having guaranteed access to existing facilities (owned, shared or leased) and/or by pre-positioning essential equipment. It is not sufficient to rely on the availability of municipal facilities; during a contingency operation, those will likely be occupied by people who have been affected by the crisis or emergency, or by other agencies who are engaged in the response. It is also insufficient to rely heavily on the just-in-time availability of commercial facilities at or near

the airfield. At the best of times, infrastructure in the North is at a premium – in crisis, others will want access to the same space.

In the absence of permanent bases, the defence footprint in Canada's North should be expanded to ensure that the CAF can indeed "deliver excellence at home" when called upon to lead or support contingency operations. This defence footprint should include facilities from the DND/CAF portfolio, augmented by facilities and services that are shared with other federal or territorial government departments or by leased facilities where it makes sense and is feasible to do so.

> *Canada's claim to ocean and Arctic space is no longer a matter of indifference in a world increasingly short of resources.*[18]
>
> —— *Desmond Morton,* A Military History of Canada*, 1985*

CHAPTER 2 – ARCTIC SOVEREIGNTY, SECURITY AND INTERESTS

Arctic Policy Framework (Foreign Affairs Perspective)

The current federal policy suite surrounding the management, development, safety, security and defence of Canada's North dates from 2008-10. Promulgated over a relatively short period of time during the tenure of the Harper government, the documents are accordingly consistent in terms of objectives and initiatives. The policy suite is centred on *Canada's Northern Strategy* (2009), complemented by an international relations approach captured in the *Statement on Canada's Arctic Foreign Policy* (2010). The defence policy *Canada First Defence Strategy* (2008) preceded the overall northern strategy and accompanying foreign policy. In this strategic framework, CAF roles and responsibilities in the North, as well as government initiatives to increase northern operational capabilities, are prominent.

The high degree to which the Harper government viewed the Arctic as a priority by can be measured by the completeness of the policy suite, which is in stark contrast to the absence of publicly-distributed publications in the domain of international relations, where the priorities of the GoC can be found on websites but not within a white paper or official policy statement.[19]

Canada's Northern Strategy

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[18] Desmond Morton, *A Military History of Canada* (Edmonton, AB: Hurtig Publishers Ltd., 1985), 266. It is interesting to note that this sentence changed subtly in each of the later editions of this book, with the 5th edition (Toronto: McClelland & Stewart Ltd, 2007) stating: "Canada's claims to oceans and Arctic sovereignty are no longer a matter of indifference in an overcrowded world."

[19] Foreign Affairs priorities have been updated annually and posted online; updated by the Trudeau government, current priorities can be found on the Global Affairs Canada website, http://www.international.gc.ca/department-ministere/priorities-priorites.aspx?lang=en. According to a search of the online Library of Parliament catalogue, the last White Paper on foreign affairs was *Canada's International Policy Statement – A Role of Pride and Influence in the World: Diplomacy,* 2005, under the Martin government.

Canada's Northern Strategy was published by the Department of Indian Affairs and Northern Development (DIAND) in 2009 and remains the capstone strategic document for federal policies that apply to Canada's North. With DIAND (now Indigenous and Northern Affairs Canada) as the lead department, the *Northern Strategy* brings together initiatives that span multiple federal departments, grouped into four main themes: "exercising our Arctic sovereignty; promoting social and economic development; protecting the North's environmental heritage; and improving and devolving northern governance so that Northerners have a greater say in their own destiny."[20]

The sovereignty theme receives the most attention in *Canada's Northern Strategy*, and is further broken down into discrete activities. These include increased stewardship within our borders (expressed through the application of Canadian legislation and regulation to ourselves and foreign entities who visit or transit our territories or EEZ), "exercising" sovereignty by maintaining a military presence in the North, and investing in a better understanding of the northern region in order to support continental shelf claims under UNCLOS.[21] The strategy links the government aims of socio-economic development and northern governance with the need to support those aims through diplomacy and the vast resources of defence.

Statement on Canada's Arctic Foreign Policy

Building on this policy framework, the *CAFPS* articulates the international dimensions of the themes laid out in *Canada's Northern Strategy*. As one would expect on the diplomatic front, "exercising sovereignty over Canada's North, as over the rest of Canada, is our number one

[20] Department of Indian Affairs and Northern Development Canada, *Canada's Northern Strategy: Our North, Our Heritage, Our Future* (Ottawa: Public Works and Government Services Canada, 2009), preamble, introduction from the Minister of IAND, the Honourable Chuck Strahl.

[21] *Canada's Northern Strategy* . . ., 9-13.

Arctic foreign policy priority."[22] The *CAFPS* outlines the government's desire to negotiate the settlement of outstanding border disputes and to seek international recognition for the extended continental shelf beyond the 200 nautical mile EEZ under UNCLOS. It acknowledges that some disputes will continue to be managed rather than resolved, including the maritime boundary with the United States in the Beaufort Sea and the ownership of Hans Island with the Kingdom of Denmark.[23] Lastly, it is worth noting that the policy acknowledges Canada's traditional multilateral approach, but places special emphasis on the "premier partner" relationship with the United States:

> Facing the challenges and seizing the opportunities that we face often require finding ways to work with others: through bilateral relations with our neighbours in the Arctic, through regional mechanisms like the Arctic Council, and through other multilateral institutions … The United States is our premier partner in the Arctic and our goal is a more strategic engagement on Arctic issues."[24]

The Arctic Council

The primary multilateral body for discussing Arctic issues is the Arctic Council. In Leningrad in 1989, Prime Minister Mulroney proposed that a multilateral organization be formed to enhance cooperation on Arctic issues. This proposal came to fruition under the Chrétien government with the signing of the *Ottawa Declaration* in 1996. The Arctic Council consists of eight member states (the Arctic 8) plus six permanent participants (associations which represent indigenous peoples from various parts of the Arctic), as well as non-Arctic state observers such

[22] Department of Foreign Affairs, Trade and Development Canada, *Statement on Canada's Arctic Foreign Policy: Exercising Sovereignty and Promoting Canada's NORTHERN STRATEGY Abroad* (Ottawa: DFATD Canada, 2010), 2.

[23] *CAFPS*, 7.

[24] *Ibid*., 23.

as China. The Arctic Council is a forum for collaboration and discussion on many issues which affect the region and its occupants, but its mandate explicitly excludes national defence issues.[25]

Canada First Defence Strategy

The *CFDS* is based on three governing roles, paraphrased as "deliver[ing] excellence at home, be[ing] a strong and reliable partner in the defence of North America, and project[ing] leadership abroad by making meaningful contributions to international security."[26] Although worded differently through successive white papers, the layered approach of defending Canada, defending North America, and when necessary contributing to global peace and stability has not changed significantly in decades.[27] An important distinction is made by phrasing the first role as "deliver[ing] excellence at home": this both acknowledges the low risk of conventional military attack on Canada, and recognizes that the CAF centre of gravity for missions at home and abroad is securing and sustaining public support. Should the CAF ever fail to meet domestic demands for defence or support to OGDs, that public support would falter.

The *CFDS* provides a strategic context to guide investments in defence capabilities. In terms of military threats, it lists specific concerns regarding terrorism, the impact of regional wars on global security, the proliferation of nuclear weapons, and increased defence investment by Asia Pacific countries. In addition, the *CFDS* makes specific mention of the CAF requirement

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[25] Peter Pigott, *From Far and Wide: A Complete History of Canada's Arctic Sovereignty*, (Toronto, ON: Dundurn Press, 2011), Kindle ebook location 3776 of 4676.

[26] *CFDS*, 3.

[27] Douglas Bland, *Canada's National Defence vol.1: Defence Policy* (Kingston: School for Policy Studies, Queen's University, 1997). A very similar structure is found in *Defence in the 70s: White Paper on Defence* (Trudeau government, August 1971). The construct shifted to an outline of defence objectives in 1987's *Challenge and Commitment: A Defence Policy for Canada* (Mulroney government), rather than a listing of roles *per se*. The main themes of Canada – North America – International can still be found but with a great deal more emphasis on the international aspects: "The first objective of Canada's security policy is to promote a stronger and more stable international environment in which our values and interests can flourish." A return to the Canada – North America – International construct, in that order, is evident in the 1994 *White Paper on Defence* (Chrétien government).

to operate in the North, both to defend sovereignty and to respond to non-military threats to the region:

> As activity in northern lands and waters accelerates, the military will play an increasingly vital role in demonstrating a visible Canadian presence in this potentially resource-rich region, and in helping other government agencies such as the Coast Guard respond to any threats that may arise.[28]

The *CFDS* is now a decade old, and is premised upon "stable and predictable defence funding" which never came to fruition.[29] Eventually the Harper government reduced or revised many of the forecasted capabilities, including a return to the previous 68,000 personnel cap for the regular force, deferring investment or reduced requirements for major equipment procurements, and failing to attain the target for annual infrastructure investment that was intended to ensure "overall improvement in the condition of defence infrastructure over the long term."[30]

Despite delays and reductions in scope, the GoC continues to support the key defence initiatives which impact the North.[31] The Nanisivik deep water port has been scaled back to an austere refuelling and berthing facility, and will not be operational until 2018. The AOPS project has gone from a forecasted acquisition of "six to eight" to a more conservative six vessels. Construction began in September 2015 and the first ship is expected in 2018. The Canadian Armed Forces Arctic Training Centre (CAFATC) – a successful example of inter-departmental cooperation and sharing of facilities – has been completed and is in operation at Resolute, Nunavut.[32]

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[28] *CFDS*, 8.

[29] *Ibid*., phrase is found in the introduction by the former Minister of National Defence Peter MacKay, 3.

[30] *Ibid*., 19.

[31] Some of these initiatives were specified in the *Canada First Defence Strategy*; others had been announced by the Harper government prior to the publication of the strategy.

[32] See "Arctic naval facility at Nanisivik completion delayed to 2018," CBC, 4 March 2015, accessed 10 December 15, http://www.cbc.ca/news/canada/north/arctic-naval-facility-at-nanisivik-completion-delayed-to-2018-1.2980312. CBC was still using 6 to 8 on 19 September 2014, which matched the original announced number of

Threats to Safety, Security and Sovereignty

Canada's policy framework for the Arctic region acknowledges that various threats may affect the environment or the safety and security of northern residents. Generally, conventional military threat is considered a very remote possibility, with the greatest concern stemming from increasing accessibility of the North due to recent warming trends. Increased accessibility means more human activity and consequently a higher risk of a catastrophic incident in a remote part of Canada. Commercial trans-shipping through the Northwest Passage could increase in the future, and seaborne tourism throughout Canada's seasonally-open Arctic waters is already on the rise. Increased accessibility also means that extraction of natural resources will become more commercially viable, attracting potential corporate interest. For all Arctic nations, increased accessibility has raised the importance of the Arctic in terms of national interests, both economic and military.

While the Canadian policy framework downplays military threat, the Arctic Five states have placed greater emphasis on defence capabilities in the Arctic in the past decade.[33] Writing in the *Canadian Military Journal*, defence commentator Adam MacDonald contends that increased investment or presence of military forces in the Arctic region does not equate with increased military threat. Rather, all Arctic nations struggle with the same challenges in terms of increased activity in a remote and fragile region, and similar concerns with potential encroachment on their natural resources and ultimately their sovereignty. MacDonald

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vessels in 2007, http://www.cbc.ca/news/canada/nova-scotia/first-new-arctic-offshore-patrol-ship-to-be-named-hmcs-harry-dewolf-1.2771334. See also DND/CAF AOPS project fact sheet dated January 2015, with reduced fleet size of six vessels, http://www.navy-marine.forces.gc.ca/assets/NAVY_Internet/docs/en/aops_factsheet_e.pdf, accessed 10 December 2015. Regarding CAFATC opening, see "Military's Arctic training facility opens in Resolute," CBC, 16 August 2013, accessed 10 December 2015, http://www.cbc.ca/news/canada/north/military-s-arctic-training-facility-opens-in-resolute-1.1411838. See also the DND/CAF backgrounder on CAFATC project dated 15 August 2013, accessed 10 December 2015, http://www.forces.gc.ca/en/news/article.page?doc=canadian-armed-forces-arctic-training-centre/hkdons6l.

[33] Adam MacDonald, "The Militarization of the Arctic: Emerging Reality, Exaggeration, and Distraction," *Canadian Military Journal* 15, no. 3 (Summer 2015): 20.

emphasizes that so-called militarization of the Arctic should not pull attention away from more productive diplomatic, cooperative, collaborative efforts:

> Therefore, with the increasing presence of military forces in the region, the potential remains for them to become a detrimental distraction away from the needed regional cooperation and engagement to tackle the plethora of real and complex challenges at hand.[34]

Russia's Interests

The *Russian Federation Policy for the Arctic to 2020* was published in 2008, and includes many themes aligned with *Canada's Northern Strategy*. The Russian policy spells out the importance of the region to Russia's national interests, emphasizing the strategic value of its natural resources and of the Northern Sea Route. The strategic priorities include delimiting maritime zones, improving regional search and rescue (SAR), strengthening regional cooperation through bilateral and multilateral institutions (with specific mention of the Arctic Council and Barents/EuroArctic Region Council), as well as improving transportation and fisheries infrastructure, and improving the quality of life for indigenous peoples. Economic interests are highlighted, as are the "consolidation of international security, maintenance of the peace and stability in the Arctic region." [35]

With post-Cold War economic reforms, Russia sought engagement with Western nations and its expanding economy secured it access to the G8. In *Russia's Arctic Strategies and the Future of the Far North*, political scientist Marlene Laruelle explains that Russia views the Arctic as the economic basis for its future:

> The Arctic is above all a domestic issue: it is an economic resource, a strategy for Siberian regional development, and an opportunity for new population settlement

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[34] *Ibid*., 24.

