

Written Testimony

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National Security Implications of Climate Change in the Arctic

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For the past 154 years, the United States has been an Arctic nation. It was on March 30, 1867 when Secretary of State William H. Seward brokered the acquisition of the Alaska territory from a cash-strapped Russia at a cost of \$7.2 million or roughly two-cents per acre. Skeptics at the time would dub this landfall acquisition as “Seward’s Folly”.

This hearing would not be convened today absent this “folly”; the vast natural resources extracted from and held in reserve in Alaska would be filling the coffers of the Russian republic; conventional and nuclear threats from a peer competitor would be on our threshold compromising early warning detection networks; all while leaving the U.S. consigned to a spectator role as great power competition is filling a void when Arctic sea ice is in retreat. Accordingly, I attest that it will be tantamount to strategic “folly” to fail to match strategic intent with enhanced capabilities and capacity for sustained operations in the Arctic.

The U.S. does not lack for strategic intent and during my tenure as Commander of the Coast Guard’s Pacific theater that encompassed the Arctic and Antarctica from 2012 - 2014, and as Commandant of the Coast Guard from 2014 - 2018, I worked extensively with the private sector, indigenous residents, the Pentagon and Department of Homeland Security, members of Congress and the White House under President Obama’s and President Trump’s Administrations to attain tangible outcomes from the strategic foundation that had been laid. I will first address that strategic foundation going back 25 years.

The Ottawa Declaration of 1996 formerly established the Arctic Council comprised of Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden and the United States. This 8-nation Council (with 5 standing members of NATO) serves as a coordinating body to address *non-security matters* to include safety of life at sea, maritime pollution and subsistence living among the indigenous residents in the Arctic. Working with Department of State, I was able to establish an Arctic Coast Guard Forum while the U.S. Chaired the Council from 2015 - 2017 that has culminated in combined operations among member nations’ coast guards to enhance collaboration and trust building measures.

National Security Presidential Directive 66 and Homeland Security Directive 25 was issued on January 9, 2009 (just prior to President George W. Bush leaving office) and required the following:

- a. Increased capability and capacity to protect air, land and sea borders in the Arctic;
- b. Increased maritime domain awareness to protect maritime commerce, critical infrastructure and key resources;
- c. The preservation of global mobility of U.S. military and civilian aircraft and ships;
- d. The projection of sovereign U.S. maritime presence in the Arctic; and
- e. The peaceful resolution of disputes in the Arctic.

The National Strategy for the Arctic Region was promulgated on May 10, 2013 and delineates three lines of effort to include:

- a. Advance U.S. security interests to include infrastructure, maritime domain awareness, energy security and freedom of navigation;
- b. Environmental protection; striking a balance between economic development and the preservation of cultural values; and advancing scientific research and charting in the Arctic. (Of note, approximately 5% of the Arctic Ocean has undergone hydrographic surveys and charting to 21st century standards.)
- c. Strengthen international cooperation through continued engagement with the Arctic Council and International Maritime Organization and acceding to the Law of the Sea Convention.

Memorandum on Safeguarding U.S. National Interests in the Arctic and Antarctic Regions was released on June 9, 2020. This memorandum strikes at the heart of our emaciated fleet of ice breakers that lacks sufficiency in numbers and material readiness to exert U.S. sovereignty in the Arctic region and concurrently uphold the Antarctica Treaty System. The memorandum prescribes the acquisition of three heavy, polar-class security cutters. To date, two of those three cutters have been fully funded at a cost of \$1.754 billion with the first cutter scheduled for delivery in 2024 from VT Halter Marine in Pascagoula, MS. (The Coast Guard's program of record calls for three heavy and three medium class polar security cutters.)

For their part, the Coast Guard, and more recently, Department of Defense have released their strategic intent for the Arctic that complement the evolving strategic intent from the three previous administrations. And on September 24, 2021 President Biden's administration reactivated the Arctic Executive Steering Committee in support of the Arctic Council that had been in hiatus under the previous administration.

Yet strategic intent alone does not hold big power competition in check. And what's driving this competition? Simply stated, there is a significantly more open water and less ice covered Arctic Ocean that has opened access to resource exploitation, more

expeditious sea routing between the Asian and European markets and militarization of the Arctic. I will address these big powers individually.

