



MILITARY CAPABILITIES IN THE ARCTIC: A NEW COLD WAR IN THE HIGH NORTH?

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I. Introduction

Forecasts of far-reaching climate change in the Arctic have stimulated new thinking about the security situation in the region. Some have identified the region as heading towards conflict, notably over natural resources, and official documents of the five Arctic littoral states—Canada, Denmark, Norway, Russia and the United States—refer to the potential for military confrontation and indicate a perceived need to increase military capabilities accordingly (see figure 1).¹ All five states have strengthened their military presence in the Arctic or increased military capabilities for Arctic use and have presented plans for further strengthening of their military capabilities, especially in the Arctic areas beyond their national territories. Overall, however, the official documents are cautious towards expanding military policies in the Arctic: while recognizing the need to improve security and policing in the region, they stop well short of a militarization of Arctic security issues.²

In 2012 SIPRI provided an overview of the capabilities of Canada, Denmark, Norway, Russia and the USA for military operations in the Arctic and ongoing or planned improvements in those capabilities.³ Since then, relations between Russia and the North Atlantic Treaty Organization (NATO)—of which the other four Arctic littoral states are members—have deteriorated dramatically, to what Russian Prime Minister Dmitry Medvedev called in early 2016 ‘a new cold war’.⁴ The rift between the West and Russia—due to Russia’s intervention in Ukraine from early 2014 and Russia’s more assertive or aggressive foreign policy—has made the other Arctic countries more concerned about the aims of Russia’s military modernization in the Arctic. Some observers have seen this Russia–West confrontation as a new driver of militarization in the Arctic and as increasing the possibility of tensions between

SUMMARY

● Climate change is making the Arctic region—and its expected natural resources—more accessible. Overlapping claims by the five Arctic littoral states—Canada, Denmark, Norway, the United States (all of which are members of NATO) and Russia—have raised concerns about future conflict in the region and have stimulated new thinking about the security situation in the Arctic. All five states started to strengthen their military presence and capabilities in the Arctic even before the rise in tensions between Russia and NATO members observed since 2014. This increase in tensions has fuelled fears of the onset of a new ‘cold war’ and possible conflict in Europe. It has also resulted in a further build-up of military capabilities in the Arctic region.

However, the actions taken by the five Arctic littoral states in the region and the official documents released by those states in the past few years seem to suggest that the focus remains solely on the defence of current national territories. While this relatively restrained approach to overlapping maritime claims is to be welcomed, the increases in military forces provide cause for concern, and military confidence measures and expanded cooperation should be high on the agenda for all five states.

¹ Bailes, A., ‘Arctic: new conflict theatre between Russia and the west, or model of peace?’, 16 Dec. 2013, <http://www.europeanleadershipnetwork.org/arctic-new-conflict-theatre-between-russia-and-the-west-or-model-of-peace_1099.html>; and Exner-Pirot, H., ‘Northern expert: put up or shut up with your Arctic conflict theory’, *Alaska Dispatch News*, 21 Oct. 2015.

² ‘Militarization’ here means the threat of using military force to influence or ‘solve’ the issue of overlapping claims in the Arctic region outside the national territories.

³ Wezeman, S. T., ‘Military capabilities in the Arctic’, SIPRI Background Paper, Mar. 2012.

⁴ ‘Russia–NATO relations reach level of new cold war—Medvedev’, *Sputnik*, 13 Feb. 2016, <<http://sptnkne.ws/aCmW>>.



Figure 1. Map of the Arctic littoral states



NATO and Russia spilling over to the Arctic.⁵ This paper re-examines how the specific Arctic military capabilities of the five Arctic littoral states have changed or are planned to change. In doing so, it builds on the 2012 review and adds developments between 2012 and late 2015.

II. Canada

Under a ‘use it or lose it’ slogan, the Canadian Government under Stephen Harper, Prime Minister from February 2006 until November 2015, pressed for economic exploitation of the Arctic and prioritized protecting and strengthening Canada’s ‘Arctic sovereignty’.⁶ Canada’s defence policy is contained in the 2008 Canada First Defence Strategy, which includes plans for investments until 2028.⁷ It put a renewed emphasis on defending Canada’s sovereignty, including in the Arctic region as it becomes more accessible. Canada’s Arctic policy is specified in the government’s Northern Strategy, which was released in July 2009.⁸ This increased policy emphasis has been matched by a limited expansion of special Arctic forces and increased training in Arctic environments, but only partly by the procurement of new equipment.

The idea that the threat to Canada’s Arctic sovereignty is sufficient to require the acquisition of substantial numbers of expensive heavy weapons is not held by all in Canada.⁹ In October 2015 Justin Trudeau’s Liberal party won the elections. While in opposition, the Liberals criticized Harper’s defence policies, but their Arctic policies are likely to be similar to those of the previous government. The Liberals’ election programme called Canada First ‘underfunded and out of date’ and promised a ‘renewed focus on surveillance and control of Canadian territory and approaches, particularly our Arctic regions’ and a stronger navy as a ‘top priority’. This is to be partly funded by cancelling plans for the procurement of F-35 combat aircraft in favour of a less costly solution and partly by increasing military spending.¹⁰ Trudeau also promised to stand up to ‘the bully that is Vladimir Putin’.¹¹

Air capabilities

The Royal Canadian Air Force operates 18 CP-140 (P-3C) anti-submarine warfare (ASW) aircraft that have the range to patrol the Arctic region from

⁵ Farmer, B., ‘Russia threatens Nato navies with “arc of steel” from Arctic to Med’, *The Telegraph*, 7 Oct. 2015; Coffey, L., *Russian Military Activity in the Arctic: A Cause for Concern* (The Heritage Foundation: Washington, DC, 16 Dec. 2014); and Bender, J., ‘This map shows the massive scale of Russia’s planned fortification of the Arctic’, *The Business Insider*, 17 Mar. 2015.

⁶ Bennett, M., ‘What does Trudeau victory in Canadian election mean for the Arctic?’, *Arctic Newswire*, 26 Oct. 2015.

⁷ Canadian Department of National Defence (DND), *Canada First Defence Strategy* (DND: Ottawa, 18 June 2008).

⁸ Canadian Government, *Canada’s Northern Strategy: Our North, Our Heritage, Our Future* (Minister of Public Works and Government Services: Ottawa, July 2009).

⁹ Chase, S., ‘Myth versus reality in Stephen Harper’s northern strategy’, *Globe and Mail*, 17 Jan. 2014.

¹⁰ Liberal party election programme, <<https://www.liberal.ca/realchange/>>, accessed 2 Nov. 2015.

¹¹ Gilmore, S., ‘Vladimir Putin, Justin Trudeau, and Canada’s Arctic problem’, *Maclean’s*, 4 Nov. 2015.



their base on the east coast of Canada. Under a programme started in 1998, the aircraft are being modernized so that at least 10 will be in operation until 2030.¹² Canada First includes a planned replacement of 10–12 new aircraft from 2020, but that commitment seems to have been replaced by the planned use of the CP-140 until 2030. Canada also has 77 F/A-18 combat aircraft stationed in south east and central Canada that are regularly deployed in the Arctic region, especially to intercept Russian bomber and reconnaissance aircraft close to Canada's airspace. They can operate from four secondary air bases in northern Canada at Inuvik and Yellowknife, both in the Northwest Territories (NWT), and Iqaluit and Rankin Inlet, both in Nunavut.¹³ The F/A-18s are supported by seven tanker aircraft.¹⁴ Canada First planned to replace the F/A-18s with 65 F-35 Joint Strike Fighters (JSFs) from 2020. The government repeatedly linked their purchase to Russian long-range bomber aircraft operations over the Arctic.¹⁵ However, the choice of the F-35 was reviewed in 2012 and the selection process for a new combat aircraft was restarted. In their election programme, the Liberals announced that in a revised plan the F-35 would be replaced by an alternative cheaper aircraft.¹⁶ By mid 2016 the F/A-18E was reported to be the government's favourite.¹⁷

Canadian helicopters and transport aircraft operate regularly in the Arctic region, including using improvised and temporary airfields made on snow or ice.¹⁸ Aircraft acquisitions in recent years, such as the C-130J and C-17 transport aircraft, have been partly for Arctic missions.¹⁹ New search and rescue (SAR) aircraft are planned for use in the Arctic but are delayed until after 2025. In the meantime, the existing DHC-6 transport aircraft are being modernized.²⁰ Canadian acquisition plans (since around 2009) also include up to 12 armed unmanned aerial vehicles (UAVs) in the 1.5 billion Canadian dollar (\$1.5 billion) Joint Uninhabited Surveillance and Target Acquisition System (JUSTAS) project. The UAVs are to operate in signals intelligence, maritime patrol and armed combat roles. By early 2016 no orders had yet been placed, but the acquisition of at least some of the UAVs specifically for Arctic surveillance had become a priority.²¹

¹² 'Maintaining Canada's CP-140 Aurora Fleet', *Defence Industry Daily*, 13 Aug. 2014; and Royal Canadian Air Force, 'CP-140 Aurora', <<http://www.rcfaf-arc.forces.gc.ca/en/aircraft-current/cp-140.page>>, accessed 2 June 2016.

¹³ Canadian Department of National Defence, 'Canada Command background', <<http://www.canadacom.forces.gc.ca/nr-sp/bg-do/09-002a-eng.asp>>, accessed 12 Dec. 2011.

¹⁴ International Institute for Strategic Studies (IISS), *The Military Balance 2016* (Routledge: London, 2016), p. 36.

¹⁵ Dufour, J., 'Le Canada: un plan national pour la militarisation de l'Arctique et de ses ressources stratégiques' [Canada: a national plan for the militarization of the Arctic and its strategic resources], *Mondialisation.ca*, 7 Sep. 2010, <<http://www.mondialisation.ca/index.php?context=va&aid=20943>>.

¹⁶ Liberal party election programme (note 10).

¹⁷ McGarry, B., 'Canada plans to buy F/A-18 rather than F-35 for now', *DoD Buzz*, 7 June 2016, <<http://www.dodbuzz.com/2016/06/07/canada-plans-to-buy-fa-18-rather-than-f-35-for-now-report/>>.