[35] Russian Federation, *Russian Federation Policy for the Arctic to 2020* (18 September 2008). Translated version from ARCTIS Knowledge Hub, accessed 12 July 2015, http://www.arctis-search.com/Russian+Federation+Policy+for+the+Arctic+to+2020.

> and human capital formation. . . . seen from Moscow, the Arctic is not the country's back door, but rather its potential twenty-first-century front door.[36]

Russia is consequently protective of that resource. As much as Russia seeks cooperative relationships with its Arctic neighbours, it is in one significant way an outsider. Russia is the lone member of the Arctic Five that does not belong to NATO: "The Arctic is central to Russia's economic future, yet it finds itself surrounded by countries bound together in a military pact to which it does not belong."[37] In keeping with the importance of the region, Russia has invested in a considerable military presence in the Arctic including land forces, ports and air assets. The Russian naval capability includes nuclear-powered submarines (with or without nuclear armament) as well as nuclear-powered icebreakers; this enables a high degree of freedom of movement in Arctic waters.[38]

For the past two decades, the NATO-Russia relationship has been marked by periods of cooperation, punctuated by crises in which NATO and Russia have taken opposing positions on particular issues and have suspended cooperation.[39] According to Julianne Smith, "for the Russians, NATO enlargement – from the first round in 1999 to the debate about Georgia and Ukraine in the spring of 2008 – remains their chief complaint."[40] Most recently, the spirit of

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[36] Marlene Laruelle, *Russia's Arctic Strategies and the Future of the Far North* (Armonk, NY: M.E. Sharpe, Inc., 2014), xxii.

[37] P. Whitney Lackenbauer, "From Polar Race to Polar Saga: An Integrated Strategy for Canada and the Circumpolar World," in *Canada and the Changing Arctic: Sovereignty, Security, and Stewardship* (Waterloo, ON: Wilfrid Laurier University Press, 2011), Kindle ebook location 3512 of 7741. See also Lackenbauer, "Mirror Images? Canada, Russia, and the Circumpolar World," *International Journal* 65, no. 4 (Autumn 2010): 879-897.

[38] Ernie Regehr and and Anni-Claudine Buelles, "Circumpolar Military Facilities of the Arctic Five" (The Simons Foundation: March 2015), 44-58, accessed 30 April 2016, http://www.thesimonsfoundation.ca/resources/circumpolar-military-facilities-arctic-five.

[39] Julianne Smith, *The NATO-Russia Relationship: Defining Moment or Déjà Vu?* (Centre for Strategic and International Studies and the Institut Français des Relations Internationales: November 2008), 1. Examples of crises include NATO involvement in Kosovo and the air campaign against Serbia, the Russian invasion of Georgia and the more recent Russian invasion of Ukraine's Crimea. The invasion of Georgia in 2008 resulted in suspension of the NATO-Russia Council for a year, although cooperation/engagement gradually resumed. Also see Marcel de Haas, "NATO-Russian Relations after the Georgia Conflict," in *Atlantisch Perspectief* 2009, no. 7, a publication of the Netherlands Atlantic Association, accessed 10 December 2015, http://www.clingendael.nl/sites/default/files/20090000_cscp_artikel_mhaas.pdf.

[40] *Ibid*., 1.

cooperation has been soured by the Russian Federation's annexation of Crimea in 2014 and its continued participation in conflicts in eastern Ukraine. International response has included economic sanctions on Russia, a return to the G7 format (which excludes Russia), and the suspension of the NATO-Russia Council.[41] NATO also ramped up operational activities under the banner of "NATO's Readiness Action Plan", which includes "assurance measures" and "adaptation measures."[42] Canada's contribution to the NATO effort is known as Operation Reassurance.

Writing before the Ukrainian crisis, Rob Huebert noted that:

> concern is rising among some Arctic states that Russia is beginning to redeploy its military to the Arctic. This concern has yet to translate into fears of an actual Russian threat, and none of the Arctic states have suggested that threat is real. Instead, the concern is to ensure that should Russian actions become more threatening, the Arctic states will be able to respond if necessary.[43]

According to political scientist Franklyn Griffiths, Canadians should be less concerned with Russian military might and more concerned about their lack of stewardship of the Arctic environment.[44] While international concerns have been heightened by Russia's actions elsewhere in the world, the likelihood of Russian military action against one of the Arctic states remains very low. Therefore, despite other sanctions in response to the Ukraine crisis, Arctic states have made a concerted effort to keep the Russian Federation engaged on issues of common interest in

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[41] Global Affairs Canada, "G7," accessed 30 April 2016, http://www.international.gc.ca/g7/index.aspx?lang=eng. See also NATO-Russia Council website, accessed 12 July 2015, http://www.nato.int/cps/en/natolive/topics_50091.htm.

[42] North Atlantic Treaty Organization, "NATO's Readiness Action Plan," December 2014, accessed 12 July 2015, http://www.aco.nato.int/readiness-action-plan.aspx. Assurance measures are intended to reassure some of the newer members of the alliance who feel most threatened by Russia's actions in Ukraine. Adaptation measures are aimed at updating readiness to respond, by augmenting capabilities increasing NATO presence/posture, which includes: augmenting existing structures such as the NATO Response Force (NRF), augmenting NATO's Standing Naval Forces, and ensuring command and control presence and operational activities in the territories of the "eastern Allies."

[43] Huebert, *Canada and the Changing Arctic . . .*, Kindle ebook location 1434 of 7741.

[44] Franklyn Griffiths, "Towards a Canadian Arctic Strategy," in *Canada and the Changing Arctic: Sovereignty, Security, and Stewardship* (Waterloo, ON: Wilfrid Laurier University Press, 2011), Kindle ebook location 4775 of 7741.

the Arctic region (e.g. pollution prevention, SAR and emergency response) through the Arctic Council.

China's Interests

The People's Republic of China is not an Arctic state, but China is exerting appreciable effort to convey its message that it has legitimate interests in the Arctic region. China considers itself a "near-Arctic state" or "Arctic stakeholder."[45] Historian David Curtis Wright suggests that:

> While it is certainly not an Arctic state, China nonetheless feels entitled to a voice in Arctic affairs and does not want wealthy and powerful northern states to grow even more so at the expense of the wider world's access to Arctic resources and navigation routes.[46]

China's interests are rooted in future access to resources. As the most populous nation on earth, with an expanding economy and increasing consumerism, open access to natural resources is essential for continued growth. By extension, Wright concludes, "China wants the Arctic, with its sea passages and vast wealth in petroleum, minerals, and seafood, to be international territory or the 'shared heritage of humankind.'"[47]

At the forefront of its long-term strategy, China lobbied for and was granted permanent observer status on the Arctic Council in 2013. Observer status does not grant formal participation in council decisions, but does provide China with a means to influence those decisions through

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[45] Linda Jakobson and Jingchao Peng, *China's Arctic Aspirations*, SIPRI Policy Paper No. 34 (Solna, Sweden: Stockholm International Peace Research Institute, 2012). The terms "near-Arctic state" and "Arctic stakeholder" are found in both the Jakobson and Peng article and in "Race to the North: China's Arctic Strategy and its Implications" by Shiloh Rainwater (*Naval War College Review* 68, no. 2 (Spring 2013): 62-82). First use of the terms appears to be from a SIPRI press release (which is quoted in both academic works above) on a workshop held in Beijing called "Chinese and Nordic Cooperation on Arctic Developments" in May 2012.

[46] David Curtis Wright, *The Panda Bear Readies to Meet the Polar Bear: China Debates and Formulates Foreign Policy Towards Arctic Affairs and Canada's Arctic Sovereignty* (Calgary, AB: Canadian Defence and Foreign Affairs Institute, 2011), 1.

[47] *Ibid*., 2. This idea is challenged in P. Whitney Lackenbauer and James Manicom, "Canada's Northern Strategy and East Asian Interests in the Arctic," in *East Asia-Arctic Relations: Boundary, Security and International Politics*, ed. Ken Coates and Kimie Hara (Waterloo: Centre for International Governance Innovation, 2014), 78-117.

participation in the subsidiary bodies. The subsidiary bodies (e.g. the working groups) provide a forum for discussion and allow observers to submit written statements. Observers may also submit project proposals and provide funding to advance projects of interest.[48]

China's burgeoning Arctic interests must be kept in perspective. In terms of scientific capabilities, China has established its own research station at Svalbard Island (Norway) and purchased an ice-capable research ship (the MV *Xuelong*). Traditionally, China's navy has stayed closer to its land territory, however, commentator Shiloh Rainwater notes that "with its naval modernization program now aimed at 'far-sea defense,' a Chinese military presence in the Arctic could materialize as Beijing becomes more reliant on Arctic resources and sea-lanes to fuel its economy."[49] In particular, Rainwater believes that China may have an interest in establishing a naval presence in the region of the Bering Strait, since it is one of the access points to Russia's Northern Sea Route. Despite China's investment in ships which can navigate Arctic waters, there is no discernible military threat. China continues to make best use of diplomatic channels to protect its interests and increase its influence as a "near-Arctic state." Rainwater concludes that "China's entrance into the Arctic signals the reality that Arctic affairs may no longer be considered strictly regional."[50]

Boundary Disputes

With only one land neighbour, Canada has the great fortune of having few territorial boundary disputes. Its borders and sovereignty over its land territory are internationally

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[48] Arctic Council, "Observer Manual for Subsidiary Bodies," 2015, accessed 7 February 2016, https://oaarchive.arctic-council.org/bitstream/handle/11374/939/EDOCS-3020-v1A-2015-11-25-Observer-manual-with-addendum-finalized-after-SAO-Oct-2015.PDF?sequence=5&isAllowed=y. From page 9, note that: "Observers may, at the discretion of the chair, make statements, present written statements, submit relevant documents and provide views on the issues under discussion."

[49] Shiloh Rainwater, "Race to the North: China's Arctic Strategy and Its Implications," *Naval War College Review* 68, no. 2 (Spring 2013): 76.

[50] *Ibid*., 76.

recognized, with the exception of the managed dispute with Denmark over Hans Island. With respect to maritime jurisdiction, there remain unresolved questions regarding claims to the continental shelf, the boundary between the United States and Canada in the Beaufort Sea, and the status of the Northwest Passage as internal waters. The first of these unresolved questions – defining Canada's continental shelf and possibly expanding Canada's EEZ – is being addressed through Canada's submission to UNCLOS.[51] The second question – the boundary in the Beaufort Sea – is being managed diplomatically as a case of polite disagreement. The third question remains the greatest concern from a sovereignty perspective. Canada wishes to gain international recognition for its longstanding position that the Northwest Passage constitutes internal waters, providing Canada with an international legal basis to impose regulations on transiting vessels. As the Northwest Passage becomes more accessible, some commentators believe that this issue is becoming more urgent.[52]

The third question - the issue of the Northwest Passage - is also the most complicated in diplomatic terms. The United States considers the Northwest Passage to be an international strait, and for the time being their national interest lies in bolstering the recognition of it as such. To the United States, the Northwest Passage is no different than the Strait of Malacca, a choke point in transit from the Indian Ocean to the South China Sea, and all nations should have the right of free passage.[53] There is an argument to be made, however, that North American security would be enhanced if the passage were recognized as Canada's internal waters. This would permit increased surveillance as well as enforcement of Canadian laws, which would theoretically

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[51] In *Canada and the Changing Arctic . . .*, Huebert gives a comprehensive description of the various zones defined by UNCLOS. See Kindle ebook location 770-771 of 7741.

[52] See, for example, Rob Huebert, "Climate Change and Canadian Sovereignty in the Northwest Passage," *Isuma: Canadian Journal of Policy Research* 2, no. 4 (2001): 86-94, and Huebert, "The Shipping News Part II: How Canada's Arctic Sovereignty is on Thinning Ice," *International Journal* 58, no. 3 (2003): 295-308.

[53] Lackenbauer, *Canada and the Changing Arctic . . .*, Kindle ebook location 2065 of 7741 and location 3393 of 7741.

benefit both Canada and the United States. Rob Huebert highlights the crux of the security issue: "Under international law, an international strait also accords the right of overflight to all states."[54] A Northwest Passage that is established as an international strait would provide a flight corridor for Russia. Accordingly, some commentators suggest that, in the future, this security consideration may sway the United States to accept Canada's internal waters position.[55]

Canada's Premier Partner

The United States published its *National Strategy for the Arctic Region* in May 2013. It is not surprising that it shares many of the same concepts as *Canada's Northern Strategy.* The American strategy emphasizes environmental stewardship, economic development opportunities, and partnering with indigenous groups, state government and international partners. The primary difference between the two nations' approaches is that the American strategy clearly identifies defence and security as a key pillar. The American lines of effort for the Arctic region are: (1) advance United States security interests; (2) pursue responsible Arctic region stewardship; and (3) strengthen international cooperation. Specifically, on the line of effort for security, the U.S. pledges to:

> enable our vessels and aircraft to operate, consistent with international law, through, under, and over the airspace and waters of the Arctic, support lawful commerce, achieve a greater awareness of activity in the region, and intelligently evolve our Arctic infrastructure and capabilities, including ice-capable platforms as needed. U.S. security in the Arctic encompasses a broad spectrum of activities,

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[54] Rob Huebert, *Canada and Changing Arctic . . .*, Kindle ebook location 1416 of 7741.

