

## Human Security in the Arctic: Implications for the United States Army

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**ABSTRACT:** This article explains the growing importance of Arctic security issues to Army strategic planning. While the effects of climate change will complicate the Army's ability to protect the nation, they will also increase the challenge of securing the population for which the Army, including the Alaska National Guard, may be the best-equipped force to respond. Adequate planning is necessary to ensure the Army remains ready to respond to these challenges.

In September of 2018, the *Venta Maersk* became the first ship to sail successfully through the ice-free waters of the Northeast Passage.<sup>1</sup> The long-anticipated trip signaled a new era for security in the Arctic. But increased commercial shipping is not the only activity expected to raise security concerns in the region. Extractive industries such as oil and natural gas drilling, mineral mining, and commercial fishing are also expected to attract more industry and, consequently, more people. As resources become more accessible, Arctic states will not only expand their defensive posture to protect areas where extraction occurs but also to assert new claims in areas where boundaries have not been established. Thus, the security situation in the Arctic Ocean could soon resemble that in the South China Sea where seven countries have competing territorial claims.<sup>2</sup>

It is easy, however, to overstate this concern since most of the Arctic states are either allies or have favorable relations with each other. Even states with adversarial relationships have thus far demonstrated a willingness to settle disputes using diplomacy rather than arms, though the chance of violence still exists. By exploiting vulnerabilities such as poorly defended facilities or disrupting maritime traffic, Russia, the state most capable of operating in the Arctic, could attempt to impose its will to establish additional sovereignty claims or to retaliate for actions against its interests elsewhere. China might also apply a strategy similar to its efforts in the South China Sea. But so far, such retaliation has not happened despite provocations in areas closer to Russian and Chinese interests.

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1 "Venta Maersk Makes History as It Crosses Northern Sea Route," *World Maritime News*, September 19, 2018.

2 "Global Conflict Tracker: Territorial Disputes in the South China Sea," Council on Foreign Relations, accessed October 18, 2018.

Perhaps a greater concern is the potential for increased activity by transnational criminal and terrorist organizations. If such organizations establish an active presence in the north and the United States maintains a limited ability to interdict illicit activity encouraged by the new southern-bound routes, the region could become a dangerous place. Unchecked, parts of Alaska could begin to resemble areas of Mexico where rival cartels terrorize the population and challenge law enforcement's monopoly on the use of force.

What should be concerning are the combined effects of people migrating toward the economic opportunities associated with the new industries, of rising sea levels, and of changing weather patterns that will disrupt current ways of life and place established communities in danger. While the responsibility to respond to these conditions does not fall directly to the US military, the Army, particularly the Alaska National Guard (AKNG), is in the best position to respond. Thus, mission creep will likely occur as the need to respond to human-security crises resulting from the changing environmental conditions overwhelms the military's efforts to maintain national security.

Canada, Norway, Denmark, Iceland, Sweden, and Finland also have coastlines or territory near the Arctic Circle. These countries, with the United States and Russia, make up the Arctic Council, whose main purpose is to promote cooperation among Arctic countries. Other states in the European Union and China have also expressed interests in the Arctic and hold observer status on the council.<sup>3</sup> So far, these states have chosen to cooperate rather than to confront each other over territory and other disputes in the Arctic.

In the event that legal disputes are settled unfavorably or provocations elsewhere in the world spill over into the Arctic, there is much these states could fight over. A naval confrontation over passage rights could arise between the United States and Russia or China, especially in the Northwest Passage, which Canada claims, and the Northeast Passage, which Russia claims.<sup>4</sup> Such tensions could easily disrupt US commercial and military traffic similar to the situation in the South China Sea until China could procure more permanent basing solutions.<sup>5</sup> The most dangerous course of action, however, might be Russian aggression to seize territory by force, which is currently believed to be the least likely one in the absence of Western provocation.<sup>6</sup> Indicators of this position include Russia settling its conflict with Norway over the Barents Sea

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3 Nikoloz Janjgava, "Disputes in the Arctic: Threats and Opportunities," *Connection* 11, no. 3 (Summer 2012): 96.

4 Janjgava, "Disputes in the Arctic," 97; Caitlyn Antrim, "Geography and Jurisdiction in the Maritime Arctic," *Geographical Review* 107, no. 1 (January 2017): 24–47; and Jessica Brown, "Thaw in Accord: As Arctic Ice Melts, Territorial Disputes Are Hotting Up, Too," *Independent*, March 1, 2018.

