

DISARMING ARCTIC SECURITY

Briefing papers by Ernie Regehr, O.C., Senior Fellow in Arctic Security

May 1, 2015

America's Arctic Security Strategy

Few will dispute the observation that the Arctic state least focused on Arctic security is the United States. Alaskan-based forces and arctic submarine patrols obviously figure into US security operations, but their focus is on Asia and America's strategic nuclear posture, not security conditions in the Arctic. The Arctic is not central to American national mythmaking or identity, to sovereignty concerns, or, since the end of the Cold War, to national security. And none of that is about to change.

The United States obviously conceives of itself as a global power, but not an Arctic power. Not only is the place of the Arctic now much less important in the US security calculous, only a small portion of Arctic geography is American, and the American Arctic is physically, politically, and psychologically far from the centres of US power and economic interests – certainly no American politician would assign the Arctic the role claimed for it by the Russian Deputy Prime Minister, namely "a Russian Mecca."

A recent EKOS Research survey, undertaken for The Gordon Foundation, polled publics in all eight Arctic states² and found that Americans outside Alaska are the least likely to think there is a rising threat of military conflict in the Arctic – while 24 percent felt the threat of military conflict had increased over the past year, in Canada some 30 percent felt tensions had grown, and in Russia it was 50 percent. Americans were in fact the most likely, except for Swedes, among Arctic state populations to declare themselves unaware of any changes in conflict threat levels in the Arctic. Americans outside Alaska were also the least aware of the Arctic Council. Notwithstanding the fact that when the poll was taken the US was preparing to assume the chairmanship of the Council for two years (that term has now begun), only 32 percent of Americans had even heard of it, compared with 70 percent in Iceland and 59 percent in Canada.

There are certainly positive elements to this out-of-sight-is-out-of-mind American posture toward the Arctic. American political culture, which above all is committed to preserving American military preeminence, is not currently adding to militarization pressures in the region. But, at the same time, American economic and technological power is not currently contributing markedly or according to its capacity to a needed Arctic infrastructure for search and rescue and other maritime services. Heather Conley of the Center for Strategic and International Studies (CSIS), a former deputy assistant Secretary of State who has also held a range of other diplomatic and research posts and is now a key American analyst on the Arctic, points out in a 2012 CSIS report that "the United States is the only Arctic coastal state that does not currently have any large-scale economic development plan for the region." The report laments what it calls "a woeful lack" of American military capabilities in the Arctic and adds the more general point that the US has been willing to "outsource requirements to foreign-flagged commercial vessels or to borrow ice-strengthened vessels from Canada, Russia, or Sweden."³ A 2014 Senate Armed Services Committee report does assert that "the United States is an Arctic nation," as have others of course, but the fact that the Committee felt compelled to remind American security planners that they should aim for American national security strategies and capabilities to "keep pace with" growing US interests in the Arctic confirms the sense that neither those "growing" interests nor the pace of developing region-specific capabilities are top of mind in the US outside of Alaska.⁴

Washington having now assumed a two-year stint of Arctic Council leadership, it's a good time to recall the security considerations that inform its Arctic presence. The Arctic Council does not, at the behest of the Americans at its founding in 1996, address hard security or defence issues, but with two former superpower rivals and four other NATO members at the Council table, those issues certainly remain a lingering presence.

The US Arctic Security Posture

A succession of US Government reports⁵ – from the White House, the Department of Defence (DOD), the Coast Guard (USCG), and Congressional Committees – does emphasize the growing importance of the Arctic for the United States, particularly in the context of climate change and receding ice coverage.⁶ The reports call for enhancements in American surveillance and response capabilities generally, but none calls for significant changes in short- to mid-term military or Coast Guard infrastructures, equipment, or deployments.

Under a 2009 Presidential Directive, issued in the closing days of the George W. Bush Administration and still the primary policy guidance, US national security, including homeland security, interests in the Arctic are listed as including:

- missile defence and early warning;
- deployment of sea and air systems (for strategic sealift, strategic deterrence, maritime presence, and maritime security operations);
- freedom of the seas (linked to the dispute with Canada over the status of the Northwest Passage), both for maritime navigation and overflight;
- homeland security (issues of concern include terrorism and criminal activity);
- piracy;
- border security (particularly coastlines); and
- international law, including the Law of the Sea.

