

# Arctic Maritime Partnerships

Halifax | October 19-20, 2022



CONFERENCE  
REPORT

## Conference Report

### Arctic Maritime Partnerships: Options and Opportunities for Cooperation in the North American Arctic

Event hosted by the Naval Association of Canada and the Brian Mulroney Institute of Government, St. Francis Xavier University, in partnership with the Royal Canadian Navy.

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Authors: Adam Lajeunesse, Cate Belbin, Rachael Wallace, Rory Jakubec, and Josh Kroker

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Front cover photo: *USCGC TAHOMA (left) and HDMS TRITON (right), traverse the Eternity Fjord in Greenland ahead of HMCS GLACE BAY (not pictured), Corporal David Veldman, CAF*

Back Cover photo: *CCG PIERRE RADISSON and HMCS SHAWINIGAN off the coast of Resolution Island during Operation NANOOK 2013, Dennis Noel, NDHQ*

Page 2 Photo: *USCGC MAPLE in the Arctic with CCGS TERRY FOX, Nate Littlejohn*

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# Arctic Maritime Partnerships

## Options and Opportunities for Cooperation in the North American Arctic

Naval Association of Canada | Brian Mulroneu Institute of Government, StFX in partnership with the Royal Canadian Navy

### Invitational Workshop

Held on October 19-20, 2022 at Canadian Forces Base Halifax

**Adam Lajeunesse, Cate Belbin, Rachael Wallace, Rory Jakubec, Josh Kroker**

This October, the Naval Association of Canada and the Brian Mulroneu Institute of Government at St. Francis Xavier University were pleased to host a two-day workshop on the emerging security issues facing the North American Arctic. A working level event, this meeting brought together Canadian, American, Danish, and other national participants from government, academia, and northern communities to identify and explore common security concerns and develop recommendations to enable more effective cooperation – between services and agencies, government and communities, and continental allies.

The intent of the workshop was to develop a common understanding and prioritization of different national security concerns and leverage participants' wealth of experience to

identify real solutions. Rear Admiral Brian Santarpia (Commander Maritime Forces Atlantic) and Brigadier General Pascal Godbout (Commanding Officer, Joint Task Force North) opened the two days, with presentations offered by Danish Arctic Command, the US Navy and Coast Guard, as well as the Canadian Coast Guard, and representatives from the North. In an attempt to break away from the typical conference format and draw out the expertise of our participants, most of this event was run as a workshop. Participants were divided into breakout groups to brainstorm topics, framed by suggested areas for exploration.

This report synthesizes the conversations from these workshops. While the discussions were wide-ranging and dynamic, they are distilled, summarized, and catalogued into two broad categories: problems identified and solutions suggested. This categorization is an effort to deliver clear overviews of the most pressing issues identified by the participating departments, agencies, and services, while outlining their many recommendations.

Because this report summarizes free-flowing conversations intended to promote creative thinking on complex problems, many of the ideas and solutions remain incomplete or even contradictory. The intent of this report is not to present a singular path forward on any issue, but rather to identify the diverse thinking on the many potential options available to Canada and its allies.

As a summary of these Chatham-House conversations, this report does not represent the official policy or position of any specific state, department, or agency, the event organizers, or the Royal Canadian Navy, which provided essential support, but did not shape the agenda or proceedings.

## The Threat Environment: An Overview

The Arctic threat environment is both dynamic and evolving. Participants identified two principal areas of future concern: state-based security threats and civilian-based safety and security dangers. State-based threats were seen revolving around the emerging great-power confrontation with Russia and, to a lesser extent, China. Both of these states are considered adversaries, a notable shift from Canadian and broader Western rhetoric from only a few years ago – when ‘competitor’ was the more common designation. Likewise, the notion that the Arctic<sup>1</sup> is a zone of peace has changed to one seen primarily as a theatre of competition.

