





2024 ARCTIC STRATEGY

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SECRETARY OF DEFENSE 1000 DEFENSE PENTAGON WASHINGTON, DC 20301-1000

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MEMORANDUM FOR SENIOR PENTAGON LEADERSHIP COMMANDERS OF THE COMBATANT COMMANDS DEFENSE AGENCY AND DOD FIELD ACTIVITY DIRECTORS

SUBJECT: 2024 Department of Defense Arctic Strategy

The United States is an Arctic nation, and the region is critical to the defense of our homeland, the protection of U.S. national sovereignty, and our defense treaty commitments. I am issuing this 2024 Arctic Strategy to guide the U.S. Department of Defense (DoD) in a concerted approach to preserve the Arctic as a stable region in which the U.S. homeland remains secure and vital national interests are safeguarded.

Major geopolitical changes are driving the need for this new strategic approach to the Arctic, including Russia's full-scale invasion of Ukraine, the accession of Finland and Sweden to the NATO Alliance, increasing collaboration between the People's Republic of China (PRC) and Russia, and the accelerating impacts of climate change. This increasingly accessible region is becoming a venue for strategic competition, and the United States must stand ready to meet the challenge alongside Allies and partners.

This new DoD strategy directs the Department to enhance its Arctic capabilities, deepen engagement with Allies and partners, and exercise our forces to build readiness for operations at high latitudes. The document supports the 2022 National Security Strategy as well as the 2022 National Strategy for the Arctic Region, and its lines of effort implement the 2022 National Defense Strategy direction to adopt a "monitor-and-respond" approach to preserving stability in the Arctic. This strategy represents prudent and measured efforts to protect U.S. interests in the face of new challenges and an evolving security environment.

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EXECUTIVE SUMMARY

This strategy lays out the Department of Defense's (DoD's) approach to the Arctic as the region undergoes rapid geophysical and geopolitical change.¹ The strategy aligns with and nests under the 2022 National Security Strategy (NSS), 2022 National Defense Strategy (NDS), and 2022 National Strategy for the Arctic Region (NSAR). It also aligns with and implements the intent of the 2023 DoD Homeland Defense Policy Guidance.

The NSAR states that the United States seeks an Arctic region that is peaceful, stable, prosperous, and cooperative. In support of this national-level objective, DoD, in cooperation with our Allies and partners², will pursue an end state that preserves the Arctic as a stable region in which the U.S. homeland remains secure and vital national interests are safeguarded.

The NDS directs that activities in the Arctic will be calibrated to reflect a "monitor-and-respond" approach that is underpinned by robust intelligence collection capabilities, security cooperation with our regional Allies and partners, and the deterrent value of DoD's ability to deploy the Joint Force globally at the time and place of our choosing. This strategy guides DoD's efforts to build and sustain this monitor-and-respond approach to the Arctic. Implementing this strategy will enable DoD to achieve our desired end state for the region, aligning with efforts to strengthen homeland defense, safeguard U.S. interests, and improve interoperability with Arctic Allies and partners while preserving focus on the pacing challenge of the People's Republic of China (PRC) globally.

Climate change and shifts in the geostrategic environment drive the need for a new strategic approach to the Arctic region. This strategy will strengthen the ability of the United States to build integrated deterrence and effectively manage risk to U.S. interests in the Arctic region by **enhancing** our domain awareness and Arctic capabilities; **engaging** with Allies, partners, and key stakeholders; and **exercising** tailored presence.

Primary risks to the success of this strategy stem from the need to balance against other DoD global commitments or find ways to integrate with other resource requirements. As such, DoD Components should take these risks into account during resourcing deliberations through DoD's established processes.

¹ For the purposes of this strategy, the definition of the Arctic is the same as that used in the Arctic Research and Policy Act (ARPA) of 1984 (Pub. L. 98-373; 15 U.S.C. 4111)--"all United States and foreign territory north of the Arctic Circle and all United States territory north and west of the boundary formed by the Porcupine, Yukon, and Kuskokwim Rivers; all contiguous seas, including the Arctic Ocean and the Beaufort, Bering, and Chukchi Seas; and the Aleutian Chain."

² For the purposes of this strategy, "partners" refers to an array of Arctic stakeholders to include: partner nations; U.S. Federal, state, local, tribal, and territorial agencies and governments; industry; inter-governmental organizations; and non-governmental organizations.

U.S. DEFENSE INTERESTS IN THE ARCTIC

The Arctic is a strategically important region for the United States. DoD's foremost objective is to protect the security of the American people, including those that call the Arctic home.