¹⁸ Canadian Department of National Defence, 'Canadian Rangers Patrol Group', 17 Aug. 2011 <<http://www.army.forces.gc.ca/land-terre/cr-rc/crpg-gprc-eng.asp>>.

¹⁹ Champion-Smith, B., 'Canadian troops flex muscle in Arctic exercise', *Toronto Star*, 25 Aug. 2010; and Canadian Government, *Northern Strategy: Record of Achievement 2009–2010* (Canadian Government: Ottawa, 2010).

²⁰ Pugliese, D., 'Canada breaking logjam on Arctic equipment', *Defense News*, 11 Mar. 2015.

²¹ Ling, J., 'Canada wants drones to bomb terrorists, track pirates, and spy on protesters', *Vice News*, 19 Jan. 2016; and Wasserbly, D., 'Canada revisiting JUSTAS UAV programme', *Jane's Inter-*



Canada operates an extensive network of air surveillance radars in the north of the country—the North Warning System—which forms part of the North American Aerospace Defense Command (NORAD) (see section VI below).²² The Northern Strategy includes plans for surveillance systems, including satellites and underwater surveillance systems, to monitor the Arctic region and ship movements within it.²³

Under the project Polar Epsilon, data from the high-resolution civilian radar-equipped earth observation satellite RadarSat II is used for surveillance of the Arctic region. RadarSat II was launched in 2007 and was modified from July 2009 to provide higher resolutions.²⁴ Two specific military ground stations were to be operational by late 2011 and two additional satellites were originally planned for launch in 2014–15.²⁵ However, this programme has been modified to use data from three civilian satellites, to be launched in 2018, linked to a military network to be ordered in 2017 for delivery in 2019.²⁶

Land capabilities

In 2011, Major General Alan Howard, Assistant Chief of the Land Staff of the Canadian Army, complained that the army had lost the ‘ability to operate up north in the Arctic’ because of the focus on operations in Afghanistan.²⁷ However, all Canadian land forces receive basic cold weather training and have cold weather personal equipment, while much of Canada’s heavy equipment is cold weather capable to some extent and increased winter training of large units is part of the Canada First policy.²⁸ The army’s capabilities for Arctic operations are being improved with new winter uniforms to be delivered from 2021, while an order for up to 100 snow-capable vehicles is planned after 2021.²⁹

national Defence Review, Mar. 2016, p. 25.

²² Huebert, R., ‘Domestics ops in the Arctic’, Presentation at the conference ‘Canadian Reserves on Operations’, *Journal of Military and Strategic Studies*, vol. 12, no. 4 (summer 2010); International Institute for Strategic Studies (note 14), pp. 54–55; and Canada Command, ‘The Canadian Forces in the north’, Background, 17 Aug. 2009, <<http://www.canadacom.forces.gc.ca/nr-sp/bg-do/09-002a-eng.asp>>.

²³ ‘New Arctic icebreaker to be named after Diefenbaker’, CBC News, 28 Aug. 2008, <<http://www.cbc.ca/news/canada/north/story/2008/08/28/new-icebreaker.html>>; ‘Battle for the Arctic heats up’, CBC News, 20 Aug. 2010, <<http://www.cbc.ca/news/canada/story/2009/02/27/f-arctic-sovereignty.html>>; Canadian Government (note 19); and Prime Minister of Canada, ‘PM announces new polar class icebreaker project to be named after former PM John G Diefenbaker’, 28 Aug. 2008, <<http://pm.gc.ca/eng/media.asp?id=2251>>.

²⁴ Campion-Smith (note 19); Canadian Department of National Defence, ‘A new step for the Polar Epsilon project’, 21 July 2010, <<http://www.forces.gc.ca/en/news/article.page?doc=polar-epsilon-project/hnpsluo5>>; and ‘Canadian satellite set to keep an eye on Arctic’, CBC News, 14 Dec. 2007, <<http://www.cbc.ca/news/technology/story/2007/12/13/tech-radarsat-launch.html>>.

²⁵ Canadian Department of National Defence (note 24); Campion-Smith (note 19); and Huebert (note 22), p. 9.

²⁶ Boucher, M., ‘An overview of Canadian Military Space in 2014—Part 2’, Spaceref, 17 Feb. 2015, <<http://spaceref.ca/military-space/an-overview-of-canadian-military-space-in-2014---part-2.html>>; Boutilier, A., ‘Ottawa seeks buy-in from other governments, industry for Arctic satellite program’, *The Star*, 9 Nov. 2013; and Pugliese (note 20).

²⁷ DeSilva-Ranasinghe, S., Interview (with Major General Alan Howard), *Jane’s Defence Weekly*, 12 Jan. 2011, p. 34.

²⁸ Gillis, L., ‘Canadian Forces and US Army winter training exercise coming in March’, *Timmins Times*, 1 Feb. 2011.

²⁹ Pugliese (note 20).



The main Arctic force is the Canadian Rangers, a lightly armed militia force with a patrol and reconnaissance role in northern Canada, trained and equipped for year-round Arctic operations.³⁰ Its size was increased from 4100 to 5000 personnel between 2008 and 2012, and it was provided with new equipment, including 6600 rifles.³¹ The new Liberal government plans to further increase the size of the Rangers.³² In addition, a special small battalion-sized (500 troops) regular army unit for Arctic operations is to be set up.³³ Since 2008, Canadian reserve forces have included an Arctic company, based in Yellowknife, NWT, which under the Northern Strategy is planned to have a strength of 100 by 2019.³⁴

Since the 1950s, a small military base has been located at Alert on Ellesmere Island, Nunavut, in the extreme north east of Canada, facing Greenland.³⁵ In order to improve Arctic training, a special Arctic training centre was opened in Resolute Bay, Nunavut, in 2013.³⁶

Sea capabilities

Canada's 13 major surface warships are large enough, and its 4 diesel-electric submarines have enough range, to operate in the Arctic Ocean.³⁷ The Canadian Navy has no ice-strengthened warships, but patrolling the Arctic is mainly done by the Canadian Coast Guard (under the Department of Fisheries and Oceans). The coast guard has six large icebreakers (two 'heavy' and four 'medium') and seven small icebreakers, all unarmed.³⁸ However, most of these can only operate in the Arctic in the summer.³⁹ When elected, Harper promised three new large icebreakers.⁴⁰ In the Canada First and the Northern Strategy documents one large icebreaker was planned for the coast guard, replacing an older ship, to be operational by 2017 at a cost of 720 million Canadian dollars (\$720 million). They also set out plans for six to eight large Arctic offshore patrol vessels (OPVs) for the navy, with a light icebreaking capacity.⁴¹

³⁰ Canadian Army, 'Canadian Rangers', <<http://www.army-armee.forces.gc.ca/en/canadian-rangers/index.page>>, accessed 31 May 2016.

³¹ Canadian Government (note 8); Prime Minister of Canada, 'Prime Minister announces expansion of Canadian Forces facilities and operations in the Arctic', 10 Aug. 2007, <<http://www.pm.gc.ca/eng/media.asp?category=1&id=1784>>; Huebert (note 22); Pugliese, D., 'Here it is—the new Sako rifle for the Canadian Rangers', *Ottawa Citizen*, 23 June 2015; and Canadian Army (note 30).

³² Liberal party election programme (note 10).

³³ O'Dwyer, D. and Pugliese, D., 'Canada, Russia build Arctic forces', *Defense News*, 6 Apr. 2009.

³⁴ Huebert, R., *The Newly Emerging Arctic Security Environment* (Canadian Defence and Foreign Affairs Institute: Calgary, Mar. 2010), p. 9; Huebert (note 22); and 'Canada's Arctic strategy', CBC News, 27 July 2009, <<http://www.cbc.ca/news/canada/story/2009/07/27/arctic-sovereignty-map.html>>.

³⁵ 'Battle for the Arctic heats up' (note 23); and Canada Command (note 22).

³⁶ Prime Minister of Canada (note 31); and Pugliese (note 20).

³⁷ Royal Canadian Navy website, <<http://www.navy-marine.forces.gc.ca/en/fleet-units/submarines-home.page>>, accessed 31 May 2016.

³⁸ Canadian Coast Guard website, <<http://www.ccg-gcc.gc.ca/Icebreaking/home>>, accessed 31 May 2016.

³⁹ Huebert (note 22).

⁴⁰ Byers, M., 'Why Canada's search for an icebreaker is an Arctic embarrassment', *Globe and Mail*, 21 Jan. 2014.

⁴¹ 'Battle for the Arctic heats up' (note 23); Canadian Government (note 19); Huebert (note 34), pp. 6–7; Prime Minister of Canada (note 23); and Chase (note 9).



Despite the Arctic prioritization, both plans have been seriously delayed. A design for the icebreaker was ordered in 2012, but in 2013 production was delayed to prioritize the non-Arctic acquisition of support ships for the navy. The icebreaker will not be ready before 2021 and, with the price estimated in 2014 at 1.3 billion Canadian dollars (\$1.2 billion), there is some speculation that it might be cancelled.⁴² Due to budget constraints, only five OPVs were ordered (with an option of one more) for 3.5 billion Canadian dollars (\$2.9 million)—instead of the 3.1 billion planned—for delivery between 2018 and 2022.⁴³ Production of the first vessel started in 2015.⁴⁴ However, the Liberals promised to prioritize the navy and claimed to have the funds to build icebreakers (plural), the OPVs, the support ships and other equipment.⁴⁵

The nearest Canadian naval base to the Arctic region is at Halifax, Nova Scotia, in the far south east of Canada.⁴⁶ The small existing coast guard base at Nanisivik on Baffin Island, Nunavut, was due to be expanded in the period 2010–15, at a cost of 100 million Canadian dollars (\$100 million), to become a naval base with docking and supply facilities.⁴⁷ However, this programme has also been downsized to a refuelling base and delayed by several years.⁴⁸

III. Denmark, including Greenland

Denmark's defence policy is outlined in its Defence Agreements. The 2009 Danish Defence Agreement (for the period 2010–14) and the 2012 Danish Defence Agreement (for the period 2013–17) feature special sections on the Arctic, underline the new geostrategic significance of the region, and include additional resources for strengthening Danish special forces and other forces that can be used in the Arctic.⁴⁹ A special Arctic strategy was adopted in 2011.⁵⁰

Denmark's defence policy underlines the new geostrategic significance of the Arctic region

In October 2012 the Greenland and Faroe Islands commands were merged into a new joint military Arctic Command headquartered in Nuuk, Greenland. The small headquarters has around 85 personnel and coordinates deployment of Danish military units in the North Atlantic and Arctic

⁴² Byers (note 40).