5 Kathrin Stephen, "Areas of (No) Conflict in the Arctic," Arctic Institute, May 1, 2018. Arctic countries recognize China's tendency to assume military infrastructure and will likely inhibit its territorial expansion. Maria Abi-Habib, "How China Got Sri Lanka To Cough Up a Port," *New York Times*, June 25, 2018; and Erik Matzen, "Denmark Spurned Chinese Offer for Greenland Base over Security—Sources," Reuters, April 6, 2017.

6 Stephanie Pezard et al., *Maintaining Arctic Cooperation with Russia: Planning for Regional Change in the Far North* (Santa Monica: RAND Corporation, 2017), xii–xiii, xvi.

in 2010, representing its interests regarding the Beaufort Sea and Hans Island peaceably, and adjudicating other disputes under the United Nations Convention on the Law of the Sea (UNCLOS).<sup>7</sup>

The potential for a number of Arctic resources to become reasons for war, however, increases as resources in more temperate climates are depleted. In addition to the 240 billion barrels of oil and natural gas that have already been found, there may be more than 412 billion barrels undiscovered.<sup>8</sup> The Arctic region also contains significant quantities of coal, iron ore, zinc, lead, nickel, precious metals, diamonds, and gemstones. And fishermen have harvested over eight million tons of fish from Arctic waters since 2011.<sup>9</sup> Although most of these resources are in undisputed areas, few reliable estimates exist regarding resources in the disputed areas.

Even though opportunities for industries and nations to extract resources from the undisputed Arctic areas abound for the foreseeable future, interested parties may decide to stake and defend claims for the disputed areas soon. Of the eight potential state disputants, five are members of NATO, and Sweden and Finland have good relations with the United States and other Arctic countries. As previously mentioned, Russia often has adversarial relationships over non-Arctic concerns; however, it has thus far demonstrated a willingness to settle Arctic-related disputes diplomatically.

In contrast to the reasons for claiming Arctic resources, diminishing economic returns will likely temper international competition for the region. The high costs associated with extracting natural Arctic resources in the harsh environment and unpredictable weather patterns will not decrease, even with the ice melt. And the US Geological Survey suggests Arctic reserves total only 10–15 percent of the world's oil and natural gas, though these estimates are uncertain.<sup>10</sup> Moreover, extracting Arctic oil and gas in large quantities may not be worth considerable expense as global reliance on renewable and alternative sources of energy increases. For perspective, Shell Oil Company spent \$7 billion to extract oil in the Arctic waters near Barrow, Alaska, but halted efforts in 2015 because of low productivity, high costs, and increasing protests regarding the potential threat to the environment.<sup>11</sup> If the Soviet Union had been a free market economy during the Cold War, it would not have been able to develop the Arctic as much as it did because the return on investment was just too small.<sup>12</sup>

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7 Pezard et al., *Maintaining Arctic Cooperation*, 44.

8 Charles Emmerson, *The Future History of the Arctic* (New York: Public Affairs, 2010), 191.

9 "Arctic Natural Resources," National Ocean Economics Program, accessed October 18, 2018.

10 Emmerson, *Future History*, 191.

11 Wendy Koch, "3 Reasons Why Shell Halted Drilling in the Arctic," *National Geographic*, September 28, 2015.

12 Emmerson, *Future History*, 31.

## Arctic Expansion

As Charles Emmerson notes, “If there is a scramble in the Arctic it is a scramble in slow motion.” Making territorial claims in the Arctic “is complicated not because there is an absence of the law, but because there is a surfeit of it.”<sup>13</sup> The United States, for example, is not a signatory of the customary, international law of the sea—which captures many different legal rules for land, sea, and sea bed—but does recognize it and accept it as a constraint. The United Nations, which many parties use to settle their Arctic disputes, could take years to consider this law and decide any particular set of competing claims. Thus absent a compelling reason to exploit such resources in the present, the potential for military conflict seems low.

It is difficult to assess the likelihood of Russia or China establishing a constant military presence in the Arctic. Even with climate change, the probability is somewhat diminished by the fact that, despite recent buildups of forces and presence, no country is well postured to conduct military operations in the Arctic, especially on the ground. Moreover, where the ice has melted, the terrain is not favorable for offensive operations and unpredictable and extreme weather patterns make large-scale operations difficult if not impossible. As the former Canadian Chief of Defense General Walter Natynczyk stated, “If [anyone] invades the Canadian Arctic, my first challenge is search and rescue to help them out.”<sup>14</sup>

