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Vulnerabilities in the Canadian Approach to Defending Its Arctic Sovereignty

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Exercise Solo Flight

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Vulnerabilities in the Canadian Approach to Defending Its Arctic Sovereignty

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INTRODUCTION

The Arctic is a vast and sparsely inhabited region of approximately four million inhabitants living within the eight recognized Arctic states of Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden and the United States.¹ Canada is the second-largest Arctic state with nearly 40 percent of its territory and over 200,000 of its citizens living in the Arctic or nearby northern territories.² The Government of Canada has identified the Canadian Arctic as an integral part of the nation and a region from which much of the identity of being Canadian is drawn.³

The Arctic region is becoming of great interest to nations that do not possess territory in the Arctic, notably China, and of increasing importance to those that do, particularly the Arctic Ocean coastal states of Canada, Denmark, Norway, Russia and the United States. While there are many reasons for this interest, primary geopolitical factors include interest in exploiting the vast quantity of natural resources in the region and gaining access to new sea lanes opening with the increased melting of Arctic Ocean sea ice. As an example, the Arctic region is estimated to possess a minimum of 25 percent of the remaining oil and natural gas deposits on the Earth.⁴ Additionally, sea lanes through the Northwest Passage in Canadian-claimed territorial waters or through the Northern Sea Route in Russian territorial waters could reduce global cargo shipping distances by 40 percent and reduce the importance of the Panama and Suez Canals.⁵ In the current era of increasing great power competition, with the nations of the world constantly seeking economic and military advantage over their adversaries, the Arctic states must be

¹ Arctic Council, "Arctic States," last modified 1 January 2022, <https://www.arctic-council.org/about/states/>.

² Crown-Indigenous Relations and Northern Affairs Canada, "Canada's Arctic Policy Framework," last modified 28 November 2017, <https://www.rcaanc-cirnac.gc.ca/eng/1503687877293/1537887905065>.

³ Ibid.

⁴ Scott G. Borgerson, "The Economic and Security Implications of Global Warming," *Foreign Affairs*, no. 502 (May 2008): 16.

⁵ Ibid, 17.

prepared for the Arctic to transition into an arena of international competition and accordingly take measures to protect their sovereignty.

The research conducted for this paper explored the question of if the Canadian whole-of-government approach to security is providing sufficient deterrence to prevent foreign nations from compromising Canadian sovereignty in the Canadian Arctic. Possible grey-zone conflict type threats from China looking to gain a geopolitical advantage in the Arctic region were used to analyze Canada's capabilities, resilience and general ability to provide deterrence, and if necessary, defend its sovereignty in the Arctic. Specifically, examples of threats to sovereignty in the Northwest Passage and unwanted foreign responses to crises that may occur in Canadian territory were used to analyze how grey-zone threats could negatively affect Canadian security and sovereignty in the Canadian Arctic.

This paper will argue that although the Government of Canada has made good progress in working towards developing the infrastructure, capabilities and experience required to defend its sovereignty in the Canadian Arctic, there is a requirement to reinvigorate and increase its efforts to counter the increased threat posed by Chinese grey-zone conflict tactics. In an increasingly competitive world where nations are jockeying for resources, influence and power, Canada must be prepared to defend its arctic sovereignty against all manner of threats, many of which will not be overt.

DETERRENCE AND GREY-ZONE CONFLICT

Deterrence in geopolitics is preventing a competing nation-state from conducting an unwanted action and includes the own actions that a nation takes to stop or prevent an unwanted action from occurring.⁶ Deterrence is generally divided into two approaches: deterrence by

⁶ Michael J. Mazarr, *Understanding Deterrence* (Santa Monica, CA: RAND Corporation, 2018), 2.

denial and deterrence by punishment.⁷ Deterrence by denial “seeks to deter an action by making it infeasible or unlikely to succeed, thus denying a potential aggressor confidence in attaining its objectives.”⁸ Deterrence by denial is the approach most suitable for use by Canada when deciding on what actions it must take to maintain sovereignty as it includes proactively setting the conditions to deter adversaries prior to problems developing into a full-blown crisis. Canada must be able to deter China by preventing it from acting in the first place by making it too costly and not worth the effort. Deterrence by punishment is far less suitable as it creates an escalatory situation, the likely outcome of which would not be in Canada’s best interest.

