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## A Comparative Analysis of Threats Through, To, and In the North American Arctic: Canada and the United States

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Recent strategic threat assessments reinforce that defending the North American homeland is a Canadian and American priority (VanHerck, 2022). *Canada's Arctic Foreign Policy* (GoC, 2024b), released in December 2024, complements the defense policy update *Our North: Strong and Free* (DND, 2024) published the previous April. These follow the Biden government's July 2024 release of the *US Arctic Strategy* (DoD, 2024), which completed a series of US strategic documents laid out in 2022 (Dean & Lackenbauer, 2024a). In both countries, the prioritization of defense strikes a different tone from the aspirations of the March 2016 Obama-Trudeau "U.S.-Canada Joint Statement on Climate, Energy, and Arctic Leadership," which focused on conservation, science-based decision-making, and incorporating traditional knowledge into this process to support strong Arctic communities built around sustainable economies (Prime Minister of Canada, 2016). Since that time, climate change, new and disruptive technologies, and "major geopolitical changes" driven by Russia's renewed invasion of Ukraine and growing Sino-Russian ties in the Arctic (DoD, 2024) have "rapidly redefining conflict and what it takes to be safe and secure" (DND, 2024), spurring renewed defense thinking in North America towards the Arctic.

This study provides comparative analysis of current Canadian and US Arctic threat assessments in selected strategic documents to interrogate defense thinking in a North American context. It applies the IN, TO, and THROUGH methodology (Lackenbauer 2021a) to *Our North Strong and Free* (ONSF) and *Canada's Arctic Foreign Policy* (CAFP) and then compares them to the DoD's *Arctic Strategy*. Analyzing these documents provides insight into the two countries' perceptions of Arctic security, illuminating synergies for possible cooperation and areas of possible divergence or disagreement. We also lay down a strategic policy baseline for the future, given the change of governments in both Washington and Ottawa since January 2025.

Both Canada and the US articulate common end states for the Arctic rooted in preserving regional stability in the face of growing strategic competition, advanced adversarial delivery systems, and a changing climate (GoC, 2024a, p. 5 and DoD, 2024, p. 1). The countries also share general similarities in where and how they will defend the Arctic. For example, their respective strategies call for cooperation with one another to secure the North American Arctic, primarily together through the binational North American Aerospace Defense Command (NORAD). Similarly, they both highlight working with other allies, primarily through the North Atlantic Treaty Organization (NATO), which reinforces Canada's pivot away from an earlier wariness to have the alliance adopt

an explicit regional strategy. In both the North American and European subregions, Canada and the US position Russia as the principle geopolitical threat.

Despite these similarities, the Canadian and US Arctic security strategies are oriented differently. The US strategy is relentlessly international in its overall level of analysis, looking at how geopolitical forces outside the Arctic affect it and how the region can respond (see Dean and Lackenbauer, 2024a). In comparison, Canada's level of analysis is more domestic in orientation – an “inside out” approach that anticipates how proactive actions in the Arctic can calm the international system. Furthermore, while the US strategy parses the Circumpolar North into the distinct subregions of the European and North American Arctics, the Canadian strategy further breaks down the North American Arctic into its various avenues of approach, leading to a further delineation of threat and clarity of response. Ironically, while Canada explicitly references the categorization of IN, TO, and THROUGH threats in its policies, it does not apply the methodology with the same rigour as the US strategy (albeit implicitly).

Synthesizing American and Canadian threat perceptions of the Arctic yields a more comprehensive awareness of the region through a North American lens, clarifying where, how, and when threats will develop. This helps to focus local mitigation efforts on climate-induced threats IN the Arctic towards infrastructure and communities, better distinguish between the different threats TO the Alaskan and Canadian Arctic, and orient common responses to the shared aerospace threat THROUGH the region. This is reflected in American participation in the ICE Pact to produce ice-capable vessels for the United States Navy and Coast Guard (HS, 2024) as well as proposed Canadian participation in the Golden Dome to generate an all-domain defeat capability (Clark, 2025).

## Threats IN the North American Arctic

ONSF, CADP, and the DoD *Arctic Strategy* all position climate change as the primary threat IN the Arctic, particularly the North American Arctic (Government of Canada, 2024a, p. 13 and DoD, 2024, p. 5-6). CAFPA states that “climate change is both the most pressing and the most proximate threat to Canada's security in the Arctic and the people who live there,” (Government of Canada, 2024a, p. 13) further noting that “the Arctic [is] warming 4 times faster than the global average, causing significant impacts on natural and human environments” (Government of Canada, 2024a, p. 5). While acknowledging that the effects of climate change are wide-ranging and negatively impacting way of life in Arctic communities, the DoD *Arctic Strategy* remains focused on how climate change affects DoD's operating environment (DoD, 2024, p. 5). This maintains a clarity of purpose and focus that prevents the strategy from slipping into a tautology where climate change is a threat to everything, diluting policy responses to this threat IN the shared North American Arctic.

The DoD *Arctic Strategy* notes that much of the defense infrastructure in the North American Arctic was built during the Cold War. Subsequently, climate change has begun causing “permafrost thaw and faster-than-anticipated rates of coastal erosion” (DoD, 2024, p. 5), threatening legacy infrastructure and placing additional demands on building and future-proofing new builds. Other effects include more forest fires in Alaska, which means fewer training days and greater response requirements on forces, thus affecting overall military readiness levels (DoD, 2024, p. 5-6). Increased uncertainty due to climate change in the North American Arctic puts greater demands on the Joint Force to operate in and from there, given that the region is “far dryer, colder, and sparsely populated with minimal infrastructure” than the European Arctic (DoD, 2024, p. 6). These factors

compound to make sustaining forces across the North American Arctic in remote operating locations “even more challenging” than elsewhere (DoD, 2024, p. 6).