The North American Arctic region comprises the northern approaches to the homeland and includes sovereign U.S. territory in Alaska-home to significant U.S. defense infrastructure—and the sovereign territory of North Atlantic Treaty Organization (NATO) Allies including Canada and the Kingdom of Denmark's autonomous territory of Greenland. Vital for homeland defense, the North American Arctic region hosts aerospace warning, aerospace control, and maritime warning capabilities for the binational U.S.-Canada North American Aerospace Defense Command (NORAD). The North American Arctic region is also integral to the execution of Indo-



An Alaska Army National Guard Infantryman assigned to the Avalanche Company, 1st Battalion, 297th Infantry Regiment, conducts military tactical movements while engaging with opposing forces during a training exercise near Joint Base Elmendorf-Richardson, Alaska on December 3, 2022. (Army National Guard photo by SPC Bradford Jackson)

Pacific operations, as the northern flank for projecting military force from the U.S. homeland to that region.

Geographically, the European Arctic region comprises the Arctic territory of NATO Allies Finland, Iceland, Norway, and Sweden, as well as Russia's Kola Peninsula. Collaboration in this region among Unified Combatant Commands (CCMDs) and Arctic Allies is critical to collective defense of NATO Allies and to U.S. homeland defense. The accession of new

NATO Allies and the strengthening of the Alliance opens strategic opportunities and supports critical objectives in the NSAR. The Arctic serves as an avenue for power projection to Europe and is vital to the defense of Atlantic sea lines of communication between North America and Europe.

The Arctic includes multiple strategically significant maritime chokepoints. Reduction in sea ice due to climate change means chokepoints such as the Bering Strait between Alaska and Russia and the Barents Sea north of Norway, are becoming more navigable and more economically and militarily significant.

STRATEGIC ENVIRONMENT

PRC and Russian activities in the Arctic—including their growing cooperation—the enlargement of NATO, and the increasing effects of climate change herald a new, more dynamic Arctic security environment. These changes, as well as the growing cooperation between Russia and the PRC, have the potential to alter the Arctic's stability and threat picture. They also present opportunities for DoD to enhance security in the region by deepening cooperation with Allies and partners.

1. PRC Activities in the Arctic

The PRC includes the Arctic in its long-term planning and seeks to increase its influence and activities in the region. Though not an Arctic nation, the PRC is attempting to leverage changing dynamics in the Arctic to pursue greater influence and access, take advantage of Arctic resources, and play a larger role in regional governance.

The PRC seeks to bolster its operational expertise in the Arctic, where its presence, while limited, is increasing. The PRC operates three icebreakers—the *Xue Long, Xue Long 2, and Zhong Shan Da Xue Ji Di*—which enable the PRC's dual civil-military research efforts in the Arctic. Over the course of the PRC's 13 Arctic research expeditions to date, the vessels have tested unmanned underwater vehicles and polar-capable fixed-wing aircraft, among other activities. People's Liberation Army Navy (PLAN) vessels have also demonstrated the capability and intent to operate in and around the Arctic region through exercises alongside the Russian Navy over the past several years.

Although the vast majority of the Arctic is under the jurisdiction of sovereign states, the PRC seeks to promote the Arctic region as a "global commons" in order to shift Arctic governance in its favor. The PRC's 2018 Arctic Policy claims non-Arctic states should contribute to the region's "shared future for mankind" due to the Arctic's global significance. Its "Polar Silk Road" has been used to gain a footing in the Arctic by pursuing investments infrastructure and natural resources, including in the territory of NATO Allies.



Four F-35A Lightning IIs, assigned to the 388th Fighter Wing (FW) at Hill Air Force Base in Utah, fly in formation over Denali National Park, Alaska on August 17, 2020. The 388th FW joined the 354th FW for RED FLAG-Alaska 20-3, the Pacific Air Forces' premier large force exercise. (U.S. Air Force photo by TSgt Jerilyn Quintanilla)

2. Russian Activities in the Arctic

The Arctic plays a significant role in Russia's security and economic calculations. This importance is reflected in Russian strategic documents, including Russia's 2023 Foreign Policy Concept, which raises the Arctic to Russia's second priority region after Russia's "near abroad." Russia boasts the largest Arctic territory and the most developed regional military presence of all the Arctic nations. Of concern, Russia's Arctic capabilities have the potential to hold the U.S. homeland, as well as Allied and partner territory, at risk. The Kola Peninsula is home to Russia's Northern Fleet and important strategic nuclear forces, specifically its submarine-launched ballistic missile force. Russia continues to invest heavily in new military infrastructure and refurbishing Soviet-era installations in the Arctic. Despite some attrition of Russia's conventional land forces due to losses in Ukraine, its strategic, air, and maritime forces remain intact. Further, Russia has demonstrated the ability to reconstitute and reorganize its conventional ground forces, which illuminates the potential for future improved readiness and combat expertise in the Arctic.

