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**STRUGGLE IN THE HIGH NORTH: USMC IN  
NORWAY AND THE CONTINUITY AND CHANGE  
IN ROLES, MISSIONS, AND DETERRENCE AMID  
GREAT POWER COMPETITION**

Lang, Alex M.

Monterey, CA; Naval Postgraduate School

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**NAVAL  
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**MONTEREY, CALIFORNIA**

**THESIS**

**STRUGGLE IN THE HIGH NORTH: USMC IN NORWAY AND  
THE CONTINUITY AND CHANGE IN ROLES, MISSIONS,  
AND DETERRENCE AMID GREAT POWER COMPETITION**

by

Alex M. Lang

December 2021

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Second Reader:

Mikhail Tsypkin  
James A. Russell

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CONTINUITY AND CHANGE IN ROLES, MISSIONS, AND DETERRENCE  
AMID GREAT POWER COMPETITION**

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Major, United States Marine Corps  
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Submitted in partial fulfillment of the  
requirements for the degree of

**MASTER OF ARTS IN SECURITY STUDIES  
(EUROPE AND EURASIA)**

from the

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## **ABSTRACT**

While climate change continues to reduce Arctic ice coverage, Russia's expanding Arctic territorial claims and military buildup raise security concerns for Arctic states, specifically Norway, and have renewed NATO's interest in the region. The Marine Corps has a longstanding role in the High North of Norway, contributing to the deterrence of Soviet aggression during the Cold War. During the same period, the Marine Corps balanced its additional rapid deployment requirements by increasing interoperability with Norway through annual exercises and pre-staging equipment for a quicker response capability. Currently, the Marine Corps is undergoing a deliberate shift to a maritime force focused on the Indo-Pacific amid great power competition with China. This thesis explores the Marine Corps' future role in collective defense against Russia via NATO and its relationship with Norway. The research considered Russian and NATO interests in the Arctic and how lessons from the Marine Corps' historic balancing of requirements of the Cold War apply toward emerging challenges. This thesis recommends utilizing aspects of the Marine Corps' future operating concept to strengthen Norway's and, by extension, NATO's ability to deter Russian aggression in the High North.



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## LIST OF ACRONYMS AND ABBREVIATIONS

AFNORTH	Allied Forces Northern Europe
AMF	Allied Command Europe Mobile Force
CAST	Canadian Air/Sea Transportable
CBT	Cross Border Training
ComAirNoN	Commander Air North Norway
FONOPS	Freedom of Navigation Operations
GIUK	Greenland-Iceland-United Kingdom
HIMARS	High Mobility Artillery Rocket System
ICBM	intercontinental ballistic missile
INF	Intermediate-Range Nuclear Forces
LAV	Light Armored Vehicle
LCS	Littoral Combat Ship
LRPF	long-range precision fires
LTDP	Long-Term Defense Program
MAB	Marine Amphibious Brigade
MAF	Marine Amphibious Force
MCPP-N	Marine Corps Prepositioning Program-Norway
MEB	Marine Expeditionary Brigade
MEU	Marine Expeditionary Unit
MOU	Memorandum of Understanding
MTX	mountain exercise
MWTC	Mountain Warfare Training Center
NALMEB	Norway Air-Landed Marine Expeditionary Brigade
NATO	North Atlantic Treaty Organization
NMESIS	Navy-Marine Expeditionary Ship Interdiction System
NORDEFCE	Nordic Defence Cooperation

NSR	Northern Sea Route
OMG	Operational Maneuver Groups
POMCUS	Prepositioning of Material Configured to Unit Sets
PrSM	Precision Strike Missile
RDJTF	Rapid Deployment Joint Task Force
SACEUR	Supreme Allied Commander Europe
SHAPE	Supreme Headquarters Allied Powers Europe
SLOCs	sea lines of communication
SOP	standard operating procedures
UNCLOS	United Nations Convention of the Law of the Sea
WEZ	weapons engagement zone

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# I. INTRODUCTION

## A. MAJOR RESEARCH QUESTION

During the Cold War, the Marine Corps served as one component of a much larger deterrence to the Soviet Union’s military presence and operations in the High North.<sup>1</sup> Simultaneously, the Marine Corps was tasked to maintain readiness requirements for the newly created Rapid Deployment Joint Task Force (RDJTF), with a primary focus on the Middle East. Fulfilling both requirements necessitated effective foresight, resource allocation, pre-staging of equipment, and coordination with Norway. In a way, the present-day Marine Corps finds itself in a similar predicament, albeit with the Middle East being replaced by the Indo-Pacific region.<sup>2</sup>

The Marine Corps has recently undergone a deliberate shift to a maritime force focused on the Indo-Pacific amid great power competition with China. The transformation calls into question the Marine Corps’ role in collective defense against Russia via NATO and its historical bilateral relationship with Norway. Moreover, this shift is occurring at a time when Russian activity is increasing in the Arctic and High North.<sup>3</sup> With Russian activity in the Arctic rising as the Marine Corps shifts its focus to the Pacific, what lessons can be applied from the historic balancing of requirements of the 1980s toward present challenges?

---

<sup>1</sup> Skagestad, Odd Gunnar, “The ‘High North’ An Elastic Concept in Norwegian Arctic Policy” (Lysaker, Norway: Fridtjof Nansen Institute, August 2010), <https://www.fni.no/getfile.php/131978-1469869945/Filer/Publikasjoner/FNI-R1010.pdf>. The term “High North” is derived from the Norwegian use of “nordområdene” or “northern areas” and “de europeiske nordområdene” or “the European northern areas” and historically has referred to areas of Norwegian interest generally north of the Arctic Circle. The term did not include the Arctic itself that was governed by cooperative organizations however the two have grown increasingly synonymous. For the purposes of this paper the term will primarily be used in the same historical context as it was for NATO defense plans, generally referring to the area including northern Norway, the Kola Peninsula, Norwegian Sea, and Greenland-Iceland-United Kingdom Gap.

<sup>2</sup> Congressional Budget Office, “The Marine Corps in the 1980s: Prestocking Proposals, The Rapid Deployment Force, and Other Issues,” Budget Issue Paper for Fiscal Year 1981, May 1980, <https://www.cbo.gov/sites/default/files/96th-congress-1979-1980/reports/80doc15.pdf>.

<sup>3</sup> Luke Coffey, Daniel Kochis, and James Di Pane, “Arctic Security Is Not About Preparing for War, but About Preparing for the Future,” n.d., 40. Russia established an Arctic command in 2015, shortly followed by the formation of an Arctic Brigade. New bases have been commissioned and several Soviet-era facilities have been re-opened

This thesis addresses the following question: What should the Marine Corps' future role be against Russia in the High North? In doing so, this thesis determines what enduring aspects of strategy and operations in Marine Corps experiences with Norway can be applied toward this strategic priority.

## **B. SIGNIFICANCE OF THE RESEARCH QUESTION**

Russian activity in the High North and Arctic has reached levels unseen since the end of the Cold War.<sup>4</sup> The reduction of Arctic ice coverage has increased both Russian military activity as well as commercial use of its Northern Sea Route (NSR) with the first ever winter-transit occurring in February, 2021.<sup>5</sup> Demonstrating the economic value seen in the area, Vladimir Putin declared the goal of 80 million tons of cargo traffic along the NSR by 2024.<sup>6</sup> Additionally, the Arctic currently provides Russia with 80 percent of its natural gas and 17 percent of its oil.<sup>7</sup> Russia continues to make increasing claims to buried hydrocarbons along the Norwegian continental shelf in Svalbard which up to this point have been debated only along legal lines. Russia's economic and security interests in the Arctic have resulted in the development of new, and reactivation of previously closed, bases and the positioning of advanced weaponry throughout the Russian Arctic. This activity, along with Russian aggressive action in Crimea, Georgia, and elsewhere calls into question NATO's ability to deter activity outside of Russia's sovereign territory. How Russian intentions, its military presence, and the environmental

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<sup>4</sup> Melino, Matthew and Conley, Heather A., "The Ice Curtain: Russia's Arctic Military Presence" (Center for Strategic and International Studies, March 26, 2020), <https://www.csis.org/features/ice-curtain-russias-arctic-military-presence>.

<sup>5</sup> Atle Staalesen, "Arctic Shipper Shows Off a Historical Icebreaking Voyage," *The Independent Barents Observer*, accessed February 21, 2021, <https://thebarentsobserver.com/en/2021/02/arctic-shipper-shows-historical-icebreaking-voyage>. The Northern Sea Route along the Russian northern shoreline cuts 40% of the transit distance between Europe and the Far East.

<sup>6</sup> Vladimir Putin, "Decree of the President of the Russian Federation on the Strategy for the Development of the Arctic Zone of the Russian Federation and Ensuring National Security for the Period up to 2035," Pub. L. No. No. 645 (2020), <http://publication.pravo.gov.ru/Document/View/0001202010260033>. An increase from 33 million tons in 2020.

<sup>7</sup> Putin, 22. In 2018, the Russian Arctic accounted for 17.3 percent of crude oil (including gas condensate) and 82.7 percent of combustible natural gas.

changes, impact the Arctic is crucial when examining any potential U.S. or NATO strategy for the region.

The Marine Corps has a long history of adapting to meet new requirements, particularly those associated with rapid deployment in response to global contingencies. In recognition of future challenges and how best to counter them, the 2016 Marine Corps Operating Concept outlines how Expeditionary Advanced Based Operations (EABO) will drive future programs and doctrine.<sup>8</sup> In addition, the 2020 Commandant's Planning Guidance has shifted the Marine Corps' focus to the emerging challenges in the Pacific.<sup>9</sup> Fiscal and operational constraints will weigh heavily on decisions to allocate resources toward missions outside of the Indo-Pacific; however, this is not the first time the Marine Corps has shifted theaters as a primary focus. With those constraints considered, there is clear applicability of recently developed Marine Corps concepts toward challenges in the Arctic. Additionally, there is potential for the Marine Corps Prepositioning Program-Norway (MCPN), originally a Cold War efficiency, to be improved upon at an acceptable cost for further Arctic use.<sup>10</sup>

During the Cold War, specifically the early 1980s, the Marine Corps increased the United States' strategic partnership with Norway in support of NATO deterrence of the Soviet Union in the High North. The bilateral relationship between the U.S. Marine Corps and Norway was established with the alignment of a Marine Amphibious Brigade and MCPN stocks. This foundation has continued through 40 years of training exercises and has expanded to an annual Marine Rotational Force sent to the country.

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<sup>8</sup> Commandant of the Marine Corps, *Marine Corps Operating Concept: How an Expeditionary Force Operates in the 21st Century* (Washington, D.C., 2016), <https://www.mcwl.marines.mil/Portals/34/Images/MarineCorpsOperatingConceptSept2016.pdf>.

<sup>9</sup> General David Berger, "Commandant's Planning Guidance" (Washington, D.C.: United States Marine Corps, 2019), [https://www.hqmc.marines.mil/Portals/142/Docs/%2038th%20Commandant%27s%20Planning%20Guidance\\_2019.pdf?ver=2019-07-16-200152-700](https://www.hqmc.marines.mil/Portals/142/Docs/%2038th%20Commandant%27s%20Planning%20Guidance_2019.pdf?ver=2019-07-16-200152-700).

<sup>10</sup> Christopher P. Cavas, "Cave-Dwellers: Inside the U.S. Marine Corps Prepositioning Program-Norway," *Defense News*, August 8, 2017, <https://www.defensenews.com/digital-show-dailies/modern-day-marine/2015/09/20/cave-dwellers-inside-the-us-marine-corps-prepositioning-program-norway/>. MCPN consists of a series of caves throughout Central Norway that stores the equipment and supplies for Marine Expeditionary Brigade of up to 15,000 Marines. A memorandum of agreement between Norway and the United States stipulates the prestaging requirements of Norway in anticipation of USMC forces.

This relationship has demonstrated the U.S. commitment to Norway and the High North and could prove to be invaluable for future Marine Corps involvement in the Arctic. The logistical and operational challenges of the High North are much of which the Marine Corps intends to address with its shift to EABO. Therefore, it is worth examining to determine what aspects of the bilateral relationship can be applied toward deterring increasing Russian activity in the Arctic.

### **C. LITERATURE REVIEW**

The effects of climate change on the Arctic have captured global stakeholders' attention, and as temperatures increase so do the number of Arctic strategy documents. Writings on the potential Arctic role of the Marine Corps come largely from within the military and government think tanks but much can be derived from the national strategies of Russia, Norway, and the U.S.<sup>11</sup> The melting ice reveals both opportunities and challenges for the eight countries that make up the Arctic Council.<sup>12</sup> For Russia, Norway, and the United States, unlike the nuclear arms race of the Cold War, the current challenges involve economic as well as security interests, some of which go hand in hand. The Marine Corps' Cold War role in Norway was one of deterrence through a rapid response capability of deploying a brigade-sized element to the High North.<sup>13</sup> The Marines, as part of a larger NATO response, would secure vital airfields to ensure NATO's ability for sea denial beyond the Bear Gap, limiting the Soviet Bastion and preserving sea lines of communications (SLOC) to the south (Figure 1).

---

<sup>11</sup> Think tanks such as RAND, Center for Strategic and International Studies, and Council on Foreign Relations have all published Arctic Strategy Documents.

<sup>12</sup> The Arctic Council consists of Canada, The Kingdom of Denmark, Finland, Iceland, Norway, The Russian Federation, Sweden, and The United States

<sup>13</sup> Office of the Secretary of Defense, "Department of Defense Annual Report: Fiscal Year 1982" (Washington, D.C.: Department of Defense, January 19, 1981). "Deploy a brigade-sized Marine Air-Ground Task Force (MAGTF) to Norway... within 10 days of our decision to mobilize."



Figure 1. Bastion Defense, Greenland-Iceland-United Kingdom (GIUK) and Bear Gaps.<sup>14</sup>

The environment has and will continue to change significantly and with it so have some proposed roles for Marines for Arctic. This literature review highlights pertinent information from the two periods related to the central themes of the thesis: the early 1980s and from 2013 to the present. The sources used reference historical facts, expert opinions, and statements on behalf of the United States, the Marine Corps, Norway, Russia, and the Arctic. The literature review is organized into five parts: Section 1 establishes Russian interest in the Arctic; Section 2 describes the threats Russia poses to Norway and NATO in the region; Section 3 details the significance of the Arctic to NATO; and Section 4 captures the Marine Corps' historical relationship with Norway and role in the High North, and Section 5 details proposed High North roles for the Marine Corps.

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<sup>14</sup> Source: James Black et al., *Enhancing Deterrence and Defence on NATO's Northern Flank: Allied Perspectives on Strategic Options for Norway* (RAND Corporation, 2020), VI, <https://doi.org/10.7249/RR4381>.

## 1. Russian Interest in the Arctic

When analyzing Russian President Vladimir Putin’s October 2020 Arctic strategy comments, Janis Kluge says it reflects Russian “hopes and perceived threats associated with the successive warming of the Arctic.”<sup>15</sup> The Russian coastline accounts for 53 percent of the Arctic and buried hydrocarbons, and the NSR highlights the region’s current and potential economic value.<sup>16</sup> The Russian Arctic currently provides it with 6.2 (other reports as high as 15–20<sup>17</sup>) percent of its GDP through 80 percent of its combustible natural gas and 17 percent of its oil, with significant untapped liquified natural gas deposits remaining.<sup>18</sup> The thinning ice reduces the cost of reaching those deposits as well as increases the potential use of the NSR which could cut the transit time from Asia by up to two weeks (Figure 2). President Putin intends for an increase from 31.5 million tons of cargo transited to increase to 130 million by 2035 and sees the percentage of GDP increasing to 9.2 percent by 2035.

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<sup>15</sup> Janis Kluge, Michael Paul, and Stiftung Wissenschaft Und Politik, “Russia’s Arctic Strategy Through 2035: Grand Plans and Pragmatic Constraints,” 2020, <https://doi.org/10.18449/2020C57>.

<sup>16</sup> “Russia,” The Arctic Institute, accessed February 21, 2021, <https://www.thearcticinstitute.org/countries/russia/>.

<sup>17</sup> Ryan Burke and Matissek, Jahara, “The American Polar Pivot Gaining a Comparative Advantage in Great Power Competition,” *Marine Corps University Journal* 10, no. 2 (2019): 75. For Russia, “15–20 percent of its gross domestic product (GDP) reliant on Arctic resources.”

<sup>18</sup> Putin, Decree of the President of the Russian Federation on the Strategy for the Development of the Arctic Zone of the Russian Federation and Ensuring National Security for the Period up to 2035.

## Northern Sea Route: A New Shipping Highway?

Maersk, the world's biggest shipping company, is preparing to send a cargo vessel through the Russian Arctic for the first time. This is how the passage compares to the traditional Suez Canal route.

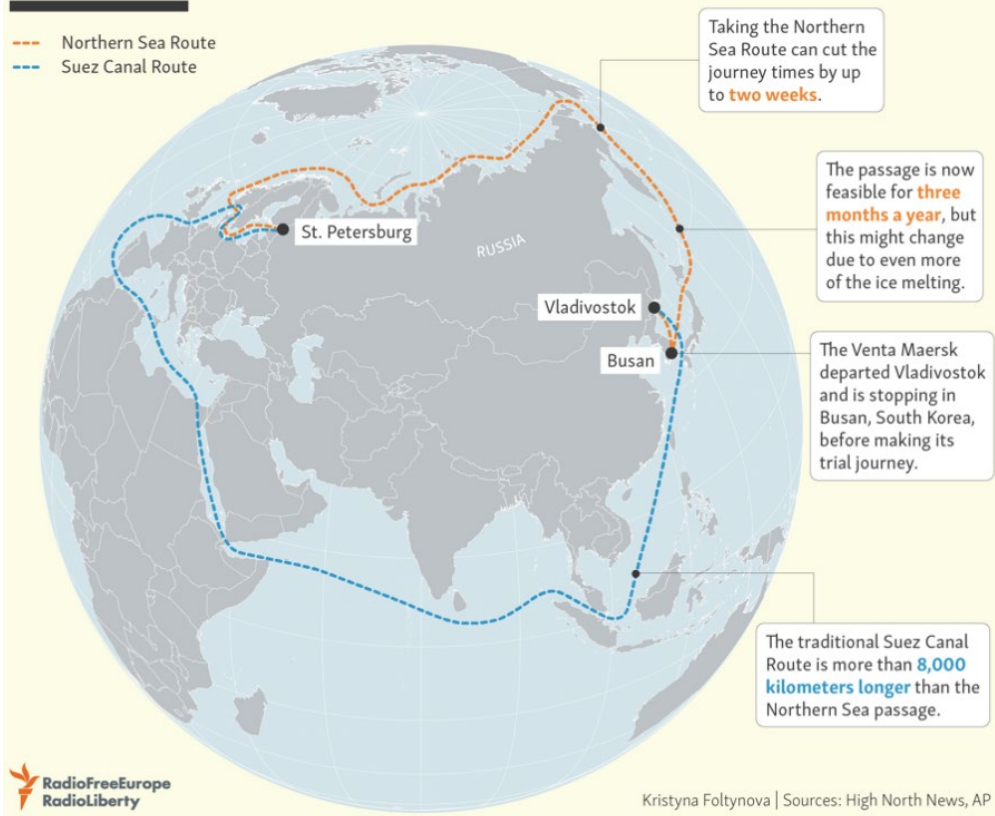


Figure 2. Northern Sea Route Compared to Suez Canal Route<sup>19</sup>

Russia exerts firm control over its Arctic area and continues to attempt to expand the area, through its Exclusive Economic Zones (EEZ) protections of the United Nations Convention of the Law of the Sea (UNCLOS). Ryan Burke and Jahara Matisek highlight the EEZ benefits and unique advantage Russia has with its icebreakers which give it access to 99 percent of the region, far more than any other country and something NATO should be concerned about.<sup>20</sup> Katarzyna Zysk sees the EEZ benefits Russia has enjoyed as a key

<sup>19</sup>Source: "Northern Sea Route: A New Shipping Highway?," Radio Free Europe/Radio Liberty, accessed May 8, 2021, <https://www.rferl.org/a/northern-sea-route/29456025.html>.

<sup>20</sup> Burke and Matisek, Jahara, "The American Polar Pivot Gaining a Comparative Advantage in Great Power Competition," 76.



area for future cooperation in terms of the “foreign investments, technology, and know-how” it depends on as well as delays toward expanding developments as one of the “main security threats to Russia.”<sup>21</sup> Pavel Devyatkin used the successful British Petroleum-Rosneft joint venture to highlight opportunities for economic cooperation with Russia but also cited the failed ExxonMobil-Rosneft deal that was canceled by U.S. sanctions.<sup>22</sup> Overall, there is clear agreement on the economic benefit in the Arctic for Russia, some optimism for future western cooperation, and the firm expectation that the nation will protect its interests there.