[55] For an explanation of the legal regime governing international straits, including right of submerged submarine passage and overflight for aircraft through the corridor, see Suzanne Lalonde "Arctic Waters: Cooperation or Conflict?," *Behind the Headlines* 65, no. 4 (Canadian International Council, 2008), 9. See also Rob Huebert in "Canada and the Changing International Arctic: At the Crossroads of Cooperation and Conflict," in *Northern Exposures: Peoples, Powers and Prospects for Canada's North*, 17. For a fuller exploration of the United States' legal position on the Northwest Passage, including the benefits of Canadian regulation and control of it as internal waters, see Michael Byers, *Who Owns the Arctic? Understanding Sovereignty Disputes in the North* (Vancouver: Douglas & McIntyre Publishers Inc., 2009): Kindle ebook location 1170 to 1216 of 2527.

> ranging from those supporting safe commercial and scientific operations to national defense.[56]

Further on, the strategy folds infrastructure and capability development into the security effort. It also integrates domain awareness and, of particular interest from a Canadian perspective, the intent to "preserve Arctic region freedom of the seas" under international law. Notwithstanding the recognition of security issues as they pertain to the Arctic, the *National Strategy for the Arctic Region* highlights the importance of international cooperation through continued participation in the Arctic Council and acceding to the UNCLOS agreement.[57]

Conclusion

The prospect of increasing accessibility to Arctic waters due to the global warming trend has elicited increased international interest in the Arctic region for tourism, shortened transit routes, and resource extraction. It is in Canada's national interests to protect its northern territories through political, diplomatic and, if necessary, military means. For that reason, the Harper government expended considerable effort to align its policies and priorities as they pertain to the Arctic. Canada has a strong national policy suite for its northern region, consisting of an overall strategy, complemented by a foreign affairs approach and the promise of enhanced military capabilities in the *CFDS*.

As with other aspects of foreign affairs, Canada embraces multilateral institutions and maintains a close relationship with its continental neighbour as a "premier partner." Canada is in a political-military alliance (NATO) with three of the other four Arctic coastal states. Russia, as the outsider, is sometimes considered a threat, although Russia's own interest is in assuring its

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[56] Executive Office of the President of the United States, *National Strategy for the Arctic Region* (May 2013), 2.

[57] *Ibid*., 9. On Canadian-American cooperation, see P. Whitney Lackenbauer and Rob Huebert, "Premier Partners: Canada, the United States and Arctic Security," *Canadian Foreign Policy Journal* 20, no. 3 (Fall 2014): 320-333.

economic future, not in territorial expansion. China is not an Arctic state, but has made it clear that it too has an interest in the region.

While the possibility of a hostile military incursion on Canadian land territory remains remote, the gradual increase in the navigable season of the Northwest Passage poses a greater concern. Increased ship transits – whether they be recreational vessels, commercial cruise ships or oil tankers – translate into increased risks of catastrophic environmental damage and heightened requirements for SAR. Such emergencies could quickly become crises for territorial governments, given their limited resources and capacities, and result in requests for federal assistance. Although many federal government departments have a presence in the North, none have the reach or resources of DND/CAF. The CAF have an enduring role in Canada's North, driven more by the requirement to support other government departments, than by the conventional need to provide territorial defence.

> *Protecting national sovereignty, and the integrity of our borders, is the first and foremost responsibility of a national government. We are resolved to protect Canadian sovereignty throughout our Arctic.*[58]
>
> — Statement on Canada's Arctic Foreign Policy

CHAPTER 3 – THE ROLE OF CANADA'S MILITARY IN OUR NORTH

Chapter 2 provided an overview of the various Government of Canada policies that are applicable in the North, primarily from a foreign affairs perspective. As mentioned in the previous chapter, many of the overarching policy documents were issued in a relatively short time frame by the Harper government. They are, therefore, consistent in their statements regarding government intent and the acquisition of future capabilities. In this chapter, the intent is to build upon that foreign affairs perspective by viewing the federal Arctic policy framework in the context of the CAF mandate, and the subordinate departmental strategy and guidance issued within DND/CAF. How the CAF implements those strategies and their ability to operate in the North will be discussed in Chapter 5.

Whole of Government Approach

Much of the military policy framework puts the CAF role in the context of a greater Government of Canada team, in which the CAF support OGDs in their activities in the North. Often the terms Whole of Government (WoG) or Comprehensive Approach are used, with the Comprehensive Approach including non-governmental organizations in addition to various levels of government. The Honourable Bill Graham, in his introduction to *Canada and the Changing Arctic: Sovereignty, Security and Stewardship,* explains the importance of this WoG approach:

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[58] *CAFPS*, 9.

> As recent Arctic operations such as *Nanook* have emphasized, the future needs of the North can only be met by a holistic, multidepartmental approach that recognizes we are more in need of policing and environmental protection than of classic military measures.[59]

Issues often require the resources of more than one department, or even one level of government, to resolve. The WoG approach encourages (and sometimes requires) that government departments collaborate to provide a coordinated and effective response. While DND/CAF is the lead department for the defence of Canada and for aerial SAR, several other federal departments have important roles in Canada's North and could call upon DND/CAF for support in the response to emergencies and disasters.[60] The GoC has laid out several federal responsibilities in *Canada's Northern Strategy*, while others are specified in legislation.[61]

In order to provide a more effective and coordinated federal response, all government departments should plan and implement their programs with a WoG approach in mind. Not only is a WoG approach critical to ensuring that there is a unified response, but it also makes best use of government resources. In the name of fiscal prudence, it is even more important that all government departments work together to invest wisely in the infrastructure needed to support programs and operations. Relative to other departments (with the exception of the Department of Indigenous and Northern Affairs), DND/CAF has a surfeit of infrastructure throughout Canada's

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[59] The Honourable Bill Graham, in the forward to *Canada and the Changing Arctic* . . ., Kindle ebook location 290 of 7741.

[60] *Leadership in Whole of Government Operations*, 34. "When an emergency requires an integrated 'whole of government' response, the Public Safety Canada Regional Director coordinates the response on behalf of the federal departments in the region."

[61] *Leadership in Whole of Government Operations,* 13. This publication provides a partial listing of federal departments who have responsibilities for various aspects of security in the North. The recently released *Defence Policy Review: Public Consultation Document 2016* also contains an annex on domestic operations, with a graphic representation of DND/CAF support to OGDs.

North. Although much of this infrastructure is assigned to NORAD missions, it remains potentially useful when DND/CAF is supporting WoG operations.[62]

The Policy Framework from a Military Perspective

Canada's Northern Strategy

The military role in *Canada's Northern Strategy* emerges from the sovereignty theme, put forth in the statement:

> The Government of Canada is firmly asserting its presence in the North, ensuring we have the capability and capacity to protect and patrol the land, sea and sky in our sovereign Arctic territory. We are putting more boots on the Arctic tundra, more ships in the icy water and a better eye-in-the-sky.[63]

The CAF role according to this statement is then two-fold: first, to establish a more visible presence in the region (with the implied task that the CAF need to equip and train to operate in the North), and second, to ensure that remote regions can be observed and monitored. As historian Whitney Lackenbauer rightly points out, the CAF has amply demonstrated its ability to respond to provincial requests for assistance to combat wildfires, floods, and the damaging effects of ice storms, but the northern regions demand additional skills and equipment. "Without experience operating in Arctic environments," he notes, "their ability to support this part of the country remains weak."[64]

To enhance the CAF ability to operate in the North, specific military capability investments were identified in *Canada's Northern Strategy*: an Army Training Centre in

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[62] DND/CAF installations in Canada's North are discussed in fuller detail in Chapters 4 and 5. Much of Canada's contribution to North American defence is situated in Canada's North, consisting of two types of installations that were purpose-built for NORAD missions: (1) forward operating locations (FOL) for fighter/interceptor aircraft (intended to support deployed aircraft that have left their main operating bases in the temperate south), and (2) the string of sensors that make up the North Warning System (intended to alert NORAD to any incursions or flight paths that may pose a threat to North American territory).

[63] *Canada's Northern Strategy*, 9.

[64] Lackenbauer, *Canada and the Changing Arctic . . .*, Kindle ebook location 2611 of 4471.

Resolute, expansion and modernization of the Canadian Rangers, a "deep-water berthing and fueling facility in Nanisivik," and new ships "capable of sustained operations in first-year ice." In addition, the strategy highlighted that the Polar Epsilon program "will use RADARSAT II to provide the Canadian Forces with greater capacity to monitor Canada and its Maritime Boundary."[65] The strategy also identified routine CAF operations and training exercises that contribute to the presence aspect of exercising sovereignty, including the annual Nanook series, NORAD operations, activities at CFS Alert, and research conducted by Defence Research and Development Canada.[66]

Although it is clear that there are northern initiatives in multiple federal departments and the intent of the strategy is seemingly to unify government effort, the terminology "Whole of Government" is oddly absent from the document. Despite calling it an "integrated Northern Strategy," there is no particular emphasis on coordinating initiatives or pooling resources across departments to achieve best effect and best value for the taxpayer.[67]

Canada First Defence Strategy

Of the three governing roles defined in the *CFDS*, two have strong connections to Canada's North: to deliver excellence at home and to be a strong and reliable partner in the defence of North America. "Delivering excellence at home" has several component parts including the need to be ready to defend against threats, as well as to provide aerial SAR services throughout Canada, to maintain situational awareness of Canadian land territory and the air and maritime approaches, and to provide support to OGDs.[68] With the exception of assigned defence

[65] *Canada's Northern Strategy*, 10.
[66] *Ibid.*, 11.
[67] *Ibid*. The use of "integrated Northern Strategy" can be found in the introduction by the Honourable Chuck Strahl, then Minister of Indian Affairs and Northern Development.
[68] *CFDS*, 7-8.

activities, such as SAR services and routine operations and training, the most likely crisis or contingency use of CAF or other DND resources within Canada is in support of an OGD when the federal government responds to a request for assistance from a province or territory. There are many examples in the past two decades of CAF response to extreme weather events and wildfires that are beyond the capacity of provincial and territorial resources, including the ice storm in Ontario and Quebec in 1997, flooding in Manitoba in 1997 and 2014, flooding in Alberta in 2014, and the forest fires in the British Columbia interior in 2003 and Saskatchewan in 2015.

In addition to the three CAF roles, the *CFDS* lists six core missions. While only the first mission explicitly mentions the Arctic, the CAF must be prepared for the possibility of any of the first four missions in a northern context:

- Conduct daily domestic and continental operations, including in the Arctic and through NORAD;
- Support a major international event in Canada, such as the 2010 Olympics;
- Respond to a major terrorist attack;
- Support civilian authorities during a crisis in Canada such as a natural disaster;
- Lead and/or conduct a major international operation for an extended period; and
- Deploy forces in response to crises elsewhere in the world for shorter periods.[69]

The *CFDS* confirmed the investment in many capabilities that had been previously announced by the Harper government, although the only Arctic capability that was specifically mentioned was the acquisition of six to eight AOPS (the ice-capable ships that had been included in *Canada's Northern Strategy*).[70]

[69] *CFDS*, Executive Summary, 3.
[70] *CFDS*, 4.

In April 2016, the Trudeau government officially announced the public consultation period for the development of an updated defence policy, which it will issue in early 2017. The consultation document provides an overview of current CAF capabilities, roles and missions. The WoG approach is highlighted, as is collective defence through membership in NATO and NORAD. In terms of Canada's North, the document mirrors concerns identified in extant policy, stating: "Canada must also deal with rising international interest in the Arctic and the challenges related to the changing environment and increased accessibility of our Northern waterways. Recent Russian activity in the Arctic has only added to this challenge."[71] The defence policy that arises from this period of consultation (augmented by engagements with allies, industry and academia) will shape the allocation of resources to DND and investments in CAF capabilities. Pending the promulgation of the updated policy, it is presumed that the three main roles of the CAF will not change significantly, and that the Trudeau government will continue to support previously announced major capability investments such as the Nanisivik berthing and refuelling facility and the AOPS.

Statement on Canada's Arctic Foreign Policy

Written after *Canada's Northern Strategy* and *CFDS*, the *CAFPS* reiterates the need for increased CAF presence as an element of exercising sovereignty in the North. The need for an enhanced capability to conduct maritime operations in Canada's third ocean was identified, to be addressed by the acquisition of new patrol ships and the development of a berthing and refuelling facility at Nanisivik. The *Statement* also mentions plans for increased numbers of Canadian

[71] Department of National Defence, *Defence Policy Review: Public Consultation Document 2016* (Ottawa: DND, 6 April 2016), 8.

