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North American Arctic Security Expectations in a New U.S. Administration

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As the world continues to react to the recent U.S. election results, questions arise about prospective impacts and changes that the transition to a Biden administration will bring. To encourage dialogue about the political transition, we offer strategic perspectives about possible changes that we might expect for North American Arctic relations. In particular, we explore several categories of national and binational security significance, including:

1. expectations for the U.S. National Security Strategy and subsequent national strategies,
2. revitalization of previous bilateral commitments and relationships,
3. the security implications of renewed climate change leadership, and
4. continuing modernization of North American defence.

U.S. Arctic National Security

With a change in administration, especially one involving a shift in relatively extreme partisan policies, the United States will likely release a new edition of the National Security Strategy within a few months of inauguration. Although negligent adherence to a *status quo* strategy can be ineffective, radical changes can be even more dangerous, given that a National Security Strategy should be sustainable politically, financially, and militarily.¹ The nation's upcoming guidance will prioritize the leading threats to U.S. national interests. Subsequent strategies will then be developed for adaptation throughout the U.S. security apparatus – largely structured by the limits of agency jurisdictions and authorities. Although the process is a massive undertaking, what changes can be expected involving the Arctic and what will these mean?

Given relatively recent U.S. military developments involving Arctic regional security and defence-related adversarial advancements, the next edition of the U.S. National Security Strategy seems likely to include Arctic-specific language. More importantly, the articulations will not be passively cursory like the single mention in the current edition.² Such developments will significantly change the family of Department of

Defense (DOD) Arctic-related strategies with specific regard to operational requirements and capabilities. Most Arctic defence-related activities fall within two categories: post-Cold War continuations in support of national defence, and minor programmatic endeavours. Funding drives both. For the first category, fiscal mandates continue to set defence expectations involving the Arctic, but for general national defence purposes. The end of the Soviet Union did not end Arctic-related "over-the-Pole" functions, mostly led by the U.S. Air Force (e.g. bombers, interceptors, missile defence [U.S. Army]) and the U.S. Navy (subsurface mission). For the second category, select military units and participants pursue fundamental training and exercises when opportunity funding is allocated. Training activities include programs involving mountain warfare and Arctic survival and other skills, especially for units based in Alaska.³ For exercises, DOD and the U.S. Coast Guard (USCG) pursue and address challenges involving Arctic operations in preparation for what seem like inevitable missions (see Table 1). *Neither* of these categories, however, even begins to establish operational requirements or capabilities with regard to developing threats. To date, there is no U.S. DOD unit with a defined Arctic mission.

These issues are not the fault of the U.S. Department of Defense, nor do they suggest negligence. The situation is reflective of how the security architecture of the nation works. Not everything can be priority, especially in light of mandated funding. The USCG has done an admirable job as the lead U.S. operators on the Arctic maritime surface (and in Antarctica). But diminishing sea ice continues to portend increased access and activity, changing the security equation throughout the region. DOD is ready to assume responsibility for meeting an evolving security environment, but this requires defined missions and funding which can only be realized through the National Security Strategy.

Once the National Security Strategy signals new Arctic-specific defence-related requirements, DOD can begin to move forward on expectations by establishing a new DOD Arctic Strategy that adopts and applies National Security Strategy language for agency purposes. This will allow stakeholders across DOD to galvanize plans to develop or refine operational capabilities, knowing that Congress must help define and adhere to enabling fiscal mechanisms, normally led by the annual National Defense Authorization Act (DOD's yearly budget vehicle). Mandates also help provide funding expectations that facilitate stability in DOD mission sets. Confidence in expected annual funding helps to ensure that established programs and requirements avoid unnecessary marginalization, as well as mitigating potential impacts to valuation and returns on investment. As a result, joint and service components can pursue their own appropriate strategies under the same conditions.⁴

To that end, DOD can define and pursue its operational requirements and capabilities without disrupting other global and national missions. Furthermore, the National Security Strategy allows Canada and the United States to effectively align North American Arctic security efforts and expectations. First, the United States needs to commit to defined requirements toward operational proficiencies – a topic far beyond the scope of this article. Scholarly consideration along this line is underway with the partnership of Major Lindsay L. Rodman, USMC, former National Security Council policy director and Deputy Council to the Chairman of the Joint Chiefs of Staff.⁵