Beyond its economic benefit, Russian retaliatory-strike capability lies within the Arctic making it critical to its strategic defense. The Russian Northern Fleet’s priority “aims to ensure the survival and freedom of action of the SSBNs” to maintain the bastion defense.<sup>23</sup> Following the collapse of the Soviet Union, the Northern Fleet was reduced from 100 combat-ready ships to less than 40, and many bases were abandoned. To both Zysk and Mathieu Boulègue, the investments are seen as necessary after years of decline. These improvements include 14 airfields that have been opened or rebuilt since 2014 and the establishment of new bases located on Alexandra Land Island near Nagurskoye, at Kotelny, and Rogachevo on Novaya Zemlya (Figure 3). Along with the base establishment, there have been significant improvements made to air-defense and sea denial capabilities in the area with S-400 and S-300 air defense missiles for long-range protection as well as P-800 anti-ship missiles and Kaliber-NK land-attack missiles positioned throughout the Arctic bases. Russia has also established an Arctic Brigade in 2015 tasked with the

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<sup>21</sup> Katarzyna Zysk, “Russia’s Military Build-up in the Arctic: To What End?,” CNA Occasional Paper (Arlington, VA: CNA, September 2020), [https://www.cna.org/CNA\\_files/PDF/IOP-2020-U-027998-Final.pdf](https://www.cna.org/CNA_files/PDF/IOP-2020-U-027998-Final.pdf).

<sup>22</sup> Pavel Devyatkin, “Russia’s Arctic Strategy: Aimed at Conflict or Cooperation? (Part I),” The Arctic Institute, February 6, 2018, <https://www.thearcticinstitute.org/russias-arctic-strategy-aimed-conflict-cooperation-part-one/>.

<sup>23</sup> Zysk, “Russia’s Military Build-up in the Arctic: To What End?,” 11.

“protection of Russia’s Arctic coastline, facilities and infrastructure (including that of the NSR), as well as escorting ships transiting through the NSR.”<sup>24</sup>

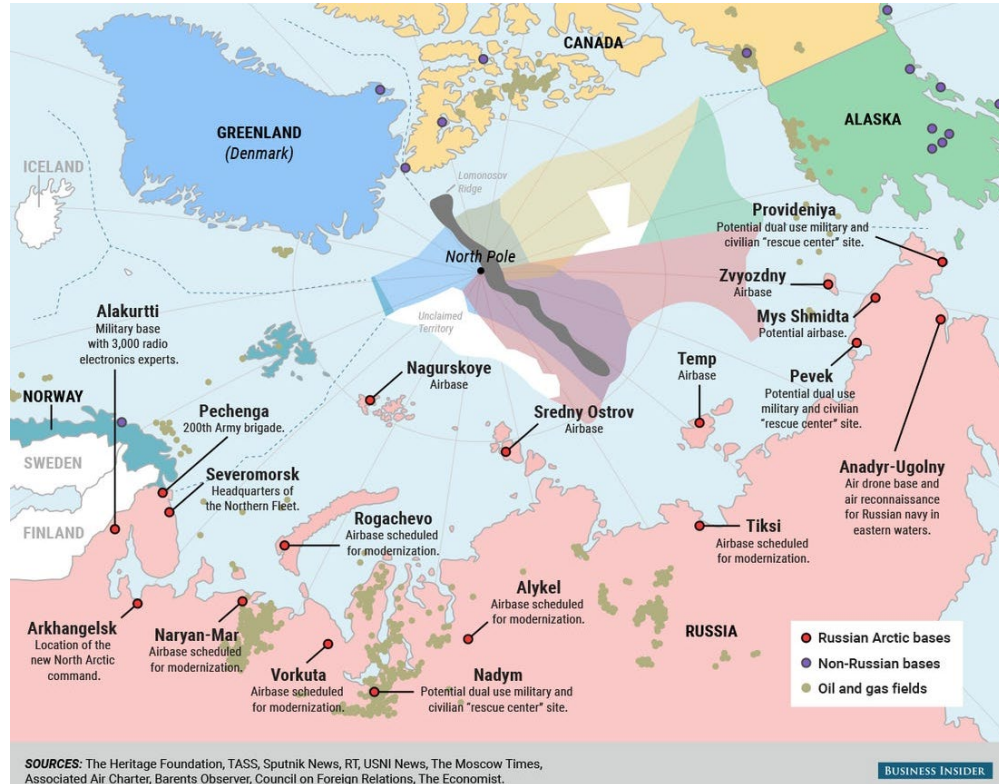


Figure 3. Russian Arctic Bases<sup>25</sup>

Russian actions in the Arctic, Boulègue explains, are “for now, defensive in nature.” He believes “Moscow views securitizing the region through military activity as a necessary first step to enacting control in a fast-changing Arctic, especially since large parts of Russia’s northern border are not protected”.<sup>26</sup> Zysk sees the investments in the Arctic

<sup>24</sup> “Russia’s Military Posture in the Arctic” (London, UK: Chatham House, The Royal Institute of International Affairs, June 28, 2019), 16–17, <https://www.chathamhouse.org/2019/06/russias-military-posture-arctic>. The brigade consists of the 200th Separate Motor-rifle Brigade in Pechenga and the 80th Separate Motor-rifle Brigade in Alakurtti.

<sup>25</sup>Source: Christopher Bott, “Responding to Russia’s Northern Fleet,” *U.S. Naval Institute* 147, no. 3 (March 1, 2021), <https://www.usni.org/magazines/proceedings/2021/march/responding-russias-northern-fleet>.

<sup>26</sup> Boulègue, “Russia’s Military Posture in the Arctic,” 13.

as “consistent and systematic” in Russia’s intention “to secure Russia’s role as ‘the leading’ Arctic power”.<sup>27</sup> Both do caution NATO of the offensive potential of the moves, and Boulègue was quick to point out that “Arctic Brigade underwent rotations in Syria in 2015–18 to gain operational combat experience”.<sup>28</sup> Those who analyze Russian activity are most concerned with the offensive potential that its build-up presents.

## 2. Russian Threats in the Arctic

President Vladimir Putin has not hidden Russia’s increased military focus on the Arctic. His 2014 comments that “over decades, step by step, Russia has built up, strengthened its positions in the Arctic... not only to regain them, but also to qualitatively strengthen them” prove true with Russia’s continued development and presence in the area.<sup>29</sup> Its actions illustrate, according to Zysk, not just a desire to secure its role as the leading Arctic Power but exert control through its ability to rapidly deploy forces and control escalation management. However, rapid Russian actions in Crimea and Georgia that used exercises as “cover for an upcoming attack” have caused territorial security concerns for Norway in growing tensions over its northernmost archipelago Svalbard.<sup>30</sup>

Russia has shown its willingness to question long-held treaties, such as the Treaty of Svalbard signed in 1920, if doing so provides it greater access to economic resources. Zysk highlighted the vulnerability of Svalbard citing the speed at which Russia could attack from its sovereign soil as well as its ability to remain on high alert for extended periods.<sup>31</sup> Boulègue referenced a claim that during exercise Zapad-2017 Russia repeatedly demonstrated a successfully combined assault on Svalbard, a historical concern of Norway

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<sup>27</sup> Zysk, “Russia’s Military Build-up in the Arctic: To What End?,” 32.

<sup>28</sup> Boulègue, “Russia’s Military Posture in the Arctic,” 18.

<sup>29</sup> Alexei Anishchuk, “Russia’s Putin Wants Beefed-Up Presence in Arctic,” *Reuters*, April 22, 2014, <https://www.reuters.com/article/us-russia-putin-arctic-idUSBREA3L1BN20140422>.

<sup>30</sup> Zysk, “Russia’s Military Build-up in the Arctic: To What End?”

<sup>31</sup> Zysk, 35.

(Figure 4).<sup>32</sup> Accurate or not, most believe Russia has never hidden its potential for conflict in Svalbard or its intention to demonstrate a counter to NATO exercises.<sup>33</sup>



Figure 4. Zapad 2017 Exercise Map<sup>34</sup>

According to Zysk, military exercises such as Zapad-2017 and Okeanskii shchit-2019 have “demonstrated preparations to defend Russia’s interests” not just in the Arctic but conducted in conjunction with operations in the Baltics and Black Sea Region (Figure 4). During Okeanskii shchit–2019 the Northern Fleet was able to establish the bastion defense as far south as the North Sea, which illustrated a direct challenge to NATO. She sees the

<sup>32</sup> Boulègue, “Russia’s Military Posture in the Arctic,” 27. The assaults were combined air and sea assaults on similar terrain. The Norwegian government denies the accuracy of this claim.

<sup>33</sup> “The Russian Defense Ministry Considers a War with NATO Possible,” Pravda.ru, October 3, 2017, <https://www.pravda.ru/news/world/1350000-nato/>.

<sup>34</sup>Source: Julian Röpcke, “Putin’s Zapad 2017 Simulated a War Against NATO,” Bild.de, accessed March 1, 2021, <https://www.bild.de/politik/ausland/bild-international/zapad-2017-english-54233658.bild.html>.

significance of the Northern Fleet and the exercises to Russia as a “useful tool for pressuring the adversary in order to reach a rapid conclusion of hostilities.” Zysk listed several Russian offensive demonstrations along Norway’s coast such as the 2007 and 2017 missile attacks, on the Vardo radar station just miles from the Russian border. She also describes Russian electronic warfare improvements and their use against NATO forces during Trident Juncture. Overall to Zysk, the Russian improvements in the Arctic and increasing activity of the Northern Fleet have “further deepened the asymmetry of power between Russia and other stakeholders in the Arctic.”<sup>35</sup> Heather Conley similarly acknowledges the significance of the Russian buildup and hopes that any U.S. response “does not fall into the too little too late category.”<sup>36</sup>

### **3. Arctic Significance to NATO**

The U.S. National Strategy for the Arctic Region published in 2013 highlights the nation’s security and cooperation interests through the law-based order of the Arctic. The strategy document states a U.S. priority to maintain the freedom of navigation of international waters and specifies Canada’s Northwest Passage and the NSR which Russia has increasingly restricted access to.<sup>37</sup> Ryan Burke describes the concerns NATO members, such as Norway, Denmark, and Iceland have over a growing “anti-access/area denial ‘bubble’ that would cover a significant portion of their territory and prevent NATO from coming to its defense.”<sup>38</sup> Security over sovereign territory, as well as the ability to defend across the GIUK and Bear Gaps, are also agreed upon strategic interests by NATO and Russian military analysts (Figure 1).

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<sup>35</sup> Zysk, “Russia’s Military Build-up in the Arctic: To What End?,” 22–28.

<sup>36</sup> Heather A. Conley, “The Implications of U.S. Policy Stagnation Toward the Arctic Region,” Center for Strategic & International Studies, May 3, 2019, <https://www.csis.org/analysis/implications-us-policy-stagnation-toward-arctic-region>.

<sup>37</sup> White House, “National Strategy for the Arctic Region” (Washington, D.C., May 2013), [https://obamawhitehouse.archives.gov/sites/default/files/docs/nat\\_arctic\\_strategy.pdf](https://obamawhitehouse.archives.gov/sites/default/files/docs/nat_arctic_strategy.pdf). The strategy supports the adherence and accession to the United Nations Convention on the Law of the Sea (UNCLOS).

<sup>38</sup> Burke and Matissek, Jahara, “The American Polar Pivot Gaining a Comparative Advantage in Great Power Competition,” 77.

NATO must prepare and defend its members from outside aggression. Timothy Chess believes this has increased in difficulty because the U.S. has “mortgaged its readiness during the last 18 years” and has lost capability parity with Russia due “to the lack of infrastructure and presence.”<sup>39</sup> Arctic airfields in Greenland and Iceland provide the shortest route for bombers utilized in strategic nuclear deterrence. In addition, Luke Coffey outlines a U.S. national defense requirement of force projection over strategic water passages outside Canada and Greenland as a deterrence as well.<sup>40</sup> In a RAND study on NATO’s northern flank, James Black describes Norway’s role in early warning of Russian activity from ground, naval, and air forces.<sup>41</sup> The Vardø radar station and OP 247 do just that but provide no resistance on their own against the nearby Russian Arctic Brigade. While analysts disagree on the level of investment NATO forces should make on Arctic infrastructure and operations, they agree that NATO power projection over the High North and beyond remains a strategic requirement for Russian deterrence.

#### **4. Marine Corps History in the High North**

There was no shortage of opinions on the role the Marine Corps should play in the High North during the Cold War. Colonel Joseph Alexander was an early proponent of the prepositioning program and cross-training to prepare the Corps for its role in Norway. Other Marines such as Majors S. E. Haynes and Joseph Crookston separately advocated for Arctic specialization at varying levels within the Corps. Haynes believed specific units should be permanently assigned to the “cold weather brigade” mission and focus the majority of their training on the region.<sup>42</sup> Following the Cold War, Major Jerry Durrant advocated for the removal of the Marine Corps from its High North role altogether. Examining why these individuals advocated for their particular position and whether their recommendations

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<sup>39</sup> Timothy Chess, “U.S. Strategic Interests in the Arctic a Proposed Department of Defense Approach,” *Marine Corps University Journal* 10, no. 2 (2019): 177.

<sup>40</sup> Coffey, Kochis, and Pane, “Arctic Security Is Not About Preparing for War, but About Preparing for the Future.”

<sup>41</sup> Black et al., *Enhancing Deterrence and Defence on NATO’s Northern Flank*.

<sup>42</sup> S. E. Haynes, “Now Is the Time for a Marine Corps Cold-Weather Brigade,” *Marine Corps Gazette* 64, no. 2 (February 1980): 19–20.

occurred and to what impact is important when considering what future role the Corps should have.

In “The Role of U.S. Marines in the Defense of North Norway” Colonel Joseph Alexander was quick to acknowledge the significance and challenges the High North presented. Citing experience gained from Exercise Teamwork 84, he describes the “political restrictions, harsh geographic realities, limited strategic mobility assets, and expanding Soviet interdiction capability” in the region. By highlighting the Soviet expanded presence and vulnerability of the north Norwegian airfields, Alexander reminds readers that “World War III may not be won on the Northern Flank, but it could definitely be lost there.” Soviet seizure of those airfields, assigned for Marine protection, would allow it to cut off “90 percent of the allied reinforcements and sustainability for a Central Front war.” He uses the successful German invasion of Norway in 1940 to propose that the Soviets would likely follow the *Wehrmacht’s* example by using fast and lightweight forces to race toward the northern airfields. Alexander believes Norway had done all it could to prepare on its own and would need NATO support for such a contingency. He ultimately concludes that the prepositioning of Marine Corps combined arms equipment and continued training exercises and demonstrations in Norway would serve as the greatest deterrent against increasing Soviet aggression.<sup>43</sup>

The Arctic is a formidable place to fight and has taught many lessons to those who have failed there. Crookston uses failed cold weather operations such as Napoleon’s Russian campaign in 1812, Germany’s push to Moscow in 1941, and initial failures of both the Soviet and German campaigns in Finland and Norway to illustrate that training and preparation for such operations are critical.<sup>44</sup> Similarly, Haynes described how the Soviets “failed to comprehend the magnitude of the demand of Arctic warfare on specialized training and equipment” and “placed their dependence on superiority in numbers, firepower, and material,

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<sup>43</sup> Alexander, Joseph H., “The Role of U. S. Marines in the Defense of North Norway,” *Proceedings* 110/5/975 (May 1, 1984): 180–93.

<sup>44</sup> Joseph Crookston, “Marine Corps Roles and Missions a Case for Specialization” (Quantico, VA, Command and Staff College, 1987), <https://www.globalsecurity.org/military/library/report/1987/CJA.htm>.

not realizing that this was not enough.”<sup>45</sup> Both argue that the Marine Corps needed to align forces permanently for the defense of the High North to prevent a repeat of such failures.

Following the end of the Cold War, military opinions changed on the Marine Corps’ role in the Arctic. Major Jerry Durrant argued that MCPP-N stores should remain in place for political reasons, but the U.S. should abandon the Norway Airlanded Marine Expeditionary Brigade concept. He believed because the “storage areas, reception areas, and employment areas are not secret and have been a matter of public knowledge for many years” that the concept lacked flexibility and surprise necessary to avoid Russian threat. Durrant also believed the Norwegian government would “delay in calling for allied reinforcements in a crisis, especially if those reinforcements are Americans,” further lessening the concept’s effectiveness.<sup>46</sup> The Marine Corps retained the Norway defense role as a contingency mission and has continued the bilateral relationship with Norway through a rotational force deployment program and as a key participant in NATO Arctic exercises such as Trident Juncture and Cold Resolve. Durrant, like the Marines writing on the topic before him, saw a portion of their recommendations met, but not all.

## **5. Marine Corps Future in the High North**

The U.S. Department of Defense and each of its service branches have all recently outlined how they intend to contribute to the U.S. strategic objectives in the Arctic.<sup>47</sup> In each document, power competition with Russia is evident as are themes of cooperation, peaceful deterrence, and the preservation of order. The rise of Russian submarine activity to Cold War levels has forced the U.S. Navy to increase anti-submarine warfare (ASW) patrols, an area Commandant of the Marine Corps, General David Berger, thinks the Marine Corps can contribute toward.<sup>48</sup> Referencing the Marine Corps’ Cold War role to “gain and maintain air

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<sup>45</sup> Haynes, “Now Is the Time for a Marine Corps Cold-Weather Brigade.”

<sup>46</sup> Jerry L. Durrant, “The Norway Airlanded MEB’s Role in Crisis Response for The 1990s” (Fort Leavenworth, KS, School of Advanced Military Studies, 1992), <https://cgsc.contentdm.oclc.org/digital/collection/p4013coll3/id/1548>.

<sup>47</sup> Office of the Under Secretary of Defense for Policy, “Department of Defense Arctic Strategy” (Washington, D.C.: Department of Defense, June 2019).

<sup>48</sup> David Berger, “Marines Will Help Fight Submarines,” *Proceedings*, November 1, 2020, <https://www.usni.org/magazines/proceedings/2020/november/marines-will-help-fight-submarines>.



cover over key maritime terrain,” General Berger states that the newly developed EABO concept could “make a significant contribution to undersea warfare campaigns, including holding Chinese and Russian submarines at risk.” Seven years earlier, Major Andrew Frantz proposed a similar future role for the Marine Corps in defense of Arctic SLOCs. He additionally called for the utilization of unmanned underwater vehicles or incorporation of a submarine into the MAGTF.<sup>49</sup>

Zsofia Bduai believes the continued Russian “buildup in the Arctic leaves the northern flank especially vulnerable” and is an advocate for the expansion of the Marine Corps presence in Norway. She concludes that the increased Russian threat would justify using additional European Defense Initiative (EDI) funding toward the rotational deployment of a full Marine Air-Ground Task Force. She also advocates for a Marine rotational force to Iceland citing the 1951 bilateral defense agreement that stipulates the U.S. should “make arrangements regarding the defense of Iceland.”<sup>50</sup>

Norwegians Ståle Ulriksen and Åse Gilje Østensens have a different concept for expansion. They advocate for an increase of equipment in MCPP-N as well as an adaption of an innovative sealift concept utilizing the Norwegian merchant fleet of almost 600 vessels. The concept is based on the belief that defense in the High North will be a part of a greater conflict straining naval forces and would “exploit Norway’s large offshore fleet and its fleet of smaller, regional ro-ro ships.”<sup>51</sup> Frantz also proposes the Marine Corps prepare for similar flexibility by suggesting an Arctic collaboration with the U.S. Coast Guard. He believes as Arctic activity increases, the potential for U.S. humanitarian assistance and disaster response operations will as well. This is a capability Marines have historically utilized on Marine Expeditionary Units (MEUs) that could be applied toward the Arctic.<sup>52</sup>

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<sup>49</sup> Andrew C Frantz, “Marine Corps Equities in the Arctic” (Quantico, VA, Marine Corps University, 2013), 22.

<sup>50</sup> Budai Zsofia, “Defense and Deterrence on NATO’s Northern Flank Strengthening the U.S. Marine Corps’ Role in Europe,” *Marine Corps University Journal* 10, no. 2 (2019): 92–114.

<sup>51</sup> Ståle Ulriksen and Åse Gilje Østensens, “Building on Strength: Proposals for US-Norwegian Cooperation on the Operational and Tactical Level,” *Norwegian Defence University College, Concept Paper Series*, January 2019, 16.

<sup>52</sup> Frantz, “Marine Corps Equities in the Arctic,” 20.

All writings reviewed supported an increase in cooperation between NATO Arctic countries and the Marine Corps, as well as exercises with Finland and Sweden. Some of the proposals are initial concepts that would require significantly more development to identify if they are a viable option. Frantz's work is approaching a decade old and written before the 2017 NDS, the Marine Corps rebalance to the Pacific, and newly adopted doctrinal strategies. Budai and the Ulriksen and Østensens proposals would also require further logistical, legal, and financial examination to determine their feasibility. All of the writings were done prior to the 2020 presidential election, COVID-19 pandemic, and most recent sanctions implemented on Russia. These factors will inform my further examination of the future role of the Marine Corps with a focus on building upon historical efficiencies that dealt with budgetary constraints, competing operational requirements, increased NATO-Soviet tensions, and military build-up.

