

Corporal David Veldman / Canadian Armed Forces Photo



Northern lights flare above HMCS *Harry DeWolf* during Cold Weather Trials near Frobisher Bay, 21 February 2021.

Becoming an “Arctic-Capable” Navy: Not Just the Arctic and Offshore Patrol Ship

by Adam P. MacDonald

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The Royal Canadian Navy (RCN) is currently receiving the *Harry DeWolf*-class Arctic and Offshore Patrol Ship (AOPS),¹ its first purpose-built Arctic platforms in its history.² It is envisioned that this acquisition, the first new capability developed for the navy in decades, will decisively break the boom-and-bust cycles that have characterized the RCN’s relationship with the region historically, by entrenching the Arctic, specifically the North American Arctic,³ as a long-term priority. The procurement of the AOPS is part of larger, more sustained efforts by the RCN (and the entire

Canadian military) to develop Arctic operational competencies and capacities over the past two decades. The *Harry DeWolf* class is a major, meaningful development towards establishing an “Arctic-capable navy,” a requirement outlined in the RCN’s leading strategic document: *Leadmark 2050*.⁴ Counter-intuitively, however, achievement of this requirement may be inhibited if Arctic naval operations and responsibilities are solely assigned to these new platforms while the rest of the Fleet focuses on other regions. There are two main reasons for this concern, one practical and the other strategic.

First, the RCN is simply too small to be neatly demarcated into functionally differentiated fleets with distinct missions and operating areas, such as a continental, coastal, constabulary-capable force, and an expeditionary, blue water, warfighting-capable force. All RCN assets will have to continue to operate in the Arctic (and conversely the *Harry DeWolf* class will have to operate in non-Arctic regions, possibly quite extensively) out of the practical necessities of having a small navy; a navy whose operational areas are growing in number but whose fleet size is set to shrink under existing recapitalization outlined in the National Shipbuilding Strategy (NSS). Any such division, furthermore, seems at odds

with the “One Navy” concept: a Fleet comprised of highly integrated blue water forces, on the one hand, and, on the other hand, the AOPS as its Arctic “appendage,” operating largely on their own. Second, as the Arctic becomes more accessible and interconnected into a changing but uncertain strategic global environment, Canada requires the full suite of its existing naval capabilities to exercise its sovereignty, contribute to continental defence and NATO commitments, and remain an important and autonomous actor in regional politics. The risk of war and conflict in the Arctic, specifically the North American Arctic, remains low, but that does not invalidate the utility of regularly deploying and exercising blue-water forces as these provide options for the Government of Canada in achieving the above listed interests. The entire RCN needs to remain engaged in the Arctic, retaining and furthering its regional competencies, rather than letting these atrophy by letting the baton pass fully to the AOPS.

The *Harry DeWolf* class should not be seen as the climax of these efforts, but rather their continuation, which must be accompanied by maintaining and furthering other measures. This includes continued and regular regional deployments and exercises for the entire fleet to integrate existing and new ships. This is not a call for a surge of naval forces into the Arctic nor a transformation of the RCN into an Arctic navy (with all of its ships being thick hulled/ice-breaking capable). However, ensuring coherent, long-term priority in building a truly Arctic-capable navy, one that must operate in the region even though large portions of it are not specifically designed to do so, necessitates a strategic plan. This calls for a *Leadmark*-style document to explain, justify and incorporate Arctic considerations into procurement, infrastructure, and force development and posture decisions and planning over the following decades to best position the RCN to operate in this emerging ocean region.

Committed to the Arctic for Good?

The prioritization of the Arctic, specifically the North American Arctic, for the RCN has been demarcated by periods of intense interest and activity alternating with periods of almost complete neglect and absence. During specific periods in the Cold War, new Soviet military capabilities threatening North America and possible American challenges to

Arctic sovereignty, in particular the status of the Northwest Passage (NWP), drove periods of heightened interest and activity. Concerns reached a high-water mark in the late 1980s. In the 1987 Defence White Paper, the government declared that the Arctic had transformed from a buffer to a battleground. That required a greater military focus and purpose-built assets to operate there, most importantly nuclear-powered submarines.⁵ However, resource constraints, competing priorities (especially supporting NATO in the North Atlantic) and uncertainty over what role the RCN should play there have obstructed the Arctic’s designation as a permanent, high-level priority.

For Canada, the end of the Cold War ushered in another period of overall retreat from and military disinterest in the Arctic, specifically for the RCN,⁶ with the removal of superpower rivalry globally and regionally. After a decade-long hiatus, the RCN, along with the Canadian Armed Forces (CAF) more generally, returned to the Arctic in the early 2000s with a series of deployments, largely designed to re-learn basic environmental skill sets to operate there.⁷ These efforts reflected the growing priority of the region in both the RCN, with the 2001 release of *Leadmark 2020* directing the organization to extend its “reach” into the Arctic,⁸ and government, evidenced in the 2005 defence policy that directed the CAF to be more present in the region.⁹

The security rationales underpinning these moves mirrored those of previous eras in some ways, specifically the implications that an increasingly accessible Arctic will create challenges to Canadian sovereignty due to expected resource scrambles and



Map of the Northwest Passage.