The 2013 DOD National Strategy on the Arctic Region defines the overall goal of this strategy as "an Arctic region that is stable and free of conflict, where nations act responsibly in a spirit of trust and cooperation, and where economic and energy resources are developed in a sustainable manner that also respects the fragile environment and the interests and cultures of indigenous peoples." Three avenues of activity for pursuing these objectives are described as advancing US security interests in the region, pursuing responsible Arctic stewardship, and strengthening international cooperation. Notably, DOD situates its approach to the three-pronged goal of security, stewardship, and international cooperation in the context a "relatively low level of military threat in a region bounded by nation States that have not only publicly committed to working within a common framework of international law and diplomatic engagement [the Ilulissat Declaration8], but have also demonstrated the ability and commitment to do so." Thus, the aim is "a secure and stable region where US national interests are safeguarded, the US homeland is protected, and nations work cooperatively to address challenges."

These are all the kinds of broad objectives and activities that any state could be expected to set out as a public posture, whatever the true objectives might be, but further indication that the American Arctic seems not to be headed for a significant turn toward further militarization, and that national security and defence are not central to American attention to the Arctic as a region, is available in the January 2014 Whitehouse document on the "Implementation Plan for The National Strategy for the Arctic Region." It identified 35 task areas, ranging from infrastructure issues to freedom of the seas, energy security, science, international cooperation, and waterways management. For each task the lead agency is identified, and in only one case is it DOD. And not even that task is directly related to a defence or hard security role, but rather to the development of a "framework of observations and modelling to support forecasting and prediction of sea

.....

ice." Even for tasks related to the advancement of American security interests and freedom of the seas, including domain awareness, the lead agencies are the Departments of Homeland Security, State, and Transport. The Department of Defense roles are secondary, not primary, and focused on supporting civilian authorities and operations. A 36th task is for the DOD to urge the United States to become a full party to the Law of the Sea treaty.

In general, the Arctic as a region is not regarded by either the American people or officialdom as a defence problem. There are certainly security challenges, but none in which the military has a primary responsibility.

The DOD Arctic strategy thus acknowledges that a significant element of the northern military mission is to be available to aid civil authorities in their public safety and humanitarian response missions (though to date, it says, it has "seldom" been asked for such assistance). In fact DOD's 2013 Arctic Strategy document warns against over-stating the Arctic threat environment. There is the possibility, it warns, that "political rhetoric and press reporting about boundary disputes and competition for resources may inflame regional tensions." Furthermore, the report notes that "being too aggressive in taking steps to address anticipated future security risks may create the conditions of mistrust and miscommunication under which such risks could materialize." Too much focus on potential militarization could in fact prompt an arms race. In other words, the focus on threat-centric language about the Arctic could help to prompt a real threat.

Strategic Defence and the Arctic

At the same time, certain "hard security" issues and infrastructure are certainly put prominently into play in the Arctic by the Pentagon – not in the interests of Arctic region security, but in support of a global strategic posture. Somehow, ballistic missile defence (BMD) continues to figure prominently among the leading American perceptions of what makes the United States safe. Despite BMD relying on far from mature technologies, and despite it being aligned against far from mature threats (from the still remote potential for North Korean strategic-range nuclear armed missiles to the highly unlikely emergence of Iranian nuclear-armed missiles), missile defence continues to earn political, military, and budgetary support far out of proportion to any practical impact it has on the safety and security of Americans. All that while Washington shows great reluctance to spend significantly lesser amounts on Coast Guard icebreakers or full service search and rescue bases and ports in the Arctic – facilities that would actually have huge impacts on the day-to-day security of people who work in the Arctic and traverse its waters.

There are three US BMD installations in the Arctic region. Fort Greely in Alaska hosts 26 mid-course interceptor missiles, with another 14 planned. The Clear Air Force Station manages a phased array radar system designed to detect ballistic missiles launched at sea or on land. Upgrades are underway. The US also operates an Arctic early warning radar at its base at Thule, Greenland. Proceedings of the course of the cour

Air defence has long been prominent in the Arctic, so DOD continues to assert that it will work through the Canada-US North American Aerospace Defence agreement (NORAD) to maintain air tracking capabilities in the Arctic. NORAD was of course initially developed as a strategic defence arrangement during the Cold War, to counter the Russian strategic bomber threat of the early post-World War II years, and still monitors and responds to Russian strategic bombers that still patrol in international airspace in areas adjacent to North America. But NORAD's primary activity is now also to aid civil authorities in the United States and Canada in monitoring air approaches to North America – the focus of which is small, unauthorized civilian aircraft. In 2006, when NORAD was made a permanent bi-national agreement, maritime monitoring and warning were made a NORAD role, but DOD's 2013 report on Arctic strategy has maritime detection and tracking in the Arctic being coordinated through the Department of Homeland Security (the US Coast Guard operates under

.....

