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Geostrategy and Canadian Defence: From C.P. Stacey to a Twenty-First Century Arctic Threat Assessment

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"If some countries have too much history, we have too much geography."

-- Prime Minister William Lyon Mackenzie King, 1936

Geostrategy is the study of the importance of geography to strategy and military operations. Strategist Bernard Loo explains that "it is the influence of geography on tactical and operational elements of the strategic calculus that underpins, albeit subliminally, strategic calculations about the feasibility of the use of military force because the geographical conditions will influence policy-makers' and strategic

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planners' perceptions of strategic vulnerabilities or opportunities."[2] By extension, the geographical size and location of a country are key determinants in shaping the way that political decision-makers and military leaders think about strategy.[3] Operationalizing this approach, however, is more complicated than it may appear.

Strategist Colin Gray argues that geography can be seen as consisting of two parts: the 'objective' or physical geography of measurable terrain and environments and the subjective geography of the mind and "imagined spatial relationships."[4] Examples of subjective geography in the Canadian case include the ideas of an "Atlantic Triangle" between Britain, Canada, and the United States;[5] an "Anglosphere" centred on Australia, Britain, Canada, New Zealand, and the United States;[6] and a "Pacific Québec" centred on French Canada's preference for anti-imperialism and anti-militarism.[7] This subjective geography of the mind is closely associated with the concept of strategic culture, the notion that a state's interests and preferences are constituted in part by its historic behaviour and national identity.[8] The subjective

[2] Bernard Loo, "Geography and Strategic Stability," *Journal of Strategic Studies* 26, 1 (2003): pp. 156-74.
[3] See Williamson Murray, "Thoughts on War and Geography," *Journal of Strategic Studies* 22, 2-3 (1999): pp. 201-17.
[4] Colin S. Gray, "Inescapable Geography," in *Geopolitics: Geography and Strategy*, ed. Colin S. Gray and Geoffrey Sloan (London: Frank Cass Publishers, 1999), p. 163.
[5] See John Bartlet Brebner's *North Atlantic Triangle* (New Haven: Yale University Press, 1945) and David G. Haglund, *The North Atlantic Triangle revisited: Canadian Grand Strategy at Century's End* (Toronto: Irwin Publishers, 2000).
[6] See Srdjan Vucetic, *The Anglosphere* (Stanford: Stanford University Press, 2011); and David G. Haglund and Joseph T. Jockel, ed. "How relevant is the Anglosphere?" Special Issue, *International Journal* 60, 1 (2004/2005).
[7] See Stéphane Roussel and Jean-Christophe Boucher, "The Myth of the Pacific Society: Québec's Contemporary Strategic Culture," *American Review of Canadian Studies*, 38 (2008): pp. 165-87; J.L Granatstein, *Whose war is it? How Canada can survive in the post-9/11 world* (Toronto: HarperCollins, 2007); and Jean-Sébastien Rioux, *Two Solitudes: Quebecers' Attitudes regarding Canadian Security and Defence Policy* (Calgary: Canadian Defence and Foreign Affairs Institute, 2005).
[8] See David Haglund, "What Good is Strategic Culture? A Modest Defence of an Immodest Concept," *International Journal* 59, 3 (2004): pp. 479-502. Jack Snyder's *The Soviet Strategic Culture: Implications for Nuclear Options* (Santa Monica: RAND Corporation, 1977) is widely considered to be the first major work on the topic.

geography of the mind essentially sets the politically acceptable parameters of geostrategy.[9]

Geostrategy can be nebulous in meaning, leading to "concept creep" when applied by theorists. "The concept of geography is perilously all-embracing and, like other factors that purportedly explain everything, has the potential to end up explaining nothing in particular," Gray warns. "One can speak of physical geography, human geography, economic geography, political geography, cultural geography, military geography, strategic geography, and many more. Unfortunately for neatness of analysis, the geographical setting for international power must embrace all of these."[10] Canadian historian C.P. Stacey's[11] approach lends a methodological rigour to avoid conceptual overstretch, while remaining sufficiently expansive in its breadth of interpretation to consider the state actions needed to maintain a constructive world role *writ large* (clustered around issues such as strategic doctrine, global geopolitical imperatives producing the foci of regional involvement internationally, and global roles shaping how a country should yield its worldwide influence).[12]

Stacey is an original Canadian defence thinker who teaches us that geography matters in strategic analyses and offers a starting point to develop a set of measures with which to appreciate Canada's position in the international system. Accordingly, we begin this article by outlining how Stacey conceptualized geostrategy in his important, if often overlooked, *The Military Problems of Canada*.[13] Although shifting great power polarity and advances in technology such as the emergence of new and more acute asymmetric threats and new strategic domains (such as space and cyber), require

[9] Kim Richard Nossal, "Dominant Ideas," in *The Politics of Canadian Foreign Policy* 2nd Ed. (Scarborough ON, Prentice-Hall Canada Inc., 1989), pp. 133, 149.
[10] Colin Gray, "The Continued Primacy of Geography," *Orbis* (Spring 1996): p. 247.
[11] C. P. Stacey, *The Military Problems of Canada: A Survey of Defence Problems Past and Present* (Toronto: Canadian Institute for International Affairs, 1940). On Stacey, see Tim Cook, *Clio's Warriors: Canadian Historians and the Writing of the World Wars* (Vancouver: UBC Press, 2011); Roger Sarty, "The Origins of Academic Military History in Canada, 1940-1967." *Canadian Military History* 23, 2 (2014): pp. 79-118; and Sarty, "The American Origins of Academic Military History in Canada: Princeton University, the Carnegie Endowment, and C. P. Stacey's "Canada and the British Army," *Journal of Military History* 82, 2 (2018): pp. 439-60.
[12] Zbigniew Brzezinski, "America's New Geostrategy," *Foreign Affairs* (Spring 1988), https://www.foreignaffairs.com/articles/united-states/1988-03-01/americas-new-geostrategy.
[13] Stacey, *Military Problems of Canada*.

a modest revision of Stacey's core methodology of military geography, his methodical approach continues to offer relevant insights to the identification and assessment of threats to Canadian defence. Having modernized Stacey's geostrategic analytics, we then apply them to the Canadian Arctic as a case study. The region is undergoing a massive transformation, with climate change and geopolitical developments ending the region's "isolation." Nonetheless, the complex array of variables at play makes it difficult to anticipate *what* activities are going to happen – and, equally important, *where* and *when*. Our analysis suggests that Stacey's approach supports official military statements anticipating no near-term conventional military threats to Canada's Arctic by encouraging a more deliberate parsing and analysis of geographical variables often conflated or overlooked in strategic assessments.

1. C.P. Stacey, Geostrategy, and Military Geography

Stacey conducted his classic 1940 assessment of *The Military Problems of Canada* using a methodology that he termed *military geography*, which he defined as "the physical character of the country to be defended, its relation, both geographical and political, to other countries, and the extent to which nature, modified by the works of man, has made the defence easier or harder."[14] He focused on the defence of Canada (the "home game"), addressing military threats to Canada's territorial integrity—the "no-fail mission"[15] that he considered the primary priority for the Canadian Armed Forces (CAF). Addressing Canada's strategic dilemma, he suggested, is "dominated by three great topographical facts: … two oceans and a long land boundary."[16] Despite the country's large size and low population, these geophysical realities render "what might

[14] Stacey, *Military Problems of Canada,* p. 1. The subfield of military geography originated in the late 19th century and quickly grew in response to two world wars. Military geography has experienced another resurgence since the turn of the 21st century and the various military conflicts that have plagued it. See Francis Galgano and Eugene J. Palka (eds.) *Modern military geography* (London: Routledge, 2012); M. Rech,et al., "Geography, military geography, and critical military studies," *Critical Military Studies* 1:1 (2015): pp. 47-60; and J. M. Collins, *Military geography for professionals and the public* (Lincoln, NB: Potomac Books, Inc, 1998).

[15] Kathleen Harris, "Job No.1 is keeping Canadians safe at home, says Lt. Gen.," *iPolitics*, 29 November 2011, http://ipolitics.ca/2011/11/29/job-no-1-is-keeping-canadians-safe-at-home-says-lt-gen/.

[16] Stacey, *Military Problems of Canada*, p. 1.

appear to be a rather impossible business" of defending Canada into a manageable task.[17]

Stacey emphasized that the "first object of obligation and responsibility" of Canadian defence is that of protecting its territory. This task only became practical with the ending of general American enmity towards Canada following the 1895 Venezuela Crisis between the United States and Britain. Canadian policymakers no longer had to seriously contemplate defending an un-defendable land border from an exponentially more powerful neighbour. By the time that Stacey wrote in the late 1930s, bilateral tolerance had matured into a state of friendship. Assuming the continuation of this positive relationship in perpetuity, Stacey turned to analysing the vulnerability of the Atlantic and Pacific coasts, dismissing the Arctic owing (in his memorable phrase) to "those two famous servants of the Czar, Generals January and February, [who] mount guard for the Canadian people all year round."[18] Because a direct threat to Canada could only develop beyond its coasts, Stacey reasoned that Canada's military vulnerability was essentially a naval one (given the state of technology at that time).[19]

Stacey argued that Canada should cultivate general goodwill with other states and seek to develop strategic friendships to augment its own defences. Once these were established, Stacey stressed the imperative to secure lines of defence communication with these allies. For example, England's efforts to protect the young Dominion against early American hostility included supplies, personnel, and armaments. Stacey posited that strategic good will on the part of Britain was facilitated by the development of sound lines of military communications, such as the construction of the Canadian Pacific Railway, linking Canadian settlements on the Atlantic Coast with those of the Pacific.[20]

Stacey explained that the defence of Canadian territory must be based on identifying and deploying forces to exploit geographical advantages and mitigate disadvantages. His methodology reinforced that the size, shape, and physical characteristics of national territory drive how analysts and planners conceptualize

[17] Stacey, *Military Problems of Canada*, p. 5.
[18] Stacey, *Military Problems of Canada*, p. 5.
[19] Stacey, *Military Problems of Canada*, pp. 1, 7.
[20] Stacey, *Military Problems of Canada*, pp. 2-3.

military operations, including the anticipate scale and form of external military threat, and the disposition and types of defence forces needed to counter it. Stacey observed that Canada's geographic realities also offer key strategic advantages including the annual freezing of its arctic and sub-arctic regions, harsh climate, areas which are difficult to cultivate, and the relative isolation of much of the territory lying between two large oceans. These geographical advantages rendered large swaths of Canadian territory less desirable and also less amenable to invasion or raid by a foreign adversary.[21]

Were an aggressor to arrive at Canada's coasts, Stacey noted that they would find another layer of geographic and military barriers waiting for them. If any enemy established a northern beachhead, even as far south as the shores of Hudson Bay, it would be isolated and would lack any avenues of assault, through difficult terrain, against Canada's southern power centres. On the Atlantic Coast, he ruled out any invasion through Labrador owing to its remoteness, rugged topography, and hostile environment. Nova Scotia offered a more tempting target, given its good climate and infrastructure, but the topography around Halifax lent itself to defence. The St. Lawrence, a seemly attractive avenue for a naval force to strike deep into the country, would prove tantamount to "suicide" for an invader, which would be hemmed in between increasingly narrow shores and thus susceptible to counter-attack.[22]

The physical challenges that an aggressor state faced in simply reaching Canada were amplified by political relationships with states whose military strength bolstered the dominion's coastal security. Stacey emphasized that the Royal Navy (RN), the preeminent naval power of the day, stood between Canada and any European aggressor. Accordingly, an enemy would have to eliminate the British navy before it could mount any sustained attack against Canada. Similarly, the defence of Canada's Pacific Coast was bolstered by the close proximity of the United States Navy (USN), the second strongest navy in the world at that time. American guarantees to defend Canada in the case of foreign aggression meant that any threat originating from the Pacific would have to neutralize or destroy the USN before it could assault Canada's western shore. Were any foreign power to invade Canada, the United States would have to

[21] Stacey, *Military Problems of Canada*, pp. 5-6.
[22] Stacey, *Military Problems of Canada*, pp. 13-16.

come to Canada's defence to protect American national security interests. In short, the power and proximity of these two allied navies served as a deterrent to any aggressor that might contemplate an attack against Canada.[23]

Stacey emphasized proximity as a pertinent calculation to assess security threats. The success of a naval fleet, for instance, often depended on that fleet's proximity to its state of origin. Accordingly, proximity posed significant disadvantages for forces that might attempt to infiltrate Canadian borders over sea or air.[24] The farther a fleet operates from its home ports, the less effective it becomes due to the increasingly long and complex logistics needed to supply it. According to Stacey's calculations, Canada's Atlantic and Pacific coasts were either on the edge of or beyond the effective fighting range of fleets originating from both Europe and Asia. Furthermore, an actual invasion of Canada would require a feat of logistics and a sealift capability beyond the capabilities of even the first-rate naval powers of his day. By this calculus, objective geography offered its own layer of security for Canada.[25]

Technological advances, however, rendered proximity inadequate as a singular methodology to determine defence requirements.[26] For example, interwar aviation portended the need to reconceptualize how air forces could alter traditional ideas about time and space. On the one hand, this technology seemed to transcend geography by allowing states to project power by literally overflying it. On the other hand, airplanes need to take off and land from terrestrial bases.[27] Proximity also played into the development of counter-measures. In Canada's case, the development of an extended air defence network would lessen the likelihood of effective bomber or naval raids.[28]

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[23] Stacey, *Military Problems of Canada*, pp. 7-9.
[24] Conversely, this same logic revealed disadvantages to Canadian air or naval fleets undertaking missions on foreign soil.
[25] Stacey, *Military Problems of Canada*, p. 12.
[26] For more on how technological change effects thinking, see John Ruggie, "International responses to technology: Concepts and trends," *International Organization* 29, 3 (1975): pp. 557-83.
[27] See, for example, the work of airpower theorists of that time Giulio Douhet, *The Command of The Air* (Washington, D.C.: Air Force History and Museums Program, 1998) and Billy Mitchell, *Winged Defense: The Development and Possibilities of Modern Air Power--Economic and Military* (Tuscaloosa, AB: University of Alabama Press, 2009).
[28] Stacey, *Military Problems of Canada*, p. 10.

Stacey observed that distance influences the effectiveness of military power, and his geostrategic approach sought to discern points of over-extension which would undermine offensive or defensive goals. Even without the assistance of allied forces, a modest Canadian naval defence greatly magnified the geographic constraints outlined above. The presence of a small "fleet in being" would force a much larger naval force to operate cautiously to contain it, thus intensifying the factor of distance.[29] Similarly, the limitations of air power during Stacey's time favoured Canadian defence. Enemy bombers based outside of the Western Hemisphere were constrained by distance to reach Canadians targets that exceeded the range of fighter escorts. This left bombers vulnerable to active air defences. Although an air attack launched from an enemy beachhead in Canada's north could threaten the country's industrial and political heartland, logistical challenges would limit the size of the attack which could be countered by modest active air defence efforts. Similarly, carrier-based aircraft operating along the Atlantic coast would sail under the air umbrella of Canadian and American ground-based aircraft, thus placing the vessels at severe risk. Accordingly, he concluded that while cruiser raids were possible, the chance of a successful invasion of Canada via the Atlantic coast was extremely remote—particularly when topography was taken into account.[30]

Stacey suggested that the strategic advantages of Canadian topography factor heavily into any methodology designed to measure Canada's vulnerabilities and strengths and, in turn, to inform the design of appropriate military forces to secure Canada's coasts. Physical geography influences military strategy in terms of how decision-makers perceive the terrain, the ease of operations, and the force structure and supports that should be in place to maximize military advantages and minimize disadvantages. In short, terrain determines the types of military forces that can be deployed in a particular combat zone.[31] Recognizing that other variables such as the strength of defensive fortifications and the relative effectiveness of combatant forces also affected operational outcomes, Stacey summarized that Canada must be "well

[29] Stacey, *Military Problems of Canada*, p. 10.
[30] Stacey, *Military Problems of Canada*, pp. 6, 22.
[31] Loo, "Geography and Strategic Stability," p. 163.

equipped" and possess "effective forces" which can turn geographical variables such as proximity and topography into material advantages for national defence.[32]

Stacey's methodology also acknowledged that different variables (and not just topography alone) must be brought into dialogue to inform sound analysis and decisions. For example, he noted that Newfoundland's proximity to Europe and its particular topography made it more susceptible to naval or air attack than the less hospitable terrain of population centres in the Maritime provinces. Even if an enemy force made it ashore, he observed that Canada's Atlantic coastline was well suited to defence by a moderately-sized and well-equipped force, and he recommended more robust fortifications to bolster topographical advantages for defence. By contrast, he argued that "mobile forces rather than fixed establishments" were preferable along the West Coast in light of its shorter coastline, lower population, and specific topography which made it easier to defend from "actual invasion." [33] Blessed with some of the most rugged terrain in North America, British Columbia posed a major military obstacle for any would-be foreign invasion force.[34]

Canada's long land border with the United States entailed a shared burden with the Americans predicated on friendship and a commitment to uphold continental defence and security.[35] Geographic isolation, a large population, and extensive natural resources and industrial power combined to make the United States "probability the safest country in the word."[36] Accordingly, Canada's southern border did not represent a porous route for an invading power. Furthermore, even when Canada-US relations had been far less cordial, the old Monroe Doctrine (which did not formally apply to Canada) had protected the British colony from other foreign interference during the

[32] Stacey, *Military Problems of Canada*, p. 49.
[33] Stacey, *Military Problems of Canada*, pp. 14, 16-8, 22. 2-7.
[34] Objective geographical criteria left only two destinations for an enemy to attack: Prince Rupert and Vancouver. Prince Rupert offered little inherent value to an enemy and the Skeena Valley behind it represented a poor conduit for an invasion force trying to push inland. Vancouver Island, a bulwark surrounded by two straits, dominated naval approaches to Vancouver. Consequently, Stacey deduced that Vancouver Island (and specifically its southern tip) was an important strategic point that a hostile force would have to take before assaulting Vancouver itself, and the rugged topography of the island favoured defence. Stacey, *Military Problems of Canada*, pp. 23-25, 28.
[35] Stacey, *Military Problems of Canada*, pp. 28, 30-1.
[36] Stacey, *Military Problems of Canada*, p. 32.

nineteenth century. President Franklin Delano Roosevelt formally extended the mantle of direct American protection over Canada in his landmark speech on 18 August 1938 (with Stacey noting that the president had actually made similar remarks two years earlier), confirming the security interdependency between the two countries by virtue of geography.[37]

Objective geographies do not always match subjective ones, and Stacey also highlighted the central importance of evaluating American *perceptions* of their security vis-à-vis Canada. Unfortunately, Americans sometimes view Canada as a weak link in their chain of defences—a dilemma for Canada given propensities in some quarters of the US to seek control over neighbouring territory if this would enhance American security. The best way to manage perceptions, Stacey argued, is for Canada to prepare its own defences in advance and reassure its neighbour that the northern flank did not represent an open door to the US. Accordingly, Canadian defence planning was not only dedicated to meeting actual armed threats, but also to reassure the United States that Canada met American defence concerns.[38] Along these lines, Stacey reiterated Prime Minister William Lyon Mackenzie King's 1938 pledge to Roosevelt promising that "enemy forces should not be able to pursue their way, either by land, sea or air to the United States, across Canadian territory."[39] If Canada neglected its defences to the point that they were *perceived* to pose an unacceptable risk to American defence and security, this might provoke US intervention in the defence of Canada—with or without Canadian authorization. Accordingly, Stacey astutely observed that Canada's "measures of self-defence" in the late 1930s were "the price of national identity and national dignity."[40]

In short, Canada benefitted from alliances, particularly in what is now referred to as the Anglosphere or North Atlantic Triangle. While other commentators saw the institutionalization of Canada's continental defence relationship (particularly through the creation of the Permanent Joint Board on Defence in 1940) as an abrogation of

[37] Topography and distance made a direct attack against US shores preferable to a Canadian route for a potential aggression. Stacey, *Military Problems of Canada*, pp. 29, 33-4.
[38] Stacey, *Military Problems of Canada*, pp. 30-1, 34-5.
[39] Stacey, *Military Problems of Canada*, p. 35.
[40] Stacey, *Military Problems of Canada*, pp. 35-6.