⁴³ Laursen, W., 'Steel cut for Canada's first Arctic offshore patrol ship', *Maritime Executive*, 3 Sep. 2015, <<http://www.maritime-executive.com/article/steel-cut-for-canadas-first-arctic-offshore-patrol-ship>>; Saunders, S. (ed), *Jane's Fighting Ships, 2016–2017* (IHS: London, 2016), p. 107; and Pugliese, D., 'Canada kicks off Arctic Patrol Ship Program', *Defense News*, 25 Jan. 2015.

⁴⁴ Royal Canadian Navy website, 'Arctic/Offshore Patrol Ships', <<http://www.navy-marine.forces.gc.ca/en/fleet-units/aops-home.page>>, accessed 5 Nov. 2015.

⁴⁵ Liberal party election programme (note 10). Gillis (note 28).

⁴⁶ Wertheim, E., *The Naval Institute Guide to Combat Fleets of the World, 16th Edition* (Naval Institute Press: Annapolis, MD, 2013), p. 77.

⁴⁷ Canadian Government (note 8); Prime Minister of Canada (note 31); Prime Minister of Canada, 'Expanding Canadian Forces operations in the Arctic', 10 Aug. 2007, <<http://www.pm.gc.ca/eng/media.asp?id=1785>>; Huebert (note 34), p. 13; and Huebert (note 22).

⁴⁸ Chase (note 9); and Pugliese (note 20).

⁴⁹ Danish Ministry of Defence (MOD), *Danish Defence Agreement 2010–2014* (MOD: Copenhagen, 24 June 2009); Danish Ministry of Defence (MOD), *Danish Defence Agreement 2013–2017* (MOD: Copenhagen, 30 Nov. 2012); and O'Dwyer, G., 'Denmark boosts resources for Arctic security', *Defense News*, 8 Oct. 2013.

⁵⁰ Danish Ministry of Foreign Affairs (MFA), Greenland Department of Foreign Affairs and Faroe Islands Foreign Service, *Kongeriget Danmarks Strategi for Arktis 2011–2020* [The Kingdom of Denmark's strategy for the Arctic 2011–2020] (MFA: Copenhagen, Aug. 2011).



regions. It has some small units and several patrol ships and aircraft more or less permanently assigned to it, but can be quickly reinforced with other Danish military assets.⁵¹ Both Defence Agreements included the establishment of a modular Arctic Response Force or Joint Arctic Preparedness Force, composed of different parts of the Danish armed forces for operation on Greenland and in other Arctic areas.⁵² However, the Danish state auditing agency, Rigsrevisionen, concluded in October 2013 that the government had over the previous nine years provided insufficient funds and equipment for the Danish forces to fulfil their Arctic tasks, in particular SAR and environmental protection.⁵³ According to the 2012 Defence Agreement, a ‘comprehensive analysis of the future tasks of the defence in the Arctic’ will be conducted by 2017, including options for cooperation with all other Arctic countries.⁵⁴

Air capabilities

Denmark operates three unarmed maritime patrol aircraft over the Baltic Sea and off Greenland. The 2012 Defence Agreement includes substantial funds for testing different additional surveillance options for the Arctic, including UAVs and the use of existing satellites.⁵⁵ Plans for the potential deployment of F-16 combat aircraft to Greenland have also been reported.⁵⁶ In the past, Danish F-16s have sometimes used Søndre Strømfjord (Kangerlussuaq) Airport in western Greenland.⁵⁷ The renewed use of the currently dormant Thule Air Base in the north west of Greenland has also been considered (see section VI).⁵⁸ In August 2014, two fully armed F-16s flew for three days from both bases to test their Arctic capabilities. A further two- to three-week deployment of six to eight F-16s was planned, but had not happened by mid 2016.⁵⁹ In 2016, after several years of delay, 27 F-35A combat aircraft were selected to replace the 30 currently operational F-16s after 2020.⁶⁰

⁵¹ Danish Ministry of Defence website, <<http://www2.forsvaret.dk/omos/organisation/arktisk/Pages/Arktisk2.aspx>>, accessed 31 May 2016; and Danish Ministry of Defence, *Arktisk Kommando* [Arctic Command], <http://www2.forsvaret.dk/omos/organisation/arktisk/Documents/Arktisk-Kommando_DK_UK.pdf>.

⁵² Danish Ministry of Defence, *Danish Defence Agreement 2010–2014* (note 49), p. 12; and Danish Ministry of Defence, *Danish Defence Agreement 2013–2017* (note 49), p. 15.

⁵³ ‘Danish military criticised for not living up to Arctic commitments’, *The Arctic Journal*, 16 Sep. 2013.

⁵⁴ Danish Ministry of Defence, *Danish Defence Agreement 2013–2017* (note 49), p. 43.

⁵⁵ Danish Ministry of Defence, *Danish Defence Agreement 2013–2017* (note 49), pp. 15–16, 44–45.

⁵⁶ Huebert (note 34), p. 10.

⁵⁷ ‘Denmark’s Arctic assets and Canada’s response: sovereignty and strategic resources of the high Arctic’, *Canadian American Strategic Review*, May 2005, <<http://www.casr.ca/id-indetail-05.htm>>, part 4.

⁵⁸ Danish Ministry of Defence, *Danish Defence Agreement 2013–2017* (note 49).

⁵⁹ Martin, H., ‘Preparing for the unfriendly skies?’, *The Arctic Journal*, 5 Aug. 2014; and Osborne, T., ‘Fighting Falcons over Greenland’, *Aviationweek.com*, 15 Sep. 2014, <<http://aviationweek.com/blog/video-fighting-falcons-over-greenland>>.

⁶⁰ De Larrinaga, N., ‘Denmark selects F-35 for fighter programme’, *Jane’s Defence Weekly*, 18 May 2016, p. 5.



Land capabilities

The small Frømandskorps (Frogman Corps) special forces unit based in Greenland has a partly Arctic role, while the Jaeger special forces based in Denmark are also available for Arctic duties. Both units are being expanded from 130–150 troops to 200–300 troops each, respectively.⁶¹ Denmark also maintains a small (around a dozen troops) military patrol force on Greenland, the Slædepatrulje Sirius (Sledge Patrol Sirius).⁶²

Sea capabilities

Denmark's three large frigates and two frigate/support ships are able to operate in Arctic waters but are not ice-strengthened.⁶³ However, four Thetis OPV/frigates, which were commissioned in the early 1990s and designed for patrols in the North Atlantic and off Greenland, are capable of breaking ice up to 1 metre thick.⁶⁴ Two smaller, but potentially more heavily armed, ice-strengthened Rasmussen OPV/light corvettes dedicated for patrols off Greenland were ordered in 2004 and commissioned in 2008–2009. One ice-strengthened Tulugaq large patrol craft also operates from Greenland.⁶⁵ A third Rasmussen OPV was ordered in late 2013 and is to enter service in 2017 or 2018.⁶⁶ Also chosen for their usefulness in the Arctic, nine larger MH-60R helicopters are replacing the Lynx helicopters used on naval frigates and corvettes.⁶⁷ The Danish Navy has a base at Kangilinnguit (Grønnedal) in the south of Greenland.⁶⁸

IV. Norway

Until recently, Norwegian–Russian relations were considered to be very good. Norway and Russia were increasingly cooperating in the European Arctic area and they held several joint military exercises.⁶⁹ However, in

⁶¹ O'Dwyer (note 49).

⁶² 'Denmark's Arctic assets and Canada's response' (note 57); Finkel, M., 'The cold patrol', *National Geographic*, Jan. 2012; Robinson, D. D., 'The world's most unusual military unit', *Christian Science Monitor*, 22 June 2016, <<http://www.csmonitor.com/World/2016/0622/The-world-s-most-unusual-military-unit>>; and Segedin, K., 'The world's most extreme dogsled patrol', BBC, 26 Feb. 2016, <<http://www.bbc.com/earth/story/20160226-photographing-greenlands-elite-dog-sled-patrol>>.

⁶³ McGwin, K., 'Danish navy fires back at Arctic fleet criticism', *The Arctic Journal*, 6 Jan. 2014.

⁶⁴ Danish Ministry of Defence, [Arctic Command] (note 51), p. 17.

⁶⁵ Danish Ministry of Defence, [Arctic Command] (note 51), p. 17; and Lundquist, E. H., 'Danish navy's Knud Rasmussen-class patrol ships are built for ice Greenland waters', *DefenseMediaNetwork*, 3 Dec. 2012, <<http://www.defensemianetwork.com/stories/danish-navys-knud-rasmussen-class-patrol-ships-are-built-for-icy-greenland-waters/>>.

⁶⁶ Danish Ministry of Defence, [Arctic Command] (note 51), p. 17; and 'Forsvaret bestiller nyt skib til fremtidens opgaver ved Arktis' [Defence orders new ship for future tasks in Arctic], *Force Weekly*, 4 Dec. 2013.

⁶⁷ Danish Ministry of Defence, *Danish Defence Agreement 2013–2017* (note 49), p. 12.

⁶⁸ Wertheim (note 46), p. 153.