Homeland Security) and other departments and agencies and public/private partnerships. It promises collaboration with "international partners to employ, acquire, share, or develop the means required to improve sensing, data collection and fusion, analysis, and information-sharing to enhance domain awareness appropriately in the Arctic." A current series of Canada-US discussions, known as NORAD Next, is aimed at determining the capabilities NORAD will need to confront what are envisioned as emerging challenges in the 2025-30 time frame. ¹⁴

Freedom of navigation is obviously accorded high priority by the US, though the US Senate's failure to ratify the United Nations Convention on the Law of the Sea (UNCLOS), despite being urged to do so by the Pentagon, the State Department, and successive administrations, and despite it being a primary framework for advancing US interests in the right of free passage through international straits, is, if nothing else, a prime example of the complexities of the US political system.

The Pentagon describes the relevance of freedom of the seas in the Arctic to its overall strategic posture: "Preserving freedom of the seas, which includes all of the rights, freedoms, and uses of the seas and adjacent airspace, including freedom of navigation and overflight, in the Arctic supports the nation's ability to exercise these rights, freedoms, and uses of the sea and airspace throughout the world, including through strategic straits." In other words, this is another example of an Arctic issue for which the American interest is not in the Arctic for its own sake – the focus is the American global power rather than the American Arctic power.

Homeland Security

The Arctic is a maritime region and changing requirements for public safety and infrastructure in the Arctic relate especially to that maritime environment. That in turn means that Coast Guards, not Navies, are the institutions that are most directly challenged. That has led to growing interest in cooperation and burden sharing among the Coast Guards of the Arctic littoral states. It's a natural development and one of the mechanisms for such cooperation that is getting serious attention and support from the US is the establishment of an Arctic Coast Guard Forum (ACGF). The 2012 CSIS report recommended the creation of such a Forum, consisting initially of the Arctic Council countries — although it noted that other countries willing to commit assets could also be included. The ACGF, which might be headquartered at the US Air Force base at Thule, Greenland, is envisioned as initially focusing on information, with the potential to facilitate international cooperation in implementing the Arctic Council's search-and-rescue and oil spill response agreements.¹⁶

A new report by from the Canadian Munk-Gordon Arctic Security Program¹⁷ focuses on the development of the ACGF and includes six key recommendations, a central one being that due to important differences in national coast guards – some being explicitly civilian, others military, and still others a mix of both models – the new forum should focus on "soft" security issues such search and rescue and environmental issues.¹⁸ By keeping hard national security and national defence issues off the agenda, says the report, Russia might be brought into the process more effectively, and there would also be greater scope for non-state actors, notably indigenous communities, and the private sector to be involved. The report also encourages continued engagement with Russia, despite what it calls "the current challenges of military-to-military contact in the region."

The report's other recommendations, a product of an international seminar on coast guard operations in the Arctic, include: support for information sharing through the ACGF on best practices, operational expertise, real-time data; that the ACGF serve as a platform for exercises related to search and rescue and oil spill

recovery, both subjects of international agreements among Arctic Council states; and that the ACGF include mechanisms to facilitate work with local communities, indigenous organizations, and the private sector.¹⁹

More recently, the US Embassy in Ottawa reports on a two-day ACGF Experts Meeting in Washington and says the member countries of the ACGF, all the members of the Arctic Council, "will formally establish the Arctic Coast Guard Forum at a Summit at the US Coast Guard Academy's Center for Arctic Study and Policy this fall."

In February 2014 the US Navy published an update of its Arctic Roadmap,²¹ reiterating four objectives or activities to guide Naval operations in the Arctic Region: sovereignty and homeland defence; response to crises and contingencies; preserve freedom of the seas; and promote partnerships (with other elements of the US Government and internationally). "Periodic presence" is a primary means by which these objectives are to be advanced and there is a promise to identify the equipment and operational procedures to "facilitate sustained, safe operations in the region."