*A “unified perspective” on Arctic security issues will be hard to come by.*

From a defence perspective, participants identified aerospace (or ‘through’ the Arctic threats) as a serious concern for Canada and the US, and increasingly for Greenland. Russian and (potentially) Chinese submarines were also identified as a serious threat in the Arctic waters. These vessels, given their ability to fire cruise missiles, naturally merge into the aerospace category and add a maritime dimension to northern security, a crucial consideration for NORAD’s warning and response mission.

Civilian-based threats represent a lower risk but higher probability of occurrence. This

danger revolves around climate change, undeclared activities, cruise ships, academic vessels, and small-craft tourism. These threats require a broader response, involving a whole of government capability. They are also likely to expand dramatically as the ice melts. That openness will bring more commercial shipping, with small pleasure craft representing the greatest concern. Regulating this new activity will be a challenge for the Arctic states. Environmental considerations surrounding discharge and ballast water will be difficult to enforce while harmonization of such safety and pollution prevention regulations across national boundaries will be politically difficult (but very useful).

Canada, the US, and Denmark/Greenland have different priorities when it comes to the defence-safety-security threat spectrum, with the US more focused on the defence end of that scale, and its allies more publicly concerned with questions of safety and security. Expectations must be managed when looking to draw common responses to these threats since the three states hold different priorities. A “unified perspective” on Arctic security issues will be hard to come by.

### Solutions Suggested

Participants identified several options for improving allied cooperation in the Arctic and broadening the general partnership. A common suggestion was to shift the view of the region from one of purely North American consideration to incorporate it more fully into the NATO worldview. Hints

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<sup>1</sup> This event and the report focused on the North American Arctic. Hereafter ‘Arctic’ should be taken to mean ‘North American Arctic’ unless otherwise specified.

of this have already been seen. In 2022, the NATO Secretary General visited Cambridge Bay and made a point that the alliance needs to be more involved in the region. The Arctic may increasingly come to be seen as “NATO’s Northern Frontier” and that could bring new threats, but also alliance support. On this, participants also suggested that Canada begin to look at the Arctic differently; rather than seeing only the Canadian Arctic, the Canadian defence community should consider the circumpolar region more fully and ask what it can contribute to other NATO Arctic countries’ defence – as it once did in the Cold War.

Supporting (and being supported by) allies in the region was a common refrain and garnered much participant support. The RCN had expressed a desire to enhance its work with allies in the Arctic and the Canadian government narrative on NATO’s role in the North has shifted to become more welcoming of that collaboration. Denmark is also very open to increased allied cooperation, both in the size of allied deployments to Greenlandic water and the surrounding areas, as well as their frequency.

The decision by Finland and Sweden to join NATO will also have positive impacts on Arctic security. This will inevitably change the power dynamics in the region and will shift the NATO understanding of the Arctic to be more circumpolar. Tying the Scandinavian Arctic and the North American Arctic into a common defence picture will be important to eliminating gaps and seams across the polar front.

## **Resources, Sustainment, and Infrastructure**

### **Identified Problems**

Sustaining a naval or civilian maritime presence in the Arctic has long been one of the greatest challenges to operations in the region. Canadian, American, and Danish governments recognize the need for a greater presence, with more ships operating for longer stretches across more of the region. However, there are logistical issues that have proven extremely limiting. In the Western Arctic there are no fueling facilities on the Arctic Ocean coast. In Canada, fuel can only be taken from barges or other ships in the High Arctic, and the delivery of these supplies is uncertain because of the unpredictable weather and ice conditions. As an example, HMCS *Harry DeWolf* was forced to forego refueling in 2021 because its refueling vessel never arrived. The Greenlandic port of Nuuk remains the only place to come alongside for fuel in the Eastern Arctic. Northern Canadian communities cannot provide the fuel and supplies needed by deployed forces given their limited supplies. Communities also do not always hold the correct type of fuel for naval vessels.

The Arctic also suffers from a lack of repair and maintenance facilities. Damaged ships must return south for even basic maintenance. Even Nuuk, the largest Arctic town, has no ability to conduct anything beyond rudimentary repairs. Limited runway and hanger assets also limit resupply. One participant likened this to a “chicken and egg” scenario: we need investment in infrastructure in order to facilitate economic growth, but in order to facilitate economic growth, we need infrastructure.