It seems unlikely that Canada will face overt, conventional military attacks from China in the Canadian Arctic but it must be prepared to deter and if necessary, counter grey-zone conflict threats. Grey-zone conflict is described as the use of “unconventional tactics that do not cross the threshold of formalized state-level aggression.”⁹ These tactics have been associated with being employed by China and the actions that it takes when attempting to gain geopolitical advantage without entering into open hostilities with an opposing nation. Examples of possible grey-zone tactics are limited only by the imagination but can encompass economic actions, information operations and political actions that all serve to undermine an adversary.¹⁰ China is active in employing grey-zone tactics to achieve its political aims and gain advantage without resorting to force and uses what it calls political warfare comprised of “public opinion, psychological and legal warfare” to achieve political objectives.¹¹ Alongside other tactics, China will use techniques from its political warfare doctrine to gain influence in a region. Based on the current

⁷ Mazarr, *Understanding Deterrence*, 2.

⁸ Ibid.

⁹ David Carment and Dani Belo, *War’s Future: The Risks and Rewards of Grey-Zone Conflict and Hybrid Warfare* (Calgary, AB: Canadian Global Affairs Institute, 2018), 2.

¹⁰ Ibid, 2-5.

¹¹ Paul Charon and J.B. Jeangène-Vilmer, *Chinese Influence Operations: A Machiavellian Moment* (Paris: Institute for Strategic Research, 2021), 45.

Canadian approach to defending its sovereignty in the Arctic, the Canadian Arctic is such a region where China may be able to achieve some measure of success.

A NORTHWEST PASSAGE SEA LANE

In Canada, the Northwest Passage is the term used to describe the seven identified sea routes through the Canadian Arctic Archipelago that stretch approximately 2000 kilometers through Canadian territorial waters in the Arctic Ocean.¹² It experiences significant ice cover for much of the year making it currently unsuitable for large-scale transoceanic commercial shipping activities.¹³ However, the Northwest Passage is currently navigable during the summer months with commercial shipping and even pleasure cruise liners having had made the passage.¹⁴ Current predictions assess that the Northwest Passage will be free of sea ice for most of the year by 2050. While climate forecasters may be unable to precisely identify when the Northwest Passage will be open as a year-round shipping channel, it is clear this waterway will only gain in importance as a global sea lane and will be the subject of increased interest on the global stage, particularly with trading nations such as China.

Canada has an undisputed claim to the islands of the Canadian Arctic Archipelago but the legal status of the waters that flow between them remains in dispute. Canada has declared the Northwest Passage to be internal territorial waters, which would give Canada the claimed right to deny passage and to control the activities of any foreign ship that wishes to use the waterway.¹⁵ The claim that the Northwest Passage is within Canadian territorial waters is well recognized,

¹² Ken Coates, P. Lackenbauer, M. Whitney, R. William, and G. Poelzer, *Arctic Front: Defending Canada in the Far North* (Toronto: Dundurn Press, 2008), 66.

¹³ National Snow & Ice Data Center, "Arctic Sea Ice News & Analysis," last modified 3 May 2022, <https://nsidc.org/arcticseaicenews/>.

¹⁴ Mieke Coppes, "Analysis: Questioning the Relevance of Canada's Operation Nanook," last modified 5 September 2016, <https://deeply.thenewhumanitarian.org/arctic/articles/2016/09/05/analysis-questioning-the-relevance-of-canadas-operation-nanook>.

¹⁵ Coates et al., *Arctic Front: Defending Canada in the Far North*, 67.

however, the global community, and notably the United States, considers the Northwest Passage to be an international strait, not internal Canadian waters, thereby mandating the free flow of international shipping.¹⁶ Canada's claim to total sovereignty over the Northwest Passage will need to be defended and be justifiable to the international community. It will become increasingly difficult to do so as global interest in the passage increases, and if Canada is to have a supportable claim, it must prove to be capable of providing certain critical services including aids to sea navigation, icebreaking capability, search and rescue, law enforcement and a sustained military presence.¹⁷ If Canada does not provide the whole-of-government services expected to make the Northwest Passage a safe shipping lane, then other nations that would prefer Canada loses its claim that the Northwest Passage is internal waters may move to fill the void.

