Greenland's Critical Role in North America; The U.S. Way Ahead

Lieutenant Colonel Ali N. Omur

U.S. Army, Foreign Area Officer

Instructor, Command and General Staff College

Ft. Leavenworth, Kansas

Abstract

Defense of the North American homeland, both for the U.S. and Canada, requires Greenland to be a close and interwoven partner. In light of the rising importance of the Arctic caused by the melting of the polar ice, Russia is re-militarizing its Arctic territories, to include forward-staging aviation, naval and ground assets. This significantly shortens their military reach on the North American homeland by going over the North Pole vs. around it. China, through its One Belt One Road Initiative, is investing aggressively in Greenland, to win influence and establish itself as an Arctic player with aviation, maritime, and communications infrastructure on America's doorstep. To deter both Russia and China in the Arctic, which serves as a stepping stone into North America, the U.S. must formally solidify its relationship with Greenland. This should be done both directly and vis-à-vis its NATO ally Denmark (Greenland being an autonomous territory within the Kingdom of Denmark.)

Integrating Greenland as a security partner needs to be a priority at both the political and military-to-military (mil-to-mil) levels. Integrating Greenland as a closer security partner will require three courses of action; first, a whole of government diplomatic approach that is cognizant and respectful of both Greenlandic and Danish interests and historical ties to the region; second, finding opportunities to increase investment and trade with Greenland to tie shared economic interests closer together and increase Greenland's nascent infrastructure; and third, improve mil-to-mil cooperation with Denmark's Joint Arctic Command headquarters and forces in Greenland to further enhance interoperability and prepare U.S. forces to better operate in the harsh Greenlandic Arctic environment.

Pursuing these three courses of action will result in a solid ally and partner immune to great power competitors' influencing actions. Additionally, a strong relationship with Greenland will secure enhanced access to the Arctic, allowing U.S. and allied forces to perform sovereignty and domain awareness operations, along with search and rescue in increasingly busy sea and air lanes. A firm security partnership with Greenland will ensure continued support and operation of the U.S.' most northern permanent military installation, Thule Air Base, and the potential for dual-use of Greenland's air and seaports for both deterrence and humanitarian operations. This paper will illustrate these direct benefits of Greenland's partnership to homeland defense and link the courses of actions to this outcome.

Greenland Must Be an Integral Partner in the Defense of the U.S. and North American Homeland

- I. Introduction
- II. Why Greenland?
- III. Diplomacy
- IV. Economics
- V. Mil-Mil Cooperation
- VI. Conclusion

I. Introduction

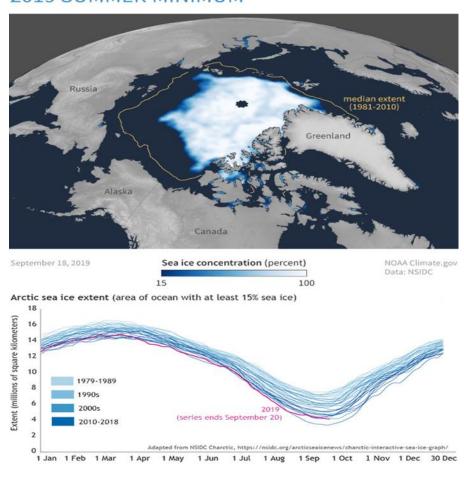
"The network of U.S. allies and partners with shared national interests in this rules-based order is the United States' greatest strategic advantage in the Arctic region, and thus the cornerstone of DoD's Arctic strategy. DoD cooperation with Arctic Allies and partners strengthens our shared approach to regional security and helps deter strategic competitors from seeking to unilaterally change the existing rules-based order." — Introduction to the U.S. Department of Defense Arctic Strategy, June 2019