Human resources were also identified by participants as an underappreciated element in sustaining Arctic capability. Operating in the North requires a unique skillset which is lost with frequent personnel turn over. This turnover and understaffing were highlighted by Canadian and Danish participants. Crewing platforms was also identified as a real problem generally for navies and coast guards and made worse by the extended deployments required by Arctic operations. Local human resources were also identified as a problem as skilled community members have been leaving for the south in a brain drain produced by limited northern opportunities.

## **Solutions Proposed**

There is widespread recognition of the need for serious investment in Arctic infrastructure. Local communities across the Arctic have also voiced their need for this investment. Participants highlighted the possibilities for dual-use facilities to support government operations while helping communities to improve quality of life and retaining key workers. Denmark's government funding for dual use airports was highlighted as an example of how this might be done.

Working with businesses to develop dual use facilities was another widely supported idea. Mine sites and communities offer opportunities for governments to plug in defence facilities. Still, this has to be coordinated properly and additional capacity may be needed. In Canada, for instance, use of the Baffinland port facilities was a suggested option, however it was highlighted that that facility is at capacity, with limited room for icebreakers or patrol ships. Adding a government pier may be possible, and cheaper than a new, purpose-built facility.

Additional cooperative infrastructure builds were also suggested for Cambridge Bay and Resolute Bay to leverage existing facilities.

In Canada, an issue in construction relates to local hiring requirements. Early identification of northern companies with capacity is an important consideration, as is developing those companies for broader contract opportunities. This will require long term vision and a movement beyond funding and contracting for projects on a case-by-case basis. The government should also expand its vision of who can compete for contracts. One participant noted that Ottawa has displayed bias in choosing and trusting the largest companies with federal government contracts, specifically with communications infrastructure in the North. Northern communities often feel as though smaller, local, and specialized organizations could do a better job serving the North.

Government-built bases, like Nanisivik, remain a possibility but they have proven difficult to construct. Nanisivik will allow the RCN to have greater operational latitude and less of an impact on Northern communities, but it will be harder to maintain and less effective than a community facility with stores and supply facilities that can be built into existing infrastructure.

Infrastructure builds must also take into consideration civilian traffic. There is a lack of grey-water disposal and support facilities for cruise and cargo traffic. Developing multi-use government or community support infrastructure will also solve safety problems that may arise from growing shipping activity.

A more distinct suggestion for logistical support was the construction of a "floating logistics base." This would be an ice-strengthened supply ship deployable to the

Arctic on a seasonal basis, able to supply multiple fleets from different allied nations. Ship to ship refueling is common in the Arctic and a purpose-built (or renovated) AOR would offer flexibility and reliability faster than a new base or port.

## **Military Relations with Northern Communities**

Working in the Arctic requires close coordination with Northern communities and Indigenous governance bodies. Good community relations are naturally essential for future logistics and supply but also good general practice as government fleets operate in areas covered by land claims agreements and different regional governance structures. In Canada, the slogan “nothing about us, without us” is a concise encapsulation of this principle.

It is important to note as well that northern peoples are not a unified whole. There are dozens of communities, Indigenous groups, and governments from Alaska to Greenland and they all have different ways of looking at safety and security. There is no uniform or collective response to any of these issues and a nuanced, local approach is needed.

### **Identified Problems**

The need for local engagement is widely recognized but how to operationalize that can be difficult. Some participants highlighted difficulties identifying points of contact in the North. Participants also could not identify a best practice for a broad-based communication strategy, specifically what the most effective medium for society-wide

engagement might be (Facebook, Twitter etc).

Participants with experience in Northern consultation offered a more nuanced take, suggesting that the issue is not a lack of consultation, but of meaningful consultation. A failure that has crept into a well-meaning system is “consultation fatigue.” This comes from repeated consultation on the same points, often by different government actors from different agencies.