Table 1: List of DOD-participated Arctic exercises within the last decade

Exercise Name	Other Countries	Frequency/Date	Services/COCOMs	Location
NORAD Air Defense Exercise	Canada	One-time, Aug 2020	Air Force	Arctic Ocean (Beaufort Sea to Thule)
Arctic Eagle	None	Biennial	Alaska NG	Alaska
Arctic Zephyr	Canada/Iceland/Scandinavia/Finland	One-time, Oct 2015	NORTHCOM, USCG, AC	Tabletop (Anchorage, Alaska)
ICEX	United Kingdom	Biennial	Navy	Arctic Ocean
Trident Juncture	NATO, Enhanced Opportunity Partners	Triennial, Norway in 2018	EUCOM	Various, Norway 2018
Vigilant Shield	Canada	Annual	NORTHCOM (NORAD)	Colorado
SAREX	Canada/Denmark/Iceland	Two times, Sep 2012, 2013	EUCOM, USCG	Greenland
Arctic Edge	Canada	Biennial	NORTHCOM	Alaska
Cold Response	NATO, Enhanced Opportunity Partners	Biennial	EUCOM	Norway
Arctic Guardian 2017	All ACGF Countries	Sep 2017	ACGF	Iceland
Polaris 2019	All ACGF Countries	April 2019	ACGF	Finland
Arctic Chinook	None	One-time, Aug 2016	NORTHCOM, USCG	Alaska
Nanook (Canada)	Canada	Annual	Navy	Canada
Nanook-Nunavut (Canada)	Canada	17 Mar - 1 Apr 2019	Navy (ONR)	Nunavut and the NWT
Nanook-Nunavut (Canada)	Canada/Belgium/France	24 Feb - 27 Mar 2020	Army (86th IBCT)	Nunavut
Nanook-Tuugaalik 2020 (Canada)	Canada/Denmark/France	Annual	Navy/CG	Eastern Arctic Seas
Arctic Challenge	UK/Norway/Sweden/Finland	Biennial	Air Force	Norway/Sweden/Finland
Bold Quest	20 countries	Annual	Joint Staff sponsored	Various, Finland 2019
Arctic Pegasus	None	2014, 2015, 2018	USARAK, 62d Airwing	Deadhorse, Alaska
Spartan Pegasus	None	2015, 2017	4-25 IBCT	Deadhorse, Alaska
Arctic Collaborative Workshop (TTX)	Denmark, Netherlands, Norway, Canada	2014	NORTHCOM	Fairbanks, Alaska
Arctic Collaborative Workshop (TTX)	Denmark, Norway, Canada	2016	NORTHCOM	Fairbanks, Alaska
Northern Viking	Iceland	2020 and previously 2011 (Treaty)	Air Force	Iceland

Source: Bouffard, Troy J., and Lindsay L. Rodman. “U.S. Arctic Security Strategy: Balancing Strategic and Operational Dimensions.” *Polar Journal* Summer Special Edition (June 2021).

Renewed Bilateral Relationships

Canada’s most important international relationship is with the United States. Bilateral announcements have typically affirmed that the neighbours will remain “premier partners”⁶ and will play a joint leadership role in Arctic (particularly North American Arctic) affairs. On 9 November, President-elect Joe Biden reaffirmed the close bonds between the two countries in a phone call with Prime Minister Justin Trudeau, emphasizing the longstanding North American partnership and the benefits of deepening collaboration to address regional and global challenges. This sentiment is indicative of the positive relations that tend to be emphasized between Democratic U.S. administrations and Liberal Canadian governments.⁷

Anticipating general priorities on the bilateral Arctic agenda for the next four years may be best informed by looking back to the 2016 statements by Trudeau and Obama. In March 2016, the leaders' [Joint Statement on Environment, Climate Change, and Arctic Leadership](#) articulated several priority areas that flowed logically from the work that Canada had promoted as chair of the Arctic Council from 2013-15 and that the U.S. was promoting during its 2015-17 chairship.⁸ Emphasizing Indigenous rights and knowledge, as well as “natural marine, land and air migrations that know no borders,” the joint statement conceptualized the Arctic as “the frontline of climate change” and articulated four main objectives:

