Canada's and Russia's Security and Defence Strategies in the Arctic: A Comparative Analysis

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Abstract

This comparative article reveals how the general focus of Canadian and Russian threat perceptions in the Arctic have shifted from a Cold War fixation on hard defence to accommodate soft security issues over the last three decades. Both countries now pay greater attention to threats and challenges stemming from climate change, security, and safety risks associated with resource development and increasingly accessible sea routes. Although concern about military conflict arising from Arctic disputes continues to frame some media discussions in both countries, most strategic analysts and academics have moved away from this line of argument. Instead, military functions now include assertion of Canadian and Russian sovereignty over their respective internal waters, as well as protection of resources in their exclusive economic zones and on and in extended continental shelves; protection of economic interests in the North, including mineral and bio-resources; prevention of potential terrorist attacks against critical industrial and state infrastructure; and dual-use functions, such as search and rescue operations, surveillance of air and maritime spaces, support to safe navigation, and mitigation of natural and human-made catastrophes.

The authors argue that analysts should parse two forms of military modernization in the Arctic: one of capability development related to the global strategic balance, where the Arctic serves as a bastion or a thoroughfare; and a second intended to address emerging non-traditional security challenges. They contend that these modernization programs do not inherently upset the Arctic military balance and need not provoke a regional arms race.

Keywords: Canada, Russia, Arctic, security, defence strategies

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1 Introduction

During the Cold War, military power was a coercive instrument in the global confrontation between two superpowers and the capitalist and socialist systems. The Arctic region was enmeshed in this global confrontation as a home for strategic nuclear forces and strategic messaging. Both the North Atlantic Treaty Organization (NATO) and the Soviet Union pursued containment strategies, with a doctrine of mutually assured destruction at their core.

In the post-Cold War world, global geopolitical changes and a "revolution in military affairs" have transformed the roles of military power and the nature of military strategy. In addition to well established defence and deterrence roles, armed forces are deployed to perform a myriad of non-traditional missions, such as fighting terrorists, anti-piracy, policing conflict zones, protecting strategic economic interests, conducting search and rescue (SAR) operations, and coping with natural and human-made catastrophes. The use of precision weapons, unmanned aerial vehicles (UAVs), hybrid tactics, cyber-attacks, and strikes against information infrastructure reinforce the salience of military technology to achieving regional or global military hegemony. For this reason, competition between major powers has moved to the technological sphere, to equipping armed forces with advanced weaponry, and to hybrid or "grey zone" tactics. Consequently, in the age of network-centric warfare, military reforms focus on making armed forces more compact, mobile, and better armed and trained for multipurpose missions.

To what extent have these dramatic changes affected the military situation in the High North? How do the Arctic states – and particularly Canada and Russia – perceive the role of military power in their Arctic strategies? Are these countries participants in an Arctic arms race, intent on weaponizing the High North to bolster their sovereignty and defend their territory and resources (as some journalists and politicians suggest), or do other dynamics better explain their investments in military capabilities?

In this article, we offer a comparative analysis of Canada's and Russia's security and defence policies in the Arctic. More specifically, we focus on (1) discussing the post-Cold War changes in Canada's and Russia's threat perceptions in the Arctic region, as well as their doctrinal/conceptual underpinnings; (2) identifying new roles for Canadian and Russian military power in the Arctic Ocean; and (3) examining current Canadian and Russian defence modernization programs in the Arctic. While recent scholarship has convincingly downplayed the probability of conflict between Arctic states erupting over resource or territorial disputes, a resurgence

in major power competition globally has renewed interest in the Arctic Ocean as a thoroughfare for strategic delivery systems designed to serve broader deterrence interests. Russian and Canadian rhetoric shows that military modernization has strong symbolic value as a demonstration of state interest in the region and a commitment to protect territory and resources. Nevertheless, by distinguishing between strategic deterrence and regional drivers, we identify the military's practical utility in the Arctic (rather than its employment through the Arctic) in meeting non-traditional security challenges and threats. When properly communicated and contextualized, Arctic modernization programs upset neither the regional military balance nor serve as a valid justification for Arctic states to embark upon a regional arms race.²

2 Threat Perceptions

There is no single document where Canada's and Russia's threat perceptions in the Arctic are coherently described. Instead, they must be constructed from various national security, foreign policy, and military doctrines, as well as specific Arctic strategies and public statements by political and military leaders in both countries. With respect to the narrative frames that shape understandings of the current Arctic security environment and expectations for the future, we have sought to carefully distinguish between grand strategic threats, which often have an Arctic nexus but are best assessed and met through a global lens, and Arctic regional risks or threats emanating from regional dynamics or conditions themselves.³

Overall, we observe that the general focus of explicit Arctic policies has largely shifted from hard to soft security over the last three decades. Ottawa and Moscow no longer fixate on the threat of large-scale nuclear war that dominated Cold War thinking,⁴ and now pay greater attention to threats and challenges that emanate from the non-military sphere. These soft security concerns include demonstrating control over natural resources and waters within their jurisdiction, adapting to climate change, cleaning up environmental "hot spots," and ensuring that Arctic residents are safe. Canada's 2017 defence policy, "Strong, Secure, Engaged," offers a tidy summary of what that country perceives to be the core challenges:

Climate change, combined with advancements in technology, is leading to an increasingly accessible Arctic. A decade ago, few states or firms had the ability to operate in the Arctic. Today, state and commercial actors from around the world seek to share in the longer term benefits of an accessible Arctic. Over time, this interest is expected to generate a corresponding rise in commercial interest, research and tourism in and around Canada's northern territory. This rise in activity will also bring increased safety and security demands related to search and rescue and natural or man-made disasters to which Canada must be ready to respond.⁵

Russia's new Arctic strategy⁶ does not discuss national security threats and instead prioritizes soft security threats such as the shrinking population in the Arctic Zone of

the Russian Federation (AZRF); underdeveloped social, transport, and information infrastructure in the region; the slow pace of geological exploration for new mineral resource deposits; and the lack of a proper environmental monitoring system. The NATO military build-up and its increased military presence in the Arctic are mentioned on the bottom of a list of "challenges" rather than "threats" to Russia's national security. In short, hard security considerations must be conceptualized alongside the economic, environmental, and humanitarian interests that are the primary drivers of Canadian and Russia policy.