Ranier Lesniewski / Alamy Stock Photo

foreign demands to use emerging shipping lanes in Canadian waters.¹⁰ Largely absent, however, were specific military and sovereignty concerns posed by great powers as there were during the Cold War. The overall motivation has been to augment the presence, competencies and capacities of the CAF in general to prepare for an altering Arctic ecological environment with uncertain implications for Canadian security and the overall security environment.

Framing of the Arctic security environment became more ominous after the Harper government came into office in 2006 and began using the “Use it or Lose it”¹¹ phrase. The Harper government is often portrayed as a major deviation in terms of defence policy in the Arctic, with an emphasis on an assertive, unilateralist and militaristic approach. In reality, its efforts largely furthered existing trends, specifically building baseline capacities and a regularized regional presence of the CAF.¹² For example, despite the government’s initial declaratory emphasis on *defending sovereignty* in the Arctic, in policy and practice, the focus remained on *exercising sovereignty*. This included the RCN’s continued priority on constabulary-type duties, including assisting Other Government Departments (OGDs) with respect to non-military security challenges. Yet, the establishment of permanent regional annual exercises, the Nanisivik refuelling station and procuring Arctic-specific ships during the Harper era cemented the region as an enduring priority for the RCN.

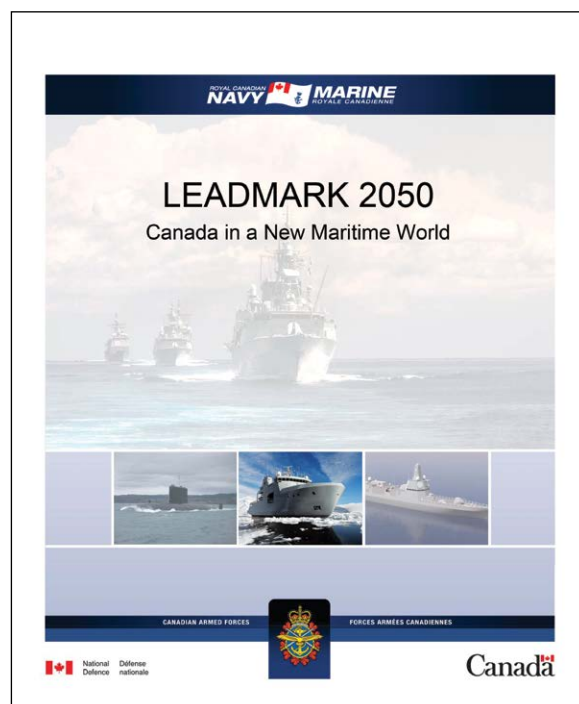
This priority was most evident in the decision to build ships for the RCN specifically designed to operate in the Arctic. This project was entirely a political decision, not one advocated by the RCN. The design features and characteristics have evolved over time, from the initial concept of armed icebreakers to the AOPS, but the procurement project set precedent. Canada decided to build naval assets to meet specific Canadian interests rather than fulfill NATO obligations, in a vein similar to the Mulroney government’s failed attempt to build nuclear-powered submarines for the Arctic, within a more “Canada First” defence policy.

The AOPS has been heavily critiqued since its inception. It has been characterized as awkward: neither an Arctic vessel (given that its polar-class designation means that it cannot operate year-round in the Arctic) nor a warship (with its lack of speed and light armament).¹³ Such analyses, however, do not appreciate the project as a product of evolving thinking over the past two decades of the military requirements needed within the current North American Arctic security environment and the RCN’s gradual embrace of becoming “Arctic-capable” as a core mission.¹⁴ Also, as the recent circumnavigation of North America by HMCS *Harry DeWolf* illustrates, this new class of ships possesses a number of capabilities to operate in diverse environments and missions, including large transport and configuration capabilities that enable OGDs training and operations, as well as strategic sealift. The AOPS is a significant augmentation of Canada’s control capabilities in the Arctic. It allows Canada to deploy assets in the region that can perform a number of functions, including support to scientific research such as hydrographic surveying.¹⁵ Furthermore, designated as Arctic and Offshore Patrol Ships, these ships will split their operational time in the Arctic when conditions allow and conduct missions in other operational areas.

Despite lingering debates about their suitability, the strategic importance of these platforms represents a renewed dedication by Canada, and the RCN, to be more present in the Arctic as a defence priority. This is a huge accomplishment, but the *Harry DeWolf* class should not be seen as a culmination of the RCN’s efforts to become “Arctic Capable.” Any move towards letting this class of ships fully take over Arctic duties would be counterproductive. For practical and strategic reasons, the entire RCN must remain involved in Arctic matters.