1. *Conserving Arctic biodiversity through science-based decision making* by achieving national goals for land and marine protected areas, and working “directly with Indigenous partners, state, territorial and provincial governments” to set “a new, ambitious conservation goal for the Arctic based on the best available climate science and knowledge, Indigenous and non-Indigenous alike.”
2. Collaborating with “Indigenous and Arctic governments, leaders, and communities to more broadly and respectfully” *incorporate Indigenous science and traditional knowledge into decision-making.*
3. *Building a sustainable Arctic economy* based on scientific evidence, with commercial activities occurring “only when the highest safety and environmental standards are met, including national and global climate and environmental goals, and Indigenous rights and agreements.” Sub-priorities include: establish *low impact shipping corridors* and consistent policies for ship operations, taking into account important ecological and cultural areas, vessel traffic patterns, Indigenous and Northern Arctic input, and increased coast guard cooperation of our Coast Guards; seek a binding international agreement to *prevent the opening of unregulated fisheries in the Central Arctic Ocean*, building “on a precautionary, science-based principle to commercial fishing that both countries have put in place in their Arctic waters”; and ensure that *oil and gas development and exploration* activities “align with science-based standards between the two nations that ensure appropriate preparation for operating in Arctic conditions, including robust and effective well control and emergency response measures.”
4. *Supporting strong Arctic communities* by “defining new approaches and exchanging best practices to strengthen the resilience of Arctic communities and continuing to support the well-being of Arctic residents, in particular respecting the rights and territory of Indigenous peoples.” This objective stresses that “all Indigenous Peoples in the Arctic are vital to strengthening and supporting U.S. and Canadian sovereignty claims,” and both countries “commit to working in partnership to implement land claims agreements to realize the social, cultural and economic potential of all Indigenous and Northern communities.” Priority areas include “innovative renewable energy and efficiency alternatives to diesel”; community climate change adaptation; “innovative options for housing and infrastructure”; and “greater action to address the serious challenges of mental wellness, education, Indigenous language, and skill development, particularly among Indigenous youth.”⁹

President-elect Biden's strong climate change agenda, articulated during the 2020 election campaign (and discussed in the next section), is likely to frame much of the bilateral dialogue on Arctic leadership. The Indigenous focus in the Obama-Trudeau statements has obvious resonance with Canada's Reconciliation and broader policy agenda, and is congruent with U.S. statements emphasizing the importance of Northern partnerships.

Trudeau and Obama followed up with a [Joint Arctic Leaders' Statement](#) on 20 December 2016 that launched concrete actions "ensuring a strong, sustainable and viable Arctic economy and ecosystem, with low-impact shipping, science based management of marine resources, and free from the risks of offshore oil and gas activity," that would "set the stage for deeper partnerships with other Arctic nations, including through the Arctic Council."¹⁰ The most controversial element of the December 2016 joint statement in some Canadian circles related to the decision to declare North American Arctic waters as indefinitely off limits to new offshore oil and gas licenses (which Trudeau later expanded in a June 2019 order-in-council to prohibit "all offshore oil and gas activities in the [Canadian] area").¹¹ Given that there was little to no offshore activity at the time of the announcement it did not immediately affect local and regional economic interests, but Ottawa's failure to consult with territorial officials prior to the announcement upset the Northern territorial premiers – particularly in light of all the Trudeau government's messaging about the centrality of partnerships with territorial governments and Indigenous organizations in its new approach to intergovernmental relationships.¹² Arctic commentator Heather Exner-Pirot suggested that the December 2016 statement "departs from Canada's prioritization of Northerners in its Arctic policy, ... align[ing] Canadian Arctic foreign policy more squarely with American inclinations" as well as demonstrating the influence of "environmentalist groups such as WWF and Oceans North."¹³ President Trump repealed the moratorium in U.S. Arctic waters in 2017, as well as opening Alaska's Arctic National Wildlife Refuge (ANWR) coastal plain for oil and gas leasing (and is racing to push through a leasing plan in his final weeks in office).¹⁴