China would only be limited by its creativity when selecting grey-zone conflict tactics to challenge and degrade Canadian sovereignty in the Northwest Passage. China has publicly stated its ambitions for a Polar Silk Road and has recorded its intentions to be active in the development of shipping routes in the Arctic.¹⁸ China could directly attack Canadian sovereignty and support its priorities in the Northwest Passage by scaling up a seemingly innocuous tactic that has occurred in the past. This grey-zone tactic would be increasingly sending Chinese commercial shipping through the Northwest Passage without requesting permission from the Government of Canada, essentially acting as if it were an international strait. While Canada has declared that the Northwest Passage is open for commercial shipping, a challenge to Canadian sovereignty would occur if China deliberately did not inform Canadian authorities that they

¹⁶ Coates et al., *Arctic Front: Defending Canada in the Far North*, 67.

¹⁷ *Ibid*, 70.

¹⁸ The State Council of the People's Republic of China, *China's Arctic Policy* (Beijing: The State Council Information Office, 2018), 7.

would have watercraft traversing the passage. Additionally, if China also made available their icebreakers to escort and provide assistance to their commercial ships in the event of an emergency in the passage, Canadian sovereignty would be negatively affected and Canada's claim that the Northwest Passage is internal Canadian waters would be diminished in the estimation of the international community. While it would be a significant escalation for grey-zone conflict tactics, Chinese naval assets could also be employed as escorts for their shipping under the guise of being prepared to respond to an emergency, with the claim made that Canada does not currently provide that service.

This threat is credible as China has already mounted many expeditions to the Arctic with its icebreakers and it needs to be expected that they will occur with greater frequency as the quantity of Arctic sea ice continues to decrease and the value of a Northwest Passage sea lane increases.¹⁹ The Chinese icebreaker fleet is currently limited to two medium icebreakers designated for scientific purposes but its fleet is expanding to include the construction of a heavy nuclear-powered icebreaker forecasted to be in service after 2025.²⁰ Until the Northwest Passage is permanently recognized as internal Canadian waters, each Chinese use of the passage that occurs without first asking Canadian permission must be shadowed or directly monitored by Canadian Armed Forces (CAF) or Canadian Coast Guard (CCG) assets to protect Canadian sovereignty and counter this grey-zone tactic. Additionally, should any vessel come under duress, it must be Canadian assets that respond to the situation, as not doing so provides the opportunity for China to respond with its own assets. To counter this threat to sovereignty in the Northwest Passage and to be capable of providing escorts and responding to emergencies

¹⁹ Michael Byers and Emma Lodge. "China and the Northwest Passage." *Chinese Journal of International Law* 18, no. 1 (2019): 65.

²⁰ High North News, "China Reveals Details of Newly Designed Heavy Icebreaker," last modified 16 December 2019, <https://www.highnorthnews.com/en/china-reveals-details-newly-designed-heavy-icebreaker>.

promptly, Canada needs to increase the resources it has committed in the Canadian Arctic. Particularly, Canada must permanently station Royal Canadian Navy (RCN) and CCG assets in and around the Northwest Passage and develop the critical infrastructure required to sustain the future increase in their activities.

Recently, the Government of Canada has made investments in capabilities that will provide the means to support the enforcement of sovereignty in the Canadian Arctic. This includes the ongoing procurement of the Arctic Offshore and Patrol Ships (AOPS) for the RCN and the CCG, the development of the Nanisivik Naval Facility on Baffin Island and the investment into the construction of two new Polar icebreakers by 2029 as part of the National Shipbuilding Strategy.²¹ These projects will provide credible capabilities in the Canadian Arctic, however, if Canada wants to deter China from employing grey-zone tactics targeting Canadian sovereignty, additional efforts must be made beyond what already has been planned.

To provide the capability to persistently control the access and movements of foreign shipping in the Northwest Passage, there is an increased requirement for naval facilities that can support the permanent basing of RCN and CCG AOPS, icebreakers and patrol frigates. The Nanisivik Naval Facility will need to be further developed to be capable of fulfilling its original purpose of being a permanent base for RCN and CCG AOPS vessels and not just a summer refueling point.²² AOPS and CCG icebreakers will then be required to be permanently based at this facility to be capable of providing persistent coverage for emergency response and for constabulary duties of intercepting any vessel entering the Northwest Passage that Canada

²¹ Canadian Coast Guard. "Polar Icebreakers and the National Shipbuilding Strategy," last modified 6 May 2021, <https://www.canada.ca/en/canadian-coast-guard/news/2021/05/polar-icebreakers-and-the-national-shipbuilding-strategy.html>.