Canada's British ties and an abdication of sovereignty,[41] Stacey saw it as an appropriate step to share the burden of land border security.[42] The larger challenge was balancing historical, cultural, political, and military ties to the British Commonwealth with the growing continental orientation of Canadian defence. Accordingly, Stacey welcomed what he saw as the deepening of defence ties between the United Kingdom and the United States:

> Close and friendly relations with each of two much greater powers are essential for Canada; yet in the past her interests have not always coincided completely with those of either, and even today it is fair to say that there is only one capital where those interests and Canadian feelings are fully understood, and that capital is neither London nor Washington. At this critical moment in human history, however, the state of [Canada's] relations with both Britain and the United States gives her every reason for satisfaction and thanksgiving; and each further rapprochement between the two is likely to simplify her problems.[43]

When allies share the same assumptions and threat assessments as Canada (and one another), solution sets are easier to devise and defence burdens easier to share. Whatever the case for Canada, Stacey concluded that the absence of any "direct menace to Canadian territory" means that it only need to dedicate "a limited part of her strength to maintain her home defences," thus allowing the country to deploy military and economic resources abroad.[44]

Eight decades later, Stacey's appreciation of military geography still offers methodological insights into how physical and political environments influence threat assessment and defence planning. Despite Canada's large territory and small population, he concluded that it is a relatively easy country to defend (as long as the United States remain a friendly power) because of geographic isolation from potential adversaries, readily defensible coastlines, and centres of power located inland (and thus difficult to attack). Natural defences and objective geography alone do not assure security, however, and he articulated the need for well-equipped and effective military

[41] See Donald Creighton, *The Forked Road* (Toronto: McClelland & Stewart, 1976).
[42] Stacey, *Military Problems of Canada*, p. 40.
[43] Stacey, *Military Problems of Canada*, p. 48.
[44] Stacey, *Military Problems of Canada*, p. 52.

forces to exploit geographical advantages, mitigate geographical disadvantages, and leverage the strengths of allies to mount an effective defence proportionate to threats. Rather than considering Canada as a country with "too much geography," his methodology reinforces how alliance relationships compound the benefits of Canada's geographic isolation, allowing the country to invest modest military resources in its primary responsibility (territorial defence) while concentrating the bulk of its resources on its secondary responsibility (strengthening its allies abroad through the contribution of forces overseas). By providing international security to allies situated between Canada and potential threats, he explained why this approach strengthens Canada's defence at home.[45]

2. Geostrategy: Canadian Practices, Supporting Concepts and Theories

2.1 *Canada's Geostrategic Dilemma*

Mackenzie King's famous 1936 statement that "if some countries have too much history, we have too much geography" encapsulates the conundrum facing Canadian politicians and defence planners in defending a large country with a population lacking a unifying history.[46] The difficulty of reconciling these two endogenous variables was

[45] Stacey contrasted Canada's situation with that of Australia's. With a lack of nearby allies with which to share its defence burden, Australians are forced to put significantly more resources into its defence measures. Stacey, *Military Problems of Canada*, pp. 50, 52.

[46] For more on the development of Canadian political cultures, see André Siegfried, *The Race Question in Canada* (Toronto: McClelland and Stewart, 1907); Louis Hartz, *The Founding of New Societies: Studies in the History of the United States, Latin America, South Africa, Canada, and Australia* (New York: Harcourt, Brace & World, 1964); Gad Horowitz, "Conservatism, Liberalism, and Socialism in Canada: An Interpretation," *Canadian Journal of Economics and Political Science* 31, 1 (1966): pp. 143-71; H.D. Forbes, "Hartz-Horowitz at Twenty: Nationalism, Toryism and Socialism in Canada and the United States." *Canadian Journal of Political Science* 20, 2 (1987): pp. 287-315; and Nelson Wiseman, *In Search of Canadian Political Culture* (Vancouver: UBC Press, 2007). For the development of Canadian strategic cultures, see James Eayrs, *In Defence of Canada*, I-IV (Toronto: University of Toronto Press, 1964-80); Kim Richard Nossal, "Dominant Ideas," in *The Politics of Canadian Foreign Policy* 2nd Ed. (Scarborough ON, Prentice-Hall Canada Inc., 1989), pp. 127-57; Haglund, "What Good is Strategic Culture?; Stéphane Roussel and Charles-Alexandre Théorêt,"A "distinct strategy"? The use of Canadian strategic culture by the sovereigntist movement in Quebec, 1968-96" *International* Journal 59, 3 (2004): pp. 557-77; Jean-Sébastien Rioux, *Two solitudes: Quebecers' attitudes regarding Canadian security and defence* p*olicy* (Calgary, CDFAI, 2005); Justin Massie, "Making sense of Canada's "irrational" international security policy: A tale of three strategic cultures,"

further complicated when President Roosevelt began the political process of tying Canadian territorial defence into the larger project of American continental defence that year, thus introducing an exogenous variable.[47] American perceptions of Canadian defence requirements within the context of broader continental defence have differed from internal Canadian assessments, generally demanding a higher overall defence effort than Canadians are willing to expend.[48] This exogenous variable distorts Canadian defence policy preferences, given that failing to meet the United States' defence demands could result in that country acting unilaterally to meet their perceived defence requirements for Canadian territory. This would undermine Canadian state sovereignty. Meeting allies' (particularly the Americans') defence demands, however, has the potential to destabilize Canadian unity, threatening sovereignty from within. Policymakers have historically accommodated this external pressure by pursuing a cooperative approach, making just enough defence effort to satisfy American defence concerns whilst minimizing the defence burden for Canadians. This strategy, known as "defence against help,"[49] proved generally successful during the Cold War.[50]

International Journal 64, 3 (2009): pp. 625-45; David S. McDonough, "Getting It Just Right: Strategic Culture, Cybernetics, and Canada's Goldilocks Grand Strategy," *Comparative Strategy* 32, 3 (2013): pp. 224-44; and Frédéric Mérand and Antoine Vandemoortele, "Europe's place in Canadian strategic culture (1949-2009)," *International Journal* 66, 2 (2011): pp. 419-38.

[47] Stacey, *Military Problems of Canada*, p. 29.

[48] James Eayrs, *In Defence of Canada*: *Peacemaking and Deterrence* (Toronto: University of Toronto Press, 1972); and *In Defence of Canada*: *Growing Up Allied* (Toronto: University of Toronto Press, 1980); Joseph T. Jockel, *No Boundaries Upstairs: Canada, the United States, and the origins of North American air defence 1945-1958* (Vancouver: UBC Press, 1987); Nils Ørvik, "Canadian security and 'defence against help'," *Survival: Global Politics and Strategy* 26, 1 (1984): pp. 26-31.

[49] Nils Ørvik, "Defence against help a strategy for small states?" *Survival: Global Politics and Strategy* 15, 5 (1973): pp. 228-31; P. Whitney Lackenbauer, "From 'Defence Against Help' to 'A Piece of the Action': The Canadian Sovereignty and Security Paradox Revisited," *Centre for Military and Strategic Studies Occasional Paper* 1 (May 2000): pp. 1-24; and Donald Barry and Duane Bratt, "Defence Against Help: Explaining Canada-U.S. Security Relations." *The American Review of Canadian Studies* 38, 1 (2008): pp. 63-89.

[50] For a discussion of how it has been unbalanced by several events since it was initially put into practice in the late 1930s, see Philippe Lagassé, "Nils Ørvik's "defence against help": The descriptive appeal of a prescriptive strategy," *International Journal* 65, 2 (2010): pp. 463-74. For an interesting critique of its limitations today, see Andrea Charron and James Fergusson, "Canada and Defence Against Help: The Wrong Theory for the Wrong Country at the Wrong Time," in *Canadian Defence Policy in Theory and Practice*, eds. Thomas Juneau, Philippe Lagassé, and Srdjan Vucetic (London: Palgrave Macmillan, 2019), pp. 99-115.

2.2 *Concepts and Theories*

Geostrategy is a subset of the larger study of geopolitics, which emphasises the importance of geography to international relations.[51] *Geopolitics* establishes a "grand narrative" by synthesising seemingly unrelated events and facts together. Colin Gray and Geoffrey Sloan point out that this is done by overlaying history on geography and looking for patterns that emerge from this basic methodology.[52] A geostrategic threat assessment can be developed and a "grand strategy" can be formulated to address the source or sources of threat. In so doing, a strategic analyst establishes a grand narrative.

Additional variables, beyond geography and history, facilitate robust geostrategic analysis. For example, George F. Kennan's early articulation of America's Cold War strategy of containing the Soviet Union prioritized control of industrial centres as the key variable. His grand narrative saw a world comprised of five major industrial centres: the United States, Soviet Union, Germany, Japan, and Britain. The major threat to America was Soviet control of two or more such industrial centres which would enable Soviet military capability to overcome both geographic barriers and American military power to establish global hegemony. Pursuing a strategy of containing Soviet influences would prevent their capture of German or Japanese industrial potential with which to threaten the United States.[53]

While the geography of the mind (subjective geography) can make geostrategy politically contentious,[54] it is theoretically subsidiary to objective geography (as Stacey

[51] Loo, "Geography and Strategic Stability," p. 156.

[52] Geoffrey Sloan and Colin S. Gray, "Why Geopolitics?" in *Geopolitics: Geography and Strategy*, ed. Colin S. Gray and Geoffrey Sloan (London: Frank Cass Publishers, 1999), 1-2, 7.

[53] See John Lewis Gaddis, *Strategies of Containment: A Critical Appraisal of American National Security Policy during the Cold War* (New York: Oxford University Press, 2005).

[54] The controversy stems from the intellectual foundations of the concepts laid during the late 19th and early 20th centuries by geographers such as Halford Mackinder and Friedrich Ratzel. Both men were products of their time, imbuing early geopolitics and strategy with a sense of social Darwinism and the struggle for survival. Klaus Dodds, Merje Kuus and Joanne Sharp, "Introduction: Geopolitics and its Critics," in *The Ashgate Research Companion to Critical Geopolitics*, ed. Klaus Dodds, Merje Kuss, and Joanne Sharp (Surrey: Ashgate, 2013), 2-3. Mackinder focused on the "power politics" of imperial rivalries and how empires like Britain's could best protect themselves from their competitors by projecting power into the world via a coherent grand strategy. This approach was later adopted by American strategists during the Cold War as they sought to contain the Soviet Union. See Gaddis, *Strategies of Containment.* Ratzel's interpretation of geopolitics emphasized normative elements (norms) such as racial and environmental

promoted) in any geostrategic analysis. Gray colourfully explains that "mountains are mountains and mud is mud. Thinking warm thoughts of home could not protect thinly clad German soldiers in Russia from frostbite."[55] This does not mean, however, that physical geography alone determines strategy.[56] His analysis emphasizes that Canada is not closely allied to the United States simply because they share the North American continent, but "because of political and economic judgement."[57] The inextricable linkages between the two countries' economies, a shared commitment to the protection and promotion of liberal democracy, and a deep history of partnership and friendship have produced a robust security community where the idea of using force against one another to settle bilateral disputes is unthinkable.[58]

Despite its heterogeneous background across several social science disciplines, geostrategy fits well into the various theories and approaches of international relations.[59] The *power politics* exemplified in the geopolitical ideas of Halford Mackinder and Kennan lend themselves to explanation via the international relations theory of *realism* as they focus on the material capabilities and relative power calculations of states within an anarchical or 'self-help' international system.[60] Alternatively, the

determinism, thus associating the concept of "lebensraum" (living space) with his writings. Following the First World War, German geography professor Major-General Karl Haushofer fused the approaches of Mackinder and Ratzel in work associated with Nazism and its focus on territorial expansion and racial politics. Sloan and Gray, "Why Geopolitics?"9; and Dodds, Kuus and Sharp, "Introduction: Geopolitics and its Critics," 4. Accordingly, geopolitics (and by extension geostrategy) became "something of an intellectual pariah" after 1945, so much so that no book published in English had the term "geopolitics" in its title until 1975. Henry Kissinger's 1979 memoir, *The White House Years* (New York: Little, Brown and Company, 1979), began to rehabilitate the concept, which he employed to frame a realist narrative that combatted what he saw as naïve American idealism while presenting a viable alternative to the conservative anti-Communist ideology of the day. Sloan and Gray, "Why Geopolitics?" pp. 1, 5, 7.

[55] Gray, "Inescapable Geography," p. 164.

[56] Stacey, *Military Problems of Canada*, p. 171.

[57] Colin S. Gray, *Canadian Defence Priorities: A Question of Relevance* (Toronto: Clarke, Irwin & Co., 1972), p. 17.

[58] For the classic introduction of the concept of security communities, see Karl Deutsch et al, *Political Community and the North Atlantic Area: International Organization in the Light of Historical Experience* (Princeton, NJ: Princeton University Press, 1957).

[59] Gray, "Inescapable Geography," p. 168.

[60] For more on 'classical' realism, see Hans J. Morgenthau, *Politics Among Nations: The Struggle for Power and Peace*, 6th ed. (New York: Alfred A. Knopf, 1985); E.H. Carr, *The Twenty Years' Crisis, 1919-1939: An Introduction to the Study of International* Relations (Basingstoke: Palgave Macmillian, 2001); and Robert Jervis, "Hans Morgenthau, Realism, and the Scientific Study of International Politics," *Social Research* 61, 4

ideational norms central to geostrategy as practiced by Ratzel are best explained by *constructivist* approaches, which are based on assumptions that states take action in an environment that is both ideational and material and that this setting can provide states with an understanding of their interests.[61] The most important ideational factors in determining interests are beliefs collectively held by purposive actors,[62] especially those that contribute to identity.[63] Largely in response to this form of geostrategy, *critical theory* geopolitics [64] interrogate the narratives of geostrategy and its underlying assumptions in two respects: questioning the declarative aspects of the narrative (the ideational norms explaining how the world is) behind geopolitics, and the imperative course of action recommended by the narrative (the responding geostrategy). [65] International relations theory can also provide an objective for geostrategy, with *liberalism* and its influence on American geostrategy offering a prime example. Inherently teleological, liberalism emphasizes an end to state competition and the emergence of more robust global governance centred on freedom and enlightenment.[66] The telos of liberalism has been central to informing American geostrategy since that country's founding, propelling it to seek to create, as its ultimate goal, a liberal

(1994): pp. 853-876. For more on 'neo' or 'structural' realism, see Kenneth Waltz, *Theory of International Politics* (New York: McGraw Hill, 1979).

[61] Jeffrey T. Checkel, "The Constructivist Turn in International Relations Theory," *World Politics* 50, 2 (1998): p. 325.

[62] Martha Finnemore and Kathryn Sikkink, "Taking Stocking: The Constructivist Research Program in International Relations and Comparative Politics," *Annual Review of Political Science* 4 (2001): p. 393.

[63] John Gerard Ruggie, "What Makes the World Hang Together? Neo-utilitarianism and the Social Constructivist Challenge," *International Organizations* 52, 4 (1998): pp. 862-4. The primary problem facing constructivist approaches to explaining geostrategy is that constructivism emphasises ideational factors over material ones in determining the behaviour of states. Finnemore and Sikkink, "Taking Stocking," p. 391; Ruggie, "What Makes the World Hang Together?" p. 879. This is incongruent with the emphasis of geostrategy on prioritizing objective geography or, by extension, the objective reality of material concerns over the geography of the mind (subjective reality) encompassing ideational factors.

[64] See Klaus Dodds, Merje Kuss, and Joanne Sharp, ed., *The Ashgate Research Companion to Critical Geopolitics* (Surrey: Ashgate, 2013).

[65] Sloan and Gray, "Why Geopolitics?" p. 5. For more on critical theory, see Robert W. Cox, "Social Forces and World Orders: Beyond International Relations Theory," in *Neorealism and Its Critics* ed. Robert O. Keohane (New York: Columbia University Press, 1986), pp. 204-54; and Andrew Linklater, "The achievements of critical theory," in *International Theory: Positivism and Beyond,* eds., Steve Smith, Ken Booth and Marysia Zalewski (Cambridge: Cambridge University Press, 1996), pp. 279-98.

[66] Scott Burchill, "Liberalism," in *Theories of International Relations*, eds. Burchill et al., 4th (Basingstoke: Palgave Macmillian, 2001).

democratic world order in which the United States (and its allies) can enjoy peace and prosperity.[67]

2.3 *Applying Subjective Geostrategy to Canada Since Stacey*

Overlaying history onto geography reveals that Canada prioritizes an *international* security perspective, not a national one. Political scientist Kim Nossal refers to this as a concern for the "realm" in that:

> Canadians have conceived of their grand strategy as seeking to defend a broader definition of political community than just "Canada" – that they sought to defend a broader "realm," and it is only when Canadian security policy is seen as having been framed with this broader definition that it makes sense.[68]

The size of this realm and its associated norms are elastic concepts that have changed over time. Historically this meant a reliance on the British Empire to provide defence against the threat of American invasion, given that the northern dominion was unable to protect itself due to its large size and small population.[69] After the threat of American invasion passed at the end of the nineteenth century, Canada adopted a practice of strengthening allies abroad through the contribution of forces overseas, viewing this as the more effective use of its military resources than just stationing them at home. We became, in historian Desmond Morton's phrase, a provider rather than a consumer of security by focusing on the international deployment of our forces in "response to imperial or alliance loyalties rather than to [Canada's] own immediate peril."[70] This approach enhanced home defence by deploying forces to stand between Canadians and potential military threats, thus preventing would-be invaders from reaching Canadian

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[67] Samuel Huntington, *Who Are We? The Challenges to America's National Identity* (New York: Simon & Schuster, 2004); Steven W. Hook and John Spanier, *American Foreign Policy Since World War II* 19th ed. (Los Angeles: Sage Publications, 2014); Seymour Martin Lipset, *American Exceptionalism: A Double-Edged Sword* (New York: W.W. Norton & Company, 1996); Sam C. Sarkesian et al., *US National Security: Policymakers, Processes & Politics* 5th ed. (Boulder, Colorado: Lynne Rienner Publishers, Inc., 2013); Robert R. Tomes, "American Exceptionalism," *Survival* 56, 1 (2014): pp. 27-50; and Walter Russell Mead, "The Return of Geopolitics," *Foreign Affairs* 93, 3 (2014): pp. 69-79.