In both countries, competing streams of thought feature a wide range of realist, liberal, geopolitical, and emancipatory frameworks. Official articulations of Russian Arctic priorities cover a spectrum from hard-line patriotic discourse that talks of "winning" or "conquering" the Arctic, to that which emphasizes the shared benefits of treating the Arctic as a "territory of dialogue" and highlights "respect for international law," "negotiation," and "cooperation." Justifications for military modernization programs reflect both streams, describing the need to defend the homeland from foreign adversaries and the importance of dual-use capabilities that enable a wide-range of soft security missions. Canada has also offered similar dual messaging.⁸ Despite a continued academic fixation on Prime Minister Stephen Harper's hardline "use it or lose it" messaging that dominated the Canadian Arctic discourse from 2006-2008, Canadian defence documents over the last decade have repeatedly emphasized that there is no conventional military threat to Canada's security in the North. Instead, they identify climate change as the key driver of regional change and adopt broadened definitions of security that couple national security (defence and "hard" security) with economic, social, cultural, and environmental concerns.

Despite the increasing prominence of "soft" security discourse, Canadian and Russian strategists still believe that conventional security threats require enhanced military capabilities and an expanded presence in their respective Arctic regions. Canada ties this to its alliance obligations as a NATO member state and a country that considers the United States to be its "premier partner" in the North American Arctic¹⁰ with a longstanding appreciation of the region's importance in continental defence against a potential Russian nuclear strike (either pre-emptive or retaliatory). The binational Canada-U.S. North American Aerospace Defense Command (NORAD), which provides aerospace warning and control, as well as maritime warning, has assets in the Arctic that contribute to the strategic defence of North America as a whole. Although there are no pressing Arctic regional threats that warrant a new NORAD posture, 11 existing detection systems are ineffective against advanced cruise missiles (like the Russian KH-101) and hyperkinetic delivery systems. 12 Accordingly, commitments to renew the North Warning System (NWS) and modernize elements of NORAD flow from Canada's longstanding bilateral defence arrangements with the United States.¹³

While careful to acknowledge Russia's legitimate rights and interests as an Arctic state, Canada's 2017 defence policy emphasizes the resurgence of major power

competition globally and concomitant implications for peace and security. "NATO Allies and other like-minded states have been re-examining how to deter a wide spectrum of challenges to the international order by maintaining advanced conventional military capabilities that could be used in the event of a conflict with a 'nearpeer," notes the policy in the "state competition" section that immediately precedes the discussion about a changing Arctic. Highlighting that "NATO has also increased its attention to Russia's ability to project force from its Arctic territory into the North Atlantic, and its potential to challenge NATO's collective defence posture," the policy underlines that "Canada and its NATO Allies have been clear that the Alliance will be ready to deter and defend against any potential threats, including against sea lines of communication and maritime approaches to Allied territory in the North Atlantic."14 Despite Canada's reticence to have NATO adopt an explicit Arctic role over the past decade, the inclusion of this reference, coupled with a commitment to "support the strengthening of situational awareness and information sharing in the Arctic, including with NATO,"15 indicates a significant shift in Canada's official position. It is also clear that when Canadians speak of an enhanced NATO role in the Arctic, they are talking about the European rather than the North American Arctic, where Canada and the United States prefer bilateral or binational approaches to continental defence.

Given that five of the eight Arctic states are NATO members, Russia naturally views the region through a strategic lens as well. As has been the case for decades, it considers the Kola Peninsula and its adjacent waters to be a region of special strategic importance for national security. Russian military analysts believe that the Arkhangelsk Air Defense Sector remains essential to prevent a surprise attack over the North Pole, and direct access to the Arctic and Atlantic oceans, and close proximity to potential U.S./NATO targets. Extensive military infrastructure make this region well-suited for strategic naval operations. The Kola Peninsula hosts twothirds of Russia's sea-based nuclear forces, thus making it a key base for the naval leg of the country's nuclear triad. As the Norwegian and Barents Seas can still serve as the main launching areas for Western seaborne attack, analysts insist that the Russian Navy must ensure the readiness of its anti-submarine forces in the Arctic. 16 "There are [U.S.] submarines there and they carry missiles," President Putin told students at a 2013 meeting at Moscow State University. "It only takes 15-16 min for U.S. missiles to reach Moscow from the Barents Sea. So should we give away the Arctic? We should, on the contrary, explore it."17

Given the prospects of a seasonally ice-free Arctic Ocean in the foreseeable future, Russian military analysts have accepted the possibility that the United States could permanently deploy a nuclear submarine fleet and sea-based ballistic missile defence (BMD) systems in the Arctic Ocean.¹⁸ In this case, the United States could create capabilities for intercepting Russian intercontinental ballistic missile (ICBM) launches at the initial (boost) phase and make a preventive/"disarming" strike by ICBMs, submarine-launched ballistic missiles (SLBMs), and cruise missiles,

regardless of whether they are nuclear-tipped or not. This kind of American strategic thinking can provoke Russia's continuing efforts to regularly modernize its strategic nuclear forces, with the aim of having sufficient potential to overcome the U.S. missile defence system.

Through a Russian strategic lens, the Arctic, North Atlantic, and North Pacific constitute a single operational zone in which to confront U.S. strategic forces. For Russia's conventional forces, the Arctic is an area where they primarily protect the country's economic interests and its land, maritime, and air borders. From an operative-tactical perspective, the Arctic is divided into several sectors that represent various zones of responsibility. In the western sector, the Russian land and air forces confront NATO (particularly Norwegian) troops, while the conventional component of the Northern Fleet mainly protects Russia's economic interests in the Barents Sea and offers support/auxiliary services to nuclear forces. The Northern Fleet and the Murmansk Command of the Border Guards are responsible for the protection of the Northern Sea Route (NSR) and the Arctic Ocean coastline, while the Pacific Fleet and the Petropavlovsk-Kamchatsky Command of the Border Guards control the Bering Sea, Bering Strait, and access to the Chukchi Sea.¹⁹