⁶⁹ 'From the High North to terrorism—Norwegian perspective', Speech by Roger Ingebritsen, Norwegian State Secretary of Defence, 24 Nov. 2011, <<http://www.regjeringen.no/en/dep/fd/whats-new/Speeches-and-articles/Speeches-and-articles-by-other-apolitica/Speeches-and-articles-by-State-Secretary-Roger-Ingebritsen/speeches-and-articles/from-the-high-north-to-terrorism--norweg.html?id=664882>>; Pettersen, T., 'First Norwegian–Russian shooting exercises', *Barents Observer*, 8 June 2010, <<http://www.barentsobserver.com/index.php?id=4791127>>; Nilsen, T., 'Norwegian soldiers to train in Russia', *Barents Observer*, 1 Sep. 2011, <<http://www.barentsobserver.com/index.php?id=4791127>>.



recent years Norwegian political and military leaders have noted significant changes in the security environment, including increasing concerns about Russia. While not named as a direct military threat to Norway, Russia's military modernization and especially its more assertive policies in Europe 'have created uncertainty'.⁷⁰ A strategic military review, the 'Norwegian Armed Forces in transition', was started in October 2014 and presented in October 2015.⁷¹ The review outlines a stronger military presence in Finnmark, the northern part of Norway.⁷² A new Defence White Paper is planned for 2016.⁷³ Since 2009, the Norwegian defence budget has increased in real terms and is projected to increase further until 2017 to cover the costs of ordered equipment (mainly F-35 combat aircraft). From 2018–20 a real-term decrease is planned.⁷⁴

Norwegian defence policy remains guided by the 2007 Soria Moria Declaration on International Policy, which gave priority to the north of Norway and Svalbard (often referred to in Norway as the 'High North') within national defence.⁷⁵ Norway's policy remains strongly focused on Russia but it has shifted from emphasizing a potential threat to the whole of Norway to the potential for conflicting interests in the Arctic area.⁷⁶ However, the increased military capabilities outlined in the 2015 review are mainly directed at a threat against Norwegian territory in the High North, and not in the extra-territorial Arctic.⁷⁷ In August 2009 the headquarters of the Norwegian armed forces moved from Jättå in the south of the country to Reitan, near Bodø, just north of the Arctic Circle; the headquarters of the Norwegian Army is even further north, in Bardufoss.⁷⁸ While the Norwegian Navy remains based mainly in Bergen, in the south, in 2010 the coast guard headquarters was moved north, to Sortland.⁷⁹

In recent years Norwegian political and military leaders have noted significant changes in the security environment, including increasing concerns about Russia

barentsobserver.com/en/security/norwegian-soldiers-train-russia>; and Pettersen, T., 'Norwegian-Russian naval exercises successful and effective', Barents Observer, 23 May 2011, <<http://barentsobserver.com/en/articles/norwegian-russian-naval-exercises-successful-and-effective>>.

⁷⁰ E.g. in 2016 the annual analysis by the Norwegian intelligence service did not consider Russia an immediate military threat to Norway. Pettersen, T., 'Norwegian Intelligence Service: Russia is more confident and unpredictable', Independent Barents Observer, 24 Feb. 2016, <<http://thebarentsobserver.com/en/2016/02/norwegian-intelligence-service-russia-more-confident-and-unpredictable>>; Norwegian Intelligence Service, *Fokus 2016*, Feb. 2016, <<https://forsvaret.no/fakta/ForsvaretDocuments/Fokus%202016.pdf>>; and Norwegian Chief of Defence, Admiral Haakon Bruun-Hanssen, in Tringham, K., 'Northern recomposure', *Jane's Defence Weekly*, 21 Oct. 2015, pp. 24–25.

⁷¹ Norwegian Armed Forces, *Norwegian Armed Forces in Transition* (Norwegian Armed Forces: Oct. 2015).

⁷² Norwegian Armed Forces (note 71), p. 2.

⁷³ Tringham (note 70), p. 25; and Stevenson, B., 'Norway reconfirms plans to acquire 52 F-35s', *Flightglobal*, 5 Oct. 2015, <<https://www.flightglobal.com/news/articles/norway-reconfirms-plans-to-acquire-52-f-35s-417409/>>.

⁷⁴ Tringham (note 70), p. 31.

⁷⁵ Office of the Norwegian Prime Minister, 'The Soria Moria declaration on international policy', 4 Feb. 2007, <<http://www.regjeringen.no/en/dep/smk/documents/Reports-and-action-plans/rapporter/2005/The-Soria-Moria-Declaration-on-Internati.html>>; and Norwegian Ministry of Defence (MOD), *Norwegian Defence: Facts and Figures 2011* (MOD: Oslo, 2011), p. 30.

⁷⁶ Office of the Norwegian Prime Minister (note 75); and Huebert (note 34), pp. 12–13.

⁷⁷ Norwegian Armed Forces (note 71), p. 6.

⁷⁸ Norwegian Armed Forces, 'Norwegian Joint Headquarters', 9 Feb. 2012, <<http://mil.no/organisation/about/norwegianjointheadquarters/>>; and Norwegian Armed Forces, 'The Army', <<http://mil.no/organisation/about/army/>>.

⁷⁹ Norwegian Ministry of Defence (note 75), p. 22.



Since 2006, Norwegian, NATO and other allied troops have held biannual large-scale ‘Cold Challenge’ exercises in northern Norway. These have been directed at unspecified threats in cold environments but have also been good training opportunities for potential Arctic operations.⁸⁰ In 2013 and 2015 Norway was the lead country for a new set of large military training exercises in the north of Scandinavia called the ‘Arctic Challenge’ (ACE). Involving Norwegian, other NATO, Swedish and Finnish air forces, ACE is to be held every two years.⁸¹

Air capabilities

Norway operates some 60 F-16 combat aircraft, but in 2008 it selected up to 52 F-35 aircraft as a replacement.⁸² The first 2 were supplied to Norway in 2015 for training missions in the USA, 28 are scheduled to enter service in 2017–20 and all 52 are to be in service by 2024.⁸³ The F-35 aircraft have a significant maritime role and will be armed with the new Norwegian NSM anti-ship missile.⁸⁴ Due to their limited range and current lack of tanker aircraft support, F-16 and F-35 aircraft are not much use in the Arctic area outside Norway. However, in 2014 Norway joined with Poland and the Netherlands to acquire a pool of three to four A330 MRTT tanker aircraft, expected to enter service from 2019.⁸⁵

The bulk of what can be seen as a real Arctic capability lies with the six P-3 long-range maritime patrol aircraft, each at least 26 years old.⁸⁶ These are to be retired between 2017 and 2028 and replaced by satellite-based sensors, four new surveillance aircraft and six long-range UAVs. The new aircraft and UAVs are to be operational by 2024.⁸⁷ None of these had been selected or ordered by early 2016.

A large proportion of the approximately 60 F-16 combat aircraft that Norway operates are based at Bodø, the main base of the Norwegian Air Force.⁸⁸ However, the Bodø air base will be closed by the time the F-16s are retired in 2024 and the new F-35 aircraft will instead be based further south at Ørland.⁸⁹ In order to patrol the High North airspace, there are now plans for a small number of F-35s to be based at the Harstad/Narvik Airport at Evenes (some 170 kilometres north of Bodø), where the Norwegian Air Force has had a small base for many years.⁹⁰

⁸⁰ Huebert (note 34), p. 14; and Norwegian Armed Forces, ‘Cold Challenge 2011’, <<http://mil.no/exercises/cold-challenge/Pages/cold-challenge.aspx>>.

⁸¹ Norwegian Ministry of Defence, ‘Arctic Challenge Exercise’, 13 June 2015, <<https://forsvaret.no/en/exercise-and-operations/exercises/ace>>; and O’Dwyer, G., ‘Tensions high as Russia responds to exercise’, *Defence News*, 31 May 2015.

⁸² Wall, R., ‘Norway sets JSF buy in new budget’, *Aviation Week*, 10 Oct. 2011.

⁸³ Stevenson (note 73); and O’Dwyer, ‘Norway adds \$500m to bolster High North’, *Defence News*, 4 May 2015.

⁸⁴ Tringham (note 70), p. 28.

⁸⁵ Tringham (note 70), p. 28.

⁸⁶ Stevenson (note 73).

⁸⁷ Stevenson (note 73).

⁸⁸ Norwegian Armed Forces (note 78).

⁸⁹ O’Dwyer (note 83); and Tringham (note 70), p. 26.

⁹⁰ Berglund, N., ‘Fighter jet base landed at Ørland’, *News in English.no*, 2 Mar. 2012, <<http://www.newsinenglish.no/2012/03/02/fighter-jet-base-landed-at-orland/>>; and Tringham (note 70), pp. 26–27.



Land capabilities

Since a restructuring of the Norwegian land forces in 2009, the winter-trained Brigade Nord (Brigade North) is by far the largest unit of the Norwegian Army. Most of the brigade is stationed in Troms county in the north of Norway, above the Arctic Circle, although one of its two heavy battalions is stationed in the far south, near Oslo.⁹¹ In November 2011 the chief of defence recommended reductions in the size of the brigade.⁹² However, the 2012 Defence White Paper left the brigade intact, with two heavy mechanized battalions (equipped for operations throughout Norway and abroad) and one light infantry battalion.⁹³ Its tanks and other armoured vehicles are being modernized and additional new armoured vehicles are being delivered.⁹⁴ The brigade's air defence will also be modernized and expanded.⁹⁵

The 2015 military review reaffirmed and expanded the modernization of the brigade, and planned to base part of it further north at Porsangermoen Camp. The review also included plans to modernize the equipment of the 17th District of the Home Guard (reserve forces for local defence and separate from the army) in Finnmark, specifically with anti-tank weapons and electronic warfare systems, and to increase its 'rapid response' forces—which are meant for use throughout Norway—from 3000 to 3250 personnel. In addition, the review includes plans to strengthen the border guard along the Russian border.⁹⁶

Sea capabilities

The 2015 military review plans for 'a higher level of activity' for the navy in the High North, operating from its base in Ramsund (near Narvik, some 200 km north of the Arctic Circle).⁹⁷ By early 2011 the Norwegian Navy had replaced its five small frigates with five much larger and more capable Nansen frigates. Because of their size and equipment, the new frigates are able to operate in Arctic waters much more effectively.⁹⁸ A large combat support ship, the first ever for Norway, was ordered in 2013 and is to be delivered in 2016.⁹⁹ It will give the frigates a substantial increase in range and endurance. Norway's six Ula submarines can also operate in Arctic waters. However, since they were produced in around 1990, in late 2014 it was decided that the

⁹¹ Norwegian Armed Forces (note 78); Norwegian Ministry of Defence (note 75), p. 24; and Leraand, D., 'North Brigade', *Store Norske Leksikon*, <https://snl.no/Brigade_Nord> (in Norwegian).