Dividing the Fleet

The RCN is currently undergoing a major, multi-decade recapitalization program, modernizing elements of existing assets and building new ones, as the organization begins the transition from the current navy to the “next navy.”¹⁶ Underpinning these developments is an unofficial strategy of demarcation, which is currently guiding Fleet development within the NSS and is a dominant line of logic, in both *Leadmark 2050* and the current defence policy, *Strong, Secure, Engaged*, governing the future constitution and employment of the navy.¹⁷ Specifically, the RCN Fleet can be divided into functional specific sub-components, each with differentiated missions and mandates as originally designed. On one side is a war-fighting-capable, task-group-oriented blue-water navy component—comprised of large surface combatants, replenishment vessels and submarines—focused on operations overseas with allies and partners. On the other side is a non-warfighting-capable, continental fleet tasked with coastal brown-water operations around North America that are more constabulary in nature, working in concert with other domestic security agencies such as the Canadian Coast Guard. The *Harry DeWolf* class would be the primary asset in this second category, while much of the rest of the Fleet constitutes the former. Such a division is logical in many respects given the varied missions and operating environments the RCN faces, and in general



balancing the needs of being a navy that is both blue-water and Arctic capable, which legitimates tailored designed assets and mission focus. However, such a division is impractical.

Despite the initial growth in total assets that the *Harry DeWolf* class will provide to the RCN, in the not-so-distant future the Fleet's size will shrink under current procurement and modernization plans. Most importantly, as there is no midlife refit program nor replacement for the *Kingston*-class Maritime and Coastal Defence Vessels (MCDVs); the *Harry DeWolf* class is anticipated to start taking over their duties and roles throughout the next decade. However, there are only six AOPSS compared to the 12 MCDVs. The result will be growing operational strains for the new ships to cover their missions and conduct Arctic duties.¹⁸

The MCDVs, furthermore, are themselves an instructive story of the likely future of the AOPSS. Although poorly designed to do so in terms of speed and hull design,¹⁹ they have increasingly been used for missions throughout North America and overseas²⁰ given the chronic shortages of blue-water platforms to do these since the early 2000s. Nevertheless, these platforms have been able to adjust and conduct such operations well despite their limitations. The *Harry DeWolf* class will most likely confront such a reality as the MCDVs are taken out of service. The end of the service lives for the *Halifax*-class frigates (the primary blue-water asset in service) and *Victoria*-class submarines will lag their replacements becoming operational: the Canadian Surface Combatant and possibly an as-yet undecided replacement submarine type, throughout the 2030s. There will be great strains on the AOPSS to operate in various environments simultaneously. If the Arctic is to remain a priority, therefore, other assets will need to conduct regular operations there, as best they can. This will necessitate growing interaction and training between the "blue-water fleet" and the *Harry DeWolf* class. In doing so, the RCN needs to continue what it has been doing—sending frigates, submarines and even MCDVs to the Arctic to exercise and, in general, retain

organizational competencies and capacities of operating there with non-purpose-built as well as purpose-built assets. This will challenge the ability of the RCN to dedicate the forces necessary to deploy two blue-water naval task groups as currently planned, alongside commitments for Arctic operations and setting aside some assets for contingency planning.²¹

Given the long timelines of Canadian military procurement projects, the RCN's history is replete with ships doing different missions and operations other than those that they were originally envisioned to do. This is in part due to changing security environments and the reality of having a small navy where all vessels need to "cover off" for each other due to chronic shortages. Examples include: the *Halifax*-class frigates, originally designed to conduct anti-submarine warfare (ASW) in a Cold War environment, which became more multipurpose vessels in the post-Cold War world, conducting interdiction operations and fisheries patrols, in addition to more traditional alliance, blue-water roles; and the *Kingston*-class MCDVs, originally designed to conduct minesweeping and naval training, increasingly doing overseas and Arctic missions. The *Harry DeWolf* class will follow a similar course over its service life. Unlike previous projects, however, thinking about variability in environments and missions, what exactly these vessels will be expected to do, has been a key consideration throughout their procurement. Even with such adaptability, though, there is and will remain a shortage of vessels to meet the RCN's mandates, which means some operating areas may have to be marginalized for the Arctic to retain its priority.

Having a Menu of Options

The Arctic occupies a unique place as it includes all three geographic environments that anchor defence policy and planning: domestic, continental, and global. Within each of these, several trends are altering the overall regional security environment. There are a number of unknowns about the dura-

bility, trajectory and overall impact these trends will have, but given their simultaneity the RCN must be prepared to be deployed and employed in a variety of functions within the North American Arctic and wider Arctic region. Having a "menu of options" in terms of numbers and types of naval assets that can be used (and in the future built) regionally is the best approach for Canada to achieve its interests in such an environment.

Navies can perform three functions: *policing* (constabulary type duties



Lockheed Martin

A recent concept rendering for the Canadian Surface Combatant.