The Arctic is rapidly transitioning from an impassible and inhospitable ice-locked expanse to an area offering new opportunity for expanding sea routes, economic exploration and geopolitical maneuvering. Since the early 1980s, the Arctic Sea Ice Minimum, which measures the total area of sea ice in the Arctic, has decreased from almost 8 million square kilometers in the early 1980s to 4.15 million square kilometers as of September 2019, indicating a 12.85 percent rate of decline per decade (see Figure 1). This has opened up sea routes and ports that were previously impassable for most of the year due to sea ice. This is significant for many reasons, one of which is that it is much faster to travel from one hemisphere to the other going over the pole. For example, the journey from Shanghai to Hamburg via the Arctic route is 2,800 nautical miles shorter than going by the current and traditional method, utilizing Egypt's Suez Canal. There is also great mineral and hydrocarbon wealth in the Arctic region which will become increasingly cost effective to extract as sea ice decreases. This has recently brought to the forefront the importance of the Arctic landmass of Greenland. An autonomous territory within the Kingdom of Denmark, Greenland has been mostly over-looked as a state and partner but is now receiving heightened attention as it is strategically situated both in North America and the Arctic region. This heightened attention is especially important as great powers maneuver to position themselves strategically in the increasingly accessible Arctic.

Greenland is a mostly ice-covered, sparsely-populated land mass encompassing 2,166,086 square kilometers in the far northeastern part of North America (see Figure 2) close to the North Pole. Until the

ice began melting, Greenland was largely noted for its military significance. During World War II it served as a stopover for aircraft deploying to Europe. In the early years of the Cold War the U.S. Army tried constructing a base to house nuclear-capable missilesⁱⁱⁱ, but was unsuccessful.

2019 SUMMER MINIMUM



(Figure 1)

In the early 1950s, the U.S. Air Force constructed its northernmost base in Greenland, Thule Airbase (AB), initially to serve as a dispersal base for strategic bombers. It now serves as home to the Air Force's 12th Space Warning Squadron, a Ballistic Missile Early Warning Site and the 23rd Space Operations Squadron, part of the 50th Space Wing's global satellite control network. Besides Thule AB, the only other military presence on Greenland is Denmark's Joint Arctic Command (JAC), headquartered out of

the capital, Nuuk. Its main missions are surveillance and enforcement of territorial sovereignty in Greenland and the Faroe Islands, along with search and rescue and fishing vessel inspection. It numbers about 65 personnel and includes five ground stations around Greenland, to include a dog sledge patrol in northeast Greenland. Beyond these military activities Greenland largely escaped notice of the geo-political maneuverings of the large nation-states for the past few decades until the recent decline in Arctic ice.



(Figure 2)

Today, this massive, sparsely-populated, semi-autonomous nation, straddling both North America and the Arctic, is taking on a new-critical role on the world stage. While integrating Greenland as an ally and partner will result in tangible benefits for the defense of North America, losing influence in Greenland will jeopardize the security the U.S. and Canada have enjoyed in a North American hemisphere free of hostile or competitive foreign power influence.

II. Why Greenland

Greenland is situated both in North America and the North Pole region. The flight time for commercial aviation from the capital, Nuuk, to Baltimore, Maryland is 4 hours 30 minutes. From Nuuk to Montreal, Canada is only 3 hours 35 minutes. Greenland's massive land mass sits astride direct sea routes from Europe to the U.S. and over the pole. If Greenland falls further under the influence of China or Russia, the security implications for both the U.S. and Canada are clear. Increasing diplomacy, trade, and security cooperation with Greenland, both directly and through the Danish government, would solidify North America and the adjacent part of the Arctic as a stable and secure area that would substantially contribute to U.S. homeland defense.