[68] Nossal, "Defending the "realm," p. 504.

[69] Morton, *Military History of Canada*, pp. 107-15.

[70] Desmond Morton, "Providing and Consuming Security in Canada's Century," *Canadian Historical Review* 81, 1 (2000): p. 2.

shores.[71] In terms of objective geography, a distinct pattern of ambivalence emerged: Canadian policy-makers perceived their country's large size as a weakness, but considered its physical isolation a strength. By logical extension, the territorial defence of Canada can be provided externally, emphasizing the country's geographic strength.

What began as the Canadian strategic cultures of *imperialism* (supporting the international order provided by the British Empire/Commonwealth coupled with Canada's reliance on it for protection)[72] and *isolationism* (not being drawn into the problems of others by making military commitments abroad)[73] gave way to the three competing and often conceptually overlapping strategic cultures—continentalism, internationalism, and Atlanticism—each of which offer a different contextualization of the "realm."[74] *Continentalism* posits that Canada's interests are inseparable from those of the United States due to geographic proximity and economic dependence and constricts the realm to North America. The outlook is dominated by realism and maximizing material concerns, thus placing little emphasis on cultural affinities. Continentalism advocates maximizing Canadian influence with its neighbour and is inherently concerned with defending against unrequested American military help on Canadian soil.[75] The binational NORAD agreement is the clearest expression of this strategic

[71] Stacey, *Military Problems of Canada*, p. 52. This practice centred primarily on supporting the British and American navies (Stacey considered the defence of Canada to be primarily naval in nature) and the deterrence they offered to potential threats to Canada. Later, the support was shifted to the American nuclear deterrent. See pages 1-53; Jockel, *No Boundaries Upstairs*; and Sean M. Maloney, *Learning to Love the Bomb* (Dulles, Virginia: Potomac Books, 2007).

[72] Nossal, *The Politics of Canadian Foreign Policy*, pp. 133-9; and Bland and Maloney, *Campaigns for International Security*, p. 64.

[73] John Holmes, *The Better Part of Valour: Essays on Canadian Diplomacy* (Toronto: CIIA, 1970), p. 5; Bland and Maloney, *Campaigns for International Security*, p. 63; and Roussel and Boucher, "The Myth of the Pacific Society."

[74] Justin Massie, "Making sense of Canada's "irrational" international security policy: A tale of three strategic cultures," *International Journal* 64, 3 (2009); and Matthew P. Trudgen and Joel J. Sokolsky, "The Canadian strategic debate of the early 1960s," *International Journal* 67, 1 (2011-2). It should be noted that not all scholars of strategic culture agree with this assessment. For example, David S. McDonough argues that Canada has only two strategic cultures. See David S. McDonough, "Canada, NORAD, and the evolution of strategic defence," *International Journal* 64, 3 (2012).

[75] Massie, "Making sense of Canada's "irrational" international security policy," pp. 631-5; Trudgen and Sokolsky, "The Canadian strategic debate of the early 1960s." See R.J. Sutherland, "Canada's Long Term Strategic Situation" *International Journal* 17, 3 (1962): pp. 199-223 for a seminal work informing contientialism.

culture.[76] By contrast, the strategic culture of *internationalism* posits that Canada – as a "middle power" – should advance liberalism and human rights globally through functionalism, multilateralism, and institutionalism.[77] Accordingly, Canada should reject great power politics and adopt the role of an "honest broker," acting mainly within the United Nations (UN)[78] and enlarging the realm to global proportions.[79] On the other hand, *Atlanticism* arose from the tangible threat that Soviet nuclear weapons pose to Canada and the UN system's failure to provide collective security.[80] It bridges the theoretical gap between continentalism's focus on material forces with internationalism's emphasis on ideational ones, delineating the "realm" to include both North America and Europe.[81] In this construct, Canada is a linchpin in a "North Atlantic Triangle" between the United States and Britain, using them as counterweights to protect and promote Canadian interests.[82] The North Atlantic Treaty Organization (NATO) offers the clearest institutional example of Atlanticism in a geostrategic context.[83]

Two overarching patterns emerge from Canada's three strategic cultures. First, the United States is central to how Canada perceives its geostrategic engagement in the world. Canada favours engagement in a type of power politics, always attempting to balance the overwhelming influences of American power within the realm. This is best

[76] See Jockel, *No Boundaries Upstairs;*Jockel, *Canada in NORAD, 1957-2007* (Kingston: Queen's Centre for International Relations, 2007); and James Ferguson and Andrea Charron, "NORAD in Perpetuity: Challenges and Opportunities for Canada" (Winnipeg: Centre for Defence and Security Studies, March 2014).

[77] Roussel and Théorêt, "A Distinct Strategy?" p. 562; Roussel and Boucher, "The Myth of the Pacific Society," 167; J. King Gordon eds. *Canada's Role as a Middle Power* (Toronto: CIIA, 1966); Adam Chapnick, "The middle power," *Canadian Foreign Policy Journal* 7, 2 (1999): pp. 73-82; and Chapnick "The Canadian Middle Power Myth," *International Journal* 55, 2 (2000): pp. 188-206.

[78] For a seminal work informing internationalism, see James M. Minifie, *Peacemaker or Power-Monkey?* (Toronto: McClelland & Stewart, 1960).

[79] For more on this largely abandoned theory based on *a priori* principles of how international relations should be conducted, see Carr's critique of idealism in *The Twenty Years' Crisis*.

[80] Bland and Maloney, *Campaigns for International Security*, pp. 64, 86.

[81] Maloney, *Learning to Love the Bomb*, p. 18.

[82] Holmes, *The Better Part of Valour*, p. 5; Massie, "Making sense of Canada's "irrational" international security policy," pp. 639-44.

[83] Though Winston Churchill first brought up the idea of a "North Atlantic Triangle" in addressing the Canadian House of Commons in 1943, it was Brebner's *North Atlantic Triangle* that fleshed out the concept.

manifested in the literature on "defence against help," in which Canada generates just enough of a military response domestically to offset American continental security concerns. This desire to balance against American power and influence translates into the counter-weight argument inherent to Atlanticism, a desire to use Britain or Europe to offset overwhelming American influence in the realm of the West.[84] Concepts such as the "honest broker" and "middle power" are internationalism's analogue to defence against help. These concepts centre on downplaying American power politics in the international realm and selectively balancing it with Canadian power channelled into niche roles.[85]

The second pattern sees Canada focusing on promoting the liberal democratic world and a willingness to use military force to preserve it. These values are central to Atlanticism, continentalism, and internationalism. Protecting liberal democratic values through means of collective defence, collective security, and self-defence are all enshrined in the dominant institutions (NATO, UN, and NORAD respectively) that underpin these three approaches.[86]

2.4 *American Exogenous Pressure on Canadian Geostrategy*

American exogenous pressure on Canada is based on two overarching concerns: its own security and the "free rider problem" in providing it for others. This first concern relates directly to continental security and whether the Canadian border offers sufficient security to satisfy American perceptions of threat and vulnerability. Historically, Canada did not always share the same perceptions of threats to North

[84] Haglund, "The North Atlantic triangle revisited.".
[85] Gordon, eds., *Canada's Role as a Middle Power*; Chapnick, "The Canadian Middle Power Myth," and "The middle power."
[86] For more on this, see the famous 1947 Grey Lecture. Delivered by Secretary of State for External Affairs Louis St. Laurent, the lecture is often cited for its commitment to pursuing a foreign policy that does not threaten the national unity between English and French Canada. What is often understated about the lecture - as near to a governing set of principles for Canada's grand strategy as has ever been articulated by policymakers - is its commitment to creating a liberal democratic world. See Louis St. Laurent, *The Foundations of Canadian Policy in World Affairs* (Toronto: The University of Toronto Press, 1947) and Adam Chapnik, "The Gray lecture and Canadian citizenship in history," *American Review of Canadian Studies* 37, 4 (2007): pp. 443-457.

America as the United States, and has never boasted a comparable capability to meet external military threats. American pressure on Canada to increase defence efforts at home is premised on the mutual understanding that if Canada does not act to satisfy American threat concerns, the United States will be forced to take steps to do so unilaterally.[87] As Stacey observed, the United States does not act out of altruistic concerns for Canada's defence: it acts out of self-interest in defending itself.

Second, as the international hegemon, American pressure on its allies to increase their defence effort is tied to addressing the free rider problem: an economic term regarding the consumption of a public good without contributing to its provision. Canada benefits from the liberal democratic order that American hegemony underwrites. Accordingly, the United States exerts exogenous pressure on Canada to contribute to the "international service" that American military forces provide globally. This pressure generally rises and falls in tandem with American defence efforts in stabilizing the international security environment, sometimes necessitating specific requests of Canada.[88]

3. Updating Stacey's Geostrategic Threat Assessment Methodology

We have broken down Stacey's threat assessment methodology of military geography into seven variables: 1) the border being threatened; 2) proximity; 3) topography and terrain; 4) utilizing geography to identify advantages and disadvantages in defending Canada; 5) strategic goodwill; 6) maintaining friendships with sea powers; and 7) sharing the burden of border security. The major theoretical critique (implicit if not explicit) of geostrategy is that technology can overcome all geographic constraints, with the development of nuclear weapons, the militarization of

[87] Ørvik, "Defence against help a strategy for small states?" and Ørvik, "Canadian security and 'defence against help'."

[88] Donald and Bratt, "Defence Against Help,"and Morton, "*The Military History of Canada*," p. 302. Janice Gross Stein and Eugene Land, *The Unexpected War: Canada in Kandahar* (Toronto: Viking Canada, 2007). For more on American frustrations regarding free riders, one need only be reminded of Secretary of Defense Chuck Hagel pressure on NATO allies to contribute more political support and material means to collective defence. See "Chuck Hagel's World," *The Economist* 16 August 2014, http://www.economist.com/news/united-states/21612169-cold-realism-americas-defence-secretary-chuck-hagels-world.

space, and the rapid development of cyberwarfare serving as examples of technology minimizing the effect of geography on strategy.[89] Stacey acknowledged this in his geostrategic analysis, accounting for how the advancement of naval technology allowed for the projection of power over vaster distances, as well as diplomatic realignment to adjust to changing circumstances.[90]

3.1 *What Border is Being Threatened? Extending to the North, Aerospace, and Cyber Domains*

The concept of borders in a globalizing world is both increasingly complicated and contested. "What walls and fences were to security in the twentieth century, flows are to security in the twenty-first century," political scientist Christian Leuprecht observes. "This requires a paradigm shift from the 'castle' approach that saw the Westphalian state drawing a moat around its sovereign territory, to an approach that now seeks to govern and secure flows of people, goods and information." Attempts to secure these flows are inherently tied to geography because they must start at their place of origin, thus pushing outwards "the very frontiers of sovereign-state frontiers." In some global policy areas, such as climate change and the internet, "borders per se are largely irrelevant to governing and controlling flows, and so securing them increasingly becomes a collective-action problem beyond the institutions of the nation-state."[91]

Other scholars continue to assert the primacy of the state (and the military alliances in which they participate) in the international system, and particularly in the defence domain.[92] From this standpoint, Stacey's framework remains relevant in broad

[89] Gray, "Inescapable Geography."

[90] Changes since Stacey's time are reflected in the opening of "new" borders such as cyberspace and aerospace, "the qualitatively new world of risks created by the successes of advanced techno-scientific civilization" since the Second World War (particularly nuclear weapons), the rise and fall of military powers, the formation of new alliances like NATO and political relationships such as the European Union, and new global forces such as anthropogenic climate change. Quote is from Gearóid Ó Tuathail," Understanding Critical Geopolitics: Geopolitics and Risks Society," in *Geopolitics*, ed. Gray and Sloan, p. 118.

[91] Christian Leuprecht, "Borders in Globalization," *Security*, http://www.biglobalization.org/research-themes/security.

[92] Particularly scholars of the realist school of international relations. See, for example, Waltz, *Theory of International Politics*; Stephen M. Waltz, *The Origins of Alliance* (Ithaca, NY: Cornell University Press, 1990);

strokes, although some specific actors and weighting has changed. For example, the military threat posed by Germany during the World Wars was replaced by that of the Soviet Union during the Cold War, and the economic challenge of Japan has been replaced by the rise of China as a global actor. Although Stacey stressed longstanding North Atlantic relationships in his analysis, he also considered the emergence of the Pacific as a geostrategic space. By extension, Canada's ongoing re-orientation towards the Asia-Pacific and attempts to reconsider its security interests as a Pacific nation are accommodated in his methodology.[93]

A more fundamental shift has taken place with respect to the circumpolar north. Stacey's analysis was predicated on the conceptualization of Canada as a "two ocean" country. The Second World War, however, brought the Canadian North into new strategic focus. The United States became worried about the overland and air routes to Alaska, prompting the country to enter into agreements with Canada to build airfields, a highway, and an oil pipeline in the northwest. When American personnel swept into the Canadian Northwest to complete the tasks, Prime Minister Mackenzie King became concerned that these American developments, taken in the name of military security, would undermine Canadian sovereignty.[94] Although the Americans left Canada at war's end and, at Ottawa's request, the ownership of permanent facilities in the North passed into Canadian hands, senior officials certainly took note of the interdependency between continental security and sovereignty—a relationship that took on much greater significance during the Cold War. Polar projection maps revealed how Canada's strategic situation had changed now that the shorest path between rival superpowers lay over the polar region. Arctic defences were now inextricably linked to American security, and the US pushed for access to Canada's far north to build airfields, weather stations, and radar lines to address the increasingly acute aerospace threat posed by the USSR. Geographical distance, frozen seascapes, and frigid temperatures no longer represented adequate defences in and of themselves.

Stephen M. Waltz, "The Renaissance of Security Studies," *International Studies Quarterly* 35, 2 (1991): pp. 211-39; and John J Mearsheimer, *The Tragedy of Great Power Politics* (New York: WW Norton, 2001).

[93] For recent examples of this thinking, see works by Marius Grinius, "Canada's Security Role in Asia-Pacific," Canadian Global Affairs Institute Policy Paper (July 2016), and "Canada and Asia: Prosperity and Security," Canadian Global Affairs Institute Policy Paper (June 2015).

[94] See Shelagh Grant, *Sovereignty or Security? Government Policy in the Canadian North, 1936-1950* (Vancouver: University of British Columbia Press, 1988).

Accordingly, Canada's geostrategic threat assessments have included the Arctic since the onset of the Cold War. From 1946-90, strategic interest in the Arctic as a military space rose and fell with technological progression (eg. strategic bombers carrying nuclear weapons, ballistic missiles, submarines, and cruise missiles) and American threat perceptions and defence imperatives (and how these interests might affect Canadian sovereignty). Although the US acknowledged Canadian terrestrial sovereignty over the Arctic Islands soon after the war ended, questions of maritime boundaries in the Beaufort Sea and straight baselines drawn by Canada around its Arctic islands that delineate its historic, internal waters (and thus determine the legal status of the Northwest Passage) persist to the present day. Shared Canada-US interests in continental defence ensured that these international legal disputes have not undermined military cooperation, given the region's geographical importance for surveillance and nuclear deterrence.[95]

Although Stacey anticipated that technological progress would render Canada increasingly vulnerable to air attack in *The Military Problems of Canada*,'[96] he did not foresee that this would also lead to an aerospace threat. Originally centred on the threat posed by nuclear-tipped intercontinental ballistic missiles (ICBMs), the introduction of these weapons and their successors offered would-be adversaries with the potential to strike Canada with devastating force and with little warning.[97] Later, the Persian Gulf War (1990-91) demonstrated to the world how satellites served as quintessential "force-multipliers," improving communications, intelligence, and situational awareness.[98] The

[95] On this historical trajectory, see Ken Coates, P. Whitney Lackenbauer, Bill Morrison, and Greg Poelzer, *Arctic Front: Defending Canada in the Far North* (Toronto: Thomas Allen, 2008); P. Whitney Lackenbauer and Peter Kikkert, "Sovereignty and Security: The Department of External Affairs, the United States, and Arctic Sovereignty, 1945-68," in *In the National Interest: Canadian Foreign Policy and the Department of Foreign Affairs and International Trade, 1909-2009*, ed. Greg Donaghy and Michael Carroll (Calgary: University of Calgary Press, 2011), pp. 101-20; Adam Lajeunesse, *Lock, Stock, and Icebergs: A History of Canada's Arctic Maritime Sovereignty* (Vancouver: UBC Press, 2016); and Lackenbauer and Suzanne Lalonde, "Canada, Sovereignty, and 'Disputed' Arctic Boundaries: Myths, Misconceptions, and Legal Realities," *The Networked North: Borders and Borderlands in the Canadian Arctic Region*, ed. Heather Nicol and P. Whitney Lackenbauer (Waterloo: Borders in Globalization/Centre on Foreign Policy and Federalism, 2017), pp. 95-113.

[96] Stacey, *Military Problems of Canada*, p. 6.

[97] Gray, *Inescapable Geography*, p. 174.

[98] Benjamin S. Lambeth, "Air power, space power and geography," *Journal of Strategic Studies* 22, 2-3 (1999): pp. 73-5.

number of actors with aerospace capabilities has been small until recently, owing mainly to the exorbitant launch costs to place a satellite in orbit (ranging from $5000-10000USD per pound to low earth orbit).[99] Canadian strategic interests in space will continue to increase as accessing this domain becomes increasingly affordable and valuable to more state and commercial actors.

In contrast to outer space, cyberspace is low cost and accessible to all actors. The emergence of this new geostrategic domain was beyond the imagination of Stacey but not his methodology. Although early theoretical literature speculated that cyberspace would render the borders of the physical world increasingly irrelevant,[100] cyberspace is now analyzed as a global domain rather than a global commons. States such as Canada continue to impose new layers of sovereignty on cyberspace, unilaterally through their domestic legislation and multilaterally through the creation of international regimes.[101] While cyberspace does not add a new physical border to Canada, it represents a new space through which Canada's territorial integrity can be threatened.