#### **D. RESEARCH DESIGN**

This thesis will analyze lessons learned from the early 1980s to the end of the Cold War where budgetary constraints, conflicting mission requirements, and operating concept changes all impacted the role the Marine Corps was assigned. This analysis will therefore not be made in isolation as these factors will have a similar impact on procurement, resource allocation, and strategy change recommendations made today. Additionally, the scope of this thesis will not extend outside of a role the Marine Corps could realistically fulfill under Title 10 or within the next 20 years.<sup>53</sup>

The deterrence of Russia and how the Marine Corps can support that effort will remain the focus of my research. While consideration of China as an emerging threat in the Arctic and Marine Corps operational concepts for the Pacific will be referenced for efficiency gaining factors, my research will be focused on Russia and the High North. Lastly, while total war between the U.S. and Russia is always a potential, this thesis will focus on the more likely and wider-ranging potential scenarios short of a full-scale conflict.

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<sup>53</sup> U.S. Congress, "United States Code: Composition of the Department of the Navy," 10 § 5063 (1988), <https://www.loc.gov/item/uscode1988-003010507/>.

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## II. RUSSIAN ARCTIC INTERESTS PAST AND PRESENT

There is more than thinning ice to the increase in Russian activity in the Arctic over the past decade. Russia has long considered itself an Arctic nation, and its two million residents in the region account for half of the global Arctic population. Additionally, nearly twenty percent of the Russian landmass, including 24,140 kilometers of coastline, are found within the Arctic Circle.<sup>54</sup> Russia's Arctic exploration and expansion dating back to the 12th century is very much alive today, with the new frontier deep beneath the Arctic waters. Examining Russian Arctic history, Cold War security interest, and its current economic and security interests can provide a better understanding of its current activities and future intentions.

### A. ARCTIC ORIGINS

The pursuit of the economic wealth of Siberia and the Barents Sea prompted increased foreign trade interest and Arctic exploration throughout the 19<sup>th</sup> century. European traders navigated the ice-laden Barents and Kara Seas to fish the rich waters and expand trade routes further east. The Swedish-led Vega Expedition completed the first traverse of the Northeast Passage in 1879, which prompted even more daring explorations further north.<sup>55</sup> Despite Russian exploration in Siberia and beyond since the 16<sup>th</sup> century, technological advances and government interest advantaged other European nations, helping overcome the region's harsh climate and navigational challenges.<sup>56</sup> While Russians were involved in both the explorations and trade, the Tsarist government had yet to commit fully to further development of the Arctic. However, continued exploration and

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<sup>54</sup> "Russia." "Russia's coastline accounts for 53 percent of the Arctic Ocean coastline and covers the Barents Sea, Kara Sea, Laptev Sea, and East Siberian Sea."

<sup>55</sup> Ola M. Johannessen et al., eds., "History of the Northern Sea Route," in *Remote Sensing of Sea Ice in the Northern Sea Route: Studies and Applications* (Berlin, Heidelberg: Springer Berlin Heidelberg, 2007), 9–11, [https://doi.org/10.1007/978-3-540-48840-8\\_1](https://doi.org/10.1007/978-3-540-48840-8_1).

<sup>56</sup> Johannessen et al., 2. Expeditions further east continued, and Russia claimed the northern coast and waters and continued Arctic shipping efforts but had yet to fully gain the Tsarist government's interest in the region.

rapid railway expansion initiated by Alexander II and the Trans-Siberian Railway would eventually spread Russia further eastward.<sup>57</sup>

During an 1880s expedition, naturalist Konstantin Sluchevskii accompanied Tsar Nicholas II's brother, Grand Duke Vladimir Alexandrovich, on an 11,000-kilometer journey through the Russian North.<sup>58</sup> While exploring the Kola Peninsula, Sluchevskii saw significant resource development potential for the region that Russia had yet to capitalize on, but he saw tremendous challenges as well. As neighboring Finns and Norwegians and even the British already fished extensively in the region, Russians accounted for only a minuscule fraction of the catch.<sup>59</sup> At Ekaterina Harbor (now Murmansk), Sluchevskii saw a potential merchant marine and navy base but noted its lack of defenses. Already known at the time, Murmansk remained an ice-free port year-round because of its location along the North Atlantic Drift, making it both a viable and strategically valuable potential naval base. Finally, near the 20<sup>th</sup> century, Russian Admiral Stepan Makarov, a naval visionary, brought the first icebreaker ship into service, giving Russia an Arctic navigation advantage.<sup>60</sup> Makarov and the *Ermak* would reach Svalbard, improve charts of the region, and increase maritime understanding of Arctic conditions and ice strength. However, it was not enough to dispel skepticism of a frozen sea route's viability or value over rail, and the ship repositioned to the busier Baltic Sea.<sup>61</sup> It would take defeat in the Russo-Japanese War, millions settling further east, and increased foreign interest in the east for the Russian government to determine that rail alone would not meet Russia's Arctic needs.

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<sup>57</sup> Christian Wolmar, *To the Edge of the World: The Story of the Trans-Siberian Express, the World's Greatest Railroad* (New York, NY: Public Affairs, 2014), 24–28, <http://ebookcentral.proquest.com/lib/ebook-nps/detail.action?docID=1652859>.

<sup>58</sup> Paul R. Josephson, *The Conquest of the Russian Arctic* (Cambridge, MA: Harvard University Press, 2014), 22–23.

<sup>59</sup> Josephson, 3–24. British and Norwegians had larger fleets and motorized boats well before the Russians. Later numbers reveal that between 1908 and 1913 Russian fisherman harvested 512 tons whiles German and English fished more than 86,000 tons.

<sup>60</sup> Josephson, 26–35.

<sup>61</sup> Johannessen et al., “History of the Northern Sea Route,” 14.

## B. RUSSO-JAPANESE WAR—WWI

War has long played a significant role in the development of the Russian Arctic. During the Russo-Japanese War, it took the Baltic Fleet over seven months to reach Japan, transiting the Cape of Good Hope while the Trans-Siberian Railway neared its breaking point supporting the war.<sup>62</sup> While the war, and its loss, strengthened the argument for developing the Northern Sea Route (NSR), it was the German and Turkish blockades of the Baltic Black Seas during World War I that firmly established the strategic importance of the Russian Arctic. The White Sea port of Arkhangelsk, with its fleet of 24 icebreakers by 1917, became the primary recipient of much-needed allied support. From 1915–1917, Millions of tons of coal and supplies from Great Britain, France, and the United States would flow into Arkhangelsk and Murmansk. With the White Sea generally closed from November to May, the Russian government expanded the port of Murmansk and increased the forces and ships assigned to the area.<sup>63</sup> The Allied Powers were equally aware of the “vital” significance of the Arctic ports and dispatched additional troops to the region following the October Revolution and Brest-Litovsk.<sup>64</sup> The British-led North Russian Expedition kept the Germans from seizing the ports, but British-American policy disagreement and the Bolshevik advance drove the remaining Allied troops from the region. The expedition was the first U.S. exposure to the area but, more significantly, it was long remembered by Soviet leaders, including Joseph Stalin, who never forgave the Allies for their actions.<sup>65</sup>

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<sup>62</sup> Josephson, *The Conquest of the Russian Arctic*, 27.

<sup>63</sup> Paul G. Halpern, *A Naval History of World War I* (Naval Institute Press, 2012), 134–37. Russian increased to 6 destroyers and torpedo boats, 17 dispatch vessels and auxiliary cruisers, and 26 minesweepers while British forces in the White Sea increased to include the old battleship *Glory*, 3 cruisers, 4 armed steamers, 2 yachts, 12 trawlers, and 4 drifters.

<sup>64</sup> John W. Long, “American Intervention in Russia: The North Russian Expedition, 1918–19,” *Diplomatic History* 6, no. 1 (1982): 53. In a dispatch, British Foreign Secretary Arthur James Balfour described the “vital” importance of Murmansk to President Wilson in an attempt to secure American assistance to secure the port.

<sup>65</sup> Adam Bisno, “USS *Olympia* and the Russian Civil War: The Allied Intervention at Archangel and Murmansk in 1918,” Naval History and Heritage Command, September 2019, <http://public1.nhhcaws.local/content/history/nhhc/browse-by-topic/heritage/usn-lessons-learned/archangel-murmansk.html>.

### C. ECONOMIC OPPORTUNITY

Vladimir Lenin's New Economic Policy and the Stalinist revolution had dramatic and long-lasting impacts on the Russian Arctic. Rapid industrialization, scientific pursuit toward resource exploitation, and hundreds of thousands of gulag prisoners fueled efforts in the region. Organized under what became the Administration of the Northern Sea Route (NSR), or *Glavsevmorput*, the significant undertaking completed the White Sea Canal, expanded railways and roads, and constructed factories, mines, and runways throughout the Arctic. Securing accessibility of the NSR became a priority because it would allow Soviet ships the ability to transit from Europe to East Asia without losing sight of the Russian coast or leaving Russian waters.<sup>66</sup> Otto Iulievich Shmidt, the first head of the All-Union Arctic Institute and then the *Glavsevmorput*, combined airplanes and icebreakers to support explorations further north and to solidify Soviet claims to Franz Josef Land and Wrangel Island.<sup>67</sup> Unlike Norway and the Svalbard Treaty, the Soviets had no intention of sharing land long believed to be Russian and saw occupying both areas as the best way to demonstrate sovereignty.<sup>68</sup> While the Arctic pursuits were not without disaster, including Shmidt's own NSR expedition that sunk the SS *Cheliuskin*, the *Glavsevmorput* achieved breakthroughs in Arctic and Polar aviation and the establishment of research facilities and airbases. The interwar years saw the massive, forced migration into the Russian Arctic, with the Murmansk territory alone swelling from 13,000 inhabitants in 1920 to 318,000 in 1940. The additional people, financing, and frequently inhumane treatment by government agencies facilitated the rapid development, and the diverse resource discoveries made the region increasingly important to Soviet leaders intent on avoiding trade dependence with capitalist countries.

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<sup>66</sup> T. E. Armstrong, "The Soviet Northern Sea Route," *The Geographical Journal* 121, no. 2 (1955): 136–46, <https://doi.org/10.2307/1791697>. The

<sup>67</sup> Josephson, *The Conquest of the Russian Arctic*, 66–71. Shmidt oversaw the construction of a station on Franz Josef Land before the Norwegians, who contested Soviet claim to the land, were able to. Continued scientific expeditions to Wrangel Island reaffirmed a 1926 claim to the island.

<sup>68</sup> Øystein Jensen, "The Svalbard Treaty and Norwegian Sovereignty," *Arctic Review* 11 (December 9, 2020): 82–107, <https://doi.org/10.23865/arctic.v11.2348>. The treaty would grant Norway full sovereignty over Svalbard, however it would grant equal rights to signatories to hunt, fish, and mineral extraction such as coal mining.

## D. WWII–COLD WAR

War again shaped the Russian Arctic and further solidified the strategic importance of the High North for both the Soviet Union and its enemies. The Soviets, fearing a Nazi advance through Finland, attempted to increase security near Leningrad; however, efforts failed to negotiate a lease or annexation of Finnish territory.<sup>69</sup> The subsequent 1939 invasion of Finland proved far more challenging than the Soviets expected, with victory over the much smaller country coming at the cost of over 120,000 Soviet lives. Finland would later join Germany against the Soviet Union, regaining lost territory and participating in the 900-day siege of Leningrad.<sup>70</sup> In addition, Germany's invasion of Denmark cut the Baltic waterway, and its occupation of Norway threatened to cut Russia off from the North as well. The Soviets eventually forced Finland to an armistice in 1944, again at a steep cost, and further solidified the advantage of the defense over offense in the Arctic.

Submarines and nuclear weapons dramatically changed the military role of the Russian Arctic. The demonstrated effectiveness of submarine warfare by both the Germans during the initial period of WWII and the U.S. during the latter signified the importance the capabilities would play in future warfare. Captured German Type XXI submarines illustrated that the development of larger batteries, higher power engines, and improved snorkels resulted in a “combined high underwater speed, rapid maneuverability, substantial submerged endurance, deep diving, and long-range without needing to surface.”<sup>71</sup> To project military power in Europe or Asia, the U.S. and its allies would rely heavily on maritime shipping and naval surface forces, especially carriers, all of which would be vulnerable to submarines that possessed further developed capabilities of the Type XXI.

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<sup>69</sup> D. W. Spring, “The Soviet Decision for War Against Finland, 30 November 1939,” *Soviet Studies* 38, no. 2 (1986): 207–26. NKVD agent, Boris Rybkin, acting as a Soviet second secretary, attempted to secure Soviet use of Finnish territory in Karelia or its islands in the Gulf of Finland. Finnish leaders refused to cede any territory.

<sup>70</sup> Jonathan Clements, *Mannerheim: President, Soldier, Spy* (London, UK: Haus Publishing, 2010), 171, <http://ebookcentral.proquest.com/lib/ebook-nps/detail.action?docID=4538837>.

<sup>71</sup> Paul E. Fontenoy and Spencer C. Tucker, *Submarines: An Illustrated History of Their Impact* (Honolulu, HI, UNITED STATES: ABC-CLIO, LLC, 2007), 38–41, <http://ebookcentral.proquest.com/lib/ebook-nps/detail.action?docID=291212>.



Both the Soviets and the U.S. pursued advances in submarine capabilities that resulted in the more maneuverable Albacore with its teardrop hull, the Nautilus and nuclear propulsion, and the ballistic missile launch capable Soviet Project 611.<sup>72</sup> The Soviet successful nuclear bomb and torpedo tests and the launch of Sputnik via an SS-6 intercontinental ballistic missile (ICBM) indicated the ever-increasing threat that submarines posed; nuclear strike capability, and from as far as several thousands of miles away.<sup>73</sup> The advances in submarine technology, specifically dive depth capability, range, signature reduction, and nuclear ICBM threat, would force the pursuit of greater anti-submarine warfare capabilities.

With the Cold War established, the strategic importance of the Russian Arctic only increased due to its proximity to NATO's Northern Flank. Soviet access to the North Atlantic and NATO sea lines of communication (SLOCs) would be critical in any campaign. In addition, the area became a strategic base for both long-range bombers and SSBNs; 63 percent of all USSR SSBNs were based on the Kola Peninsula.<sup>74</sup> There is perhaps no greater testament of the defensive capability of the Arctic than the Bastion Concept that developed in the 1970s. The security of the Northern Fleet SSBNs would be required to fulfill their role as the "strategic national reserve."<sup>75</sup> With two elements of the Soviet nuclear triad based there and the Kola Peninsula itself of strategic importance, ground and air defense forces would be required to ensure its security. In a conflict with NATO, Soviet forces would need to act quickly to protect the Bastion and Soviet access to the Norwegian Sea. Soviet ground forces would need to seize or destroy NATO airfields in the High North, while Soviet naval forces would neutralize NATO naval forces. The Soviet Union could strike neutrality agreements with Finland and Sweden while Norway received a multi-divisional attack across Finnmark into Troms and south along the

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<sup>72</sup> Fontenoy and Tucker, 41–47.

<sup>73</sup> Greg Thielmann, "The Missile Gap Myth and Its Progeny," *Arms Control Today* 41, no. 4 (May 2011).

<sup>74</sup> John Lund, "Don't Rock the Boat: Reinforcing Norway in Crisis and War" (RAND Corporation, January 1, 1989), 48, <https://www.rand.org/pubs/reports/R3725.html>.

<sup>75</sup> Jan S. Breemer, "The Soviet Navy's SSBN Bastions: Why Explanations Matter," *The RUSI Journal* 134, no. 4 (December 1, 1989): 33–39, <https://doi.org/10.1080/03071848908445400>.

Norwegian coast. With control of the High North, Soviet forces could interdict NATO SLOCs, protect the Bastion, and reposition ground and strategic air forces.<sup>76</sup> The Russian Arctic would remain a strategic priority for the duration of the Cold War, and the Soviet government would heavily subsidize its inhabitants and activities to maintain their presence.

## E. ARCTIC ECONOMIC OPPORTUNITY

The fall of the Soviet Union and the subsequent end of the Cold War resulted in a dramatic shift in Russian Arctic activities. Fiscal constraints facing the Russian government reduced subsidies, and the weakened support and harsh conditions drove many inhabitants out. Additionally, a mass Arctic brain drain was taking place by 1993, with funding for Arctic research and education as low as five percent of Soviet-era levels.<sup>77</sup> Reduced military spending meant that Northern Fleet and Northwestern TVD installations and equipment were too costly to maintain at Cold War levels, and many fell into disrepair. The Northern Fleet remained based along the Kola Peninsula, but Murmansk and the surrounding area became a “radioactive scrap yard” housing over 100 outdated nuclear submarines in various disposal stages.<sup>78</sup> While the Russian government and military struggled due to lack of funding, the Arctic and Antarctic Research Institute (AARI) leveraged emerging computer technology and partnerships to expand its charting of the Arctic floor.<sup>79</sup> Mapping and exploring the Arctic shelf was an area for cooperation; however, the Russian government never lost its intentions for capitalizing on the region’s economic opportunities.

Vladimir Putin has long subscribed to the belief that improving Russia’s economic future required further development of its natural resources, and doing so was necessary

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<sup>76</sup> Lund, “Don’t Rock the Boat,” 33–41.

<sup>77</sup> Josephson, *The Conquest of the Russian Arctic*, 336–37.

<sup>78</sup> Erin Decker, “The State of the Russian Navy: History and Prospectives,” *Geohistory* (blog), April 10, 2010, [https://geohistory.today/russian\\_navy/](https://geohistory.today/russian_navy/). In addition to the ships throughout the Andreeva Bay area, “over 100 tons of nuclear waste in Murmansk, making it the largest concentration of such material anywhere in the world.”

<sup>79</sup> Josephson, *The Conquest of the Russian Arctic*, 338. The AARI partnered with Arctic and non-Arctic nations on environmental research projects and charting of the sea floor.

for Russia to reclaim its status as a superpower.<sup>80</sup> A 2001 statement on Russian Maritime Policy highlighted the “increasing importance on the Northern Sea route for sustainable development of the Russian Federation” and outlined plans for Arctic exploration and “establishment of sovereignty, (and) sovereign and international rights of the Russian Federation.”<sup>81</sup> In addition to identifying that 80 percent of Russian natural gas reserves are believed to be enclosed in the Russian Arctic continental shelf, the Russian Arctic was also recognized as critical for the country’s defense. To protect the EEZ and natural resources, Russia intended to expand its military presence while actively opposing any increase in NATO Arctic countries’ military activity in the Arctic. Thus, the stage was set for a change in the Russian Arctic going forward.

Russia followed through on its 2001 Arctic declaration and has since pursued its stated priorities using regional and international institutions. In August 2007, the submersible Mir-1 planted a titanium Russian flag on the North Pole seabed. While the act carried no legal authority toward a territorial claim, it was a clear message that Russia had not given up on its Arctic expansion efforts that had slowed following the Cold War. Prior to the flag-planting, Russia attempted unsuccessfully to justify its expanded claim using the Lomonosov Ridge with its 2001 submission to the United Nations Commission on the Limits of the Continental Shelf (CLCS). In 2015, Russia continued that effort with a revised submission with updated seafloor measurements and did so again on March 31, 2021, this time enlarging Russia’s claim by approximately 705,000 square kilometers (Figure 5). While Russia awaits the results of the CLCS ruling, it has not wasted any time as it continues to expand and improve its existing economic and military infrastructure in the Arctic.

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<sup>80</sup> Josephson, 340.

<sup>81</sup> “Fundamentals of the State Policy of the Russian Federation in the Arctic,” June 14, 2001, <http://www.sci.aha.ru/econ/A111c.htm>.



Figure 5. Russia's Evolving Arctic CLCS Submissions<sup>82</sup>

## F. SECURING INTERESTS

Since 2000, Russian military activity in the Arctic signifies the increased prioritization of the region, the anticipated economic potential of the NSR and buried hydrocarbons, and Russia's dedication to defending its sovereign, along with yet to be determined, territory. While the reopening of 50 previously closed bases has attracted

<sup>82</sup>Source: IRBU, *Continental Shelf Submissions in the Central Arctic Ocean*, Arctic Map Series (IRBU Centre for Borders Research: Durham University), accessed May 23, 2021, <https://www.durham.ac.uk/research/institutes-and-centres/ibru-borders-research/maps-and-publications/maps/arctic-maps-series/>.