ONSF elaborates on these challenges, positioning climate change as a primary driver of future requirements for the Canadian Armed Forces (CAF). The policy update notes that “extreme weather events” due to climate change “are causing provinces and territories to call on our military much more often” (DND, 2024, p. v). Like the US Joint Force, the CAF already undertakes a wide range of missions, such as “conducting search and rescue, and assisting civil authorities when required,” but climate change is causing increased calls for the military “to assist Canadians facing wildfires, floods, or other climate related disasters” (DND, 2024, p. 24). The CAF thus needs “a more modern, mobile and effective tactical helicopter capability” to meet the demands for growing airlift capacity, along with “a mix of crewed and uncrewed aircraft” (DND, 2024, p. 25). ONSF promises that these new assets will “enhance our ability to respond to emergencies and disasters” (DND, 2024, p. xi). What the Canadian documents fail to note is how significant new platforms like the *Harry DeWolf*-class Arctic and Offshore Patrol Vessels (AOPV) already help address threats posed by climate change IN the North American Arctic, and how they can be used in future climate-related crisis.

Both US and Canadian documents attach timelines to climate change. The DoD notes that the “Arctic *may* experience its first practically ice-free summer by 2030” (DoD, 2024, p. 2). In comparison, CAFP and ONSF posit that “by 2050, the Arctic Ocean *will* become an increasingly viable shipping route between Europe and Asia during the summer” (Government of Canada, 2024a, p. 5). This twenty-year window of climate change is important for planning future forces. The DoD *Arctic Strategy* emphasizes that “strategic significant maritime chokepoints such as the Bering Strait between Alaska and Russia” are becoming “more economically and militarily significant,” with more access producing an “elevated risk of accidents” and “environmental degradation” that heighten operational pressures on US forces in the North American Arctic. Greater contact with adversarial powers, particularly China and Russia, also raises the risk of “miscalculation” in the region (DoD, 2024, p. 2). The CAFP offers similar reasoning, elaborating that “with retreating sea ice and new technologies improving navigation and accessibility, foreign activity in the Arctic will continue to increase, bringing with it related safety, security and environmental challenges” (Government of Canada, 2024a, p. 13). CAFP concludes that climate change impacts on natural and human environments “serve as threat multipliers because changing environmental conditions create additional opportunities for foreign adversaries and competitors to covertly or overtly operate in the Canadian Arctic” (Government of Canada, 2024a, p. 13).

Lackenbauer (2024) argues that it is important for analysts to consider specific domains (air, cyber, land, sea, and space), sectors of security (military, political, economic, environmental, and societal), time horizons, and other variables rather than assuming that a reduction in overall ice cover means greater accessibility writ large. Climate change is not uniform across the Arctic and can produce unexpected effects on its different sub-regions. Both Canada and the US focus on shipping and the adverse effects that vessels bring with them – a topic often mischaracterized or blown out of reasonable proportion in the popular media. For example, the notion that “wildcat” miners will setup on Prince Patrick Island or plant an oil rig off the North Slope of Alaska without any kind of state approval is preposterous, as is the threat of some sort of full-spectrum military invasion of the North American Arctic. More helpfully, both countries delineate *where* this shipping threat could materialize in the Arctic. The DOD *Arctic Strategy* points out strategic chokepoints like the Bering Strait (DOD, 2024, p. 23), while CAFP observes that Russia “is looking to profit from climate change in the region and will continue promoting the development of the Northern Sea Route” (NSR), which runs along the northern coast of that

country, “as a major international shipping route. Given the strategic importance Russia places on its Arctic region, Canada expects these activities will continue” (Government of Canada, 2024a, p. 7). This distinguishes the NSR from the Northwest Passage, which Canadian officials forecast will not see comparable shipping levels in the 2030-50 timeline (Government of Canada, 2024a, p. 5, 13).

While both countries’ strategies equate increased access with increased military threat, there are significant differences in anticipating *when* this could happen. For example, ONSF argues that “by 2050, the Arctic Ocean *could* become the most efficient shipping route between Europe and East Asia” (DND, 2024, p. v). A policy document such as this provides no references to source material, thus leaving it unclear whether this reference is to the transpolar route through the Central Arctic Ocean or the NSR. This speculative statement also downplays tremendous uncertainty in forecasting possible futures emanating from different climate models as well as assumptions about the economics and politics around these routes, should they become viable. Future threat assessments should incorporate more nuanced appraisals of the drivers of increased regional accessibility by domain and how these heighten the threat environment, as the US Army (2021) and Royal Canadian Navy (2023) strategies have done.

## Threats TO the North American Arctic

Canadian and US Arctic strategies breakdown threats TO the North American Arctic into two general categories. This first is that Russia is an acute threat to the subregion, presenting a growing range of threats from below threshold cyber-attacks up to and including nuclear strikes. The second is that the PRC – as an outside actor to the region – is challenging the regional governance of the Arctic which could have negative implications TO the residents of the North American Arctic and beyond. However, both the Russian and PRC threats TO the North American Arctic are increasingly tied to thwarting the mobilization and deployment of the US Joint Force to overseas theatres.

*Why* both countries pose a threat TO the North American Arctic is that they are authoritarian regimes motivated – at a minimum – to undermine democratic norms and institutions in the region and as part of a larger global effort to their benefit (DoD, 2024, p. iii, 3-5). Completing the thesis that greater access means greater threat, CAFP emphasizes that “our adversaries aspire to a greater role in the region’s affairs. The physical threat of climate change is compounded by challenges from authoritarian states to the rules-based international order that Canada and its allies strive to uphold” (Government of Canada, 2024a, p. 4). Russia is a major actor in the Arctic, prioritizing the region second only to its “near abroad” (DoD, 2024, p. 4). While China is not a peer competitor in the Arctic and commentators often overstate its actual footprint in the region (Lackenbauer, Lajeunesse, and Dean, 2022; Edstrøm et al, 2025; Hulme, 2025), Beijing does have designs to “play a larger role in its regional governance” (DoD, 2024, p.3; also Kauppila and Kopra, 2025). Unlike Russia (which is repeatedly termed a threat), both Canada and the US deem China to be a geostrategic challenge but strongly imply that it could quickly become a threat to sovereignty and to the regional order (Dean and Lackenbauer, 2024b; DND, 2024, p. 8; and Government of Canada, 2024a, p. 7).