Rangers, continued defence cooperation with the United States via NORAD, and the conduct of annual sovereignty operations (the Nanook series of exercises).[72]

Before looking at the concepts, directives and plans that were derived from these over-arching federal policies, it is important to note that the Arctic was just one of many priorities for the Harper government and that the prominence of Arctic issues seemed to fade towards the end of their mandate. For example, when looking at foreign affairs priorities for 2015-2016 (as stated on the official departmental website in April 2015), the only mention of the Arctic was subordinate to the priority to "promote democracy and respect for human rights and contribute to effective global governance," with a sub-priority being "[c]ontinue to advance the Arctic Foreign Policy, including through Canada's chairmanship of the Arctic Council until April 2015 and afterward." With the change of federal government in fall 2015, foreign affairs priorities may also have shifted. The Arctic is not mentioned in the Global Affairs Canada list of priorities for 2016-2017.[73] It was, however, one of the main areas of emphasis articulated by Prime Minister Trudeau and President Obama in their 10 March 2016 joint statement on climate, energy, and Arctic leadership – an indication that Arctic issues remain high on the list of bilateral priority areas.[74]

Arctic Integrating Concept

The *Arctic Integrating Concept*, published in 2010, describes how the CAF could achieve its roles as laid out in the *CFDS* and *Canada's Northern Strategy*. The concept is a force development document and therefore highlights capabilities that are needed in order to be ready

[72] *CAFPS*, 3-4.

[73] DFATD website on priorities was originally accessed in April 2015 and the link is now broken. Revised priorities were posted on the GAC website, accessed March 2016.

[74] PMO, U.S.-Canada Joint Statement on Climate, Energy, and Arctic Leadership, 10 March 2016, http://pm.gc.ca/eng/news/2016/03/10/us-canada-joint-statement-climate-energy-and-arctic-leadership.

for future operations in Arctic. It is premised upon a "central theme" of working within a WoG or Comprehensive Approach, and acknowledges the role of non-governmental organizations.[75] Most importantly, the key assumption in the concept is that traditional defence is not the driver of potential CAF operations in the North, but rather the need to support other government departments, whether that be for routine activities or in response to requests for assistance from provinces or territories.[76] Further, the concept identifies the core challenge: "resource considerations make it difficult to create/maintain a 'significant permanent CF capability in the Arctic' while fulfilling other missions as per *CFDS*."[77] In other words, in the absence of additional federal funding or increases to CAF personnel establishment that are directed at increasing northern capabilities, there are other, more pressing priorities for defence investment, as identified in the *CFDS*.

The *Arctic Integrating Concept* takes the roles and missions of the *CFDS* and translates them into discrete tasks for the CAF in Canada's North, including maintaining a visible presence in the North and responding to emergencies or crises.[78] The concept proposes that permanent basing should be considered in order to improve the ability of CAF to carry out assigned tasks:

> The concept of visible presence can be further developed by providing a permanent footprint of enabling infrastructure and personnel in strategic locations, which can augment the more transitory presence provided by patrols, and support surges for emergency response situations and routine training activities such as Operation NANOOK. However … they must be done through careful coordination of activities with OGDs.[79]

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[75] Department of National Defence, *Arctic Integrating Concept* (Ottawa: Chief of Force Development, 2010), iii. For reference to central theme, 29.

[76] *Ibid.*, 4-5.

[77] *Ibid.*, 5.

[78] *Ibid.*, 29-34. Note the concept distinguishes between emergency - serious, unexpected, dangerous and requires immediate action - and crisis - event or series of events that undermines public confidence, harms an organization, or threatens public safety security and values.

[79] *Ibid.*, 31.

The *Arctic Integrating Concept* uses the doctrinal functions of command, sense, act, shield, sustain, and generate to identify potential gaps in the CAF ability to undertake the tasks. The "sustain" function – the ability to ensure the steady flow of materiel to keep personnel housed and fed, vehicles fueled and equipment operating - is perhaps the most challenging, due to the expansive geography and the need to preserve local stockpiles of provisions in small northern communities. In order to sustain northern operations, the concept proposes that pre-positioning of supplies and equipment be considered in concert with the development of infrastructure, "ideally in partnership with other stakeholders."[80]

CDS/DM Directive

Issued in April 2011, the *CDS/DM Directive for the DND/CF in Canada's North* adds the next level of granularity to achieving the aims of *CFDS* and the *Arctic Integrating Concept*. While the strategy and concept speak to announced or potential future capabilities, the directive instructs the DND/CAF to be prepared to operate in the present, within a joint force, WoG context.[81] As with other departmental directives issued under dual CDS/DM authority, the directive is intended for the full Defence team, assigning tasks to both the National Defence Headquarters groups under the Deputy Minister (DM) and the CAF commands under the Chief of the Defence Staff (CDS). It is based on the same premises and assumptions that govern the strategy and concept documents, with the following mission: "The CF will employ joint capabilities in Canada's North to support the GoC [Government of Canada] in achieving its national objectives for the Region."[82] Building on the *Arctic Integrating Concept*, the directive also suggests that additional infrastructure may be required, but should not be planned in

[80] *Ibid*., 48.
[81] Department of National Defence, *CDS/DM Directive for the DND/CF in Canada's North* (National Defence Headquarters, Ottawa: 12 April 2011), 7-8.
[82] *Ibid*., 7.

isolation from the OGDs: ". . . the CF may expand its permanent footprint. At the same time, the CF will work with other departments and agencies to ensure that its plans for expansion remain synchronized and mutually supporting."[83]

Multilateralism

Canada is a small nation by population, and has ensured its security through the use of bilateral and multilateral collective defence agreements, in particular the NORAD agreement and the North Atlantic Treaty. The link between NORAD and Canada's North is obvious and will be discussed in fuller detail in Chapter 4. The link between NATO and the Arctic is a more recent development, spurred on by renewed concern over the potential military threat posed by the Russian Federation.

NATO

Following the breakdown of the former Soviet Union and the alliance of eastern European states under the Warsaw Pact, NATO seemed to lack a sense of purpose. Some commentators believed that there was no need for NATO in the new, post-Cold War power paradigm. As the former Yugoslavia fractured and fell into nationalist conflicts, however, it became apparent that the new Russian Federation still had national interests that diverged significantly from the collective interests of NATO, and that this divergence could and would play out in foreign affairs and defence scenarios. Viewing the situation in the Balkans as a threat to European security, NATO deployed forces to Bosnia and Herzegovina and later to Kosovo. These operations confirmed that NATO still had a role, and later involvement in Afghanistan showed that NATO was willing to confront threats far outside of its traditional European boundaries.

[83] *Ibid.*, 11-12.

NATO released an updated strategic concept in 2010, with the ungainly title of *Active Engagement, Modern Defence: Strategic Concept for the Defence and Security of the Members of the North Atlantic Treaty Organisation adopted by Heads of State and Government in Lisbon*. The strategic concept reaffirms that the core tasks of the alliance are: (1) collective defence, (2) crisis management, and (3) cooperative security. To that end, the concept states that "NATO-Russia cooperation is of strategic importance as it contributes to creating a common space of peace, stability and security."[84] At the same time, however, NATO has been more than willing to accept former members of the Warsaw Pact as full members of NATO, with membership rapidly expanding from 16 states at the end of the Cold War to the current 28 states.[85] As James Scherr explains in *NATO Review 2011,* this stance on NATO membership upsets the geopolitical balance and is viewed as a threat by the Russian Federation:

> [W]e should be prepared to accept that some of our [Europe's] most cherished policies conflict with Russia's own sense of right and entitlement. Supporting the 'freedom of choice' of Russia's neighbours might benefit Europe, but it conflicts with Russia's interests as Russia presently defines them. To a military establishment that equates security with dominance of 'space', the presence of NATO forces 'in the vicinity of Russia's borders' poses a 'military danger' irrespective of our intention.[86]

In addition to the actions of the Russian Federation in the Crimea, eastern Ukraine and in the Syrian conflict, Russia has been more overt in displaying its capability to operate in northern regions. Since 2014, media reports have noted an increase in the number and frequency of Russian military aircraft flying in close proximity to international boundaries of NATO nations,

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[84] North Atlantic Treaty Organization, *Active Engagement, Modern Defence: Strategic Concept for the Defence and Security of the Members of the North Atlantic Treaty Organization* (Brussels: NATO Public Diplomacy Division, 2010), 29, accessed 12 July 2015, http://www.nato.int/nato_static_fl2014/assets/pdf/pdf_publications/20120214_strategic-concept-2010-eng.pdf.

[85] NATO website lists these additional states since the end of the Cold War: Czech Republic, Hungary and Poland (1999), Bulgaria, Estonia, Latvia, Lithuania, Romania, Slovakia, Slovenia (2004), and Albania and Croatia (2009).

[86] James Scherr, "NATO and Russia: doomed to disappointment?" in *NATO Review 2011, NATO-Russia relations: 20 years after the USSR*, accessed 12 July 2015, http://www.nato.int/docu/review/2011/NATO_Russia/Disappointment/EN/index.htm.

including the United States, Canada, Norway and the United Kingdom.[87] As discussed in Chapter 2, Russia views its portion of the Arctic and the Northern Sea Route as vital ground for its future economic stability and security. If Russia also feels that NATO poses a tangible threat to its Arctic security, and potentially its sovereignty, then it is not surprising that Russia is willing to test NATO's warning systems and see what sort of response – diplomatic and/or military – that NATO returns with.

Conclusion

From a purely defence perspective, it remains highly unlikely that there will be a conventional military threat to Canada's North, and increasingly likely that the CAF will be called upon to support OGDs in response to emergencies or crises in the North. DND and the CAF have a comprehensive policy framework, which complements the overarching Northern Strategy and related foreign policy statement. DND/CAF policy and planning for operations and activities is framed in a WoG context. This approach is both effective and efficient, making best use of federal funds.

For domestic operations and activities, DND/CAF support could include the provision of personnel, materiel and/or equipment, along with the transport capability to move those resources into position. It is critical, however, that DND/CAF support draw from sparse northern resources as little as possible.[88] In remote communities, an influx of two or three hundred military members could quickly overwhelm basic services (like water and fuel supply) and deplete local store shelves. The *Arctic Integrating Concept* introduces the concept of pre-

[87] See for example: Alan Cowell, "Researchers Detail a Spike in NATO-Russia Close Calls," *The New York Times*, 10 November 2014; Mark MacKinnon, "Russian bombers over English Channel raise stakes with Moscow," *The Globe and Mail*, 29 January 2015; and Andrew Higgins, "Norway Reverts to Cold War Mode as Russian Air Patrols Spike," *The New York Times*, 1 April 2015.

[88] In this sense, I am referring to physical resources, not human resources in communities – particularly in the Canadian Rangers – which can offer important guidance, support, and contributions to military operations in the North.

positioning equipment and supplies in the North so that the CAF will be ready to support OGDs. The *CDS/DM Directive for the DND/CF in Canada's North* expands on that by suggesting that additional facilities may be required, and that projects should be considered in a WoG context.

Canada's approach to security and defence has long included bilateral and multilateral agreements. NORAD has an extensive history in Canada's North, which will be explored in Chapter 4. NATO, on the other hand, was traditionally focused on its eastern European flank and the possibility of a conventional (and perhaps nuclear) conflict with the former Soviet Union. Following the Cold War, NATO found a new role in the peace-making and stability missions of the 1990s and the combat mission in Afghanistan. Four of the Arctic Five nations are members of NATO, with the Russian Federation being the only outsider. While there is no dedicated NATO infrastructure in Canada's North, any introduction of military capability to the Arctic by the Russian Federation understandably draws the attention of both Canada and its NATO partners.

> *There has always been somewhat of a disconnect between political rhetoric about the importance of the Arctic in Canada's identity as a northern nation and the resources we have provided to turn that rhetoric into reality.*[89]
>
> *— The Honourable Bill Graham*

CHAPTER 4 – THE DEFENCE FOOTPRINT, HISTORICAL PERSPECTIVE

Historical DND/CAF Presence

Much of the past development of infrastructure in Canada's North was prompted either by the needs of resource extraction (starting with the infamous Yukon Gold Rush), or by defence and security concerns. This is particularly true of transportation, communications and meteorological networks. By and large, the infrastructure that is currently occupied and managed by DND/CAF is a reminder of a previous Cold War posture, when the military threat seemed very real and omnipresent. At times, there were many CAF personnel permanently stationed across the North. With technological advances such as remote monitoring and the use of contracted services for facilities operations and maintenance, however, relatively few CAF regular force members remain in the North year-round.[90]

The majority of the defence footprint that remains in the North can be attributed to three distinct eras of investment and construction. The first era is the second quarter of the twentieth century, from the beginnings of wireless communications and reliable air transport through to the end of the Second World War. The second era is the early Cold War, when early warning systems were installed to alert the United States and Canada to any aircraft approaching from the Soviet Union. The third era is the late Cold War, when aging sensor systems were replaced and FOLs for fighter/interceptor aircraft were built.

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[89] Quoted from the foreword to *Canada and the Changing Arctic: Sovereignty, Security, and Stewardship,* Kindle ebook location 205 of 7741.

[90] A list of DND/CAF installations can be found in Appendix 1, with annotation of whether the staffing is by permanent "posted" staff, by recurring "tasked" staff, or only when operationally/seasonally activated.

First Era – Second Quarter of the Twentieth Century

Before the advent of the airplane, Canada's North was largely inaccessible and its communities were remote and self-sufficient. Airplanes brought more regular contact with the southern part of the country, facilitating the movement of goods, mail and people, and also made possible the mapping of the North. The installation of communications systems such as the Northwest Territories and Yukon Radio System (NWT&Y Radio System) increased the safety and reliability of northern air transportation. In the absence of a commercial impetus, the Government of Canada was the driver for this northern development, using the resources of the military to implement the work and operate the systems.