3.2 *Proximity and the Myth of the "End of Geopolitics"*

Technological advancements since Stacey's time, such as cyberspace and orbiting satellites, have "shrunk" the time-space equation but have not eliminated proximity as a geostrategic variable.[102] Distance still matters.[103] For example, an increasing awareness that cyberspace exists alongside geography has facilitated the recognition by strategists that this domain enhances, rather than degrades or replaces, the concept of

[99] DeBlois, Bruce M. Richard L.Garwin, R. Scott Kemp, and Jeremy C. Marwell. "Space Weapons: Crossing the U.S. Rubicon" *International Security* 29, 2 (2004): p. 73.
[100] John B. Sheldon, "Geopolitics and Cyber Power: Why Geography Still Matters," *American Foreign Policy Interests* 36 (2014): 286-90; David J. Lonsdale, "Information Power: Strategy, Geopolitics and the Fifth Dimension," *Journal of Strategic Studies* 22, 2-3 (1999): pp. 137-8.
[101] Sheldon, "Geopolitics and Cyber Power," pp. 287-8.
[102] Gray, *Inescapable Geography*, p. 174.
[103] As noted earlier, the initial theoretical literature surrounding cyberspace predicting the decreasing relevance of the physical world and subsequent traditional military capabilities was quickly replaced by the acknowledgement that cyberspace is reflected in the physical world through its supporting infrastructure. See Sheldon, "Geopolitics and Cyber Power," pp. 286-90; and David J. Lonsdale, "Information Power: Strategy, Geopolitics and the Fifth Dimension," *Journal of Strategic Studies* 22, 2-3 (1999): pp. 137-8.

geostrategy.[104] Likewise, the effectiveness of a satellite in observing the Earth, despite their great orbital speeds, is related to the proximity and track of that satellite relative to the Earth.[105] Because distance still matters, Canada continues to develop strategic friendships with states physically situated between it and possible threats. That is the reason Canadians prefer to fight in Syria rather than in Sarnia.

3.3 *Topography: The ongoing (but often overlooked) relevance of terrain*

In a world of Global Positioning Systems (GPS), precision-guided munitions, and semi-autonomous drones, the classic constraints of terrain and topography may seem rather quaint and antiquated. Nevertheless, they remain relevant in geostrategic analysis. The so-called Revolution in Military Affairs (RMA), positing that technological advances fundamentally changed the nature and conduct of military operations,[106] provoked debate about whether technological dominance in battlespaces lessened the need for soldiers on the ground. Actually war fighting in the last two decades, however, has proven otherwise.[107]

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[104] David J. Lonsdale, "Information Power: Strategy, Geopolitics and the Fifth Dimension," *Journal of Strategic Studies* 22, 2-3 (1999): pp. 148-9; Sheldon, "Geopolitics and Cyber Power," pp. 290-1; Gray, "Inescapable Geography," p. 174.

[105] See Evertt C. Dolman, "Geostrategy in Space Age: An Astropolitical Analysis," *Journal of Strategic Studies* 22, 2-3 (1999): pp. 83-106.

[106] See, for example, Elinor Sloan, *The Revolution in Military Affairs: Implications for Canada and NATO* (Montreal & Kingston: McGill-Queen's University Press, 2002).

[107] For example, Stephen Biddle's important work on the future of warfare serves as a reminder that the soldiers will continue to be central to war. "The campaign of 2001-02 was a surprisingly orthodox air-ground theater campaign in which heavy fire support decided a contest between two land armies," he observed. While unprecedented levels of precision firepower contributed to mission success, he argued that special operations forces constituted the main effort and had to grapple with the challenging terrain. "The key to success in both Afghanistan and traditional joint warfare was the close interaction of fire and maneuver—neither of which was sufficient alone, and neither of which could succeed without sizeable ground forces trained and equipped at least as well as their opponents." Biddle ultimately concludes that topography will continue to be a factor as large numbers of skilled ground forces will continue to be required to march over it if militaries expect to exploit the effects of their increasing technologically sophisticated capabilities. Stephen Biddle, Air University, "Afghanistan and the Future of Warfare: Implications for Army and Defense Policy" (November 2002), http://www.au.af.mil/au/awc/awcgate/ssi/afghan.pdf,

Topography and physical geographical conditions still matter in geostrategy, and will take on heightened salience as climate change reshapes operating conditions -- perhaps faster than militaries are able to adapt to them. Geostrategic analyses will have to be updated continuously to consider the effects of the changing environmental conditions on the ability to project and sustain military forces in both combat and humanitarian assistance roles.[108]

3.4 *Utilizing geography to identify advantages and disadvantages in defending Canada*

Although technology has increased the speed with which military platforms or delivery systems can transcend physical space, this does not negate the ongoing reality that time, distance, climate, and other geographical variables continue to constrain strategic options and the capabilities of states.[109] Accordingly, Canada's geographical situation in North America, its vast space and northern climate continue to present specific national defence advantages.

The low conventional threat to Canada that strategic analysts predict for the foreseeable future, for example, allows for certain advantages in the domestic disposition of Canadian military forces. These include economies of scale and the

[108] DoD, "National Security Implications of Climate-Related Risks and a Changing Climate," 23 July 2015, http://archive.defense.gov/pubs/150724-congressional-report-on-national-implications-of-climate-change.pdf?source=govdelivery; and DoD, "Report on Effects of a Changing Climate to theDepartment of Defense," 18 Jan 2019, https://media.defense.gov/2019/Jan/29/2002084200/-1/-1/1/CLIMATE-CHANGE-REPORT-2019.PDF.

[109] Murray, "Thoughts on War and Geography," p. 215. Even cyberspace is subject to geographical constraints. Cyberspace acts as a conduit for electronic warfare with the weapons being malicious software. The targets of cyberwarfare, however, exist in the physical world, as does the supporting infrastructure (such as undersea cables, satellites in orbit, server farms, and common personal computers). Sheldon, "Geopolitics and Cyber Power," 288; and Gray, "Inescapable Geography," p. 174. To borrow strategist R.J. Sutherland's terminology, these physical "invariants" act as chokepoints that can constrict flows in cyberspace. Accordingly, cyberspace remains subject to geography, and these chokepoints fall within Stacey's variable of utilizing geography to maximize strength. A strategist contemplating cyberwarfare will have to identify and maximize the advantages and minimize the weakness of the physical infrastructure supporting cybersecurity and attacks. Sutherland, "Canada's Long Term Strategic Situation"; David J. Lonsdale, "Information Power: Strategy, Geopolitics and the Fifth Dimension," *Journal of Strategic Studies* 22, 2-3 (1999): pp. 139-40; and Sheldon, "Geopolitics and Cyber Power," p. 287.

simplified logistics of concentrating regular military units at relatively few bases in southern Canada rather than trying to disperse them across the entire length and breadth of the second largest country in the world. Relying on community-based Reservists in the Canadian Rangers, for example, to serve as the military's "eyes, ears, and voice" in isolated Northern and coastal communities[110] reflects Stacey's preference of deploying minimal forces at home while retaining a main defence effort on overseas commitments to defeat threats abroad.

3.5 *Good Diplomacy and Strategic Goodwill: The Primacy of Continentalism and the Globalization of Military Risk*

Stacey recognized at the beginning of the Second World War that Canada's defence and security was predicated on maintaining the strategic goodwill of and strong diplomatic relations with the United States. As military, economic, and cultural power shifted from Britain to the United States, the continental and global defence bond between Canada and its dominant geographical neighbour tightened.[111] The United States offered the primary Cold War deterrent to Russia and, with a vested interest in Canada's security as a core pillar of overall continental defence, stood reliably with Canada against its primary defence threat. Although power asymmetries between the two North American countries meant that defence collaboration generated persistent worries about Canada's independence and freedom of action, the US respected Canadian sovereignty and the two countries laid robust lines of defence communication through formal bilateral institutions such as the PJBD and NORAD, as well as multilateral ones such as NATO. This close diplomatic and strategic relationship continues in the twenty-first century, with the United States acknowledged as Canada's closest ally in all Canadian strategic documents.[112] Accordingly, it is still reasonable to

[110] See P. Whitney Lackenbauer, *The Canadian Rangers: A Living History* (Vancouver: UBC Press, 2013) and Lackenbauer, "'Indigenous Communities are at the Heart of Canada's North': Media Misperceptions of the Canadian Rangers, Indigenous Service, and Arctic Security," *Journal of Military and Strategic Studies* 19, 2 (2018): pp. 157-92.

[111] J.L. Granatstein, *How Britain's Weakness Forced Canada into the Arms of the United States* (Toronto: University of Toronto Press, 1989).

[112] P. Whitney Lackenbauer and Rob Huebert, "Premier Partners: Canada, the United States and Arctic Security," *Canadian Foreign Policy Journal* 20, 3 (Fall, 2014): pp. 320-33.

assume "the permanent friendship of the United States" as a first premise, as Stacey and most Canadians did in 1940.[113]

On a more general level, skeptics have questioned whether the global nature of military risk in twenty-first century represents the "end of the geopolitics" as traditionally conceived, problematizing the idea of "national" defence and thus removing the possibility of leveraging geography to serve Canadian interests. Critical scholar Gearóid Ó Tuathail suggests that:

> Globalization, informationalization and proliferating techno-scientific risks have transformed the dimensionality and territoriality of geopolitics at the end of the twentieth century.... While regional and state-centered threats are still significant security concerns, the most pressing security challenges, from terrorism to international organized crime and proliferating weapons of mass destruction, are now 'deterritorialized' and global. Most within the Western security community now recognize this and have a strong appreciation of the value of coordinated diplomatic efforts through diplomacy, international assistance, arms control, and non-proliferation initiatives to shape the international geopolitical environment.[114]

While such a perspective highlights asymmetric threats to international security, it neglects the persistence of state-based threats, the importance of ensuring that states remain engaged in collective defence, and the enduring relevance of geographical variables in the approach to formulating strategy.

3.6 *Maintaining Friendships with Sea Powers to the Primary Friendship of a Nuclear (Super)Power.*

Writing in a pre-nuclear era, Stacey focused on the primacy of sea power as a deterrent to trans-oceanic defence threats. While conventional naval deterrence remains an important element of deterrence and power projection, it is now superceded by nuclear deterrence more broadly. The ascendance of the USN to replace the RN as the world's foremost naval power during the Second World War, and the United States'

[113] Stacey, *Military Problems*, p. 4.
[114] Gearóid Ó Tuathail," Understanding Critical Geopolitics: Geopolitics and Risks Society," in *Geopolitics*, ed., Gray and Sloan, p. 118.

status as the world's first nuclear power and leader of the Western alliance through the Cold War (and beyond), makes Canada's friendship with the US its most important geostrategic relationship.

Geostrategy is central to the concepts of deterrence and nuclear war.[115] For example, Canada's early involvement with the American nuclear deterrent involved advanced warning against Soviet attack by facilitating the construction of radar stations across the Canadian Arctic and Subarctic, providing the United States Air Force (USAF)'s Strategic Air Command with access to airfields (such as Goose Bay), and integrating Royal Canadian Air Force (RCAF) interceptors into continental defence plans.[116] Subsequently, the geostrategic aspects of nuclear war extend beyond the air domain. Gray notes that "the strategic logic of the nuclear force's 'triad' maintained by the United States and the USSR/Russia, has rested wholly on a grammar of strategy driven by the relevant operational properties of land, sea, and air." Furthermore, he observes that the entire objective of nuclear war is to hit terrestrial targets, thus implicating objective geography directly and rendering proclamations that this form of warfare was "beyond geography" erroneous.[117]

In the nuclear age, Canada did not solely rely on American power. Atlanticism persists both as the basis for a broader security community and a way for a "middle power" to balance some of the overwhelming geostrategic influence of a superpower neighbour. While scholars continue to debate the success of Canada's attempts to use Europe as a counterweight to the US,[118] primary powers have asserted pressure on second-tier powers such as Canada within multilateral institutions such as NATO to "shoulder a greater share of the Atlantic burden" in the post-Cold War world. In

[115] For more on the development and history of the concepts of nuclear war and deterrence, see Bernard Brodie, *Strategy in the Missile Age* (New Jersey: Princeton University Press, 1959); Herman Kahn, *On Thermonuclear War* (New York: Transaction Publishers, 1960); and Lawrence Freedman, *The Evolution of Nuclear Strategy* (New York: Palgrave Macmillan, 2003).
[116] Jockel, *No Boundaries Upstairs*, pp. 31, 60-90. See also Jeffrey Noakes and P. Whitney Lackenbauer, eds., *Special Contract: A Story of Defence Communications in Canada* (Antigonish: Mulroney Institute on Government, Arctic Operational History Series vol. 6, 2019).
[117] Gray, "Inescapable Geography," p. 174.
[118] See, for example, Roy Rempel, *Counterweights: The Failure of Canada's German and European Policy, 1955-1995* (Kingston & Montreal: McGill-Queen's University Press, 1996); and Robert Bothwell, *Alliance and Illusion: Canada and the World, 1945-1984* (Vancouver: UBC Press, 2011).

response, Canada confirms the persistence of Atlanticism as a geopolitical framework in its use of NATO as a conduit to shape regional security governance in Europe and world order more generally.[119]

3.7 *Sharing the burden of border security*

Canadian defence planning must respond to American continental defence perceptions, addressing Washington's concerns alongside those of Canadians.[120] The PJBD,[121] NORAD, and the proliferation of broader security arrangements such as the 2001 Smart Border Declaration and Plan are examples of institutionalizing continental defence against a wide spectrum of threats, ranging from nuclear war to terrorism. This institutionalized approach has largely been successful in addressing both Canadian sovereignty concerns and American threat perceptions, while keeping Canadian defences at home to manageable levels that allow it to focus efforts on overseas missions.[122] Furthermore, growing international attention to the Arctic region, where physical geography and sovereign rights dictate that Canada is a major player, also highlights the salience of Canada's maritime borders with the Kingdom of Denmark/Greenland and the Russian Federation.

4. Testing the Geostrategic Model: The Case of the Arctic

According to popular geopolitics, the twenty-first century Arctic is in a state of transformation. Broadening international awareness and acceptance of the heightened impacts of global climate change in the Arctic, most poignantly depicted in the accelerated melting of the polar ice cap, has generated sweeping debates about present and future security and safety challenges and threats in the region. Visions of increasingly accessible natural resources and navigable polar passages connecting

[119] Benjamin Zyla, *Sharing the Burden? NATO and Second-Tier Powers* (Toronto: University of Toronto Press, 2015), pp. 3-4, 7.
[120] Stacey, *Military Problems of Canada*, pp. 31-4.
[121] See C.P. Stacey, "The Canadian-American Permanent Joint Board on Defence, 1945-1950," *International Journal* 9:2 (1954): pp. 107-124.
[122] See Jockel, *Canada in NORAD 1957-2007*; and Jockel, *No Boundaries Upstairs*.

Asian, European, and North American markets have resurrected age-old ideas about the region as a resource and maritime frontier—as well as concomitant insecurities about the geopolitical and geostrategic impacts of growing global attentiveness to the region's possibilities. Accordingly, debates about whether the region's future is likely to follow a cooperative trend or spiral into military competition and even conflict rage on.[123]

The particular Canadian debate on Arctic security reveals various schools of thought and divergent threat assessments. Proponents of the "sovereignty on thinning ice" school suggest that Arctic sovereignty, maritime disputes, and/or questions of resource ownership will serve as catalysts for regional conflict. They associate the need for military activities demonstrating effective control over Canadian territory and internal waters with the preservation or enhancement of the international legal basis for Canada's Arctic sovereignty.[124] This thinking underpinned the "use it or lose it"

[123] On these debates, see Franklyn Griffiths, Rob Huebert, and P. Whitney Lackenbauer, *Canada and the Changing Arctic: Sovereignty, Security and Stewardship* (Waterloo: Wilfrid Laurier University Press, 2011); Rob Huebert, Heather Exner-Pirot, Adam Lajeunesse, and Jay Gulledge, *Climate Change & International Security: The Arctic as a Bellwether* (Arlington: Center for Climate and Energy Solutions, 2012); Frédéric Lasserre, Jérôme Le Roy, and Richard Garon, "Is There an Arms Race in the Arctic?" *Journal of Military and Strategic Studies* 14, 3-4 (2012): pp. 2-56; and Elana Wilson Rowe, "A Dangerous Space? Unpacking State and Media Discourses in the Arctic," *Polar Geography* 36, 3 (2012): pp. 232-44. For popular commentary on the geopolitical future of the Arctic, see S.G. Borgerson, "Arctic meltdown-The economic and security implications of global warming," *Foreign Affairs* 63 (2008): pp. 63-77; "Frozen Conflict," *The Economist*, 17 December 2014, https://www.economist.com/international/2014/12/17/frozen-conflict; Neil Shea, "Scenes from the new Cold War unfolding at the top of the world," *National Geographic,* 8 May 2019, https://www.nationalgeographic.com/environment/2018/10/new-cold-war-brews-as-arctic-ice-melts/; Mark Fischetti, "Divide or Conquer: Five nations are asserting rights to vast, overlapping portions of the Arctic Ocean seafloor," *Scientific American* (August 2019): pp. 29-36; and Kathrin Stephen, "Is Confrontation Inevitable? Political tension is increasing, but cooperation could still prevail," *Scientific American* (August 2019): pp. 40-3.

[124] See, for example, Rob Huebert, "Climate Change and Canadian Sovereignty in the Northwest Passage," *Isuma* 2, 4 (Winter 2001): pp. 86-94; Rob Huebert, "The Shipping News Part II: How Canada's Arctic Sovereignty is on thinning ice," *International Journal* 58, 3 (2003): pp. 295-308; Michael Byers and Suzanne Lalonde, "Our Arctic Sovereignty is on Thinning Ice," *Globe and Mail*, 1 August 2005; "Renaissance in Canadian Arctic Security," *Canadian Military Journal* 6, 4 (2005-2006): pp. 17-29; Byers, "Ottawa must Act Quickly to Assert Sovereignty in Arctic," *Winnipeg Free Press*, 7 January 2006; Byers, "Canada's Arctic Race with Russia: Securing Canada's Rights in the Arctic will Require a Serious Investment of Money and Personnel," *Toronto Star*, 29 July 2007; Byers, "Canada Must Seek Deal with US: Vanishing Ice Puts Canadian Sovereignty in the Far North at Serious Risk," *Toronto Star*, 27 October 2006); Huebert,"Canada and the Newly Emerging International Security Regime," in *Arctic Security in an Age of*

messaging that dominated during Prime Minister Stephen Harper's first years in office in the mid-2000s.[125] Although this idea no longer dominates academic discussions, it still lingers in news media and public perceptions, and "purveyors of polar peril" continue to point to the Arctic interests of Russia, a rising China, and the United States, as cause for Canadian alarm.[126] Other commentators have argued that there is no military threat to the Arctic and that defence resources should instead be directed to dealing with human and environmental security issues associated with climate change and the region as an Indigenous peoples' homeland.[127] A third school of thought argues

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Climate Security ed. James Kraska (Cambridge: Cambridge University Press, 2011), pp. 193-217; and Huebert, Heather Exner-Pirot, Adam Lajeunesse and Jay Gulledge, *Climate Change an International Security: The Arctic as a Bellwether* (Washington: Center for Climate and Energy Solutions, May 2012). Lackenbauer contends that this is based on the erroneous assumption that maintaining ships and soldiers in the region to "show the flag" and demonstrate "presence" helps to bolster our legal position. For a fuller account of this philosophy as it manifested in the 1970s, see P. Whitney Lackenbauer and Peter Kikkert, eds., *The Canadian Forces & Arctic Sovereignty: Debating Roles Interests and Requirements* (Waterloo: Wilfrid Laurier University Press, 2010).