²² Steven Chase, "Long Delayed Naval Facility in the High Arctic Now Postponed to 2023," *Globe and Mail*, 30 March 2022.

wishes to deny access. Additionally, to ensure that Canadian control can be sustainably maintained across the entire Northwest Passage as shipping levels increase with the continued melting of the Arctic Sea ice, an additional naval port facility should be constructed on the western approaches to the passage to ensure coverage of shipping entering from both the Pacific and Atlantic oceans. This new naval facility should be positioned where year-round road or rail access to required resources, such as fuel, is available as would be the case if a facility was constructed in Tuktoyaktuk, NWT. Finally, as there have been reports of unannounced foreign submarine sightings within the Canadian Arctic, the RCN must be capable of forward-positioning frigates to provide a credible response and capability to rapidly investigate future submarine sightings.²³

It is not difficult to claim the Northwest Passage as internal waters but as a former Minister of Northern Affairs asserted, the Northwest Passage “will only be ours by effective occupation”²⁴ and Canada must ensure that it does so by investing in the capabilities required to provide the services expected by the international community in sovereign, internal waters. A persistent military presence is required, demonstrating the resolve and capability of the Government of Canada to respond to any contingency and a means to deny access to those ships that Canada does not want to enter its internal waters. This must be accomplished before the Northwest Passage becomes regularly used as a sea lane or it will already become too late to defend Canadian sovereignty, particularly if nations looking to gain an advantage in the Canadian Arctic begin to contribute to providing necessary services that Canada neglects. This will require investments into military infrastructure and the permanent garrisoning of CAF

²³ Policy Options, “Arctic Sovereignty: A View from the North,” last modified 1 May 2007, <https://policyoptions.irpp.org/magazines/the-arctic-and-climate-change/arctic-sovereignty-a-view-from-the-north/>.

²⁴ Coates et al., *Arctic Front: Defending Canada in the Far North*, 71.

elements in the Canadian Arctic in sufficient quantity to conduct regular sovereignty operations and to provide required services continuously to deter by denying other nations, particularly China, the opportunity to interfere in Canadian affairs.

CRISIS AND INCIDENT RESPONSE

The distances, paucity of infrastructure and climatic extremes which characterize the Canadian Arctic create the situation where mounting an effective and rapid response to a major incident that could occur in the Canadian Arctic would be a significant undertaking. To be capable of defending its sovereignty in the Canadian Arctic, particularly in and around the Northwest Passage, and to prevent the need to request assistance from foreign nations, Canada must possess the capacity to unilaterally respond to any such incident that could occur. By not maintaining the capability to do so, Canada is leaving itself vulnerable to challenges to its Arctic sovereignty.

Any number of incidents are possible which would create the need for Canada to respond to a crisis in the Canadian Arctic such as an airliner crash, cruise ship sinking or major oil spill.²⁵ With the increase of commercial airliners overflying the Arctic and the future increase in ships utilizing the Northwest Passage, it is reasonable to assume that it is only a matter of time before a significant incident occurs in the Canadian Arctic that will require a major and rapid governmental response.²⁶ It is also well within the capability of China, using grey-zone conflict tactics, to stage an incident that gives the pretext for a Chinese response in Canadian claimed territory. This would be a major embarrassment to Canada and a challenge to Canadian

²⁵ P. Whitney Lackenbauer, "Canada's Northern Strategy: A Comprehensive Approach to Defence, Security and Safety," In *Debating Arctic Security: Selected Writings, 2010-2021* (Peterborough, ON: North American and Arctic Defence and Security Network (NAADSN), 2016), 373.