NATO's attention, Russian Foreign Minister Sergei Lavrov has responded to such interest by stating, "We hear whining about Russia expanding its military activities in the Arctic. But everyone knows that it's our territory, our land."<sup>83</sup> All of the installations are on undisputed Russian territory; however, their location along the NSR, the military capabilities being positioned there, and strong statements from President Putin have increased concern for Arctic neighbors and NATO (Figure 6). The Arctic bases now host a layered air defense and sea denial capability that includes Sopka-2 advanced radar systems and S-400 and K-300P missile systems capable of long-range strikes and firing supersonic anti-ship missiles.<sup>84</sup> Russian current capabilities project beyond the Russian EEZ, and the termination of the Intermediate-Range Nuclear Forces (INF) Treaty removes any restriction to limit missile range going forward.<sup>85</sup>

In September 2017, during Zapad 2017, Russia's largest military exercise since the Cold War, units conducted simulated precision missile strikes and air defense activities followed by months of maskirovka (military deception) efforts to undermine NATO-member nations' confidence in the ability to counter Russian military capabilities in the region.<sup>86</sup> Two months later, Putin announced the intention to grant Russian flagged ships "the exclusive right to transport and store hydrocarbons in the NSR."<sup>87</sup> In October 2020, Putin outlined Russia's Arctic strategy through 2035 with ambitious targets for the NSR and Arctic hydrocarbon fields and increased military expenditures.<sup>88</sup> In the last two

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<sup>83</sup> Kostya Manenkov and Vladimir Isachenkov, "Russia's Northernmost Base Projects Its Power Across Arctic," AP NEWS, May 18, 2021, <https://apnews.com/article/arctic-europe-russia-business-technology-b67c5b28d917f03f9340d4a7b4642790>.

<sup>84</sup> Boulègue, "Russia's Military Posture in the Arctic," 7–8.

<sup>85</sup> Shannon Bugos, "U.S. Completes INF Treaty Withdrawal," *Arms Control TODAY* 49 (September 2019), <https://www.armscontrol.org/act/2019-09/news/us-completes-inf-treaty-withdrawal>. The INF Treaty between the U.S. and Soviet Union eliminated and "permanently forswear all of their nuclear and conventional ground-launched ballistic and cruise missiles with ranges of 500 to 5,500 kilometers."

<sup>86</sup> Dave Johnson, "NATO Review - ZAPAD 2017 and Euro-Atlantic Security," NATO Review, December 14, 2017, <https://www.nato.int/docu/review/articles/2017/12/14/zapad-2017-and-euro-atlantic-security/index.html>.

<sup>87</sup> Pavel Devyatkin, "Russia's Arctic Strategy: Maritime Shipping (Part IV)," The Arctic Institute, February 27, 2018, <https://www.thearcticinstitute.org/russias-arctic-strategy-maritime-shipping-part-iv/>.

<sup>88</sup> Vladimir Putin, "Decree of the President of the Russian Federation On the Strategy for the Development of the Arctic Zone of the Russian Federation and Ensuring National Security for the Period up to 2035," No. 645 (2020), <http://publication.pravo.gov.ru/Document/View/0001202010260033>.

decades, Russian activity in the Arctic has shown a willingness to use international institutions to solidify territorial claims while concurrently demonstrating a dramatically increased military presence in the region. The recent and increasingly strong statements could signal future aggression should the CLCS not rule in Russia's favor. Moreover, with Russian military exercises preceding and arguably facilitating preemptive actions in conflicts in Georgia and Ukraine, future Russian military activities in the Arctic will remain a concern for NATO states and Nordic neighbors.



Figure 6. Russian Military Bases Along Northern Sea Route<sup>89</sup>

<sup>89</sup>Source: Paul Goble, "Putin Wants to Ban All Non-Russian Oil & Gas Shipping on Northern Sea Route," UpNorth: The Northern European, November 20, 2017, <https://upnorth.eu/putin-wants-ban-non-russian-oil-gas-shipping-northern-sea-route/>.

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### III. COLD WAR ACTIONS: RUSSIA AND NATO

The Soviets were not the only ones with an eye on the Arctic during the Cold War. The region, especially the High North, played a significant role in Cold War planning for NATO. After seeing a 1948 Soviet-backed coup overtake Czechoslovakia and sharing a 200km border with the Soviet Union, Norway determined that neutrality or a “Nordic pact” would not be enough to counter potential Soviet aggression and opted to become a founding member of NATO.<sup>90</sup> However, the Soviet potential to isolate and neutralize NATO’s Northern Flank could not be ignored and would require strategic actions to deter Soviet aggression and reassure NATO member states. By analyzing Cold War actions and counteractions of the Soviet Union and NATO in the High North, it is possible to determine the effectiveness of both sides and explore its relevance for the future.

#### A. TO ALIGN OR NOT?

Prior to commencing the liberation of Norway in 1944, the Soviet Union demanded the revision of the Svalbard Treaty, which included Norway ceding Bear Island.<sup>91</sup> Increasing the severity of the demands, Soviet troops stationed near Sør-Varanger conducted organized military exercises threatening to march to Narvik. Soviet intentions to redraw the Norwegian border west of the Tana river and take control over portions of Svalbard prompted Western allies to counter that realization. By 1946, Britain had increased military stocks in Norway and hosted hundreds of Norwegian officers for training. Accepting support of the Marshall Plan in the late 1940s pulled Norway further toward the West.<sup>92</sup> Sweden’s attempt to lure Norway and Denmark toward a neutral Nordic Pact failed as the significant defense spending could have led to Sweden economically

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<sup>90</sup> NATO, “Norway and NATO - 1949,” NATO Declassified, accessed June 18, 2021, [http://www.nato.int/cps/en/natohq/declassified\\_162353.htm](http://www.nato.int/cps/en/natohq/declassified_162353.htm).

<sup>91</sup> Mikhail Suprun, “The Liberation of Northern Norway in Stalin’s Post-War Strategy,” *The Journal of Slavic Military Studies* 33, no. 2 (April 2, 2020): 277–91, <https://doi.org/10.1080/13518046.2020.1756704>.

<sup>92</sup> Geir Lundestad, *America, Scandinavia, and the Cold War 1945–1949* (New York: Columbia University Press, 1980), 132–66.



dominating Norway.<sup>93</sup> Ultimately, despite Moscow's strongly-worded warning that included the threat to the northern frontier border, Norway joined NATO and maintained its authority over Svalbard.

Svalbard, including Bear Island, was not the only strategically located territory the Soviets sought to control. For example, the Soviet Army liberated the Danish island of Bornholm without coordinating with Western Allies, who had liberated the remainder of Denmark (Figure 7). As a result, Soviet forces cut the island off from the rest of Denmark and refused to depart for nearly a year, despite continuous requests to do so.<sup>94</sup> Additionally, Finland became a buffer state by signing The Agreement of Friendship, Cooperation, and Mutual Assistance with the Soviet Union.<sup>95</sup> In addition to a mutual defense provision, the agreement prevented Finland from joining any organization deemed hostile to the Soviet Union. To protect its territory and neutrality, Sweden increased troop presence on Gotland and developed what became the fourth largest air force by 1949.<sup>96</sup> Thus, each Nordic country faced threats to its territory and was forced to determine how best to protect its national interests.

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<sup>93</sup> Victor Braden Moon, "Soviet-Norwegian Relations Since 1945," *The Western Political Quarterly* 17, no. 4 (1964): 659–70, <https://doi.org/10.2307/444874>.

<sup>94</sup> Magda Gawinecka-Woźniak, "The History of the Bornholm Island in the Years 1940–1946.," *Studia Maritima* 26 (2013): 78–85. The Soviet Union believed "Bornholm's occupation was to demonstrate that Denmark's future did not lie entirely in the hands of Great Britain." The Soviet Army eventually departed on April 5, 1946 after charging the Danes over 19 million crowns for maintenance of the Soviet Army on the island.

<sup>95</sup> Kimmo Rentola, "YYA and the Fear of a Coup in Spring 1948," J.K Paasikivi, December 18, 2020, <https://jkpaasikivi.fi/en/yya-and-the-fear-of-a-coup-in-spring-1948/>.

<sup>96</sup> Mikael Nilsson and Marco Wyss, "The Armed Neutrality Paradox: Sweden and Switzerland in U.S. Cold War Armaments Policy," *Journal of Contemporary History* 51, no. 2 (2016): 341.



Figure 7. Soviet Interest in Bornholm and Gotland <sup>97</sup>

## B. ORGANIZING NATO TO FIGHT

In 1948 the Soviet-backed coup in Czechoslovakia and blockade in Berlin clearly illustrated the need for collective defense among Western nations. Demobilization left Central Europe with no formidable Western opposition to Soviet threats. The twelve founding members of NATO would spend the early 1950s adding to the alliance and establishing a military structure.<sup>98</sup> Member states' defense chiefs formed the NATO Military Committee to develop policy; however, it would require military practitioners to execute military policy for the alliance. What resulted was the establishment of Supreme Headquarters Allied Powers Europe (SHAPE) and subordinate regional commands with Allied Forces Northern Europe based in Oslo.

<sup>97</sup>Source: Luke Coffey, "The Baltic States: The United States Must Be Prepared to Fulfill Its NATO Treaty Obligations," The Heritage Foundation, n.d., <https://www.heritage.org/defense/report/the-baltic-states-the-united-states-must-be-prepared-fulfill-its-nato-treaty>.

<sup>98</sup>Richard L. Kugler, "Laying the Foundations: The Evolution of NATO in the 1950s" (RAND Corporation, January 1, 1990), <https://www.rand.org/pubs/notes/N3105.html>.

Early NATO defense strategy called on European nations to provide the “hard core of ground power” that could “arrest and counter as soon as practicable” enemy offenses and tasked the U.S. to “deliver the atomic bomb promptly.”<sup>99</sup> Following the recommendations of National Security Council Paper NSC-68 to President Truman, the U.S. increased its military presence in Europe as other allies bolstered their forces. Additionally, NSC-68 called for the rapid and large-scale build-up of military strength and set a policy of Soviet containment beyond its periphery. The build-up included expanding NATO’s nuclear arsenal, and plans called for the use of atomic and thermo-nuclear weapons “in defense from the outset.”<sup>100</sup> NATO war planners worried that superior Soviet land and tactical air forces would overrun Europe if nuclear weapons were not employed.

### **C. SECURING NATO’S NORTHERN FLANK**

Despite a higher percentage of its GDP used toward defense and citizens in military service than many other NATO members, with only 3.2 million residents, Norway is uniquely challenged with being one of Europe’s least populated nations while also being one of the largest territorially. During General Dwight Eisenhower’s 1951 assessment tour, Norway reported that its mobilization strength would be 11 brigade groups and 11 air force squadrons. According to the 1948 NATO estimate, the Soviet Air Force had 14,000 aircraft, and the Soviet Army had 175 divisions, of which 25 could attack without any preparation.<sup>101</sup> In the case of Soviet aggression, the majority of NATO ground forces would be employed to defend Western Europe. NATO’s Northern Sector “was one where naval and air action would predominate” in anticipation of ground conflict in Norway and Denmark. Ultimately, Norway required significant assistance in an attempt to deter Soviet aggression.

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<sup>99</sup> North Atlantic Military Committee, “MC 3,” The Strategic Concept for Defense of the North Atlantic Area (NATO, October 19, 1949), <https://www.nato.int/docu/stratdoc/eng/a491019a.pdf>.

<sup>100</sup> North Atlantic Military Committee, “MC 48,” The Most Effective Pattern of NATO Military Strength for the Next Few Years (NATO, November 22, 1954), <https://www.nato.int/docu/stratdoc/eng/a541122a.pdf>.

<sup>101</sup> SHAPE, “SHAPE History Volume I - Origin and Development of SHAPE” (Declassified History, Supreme Headquarters Allied Powers Europe, 1953), <https://archives.nato.int/shape-history-volume-i>.

Employing a strategy to secure the High North was not a simple task. Despite Norwegian dependency on reinforcements and NATO's interest in deterrence along its Northern Flank, Norway's domestic politics restricted available options. When the *Storting* approved Norway joining NATO, politicians stipulated that no foreign troops would be stationed or bases built on Norwegian territory during peacetime.<sup>102</sup> Additionally, basing of nuclear weapons was prohibited within Norway, and Article 9 of the Svalbard Treaty prohibited foreign military activity within the archipelago. Thus, Norway was attempting to balance its security without unnecessary escalation that would further provoke the Soviet Union. NATO was therefore challenged with how to effectively deter Soviet aggression within so many constraints.

In the case of a Soviet attack on Europe, the initial SHAPE Defense Plan would occur in three phases. The first phase, D-Day to D+30, anticipated the heaviest attack of the Soviet troops, which would be countered with an atomic attack by Strategic Air Command (SAC). The second phase, up to D+90, would target the flanks of the Soviet penetrations to encircle and destroy the forward formations disrupting the overall offensive. The third phase would follow with Allied positions stabilized and reinforcements arriving for offensive operations.<sup>103</sup> However, SHAPE planners identified a "gap" of 23 divisions between what was deemed necessary and what NATO nations planned to contribute. Moreover, increases in force requirements would take time and political negotiations. As a result, the SHAPE Emergency Plan was developed that accounted for current forces available and where concessions could be made. The shortfall was most evident with the Allied Forces Northern Europe (AFNORTH), where the CINCNORTH would have just two-thirds of a division and 152 aircraft to withstand a Soviet attack from an estimated 17 divisions and 800 aircraft (Figure 8).<sup>104</sup>

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<sup>102</sup> NATO, "Norway and NATO - 1949." The *Storting* is the Norwegian Parliament and is responsible for forming a government, passing legislation, determining the annual budget, and determining domestic and foreign policy.

<sup>103</sup> SHAPE, "SHAPE History Volume I - Origin and Development of SHAPE," 190–98.

<sup>104</sup> SHAPE, 200.

<u>Land Forces</u>					
<u>Allocated and Earmarked Forces by Divisional</u>					
<u>and Divisional Equivalent Totals</u>					
	<u>D-day</u>	<u>D+5</u>	<u>D+15</u>	<u>D+30</u>	<u>D+90</u>
<u>NORTHERN EUROPE</u>					
<u>Denmark</u>					
Inf Div	-	-	2	2	2
Sep Inf Brig Gp	1	2	2	2	2
Sep Inf Regts	2/3	1	1	1	1
Sep Arm'd Car Regts	1/4	1/4	1/4	1/4	1/4
<u>Norway</u>					
Sep Inf Brig Gp	1	1	7	9	9
Sep Arm'd Regts	-	1	1	1	1
<u>United Kingdom</u>					
Sep Arm'd Car Regts	1	1	1	1	1
<u>TOTAL IN DIV EQUIV:</u>	2/3	1 1/3	5 1/3	6	6

Figure 8. NATO Forces available in the High North<sup>105</sup>

#### D. SOVIET AND NATO STRATEGIES FOR THE HIGH NORTH

NATO's assessment of the Soviet strategy for an attack on Norway remained consistent throughout the Cold War period. The operation would begin in the High North with aircraft and Spetsnaz units destroying early warning stations in Finnmark. Soviet 6th Army divisions would follow and seize northern airfields, including Banak and Troms. Soviet submarine and surface forces would utilize Norwegian fjords to target cities and, along with aircraft, seek to expand maritime control and sever the North Atlantic SLOC by denying Allied reinforcements and supplies.<sup>106</sup> The operation would advance toward Oslo through Sweden or across the Baltic, with additional Leningrad SVD forces capturing southern airfields (Figure 9). Soviet troops would then move to capture the Danish straits and Jutland in preparation for operations in Germany.<sup>107</sup> However, NATO also considered

<sup>105</sup>Source: SHAPE, Chapter VIII Appendix "E."

<sup>106</sup> John C. Ausland, *Nordic Security and the Great Powers* (Boulder, CO: Westview Press, 1986), 89–96. Spetsnaz are Soviet special forces trained and organized for reconnaissance and other skilled operations. The 54th and 45th Rifle Divisions (later becoming the 54th and 131st Motor Rifle Divisions) based on the Kola Peninsula would conduct the ground attack into Finnmark.

<sup>107</sup> North Atlantic Defense Committee, "DC 13," North Atlantic Treaty Organization Medium Term Plan (NATO, April 1, 1950), <https://www.nato.int/docu/stratdoc/eng/a500328d.pdf>.

that the Soviets could attempt to replicate Germany's success in Operation Weserübung through rapid amphibious assaults of all of Norway's population centers. Ultimately, Soviet targets in Norway remained airfields in the north and coastal ports, necessary to isolate the primary theater of war in Central Europe.

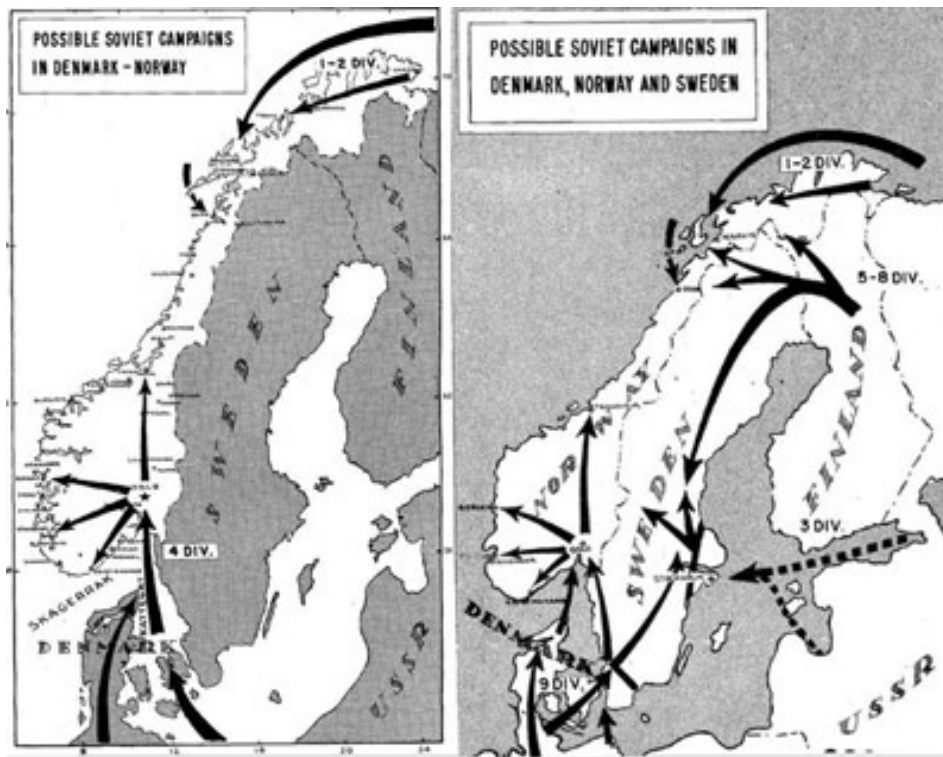


Figure 9. NATO Estimate of Soviet Attack on Norway and Denmark<sup>108</sup>

NATO's defense strategy for Northern Europe centered around Denmark and Southern Norway; however, NATO's vulnerability was greatest in the High North. Additionally, Norway was vulnerable to Sweden not upholding its neutrality to the east. If South Jutland, Zeeland, and Southern Norway were successfully defended and Sweden remained neutral, NATO could close the Baltic Sea and protect further north.<sup>109</sup> Norway also would need to guard against air attacks in the Troms, Ostland, Bergen, and Trondelag

<sup>108</sup>Source: NATO, "Norway and NATO - 1949."

<sup>109</sup> SHAPE, "SHAPE History Volume I - Origin and Development of SHAPE," 187-88.

areas. However, in addition to a lack of land forces, the “great problem of the Northern region was where to establish the base of supply.”<sup>110</sup> Thus, planners would need to determine whether Denmark and Norway required separate advanced bases, could be jointly supported by one or supplied entirely from the United Kingdom. At nearly 1,400 miles long, only 50 to 200 miles deep, and adjacent to enemy territory in the High North, Norway’s geography led SHAPE planners to determine the best solution for war supplies for both Norway and Denmark was the UK. NATO target goals for integrating Norwegian command structure and infrastructure improvements would be met by 1958. However, force employment and logistical support to the High North would remain a challenge for years.<sup>111</sup>

The outbreak of war in Korea caused many Norwegians to reevaluate assumptions that NATO reinforcements would arrive in time to oppose a Soviet threat without foreign bases. Such concerns prompted Norwegian Minister of Defense, Jens Christian Hauge, to clarify Norway’s basing policy. In a 1951 speech to the Storting, he declared the policy did not prevent participating in Allied exercises or “developing Norwegian military installations...capable of receiving and effectively maintaining Allied armed forces transferred to Norway to assist in its defense.”<sup>112</sup> Accordingly, in 1952 NATO conducted Exercise Mainbrace to demonstrate its commitment to the security of Norway and Denmark by bringing together over 200 ships to the North Sea.<sup>113</sup> Exercise Strikeback in 1957, the largest ever to date, showcased the new “supercarriers” Forrestal and Saratoga with the nuclear-powered submarines Nautilus and Seawolf in a powerful demonstration

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<sup>110</sup> SHAPE, “SHAPE History Volume I - Forging the Weapon 1951–1952” (Declassified History, Supreme Headquarters Allied Powers Europe, 1956), 261, <https://archives.nato.int/shape-history-volume-i>.

<sup>111</sup> Kjell Inge Bjerga and Kjetil Skogrand, “Securing Small-State Interests: Norway in NATO,” in *War Plans and Alliances in the Cold War* (London: Routledge, n.d.), 223–26. From 1951 to 1958 a Norwegian-Allied command system was created that balanced the complexities of Norwegian domestic politics with Allied objectives for the region. Norwegian commanders integrated into the NATO structure allowed Norwegian service chiefs to align priorities for their respective forces.