Corporal Simon Arcand / Canadian Armed Forces Photo

A Rigid Hull Inflatable Boat (RHIB) from HMCS *Harry DeWolf* speeds across Davis Strait while on a boat maneuvering exercise during Operation NANOOK-TATIGIIT, 16 August 2021.

to support domestic and regional/international order), *diplomatic* (to support larger foreign policy efforts through a variety of measures short of the employment of force) and *military* (to maintain favourable balances of power in peacetime and ability to use force in wartime).²² The *Harry DeWolf* class is seen as a good capability fit—able to perform policing and diplomatic functions but not really military ones—for the Arctic given assessments that the risk of conflict remains low, especially in the North American Arctic. Some disagree, arguing assessments of growing military developments with Arctic implications by adversarial powers such as Russia and China warrant a re-examination of the weapons and sensors suite of the AOPSs to conduct military-warfighting missions.²³ Such debates are limiting in two ways. First, in thinking that the AOPSs can become a “super ship” where capabilities are added/removed easily as needed for Arctic operations—no ship can be endlessly flexible in this regard and that does not address the fact that there are too few AOPSs to do both Arctic and other duties. Second, the presence/absence of “warships,” to perform military functions, should not solely depend on whether there is a legitimate state threat to deter. War-fighting assets (which are usually blue-water capable) can be, and have been, employed to achieve the other two functions. Furthermore, there is a blurring between peacetime military functions and diplomatic ones, especially within alliance contexts in terms of development and deployment of naval power that can be used to signal various messages to both competitors/adversaries and allied partners alike. Using naval forces in this way is becoming an increasingly important consideration as Canada tries to balance retaining degrees of autonomy and furthering solidarity efforts with allies in terms of defence matters in the Arctic.

Some of the current (and future) security issues Canada faces in the Arctic where sea power plays a role include:

Emergency preparedness: Canada has a dearth of emergency management capabilities in the Arctic. The *Harry DeWolf* class is well positioned to augment this capability, including reaching isolated communities, given the frequency and severity of natural disasters induced by climate change, and overall changes to the ecological environment in terms of the rise of sea levels and melting permafrost, which is expected to stress an already fragile infrastructure-logistics system.

Increasing pattern of life monitoring: Assessments of the Arctic, specifically the

North American Arctic, as a new superhighway for maritime commerce or site of intensive seabed extractive activities are premature, but there is a slow growth in the overall pattern of life that requires greater surveillance and control capabilities. Canada has a steady record of expanding and integrating its networks of sensors and information management in developing a Common Operating Picture, but lacks Arctic control capabilities. The AOPSs will help address this deficiency. Limited subsurface surveillance could justify development of an Arctic submarine capability. Naval assets can also support regional capacity building—such as possible fisheries and environmental patrols, search and rescue, and overall pattern of life monitoring—making positive contributions to regional security.

North American defence reconceptualization: Given concerns about new military strike capabilities of adversarial powers that can reach North America, the Americans are pursuing an expansion and integration of information sources and assets into a system-of-systems network on the assumption of a more offence-as-defence approach to continental defence, possibly including pre-emptive strikes on forces. The Arctic is a primary vector for such attacks and thus may motivate American deployment of missile-defence and strike platforms closer to Russia at sea and on land; reopen debates in Canada about joining continental Ballistic Missile Defence (BMD); and possibly result in NORAD acquiring a maritime control mission.²⁴ These may all affect RCN deployments and the development of future capabilities. Canada is largely supportive of NORAD. However, because it is a defensive military command, any expansion of the operating area or assumption of offensive operations will be cause for trepidation about joining these new initiatives.²⁵ Canada should continue to augment surveillance and domain awareness capabilities, including underwater, throughout the North American Arctic but may be reluctant to work with the Americans to develop and implement

over-the-horizon strike forces or a forward naval and air presence close to Russia in the service of continental defence. Given the growing prevalence and importance of missile-versus-missile defence systems globally, however, Canada should explore how to participate in missile defence in a selective way beyond the controversial Ground-Based Midcourse Defense system. One route would be to participate in naval BMD, for which the surface combatants that are planned in the NSS will have the capacity to be fitted, equipping a number of platforms as a visible contribution in continental defence but retaining control of where and how these are deployed.²⁶ BMD-capable surface combatants could be positioned in and around the North American Arctic to bolster continental security but avoid being forward deployed in other Arctic sub-regions, specifically close to Russian territorial waters in the Eurasian Arctic.

NATO support in the face of adversarial powers: Russia is reconstituting its northern forces, including expanding its bastion strategy to protect its nuclear-armed submarine force and long-range missile capabilities in and around the Barents Sea. As a result, there is a renewed NATO effort to increase surveillance of and develop alliance capabilities in the European Arctic, specifically the air and water spaces between Greenland, Iceland, the United Kingdom and Norway (the N-GIUK gap). War-fighting platforms, specifically ASW-capable submarines, could assist in monitoring Sea Lines of Communication (SLOCs) between, and maritime approaches of, regional allies such as the N-GIUK gap. China is not at present a military concern in the Arctic, though it may become so in the future; instead, China is more a geo-economic concern regarding the strategic purposes underpinning its growing

investment, research and political activities in the Arctic. It is unclear what approach the alliance will take towards China, but there is a growing focus on China in deliberations about what policy and posture NATO should adopt for the Arctic, which includes possibly establishing a regionally dedicated fleet. Canada should position itself to contribute to these discussions. In particular, regular deployment of naval forces in various capacities throughout the region can help Canada frame itself as a NATO Arctic expert by influencing the purposes, composition and competencies of any sort of NATO Arctic force, given its experiences and forces dedicated to the region.