Presuming that the Biden administration will follow through on its prioritization of environmental security considerations over those of North American energy security, we are likely to see the U.S. reinstate the ban on offshore oil and gas drilling, work to expand that moratorium globally, permanently protect the ANWR (which Biden has described as a "day one" priority), restore the Arctic Council's consensus on climate change, and work with the other member states to address short-lived climate-forcing pollutants like methane and black carbon.¹⁵ More broadly, we are likely to see a move away from the Trump administration's overwhelming focus on great power competition and economic development as frames for Arctic issues. While defence and security considerations will remain important, Biden's agenda may also open more opportunities to align investments in military or dual-use infrastructure, promote innovation with respect to "green" technologies that have military applications, and emphasize the intersections between human, environmental, and national security.

Security Implications for Climate Change Leadership

Recent climate assessments outline how deeply climate change affects North America.¹⁶ Indeed, climate change poses direct and indirect threats to at least five different aspects of human and national security

in Canada and the U.S., all of which will worsen as climate change accelerates over the next century: human security for Canadians and Americans; Arctic threats; economic threats; humanitarian crises at home and abroad; and military operations and readiness. While largely ignored over the last four years, each of these areas may be better addressed by the incoming Biden administration, which has called climate change a threat to national security, committed to re-joining the Paris Agreement, and promised a range of substantive climate change policies.¹⁷

1. *Human Security:* The concept of human security can be defined as “safety from such chronic threats as hunger, disease, and repression ... and protection from sudden and hurtful disruptions in the patterns of daily life.”¹⁸ Often organized into seven dimensions – economic, food, health, environmental, personal, community, and political – human security has been widely examined in relation to climate change around the world.¹⁹ In North America, climate-related threats to human security include: harm and loss of life from extreme weather events; catastrophic loss and damage to homes, communities, and critical infrastructure; direct and indirect health effects, including pollution and disease; and availability of, quality of, and access to food and fresh water. These threats are considerable but are unevenly distributed across populations on the basis of intersectional factors such as affluence, geography, gender, and socio-political marginalization.²⁰

Human security threats are particularly acute in the Arctic and sub-Arctic regions, and among Indigenous communities. Climate change worsens existing transboundary pollution such as persistent organic pollutants (POPs), which increase cancer rates and cause neurological damage in children, and are aggravated by Cold War-era military and industrial pollutants.²¹ Thawing permafrost is undermining critical infrastructure such as roads, bridges, airstrips, pipelines, homes, and sewage systems. Coastal erosion threatens hundreds of Alaskan communities, forcing some to relocate – a fear shared by communities in Canada.²² According to the IPCC’s *Fifth Assessment Report*: “The rapid rate at which climate is changing in the Polar Regions will impact natural and social systems and may exceed the rate at which some of their components can successfully adapt.”²³

2. *Arctic Threats:* The Arctic also faces other threats exacerbated by climate change. Increasing navigability of historically ice-covered waters has heightened non-Arctic state and non-state interest in the circumpolar region. The growing number of global actors who consider the Arctic to be important to their interests may lead to challenges to Canada’s effective control over the lands and waters in its Arctic Archipelago, and generate or exacerbate unconventional Arctic security issues such as illegal shipping, smuggling, irregular migration, and even fears of terrorism. At the same time, climate change creates an increased risk of damage to vessels from sea ice and unpredictable weather, requiring new practices related to oil spill emergency response and search and rescue to protect the Arctic ecosystem.²⁴
3. *Economic Threats:* North America’s economy is also threatened by climate change. First, extreme weather events cause economic losses. In Canada, average annual insurance claims from severe weather events between 2016-19 totalled CAD\$2.48 billion; the \$1.9 billion in catastrophic loss

insurance payouts in 2019 is nearly five times higher than the average from 1983-2008.²⁵ Hundreds of thousands of people have also been displaced from their homes by environmental disasters, particularly fires and floods. In the United States, the incidence and cost of extreme weather events are also on the rise. There has been a four-fold increase in the annual number of severe weather events since 1980, and the federal government estimates that it has spent at least \$450 billion on disaster assistance since 2005. Not all of these events were climate change-related, but these data indicate the clear trend of rising damage and cost of environmental disasters. Extreme weather events also threaten significant disruption to various economic sectors, such as agriculture, forestry, and energy. For example, nearly one-third of Canadian oil production was temporarily closed in 2016 due to wildfires in northern Alberta.²⁶