CAFP lays out how different parts of the Arctic face different threats. “The Arctic is a strategically important region for the defence of North America and the North Atlantic Treaty Organization’s (NATO’s) northern and western flanks,” the policy statement explains. “However, the defence architecture and threat picture differ across the circumpolar north” (Government of Canada, 2024a, p. 8). The division and assessment of the

European and North American Arctics in the DoD *Arctic Strategy* paints a similar picture, confirming a consensus in both countries that Russia poses threats TO the European North across the security spectrum (Government of Canada, 2024a, p. 7 and DoD, 2024, p. 2, 4). The conventional military threat that Russia poses TO the North American Arctic is more limited in specific domains, given geographical distances, the absence of a land border, and the comparative risks of any attack on North America.

The DoD's *Arctic Strategy* notes that the North American Arctic is home to "significant U.S. defense infrastructure" that is "vital to homeland defense" (DoD, 2024, p. 2). This infrastructure centers on two elements: 1) providing aerospace warning, aerospace control, and maritime warning capabilities to NORAD, and 2) supporting the air defense and expeditionary forces based in Alaska (DoD, 2024, p. 2). Russia poses threats TO the North American Arctic in both respects, with US Alaskan-based air defense and expeditionary forces oriented primarily to the Indo-Pacific and the pacing threat posed by China, and NORAD detection and communications infrastructure extending across the Canadian Arctic as well. Russia could seek to destroy or disrupt this critical infrastructure in the case of an armed conflict, meaning that both Canada and the US must deter and be prepared to defend against these kinetic threats TO the North American Arctic, so that Russian long-range fires cannot pass THROUGH it. While much of the strategies in this respect are oriented around the threat posed by Russia, the same logic holds for the PRC (see VanHerck, 2022; Dean and Lackenbauer, 2024b).

American strategy positions Russian forces as a threat TO critical military infrastructure, as that country "has a clear avenue of approach to the U.S. homeland through the Arctic" (DoD, 2024, p. 4), with Canadian strategic documents sharing this view (Government of Canada, 2024a, p. 7). Damaging North American aerospace and maritime domain awareness infrastructure "would hamper the U.S. military's ability to operate in the region" (DoD, 2024, p. 17) and undermine NORAD's ability to detect, deter, and defend threats to both homelands (DoD, 2024, p. 8). From an international level of analysis, the loss of this infrastructure means the Arctic could become "a strategic blind spot" (DoD, 2024, p. 17) for the US in its overall global awareness and integrated deterrence of threats passing THROUGH the Arctic (DoD, 2024, p. 9).

Supplementing these kinetic threats are more subversive "hybrid" or "gray zone" ones designed to undermine the resilience of communities across the North American Arctic (e.g. Kertysova and Gricius, 2023; Piché, 2024). *CAFP* explains that "disinformation and influence campaigns," seek to "exploit vulnerabilities" across Northern communities. This includes "malicious cyber operations" along with "espionage and foreign interference activities" to affect those across the sub-region and the governments, institutions and infrastructure that supports them (Government of Canada, 2024a, p. 8). These threats extend beyond the CAF's mandate and require not just a Whole-of-Government response by the federal and territorial governments but a Whole-of-Society effort that brings in the private sector, non-governmental organizations (NGOs), and other actors to generate awareness of and resilience to these threats.

While the PRC is not currently an Arctic power (Lackenbauer, Lajeunesse, and Dean, 2022), the strategies highlight that Beijing has announced its ambitions to become a "polar great power" by 2030 (Government of Canada, 2024a, p. 14 and DND, 2024, p. 4). Part of this aspiration involves building a "Polar Silk Road" as a spur of its global Belt and Road infrastructure program, which involves developing shipping lanes and exploiting natural resources such as oil and gas, critical minerals, and fish (Government of Canada, 2024a, p. 14 and DoD, 2024, p.3). Beijing is supplementing these economic aspirations with expanded military power projection capabilities that could be deployed to the Arctic. The US observes that People Liberation Army Navy (PLAN) and Air Force (PLAAF) assets demonstrate "the capability and intent to operate in and around the Arctic region

through exercises alongside the Russian Navy” (DoD, 2024, p. 3). With marine scientific research and involvement in regional governance, the PRC showcases these capabilities and activities to normalize its presence in the region (DoD, 2024, p. 3; also, Millard and Lackenbauer, 2021; Eiterjord, 2024; Kossa, 2024).

The closest Canadian or US strategies come to presenting an explicit PRC threat TO the North American Arctic relates to governance (White House, 2022a, p. 45 and Government of Canada, 2024a, p. 2, 14). By undermining agreed to rules and norms amongst the Arctic states, the PRC could set the conditions to pose *future* economic, environmental, and societal threats TO the Arctic. For example, Chinese fishing fleets could engage in future illegal, unreported, and unregulated fishing, damaging the fragile food webs already under pressure by climate change (White House, 2022a, p. 6). Similarly, poorly regulated mining of the “Arctic’s significant deposits of in-demand minerals essential to key technology supply chains” could be a threat TO the Arctic environment. Such actions can have second order effects, posing “changes to traditional lifestyles” of various Arctic peoples (White House, 2022a, p. 6). While these scenarios remain speculative, both Canadian and US strategies posit that the PRC is undertaking dual-use scientific research across the Arctic that undermines international rather than regional law. While the PRC has the right to conduct research under the United Nations Law of the Sea Convention (UNCLOS), some of that research is clandestine in circumvention or contravention of these laws or is being collected and applied for military purposes as much as civilian ones (DND, 2024, p. 4). Given the nature of China’s regime and its activities around the world, CAFS concludes that “China can be expected to use all the tools at its disposal to advance its geopolitical interests, including in the Arctic” (Government of Canada, 2024a, p. 14).