In addition to nuclear, conventional, and special operations threats, Russia seeks to carry out lower-level destabilizing activities in the Arctic against the United States and our Allies, including through Global Positioning System jamming and military flights that are conducted in an unprofessional manner inconsistent with international law and custom. Russia also has a clear avenue of approach to the U.S. homeland through the Arctic and could use its Arctic-based capabilities to threaten the ability of the United States to project power both to Europe and the Indo-Pacific region, constraining our ability to respond to crises. Furthermore, Russia's maritime infrastructure could allow it to enforce excessive and illegal maritime claims along the Northern Sea Route (NSR) between the Bering Strait and Kara Strait. Russia claims the right to regulate Arctic waters along the NSR in excess of the authority permitted under the United Nations Convention on the Law of the Sea (UNCLOS), placing excessive requirements on foreign vessels transiting the route and threatening force against vessels out of compliance with Russian regulations.

3. PRC-Russia Collaboration

Increasingly, the PRC and Russia are collaborating in the Arctic across multiple instruments of national power. While significant areas of disagreement between the PRC and Russia remain, their growing alignment in the region is of concern, and DoD continues to monitor this cooperation.

Russia's isolation as a result of its full-scale invasion of Ukraine has made it increasingly reliant on the PRC for financing energy export infrastructure in the Arctic. Over 80 percent of Russia's natural gas production and nearly 20 percent of its petroleum production comes from the Arctic, and Russia is increasingly turning to the PRC to fund this extraction and purchase these resources.

PRC-Russia military cooperation, including joint exercises in the Arctic, continues to increase. In 2022 and 2023, PLAN and Russian Navy ships operated together in international waters off the coast of Alaska, and the Chinese Coast Guard and Russian Federal Security Service signed a memorandum of understanding on maritime law enforcement. These activities could open the door for further PRC presence in the Arctic and along the NSR.

4. Changing Security Architecture

Finland and Sweden made the decision to join the NATO Alliance in the wake of Russia's full-scale invasion of Ukraine in 2022. Seven of eight Arctic nations (Canada, Denmark, Finland, Iceland, Norway, Sweden, and the United States) are now NATO Allies, thereby strengthening the Western security architecture in the region. The Arctic NATO Allies possess highly capable militaries, and thanks to longstanding cooperation, highly interoperable. are NATO's enlargement, in addition



A 10th Special Forces Group (Airborne) Green Beret talks to a Danish Special Operation Forces Operator in Utqiagvik, Alaska on March 6, 2024 during Arctic Edge 24 (AE24). AE24 is an annual USNORTHCOM defense exercise emphasizing operations in an extreme cold weather and high latitude environment. (U.S. Army photo by SGT Shai Zachar)

to increasing Nordic defense cooperation, will create new opportunities for combined planning, information sharing, and exercises that will expand regional collaboration. At the same time, an extended Alliance border with Russia in the Arctic increases the need for DoD to manage risk in the region.

5. The Effects of Climate Change on the Operating Environment

Climate change is rapidly reshaping the Arctic, which is warming more than three times faster than the rest of the world. The changes in the environment not only impact Arctic communities' way of life, but also DoD's operating context. DoD, State, and local infrastructure, much of it built during the Cold War era, faces degradation due to permafrost thaw and faster-than-anticipated rates of coastal erosion. More frequent forest fires in Alaska impact training days, and increased

variability of weather can affect warfighter and equipment performance. Sustaining distributed forces and remote operating locations is even more challenging in these changing Arctic conditions.

The Arctic may experience its first practically ice-free summer by 2030, and the loss of sea ice will increase the viability of Arctic maritime transit routes and access to undersea resources. Increases in human activity will elevate the risk of accidents, miscalculation, and environmental degradation.

As these changes take place, the U.S. Joint Force must be ready and equipped to mitigate the risks associated with potential contingencies in the Arctic consistent with 2022 NDS priorities and Secretary of Defense force planning guidance. It must also take into account that the Arctic's North American and European sub-regions have vastly different operating environments. The former is dryer, colder, and sparsely populated with minimal infrastructure, whereas the latter, influenced by the Gulf Stream, is comparatively warmer, wetter, and more populous, with more robust roads, ports, and communications networks.

DEFENSE APPROACH TO MANAGING NEW CHALLENGES

END STATE

Through this strategy, DoD, in cooperation with our Allies and partners, seeks to preserve the Arctic as a stable region in which the U.S. homeland remains secure and vital national interests are safeguarded.

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DoD will reach this end state through a monitor-and-respond approach. Monitoring involves robust intelligence collection in concert with other departments, agencies, Allies, and partners to provide early indications and warning to manage risk. This includes monitoring the activities of our adversaries as well as the physical changes to the operating environment. Should the security environment shift in a way that necessitates a DoD response, DoD will remain able to deploy the Joint Force globally at the time and place of our choosing. This includes responding in the Arctic, both independently and in cooperation with Allies and partners. Consistent with the NDS concept of integrated deterrence, it also means using Joint Force operations outside the Arctic to reinforce deterrence or disrupt our competitors' actions. DoD stands ready to support whole-of-government responses using any and all instruments of U.S. national power, as appropriate.

