



BRIEFING BOOK

**A Naval Association of Canada collection
of prescriptive briefing notes developed
in support of the Royal Canadian Navy's
2026 Strategic Review**



BRIEFING BOOK

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FIRST EDITION

These prescriptive notes are designed to feed into and support the Royal Canadian Navy's 2026 policy and doctrine review. Coming from NAC members and experts in the field, they offer advice and outside the box thinking.

A living document, this briefing book will be refreshed and expanded as new material is received.

If you would like to contribute, email NAC Research Coordinator Adam Lajeunesse (alajeune@stfx.ca).



Undertaken with the
Support of the
Canadian Maritime
Security Network



Preparing for the New Navy

Improving Command and Control in the Arctic

Doug Theedom | February 2026

PO 1 Doug Theedom is a Naval Communicator with over 23 years experience in the RCN having sailed on most classes of ship including the AOPV. He is just completing his B.A. (Hons) in Political Science at RMC and has research interests in Arctic Maritime Domain Awareness and security.

Overview

The Royal Canadian Navy (RCN) has ambitious plans to transform our current fleet of warships into a modern fighting force capable of blue water, littoral, and subsurface warfare. These efforts are in response to the deteriorating international situation which demands that individual states look after their own interests instead of relying on the old coalitions led by the United States. Canada must be able to pursue its own interests and defend its territory, particularly the Arctic, against a variety of foreign actors including Russia and China. New ships are needed but there are institutional and capability gaps that must and can be addressed now to prepare the way for the future fleet.

Analysis

The Canadian Patrol Frigates (CPFs) are past their useful lives, most mine coastal defence vessels (MCDVs) have been decommissioned, and the RCN has only one operational submarine out of four. This leaves the Arctic Offshore Patrol Vessels (AOPVs) to pick up the slack until the Canadian Surface Combatant (CSC), the new corvettes, and submarines are in service. The first submarine could be delivered by 2032 and the first CSC by the early 2030s. There is no contract in place yet for an MCDV replacement.

All these ships are intended for modern warfare, which is network-centric and relies on a robust communications backbone. This backbone is currently supplied by U.S. military satellites from which the Canadian Armed Forces leases time. This system operates well below the Arctic Circle but once an RCN vessel proceeds north of that line, there is little to no coverage. Most of the Canadian archipelago lies north of it. The RCN's partners, the Canadian Coast Guard, use Starlink which works well, but is unsecure and cannot be used to share classified data. Canada's Enhanced Polar Communications Satellite project promises to rectify this issue by 2035 at the earliest. The

European company Eutelsat owned by the British and French governments have offered the Canadian government access to their existing constellation of low earth orbit polar satellites. This would be a secure network that can be completely controlled by Canada, and it could be enabled within months.

While not warships, i.e. not capable of engaging in combat at sea, the AOPVs will have to conduct more sovereignty patrols and act as command ships. This will require additional capabilities, some such as an embarked Naval Boarding Party (NBP) and helicopter the AOPVs were designed to possess, but others are new. Having an NBP would allow the vessels to conduct cooperative Maritime Interdiction Operations (MIO) in international waters and provide a light security organization for forces operating ashore. The CH-148 has proven to be unreliable as a naval helicopter and AOPVs cannot embark one for an entire deployment. To be able to act as a Command ship requires additional secure satellite and radio communications and IS systems. The current communications and IS suite are inadequate for this task.

Maritime security within Canada is the responsibility of Transport Canada, with the RCN playing an important, but subordinate role. Other prominent organizations include the Royal Canadian Mounted Police (RCMP), Canadian Coast Guard (CCG) and the Canadian Border Services Agency (CBSA). All these organizations belong to the three Maritime Security Operations Centres (MSOCs) in Halifax, Victoria and Niagara, ON but their presence is in some cases on an ad hoc basis (including RCMP and CBSA) nor is there a means of sharing classified information between them. Since many maritime security incidents will involve a law enforcement component it is of particular concern that there is significant reluctance on the part of the RCMP to share information. Finally, no organization is responsible for the MSOCs.

Recommendations

The Canadian government should pursue the offer by Eutelsat as a matter of urgency while it waits for the Enhanced Polar Communications Satellite project to have an operational constellation of satellites in orbit. The fact that the RCN's primary Arctic vessel has ineffective communications capability within most of the Canadian Arctic Archipelago is a very serious shortcoming which impedes all its other operational functions. The future fleet will also need reliable polar communications.