[125] See P. Whitney Lackenbauer and Ryan Dean, *Canada's Northern Strategy under the Harper Conservatives: Key Speeches and Documents on Sovereignty, Security, and Governance, 2006-15*, Documents on Canadian Arctic Sovereignty and Security (DCASS) No. 6 (Calgary and Waterloo: Centre for Military, Strategic and Security Studies/Centre on Foreign Policy and Federalism/Arctic Institute of North America, 2016); and Lackenbauer and Adam Lajeunesse, "Defence Policy in the Canadian Arctic: From Jean Chrétien to Justin Trudeau," in *Canadian Defence Policy in Theory and Practice*, eds. Juneau et al, pp. 365-382.

[126] See, for example, Rob Huebert, "The Arctic and the Strategic Defence of North America: Resumption of the "Long Polar Watch," in *North American Strategic Defense in the 21st Century*, eds. Christian Leuprecht, Joel Sokolsky, and Thomas Hughes (Cham: Springer, 2018), pp. 174-186; David Wright, "China in the Arctic: Polarized Visions of Polar Concerns," *Journal of Military and Strategic Studies* 19, 2 (2018): pp. 314-45; and Adam Lajeunesse and Rob Huebert, "Preparing for the Next Arctic Sovereignty Crisis: The Northwest Passage in the Age of Donald Trump," *International Journal* 74, 2 (2019): pp. 225-239. Huebert has largely abandoned his "sovereignty on thinning ice" arguments and instead espouses the idea of "spill over" of international conflict into the Arctic. This is a substantive change in direction that reveals an implicit repudiation of the geographical and geostrategic variables that he previous saw driving changes in the Arctic security environment. See, for example, Huebert, "The New Arctic Strategic Triangle Environment (NASTE),"in *Breaking the Ice Curtain? Russia, Canada, and Arctic Security in a Changing Circumpolar World* (Calgary: Canadian Global Affairs Institute, 2019), pp. 75-92.

[127] Mary Simon, "Does Ottawa's Northern Focus Look Backwards," *Nunatsiaq News*, 11 April 2008; Thomas Axworthy, *A Proposal for an Arctic Nuclear Weapon-Free Zone* (Ottawa: Interaction Council, 2010); Michael D. Wallace and Steven Staples, *Ridding the Arctic of Nuclear Weapons: A Task Long Overdue* (Ottawa: Rideau Institute, 2010); Inuit Tapiriit Kanatami, *Nilliajut: Inuit Perspectives on Security, Patriotism and Sovereignty* (Ottawa: Inuit Qaujisarvingat, 2013); Ernie Regehr, *A Nuclear-Weapon-Free Zone and Cooperative Security in the Arctic* (Ottawa: Simons Foundation, 2014); Petra Dolata, "A New Canada in the Arctic? Arctic Policies under Harper," *Études canadiennes/Canadian Studies - Revue interdisciplinaire des études canadiennes en France* 78 (2015): pp. 131-154; Wilfrid Greaves, "Arctic (In)Security and Indigenous

that, while strategic deterrence continues to have an Arctic dimension (and that this is best conceptualized at an international rather than a regional level of analysis), Canada does not face any acute conventional military threats in or to its Arctic region. Instead, members of this school suggest that Canada should focus on building military capabilities within an integrated, "whole of government" framework largely directed towards supporting domestic safety and "soft" security missions that represent the most likely incidents to occur in the Canadian Arctic.[128]

"The Arctic region represents an important international crossroads where issues of climate change, international trade, and global security meet," Canada's 2017 defence white paper, *Strong, Secure, Engaged* (*SSE*) 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."[129] 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 *SSE* emphasize the rise of security and safety challenges rather than conventional defence threats, thus confirming the line of reasoning that has become

Peoples: Comparing Inuit in Canada and Sámi in Norway," *Security Dialogue* 47, 6 (2016): pp. 461-480; and Greaves, "Securing Sustainability: The Case for Critical Environmental Security in the Arctic." *Polar Record* 52, 6 (2016): pp. 660-671.

[128] See, for example, P. Whitney Lackenbauer, "From Polar Race to Polar Saga: An Integrated Strategy for Canada and the Circumpolar World," *Foreign Policy for Canada's Tomorrow* 3 (Toronto: Canadian International Council 2009); Lackenbauer, "Canada's Northern Strategy: A Comprehensive Approach to Defence, Security, and Safety," in *North of 60: Toward a Renewed Canadian Arctic Agenda*, eds. John Higginbotham and Jennifer Spence (Waterloo: Centre for International Governance Innovation, 2016), pp. 43-48; Lackenbauer and Adam Lajeunesse, "The Canadian Armed Forces in the Arctic: Building Appropriate Capabilities." *Journal of Military and Strategic Studies* 16, 4 (2016): pp. 7-66; Lajeunesse and Lackenbauer, eds., *Canadian Armed Forces Arctic Operations, 1945-2015: Historical and Contemporary Lessons Learned* (Fredericton: Gregg Centre for the Study of War and Society, 2017); and Lackenbauer and Heather Nicol, eds., *Whole of Government through an Arctic Lens* (Antigonish: Mulroney Institute on Government, 2017).

[129] DND, *Strong, Secure, Engaged*, p. 50.

well entrenched in defence planning over the last decade.[130] Is this a reasoned analysis? Applying the geostrategic criteria that we have derived and updated from Stacey's original formulation, we test the hypothesis of whether Canada should anticipate foreign defence threats in or to the Canadian Arctic.[131]

4.1 What border is being threatened?

The defence of Canada is the first foremost task of the CAF and constitutes a "no fail" mission. Towards this end, various observers note an increased level of military interest and activity in the Circumpolar North over the last twelve years, propelling some commentators to suggest that we are in the midst of an Arctic "arms race" (led primarily by Russia) that could portend broader regional conflict or undermine circumpolar stability and security. In popular discussions, promised investments in new Arctic capabilities are often linked to "sovereignty issues" associated with boundary disputes, the uncertain limits of continental shelves, the changing environment, and competition for resources. The actual *military* threats to Canada's territorial integrity, however, are often ambiguous in a continuously evolving set of hypothetical challenges to Arctic sovereignty.[132]

In the first two decades of the twenty-first century, commentators have fixated on several purported defence challenges. Sober-minded analysts quickly reconceptualised the alleged Danish "threat" to Canada's Eastern Arctic, popularized in the mid-2000s in depictions of neo-Vikings invading the contested Hans Island in Nares Strait,[133] as a minor political issue rather than a tangible defence threat. The two

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[130] See, for example, Lackenbauer and Lajeunesse, "The Canadian Armed Forces in the Arctic"; and Lackenbauer and Lajeunesse, "The Emerging Arctic Security Environment: Putting the Military in its (Whole of Government) Place," in *Whole of Government through an Arctic Lens,* P. Whitney Lackenbauer and Heather Nicol eds. (Antigonish: Mulroney Institute on Government, 2017), pp. 1-36.

[131] In military documents, Canada's Arctic Region includes the High Arctic and extends from Alaska, in the West, to Davis Strait, in the East, from 60° North to over 83° North. The Arctic Region includes Yukon, the Northwest Territories, Nunavut, Nunavik (northern Quebec), and all of Labrador. The region also encompasses Canada's Arctic Archipelago, the territory, the islands and inlets of the region, which represent about 40 percent of the Canada's landmass and two-thirds of Canada's coastline.

[132] See, for example, Griffiths, Huebert, and Lackenbauer, *Canada and the Changing Arctic*.

[133] See Rob Huebert, "The Return of the Vikings," in *Breaking ice: Renewable resource and ocean management in the Canadian North*, eds. Fikret Berkes et al. (Calgary: University of Calgary Press, 2005), pp. 319-36.

countries' longstanding alliance relationship, ongoing military exchanges and close liaison, and shared commitment to a diplomatic solution (and circumpolar peace and stability more generally) ensure that there is no possibility of military confrontation. This is also the case with Canada's outstanding disputes or disagreements with the United States over the maritime boundary in the Beaufort Sea and the legal status of the waters of Canada's Northwest Passage. Managing the longstanding disagreement with the United States over the status of the waters of the Northwest Passage has consequences for Canadian defence and security in terms of transit rights and regulatory enforcement, but it holds no serious risk of precipitating a military conflict. These are longstanding, well-managed issues and neither side would ever consider "resolving" them through force of arms.

Russian state interests and military posturing in the Circumpolar Arctic are more complicated. Russia's domestic and foreign policy has repeatedly emphasized the region's importance, particularly since Putin's second presidential term began in 2004. Assertive rhetoric about protecting national interests and resources has been followed up with increased military activity and investments in the region, in particular in the air and maritime domains. Although this resurgent activity represents but a shadow of Russian military capability during the Cold War, these activities, coupled with belligerent anti-Western rhetoric and deterioration in Russia's relations with NATO and the US, have evoked speculations about impending Arctic conflict. International attention on and in the region has bolstered Russia's determination to solidify its role as an Arctic power through diplomatic, economic, and military means. Russian security structures in the region, and in particular the Northern Fleet as a fundamental underpinning of Russia's strategic deterrence and maritime defence, factor heavily in the country's "come-back" strategy.[134] Despite repeated assurances from senior Russian officials that the country will adhere to international law and seeks to maintain regional peace and stability, unpredictable Russian behaviour on the international stage

[134] See, for example, Katarzyna Zysk, "The Evolving Arctic Security Environment – An Assessment," in *Russia in the Arctic*, ed. Stephen Blank (Carlisle: Strategic Studies Institute of the US Army War College, 2011), pp. 91–113; and Caitlyn L. Antrim, "The Next Geographical Pivot: The Russian Arctic in the Twenty-first Century," *Naval War College Review* 63, 3 (2010): pp. 14-38.

(particularly since 2014) has contributed to Western ideas of Russia as a wild card in the Arctic strategic equation.[135]

Russian international relations scholar Alexander Sergunin is one of the leading analysts suggesting that Russian investments in Arctic military capabilities are pragmatic, defensive in nature, and reflective of Russia's geographical realities. "According to some Western analysts, because of Russia's economic weakness and technological backwardness, the country tends to resort to military-coercive instruments to protect its national interests in the Circumpolar North," he observes. Instead, "the Kremlin has continued to make the socio-economic development of the Arctic Zone of the Russian Federation (AZRF) its central priority" and its pragmatic approach reflects military intentions that are "inward-focused and purely defensive, aimed principally at the protection of the country's sovereign rights and legitimate interests."[136] With a Russian economy heavily dependent upon oil and gas reserves in the AZRF, it is unsurprising that senior officials in Moscow describe the Arctic as the core strategic resource base of their country. To pursue this path does not require a revisionist policy, given that geography and international law prescribe their sovereign rights to resources on land, within their Exclusive Economic Zone (EEZ), and on the extended continental shelf. Accordingly, Russian official statements expressing their country's intent to resolve Arctic disputes by peaceful means, relying on international law and organizations, are consist with Russian national self-interest. Furthermore,

[135] On Russian messaging regarding the Arctic, see P. Whitney Lackenbauer, "Mirror images? Canada, Russia, and the circumpolar world," *International Journal* 65, 4 (2010): pp. 879-897. On the impacts of the Ukrainian crisis on Arctic relations, see Kari Roberts, "Why Russia will play by the rules in the Arctic," *Canadian Foreign Policy Journal* 21, 2 (2015): pp. 112-128; Daria Gritsenko, "Vodka on ice? Unveiling Russian media perceptions of the Arctic," *Energy Research & Social Science* 16 (2016): pp. 8-12; Valery Konyshev, Alexander Sergunin, and Sergei Subbotin, "Russia's Arctic strategies in the context of the Ukrainian crisis," *Polar Journal* 7, 1 (2017): pp. 104-124; Michael Byers, "Crises and international cooperation: an Arctic case study," *International Relations* 31, 4 (2017): pp. 375-402; and Lackenbauer and Lalonde, eds., *Breaking the Ice Curtain?*.

[136] Unsurprisingly, the Kremlin aims "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." *Strategiya Razvitiya Arkticheskoi Zony Rossiyskoi Federatsiii Obespecheniya Natsional'noi Bezopasnosti na Period do 2020 Goda* [The Strategy for the Development of the Arctic Zone of the Russian Federation and Ensuring National Security for the Period up to 2020], approved by President Vladimir Putin on 20 February 2013, http://www.ppavitel_ctvo.pf/docs/22846 (in Russian).

Russian military strategists insist that the country must be prepared to defend against current and emerging security issues that could threat their national interests and rights within the AZRF.[137]

As an international airspace that falls between Canada and Russia, the Arctic has long represented a key strategic theatre for great power projection and deterrence activities. Since 2007, Russian heavy bombers, such as the Tu-95MS Bear and Tu-160 Blackjack, have resumed regular air patrols in the international airspace along the coastlines of other Arctic countries to underscore Russia's continued capabilities.[138] After the Russian invasion of Ukraine in 2014 and the resulting Western sanctions,[139] Russian bomber flights to the margins of Canada's Arctic airspace have grown increasingly complex. NORAD fighter aircraft routinely intercept Russian military

[137] See Dimitry Medvedev, "Russian Federation Policy for the Arctic to 2020" (2008), http://www.arctis-search.com/Russian+Federation+Policy+for+the +Arctic+to+2020.

[138] See, for example, "U.S., Canadian Jets Scrambled To Escort Russian Bombers Away From North American Coastline," *RadioFreeEurope* 27 January 2019, https://www.rferl.org/a/us-canadian-jets-scramble-escort-russian-blackjack-bombers-away/29733515.html; Bob Weber, "'Strategic messaging': Russian fighters in Arctic spark debate on Canada's place at the top of the world," *National Post* 10 February 2019, https://nationalpost.com/news/canada/strategic-messaging-russian-fighters-in-arctic-spark-debate-on-canadas-place; and Andrew Osborn, "Russia flies nuclear-capable bombers to region facing Alaska," *Reuters* 14 August 2019, https://www.reuters.com/article/us-usa-russia-bombers/russia-flies-nuclear-capable-bombers-to-region-facing-alaska-idUSKCN1V420D.

[139] On the impacts of the Ukrainian crisis on Arctic relations, see Andreas Østhagen, "Ukraine Crisis and the Arctic: Penalties or Reconciliation?" *The Arctic Institute*, 30 April 2014, http://www.thearcticinstitute.org/2014/04/impact-of-ukraine-crisis-on-Arctic.html; Roberts, "Why Russia will play by the rules in the Arctic"; Rob Huebert, "Why Canada, US Must Resolve their Arctic Border Disputes," *Globe and Mail,* 21 October 2014; Huebert, "How Russia's Move into Crimea Upended Canada's Arctic Strategy," *Globe and Mail,* 2 April 2014; Huebert, "Is Canada Ready for Russia's Hardball Approach to the North Pole," *Globe and Mail*, 30 January 2014; Derek Burney and Fen Osler Hampson, "Arctic Alert: Russia is Taking Aim at the North," *Globe and Mail*, 9 March 2015; Michael Byers, "The Northwest Passage Dispute Invites Russian Mischief," *National Post*, 28 April 2015; Scott Borgerson and Michael Byers, "The Arctic Front in the Battle to Contain Russia," *Wall Street Journal*, 8 March 2016; Adam Lajeunesse and Whitney Lackenbauer, "Canadian Arctic Security: Russia's Not Coming," *Arctic Deeply*, 14 April 2016, https://www.opencanada. org/features/ canadian-arctic-security-russias-not-coming; Daria Gritsenko, "Vodka on ice? Unveiling Russian media perceptions of the Arctic," *Energy Research & Social Science* 16 (2016): pp. 8-12; Valery Konyshev, Alexander Sergunin, and Sergei Subbotin, "Russia's Arctic strategies in the context of the Ukrainian crisis," *Polar Journal* 7, 1 (2017): pp. 104-124; Danita Burke and Jon Rahbek-Clemmensen, "Debating the Arctic during the Ukraine Crisis: Comparing Arctic state identities and media discourses in Canada and Norway," *Polar Journal* 7, 2 (2017): pp. 391-409; and Michael Byers, "Crises and international cooperation: an Arctic case study," *International Relations* 31, 4 (2017): pp. 375-402.

aviation missions inside the Alaskan and northern Canadian Air Defence Identification Zones (CADIZ).[140] Lacking large population centres and critical infrastructure, Russia would have little to gain by sending aircraft into a region possessing no strategically important targets. Former NORAD Commander Admiral William Gortney explained that Russia is "messaging us with these flights that they're a global power – which shouldn't be a surprise, we do that too."[141] Similarly, sending intercepts to meet these Russian bombers demonstrates a Canadian capacity to act (in partnership with its core North American ally) along its Arctic approaches, signalling capability to the international community.[142]

Given that the Arctic states surround an ocean, the Circumpolar Arctic as an international geopolitical region should be predominantly conceptualized as a maritime space. Russia has devoted considerable resources to modernizing its fleet of nuclear attack and ballistic missile submarines, despite serious financial constraints on Russia's state budget.[143] This spending affirms the priority that the Russian government places on this arm of its military, one which has a history of operating in the Arctic Ocean and, according to Michael Byers, perhaps even in the Canadian Arctic Archipelago.[144] In spite of these growing capabilities, the challenge lies in inferring Russian intent and

[140] General Terrence J. O'Shaughnessy, NORAD and USNORTHCOM Commander, statement to Senate Armed Services Committee Strategic Forces Subcommittee hearing, 3 April 2019. At the same time as Russian-backed rebels downed a Malaysian airliner with a Buk surface-to-air missile over Eastern Ukraine in July 2014, for instance, Russians aircraft were also operating off Alaska and Yukon. Thomas Frer, Lukas Kulesa, and Ian Kearns, *Dangerous Brinkmanship: Close Encounters Between Russia and the West in 2014* (London: European Leadership Network, November 2014).

[141] Bob Weber, "NORAD ready to Intercept Russian aircraft in Arctic," *Toronto Star*, 28 May 2015.

[142] Canadian Forces Employment and Support Concept for the North, November 2012, p. 40.

[143] For recent work, see Pavel Baev, "Examining the execution of Russian military-security policies and programs in the Arctic," in *Russia's Far North: The Contested Energy Frontier*, eds. Veli-Pekka Tykkynen, Shinichiro Tabata, Daria Gritsenko, and Masanori Goto (London: Routledge, 2018), pp. 113-25; Baev, "Russia's Ambivalent Status-Quo/Revisionist Policies in the Arctic," *Arctic Review* 9 (2018): pp. 408-424; Valery Konyshev and Alexander Sergunin, "US-Russia Relations in the Arctic: Cooperation or Competition?," *World Economy and International Relations* 62, 9 (2018): pp. 103-111; Baev, "Threat Assessments and Strategic Objectives in Russia's Arctic Policy," *Journal of Slavic Military Studies* 32, 1 (2019): pp. 25-40; and Ernie Regehr and Amy Zavitz, *Circumpolar Military Facilities of the Arctic Five* (Ottawa: Simons Foundation, 2019), http://thesimonsfoundation.ca/sites/default/files/Circumpolar%20Military%20Facilities%20of%20the%20Arctic%20Five%20-%20updated%20September%202019.pdf.