PRC threats TO the military defense of the North American Arctic are more implicit in Canadian and US documentation. US strategies anticipate that much of the possible PRC kinetic threat will be aimed at Alaska, particularly defense infrastructure and forces that provide power projection into the Indo-Pacific region. Along the coast of Alaska lays the boundary of two of six geographic Unified Combatant Commands of the U.S. Armed Forces: US Northern Command (USNORTHCOM) and Indo-Pacific Command (USINDOPACOM). The latter has an area of responsibility encompassing about half the earth's surface, stretching from “the west coast to the western border of India, and from Antarctica to the North Pole” (USINDOPACOM, 2025). By basing significant USINDOPACOM army, air, and space force assets in Alaska because of their proximity to Pacific theatres,<sup>1</sup> the DOD *Arctic Strategy* explains that infrastructure in that state is “integral to the execution of Indo-Pacific operations as the northern flank for projecting military force from the U.S. homeland to that region” (DoD, 2024, p. 2; also Dean and Lackenbauer, 2024b). This builds on the *National Defense Strategy*, which emphasizes that the PRC “seeks to target the ability of the Joint Force to project power to defend vital US interests and aid our Allies in crisis or conflict” (DoD, 2022, p. 4) – thus making Alaskan bases a logical target, given that a Chinese move against Alaska would “exploit advantages in geography and time backed by a mix of threats to the US homeland and to our Allies and partners” (DoD, 2022, p. 5). Damaging core military infrastructure could also curtail US forces’ ability to act in the North American Arctic, such as conducting “personnel recovery/search and

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<sup>1</sup> Alaskan Indo-Pacific-focused installations include Fort Wainwright, Joint Base Elmendorf-Richardson, Eielson Air Force Base, and Clear Space Force station. These sites are used to base Army ground units (including the headquarters of the 11<sup>th</sup> Airborne Division and two of its combat brigades), Army aviation units (including two aviation battalions and Air Force aircraft (including fighter, command and control, and airlift squadrons), and to detect and intercept missile threats to the continental United States. Congressional Research Service, 2023).

rescue” (DoD, 2024, p. 10). The DoD *Arctic Strategy* implies that China could add to these kinetic threats to Alaska as it seeks to grow its presence across the circumpolar world (DoD, 2024, p. 3, 5).

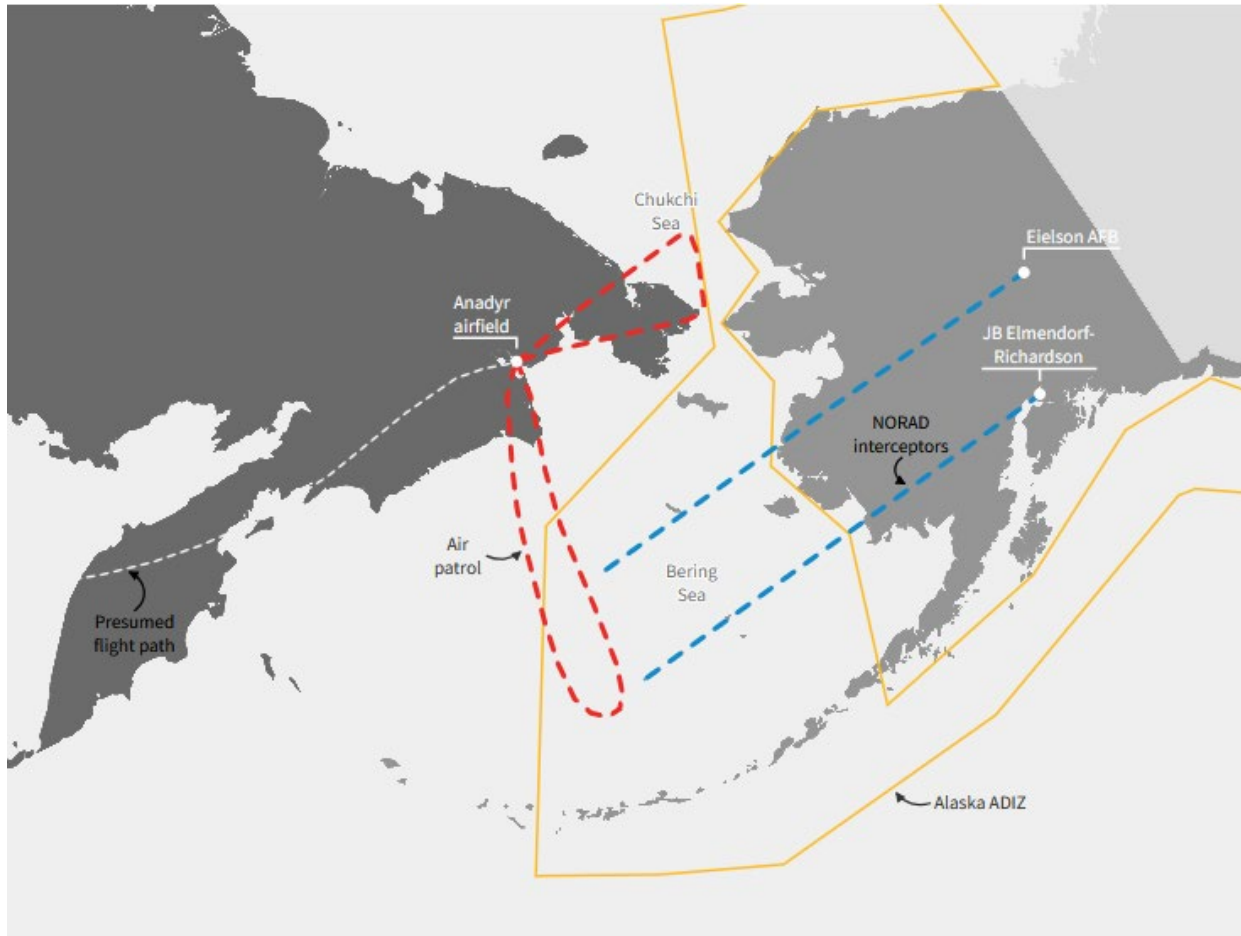
Both Canadian and US documents note that PRC military activity is concentrated around Alaska. To date, the Chinese military and coast guard has conducted military exercises in the Arctic with Russia, based on a 2022 Memorandum of Understanding (MOU) on regional cooperation between the two countries. 2022 and 2023 joint naval exercises were focused on the Bering Sea along the Aleutian Islands (see Figure 1). Joint PRC-Russia air exercises focus along Alaska’s entire western coast (see Figure 2), with PRC and Russian ships operating along the Aleutian chain in summer 2024. These actions may be intended to check US power projection from Alaska (See Figure 1) as the northern flank of INDOPACOM (the area of focus for most PRC-Russia joint exercises) rather than as a vector of attack to penetrate Northern targets deep within the US and Canada (DoD, 2024, p. 5 and Government of Canada, 2024a, p. 7).