The Northwest Territories and Yukon Radio System

Governance, security and safety in Canada's North has long required cooperation between government departments. One could point to the NWT&Y Radio System as an early example of Defence providing support to other government departments. Established by inter-departmental memo between the Department of the Interior and the Department of National Defence, the NWT&Y Radio System was installed and operated by the Royal Canadian Corps of Signals (RCCS, part of the Canadian Army), beginning in 1923.[91] In his book *From Far and Wide: A Complete History of Canada's Arctic Sovereignty*, Peter Pigott comments: "The only military presence in the North, the NWT&Y system provided vital communications at little expense to the taxpayer."[92]

[91] NWT&Y Radio System History Project, "A Short History of the Northwest Territories and Yukon Radio System," credited to WO1 Cal Vince. From the section titled *Chronology 1923-1929*: "The Department of Interior, searching for some reliable and rapid means of communication to cover the vast areas involved in the northland and realizing the possibilities of wireless telegraphy, asked the Defence Department to consider the installation of Army Radio stations, with all expenses to be borne by the Department of the Interior." Accessed 3 April 2016, http://nwtandy.rcsigs.ca/1923_29.htm.

[92] Pigott, *From Far and Wide* . . ., Kindle ebook location 1805 of 4676.

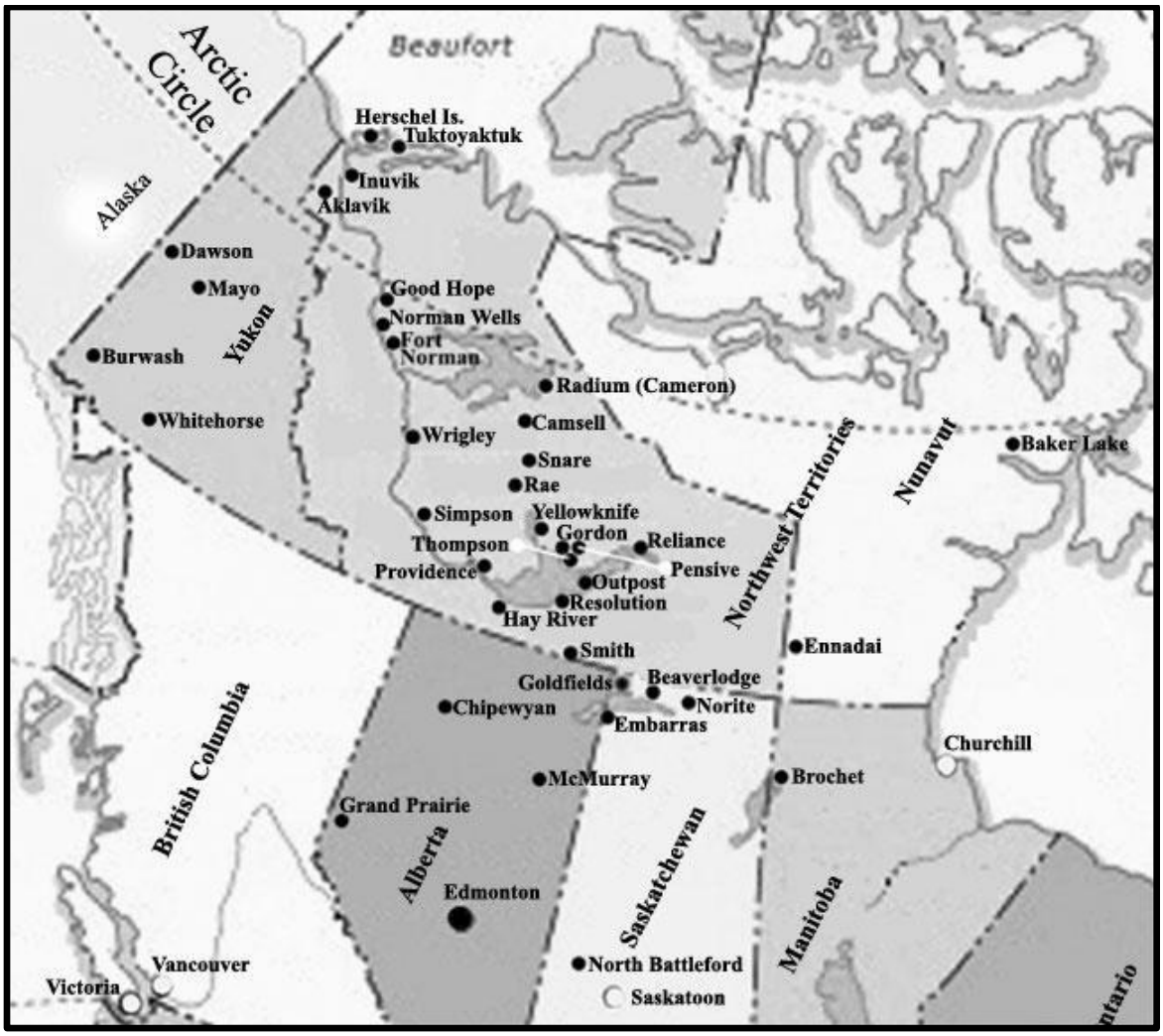

Figure 4 — NWT&Y Radio System Stations

Source: NWT&Y Radio System History Project website, "Map of the System," http://nwtandy.rcsigs.ca/map_system.htm, accessed 3 April 2016. Note that stations are marked by black dots; cities and towns marked with white dots were not part of the system.

The NWT&Y Radio System replaced and expanded the reach of an earlier telegraph system, which had infrastructure that was susceptible to winter damage and thus was expensive to maintain.[93] The majority of the NWT&Y radio stations were located in the Northwest Territories in the small settlements in and around the Mackenzie River system, Great Bear Lake

[93] NWT&Y Radio System History Project, "A Short History of the Northwest Territories and Yukon Radio System," credited to WO1 Cal Vince, from the section titled *Prelude*, accessed 3 April 2016.

and Great Slave Lake. The remaining stations were in the Yukon Territory, Saskatchewan, Manitoba and Alberta, with the terminal station in Edmonton (see Figure 4).[94] The RCCS continued to operate the NWT&Y Radio System until it was transferred to the Department of Transportation in 1959.[95]

Second World War Installations

The advent of the Second World War presented security concerns to the Government of Canada on both Atlantic and Pacific coasts, and brought a flurry of construction to northern Canada to provide inland transportation networks to allow for the flow of goods, equipment and personnel towards Alaska in the west and Greenland (as a trans-Atlantic stopover) in the east. Following the Second World War, much of the northern infrastructure that was built for military purposes was transferred to other government departments. This infrastructure, however, had linked the south to the north and provided a foundation for future regional growth.

In northwestern Canada, there were three major construction projects undertaken for defence purposes during the war: the Alaska-Canada Highway, the Northwest Staging Route and the Mackenzie Pipeline. Of the three projects, the Alaska-Canada Highway is perhaps the best known – a land route to connect Alaska to the "Lower 48" which ran from Dawson Creek, British Columbia, through the Yukon Territory to Fairbanks, Alaska. Highway planning had started in 1930, but the GoC was reluctant to approve since there was no perceived value in investing in major infrastructure in such a sparsely populated part of the country. There were also

[94] Map of the stations was obtained from the NWT&Y Radio System History Project website, a private initiative to record the history of the system. Note that stations are marked by black dots. Cities and towns marked by white dots were not part of the system. Accessed 3 April 2016, http://nwtandy.rcsigs.ca/map_system.htm.

[95] NWT&Y Radio System History Project, "A Short History of the Northwest Territories and Yukon Radio System," credited to WO1 Cal Vince, from the section titled *Chronology 1950-1960*, accessed 3 April 2016, http://nwtandy.rcsigs.ca/1950_60.htm.

concerns that allowing the project to proceed would erode Canadian sovereignty.[96] It was not until the early days of the Second World War, with the Ogdensburg Agreement in place and the creation of the Permanent Joint Board on Defence (PJBD), that the project was given serious consideration. The project was finally approved after the United States had joined the war and the Aleutian Islands were occupied by the Japanese. Built by the U.S. Army Corps of Engineers and contractors, a passable road was pushed through the 1,500 mile path in a mere eight months, although improvements to the roadbed, culverts and bridges continued throughout the remainder of the war.[97] The Canadian portion of the Alaska-Canada Highway (roughly eighty per cent of the route) was transferred to the Government of Canada in 1946. Renamed the "Northwest Highway System," it was maintained by the Canadian Army until 1964 when it was handed over to the Department of Public Works.[98]

The land route to Alaska followed roughly the same path as the Northwest Staging Route, a string of airfields linking Edmonton, Alberta, to Fairbanks, Alaska. This project was also approved by the PJBD, in order to facilitate the air movement of war materiel from the western United States through Canada to Alaska.[99] To support air operations, radio ranging stations and weather observation stations were also built along the Northwest Staging Route. In addition, there was a telephone land line that ran parallel to Alaska-Canada Highway.[100]

The construction activity in northwestern Canada was mirrored to some extent in north central and northeastern Canada. As Piggott explains, "the fall of Denmark on April 9, 1940, and

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[96] Pigott, *From Far and Wide . . .*, Kindle ebook location 1984 of 4676.

[97] *Ibid*., Kindle ebook location 2344 of 4676.

[98] Holmes, *The History of the Canadian Military Engineers . . .*, 172-175 and 196. See also *Military Relations between United States and Canada 1939-1945*, "Chapter VIII Activities in Western Canada," for a detailed discussion of these projects from the US military perspective. This book also includes a reprint of all the decisions of the PJBD.

[99] *Ibid.*, 71.

[100] Colonel Stanley W. Dziuban, *Military Relations between the United States and Canada 1939-1945* (Washington, DC: Center of Military History United States Army, 1990), 236.

Norway two months after, brought the war to the Arctic."[101] Greenland became an important stopover point for the ferrying of lend-lease aircraft to Britain, and a series of airfields was built in order to create a transit route with safe stops. This included airfields at Goose Bay (Labrador), The Pas and Fort Churchill (Manitoba) and Southampton Island (present-day Nunavut), as well as winter emergency airstrips at Fort Chimo (Kuujjuaq, Nunavik/Northern Quebec) and Frobisher Bay (Iqaluit, Nunavut).[102]

With the exception of Goose Bay, little of the infrastructure that is associated with the Second World War remains in the current DND/CAF inventory, however the airfields that were initially constructed for defence purposes became important links to the south and continue to be key staging locations when the CAF deploy to Canada's North.

Second Era - Early Cold War Installations

The early Cold War was a time of considerable construction in the North, with the installation of various warning systems, improved infrastructure to support wireless communications and the collection of signals intelligence, as well as the northerly staging of U.S. Strategic Air Command refuelling aircraft to support the deployment long-range bombers from their southern bases. For many reasons (defence and sovereignty among them), there was a renewed push to complete the topographical mapping of the North. This too required infrastructure to support it. Much of the land and facilities that are within the DND/CAF portfolio today can be linked back to this era of military development.

Warning Systems

[101] Pigott, *From Far and Wide . . .*, Kindle ebook location 2076 of 4676.
[102] *Ibid*., Kindle ebook location 2274 and 2288 of 4676.

In North America, the onset of the Cold War led to significant investment in warning systems to alert the United States to the approach of Soviet long-range bombers. As aircraft speeds and missile technology advanced, the warning systems needed to be placed further and further north in order to give sufficient warning to enact a response. This was the era of mutually assured destruction, with the belief that there would be only one opportunity to strike back, and that was before the impact of the first warheads. Ultimately, the defensive posture of the two superpowers relied on the premise that the nuclear deterrent needed to be sufficiently robust to convince the enemy that there was no possibility that the attacking nation could survive the equally lethal counter-attack from its opponent. The key to maintaining that balance was to ensure that there were intact aircraft to deliver that counter-strike, and this meant having a warning system so that the long-range bombers would be in the air before the attack happened. Historian George Stanley observed:

> When it emerged that the Americans did not possess a monopoly of nuclear weapons, the American Government hastened to propose the immediate erection of an elaborate system of radar warning stations across Canada. [. . .] The purpose of these three radar lines was to protect the aircraft of the United States Strategic Air Force from destruction on the ground by a sudden surprise attack. For it was upon these bombing planes, with their cargoes of atom bombs, that the United States relied to mount its retaliatory offensive.[103]

The first of the radar lines was the Pinetree Line, which was built in the early 1950s with radar stations located roughly along 50th parallel. By the mid-1950s, the second – the Mid-Canada Line – was operational roughly along the 55th parallel. By the late 1950s, the DEW Line, tracking a route that approximated the 70th parallel, provided at least "two-hour warning against manned bombers."[104] Both the U.S. construction of the DEW Line and its annual re-supply by U.S. ships caused some consternation in Canadian political corridors about sovereignty, although

[103] George F.G. Stanley, *Canada's Soldiers: A Military History of an Unmilitary People* 2nd edition (Toronto, ON: The MacMillan Company of Canada Limited, 1960), 413.