The AOPVs must be given the additional sensors (including additional radar) and classified Command Management System (CMS) required for proper maritime domain awareness (MDA). They should also have crew members trained as NBP. The AOPVs require their own helicopters, not the CH-148s, but either of the shipborne helicopters used by the CCG. There should also be a means of sharing classified MDA information with the CCG who would require secure communications onboard their vessels. The CCG is the primary government maritime agency in the Arctic and information gathered by their ships should not be ignored.

Control of the MSOCs must be centralized with an organization responsible for their operations. There should be a common standard of information gathering and sharing between all three, a 24/7 watch that includes not only RCN and CCG but also the RCMP at a minimum. All watch members

should have security clearances and a common classified information sharing network must be developed and implemented.

Costing Methodologies

The Need to Move Beyond Life-Cycle Costing

Adam Lajeunesse | February 2026

This note is drawn from the Canadian Maritime Security Network's ["A Life Cycle Costing Case Study"](#)

Overview

The Department of National Defence (DND) relies on Life-Cycle Costing (LCC) as the primary methodology for estimating and communicating the cost of Royal Canadian Navy (RCN) procurement programs. While intended to provide comprehensive long-term financial transparency, the LCC system offers inflated and misleading cost figures that undermine accurate measurement, distort comparisons, and erode public confidence in naval procurement.

Background

Life-Cycle Costing aggregates all actual and projected costs associated with a platform across its entire lifespan, including options analysis, design, testing, acquisition, personnel, operations, maintenance, infrastructure, and disposal. This methodology is mandated by Treasury Board policy and its use is not at the discretion of DND.

Problematically, LCC presents extremely high-cost estimates from procurement projects and these figures are routinely presented in public discourse without sufficient context. This leads to frequent and inappropriate comparisons with foreign naval programs that report only acquisition or sail-away costs. As a result, Canadian-built vessels are often perceived as dramatically more expensive than comparable allied platforms, despite similar or identical capabilities.

Analysis

Life-cycle costing has emerged as a poor tool for providing accurate and meaningful cost measurements to decision-makers and the public, undermining rather than enhancing transparency in naval shipbuilding. The fundamental weakness of LCC lies in its reliance on long-range assumptions that extend three to four decades into an inherently uncertain future. These projections depend heavily on speculative variables including fuel prices, personnel costs, inflation rates,

operational tempo, and maintenance cycles, factors that resist reliable prediction even over short timeframes.

The international dimension of LCC comparisons compounds these problems. Most allied navies do not publicly report LCC costs for major platforms, relying instead on acquisition costs. Canada's use of LCC therefore creates systematic "apples-to-oranges" comparisons that make Canadian programs appear more expensive than its foreign counterparts. This methodological inconsistency fuels misleading narratives of incompetence, inefficiency, or waste – narratives that persist even when the underlying procurement performance may be good. The result is a self-inflicted wound that undermines public confidence.

Perhaps most damaging, the inflated headline figures associated with life-cycle costing have contributed to persistent public skepticism regarding RCN shipbuilding programs. When cost announcements routinely reach into the tens of billions of dollars they generate shock and opposition. This erosion of public confidence undermines political support, complicates funding approvals, and increases program risk through heightened scrutiny and political interference. Ironically, this dynamic raises actual costs through delays and the resulting inflationary erosion of program budgets.

Continued reliance on life-cycle costing as the primary public-facing metric for naval procurement risks long-term damage to the credibility of DND acquisition processes and public confidence in naval recapitalization efforts. While LCC may retain value as an internal planning tool for long-term budgeting and resource allocation, its use as the dominant narrative framework for communicating program costs to parliament, the media, and the public is counterproductive. A fundamental reconsideration of cost communication strategies is necessary to restore clarity, enable meaningful comparisons, and rebuild the public trust essential to sustaining Canada's naval modernization over the coming decades.

Recommendation

DND does not control this costing methodology but it should aggressively push to have these Treasury Board processes changed. DND should push to harmonize its methodologies with allies and partners to provide a more accurate comparison of program costs. This approach would improve transparency, bolster public support for defence spending, while enabling more meaningful international comparisons.