<sup>112</sup> Robert K. German, “Norway and the Bear: Soviet Coercive Diplomacy and Norwegian Security Policy,” *International Security* 7, no. 2 (1982): 61, <https://doi.org/10.2307/2538433>.

<sup>113</sup> Hanson W. Baldwin, “Navies Meet the Test in Operation Mainbrace: Important Role in Defense of Europe Rests with the Combined Fleets,” *New York Times*, September 28, 1952.

of NATO naval strength in the North Atlantic and the Norwegian Sea.<sup>114</sup> The new carriers were capable of launching nuclear-armed A-3 Skywarriors and, combined with SAC B-47 bombers based in the UK, demonstrated NATO's capability of "Massive Retaliation" toward Soviet aggression.<sup>115</sup> The chief objective of NATO's Strategic Concept was deterrence, for which the "timely support by naval striking forces" and rapid reinforcement displayed in Mainbrace and Strikeback were vital for the defense of Norway.<sup>116</sup>

The Soviet launch of Sputnik, the second Berlin Crisis, and the Cuban Missile Crisis shifted NATO toward a "flexible response" strategy.<sup>117</sup> In addition, the advent of intercontinental ballistic missile (ICBM) systems and SSBNs led to a nuclear arms race and the theory of Mutually Assured Destruction.<sup>118</sup> Therefore, increased significance was placed on surveillance of the High North and Arctic and led to the development of early warning systems to notify of incoming Soviet submarine and bomber activity or ICBM attacks. Most importantly, the Soviets achieving nuclear parity with NATO meant that conventional forces could no longer serve as a tripwire for nuclear retaliation but would need to be formidable enough to deter by themselves.

## **E. REINFORCEMENTS REQUIRED**

Norway was incapable of providing a conventional opposition to the Soviet forces stationed in High North. Even after a reduction in ground forces based in the Kola Peninsula area during the 1960s, two motorized rifle divisions and one Soviet Naval Infantry division remained. In 1960, the Soviet Union shot down an American U-2 reconnaissance plane headed to Bødo, and later an RB-47 over international waters of Kola

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<sup>114</sup> Hanson W. Baldwin, "100 Fighting Ships in Vast Exercise: Strongest Part of NATO Force in Norwegian Sea Is the Striking Fleet Striking Fleet Chief Unit Diffuse Commands Merged," *New York Times*, September 22, 1957.

<sup>115</sup> Dr Gregory W Pedlow, "The Evolution of NATO Strategy 1949–1969," NATO Strategy Documents (NATO, October 1997), XXVII–XX, <https://www.nato.int/docu/stratdoc/eng/intro.pdf>.

<sup>116</sup> North Atlantic Military Committee, "MC 14/2," Overall Strategic Concept for the Defense of the North Atlantic Treaty Organization Area (NATO, May 9, 1957).

<sup>117</sup> Pedlow, "The Evolution of NATO Strategy 1949–1969," XXII.

<sup>118</sup> William E. Odom et al., eds., *Getting MAD: Nuclear Mutual Assured Destruction, Its Origins and Practice* (Carlisle/Pa: Strategic Studies Institute, 2004).



brought ongoing tensions to the High North. Norway sought opportunities to use conventional forces to demonstrate both its will and capability to defend the region within the “flexible response” framework. A series of training exercises began that included forces, fighter aircraft, and torpedo boats from South Norway along with the newly created NATO Allied Command Europe Mobile Force (AMF).<sup>119</sup> Additionally, the Porsanger garrison was outfitted with tanks and self-propelled artillery, and the Norwegian 5th Brigade was established as the dedicated reinforcement for the region. The exercises increased in complexity and varied in size and location to demonstrate the capability to defend all Norwegian territory, including the Soviet territory bordering Finnmark.<sup>120</sup>

The Soviet response to NATO activity in the High North included accusations of provocative and escalatory behavior and exercises of its own. A 1968 exercise brought a Soviet mechanized division right to the Norwegian border in Sør-Varanger. At the same time, the Soviet-led Warsaw Pact exercise *Sumava* that took place in Czechoslovakia was used to exert military pressure on political leadership and quell liberalization reform.<sup>121</sup> Naval exercises *Sever* and *Okean* demonstrated the increased size and range of vessels assigned to the Northern Fleet, further highlighting Soviet perception of the region’s importance. The Northern Fleet build-up continued, and in addition to over 150 submarines, it included amphibious assault ships capable of delivering Soviet forces along the Norwegian coast. The bold ground force exercises and significantly increased naval capability led Norway to question previous assumptions of NATO’s maritime control and ability to reinforce the High North.

Without the certainty of NATO reinforcements arriving in time to prevent a Soviet incursion, Norway sought to improve its defenses during the *détente*. In 1970 Norway

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<sup>119</sup> Bjerga and Skogrand, “Securing Small-State Interests: Norway in NATO,” 231. “The AMF was multinational, lightly armed, and based on air transportation. It was composed of a land force of the size of a brigade, AMF (L), and an air force, AMF (A), which consisted of three fighter squadrons. The actual fighting capacity of these forces was clearly limited, but the Fire Brigade would serve as a useful deterrent against minor Soviet incursions on the flanks.”

<sup>120</sup> Tønne Huitfeldt, “Options and Constraints in the Planning of Reinforcements: A Norwegian Perspective,” in *Deterrence and Defense in the North* (Oslo, Norway: Norwegian University Press, 1985), 171–74.

<sup>121</sup> “The Warsaw Pact and the Czechoslovak Crisis of 1968,” *The Adelphi Papers* 9, no. 58 (June 1969): 11–15, <https://doi.org/10.1080/05679326908457182>.

prepositioned heavy equipment in Porsanger for a battalion group that could quickly reinforce from the south. Prepositioning was repeated in Troms for the 5th Brigade by 1975. The Norwegian plan was to have a sizeable enough presence in the High North that would require a Soviet attack comprised of more troops than could achieve surprise. A royal decree authorized a Norwegian mobilization effort that could raise nearly four brigades of the Home Guard in the High North alone. Including national reinforcements from the south, the Norwegian force defending the region could expand from 10,000 to more than 80,000 within five days. The security improvements of the High North served to deter any limited aggression and, if necessary, defend against Soviet forces long enough for Allied reinforcements to arrive.<sup>122</sup>

Norway was not alone in thinking about defense and prepositioning. In 1978 NATO approved a Long-Term Defense Program (LTDP) designed to improve defense capabilities and cooperation over the next five years.<sup>123</sup> The plan included an additional 80 billion dollars in defense spending and prioritized readiness, reinforcement and reserve forces, maritime posture, air defense, and interoperability. While the AMF participated in numerous High North exercises, the ACE Rapid Reinforcement Plan called for more heavily armed reinforcements. As a result, NATO dedicated the Canadian Air/Sea Transportable (CAST) Brigade Group and a U.S. Marine Amphibious Brigade (MAB) for contingency planning purposes to bolster Northern Norwegian defense forces (Figure 10). These units consisted of mechanized and motorized infantry, artillery, and engineering units, as well as fixed and rotary-wing squadrons. The rapid arrival of both the CAST and MAB to the High North along with aircraft carriers from Striking Fleet Atlantic would present a formidable deterrence to any Soviet aggression in the region.<sup>124</sup>

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<sup>122</sup> Huitfeldt, "Options and Constraints in the Planning of Reinforcements: A Norwegian Perspective," 174–78.

<sup>123</sup> Comptroller General, "NATO's New Defense Program: Issues for Consideration," Report to the Congress (Washington, D.C., March 13, 1979), <https://www.nato.int/docu/comm/49-95/c780518a.htm>.

<sup>124</sup> Johan Jørrgen Holst, "Norwegian Security Policy: The Strategic Dimension," in *Deterrence and Defense in the North* (Oslo, Norway: Norwegian University Press, 1985), 111–13.

Unit	Status	Available (days)
<i>Norwegian</i>		
Finnmark Infantry Regiment	Local/semi-active	0-1
Brigade North	Active	0-1
Brigade 14	Locally mobilized	1-2
Brigade 15	Locally mobilized	1-2
Brigade 5	Mobilized/airlifted	2-7
Brigade 6	Mobilized/airlifted	2-7
<i>Allied</i>		
Allied Mobile Force (Land)	Air & sealifted	2-6
UK/Dutch Royal Marines	Air & sealifted	7
4 Marine Amphibious Brigade	Air & sealifted	8-12
4 Marine Amphibious Brigade	Deployed by ship from U.S.	24-26

Figure 10. NATO Forces Likely Committed to North Norway<sup>125</sup>

## F. PREPOSITIONING

Strategic lift capacity was the limiting factor for designated North American NATO reinforcements. The U.S. exercise Nifty Nugget revealed significant shortcomings of the independently operating transportation agencies within the DOD.<sup>126</sup> The revelation resulted in the integration of lift capabilities and the Prepositioning of Material Configured to Unit Sets (POMCUS) program that staged complete gear sets overseas. For Norway, the MAB would become the Norway Air-Landed Marine Expeditionary Brigade (NALMEB) when a 1981 agreement was signed authorizing the prepositioning of equipment and munitions for the nearly 15,000 Marines. In the agreement, the NALMEB would store armor, artillery, air defense, bridging assets, trucks, and ammunition in underground caves constructed and maintained by the Norwegian government. Norway would additionally improve several roads to facilitate the movement of equipment from caves near Trondheim to meet the Marines who would arrive further north. The fly-in NALMEB air component

<sup>125</sup>Source: Lund, "Don't Rock the Boat," 66.

<sup>126</sup> United States Government Accountability Office, "Prepositioned Stocks: Marine Corps Needs to Improve Cost Estimate Reliability and Oversight of Inventory Systems for Equipment in Norway" (Washington, D.C., September 2015), 36, <https://www.gao.gov/assets/680/672594.pdf>.

would include the V/STOL AV-8B Harrier that could operate from damaged airfields if necessary. In addition, Marine Corps units increased deployments to the High North for training exercises, and during Teamwork 84, the Marines conducted amphibious operations above the Arctic Circle. The exercise of over 50,000 NATO personnel and 150 naval vessels was the largest the High North had seen in decades.<sup>127</sup>

The Soviet Union was also rapidly expanding its capabilities in the High North during the 1980s. The Northern Fleet modernized its submarines and tripled its air defenses on the Kola Peninsula. At the same time, the Leningrad TVD modernized its heavy bombers and tactical aircraft.<sup>128</sup> In addition, in 1981, the Soviet Union conducted its largest military exercise ever, Zapad 81, that displayed decentralized, Operational Maneuver Groups (OMGs), penetrating NATO's front line and targeting tactical nuclear weapons and supplies.<sup>129</sup> The exercise primarily focused on Central Europe but included the Northern Fleet operating near the GIUK Gap. While the penetration and rear-area tactics of the OMGs would be challenging to achieve in the High North with limited roads for maneuvering, it was yet another reminder of the changing threat Soviet forces posed.

The costly campaign in Afghanistan and miscalculated spending to maintain technological parity with the U.S. and NATO would contribute to the collapse of the Soviet Union. However, during the Cold War, both NATO and Soviet forces innovated and adapted their strategy for the High North. For NATO, prepositioning equipment reduced lift requirements and would facilitate Norway's rapid reinforcement, a previous vulnerability. In addition, securing the High North kept the Atlantic SLOC open and the focus on Central Europe. For the Soviet Union, maintaining the security of Bastion was

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<sup>127</sup> Marine Corps Command Center, "Operational Summary 8-84" (Washington, D.C.: United States Marine Corps, March 6, 1984), <https://www.usmccu.edu/Portals/218/HD/Status%20of%20Forces/1976-1985/March-April%201984.pdf?ver=2019-03-27-091937-123&timestamp=1553694952187>.

<sup>128</sup> Lund, "Don't Rock the Boat," 47-51. By 1989 Northern Fleet employed 39 SSBNs (SLBM numbers in parentheses): 5 Typhoon (100); 9 D-I (108); 4 D-II (64); 7 D-III (112); 4 D-IV (64). 235 Fighters: 45 Each of MiG-23, MiG- 25, MiG-31, Su-15, Su-27, 18 Yak-38 on land and 27 more on the carrier Kiev. AEW Aircraft: 9 Il-76 Mainstay, 6 Tu-126 Moss, and over 100 SA complexes and a long-range phased-array system at Olegorsk and an early warning site near Kovdov.

<sup>129</sup> Kyle Mizokami, "Why Russia's Massive Zapad Military Exercises Scare the World," Text, The National Interest (The Center for the National Interest, April 16, 2017), <https://nationalinterest.org/blog/the-buzz/why-russias-massive-zapad-military-exercises-scare-the-world-20199>.

critical for nuclear deterrence. Improvements in naval forces, air defenses, and SLBMs ensured the strategic capability and regional sovereignty remained intact. Thirty years after the Cold War, NATO and Russian priorities in the High North remain relatively unchanged. Will NATO's pursuit of credible deterrence in the region follow a similar path in the future?

## **IV. MARINE CORPS HISTORY IN NORWAY**

The relationship between the Marine Corps and Norway, built mainly upon necessity and compromise, has grown into one of mutual benefit and understanding. With limited NATO forces available outside of Central Europe following World War II, the Marine Corps revealed additional capacity. Moreover, Norway's restriction on basing foreign military made the reinforcement by expeditionary Marines both practical and politically acceptable. Throughout their 70-year relationship, the Marine Corps and Norway had learned many invaluable lessons, many of which are just as relevant today as when they were first discovered. Therefore, it is important to examine those enduring lessons, such as the significance of improving interoperability and cooperation, how process improvements can lead to a more rapid reinforcement capability, and the critical importance of Arctic operational capability, all of which increased deterrence in the High North.

### **A. IMPROVING INTEROPERABILITY AND COOPERATION**

#### **1. Mission, Command, and Organization**

Norway joined NATO in pursuit of a collective security guarantee right as member nations were dramatically downsizing following World War II. Having fought almost entirely in the Pacific Theater, the Marine Corps did not have a postwar role in Europe and was therefore available for contingency tasking. As a result, Fleet Marine Force Atlantic (FMFLANT) was slated for service in Europe but lacked a clearly defined mission. Upon taking over as Commanding General of FMFLANT in 1951, Lieutenant General Graves B. Erskine discovered the extent of what was known of FMFLANT's mission was nothing more than "be prepared to land in Europe in support of NATO forces within ten days."<sup>130</sup> The revelation prompted General Erskine to fly to Europe to meet with General Matt Ridgway, Supreme Allied Commander Europe (SACEUR), to clarify just what the Marines would be asked to do. When asked about FMFLANT's mission, General Ridgway's

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<sup>130</sup> Graves B. Erskine, General Graves B. Erskine Oral History, interview by Benis M. Frank, 1975, 544, [https://www.usmcu.edu/Portals/218/Gen%20Graves%20B\\_%20Erskine.pdf](https://www.usmcu.edu/Portals/218/Gen%20Graves%20B_%20Erskine.pdf).

response was, “Goddamn it. I didn’t know that you were available to us. How many Marines you got?” Which prompted General Erskine to respond, “Christ, I said, I have 50,000 Marines, 450 airplanes, two wings, one wing not completed, the third wing down in Florida.”<sup>131</sup> The remainder of the trip revealed to General Erskine that not only did his Marines lack a clear mission, but organization and command relationships were still ambiguous once in the theater. What became clear was that if the Marine Corps was going to fulfill a role in Europe, it needed much better coordination with SACEUR and NATO staff.

Following Vietnam, the Marine Corps further clarified its role in the High North and tailored a better-equipped force to respond to its commitments. In the 1970s, the 4th Marine Amphibious Brigade (MAB) became a permanent fixture of FMFLANT after it became evident that composite MAGTF headquarters were preventing effective coordination with joint and allied partners. The discovery led to a MAGTF headquarters at NATO Northern Command that strengthened the direct relationship between the Marine Corps and the Norwegian Armed Forces. What resulted was a steady progression in exercises that began at the company level and worked up to the Marine Amphibious Force (MAF) size. As the exercises increased in complexity, they built confidence in the U.S. Navy, who were previously reluctant to deliver Marines as far north as the Kola Peninsula.<sup>132</sup> The harsh environment and challenging mission brought the Navy-Marine Corps team together and established a mutual appreciation for how difficult a task the Norwegians faced with deterrence in the High North.

As the relationship between the NAF and MAB strengthened, so did their understanding of each other’s capabilities. While the Marine Corps could provide a sizeable force for reinforcement, it lacked the cold-weather skills and equipment necessary

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<sup>131</sup> Erskine, 548.

<sup>132</sup> Robert H. Barrow, General Robert H. Barrow Oral History, interview by Edwin H. Simmons, 2015, 405, [https://www.usmcu.edu/Portals/218/Gen%20Graves%20B\\_%20Erskine.pdf](https://www.usmcu.edu/Portals/218/Gen%20Graves%20B_%20Erskine.pdf). “I also might add that this [was] the one time that my Navy friends had some reluctance in taking Marines that far north, because it’s up near Kola Peninsula [Russia]. It’s up in the part that they view as being rather inhospitable. But after they had one exercise experience and saw what we could do and later saw a role for Marine air to work in concert with naval strike forces at sea, that they warmed up to the idea, and we never had the problems about Navy reluctance thereafter.”

for operating in the High North. The NAF excelled in cold-weather operations and regularly hosted forces from the U.S., Canada, United Kingdom, and the Netherlands for Arctic training outside of scheduled exercises. The Marine Corps had quickly evolved into the premier amphibious fighting force able to project combat power ashore rapidly. During Teamwork 84, these forces combined for the largest amphibious landing NATO had ever conducted above the Arctic Circle (Figure 11).<sup>133</sup> The exercise demonstrated the flexibility and effectiveness of Marine air and how it would transition from Navy control to that of the Commander Air North Norway (ComAirNoN) operations center and radar systems. A new and offensive-minded Maritime Strategy took hold in the late 1980s that increased the size and rapid nature of the exercises.<sup>134</sup> By 1987, interoperability in the High North reached new heights as Brigadier General Matthew B. Caulfield became the first Marine to command an Allied <sup>135</sup> in Norway when he led 4th MAB, British, and Norwegian forces during exercise Cold Winter. The development of the Marine Corps' High North mission, efforts to enhance cooperation, and formalization of command and control in practice all contributed to the strategic objective of deterring Soviet aggression in the region.

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<sup>133</sup> Norman H. Smith, "Arctic Maneuvers," *Marine Corps Gazette*, 12/84. "The 4th MAB, with 11,000 Marines and sailors, landed across Red, White, and Green beaches along the Malangen Fjord, while the 3,000-man United Kingdom/Netherlands (UK/NL) Landing Force landed on Orange and Blue beaches along the Bals Fjord."

<sup>134</sup> Lee Baggett Jr., "U.S. Maritime Strategy," in *NATO and U.S. Maritime Strategy: Diverging Interests or Cooperative Effort*, ed. Ellmann Ellingsen (Oslo, Norway: The Norwegian Atlantic Committee, 1987), 5–8. The U.S. Maritime Strategy aimed to deny the Soviet Union the ability to concentrate its forces that it desired to use, along with combined arms, to achieve a quick and decisive victory in Europe. The U.S. would do this by challenging the Soviet Union with maritime forces away from Central Europe. NATO exercise Northern Wedding '86 in Norway involved 35,000 troops, 150 ships, and hundreds of aircraft demonstrated NATO's ability to resist aggression in the Atlantic, Baltic, and Norwegian Sea areas. In Teamwork 88, 4th Marine Expeditionary Brigade joined more than 45,000 forces from nine other nations in North Norway.