[104] Holmes, *The History of the Canadian Military Engineers* . . ., 125-127.

ultimately it resulted in U.S. reaffirmation that it recognized Canada's ownership of its northern territories.[105] Located in the High Arctic, it left a lasting legacy. "The Distant Early Warning (DEW) Line … was the boldest megaproject in Arctic history," Lackenbauer notes, "dramatically altering the military, logistic and demographic characteristics of the Canadian Arctic."[106] The DEW Line continued to operate until it was phased out beginning in the late 1980s, when it was gradually replaced by the NWS.[107]

The early warning provided by the DEW Line was paired with the U.S. capability to launch long-range strategic bombers bearing nuclear warheads for counter-attack. The long-range strategic bombers required in-flight refuelling, and several airfields were constructed in Canada to support U.S. Strategic Air Command KC-135 refuelling tankers. This included an all season airfield at Frobisher Bay (now Iqaluit).[108]

Weather Stations

CFS Alert is known as the most northerly military installation in the world, however its original purpose was as a weather station. Established in 1950, Environment and Climate Change Canada still conducts research and collects weather data at that location to the present day.[109] The weather station at Alert was part of a bilateral Canada-United States venture, known as the Joint Arctic Weather Station (JAWS) project. A total of five High Arctic weather stations were built: Resolute Bay, Mould Bay on Prince Patrick Island, Isachsen on Ellef Ringnes Island,

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[105] P. Whitney Lackenbauer and Peter Kikkert, *The Canadian Forces and Arctic Sovereignty: Debating Roles, Interests, and Requirements, 1968-1974* (Waterloo: LCMSDS Press of Wilfred Laurier University, 2010), 7.

[106] Lackenbauer, *Canada and the Changing Arctic* . . ., Kindle ebook location 2026 of 7741.

[107] North American Aerospace Defense Command, *A Brief History of NORAD* (Office of History: 31 December 2012), 25-26, accessed 13 July 2015, http://www.norad.mil/portals/29/documents/history/a%20brief%20history%20of%20norad.pdf.

[108] Holmes, *The History of the Canadian Military Engineers Volume III*, 112.

[109] Observed and historical weather at Canadian Forces Station Alert can be found on the Environment and Climate Change Canada website: https://weather.gc.ca/city/pages/nu-22_metric_e.html.

Eureka Sound, and Alert at the northern tip of Ellesmere Island (see Figure 5).[110] Located at latitude 82°30″ north, at the extreme end of the Canadian Arctic Archipelago, Alert was of both diplomatic and military value:

> From the outset of the JAWS site, the Canadian government was interested in Alert as a means to exercise Canada's sovereignty in the High Arctic. Alert's location, closer to Moscow than to Ottawa and closer to the mainland of the Soviet Union (now Russia) than to Frobisher Bay (now Iqaluit) gave it an obvious Cold War value.[111]

In the mid-1950s, the Royal Canadian Air Force established a wireless radio station at Alert, which was later transferred to the Canadian Army and used for "communications research," meaning the collection of signals intelligence from the Soviet Union.[112] While the signals intelligence function may have seemed a lower priority following the end of the Cold War, one surmises that it has a renewed importance in light of recent events in Europe and the Middle East. CFS Alert remains part of the DND/CAF inventory of real property, occupied and operated year-round by CAF members and contractors.

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[110] Piggott, *From Far and Wide . . .*, Kindle ebook location 2959 of 4676.

[111] Department of National Defence, "Canadian Forces Station Alert," accessed 13 July 2015. http://www.rcaf-arc.forces.gc.ca/en/8-wing/alert.page

[112] *Ibid.*

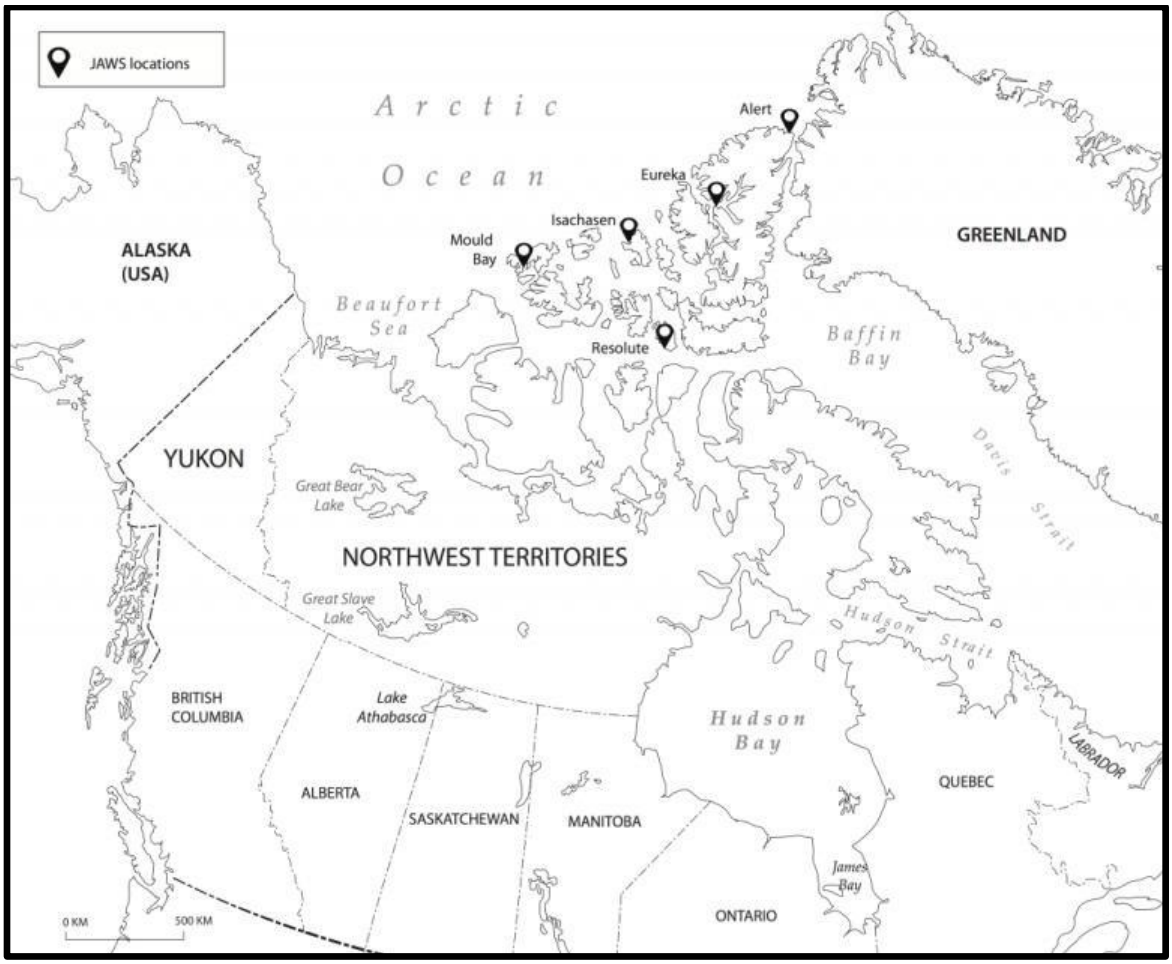

Figure 5 — JAWS Locations

Source: Daniel Heidt, "Met Techs, the Environment and Science at the Joint Arctic Weather Stations, 1947-1972," Network in Canadian History and Environment website, with map credit to Jennifer Arthur-Lackenbauer/True North Consulting, 26 March 2015. Accessed 7 September 2015.

Reductions in the Defence Footprint

During the 1960s and 70s, the defence priorities of the GoC (under Pearson and Trudeau) shifted and many of the facilities that were built in the Second World War or early Cold War were transferred to other government departments or decommissioned. A military presence (facilities and personnel) continued at CFS Alert, along the DEW Line, and at a lone radio station at Inuvik.[113] During this period of downsizing, however, the Canadian Forces set up a Northern Region headquarters in Yellowknife in May 1970. This headquarters was intended "to provide a permanent presence" and was responsible for "the largest single military region in the world."[114] There is still a CAF headquarters in Yellowknife, now known as Joint Task Force North (JTFN).

Third Era - Later Cold War Installations

During the 1970s, there was little change in the CAF posture in the Arctic. In the 1980s, however, there was renewed interest in the region due to a shift in the Cold War paradigm (advanced missile technology could not be adequately countered by the existing warning system/strategic bomber approach) and perceived threats to Canadian sovereignty in the Northwest Passage.

The Special Committee of the Senate and of the House of Commons on Canada's International Relations tabled a report entitled *Independence and Internationalism* in June 1986 which addressed several issues relevant to Canada's North. These included the need for a regional, multilateral approach to Arctic issues (and hence encouraging bilateral engagement with Russia), concerns over militarization of the Arctic and also concerns over the 1985 transit of the Northwest Passage by the U.S. Coast Guard ship the *Polar Sea*. In keeping with the United

[113] Pigott, *From Far and Wide . . .*, Kindle ebook locations 3554-3567 of 4676.
[114] Lackenbauer and Kikkert, *The Canadian Forces and Arctic Sovereignty . . .*, 34.

States' official legal position that the Northwest Passage was an international strait, the American government had not sought Canadian permission for the transit. This renewed Canadian concerns about sovereignty over these waters.[115] *Independence and Internationalism* noted the small CAF presence in the North: "Apart from a headquarters unit in Yellowknife and a few small detachments at points such as Alert and Inuvik, the only land based force in the Canadian Arctic is the Rangers."[116]

The Mulroney government published *Canada's International Relations: Government Response to Independence and Internationalism* in December 1986, in which it responded to recommendations made by the committee. The government confirmed its intentions with respect to defence capabilities in the North:

> Of broader significance for the defence of the entire North American continent were the decisions to modernize our radar capability in the Arctic in cooperation with the U.S.A., through the installation of the new North Warning System, the upgrading of selected airfields in the North to support fighter aircraft operations, and renewal of the NORAD agreement for a further five years.[117]

This new initiative – modernizing the warning systems and upgrading northern airfields for fighter/interceptor aircraft operations – was formalized in the Mulroney government's 1987 defence white paper titled *Challenge and Commitment*: *A Defence Policy for Canada*. Known as the North American Air Defence Modernization Program (NAADMP), the initiative involved replacement of the outdated DEW Line by the NWS and upgrades to existing airfields at Yellowknife, Inuvik, Rankin Inlet, Kuujjuaq, and Iqaluit to make them into forward operating locations (FOLs) for CF-18 fighter aircraft.[118] The white paper also stated that a northern training

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[115] Dean, Lackenbauer and Lajeunesse, *Canadian Arctic Defence Policy . . .*, 6-8.
[116] As quoted in Dean, Lackenbauer and Lajeunesse, *Canadian Arctic Defence Policy . . .*, 8.
[117] As quoted in Dean, Lackenbauer and Lajeunesse, *Canadian Arctic Defence Policy . . .*, 13.
[118] As quoted in Dean, Lackenbauer and Lajeunesse, *Canadian Arctic Defence Policy . . .*, 17. See also Peter Piggott, *From Far and Wide . . .*, for a description of key features of NORAD modernization and details on the overall cost and Canadian cost share with the U.S. for the NWS, Kindle ebook location 3695 of 4676.

centre would be built in the Arctic in the 1990s. This timeline was not met, but after considering Nanisivik as a potential location, the CAFATC was opened in Resolute, Nunavut, in 2013.[119]

Construction of the NWS sites and the FOLs began in the 1980s and continued into the 1990s. Many of the NWS sites were in the same general vicinity as older DEW Line sites. A total of 13 long range radar sites and 36 short range radar sites were built in Canada's North and down the coast of Labrador, with an additional three short range radar sites in Alaska. The NWS is still in operation, although there are no CAF members assigned to the sites. The sensor equipment is controlled and monitored remotely from North Bay, Ontario, and the facilities are operated and maintained by contract.[120]

Ultimately four FOLs were built: Inuvik, Yellowknife, Rankin Inlet, and Iqaluit. The FOLs are austere sites with no permanently assigned staff. They are designed to support fighter/interceptor operations (for instance the Canadian CF-188 Hornet) and can accommodate up to 200 personnel, including flight crew and a contingent of support staff. By the time that the sites became operational in the early 1990s, critics noted that they had been designed and built for a mission that no longer existed.[121] The Cold War had just ended, and along with it the threat from the former Soviet Union. A new threat soon emerged, however, with the terror attacks in the United States in September 2001. NORAD's role in monitoring and defending North American airspace was reaffirmed, and the FOLs remain part of the DND/CAF inventory.

Conclusion

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[119] Canadian Army News Release, dated 15 August 2013, accessed 22 April 2016, http://www.army-armee.forces.gc.ca/en/news-publications/national-news-details-no-menu.page?doc=new-arctic-training-centre-boosts-army-s-presence-in-the-north/hkdontpd. Nanisivik is mentioned as a possible site in *Looking North: Canada's Arctic Commitment*, a policy paper produced by the Department of Indian and Northern Affairs Canada in 1989, as summarized in Dean, Lackenbauer and Lajeunesse, *Canadian Arctic Defence Policy* . . ., 22.

[120] Department of National Defence, "North Warning System," accessed 5 April 2016, http://www.forces.gc.ca/en/news/article.page?doc=north-warning-system/hgq87x9w.

[121] Pigott, *From Far and Wide* . . ., Kindle ebook locations 3751 and 3903 of 4676.

From the NWT&Y Radio System, to the Alaska-Canada Highway, to the airfields in communities across the region, the development of basic communications and transportation infrastructure in Canada's North was initiated for defence purposes. Some of that infrastructure was operated and maintained by the military for decades; other facilities were transferred to other government departments or decommissioned as soon as they were no longer essential for defence purposes.