4. *Humanitarian Crises:* Climate change will fuel political and security crises around the world. This will affect U.S. and Canadian interests, and may require military or humanitarian responses that will increase demands on their armed forces. Indeed, such climate-fuelled conflicts – such as the civil wars in Syria and Mali, both of which necessitated multilateral military interventions including Canada and the U.S. – are already occurring.²⁷ International crises will increasingly contend with domestic demands for military deployments, with the response to environmental disasters increasingly straining operational resources. For instance, the Canadian Armed Forces deployed with increasing frequency at least twenty-three times between 2010-18 in response to environmental disasters, leading the Chief of the Defence Staff to acknowledge that “these calls for assistance are stretching the military beyond what it was originally designed to handle,” and that the current CAF structure is “probably too small to be able to deal with all of the tasks.”²⁸

The United States faces similar concerns regarding the need for increased military response to natural disasters. In 2014, the Center for Naval Analyses noted that the National Guard, reserve forces, and Army Corps of Engineers are “being called on more frequently to battle wildfires, respond to flooding and major snow events, and move water to drought-stricken areas, at home and abroad.”²⁹ For instance, Superstorm Sandy that struck New York and New Jersey in 2012 resulted in the mobilization of over 14,000 uniformed personnel with another 10,000 in support.³⁰ Climate change will only exacerbate this issue, further straining these organizations’ capacities to support federal, state, and local authorities in times of crisis. A broader phenomenon – a trend more than a single crisis – is the rise of climate-induced migration around the world, which is already causing mass humanitarian displacement and driving flows of migrants into the United States, and to a lesser extent Canada, from Latin America and the Caribbean.

5. *Military Operations and Readiness:* The capacity of the armed forces in Canada and the United States to respond to these crises may be increasingly compromised owing to the effects of climate change on military operations and readiness. Extreme weather events and environmental changes such as rising sea levels and thawing permafrost can damage military bases and other facilities. A DOD report indicates that as much as two-thirds of US military infrastructure could be at risk of climate-related impacts.³¹ In 2018, Tyndall Air Force Base in Florida was devastated when Hurricane Michael damaged nearly every building on base and those F-22 fighter jets that were

not relocated prior to the storm.³² The following year, heavy flooding caused major damage to the Camp Lejeune Marine base in North Carolina and Offutt Air Force Base in Nebraska, with reconstruction costs estimated at more than USD\$10 billion.³³ Accordingly, maintaining US military readiness in the face of climate impacts is an expensive and multi-year prospect. While the impacts on Canadian military installations have been less significant to date, senior officers have warned the increasing use of the Canadian Army for disaster response risks reducing its combat effectiveness, and CAF facilities such as CFS Alert on Ellesmere Island are at risk of destabilizing climate impacts.³⁴

Modernization of North American Defence

Canada's investment in defence and its problematic procurement processes remain a concern for a country that promises to be "strong at home, secure in North America, and engaged in the world."³⁵ What does a security context characterized by great power competition and advances in offensive weapons technologies mean for the continuing modernization of North American defence? The long-established 60-40 split in cost-sharing between the U.S. and Canada for the North Warning System (NWS) of radars may be revisited in light of future NORAD requirements,³⁶ begging the question of whether the Biden Administration will press Canada to increase its defence spending (as President Trump did).