⁹² Berg, J., 'Norwegian plan recommends air base closure', *Jane's Defence Weekly*, 30 Nov. 2011, p. 13.

⁹³ Norwegian Ministry of Defence (MOD), *Et forsvar for vår tid* [A defence for our times], (Norwegian MOD: 23 Mar. 2012), pp. 90–93.

⁹⁴ Tringham (note 70), pp. 29–30.

⁹⁵ O'Dwyer (note 83).

⁹⁶ Norwegian Armed Forces (note 71), p. 14.

⁹⁷ Norwegian Armed Forces (note 71), p. 14.

⁹⁸ Norwegian Ministry of Defence, 'The Navy', <<https://forsvaret.no/en/organisation/navy>>, accessed 30 May 2016.

⁹⁹ 'South Korea's DSME wins contract for design and build of a new logistics support vessel for Norway', Navy Recognition, 15 Aug. 2013, <<http://www.navyrecognition.com/index.php/news/defence-news/year-2013-news/august-2013-navy-world-naval-forces-maritime-industry-technology-news/1191-south-koreas-dsme-wins-contract-for-design-and-build-of-a-new-logistics-support-vessel-for-norway.html>>.



Ulas would be replaced with new submarines (the design of which has yet to be determined) from the mid 2020s.¹⁰⁰

Norway also operates a large research ship, with electronic and signals intelligence equipment, which is capable of operations in thin ice. A replacement was ordered in 2010 and will be operational in 2017. However, in 2015 there was a decision to modernize and keep the old ship in service too.¹⁰¹ The Norwegian Coast Guard operates one large but lightly armed icebreaker/OPV (the *Svalbard*) and three large Barentshav OPVs capable of operations in icy conditions, all with a helicopter hangar. It also has four other large ocean-going OPVs, which will probably need to be replaced soon after 2020.¹⁰² With the exception of the *Svalbard*, none of Norway's warships or patrol ships can break ice.

V. Russia¹⁰³

Russia's Arctic policies are set out in two documents: 'The Foundations of the Russian Federation's State Policy in the Arctic until 2020 and Beyond', adopted in September 2008; and 'The Strategy for the Development of the Arctic Zone of the Russian Federation and National Security Efforts for the Period up to 2020', adopted in 2013.¹⁰⁴ These two documents highlight the importance of the Arctic as a principal source of natural resources by 2020 and the security issues resulting from the increased accessibility of the Arctic region. However, they focus mainly on non-military challenges and underline the importance of cooperation among all Arctic states in dealing with the region's issues—at least those that fall outside of the current national territories.

In addition to these two general policy documents, the Arctic also features in more specific military and security documents. For the first time, the December 2014 'Russian Military Doctrine' includes the task of 'protecting Russian interests in the Arctic'.¹⁰⁵ The July 2015 'Maritime Doctrine' outlines specific military maritime security concerns, with a strong focus on the security of the bases and units of the Northern Fleet in the Arctic.¹⁰⁶ The documents outline plans for development of Arctic forces under the Russian

Russia's Arctic policies focus mainly on non-military challenges and underline the importance of cooperation among all Arctic states in dealing with the region's issues

¹⁰⁰ Tringham (note 70), pp. 28–29.

¹⁰¹ Nilsen, T., 'Spy ship changes name and continues intelligence mission', *Independent Barents Observer*, 30 Mar. 2016, <<http://thebarentsobserver.com/en/security/2016/03/spy-ship-changes-name-and-continue-intelligence-mission>>.

¹⁰² Saunders (note 43), pp. 597–98; and Norwegian Ministry of Defence (note 98).

¹⁰³ For a more extensive analysis of Russia's Arctic policies and capabilities, see Klimenko, E., *Russia's Arctic Security Policy*, SIPRI Policy Paper no. 45 (SIPRI: Stockholm, Feb. 2016), <<https://www.sipri.org/sites/default/files/SIPRI45.pdf>>.

¹⁰⁴ The 2008 document was not published until Mar. 2009. [The Foundations of the Russian Federation's State Policy in the Arctic until 2020 and Beyond], *Rossiyskaya Gazeta*, 30 Mar. 2009 (in Russian). An unofficial English translation is available at <<http://www.arcticprogress.com/2010/11/russias-arctic-policy/>>. Russian Government, [The Strategy for the Development of the Arctic Zone of the Russian Federation and National Security Efforts for the Period up to 2020], Feb. 2013, <<http://government.ru/info/18360/>> (in Russian).

¹⁰⁵ Russian Government, [Military Doctrine of the Russian Federation], 30 Dec. 2014, <<http://www.rg.ru/2014/12/30/doktrina-dok.html>>. The previous edition of the Military Doctrine dated from 2010.

¹⁰⁶ Russian Government, [Maritime Doctrine of the Russian Federation], 26 July 2015, <<http://kremlin.ru/events/president/news/50060>>.



armed forces and other government agencies such as the Russian Border Guards. However, they are clear that such Arctic forces would have as their main task the protection of the northern regions of Russia and the nuclear forces of the Northern Fleet.

To underline the growing importance of Arctic military security, on 1 December 2014 the Russian forces in the Arctic were included in a new Joint Strategic Command North.¹⁰⁷ In addition to expanding the size of the Russian forces in the Arctic and modernizing their equipment, Russia has also increased their training. This is most visible in several large-scale exercises held in the Arctic region in recent years.¹⁰⁸ Such exercises are also used to underline Russia's new assertiveness since early 2014 in relation to the West in general. For example, in May 2015 Russia mobilized some 12 000 troops and 250 aircraft in its Northern and Western commands in a 'snap exercise' and unscheduled response to the Western ACE in northern Scandinavia.¹⁰⁹ An Arctic training centre is also being set up by the Russian military.¹¹⁰

Air capabilities

Russia's air assets in the Arctic region consist mainly of the aircraft supporting the Northern Fleet or stationed in northern Russia, along with some of the aircraft based with the Pacific Fleet. Many of these do not have the range for operations in the Arctic region beyond the Russian territory, but some 100–120 navy-operated long-range Tu-22 bomber aircraft, and Tu-142 and Il-38 maritime reconnaissance aircraft also form part of the fleets.¹¹¹ After a 15-year hiatus, in 2007 Russia recommenced regular deployment of reconnaissance and bomber aircraft on missions near or over the Arctic.¹¹² Russia has also recently started to re-open several of the Arctic air, air defence and radar bases it closed after the end of the cold war. Furthermore, 10 radar bases and 13 air bases are planned along the northern edge of Russia.¹¹³

Land capabilities

Russia's ground forces in the Arctic region include naval infantry and an army brigade on the Kola Peninsula. These are winter-trained but are organ-

¹⁰⁷ By that time Russia had only four other Joint Strategic Commands. McDermott, R., 'Russia creates Arctic military command', *Eurasia Daily Monitor*, 3 Dec. 2014.

¹⁰⁸ These exercises included 3 in 2015 by the new Arctic brigade. 'Arctic Brigade trains counter-terrorism at Novaya Zemlya', *Barents Observer*, 13 Oct. 2015, <<http://barentsobserver.com/en/security/2015/10/arctic-brigade-trains-counter-terrorism-novaya-zemlya-13-10>>.

¹⁰⁹ O'Dwyer, G., 'Tensions high as Russia responds to exercise', *Defense News*, 31 May 2015.

¹¹⁰ 'Air force and air defense army for Russia's Arctic to be in place 2015—General Staff', TASS, 29 Dec. 2014, <<http://tass.ru/en/russia/769867>>.

¹¹¹ Wertheim (note 46), p. 574; and Pettersen, T., 'Russian navy flexing muscles in Barents Sea', *Barents Observer*, 9 Sep. 2011, <<http://barentsobserver.com/en/regions/russian-navy-flexing-muscles-barents-sea>>.

¹¹² 'Russia restarts cold war patrols', *BBC News*, 17 Aug. 2007, <<http://news.bbc.co.uk/2/hi/europe/6950986.stm>>; Nilsen, T., 'Only seven nuclear submarine patrols in 2008', *Barents Observer*, 13 Feb. 2009, <<http://barentsobserver.com/en/node/20035>>; Nilsen, T., 'US sub surfaced at North Pole', *Barents Observer*, 16 Nov. 2011, <<http://barentsobserver.com/en/sections/security/us-sub-surfaced-north-pole>>; and Huebert (note 34), p. 17.

¹¹³ McDermott (note 107); and 'Russia's Defense Ministry establishes Arctic Strategic Command', TASS, 1 Dec. 2014, <<http://tass.ru/en/russia/764428>>.



ized and equipped for operations in the north of Russia, and not in the more inhospitable regions of the Arctic.¹¹⁴

In March 2009 Russia announced a plan for a special military force to protect Arctic interests. In 2011 plans were announced for two Arctic brigades, of 3600 troops each, to ‘balance the situation’ with NATO forces in the Arctic.¹¹⁵ The first, stationed near Alakurtii on the Kola Peninsula, became operational in January 2015.¹¹⁶ One more brigade is being set up in Yakutia.¹¹⁷ However, both brigades are ‘normal’ heavy brigades equipped with tanks and other armoured vehicles and meant for use on the Russian mainland.

Sea capabilities

A substantial part of the Russian Navy is organized in the Northern Fleet, the largest of the five Russian fleets, stationed at several large naval and air bases on the Kola Peninsula and along the coasts of the Barents and White seas. The fleet includes most of Russia’s nuclear-powered ballistic missile submarines (SSBNs), which operate in the Arctic area (including under the ice) and are protected by surface ships (including Russia’s sole aircraft carrier), nuclear-powered submarines and aircraft.¹¹⁸ These SSBNs are an essential component of Russia’s nuclear deterrent.¹¹⁹ Russia’s second largest fleet, the Pacific Fleet, operates mainly in the Pacific Ocean but also has some smaller bases on Russia’s eastern Arctic coast.