The legacy of the defence investment was two-fold. First, it provided a framework for regional sustainment and future growth. Second, Canada's military became highly proficient at operating in the north. The expertise of the Defence Department and the military in construction methods specific to the difficult northern climate was recognized in the *Defence in the 1970s: White Paper on Defence*:

> The construction of defence installations in the North developed new techniques for dealing with permafrost and other Arctic conditions which have [been] invaluable to subsequent northern development.. . . The Forces, with the help of the Defence Research Board (DRB), have been in the forefront of the opening of the North and have pioneered in finding solutions to the problems of its development. This role will be enhanced in the future, particularly where National Defence engineering and construction resources can be utilized.[122]

Defence investment in Canada's North during the twentieth century can be roughly divided into three eras: the second quarter of the century, the early Cold War and the late Cold War. Within the current DND/CAF inventory of facilities and sites, little remains from the first era. Significant defence construction projects were undertaken, including the NWT&Y Radio System, Alaska-Canada Highway and the Northwest Staging Route, but the responsibilities for operating and maintaining them were eventually transferred to other government departments.

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[122] From *Defence in the 70s: White Paper on Defence* (August 1971), as quoted in Dean, Lackenbauer and Lajeunesse, *Canadian Arctic Defence Policy . . .*, 5.

During the early Cold War, DEW Line stations were built across the north. This warning system was later replaced by the NWS. With 47 sites from the Yukon Territory all the way to Labrador, the NWS has the largest portion of land and facilities in the DND inventory in the North. The NWS does not, however, have any assigned CAF personnel. The JAWS project is also worth highlighting. Although it was not a defence initiative, the JAWS project developed a handful of weather stations in the High Arctic. Alert was established as one of those weather stations, later becoming a defence installation – CFS Alert – with an important military role and significant diplomatic value.[123]

In the later Cold War, when the threat shifted from strategic bombers to cruise missiles, further defence investments in FOLs complemented efforts to upgrade sensor technology (the NWS). These airfields and their associated facilities were built to support the deployment of fighter/interceptor aircraft arriving from southern main operating bases. There are four FOLs within the DND/CAF inventory, however there are no CAF personnel assigned on a permanent basis.

The history of defence investment can be seen across Canada's North. While there remains a large inventory of land and facilities that are dedicated to defence activities, there are very few military personnel permanently assigned to northern posts. As was discussed in Chapter 3, the CAF are expected to support OGDs in carrying out their mandates and responding to crises or emergencies in the North. In order to do so, CAF personnel, equipment and materiel must be deployed from southern bases, possibly on very short notice. Chapter 5 will examine how the

[123] See Daniel Heidt, "Clenched in the JAWS of America? Canadian Sovereignty and the Joint Arctic Weather Stations, 1946-1972," in *Canada and Arctic Sovereignty and Security: Historical Perspectives*, ed. P.W. Lackenbauer, Calgary Papers in Military and Strategic Studies, 145-169 (Calgary: Centre for Military and Strategic Studies/University of Calgary Press, 2011).

CAF are postured to meet that challenge and assess whether there should be renewed investment in the defence footprint in Canada's North in order to ensure operational success.

> *Local infrastructure like airfields, roads, hotels, water/sewage stations, etc., where it is available, is limited in capability and is most often not capable of accommodating the demands of a significant deployment of CF assets. Essentially, what you have is what you bring. This places great importance upon detailed planning at every level (from the operational to the tactical) prior to deploying. A close balance needs to be developed for every operation in the North between CF self-reliance and utilization of local resources without negatively impacting community support systems.*[124]
>
> *Major Steven Burgess*

CHAPTER 5 – THE DEFENCE FOOTPRINT, NOW AND FUTURE

Thus far, we have explored Canada's foreign policy as it applies to the Arctic, Canada's strategy in terms of supporting northern residents and enabling regional development, and the expectations that are placed upon the CAF to carry out defence tasks and support OGDs. Canada is one of the Arctic Five and is certainly not alone in considering its northern regions to be of strategic value – a national interest to be safeguarded. In addition to the states that have coastline or territory within the Arctic Circle, the Arctic is increasingly an area of interest for non-Arctic or near-Arctic states. Both the promise of shorter global transit routes and of access to unexploited resources are reasons to stake a claim (diplomatic and commercial) in the region.

The primary roles of the DND and the CAF are laid out in the *CFDS*: first, to defend Canada, second to defend North America in partnership with the U.S., and third to contribute to global peace and security. Despite some concerns regarding Russian intentions in the Arctic, there is no conventional military threat to Canada's sovereign territories. As the region becomes more developed and accessible, there is, however, growing concern about non-military threats, crises or emergencies in the Arctic: major air or maritime disasters, increased calls for SAR, releases of pollutants from ships or mining sites, foreign exploitation of fisheries, or possibly a

[124] Quoted by Peter Piggott, in *From Far and Wide . . .*, Kindle ebook location 4058 of 4676.

terror attack. With the exception of SAR, DND/CAF would not be the lead in the GoC response to any of these types of incidents, but would be in support of an OGD.

In Chapter 3, the policy framework for defence activities and operations in Canada's North was discussed. Those strategic level policies culminate in the *CDS/DM Directive for the DND/CF in Canada's North*. That high level direction is translated into actionable tasks and objectives in *Northern Approaches: The Army Arctic Concept 2021*, the *CJOC Plan for the North* and the *Regional Real Property Development Plan for the North*. These documents, which will be discussed later in this chapter, explain how the CAF will prepare for their defence and security missions and be ready to respond when OGDs require support.

Canada's military has a long history of operating in the North, and has often been at the forefront of development in the region. They brought wireless radio communications, radar stations, highways and airfields, buildings and utilities. They represented the GoC when no other federal departments were in the region to do so. They performed crucial tasks related to the military role, and also supported OGDs who had less reach and resources with which to work. Today's defence footprint stretches across Canada's North, albeit with facilities that are designed to suit specific missions.

Given the expected roles of the CAF within a military and WoG context, the question remains: can the CAF carry out its mandated activities and operations within its existing footprint, augmented by leased facilities or temporary structures? Or, is additional investment required to expand the defence footprint and ensure availability of key facilities for CAF contingency operations?

Post-Cold War Defence Posture

The Peace Dividend

Canada reduced its defence spending in the 1990s, and the CAF pulled its remaining resources away from northern activities and operations. "With the end of the Cold War, budget pressures, promises of a 'peace dividend,' and few military threats on the northern horizon," Lackenbauer observes, "Canadian Forces' capabilities in the North were allowed to atrophy."[125] For the better part of a decade, there was little to no investment in equipment and infrastructure, and less training and fewer exercises were conducted in northern climes. Northern deployments by maritime forces and northern exercises by land forces virtually stopped, while aerial sovereignty patrols were minimized.[126] For the land forces in particular, this led to a gradual fade of essential soldier skills to survive and function in extreme weather. Canada was not alone in this regard. "At the same time, almost all of the other Arctic nations reduced the northern element of their own forces," Huebert notes. "From 1989 to approximately 2002, the northern military capabilities of all the Arctic states were substantially reduced."[127]

All of this changed abruptly in September 2001. Following the events in the U.S., there was a sudden realization that fortress North America was vulnerable to non-conventional threats. In 2002, the CAF resumed regular activities and exercises in the North; the level of activity was greatly expanded when the N-series of annual exercises began in 2007.[128]

Defence Investment Post-Cold War

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[125] P. Whitney Lackenbauer, "From Polar Race to Polar Saga: An Integrated Strategy for Canada and the Circumpolar World," *Foreign Policy for Canada's Tomorrow No. 3* (Toronto: Canadian International Council, July 2009): 8.

[126] Huebert, *Canada and the Changing Arctic . . .*, Kindle ebook location 1460 of 7741.

[127] *Ibid*., Kindle ebook location 1457 of 7741.

[128] *Ibid*., Kindle ebook location 1475 of 7741.

With very little infrastructure investment since the completion of the NWS and the FOLs in the 1990s, the CAFATC stands out as the first of the Arctic defence capabilities previously announced by the Harper government that has come to fruition. In reality, the concept of an Arctic training centre was proposed in the 1987 defence white paper *Challenge and Commitment*: *A Defence Policy for Canada*. The CAFATC facility is a training venue for up to 100 personnel. More importantly, this facility – a relatively simple building with accommodations and kitchen/dining facilities – could be used to temporarily house a headquarters, support or field element during a CAF contingency operation. Located in Resolute, the construction of the CAFATC was a joint project with Natural Resources Canada, and that department is the custodian (the owner, so to speak) of the shared facility. The CAFATC is an example – perhaps the model – of how to implement projects in partnership with an OGD, and that defence infrastructure requirements can be met without DND/CAF owning the facility.[129]

Since the 1990s, the only other significant defence investment in new DND/CAF facilities in Canada's North is the Nanisivik project. Announced early in the mandate of the Harper government, the berthing and refuelling facility at Nanisivik and the introduction of the AOPS to the fleet will give the RCN greater freedom of movement in the Arctic. The ships are designed as Polar Class 5 vessels: they are not as robust as icebreakers, but are capable of navigating through first year ice, which vastly extends the area and season in which the RCN can safely operate. [130] As much as this investment contributes to the defence portfolio, Lackenbauer highlights its likelier role as a CAF capability that will be in support of OGDs. "The AOPS is a

[129] DND Backgrounder 13.036, "Canadian Armed Forces Arctic Training Centre," 15 August 2013, accessed 27 March 2016, http://www.forces.gc.ca/en/news/article.page?doc=canadian-armed-forces-arctic-training-centre/hkdons6l.

[130] According to International Association of Classification Societies (IACS), Polar Class 5 (PC5) ships are capable of "Year-round operation in medium first-year ice which may include old ice inclusions." Also see RCN presentation hosted on Dalhousie University website, which states that ships will be PC5+ because bow will meet PC4 standards: http://www.dal.ca/content/dam/dalhousie/pdf/cfps/Events/ Soule_AOPS_CFPS_Sep11.pdf.

sensible platform to allow the Navy to support other government departments in areas such as enforcing fisheries regulations, disaster response, SAR, immigration and environmental protection,"[131] he notes. Both projects are in the implementation phase, with the completion of Nanisivik anticipated in 2017 and the first delivery of an AOPS in 2018.

CAF Plans and Exercises

The Army Arctic Concept 2021

The phrase "boots on the ground" is perhaps understood as purely symbolic, in the sense of establishing a visible military presence, and yet it is truly "boots on the ground" (i.e. land forces) that provide CAF support to Canadians during times of crisis or emergency. This is at the heart of delivering excellence at home. For this reason, it is worthwhile to examine *Northern Approaches: The Army Arctic Concept 2021*, which was developed by the CA to present the challenges and lay the foundation for developing its capability to deploy and be employed in the Arctic environment.

The Canadian Rangers, a reserve component of the CA, are the most visible and active CAF presence in the North. In most scenarios, it is the Canadian Rangers, as residents in the local communities, who will be the first responders to a crisis or emergency. In *The Army Arctic Concept 2021*, a high readiness regular force CA unit will then deploy from southern Canada, bringing additional personnel, equipment and materiel to aid in the response, and if the mission is of longer duration then the reserve force ARCG will rotate in. According to historian Adam

[131] Lackenbauer, "From Polar Race to Polar Saga . . .," 25.

Lajeunesse, the concept is sound: "this layered response system makes sense and real progress has been made in building a basic capability, designed around realistic security threats."[132]

CJOC Plan for the North

The CA is referred to as a "force generator" in military parlance, which means that the Army trains and prepares individuals and formed groups (brigades, units and sub-units) to perform operations under the command of the "force employer," Canadian Joint Operations Command (CJOC). The RCAF and the RCN are also force generators. Although the CA provides the land forces, RCAF support is crucial for the movement into the North, and is likely essential for local mobility. Depending on the location of the operation, the RCN could also be involved.

The *CJOC Plan for the North*, updated in February 2015, provides general guidance to each of the force generators, along with a framework to align and coordinate support to routine CAF activities in the region. The plan notes that "limited RP [real property] (land, facilities and utilities) is a significant impediment to operating in the North," and thus "infrastructure" is treated along with capability development as a distinct line of operation with a separate appendix outlining measures to address the shortfalls.[133] The plan identifies the Northern Operations Hubs (NOH) that will be the staging points for operations, receiving the inflow of personnel, equipment and materiel from the south and re-packaging it to be transported by smaller aircraft or by land vehicle to the final destination. The intent is to maximize the use of existing DND/CAF facilities, with the addition of leased facilities and contracted services as required.

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[132] Adam Lajeunesse, "The Canadian Armed Forces in the Arctic: Purpose, Capabilities, and Requirements," a joint publication of Canadian Defence and Foreign Affairs Institute, the University of Calgary School of Public Policy and the University of Calgary Centre for Military and Strategic Studies (May 2015), 7.

[133] Department of National Defence, *CJOC Plan for the North* (Canadian Joint Operations Command: file 3350-1(J5 Contl Plans 1), 25 February 2015), 10 and Appendix 2 of Annex A.