<sup>135</sup> Marine Corps History Division, "Chronologies of the Marine Corps," Marine Corps University, n.d., <https://www.usmcu.edu/Research/Marine-Corps-History-Division/Research-Tools-Facts-and-Figures/Chronologies-of-the-Marine-Corps/>. Chronologies - 1987



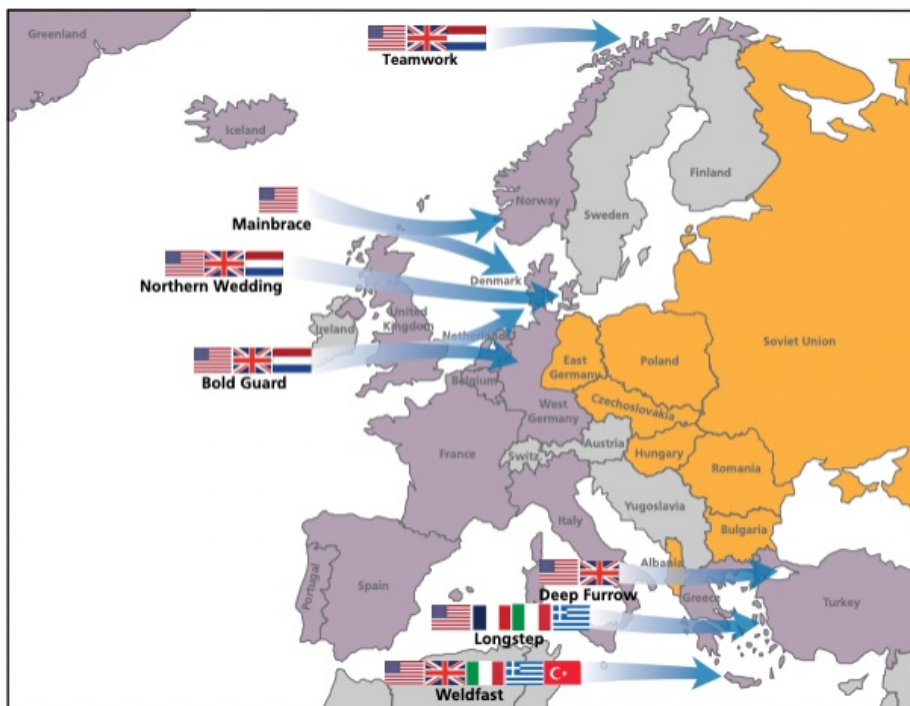


Figure 11. NATO Cold War Exercises<sup>136</sup>

## 2. Post-Cold War Deterrence

The fall of the Soviet Union dramatically reduced the threat posed to the High North and lowered NATO’s emphasis on deterrence in the region. As previously detailed, Russian defense spending and investment in the Arctic fell to a point where equipment and infrastructure crumbled. During the 1990s, the Marine Corps’ investment in its High North mission waned as well. As the frequency and size of exercises decreased, it led to a composite force of mainly reserve Marines participating in Battle Griffin 96.<sup>137</sup> While the NALMEB was still a capable force, the two decades following the end of the Cold War

<sup>136</sup>Source: J.D. Williams et al., *Unlocking NATO’s Amphibious Potential: Lessons from the Past, Insights for the Future* (RAND Corporation, 2020), <https://doi.org/10.7249/PEA695-1>.

<sup>137</sup> Marine Corps History Division, “Chronologies of the Marine Corps.” Chronologies – 1996 “More than 4,200 Marine reservists from 38 different states participated in Exercise Battle Griffin 96 held in Norway. It was the largest Marine Reserve exercise scheduled for 1996.”

contrasted the progress made in the 1980s and signified a reduction in the mission's priority for Marine planners.<sup>138</sup>

Russia's 2014 Crimea incursion and the subsequent European Reassurance Initiative renewed the Marine Corps' role in the High North.<sup>139</sup> Starting in 2017, company to battalion size units deployed a rotational force to Norway, focusing on interoperability, cold-weather training, and signaling a renewed commitment to the region. The rotational forces worked closely with NAF counterparts to increase interoperability, develop unit standard operating procedures (SOPs), and experiment with emerging systems and concepts. Exercises such as Trident Juncture 18, the largest since the Cold War, included the rotational force along with the 24th MEU and explored alternative maritime delivery platforms made available with Norway's Total Defence Concept.<sup>140</sup> Russia felt compelled to conduct a missile test and employ electronic warfare during Trident Juncture to respond to the increased NATO activity in the region.<sup>141</sup> Those threats are only a portion of what a Marine force operating in the region needs to learn to contend with. Despite the progress and Norwegian support for heel-to-toe rotations, in 2020, the Marine Corps announced that it would move from rotational to episodic deployments. A less frequent presence could challenge the Marine Corps' ability to pursue objectives in the region, specifically its interoperability with NAF and NATO allies.

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<sup>138</sup> Marine Corps History Division. 5 February 1988- The Marine Corps replaced the "amphibious" with "expeditionary" in its fighting formations to signify that it would "not be limited to amphibious operations but rather be capable of a wide spectrum of deployment and employment options."

<sup>139</sup> Office of the Under Secretary of Defense, *European Reassurance Initiative: Department of Defense Budget Fiscal Year (FY) 2018* (Washington, D.C.: Department of Defense, 2017), [https://comptroller.defense.gov/Portals/45/Documents/defbudget/fy2018/fy2018\\_ERI\\_J-Book.pdf](https://comptroller.defense.gov/Portals/45/Documents/defbudget/fy2018/fy2018_ERI_J-Book.pdf). The 2017 and 2018 budget requests included over \$30 million to Enhance Marine Corps Prepositioning and \$47.9 million for USMC Rotational Force Support used "to increase the scope and size of engagements with NATO Allies and partners conducted throughout the theater."

<sup>140</sup> SHAPE Public Affairs Office, "Exercise Trident Juncture 18 - Total Defence Concept," [shape.nato.int](https://shape.nato.int/news-archive/2018/exercise-trident-juncture-18-total-defence-concept.aspx), accessed November 8, 2021, <https://shape.nato.int/news-archive/2018/exercise-trident-juncture-18-total-defence-concept.aspx>.

<sup>141</sup> Gerard O'Dwyer, "Finland, Norway Press Russia on Suspected GPS Jamming During NATO Drill," *Defense News*, November 16, 2018, <https://www.defensenews.com/global/europe/2018/11/16/finland-norway-press-russia-on-suspected-gps-jamming-during-nato-drill/>.

## **B. RAPID REINFORCEMENT THROUGH PROCESS IMPROVEMENT**

### **1. Norway Air-Landed Marine Expeditionary Brigade**

In the Cold War, amphibious assaults were decidedly ancillary to the center of the action, which would occur in the heart of Europe. They remained important but primarily because they defended NATO's flank and drew attention away from the front rather than reinforcing it. Opposed amphibious landings (and therefore, the Marine Corps) were simply no longer the strategic centerpiece, replaced instead by rapid reinforcement of on-site forces in the center of Europe.<sup>142</sup>

In the late 1970s, the U.S. began a significant shift in countering threats posed by the Soviet Union and Third World states. The strategy involved rapidly deploying forces to NATO's flank, Southeast Asia, or the Middle East without diverting troops based in Korea or Europe. To support the strategy, the Rapid Deployment Joint Task Force (RDJTF) was created, and preposition stocks were staged near potential conflict areas or aboard Military Sealift Command ships. The RDJTF and an increased focus on the Middle East had a dramatic effect on the Marine Corps for two reasons: first, it aligned the entire 1st Marine Division and accompanying amphibious shipping to the mission, and second, it moved the Marine Corps to a "larger and bulkier" force that upgraded its tanks, acquired the Light Armored Vehicle (LAV), and threatened programs such as the AV-8B due to cost constraints.<sup>143</sup> In addition, however, the preposition stocks could solve the sealift shortage that was challenging 4th MAB's ability to reinforce Norway.

A 1979 review of the readiness of II MAF revealed that despite the focus on Europe, the Corps' priority force for reinforcement had fewer ships than necessary to carry out the mission. The ships were allocated equally between the Atlantic and Pacific to support the Corps' view of "being ready to deploy rapidly to any part of the world where U.S. interests are threatened."<sup>144</sup> However, this was not entirely accurate as over 70 percent of operating

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<sup>142</sup> Commander Gregory J Parker, "Seabasing Since the Cold War," 21st Century Defense Initiative at Brookings (Brookings, June 30, 2010), 15.

<sup>143</sup> Elmer B. Staats, *Marine Amphibious Forces: A Look at Their Readiness, Role, and Mission*, LCD-78-417A (Washington, D.C.: United States General Accounting Office, 1979), 5-7, <https://www.gao.gov/assets/lcd-78-417a.pdf>.

<sup>144</sup> Staats, 15.

costs and 60 percent of personnel were allocated to the Pacific.<sup>145</sup> To overcome the sealift shortage, an agreement was made with the Norwegian government to pre-stage materials to support a task force over roughly 13,000 Marines and 155 aircraft.<sup>146</sup> Per the Memorandum of Understanding (MOU), the Marines would fly to airfields in central and northern Norway and meet equipment pulled from secure caves that were staged in anticipation of their arrival (Figure 12). In addition to constructing the caves, the Norwegian government agreed to shoulder roughly half of the annual operating costs and maintain at least 90 percent readiness of the staged equipment. Norway would also provide transportation for the Marines, including 150 BV-206 tracked carriers that Marine operational units do not possess.<sup>147</sup> Exercise Battle Griffin in 1991 was the first full test of the NALMEB and was successfully conducted using primarily Marine Reservists. The only one of its kind for the Marine Corps, this prepositioning arrangement, and the commitment the agreement demonstrates to the Norwegian defense, explains the government's desire to support and partially fund the program.

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<sup>145</sup> Staats, 8.

<sup>146</sup> John Landicho, *Status of the Marine Corps Prepositioning Program in Norway*, GAO/NSIAD-89-110 (Washington, D.C.: United States General Accounting Office, 3/89), <https://www.gao.gov/assets/nsiad-89-110.pdf>.

<sup>147</sup> Ulriksen and Østensens, "Building on Strength: Proposals for US-Norwegian Cooperation on the Operational and Tactical Level," 11. The initial agreement was to preposition "24 155-mm howitzers and their prime movers, bridging equipment, motor transport (approximately 250 trucks with about 100 trailers), ammunition, fuel, and food." It additionally called for the U.S. to make two batteries of I-Hawk missile systems available that Norway would pay to maintain and for any missiles used. The Marine Corps only operates the Bandvagn 206 (BV 206) at its Mountain Warfare Training Center.

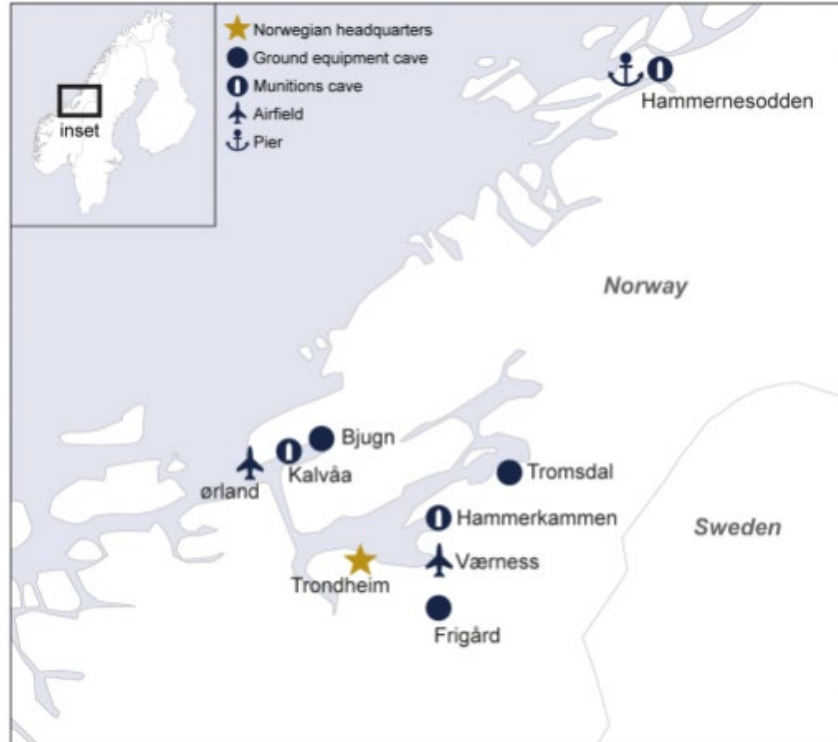


Figure 12. MCPP-N Storage and Maintenance Locations<sup>148</sup>

## 2. Marine Corps Prepositioning Program—Norway (MCPN)

The end of the Cold War did not eliminate the need for pre-staged equipment in the High North. As NATO allies reduced their militaries and withdrew from exercises such as Battle Griffin 1993, officials in the Norwegian military began to question once again the level of support they could expect during a contingency.<sup>149</sup> Despite the reduced U.K. and Dutch participation, 3500 Marines participated in Battle Griffin 93, and another 4200 reservists did so in 1996. The continued involvement reaffirmed the U.S. and Marine Corps’ commitment to the High North. However, in 2005 the MOU Governing Prestockage and Reinforcement of Norway was modified, renaming to MCPN and allowing the Marines to use the equipment

<sup>148</sup>Source: United States Government Accountability Office, “Prepositioned Stocks: Marine Corps Needs to Improve Cost Estimate Reliability and Oversight of Inventory Systems for Equipment in Norway.”

<sup>149</sup> DIA Washington, DC, “NATO Support for Exercise Battle Griffin 1993” (official telegram, Washington, D.C., Defense Intelligence Agency, 1993), <https://www.dia.mil/FOIA/FOIA-Electronic-Reading-Room/FileId/161563/>.

stored in the caves outside of Norway. Through 2014, the equipment would ultimately be used in training and operations in Europe, Africa, Iraq, and Afghanistan.<sup>150</sup>

## C. CRITICAL IMPORTANCE OF ARCTIC OPERATIONAL CAPABILITY

### 1. Cold Weather Training

On a bitter, cold night during the Korean War, a U.S. Marine sentry, huddling in a ditch alongside a road near the Chosin Reservoir, peered nervously into the darkness. In the stillness he heard a rhythmical “click-clack, click-clack,” slowly becoming louder and louder. Not knowing what the sound could be, he waited, his finger on the trigger. The noise came closer until, around the corner, staggered a dazed Chinese soldier walking on bare feet, frozen so hard that they clattered on the road with each step.<sup>151</sup>

Military cold-weather operations’ historical accounts and doctrine often include vignettes to illustrate the dramatic effect the natural environment has on the outcome of a war. For the Marine Corps, the most drawn upon cold weather example is the Korean War and stories of bravery at the “Frozen Chosin (Reservoir).”<sup>152</sup> However, Marine Major Sean Lynch, while analyzing the Marines’ future High North role, highlighted that nearly one-third of 1st Marine Division became a non-battle casualty during the Korean War, in which most victims succumbed to cold-weather injuries. Had it not been for a much worse prepared Chinese, an estimated 70 percent of which suffered frostbite, the outcome of the battle and war could have been much different.<sup>153</sup> As a result, the U.S. made improvements mid-war that included issuing better cold-weather gear and dedicated training from the newly formed Cold Weather Battalion, which in 1963 would become the Mountain Warfare Training Center

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<sup>150</sup> United States Government Accountability Office, “Prepositioned Stocks: Marine Corps Needs to Improve Cost Estimate Reliability and Oversight of Inventory Systems for Equipment in Norway,” 10.

<sup>151</sup> Eric Hammel, *Chosin: Heroic Ordeal of the Korean War* (Navato, California: Presidio Press, 1994).

<sup>152</sup> Edwin H. Simmons, *Frozen Chosin: U.S. Marines at the Changjin Reservoir*, Korean War Commemorative Series (Washington, D.C.: U.S. Marine Corps Historical Center, 2002), <https://www.usmcu.edu/Portals/218/Frozen%20Chosin%20US%20Marines%20at%20the%20Changjin%20Reservoir%20%20PCN%2019000410000.pdf>. The Korean War took place from 1950–1953.

<sup>153</sup> Sean Lynch, “‘Can-Do’ Won’t Do in Norway,” *Leatherneck*, September 1978.

(MWTC).<sup>154</sup> Despite the improvements, the cold weather continued to plague Marines throughout the war. Lynch cautioned that failing to acknowledge not only how poorly trained the Marines were for the conflict but also how much worse the Chinese were could result in repeating historical mistakes in the High North.

Russia's history with cold-weather warfare runs much deeper than that of the U.S. and especially the Marines. "General Winter" humiliated Napoleon during his retreat from Moscow and later the Soviets with the destruction of the 44th Motorized Rifle Division at the hands of the Finns in Suomussalmi.<sup>155</sup> In 1941, Russia would learn from its experience with the Finns and employ ski troops of their own to defeat the Germans, who were so poorly equipped for winter warfare that they were stuffing newspaper into their uniforms and burning precious gasoline for warmth.<sup>156</sup> Dr. Allen F. Chew analyzed the 19th and 20th-century Russian winter conflict and determined that Russia could have avoided the Winter War defeat that it learned from its experiences near Arkhangelsk. To illustrate the enduring factors, Dr. Chew outlined the following corollaries:

- Mobility and logistical support are restricted. Roads and runways can only be kept open by plowing or compacting the snow. Cross-country transport—if possible at all—requires wide-tracked vehicles or sleds.
- Infantrymen moving through deep snow rapidly become exhausted.
- Extended marches require skis or at least snowshoes.
- Without special lubricants, firearms and motors may freeze up and become inoperative at sub-zero temperatures.
- Human efficiency and survival require adequate shelter. If not available locally, portable shelter must be provided.
- Frostbite casualties may exceed battle losses unless troops wear proper clothing, including warm gloves and footgear.

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<sup>154</sup> Orlo K. Steele and Michael I. Moffett, *U.S. Marine Corps Mountain Warfare Training Center 1951–2001*, Marine Corps Base and Training Center History (Washington, D.C.: History Division United States Marine Corps, 2011), <https://www.usmcu.edu/Portals/218/MWTC%201951-2001%20PDF.pdf>.

<sup>155</sup> Dr. Allen F. Chew, "Fighting the Russians in Winter: Three Case Studies," *Combat Studies Institute*, Leavenworth Papers, 5 (December 1981): 43, <https://www.armyupress.army.mil/Portals/7/combat-studies-institute/csi-books/chew.pdf>. "General Winter" is used to describe the outsized role that cold weather plays during a winter war in Russia.

<sup>156</sup> Bruce C Paton, "Cold, Casualties, and Conquests: The Effects of Cold on Warfare," in *Medical Aspects of Harsh Environments*, vol. 1 (Washington, D.C.: Department of the Army, 2001).

- Speedy removal of the wounded from the battlefield to shelter is essential to prevent even minor wounds from resulting in death from exposure.<sup>157</sup>

While the Marine Corps continued to improve its cold weather proficiency following the Korean War, it was still incapable of fielding a necessary-sized force prepared to fight in the Arctic. Despite participating in five Norwegian exercises in fewer than three years, no real proficiency was gained as Marine units involved would change each time which frustrated NATO partners.<sup>158</sup> Any preparation for High North exercises was focused primarily on familiarization and survival. Should the NALMAB be deployed, it would be the only force in the High North unable to ski with ease, including the Russians the NATO force intends to deter. Instead, the Marines would be in slower and less maneuverable snowshoes that can be taught more quickly to those with limited experience in the snow. As a result, Marine units were relegated mainly to security along roads due to their lack of training and over-snow mobility. Several conferences and studies on the Marine Corps' cold-weather capability led to implementing a series of changes in both cold-weather training and equipment.<sup>159</sup> A significant investment was made into upgrades at MWTC that, in turn, dramatically improved the training offered to fleet units.<sup>160</sup>

## 2. Continuity in the Cold

Following Cold Winter 85, Norwegian Brigadier General Lerheim highlighted a dramatic change in the performance of the Marines. "Before, when I have seen your Marines here, they have been huddled in the cold. Now they are confident and moving across the snow.

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<sup>157</sup> Chew, "Fighting the Russians in Winter: Three Case Studies."

<sup>158</sup> John Vinocur, "U.S. Marine Units Struggle to Cope with Norway's Arctic: Two U.S. Companies Participate U.S. Role Called Essential Longer Training Urged," *New York Times*, 1979.

<sup>159</sup> Jerry L. Durrant, "In Every Clime and Place: USMC Cold Weather Doctrine" (Fort Leavenworth, KS, School of Advanced Military Studies, 1991). Marines of 1st Battalion 2nd Marines wore GoreTex during Cold Winter 1985.

<sup>160</sup> Steele and Moffett, *U.S. Marine Corps Mountain Warfare Training Center 1951–2001*, 110–11. By mid-summer 1984, MWTC "reached the peak of its increased capabilities" and each year was training one infantry battalion for two months and one reserve battalion for two weeks in cold weather operations. Additionally, MWTC was conducting one "Grade A" and four "Grade B" Winter Mountain Leader Courses, with each up to 30 students, that provided additional training to select Marines to serve as instructors and assistant instructors within their own battalions. MWTC also conducted Cold Weather Medicine and Senior Officer Winter Planning courses



Your ability to ski this year has added a new dimension to U.S. Marines operations in Norway.”<sup>161</sup> Many of the same Marines who conducted a skiborne night movement to envelop the rear positions of the opposing forces received their introductory ski training in the grass of Camp Lejeune the previous year. However, by the time the Marines of First Battalion, Second Marine Regiment arrived in Norway for exercise Cold Winter 85, they had already conducted over two months of cold-weather training. GoreTex-clad Marines were expertly inserted well behind enemy lines by the same helicopter squadron they had trained with during Alpine Winter in the sub-zero temperatures months before.<sup>162</sup>

The 4th MAB units that participated in Cold Winter 85 were among the most experienced in cold weather operations the Marine Corps had to offer. Second Marine Regiment had trained in Norway the past three years, and its first and second battalions had two and three deployments to the High North in the previous five years.<sup>163</sup> The Marines learned to operate with less gear and still reduced cold-weather injuries to just one of the nearly 1,500 who participated. A surprise wintertime attack by the Soviet 6th Army’s motorized rifle divisions is often considered a worst-case scenario for the High North.<sup>164</sup> The NATO force aligned to oppose that threat, which now included a growing portion of cold-weather proficient Marines quickly arriving by air, presented a much stronger deterrence. General Richard Larson, CINCNORTH, commended the Marines for the improvement. “It is quite proper that you be singled out among the forces operating here, because after Cold Winter 85, you are no longer simply brave Marines in funny boots. You are true Arctic warriors.”<sup>165</sup>

For Cold Winter 85 to be considered the high-water mark for Marine Corps cold weather proficiency, a loss of institutional memory since the exercise must be implied. While significant progress continued at the brigade and regimental levels, the experience level of the

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<sup>161</sup> Fred Carr, “Cold Winter 85,” *Marines*, August 1985.

