



American and Canadian personnel participate in a simulated aerial assault as part of Arctic Warrior 21. A detachment from the Royal Canadian Air Force's 450<sup>th</sup> Tactical Helicopter Squadron, based out of Petawawa, Ontario, joins elements of 1<sup>st</sup> Battalion, 52<sup>nd</sup> Aviation Regiment, and 1<sup>st</sup> Attack Reconnaissance Battalion, 25<sup>th</sup> Aviation Regiment, both from Fort Wainwright, AK, for the flight.

## Mr. Michael Gearty

### Introduction

The Arctic region is a place of vast natural resources, ever-changing climactic conditions, and international strategic competition. The U.S. Army seeks to regain a footing of Arctic dominance in order to maintain peace and prosperity in the Arctic as part of U.S. national security interests. Tactical operations in the Arctic environment pose challenges not only to Army equipment but also to the human element—Soldiers—as well.

Before we begin to discuss the details of human and equipment factors in cold weather regions and climates, let us first consider the question, Why conduct military operations in the Arctic?

The Department of Defense (DoD) updated its strategic objectives for the Arctic in the 2019 *Report to Congress, Department of Defense Arctic Strategy*, to reflect the evolving Arctic security environment and the release of the 2018 National Defense Strategy. The report states, “DoD’s desired end-state for the Arctic is a secure and stable region in which U.S. national security interests are safeguarded, the U.S. homeland is defended, and nations work cooperatively to address shared challenges.”<sup>1</sup> The DoD Arctic strategy “is informed by the 2017 National Security Strategy and anchored in the priorities of the 2018 National Defense Strategy (NDS) and its focus on competition with China and Russia as the principal challenge to long-term U.S. security and prosperity.”<sup>2</sup>

As an Arctic nation, the United States is responsible for providing Arctic-capable forces to support multi-domain operations in defense of national security interests from regional as well as global threats. The Army must also be able

and ready to provide and sustain Arctic-capable forces for employment outside the region if necessary. This requires the Army to provide its Soldiers with the appropriate equipment, training, and doctrine to operate in extreme cold weather conditions.

### Security Implications in the Arctic Region

The United States is an Arctic nation. The Arctic security environment has direct implications for U.S. national security interests. Geographically, the Arctic comprises the northern approaches of the United States and represents a potential vector both for attacks on the homeland and for U.S. power projection. Approaches to the Arctic Ocean on both the east and west of the United States form strategic corridors for maritime traffic. Arctic sea routes transit through the Bering Sea between the United States and Russia, while the Greenland, Iceland, United Kingdom, and Norway gap (also known as the GIUK–N gap) is a strategic corridor for naval operations between the Arctic and the North Atlantic.<sup>3</sup>

The Arctic region comprises eight nations with sovereign territory in the Arctic: Canada, Denmark (including Greenland), Finland, Iceland, Norway, Russia, Sweden, and the United States. Excluding Russia, these Arctic nations are North Atlantic Treaty Organization allies. Additionally, China’s increased presence in the Arctic and Russia’s growing economic and military ambitions in the region highlight how both nations have long-term strategic designs for the Arctic. By 2035, an increased military presence by both countries can be expected.<sup>4</sup>

Russia is the largest Arctic nation by landmass, population, and military presence above the Arctic Circle. Russia formed

the Northern Fleet Strategic Command in 2014 to coordinate its renewed emphasis on the Arctic. Russia has gradually strengthened its presence by creating new Arctic units, refurbishing old airfields and infrastructure in the Arctic, and establishing new bases along the Arctic coastline. There is also a concerted effort to establish a network of air defense and coastal missile systems, early warning radars, and a variety of sensors.<sup>5</sup>