[144] Michel Byers, "Russian Maps Suggest Soviet Subs Cruised Canadian Arctic," *Globe and Mail*, 6 December 2011.

deciding what gains Russia perceives it could secure through military action in the region.

Applying the right geostrategic lens, at the appropriate scale, is essential. Lackenbauer highlights the need to 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. Furthermore, he questions the utility of talking about "the Arctic" as a singular whole rather than conceptualizing it as a region of regions, noting key geopolitical and demographic differences between the European Arctic, Russian Arctic, North American Arctic, and Central Arctic Ocean. By disaggregating "Arctic geopolitics," he suggests that we can achieve greater analytical coherence and better understand how national interests are reflected and invoked in Arctic diplomacy and security discourses.[145] "The Russian and Canadian governments follow a pragmatic line and pursue their maritime and continental shelf claims in the region in compliance with international law – while highlighting that, as sovereign states, they will not be pushed around by neighbours who might encroach on their respective jurisdiction," he observed in 2010. "This serves as a convenient pretext to invest in more robust military capabilities to protect territory, natural resources, and national interests."[146] The precise nature of foreign threats, however, are often articulated in terms that conflate various meanings of sovereignty and security, compress or failure to appropriately apply levels of analysis, and thus distort the geostrategic picture.

Despite the considerable ink spilled on uncertainty over Arctic maritime boundaries in the last fifteen years,[147] official statements by all of the Arctic states since 2008 dispel the myth that these issues have strong defence components. The outer limits

[145] Lackenbauer presented his recent thinking on these topics as "A Canadian Perspective on the Changing Arctic Defence and Security Environment" in a breakout session on Towards Enhanced Arctic Security Cooperation organized by the George C. Marshall European Center for Security Studies and Institute of International Affairs, University of Iceland, Arctic Circle Assembly, Reykjavik, Iceland, 11-12 October 2019; and "Environmental and Economic Drivers of Change in the Canadian and North American Arctic: Over-Hyping Defence and Downplaying Human Security?" at the NATO Strategic Foresight Analysis Regional Workshop: Arctic and the High North, Oslo, Norway, 18 September 2019.
[146] Lackenbauer, "Mirror Images?"
[147] See for example: Klaus Dodds, "Flag Planting and Finger Pointing: The Law of the Sea, the Arctic and the Political Geographies of the Outer Continental Shelf." *Political Geography* 29, 2 (2010): pp. 63-73.

of the Canadian and Russian extended continental shelves in the Arctic Ocean overlap on the basis of scientific evidence, but there is every reason to expect that they will be defined through diplomacy. The Kremlin has repeatedly underlined that overlaps should be solved in a peaceful way and on the basis of international law (particularly the UN Convention on the Law of the Sea), and Moscow has adhered fully to the established international legal process for delineating the outer limits of its extended continental shelf, submitting its data to the UN Commission on the Limits of Continental Shelf, and agreeing to negotiate any overlaps with Denmark and Canada over the Lomonosov Ridge. There is no defence component to this issue, and relative capabilities to assert control over resources have no bearing on the outcome according to the relevant articles in UNCLOS. Geostrategic analysis suggests that both Russia and Canada stand to gain the most as Arctic coastal states if the delineation process unfolds in conformity with established international law, and both stand to lose if it does not.

Does Russia pose a maritime threat in or to Canada's Arctic waters? In a polemical March 2016 *Wall Street Journal* article, Scott Borgerson and Michael Byers suggested that the threat of "naval vessels from Russia and other unfriendly nations passing through the Northwest Passage, or terrorists and smugglers seeking to enter North America from there," necessitated that Canada and the US negotiate a bilateral "agreement on the Northwest Passage—before it is too late. The sea-ice is melting, foreign ships are coming, and there is little to stop an increasingly assertive Russia from sending a warship through."[148] This assertion misses the mark on several grounds. First, studies of northern shipping routes and sea-ice dynamics consistently suggest that the Canadian Arctic will not emerge as a safe or reliable sea route for the foreseeable future. Russia (or any country) is unlikely to risk damaging a billion-dollar warship to sail through the passage for unclear strategic objectives, given the importance it places on delevoping its own Arctic, and has no desire to demonstrate the feasibility of using a Northwest Passage when it is seeking to attract activity in its Northern Sea Route. Furthermore, the scenario a Russian "freedom of navigation" voyage through the Northwest Passage overlooks how, for nearly seven decades of straightforward self-interest, Russia has passively supported the idea that Canada enjoys control over a "sector" of the Arctic and/or that the Northwest Passage constitutes internal waters.

[148] Borgerson and Byers, "The Arctic Front in the Battle to Contain Russia."

Russia claims sovereignty over the NSR on a similar basis, and to challenge Canadian sovereignty by treating the NWP as an international strait would undermine its own legal position in the AZRF.

Although transiting the Northwest Passage (by air or sea) in violation of Canada's internal waters position (which Russia has never officially opposed) might afford closer launch sites for ballistic or cruise missiles in a war scenario, but in a peacetime context would likely invite an American reciprocal "freedom of navigation" voyage through Arctic waters that Russia claims as internal (and the U.S. consider an international strait). Presumably this would offset any benefits that Russia might gain from challenging Canada's legal position.[149] Given that any Russian invasion of sovereign Canadian territory would constitute an act of war, and thus lead to the mobilization of our NATO allies (and the American nuclear deterrent), there is little to no likelihood that Russia would risk a war with the West to try to acquire Canadian Arctic territory. Geography and geostrategic considerations mean there is no simple analogy to what has transpired in eastern Ukraine.

Although official statements often cite the importance of military "boots on the ground" to demonstrate Canadian sovereignty, from a legal perspective the exercise of sovereignty means demonstrating that the waters of the Arctic Archipelago are historic internal waters, a status that requires both foreign acceptance of Canada's position and the effective exercise of Canadian control within its jurisdiction. Accordingly, international recognition of Canadian sovereignty is best displayed by foreign operators complying with Canadian laws and regulation in Canadian waters. This, in turn, is something that the CAF encourages by maintaining or enhancing enforcement capabilities tailored to supporting constabulary operations in the Arctic waters, by assisting foreign and domestic operators, and working with other departments and agencies to monitor the region and ensure adherence to Canadian regulations

[149] On the similarities between Canadian and Russian positions on Arctic waters, see Aldo Chircop, Ivan Bunik, Moira McConnell and Kristoffer Svendsen, "Course Convergence? Comparative Perspectives on the Governance of Navigation and Shipping in Canadian and Russian Arctic Waters," in *Ocean Yearbook* 28, ed. Aldo Chircop, Scott Coffen-Smout, and Moira McConnell (Brill, 2014): pp. 291-327.

governing shipping, pollution, exploration, and resource exploitation.[150] The traditional inter-state defence dimension is modest.[151]

4.2 Proximity

While physical geographical space remains constant, advanced technologies allow would-be adversaries to compress the time that it takes for offensive weapon systems to cross vast distances. "Russia has posed a nuclear threat to North America for over half a century, but has only recently developed and deployed capabilities to threaten the homeland below the nuclear threshold," General Terrence J. O'Shaughnessy, the NORAD and USNORTHCOM Commander, told a US Senate committee in April 2019. "Russia continues to hone and flex its offensive cyber capabilities, and its new generation of advanced air- and sea-launched cruise missiles feature significantly greater standoff ranges and accuracy than their predecessors, allowing them to strike North America from well outside NORAD radar coverage."[152]

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[150] DND, *Strong, Secured, Engaged*. On this theme, see Michael Byers, *International Law and the Arctic* (Cambridge: Cambridge University Press, 2013); Lackenbauer and Lalonde, "Canada, Sovereignty, and 'Disputed' Arctic Boundaries: Myths, Misconceptions, and Legal Realities." See also the chapters in Lackenbauer and Nicol, eds., *Whole of Government through an Arctic Lens* (Antigonish: Mulroney Institute on Government, 2017); and Dwayne Menezes and Nicol, eds., *The North American Arctic: Themes in Regional Security* (London: UCL Press, 2019).

[151] In other commentaries, the growing interest of non-Arctic states, particularly China, points to potential sovereignty and military challenges to the Arctic states. Upon closer examination, however, there is no strong empirical evidence to support that the theoretical, and highly speculative, scenarios presented actually anticipate conventional military threats to Canada's North in the near term. On China as military threat, see for example Anne-Marie Brady, *China as a Polar Great Power* (Cambridge: Cambridge University Press, 2017); Levon Sevunts, "Pentagon warns of risk of Chinese submarines in the Arctic," *CBC News*, 4 May 2019, https://www.cbc.ca/news/politics/china-arctic-military-submarines-pentagon-1.5123287; and United States, Office of the Under Secretary of Defense for Policy, *Department of Defense Arctic Strategy* (June 2019), https://media.defense.gov/2019/Jun/06/2002141657/-1/-1/1/2019-DOD-ARCTIC-STRATEGY.PDF. For a less fearful assessment, see P. Whitney Lackenbauer, Adam Lajeunesse, James Manicom, and Frédéric Lasserre, *China's Arctic Ambitions and What They Mean for Canada* (Calgary: University of Calgary Press, 2018).

[152] General Terrence J. O'Shaughnessy, NORAD and USNORTHCOM Commander, statement to Senate Armed Services Committee Strategic Forces Subcommittee hearing, 3 April 2019. O'Shaughnessy observes that "since 2015, Russia has employed its new air- and sea-launched cruise missiles against anti-regime targets in Syria, providing real-world training for Russian crews and demonstrating its growing precision-strike capabilities to the West. In a parallel effort, Russia has implemented a modernization

The great circle route over the pole makes the Arctic a likely conduit of attack by foreign aerospace threats, rendering Canada vulnerable to rapid precision strikes or out-right nuclear destruction using those delivery systems.[153] The need for would-be adversaries to actually enter into the Canadian Arctic to launch these weapons, however, is unclear. The expanse of the Arctic Ocean, vast size of the Canadian North,[154] extremely limited infrastructure, and extreme climate all render the threats posed by foreign ground forces and maritime surface fleets to be implausible.[155]

Russia has invested heavily in refurbishing or opening new military facilities, airfields, and search and rescue facilitaties in its Arctic. While Lackenbauer has argued that this represents a convenient way for Vladimir Putin to funnel state funds to support oligarchs in the resource sector who are embarking on economically-marginal projects,[156] this infrastructure lays a foundation for Russian military force projection more broadly. Infrastructure (capability) built for "defensive" purposes (intent) can be converted to "offensive" purposes if intent changes, or their defensive use can limit the Western Allies' freedom of action in the Eurasian Arctic and Bering Strait region (anti-access, area denial, or "A2/AD"). Accordingly, it is important for Canada and its allies to carefully monitor Russian infrastructure developments, focusing on actual capabilities being developed (rather than political statements) and their prospective uses beyond those articulated in official statements intended for foreign audiences. That stated, threat assessments should clearly explain what *part* of the Arctic these systems

program for its heavy bombers that will ensure their ability to perform nuclear and non-nuclear deterrence and strike missions in the coming decades." Furthermore, Russia's Severodvinsk-class guided missile submarine, armed with advanced land-attack cruise missiles, "is much quieter and more lethal than previous generations of Russian attack submarines" and its "growing non-nuclear capabilities provide Moscow a range of options to dissuade an adversary from escalating and to terminate a conflict on terms favorable to Moscow, increasing the potential for miscalculation or opportunistic actions."

[153] See Kenneth C. Eyre, "Forty Years of Military Activity in the Canadian North, 1947-87," *Arctic* 40, 4 (December 1987): pp. 294-6.

[154] Arctic Integrating Concept 23 August 2010, pp. 14-5.

[155] Canadian Forces Employment and Support Concept for the North, 23 March 2011, pp. 6-7. This confirms the observations in Eyre, "Forty Years of Military Activity in the Canadian North,"p. 294.

[156] Lackenbauer, "Russia's Arctic Interests Implications for Canadian Defence, Security, and Foreign Policy," conference report to the Arctic Security Working Group, Iqaluit (by teleconference), Nunavut, 10 May 2018; and "Arctic Defence and Security: A Canadian Perspective," paper delivered at the Responding to a Changing Arctic Ocean: Canadian and Russian Experiences and Challenges workshop, Montreal, Quebec, 1 December 2018.

or capabilities are most likely to be directly. Geographical proximity means that immediate threats to the Norwegian Arctic do not necessarily threaten the Canadian Arctic.[157] Accordingly, generalizing about threats to Canada posed by Russia's "Arctic capabilities" can be problematic, and might distort the appraisal of where and when Canada might be called upon to be a "provider" or a "consumer" of collective security.

Climate change, and particularly the dramatic rise in temperatures in the Arctic with concomitant effects on sea ice, portends increasing maritime activity in the region. *SSE* observes that:

> 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.[158]

The danger lies in conflating interest with actual activity levels. Popular descriptions about the rapid decline in sea ice opening "new" maritime routes that inherently shorten transit times between Asian and European ports often reflect what naval historian N.A.M. Rodger refers to as the "tyranny of lines on a map" – the myth of linear distances predicated on an "unbroken expanse of blue" running across the Arctic.[159] Although images of the Arctic Ocean as an emerging "polar Mediterranean"[160] are in regular circulation, the opening of transpolar sea routes to regular commercial or surface naval traffic has proven more theoretical than real.

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[157] Andreas Østhagen, Gregory Levi Sharp, and Paal Sigurd Hilde, "At Opposite Poles: Canada's and Norway's Approaches to Security in the Arctic," *Polar Journal* 8, 1 (2018): pp. 163-181.
[158] DND, *Strong, Secure, Engaged*, p. 51.
[159] N.A.M. Rodger, "Weather, Geography and Naval Power in the Age of Sail," in *Geopolitics*, ed. Gray and Sloan, p. 178.
[160] For the origins of this image a century ago, see Vilhjálmur Stefánsson, *The Friendly Arctic* (New York: Henry Holt and Co., 1921).

In a recent chapter assessing how the Arctic fits into the evolving strategic postures of Russia, the United States, and China, political scientist Rob Huebert suggests that proximity between these strategic competitors has produced a "New Arctic Strategic Triangle Environment" (NASTE). In contrast to his earlier "sovereignty on thinning ice" and "perfect storm" hypotheses,"[161] he emphasizes that potential Arctic conflict will not emanate from disputes over Arctic resources or territory but from the "spill-over" effects of broader strategic rivalry. Driven by its opposition to NATO expansion and a desire to recapture the international status of the former Soviet Union, Russia has been modernizing and expanding its strategic weapon systems based in the Arctic. Huebert asserts that Russia's goal is to leverage these regional weapons to achieve its interests globally which, in turn, has provoked a nascent security dilemma in the Arctic region. Strategic weapons are drawing the American military into the Arctic, given that American strategic doctrine calls for a strong counter-force effort against opposing nuclear forces. Conversely, the American development of a limited ballistic missile defense shield based partially in Alaska invites China and Russia to develop capabilities to neutralize it. Furthermore, Huebert asserts that China's strategic competition with both Russia and the United States will inevitably draw it into the region, given its importance as a theatre for submarine forces. Ultimately, growing great power competition in the Arctic region could push Canada to the margins despite its geographical position.

The rising interests of non-Arctic states claiming a "proximity" argument to justify their involvement in Arctic affairs and governance also reveals the persistence of geographically-rooted criteria. China's self-identification as a "near-Arctic state" with aspirations to build a "polar silk road" as part of its reimagining of global trade, and its declaration that it "attaches great importance to navigation security in the Arctic shipping routes,"[162] poses particularly challenges to Arctic states like Canada that might

[161] See, for example, Rob Huebert, "Climate Change and Canadian Sovereignty"; Huebert, "The Shipping News Part II"; Huebert, "Return of the 'Vikings,'" in *Breaking Ice: Renewable Resource and Ocean Management in the Canadian North*, eds. Fikret Berkes et al. (Calgary: Arctic Institute of North America, 2005), 319-36; and Huebert, "Canada and the Changing International Arctic: At the Crossroads of Cooperation and Conflict," in *Northern Exposure: Peoples, Powers and Prospects for Canada's North*, eds. Frances Abele et al. (Ottawa: Institute for Research on Public Policy, 2008), pp. 1-28.

[162] State Council Information Office of the People's Republic of China, China's Arctic Strategy (26 January 2018), http://english.www.gov.cn/archive/white_paper/2018/01/26/content_281476026660336.htm. For

view the polar ocean as a private sea. "China has declared that it is not content to remain a mere observer in the Arctic and has taken action to normalize its naval and commercial presence in the region in order to increase its access to lucrative resources and shipping routes," the commander of NORAD recently suggested. While Canada must remain vigilant to ensure that China's Arctic activities do not undermine Canadian interests, discussions of Chinese strategic defence and security interests in the region remain highly speculative. Our assessment suggests that security and safety issues that arise from the activities of China in the Canadian Arctic (including the potential for espionage and intelligence-gathering activities, influence activities, resource development and shipping activities that harm the environment, and the loss of Canadian economic sovereignty) are often best considered in the broader context of Canada's strategic relationship with that country as an emerging global power rather than through a narrow Arctic defence and sovereignty lens.[163]

4.3 Physical Environmental Conditions (Topography and Terrain)

The geography of the Canadian Arctic continues to make it a unique environment where operating conditions vary significantly from those in southern Canada and other parts of the Circumpolar North.[164] A brief assessment of Arctic operational documents produced by the Department of National Defence / Canadian Armed Forces over the last decade point to persistent physical environmental challenges in projecting and sustaining forces in the Canadian Arctic – a geographical area that is by no means a monolithic physiographical region. Natural Resoures Canada identifies eight ecoregions in the Canadian North based on geophysical conditions

Canadian reactions, see for example Tristin Hopper, "Declaring itself a 'near-Arctic state,' China to build a 'Polar Silk Road' off Canada's north," National Post, 30 January 2018; and Adam Lajeunesse and P. Whitney Lackenbauer, "China's Arctic Ambitions: The New Arctic Policy of a 'Near-Arctic State,'" *iPolitics*, 2 February 2018, https://ipolitics.ca/article/chinas-arctic-ambitions-new-arctic-policy-near-arctic-state/.

[163] See Lackenbauer et al, *China's Arctic Interests*; and Lackenbauer, "'Global Arctic Leadership' in an Era of Cooperation and Competition," in *Canada's Arctic Agenda: Into the Vortex*, eds. John Higginbotham and Jennifer Spence (Waterloo: Centre for International Governance Innovation, 2019), p. 71.