The 2018 U.S. National Defense Strategy defines under "Department of Defense Objectives" the following:

"Long term strategic competitions with China and Russia are the principal priorities for the Department, and require both increased and sustained investment, because of the magnitude of the threats they pose to U.S. security and prosperity today, and the potential for those threats to increase in the future."x

The June 2019 Department of Defense Arctic Strategy, under "DoD Arctic Objectives" states as an objective:

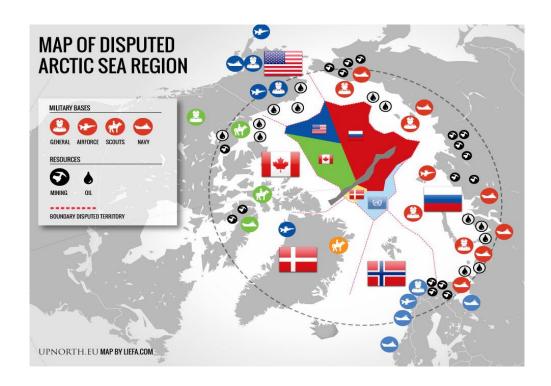
"2. Compete when necessary to maintain favorable regional balances of power: The Arctic is a potential corridor – between the Indo-Pacific and Europe, and the U.S. homeland – for expanded strategic competitions. Strategic competitors may undertake malign or coercive activities in the Arctic in order to advance their goals for these regions."

China and Russia are both trying to contest U.S. hegemony worldwide, and the Arctic provides a new area to increase influence and challenge U.S. dominance in its own backyard. China's rhetoric calling itself a "near Arctic power" and predicting that it will be a "great Arctic power" are not empty promises.

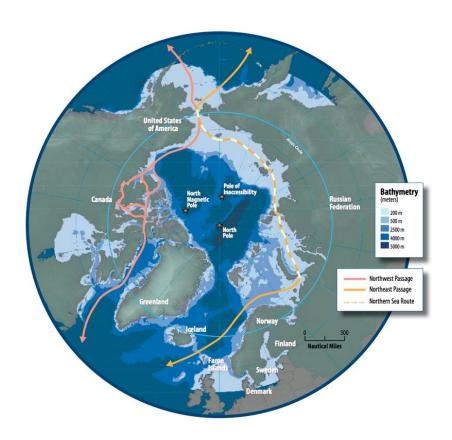
In addition to adding to its ice-breaker fleet, China is looking to establish permanent presences in the Arctic to cement its "Polar Silk Road" according to China's 2018 Arctic Policy White Paper^{xii}. Already aggressively investing in Iceland both economically and politically, ^{xiii} China has also been courting Greenland as well for the past few years. China has bought rare earth mineral mines, opened a satellite ground station, attempted to bid on the construction and financing of a massive three airport infrastructure project, attempted to purchase a deep-water port, and flown the Greenlandic government to Beijing under the aegis of improving ties and trade, all to establish a strong and permanent foothold in Greenland.^{xiv}

Russia has been remilitarizing its Arctic bases first established during Soviet times (see Figure 3), directly threatening new shipping routes exposed by retreating polar ice and reducing flight times for aircraft and missiles capable of striking targets in the Arctic and the North Atlantic.*V Russia has also openly made clear its interest in polar territorial claims and potential resource extraction, famously planting a Russian flag under the sea in the North Pole in 2008.*VI Russia and Denmark have competing territorial claims on the North Pole awaiting adjudication with the U.N.'s Commission on the Limits of the Continental Shelf.*VII Greenland is also the western anchor point of the famous GIUK (Greenland-Iceland-U.K) gap, which helped to track Russian submarines as they sortied into the Atlantic from their northern bases during the Cold War. Furthermore, Greenland lies close to the Atlantic entrance and exit of both the Northwest Passage and the Northeast Passage (see Figure 4).

To deter China and Russia (or any other competitor) from gaining a dominant advantage in the Arctic, the U.S. must engage with Greenland to build it both as a partner and also help enable it to provide for and govern itself. Increasing diplomatic ties is the first of three steps necessary to bring about building a solid U.S.-Greenland partnership.