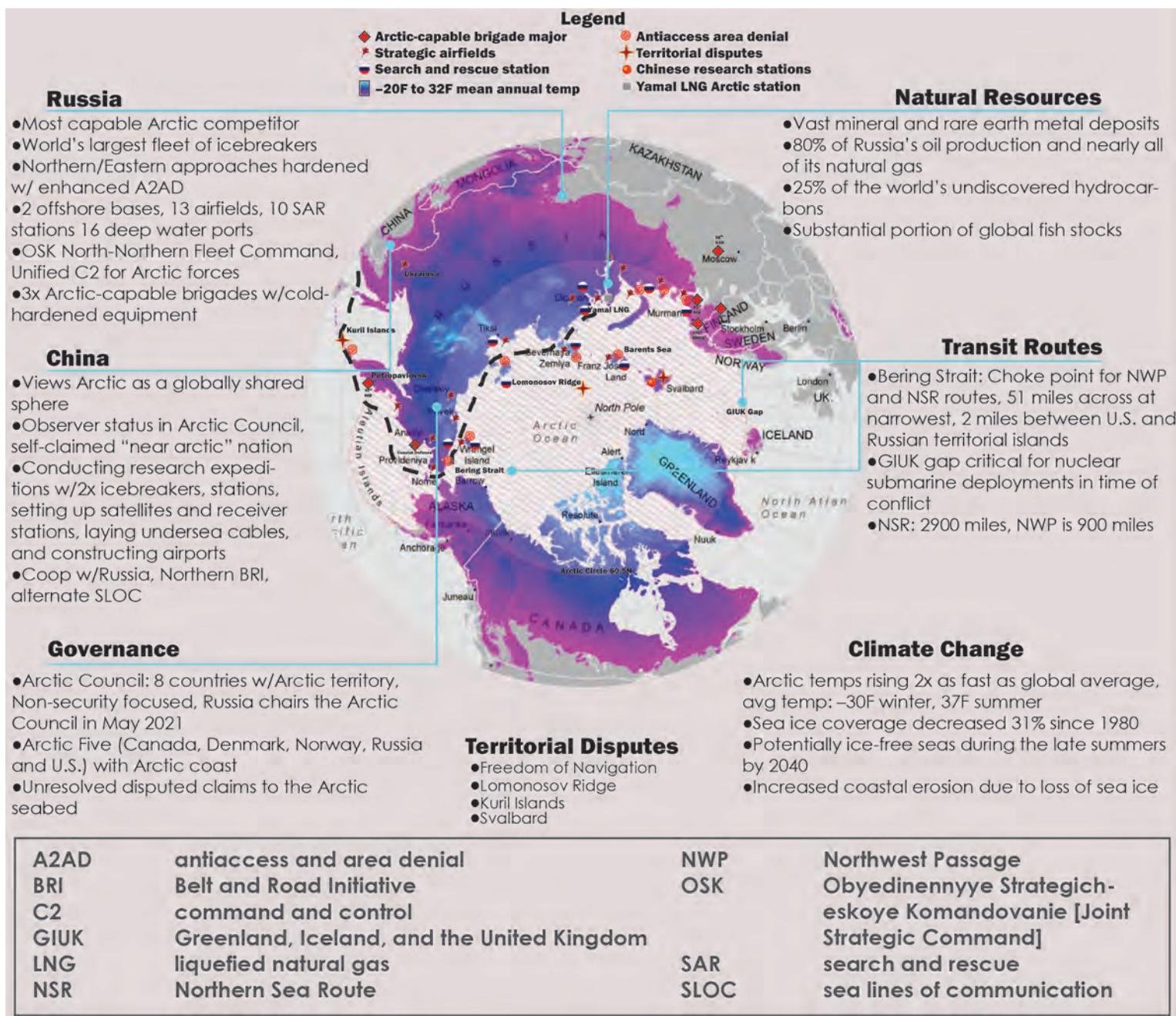
The DoD's desired end state for the Arctic is a secure and stable region where U.S. national interests are safeguarded, the U.S. homeland is defended, and nations work cooperatively to address shared challenges. Protecting U.S. national security interests in the Arctic will require the joint force to sustain its military advantages in the Indo-Pacific and Europe, identified in the National Security Strategy as key

regions of strategic competition, and to maintain a credible deterrent for the Arctic region. The DoD must be able to quickly identify threats in the Arctic, respond promptly and effectively to those threats, and shape the security environment to mitigate the prospect of those threats in the future. The 2019 DoD Arctic Strategy outlines three strategic ways that support the desired Arctic end state:

- ◆ Building Arctic awareness.
- ◆ Enhancing Arctic operations.
- ◆ Strengthening the rules-based order in the Arctic.