²⁶ Global Affairs Canada, *Statement on Canada's Arctic Foreign Policy* (Ottawa: Government of Canada Publishing, 2010), 10-11.

sovereignty regardless of the wider circumstances. This tactic would be particularly effective if combined with a challenge to the Canadian claim that the Northwest Passage are internal waters based on an ineffective Canadian response to an incident. China also subscribes to the concept of ecological war as a legitimate tactic for grey-zone conflict thereby increasing the likelihood that it could stage an incident in the pristine Canadian Arctic thereby creating the narrative that Canada cannot environmentally protect its territory.²⁷ China has declared that it will “actively respond”²⁸ to protecting the Arctic’s environment and combined with its commitment to increasing Chinese tourism and ensuring their safety, there is no limit to what manner of incident China could stage in the Canadian Arctic where they could make justifiable excuses for intervention if the Canadian response was judged to be lacking.²⁹

To deter China from attempting a grey-zone attack on Canadian sovereignty, Canada must demonstrate that it has the capability to effectively, and unilaterally, respond to any realistic incident or crisis that could occur in the Canadian Arctic.³⁰ To ensure a timely response to an incident, this capability would need to reside in the CAF as a joint, rapid response force. This force would form the backbone of a Canadian whole-of-government response to any major incident that may occur in the Canadian Arctic.

Canada currently does have the ability to project the CAF and the CCG into the Arctic to respond to a short-notice crisis. However, the response that Canada can mount currently lacks the capability to respond to a significant incident in a timely manner where lives may depend on a quick response, or at the scale that could be expected from China staging an incident as part of a

²⁷ Qiao Liang and Wang Xiangsui, *Unrestricted Warfare*, 88.

²⁸ State Council of the PRC, *China’s Arctic Policy*, 4.

²⁹ *Ibid*, 8.

³⁰ Adam Lajeunesse, *The Canadian Armed Forces in the Arctic: Purpose, Capabilities, and Requirements*, (Calgary: Canadian Defence & Foreign Affairs Institute, 2015), 1.

grey-zone attack on Canadian sovereignty.³¹ For example, the current Canadian Army (CA) elements trained and prepared for Arctic operations are the Arctic Response Company Groups (ARCGs) mounted by Army Reserve units, with each CA division theoretically having the capability to deploy an ARCG.³² However, as a subunit sized element, an ARCG does not have the integral command and control, general people power or logistics capability to lead the response to a large-scale crisis such as a cruise ship in an emergency or a major environmental event like an oil tanker spill. This is the same for the CA's Rangers who can perform valuable reporting and guiding functions but lack the capability to respond to any significant event in a decisive capacity.³³

To reinvigorate a ground base capability suitable for operations in the Canadian Arctic and capable of responding to a major crisis, the CA needs to mandate that one of its light infantry battalions be committed to Arctic rapid-response tasks on a rotational basis. This would require a significant investment in training time and the acquisition of additional vehicles to give ground forces Arctic mobility even in the most extreme of climatic conditions. However, for a ground element to be credible and to have the people required to manage a response to a significant crisis or emergency, a unit-sized element of 600-1000 personnel is required. This would allow for a command and control capability, sufficient people power to maintain a high work tempo and the logistics and support personnel to sustain the effort in an isolated location, much in the mold of the 1950s era Mobile Striking Force.³⁴ Additionally, while the CA's ARCGs are not prepared for leading large-scale independent operations, they could be used to augment or

³¹ Policy Options, "Arctic Sovereignty."

³² Adam Lajeunesse, *The Canadian Armed Forces in the Arctic*, 4.

³³ *Ibid*, 5-6.

³⁴ Sean M. Maloney, "The Mobile Striking Force and Continental Defence, 1948-1955," *Canadian Military History* 2, no. 2 (1993), 80.

reinforce a Regular Force light infantry battalion tasked with being prepared for rapid response Arctic operations.

Arctic mobility of ground forces is currently limited to snowmobiles, all-terrain vehicles and the remnants of the worn-out Bv-206 fleet. While this does provide some measure of mobility, the current CA holdings of vehicles that can be used in the Arctic are insufficient.³⁵ To project a credible force during an incident, the CA must be able to ensure that a unit-sized element can transport itself over any terrain. It must be capable to carry the equipment and supplies required to correctly respond to a large-scale crisis and to then shelter and sustain the force during the process of managing the crisis scene. To be capable of projecting and sustaining a ground-based, unit-sized element, the CA will require that additional high-mobility vehicles be procured.