Despite the alarming buildup of Russian military forces in the Arctic, they do not appear capable of conducting significant operations far outside their own territory. The militarization consists of the reactivation of six Cold War bases, adding support bases, the forward stationing of up to three Arctic brigades and increasing air defense assets as well as establishing special Arctic coastal defense divisions.<sup>15</sup> These developments focus more on defense as well as a number of noncombat tasks, including “environmental cleanup, search and rescue, support for oil spill cleanup, monitoring poaching, and combatting smuggling and illegal migration.”<sup>16</sup>

The buildup appears much less threatening when one considers Russia has 24,140 kilometers of Arctic coastline and the United States only 1,706 kilometers.<sup>17</sup> Given the ratio of forces, roughly three Arctic brigades on the Russian side and two brigades—one mechanized infantry and one airborne—on the US side, the Russian border is far more thinly defended than that of the United States. This imbalance

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13 Emmerson, *Future History*, 83, 94.

14 GEN Walter Natynczyk in “Proceedings of the Standing Senate Committee on National Security and Defense, Issue 5 Evidence Meeting,” Senate of Canada, June 7, 2010.

15 Andrew Osborn, “Putin’s Russia in Biggest Arctic Military Push since Soviet Fall,” Reuters, January 30, 2017.

16 Ernie Regehr, *Arctic Security and the Canadian Defence Policy Statement of 2017* (New York: Simons Foundation, 2017), 3.

17 “Russia,” Arctic Institute, accessed October 22, 2018; and “United States,” Arctic Institute, accessed October 22, 2018.

does not suggest the Russians would not take aggressive military action in the Arctic, whether in response to some perceived provocation or to shape the behavior of the United States and its allies. But Russian land forces, as currently deployed in the Arctic, are unlikely to play a major role.

### American Defense

Regardless, the US Army should be prepared to play a role in defending against small offensive operations intended to impose political or economic costs on US activities. As suggested by the tasks assigned to Russian Arctic units, however, greater nontraditional security challenges remain. Unfortunately, the traditional national security framework is inadequate for anticipating what those challenges are or developing a response to them. Therefore, to determine an Army response to changing conditions in the Arctic, the Army needs to consider human security to be its main concern.

### Human Security

The United Nations Development Program first described human security as a twofold concept, comprised of both positive and negative duties summed up as “freedom from want” and “freedom from fear.”<sup>18</sup> This conception places an obligation on governments to not harm their own people and to take active and preventive measures to ensure people are protected from a variety of harms. These harms include external threats as well as the threats of hunger, disease, crime, and repression, as well as protection from sudden and hurtful disruptions in the pattern of their daily lives, whatever the source of that disruption may be.<sup>19</sup> When considered in the context of emerging norms associated with the responsibility to protect (R2P), these obligations can even extend beyond a country’s own borders.

Human security, however, is broader than R2P, which emphasizes protection from massive human rights violations and humanitarian disasters.<sup>20</sup> Human security shifts the focus from the state to the individual, and from securing the borders to securing the environment, including protecting people’s access to food, water, health care, and other necessities. Human security requires governments to address conditions associated with the rule of law, unemployment, criminality, extremist ideologies, and anything else that might prevent individuals in communities from obtaining basic needs and leading relatively healthy and free lives.<sup>21</sup>

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18 Mahbub ul Haq et al., *Human Development Report 1994* (New York: United Nations Development Programme, 1994); and David Andersen-Rodgers and Kerry F. Crawford, *Human Security: Theory and Action* (Lanham, MD: Rowman & Littlefield, 2018), 8.

19 Andersen-Rodgers and Crawford, *Human Security*, 6–7.

20 Alex J. Bellamy, “The Responsibility To Protect Turns Ten,” *Ethics & International Affairs* 29, no. 2 (Summer 2015): 161–85.

21 Shannon D. Beebe and Mary Kaldor, *The Ultimate Weapon Is No Weapon: Human Security and the New Rules of War and Peace* (New York, Public Affairs, 2010), 7–8.

The norms of addressing human-security concerns are different from those associated with just war theory and the law of armed conflict. Where just war theory treats sovereignty as a limit on action, human security considers it a responsibility that motivates action. Where just war theory emphasizes reaction, human security emphasizes prevention. Finally, where just war theory focuses its attention on limiting harm, human security focuses its attention on promoting the good, not just for people within one's borders, but anywhere people are threatened.