### Historical Perspective

From a historical perspective, especially during World War II, Alaska was an extremely active Arctic theater of operations. During World War II, the United States Army



Great Power Competition in the Arctic<sup>6</sup>

administered the construction of the 1600-mile Alaska-Canada military highway and an array of 300 airfields and posts throughout the territory that supported the war in the North Pacific and enabled the delivery of Alaska-Siberia Lend-Lease aircraft to the Soviet Union. Additionally, units assigned to the 7<sup>th</sup> Infantry Division assaulted and defeated Japanese forces on the Aleutian island of Attu in May 1943. The 87<sup>th</sup> Infantry Regiment (later assigned to 10<sup>th</sup> Mountain Division) led the Allied assault of Kiska in August 1943. Both assaults were key in preventing Japanese forces from gaining footholds on American soil in the Aleutians.

When the Berlin Wall fell in 1989, the subsequent dissolution of the Soviet Union signified an end to the Cold War and portended a shift in Alaska’s military significance. During the 1990s, the Army inactivated the 6<sup>th</sup> Infantry Division and resurrected U.S. Army Alaska as a component of a newly reestablished Alaskan Command.



U.S. Army photo by SSG Alex Skripnichuk

A paratrooper with 3<sup>rd</sup> Battalion, 509<sup>th</sup> Parachute Infantry Regiment, 4<sup>th</sup> Infantry Brigade Combat Team (Airborne), 25<sup>th</sup> Infantry Division, secures his equipment during an airfield-seizure operation at Donnelley Training Area, AK, February 7, 2021.

The Soviet Union and later Russia never lost interest in the Arctic—beginning in 2010, Russia invested over \$1 billion to refurbish 13 airfields, enhance search and rescue capabilities, and upgrade radar stations to improve awareness in the air and maritime domains. These systems create a “protective dome” across Russia’s vast Arctic coastline and improve its operational capability to detect and track vessels and aircraft.

### The Arctic Environment

The real enemy in the Arctic, many experts say, is the Arctic environment itself. Temperatures exceeding minus 60 degrees Fahrenheit are common during winter months. Windchill factors can be well below minus 150 degrees Fahrenheit, depending on ambient temperatures and wind speeds. However, the complexity of conducting military operations in the Arctic environment of Alaska is compounded

not only by the extreme cold but also by the inescapable trend of global warming.

Today, the entire vast region north of the Arctic Circle is warming twice as fast as the rest of the world, opening up new opportunities for natural resources, shipping routes, and commercial fishing. While long-term trends point to a more consistently navigable Arctic, other factors make it difficult to predict what the near-term environmental conditions will be. Though the Arctic continues to lose increasing amounts of multiyear sea ice, the remaining ice is becoming less predictable. For example, heavy pack ice conditions rendered the Northwest Passage impassable for some ships in 2018, despite its being one of the warmest periods on record. Furthermore, decreased sea ice and glacial mass will open access to currently unclaimed natural resources. These factors combined make the region a potential hotbed of activity, economic competition, and possible miscalculation of intentions or actions.

The challenges of the Arctic, however, are not only due to extremely cold temperatures. In many cases, mobility is actually at its highest state in the Arctic winter. Summer months pose significant challenges for many wheeled vehicles, while the most challenging period is the spring thaw when ground movement becomes impossible across vast swaths of tundra. Regardless of season, mobility by air is critical to Army operations. Today and for the foreseeable future, the Arctic presents a harsh and demanding environment for Army operations.

### U.S. Army End State

Today, our Army exists to protect our Nation and to preserve the peace. To meet that essential requirement, the Army must man, train, equip, and organize to win in the Arctic. The Arctic is simultaneously an area of competition, a line of attack in conflict, a vital area holding many of our natural resources, and a platform for global power projection.

#### Army Arctic Strategy End State

The U.S. Army is able to rapidly generate and project multi-domain forces that are specifically trained, equipped, and sustained to fight, survive, and win in extreme cold weather and mountainous conditions over extended periods.