[164] Canadian Forces Northern Employment and Support Plan, November 2012, p. 3.

alongside regional differences in climate, vegetation and wildlife.[165] The Arctic Archipelago consists of more than 36,000 islands and includes more than three-quarters of Canada's coastline. Limited infrastructure, vast distances, and diverse topographical conditions make it distinct from Alaska (most of which is south of treeline and almost half of its coastline is open to year-round sea traffic) and Northern Europe. This dramatically increases the cost of operations and decreases the mobility of forces deployed.[166]

The Canadian Arctic is largely a maritime environment, hostile to operation of most naval vessels due largely to the polar sea ice and the unpredictability of "bergy bits" and "growlers" infesting "ice-free" waters.[167] The 2012 Northern Employment Support Plan notes that, "current Canadian warships are only capable of operations up to the ice edge which restricts operations to ice-free waters in the eastern approaches to the Arctic (Davis Strait and Baffin Bay) during the Arctic navigation period (Jun-Oct)."[168] While the reduction in sea ice and other environmental changes are likely to bring increased maritime traffic to the Canadian Arctic, the *unpredictability* associated with climate change makes it difficult to anticipate *when* this will occur.

The persistent hazards and geographical challenges that vessels actually face when operating in Arctic waters – such as remoteness, lack of hydrographic data, low temperatures and extended periods of darkness, complex ice characteristics and conditions, limited supporting infrastructure, and long distances from home ports in

[165] Natural Resources Canada, "Northern Canada – Regional Overview – 2.1 Physical Geography," https://www.nrcan.gc.ca/environment/resources/publications/impacts-adaptation/reports/assessments/2008/ch3/10331.
[166] Canadian Joint Operations Command (CJOC) Plan for North, January 2014, file 3350-1 (J5), p. 11.
[167] See, for example, Protection of the Arctic Marine Shipping Environment (PAME), *Arctic Marine Shipping Assessment* (2009), https://www.pame.is/images/03_Projects/AMSA/AMSA_2009_report/AMSA_2009_Report_2nd_print.pdf; Adam Lajeunesse and P. Whitney Lackenbauer, *On Uncertain Ice: The Future of Arctic Shipping and the Northwest Passage* (Calgary: Canadian Defence & Foreign Affairs Institute Policy Paper, December 2014); Arctic Monitoring and Assessment Programme (AMAP), *Snow, Water, Ice and Permafrost in the Arctic (SWIPA) 2017* (Oslo: AMAP, 2017); Canadian Coast Guard, *Ice Navigation in Canadian Waters* (2019), http://www.ccg-gcc.gc.ca/folios/00913/docs/ice-navigation-dans-les-glaces-eng.pdf; Frédéric Lasserre and Olivier Faury, eds., *Arctic Shipping: Climate Change, Commercial Traffic and Port Development* (New York: Routledge, 2019); and Lasserre, "Arctic Shipping: A Contrasted Expansion of a Largely Destinational Market," in *The GlobalArctic Handbook*, ed. Lassi Heininen (Cham: Springer, 2019), pp. 83-100.
[168] Canadian Forces Northern Employment and Support Plan, p. 11.

the South – remain serious constraints that will not abate, and may become more acute, owing to climate change.[169] "Regardless of the degree of accessibility, the Arctic Region will remain a unique and harsh operating environment," the US Navy's 2014 *Arctic Roadmap* emphasized. "Naval operations in the Arctic Ocean, outside the Barents, Bering, and Norwegian Seas, require special training, extreme cold-weather modifications for systems and equipment, and complex logistics support. Given the vast distances and virtually no supporting infrastructure, naval forces without specialized equipment and operational experience face substantial impediments." Even when areas became seasonally free of ice, "unpredictable locations and movement of ice formations as well as the inadequate and incomplete nautical charting and aids to navigation in many portions of the Arctic Ocean" significally hindered surface vessel operations.[170]

While air forces are not directly affected by topography or terrain when flying, unique environmental challenges still make Arctic operations particularly daunting. Endurance, speed and capacity generally make fixed-wing aircraft the preferred means of movement from mounting bases to forward operating locations.[171] Nevertheless, severe weather conditions (cold, dark winters and foggy summers with icing conditions), isolated and often short airstrips, limited communications, and a lack of support infrastructure pose significant constraints. Even routine operations, such as patrolling, resupply, and transporting personnel to remote communities or stations, require specialized training and experience. The versatile Twin Otters of 440 squadron, which can be fitted with wheels, skis, or floats, offer a case in point, given their ability to land in austere conditions.[172] Furthermore, given that "lines of communication are the

[169] PAME, *Arctic Marine Shipping Assessment*; International Maritime Organization (IMO), *International Code for Ships Operating in Polar Waters* (2016), http://www.imo.org/en/MediaCentre/HotTopics/polar/Documents/POLAR%20CODE%20TEXT%20AS%20ADOPTED.pdf; Arctic Integrating Concept, 23 August 2010, p. 27.

[170] US Navy Chief of Naval Operations, *The United States Navy Arctic Roadmap for 2014 to 2030* (2014), p. 8. This assessment is confirmed in US Navy Chief of Naval Operations, *The United States Navy Strategic Outlook for the Arctic* (January 2019), p. 4. Furthermore, building a few specialized and expensive ships for Arctic operations means taking resources away from operating a more numerous navy with greater applicability elsewhere.

[171] Canadian Forces Northern Employment and Support Plan, November 2012, p. 10.

[172] See, for example, Chief of the Air Staff, Air Force Arctic Planning Directive – Phase One, 26 March 2010, file 3120-2 (D Air SP).

life blood of forces in the North," the "lack of adequate ground and marine lines of communications requires more emphasis on the use of aircraft and low ground pressure cross-country vehicles for supply, resupply, and force movement."[173]

Land forces operating in the Canadian Arctic face particulary acute terrain and weather challenges that intrinsically affect military appreciations of time and space.[174] The Canadian Army's Arctic concept notes that although "the first aspect of the environment that comes to mind may be the extreme winter temperatures, that is but one aspect of the many challenges Canadian troops encounter in the Arctic." Other factors include the wide range of temperatures; unpredictable ice conditions; difficulties of ground transportation over tundra, muskeg, ice and water obstacles, mountains, beaches, and the transitions to and from fresh and salt water bodies; the lack of flora and the presence of carnivorous fauna (and insects); and limited critical infrastructure or sustainment capacities.[175] Indeed, since the 1940s, military planners have recognized that the most significant military characteristics of the Arctic and Subarctic – for operations in all seasons – are isolation, the vast distances involved, the lack of transportation infrastructure, and the limits these variables imposed on military mobility.[176] Furthermore, the tendency for many analysts to equate *winter* operations with *Arctic* operations represents a fundamental analytic flaw, given the range of practical challenges associated with operating in the summer and shoulder-seasons. Furthermore, equipment, sustainment systems, concepts, and doctrine that work in one part of the Canadian Arctic are not necessarily appropriate across the breadth of this diverse region.

Geographical realities dictate that the Canadian Army treats Arctic deployments akin to expeditionary operations, designed to deliver "high-readiness Arctic-enabled sub-units" that are self-contained, "self-sufficient for an extended period of time, [and] appropriate to the unique circumstances of the different regions of the Arctic."[177] This concept reflects an appreciation of how remoteness, isolation, and "hostile" climatic and

[173] CF Northern Employment Support Plan, 2012, p. 9.
[174] CF Northern Employment Support Plan, 2012, p. 9.
[175] Canadian Army, *Northern Approaches*, p. 20.
[176] K.C. Eyre, "Custos Borealis: The Military in the Canadian North" (unpublished Ph.D. thesis, University of London - King's College, 1981).
[177] *Northern Approaches*, p. 24.

topographical conditions strongly influence how the Army can generate and employ forces.[178] Land forces often require Arctic-specific equipment and clothing purposely desgined to function within a particular environment. Furthermore, radio communications in the region face propagation difficultiesm, necessitating special planning and preparedness.[179] Of course, the challenges that Canada faces in projecting and sustaining forces in its own Arctic, even during non-combat training exercises, would be magnified exponentially for a foreign adversary trying to mount an attack.[180]

4.4 Utilizing geography to identify advantages and disadvantages in defending Canada

While most strategic analyses of the Arctic stress the role that climate and environmental change will play in "opening" the region to the broader world, this must be counterbalanced by considerations of the heightened *constraints* that changing and increasingly unpredictable environmental conditions will have on Arctic operations. "Geography and seasonal changes in climate will affect the degree of risk to the integrity of sparse Northern infrastructure such as roads, airfields, port facilities, communications networks, or power plants," the 2013 Canadian Joint Operations Command Plan for the North notes. "The impacts of climate change are not only being observed from an economic vantage point but the environmental impacts will put enormous strains on how the CAF conducts operations in the north and will require a change in how operations are planned and conducted."[181] For example, permafrost degradation not only inhibits mobility but also affects horizontal and vertical grade infrastructure, thus exacerbating sustainment problems. Changes in sea ice not only complicate navigation (and may lead to even more multi-year ice choking the passages between some of Canada's Arctic islands) but affect the mobility offered by over-snow vehicles when the water is in a solid state. The increased frequency and intensity of extreme weather will affect operational activities, while changing sea ice conditions, ocean currents, and temperature complicate acoustic modelling and other operational

[178] Army: Operations in Cold Weather. B-GL-323-003/FP-001, 20 Aug 2012.
[179] CF Northern Employment Support Plan, 2012, p. 10.
[180] DND, *Northern Approaches: The Army Arctic Concept 2021*, p. 23.
[181] Canadian Joint Operations Command (CJOC) Plan for North, January 2014, file 3350-1 (J5), p. 11.

and strategic planning factors.[182] Consequently, the regional impacts of climate change over the short- to medium-term horizons are likely to exacerbate rather than alleviate operational challenges by increasing the level of uncertainty.[183]

Although overzealous journalists sometimes conjure scenarios involving hostile land forces threating Canadian sovereignty in the sparsely populated and lightly-defended High Arctic,[184] there is no probability that Canada should expect a military invasion of its Arctic territory or conventional ground-force incursions across our land borders. The simple realities of climate, terrain, limited infrastructure, and (most importantly) limited terrestrial military objectives render the Canadian Arctic an unattractive operational theatre for hostile ground forces. As strategists noted from the early days of the Cold War, the vast distances of land and the nature of the region offer (in the words of General Andrew McNaughton) "something of a defence in itself," and Lester Pearson quickly dubbed the government's position a "scorched ice policy" in which a potential adversary would have nothing to conquer – and nowhere to go.[185] This reality has not essentially changed. When faced with a journalist's question about what the CAF would do if someone invaded the Canadian Arctic, the Chief of the Defence Staff, General Walter Natynczyk, quipped in 2009 that his "first task would be to rescue them."[186] The Army's 2013 Arctic concept focuses on the capabilities that land forces can bring to "assist in meeting the Government of Canada's objectives in the region," with typical army missions including humanitarian assistance and disaster relief, support to ground-based search and rescue, responding to a major air or

[182] US Navy Chief of Naval Operations, *The United States Navy Strategic Outlook for the Arctic* (January 2019), p. 9.
[183] See, for example, Adam Lajeunesse and P. Whitney Lackenbauer, *Canadian Armed Forces Arctic Operations, 1945-2015: Historical and Contemporary Lessons Learned* (Fredericton: Gregg Centre for the Study of War and Society,2017); and P. Whitney Lackenbauer and Peter Kikkert, *"An Important International Crossroads": Implementing Canada's Arctic Priorities in Strong, Secure, Engaged* (Toronto: Centre for National Security Studies, Canadian Forces College, 2018), https://www.cfc.forces.gc.ca/CNSS/arctic-eng.pdf?cfc.
[184] For examples, see P. Whitney Lackenbauer, "'Indigenous Communities are at the Heart of Canada's North.'"
[185] Bernd Horn, "Gateway to Invasion of the Curse of Geography?" *Forging a Nation: Perspectives on the Canadian Military Experience* (St. Catharines: Vanwell, 2002), p. 321.
[186] Quoted in Pierre-Henry Deshayes, "Arctic Threats and Challenges from Climate Change," *Agence France-Presse*, 6 December 2009.

maritime disaster , and "atypical missions [that] could involve [Canadian special forces employed in counter-terrorism or other roles."[187]

The physical geography of the Canadian Arctic poses both advantages and disadvantages to maritime domain awareness. Although there is no single "Northwest Passage," and Canada's internal waters are best seen as offering a series of routes through the country's Arctic Archipelago, there are a relatively small number of feasible entrance and exit routes available to surface vessels and submarines. Historically, ice conditions, technological challenges, and high costs have prevented the deployment of detection systems to monitory sub-surface activities at key choke points in the Canadian Arctic. Moving forward, however, technological solutions oriented around a "layered system" or "system of systems" (involving terrestrial, maritime, air, and space-based assets feeding data into a more robust information fusion processes) are being developed to enhance domain awareness and target tracking in the region.[188]

The aerospace domain presents a more daunting challenge given the vast expanse of the polar approaches to North America and the speed of modern and emerging delivery systems. While radar lines and interceptors have managed the strategic bomber threat (and the Canadian government has committed to lengthen and upgrade runways to support intercept operations to meet this ongoing requirement[189]), political scientist Andrea Charron suggests that "geopolitical tensions, changes in technology, the 360 degree and all domain threat possibilities, not to mention environmental concerns," render inadequate the current defence posture built around the North Warning System. "Currently, the NWS does not 'see' as far as the recently 'aligned' Canadian Air Identification Zone which leaves Canada and the U.S. unable to monitor air traffic adequately and blind to threats that are not just of the conventional, state-based variety," she observes. "The NWS is a passive defensive tool that lacks the range to identify, track and, most problematic, do anything, to counter unconventional

[187] DND, *Northern Approaches*, pp. 19, 20, 24.
[188] See, for example, Defence Research and Development Canada (DRDC), All Domain Situational Awareness Science and Technology Program, https://www.canada.ca/en/defence-research-development/programs/all-domain-situational-awareness-program.html.
[189] DND News Release: National Defence to contribute funding for upgrades at Inuvik Airport, 4 September 2019, https://www.canada.ca/en/department-national-defence/news/2019/09/national-defence-to-contribute-funding-for-upgrades-at-inuvik-airport.html.

threats by individuals and nonstate actors with greater access to disruptive technology that can emanate from anywhere, at any time and from any domain."[190] In terms of state-based threats, hypersonic cruise missiles and new ballistic missiles can pass through or over the Canadian Arctic at speeds that funadmentally challenge the time-space calculations upon which the region's utility for strategic defence in depth are predicated. While developing new systems to meet these threats may require terrestrially-based systems in the Canadian Arctic, akin to the DEW Line and NWS radar installations, they may also have the effect of reducing the terrestrial footprint in the region and instead focusing on other domains (such as satellite-based capabilities in outer space) to "deter, detect and defend against threats emanating from all domains: air, space, land, maritime and cyber simultaneously and from more than just a north-south axis."[191]

4.5 Good Diplomacy and Strategic Goodwill

Rather than adopting unilateralist messaging suggesting a need for Canada to defend its Arctic interests independently (owing to potential sovereignty threats), *SSE* affirms the compatibility between exercising sovereignty and collaboration with international partners. "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," the policy explains. 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."[192]

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[190] Andrea Charron, "The Case for a Reimagined NWS," North American and Arctic Defence and Security Network (NAADSN) briefing note for the Arctic Security Working Group (November 2019). See also Charron, "Canada, the Arctic, and NORAD: Status Quo or New Ball Game?" *International Journal* 70, 2 (2015): pp. 215-231.

[191] Charron, "The Case for a Reimagined NWS." See also Charron and James Fergusson, "Beyond Modernization," in *North American Strategic Defense in the 21st Century*, eds. Christian Leuprecht, Joel Sokolsky, and Thomas Hughes (Cham: Springer, 2018), pp. 141-148.

[192] DND, *Strong, Secure, Engaged*, p. 90.

In the spirit of *continentalism*, Canada and the United States have always had an interesting and complicated relationship regarding the Arctic. Popular and public rhetoric often suggests that the region represents a major source of tension between the two close allies. This reflects Canada's persistent preoccupation with Arctic sovereignty and the United States' preoccupation with continental security since the Second World War. In practice, Canada and the United States have long collaborated in the Arctic through bilateral defence and security agreements, as well as in science and technology, environmental protection, infrastructure development, and surveillance. Mechanisms for formal engagement include longstanding institutions, such as NORAD, the PJBD, and the Military Cooperation Committee, as well as new bodies for dialogue, such as the annual Arctic Security Forces Roundtable, Arctic Capability Advocacy Senior Leaders Forum, and Tri-Command Staff Talks. A shared commitment to monitor the broader geostrategic situation allows both to mitigate risks, avoid unnecessary provocation (including on politically sensitive bilateral issues), and share the burden as neighbours, allies, and "premier partners" in the Arctic region.[193]

Although Russian expansionism in the Ukraine has hurt relations and raised popular concerns about the prospect of increasing Russian aggression and potential aggrandizement in the circumpolar world,[194] we argue that this speculation is rooted in generalized assumptions transposed from a different geographical and strategic context. The Canadian Arctic is not the same as the European North by nearly ever metric, featuring harsher and more diverse climatic conditions, a completely different demography of far less people, to vastly larger distances and far less levels of supporting infrastructure. A Russian military built to operate in the European North would be out of its element trying to do the same in the Canadian Arctic, quickly becoming immobilized. Furthermore, Canadian Arctic *territory* is not contiguous to Russian Arctic territory, rendering the possibility of sizeable ground forces deploying across the Arctic Ocean (or across Alaska) either highly implausible or entirely impossible.

[193] For a more detailed analysis of Canada-US Arctic defence and security relations, see Lackenbauer and Huebert, "Premier Partners."

[194] See, for example, Rob Huebert, "How Russia's move into Crimea upended Canada's Arctic strategy," *Globe and Mail*, 2 April 2014 and Michael Byers, "Northern exposure: As the sea ice melts, paranoia grows," *Globe and Mail*, 4 July 2019.

Concerns about Russia exercising naval might to expand its claim to extended continental shelf resources in the central Arctic Ocean are also misguided, given the scientific and international legal basis upon which Russia has justified its ownership of resources on the shelf as a natural prolongation of its continental land mass. To suggest that military power and "occupation" justifies Russia's ownership would be to call into question the very legal regime that underlays that country's to the world's largest continental shelf. Accordingly, factoring objective and subjective geographical calculations into the equation suggests strong disincentives for Russia to behave like a revisionist actor in that issue area. Instead, negotiating diplomatic solutions to overlapping areas of continental shelf, as promised in the 2008 Ilulissat Declaration, remain in Russia's national self-interest (and that of the other Arctic coastal states).[195]

Despite these considerations, Canada has recently renewed its attention back to Russia's ability to project power from its Arctic into the North Atlantic, thus threatening Canada's lines of communication with its European allies.[196] While careful to acknowledge Russia's rights and interests as an Arctic state, Canada's 2017 defence policy also notes its role in the resurgence of major power competition globally and, through an Atlanticist lens, concomitant implications for peace and security.[197] "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

[195] See, for example, Betsy Baker, "Law, Science, and the Continental Shelf: The Russian Federation and the Promise of Arctic Cooperation," *American University International Law Review* 25, 2 (2010): pp. 10-38; Lev Voronkov, "The Russian Claim for an Extended Continental Shelf in the Arctic," *Environmental Policy and Law* 47, 2 (2017): pp. 88-94; and Myron H. Nordquist, John Norton Moore, and Ronán Long, eds., *Challenges of the Changing Arctic:* Continental Shelf, Navigation, and Fisheries (Leiden: Brill Nijhoff, 2016), pp. 42-52.