This shift in emphasis from the state to individuals within threatened populations is driven by the observation that insecure people do not stay put; it is much more likely and much easier for them to export their collective insecurity than it is for them to stay and endure it. As Mary Kaldor points out, "Violence and resentment, poverty and illness—in places such as Africa, Central Asia, or the Middle East—travel across the world through terrorism, transnational crime, or pandemics."<sup>22</sup>

While the scale is arguably different, the point is equally valid when considering the security of the Arctic: the US Army should not prioritize human-security needs over national security, but the Army may find itself in a far better position than other government agencies to address them. As the melting ice of climate change opens new territory and places pressure on Arctic populations, the Army may be compelled to assume human-security missions. Thus, it makes sense for the Army to prepare itself to undertake such missions without compromising its ability to respond to external threats. The next sections will discuss what those human-security challenges are in an Arctic context and suggest measures the Army can take to address them without abandoning national security priorities.

*Global warming.* The first factor degrading Arctic security is global warming, which transforms the Arctic ecosystem and biosphere in ways that threaten indigenous ways of life, food security, and the global environment. Not only could the Arctic be ice-free by the summer of 2030, but the winter ice, which melts faster than the older ice it replaced, will also be younger and thinner. The subsequent acceleration of the ice melt will have significant regional and global consequences.<sup>23</sup> A warmed Arctic may be less icy, but likely stormier, putting increased strains on local populations, maritime shipping lanes, and Arctic states' search and rescue capabilities. Moreover, just because ice does not form on the sea, it can still form on vessels traversing that sea, suggesting that Arctic routes, even in an ice-free summer, will remain risky for improperly equipped vessels.<sup>24</sup>

While warmer seas may attract more fishing activity, they can also attract invasive species that could decimate local populations through

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22 Beebe and Kaldor, *Ultimate Weapon*, 5.

23 Emmerson, *Future History*, 129–30.

24 Emmerson, *Future History*, 162.

predation, competition, or disease.<sup>25</sup> Furthermore, as temperatures change, fishing grounds move. Experts expressed concern as early as 2010 that Norwegian fishing grounds may be moving east into Russian waters.<sup>26</sup> Moreover, if Chinese fishermen practice unsustainable harvesting, as they have elsewhere in the world, an increasingly assertive China, which was listed as the least preferred partner by all but one of the Arctic states, could significantly increase tensions in the region.<sup>27</sup>

*Climate change.* Perhaps most importantly, climate change will affect the quality and the quantity of food sources for indigenous populations. These populations have already noted a change in the taste and the nutritional quality of traditional food sources even where it is not scarce.<sup>28</sup> Compounding that concern is the fact that food does not just sustain indigenous populations but provides a fundamental basis for social and cultural identities.<sup>29</sup> When cultural food sources disappear, often so do the ways of life that evolved around them. This dynamic makes indigenous communities especially vulnerable.

*Human activity.* Increased economic and social activity associated with extraction industries, fishing, and maritime shipping also raises the potential for humanitarian disasters.<sup>30</sup> Such disasters and environmental degradation could result from industrial pollutants, accidents, oil spills, and radiation leakage.<sup>31</sup> Russia, for example, has dumped a number of old nuclear reactors and other nuclear material on and around the Kola Peninsula.<sup>32</sup> An accident or widespread leakage involving this waste could have significant implications for the region.

Increased maritime activity will likely mean increased incidents, to which Arctic states may not be able to respond effectively. In June 1989, for example, the Norwegian coast guard rescued the crew and passengers of the Russian cruise liner Maxim Gorky after it struck ice near Svalbard and started taking water.<sup>33</sup> The incident highlighted infrastructure concerns regarding poor hydrographic data and inaccurate marine charts, incomplete communications and monitoring coverage, limited search and rescue (SAR) capability, as well as limited deepwater ports, salvage, and towing services. This infrastructure will be necessary to sustain the potential increases in shipping, especially in areas currently

25 Daud Hassan, "Climate Change and the Current Regimes of Arctic Fisheries Resources Management: An Evaluation," *Journal of Maritime Law and Commerce* 40, no. 4 (October 2009): 513.

26 Emmerson, *Future History*, 157.

27 James Kraska, "The New Arctic Geography and U.S. Strategy," in *Arctic Security in an Age of Climate Change*, ed. James Kraska (Cambridge: Cambridge University Press, 2011), 258.

28 Steven C. Dinero, "Indigenous Perspectives of Climate Change and Its Effects upon Subsistence Activities in the Arctic: The Case of the Nets'aii Gwich'in," *GeoJournal* 78, no. 1 (2013): 129–30.