(Figure 3)



(Figure 4)

III. Diplomacy

To do diplomacy right with Greenland, a special committee needs to be formed comprised of all Combatant Commands that have a vested interest in the country, and representatives from interagency partners as well. Diplomacy with Greenland must be carefully planned and choreographed. As a semiautonomous state which is a part of the kingdom of a close NATO ally, diplomacy with Greenland is not a straightforward matter. Though autonomous since 1979, under the Self-Government Act of 2009 the Danish government retains control of foreign affairs and defense. Care must be taken to build a closer working relationship with the Greenlandic government, while at the same time coordinating all actions with the Danish government. A good first step has already been taken by the U.S. State Department last year in 2019, when it received Danish permission to establish a new consulate in Greenland.xviii The U.S. previously had a consulate in Greenland between 1940 and 1953 but closed it after Greenland's importance to the U.S. geo-strategically decreased following the Second World War. The current U.S. administration's 2021 budget proposal released in February 2020 includes approximately \$600,000 USD in funds for the State Department towards this new consulate.xix This is a modest sum that will go a long way towards building a better understanding and relationship with the Greenlandic government. Adding representatives from other U.S. agencies to this consulate, such as Homeland Security, U.S. Trade Representative, and USAID would add even more capability towards building the relationship with Greenland by providing valuable expertise the Greenlandic government needs to aid its development. Close coordination needs to occur between the U.S. State Department, Department of Defense and concerned Combatant Commands. Greenland lies within the borders of USEUCOM due to it being part of the Kingdom of Denmark, but phsyiographically Greenland is a part of North America, putting it squarely in NORAD's/USNORTHCOM's sphere of interest. Furthermore, being so close to the continental U.S. puts Greenland in STRATCOM's purview as well. This intersection between three Combatant Commands adds to the level of complexity of how to properly integrate Greenland into U.S. defense

strategy, and requires close coordination and cooperation. A permanent special committee or task force should be set up between the Combatant Commands specifically to focus on the mil-to-mil relationship with Greenland. This becomes especially important when coordinating and programming security cooperation and any financial investments, to avoid conflict, duplication, or omission. Representatives from Departments of State and Homeland Security (U.S. Coast Guard) also need to be part of this committee.

IV. Economics

Developing states and economies are extremely vulnerable to foreign investment. Large cash flows into small economies buys large influence. To offset this, U.S. economic assistance to and investment in Greenland needs to be large-scale, long-term and meaningful. Neither the Combatant Commands nor even the Department of Defense alone can be the funding stream that ties Greenland closer to the U.S. U.S. assistance with developing Greenland's economy should not be solely defense or security cooperation driven but rather developed through the State Department, U.S. Agency for International Development (USAID), and the Office of the United States Trade Representative. In April 2020 it was announced that the U.S. would provide \$12.1 million USD in economic assistance to Greenland through USAID.** This is exactly the type of assistance that the U.S.-Greenlandic partnership needs and should build upon going forward. Greenland has great potential in terms of fisheries, minerals, and tourism but needs extensive investment in infrastructure, education, technology, and governance to bring these industries to fruition. Partnering with the U.S. as its "North American Big Brother" makes sense in terms of proximity and taking care of a fledgling nation in our neighborhood. While acknowledging that initial investments in such an underdeveloped country would not bring immediate economic returns, such investments would tie Greenland closer to the U.S., which would in turn better insulate Greenland from

foreign competitor influence. Security cooperation alone would struggle to provide the level of insulation from influence than direct economic investment could.

There are numerous examples of developing countries aligning security interests or concessions to countries who offer the most economically. For Greenland to want to closer align itself with the U.S. and NATO as opposed to China or Russia, there needs to be tangible benefits for Greenland. Greenland is a nation that wants to continue its drive towards independence countries. To achieve this, it must develop a self-sustaining economy. There are economic benefits to be gained for host nations from basing rights, but this cannot be the sole driving engine in a long-term mutually beneficial relationship. Greenlanders have no historical or cultural bias against any foreign power, to include the Russians and Chinese. In fact, their only negative bias is in some degree towards Denmark and the U.S., as these have been the foreign powers that have either colonized Greenland or as in the case with the U.S., used Greenland for military basing with mixed results for the local population. In 2014 the basing maintenance contract for Thule AB, traditionally held by a Greenlandic company, was lost to a U.S. firm, and was followed by the loss of a sea-lift contract from a Greenlandic company also to another U.S. company. Total in Both events significantly soured U.S.-Greenlandic relations.