[196] DND, *Strong, Secured, Engaged* (2017), p. 79, at http://dgpaapp.forces.gc.ca/en/canada-defence-policy/docs/canada-defence-policy-report.pdf.

[197] As Ernie Regehr notes, "the Russia-related alarms raised by officials, analysts, and Parliamentarians through the Senate and House of Commons reports [released in recent years] were not carried over into the Government's new defence policy statement. It has only three references to Russia, and only one of those is linked to the Arctic, though even it doesn't suggest a threatening posture within or toward the Arctic itself. Instead, it notes a NATO concern that Russia is once again expanding its capacity to project force from the Arctic into the North Atlantic." Ernie Regehr, "Arctic Security and the Canadian Defence Policy Statement of 2017," 31 August 2017, http://thesimonsfoundation.ca/ highlights/arctic-security-and-canadian-defence-policy-statement-2017.

'near-peer,'" the policy notes 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 makes clear 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."[198] The focus on the *approaches* to the *North Atlantic* indicates that there is neither the intent nor a perceived need in Canada to involve NATO in the defence of the *Canadian* Arctic.

Canada's commitment to Arctic diplomacy through the Arctic Council and other international fora means that the country enjoys a robust set of relationships to maintain and promote its circumpolar interests, adhering to the tenets of *internationalism*.[199] Although increasing traffic and foreign presence heightens safety and security concerns in the region, blurring the lines between security, trade, investment, development, economic, and foreign policy, regional governance remains sophisticated and resilient. The Arctic Council, the Law of the Sea Convention (UNCLOS), Polar Code, UN Framework Convention on Climate Change, Biodiversity Convention, and International Maritime Organization (IMO) provide important mechanisms to engage with other Arctic states and the rest of the world. Furthermore, despite current tensions with Russia, we still cooperate on areas of mutual interest in an Arctic Council context, such as food security, science, permafrost, and emergency preparedness (including for search and rescue operations, maritime disaster, and oil spill response).[200]

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[198] DND, *Strong, Secure, Engaged*, pp. 79-80. Canada expressed reticence to have NATO assume an explicitly "Arctic" focus for much of the last decade. Prime Minister Stephen Harper kept discussions on a role for NATO in the Arctic to a minimum because he did not want to draw attention to ongoing legal disputes about the status of the Northwest Passage and the boundary between the U.S. and Canada in the Beaufort Sea – or to provoke the Russians given their deep-seated concerns about NATO encirclement.

[199] See Government of Canada, *Canada's Arctic Foreign Policy* (2017), https://www.international.gc.ca/world-monde/international_relations-relations_internationales/arctic-arctique/arctic_policy-canada-politique_arctique.aspx?lang=eng.

[200] See, for example, P. Whitney Lackenbauer, "Russia, Canada, and the Circumpolar World," in *Breaking the Ice Curtain? Russia, Canada, and Arctic Security in a Changing Circumpolar World,* eds. P. Whitney Lackenbauer and Suzanne Lalonde (Calgary: Canadian Global Affairs Institute, 2019), pp. 93-103; Crown-

4.6 Maintaining Friendships with an Air, Sea, and Nuclear (Super)Power

The Russian nuclear deterrent and American counter-force are deployed in the Arctic as part of their grand strategic balance of power The two countries command more than 90% of the world's nuclear weapons, but geography requires that much of the Russian deterrent is based in the Arctic. While the United States does not station any of its nuclear deterrent in the region, it has oriented the bulk of its ballistic missile defence efforts in the North given the trajectory of a launch from a North Pacific adversary (particularly North Korea).[201]

As the U.S. awakened to the transformations occurring in the region in the late 2000s and early 2010s, its policy framework shifted from a predominate focus on protecting American security interests from a unilateral and international perspective to an increasing emphasis on "collaborative security" in concert with regional allies and partners. Furthermore, the Department of Defense's 2013 *Arctic Strategy* stressed the country's "unique and enduring partnership" with Canada and the countries' shared prioritization of homeland defense and homeland security.[202] The latest U.S. Arctic defence strategy, released in June 2019, offers a more wary appraisal of the Arctic security environment "in an era of strategic competition." Flowing from the 2018 National Defense Strategy, it conceptualizes Russia and China as actors eroding the U.S.'s "competitive edge" and thus necessitating a credible regional deterrent. "The network of U.S. allies and partners with shared national interests in this rules-based order is the United States' greatest strategic advantage in the Arctic region, and thus the cornerstone of DoD's Arctic strategy," the document emphasizes. "DoD cooperation with Arctic allies and partners strengthens our shared approach to regional security and helps deter strategic competitors from seeking to unilaterally change the existing rules-based order."

The DoD's Arctic strategy identifies Canada as a key partner in enabling domain awareness and defending the northern approaches to North America. Strategic

Indigenous Relations and Northern Affairs Canada, "Arctic and Northern Policy Framework International chapter" (2019), https://www.rcaanc-cirnac.gc.ca/eng/1562867415721/1562867459588.

[201] Ernie Regher, "Cooperative Security and Denuclearizing the Arctic," *Journal for Peace and Disarmament* 2, 1 (2019): pp. 274–6.

[202] United States, Department of Defense, *Arctic Strategy* (November 2013), https://dod.defense.gov/Portals/1/Documents/pubs/2013_Arctic_Strategy.pdf.

competitors' capabilities, including Russia's advanced cruise missile and hypersonic glide vehicle capabilities, require modernizing "sensor coverage of North America to deter, detect, track, and enable defeat of both existing and emergent airborne threats"[203] as well as other "advanced technologies … capable of creating strategic effects with non-nuclear weapons, potentially affecting national decision making and limiting response options in both peacetime and crisis."[204] In highlighting the growing importance of the Arctic to the USAF, Heather Wilson and General David Goldfein, the services' secretary and chief of staff respectively, note that "Alaska will be home to more advanced fighter jets than any place on Earth" by 2022.[205] The close bilateral relationship between the two countries means that Canada falls under the US deterrent, which serves as a strong disincentive for any foreign power to militarily breach or invade Canadian Arctic territory.

Lackenbauer has contended that "defence against help" is no longer core to Canadian decision making, given that the United States cannot be construed as posing an existential threat to Canada's territorial sovereignty. Instead, Canada must contribute to bilateral defence not only to accept a responsible share of the burden as a self-respecting state but also to "stay in the game" and ensure "a piece of the action."[206]

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[203] Office of the Undersecretary of Defense for Policy, *Department of Defense Arctic Strategy* (June 2019), https://media.defense.gov/2019/Jun/06/2002141657/-1/-1/1/2019-DOD-ARCTIC-STRATEGY.PDF.

[204] General Terrence J. O'Shaughnessy, NORAD and USNORTHCOM Commander, statement to Senate Armed Services Committee Strategic Forces Subcommittee hearing, 3 April 2019. These new technologies include "multiple weapon systems specifically designed to circumvent U.S. missile defenses and hold our homeland at risk. This includes the Intercontinental Ballistic Missile (ICBM)-delivered AVANGARD hypersonic glide vehicle, which was highlighted in a speech by Vladimir Putin in March 2018 and is expected to become operational in the next few years, complicating our missile warning mission."

[205] Secretary Heather Wilson and Gen. David Goldfein, "Air power and the Arctic: The importance of projecting strength in the north," *DefenseNews*, 9 January 2019 at https://www.defensenews.com/opinion/commentary/2019/01/09/air-power-and-the-arctic-the-importance-of-projecting-strength-in-the-north/. This is an especially important development as the abilities of the USAF have long ago supplanted the RN as the world's preeminent military force that will have a decisive impact on any future general war. See, for example, Eliot A. Cohen, "The meaning and future of air power," *Orbis* 39, 2 (1995): pp. 190. For the influence of air power on US strategy in particular, see R.A. Renner, "America's asymmetric advantage: The utility of airpower in the new strategic environment," *Defence Studies* 4, 1 (2007): pp. 87-113.

[206] P. Whitney Lackenbauer, "From 'Defence Against Help' to 'A Piece of the Action': The Canadian Sovereignty and Security Paradox Revisited," *Centre for Military and Strategic Studies Occasional Paper* 1 (May 2000). See also Donald Barry and Duane Bratt, "Defense Against Help: Explaining Canada-US Security Relations," *American Review of Canadian Studies* 38, 1 (2008): pp. 63-89; Philippe Lagassé, "Nils

"The six decades of NORAD's unmatched experience and shared history are proving more vital than ever as we face the most complex security environment in generations," General Terrence O'Shaugnessy told Senate Strategic Forces Subcommittee in April 2019. "This unique and longstanding command serves as both a formidable deterrent to our adversaries and a clear symbol of the unbreakable bond between the United States and Canada."[207] Canadian commitments to "renew the North Warning System (NWS) and modernize elements of NORAD" make strategic sense to reinforce and extend longstanding continental defence arrangements with the U.S. to jointly monitor and control the air and maritime approaches to the continent.[208]

4.7 Sharing the Burden of Border Security

During his subcomittee appearance, O'Shaughnessy noted that "Russia's fielding of advanced, long-range cruise missiles capable of flying through the northern approaches and striking targets in the United States and Canada has emerged as the dominant military threat in the Arctic, while diminished sea ice and the potential for

Ørvik's "'Defence against Help': The Descriptive Appeal of a Prescriptive Strategy," *International Journal* 65, 2 (2010): pp. 463-74; Jean-Christophe Boucher, "The Cost of Bandwagoning: Canada-US Defence and Security Relations after 9/11," *International Journal* 67, 4 (2012): pp. 895-914; and Richard Goette, *Sovereignty and Command in Canada–US Continental Air Defence, 1940–57* (Vancouver: UBC Press, 2018).

[207] Statement of General Terrence J. O'Shaughnessy, United States Air Force Commander United States Northern Command and North American Aerospace Defense Command before the Senate Armed Services Committee Strategic Forces Subcommittee, 3 April 2019.

[208] DND, *Strong, Secure, Engaged*, p. 80. See also Charron and Ferguson, "Beyond Modernization"; Lackenbauer and Huebert, "Premier Partners"; and Andrea Charron and James Fergusson, "Out of Sight, Out of Mind: NORAD vis-à-vis CANUS Politics," *Canadian Foreign Policy Journal* (September 2019): pp. 1-15. In the face of renewed great power rivalry, the challenge is to balance encouragement of positive behavior in the Arctic while defending against aggressive actions elsewhere in the world and protecting one's homeland. As political scientists Troy Bouffard, Andrea Charron, and Jim Fergusson argue in a recent book chapter, increased strategic competition and dual-track signaling from Russia does not mean that war is inevitable. Instead, it is incumbent on NORAD and NATO to take these new Russian capabilities and bellicose signals seriously and to plan accordingly. This includes pushing NORAD defences further out to counter the threat that emerging weapon systems pose to North America, and a rejuvenation of NATO maritime control capabilities (particularly anti-submarine warfare) in the North Atlantic to respond to Russia's modernization of its Northern Fleet. Bouffard, Charron, and Fergusson , "A Tale of 'Two" Russias?," in *Breaking the Ice Curtain? Russia, Canada, and Arctic Security in a Changing Circumpolar World,* eds. P. Whitney Lackenbauer and Suzanne Lalonde (Calgary: Canadian Global Affairs Institute, 2019), pp. 61-73.

competition over resources present overlapping challenges in this strategically significant region."[209] This combines both the strategic threat posed by Russian cruise missiles in a global strategic context and the bogey-man of regional conflict arising from competition over Arctic resources. While these distinct drivers are often conflated, recent Canadian policy statements are careful to distinguish between military threats to North American security that may *pass through* regions of the Arctic and risks or threats arising *from* Arctic disputes. Accordingly, our analysis suggests that geostrategic concerns in the Arctic are best seen through the lens of the region as a vector of approach. Russia's investments in long-range, low radar cross-section cruise missiles that can be fired from aircraft or submarines against targets in the United States and Canada are a case in point, requiring advanced detection and tracking technologies. As O'Shaughnessy noted, "the homeland is not a sanctuary."

Canadian and American strategic frames and priorities for defence and security in the Arctic region are well aligned. The countries have a long history of cooperating to meet security threats in the Arctic and to North America more broadly. Working through existing defence relationships and institutions like NORAD, collaborating on threat assessments and in identifying gaps, and strengthening operational linkages allow both countries to make complementary, targeted investments and leverage resources and capabilities to address shared needs. For example, the US Navy's strategic outlook for the Arctic emphasizes that it "will work with the Royal Canadian Navy to ensure common Arctic Region interests are addressed in a complementary manner." In light of shared priorities related to homeland defence and security, it confirms that the "unique and enduring defense partnership between the United States and Canada" embodied in NORAD "will remain important to our mutual security interests."[210]

Officials in both Ottawa and Washington recognize the advantages of collaboration and cooperation in light of their longstanding relationship, mutual geostrategic interests in continental defence and circumpolar stability, and the high

[209] Statement of General Terrence J. O'Shaughnessy, United States Air Force Commander United States Northern Command and North American Aerospace Defense Command before the Senate Armed Services Committee Strategic Forces Subcommittee, 3 April 2019.
[210] US Navy Chief of Naval Operations, *The United States Navy Strategic Outlook for the Arctic* (January 2019), pp. 7-8.

costs of developing and sustaining military capabilities in an evolving but uncertain security environment. Nevertheless, both states have other interests that complicate this effort. The United States is a superpower whose geostrategic interests are global. Its perspectives on the Arctic are tempered by this reality. At the same time, Canadian officials recognize the necessity of cooperation but are bounded by a political and public sensitivity about Arctic sovereignty through a national lens. The net benefits derived from collaborating and cooperating on areas of common interest, however, coupled with resource constraints and regional uncertainty, portend ongoing defence cooperation.[211]

Ongoing debates about NATO burden sharing also raise questions about how much Canada should invest in domain awareness and defending the Arctic maritime approaches to North America, in areas outside of Canadian jurisdiction. During the Cold War, the Royal Canadian Navy routinely patrolled (in concert with its NATO allies) the Greenland, Iceland, United Kingdom-Norwegian (GIUK-N) "gap" which allows the Russian Northern Fleet to access the northeastern coast of North America. A reinvigorated anti-submarine warfare (ASW) role in this "choke point" could be considered as an "Arctic" mission.[212] Furthermore, the Bering Strait between Russia and Alaska represents an increasingly important strategic chokepoint for surface and subsurface vessels entering or leaving the Arctic Ocean from the Pacific. This maritime artery not only allows Russia to connect its Asian and European naval forces, it also serves as the Pacific gateway for the NSR and a Trans-Polar Route that may emerge "over the pole."[213] While Canadian satellite surveillance contributes to shared domain awareness and detection in this region, geographical considerations mean that it can

[211] Lackenbauer and Huebert, "Premier Partners."
[212] On Cold War RCN operations, see W.A.B. Douglas, ed., *The RCN in Transition, 1910-1985* (Vancouver: UBC Press, 1988); and Nicholas Tracy, *Two-Edged Sword: The Navy as an Instrument of Canadian Foreign Policy* (Montreal: McGill-Queen's University Press, 2012). For a critical appraisal suggesting that this would be preparing for "the last war" and that "the United States and NATO must move beyond the outdated barrier-defense concept and fully embrace open-ocean ASW, with far greater emphasis on operating in contested waters well north of the Arctic Circle," see Andrew Metrick, "Un(Mind) the Gap," *US Naval Warfare Institute Proceedings* 145:10 (October 2019), https://www.usni.org/magazines/proceedings/2019/october/unmind-gap.
[213] US Navy Chief of Naval Operations, *The United States Navy Strategic Outlook for the Arctic* (January 2019), p. 8.

count on its American ally to defeat military threats to continental defence and security (out of U.S. self interest) as required.

5.0 Conclusions

> Canada's military problems are not, in the nature of things, concerned exclusively with the Dominion's own territory…. The security of that territory is, however, necessarily her first object of obligation and responsibility. This being the case, the initial task of a student approaching these problems is to familiarize [themself] with the physical character of the country to be defended, its relation, both geographical and political, to other countries, and the extent to which nature, modified by the works of [humans] , has made the defence easier or harder.
>
> C.P. Stacey, *The Military Problems of Canada* (1940), p. 1.

Objective and subjective geographies make Canada "among the safest and most secure countries in the world," and also inform its approaches to remaining "strong at home, secure in North America, and engaged in the world." Nevertheless, the country's 2017 defence strategy observes that the global security environment "is marked by the shifting balance of power, the changing nature of conflict, and the rapid evolution of technology. Increasingly, threats, such as global terrorism and those in the cyber domain, transcend national borders. These trends undermine the traditional security once provided by Canada's geography." Furthermore, the defence of Canada and its interests "not only demands robust domestic defence but also requires active engagement abroad."[214]

While changes in the global security environment, the nature of conflict, and the emergence of new domains (or changes in the hierarchy of existing ones) generate threats and require military adaptation, they do not inherently dilute or negate traditional geostrategic considerations in threat assessment. This article suggested that an updated version of the geostrategic methodology that historian C.P. Stacey employed in his landmark 1940 book *The Military Problems of Canada* continues to offer a useful basis upon which to analyze Canada's objective and subjective military

[214] DND, *Strong, Secure, Engaged*.

geographies, its strategic culture, and its relationships with the United States, North Atlantic allies, and other international actors. Rather than being rendered obsolete by changing power dynamics, technological innovation, and the emergence of new defence domains, we argue that a modest updating of Stacey's methodology facilitates a more deliberate parsing and analysis of geographical variables that are often conflated or overlooked in many strategic assessments of Canada's defence position. By imposing a framework that forces careful consideration of the specific border under threat, proximity, physical environmental conditions, geographical advantages and disadvantages, strategic relationships with international allies and nuclear powers, and benefits of burden sharing, we promote a tool that contributes geostrategic considerations into methods of determining home defence needs, continental security priorities, and opportunities for Canada to serve as "a force for security, stability, prosperity and social justice in the world."[215]

In applying this updated template to a case study of the Canadian Arctic (part of an international region than "an important international crossroads where issues of climate change, international trade, and global security meet"),[216] our geostrategic analysis supports official military statements anticipating no near-term conventional military threats to Canada's Arctic. Although resurgent strategic competition makes the global geopolitical climate increasingly uncertain, and major power rivalry between Russia and the West may have "spill over" effects on circumpolar security, geostrategic variables confirm that there is little likelihood of conflict generated by regional resource, boundary disputes, or governance issues. In the case of the Arctic, we suggest that 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. This points to the ongoing value of using a clear set of geostrategic variables to help discern and distinguish between different types of threats, and at what level they are best understood, when discerning strategic threats to Canada.

[215] DND, *Strong, Secure, Engaged*.
[216] DND, *Strong, Secure, Engaged*.