Primary responsibility for US maritime law enforcement and safety is the US Coast Guard. The Coast Guard's 2013 Arctic strategy document describes the Coast Guard as "the maritime component" of Homeland Security with "specific statutory responsibilities in US Arctic waters." The Coast Guard "is responsible for ensuring safe, secure, and environmentally responsible maritime activity in US Arctic Waters."²² CSIS refers to the US Coast Guard's own assessment of its operational challenges, focusing especially on the absence of readily available fuel, the main fueling depot being at Point Barrow on the Alaskan North Slope, a thousand nautical miles away from Dutch Harbor in the Aleutians and almost as far from the air station in Kodiac. "Because the Coast Guard is unable to sustain a presence in the Arctic Ocean for more than a few days," says CSIS, "it must cooperate with the Canadian Coast Guard or rely on capabilities of the private sector," noting Royal Dutch Shell's acquisition of ice-capable and spill response vessels.²³ The Coast Guard describes some of the challenges of increased vessel traffic: "A major casualty on board a large modern cruise ship in the Arctic would pose a significant challenge to responders and stress any one nation's capacity for mass rescue at sea. If an oil tanker were to spill its cargo in Arctic waters the potential impact to the maritime environment would be profound, and removing the oil would be challenging." The US Coast Guard also refers to the increase in small craft traffic in the Northwest Passage, acknowledging the Canadian Northern Canada vessel Traffic Services Zone, and adds that "increasing vessel traffic requires a commensurate increase in search and rescue capabilities throughout the region."24

A noteworthy element of the US Navy's Arctic Roadmap is a distinct absence of any sense of great urgency. The Roadmap predicts that in the near-term, up to 2020, "there will be low demand for additional naval involvement" in the Arctic and that "current Navy capabilities are sufficient to meet near-term operational needs." Thus, for the near-term, the Roadmap says the Navy's presence will be primarily via "undersea and air assets." Surface ships will operate in open waters, but weather conditions and sea ice will continue to make that hazardous. In the mid-term, 2020 to 2030, it says capabilities will be improved (the "Navy will refine doctrine, operating procedures, and tactics, techniques, and procedures"), with the assumption that the main demands on the Navy will be for assistance to search and rescue and disaster response missions. And the main point the roadmap makes about the far term, beyond 2030, is that more open waterways will enable the Navy to undertake more forward operations. These conditions may require more demand for a Navy presence, but diminished ice presence will in turn mean more navigable waterways along which existing naval vessels will be able to operate more readily in forward Arctic locations. In the meantime, operational implementation of the roadmap refers to the intention to identify capability gaps, but there are no references to the acquisition of Arctic-specific equipment.²⁵

The CSIS report raises concerns about current capacity for border security and law enforcement, including countering terrorist threats, throughout the US Arctic region and calls the US government's capabilities "questionable at best." It points out that the Coast Guard is "struggling to maintain competencies" in key areas of responsibility above the Arctic Circle, like "ice operations (conducting and supporting scientific research), search and rescue (deploying assets to respond to search and rescue incidents), marine environmental protection (responding to oil or hazardous materials spills), and aids to navigations (facilitating navigation and preventing disasters, collisions, and wrecks, using aids such as buoys, lights, and signs)." Without US Coast Guard operating bases or stations above the Arctic Circle, search-and-rescue and maritime deployments within the Arctic region are delayed by a minimum of eight hours by air and days by sea.²⁷

Staying the Course

US Security strategy for the Arctic can probably be characterized as staying the course and not veering toward accelerated militarization. As a major power, the US has plenty of means available, including for the Arctic, but remains reluctant to commit major resources on Arctic-specific security measures that would materially affect public safety. Enhanced ice-breaking and search-and-rescue capabilities, which would immediately impact the security of northerners are eschewed in favor, it seems, of significant and ongoing spending on strategic nuclear and ballistic missile defence assets that have an Arctic presence but contribute nothing, to understate the matter, to the well-being and safety of Arctic communities. The DOD is loath to see more money going to the Coast Guard for icebreakers, for example, seeing such spending as adding to its own claimed budget constraints.²⁸ While the DOD 2013 Arctic Strategy promises to work with a range of actors to assess continuing developments (climate, ice conditions) to improve forecasting and to inform future equipment needs, it also warns that "premature investment" in Arctic infrastructure "may reduce the availability of resources for other pressing priorities, particularly in a time of fiscal austerity."²⁹

There is thus no evidence of an impending major shift in Arctic security approaches by the United States. In the near- to mid-term the focus is to be on "strategic partnerships that promote innovative, low-cost solutions," as the 2013 National Strategy document put it. And the focus on cooperation with other government departments certainly implies there is no particular vision of militarizing Arctic security. Instead the focus is to be on "collaborative security approaches as outlined in 2013 National Strategy for the Arctic Region, and by supporting other Federal departments and agencies where they have leadership roles. Building trust through transparency about the intent of our military activities and participation in bilateral and multilateral exercises and other engagements that facilitate information-sharing will be a key means of addressing this risk."