29 Dinero, "Indigenous Perspectives," 119.

30 Pauli Järvenpää and Tomas Ries, "The Rise of the Arctic on the Global Stage," in Kraska, *Arctic Security*, 130–31.

31 Emmerson, *Future History*, 162.

32 Emmerson, *Future History*, 119; and Rolf Tamnes, "Arctic Security and Norway," in Kraska, *Arctic Security*, 49.

33 Tamnes, "Arctic Security," 55.

out of the range of SAR assets.<sup>34</sup> Given that an ice-free Arctic will attract not only commercial shipping vessels but also cruise ships with thousands of passengers on board, Arctic states could find themselves in a position with insufficient assets to rescue, or even to find, individuals in need. Enforcement of the Polar Code, which calls for increased safety standards for ships transiting the Arctic, would decrease the likelihood and severity of accidents.<sup>35</sup> But without effective enforcement, many shipping companies may forego the expensive modifications believing that the warmer Arctic is safer for shipping.

*Socioeconomic factors.* A more geostrategic, socioeconomic concern is the impact of increased revenues and wealth from improved Arctic access on local, regional, and global politics.<sup>36</sup> This wealth could be significant if the Arctic indeed holds 13 percent of the world's undiscovered oil reserves and 30 percent of the world's natural gas.<sup>37</sup> Not only will traditional security concerns associated with sovereign control of territory impact the Arctic but the competition to obtain that wealth may also make Arctic management difficult, if not impossible. This concern would be exacerbated by the introduction of non-Arctic states like China into the competition.

Another socioeconomic concern involves the impact on local populations. Four million people live in the Arctic today, with the indigenous population comprising about 10 percent.<sup>38</sup> This population has already been dramatically affected. In 1989, journalist Kevin McMahon reported on the disruption a group of Inuits in Canada experienced when a military base was built nearby. The young men quickly abandoned traditional means of sustenance to search the building sites for “easy food and money.” A generation later, the people had embraced modernity and lacked the traditional skills necessary for living in the harsh northern environment and had little inclination to try.<sup>39</sup> As a result of coastal erosion and estimates that Shishmaref, Alaska, will not be viable past 2021, this largely Inuit community voted in 2016 to relocate over the next five or so years at a cost of \$100–200 million.<sup>40</sup> These examples illustrate additional military forces and infrastructure can come with their own human-security concerns that should be addressed before they are introduced into the Arctic environment.

As the Arctic opens up, problems will only get worse. Building the infrastructure necessary to support increased oil and natural

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34 Lawson W. Brigham, “The Challenges and Security Issues of Arctic Marine Transport,” in Kraska, *Arctic Security*, 27. See also “The Changing Arctic: Sovereignty, Resources and Security” (colloquium brief, Kingston Conference on International Security, June 13–15, 2011).

35 “Shipping in Polar Waters: Adoption of an International Code of Safety for Ships Operating in Polar Waters (Polar Code),” International Maritime Organization, accessed January 21, 2019.

36 Järvenpää and Ries, “Rise of the Arctic,” 119.

37 Tamnes, “Arctic Security,” 54.

38 “Arctic Peoples,” Arctic Council, November 3, 2016.

39 Kevin McMahon, “Arctic Ecocide,” *Peace Magazine* 5, no. 3 (June–July 1989): 16.

40 US Army Corps of Engineers (USACE), *An Examination of Erosion Issues in the Communities of Bethel, Dillingham, Kaktovik, Kivalina, Newton, Shishmaref, and Unalakleet* (Soldotna, AK: USACE, 2006); and Lisa Demer, “Shishmaref Votes To Relocate from Eroding Barrier Island to Mainland,” *Anchorage Daily News*, August 19, 2016.

gas extraction north of Greenland, which only has a population of 58,000, could require as many as 300,000 workers to settle there at least temporarily over a five to ten year period.<sup>41</sup> Unless that growth is well managed, Greenland's people and resources will be significantly stressed. Moreover, should such development take place, Greenland's increased economic resources would likely enable it to forgo subsidies from Denmark and encourage it to declare independence. Adding another Arctic state could impact Arctic management as well as traditional security concerns in unexpected ways, such as allowing the Chinese, whom the Danish government has so far denied basing rights in Greenland, to gain a foothold in the Arctic.<sup>42</sup>

Legal immigration may not be a great concern of the Arctic states. But as the Arctic becomes more accessible, the region could become a significant avenue for illegal immigration and transnational criminal and terrorist organizations. In addition to the national security challenges such groups represent, they also present human-security concerns. The presence of large criminal and terrorist organizations in Alaska could make it a dangerous place. Even if the groups simply use the land for transit, criminals bring illicit activities, such as violence against rival gangs and against the local populations the organizations choose to exploit. As the resources available to sustain the native communities degrade, participating in criminal activity may become an attractive option for many citizens.