exports (most of which goes to countries other than the U.S.) and on a substantial subsidy from the Danish Government, which was budgeted to be about \$535 million in 2017. **This constitutes over 50% of Greenlandic government revenues, and 25% of GDP. This economic shortfall leaves Greenland extremely vulnerable to foreign states who come "bearing gifts". China's "debt-trap diplomacy" is well known. Developing states in desperate need of capital flows to develop their nascent infrastructures are especially vulnerable to investment monies from richer states. China's Belt and Road Initiative (BRI) promises large infrastructure development loans to developing states, especially for ports and airports. When the developing state is unable to make debt payments on time, then the Chinese government

seizes control of the infrastructure. In 2017 the Sri Lankan government had to hand over its port to a Chinese state-run company due to falling behind on its Chinese loans. In 2018 Djibouti handed over control of its critical Red Sea port developed by Chinese state firms and allowed China to open its first military base in a foreign country.** China is Djibouti's top financier, holding approximately half of the country's debt.** This kind of financial pressure buys incredible influence in developing states.

China has astutely realized both the importance of Greenland and its vulnerability, and has been making investments there since 2015. China has invested in rare earth elements and uranium mines, and in 2016 attempted to buy a closed-down naval station with deep water access which the Danish government objected to. **

Then in 2018, the Greenlandic government put out tenders for contracts to expand three of Greenland's airports and runways, a huge infrastructure investment for the cash strapped nation. The project is critically important to connect Greenland's widely spread towns and population and also aims to increase tourism revenue by attracting more airlines to add Greenlandic routes. A Chinese company (China Communications Construction Company) put forth a bid and even offered loans to help finance the project. This again understandably alarmed the Danish government in Copenhagen which later announced that it would provide the bulk of the loans the Greenlandic government would need to finance the project and avoid the need for the Greenlanders to take any Chinese financing.

The finding behind all of this is that Greenland understandably needs revenue to develop its economy and move itself further down to road to independence and prosperity. Accordingly, any state that is able to offer Greenland economic benefits will hold a powerful influence within the Greenlandic government, to include in the realm of security cooperation. Just because the U.S. already has a base in Greenland does not guarantee that Greenland would not lease basing rights to another state, such as the case in Djibouti. The loss of the Thule base contracts makes the basing agreement with Denmark and Greenland even more fragile. China recognizes the importance of the Arctic in terms of resources, transportation,

and global influence, and is not hesitating to invest where it can. The Chinese government has already made significant investments in Iceland and is looking for such opportunities in Greenland***

that China will not let not having physical territory in the Arctic deter its Arctic ambitions.

The U.S. must employ a whole of government approach to increase trade and investment in Greenland. Greenland has great potential mineral wealth, especially in rare earth minerals. The U.S. Army has a new program that invests in U.S. startups willing to mine for rare earth minerals which could help fund U.S. companies to make such an investment. The rising interest in Arctic tourism is another potential source of investment for the U.S. in Greenland. Once Greenland is able to expand its airports by 2023, investments by U.S. companies in hotels and Arctic excursions could bring U.S. tourists due to the relatively close proximity of Greenland to the U.S. The U.S. also needs to carefully look at the Thule AB services contract issue. Building influence with our partners should be a consideration when awarding contracts, especially in developing economies vulnerable to foreign influence.

V. Mil-Mil Cooperation

Our mil-to-mil cooperation with Denmark since 2000 has been focused on expeditionary operations in the Middle East, Africa and South Asia. Since 2014 there has also been a focus on the U.S. encouraging Denmark (along with the rest of NATO) on building conventional forces with an emphasis towards deterrence in continental Europe, with a special focus on the Baltic region. A whole new chapter of mil-to-mil cooperation must emphasize cooperation with Denmark in terms of Greenland and the Arctic. This can be achieved through closer cooperation and coordination at headquarters/operations centers, assistance with surveillance and domain awareness, development of dual-use infrastructure, and an increase of combined joint exercises.