Countermine Capabilities

The RCN's Need for a Dedicated Class of Minesweepers

Alec Rembowski | February 2026

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Overview

The RCN's Continental Defence Corvette (CDC) project is currently being framed as the replacement for the Kingston-class MCDVs. However, this project is being tailored to address only one of the two roles that the MCDV's were designed to fulfill, long-range patrolling. In particular, the initial CDC concept suggest that it will be ill suited for route survey and mine countermeasure operations. This is a similar design setback that prevented the MCDVs from being adequate long range patrol vessels and minesweepers.

To address the threats of sea mines and underwater improvised explosive devices, both in the context of continental security and international maritime operations, the RCN needs to consider procuring a limited number of vessels specifically designed as minesweepers.

Analysis

With the re-emergence of great power competition Canada and its NATO allies find themselves in conflict with a collection of authoritarian regimes and non-state actors that aim to disrupt the rules-based international order. A favoured tactic has been the disruption of global maritime trade. States like China, Iran, North Korea, and Russia have all maintained a credible sea mine capability. Other actors, such as the Houthis, may acquire these and conceivably put them to use in critical straits. As part of the Russo-Ukraine War, both sides have mined the Black Sea, demonstrating that contemporary maritime forces still view sea mines as an advantageous tool in maritime warfare. These weapons are low cost and high return, meaning that they will persist as a weapon of choice for sea denial and hybrid warfare.

The increasing threat of sea mines must factor into continental defence considerations. With the emergence of hybrid threats – from the Russian ghost fleet to the PLA Maritime Militia – Canada may very well see mines surreptitiously placed in key North American waterways as part of an extended strategy of grey zone sabotage or warfighting. This threat is amplified by rapid

technological developments, with long-range Uncrewed Surface Vessels (USVs) and uncrewed underwater vessels (UUVs) now more capable than ever before. This fact has been clearly demonstrated by Ukrainian maritime forces during the Russo-Ukraine War.

The RCN needs to prepare itself for the threat of sea mines. While the RCN does have clearance divers, and has recently procured the Remote Mine-hunting and Disposal System (RMDS), these are only partial solutions. These systems should be paired with a vessel specifically designed to counter the sea mine threat. Canada's answer to this threat cannot be in the form of a 'one ship fits all' design – a critical failure with the MCDV design. While these ships did have azimuth thrusters, their steel hulls made them susceptible to magnetic mines. Additionally, only three vessels were fully equipped with a complete degaussing system.

RECOMMENDATIONS

The RCN should investigate the possibility of a dedicated mine hunting vessel. This project should be geared towards local defence, with an emphasis on Canadian port cities and waterways, such as the Halifax Harbour, the port of Vancouver, the St. Lawrence Seaway. It should, however, also have the seakeeping necessary to operated overseas in allied waters if needed.

Naval Fire Support

Force Generating A Canadian Naval Surface Fire Support Capability

Alec Rembowski | February 2026

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Overview

With the first River-class destroyers now under construction, the Royal Canadian Navy (RCN) stands on the threshold of a transformative leap in maritime combat power. These vessels will enable the RCN to deliver naval surface fires with unprecedented range and precision. Yet, despite this technological advancement, the CAF and RCN remain unprepared to fully leverage the firepower these platforms will bring to bear. The critical gap lies in the absence of dedicated units and coordination mechanisms capable of integrating fires from the maritime domain and land-based operations.

The CAF has demonstrated its commitment to cross-domain fire coordination through substantial investment in its Joint Terminal Attack Controller (JTAC) program, which effectively synchronizes air-to-ground fires. However, no parallel effort has been undertaken to establish comparable coordination capabilities between the RCN and land-based fire control elements, particularly Army artillery and Canadian Special Operations Forces Command (CANSOFCOM). This asymmetry in capability development represents a significant operational shortfall.

Developing a robust naval surface fire support (NSFS) coordination capability would yield two benefits. First, it would substantially enhance the CAF's effectiveness as an integrated, joint force capable of multi-domain operations. Second, it would ensure Canadian operational sovereignty by eliminating reliance on allied militaries – most notably the United States – that currently maintain this specialized expertise. NSFS operations can be conducted along any littoral where RCN assets operate, providing the CAF with a potent means of projecting lethal force from beyond the visual horizon and outside the immediate threat envelope of coastal defenses.