The *DoD Arctic Strategy* calls for the Arctic to remain a secure and stable region where our national security interests are safeguarded, as set forth in three objectives:<sup>7</sup>

- ◆ Defend the homeland.
- ◆ Compete when necessary to maintain favorable regional balances of power.
- ◆ Ensure common domains remain free and open.

The initial drive toward the Army end state will be investing in a Multi-Domain Task Force-enabled division headquarters, along with specially trained and equipped combat brigades to regain U.S. Army cold weather dominance. In order to meet these objectives, the Army will conduct five lines of effort:

- ◆ Improve Arctic Capability—Building the basic Arctic capability across the force, addressing persistent problems from Arctic-stationed organizations, and anticipating and mitigating the impact of a changing environment on infrastructure and operations.
- ◆ Compete in the Arctic and Globally—Achieving a strengthened network of allies and partners to compete in the Arctic, and identifying and partnering with local and foreign indigenous forces.
- ◆ Defend the Far North in Crisis and Conflict—Deterring or defeating land threats to the far north.
- ◆ Build Arctic Multi-Domain Operations—Experimenting and advancing combined joint all-domain command and control in support of multi-domain operations, and projecting multi-domain effects across the region.
- ◆ Project Power across the Arctic—Projecting power to dynamically employ Army forces in crisis and conflict.<sup>8</sup>

The Army will regain cold weather, high altitude, and high latitude dominance by adapting how the Army generates, postures, trains, and equips our forces to execute extended, multi-domain operations in extreme conditions. Restoring dominance also mandates an inherently multicomponent approach with significant contributions for the Army Reserve and National Guard. The Army will implement integrated solutions that emphasize readiness for operations in extreme cold and mountainous environments and bolster the resiliency of our Soldiers, our people, and our installations. The Army is committed to a Total Army approach to meeting joint warfighter requirements around the globe. This restored dominance provides key and critical options to the joint force commander to employ decisive land warfare capabilities in support of worldwide operations.

## Conclusion

The Army requires Arctic-capable units, regardless of where they are stationed, able to deploy to any extreme cold weather, snowy, high latitude, or high altitude environment. These units require appropriate equipment, individual and unit proficiency, and appropriate doctrine. Additionally, the Army must have the capability to deploy and sustain these

forces in combat operations. The most challenging aspect of making Arctic units combat-ready will be ensuring sufficient individual and collective training to achieve and maintain proficiency. Soldiers must possess special skills, have the physical and mental endurance, and undergo extensive training to build expertise in extreme cold weather conditions. Units must have undergone rigorous training under realistic conditions.

A prime example of this type of rigorous, realistic training recently took place at Donnelly Training Area near Delta Junction in central Alaska. In February 2021, 4<sup>th</sup> Infantry Brigade Combat Team (Airborne), 25<sup>th</sup> Infantry Division, completed exercise Arctic Warrior 21, a large-scale exercise to test the Army's capabilities in extreme cold weather. This experience showed firsthand how the harsh arctic environment could affect every facet of military operations, including military intelligence. For the military intelligence community, preparation for the battlefield becomes even more complex when accounting for unknown factors. Temperatures exceeding minus 50 degrees Fahrenheit and windchill factors exceeding minus 80 degrees Fahrenheit affected equipment, personnel, and operations in a way that was difficult to forecast. To survive and win in combat, in an arctic environment, military intelligence Soldiers must maintain an in-depth understanding of limitations and effects, remain alert, and always work as a team. ❄️

## Endnotes

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3. Department of the Army, *Regaining Arctic Dominance: The Army in the Arctic* (Washington, DC, 19 January 2021), [https://www.army.mil/e2/downloads/rv7/about/2021\\_army\\_arctic\\_strategy.pdf](https://www.army.mil/e2/downloads/rv7/about/2021_army_arctic_strategy.pdf).
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5. Department of the Army, *The U.S. Army in the Arctic Version 2.0, Draft 2.1* (Washington, DC: n.d.).
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7. Department of Defense, *Report to Congress*, 6–7.
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