DoD will improve its ability to monitor and respond through three lines of effort (ways) and supporting means, aligned with the 2022 NDS and 2022 NSAR. DoD will:

- 1. Enhance the Joint Force's Arctic capabilities. By continuing to invest in sensors, intelligence, and information-sharing capabilities, DoD will enhance our understanding of the Arctic operating environment as well as our ability to manage risk. DoD should review existing equipment and infrastructure and develop options to sustain a monitor-and-respond approach;
- **2.** *Engage* with our Allies and partners; Federal, State, and local authorities; Alaska Native tribes and communities; and industry in order to strengthen integrated deterrence and increase our shared security; and
- 3. Exercise presence in the Arctic by training both independently and alongside Allies and partners to demonstrate interoperability and credible joint capabilities while supporting homeland defense and global power projection operations.

ENHANCE



U.S. Coast Guard Cutter Healy (WAGB-20) travels through the Arctic on July 31, 2023. (U.S. Space Force photo by Capt Henry Cho)

Enhancing our Arctic capabilities, particularly domain awareness and communications, will enable DoD to better monitor and respond to threats from and through the Arctic, and thus better deter aggression and defend U.S. homeland. the **Improvements** to domain awareness and communications are a key priority in the 2022 NSAR and an important component of

deterrence in the Arctic, as laid out in the 2022 NDS. DoD should pursue early warning capabilities; discrimination sensors; tracking sensors; Command, Control, Communications, Computers, Cyber, Intelligence, Surveillance, and Reconnaissance (C5ISR) capabilities; improved understanding of the electromagnetic spectrum; and sensing and forecasting capabilities. DoD will prioritize efforts in the North American Arctic in cooperation with Canada, while also enhancing capabilities with Allies and partners in the European Arctic.

To function effectively in the Arctic, the Joint Force requires sufficient Arctic-capable equipment to conduct all mission-essential tasks. Military Services and CCMDs responsible for the monitor-and-respond mission should review their relevant Arctic capabilities and requirements to determine if they can achieve their missions, with focus given to interoperability in joint and combined environments.

DoD will explore options to expand collaboration with Federal interagency partners and improve information sharing with Arctic Allies and partners. DoD will leverage existing knowledge and skills of the Joint Force to improve "Arctic literacy," training proficiency, and operational competency in the austere and demanding Arctic environment.

1. All-Domain Awareness and Missile Warning. The Arctic holds our northern approaches to the U.S. homeland, and detecting threats from afar is critical to homeland defense. The network of U.S. and Canadian radars and sensors operated by NORAD and U.S. Northern Command (USNORTHCOM) enables the detection and tracking of certain threats from and through portions of the Arctic, but modernization is needed. In implementing the 2021 Joint Statement on NORAD Modernization, DoD will work with Canada to enhance our long-range persistent aerospace and maritime surveillance capabilities. DoD will assess options for improving ground-based sensors to complement and enhance existing NORAD capabilities. DoD will also continue to research

options for new space-based missile-warning and observational systems with greater polar coverage. Together, these improvements will strengthen our ability to address current and emerging aerospace and maritime threats from and through the Arctic.

In the European Arctic, DoD will continue to partner with our Allies to enhance all-domain awareness. U.S. European Command (USEUCOM) will work through our Arctic Allies and partners to identify all activities that affect our security interests and ensure our existing network of radars and sensors continue to contribute to Arctic aerospace and missile warning.

DoD will take these steps to improve domain awareness including of the electromagnetic spectrum; missile warning; and nuclear command, control, and communications in and through the Arctic alongside priorities outlined in the 2022 Nuclear Posture Review and 2022 Missile Defense Review to address the strategic threat from competitors, including Russia and the PRC.

2. Communications and Data Architecture. Communications in the Arctic region have historically posed a particular challenge for the Joint Force due to limited legacy satellite coverage in the region. In addition to military satellite communications solutions to improve tactical and strategic communications, specifically above 65 degrees North latitude, DoD should pursue technology through commercial partners and agreements with NATO Allies and partners. Satellites providing Arctic coverage should receive particular focus. These improvements will also enhance DoD's C5ISR capabilities.

Operating alongside Allies in the Arctic will require robust data transmission capacity. By the 2030s the United States and our Arctic Allies will operate over 250 advanced multirole combat aircraft that could be deployed for Arctic operations.³ To handle the large amount of data, DoD will explore opportunities, in cooperation with Allies and partners, to improve Arctic data coverage and capacity.



A radar dome belonging to the 23rd Space Operations Squadron Detachment 1 at Pituffik Space Base, Greenland on April 4, 2023. The detachment's extreme northern location allows contact with polar orbiting satellites 10-12 times per day. (U.S. Space Force photo by SrA Kaitlin Castillo)

In tandem, DoD should analyze the capacity and capability provided by proliferated, interconnected satellite constellations and the number of downlink terminals needed to meet Joint Force demands above 65 degrees North.

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³ This does not include aircraft operated by other Allies, such as members of the Joint Expeditionary Force, which may operate in the Arctic.