Russia. With the longest Arctic coastline and a fleet of conventional and nuclear powered ice breakers that outnumber that of the U.S. by a factor of 9:1, Russia, despite its GDP of less than one-tenth of the U.S. enjoys regional hegemony in the Arctic. The Northern Sea Route Administration was established in 2013 and oversees the draconian measures imposed by Russia for transiting the more viable Northeast Passage that trims about one-third of the transit time and by-passes the Suez Canal for maritime commerce between Asia and Europe during the relatively ice-free season from Summer to mid-Fall. Any vessel to include foreign military shipping must first submit a request to the Administration that includes ship-specific sensitive information to gain permission for passage, and then retain the services of a Russian icebreaker and ice pilot to transit those waters in repudiation of the tenets of innocent passage under the Law of the Sea Convention when transiting an international strait.

At the same time, Russia has laid claim to an expanded continental shelf that extends up to the North Pole, again in defiance of expanded continental shelf claims that are limited to 350 miles or 150 miles beyond the conventional 200-mile exclusive economic zone under the provisions of the Law of the Sea Convention.

Economically, Russia enjoys vast natural gas reserves that are being exploited and exported from the Yamal Peninsula in northwest Siberia. As a “no-show” at COP26 and with the added advantage of its Northern Sea Route, Russia is positioned to fuel its economy from the liquefied natural gas riches of the Yamal Peninsula over the next several decades.

Militarily, Russia has invested in a two-pronged, access denial and offensive naval combatant approach for the Arctic region. Outlying installations whose mission was primarily for search and rescue are being re-fitted to accommodate missile batteries. Russia also has a program to place 23550 ice class patrol ships into service. These patrol ships are ostensibly icebreaking corvettes capable of launching the Kalibr-NK cruise missile with a range of nearly 1500 miles. In 2017, Russia conducted a military exercise in the Arctic (Zapad 2017) that included 60-70 thousand troops and 70 aircraft.

China. China considers itself a “near Arctic nation”, yet its northern most extreme lies over 900 miles south of the Arctic Circle. China gained observer status to the Arctic Council in 2013 and has viewed the Arctic as a global commons. To that end, it has launched a second icebreaker with aspirations to launch a nuclear powered icebreaker to advance its “polar silk road” initiative. China brokered nearly one-third of the \$27 billion infrastructure project to establish Russia’s Yamal LNG facility, and continues to invest heavily in the economies of Iceland and Greenland to establish a more permanent foothold in the Arctic region. In 2015, China conducted a combined naval exercise with Russia in the Arctic coincident with President Obama’s visit to Alaska under the auspices of climate change.

United States. An anecdote: While I was serving as Commandant of the Coast Guard, the National Security staff strongly encouraged that I deploy our Nation's sole, heavy icebreaker (*Polar Star*) through the Northern Sea Route in a freedom of navigation exercise directed against Russia. *Polar Star* has been in service for over 40 years, operating in the harshest conditions on the face of the planet, namely, Antarctica. *Polar Star's* material readiness has been compromised due to spare parts obsolescence and remains in service only by cannibalizing parts from its sister ship, *Polar Sea*. So when I fielded that request, I could provide no assurance that *Polar Star* could complete the exercise without experiencing a major engineering casualty requiring Russia's assistance in rendering aid to a crippled, U.S. heavy icebreaker. The National Security staff supported my recommendation and we stood down from that freedom of navigation exercise. And this should come as no surprise. The four Commandants who preceded me over a span of 16 years had vigorously campaigned for the recapitalization of our Nation's heavy icebreaking fleet that were successively met with muted responses and mandates for the Coast Guard to conduct further studies. Consequently, the Coast Guard and our Nation is now two decades behind the acquisition and delivery schedules to recapitalize its polar fleet and exert sovereignty in the Arctic region.

One of the greatest assets for the U.S. in the Arctic is our alliances. 5 of the 8 Arctic Council nations (U.S., Canada, Denmark, Iceland and Norway) are NATO partners, and Finland and Sweden are valued contributors to NATO-led operations. Collectively, these 7 named Nations operate a fleet of 35 icebreakers to include Norway's *Svalbard* class of ice breaking patrol vessels. And Canada has designs to replicate the *Svalbard* class with a fleet of 8 *Harry DeWolf* class, icebreaking patrol vessels.

In order to attain Arctic domain awareness that has been articulated in each iteration of our National strategy, there is a prerequisite for space-based bandwidth. Command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR) challenges persist in the Arctic where land-based high frequency technology is compromised by solar activity and magnetic anomalies.

Meanwhile, the U.S. is among the few outliers that have not ratified the Law of the Sea Convention. This not only compromises our standing as an arbiter of maritime governance, but nullifies any claim to our expanded continental shelf (an area roughly twice that of the State of California), despite extensive sea bed mapping by the Coast Guard and National Oceanic and Atmospheric Administration to validate such a claim.