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### **Solutions Proposed**

Increasing Northern representation in planning and development conversations necessitates greater effort to include these partners in planning sessions, conferences, and meetings where these topics are discussed. Often the bottleneck is cost and capacity, with flights being expensive and with relatively few representatives often unable to meet the demands on their time. Solutions could entail capacity building in the North, or a more efficient use of Northerners’ time through combined interdepartmental meetings and working groups (as opposed to siloed departmental meetings).

At the local level, some participants suggested avoiding community-wide engagement to focus instead on local ambassadors, whose interest in safety and security issues would make them natural partners. Identifying these individuals would be an important consideration.

More local visits by navies and coast guards would go far towards building relationships. Ship visits need to accomplish something and offer value. A good example was a recent Canadian AOPS visit to a northern community where RCN technicians assisted in repairing a community freezer. Other community support could be medical or dental visits – or the future use of shipboard 3D printers (yet to be installed) which could offer a wide array of repair options for community machinery.

## **Search and Rescue**

### **Identified Problems**

Search and rescue is a significant challenge across the Arctic. The size of the region, coupled with a lack of infrastructure and response capacity creates persistent difficulties. The risks are primarily to local residents, however, large-scale disasters are possible if a cruise ship grounding necessitates a major rescue effort. While there are agreements in place to manage SAR and cooperate across national boundaries, the resources available often do not match national requirements. Canada's SAR boundary, for instance, extends to the North Pole – where it has no capacity to operate.

While there are many different local SAR assets, they are often overtaxed. The Canadian Rangers and Coast Guard Auxiliary offer significant community-based capability; however, they are limited by often

confusing regulations and payment authorizations. For instance, a Ranger is paid when activated while a CCG Auxiliary is not. Expansion of these forces is often raised as a solution; however, the hurdle is not will or resources but human capacity. There are a limited number of community members willing and able to perform these functions and most of them are already serving – often in multiple roles.

### **Solutions Proposed**

There was an expressed need for greater communication and integration of SAR in the North. This entails better operational communication over national boundaries and between government departments. At the local level, pay systems, usage rates, and activation requirements must be sorted out. There remains too much red tap across the Canadian Arctic when it comes to SAR responsibilities and resources.

## **Foreign Influence**

### **Identified Problems**

As the Arctic becomes a theater of great power competition, the information environment is emerging as a serious consideration. National security threats persist when it comes to companies, such as Huawei, and other large state-owned entities that seek to manage local telecommunications. Chinese mining operations have also been flagged as a potential avenue of state influence into remote northern communities. Participants suggested that the circumpolar, democratic Arctic cannot permit state-owned telecoms, or allow hostile state-owned (or backed) entities to control critical infrastructure.



One participant noted that Arctic telecommunications are vulnerable and insecure and can be compromised relatively easily. Greenland's reliance upon Huawei was cited as a potential vulnerability. Related to this influence is the concept of "debt diplomacy," which becomes an issue when smaller governments (like Territories or communities) mortgage assets for investment.

*There is a role for government in finding a viable alternative to Chinese money, either directly or as a facilitator.*

### **Solutions Proposed**

Responding to the threat of debt diplomacy means finding alternative sources of investment. This can be government funding (as in the case of Greenland's recent airport contracts) or private funding (as in the case of China's Shandong Gold investment in Canada being replaced by Agnico Eagle). In either case, there is a role for government in finding a viable alternative to Chinese money, either directly or as a facilitator.

Investment in telecommunications is also important since Chinese suppliers are often the cheapest option. In this field, participants identified several options, including mass adoption of Starlink satellite systems or government funding for fiber optic cables.

## **Communications**

### **Identified Problems**

Northern communication systems are insufficient to support robust economic growth. This has an impact on the region's ability to attract and retain key personnel and support government operations.

### **Solutions Proposed**

New technological solutions appear to be on the horizon. OneWeb and Starlink are opening to Northern customers and for military application. Initial trials have been very successful. These next generation satellite communications systems can be paired with fibre optic cables to achieve a modern system with strategic redundancy. These systems will also allow the North to leverage Covid-era communications and work solutions. Zoom and virtual events are now ubiquitous, allowing Northern leaders to be far better stitched into national conversations and policy development. With increased bandwidth, Northern communities can gain access to key technology enablers, such as cloud computing. This capability will have clear benefits for the local RCMP, Transport, and CBSA offices as well.