NORAD modernization is an integral part of the evolution of North American defence, but it was the "unwritten and unfunded" chapter in Canada's 2017 defence strategy. Aging infrastructure in the Arctic, such as the NWS, is fraught with vulnerabilities, including gaps in domain awareness that limit binational capacity to detect, track, deter, or defeat threats to the continent. In his last testimony to the Armed Services Committee, former NORAD/U.S. Northern Command (USNORTHCOM) commander General Terrence O'Shaughnessy warned that "the Arctic is no longer a fortress wall ... the Arctic is the new frontline of our homeland defense as it provides our adversaries with a direct avenue of approach to the homeland and is representative of the changing strategic environment in our area of responsibility."³⁷ Political scientist Andrea Charron reminds us that sensors are "but one small part of a wider effort to reconsider what it means to defend North America,"³⁸ and continental defence is likely to loom larger on the bilateral agenda in the next four years than it has for the last decade.

Initiatives to renew and modernize NORAD must meet requirements to anticipate and respond to threats, and revise existing defence architecture to respond to new offensive capabilities (such as hypersonic glide vehicles, advanced longer-range cruise missiles, and unmanned/uninhabited aerial systems) deployed by strategic peer competitors against which no defence currently exists. The U.S. is building a SHIELD – Strategic Home and Integrated Ecosystem for Layered Defense – to protect North America, and is revising its defence and deterrence posture. These strategic initiatives require integrated domain awareness, defeat mechanisms, and next-generation data-fusion capabilities and predictive analytics for decision makers.³⁹ The SHIELD concept, oriented to counter the deployment of adversaries' offensive conventional threats, may also be used to deter nuclear forces that adversaries may deploy on dual-use ballistic, hypersonic, and cruise missile delivery platforms.⁴⁰

Changes in Command and Control, renewal of the North Warning System, Canada's recently-expanded Air Defence Identification Zone (CADIZ), and SHIELD and Joint All Domain Command and Control (JADC2) comprise core elements of North American defence modernization. This affects the future of NORAD – particularly its early warning role and the possible expansion of its mission to offensive roles beyond North America (as part of “deterrence by denial” doctrine). Canada and the U.S. have resurrected their Cold War awareness of the Arctic as an “avenue of approach” that cannot be ignored, and the release of Arctic strategies by the U.S. DOD, Navy, Coast Guard, and Air Force indicate growing concern about homeland defence and security.⁴¹ Modernization in and across all domains includes responding to grey zone tactics below the threshold of conflict.

Modernizing North American defence requires a great deal of innovation in a time of fiscal challenges and a focus on responding to the COVID-19 pandemic.⁴² As the U.S. moves forward, Canada will have to decide to what extent it will invest in upgrading or renewing the North Warning System, contribute to land-, air-, and space-based sensors, and be a part of an expanded NORAD mission that may involve missions outside of North America (e.g. to address Russian platforms that can launch missiles from within Russian Arctic territory). The North American allies are also likely to re-engage in previously contentious discussions about Canada's role in missile defence, which could range from early warning and data assessment to direct participation in interception or other defeat systems.

Assuming the new commander of NORAD and USNORTHCOM, General Glen VanHerck, will continue to be a strong advocate for bolstering Arctic capabilities and modernizing North American defence, Canada will face core questions about its desired and required roles in an evolving North American defence and security environment. It is anticipated that the incoming U.S. Biden-Harris Administration will demonstrate greater sensitivity to human and environmental security, and so modernization efforts will very likely involve consultation with Northern Indigenous peoples of Alaska, Canada, and Greenland, to participate and take ownership in their role as stewards of the North.⁴³

Differences in Canadian and U.S. perceptions of what constitutes effective North American defence may complicate the near-term bilateral relationship. Canada may begin to shift its approach to deterrence in light of the uncertainty of the complex threats facing the continent, and closer alignment of values and a greater contribution by Canada may include two-way influence in adjusting defence and deterrence concepts. Although the Canadian public is receptive to defence spending,⁴⁴ it will take political and military leadership to build support for NORAD modernization efforts that blur the lines between offensive and defensive missions. Cost sharing may prove contentious at a time when resources are focused on COVID containment and response.