- 3. Arctic Intelligence, Surveillance, and Reconnaissance (ISR) Capabilities. DoD should maintain investments in manned and unmanned aerial systems that may further enhance Arctic air and maritime domain ISR and conduct analysis of requirements for future unmanned platforms that can operate in the Arctic. DoD will take an integrated approach to information sharing and will seek to increase ground-based radar data sharing and expand Space Situational Awareness sharing agreements with select Arctic Allies and space faring nations to promote the responsible use of space.
- 4. Sensing, Modeling, and Forecasting. One of the Joint Force's primary challenges in the Arctic is the environment itself, with weather, temperature, ice coverage, oceanographic conditions, and atmospheric conditions affecting operations in the region. Climate change is increasing the unpredictability of an already challenging environment, and there are limited sensors and data to aid forecasts and longer-term climate projections. For the Joint Force to succeed in the Arctic, it will need to be able to predict and adapt to these conditions. As such, DoD should advance analysis to better sense, model, and predict the meteorological, atmospheric, and oceanographic environment within the Arctic. This includes continuing partnerships with other Federal entities for in-situ observations, as well as prioritizing naval oceanography, ice research, coupled atmospheric and ocean modeling, and ionospheric modeling. DoD should continue existing investments in space-based capabilities to augment current forecasting, observation, and modeling capabilities.
- **5.** *Infrastructure*. DoD maintains bases in the Arctic that are important for campaigning, force projection, training, missile defense, satellite downlink, and personnel recovery/search and rescue (PR/SAR). The Arctic's vast distances, especially in North America, make supporting infrastructure vital for Arctic operations and presence. However, much of the legacy Cold Warera infrastructure has declined over time due to the harsh environment, lack of investment, and climate change-driven permafrost thawing and coastal erosion.

To enhance the ability of our forces to operate in and through the Arctic and enable response to advancing adversary capabilities, DoD will continue to sustain vital infrastructure in the region and will preserve regular access to and use of key Ally and partner bases. DoD will maintain investments that increase the all-hazard resilience of the most critical terrestrial and space-based infrastructure and capabilities to support all-domain awareness and ISR in the Arctic. DoD will also maintain investments in key Alaskan and Arctic infrastructure that enables the Joint Force to rapidly project power across the Arctic. These investments will improve our ability to monitor and respond to threats in support of homeland defense and security in the Arctic. Additionally, DoD will implement its bilateral defense cooperation agreements to enable calibrated presence using existing Allied infrastructure.

6. Cold Weather Equipment and Mobility. Operating in Arctic conditions requires appropriate training, equipment, and supplies for individual service members. Ground, air, and naval mobility platforms require specific sustainment operations not only to function in extreme cold weather, but also through other difficulties that now characterize Arctic conditions throughout the year such as flooding, wildfires, thawing permafrost, and the loss of historic ice. The Joint Force should be able to conduct mission-essential tasks at extremely cold temperatures routinely reaching -50 degrees Fahrenheit or below. In some cases, equipment, including weapon systems, can be outfitted to meet Arctic specifications, and in other cases, specialized equipment is needed. The Services should therefore ensure the adequacy of their Arctic equipment (accounting for both male and female personnel) in order to conduct relevant Arctic operations as directed, in accordance with their own Arctic strategies. Arctic-specific training should ensure appropriate mastery of this equipment. DoD will explore options to improve mobility in all seasons and variable conditions across the Arctic's diverse geography and weather.

ENGAGE

Allies and partners form a center of gravity as part of integrated deterrence, and they are at the core of DoD's strategy for the Arctic as well. The region boasts a notable concentration of highly capable Allies and partners with whom the United States already shares a high degree of cooperation and aligned interests, values, and objectives. We share North American aerospace warning, aerospace control, and maritime warning responsibilities with Canada via NORAD, the world's most enduring binational command. In the European Arctic, the Joint Force works by, with, and through our Allies to deter aggression in the region. In addition to relationships with Allied and partner militaries, regular engagement and government-to-government consultations with Alaska Native tribes, communities, and corporations are critical to achieving shared objectives. Many of our Allies and partners live every day in the Arctic operational environment and can bring significant capabilities and expertise to bear.

In addition to the important work alongside Allies and partners, DoD will remain ready to cooperate in the Arctic with any state or key stakeholder that shares our interests and is willing to work constructively to address shared challenges such as PR/SAR.

1. NATO. NATO Allies have a strategic interest and a treaty obligation to defend NATO territory in the Arctic. Finland and Sweden joining the Alliance creates opportunities for further collaboration, increased information sharing, and deepened cooperation, including by strengthening domain awareness, regional planning, and capabilities. DoD will work through NATO to ensure this strategy complements ongoing initiatives, including NATO's Concept for the Deterrence and Defense of the Euro-Atlantic Area, and is supported by NATO's Regional Plan Northwest. To further strengthen deterrence and defense, DoD will continue to leverage and

participate in NATO and Ally-led Arctic exercises. Participation in such exercises will enable the Joint Force to increase warfighting skills in Arctic conditions, use lessons learned from past engagements, and provide opportunities to learn from our Allies' extensive cold weather operating experience. This collaboration, including through unity and clarity of public-facing strategic communications, will be critical to maintaining stability and deterrence.