Interested allies/partners: There is growing interest from several non-Arctic NATO allies to operate militarily throughout the Arctic. While much of the NATO focus is on the European Arctic, with North America continental security lying squarely within the US-Canada relationship,²⁷ there is a growing desire from some powers to explore the possibility of training and operating.²⁸ Canada should not be completely opposed to these. Instead, having a balanced naval presence creates a position of strength in which Canada can invite other allies to train and operate there, crafting the conditions under which these exercises and knowledge-sharing events occur. This can include warfighting exercises, such as gun shoots and anti-submarine warfare exercises, as occurred during Op Nanook in 2020 between Canadian, Danish and French forces.

Great power competition: Canada shares similar concerns with its regional allies and partners regarding the challenges posed by China and Russia, domestically, regionally and globally. Given its power and hegemonic position, the US, as a reinvigorated Arctic power, will play a central role in growing cooperation and coordination to deal with these issues, especially militarily. The US has been and remains Canada's most important regional and continental defence partner.²⁹ But there are uncertainties about the implications of American approaches of viewing the politics of the region from the perspective of great power competition and in general their commitment to being the leader of the Western world, especially in terms of alliance commitments. Its divisive domestic politics are causing a rethink of the US role in the world. While still working closely with the US and NATO, amidst such uncertainty Canada



Commander Christopher Rochon (left), the Commanding Officer of Her Majesty's Ship (HMCS) *Halifax*, along with Commodore Bradley Peats, the Commander of Standing NATO Maritime Group One (SNMG1) direct task group maneuvers with a German Naval Warship during Operation REASSURANCE, 26 January 2021.

St Bryan Underwood / Canadian Armed Forces photo



HMCS *Harry DeWolf* sails alongside Canadian Coast Guard Ship *Captain Jacques Cartier* while a CH-148 Cyclone Helicopter patrols the area during Royal Canadian Navy Sea Trials, 22 October 2020.

should further and expand its relations with the other, smaller Arctic states to do more together, including bolstering their abilities to deal with local security issues and work together on regional governance. Naval diplomacy, such as port-of-call visits, exercises, and collaboration on dealing with common maritime challenges, can foster relations with these states, including leaning forward in addressing and providing institutional solutions to emerging economic and security issues.³⁰

Objections

There are arguments that the Arctic should remain a tertiary operational area for the RCN. First, the RCN is the wrong government instrument in this context. In light of the nature of the challenges, the Canadian Coast Guard (CCG) is a better fit to assure Canada's maritime security interests in the North American Arctic, which are mostly human safety and constabulary in nature, especially given the organization's extensive operational experience there.³¹ As the CCG is receiving two of their own Arctic and Offshore Patrol Ships, it may be prudent to transfer the RCN's allotment of these ships to them to augment the CCG's regional capacities.³² Second, growing focus on and priority of the Arctic by the RCN could detrimentally affect Canadian regional security. Regular stationing and deployments of naval vessels would contribute to the ongoing militarization of the Arctic, risk contribution to security-dilemma dynamics and undermine regional stability. Finally, the focus on the Arctic is a costly diversion for the RCN away from its true purpose and missions. With Europe and East Asia increasingly becoming the main "frontlines" of the West's strategic competition against Russia and China, Canada must, with allies and partners, develop and dedicate more military assets to bol-

ster collective defence, regional stability and the "Rules-Based International Order." Given the maritime geography that bounds these critical regions, the RCN should play a major role in these efforts, including deploying and/or contributing to allied naval task groups in projecting power to preserve freedom of the seas and stifle efforts by adversarial powers to create closed regional hegemonies. Overall, these arguments posit that the RCN's growing presence and operational priority in the Arctic are of limited effectiveness in securing and furthering national interests and a distraction of resources that are already stressed; the RCN is facing personnel and ship shortages that make it difficult to meet its current operational tempo in other priority regions.

One central tenet demands that the RCN remain involved in the region, now and in the future: the Arctic is an increasingly accessible maritime environment directly bordering Canada. That necessitates a naval presence as it does on its Atlantic and Pacific boundaries. Given limited government capacity there, Arctic maritime capabilities should continue to be developed by both the CCG and RCN, as well as strengthened training and operations between them which has, until quite recently, been somewhat limited. More, not less, of such interactions to build competencies and capabilities is needed to ensure that Canada



A member of the Canadian Coast Guard (CCG) watched HMCS *Harry DeWolf* carry out Cold Weather Trials near Frobisher Bay, 23 February 2021.

has a diverse maritime security posture and capacity in the Arctic. Sustained efforts are needed to ensure the RCN can operate in and deploy to the Arctic as a primary operational area throughout the 21st century, despite uncertainty about what the security situation will look like exactly in the decades ahead. The RCN should be present in the Arctic as an interest unto itself given that it is an emerging ocean region directly bordering Canada.