The DOD's policy documents are remarkably forthcoming on the importance of non-military and cooperative elements to Arctic security. A 2010 Report to Congress,³² refers to the impact of climate change as creating opportunities for multilateral cooperation in support of "human and environmental security in the region" and, as we've seen, DOD Arctic roles are oriented toward assisting civilian and non-military³³ authorities. The DOD emphasizes cooperation mechanisms, like the annual Northern Chiefs of Defense meetings and the Arctic Security Forces Roundtable workshops, as well as "work with allies and partners within the framework of international institutions, ranging from the Arctic Council to the International Maritime Organization (IMO), to maintain and promote cooperation."³⁴

The 2013 Arctic National Strategy report's³⁵ policy language is heavily infused with references to regional defence cooperation in pursuit of security and public safety: "The Department of Defense will seek out areas of mutual interest to build strategic relationships and encourage operational-level partnerships that promote innovative, affordable security solutions and enhance burden-sharing in the Arctic." There is emphasis on

participation in multilateral exercises, in addition to basic tasks related to sovereignty, homeland security, and domain awareness.

As we've noted here before, former Soviet Leader Mikhail Gorbachev's Murmansk Initiative did not try to ease East-West military tensions by focusing on the military relationships. Instead he focused on cooperation in non-military matters that would allow military tensions to be seen in a new light. Arctic cooperation in non-military and human security challenges, of the kind that find their way onto the Arctic Council agenda, is key to building the political and security confidence that will help to ease the resurgent tensions with Russia. The Americans, to their credit, have not responded to those tensions with militarization pressures in the Arctic, and the US leadership of the Arctic Council over the next two years is an opportunity to continue pressing the social, economic, environmental, public safety, and political dimensions of human security for the people of the Arctic which will in turn help to entrench a sense of regional stability and security.

Notes

¹ Ishaan Tharoor, "The Arctic is Russia's Mecca, says top Moscow official," Alaska Dispatch News, 20 April 2015. http://www.adn.com

A 2013 CSIS report also reviews the policy decisions and documents that form US Arctic policy, as well as the primary US Government Actors in the Arctic with responsibility for implementing US Arctic policy. Heather A. Conley et al, "The New Foreign Policy Frontier: US Interests and Actors in the Arctic," Center for Strategic and International Studies, Washington, March 2013. www.csis.org

http://www.oceanlaw.org/downloads/arctic/Ilulissat Declaration.pdf

http://www.defense.gov/pubs/2013 Arctic Strategy.pdf, as quoted in, Ronald O'Rourke (Coordinator), "Changes in the Rose Report, 17 March 2015. www.crs.gov.

² "Rethinking the Top of the World: Arctic Public Opinion Survey, Vol. 2, EKOS Research Associates Inc, Munk-Gordon Arctic Security Program, released April 22, 2015. www.gordonfoundation.ca

³ Heather A. Conley, with Terry Toland, Jamie Kraut, and Andreas Østhagen, *A New Security Architecture for the Arctic,* Center for Strategic and International Relations, January 2012. www.csis.org

⁴ The Senate Armed Services Committee, Report, 02 June 2014 (S.Rept. 113-176).

⁵ A recent background report to the US Congress reviews security and other reports in anticipation of the US assuming the chairmanship of the Arctic Council (beginning in April 2015 and running for two years). Ronald O'Rourke (Coordinator), "Changes in the Arctic: Background and Issues for Congress," Congressional Research Service, CRS Report, 17 March 2015. www.crs.gov

⁶ For comparative summaries of the Arctic strategies of all Arctic states are offered in Alyson JK Bailes and Lassi Heininen, Strategy Papers on the Arctic or High North: A comparative study and analysis, Centre for Small State Studies, Institute of International Affairs, University of Iceland, 2012 http://ams.hi.is/wp-content/uploads/old/arctic strategies innsidur.pdf
⁷ Arctic Strategy, Department of Defense, USA, November 2013.

http://www.defense.gov/pubs/2013 Arctic Strategy.pdf

⁸ Agreed to at the Arctic Ocean Conference of representatives of the five coastal States bordering on the Arctic Ocean – Canada, Denmark, Norway, the Russian Federation and the United States of America – in Ilulissat, Greenland, 27 – 29 MAY 2008, it says in part: "the law of the sea provides for important rights and obligations concerning the delineation of the outer limits of the continental shelf, the protection of the marine environment, including ice-covered areas, freedom of navigation, marine scientific research, and other uses of the sea. We remain committed to this legal framework and to the orderly settlement of any possible overlapping claims."