Analysis

For land forces conducting amphibious operations or maneuvering in coastal regions, NSFS frequently represents the only available means of concentrating sufficient weight and volume of

fire to achieve tactical objectives. Despite participating alongside allies in numerous coalition operations, Canada has never committed to developing or maintaining a comparable capability.

Canada's current NSFS capacity is both minimal and entirely dependent on relations with the United States military. The artillery occasionally addresses this gap by sending personnel to the United States Marine Corps (USMC) Expeditionary Warfare Training Group Pacific (EWTGP) to complete the Naval Gunfire Liaison Officer (NGLO) course. However, once these personnel return to Canada, no institutional mechanism exists to continue practicing these specialized skills or to develop operational proficiency. This ad hoc approach produces individually trained personnel without generating sustainable organizational capability.

The development of a national NSFS program should be a coordinated partnership between the RCN, Army, and CANSOFCOM to force develop the capability to effectively coordinate NSFS between the maritime and land forces. This joint force does not enhance the RCN, Canadian Army, or CANSOFCOM in isolation, but strengthens the entirety of the CAF as a joint all-arms team.

The operational relevance of this capability is obvious given the geographic context of current and likely future CAF operations. Several ongoing operations are taking place in regions where the battle space could be shaped by naval fires, including Latvia and substantial portions of the Indo-Pacific Region. In each of these operational theaters, the ability to coordinate precision fires from maritime platforms with land-based maneuver forces would provide Canadian commanders with enhanced operational flexibility and a significant force multiplier unavailable through other means.

Recommendations

The RCN should collaborate closely with the Canadian Army and CANSOFCOM to establish a robust and credible NSFS capability. Such an initiative would not only expand the CAF's operational toolkit but would also significantly diminish – or eliminate – Canada's dependence on the United States for training CAF personnel in fire support operations. Moreover, developing indigenous NSFS capacity would bolster confidence among the CAF and allied partners in Canada's ability to deliver precision fires effectively across the full spectrum of multidomain operations.

RCN Electromagnetic Spectrum Superiority

Ensuring the Navy's Access and Maneuver Within the Electromagnetic Operating Environment

Michael Cabral | February 2026

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Overview

For the last 30 years, Western forces have had near-unrestricted access to the electromagnetic spectrum (EMS) to support pan-domain superiority in allied operations. However, with the return of great power competition, Canadian and allied forces will have to operate in a more contested EMS environment, demanding more adept offensive and defensive electromagnetic warfare (EMW) capabilities. Simultaneously, the electromagnetic operating environment (EMOW) is becoming more complex due to commercial demands for increased network capacity, which risks military access to higher-frequency bands.

With nearly every modern weapons system reliant on the EMS to function, access to and freedom of maneuver within the EMOW will be fundamental components of allied forces achieving superiority in the air, land, sea, space, and cyberspace domains. Therefore, in the face of competitors' advanced capabilities and escalating consumer demand for spectrum, the CAF will need to establish more proficient means to articulate the vital importance of its access to spectrum. In particular, given the RCN's reliance on the EMS to support SATCOMS, IAMD, and safety of navigation, the Navy should consider taking on a more proactive role in ensuring its spectrum needs are recognized and considered during the development of Canada's spectrum policy.

Analysis

The PRC and Russia have recognized Western reliance on the EMS and have been studying, investing in, and fielding offensive and defensive capabilities to challenge Western dominance in this area. The PLA fields a growing array of EMW assets to jam relevant areas and survey allied communications and radar transmissions. In the event of conflict, PRC leaders will rely on this Reconnaissance-Intelligence system to locate allied forces, predict their actions and position, and target them with long-range precision strikes. Similarly, in its war on Ukraine, Russian forces have

honed their EMW capabilities, showcasing their ability to jam GPS, disrupt drone signals, and deny Ukrainian access to spectrum over vast distances.

Meanwhile, fifth- and sixth-generation telecommunications networks (5G/6G) are seeking access to higher-frequency bands in the 3–9 GHz range to support consumer demand for faster speeds and the introduction of advanced technologies in critical industries. This demand will soon pressure the CAF to vacate or share critical bands, which will reduce the number of EMS assets that can be hosted in a geographic area and increase the effectiveness of enemy offensive EMW capabilities. For the RCN, commercial stakeholders will seek access to the 3.3 – 3.45 GHz range, 4.0 – 4.2 GHz range, and the 7.125 – 8.4 GHz range, the loss of which would disrupt the Navy's future electronic attack capabilities (AN/SLQ-32 V6), Air and Missile defence (LM Spy-7) and satellite connections and communications (ESCP-P).