2. Arctic Fora and Institutions. DoD, alongside our Federal interagency partners, will engage in the appropriate Arctic institutions that facilitate regional security dialogue including the Arctic Security Forces Roundtable and Arctic Chiefs-of-Defense meetings. DoD, in partnership with our Arctic Allies and partners, will develop an Arctic Security Policy Roundtable to provide timely and relevant policy guidance to the established military-to-military fora. Additionally, DoD will support, as appropriate, U.S. participation in other Arctic fora including the Arctic Coast Guard Forum and the Arctic Council. While the mandate for the Arctic Council explicitly excludes defense topics, DoD will collaborate with its Federal interagency partners to support the United States' efforts to maintain the Arctic Council as the principal multilateral forum for the Arctic.

3. Special Operations Forces. U.S. special operations forces (SOF) provide unique expertise, capabilities, and access in the Arctic that strengthen the U.S. ability to campaign in the region. DoD and Arctic Allied SOF collaborate closely, and this collaboration provides a distinct



U.S. Marines with Marine Rotational Force-Europe 21.1, Marine Forces Europe and Africa, conduct a safety of use memorandum on an assault amphibious vehicle in preparation for Exercise Reindeer II, Reindeer I, and Joint Viking in Setermoen, Norway on November 19, 2020. (U.S. Marine Corps photo by Cpl William Chockey)

advantage focused on domain awareness, early warning, and forward posture. This cooperation with our Arctic Allies, including through bilateral, multinational, and NATO Special Operations Forces Command-led exercises, should continue. U.S. and Allied SOF are also a critical source of innovation for Arctic capabilities, and the DoD should continue to leverage the advanced experimentation efforts exercises these forces routinely conduct.

4. *Total Force*. Much of DoD's Arctic expertise resides in the Reserve Components, including the National Guard, and DoD will continue to rely on the capabilities and expertise provided by the Total Force to achieve success in the Arctic. The National Guard hosts cold weather training exercises, contributes to PR/SAR operations in the region, and provides a significant portion of the Joint Force's Arctic airlift capability and air-to-air refueling in Alaska and the Arctic region. The National Guard Bureau (NGB) also manages the State Partnership Program (SPP), which is a

key security cooperation mechanism for engaging with Arctic Allies in support of the CCMDs, as demonstrated by the Minnesota National Guard's ongoing partnership with Norway. DoD will continue to look for opportunities and support engagements and partnerships with Arctic countries across the Total Force, to include the SPP.

5. Indigenous and Alaska Native Tribes and Communities. Arctic Indigenous and Alaska Native tribes and communities hold valuable understanding of operating in the region and have thrived in the Arctic for thousands of years. Consistent with the NSAR, DoD will continue to consult and coordinate with Alaska Native tribes, communities, and Alaska Native corporations. Further, DoD will work to incorporate Indigenous Knowledge about the Arctic to inform and improve our ability to effectively operate in the region and to increase our understanding about potential DoD impacts on subsistence culture and ways of life.

6. Federal Interagency Partnerships. Ensuring stability and maintaining U.S. national interests in the Arctic is a whole-of-government effort requiring consistent collaboration with interagency counterparts. DoD will support wider U.S. Government engagement within Arctic multilateral fora and continue to work closely with the Department of State as we engage with our Allies and partners on Arctic security issues. DoD will continue to advance integrated deterrence in the Arctic

by collaborating with interagency counterparts to identify activities and address gray zone threats from our competitors in the economic, diplomatic, and information spaces.

DoD will partner with the Department of Homeland Security (DHS), including through the U.S. Coast Guard (USCG), which plays a vital role in maintaining U.S. presence in the Arctic region and supporting domain awareness. The USCG is responsible for operating and maintaining the United States' icebreaking capability, and DoD



An Air-Deployable Expendable Ice Buoy deploys from a C-17 Globemaster III over the Arctic Ocean on July 12, 2023. The Office of Naval Research partnered with the 144th Airlift Squadron to deploy data-gathering buoys across the Arctic Ocean. This deployment supported the International Arctic Buoy Programme, which maintains a network of buoys for real-time meteorological predictions and sea ice research. (U.S. Air Force photo by Airman 1st Class Shelimar Rivera Rosado)

will continue to support the USCG's long-term acquisition of at least eight polar icebreakers that will provide needed icebreaking capability for both military and civilian purposes, including PR/SAR. While disaster response is not a force sizing or shaping requirement, DoD remains ready to support DHS and the Federal Emergency Management Agency in the event of disaster, terrorist

attack, or other mass-casualty incident in the Arctic when directed by the President or when requested by a lead Federal department or agency and approved by the Secretary of Defense.