Recent international crises, particularly in Ukraine and Syria, have soured the relationship between Russia and NATO member states. From the perspective of many Western analysts, adopting a "business as usual" approach to the Arctic would indicate acceptance of Russian aggression elsewhere and acquiescence to a new status quo. Consequently, Western sanctions and NATO deterrence missions (such as Canadian participation in Operation Reassurance in Latvia) do not imply that conflict over Arctic territory or resources is more likely. Instead, they show a reticence by countries like Canada to allow their desire to enhance Arctic cooperation to dilute a principled stance on what they believe to be Russia's transgressions of international law in Ukraine and elsewhere. The Russian media, in turn, has tended to adopt harder "conflict" frames since 2014, while also suggesting Russia's desire for "Arctic exceptionalism" and maintaining the region as a "zone of peace."²⁰ Several cooperative projects have been suspended, including military-to-military contacts and efforts at confidence- and security-building measures. Furthermore, an increasing U.S. military presence in the Barents Sea, exemplified by the operations of three U.S. 6th Fleet warships and a UK Royal Naval frigate near Russia in May 2020 to "conduct maritime security operations" for the first time since the mid-1980s,²¹ sends strong strategic messages to the Kremlin. Overall, however, overt strategic tension at the global level has not undermined institutions such as the Arctic Council or regional stability more generally.²²

In concert with the other Arctic states, Canada and Russia have largely succeeded in isolating Arctic cooperation through the Arctic Council, International Maritime Organization, Arctic Coast Guard Forum, and other multilateral mechanisms from current global strategic tensions. This helps to keep broader circumpolar relations on a generally cooperative track, despite the persistence of sanctions and deterioration of trust between NATO and Russia more generally. For example, Canada's Arctic and Northern Policy Framework committed to "restart a regular bilateral dialogue on Arctic issues with Russia in key areas related to Indigenous issues, scientific cooperation, environmental protection, shipping and search and rescue" that could facilitate the sharing of best practices, ensure that Arctic coastal state sovereignty and sovereign rights are respected internationally, and build trust outside of the military sphere.²³ "We are open to cooperation with Canada on the basis of mutual respect and consideration of each other's interests," Putin stated on 5 February 2020. "Our countries are neighbors in the Arctic and share a common responsibility for the sustainable development of this vast region, for the preservation of the traditional way of life of indigenous peoples and the respect for its fragile ecosystem."²⁴ Contrary to pessimistic expectations, both Ottawa and Moscow still believe that cooperation should prevail and the region should retain its status as a "zone of peace and security." 25 Thus, while rhetorical sabre-rattling between Russia and the West continues, geographical distance and the absence of daily bilateral interactions allow the two countries to shelter most multilateral Arctic relations from these fractious dynamics.

3 Changing Roles of Military Power in the High North

Alongside traditional hard security functions (such as defending territory from potential aggressors, power projection, deterrence, and containment), Canada and Russia have assigned their armed forces with the opaque mission of "defending," "asserting," or "demonstrating" sovereignty on land, internal waters, and in their territorial seas - and, in some statements, over their exclusive economic zones (EEZs) and continental shelves in the Arctic Ocean. From a legal perspective, the latter missions are peculiar, given that coastal states only exercise sovereign rights and jurisdiction in the EEZ and continental shelves under the United Nations Convention on the Law of the Sea (UNCLOS). Thus, while the lines between international legal definitions of sovereignty and more general concepts of security are often blurred,26 both countries connect military activities and their rights as coastal states as signatories to UNCLOS. In Russia, the military has played a direct role in sovereignty-related Arctic research, with the navy collecting scientific data to support the preparation of Moscow's revised submission to the UN Commission on the Limits of the Continental Shelf in 2015. In Canada's case, the civilian coast guard conducts this kind of research, and the country's deliberate focus on "soft security" issues reinforces a desire to avoid unduly "militarizing" regional dynamics.

Canada adopted strong military-oriented message in the early years of Conservative Prime Minister Stephen Harper's years in office (2006–2008). Harper declared that the first rule of Arctic sovereignty is "use it or lose it" and that Canada "intends to use it" with new military tools to assert control over its part of the Arctic.²⁷ For example, Canada's Northern Strategy (2009) proclaimed: "The Government of

Canada is firmly asserting its presence in the North, ensuring we have the capability and capacity to protect and patrol the land, sea and sky in our sovereign Arctic territory. We are putting more boots on the Arctic tundra, more ships in the icy water and a better eye-in-the-sky."²⁸ Operation Nanook exercises, held each summer in Canada's northern territories, were often framed in government statements and the news media as assertions of sovereignty.²⁹ The Kremlin's Arctic doctrine echoed that of Harper's early years, aiming "to ensure the sovereign rights of Russia's Arctic and features the smooth implementation of all of its activities, including the exclusive economic zone and the continental shelf of the Russian Federation in the Arctic."³⁰ A military presence had no role in creating or expanding sovereign rights to EEZ or continental shelf resources, but it could play a role in enforcing those rights if they were encroached upon by a foreign entity.

While Russian leaders continue to articulate this line of thinking, the official Arctic security discourse in Canada moved away from a hard-line "defence of sovereignty" logic by 2008 towards "exercising sovereignty" with a "soft security" emphasis. "Canada remains committed to exercising the full extent of its sovereignty in Canada's North, and will continue to carefully monitor military activities in the region and conduct defence operations and exercises as required," Canada's 2017 defence policy affirms. Concurrently, "Canada's renewed focus on the surveillance and control of the Canadian Arctic will be complemented by close collaboration with select Arctic partners, including the United States, Norway and Denmark, to increase surveillance and monitoring of the broader Arctic region." Rather than watering down Harper's promised investments in enhanced Arctic defence capabilities, Justin Trudeau's Liberal Government has extended them.³²