The destabilizing effects of rapid military buildups and deployments in the Arctic are a real concern, not just pertaining to Russian (and possibly in the future Chinese) military developments, but American and allied ones as well.³³ More assets and capabilities gives Canada options, not only in signalling to adversaries like Russia and China, but also in discussions with allies to push back or opt out of certain operations while still demonstrating an overall continental and regional commitment to alliance security and solidarity via tangible contributions. Finally, altering regional balances of power in Europe and Asia have global, strategic importance that legitimates continued and growing RCN involvement there; but this should not come at the expense of building an Arctic presence as this is a core region for Canada as a resident power. Naval power is a force enabler in navigating this strategically important region by ensuring that Canada retains an ability to act autonomously when desired, remain an important actor within Arctic regional politics and contribute to the defence of North America and NATO alliance commitments. A focus on the “home” versus the “away” game, furthermore, contributes to efforts to contain adversarial powers, with a specific focus on their activities and action in the Arctic being of direct value, not only to Canadian interests but appreciated by allies and partners, including the US.

A Naval Strategic Plan for the Arctic

To become an Arctic-capable navy, the RCN must position itself to be present and operate in the Arctic in a dedicated (in terms of regular operations), diverse (in terms of the fleet assets deployed there) and eventually permanent (in terms of basing in the region) manner. The vast majority of RCN capability should and will remain dedicated to the Pacific and Atlantic coasts, and operating overseas from these bases; these are home to the dominant maritime economic flows and patterns of life for Canada. But the entire Fleet should continue to deploy regularly to and operate in the region, as part of a larger effort to create a sustainable

regional posture for the decades to come. These efforts, which are starting from a very low point, require a strategic, long-term plan—an Arctic specific Leadmark type document—to rationalize, advocate and prioritize Arctic considerations in procurement, infrastructure, and force development and posture decisions and planning. The goal should be to develop an Arctic-based force of a minimum number of platforms, with the ability to dispatch additional assets in short order if needed, by the latter part of this century.

A three-ocean navy will require a larger fleet than currently planned to station and operate assets in three maritime environments simultaneously. In the short term, a replacement for the *Kingston* class is needed to prevent the shrinking of the Fleet and ensure the *Harry DeWolf* class can spend as much time in the Arctic as possible and not be dispatched to cover for aging vessels elsewhere. The *Harry DeWolf* class, as well, offers a 20-year buffer for the RCN in terms of determining what Arctic requirements may be needed for future vessels to operate there, given uncertainty regarding what maritime conditions will look like in the region. The RCN will not become an “Arctic Navy,” where all its vessels are specifically designed for these conditions (specifically being thick-hulled), but minimum requirements to operate there should be taken into consideration for future ship development.³⁴ However, one procurement project that must immediately address these issues is replacing the *Victoria*-class submarines, provided a replacement project is decided at all.³⁵ If a replacement proceeds, there will be a real trade-off between Arctic versus other operational requirements for the new submarines: despite advancement in other technologies, only nuclear powered submarines are currently able to operate under ice, which was identified as a critical capability to effectively conduct underwater operations in the North American Arctic as early as the 1960s.³⁶

Another critical component is infrastructure such as basing and other logistical hubs. Scarcity of infrastructure is perhaps the



A CH-148 Cyclone flies behind HMCS *Harry DeWolf* and a Multi Role Rescue Boat during Royal Canadian Navy Sea Trials off the coast of Halifax, Nova Scotia on 15 October 2020.

Corporal David Veldman / Canadian Armed Forces Photo



Polar bears patrol the ice near HMCS *Harry DeWolf* during Cold Weather Trials near Frobisher Bay, 20 February 2021.

be needed in terms of thinking, policy, training and resources, about how the RCN can better integrate the seemingly opposing dual requirements of being blue-water and Arctic-capable. This is not solely a technical affair, but requires clear communication externally (towards the public and civilian decision makers) about why the retention and furthering of sea power in the Arctic is important to protect/further Canadian interests, and thus worth the investment, and internally (within

greatest strategic challenge to developing an Arctic-capable navy. The costs and limited capacity of the Nanisivik refuelling station³⁷ demonstrate that stand-alone military sites are most likely not the best way forward, and that collaboration in developing dual-use sites with industry and local communities and governments will be needed. Appreciation of the socio-economic implications of stationing even relatively small numbers of predominately white southern sailors and workers at any naval installation in an Arctic community must be a central consideration in these processes, including meaningful consultations with local population and governments.

Finally, there must be a continued conceptual and psychological shift in Canada and the RCN to possessing a three-ocean navy. For the RCN, this requires a long-term organizational commitment to ensure its assets will eventually be able to be employed in all these environments.³⁸ Successful achievement of this capacity will require continued implementation of the “One Navy” concept in which there is one force which, based on its small size and limited resources, must be highly integrated and comfortable operating with one another, including in a wide variety of different environments.³⁹ Ingenuity and creativity from naval leaders will

the organization) about why continuing to integrate the “Arctic-capable” requirement throughout the RCN is necessary, even if/when this conflicts with other priorities and conceptions such as being a blue-water force that is largely focused on expeditionary operations.

The *Harry DeWolf* class is a major milestone and a step in the right direction in building an Arctic-capable navy, but ensuring the Arctic remains a priority for the RCN requires an entire organizational effort to achieve, not just a specific, purpose-built subset of it. It is unclear what the Fleet and overall structure of the RCN will be in the latter part of this century. At that time, when the public, military, bureaucratic and political leaders are thinking about recapitalization of the navy, hopefully the efforts and developments of the preceding few decades (from their perspective; the preceding decades from ours) will have locked in the Arctic as a naval priority, making it easier to build on these efforts to further the organization’s presence and capabilities in this new ocean frontier.