Conclusion

The transition to a new U.S. administration, which has articulated a strikingly different political agenda than its predecessor, is likely to reinvigorate discussions about Canada-U.S. Arctic leadership, security, and continental defence. While the Canada-U.S. relationship is stable and strong, changes wrought by climate change, major power competition, and myriad security challenges (broadly-defined)⁴⁵ are likely

to heighten the profile of the Arctic as a subject on the bilateral agenda over the next four years. In many respects, Biden's climate and Arctic platforms anticipate a reset of the agenda to that in place before Trump took office,⁴⁶ which highlighted "a strong, sustainable and viable Arctic economy and ecosystem, with low-impact shipping, science-based management of marine resources, and free from the future risks of offshore oil and gas activity."⁴⁷ This resonates with Trudeau's priorities, putting the two leaders in a unique position to co-manage and advance environmental and human security considerations alongside needed investments to modernize North American defence. The latter subject will force Canada to grapple with fundamental questions about NORAD's roles (including missile defence and deterrence by denial) and how the country should balance cooperation and competition in a dynamic Arctic region inextricably linked to a complex global security environment. Arctic leadership is intertwined with a strong political will to re-engage strategic priorities on the global agenda, particularly climate change and great power competition, and the Biden administration is likely to set the tone and tempo not only for the United States but also for its close allies like Canada.

Notes

¹ William O. Walker III, *National Security and Core Values in American History* (New York, NY: Cambridge University Press, 2009).

² The White House, "National Security Strategy of the United States of America," ed. Executive Office of The President (Washington, DC: 2017), 40.

³ "[Cold Weather Leaders Course](#)," U.S. Army, updated 24 June 2016.

⁴ The term 'strategies' in this context also includes the variety of strategy-related documents, such as CONPLANS, OPLANS, Pubs, Instructions, and Directives.

⁵ Troy J. Bouffard and Lindsay L. Rodman, "U.S. Arctic Security Strategy: Balancing Strategic and Operational Dimensions," *Polar Journal* (forthcoming June 2021).

⁶ See P. Whitney Lackenbauer and Rob Huebert, "Premier Partners: Canada, the United States and Arctic Security," *Canadian Foreign Policy Journal* 20/3 (Fall 2014): 320-33, for basic historical context.

⁷ Lee Berthiaume, "[Justin Trudeau first leader to talk to U.S. president-elect Joe Biden](#)," *The Canadian Press*, 10 November 2020.

⁸ See Heather Exner-Pirot, "Canada's Arctic Council Chairmanship (2013-2015): A Post-Mortem," *Canadian Foreign Policy Journal* 22/1 (2016): 84-96; and P. Whitney Lackenbauer, "Conceptualizing 'One Arctic' as the 'Canadian Arctic'? Situating Canada's Arctic Council Chairmanship (2013-15)," in *One Arctic: The Arctic Council and Circumpolar Governance*, eds. P. Whitney Lackenbauer, Heather Nicol, and Wilfrid Greaves (Ottawa: Canadian Arctic Resources Committee / Centre on Foreign Policy and Federalism, 2017), 46-77. The "Safe Arctic Shipping" theme builds upon previous Arctic Council recommendations, such as the landmark *Arctic Marine Shipping Assessment* (2009), as well as the ongoing work of multilateral mechanisms like the International Maritime Organization (IMO) that led to the Polar Code which entered into force on 1 January 2017.

⁹ "[U.S.-Canada Joint Statement on Climate, Energy, and Arctic Leadership](#)," 10 March 2016.

¹⁰ "[United States-Canada Joint Arctic Leaders' Statement](#)," 20 December 2016. While framed in a bilateral and international context, the statement again provides strong insight into Canada's domestic Arctic policy goals. For an expanded discussion,

see P. Whitney Lackenbauer, "Canada's Emerging Arctic and Northern Policy Framework: Confirming a Longstanding Northern Strategy," in *Breaking the Ice Curtain? Russia, Canada, and Arctic Security in a Changing Circumpolar World*, eds. Lackenbauer and Suzanne Lalonde (Calgary: Canadian Global Affairs Institute, 2019), 13-42.