These factors compound to complicate the EMOE for the RCN, both at home and abroad. At home, the RCN will face increased pressure to vacate or share bands critical to both the mission of continental defence and domain awareness across the Arctic and Canadian Archipelago. Abroad, the RCN will have to operate in more EMS-constrained environments, requiring a greater ability to avoid detection and disrupt enemy EMW capabilities. Moreover, the RCN also faces the risk that neutral countries in key regions will reallocate spectrum for 5G/6G, thereby causing harmful interference to radars and communications and reducing the RCN's effectiveness. In the face of these risks, it is a strategic necessity for the RCN to proactively raise awareness of EMW's importance in Canada.

Recommendations

The RCN should consider emphasizing, in its internal and public-facing documents, the importance of access to and freedom of maneuver within the EMS. Similar to the Canadian Army, RCN documents should identify the importance of being harder to detect, target, and destroy in the EMS. However, the RCN should consider going further and emphasizing the vital importance of effective spectrum management to limit commercial interference in key military frequency bands. In particular, the RCN should consider articulating that, due to the physics involved, any attempt by ISED to reallocate or reduce the CAF's bandwidth in the 3.1 – 3.45 GHz range would entail unacceptable risk to both military effectiveness and international strategic stability.

Additionally, the RCN should also consider new methods to improve awareness of the EMS within the branch, across the government, and among the Canadian public. New methods could include more frequent training seminars for RCN officers hosted by DND Federal Spectrum Management Heads or advocating for the Government of Canada to follow the UK's lead and require all public users of spectrum to maintain up-to-date records of their existing and future spectrum needs. Finally, given the data-intensive nature of future RCN activities, the Navy should consider how 5G and 6G could enhance its military effectiveness through their use in smart ports, allied operations, and for data-intensive communications with harbour commands and HQ. With this focus, the RCN should also consider identifying areas of cooperation with allied forces to ensure security within its network supply chains.

Up-gunned AOPV

Arming the AOPV for continental defence

Adam Lajeunesse | February 2026

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Overview

The AOPV program was designed to deliver constabulary vessels for whole-of-government Arctic operations, armed only with a 25mm gun suitable for civilian traffic monitoring. This design philosophy reflected the low-intensity Arctic threat environment and the RCN's need to concentrate resources on the Canadian Surface Combatant (CSC) program. However, with CSC (now River-class) delivery not expected until the early 2030s and the RCN facing expanded responsibilities including longer forward deployments, capability gaps are emerging. The AOPV fleet represents large, capable platforms with significant deck space and power to support enhanced capabilities without fundamental redesign. While the AOPV will never be proper combatants, an increase in armament could allow them to undertake continental defence tasks to free front line warships for tasks in more contested environments.

Enhancements to the AOPV would reflect both the urgency of the RCN's need to field more advanced capabilities against hybrid threats to the continent as well as the government's demand for enhanced Arctic capability. While the platform was not designed for such tasks, enhancement would also be in the RCN's tradition of 'make-do' resourcefulness which has defined Navy practice since the deployment of corvettes in the Second World War.

Analysis

NATO faces an openly expansionist Russia and more aggressive China, requiring broader understanding of AOPV mission parameters beyond Arctic constabulary duties. Government budget constraints necessitate creative approaches to enhancing RCN capability. AOPV offer a cost effective way of relieving frigates of patrol duties, enabling forward deployment on higher-risk missions. In extended great power competition, AOPV would primarily serve support and patrol functions rather than frontline combat, but enhanced capabilities would enable "constabulary+" operations across a wider security spectrum. The primary value of an enhanced

AOPV fleet lies in their ability to interdict hybrid threats such as ELINT vessels, surveillance trawlers, mine-laying vessels, and cable-cutting operations, providing cost-efficient alternatives to frigates for extended patrol and interdiction duties.