Although the plan identifies both primary and alternate NOH sites, it falls short of specifying exactly what types of facilities are required as part of the hub concept.[134]

"Operations and exercises" form a different, but no less important, line of operation in the *CJOC Plan for the North*, and one of the goals of this line is to "test and/or validate new capabilities."[135] The plan provides overarching guidance for the N-series exercises and indicates that the NOH will be established through the annual exercise cycle. The intent is for the NOH concept to be validated in the short-term (from one to five years, starting in 2015), however the catch is that funding must be found from within existing budgets. There are no new funds identified to expand the defence footprint, or to acquire facilities through joint projects with OGDs, or even to engage in longer-term leases of locally available infrastructure.[136] This lack of funding restricts the measures that can be put in place to establish the NOH. In the medium term (from five to ten years), the main effort will be to integrate new capabilities (such as Nanisivik and AOPS) into joint exercises and operations, and to "operationaliz[e] the NOHs." Again, no new funds are identified, but the door is opened in that "specific funding may become available for commitment to develop additional capabilities related to the North."[137] In order to substantiate this funding, capability shortfalls that are observed while exercising or operating at the NOH sites must be identified and quantified in terms of impact to operations and risk of mission failure.

N-Series Exercises

[134] *CJOC Plan for the North*, Appendix 2 of Annex A. The primary NOH are the FOLs in Yellowknife and Inuvik, NT, and Iqaluit and Resolute, NU. Alternate sites have also been identified: the NWS sites at Cambridge Bay and Hall Beach, FOL Rankin Inlet, CFS Alert and Whitehorse.

[135] *Ibid*., Appendix 1 of Annex A, A1-3/8.

[136] *Ibid.*, Appendix 1 of Annex B, B1-1/6.

[137] *Ibid*., Appendix 2 of Annex B, B2-1/6 to B2-2/6.

Since 2007, three distinct exercises have been held on an annual basis, all with Canadian Ranger participation: Nunalivut, Nunakput, and Nanook.[138] Although the exact locations change annually, Nunalivut is based in the High Arctic and Nunakput is generally held in the western Arctic, along the Mackenzie River.[139] The Nanook exercises are the largest, bringing together participants from CA, RCAF, RCN, OGDs, territorial governments and sometimes representatives of other nations:

> Operation NANOOK is the Canadian Armed Forces' annual engagement with international military and security partners to demonstrate interoperability in the Arctic. This aspect of the operation usually entails exercises using scenarios in which the Canadian Armed Forces partner with other Canadian government departments and agencies, and with allied armed forces, to mount whole-of-government responses to security and environmental issues. [140]

JTFN Headquarters provides command, control and coordination of CAF activities and operations in the North and is heavily involved in the planning and delivery of the N-series exercises, which serve as preparation for JTFN's role in contingency operations.

What the N-series exercises cannot adequately replicate is the sense of urgency when the CAF must respond to actual crises or emergencies. Much of the preparation and set up for the large exercises is done in advance in order to smooth out the logistic and infrastructure challenges that might overburden a training exercise. The intent is to maximize the value of the training for the primary audience (those who are being exercised), but it comes at the price of truly understanding how a major WoG response would unfold in a small northern community. Without that real world timeline and sense of urgency, it is difficult to assess whether the CAF could gain access to key facilities, or whether the start of operations would be hampered by the need to build temporary structures at an NOH site.

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[138] P. Whitney Lackenbauer, *The Canadian Rangers* (Vancouver: The UBC Press, 2013), 441.
[139] *CJOC Plan for the North*, Appendix 1 of Annex A, A1-3/8 to A1-5/8.
[140] Department of National Defence, "Operation NANOOK," accessed 1 May 2016, http://www.forces.gc.ca/en/operations-canada-north-america-recurring/op-nanook.page.

Regional Real Property Development Plan for the North

The *Regional Real Property Development Plan for the North* was published by DND's Assistant Deputy Minister (Infrastructure and Environment) (ADM(IE)) in September 2015. ADM(IE) is accountable to the Deputy Minister of DND for the management of all real property (land, facilities and utilities) in the DND/CAF portfolio. The development plan is a strategic level document which broadly describes the real property requirements for supporting northern CAF activities and operations, including the NOH. The document, however, places CAF operational requirements in the context of GoC fiscal priorities: the use of existing facilities must be maximized and any excess must be divested from the portfolio. In this context, substantiating the acquisition of additional land or facilities dedicated to defence purposes will be challenging. The solution may be found in projects that meet the needs of other departments in addition to DND, such as the partnership with Natural Resources Canada that yielded the CAFATC at Resolute.[141]

How the Defence Footprint is Used Today

A wide variety of sites and facilities form part of the current defence footprint in the North. While many of them are permanent installations, either owned by DND or secured by long-term agreements or leases, few have permanently assigned DND or CAF personnel. With the notable exception of the CAF units that are based in Yellowknife (including JTFN Headquarters, 1 CRPG Headquarters and 440 (Transport) Squadron), the majority of sites are operated and maintained by contract with minimal (and often no) military presence other than for short-term tasks. CFS Alert, for example, is inhabited year-round, albeit mostly by contractors: the military personnel are assigned on six-month tasks. The four FOLs are kept in an almost

[141] Department of National Defence, *Regional Real Property Development Plan for the North* (Assistant Deputy Minister (Infrastructure and Environment): file 7800-2-7, 25 September 2015), 7-10.

dormant state and are activated only when required for operational reasons, at which time personnel are deployed from southern bases to ready the facilities and provide support to the military aircraft when they are there. The latter example is a most difficult one from a public perception and budgeting standpoint. The FOL facilities exist for the CAF response to an imminent military threat, and should there be no military threats for many years, it can be difficult for DND/CAF to justify the ongoing maintenance costs and retention of what some might view as a white elephant. An investment in the defence footprint to support CAF contingency operations is subject to the same kind of scrutiny and doubt over its utility.

The Future Defence Footprint

In his examination of what the CAF needs in order to deploy and operate in Canada's North, Balasevicius concludes that "forward-basing capability is critical for extended support of CF forces [*sic*] moving in from the south, especially for prolonged periods."[142] Moreover, he notes that the CAF must work seamlessly with OGDs, since they are usually the lead. This WoG approach extends to planning, coordination, and response to crises, and should also be considered when investing in fixed assets such as infrastructure in Canada's North. Not only is the cost of construction elevated in the North, but the recurring operations and upkeep costs are also much higher than they would be in southern Canada. That in itself should encourage federal departments to find OGD partners; the savings from shared construction and operations costs can be directed to other parts of the department's program. Beyond mere encouragement, however, federal departments have an obligation to be fiscally prudent and make best use of the resources entrusted to them by the taxpayer.

[142] Balasevicius, "Towards a Canadian Forces Arctic Operating Concept," 28.

The *CJOC Plan for the North* does not identify the key components or facilities that form an NOH. Based on the NOH concept of operations, a notional list might include: (1) an all-weather airfield, with airport services to receive a CC-177 Globemaster III; (2) dedicated fuel stores to support air and land operations (co-located with the community fuel reserve); (3) an aircraft maintenance hangar; (4) a storage building to receive and re-palletize equipment and materiel as it transitions from strategic to tactical transport; (5) a gravelled compound for additional storage and work areas; (6) an administrative area, ready to accept CAF command, control and communications systems, along with a small medical detachment; and (7) accommodation and feeding for NOH personnel.[143] This list is highly subjective, and certainly not exhaustive. If permanent facilities are unavailable, then temporary structures will be used. As previously mentioned, however, the set-up of these structures could delay the beginning of the operation. Pre-positioning of key equipment and stores should be considered, to reduce the burden on air transport from southern Canada at the outset of an operation. This would require investment in additional CAF equipment, so that national stock that is reserved for international deployments or contingency response in southern Canada is not affected. Examples of equipment that could be pre-positioned include temporary shelters, generators, and material handling equipment.

It is an implied task in the *CJOC Plan for the North* that capability shortfalls will be identified through a lessons learned or after action process following any operational or exercise use of the NOH sites. The infrastructure shortfalls will be unique to each site, based on an evaluation of the availability and suitability of DND and OGD facilities, as well as the availability of commercial infrastructure. Once all NOH sites have been established, individual

[143] *CJOC Plan for the North*, Appendix 2 to Annex A, A2-5/18 to A2-6/18.

projects can be identified and prioritized, and OGDs should be engaged to find opportunities for partnership and sharing of facilities.

Conclusion

Canada's Northern Strategy makes it clear that Canada's North, and the welfare of its residents, is a national interest. Sovereignty is identified as a key pillar in the strategy, with the CAF providing a visible GoC presence. "The Government of Canada is firmly asserting its presence in the North, ensuring we have the capability and capacity to protect and patrol the land, sea and sky in our sovereign Arctic territory," the document assures Canadians. "We are putting more boots on the Arctic tundra, more ships in the icy water and a better eye-in-the-sky."[144]

The CAF is the lead federal department for defence, as well as for the provision of aerial SAR across Canada. In the event of domestic crises or emergencies, DND/CAF plays a supporting role to OGDs, providing personnel and other resources as part of a wider federal response. Much of the defence footprint in the North has been developed for the purposes of North American defence, as part of the bilateral NORAD agreement. That infrastructure, which serves as a deterrent to any military threat, is not necessarily well positioned or suited to the more likely scenario of a CAF contingency operation in support of an OGD.

History has shown that development of infrastructure in the North has been fuelled by continental defence requirements. The transportation networks and telecommunications services that were constructed by the military in the twentieth century have greatly benefitted the local populace. That said, the most significant defence infrastructure investments – the DEW Line, NWS and FOLs – were not completed in isolation, but relied upon funding from our premier

[144] *Canada's Northern Strategy*, 9.

partner, the United States, in the name of North American defence and security. Investment in infrastructure with the primary purpose of supporting Canadian domestic operations is a national responsibility. Barring a defence or security impetus, however, it is hard to envision GoC investment in a defence footprint for domestic requirements such as responding to an environmental, aircraft, or natural disaster.

As laid out in the *CJOC Plan for the North,* during a contingency operation the CAF will use designated Northern Operations Hubs as staging sites to facilitate the transition of military personnel, equipment and materiel arriving from bases in southern Canada and moving onwards to the area of operations. NOH will use the existing defence footprint and augment those facilities with other available infrastructure in the community or with transportable, expedient CAF equipment. Existing DND/CAF facilities at the designated NOH vary, but the *CJOC Plan for the North* acknowledges that most locations fall short of providing the minimum essential infrastructure to establish a staging site. There is no need for DND/CAF to own the required infrastructure. As the CAFATC example shows, partnerships with OGDs can be extremely beneficial, providing functional shared facilities for routine activities, which could be leveraged for CAF contingency operations at short notice.

In the past decade, the CAF have increased their posture and readiness to operate in Canada's North, most noticeably by the introduction of the annual N-series exercises. These exercises, which are conducted under the umbrella of the *CJOC Plan for the North*, provide a venue to test the NOH concept and how it will support joint, combined and interagency operations in northern Canada. The lessons from the N-series exercises, when properly applied, will serve to capture the capability shortfalls – infrastructure and equipment – that could impact future mission success. As successive iterations of the N-series exercises are conducted,

infrastructure shortfalls must be documented and subjected to a risk analysis. The risk of not having facilities available at short notice, and consequently the risk of not achieving mission success, can be mitigated by investment in the defence footprint.

The CAF are expected to lead in the defence of Canada's territory and in the provision of aerial SAR in Canada's North. The CAF must be prepared to support OGDs in responding to emergencies. The CAF cannot meet the expectations of the GoC (let alone the people of Canada) with its current infrastructure, and must seek ways to expand its defence footprint to assure access to key facilities during contingency operations in the North. This can be achieved through outright ownership, or in partnership with an OGD, or by use of commercial infrastructure under lease or contract. If the ability to support OGDs in the Arctic is truly a priority, then the CAF require an expanded defence footprint to "deliver excellence at home."

APPENDIX 1

DND/CAF Installations in Canada's North

- Canadian Forces Station Alert, NU – staffed by personnel on six-month tasks, plus contracted operation and maintenance
- Eureka and High Arctic Data Communications System sites, NU – staffed by personnel on seasonal maintenance tasks
- Canadian Armed Forces Arctic Training Centre, Resolute, NU – staffed by personnel on tasks according to the training calendar
- RCAF Search and Rescue School, Resolute, NU – staffed by personnel on tasks
- NORAD
    - North Warning System – 47 sites in Canada, with contracted operation and maintenance
    - Forward Operating Locations – staffed when operationally activated
        - Inuvik, NT
        - Yellowknife, NT
        - Rankin Inlet, NU
        - Iqaluit, NU
- Nanisivik, NU – berthing and refuelling facility to support the Arctic/Offshore Patrol Ships, facilities are not yet operational, to be staffed when operationally activated
- Joint Task Force North
    - Headquarters, Yellowknife, NT – permanent staff
    - Headquarters Detachment, Whitehorse, YT – permanent staff
    - Headquarters Detachment, Iqaluit, NU – permanent staff

- Whitehorse Cadet Summer Training Centre, YT – contracted operation and maintenance on a leased site, seasonally staffed by Cadet Instructors Cadre
- 440 (Transport) Squadron, Yellowknife, NT – CC-138 Twin Otter aircraft and permanent staff
- 1 Canadian Ranger Patrol Group, Headquarters in Yellowknife with permanent staff
    - 60 patrols throughout YT, NT, NU plus 1 patrol in northern BC (northern QC is part of 2 CRPG, with an additional 8 patrols north of 60), no dedicated infrastructure (see Figure 3)
- C Company of Loyal Edmonton Regiment, Yellowknife, NT – CA reserve unit, small permanent staff
- Defence Research and Development Canada – seasonal staff conducting research

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