Only the Northern Fleet has a capacity for breaking thick ice with the large icebreaker *50 Let Pobedy*. Four small Project-97 icebreakers with the Northern and Pacific fleets are capable of breaking thin ice. The Russian Border Guard operates three Project-97P large armed icebreaking OPVs in the Northern Fleet area and two more in the Pacific Fleet area. Over 20 civilian icebreakers, including several former navy ships, operate in the Arctic, and could if needed be used by the navy.¹²⁰

The navy is increasing its capabilities for operations in areas with thin ice. A Project-21180 icebreaker/support ship/patrol ship was launched in 2016

¹¹⁴ Pettersen (note 111); and ‘Russian military map: the Joint Strategic Command “North”’, South Front, 7 Aug. 2015, <<http://southfront.org/the-joint-strategic-command-north/>>.

¹¹⁵ Pettersen, T., ‘Russian Arctic brigades put off to 2015’, Barents Observer, 22 Feb. 2012, <<http://barentsobserver.com/en/topics/russian-arctic-brigades-put-2015/>>; and Grove, T., ‘Russia creates two brigades of Arctic troops’, Reuters, 1 July 2011, <<http://uk.reuters.com/article/2011/07/01/russia-arctic-troops-idUKLDE76017D20110701>>.

¹¹⁶ ‘Finland inspects Russian Arctic brigade’, Barents Observer, 13 Oct. 2015, <<http://barentsobserver.com/en/security/2015/10/finland-inspects-russian-arctic-brigade-13-10/>>.

¹¹⁷ Grove (note 115); and McDermott (note 107).

¹¹⁸ Kristensen, H. M., ‘Russian SSBN fleet: modernizing but not sailing much’, FAS Strategic Security Blog, Federation of American Scientists, 3 May 2013, <<https://fas.org/blogs/security/2013/05/russianssbns/>>; and Nilsen, T., ‘More than 100 new nukes in northern waters’, Barents Observer, 2 Oct. 2014, <<http://barentsobserver.com/en/security/2014/10/more-100-new-nukes-northern-waters-02-10/>>.

¹¹⁹ James Martin Center for Nonproliferation Studies, ‘Russia: Northern Fleet’, NIS Nuclear and Missile Database, Nuclear Threat Initiative, Feb. 2010, <<http://www.nti.org/db/nisprofs/russia/naval/nucft/norft/norflovr.htm>>; Nilsen, ‘Only seven nuclear submarine patrols in 2008’ (note 112); and Antrim, C. L., ‘The next geographical pivot: the Russian Arctic in the twenty-first century’, *Naval War College Review*, vol. 63, no. 3 (summer 2010), p. 19.

¹²⁰ Saunders, S. (ed.), *Jane’s Fighting Ships, 2013–2014* (Jane’s Information Group: London, 2011), p. 9.

and is to be commissioned with the Northern Fleet in 2017. It is capable of breaking 1-metre-thick ice and additional units may be ordered later.¹²¹ Four Project-03182 'Small Arctic Sea Tanker' icebreaking support ships for use in the Arctic were ordered in 2015 and production of the first two started in October 2015. They are capable of operations in 1.5-metre-thick ice and are to enter service with the Russian Pacific Fleet in 2017–19.¹²² In 2016, two Project-23550 patrol ships were ordered for delivery by 2020 and they are also capable of operating in up to 1.5-metre-thick ice.¹²³

With the end of the cold war, the number of Russian SSBNs was reduced drastically and the number of patrols rapidly decreased, until in 2002 no patrol at all took place. Since then, Russia's SSBNs have become more active, several older SSBNs have been modernized and new SSBNs are being built.¹²⁴ In 2013 the Northern Fleet commissioned the first of eight new Borei SSBNs. By 2015, eight older SSBNs were in service, including six with the Northern Fleet. The Russian SSBN fleet is planned to consist of eight Borei SSBNs, evenly divided between the Northern and Pacific fleets, by 2020.¹²⁵ In 2009 the SSBNs restarted patrols near or under the Arctic ice, including launching a ballistic missile after breaking through the Arctic ice.¹²⁶

While announced plans or visions that foresee several aircraft carriers and large numbers of submarines and escort and support ships are unlikely to be realized due to their high costs, a substantial increase in the Northern Fleet's capabilities is ongoing.¹²⁷ Many of the new ships can operate effectively in the harsh Arctic environment and are probably meant as escorts for the more active SSBN fleet. Indeed, the reduction in Arctic ice under which the SSBNs can hide is likely to further increase the need for escorts and patrol aircraft.¹²⁸ Plans for new amphibious ships to increase power-projection capabilities have been seriously disrupted with the cancellation by France in 2015 of two Mistral amphibious assault/helicopter carrier ships ordered in 2010 and 2011, one of which was due to be included in the Northern Fleet.¹²⁹

¹²¹ 'Russian Navy first Project 21180 icebreaker Ilya Muromets launched in St Petersburg', Navy Recognition, 11 June 2015, <<http://www.navyrecognition.com/index.php/news/defence-news/2016/june-2016-navy-naval-forces-defense-industry-technology-maritime-security-global-news/4085-russian-navy-first-project-21180-icebreaker-ilya-muromets-launched-in-st-petersburg.html>>; and 'Russia unveils new navy icebreaker in Arctic military focus', *Defense News*, 11 June 2016.

¹²² 'Russia orders four Project 03182 Small Arctic Sea Tankers from two shipyards', Navy Recognition, 7 July 2015, <<http://www.navyrecognition.com/index.php/news/defence-news/year-2015-news/july-2015-navy-naval-forces-defense-industry-technology-maritime-security-global-news/2882-russian-navy-orders-four-project-03182-small-arctic-sea-tankers-from-two-shipyards.html>>; and 'Vostochnaya Verf (Primorye) lays down first tanker of Project 03182', *PortNews*, 27 Oct. 2015, <<http://en.portnews.ru/news/208834/>>.

¹²³ De Larringa, N., 'Russia orders Project 23550 Arctic corvettes', *Jane's Defence Weekly*, 11 May 2016, p. 16.

¹²⁴ Kristensen (note 118); and Wertheim (note 46), pp. 576–79.

¹²⁵ Kristensen, H. M., 'Russian nuclear forces', *SIPRI Yearbook 2015: Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 2015), pp. 480–90.

¹²⁶ Nilsen, 'US sub surfaced at North Pole' (note 112).

¹²⁷ [The Northern Fleet will receive 40 ships up to 2020], *Kommersant*, 4 Aug. 2014 (in Russian).

¹²⁸ Antrim (note 119), p. 29.

¹²⁹ Nilsen, T., 'Mistral to Northern Fleet', *Barents Observer*, 12 Jan. 2011, <<http://barents-observer.com/en/sections/articles/mistral-northern-fleet>>.



VI. The United States

One of George W. Bush's final acts as US President was the presentation in January 2009 of an Arctic Policy, replacing the previous policy from 1994. It listed security as the first of six policy priorities for the Arctic.¹³⁰ Later in 2009 the US Navy published an 'Arctic roadmap' as a guide for its policy, strategy and investments in the Arctic.¹³¹ In May 2013 the US Government issued a policy paper entitled 'National Strategy for the Arctic Region', which more or less repeated the 2009 text.¹³² It was followed in the same month by the US Coast Guard's (USCG) Arctic Strategy.¹³³ However, Arctic security concerns play only a minor role in overall US defence policy. The US National Security Strategy, issued in 2010 by the administration of President Barack Obama, and the US National Military Strategy, issued in 2011, define the goals of US security and military policies but mention the Arctic only in passing.¹³⁴ The Arctic is not mentioned at all in a January 2012 document outlining security priorities for the 21st century.¹³⁵ Similarly, in the January 2015 'Implementation Report' of the National Strategy for the Arctic Region, military security is excluded from the list of the many major issues of concern. Instead, the report focuses on environmental protection, maritime research and providing support for civilian activities in the Arctic region.¹³⁶

Arctic security concerns play only a minor role in overall US defence policy

As a result of the increased commercial activity in the Arctic, Admiral Robert Papp—Commandant of the USCG between 2010 and 2014, and US Special Representative for the Arctic since July 2014—has advocated the need to begin preparing, with partners, for operations in the Arctic, including establishing bases. However, he also recognizes that US 'strategic interests' in the region are not yet prominent enough to support anything but 'outreach, planning, and small-scale summer deployments'.¹³⁷

The USA has not yet announced plans for a separate command to supervise military operations in the Arctic. Currently, the Northern Command (USNORTHCOM), the Pacific Command (USPACOM) and the European Command (USEUCOM) all have responsibilities in the Arctic region.¹³⁸ However, from 2011 USNORTHCOM has been assigned responsibility for Arctic planning and for coordination with other US and foreign government

¹³⁰ White House, 'Arctic region policy', National Security Presidential Directive no. 66 and Homeland Security Presidential Directive no. 26, 9 Jan. 2009, <<http://georgewbush-whitehouse.archives.gov/news/releases/2009/01/20090112-3.html>>.

¹³¹ US Navy, *US Navy Arctic Roadmap* (Department of the Navy: Washington, DC, Oct. 2009).

¹³² White House, *National Strategy for the Arctic Region* (White House: Washington, DC, 10 May 2013).

¹³³ US Coast Guard (USCG), *Arctic Strategy* (USCG: Washington, DC, May 2013).

¹³⁴ White House, *National Security Strategy* (White House: Washington, DC, May 2010); and US Department of Defense (DOD), *The National Military Strategy of the United States of America 2011: Redefining America's Military Leadership* (DOD: Washington, DC, 8 Feb. 2011).

¹³⁵ US Department of Defense (DOD), *Sustaining US Global Leadership: Priorities for 21st Century Defense* (DOD: Washington, DC, Jan. 2012).

¹³⁶ White House, *National Strategy for the Arctic Region Implementation Report* (White House: Washington, DC, Jan. 2015).

¹³⁷ Papp, R. J., 'Charting the Coast Guard's course', *Proceedings of the United States Naval Institute*, vol. 137, no. 3 (Mar. 2011), p. 21.