NOTES

- As is common practice currently in the RCN, the first ship of this new class—*Harry DeWolf*—is the name used to designate this entire class of warships. AOPS is the ship designation type. For this article both terms will be used interchangeably.
- The icebreaker HMCS *Labrador* was transferred to the RCN from the Canadian Coast Guard in 1954, giving the navy its first Arctic-capable vessel. The AOPS, however, represent the first time an Arctic-capable vessel was specifically constructed for the RCN.
- The Arctic is not one common region but rather is comprised of three distinct subregions—the North American Arctic, the European Arctic (or “High Arctic”), and the Eurasian/Russian Arctic—each with its own unique ecological, demographic, industrial, security and political characteristics. Unless stated otherwise, throughout the article the “Arctic” refers to the North American Arctic.
- Canada in a New Maritime World: LEADMARK 2050*, Canadian Armed Forces: Royal Canadian Navy, 2017, p.vi.
- Challenge and Commitment: A Defence Policy for Canada*. Department of National Defence, 1987, pp. 6, 50-54.
- This is most evident in the government scrapping plans to procure nuclear-powered submarines, which would have been an Arctic-specific capability, due to costs, political concerns, lack of security rationale with the end of the Cold War and US opposition to sharing nuclear technology. Adam Lajeunesse. “Sovereignty, Security and the Canadian Nuclear Submarine Program.” *Canadian Military Journal* 8.4 (2007): 74-82.