Exchanging liaison officers between NORAD/USNORTHCOM and Danish JAC would be a good start to enabling closer cooperation. Liaison officers are an important and relatively inexpensive first step to improving communication, coordination, and shared understanding. Denmark's Joint Arctic Command operates a headquarters and command and control center in the Greenlandic capital, Nuuk. Having a NORAD officer there, and a JAC one at NORAD, would quicken communication and coordination in the event of incidents or operations in and around Greenland. It would also provide a subject matter expert that could give quick advice and solutions to the commanders and staffs of each headquarters. Having a U.S. LNO at Danish JAC has been a standing request from the JAC Commander, Major General Kim Jesper Jørgensen for some time. **xxxi**

Domain awareness would be enhanced by exchanging liaison officers and sharing a common operating picture, but Greenland is unfortunately mostly "dark" in terms of domain awareness due to a lack of sufficient sensors. The U.S. DOD Arctic Strategy lists as one of its priorities enabling domain awareness in the Arctic as being fundamental to homeland defense. The Danes struggle with domain awareness in Greenland due to its sheer size, lack of population and infrastructure, harsh northern climate, and lack of sensors. The Danish government has launched some micro-satellites (on board a Chinese rocket) to help with this these can only track maritime vessels that have their transponders on. When I departed Copenhagen as the Army Attaché to Denmark in 2019, the Danish military was looking at the possibility of drones and more satellites to assist with improving domain awareness. We (the U.S.) have an Air Force base in northwestern Greenland, Thule AB that is part of our missile defense and space tracking system. It is an integral part of U.S. homeland defense in terms of tracking missiles and objects in space, but contributes little in terms of awareness and defense of anything on, next to, or under the surface in the region. With the Russians bolstering their military presence in the Arctic and the Chinese trying to find potential inroads to a permanent Arctic presence, being able to have better awareness in the Polar region is becoming vital. This lack of domain awareness could in part be addressed by sharing

satellite and aircraft reconnaissance data with the Danes. Such an arrangement would benefit both the US and Denmark, providing an important clearer picture of the activities of foreign actors in the Arctic, North American, and North Atlantic region.

The Danes, under their current defense agreement, are dramatically enhancing their ASW capability which they had done away with after the end of the Cold War. XXXIII The Danish Navy is adding towedarray sonar capability and ASW kits to their MH-60 Seahawks towards this end. However, the Danish Navy has only nine frigates and frigate-type vessels (and not enough crews for all of them) and a few inspection ships a woefully inadequate number of ships for the Danes to cover the territorial waters of Denmark, the Baltic Sea and the entire North Atlantic around Greenland and the Faroe Islands. Close cooperation with and assistance from the U.S. 2nd Fleet headquarters and U.S. Coast Guard could also bring better domain awareness to the air, surface and sub-surface domains in and around Greenland. Satellite imagery and increased naval presence will help fill in some of the "picture" of activity around Greenland, but due its sheer size it will not be enough. An extensive system of advanced sensors needs to be installed both on the coast and in the waters around Greenland. The NORAD Commander, General O'Shaughnessy stated recently to the Senate Armed Services Committee "In order to reclaim our strategic advantage in the high north, it is critical that we improve our ability to detect and track surface vessels and aircraft in our Arctic approaches and establish more reliable secure communications for our joint force warfighters operating in the higher latitudes."xxxiv Presently, Greenland lacks both radars and subsurface sensors. This "blindness" in such a large portion of the Arctic and North Atlantic is acutely felt by the staff of the Danish JAC. The JAC is responsible for the vast environs of Greenland and its surrounding waters and to achieve this relies on limited satellite imagery, reports from the few naval vessels in the area, and an unclassified-level exchange with the Canadian Combined Joint Operations Center in Halifax on the local maritime picture.xxxv When asked what the number one priority would be to enhance the capabilities of the JAC in Greenland, a Danish Army officer that served two years in

Greenland stated "A maritime picture and air picture of the area."xxxvi Joint investment with the Danish military for air and maritime radars, and subsurface sensors have to be a top priority for Greenland, especially on the northern and eastern coasts. Once established, this sensor network must be connected to USNORTHCOM/NORAD to provide a real time picture for both the U.S. and Danish HQs. This would provide a significant early warning buffer critical to the defense of the U.S. homeland.