<sup>162</sup> M. F. Clough, “‘Good to Go’ Arctic Warriors,” *Marine Corps Gazette* 69, no. 9 (September 1985): 65–70.

<sup>163</sup> Carl E Mundy Jr., “Training in Arctic Warfare,” *Marine Corps Gazette*, 9/85.

<sup>164</sup> Crookston, “Marine Corps Roles and Missions a Case for Specialization.”

<sup>165</sup> Clough, “‘Good to Go’ Arctic Warriors.”

Marines physically operating in the cold declined. By 1987, only 11 percent of First Battalion, Second Marines had any cold-weather training, a statistic shared by any unit that went more than two years without refresher training.<sup>166</sup> While the Commanding General and future Commandant, Al Gray, wished that “every battalion in the Second Marine Division would go through Bridgeport every year,” it was not supportable with the two cold-weather mountain exercises (MTX).<sup>167</sup> Instead, Second Marine Division battalions rotating through the assignments to Norway in the late 1980s would start the cold-weather training progression with decreasing numbers of Marines with any cold-weather experience.

The 1990s saw a growing percentage of units training in Norway coming from the Marine Reserve. While just about anywhere in the U.S. is more similar to Norway than the bases of active-duty Marine infantry battalions, reserve units not activated were limited in their training opportunities. Unfortunately, the same pattern of cold-weather experience atrophy has resurfaced since the renewed Marine presence in 2016. The battalions slated for cold-weather deployments to Norway conduct a winter MTX prior, gain the experience and proficiency of the deployment, and return only to turn over the majority of the unit. History clearly shows the impact of cold-weather proficiency in both training exercises and war. While not all militaries can afford to specialize, the danger that faces the ill-prepared carries an even greater cost. While discussing the importance of MWTC, Major General Thomas S. Jones captured the need to experience cold weather firsthand. “You can’t simulate cold. You can’t simulate fear. You have to experience these things—experience them and learn from them.”<sup>168</sup> No matter the future role of the Marine Corps in the High North the Arctic conditions there will factor into operations. History shows that the better Marines are better prepared to operate in that challenging environment the greater they contribute to the NATO mission in the High North.

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<sup>166</sup> Crookston, “Marine Corps Roles and Missions a Case for Specialization.” “Within eight months of conducting cold weather training and participating in an exercise in Norway, a unit’s turnover can exceed 60 percent.” “By the same unit not returning each year, a loss of 90 percent or more of its experienced members can be expected.”

<sup>167</sup> Steele and Moffett, *U.S. Marine Corps Mountain Warfare Training Center 1951–2001*, 97.

<sup>168</sup> Steele and Moffett, 141.

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## V. MARINE CORPS FUTURE ROLE IN THE HIGH NORTH

### A. CONSIDERATIONS

#### 1. Russian Threat

Russia's Arctic ambitions are running into similar financial problems as they did at the end of the Cold War. Drilling on the still-contested Arctic shelf is expensive. Some estimates figure as much as 27 times the cost of doing so on land, while the break-even cost estimates for oil vary between \$70-100 per barrel.<sup>169</sup> The loosening of Russia's environmental regulations to lower the costs for its oil-extracting enterprises has the potential to make its natural energy extractions less palatable in the current environment in which the E.U., U.S., and China have all made declarations to lower carbon emissions.<sup>170</sup> Costly new developments such as the next generation of submarines, hypersonic missiles, and Arctic infrastructure upgrades have all contributed to the rise in Russia's defense budget.<sup>171</sup> Russia's domestic issues have led to a "brain drain" that has hindered Arctic and military engineering progress.<sup>172</sup> In addition, ongoing energy disputes with Europe

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<sup>169</sup> Amina Chanyshева and Alina Ilinova, "The Future of Russian Arctic Oil and Gas Projects: Problems of Assessing the Prospects," *Journal of Marine Science and Engineering* 9, no. 5 (May 2021): 528, <https://doi.org/10.3390/jmse9050528>.

<sup>170</sup> Sergey Sukhankin, "Russia's New 'Arctic Offensive': Do the Benefits Outweigh the Costs?," The Jamestown Foundation, March 2, 2021, <https://jamestown.org/program/russias-new-arctic-offensive-do-the-benefits-outweigh-the-costs-part-two/>.

<sup>171</sup> Jim Inhofe, "Combined China and Russian Defense Spending Exceeds U.S. Defense Budget | RealClearDefense," May 3, 2021, [https://www.realcleardefense.com/articles/2021/05/03/combined\\_china\\_and\\_russian\\_defense\\_spending\\_exceeds\\_us\\_defense\\_budget\\_775323.html](https://www.realcleardefense.com/articles/2021/05/03/combined_china_and_russian_defense_spending_exceeds_us_defense_budget_775323.html). Russia's defense budget using purchasing power parity is nearly \$200 million and over 4 percent of its GDP and half its state spending.

<sup>172</sup> Uliana Pavlova, "5 Million Russian Citizens Left Russia Under Putin," *The Moscow Times*, October 13, 2021, <https://www.themoscowtimes.com/2021/10/13/5-million-russian-citizens-left-russia-under-putin-a75246>. A survey found that "one in five Russians wanted to emigrate with younger people twice as likely to want to emigrate than older Russians... (Of those who left) (55%) left Russia when they were between the ages of 20 and 40. They were also very well-educated: 92% had a university degree and 14% had a Ph.D."

could weaken the Russian position when negotiating energy exports to China.<sup>173</sup> Ultimately, Russia has no shortage of challenges in the Arctic and does not need an excuse to further increase its already growing alignment with China.<sup>174</sup>

Russia does not possess the resources nor the desire to compete directly with the U.S. or NATO. Unlike the 1980s, where mass was the predominant threat, today, the Russian military is more maneuverable and industrious, while their mobilization and asymmetric capabilities present a far greater threat. As a current example, large and unannounced troop buildups have occurred twice along the Ukrainian border in 2021. The ambiguous nature of the mobilizations creates opportunities for miscalculation similar to 2008, where Georgia fell victim to the “bear trap.”<sup>175</sup> The High North is no exception to provocation from Moscow. Northern Fleet aircraft have simulated attacks on the radar station in Vardo and NATO vessels in the Norwegian Sea. During Zapad 17, Iskander missiles were staged, and GPS jamming occurred near Finnmark. Each major exercise contains missile launches and amphibious assaults on objectives resembling Svalbard.<sup>176</sup> However, Russian military demonstrations and infrastructure improvements in the Arctic should not prompt NATO to increase tensions through Freedom of Navigation Operations (FONOPs) or a rapid buildup of its own, as some might suggest.<sup>177</sup>

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<sup>173</sup> Filip Medunic, “Russia’s ‘Gas Pivot’ to Asia: How Europe Can Protect Itself and Pursue the Green Transition,” European Council on Foreign Relations, October 27, 2021, <https://ecfr.eu/article/russias-gas-pivot-to-asia-how-europe-can-protect-itself-and-pursue-the-green-transition/>. As China’s demand rises Russia continues to invest in production and pipeline facilities. If European imports dramatically fall, from use of renewables or another LNG provider, Russia will become increasingly dependent upon China, who has also invested in Arctic LNG projects.

<sup>174</sup> Mark Episkopos, “Is This the Start of a Russia-China Military Alliance?,” *The National Interest* (The Center for the National Interest, August 1, 2021), <https://nationalinterest.org/blog/buzz/start-russia-china-military-alliance-190866>.

<sup>175</sup> Michael Kofman, “The August War, Ten Years On: A Retrospective on the Russo-Georgian War,” *War on the Rocks*, August 17, 2018, <https://warontherocks.com/2018/08/the-august-war-ten-years-on-a-retrospective-on-the-russo-georgian-war/>.

<sup>176</sup> Thomas Nilsen, “Northern Fleet Exercises in Parallel with Zapad-2021,” *The Barents Observer*, September 15, 2021, <https://thebarentsobserver.com/en/security/2021/09/franz-josef-land-kola-northern-fleet-fights-simulated-enemy-parallel-zapad-2021>.

<sup>177</sup> David Auerswald, “Now Is Not the Time for a FONOP in the Arctic,” *War on the Rocks*, October 11, 2019, <https://warontherocks.com/2019/10/now-is-not-the-time-for-a-fonop-in-the-arctic/>.

The Russian threat to the High North has primarily remained the same for the last 70 years; only now, the weapons have changed. The Northern Fleet's modernizing submarines and missile-laden frigates will continue to present a greater risk to the North Atlantic SLOC and, therefore, NATO. Threats to High North airfields, bases, aircraft, and vessels now include Kalibr, S-400, and eventually Zircon missiles.<sup>178</sup> Lastly, with its upgraded equipment and recent operational experience, the Russian Arctic Brigade remains capable of a Finnmark incursion or Svalbard seizure.<sup>179</sup> However, despite the capabilities demonstrated, Russia struggles to produce and maintain the costly connectors that will ensure its multi-million dollar hypersonic or short production Kalibr missiles hit their intended targets.<sup>180</sup> Ultimately, for Russia, if costs exceed opportunity, the Arctic may prove to be a case of ambition gone awry.

## 2. Norway's Balancing Act

Norway is in an all too familiar place as it finds itself trying to manage its security interests shared with its Nordic neighbors, defense alliance with NATO, and peaceful coexistence with Russia. Following the 2014 Crimea incursion, Norway's relationship with Russia entered a "cooling off" period as Norway suspended bilateral military cooperation and talks between the countries were dramatically reduced.<sup>181</sup> The Nordic Defence Cooperation (NORDEF), which focuses on "smart defense," has been an effective

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<sup>178</sup> Alain Henry de Frahan, "Analysis: Tsirkon Hypersonic Missile Will Increase Russian Navy Capabilities," *Navy Recognition*, October 23, 2021, <https://www.navyrecognition.com/index.php/focus-analysis/naval-technology/10891-analysis-tsirkon-hypersonic-missile-will-increase-russian-navy-capabilities.html>.

<sup>179</sup> Pavel K. Baev, "Threat Assessments and Strategic Objectives in Russia's Arctic Policy," *The Journal of Slavic Military Studies* 32, no. 1 (January 2, 2019): 25–40, <https://doi.org/10.1080/13518046.2019.1552662>. "Besides training and exercises, many units of the Arctic Command have gained real combat experience in the course of recent conflicts. There is much compelling evidence that the 61st Marine Brigade rotated several battalions through the Donbass war zone."

<sup>180</sup> Dr Sidharth Kaushal, "Putting the Russian Hypersonic Threat in Perspective," Royal United Services Institute, September 28, 2021, <https://www.rusi.org/explore-our-research/publications/commentary/putting-russian-hypersonic-threat-perspective>. Limitations of Russia's surveillance and reconnaissance capabilities, such as its still unfinished Liana constellation of PION and LOTOS electronic intelligence satellites and low numbers of maritime patrol aircraft make collecting accurate targeting data against moving targets challenging.

<sup>181</sup> Hilde-Gunn Bye, "Little Contact Between Norwegian and Russian Defense Authorities," *High North News*, April 13, 2021, <https://www.highnorthnews.com/en/little-contact-between-norwegian-and-russian-defense-authorities>.

avenue for Finland and Sweden to increase exercise participation while maintaining nonalignment with NATO.<sup>182</sup> Finland and Sweden have participated in recent iterations of Norway's Trident Juncture and Cold Response, and the annual Cross Border Training (CBT) of Nordic aircrews has expanded to the Arctic Challenge Exercise with NATO.<sup>183</sup> Nevertheless, as described throughout this thesis, Russia's provocations have given Norway plenty of reason for concern yet are frequent met with counter accusations. For example, when suspicions were raised over Russian involvement after a cable from Norway's undersea surveillance network was cut and removed, Russia responded with concerns about a Norwegian frigate stopping in Svalbard.<sup>184</sup> To contend with the growing threat, Norway's Long Term Defence Plan is increasing defense spending through 2028, and its primary focus on the High North includes expanding the Brigade North (Figure 13).<sup>185</sup> Norwegian Defense Minister Odd Roger Enoksen acknowledges that "The USA is our closest ally" and seeks to strengthen defense in the High North but would also like to see "better dialogue in all areas" with Russia going forward.<sup>186</sup> Ultimately, Norway's careful management of its balancing act is not only in its best interest but also in the U.S. and NATO's.

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<sup>182</sup> Ann-Sofie Dahl, "Back to the Future: NORDEFCO's First Decade and Prospects for the Next," *Scandinavian Journal of Military Studies* 4, no. 1 (July 15, 2021): 172–82, <https://doi.org/10.31374/sjms.85>.

<sup>183</sup> Robbin Laird, "Cross Border Training North and Deterrence in Depth," *Defense.info*, July 29, 2018, <https://defense.info/air-power-dynamics/2018/07/cross-border-training-north-and-deterrence-in-depth/>.

<sup>184</sup> Thomas Nilsen, "Moscow Dissatisfied with Norwegian Navy's Visit to Arctic Archipelago – Eye on the Arctic," *Eye on the Arctic*, November 12, 2021, <https://www.rcinet.ca/eye-on-the-arctic/2021/11/12/moscow-dissatisfied-with-norwegian-navys-visit-to-arctic-archipelago/>.

<sup>185</sup> Piotr Szymański, "High North, High Priority – Norway and the Defence of NATO's Northern Flank," *OSW Centre for Eastern Studies*, May 12, 2021, <https://www.osw.waw.pl/en/publikacje/osw-commentary/2021-05-12/high-north-high-priority-norway-and-defence-natos-northern>. Norway's defense spending increases to NOK69 billion (\$8.3 billion) in 2022 with annual increases of up to NOK16.5 billion by 2028.

<sup>186</sup> Hilde-Gunn Bye, "Norwegian Defense Minister: Important to Have Better Dialogue with Russia," *High North News*, November 5, 2021, <https://www.highnorthnews.com/en/norwegian-defense-minister-important-have-better-dialogue-russia>.

Category	Details	Time frames
1. Increase in defence spending	by 27% (from NOK 61 to 77.5 bn)	2020–2028
2. Increase in the number of soldiers	by 2,200 professionals and 3,000 conscripts	2020–2028
3. Deliveries of F-35 aircraft	24 aircraft remain from 52 ordered	by 2025
4. Deliveries of P-8 aircraft	five aircraft	2022–2023
5. Brigade North development	formation of a new mechanised infantry battalion, purchase of additional CV-9030 (up to NOK 3.5 bn)	from 2026
6. Reinforcement of the Finnmark region	formation of a forward-deployed Porsanger battalion	by 2025
7. Acquisition of new tanks	replacement of Leopard 2A4 tanks (up to NOK 15 bn)	2025–2028
8. Acquisition of long-range artillery	no data (up to NOK 2.5 bn)	2026–2028
9. NASAMS modernisation	new sensors and extended-range missiles (up to NOK 4.325 bn)	2023–2029
10. Deliveries of AW101 helicopters	eight helicopters remain out of 16 ordered	by 2023
11. Acquisition of new helicopters for special forces	replacement of Bell 412 helicopters (up to NOK 7 bn)	2024–2029
12. Modernisation of Fridtjof Nansen-class frigates	mid-life update (up to NOK 10 bn)	2024–2028
13. Development of a Future Naval Strike Missile (anti-ship)	carried out jointly with Germany (up to NOK 6 bn)	2023–2028
14. Deliveries of the Type 212CD submarines	replacement of the Ula-class submarines with four new units (up to NOK 45 bn)	2029–2035
15. Deliveries of the Jan Mayen-class patrol vessels to the coast guard	replacement of the Nordkapp-class vessels with three new units	2022–2024
16. Development of cyber defence	investments in C2IS system (up to NOK 6.5 bn)	2022–2028

Figure 13. Select Portions of Norway’s Long Term Defense Plan<sup>187</sup>

### 3. Marine Corps—Force Design 2030

In March of 2020, the Commandant of the Marine Corps set in motion “sweeping changes” to align the service with its “primary focus [on] great power competition and a renewed focus on the Indo-Pacific region.”<sup>188</sup> The changes called for the Marine Corps to serve as “stand-in” forces capable of operating within an adversary’s weapons engagement zone (WEZ) and therefore undermine strategies seeking to keep opposing forces at “arm’s length.”<sup>189</sup> Modifications to the force include investments in long-range precision fires (LRPFs), air defense systems and unmanned systems, the creation of the Marine Littoral

<sup>187</sup> Source: Szymański, “High North, High Priority – Norway and the Defence of NATO’s Northern Flank.”

<sup>188</sup> Commandant of the Marine Corps, “Force Design 2030” (Washington, D.C.: United States Marine Corps, March 2020), <https://www.hqmc.marines.mil/Portals/142/Docs/CMC38%20Force%20Design%202030%20Report%20Phase%20I%20and%20II.pdf?ver=2020-03-26-121328-460>.

<sup>189</sup> David Berger, “A Concept for Stand-In Forces,” *U.S. Naval Institute*, November 1, 2021, <https://www.usni.org/magazines/proceedings/2021/november/concept-stand-forces>. “Arm’s length” strategies include anti-access aerial-denial (A2AD) layered defenses of missiles and missile defense systems that prevent an opposition force from bringing its full combat power to bear on a position.



Regiments, and the divestment of legacy systems such as tanks and cannon artillery.<sup>190</sup> Moreover, the force will no longer size itself for 2-MEB joint forcible entry operations and reduce by roughly 12,000 Marines. In addition to the reduction in infantry and aviation units, cuts to Assault Amphibian battalions and modifications to the mission of Light Armored Reconnaissance will take place.<sup>191</sup> The service will also undertake changes in personnel management to improve retention, such as increasing the opportunity to homestead, which could lead to Marines with particular skills remaining longer in the same units.<sup>192</sup> Ultimately, the Marine Corps is taking the opposite path it did in the late 1970s, and the force of 2030 will be dramatically different than the one that fought in Iraq and Afghanistan.

#### 4. United States National Strategy

National Security Strategy guidance documents from the current and previous administrations highlight concerns with Russia but ultimately have a distinct focus on the Indo-Pacific. To protect national interests in an environment of great power competition, the U.S. must strengthen and leverage its alliances and partnerships. The current administration seeks to restore faith in the U.S.-NATO relationship following the strain applied of the previous administration's threats over member states' burden-sharing contributions.<sup>193</sup> Partisan threats still loom over the nearly \$780 billion 2022 Defense Budget passage, including critical investments in systems associated with Force Design

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<sup>190</sup> Commandant of the Marine Corps, "Force Design 2030."

<sup>191</sup> Commandant of the Marine Corps, "2021 Force Design Annual Update" (Washington, D.C.: United States Marine Corps, 4/21), 9, <https://www.hqmc.marines.mil/Portals/142/Docs/CMC38%20Force%20Design%202030%20Report%20Phase%20I%20and%20II.pdf?ver=2020-03-26-121328-460>.

<sup>192</sup> Headquarters Marine Corps, *Talent Management 2030* (Washington, D.C.: United States Marine Corps, 2021). General Berger states that "the institution will no longer view "homesteading" as a negative practice to avoid, but rather a vehicle for improving training, increasing unit stability, and reducing the stresses we place on our families."

<sup>193</sup> Donald Trump, "Trump Confirms He Threatened to Withdraw from NATO," Atlantic Council, August 23, 2018, <https://www.atlanticcouncil.org/blogs/natosource/trump-confirms-he-threatened-to-withdraw-from-nato/>. President Trump threatened to pull the U.S. from NATO for members failing to not only meet the two percent spending threshold but failing to meet lower declared contributions as well. President Biden's interim guidance calls to "reaffirm, invest in, and modernize NATO."

2030.<sup>194</sup> The impact of growing demands for domestic spending, on top of that spent to combat the effects of COVID-19, has yet to be felt. Therefore, any recommendations for future military actions must reflect the priority placed on the Indo-Pacific, focus on enhancing alliances, and consider current and future fiscal constraints.

## 5. Arctic and Nordic Maritime Training Exercises

Each winter, some of the most capable cold-weather military forces gather to train together in the Norwegian Arctic. Exercises Cold Winter and Joint Viking continue to focus further north and provide excellent cold-weather training opportunities (Figure 14). Unfortunately, due to COVID-19, the last large-scale exercise conducted in Norway was Trident Juncture 18; however, since then groups of several hundred Marines have still participated in other training events. Participants in exercises, such as the Royal Marines 45 Commando, Norway's Coastal Hunter Command-*Kystjegerkommandoen* (KJK), and its ranger company in Porsanger, present opportunities to train with cold-weather proficient units whose missions overlap with the Marine Corps. Similarly, Archipelago Endeavor is a bilateral exercise between Swedish and U.S. Marines that increases interoperability and trains extensively with the Swedish CB-90 patrol craft. Sweden, like Norway, has significantly increased its defense spending through 2025 and will double its Marine force.<sup>195</sup> Norway and Sweden are inherently littoral areas, and with over half a million islands between them, the second-longest coastline in the world, and growing marine forces, they are perfect training partners for U.S. Marines.<sup>196</sup>

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<sup>194</sup> Connor O'Brien, "Senate Punts Defense Bill Until After Thanksgiving as Debate Hits Roadblock," POLITICO, n.d., <https://www.politico.com/news/2021/11/19/senate-defense-bill-thanksgiving-523042>.