**Figure 1: PRC-Russia Joint Military Exercises 2022-24**



Source: (2024, September 24). Japan to Alaska: What’s behind Russia-China joint military drills? *Aljazeera*. <https://www.aljazeera.com/news/2024/9/24/japan-to-alaska-whats-behind-russia-china-joint-military-drills>

**Figure 2: Approximate route of PRC-Russian bomber flight, 24 July 2024**



Source: Jon Feng. (2024, July 30). Alaska Map Shows Where Russian, Chinese Nuclear Bombers Cirled U.S. Shores. *Newsweek*. <https://www.newsweek.com/alaska-map-russia-china-nuclear-bomber-patrol-us-shores-1931944>

The US *National Defense Strategy* notes that the PRC has at its disposal “a wide array of tools in an attempt to hinder US military preparation and response in a conflict” (DoD, 2022a, p. 5) or to employ in “complex escalation dynamics” (DoD, 2022a, p. 6). These range from nuclear weapons to conventional warheads delivered by expanding delivery systems, from intercontinental ballistic missiles to hypersonic vehicles to cruise missiles. Most of these weapons would be deployed as long-range fires from outside the Arctic, as part of the PRC’s strategic posture “to project [its own] military power at greater distance” (DoD, 2022a, p. 4). PRC capabilities TO threaten the North American Arctic are not limited to the kinetic but also include cyber-attacks as well (DoD, 2022a, p. 5-6 and DoD, 2022b, p. 4).

By this logic, conventional PRC military threats TO the North American Arctic are more about preventing US power projection FROM Alaska into the Indo-Pacific than they are about territorial aggrandizement or contesting Canadian or American Arctic sovereignty, ownership of resources, and control of Arctic shipping lanes.

While US strategic documents suggest an awareness that this is the case, the Canadian strategies are opaquer on the specific physical geographies in the North American Arctic that China (in collaboration with Russia) has identified and prioritized for joint exercises. Canada does not have these power projection capabilities in its Arctic. Alaska, as a nexus between the Arctic and the Indo-Pacific theatres with a strategically significant expeditionary military presence, represents a saliently different target for the PRC than the Canadian Arctic.

## Threats THROUGH the North American Arctic

Canadian and US strategies position the North American Arctic as an approach THROUGH which air and aerospace long-range fires (and, to a lesser extent, maritime) threats are proliferating. Both countries acknowledge that “while the risk of military attack in the North American Arctic remains low” (Government of Canada, 2024a, p. 8), the “Arctic holds our northern approaches to the U.S.” and Canadian homelands (DoD, 2024a, p. 8) that would be transited by “traditional” delivery systems such as bombers, ballistic, and cruise-missiles, as well as “emerging weapons systems that threaten broader North American” targets (Government of Canada, 2024a, p. 8). Each country’s strategies explain that being able to detect and track – as well as defeat – these threats as far away as possible from their main population and industrial bases is “critical” to the shared homeland defense of North America (DoD, 2024a, p. 8).

Canadian and US strategies concur that there are two general types of kinetic threats THROUGH the North American Arctic. The first is the traditional threat of nuclear annihilation that has existed since the early Cold War (DND, 2024, p. 7-8 and DoD, 2022b, p. 4). The second are below-the-nuclear-threshold attacks at the hearts of both Canada and the US that would seek to disrupt and delay mobilization in the event of war elsewhere in the world, buying time for an aggressor to achieve their military goals (DoD, 2024, pp. 4, 17, and DND, 2024, p. 34; also O’Shaughnessy and Fesler, 2020). These two threats setup a deterrence dynamic that moves away from mutually assured destruction (MAD) towards increasingly flexible responses. While many strategists argue that this flexibility bolsters the credibility of deterrence, others argue this credibility comes at the expense of increasing the risk of great power war and strategic escalation (Kaplan, 1991, Kahn and Jones, 1960, and Brodie, 1959).

Canadian and US strategies frame Russia as the primary kinetic threat THROUGH the Arctic. ONSF observes that “despite battlefield losses in Ukraine, Russia remains highly capable of projecting air, naval and missile forces... through the Arctic to threaten North America” (DND, 2024, p. 7). The document elaborates that “Russia continues to modernize and build up its military presence in their Arctic... It is highly capable of projecting air, naval and missile forces both in and through the broader Arctic” (DND, 2024, p. 4). Similarly, the US *National Security Strategy* observes that the PRC “is accelerating the modernization and expansion of its nuclear capabilities.” This includes establishing “a nascent nuclear triad” enabling “a high degree of survivability, reliability, and effectiveness” that “could provide the PRC with new options before and during a crisis or conflict” (DoD, 2022b, p. 4). Given the ballistic paths for some of these delivery systems, threats THROUGH the North American Arctic are growing in scope, providing more flexible options to the PRC in the event of conflict in the Indo-Pacific or to Russia if conflict erupts in Europe.

By modernizing their strategic delivery systems that could be used to launch limited attacks, the PRC and Russia pose a heightened threat THROUGH the North American Arctic. Canadian and US documentation presents Russia as the primary source of these threats, with the DoD *Arctic Strategy* arguing that Russia “could use its Arctic-based capabilities” to project THROUGH the North American Arctic onto a wide-range of targets

in the lower 48 states as part of an attempt “to hold the U.S. homeland” at risk and/or threaten American ability to project power elsewhere (DoD, 2024, p. 4). This same logic holds for the PRC, with its growing nuclear forces being supplemented “with a broader set of kinetic and non-kinetic capabilities, including cyber, space, information, and advanced conventional strike” (DoD, 2022b, p. 4 and DND, 2024, p. 8). Subsequently, the DoD frames these threats THROUGH North American approaches as threats to international rather than Arctic regional security. Canadian strategic documents do not provide a similar level of clarity.