Should any crisis require the immediate deployment of a ground-based force, then the quickest method to get a response force to the incident site would be to drop airborne forces directly onto the crisis area. This would provide the most rapid response possible. The current CA airborne capability resides in one subunit per light infantry battalion in each of the Regular Force mechanized brigade groups and one Army Reserve parachute company. However, to provide the people power likely required to respond to a major incident, there is a requirement for a unit-sized element capable of deploying by parachute. This capability once existed in the CA in the form of the Canadian Airborne Regiment but has since atrophied.³⁶ Additionally, to provide mobility and survivability in Arctic climatic conditions, the procurement of vehicles capable of being airdropped would also need to be considered.

³⁵ Adam Lajeunesse, *The Canadian Armed Forces in the Arctic*, 3.

³⁶ Kenneth C. Eyre, *Custos Borealis: The Military in the Canadian North, 1898-1975* (Peterborough: North American and Arctic Defence and Security Network, 2020), 211.

Should it fully commit its resources, the Royal Canadian Air force (RCAF) currently possesses enough transport aircraft to support a battalion group deployment to the Arctic in the event of a crisis response operation.³⁷ Flight times from RCAF bases in southern Canada are not overly onerous and the RCAF has experience operating from austere airfields like those built in the Canadian Arctic.³⁸ However, to ensure a rapid joint response to a crisis in the Canadian Arctic, the RCAF must be able to load and move CA elements rapidly. To become proficient at this, joint movement exercises would be required regularly to rehearse the actions that will need to be taken in the event of a major incident.

Beyond the establishment of a joint force to respond to domestic emergencies in the Arctic, in order to defend its sovereignty and deter potential grey-zone attacks, Canada must increase the quantity and scope of annual Arctic sovereignty exercises undertaken by the CAF. This will demonstrate the capability to be able to mount an effective response to emergencies and other contingencies that require the rapid deployment of CAF elements. Demonstration of this capability in actual Arctic conditions is necessary to achieve a deterrence effect. Currently, Operation Nanook is the name for a series of domestic operations that see conventional CAF elements deploy to the Canadian Arctic and conduct sovereignty operations and northern training events.³⁹ These exercises are useful in familiarizing CAF members with operations in Arctic conditions but are not often conducted as large-scale events or rehearsals for a response to a major incident or disaster that requires a significant response due to the complexities and risks such an exercise would pose.⁴⁰ However, if the CAF wants to demonstrate a true Arctic crisis

³⁷ John Gordon et al., *Enhanced Army Airborne Forces: A New Joint Operational Capability* (Santa Monica, CA: RAND Corporation, 2014), 45-57.

³⁸ Mike Trethewey et al., *Northern and Arctic Air Connectivity in Canada* (Paris: International Transport Forum, 2021), 12.

³⁹ National Defence, "Operation NANOOK," last modified 18 March 2022, <https://www.canada.ca/en/department-national-defence/services/operations/military-operations/current-operations/operation-nanook.html>.

⁴⁰ Coates et al., *Arctic Front: Defending Canada in the Far North*, 122-124.

response capability, with aim of deterring potential adversaries from using grey-zone tactics to undermine Canadian sovereignty, the investment must be made to increase the scale and scope of CAF Arctic exercises.

To deter adversaries from attempting to stage an incident and then conduct a crisis response operation that would greatly embarrass and undermine Canadian Arctic sovereignty, the CAF must create a high-readiness, joint Arctic response force that has the resources and experience to conduct large-scale disaster response operations anywhere in the Canadian Arctic. While these responses would not likely include combat, and the CAF might not be the lead responding governmental agency, it must be prepared to contribute, particularly with the organized people power and equipment that only the CAF can provide.⁴¹ Additionally, as the specifics of a crisis cannot be completely forecasted before it occurs, a unit-sized response force would provide the capacity to integrate and support additional mission-specific elements as required. Finally, increased sovereignty operations and exercises in the Canadian Arctic must be conducted by the CAF. Beyond serving as a deterrence function, Arctic exercises can also serve as rehearsals for a CAF response to crises that may occur in the Canadian Arctic due to China employing grey-zone tactics to undermine Canadian sovereignty. The CAF must be capable to mount on short-notice a response, particularly in areas where Canadian sovereignty is open to challenge, if this deterrence is to be effective.