The limited surveillance and monitoring capabilities of Arctic states suggest they would be incapable of effectively responding to the challenges associated with illicit activities. Comparatively, in Norway, Russian immigration facilitated by organized crime has significantly increased in recent years from only one to two people through the northern border per year during the Cold War.<sup>43</sup> While the United States has yet to experience a significant increase, there is no reason to believe it cannot happen or it would be less reliant on criminal networks.

If Arctic management concerns transform into Arctic crises, two sources of tension will arise. The first source will be the clash between those actors who emphasize ecological norms, regulation, and enforcement and those who emphasize sovereign rights and exploitation. This tension will play out between the states as well as the actors within states in ways that could be difficult to manage. Even if the actors agree to a management framework, tensions could still arise over implementation and policy. Discussions to determine responsibilities for enforcement, disaster responses, searches and rescues, as well as to develop the domain awareness and communication systems necessary to coordinate international responses will produce tension between Arctic

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41 Järvenpää and Ries, "Rise of the Arctic," 133.

42 Järvenpää and Ries, "Rise of the Arctic," 133–34. See also Matzen, "Denmark Spurned Chinese."

43 Emmerson, *Future History*, 104.

actors and complicate effective Arctic management, even if all parties involved maintain a general disposition to cooperate.<sup>44</sup>

Thus, a perfect storm in the Arctic could exist as concerns regarding climate change, newly accessible resources, shortened transportation routes, and competing claims to Arctic waters, seabed, and islands encourage conflict among multiple state and nonstate actors.<sup>45</sup>

## National Security

According to the Army Vision, the Army’s mission is “to deploy, fight, and win our Nation’s wars by providing ready, prompt, and sustained land dominance by Army forces across the full spectrum of conflict as part of the Joint Force.”<sup>46</sup> This mission implies Army support for a range of activities necessary for meeting the changing national security needs in the Arctic. Before discussing how the Army can posture itself for meeting the Arctic’s challenges, it is important to understand the potentially competing national security requirements and how climate change will impact them. One thing is clear: melting Arctic ice leads to more ocean, not more land. Thus, the Navy, Air Force, and Coast Guard will have to reconsider if their current posture will meet the increased requirements associated with more open Arctic water and increased human activity. Beyond traditional roles associated with territorial defense, such as air and missile defense, the demands that should fall on the Army are less clear.

What makes determining Army requirements even more difficult is that many of the human-security requirements are better addressed by good Arctic governance and not more military forces. Fortunately, there has been much progress. The Arctic states have signed the Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic, which provides a framework for international cooperation on SAR operations; the Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic, which provides a framework for international cooperation on limiting pollution and responding to oil spills; and the Fairbanks Declaration, which addresses a wide range of the human-security concerns including climate change, indigenous people’s rights, biodiversity, and a host of other issues.<sup>47</sup> In addition, the United Nations Convention of the Law of the Sea provides a legal resource outlining economic rights and imposing requirements on sustainable fishing practices.<sup>48</sup>

These agreements are not comprehensive. The 2009 Arctic Marine Shipping Assessment noted that despite the multitude of laws and

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44 Järvenpää and Ries, “Rise of the Arctic,” 135.

45 P. Whitney Lackenbauer, “Polar Race or Polar Saga?,” in Kraska, *Arctic Security*, 228.

46 “The Army Vision,” United States Army, accessed October 18, 2018.

47 Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic (Arctic Council, Nuuk, Greenland, 2011); Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic (Arctic Council, Kiruna, Sweden, 2013); and Fairbanks Declaration (Arctic Council, Fairbanks, Alaska, 2017).

48 Hassan, “Climate Change,” 520.

treaties applicable to the Arctic, the region's actors will still need to enhance maritime safety, protect indigenous peoples, improve maritime infrastructure including SAR and disaster response capabilities, enforce the Polar Code, improve domain awareness, and set aside certain areas as environmentally sensitive.<sup>49</sup> Despite the hefty requirements, most do not seem to demand a significant Army role.