Surface warfare enhancements through containerized weapons systems offer significant potential without requiring major hull modifications. Naval Strike Missiles and similar anti-ship weapons offer over-the-horizon strike capability, while modular Mk 41 Vertical Launch Systems in four-cell containers could be adapted. The Russian Navy's Ivan Papanin-class patrol ships already deploys Kalibr-K cruise missiles in standard containers while the US Navy's new frigate class will be based largely on modular launch cells. For defensive systems, SeaRAM point-defence missile systems could counter limited missile attacks from hybrid vessels with minimal sensor additions. This would be suitable for relatively uncontested North Atlantic and Pacific waters where hostile combatants are unlikely to materialize. Of note, AOPV would remain unsuitable for warzone deployment due to commercial construction standards and limited damage control capability.

Anti-submarine warfare capabilities present both limitations and opportunities. The AOPV's 17-knot maximum speed and poor open-ocean maneuverability limit effectiveness as submarine hunters, with a hull form optimized for ice operations rather than ASW. The vessels have no organic torpedo capability, are built for but not with the RAST/HHRSD systems needed to operate ASW helicopters above sea state three. Equipping the vessels with that capability would significantly augment them as ASW platforms for domestic waters.

Beyond helicopter-enabled ASW, HMCS *Harry DeWolf* has demonstrated a Towed Reelable Active-Passive Sonar (TRAPS) during Operation *Nanook* 2021. Autonomous Underwater Vehicles, with 2,000+ km range, could also be deployed via the 20-ton crane, creating distributed sensor networks allowing AOPV to serve as hubs for AUVs, recovering assets and transmitting data to other allied platforms.

Recommendations

The RCN should consider integrating containerized ASuW weapons, point defence missiles and improved ASW capability – centered on embarked helicopters. This retrofit would include RAST/HHRSD systems to enable full ASW helicopter operations in higher sea states, with increased aviation fuel capacity and accelerated AUV program development for distributed sensor networks.

The RCN should develop doctrine and training for “constabulary+” operations, defining when and how enhanced AOPV capabilities would be employed while clarifying that AOPV remain unsuitable for warzone deployment. Crew augmentation plans and training programs for containerized weapons systems operators should be developed, considering rotating specialist teams rather than permanent crew expansion given current personnel constraints.

An Arctic Operating Concept

Building for Specialized Operations in the North

Adam Lajeunesse | February 2026

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Overview

As the RCN adjusts to sustained Arctic operations and a growing Government of Canada focus on the region, it will have to decide on a force composition which either builds a niche Arctic capability into specific ships or extends a limited Arctic-capability across multiple platforms. Specifically, the Navy must decide on whether to design and equip future corvettes, submarines, and other craft with ice-strengthening and Arctic specialization, or delegate that task to Arctic and Offshore Patrol Vessels (AOPVs) and other Arctic-focused platforms and systems.

Background

The RCN is planning its future fleet structure amid heightened Arctic security concerns and the need to modernize aging platforms. The AOPV fleet has entered service with hulls and systems specifically optimized for Arctic constabulary operations. Simultaneously, discussions are ongoing regarding future corvette designs which Admiral Topshee has suggested should be Polar Class 6. Likewise, recent comments suggest that the RCN is examining upwards-facing sonar and other systems for the future SSK fleet.

The need for greater Arctic capability is an important part of Canadian Defence Policy and has been highlighted repeatedly by government as a critical consideration. Activity in the region is also increasing, with commercial shipping (tourist and resupply) expanding and Chinese government/quasi-government activity growing exponentially in the Western Arctic. American threats to Canadian sovereignty may also spill over into the Arctic as the long-dormant Northwest Passage dispute represents a possible future crisis point. As such, Canada will require presence and capacity to address all these growing friction points.

ANALYSIS

Threat Environment

Historically, Canadian efforts to project power into the Arctic have conflated political and military threats in an unhelpful manner. Questions of ‘sovereignty’ and general insecurity about state control in the area, have led governments to deploy, or seek to deploy, combat power on the false assumption that this translates directly into ‘sovereignty.’ This is not accurate for a variety of reasons. Rather, combat capability should be developed to meet real or likely threats and, in the Arctic, there has often been a mismatch between those threats and plans.

Kinetic operations are unlikely to take place in the Canadian Arctic and the adjacent seas. In war, high-intensity combat involving Russian or Chinese forces would most likely occur in the North Atlantic and North Pacific – not deep within the Arctic or in ice covered areas. Russian (or potentially Chinese) submarine operations are possible in the region, however, hunting these SSN is beyond Canadian capabilities. Submarine detection in ice-covered waters would be impossible from a moving vessel. There are also no targets of strategic importance in the region that require persistent defence (with Pituffik being the one exception).