The language of sovereignty protection is no longer offered as the primary justification for an expanded Canadian military presence in its Arctic. Instead, Canada's defence policy places an explicit emphasis on a "whole of government" approach to achieve its national security and public safety objectives. "While operating in Canada's North, we often work in close partnership with other federal, territorial, and local partners," the statement observes. "As such, we will leverage our new capabilities to help build the capacity of whole-of-government partners to help them deliver their mandates in Canada's North, and support broader Government of Canada priorities in the Arctic region." This echoes the messaging from previous Canadian Arctic strategic and operational documents over the last decade, which plan and prepare to support activities such as search and rescue, major transportation disasters, environmental disasters, pandemics, loss of essential services (i.e., potable water, power, fuel supplies), organized crime, foreign state or non-state actor intelligence gathering activities, attacks on critical infrastructure, food security and disruptions to local hunting, and transportation practices caused by shipping or resource development. "

For its part, Russia emphasizes a "new" armed forces mission predicated on protecting the Arctic countries' economic interests in the High North. The melting of the northern polar ice has dramatically altered this once-static geographic and oceanic

region and is responsible for the newfound profitability and geostrategic/geoeconomic relevance of the region. Access to oil, gas, minerals, fish, and transportation routes, formerly locked in by thick ice, are for the first time becoming accessible and viable sources of profit. These resources include an estimated 13% of the world's undiscovered oil, 30% of its undiscovered gas, and around a trillion dollars' worth of minerals, including gold, zinc, palladium, nickel, platinum, lead, rare-earth minerals, and gem-quality diamonds. The Arctic also contains abundant bio-resources. More than 150 fish species are found in Arctic waters, including important commercial varieties such as herring, cod, butterfish, haddock, and flatfish. The AZRF produces 15% of Russia's seafood. Iconic species, such as the polar bear, narwhal, walrus, and white (beluga) whale, inhabit the region. Most of these resources fall firmly within the sovereign territory or EEZs of the Arctic states.

Greater accessibility to the Arctic region and its abundant resources affords new opportunities for multilateral cooperation—as well as potential competition over jurisdiction and maritime resources. In this light, Russia has elevated its armed forces' mission to protect the country's economic interests in the High North to the level of national doctrine. The country's Arctic strategies of 2008 and 2013 set a goal to make the AZRF a strategic resource basis protected from foreign powers' encroachments.³⁷ In 2008, Russian Security Council Secretary Nikolay Patrushev explained the perceived need to tighten control over the AZRF and its external borders by pointing to other polar players' increased activities in the region.³⁸ The volume of illegal, unreported, and unregulated (IUU) fishing has reached a significant scale; amounting to approximately 1.3 million tons a year in the Bering Sea enclave.³⁹ It is estimated that the fish caught in Russian waters exceeds the official quota by at least 150%.⁴⁰

Overfishing creates numerous ecological problems in the region. According to some accounts, intensive trawling has led to species such as crab and perch being in serious decline in the entire Bering Sea, while the stocks of pollock fluctuate in an unpredictable manner from year to year. The once plentiful pollock have declined dramatically on the western (Russian) side of the Bering Sea because of illegal fishing. In the eastern (U.S.) Bering Sea, harvests of snow crab have declined by 85% since 1999⁴¹ owing to rampant poaching and the heavy involvement of Russian organized crime in the fish trade. The Russian "fish, crab, and caviar mafias" not only aim to expand their commercial activities and sideline their foreign rivals, but also to establish control over the regional governments and federal agencies in the Russian Far North and East.

Until a decade ago, illegal fishing in the Barents Sea constituted a significant threat to fish stocks, although the scale of IUU fishing there was lower than that in the Bering Sea.⁴² Although Norway does not oppose Russian fisheries in the area per se, and all fishing in the Barents Sea is regulated bilaterally through co-management of the fish stocks, Oslo reacts when Russian vessels violate technical requirements that Norway

has imposed unilaterally. Russia does not accept these unilateral requirements and enforcement measures, and insists on the need to apply bilateral or international arrangements applicable to fishing in the region. Since Norway established a Fishery Protection Zone to prevent potential protests from other states-parties to the 1920 Treaty, that has regarded such fishing as poaching. Forcible arrests of Russian trawlers by the Norwegian Coast Guard have become more frequent. As Russia does not recognize the aforementioned decision by Norway and considers this area open to international economic activity, Russia's Northern Fleet started regular patrols of the waters around Svalbard in 2004. Although Norway did not "object" to Russian patrols in the FPZ, which it sees as coming under regular flag state control, this does not mean that the potential for conflict is not present, and wariness remains about whether such activities are signs of Russian imperial ambitions and of Moscow's unwillingness to cooperate with Oslo to manage maritime and economic disputes.

Some commentators worry that protracted disagreements between Arctic littoral states could stimulate increasingly assertive resource and territorial claims, generating further militarization of the region. The United States, which asserts legal positions that directly challenge those of Canada and Russia with respect to the Northwest Passage (NWP) and the NSR, is generally depicted as the key protagonist in Russian and Canadian media. Statements by American officials declaring their perceived right to undertake freedom of navigation operations through the NSR and NWP serve to preserve the longstanding U.S. legal position, but an actual decision to mount one would certainly provoke a dangerous military response in Russia and a political one in Canada. Growing international interest in Arctic waters also raises the possibility of non-Arctic states and other actors challenging well-established Russian and Canadian legal positions on the status of these waters. These Arctic coastal states will consider such actions as violations of their sovereignty and will respond accordingly.

Fortunately, these sovereignty "threats" remain more theoretical than real. On a more practical level, with Arctic waters ice-free for longer periods of the year, Canada and Russia are concerned about the growth of smuggling and other illicit activities along their coastline. For example, in 2012 Canadian and U.S. law enforcement agencies disclosed a narwhal tusk smuggling ring⁴⁸ that violated various national and international treaties, including the Convention in International Trade in Endangered Species of Wild Fauna and Flora, which bans their hunting in Canada and Greenland by anyone other than Inuit. Investments in more robust border guards and coast guard capabilities are intended to address this risk at the national level. On a regional level, the Arctic states established an Arctic Coast Guard Forum in 2015 that facilitates cooperation to prevent or reduce poaching, overfishing, and smuggling. This operationally-focused, consensus-based organization is designed to leverage collective resources to foster safe, secure, and environmentally-responsible Arctic maritime activity.⁴⁹

Similar cooperation has yielded agreements to proactively address concerns about Arctic fisheries beyond national jurisdiction. In July 2015, the "Arctic five" coastal states signed a "declaration concerning the prevention of unregulated high seas fishing in the Central Arctic Ocean" in Oslo. Three years later, China, Japan, South Korea, the European Union, and Iceland joined them after "Arctic 5+5" negotiations yielded a broader, precautionary agreement (given that there is currently no commercial fishing in these waters). Arctic nations' coast guards are tasked with enforcing this fishing ban regime in the Central Arctic Ocean. ⁵⁰ If the Central Arctic Ocean is ice-free during the summer by mid-century, access to fish stocks may change the equation and push the Arctic powers to revise or even abolish the existing fishery regime.