- 7 Adam Lajeunesse. "The RCN in the Arctic: A Brief History," *Naval Association of Canada*, Niobe Paper No. 2, May 2019.
- 8 *Leadmark: The Navy's Strategy for 2020*. Department of National Defence, 2001, p. 66.
- 9 *Canada's International Policy Statement: A Role of Pride and Influence in the World*. Government of Canada, 2005, p. 17.
- 10 These concerns stem from the "sovereignty on thinning ice" narrative which has dominated public and academic debates about the nature and severity of security risks to the Canadian Arctic as it becomes more accessible. For example, see: Franklyn Griffiths, "The Shipping News: Canada's Arctic Sovereignty Not on Thinning Ice." *International Journal* 58.3 (2003): 257-282; Rob Huebert. "The Shipping News Part II: How Canada's Arctic Sovereignty Is on Thinning Ice." *International Journal* 58.3 (2003): 295-308.
- 11 Kristin Bartenstein. "Use it or Lose it: An Appropriate and Wise Slogan?" *Policy Options*, 1 July 2010, <https://policyoptions.irpp.org/fr/magazines/immigration-jobs-and-canadas-future/use-it-or-lose-it-an-appropriate-and-wise-slogan/>.
- 12 As well, over time the Harper Government's Arctic approach became more in line with previous governments' approaches, emphasizing environmental and social matters, and working with regional allies and partners. Petra Dolata. "A New Canada in the Arctic? Arctic Policies Under Harper." *Canadian Studies*, 78 (2015): 131-154.
- 13 For example, see Michael Byers and Stewart Webb. "Titanic Blunder: Arctic/Offshore Patrol Ships on Course for Disaster." *Canadian Centre for Policy Alternatives and Rideau Institute*, April 2013.
- 14 Adam Lajeunesse. "Canada's Arctic Offshore and Patrol Ships (AOPS): Their History and Purpose." *Marine Policy* 124 (2021): 104323.
- 15 Development of Arctic control capabilities has been a long sought-after goal, with mention of it appearing in the 2005 defence policy, but has lagged significantly behind Canada's successful maintenance and furthering of an impressive array of surveillance systems regionally. Benjamin T. Johnson, "Sensing the Arctic: Situational Awareness and the Future of Northern Security." *International Journal* 76.3 (2021): 404-26.
- 16 The RCN has successfully managed such large transitions before, specifically throughout the 1980s with the midlife refits to the *Iroquois*-class destroyers and the *Oberon*-class submarines while progressing the projects to procure the *Halifax* and *Kingston* classes, which entered service in the 1990s.
- 17 *Canada in a New Maritime World: LEADMARK 2050*, pp. 42-43; *Strong, Secure, Engaged: Canada's Defence Policy*. Department of National Defence, 2017, pp. 34-35.
- 18 A possible solution would be to simply build more AOPS to make up the difference, but this is unlikely given the already considerable allocation of funds for various naval procurement projects and the fact that Irving Shipyards, the sole shipyard building the AOPS, will be quickly transitioning to construction of the Canadian Surface Combatant once the AOPS are completed.
- 19 These missions including regular counter-narcotics operations in the Caribbean, deployments to West Africa in support of regional maritime capacity-building efforts and being participants in major multinational exercises like RIMPAC.
- 20 This shortage was caused by the ending of the service life for the *Iroquois* class and intensive midlife refits to the *Halifax*-class frigates.
- 21 Besides competing operational demands, the ability to maintain such a capacity must take into consideration the need to have follow-on assets being trained and prepared to take over task group operations, regular work periods taking assets out of service for a number of months (especially pertinent for older class vessels), and sustaining losses, with assets knocked out of service indefinitely due to enemy action or most likely damage caused by training, mechanical and environmental issues. The last point is particularly critical as there is no depth built into the current recapitalization efforts, for as currently planned the RCN will have the bare minimum number of platforms to field the capacities required to meet its operational commitments and tempo.
- 22 Ken Booth. *Navies and Foreign Policy* (Croom Helm: London, 1977), pp. 15-25.
- 23 Rob Huebert, "The Case for a More Combat-Capable Arctic Offshore Patrol Ship," *Canadian Naval Review* 10:3 (2015), pp. 4-9.
- 24 Andrea Charron and James Ferguson. "NOARD's Maritime Warning Role: Origins and Future." *Canadian Naval Review* 17.2 (2021): 10-14.
- 25 Andrea Charron. "Responding to the Hardening the SHIELD: A Credible Deterrent and Capable Defense for North America," *North American and Arctic Defence and Security Network*, 11 September 2020, https://www.naadsn.ca/wp-content/uploads/2020/09/20-Sept_Charron_Responding-to-the-Hardening-the-SHIELD_Quick-Impact.pdf
- 26 Adam P. MacDonald. "The Case for Canadian Naval Ballistic Missile Defence." *Canadian Naval Review* 14.3 (2019): 4-9.
- 27 This is evidenced by the standing up of the NATO Joint Force Command Norfolk, responsible for protecting sea lanes in the North Atlantic between Europe and North America. North American defence, which includes the Canadian Arctic, though remains exclusively a CANUS responsibility.
- 28 Murray Brewster. "Britain Offers Canadian Military Help to Defend Arctic." *CBC News*, 24 September 2021.
- 29 P. Whitney Lackenbauer and Rob Huebert. "Premier Partners: Canada, the United States and Arctic Security." *Canadian Foreign Policy Journal* 20.3 (2014): 320-33.
- 30 Adam P. MacDonald. "China-Russian Cooperation in the Arctic: A Cause for Concern for the Western Arctic States?" *Canadian Foreign Policy Journal* 27.2 (2021): 194-210.
- 31 This experience includes icebreaking services, interaction with local communities, and pattern of life monitoring through its management of the NORDREG reporting system. The CCG, as well, contributes to regional security efforts by liaising with other coast guards, including within the Arctic Coast Guard Forum.
- 32 Furthermore, the CCG could become an armed service for constabulary purposes and/or facilitate more integration with the Royal Canadian Mounted Police (RCMP) to conduct these duties in the Arctic.
- 33 Michael Byers, and Nicole Covey. "Arctic SAR and the "security dilemma"." *International Journal* 74.4 (2019): 499-517.
- 34 Given the dearth of logistical and infrastructure networks, it could be argued it would be more prudent to invest in a smaller, more high-tech footprint comprised of Unmanned Aerial/Underwater Vehicles (UAVs, UUVs) which is more sustainable (less demanding of personnel and assets) and better for pattern of life monitoring and overall surveillance of the region. While the RCN, and CAF writ large, are and should continue to develop such capabilities, it is unlikely these unmanned systems will replace existing crewed ships and aircraft in the near-medium term. Instead, the most likely future is a hybrid one where UAVs and UUVs become part of the asset suite of crewed platforms, helping to extend the latter's capabilities, specifically Intelligence, Reconnaissance and Surveillance (ISR) ones. Such possibilities could be of great use and interest for Arctic operations to contribute to and expand upon the already extensive surveillance networks in existence there.
- 35 Jeffrey F. Collins. "Deadline 2036: Assessing the Requirements and Options for Canada's Future Submarine Force." *Macdonald-Laurier Institute*, September 2021.
- 36 Timothy Choi. "Nuclear or Bust: Canadians Face Uncomfortable Choice for New Submarines." *The Hill Times*, 17 November 2021.
- 37 Beth Brown. "Nanisivik Analysis." *Royal United Services Institute (NS)*, 16 February 2016, <https://rusi-ns.ca/nanisivik-analysis/>
- 38 For one of the first substantive examinations of this needed shift, see: Rob Huebert. "Canadian Arctic Maritime Security: The Return to Canada's Third Ocean." *Canadian Military Journal* 8.2 (2007): 9-16.
- 39 The One Navy concept usually is employed in reference to 1) the changing the nature of the relationship between Naval Regular and Reserve forces, specifically turning the latter into a "strategic" reserve which no longer has niche roles and duties, such as operating the MCDVs, but rather is a personnel pool to augment the requirements of the Regular force with the same training and qualifications; and 2) precluding the division of the organization into separate West Coast (based in Esquimalt) and East Coast (based in Halifax) "navies" by having each coastal command assume functional responsibilities throughout the entire RCN (training for the Maritime Forces Pacific and operational command for Maritime Forces Atlantic). This concept extends naturally towards precluding division of the fleet based on functionally different missions and mandates, and towards ensuring all RCN assets have regular experience training and operating with one another in a host of different environments and missions.