Both Canadian and US Arctic strategies state that the countries can no longer rely on geography for protection – although we disagree, given that this has been the case since the dawn of the nuclear age. Too often, these generalizations are hyperbolic. Neither the PRC nor Russia have or will have the ability to “invade” the North American Arctic akin to Ukraine or potentially Taiwan, let alone THROUGH it. Rather, the North American Arctic is a conduit for aerospace attack – a threat that has existed for over seventy years (Eyre, 1987; Jockel, 1987, 2007). Both Canadian and US strategies agree that this aerospace threat is proliferating, involving new delivery systems that could lower the threshold for an attack using conventional warheads. Rather than continuing the Cold War logic of simply deterring general nuclear attack, successive NORAD/USNORTHCOM commanders have highlighted the threat of limited “below-the-threshold” attacks on the North American allies (Charron and Fergusson, 2022). Such attacks are more likely to occur because of conflict erupting either in the Indo-Pacific or Europe, not from a conflict originating in the Arctic or owing to regional dynamics. Nevertheless, the risk of global “spillover” places additional emphasis on building new sensors across the North American Arctic to detect, track, and weapon systems to defeat limited threats and better deter miscalculation or escalation to general nuclear war.

Canada should prioritize its contributions to detecting, deterring, and if necessary, defeating these THROUGH threats. For Canada this means proceeding with NORAD modernization plans, especially with layering awareness over the 10 to 2 o’clock arc (Charron, 2025). Awareness architecture not stationed in the Arctic like the Arctic Over-the-Horizon Radar (Government of Canada, 2025) will improve domain awareness to counter TO threats, while other projects like the Polar Over-the-Horizon Radar (Government of Canada, 2024a) will push awareness beyond the North Pole and support “information dominance” and “decision superiority” (VanHerck 2021). Canada’s acquisition of the F-35 Lightning II and contributions to integrated air and missile defense, including potential contributions to the Golden Dome initiative (Bouffard et al, 2025; Pugliese, 2025), will contribute substantively to layered sensors and control over the Arctic approaches to the shared North American homeland.

## Conclusions

Analyzing American and Canadian threat perceptions of the Arctic together facilitates a more comprehensive and nuanced awareness of the threats facing the region. IN threats are an excellent example, with documents providing locations, means, and timelines in which these threats are likely to develop. While changing environmental conditions in the Arctic have multifaceted implications for national security (e.g. Frazier, 2024; Lackenbauer and Barnes, 2025), adaptation is the only response possible to climate change IN the region given that mitigation strategies are global in scope (and thus beyond the IN, TO, and THROUGH framework). Canadian and US threat assessments indicate a 5-to-25-year period in which to adjust to climate change IN the Arctic, emphasizing the importance of community-level solutions as well as enhancing the resilience of defence infrastructure in the region.

The major difference between the allies is that Alaska faces a significant threat TO it, owing to the power projection capabilities stationed there. By contrast, Canada has chosen not to base expeditionary capabilities in its Arctic and thus does not face the same threat. Accordingly, simply transplanting the strategic threats TO the American Arctic to the Canadian Arctic distorts Canada's efforts to address the more acute kinetic threats THROUGH and IN its Arctic region. The question might shift to how Canada can help defend Alaska from threats TO it. For example, could Canada provide ice-capable ships like the AOPVs and Coast Guard icebreakers to Alaskan waters in the near-term (Chan, 2025 and Lajeunesse, 2025), while helping to kickstart American shipbuilding of ice capable vessels through the ICE Pact over the medium to long-term?

We contend that, in detecting and defending against THROUGH threats, Canada should continue to align its Arctic defence efforts with the US to confront common threats. There is a long history of binational cooperation in confronting the aerospace threat THROUGH the American and Canadian Arctics, with new nuclear and conventional long-range fires warranting NORAD modernization. Canadian and US threat assessments concur that this will require a continuous process of updating and increasing detection and tracking capabilities, and assessing layered systems for gaps and seams in coverage that could be exploited by adversaries fielding new weapons. It should be kept in mind that these THROUGH threats are not Arctic regional challenges but are international in scope. Accordingly, they are about increasing the credibility of general deterrence and thus preventing international conflict from breaking out and spilling over into North America.

Our analysis also calls into question the larger narrative embedded in both country's threat assessments suggesting that greater access to the Arctic due to climate change is driving greater threats to the region. The key challenges THROUGH and TO the Arctic, we suggest, have less to do with climate change than technological change and the spillover of conflict from strategic competition elsewhere. By more coherently categorizing threat drivers and articulating the strategic environment through Canadian and American documents, we have sought to provide a framework that identifies and defines common problems and points towards shared solutions. Converting greater geostrategic clarity into operational and tactical guidance (Bouffard and Rodman, 2021), the North American allies can work towards achieving "holistic, integrated, and interoperable defence of the continent" (Rodman, 2020) and maintaining competitive advantage at a time of heightened strategic competition and uncertainty.

## Authors' Note

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## Bibliography

Brodie, Bernard. (1959). *Strategy in the Missile Age*. Princeton: The RAND Corporation.

Bouffard, Troy, Whitney Lackenbauer, and Andrea Charron. (2025, March 27). The Golden Dome and its Implications for the North. *The Watch*. <https://thewatch-journal.com/2025/03/27/the-golden-dome-and-implications-for-the-north/>.