To help improve our understanding of the Arctic environment, DoD should continue to partner with other Federal organizations such as the U.S. Global Change Research Program; U.S. National Ice Center; and the U.S. Interagency Arctic Buoy Program. DoD should formalize coordination with the Department of Commerce's National Oceanic and Atmospheric Administration to collect and disseminate critical environmental information, aiming to enhance domain awareness and improve DoD operability.

7. Arctic Literacy. Successfully campaigning in the Arctic requires specialized understanding and knowledge of the region's unique operating environment and strategic importance. DoD will leverage the Ted Stevens Center for Arctic Security Studies (TSC) to develop security-related educational programs for both international and U.S. participants. TSC's mission of educating military and civilian leaders on the complexities of the Arctic region is key to integrating Arctic knowledge across DoD and with our Allies and partners. DoD will also ensure collaboration between TSC and the other DoD regional and functional centers to support Arctic literacy whether in competition, crisis, or conflict. To build this enduring knowledge base, DoD will promote DoD-wide Arctic security and climate education, training, and information-sharing to ensure our workforce can operate successfully in the Arctic.

8. Arctic Research. Advancements in research and development will be fundamental to future Arctic operations to improve Joint Force Arctic capabilities and understanding of the changing environment. To drive alignment on priorities, DoD will continue to periodically host the DoD Polar Research Workshop, collaborate with the Interagency Arctic Research and Policy Committee, and adopt commercial solutions where practical. DoD will work with Allies and partners to strengthen the work of the International Cooperative Engagement Program on Polar Research (ICE-PPR), which seeks to accelerate the development of Arctic capabilities while reducing duplication of effort. DoD's support of state-of-the-art research at DoD Laboratories will continue to further Arctic operational requirements and foster partnership with academic institutions. DoD values and will continue to support its decades-long partnership with the National Science Foundation to advance Arctic science for domestic and international entities.

EXERCISE

Continuing to exercise presence in the Arctic through training and operations will enhance deterrence by demonstrating combat-credible capabilities and the ability to respond rapidly to threats in the Arctic and elsewhere around the globe. Permanently stationed units of the Joint Force in Alaska serve as the first line of deterrence, while rotational units provide additional capabilities. Calibrated presence in the Arctic will exercise U.S. sovereignty and further uphold the navigational

rights and freedoms that are key to maintaining a stable and secure Arctic region. Training, exercising, and operating across all domains in the Arctic, with supporting infrastructure, will improve operational effectiveness by familiarizing the Joint Force with the unique and demanding operating environments of the North American and European Arctic regions. By exercising alongside Arctic Allies and partners, the Joint Force will improve interoperability and gain regional expertise.

1. Service-specific, Joint, Interagency, and Combined Exercises. Security and stability in the Arctic depend, in part, on the Joint Force's ability to respond rapidly and effectively to threats in the region. Exercises increase interoperability with Allies and partners, validate plans, train our ability to rapidly deploy to all parts of the Arctic region, and provide an opportunity to test

equipment in Arctic conditions. As such, the Joint Force will continue to exercise frequently in Arctic through Servicethe specific training, joint exercises — to include with USCG—and combined exercises with our Allies and partners. DoD will ensure CCMDs with Arctic equities work toward global integration through joint exercises and ensure key exercise lessons inform capability requirements and strategic planning.



The U.S. Navy guided-missile destroyer USS Gridley (DDG 101) is moored pierside in Tromsø, Norway, during a brief stop for fuel on November 23, 2019. Gridley was underway on a scheduled deployment as the flagship of Standing NATO Maritime Group One to provide a continuous maritime capability for NATO in the North Atlantic. (U.S. Navy photo by Mass Communication Spc. 2nd Class Cameron Stoner)

In the North American Arctic region, DoD will leverage ARCTIC EDGE, DoD's premier Arctic exercise, and U.S. Indo-Pacific Command's (USINDOPACOM) NORTHERN EDGE to develop and strengthen homeland defense plans, exercise joint presence, and highlight global integration among USNORTHCOM, USEUCOM, and USINDOPACOM. DoD will also enhance readiness through the U.S. Navy's biennial Operation ICE CAMP submarine exercise north of Alaska, and the U.S. Army's annual Alaska rotation of the Joint Pacific Multinational Readiness Center. To hone Arctic early warning and missile defense capabilities, DoD will train with Canada through Operation NANOOK and through NORAD and USNORTHCOM-led operations and exercises NOBLE DEFENDER and VIGILANT SHIELD. In the European Arctic, the Joint Force will participate in USEUCOM, NATO, and Ally-hosted exercises such as NORDIC RESPONSE, DYNAMIC MONGOOSE, and ARCTIC CHALLENGE to ensure the Joint Force is familiar with the different operating conditions in the European Arctic.