CONCLUSION

The Arctic is a vast region of increasing global importance. The effects of a rapidly warming global climate and the melting Arctic Ocean sea ice unlocks many opportunities for Canada but also adds to Canadian security challenges as other nations seek geopolitical

⁴¹ Lackenbauer, "Canada's Northern Strategy," 372.

advantage and economic gain.⁴² Canada must be capable of deterring nations that seek to undermine Canadian sovereignty and unfairly profit from exploiting Canadian resources or otherwise cause negative effects on Canada. Particularly China, which “is most definitely seeking to revise the international order” and could gain much from increased influence in the Canadian Arctic.⁴³

While Canada has made many efforts to develop its capacity and capabilities in the Canadian Arctic, it must reenergize its efforts if it is to be able to deter, and if necessary, defend its sovereignty against grey-zone operations conducted by competitors seeking to exploit weaknesses. Any number of examples could be discussed where Canadian sovereignty could be at risk from grey-zone tactics. However, current areas of greatest vulnerability are defending the Canadian claim that the Northwest Passage is internal waters and the lack of a CAF-led rapid response force capable of responding to a short-notice crisis anywhere in the Canadian Arctic. If Canada wants to defend its disputed claim to the Northwest Passage and possess complete control of this future lucrative sea lane, it must further develop its naval infrastructure and permanently station RCN and CCG vessels in the region. This will provide a persistent emergency response and constabulary capability to ensure that Canada can claim complete control of the Northwest Passage. Additionally, the CAF must commit to generating a rapid response force that demonstrates the capability to unilaterally act in the event of a major incident such as an airliner crash or environmental disaster.

With these capabilities, Canada will be well-positioned to deter adversaries from attempting grey-zone attacks that would undermine Canadian sovereignty in the Canadian Arctic as they know that any such attack would be met with an effective response. However, Canada

⁴² Douglas C. Nord, *The Arctic Council: Governance within the Far North* (New York, NY: Routledge, 2016), 14.

⁴³ Carment and Belo, *War's Future*, 11.

must act quickly to develop these capabilities as the Canadian Arctic possesses many natural resources and strategic advantages that are coveted by resource-hungry competitors.⁴⁴ To deter these competitors, and particularly China, from interfering in Canadian affairs and conducting attacks on Canadian sovereignty, the Government of Canada must commit to investing the resources required to defend the ambitious claims that it has made in the Arctic.

⁴⁴ Nord, *The Arctic Council: Governance within the Far North*, 15.

BIBLIOGRAPHY

- Arctic Council. "Arctic States." Last modified 1 January 2022. <https://www.arctic-council.org/about/states/>.
- Bentzen, Naja. *Arctic Continental Shelf Claims*. Brussels, BE: European Parliamentary Research Service, 2017.
- Borgerson, Scott G. "Arctic Meltdown: The Economic and Security Implications of Global Warming." *Foreign Affairs*, no. 502 (May 2008): 15-19.
- Byers, Michael and Emma Lodge. "China and the Northwest Passage." *Chinese Journal of International Law* 18, no. 1 (2019): 57-90.
- Carment, David and Dani Belo. *War's Future: The Risks and Rewards of Grey-Zone Conflict and Hybrid Warfare*. Calgary, AB: Canadian Global Affairs Institute, 2018.
- Canada. Canadian Coast Guard. "Polar Icebreakers and the National Shipbuilding Strategy." Last modified 6 May 2021. <https://www.canada.ca/en/canadian-coast-guard/news/2021/05/polar-icebreakers-and-the-national-shipbuilding-strategy.html>.
- Canada. Crown-Indigenous Relations and Northern Affairs Canada. "Canada's Arctic Policy Framework." Last modified 28 November 2017. <https://www.rcaanc-cirnac.gc.ca/eng/1503687877293/1537887905065>.
- Canada. Global Affairs Canada. *Statement on Canada's Arctic Foreign Policy*. Ottawa: Government of Canada Publications, 2010.
- Canada. National Defence. *Northern Approaches: Army Arctic Concept 2021*. Kingston: Canadian Army Land Warfare Centre, 2013.
- Canada. National Defence. "Operation NANOOK." Last modified 18 March 2022. <https://www.canada.ca/en/department-national-defence/services/operations/military-operations/current-operations/operation-nanook.html>.
- Canada. Public Services and Procurement Canada. *Canada's National Shipbuilding Strategy: 2020 Annual Report*. Ottawa, ON: Government of Canada Publications, 2020.
- Charon, Paul and J.B. Jeangène-Vilmer. *Chinese Influence Operations: A Machiavellian Moment*. Paris: Institute for Strategic Research, 2021.
- Chase, Steven. "Long Delayed Naval Facility in the High Arctic Now Postponed to 2023." *Globe and Mail*, 30 March 2022.
- China. The State Council of the People's Republic of China, *China's Arctic Policy*. Beijing: The State Council Information Office, 2018.