¹³⁸ Zellen, B. S., 'Cold front on a warming Arctic', *Proceedings of the United States Naval Institute*, vol. 137, no. 5 (May 2011), p. 45.

agencies.¹³⁹ US forces in Alaska fall under the Alaskan Command (ALCOM), which is part of USPACOM.¹⁴⁰ ALCOM consists of 16 000 regular personnel and 3700 National Guard and reserve personnel. The USA also has a presence in Antarctica and some experiences from there, such as supply by air, are also relevant to the Arctic region.¹⁴¹

Air capabilities

The Arctic region is important for US and Canadian air and missile defences. NORAD controls US interceptor aircraft in Alaska (Alaska NORAD Region, ANR) and all Canadian interceptor aircraft (Canadian NORAD region).¹⁴² NORAD also controls the North Warning System, which operates air surveillance radars in Alaska, Canada and Greenland.¹⁴³

The USA maintains two large air bases in Alaska, both near the Arctic: Eielson Air Force Base (AFB) near Fairbanks and Elmendorf AFB near Anchorage.¹⁴⁴ Both bases house combat and support aircraft, including F-22 interceptor aircraft and airborne early-warning (AEW) aircraft, and are able to accommodate substantially larger forces. In early 2016 the US Air Force decided to make Eielson the first overseas base for operational F-35A combat aircraft from 2020, but referred to the Pacific theatre and training opportunities as the reasons—and not the Arctic.¹⁴⁵ While the USA has over 200 long-range maritime patrol aircraft, only a few US Coast Guard HC-130 aircraft based on Kodiak Island operate over the Bering Sea and the Arctic.¹⁴⁶

US forces also have the use of Thule AFB in the north west of Greenland, which has a long runway. It is the most northerly US air base but it currently houses only a large intercontinental ballistic missile (ICBM) detection radar and no aircraft.¹⁴⁷ The USA is planning to re-establish a permanent presence of ASW aircraft on the Keflavik base in Iceland, where US combat and ASW aircraft were stationed until 2006. The proposed US budget for the financial year 2017 includes funding for an upgrade of the base to house the new P-8A ASW aircraft. This came after the increased activity of Russian submarines in the North Atlantic, which according to NATO reached the levels

¹³⁹ US Department of Defense (DOD), *Report to Congress on Arctic Operations and the Northwest Passage*, (US DOD: Washington, DC, May 2011), p. 11.

¹⁴⁰ US Army Alaska, <<http://www.usarak.army.mil/>>.

¹⁴¹ Joint Task Force-Support Forces Antarctica Public Affairs, 'South Pole airdrop delivers critical medical supplies in total darkness', Air Force Print News Today, 1 Sep. 2011, <<http://www.pacaf.af.mil/News/ArticleDisplay/tabid/377/Article/593877/south-pole-airdrop-delivers-critical-medical-supplies-in-total-darkness.aspx>>.

¹⁴² North American Aerospace Defense Command (NORAD) website, <<http://www.norad.mil/>>.

¹⁴³ 'North American Aerospace Defense Command (NORAD), 'About NORAD', <<http://www.norad.mil/About-NORAD/>>.

¹⁴⁴ Joint Base Elmendorf-Richardson, <<http://www.jber.af.mil/>>; and Eielson Air Force Base, <<http://www.eielson.af.mil/>>.

¹⁴⁵ Olson, W., 'Air Force to base 2 F-35 fighter squadrons at Eielson AFB in Alaska', *Stars and Stripes*, 4 Apr. 2016.

¹⁴⁶ Wertheim (note 46), pp. 833, 909; Brown, M. K. and Parker, R. C., 'The case for the cutter', *Proceedings of the United States Naval Institute*, vol. 137, no. 8 (Aug. 2011), p. 18; and US Coast Guard (note 133), p. 47.

¹⁴⁷ Peterson Air Force Base, <<http://www.peterson.af.mil/>>.



of the cold war period, and of Russian long-range patrol aircraft near Iceland.¹⁴⁸

Land capabilities

The army component of ALCOM is the US Army Alaska (USARAK). While it also calls itself ‘America’s Arctic Warriors’, USARAK is mainly made up of ordinary mechanized infantry and airborne troops and is not specifically earmarked for Arctic operations. It has bases near Anchorage and Fairbanks.¹⁴⁹ In mid 2015 there was a proposal to cut almost 3000 of the 4000 troops in the airborne brigade in Alaska (the 4/25 BCT Airborne) by 2018, as a cost-saving measure. In order to preserve a ‘unique Arctic’ capability, the remainder of the brigade would be formed into a lighter airborne infantry battalion task force.¹⁵⁰ However, the US Congress resisted the Alaskan cuts and left the proposal out of the final National Defense Authorization Act. Instead, Congress added a provision to assess US security interests in the Arctic and the military capabilities needed to protect those interests in the face of growing Russian capabilities.¹⁵¹ A final decision on the cuts has been delayed.¹⁵² The Northern Warfare Training Center (NWTC) in Black Rapids has a more specifically Arctic role: it is where all US Army cold weather training (including for non-Arctic cold regions) is concentrated.¹⁵³ The army also operates the Cold Regions Research and Engineering Laboratory and the Cold Regions Test Center in Alaska.¹⁵⁴ The 1850-strong Alaska National Guard, supported by the Alaska State Defense Force and several other small state forces, is the most likely army component to have Arctic tasks.¹⁵⁵

Since early 2014, US Army units have increased their training in the Arctic. In February 2014 paratroopers from the Alaskan-based airborne brigade made the brigade’s first landing north of the Arctic Circle, followed later that year by troops from an engineer unit. In November 2015, for the first time, the mechanized brigade brought its armoured vehicles north of

¹⁴⁸ De Larrinaga, N., ‘Russian submarine activity topping Cold War levels’, *Jane’s Defence Weekly*, 10 Feb. 2016, p. 8; Soper, K., ‘Russia confirms increase in submarine activity’, *Jane’s Defence Weekly*, 30 Mar. 2016, p. 5; Jennings, G., ‘NATO looks to Poseidon to plug GIUK gap against Russian submarines’, *Jane’s Defence Weekly*, 17 Feb. 2016, p. 12; Cavas, C. P., ‘Resurgent Russia drawing northern nations closer’, *Defense News*, 8 Sep. 2015; Pettersen, T., ‘US military could return to Iceland’, *Barents Observer*, 11 Sep. 2015, <<http://www.thebarentsobserver.com/en/security/2016/02/us-military-returns-iceland>>; and ‘US Navy plans to reopen Keflavik air base in Iceland’, *Naval Technology*, 22 Feb. 2016, <<http://www.naval-technology.com/news/newsus-navy-plans-to-reopen-keflavik-air-base-in-iceland-4817791>>.

¹⁴⁹ Joint Base Elmendorf-Richardson (note 144); US Army Alaska (note 140); and US Army, 4th Brigade Combat Team, ‘History’, <<http://www.usarak.army.mil/4bde25th/history.html>>. The airborne unit of US Army Alaska operated in Iraq in 2007 and in Afghanistan in 2009.

¹⁵⁰ Martinson, E., ‘Troop cuts at Joint Base Elmendorf-Richardson on hold’, *Alaska Dispatch News*, 7 Oct. 2015; Tan, M., ‘Army Strykers deploy north of Arctic Circle for 1st time’, *Army Times*, 8 Nov. 2015; and Wasserbly, D., ‘US Army to delay Alaskan airborne brigade cuts’, *Jane’s Defence Weekly*, 30 Mar. 2016, p. 8.

¹⁵¹ Martinson (note 150).

¹⁵² Mufson, S., ‘Obama pledges faster action on new icebreakers to keep up in Arctic’, *Washington Post*, 1 Sep. 2015; and Wasserbly (note 150), p. 8.

¹⁵³ US Army, Northern Warfare Training Center, <<http://www.wainwright.army.mil/nwtc/>>.

¹⁵⁴ US Army Alaska (note 140).

¹⁵⁵ Alaska Department of Military and Veteran Affairs website, <<https://dmva.alaska.gov>>, accessed 10 Oct. 2015.



the Arctic Circle. In all cases, however, the number of troops involved was limited: less than 50.¹⁵⁶ In September 2014 troops from the Ranger Regiment (special forces) joined an Arctic training course at the NWTC—for the first time since 2001.¹⁵⁷

Some other US land forces (including the US Marine Corps) have at least partly specific training or equipment for potential Arctic roles or have experience in extreme cold weather operations in Afghanistan.¹⁵⁸ The NWTC trains some 1300–1400 troops from different units annually in Arctic or cold weather operations and demand for this training has increased since US forces were largely withdrawn from Iraq and Afghanistan.¹⁵⁹

Sea capabilities

While not specifically adapted to ice conditions, the many US aircraft carriers, other major combat ships and amphibious warfare ships are generally capable of operating in northern weather conditions, due to their size. The annual large Northern Edge and Alaska Shield summer exercises included an aircraft carrier group in 2004 and 2009.¹⁶⁰ In 2010–11 the US Navy tested the *Susitna*, a small experimental icebreaking ferry/landing ship specifically designed for Arctic ice conditions, but the project was later cancelled.¹⁶¹

Most of the approximately 51 US nuclear attack submarines (but not the SSBNs) are known to be able to operate under the Arctic ice and break through the ice from below. Based on the east and west coasts of the USA, Hawaii or Guam, the attack submarines regularly transit under the Arctic ice or break through the ice and surface near the North Pole. The US Pacific Fleet has a dedicated Arctic Submarine Laboratory, which is a ‘center of excellence’ for the US submarine forces responsible for developing and maintaining the Arctic capabilities of submarines.¹⁶² In 2011, 2014 and 2016 US nuclear attack submarines participated in Arctic exercises, operating together under the ice and establishing a camp on the Arctic ice.¹⁶³

The USCG, part of the Department of Homeland Security, shoulders the main responsibility for patrolling the Arctic and regularly deploys OPVs in or near the area. However, it has to depend on Dutch Harbor in Alaska, on the southern side of the Bering Sea, as its base.¹⁶⁴ The new Legend-class (also

¹⁵⁶ Tan (note 150).

¹⁵⁷ Tan, M., ‘Rangers tackle Alaska terrain in first visit since 2001’, *Army Times*, 8 Sep. 2014.

¹⁵⁸ US Department of Defense (note 139), p. 19.

¹⁵⁹ Tan (note 157).