Investment in dual-use infrastructure in Greenland is yet another path to increased cooperation that would enhance homeland defense. In 2018 the U.S. Department of Defense signed a letter of intent for the U.S. to invest in dual military-civilian use projects in Greenland. This was spurred by the previously mentioned airports project that the Chinese had shown interest in developing. The idea was that if the U.S. provided some investment in the airports, the airports could occasionally host U.S. and NATO military aircraft in addition to expanding the airport infrastructure for civilian use. This is an excellent idea that needs to be expanded on. In addition to airports and other facilities such as seaports, roads, living facilities, and surveillance and communications nodes could all receive investment that would then benefit both civilian and military use. Even pure military infrastructure improvements benefit the civilian population as the military is the primary operator of search and rescue for the vast Greenlandic region.

The final recommendation for increased mil-to-mil cooperation in Greenland is with joint exercises and military advising. Operating in the Arctic brings a host of challenges due to the extreme temperatures, long distances and lack of infrastructure. Exercising together with Greenland, Denmark and Canada in this part of North America would enhance interoperability for both search and rescue and sovereignty operations. Aerospace and maritime equipment deployment and maintenance in Arctic conditions presents special challenges that need to be practiced and identified in advance of potential military operations. **XXXVIII** Regular rotations of air, land and sea forces for combined training and exercises would provide valuable experience in preparation for actual crisis response.

Additionally, exercises between U.S. and Allied Special Operations Forces (SOF) in Greenland would prepare SOF for potential deployments and enhance interoperability. The U.S. DOD Arctic Strategy specifically mentions that special operations forces, due to their "agile and expeditionary nature" are particularly suited to compete below the level of armed conflict in the Arctic region. XXXVIII U.S. Army Special Forces are by their training and mission, skilled at building trust and capacity with partners. In addition to working with Danish SOF counterparts (the Danish Jaeger Korps) and other allied SOF, U.S. Army Special Forces teams could partner with the native Greenlandic population. Our partnership and history with Denmark are already strong, but if the U.S. military wants to build trust and influence with the Greenlandic government as well, it must connect with native Greenlanders. Greenland does not have its own armed forces, but encouraging Greenland in cooperation with the Danish government to create an Arctic Ranger program, similar to Canada's Canadian Rangersxxxix, would serve two useful purposes. First, it would encourage Greenland to start building a foundation of experience in military service with native Greenlanders that would make them feel more invested in their own security and second, would give U.S. SOF the chance to partner and train directly with the Greenlandic people, building a tradition of mutual trust and assistance on a mil-to-mil level between the U.S. and Greenland that does not only include the Danes.

VI. Conclusion

Whether Greenland achieves full independence in the next few years or many decades from now is an unknown. What is known is that Greenland is striving to be increasingly autonomous in a rapidly changing and uncertain Arctic region and needs assistance, both domestically and in terms of foreign policy and security. Denmark provides some of this, but also needs assistance in securing this vast part of North America and the Arctic. Greenland is simply too immense, underdeveloped, and vulnerable for

the U.S. and Canada to not be more directly involved in Greenland's defense and future. The U.S. needs to quickly and cleverly increase diplomatic, economic, and military ties with Greenland. This will result in a strong partnership with our younger "North American Brother" which will then translate into a better security environment in North America and the Arctic. An Arctic with more partnership and less room for competition means a more stable Arctic, and Greenland deserves to benefit from partnership with its democratic North American neighbors. If a competitor such as China or Russia is able to win influence in Greenland because of lack of effort on the part of the U.S. to strengthen its ties with its neighbor, it would give that competitor significant leverage to use against the U.S. and her allies by directly threatening the US. Homeland.

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