The U.S. does not have a Deepwater port in the Arctic, although studies have been completed to assess the feasibility of establishing a port in either Port Clarence, Kotzebue, or Nome, Alaska. The nearest Deepwater port, Dutch Harbor lies some 900 miles distant from the Arctic and off-station times are considerable whenever an icebreaker needs to re-fuel and take on supplies.

And with respect to logistics, supply lines are stretched thin, and shore infrastructure is limited to support a surge force. Case in point: I was the federal-on-scene coordinator during the Deepwater Horizon oil spill in 2010. On any given day, I had nearly 50,000 first responders, 6500 ships and 120 aircraft deployed to mitigate the impact of the largest oil spill in U.S. history. Our shore infrastructure was robust! In contrast, for an oil spill along the environmentally pristine north slope of Alaska, there are accommodations for approximately 50 surge forces in Utqiagvik (formerly known as Barrow), Alaska. There is no deepwater port, while treacherous sea states and persistent, low cloud ceilings inhibit sustained at-sea and air operations respectively in an oil spill response contingency.

It is estimated that nearly one-third of the global unexploited natural gas and 13% of the unexploited oil reside in the Arctic region. Any such exploitation must be tempered with the constraints of oil spill recovery operations, and above all, the cultural values of our native Alaskans.

As sea ice retreats to historic levels on a seasonal basis, there are 31 coastal communities in Alaska directly threatened by coastal erosion. Near-shore sea ice had served as a natural breakwater to those communities, and that natural barrier is no more. Most of these communities lack a road system to enable an expeditious evacuation, and in the event of severe coastal flooding and erosion, I anticipate the Department of Defense will have a pivotal emergency response role under the auspices of Defense Support to Civil Authorities.

Militarily, U.S. presence has historically been focused on nuclear deterrence with submarines operating below the ice cap; nuclear defense under the command and control of the North American Aerospace Defense Command (NORAD); conventional threats under the purview of Alaska Command, a sub-unified element of Northern Command and headquartered at Joint Base Elmendorf-Richardson in Anchorage, Alaska; and adversarial submarine threats in the Greenland, Iceland, United Kingdom gap with Naval P-8 Poseidon aircraft operating from Thule Air Base in Greenland and Naval Air Station Keflavik in Iceland on a rotating basis. More recently, the U.S. and allied partners conducted Operation Trident Juncture in 2018 north of Norway and deployed approximately 50,000 troops, 250 aircraft and 65 ships. The 17th Coast Guard District in Juneau, Alaska serves as the Naval component to Alaska Command.

The Way Ahead:

U.S. presence in the Arctic region has languished under Republican and Democratic Presidential administrations, and on closer examination, executive level directives, strategies and memoranda were released during the trailing edge of each of those administrations culminating in a pause placed upon strategic direction and outcomes once the succeeding administration took office. There is an immediate opportunity for the current administration to weave a common thread across those previous administrations' strategic direction to enhance bi-partisan support and provide tangible assets to bolster U.S. capability and capacity in the Arctic region.

Meanwhile, the Arctic remains a bell weather for climate change and a take away from COP26 is that attaining any semblance of net carbon zero is on the very distant horizon, while the gigatons of greenhouse gases emitted today will persist in the atmosphere for decades to come. The correlation between CO2 concentrations, global temperatures and sea level is profound, and with CO2 concentrations on the rise, I anticipate a continual warming and more accessible Arctic Ocean that will escalate great power competition in the region.

The U.S. must stay the course in supporting the Arctic Council under the direction of the Arctic Executive Steering Committee, the Arctic Coast Guard Forum, and combined military exercises among allied and like-minded nations within the U.S. European Command and U.S. Northern Command theaters of operation.

I am relieved to see two polar security cutters fully funded with reserve space, weight and power to accommodate military weaponry. The next step is to fully fund the recapitalization of our icebreaking fleet with a program of record that includes three heavy and three medium class polar security cutters.

The bandwidth gap in the high latitudes must be closed with space-based capability, and the establishment of a deepwater port above the Arctic Circle is imperative for sustained maritime operations in the Arctic Domain.

Finally, I advocate legislative action for the U.S. to ratify the Law of the Sea Convention. This would not only provide maritime governance legitimacy to our expanded continental shelf claims in the Arctic, but provide a platform to challenge the unilateral action of Russia in denying innocent passage through a recognized international strait - the Northern Sea Route.

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