Critically, an ice-strengthened surface combatant would be ineffective in the region against submarines. A corvette is also unnecessary for such tasks since ASW helicopters, integrated into seabed listening systems could more easily be launched from AOPV, CCG icebreakers, or airfields ashore.

Surface vessel incursions into the Canadian Arctic or surrounding seas are also unlikely. The Canadian Arctic offers constrained and ice-infested waters – all within easy range of Canadian and American fighters. ASuW would therefore be far easier to prosecute by air than from surface combatants.

Even Canada’s planned SSK fleet may be overemphasizing under-ice capability. These vessels will not have the ability to safely operate for long periods under the ice. Nor will they have to. During wartime, enemy submarines under the ice would present no serious danger to Canada. There is little that such a vessel could do to damage Canada or its allies in the region – there is no shipping in the ice-covered Arctic and nothing of military value to strike. At most, the Canadian Arctic could be used as a transit route to open waters. As such, the Canadian SSKs should be developed for ice edge operations – operating in open waters with a limited under-ice capability to guard the entrances and exits of the Arctic, not the Arctic itself.

Overbuilding warships to include an ice capability is expensive and would require tradeoffs in capability. A PC6 corvette will require heavier hull plating and closely spaced framing (especially the ice belt), a stronger bow, ice-capable propellers, shafts, and rudders. All of that adds mass and drag. Speed and maneuverability will be compromised, ship weight may lead to lighter mission modules as well as reduced margins for future proofing. Arctic capability would also add significant costs – resources that could go into procuring additional hulls.

Arctic Requirements

While Arctic security threats are proliferating, the region is not the center of gravity for great power competition. Where that competition is taking place, it does so in the form of hybrid and grey zone tactics. These threats are better met with a constabulary capability, not warfighting platforms. Chinese research vessels conducting unauthorized surveys, fishing fleets operating in Canadian waters, potential cable-cutting operations, and grey-zone activities designed to establish presence without clear accountability are the most realistic scenarios Canada must address.

These threats are precisely what the AOPV fleet was designed to counter. With their 25mm guns, boarding capabilities, extended endurance, and ice-strengthened hulls, AOPVs provide appropriate capability for enforcing Canadian laws, deterring malign activity, and providing persistent presence. The vessels can operate during the navigation season in Arctic waters and conduct constabulary missions in southern waters during winter, maximizing utilization. During winter, CCG icebreakers will be sufficient to meet any foreign icebreaker presences.

AOPV and icebreakers will also be adequate for ‘political’ missions. This could involve shadowing Chinese or American trespassers, or boarding quasi-state actors embarked on hybrid missions. These missions would require large vessels with minimal armament, not the heavy weapons of a surface combatant.

Where additional capability is required to address evolving hybrid threats, the solution is an upgrade to the AOPV to “constabulary+” platforms. This entails containerized weapons systems, point defence, and enhanced sensors. Such modular upgrades provide the flexibility needed to respond to grey-zone challenges while maintaining the AOPV’s core constabulary mission and avoiding the massive costs of universal Arctic capability.

Recommendation

Canada faces existential threats from peer adversaries. The RCN must field surface combatants and submarines capable of operating effectively in high-intensity conflict alongside allies. Degrading the performance of future corvettes and surface ships to provide an unnecessary Arctic capability represents poor strategic resource allocation. Submarines will operate at the ice edge but caution should be exercised not to over-emphasize (and over-spend for) a true under-ice role that has more political than military value.

The AOPV fleet provides appropriate, carefully tailored capability for the actual and likely future Arctic threat environment. Along with CCG assets, these vessels represent sufficient capacity for sovereignty patrols, domain awareness, hybrid threat response, and constabulary enforcement – all without compromising the RCN’s ability to field competitive warfighting platforms for high-intensity scenarios in primary theatres.

Canadian naval strategy should clearly divide Arctic and non-Arctic roles and rely on specialized craft for the Arctic. If a broader Arctic capability is deemed necessary, strategy must make it clear what threat this is being developed to meet and why that threat cannot be more appropriately met by AOPV or RCAF assets.