- Bouffard, Troy, and Lindsay Rodman. (2021). U.S. Arctic Security Strategies: Balancing Strategic and Operational Dimensions. *The Polar Journal* 11, no. 1: 160-187.  
<https://www.tandfonline.com/doi/abs/10.1080/2154896X.2021.1911045>.
- Chan, Ryan. (2025, July 23). NATO Ally Shadows China Icebreaker. *Newsweek*.  
<https://www.newsweek.com/canada-shadows-china-icebreaker-arctic-2102866>.
- Charron, Andrea. (2025, Feb 13). Defense of the Arctic: 10 to 2 O’Clock. *Wilson Center Canada Institute*.  
<https://www.wilsoncenter.org/article/defense-arctic-10-2-oclock>.
- Charron, Andrea, and James Fergusson. (2022). *NORAD: In Perpetuity and Beyond*. Montreal and Kingston: McGill-Queen’s University Press.
- Clark, Campbell. (2025, May 23). The golden maybe for Golden Dome. *The Globe and Mail*.  
<https://www.theglobeandmail.com/politics/opinion/article-the-golden-maybe-for-golden-dome/>.
- Congressional Research Service. 2023. *U.S. Defense Infrastructure in the Indo-Pacific: Background and Issues for Congress*. <https://www.congress.gov/crs-product/R47589>
- Dale, Daniel. (2025, Jan 13). Fact check: Debunking Trump’s false claims about Canada. *CNN*.  
<https://edition.cnn.com/2025/01/13/politics/fact-check-trumps-false-claims-canada>.
- Dean, Ryan and P. Whitney Lackenbauer (2024a). Doing it Right: An IN, TO, THOUGH Analysis of the U.S. 2024 Department of Defense Arctic Strategy. *Strategic Perspective*. <https://www.naadsn.ca/wp-content/uploads/2025/01/Strategic-Perspectives-DoDStrat2024INTOTHROUGH.pdf>.
- Dean, Ryan and P. Whitney Lackenbauer (2024b). Monitor-and-Respond: An IN, TO, and THROUGH Analysis of U.S. National Security Documents regarding China and the Arctic. *Policy Primer*.  
<https://www.naadsn.ca/wp-content/uploads/2025/03/24dec-US-PRC-Arctic-Dean-Lackenbauer-NAADSN-Policy-Primer.pdf>
- Department of National Defence (DND) (2024, May 3). *Our North, Strong and Free: A Renewed Vision for Canada’s Defence*. <https://www.canada.ca/content/dam/dnd-mdn/documents/corporate/reports-publications/2024/north-strong-free-2024-v2.pdf>
- Edstrøm, Anders, Guðbjörg Ríkey Th. Hauksdóttir and P. Whitney Lackenbauer. (2025, June 23). Cutting Through Narratives on Chinese Arctic Investments. *Harvard University Belfer Center for Science and International Affairs*.
- Eiterjord, Trym. (2023). Securitize the Volume: Epistemic Territorialisation and the Geopolitics of China’s Arctic Research. *Territory, Politics, Governance*, 12(1): 93–111.  
<https://doi.org/10.1080/21622671.2023.2179535>
- Eyre, Kenneth C. (1987). Forty Years of Military Activity in the Canadian North, 1947-87. *Arctic*, 40, 292-299.
- Fergusson, James G. (2011). *Canada and Ballistic Missile Defence, 1954-2009: Déjà Vu All Over Again*. Vancouver: UBC Press.
- Frazier, Kelsey. (2024). Arctic Insecurity: The Implications of Climate Change for US National Security. *Journal of Indo-Pacific Affairs* 7: ##.

- Government of Canada. (2024a). Polar Over the Horizon Radar. <https://apps.forces.gc.ca/en/defence-capabilities-blueprint/project-details.asp?id=2307>
- Government of Canada. (2024b). *Canada's Arctic Foreign Policy*. <https://www.international.gc.ca/gac-amc/assets/pdfs/publications/arctic-arctique/arctic-policy-politique-en.pdf>
- Government of Canada. (2025, July 17). National Defence announces progress on the Arctic Over-the-Horizon Radar project. <https://www.canada.ca/en/department-national-defence/news/2025/07/national-defence-announces-progress-on-the-arctic-over-the-horizon-radar-project.html>
- Griffiths, Franklyn. (2003). The shipping news: Canada's Arctic sovereignty not on thinning ice. *International Journal* 58, 257-282.
- Hulme, Charlotte. (2025). The Arctic as a Periphery in U.S.-China Competition. *Journal of Advanced Military Studies* 16: 46-67.
- Jockel, Joseph. (1987). *No Boundaries Upstairs: Canada, the United States and the Origins of North American Air Defence, 1945-1958*. Vancouver: University of British Columbia Press.
- Jockel, Joseph. (2007). *Canada in NORAD*. Montreal and Kingston: McGill-Queen's University Press.
- Kahn, Herman and Evan Jones. (1960). *On Thermonuclear War*. Princeton: Princeton University Press.
- Kaplan, Fred. (1991). *The Wizards of Armageddon*. Stanford, CA: Stanford University Press.
- Kauppila, Liisa, and Sanna Kopra. (2025). China in the Arctic Governance System in the New Cold War Era. *GlobalArctic: The New Dynamics of Arctic Governance*, eds. Gunnar Rekvig and Matthias Finger, 323-344. Singapore: Springer Nature Singapore.
- Kertysova, Katarina, and Gabriella Gricius. (2023). Countering Russia's Hybrid Threats in the Arctic. *European Leadership Network*. [https://europeanleadershipnetwork.org/wp-content/uploads/2023/12/23\\_11\\_22\\_Countering-Russias-Hybrid-Threats-in-the-Arctic15\\_ES\\_EK40.pdf](https://europeanleadershipnetwork.org/wp-content/uploads/2023/12/23_11_22_Countering-Russias-Hybrid-Threats-in-the-Arctic15_ES_EK40.pdf)
- Kossa, Martin. (2024). *The Arctic in China's National Strategy: Science, Security, and Governance*. New York: Routledge.
- Lackenbauer, P. Whitney. (2021a). Threats through, to, and in the Arctic: A Canadian Perspective. In Duncan Depledge and P. Whitney Lackenbauer (Eds.), *On Thin Ice? Perspectives on Arctic Security* (pp. 26-38). North American and Arctic Defence and Security Network. <https://www.naadsn.ca/wp-content/uploads/2021/04/Depledge-Lackenbauer-On-Thin-Ice-final-upload.pdf>
- Lackenbauer, P. Whitney. (2024). Arctic Pan-Domain Effects Workshop (APDEW24) Concepts and Context. NAADSN Activity Report. <https://www.naadsn.ca/wp-content/uploads/2024/10/24jun-APDEW-PWL-summary.pdf>
- Lackenbauer, P. Whitney, and Justin Barnes. (2025). *NAADSN Canadian Arctic Climate Change and Security Impact Assessment*. Peterborough: North American and Arctic Defence and Security Network. <https://www.naadsn.ca/wp-content/uploads/2024/11/2024-Canadian-Arctic-Climate-Change-and-Security-Impact-Assessment.pdf>