Illegal migration poses another Arctic security challenge. In one example, a Romanian citizen travelled by motorboat from Greenland to Canada's Ellesmere Island before trying to fly to Toronto. In another case, several Turkish sailors illegally disembarked from their ship in the Canadian port of Churchill and attempted to travel by train to Winnipeg.⁵¹ In the European High North, Nordic states conceptualized the migration of Arab refugees to their countries via polar routes as a particularly serious threat in 2015. Although the so-called "Arctic Route" went through Russian land territory,⁵² the possibility of asylum seekers or illegal migrants using Russian Arctic waters as a pathway to Europe exists. If so, this could strain international relations between Russia and its neighbours.

International terrorism and criminal activities also arouse concern. Increased commercial and tourist traffic in Canadian and Russian Arctic waters may increase the illicit transportation of drugs and terrorists, requiring robust patrolling, monitoring, and emergency response capabilities. In Canada's case, various parliamentary and academic reports highlight the limitations of existing surveillance systems to identify some "dark targets" which rogue elements could use to infiltrate Arctic waters and communities. New icebreakers, maritime patrol aircraft, all-domain sensors, unmanned aerial vehicles, satellites, and Coast Guard Auxiliary units, as well as improved information sharing between and within the various levels of government, are intended to mitigate this risk. Russia shares similar security concerns—and perceives them as even more acute. The head of the Federal Security Service (FSB) Border Service has identified the unauthorized presence of foreign ships and research vessels in Russian Arctic waters, illegal migration, drug smuggling, and poaching as the main challenges facing his service.53 Furthermore, terrorist attacks against oil platforms represent a serious threat to critical infrastructure and environmental and economic security more generally.⁵⁴ Nuclear power plants (including the new floating "Academician Lomonosov") and nuclear waste storage facilities⁵⁵ also represent potential targets for terrorists.

Based on these perceived risks, Russia has strengthened its Border Service in the Arctic over the last fifteen years. Its first Arctic border guard unit, established in 1994

to monitor shipping and poaching at sea, was reorganized in 2004–2005. In 2009, Moscow announced new Arctic units in border guard stations in Arkhangelsk and Murmansk, as well as two new border guard commands: one in Murmansk for the western AZRF regions, and one in Petropavlovsk-Kamchatsky for the eastern Arctic regions. These guards deal with soft security issues such as managing special visa regulations in certain regions and technological controls over fluvial zones and sites along the NSR. The ongoing reorganization of the Russian Coast Guard (which is part of the Border Service) also reflects a broadening Arctic focus. In addition to traditional roles protecting biological resources in the Arctic Ocean, its new priorities include protecting oil and gas installations and shipping along the NSR. There are plans to equip the Coast Guard in the AZRF with the new ice-class vessels of Project 22100, with the ocean-class patrol ship *Polyarnaya Zvezda (Polar Star)* currently undergoing sea trials in the Baltic Sea. Vessels of this class can break up to 31.4-inch-thick ice, have an endurance of 60 days, and a range of 12,000 nautical miles at 20 knots. They are equipped with a Ka-27 helicopter and can be supplied with Gorizont UAVs.

Canada has also taken steps to modernize its maritime surveillance and response capabilities, with an expressed focus on environmental protection and response, community safety, and search and rescue capabilities. "Dual-use" capabilities are framed within a whole-of-government approach to safety, security, and defence. In addition to military investments discussed below, the Canadian Coast Guard (CCG, a civilian agency) is constructing a new icebreaker, John G. Diefenbaker, to replace the aging Louis St. Laurent, as well as building two Harry DeWolf-class Arctic and Offshore Patrol Ships (AOPS) for its fleet.⁵⁷ The Ocean Protection Plan, unveiled in November 2016, emphasizes building stronger partnerships with Indigenous peoples and with coastal communities.⁵⁸ The CCG is expanding the number of its Auxiliary units in Arctic communities, thus "bolstering capacity to respond to emergencies and pollution incidents," as well as setting up a seasonal inshore rescue boat station to enhance SAR capacity. Furthermore, CCG icebreakers will extend their operating season. "Doing so will improve local marine pollution reporting, search and rescue capacity and satellite monitoring of vessels offshore, which also supports Canadian sovereignty," the Plan noted. It also emphasized the importance of better coordinating federal emergency responses to marine emergencies and pollution incidents on all three coasts, in close cooperation with Indigenous and local communities.⁵⁹

Moscow also highlights how modernized Arctic military infrastructure, including Soviet-era air and naval bases reopened over the last decade, serves both military and civilian purposes. "Dual-use" benefits of a military presence include enhancing SAR operations, monitoring air and maritime spaces, improving navigation safety, and mitigating or responding to natural and human-made catastrophes (such as oil spills). By building NSR infrastructure such as SAR centres, Russia seeks to make the route more attractive for Russian business and foreign shipping companies. These investments also support the regional maritime and aeronautical SAR

treaty, which assigns each country responsibility for its own sector of the Arctic.⁶⁰ Joint exercises, sharing of best practices, and regular communications between coast guards ensure that national agencies are prepared to deal with emergency situations efficiently and effectively. Given the dual-use assets associated with SAR, it also represents a convenient way out of an Arctic "security dilemma."⁶¹