¹¹ Indigenous and Northern Affairs Canada (INAC), "[FAQs on Actions being taken under the Canada-US Joint Arctic Statement](#)," 20 December 2016; and Curtis Rafter, "[The Drilldown: Expanded Arctic oil and gas moratorium to remain in place until end of 2021](#)," *iPolitics*, 9 August 2019. The U.S.-Canada Joint Arctic Leaders' Statement explained that "taking into account the respective obligations of the United States and Canada under international law to protect and preserve the marine environment, these steps also support the goals of various international frameworks and commitments concerning pollution, including those reflected in the 1990 International Convention on Oil Pollution Preparedness, Response, and Cooperation, the 2013 Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic, and the U.S.-Canada Joint Marine Pollution Contingency Plan. Furthermore, with respect to areas of the Beaufort Sea where the U.S.-Canada maritime boundary has not yet been agreed, these practical arrangements are without prejudice to either side's position and demonstrate self-restraint, taking into account the principle of making every effort not to jeopardize or hamper reaching a final maritime boundary agreement."

¹² See, for example, Peter Taptuna's comments in John Van Dusen, "[Nunavut, N.W.T. premiers slam Arctic drilling moratorium](#)," CBC News North, 22 December 2016. See also Rob Huebert, "Trudeau's Arctic oil decision a fresh example of Canada ignoring the North," *Globe and Mail*, 6 January 2017; and "Northern premiers want a say in Trudeau's new Arctic policy," *Nunatsiaq News*, 30 January 2017.

¹³ Heather Exner-Pirot, "[Six takeaways from this week's U.S.-Canada joint Arctic statement](#)," *Arctic Deeply*, 22 December 2016.

¹⁴ Caroline Kelly, "[15 states sue Trump administration over Alaskan Arctic oil and gas leasing](#)," CNN, 9 September 2020; Felix Denson, "[The Drilldown: Trump administration pushes final offshore auction today](#)," *iPolitics*, 18 November 2020.

¹⁵ Will Greaves, "[What a Biden presidency means for climate change and Canada](#)," *Policy Options*, 10 November 2020.

¹⁶ Department of Defense, "[National Security Implications of Climate-Related Risks and a Changing Climate](#)," *United States Government* (July 2015), 5; Elizabeth Bush and Donald S. Lemmen, eds., *Canada's Changing Climate Report* (Ottawa, ON: Environment and Climate Change Canada, 2019); Jill Barclay, Jayde Lavoie, Carly MacArthur, and Maria Nallim, "[The Impacts of Climate Change on North American Defence and Security](#)," North American and Arctic Defence and Security Network (NAADSN) Policy Primer, 25 September 2020.

¹⁷ Joe Biden, "Climate Plan," <https://joebiden.com/climate-plan/>.

¹⁸ United Nations Development Programme (UNDP), *Human Development Report 1994: New Dimensions of Human Security* (New York: Oxford University Press, 1994), 23.

¹⁹ Purusottam Bhattacharya and Sugata Hazra, eds., *Environment and Human Security* (New Delhi: Lancers' Books, 2003); Robin M. Leichenko and Karen L. O'Brien, *Environmental Change and Globalization: Double Exposures* (Oxford: Oxford University Press, 2008); Richard A. Matthew, Jon Barnett, Bryan McDonald, and Karen L. O'Brien, eds., *Global Environmental Change and Human Security* (Cambridge: MIT Press, 2010); and Gunhild Hoogensen Gjørsv, Dawn Bazely, Marina Goloviznina, and Andrew Tanentzap, eds., *Environmental and Human Security in the Arctic* (London: Routledge, 2014).

²⁰ Idowu Ajibade, "Climate Security and Vulnerable Populations in Canada: Making a Case for Ambitious Policies," in *The Security of Canada and Canadians: Implications of Climate Change*, eds. Gordon McBean et al. (London, ON: The University of Western Ontario, 2010), 20-24; Wilfrid Greaves, "Insecurities of Non-Dominance: Re-Theorizing Human Security and Environmental Change in Developed States," in *Natural Resources and Social Conflict: Towards Critical Environmental Security*, eds. Matthew A. Schnurr and Larry A. Swatuk, 63-82 (New York: Palgrave Macmillan, 2012).

²¹ David Leonard Downie and Terry Fenge, eds., *Northern Lights Against POPs: Combatting Toxic Threats in the Arctic* (Montreal-Kingston: McGill-Queen's University Press, 2003).

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