Coates, K., Lackenbauer, P., Whitney, M., William R., and Poelzer, G. *Arctic Front: Defending Canada in the Far North*. Toronto: Dundurn Press, 2008.

Coppes, Mieke. "Analysis: Questioning the Relevance of Canada's Operation Nanook." Last modified 5 September 2016. <https://deeply.thenewhumanitarian.org/arctic/articles/2016/09/05/analysis-questioningthe-relevance-of-canadas-operation-nanook>.

Eyre, Kenneth C. *Custos Borealis: The Military in the Canadian North, 1898-1975*. Peterborough: North American and Arctic Defence and Security Network, 2020.

John Gordon et al., *Enhanced Army Airborne Forces: A New Joint Operational Capability*. Santa Monica, CA: RAND Corporation, 2014.

Hartmann, Uwe. *The Evolution of the Hybrid Threat and Resilience as a Countermeasure*. Rome, IT: NATO Defense College Research Division, 2017.

Harvard Law Review. "The Potential-Use Test and the Northwest Passage." Last modified 10 June 2020. <https://harvardlawreview.org/2020/06/the-potential-use-test-and-the-northwest-passage/>.

High North News. "China Reveals Details of Newly Designed Heavy Icebreaker." Last modified 16 December 2019. <https://www.highnorthnews.com/en/china-reveals-details-newly-designed-heavy-icebreaker>.

Huebert, Rob. "Canada and China in the Arctic: A Work in Progress." In *Debating Arctic Security: Selected Writings, 2010-2021*. Peterborough, ON: North American and Arctic Defence and Security Network (NAADSN), 2021.

Lajeunesse, Adam. "Canada's Arctic Offshore and Patrol Ships (AOPS): Their History and Purpose." *Marine Policy* 124 (February 2021).

Lajeunesse, Adam. *The Canadian Armed Forces in the Arctic: Purpose, Capabilities, and Requirements*. Calgary, AB: Canadian Defence & Foreign Affairs Institute, 2015.

Lackenbauer, P. Whitney. "Canada's Northern Strategy: A Comprehensive Approach to Defence, Security and Safety," In *Debating Arctic Security: Selected Writings, 2010-2021*. Peterborough, ON: North American and Arctic Defence and Security Network (NAADSN), 2021.

Liang, Qiao, and Wang Xiangsui. *Unrestricted Warfare*. Beijing: PLA Literature and Arts Publishing House, 1999.

Maloney, Sean M. "The Mobile Striking Force and Continental Defence, 1948-1955." *Canadian Military History* 2, no. 2 (1993), 75-88.

Mazarr, Michael J. *Understanding Deterrence*. Santa Monica, CA: RAND Corporation, 2018.

National Snow & Ice Data Center. “Arctic Sea Ice News & Analysis.” Last modified 3 May 2022. <https://nsidc.org/arcticseaicenews/>.

Nord, Douglas C. *The Arctic Council: Governance within the Far North*. New York, NY: Routledge, 2016.

Parsons, Erin. *Chinese Arctic Discourse, 2018 to Present*. Peterborough: North American and Arctic Defence and Security Network, 2021.

Policy Options. “Arctic Sovereignty: A View from the North.” Last modified 1 May 2007. <https://policyoptions.irpp.org/magazines/the-arctic-and-climate-change/arctic-sovereignty-a-view-from-the-north/>.

Tretheway, M., R Andriulaitis, J. Koitsky, and G. Tretheway. *Northern and Arctic Air Connectivity in Canada*. Paris: International Transport Forum, 2021.