The general spirit of cooperation in the Arctic suggests there is little requirement for the Army to change its posture in Alaska significantly or to introduce new capabilities. But the Arctic security environment will be increasingly complex and unpredictable, and anticipating what circumstances or conditions may lead to conflict will become more difficult. The Army will want to pace potential adversaries, such as the Russians, to ensure it maintains a credible deterrent to military action in the event of a crisis. In preparation, the Army should consider some modifications to its current Arctic posture, priorities, and activities.<sup>50</sup>

To maintain credible deterrence capabilities, the Army should either reconsider plans to eliminate the Airborne brigade at Joint Base Elmendorf-Richardson or consider rotating other forces to Alaska. Even if the Army keeps the brigade, rotating additional units to Alaska may be a wise, but problematic, approach for enhancing Arctic capabilities and preparing more forces to deploy to the region. The fieldcraft soldiers need for Arctic capabilities includes knowledge of vehicle and weapons maintenance, survival skills, and Arctic-specific equipment associated with mobility and logistics.<sup>51</sup>

The Army should continue to increase the number of personnel and units that attend the Northern Warfare Training Center in Black Rapids, Alaska, from the 1,400 soldiers who completed the course in 2016 and the 7,100 soldiers trained over the last decade since the numbers suggest Arctic fighting expertise is limited to soldiers stationed in Alaska.<sup>52</sup> To build that expertise even further, the Army should regularly conduct exercises with its Arctic partners, especially along the northern border of Alaska. While cold-weather exercises can occur in other cold-weather areas such as Fort Drum, conducting them in Alaska will show potential adversaries that the US military is ready and capable to defend the Arctic frontier.

The ability of our adversaries to deploy aircraft closer to the United States requires America review its air defense, early warning capabilities, and specialized equipment. Russia, for example, recently established forward air bases and fielded a range of air defense systems capable of

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49 Brigham, "Challenges and Security Issues," 25–26.

50 For the introduction of these recommendations, see COL Michael J. Forsyth, "Why Alaska and the Arctic Are Critical to the National Security of the United States," *Military Review* 98, no. 1 (January–February 2018): 118.

51 Trey Braun (research professor, Strategic Studies Institute, US Army War College), in discussion with the author, October 29, 2018.

52 Todd South, "A New Cold War: How the Army Is Preparing for a Fight in the Arctic," *Army Times*, July 30, 2018.

off-road operation in the Arctic.<sup>53</sup> Thus to maintain a credible deterrent, the United States will need to ensure it can not only penetrate those defenses but also prevent Russian attempts to reciprocate.<sup>54</sup> Similarly, the Army must modernize its Arctic equipment. The M973 small unit support vehicle, the Army's only Arctic-specific vehicle, entered service around 35 years ago and is no longer a program of record.<sup>55</sup> In contrast, the Russian Army employs a number of combat and combat support vehicles designed specifically for the Arctic environment.<sup>56</sup>

To prepare comprehensively for future Arctic security challenges, the Army should also take steps to address human-security needs. The 2016 Department of Defense Arctic strategy asks the services to “partner with other departments, agencies, and nations to support human and environmental security” as well as to “provide support to civil authorities, as directed.”<sup>57</sup> In the discussion on the former, the strategy calls on the services to “support interagency partners in maintaining human health; promoting healthy, sustainable, and resilient ecosystems; complying with applicable environmental laws and regulations; and consulting and coordinating with Alaska tribal entities on relevant policies and activities.” The discussion on the latter emphasizes responding to “chemical, biological, radiological, and nuclear attacks or accidents” and specifically states, “defense support of civil authorities and humanitarian assistance/disaster relief do not drive requirements for the size or shape of the force.” It simply states that in the event of a disaster, the Defense Department will provide available military equipment to civilian authorities.

The Army mission statement suggests that limiting Army requirements to meet human-security needs on an ad hoc basis is a reasonable compromise to the range of challenges posed by a warming Arctic. Historical precedents exist for the Army to embrace the broader human-security requirements, suggesting that no matter how severe the human-security demands are, they could fall to the Army anyway. For most of the Army's history, its mission was described as an acting constabulary force, tailored to protecting settlers and facilitating westward expansion.<sup>58</sup> As the frontiers were settled and effective local law enforcement infrastructure emerged, the Army relinquished these missions to focus outward. But the conditions that created the need for the Army to play a constabulary role could resurface in the Arctic as a result of increased human activity and environmental stresses associated

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53 Osborn, “Putin's Russia.”

54 Damien Sharkov, “Russia Shows Off New Arctic Air Defense Systems at Victory Parade,” *Newsweek*, May 10, 2017; and Jeremy Bender, “Pentagon Report: Russia Is Deploying New, Specially Modified Air-Defense Systems to the Arctic,” *Business Insider*, August 18, 2015.

55 “M-973 Small Unit Support Vehicle (SUSV),” Olive Drab, accessed October 19, 2018.

56 Boris Egorov, “Top Ten Weapons the Russian Army Deploys in the Arctic,” *Russia Beyond*, February 7, 2018.

57 Office of the Undersecretary of Defense (Policy), *Report to Congress on Strategy to Protect United States National Security Interests in the Arctic Region* (Washington, DC: Department of Defense, 2016), 2.