⁹http://www.whitehouse.gov/sites/default/files/docs/implementation plan for the national strategy for the arctic r egion - fi....pdf

¹⁰ Arctic Strategy, Department of Defense, USA, November 2013.

¹¹ Ground-Based Midcourse Defence (GMD), Missile Defense Agency, US DOD. http://www.mda.mil/system/gmd.html. Four interceptors are based at Vandenberg Air Force Base in California. When the Fort Greely deployment of the additional 14 interceptors is completed, the US will have a total of 44 deployed (40 at the Alask site and 4 in California), Ground Based Interceptor (GBI), GlobalSecurity.Org. http://www.globalsecurity.org/space/systems/gbi.htm

http://www.mda.mil/system/sensors.html

http://canada.usembassy.gov/news-events/2015-news-and-events

http://www.uscg.mil/seniorleadership/DOCS/CG Arctic Strategy.pdf

http://www.defense.gov/pubs/2013 Arctic Strategy.pdf

http://www.defense.gov/qdr/QDR%20as%20of%2026JAN10%200700.pdf

http://www.defense.gov/pubs/2013 Arctic Strategy.pdf

.....

¹² These radars are part of the US Ballistic Missile Early Warning System (BMEWS). The US Air Force also operates BMEWS radars at Beale Air Force Base in California and at the Royal Air Force base at Fylingdales in the United Kingdom, and a Cape Cod, Mass radar is also being upgraded. Missile Defense Agency, US DOD.

¹³ Arctic Strategy, Department of Defense, USA, November 2013.

¹⁴ Senator Jean-Guy Dagenais, Proceedings of the Standing Senate Committee on National Security and Defence, Issue 5 - Evidence - Meeting of April 7, 2014.

¹⁵ "The United States Navy Arctic Roadmap for 2014 to 2030," Chief of Naval Operations, Department of the Navy, February 2014. http://www.navy.mil/docs/USN arctic roadmap.pdf

¹⁶ Ronald O'Rourke (Coordinator), "Changes in the Arctic: Background and Issues for Congress," Congressional Research Service, CRS Report, 17 March 2015, pp. 63-64. www.crs.gov

¹⁷ Coast Guard Co-operation in a Changing Arctic, A Seminar Report by the Munk-Gordon Arctic Security Program, April 2015. The Walter and Duncan Gordon Foundation. http://gordonfoundation.ca/publication/749

¹⁸ Coast Guard Co-operation in a Changing Arctic, 2015.

¹⁹ Coast Guard Co-operation in a Changing Arctic, 2015.

²⁰ Arctic Coast Guard Forum, Embassy of the United Sates Ottawa, Canada, 27 March 2015.

²¹ "The United States Navy Arctic Roadmap for 2014 to 2030," Chief of Naval Operations, Department of the Navy, February 2014. http://www.navy.mil/docs/USN_arctic_roadmap.pdf

[&]quot;United States Coast Guard: Arctic Strategy," Washington, May 2013.

²³ Conley 2012.

²⁴ "United States Coast Guard: Arctic Strategy," May 2013.

²⁵ "The United States Navy Arctic Roadmap for 2014 to 2030," February 2014.

²⁶ Conley 2012.

²⁷ Conley 2012.

²⁸ Conley 2012

²⁹ Arctic Strategy, Department of Defense, USA, November 2013.

³⁰ Arctic Strategy, DOD 2013.

³¹ Ronald O'Rourke (Coordinator), "Changes in the Arctic: Background and Issues for Congress," Congressional Research Service, CRS Report, 17 March 2015, pp. 63-64. www.crs.gov

³² Department of Defense, *Quadrennial Defense Review Report*, February 2010.

³³ The US Coast Guard and Homeland Security operatives are non-military but not essentially civilian.

³⁴ Arctic Strategy, Department of Defense, USA, November 2013.

³⁵ Arctic Strategy, DOD 2013.