The Canadian government's rationale for an expanded military presence in the Arctic suggests why pundits who misconstrue these efforts as aggressive "militarization" or indicators of an "Arctic arms race" are distorting the true picture. In the context of being "strong at home," Canada's 2017 defence policy explains that the Canadian Armed Forces will "maintain a robust capacity to respond to a range of domestic emergencies, including by providing military support to civilian organizations on national security and law enforcement matters when called upon, engaging in rapid disaster response, and contributing to effective search and rescue operations." Once implemented, Canada's military will have improved mobility and reach in Canada's Arctic. The emphasis on a more robust military "presence" is neither symbolic nor designed to intimidate would-be adversaries. Instead, the policy statement asserts that "Canadians can be confident that the Canadian Armed Forces will remain ready to act in the service of Canadians - from coast to coast to coast - and sustain a continuous watch over Canada's land mass and air and sea approaches, an area of more than 10 million square kilometres, ensuring timely and effective response to crises."62

The projection of military power also continues to carry important *symbolic* weight for Arctic states. For Russia, deploying large numbers of forces and developing military infrastructure in the High North demonstrates its great power status and its world-class military capabilities. Furthermore, nationalistic commentators continue to claim that the North is not only a strategic resource base, but also a territory that embodies the Russian spirit of heroism and perseverance. In this light, the Arctic is presented as Russia's "last chance" and a possible way to take "revenge on history"—compensation for the hegemony that was lost when the Soviet Union dissolved. In Canada's case, the Arctic is recognized as an Indigenous homeland and the perpetual "land of tomorrow" that is suddenly attracting global attention. "The North is an essential part of our future and a place of extraordinary potential," one parliamentarian proclaimed on the 20th anniversary of the Arctic Council. The sustainable development of natural resources promises to benefit Northerners and Canadians as a whole, but only if those resources in the Canadian Arctic are respected as Canadian and exploited responsibly.

4 Military Modernization Programs

The significant degeneration of the Soviet-era military machine in the Arctic in the 1990s and early 2000s left the Russian nuclear and conventional forces badly in need of modernization. The main idea behind the modernization plans is to make

the Russian armed forces in the Arctic more compact, better equipped, and better trained to meet new challenges and threats. These modernization efforts began before the outbreak of the Ukrainian and Syrian crises, namely with the launch of the third State Rearmament Program (2007–2015) which covered both nuclear and conventional components.

Nuclear deterrence and "mutually assured destruction" doctrines remain key elements of the Russian military strategies, as well as symbols and guarantees of great power status.⁶⁵ Therefore, maintaining strategic nuclear capabilities and modernizing strategic nuclear forces are the highest priorities of Moscow's military policies, both in the High North and globally. In terms of the Russian fleet of ballistic nuclear-powered submarines, only Delta IV-class submarines are being modernized with a new sonar system and Sineva (Skiff SSN-23) SLBMs (third-generation liquid-propelled missiles with a range up to 8300 km that can carry up to ten nuclear warheads). Russia plans to equip its Delta IV-class submarines (which will remain on alert status until 2030) with at least 100 Sineva missiles that can be launched from under the sea ice and thus evade radar detection until launch. 66 Russia's huge Typhoon-class submarines will be reequipped with long-range cruise missiles. Of them, only the *Dmitri Donskoy* has been modernized and deployed to the Northern Fleet to date, where it has test fired the Bulava system, a new-generation solid-fuel SLBM that is designed to avoid possible future U.S. BMD weapons and has a range of over 9000 km.

In the future, the new Borey-class fourth-generation nuclear-powered strategic submarines will replace the Typhoons. The Northern Fleet has operated the first Borey-class submarine, the Yuri Dolgoruky, the first strategic submarine to be built in Russia after the collapse of the Soviet Union, since January 2013. Two other Borey-class submarines (the *Prince Vladimir* and the *Prince Pozharsky*) are designated for the Northern Fleet and should be operational after 2020. The Prince Vladimir successfully completed sea trials and joined the Northern Fleet in June 2020. The Prince Pozharsky is still under construction in Severodvinsk and is planned to be operational in 2024.⁶⁷ Similar to the Yuri Dolgoruky, these new submarines will be based at the Gadzhievo Naval Base (approximately 100 km from the Norwegian border), where new infrastructure is being built to host them. This new generation of strategic submarines carries Bulava and/or several types of cruise missiles and torpedoes, and can conduct multipurpose missions, including attacks on aircraft carriers and potential missile strikes on coastal targets. According to the Defense Ministry's plans, the building of eight Borey-class submarines (three for the Northern Fleet and five for the Pacific Fleet) are scheduled to be completed by 2024, although this seems quite ambitious and unlikely in the context of budget constraints caused by the ongoing economic crisis. There are also plans to build two more Borey-class submarines for the Northern Fleet by 2027.68

Given that the Soviet-era military machine degenerated significantly in the 1990s and early 2000s, Russian conventional forces required modernization in order to

effectively meet new challenges and threats. To achieve greater efficiencies, the Russian land forces in the western part of the AZRF planned to transform the motorized infantry and marine brigades located near Pechenga (Murmansk region) to the Arctic special force unit, with special training and personal equipment for military operations in the Arctic. The Ukrainian crisis forced adjustments, however, that left the two Pechenga-based brigades in place and the establishment of an Arctic brigade (ahead of schedule in January 2015) deployed in Alakurtti near the Finnish-Russian border. Given an "increased NATO military threat," President Putin decided to accelerate the creation of a new strategic command, "North," in December 2014 (three years ahead of schedule). It was also announced that a second Arctic brigade would be formed in 2016 that would be stationed in the Yamal-Nenets autonomous district (east of the Ural Mountains in the Arctic Circle), but these plans were cancelled owing to funding constraints.

Russian Defense Minister Sergei Shoigu also announced the establishment of two new Arctic coast defence divisions as part of an effort to strengthen security along the NSR. The plan would have stationed one division on the Kola Peninsula (alongside existing military units) and the other on the Chukotka Peninsula in the eastern Arctic. The new forces would work closely with law enforcement authorities in the Ministry of Interior, the National Guard, and the Border Guard Service on anti-assault, anti-sabotage, and anti-aircraft defence duties along the NSR. ⁶⁹ These new coastal defence divisions have yet to be established, however. Instead, the three existing brigades (Arctic, motorized infantry, and marine) and some other military units on the Kola Peninsula have been merged into the 14th Army Corps under the Northern Fleet's command, which is charged with coastal defence functions. No specific plans on establishing new military units on Chukotka have been announced.