The development of these communications systems should be backed by the federal government as one of the most essential components of Northern development, but should also be seen as an important strategic asset benefitting national defence and regional resiliency and capacity.

# Interoperability

## Identified Problems

Allies have had difficulty communicating with one another in the Arctic. This is not simply a technical problem; the difference between Danish, Canadian, American, and Scandinavian communication, and data-sharing laws, and how that information can be shared domestically and abroad has created issues. In Canada, the originator of information can only collect and store what is supported by domestic legislation and information released to partners can be slow because a high degree of caution is exercised. Canada also practices extreme caution vis-a-vis collecting intelligence from Canadians. The RCMP, CBSA, and DND need to improve their processes for sharing intelligence collected.

Given the different national and departmental restrictions, participants noted that it is quite challenging to compile data that everyone can use. While important data is generally supposed to be shared, there is a subjective analysis with respect to determining what is important and what is not.

In many instances, communication is ad hoc. For instance, when handing over a vessel of interest, moving from Danish to Canadian waters, a phone call suffices. However, when traffic increases, a more complex maritime environment will require a more systematic response. Without this the maritime boundaries between Arctic allies will develop into a seam where various national commands meet and where threats may be dropped. These partnerships need to be set up in advance since it takes time to build the appropriate systems. As one participant noted: “you cannot surge trust.”

Building common tactical communications has also been a challenge. Different states use different technologies and there is no clear standardization across national forces. Even communicating non-restricted information can be a challenge given a poor understanding of allied structures and responsibilities. Challenges have arisen, for instance, when it comes to sending operational invites to participate in Operation *Nanook*. These invites have often not been sent to the correct recipient. Better understanding of allied Arctic chains of commands and actors is essential to improving collaboration.

Canada’s allies have also pointed to some uncertainty about Canadian departmental mandates. On northern security and safety matters, some participants were unsure if JTFN was the proper point of contact for non-defence security matters, such as vessel reporting. A similar sense of confusion was evident as to the precise roles of the CCG, RCMP, and Transport Canada.

*You cannot surge trust.*

## Solutions Proposed

An improved system of allied information sharing should be developed, along with harmonized standards for information sharing. There is an example of best practices in the existing counter-drug operations and information sharing in the Caribbean, where information sharing and joint support are well developed. One suggestion was an international memorandum of understanding (MOU) or agreement that would allow for the sharing of valuable Arctic information. In theory, this could be initiated through NORAD, with reference to its maritime security warning mandate. The use of NATO

standards for information sharing was also raised as a possibility.

Standards for ship builds was also raised as a useful operational consideration. Different states rate ice-strengthening on different scales, which are not always easily convertible. A proper conversion table would allow for a better understanding of what ships can travel where in whose waters.

There was widespread support for a joint Maritime Security Operations Centre (MSOC) to manage a more complex Arctic, where cross boundary maritime traffic data will need to be organized in a more systematic fashion.

*Demand is huge for civilian and international participation in Nanook*

Operation *Nanook* is a good opportunity to test these communications systems (both technical and operational). Participants noted that “demand is huge” for civilian and international participation in *Nanook*. An expansion of the exercise would be a good idea.

Better cooperation in deployments would also be helpful over the long term. US forces continue to focus on the Western Arctic while Canada is in a better position to deploy to the East. Joint deployment plans should be explored to maximize use of scarce assets. Participants also noted that Canadian support for Denmark in Greenland would be welcome and would allow Danish assets to deploy to the GIUK Gap and Faroe Islands.

There are also opportunities to share operational knowledge. Danish participants expressed interest in learning from the

Canadian Rangers, since Denmark has a similar program in an embryonic stage. There is also the opportunity for RCN-USN partnerships as the Canadian Navy develops familiarity with the AOPS.