58 Timothy K. Nenner, “American Military Effectiveness in the First World War,” in *Military Effectiveness*, vol. 1, *The First World War*, 2nd ed., ed. Allan R. Millet and Williamson Murray (Cambridge: Cambridge University Press, 2010), 130.

with climate change. Given the potential for these conditions to impose additional demands on the Army, it makes sense to take several steps.

### Recommendations

The Army should conduct an analysis to determine the worst and the most likely crises as well as to draft contingency plans, in conjunction with other services and civil authorities that identify the Army's role in any response. Such plans should incorporate the Alaska National Guard and determine if it has sufficient funding and resources. Currently, the AKNG has 1,700 personnel, composing one infantry battalion, one battalion of lift aviation, and a separate medevac company. These units already address human-security needs in support of civil authorities. The force could, however, be easily overwhelmed in the event of significant or multiple disasters. The active Army should have plans to augment the AKNG should such events occur.

The Army should integrate human-security requirements into exercises and encourage participation by civil authorities to ensure rapid resource integration in the event of a crisis.<sup>59</sup> As the northern frontier becomes more accessible, the Army should consider establishing a rotating presence along the areas transnational criminal and terrorist organizations are most likely to transit and supporting civil authorities in disrupting the illicit activities. This effort could be modeled after the Defense Department's support on the southern US border.

Forward positioning of combat and lift aviation assets that could facilitate movement and surveillance over Alaska's open spaces would also be beneficial until civil authorities develop and assume those capabilities. This early and sufficiently robust presence will discourage criminal organizations from establishing a stable presence in the region. Joint exercises and operations with the Canadian military and civil organizations like the Royal Mounted Police would allow the US Army to learn from an established model and develop experience and skill sets useful for supporting civil authorities in the far north.<sup>60</sup>

The Army should also develop infrastructure for moving troops in the event of external attacks and for delivering humanitarian aid in crisis situations. The Army, along with other services and civil authorities, should continue efforts to develop domain awareness capabilities and ensure they are integrated with search and rescue organizations. As James Kraska observes, "Right now, polar operations are hampered by a lack of robust command, control, communications, computers, intelligences, surveillance, and reconnaissance (C4ISR) infrastructure for network-centric" operations, which would include policing and SAR.<sup>61</sup> There should also be a method for the Arctic states, including Russia, to share

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59 "FY2018 Department Overview," Alaska Department of Military and Veteran Affairs, accessed October 21, 2018.

60 Rob Huebert, "Canada and the Newly Emerging International Security Regime," in Kraska, *Arctic Security*, 214–16; and Lackenbauer, "Polar Race," 231–33.

61 Kraska, "New Arctic Geography," 263.

relevant information regarding weather patterns, ice flows, and maritime and air traffic more effectively.

## Conclusion

Not all results of Arctic ice melt are bad. More wealth, and the greater economic and political influence that comes with it, are morally neutral. Such power can be used for good or evil. Managed properly, Arctic wealth can provide more resources for addressing the concerns in the region. To the extent that indigenous people retain some authority over and ownership of the resources in the areas they inhabit, they could be politically empowered to manage the changes that will inevitably come. The capabilities of indigenous populations to deal with human-security concerns may, in fact, pace, or even outpace, military efforts. Thus, it is not unreasonable to proceed with caution, or even take some risks, when determining resources for expanding the Army mission in Alaska to meet human-security needs.

The worst-case scenario would be for the Army to fail to anticipate how the changing long-term Arctic conditions can force it into a role much like the one it played during America's westward expansion: it directed its efforts at infrastructure development and internal stability to the exclusion of defending the nation from external attack. If that happens, the Army could find itself diverting resources away from national security requirements, undermining its capability to meet them.

Addressing the full range of human-security needs will require increased cooperation among the Arctic parties to procure new capabilities, to develop emergency response facilities, to pool resources, and to act in concert with the international community as other states attempt to take advantage of the opening Arctic.<sup>62</sup> As noted earlier, a human-security approach views sovereignty not as a right but a responsibility. Governments *should* conduct "proper policing, surveillance, search and rescue, and other services" to responsibly exercise their sovereignty.<sup>63</sup> Without a plan, and one in which the Army plays at least a transitional role, exercising this sovereignty is only going to get more difficult as time goes on.

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62 Tamnes, "Arctic Security," 55.

63 Donald M. McRae, "Arctic Sovereignty? What Is at Stake?," *Behind the Headlines* 64, no. 1 (January 2007): 3.