The growing tension with NATO has forced Russia to pay more attention to its air-defence force units, which are stationed in the AZRF—on the Kola Peninsula, near Severodvinsk (Arkhangelsk region), Chukotka, and on Novaya Zemlya, Franz Josef Land, the New Siberian Islands, and Wrangel Island. Some of these units have re-established old Soviet airfields and military bases in the region and are equipped with RS-26 Rubezh coastal missile systems, S-300 air-defence missiles, and the Pantsyr-S1 anti-aircraft artillery weapon system. These units merged into a joint task force in October 2014. Further measures to increase Moscow's military potential in the region include the creation of a new air-force and air-defence army, including regiments armed with MiG-31 interceptor aircraft, S-400 air-defence missile systems (to replace the S-300 systems), and radar units. One core goal is to restore continuous radar coverage along Russia's entire northern coast, which was lost in the 1990s. To that end, Moscow has committed to establish thirteen airfields, an air force test range, and ten radar sites and direction centres in the Arctic in the near future.

By any metric, Canada's investments in Arctic defence are modest compared to those of the Russian Federation. Canada does not have nuclear weapons, and its

contributions to strategic deterrence and global balance of power must be understood within an alliance context. Accordingly, any suggestion that Canada is building an arsenal of Arctic military capability designed to conquer or intimidate a neighbouring state is preposterous. Instead, its signature military investments in or for the Arctic over the past fifteen years were clearly designed for domestic defence and "soft security" functions. 22 Expanding the Canadian Rangers, a community-based Reserve force in isolated areas with an explicitly non-combat role, 73 and establishing a small Primary Reserve unit in Yellowknife, did not introduce new kinetic capabilities for the Arctic. The Canadian Armed Forces Arctic Training Centre that opened in Resolute Bay (which is used to train soldiers basic survival techniques and to serve as a hub for High Arctic exercises) and the deep-water Arctic docking and refuelling facility in Nanisivik have no year-round military personnel. The longstanding Canadian Forces Station at Alert, on the northern tip of Ellesmere Island, and the NWS radar stations along the Arctic Ocean and Labrador Sea coasts are passive rather than active defence systems—and, in the case of the latter, cannot detect advanced cruise missiles or hypersonic glide vehicles.74

Canada's military investments in the Arctic focus particularly on improved domain awareness. The 2017 defence policy specified ongoing or new investments in Arctic capabilities across the armed services that will be integrated "into a 'system-of-systems' approach to Arctic surveillance, comprising air, land, sea, and space assets connected through modern technology."75 Identifying the Royal Canadian Navy's principal domestic challenge as "the need to operate in the Arctic, alongside the Canadian Coast Guard, and alongside allied partners," the government has commissioned AOPS to "provide armed, sea-borne surveillance of Canadian waters, including in the Arctic. They will enforce sovereignty, cooperating with partners, at home and abroad, and will provide the Government of Canada with awareness of activities in Canada's waters." The Radarsat Constellation Mission of three Earth observation satellites gathers radar-imaging data to identify shipping activities, monitor climate change, and help with disaster relief efforts. 77 To meet joint intelligence, surveillance, and reconnaissance requirements, the Royal Canadian Air Force will implement "sensor and communication solutions that are specifically tailored to the Arctic environment," as well as a new Canadian multi-mission aircraft to replace the CP-140 Aurora Long-Range Maritime Patrol Aircraft and new space-based communications and surveillance systems. ⁷⁸ Building on previous investments to bolster Arctic capabilities, these capabilities are intended to deliver positive effects across a broad spectrum of defence, security, and safety missions.

While defence documents over the last decade have reiterated that there is no conventional military threat to Canada's Arctic, there are indications that this messaging may be changing in terms of threats through the North American Arctic. In April 2019, NORAD commander General Terrence O'Shaughnessy proclaimed that the North American "homeland is not a sanctuary." This is consistent with Canadian statements that trends in the global threat environment are "undermin[ing] the

traditional security once provided by Canada's geography," requiring that Canada and the United States "modernize NORAD to meet existing challenges and evolving threats to North America, taking into account the full range of threats." Although Russia has announced no plans to deploy hypersonic strategic weapon systems in the Arctic region, it has recently sent Tupolev Tu-160 "Blackjack" bombers capable of carrying cruise missiles into the Canadian Air Defence Identification Zone. While such flights do not penetrate sovereign airspace or violate international law, NORAD's public identification of them as an existential threat to North America represents a form of strategic messaging intended to justify funding to modernize continental defences in the Arctic and elsewhere. What NORAD modernization will look like, and how Canada will pay for it, remains to be determined. Also unclear are Canada's plans to replace its 80 CF-18 fighter aircraft, which are often linked to defending against Russian long-range bombers operating in the Arctic.

While asymmetries in the size of their respective militaries and perceived status in the global order make Russian and Canadian military modernization programs distinct, they both combine an element of strategic deterrence (global scale) and security capabilities designed to protect Arctic resources, disrupt illegal activity, and respond to humanitarian and natural emergencies (regional scale). On one level, maintaining and modernizing strategic nuclear and conventional capabilities (both offensive and defensive) that are based in or on potential travel through the High North remain important priorities to maintain global strategic stability and deterrence. For Russia this is a direct great power role, while for Canada it is a supporting role within the contexts of its alliances with the United States and NATO more generally. On another level, investments in defence of the Arctic are less about power projection than about domain awareness and dual-use capabilities that can be used to patrol and protect recognized national territories that are becoming more accessible. According to Canadian and Russian strategists, Arctic defence modernization programs are designed to update their armed forces and better equip them to cope with new challenges in the High North, rather than assigning them with offensive capabilities that can be used to coerce or conquer their Arctic neighbours.