# STRATEGIC PERSPECTIVES



- Lackenbauer, P. Whitney, Adam Lajeunesse, and Ryan Dean. (2022). Why China is Not a Peer Competitor in the Arctic. *Journal of Indo-Pacific Affairs* 5, 80-97.  
[https://media.defense.gov/2022/Sep/28/2003087089/-1/-1/1/07%20LACKENBAUER\\_FEATURE.PDF](https://media.defense.gov/2022/Sep/28/2003087089/-1/-1/1/07%20LACKENBAUER_FEATURE.PDF)
- Lajeunesse, Adam. (2025). Countering CCP Presence: Leveraging Canada's new Arctic maritime capabilities. *The Watch* 6, 26-9.
- Millard, Bryan J.R. and P. Whitney Lackenbauer. (2021). Trojan Dragons? Normalizing China's Presence in the Arctic. *CGAI Policy Perspective*.  
[https://www.cgai.ca/trojan\\_dragons\\_normalizing\\_chinas\\_presence\\_in\\_the\\_arctic](https://www.cgai.ca/trojan_dragons_normalizing_chinas_presence_in_the_arctic)
- Murphy, Jessica. (Jan 23). US doesn't need Canadian energy or cars, says Trump. *BBC News*.  
<https://www.bbc.com/news/articles/c5y725r90k5o>.
- O'Shaughnessy, Terrence J. and Peter M. Fesler. (2020). *Hardening the Shield: A Credible Deterrent and Capable Defense for North America*. Washington, DC: Wilson Center.
- Palmer, Kathryn. (2025, May 28). Trump offers 'Golden Dome' protection to Canada. But there's a catch. *USA Today*. <https://www.usatoday.com/story/news/politics/2025/05/28/trump-canada-golden-dome-offer/83897073007/>.
- Piché, Gaëlle Rivard. (2024). Vulnerabilities and Hybrid Threats in the North American Arctic. *Journal of Indo-Pacific Affairs* 7, no. 4.
- Prime Minister of Canada. (2016, March 10). *U.S.-Canada Joint Statement on Climate, Energy, and Arctic Leadership*. <https://www.pm.gc.ca/en/news/statements/2016/03/10/us-canada-joint-statement-climate-energy-and-arctic-leadership>
- Proceedings of the Standing Senate Committee on National Security and Defence. (2010, June 7). *Evidence*.  
<https://sencanada.ca/en/Content/Sen/committee/403/defe/05evb-e>
- Pugliese, David. (2025, August 7). Path cleared for Canada to take part in Trump's 'Golden Dome' missile shield. *Ottawa Citizen*.
- Rodman, Lindsay. (2020). The Pentagon's Arctic Strategies Reveal the Benefit of a North American Approach. *Canadian Global Affairs Institute*.  
[https://www.cgai.ca/the\\_pentagons\\_arctic\\_strategies\\_reveal\\_the\\_benefit\\_of\\_a\\_north\\_american\\_approach](https://www.cgai.ca/the_pentagons_arctic_strategies_reveal_the_benefit_of_a_north_american_approach).
- Royal Canadian Navy. (2023). *Arctic & Northern Strategic Framework*.  
<https://www.canada.ca/content/dam/rcn-mrc/documents/vision/arctic-northern-strategic-framework-eng.pdf>
- U.S. Army. (2021). *Regaining Arctic Dominance: The U.S Army in the Arctic*.  
<https://api.army.mil/e2/c/downloads/2021/03/15/9944046e/regaining-arctic-dominance-us-army-in-the-arctic-19-january-2021-unclassified.pdf>
- U.S. Department of Defense (DoD). (2024, July 22). *2024 Arctic Strategy*.  
<https://media.defense.gov/2024/Jul/22/2003507411/-1/-1/0/DOD-ARCTIC-STRATEGY-2024.PDF>

# STRATEGIC PERSPECTIVES



- U.S. Department of Defense (DoD). (2022a, October 27). *2022 National Defense Strategy of the United States*. <https://media.defense.gov/2022/Oct/27/2003103845/-1/-1/1/2022-NATIONAL-DEFENSE-STRATEGY-NPR-MDR.pdf>
- U.S. Department of Defense (DoD). (2022b, October 27). *2022 Nuclear Posture Review*. <https://media.defense.gov/2022/Oct/27/2003103845/-1/-1/1/2022-NATIONAL-DEFENSE-STRATEGY-NPR-MDR.pdf>
- US Indo-Pacific Command (INDOPACOM). (2025). *About INDOPACOM*. <https://www.pacom.mil/About-USINDOPACOM/>
- VanHerck, Glen. (2021). Deter in competition, deescalate in crisis, and defeat in conflict. *Joint Force Quarterly*, 101, no. 2: 4-10.
- Van Herck, Glen. (2022). Campaigning at the Top of the World: Arctic Security and Homeland Defense. *Journal of Indo-Pacific Affairs* 5, no. 5: 3-4.
- The White House. (2022a, October 7). *National Strategy for the Arctic Region*. <https://bidenwhitehouse.archives.gov/wp-content/uploads/2022/10/National-Strategy-for-the-Arctic-Region.pdf>
- The White House. (2022b, October 12). *National Security Strategy*. <https://bidenwhitehouse.archives.gov/wp-content/uploads/2022/10/Biden-Harris-Administrations-National-Security-Strategy-10.2022.pdf>