In addition to exercises, the Joint Force should conduct wargames, simulations, and tabletop exercises focusing on the Arctic that challenge prevailing assumptions and explore potential gaps. The experiential learning from these exercises serves as important Arctic and climate literacy opportunities, further strengthening DoD's strategic planning and engagement with partners.

2. Arctic Operations. The Joint Force, along with our Allies, will continue to conduct routine operations in the region. These operations will include: supporting NORAD's enforcement of the U.S. and Canadian air defense identification zones consistent with international law and custom; providing integrated air and missile defense; identifying and intercepting vessels within waters under U.S. jurisdiction that are acting inconsistent with navigation rights reflected in UNCLOS;



U.S. and Canadian Soldiers practiced tactical insertion on an open ice skiway delivered by an LC-130 Hercules skiplane of the 109th Airlift Wing, New York Air National Guard, on oceanic Arctic ice near Cornwallis Island, Nunavut, Canada on March 15, 2023 during annual domestic emergency and response exercise, Guerrier Nordique 23.

U.S. Soldiers and Airmen consisted mainly of National Guard units from Connecticut, New Hampshire, Utah, New York, and Vermont. U.S. Army Soldiers came from the 11th Airborne Division out of Ft Wainwright, Alaska. Canadian Soldiers came mainly from the 35th Canadian Brigade Group.

(Vermont National Guard photo by CPT Mikel Arcovitch)

routinely deploying submarines to the region to provide undersea awareness and bolster integrated deterrence in defense of U.S. and Allied interests; dynamically deploying ground forces to the Arctic to demonstrate deterrent capabilities; continuing airborne and maritime patrols with Allies across the Arctic region to include areas such as the Greenland-Iceland-United Kingdom gap; supporting NATO's Air Policing mission in Iceland; and providing airlift and refueling capability to U.S. and appropriate Ally and partner aircraft in the Arctic region.

3. Training. To operate in the changing Arctic environment, the Joint Force must have the requisite skills, training, and experience. Each Service should regularly train Arctic capable forces individually and collectively in cold weather operational skills (e.g., skiing, snowshoeing, unit movement, medical care, equipment sustainment, and survival) required for successful Joint and combined operations in an Arctic environment.

4. Defending the Stable and Open International System. Preserving navigational rights and freedoms in increasingly accessible Arctic waterways is key to maintaining a stable and secure region. DoD will continue to monitor potential threats to freedom of navigation in the Arctic, uphold lawful uses of the seas guaranteed to all States under customary international law as reflected in UNCLOS, and protect the global mobility of U.S., Allied, and partner forces by conducting Arctic maritime exercises, operations, and transits, in coordination with these nations, as appropriate.

This strategy provides a path forward for DoD, working with U.S. Government counterparts, and with Allies and partners, to both manage risks and embrace opportunities presented by a changing Arctic region. The strategy's pragmatic and transparent approach is intended to reduce the possibility of escalation or misinterpretation.

A primary risk to the successful implementation of this strategy stems from the need to balance against other global priorities. DoD and the Joint Force have global responsibilities and must remain prepared to respond to a broad range of challenges and threats around the world.

The NDS provides the Secretary's clear guidance that DoD will monitor and respond to threats in the Arctic region. DoD will undertake prudent and calibrated efforts to that end, guided by the three lines of effort in this strategy. Resourcing deliberations via established DoD processes will include consideration of the costs of potential investments as well as the risks of failing to provide sufficient capabilities and assets to respond to threats. Where possible, DoD will utilize the collective capability of the U.S. Government and international Allies and partners to develop whole-of-government and combined capabilities.

Insufficient investments in early warning and air defense sensors in the Arctic will increase risks to the U.S. homeland. A lack of Arctic-capable domain awareness and communications capabilities would hamper the U.S. military's ability to operate in the region in response to competitor activities. Lastly, insufficient Arctic readiness will cast doubt on the credibility of the Joint Force to effectively operate in the region. To ensure the Arctic does not become a strategic blind spot, this strategy outlines a series of deliberate steps for DoD to improve its ability to monitor events in the Arctic and, when directed, execute a tailored response to national security threats alongside its interagency and international partners.

Recognizing the unique challenges of the Arctic environment and geography, which spans multiple CCMDs, Commander, USNORTHCOM will continue to serve as DoD's Arctic capability advocate. This role will coordinate with other CCMDs to identify and request resources for Arctic capability gaps, as appropriate, through DoD's established planning and programming processes as directed in the Unified Command Plan. The Under Secretary of Defense for Policy will develop Department-wide policy that builds enduring advantages in Arctic.

CONCLUSION

As the Arctic security environment evolves, DoD must remain prepared to protect our national interests. The calibrated approach laid out in this strategy will guide how DoD adapts to geopolitical and geophysical changes in the Arctic and ensure U.S. Allies and partners act cohesively in this increasingly accessible region. With the appropriate resources, this strategy will enable DoD to support whole-of-government efforts to maintain security and stability in the Arctic and beyond.