5 Conclusion

Although Canada and Russia share many interests in the Arctic region, geopolitics and the global security environment dictate that they are likely to remain "frenemies" in the region for the foreseeable future. As Elana Wilson Rowe observes, "intensive transnational cooperation and manifestations of the NATO-Russia security rivalry have endured for over 30 years in the post-Cold War Arctic," and there is no strong indication that this will change. Strategic messaging from both countries combines elements of strategic deterrence and constructive dialogue. On the one hand, strategic military modernization programs are tied to NATO-Russia competition and are linked to the Arctic because of the locations of bases (particularly on the Kola

Peninsula) and the potential polar routes that strategic delivery systems would take from the United States to Russia or vice versa. On the other hand, both Russia and Canada desire a stable, peaceful region where respect for sovereignty and sovereign rights is an essential precondition to sustainable development and stability. They have incentives to avoid conflict flowing from their respective national interests as the largest Arctic states, not because "Arctic exceptionalism" makes regional conflict impossible.

Competition and disagreements between Arctic states are likely to continue. This is "normal" within the international system. Although overly optimistic rhetoric related to "Arctic exceptionalism" may have set up false expectations that the post-Cold War Circumpolar North would be entirely cooperative, this is unrealistic. Seeing every point of friction as a portend that the Arctic regime is unravelling, or misreading every investment in defence and security as an indicator of revisionist designs for the region, tends to perpetuate a bifurcated debate between so-called "realists" and "liberal internationalists" predicated on empirically skewed foundations. Strategic rivalry between Russia and the West (including Canada) may have "spill over" effects on circumpolar security, but we maintain that there is little likelihood of conflict between Arctic states generated by Arctic resources, boundary disputes, or governance issues.⁸⁴ Similarly, Russian and Canadian investments in defence and security capabilities in the Arctic, when appropriately contextualized, do not fit the criteria for an *Arctic* "arms race."

Canada's June 2017 defence policy, "Strong, Secure, Engaged," reiterates longstanding images of the Arctic as a region undergoing massive change. "The Arctic region represents an important international crossroads where issues of climate change, international trade, and global security meet," the policy describes. Rather than promoting a narrative of inherent competition or impending conflict, however, the narrative points out that "Arctic states have long cooperated on economic, environmental, and safety issues, particularly through the Arctic Council, the premier body for cooperation in the region. All Arctic states have an enduring interest in continuing this productive collaboration."85 This last sentence suggests that Russia (described elsewhere in the policy document as a state "willing to test the international security environment" that had reintroduced "a degree of major power competition") does not inherently threaten Arctic stability given its vested interests in the region. Accordingly, the drivers of Arctic change cited in Canada's policy emphasize the rise of security and safety challenges rather than conventional defence threats, thus confirming the line of reasoning that has become well entrenched in Canadian defence planning over the last decade.86

This logic also mirrors some main tenets of Russian security and defence strategy, particularly on the salience of investments in dual-use capabilities that can address national defence and "soft security" objectives. These new roles do not preclude military power from fulfilling its traditional functions, such as protection of national territory, power projection, deterrence, and containment. In Russia's case, military

power is an expression of great power status. Geography and geopolitics make the Arctic essential to strategic deterrence. The Kremlin also asserts military power as a means to ascertain and assert sovereignty over its EEZ and continental shelf. Although the probability of an armed conflict over Arctic maritime disputes remains low, Russian strategists view military power as a tool to prevent such disputes from escalating to a dangerous phase. Furthermore, defence and security forces (including border and coast guards) are intended to protect Moscow's economic interests in the North, fight smuggling and poaching, and prevent illegal migration. They are also deployed to prevent potential terrorist attacks against critical infrastructure, including oil and gas platforms, nuclear plants, and nuclear waste storage facilities.

Arctic policy statements in both Russia and Canada reflect both hard and soft considerations, with the latter featuring most prominently in external-facing messaging. For example, while Russia's October 2020 Arctic development strategy includes provisions to boost regional military capabilities "in accordance with current and forecasted military threats," the document does not put excessive emphasis on military-related issues. Instead, it commits to implement "multi-vector foreign policy activities aimed at preserving the Arctic as a territory of peace, stability, and mutually beneficial cooperation" through bilateral and multilateral cooperation. This includes enhancing Arctic states' efforts to create a unified regional search and rescue system, prevent and respond to humanitarian and environmental emergencies, coordinate the activities of rescue forces, and ensure interaction of the Arctic states within the framework of the Arctic Coast Guard Forum.⁸⁷ Overall, Russia's strategy emphasizes that local socio-economic conditions must improve dramatically to allow Russia to effectively exploit its natural resources and bolster human security. Thus, while Russia has invested heavily in building up its military and "dual use" infrastructure in its Arctic Zone, it concurrently demonstrates a greater attentiveness to threats and challenges that emanate from the non-military sphere. This latter set of challenges provides the foundation for its Arctic Council chairmanship priorities for 2021-2023, focused on economic, social and environmentally sustainable development in the Arctic region. 88 It is telling that Canada articulated a similar emphasis during its last chairmanship of the Arctic Council from 2013-2015—and despite international stresses over the Ukraine crisis managed to shelter the forum politically so that it could continue its important work on human and environmental security.89

Rather than applying reductionist (and often outdated) definitions of militarization that simply equate a larger military presence to the probability of inter-state conflict, we encourage more deliberate parsing of defence and security doctrines to identify those that do not undermine regional stability or are conducive to regional cooperation. While strategic competition has heightened tensions between Russia and Canada in the global sphere, both maintain a strong commitment to work with their circumpolar neighbours to ensure that the Arctic remains a zone of peace and stability. Strategic deterrence does not violate this logic. Furthermore,

increasing traffic and foreign presence in the Arctic heightens regional safety and security concerns, blurring the lines between defence and security, trade, investment, development, economic, and foreign policy. Investments in Arctic defence and security that are designed to protect sovereign jurisdiction, improve domain awareness, better respond to search and rescue and emergencies, and enhance safe maritime navigation do not represent an Arctic "arms race" or threaten the regional order. ⁹⁰ Although resurgent strategic competition leaves the global geopolitical climate uncertain, there remains little likelihood of conflict generated by resource or boundary disputes, or governance issues in the Arctic. In that region, observations or drivers associated with geostrategic competition at the *international* systemic level should not be misapplied to objective and subjective geographical assessments of the *regional* Arctic security environment. ⁹¹ Instead, regional governance remains sophisticated and resilient, rooted in international law and the acknowledged sovereignty and sovereign rights of Arctic coastal states.

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