<sup>195</sup> Sebastian Sprenger, "Sweden Clings to Its Non-NATO Status Amid Substantial Defense Budget Boost," Defense News, April 8, 2021, <https://www.defensenews.com/global/europe/2021/04/08/sweden-clings-to-its-neutrality-amid-substantial-defense-budget-boost/>.

<sup>196</sup> Krista Conrad, "Which Countries Have the Most Islands?," WorldAtlas, October 5, 2020, <https://www.worldatlas.com/articles/which-countries-have-the-most-islands.html>. Sweden and Norway have 267,570 and 239,057 islands respectively and Norway's coastline, including that of its islands, is over 102,000km.

- **2020: Cold Response – Troms**  
The exercise was stopped midway due to the corona pandemic
- **2018: Trident Juncture – Trøndelag, Møre og Romsdal and Østlandet**  
The exercise was a large NATO-led exercise in the autumn of 2018, and it replaced Cold Response 2018 and Joint Viking 2019
- **2017: Joint Viking – Finnmark**
- **2016: Cold Response – Trøndelag**
- **2015: Joint Viking – Finnmark**

Figure 14. Major Norwegian Winter Exercises since 2015<sup>197</sup>

## 6. United States Arctic Strategy

When the USS Harry S. Truman crossed north of the Arctic Circle ahead of Trident Juncture 2018, it was the first time a U.S. carrier had done so in almost 30 years.<sup>198</sup> Earlier that year, the Navy, in response to the resurgence of Russia’s Northern Fleet, reestablished the 2nd Fleet and included the Barents Sea in its area of responsibility.<sup>199</sup> In its “strategic blueprint,” *a Blue Arctic*, the Navy-Marine Corps team describes that it will achieve national security interests in the Arctic by maintaining enhanced presence, strengthening partnerships, and building a more capable Arctic naval force. In addition, the document highlights how “Marines have long trained and operated in the Arctic” and calls on them to “facilitate sea control and sea denial operations in support of Fleet commander plans.”<sup>200</sup> Finally, the strategy encourages experimentation and innovation and

<sup>197</sup> Norwegian Armed Forces, “Joint Viking,” Forsvaret, 2021, <https://www.forsvaret.no/om-forsvaret/operasjoner-og-ovelser/ovelser/joint-viking>. Exercises Cold Winter and Joint Viking occur in alternating years.

<sup>198</sup> Megan Eckstein, “Truman Carrier Strike Group Operating North of Arctic Circle; First Time for U.S. Navy Since 1991,” USNI News, October 19, 2018, <https://news.usni.org/2018/10/19/truman-carrier-strike-group-operating-north-arctic-circle-first-time-us-navy-since-1991>.

<sup>199</sup> Sam LaGrone, “CNO: New 2nd Fleet Boundary Will Extend North to the Edge of Russian Waters,” USNI News, August 24, 2018, <https://news.usni.org/2018/08/24/cno-new-2nd-fleet-boundary-will-extend-north-edge-russian-waters>. The Arctic is split between U.S. Northern and European Commands and the U.S. forces in Alaska are under the operational control of U.S. Indo-Pacific Command.

<sup>200</sup> Department of the Navy, “A Blue Arctic,” A Strategic Blueprint for the Arctic (Washington, D.C.: Department of the Navy, January 2021), <https://media.defense.gov/2021/Jan/05/2002560338/-1/-1/0/ARCTIC%20BLUEPRINT%202021%20FINAL.PDF/ARCTIC%20BLUEPRINT%202021%20FINAL.PDF>.

underscores the importance of interoperability and collaboration with Arctic partners and allies. In an act similar to EDI that followed Russia's Crimea incursion, congress has introduced an Arctic Security Initiative (ASI) Act of 2021 that requires the military to assess and report its Arctic capabilities.<sup>201</sup> For the Marine Corps, the increased attention on the Arctic, if balanced appropriately, presents an opportunity to capitalize on joint training exercises, alliances and partnerships, and additional available funding to achieve strategic objectives while enhancing service capabilities.

To highlight the similarities of the Marine Corps' current position with its history in the High North, it is worth examining the analysis of historian Dr. David Crist:

For the Marine Corps specifically, deployments to Norway offered the chance to find solutions to problems the others were slow in seeing. In the process this afforded the opportunity for the Marine Corps to, once again, provide an example of its ability to innovate and adapt to changing defense concerns.<sup>202</sup>

## **B. RECOMMENDATIONS**

This thesis sought to analyze the history of the Marine Corps' role in the High North and determine what enduring lessons and principles could be applied towards its future role in deterring Russian aggression. That analysis determined the necessity of a rapid reinforcement capability, high levels of interoperability and cooperation, and the critical importance of Arctic operational capability. Additionally, unlike the decisions made in the late 1970s and early 1980s that led to a heavier Marine Corps and a general-purpose role, the Marine Corps should not engage in an inter-service competition over defense funding by pursuing Arctic-specific equipment and missions which are unsupported by Force

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<sup>201</sup> Dan Sullivan, "Arctic Security Initiative Act of 2021," Pub. L. No. S. 2294 (2021), <https://www.congress.gov/bill/117th-congress/senate-bill/2294/text>. The yet to be approved bill would require Commanders of U.S. Northern, European, and Indo-Pacific Commands to outline future year plans for activities and resources to achieve objectives in the Arctic Region. This includes investments in manned and unmanned naval and aerial systems and long-range precision strike systems in addition to logistical and command and control considerations.

<sup>202</sup> David B. Crist, "A New Cold War: U.S. Marines in Norway and the Search for a New Mission in NATO," in *New Interpretations in Naval History*, Selected Papers from the Fourteenth Naval History Symposium (Annapolis, MD: Naval Institute Press, 2001).

Design 2030 changes. Therefore, recommendations fall within those areas as they apply to what role the Marine Corps should fill in the High North in the future.

### **1. Rapid Reinforcement—Long Range Precision Fires and Sea Denial**

The greatest significance of Norway as NATO’s “northern flank” is its critical role in both sea control and sea denial of the Atlantic. The importance of securing airfields in the High North led to the development of rapid reinforcement strategies that are still exercised. However, the U.S. withdrawal from the INF Treaty presents additional opportunities to deter Russian aggression and secure SLOCs. In support of Force Design 2030, the Marine Corps is pursuing LRPF systems to target an adversary’s naval vessels from Expeditionary Advanced Bases (EABs). In 2021, the Marine Corps successfully demonstrated the Navy-Marine Expeditionary Ship Interdiction System (NMESIS) and added Tactical Tomahawk missiles on its Unfunded Priority list to congress.<sup>203</sup> These systems and capabilities do not compete with Force Design 2030 initiatives and complement the Marine Corps’ mission in the Indo-Pacific. Therefore, the Marine Corps should use the ASI and its role in the High North to justify further expanding its LRPF and Land-based Anti-Ship Missile (LBASM) capabilities.

The Marine Corps, equipped with LBASM systems and a proven ability to rapidly establish EABs throughout the North Atlantic, would significantly enhance NATO’s ability to deter Russian aggression (Figure 15). Both the NMESIS and M142 High Mobility Artillery Rocket System (HIMARS), which can fire the Precision Strike Missile (PrSM), have been delivered via a C-130 to conduct “HIRAIN” missions.<sup>204</sup> LRPF systems could theoretically be quickly positioned at airfields unreachable by larger planes, such as Jan Mayen, and cover the entire North Atlantic with extended range LBASMs (Figure 15). In

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<sup>203</sup> Peter Ong, “U.S. Marines Experimenting with Tomahawk for Land-Attack and Anti-Ship Missions,” *Naval News* (blog), June 17, 2021, <https://www.navalnews.com/naval-news/2021/06/u-s-marines-experimenting-with-tomahawk-for-land-attack-and-anti-ship-missions/>.

<sup>204</sup> Peter Ong, “Land-Based Anti-Ship Missiles and the U.S. Marine Corps: Options Available,” *Naval News*, September 27, 2020, <https://www.navalnews.com/naval-news/2020/09/land-based-anti-ship-missiles-and-the-u-s-marine-corps-options-available/>. In HIRAIN missions, HIMARS are flown in C-130s, unloaded to rapidly conduct fire missions, then reloaded relocated to minimize the opportunity of detection and counter fire missions.

addition, larger LBASM systems could be deployed for use aboard the Navy's Littoral Combat Ship (LCS) for greater coverage and flexibility as well as provide a role for ships long plagued with utility concerns.<sup>205</sup> Anticipating "flat or declining" future budgets, the Marine Corps should coordinate its effort with the U.S. Army's LRPF programs as system commonality would lower costs and stress on the supply base.<sup>206</sup> Congress has already shown a willingness to cut funding requests for both unmanned surface vehicles and LRPFs.<sup>207</sup> Modifying existing capabilities would result in quicker delivery and reduce the high program development costs and that of the missiles themselves (Figure 16).<sup>208</sup> Lastly, the Marine Corps should begin replacing cannon artillery currently in MCPP-N with HIMARS. Norway's Total Defense Plan has already shown its robust maritime delivery capability, and vessels could quickly relocate HIMARS in anticipation of a Russian threat.

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<sup>205</sup> Peter Ong, "DARPA OpFires Can Provide the USMC with Mobile Hypersonic Missiles," *Naval News* (blog), November 23, 2021, <https://www.navalnews.com/naval-news/2021/11/darpa-opfires-can-provide-the-usmc-with-mobile-hypersonic-missiles/>. The Marine Corps successfully demonstrated the ability to hit a target 70km away using HIMARS fired off the amphibious transport dock USS Anchorage (LPD-23) in 2017. A similar experiment could de

<sup>206</sup> Mallory Shelbourne, "Berger: Marine Corps Moving Ahead Under Premise of 'Flat or Declining' Defense Budgets," *Inside Defense*, October 3, 2019, <https://insidedefense.com/daily-news/berger-marine-corps-moving-ahead-under-premise-flat-or-declining-defense-budgets>.

<sup>207</sup> Ronald O'Rourke, "Navy Large Unmanned Surface and Undersea Vehicles: Background and Issues for Congress" (Washington, D.C.: Congressional Research Service, October 20, 2021), <https://crsreports.congress.gov/product/details?prodcode=R45757>.

<sup>208</sup> Department of the Navy, "Navy: FY22 Procurement, Marine Corps," Department of Defense Fiscal Year (FY) 2022 Budget Estimates (Washington, D.C.: Department of the Navy, May 2021), 62, [https://www.secnav.navy.mil/fmc/fmb/Documents/22pres/PMC\\_Book.pdf](https://www.secnav.navy.mil/fmc/fmb/Documents/22pres/PMC_Book.pdf). The Marine Corps' FY 22 Budget Request includes 29 Naval Ship Missiles (NSM) each costing \$1.6 million. A HIMARS launcher and Family of Medium Tactical Vehicles (FMTV) carrier are \$4.9 million together and M31 Guided Multiple Launch Rocket Systems are nearly \$100,000 each. The PrSM and Tactical Tomahawk would be \$1.5-2 million each where a single LRASM or JASSM-ER can cost upwards of \$3 million.

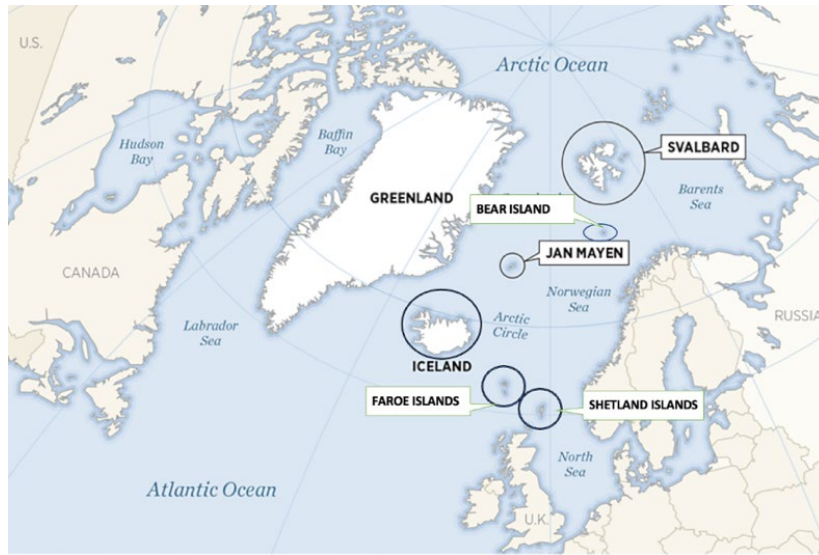


Figure 15. GIUK and Arctic Potential Expeditionary Base Locations<sup>209</sup>

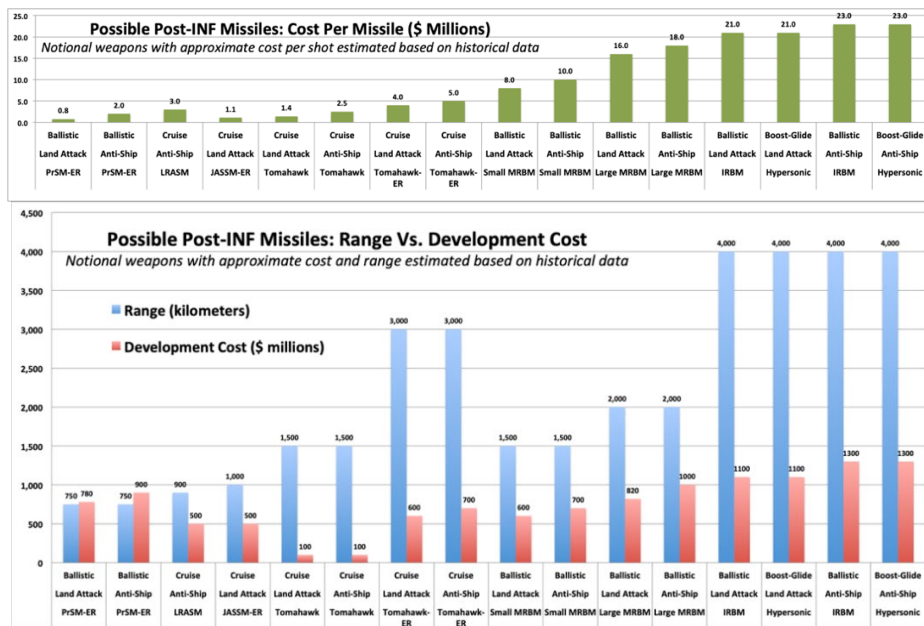


Figure 16. Missile Program Development and Unit Cost<sup>210</sup>

<sup>209</sup> Adapted from Luke Coffey, “Strengthening America’s and NATO’s Arctic Chain of Defense,” The Heritage Foundation, accessed November 17, 2021, <https://www.heritage.org/defense/report/strengthening-americas-and-natos-arctic-chain-defense>.

<sup>210</sup> Sydney J. Freedberg Jr, “Beyond INF: An Affordable Arsenal of Long-Range Missiles?” Breaking Defense, May 28, 2019, <https://breakingdefense.sites.breakingmedia.com/2019/05/beyond-inf-an-affordable-arsenal-of-long-range-missiles/>.

## 2. Domain Awareness—Specialization “Light”

To achieve the same level of success it did in Cold Winter 85, the Marine Corps should again align specific II MEF units with the High North mission. First Battalion, Second Marines, and Marine Medium Helicopter Squadron-266 (HMM-266) were successful due to the proficiency gained over multiple years from cold-weather training events in the U.S. and Norway. Skills and proficiency gained during cold-weather courses and deployments are both a perishable investment and will be increasingly necessary for an unforgiving environment as the demands on individual Marines continues to grow. Going forward, Marines must be capable of emplacing, operating, and guarding LRP systems in challenging Arctic conditions.

Since 2016, the infantry battalions deployed to Norway have come from three separate regiments, and only portions of one battalion had made a return trip. Of the 337 Winter Mountain Leaders in the Marine Corps, only 32 currently serve in the 2nd Marine Division, with no more than two in any battalion.<sup>211</sup> To increase successful completion rates with limited numbers of formal school seats, Marines selected to attend MWTC or Army cold-weather courses in Alaska are often chosen to receive further training at the Norwegian School of Winter Warfare. By aligning one regiment from the 2nd Marine Division and one Marine Corps Reserve battalion with the High North mission, the Marine Corps could concentrate the critical skills of cold-weather-proficient Marines.<sup>212</sup> With more proficient Marines, deployed units can undertake more challenging training opportunities and experimentation while increasing overall effectiveness, similar to the Marines of Cold Winter 85.

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<sup>211</sup> Headquarters Marine Corps, “Marine Corps Manpower and Reserve Affairs,” Marine Corps Manpower and Reserve Affairs, October 28, 2021, <https://www.manpower.usmc.mil/webcenter/portal/MRAHome>.

<sup>212</sup> Each of 2/23’s companies are located within a 10-hour drive of MWTC, and each of 1/25’s companies are located in an area that receives 4–7 feet of snow annually. The Marines of those units are geographically aligned with cold or mountains simply by where they live. Targeting those unit’s Marines to train for winter operations is therefore both practical and logical.



### 3. Increasing Interoperability and Cooperation

In the 2021 Force Design Annual Update, the Commandant invalidated the requirement to procure the Advanced Reconnaissance Vehicle (ARV) and identified the need to develop “multi-domain mobile reconnaissance” units. The Marine Corps should build upon the interoperability gained during annual exercises in the High North and leverage the skills of its Nordic partners Sweden and Norway.<sup>213</sup> The Marine Corps reconnaissance community should undertake a partnership with the KJK and Swedish Marines utilizing CB-90s to develop scouting and counter-scouting tactics and identify efficiencies that can be gained. Both forces have a long history of maritime reconnaissance, with patrol boats more suitable for EABO than those in the current Marine Corps inventory. Additionally, Norway’s commercial industry has already developed several autonomous vessels that could be adapted for military use or utilized in future Total Defense Force exercises to deploy Marines and LRPF assets.<sup>214</sup>

A strategy based on long-range fires requires sensors and reconnaissance forces to secure EABs and acquire target data. The latitudinal location of the High North increases communication challenges due to difficulty reaching satellites in an equatorial orbit and unique ionosphere phenomena.<sup>215</sup> Marine Corps reconnaissance forces are among the best-suited and most capable in the service for applying emerging communications solutions towards mission requirements. Working with their Nordic counterparts, reconnaissance Marines can identify challenges and potential solutions associated with drone operations and extended distance communications required for EABO. With open seas, littoral waterways, fjords, mountains, and barren tundra, Norway presents an operating environment unlike anywhere else Marines train. By leveraging the experience of their Nordic partners, Marines can demonstrate the capability to operate effectively in the region and prevent the unnecessary allocation of U.S. Special Forces to a mission the

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<sup>213</sup> Commandant of the Marine Corps, “2021 Force Design Annual Update.”

<sup>214</sup> Kongsberg, “Autonomous Shipping,” Kongsberg Maritime, October 30, 2021, <https://www.kongsberg.com/maritime/support/themes/autonomous-shipping/>.

<sup>215</sup> Walker D. Mills, “Solving Communications Gaps in the Arctic with Balloons,” *Center for International Maritime Security* (blog), August 23, 2021, <https://cimsec.org/solving-communications-gaps-in-the-arctic-with-balloons/>.

Marine Corps intends to conduct globally.<sup>216</sup> Ultimately, the Marine Corps has much to learn from its Nordic partners and their centuries of maritime and Arctic experience.

The Marine Corps can pursue National Strategic and service objectives in the High North while increasing its capabilities and interoperability with Nordic partners. However, to achieve the future requirements outlined in Force Design 2030, the Marine Corps must apply enduring aspects of strategy and operations learned from the Cold War. Fortunately, when analyzed, there is a significant opportunity in the High North mission and its overlap with the Indo-Pacific. Accordingly, the Marine Corps should take advantage of the current opportunities to ensure it is ready to meet its nation's call in every clime and place.

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<sup>216</sup> Jon Harper, "Special Operations Forces Bracing for Arctic Missions," National Defense Industrial Association, May 14, 2021, <https://www.nationaldefensemagazine.org/articles/2021/5/14/special-operations-forces-bracing-for-arctic-missions>. Special Forces units have been increasing their training in the Arctic with a focus on communications and fire support. During Valor United 20 in Alaska, Green Berets operating out of remote camps, successfully transmitted high-frequency radio messages over 4,400 miles to Okinawa.

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