## Defence Research

### Identified Problems

All three Arctic allies have noted a lack of research capacity in the region. Much of this stems from a lack of dedicated research platforms. Undertaking defence (or civilian) research in separate national silos is wasteful and collaboration between defence research agencies and academic centres should be increased.

### Solutions Proposed

Collaboration with other non-Arctic states should also be improved. Canada, Denmark, and the US should welcome research undertaken by other democratic nations, leveraging that work to their own ends.

Along these same lines, increased caution must be shown to the research work undertaken by adversaries. Much of China’s scientific work in the region could be dual purposed and appropriate legal steps should be taken to monitor that work or deny access to national waters. Better collaboration is also necessary across the circumpolar Arctic to build a better picture of competitors broader research programs.

Specific defence research and development programs should focus on long-range Arctic capable drones and cold weather surveillance equipment to address the high cost and general lack of crewed surveillance aircraft.

Given that most Arctic states are now members of NATO, a joint R&D program of work could be coordinated with European Arctic allies to develop these vital cold weather technologies.

## Situational Awareness

### Identified Problems

From a defence perspective, Canada has a severe lack of underwater situational awareness. Detection of hostile submarines in Canada's internal waters and EEZ has broader implications and should be undertaken as a joint research project – as was the case during the Cold War.

Detection and tracking of surface vessels remain problematic as well. Regulatory enforcement is difficult when it comes to the vast Arctic expanses. Surface-scanning radar capacity is limited, and intruding ships are sometimes spotted only when they arrive in a community. The most pressing issue identified was small craft, which do not have to shine AIS. These craft are typically less well maintained and crewed, and far more likely to present a safety or security threat. Canada routinely rescues these craft, drawing on resources that could otherwise be more productively spent.

Aerial surveillance is an important component of domain awareness, however none of the Arctic states have sufficient aircraft to undertake the necessary tasks.

### Solutions Proposed

In responding to the small craft threat, Transport Canada is working to create an avenue for voluntary participation in AIS,

however, participants showed widespread support for mandatory AIS on all visiting craft. Danish participants noted that Denmark has legislation requiring AIS to be shared and transmitted. There is trepidation, however, that this would be difficult to enforce. One participant noted that complete enforcement is not necessary, likening AIS to drivers licenses: some drivers to travel without them, however they are fined and arrested when identified, creating a strong incentive to obey the law.

*The most pressing issue identified was small craft, which do not have to shine AIS.*

Participants agreed that no one system would solve the issue of detection. Sensors and assets should, therefore, be merged together to create a more holistic system. Mandatory AIS could be meshed with chokepoint detection and community level assets – like the Rangers and RCMP to identify ships that have not reported. This information should be shared with response assets, like the RCN's AOPS, which can use ship riding RCMP and OGD personnel to enforce regulations.

This system of information gathering would be more effective if it stretched across national boundaries and incorporated the recognized maritime picture from north of Alaska and West Greenland. Sharing data could be extended to sharing response assets as well. Canadian and Danish participants both expressed “resource fatigue” and a sharing of assets could create efficiencies. Danish participants noted a strong desire for foreign aerial surveillance of their area of operation. Canada, the US, and Denmark should explore MOUs for this kind of integration.

Another solution presented was the possibility of a Science Monitoring And Reliable Telecoms (SMART) cable. This system can be equipped with sensors and hydrophones to undertake a wide array of surveillance tasks, from understand migratory patterns of various aquatic species to monitoring the subsurface environment for hostile submarines.

## **Moving Forward**

This event did not take place in a vacuum. Recent years have seen an increasing focus on international cooperation in the Arctic

and, with the decision of Sweden and Finland to join NATO, the Arctic will play a greater role than ever in alliance planning. Many of the issues identified by participants are well known, however their complexity has historically pushed resolution out of reach.

Stiving for solutions means continuing conversations at the operational level, between experts, residents, and practitioners whose experiences leave them well situated to contribute to the necessary process of chipping away at these seemingly intractable challenges. In the future, the NAC will continue its efforts to build these networks, and to apply this same successful methodology to other maritime security challenges.