¹⁶⁰ Joint Base Elmendorf-Richardson (note 144); Alaskan Command, ‘Northern Edge 2017’, Unclassified briefing, [n.d.], <http://www.city.kodiak.ak.us/sites/default/files/fileattachments/city_council/meeting/6991/northern_edge_public_outreach_final.pdf>; Alaska Department of Military and Veterans Affairs, Division of Homeland Security and Emergency Management, ‘What is Alaska Shield 2016?’, [n.d.], <<http://update.ready.alaska.gov/Articles/ID/50/What-is-Alaska-Shield-2016>>; and Huebert (note 34), p. 21.

¹⁶¹ US Department of Defense (note 139), p. 17; and Schuler, M., ‘The world’s most ridiculous ship is up for sale’, *gCaptain*, 17 Oct. 2013, <<http://gcaptain.com/susitna-worlds-ridiculous-vessel-is-up-for-sale/>>.

¹⁶² Arctic Submarine Laboratory, US Pacific Fleet, ‘Historical timeline’, <<http://www.csp.navy.mil/asl/Timeline.htm>>; and Nilsen, ‘US sub surfaced at North Pole’ (note 112).

¹⁶³ Arctic Submarine Laboratory (note 162); and Pettersen, T., ‘U.S. Navy starts submarine drills in Arctic’, *Independent Barents Observer*, 16 Mar. 2016, <<http://thebarentsobserver.com/en/security/2016/03/us-navy-starts-submarine-drills-arctic>>.

¹⁶⁴ US Coast Guard (note 133).



known as National Security Cutter, NSC) large OPVs have been designed partly to be able to operate better in Arctic weather conditions than the previous Hamilton OPVs, but they are not ice-strengthened.¹⁶⁵ Eight are planned, the first five of which were commissioned in 2010–15.¹⁶⁶ The USCG operates two large, unarmed icebreakers capable of breaking Arctic ice. One of the ships, *Polar Star*, was modernized in 2009–13 to last until 2020–23.¹⁶⁷ In September 2014 the second icebreaker, *Healy*, reached the North Pole, only the fourth US ship to do so and the first to do so without being accompanied.¹⁶⁸ The USCG icebreakers have a mainly scientific role in both the Arctic and Antarctic, so more icebreakers have been proposed in order to fulfil all the necessary tasks in both regions. The USCG, for example, has been planning a new third large icebreaker for several years, but according to a 2013 USCG study, six icebreakers are needed.¹⁶⁹ Several ideas for new vessels have been or are under consideration. A former USCG icebreaker, *Polar Sea*, has been laid up in a damaged condition since 2011, but in early 2016 the option to refit the ship and bring it back in service was being investigated by the US Navy and the USCG.¹⁷⁰ In September 2015 President Obama announced a plan to speed up the acquisition of one or more icebreakers, but left the funding issue to Congress.¹⁷¹ In 2016 the Senate allocated \$1 billion for one large icebreaker to the 2017 navy budget (not the USCG). However, the icebreaker is not expected to be in service for at least another 10 years.¹⁷²

VII. Conclusions

Even before the Russian invasion and annexation of Crimea in early 2014, some media, politicians and researchers had begun to portray the changes in the capabilities of the Arctic littoral states as a significant military build-up and potential threat to security. Such messages seemed to be validated by the events in 2014 and the subsequent Russian intervention in support of rebels in eastern Ukraine. While these and other Russian and Western actions have strained East–West relations to a level of

The overall picture in the Arctic remains an almost shining example of proper state behaviour over contested claims

¹⁶⁵ Cross, T. and Truver, S. C., 'Endangered species', *Proceedings of the United States Naval Institute*, vol. 137, no. 8 (Aug. 2011), p. 30; and Alexander, R., 'USCG Arctic strategy requires more ice breakers', Alaska Public Media, 16 Aug. 2013, <<http://www.alaskapublic.org/2013/08/16/uscg-arctic-strategy-requires-more-ice-breakers/>>.

¹⁶⁶ US Coast Guard, 'National Security Cutter', 9 Sep. 2015, <<http://www.uscg.mil/acquisition/nsc/>>.

¹⁶⁷ US Coast Guard, 'Shipmate 10: FY 2012 Presidents budget', Announcement ALCOAST 059/11, Feb. 2011, <http://www.uscg.mil/announcements/alcoast/059-11_alcoast.txt>; and 'Coast Guard has plans for polar icebreaker', *Seattle Times*, 7 Mar. 2012.

¹⁶⁸ US Coast Guard, 'At true North's end', Coast Guard Compass blog, 28 Sep. 2015, <<http://coast-guard.dodlive.mil/2015/09/at-true-norths-end/>>.

¹⁶⁹ 'Begich reveals Coast Guard plan to build Polar icebreaker', *Dutch Harbor Telegraph*, 1 Mar. 2012; US Coast Guard, 'Polar Icebreaker', 11 Sep. 2015, <www.uscg.mil/acquisition/icebreaker/>; and Alexander (note 165).

¹⁷⁰ Ong, P., 'USN to assess condition of inactive icebreaker', *Jane's Defence Weekly*, 3 Feb. 2016, p. 11.

¹⁷¹ Hirschfield Davis, J., 'Obama to call for more icebreakers in Arctic as U.S. seeks foothold', *New York Times*, 1 Sep. 2015.

¹⁷² Hunter, D., 'U.S. Navy and Coast Guard need more icebreakers now', *Navy Times*, 8 June 2016; and Clark, C., 'Should Coasties or navy build new icebreaker?', *Breaking Defense*, 25 May 2016, <<http://breakingdefense.com/2016/05/should-coasties-or-navy-build-new-icebreaker/>>.



distrust and tension not seen since the end of the cold war, the overall picture in the Arctic remains an almost shining example of proper state behaviour over contested claims.

The 2012 SIPRI review of the then current and projected military forces in the Arctic region pointed to a process of modernization and the creation of new capacity to address challenges associated with the environmental, economic and political changes anticipated for the region, rather than as a response to major threat perceptions in the Arctic. Conventional military forces specially adapted to the harsh Arctic environment were projected to remain small-scale, especially given the size of the Arctic region, and would remain in most cases considerably smaller than cold war levels.

This current review of the existing and planned Arctic military capabilities of the five Arctic littoral states was undertaken in the context of increased East–West tension—the ‘new cold war’ as Medvedev described it. Like the previous review, it concludes that the changes in military forces, structure and policies in the Arctic do not undermine the commitment of all five states to settling Arctic issues in multilateral discussions, negotiations and cooperation. Certainly, all five Arctic littoral states have continued the modernization, and in some cases expansion, of their military capabilities in or for the Arctic. However, these remain limited and have proceeded slowly.

Some of the changes—for example, the acquisition of new combat aircraft by Norway and Denmark, the strengthening of the Canadian Rangers, the main Norwegian land units moving to the north of Norway, or the new Russian Arctic units—have little or nothing to do with power projection into the areas of the Arctic with unclear ownership. Rather, they are for the purposes of patrolling and protecting recognized national territories that are becoming more accessible, including protection against illegal activities. Other changes—such as new but unarmed icebreakers—have more to do with protection of the environment, civilian shipping in the Arctic and civilian research in support of national claims to an ‘extended continental shelf’ under the 1982 United Nations Convention on the Law of the Sea (UNCLOS).¹⁷³

While aircraft and ships play a much more important role for Arctic security than land forces, most of the extensive changes—such as the acquisitions of new combat aircraft or large surface combat vessels by Canada, Denmark and Norway—have a much more general rationale than increasing worries about potential military threats in the Arctic region. Russia’s expansion of its Northern Fleet and other land and air forces in the Arctic, the largest military force stationed in the region, also appear to be more a matter of providing protection for its SSBNs—as the Soviet Union did during the 1970s and 1980s—than a programme building up for a military struggle over Arctic resources.

This main conclusion notwithstanding, an increase of military forces in a region where several states claim maritime zones expected to contain extensive natural resources does give reason for concern, including the potential

¹⁷³ United Nations Convention on the Law of the Sea, opened for signature 10 Dec. 1982, entered into force 16 Nov. 1994, *United Nations Treaty Series*, vol. 1833 (1994). Countries claiming continental shelf under UNCLOS must support their claim with scientific data on the sea bottom. Walsh, D., ‘Race to the North: who owns the Arctic Ocean’, *Proceedings of the United States Naval Institute*, vol. 137, no. 11 (Nov. 2011), p. 84.



for unnecessary incidents and misunderstandings between claimants. In the general security environment since early 2014, of increasing tensions and mistrust between Russia and most of the rest of Europe and North America, responses to real or imagined threats and insults could certainly escalate. Moreover, there is the risk that the security tensions between NATO and Russia elsewhere may spill over into the Arctic region. Russia's unscheduled large-scale exercises held in response to ACE 2015 are one example of how the security situation has changed since early 2014.

Thus, in order to help mitigate negative perceptions about security policies in the region, as well as the possibility of misunderstandings, the Arctic littoral states need to be even clearer about their military policies, doctrines and operational rules, and should include more military confidence-building measures in their bilateral or multilateral relations associated with the Arctic. Such positive steps in the Arctic may also give an impetus to duplicate this Arctic spirit of problem solving through cooperation and international law in other regions or issues of the current East–West confrontation.

Abbreviations

ACE	Arctic Challenge exercise
AEW	Airborne early-warning
AFB	Air Force Base
ALCOM	Alaskan Command
ANR	Alaska NORAD Region
ASW	Anti-submarine warfare
ICBM	Intercontinental ballistic missile
JSF	Joint Strike Fighter
JUSTAS	Joint Uninhabited Surveillance and Target Acquisition System
NATO	North Atlantic Treaty Organization
NORAD	North American Aerospace Defense Command
NWT	Northwest Territories
NWTC	Northern Warfare Training Center
OPV	Offshore patrol vessel
SSBN	Nuclear-powered ballistic missile submarine
UAV	Unmanned aerial vehicle
UNCLOS	1982 United Nations Convention on the Law of the Sea
USARAK	US Army Alaska
USCG	US Coast Guard
USEUCOM	US European Command
USNORTHCOM	US Northern Command
USPACOM	US Pacific Command

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SIPRI BACKGROUND PAPER

MILITARY CAPABILITIES IN THE ARCTIC: A NEW COLD WAR IN THE HIGH NORTH?

SIEMON T. WEZEMAN

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