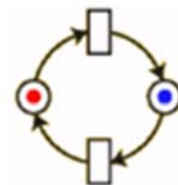


Russia and the Arctic

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System Architectures Laboratory



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RUSSIA AND THE ARCTIC

Project Report for

“The Re-awakened Bear: Emerging Threats and Opportunities in Eurasia”

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RUSSIA and the ARCTIC

On 5 April 1242, on the ice of Lake Peipus, Alexander Nevsky and his army defeated the invading Teutonic Knights in the Battle on the Ice. In 1938, Sergei Eisenstein's eponymous film, probably the second best propaganda film ever made and a favorite of Stalin's, focused on how the Russians can handle the North and defeat invaders there to maintain the integrity of Russia. Nevsky is considered the most heroic Russian figure of all time and was made a saint in 1547. It is interesting to note that Nevsky maintained a close relationship with the Mongol Golden Horde that at that time its khanate included most of Eastern Europe.

ABSTRACT

The receding of the Arctic ice presents the Russian Federation with complex opportunities and challenges, both domestic and international. Russia is investing heavily in developing the infrastructure on its Arctic coastline to support both destination shipping in the Arctic and transit shipping through the Northern Sea Route (NSR) between the Pacific and Atlantic Oceans. The estimated resources in the Russian Arctic Region in energy and minerals are very large but their extraction requires major long term investments and such investments are high risk ones because of harsh weather and the insufficiency of the existing infrastructure; some of the existing infrastructure is degrading because of the thawing of the permafrost. Russia's effort to modernize its Armed Forces has included the creation of the Arctic Joint Strategic Command that includes the Northern Fleet. Old bases are being re-opened and new bases are created in the Arctic region. These developments in the Arctic show clearly that the Far North is expected to have a major role in the future of Russia not only for economic reasons but also as a common theme, a common narrative that resonates with the Russian people. It will be unwise to interpret all Russian actions in the Arctic as being statements to the West or to the East. It will be helpful if they are also interpreted in terms of internal domestic (and nationalistic) considerations.

1. INTRODUCTION: THE ARCTIC

What is the Arctic and who controls it? The Arctic region is defined as that part of the earth above latitude 66° 33' north. Figure 1 shows the Arctic Circle that defines the Arctic region.



Fig. 1 The Arctic Ocean (US Navy graphic) [1]

1.1 The Arctic Nations

There are five littoral Arctic Ocean nations: Canada, Denmark (Greenland), Norway, Russia, and the U.S. These five states have committed to the 1982 United Nations Convention on the Law of the Sea (UNCLOS) through the 2008 Ilulissat declaration. It should be noted that the US has not ratified the UNCLOS. While the five states have agreed on most points, there are several issues still pending.

“The United States, the European Union, and others maintain that the Northwest Passage is an international strait with free navigation rights, while Canada asserts that it is an inland waterway over which it maintains exclusive jurisdiction. Washington and Ottawa also disagree on their maritime boundary in the resource-rich Beaufort Sea. The United States also contests the Kremlin’s claims that parts of the Northern Sea Route above Siberia are internal Russian waters. Meanwhile, Denmark and Canada both claim Hans Island, an uninhabited spot of land in the center of Nares Strait. Finally, several states have laid competing claims to the seabed—and any resources beneath it—of the Lomonosov Ridge, an undersea mountain range bisecting the Arctic Ocean.” [2]

On the basis of the UNCLOS, freedom of navigation rules have been established and territorial sea boundaries 12 miles offshore have been set. Exclusive Economic Zones (EEZ) have been set up to 200 miles offshore. Rules have also been set for extending continental shelf rights up to 350 miles offshore. The open water lying north of the five EEZs and including the North Pole is considered high seas and not controlled by any nation. This is an issue about which Russia has been very active.

These five states, along with Finland, Iceland, and Sweden, constitute the **Arctic Council**, “the leading intergovernmental forum promoting cooperation, coordination and interaction among the Arctic states, Arctic Indigenous communities, and other Arctic inhabitants on common Arctic issues, in particular on issues of sustainable development and environmental protection in the Arctic.” The Arctic Indigenous peoples are represented through permanent participation, while observer status has been conferred to twelve states: France, Germany, The Netherlands, Poland, Spain, United Kingdom, People's Republic of China, Italian Republic, State of Japan, Republic of Korea, Republic of Singapore, and Republic of India. Nine intergovernmental and Inter-Parliamentary organizations and eleven Non-governmental organizations (NGOs) have also been given observer status.

1.2 The Receding Ice

Figure 2 shows the extent of Arctic sea ice when its area is the smallest (in September) from 1980 to 2013. It shows a decrease from about 8 million square kilometers in 1996 (a high) to 3.5 million square kilometers in 2013 (a record low). Figure 3 also shows graphically the extent of the Arctic sea ice for the years 1979 and 2012. On October 6, 2015, the National Snow and Ice Data Center announced that the Arctic sea ice extent settled at the fourth lowest in the satellite record. [http://nsidc.org/news/newsroom/PR_2015meltseason]



Fig. 2 The vanishing sea ice (National Snow and Ice Data center, United States Geological Survey) [2]

The higher temperatures and the associated melting of the ice have raised the issue of commercial sea routes through the Arctic. There are three main routes as shown in Fig. 4: The Northern Sea Route (NSR), The Trans-Polar Route, and the Northwest Route. The figure also shows the projected sea ice in 2020, 2025, and 2030. The navigability and commercial use of these routes and Russia's actions are discussed in Section 2.



Fig. 3 The Arctic sea ice. The dates indicate September sea ice (minima achieved) in 1979 and in 2012 (National Snow and Ice Data Center, United States Geological Survey) [2]

Note, however, the data in the legend of Fig. 4. The Northern Sea Route is expected to have six weeks of open water in 2025 and to accommodate a 41' controlling draft. The depth of the draft is a key issue for maritime transport. The Trans-Polar Route allows for deep ocean transit but is expected to be open for two weeks. Finally, the Northwest Passage Route is expected to be intermittently open and have only 33' of controlling draft. The sea route distances shown on the map are from the Bering Straits to Rotterdam in the Netherlands. The implications of these estimates for maritime transport are discussed in Section 2.

Much has been written about the hydrocarbon deposits in the Arctic - those that have been already identified and those that may exist in yet unexplored regions. The Arctic coastal area and continental shelf are estimated to hold large deposits of oil, natural gas, methane hydrate (natural gas) clusters, and large quantities of valuable minerals. [3] Most of these projections are based on the 2008 US Geological Survey report [11] that estimated that 25% of the earth's yet undiscovered petroleum resources are in the Arctic region with more than 80% of them offshore.

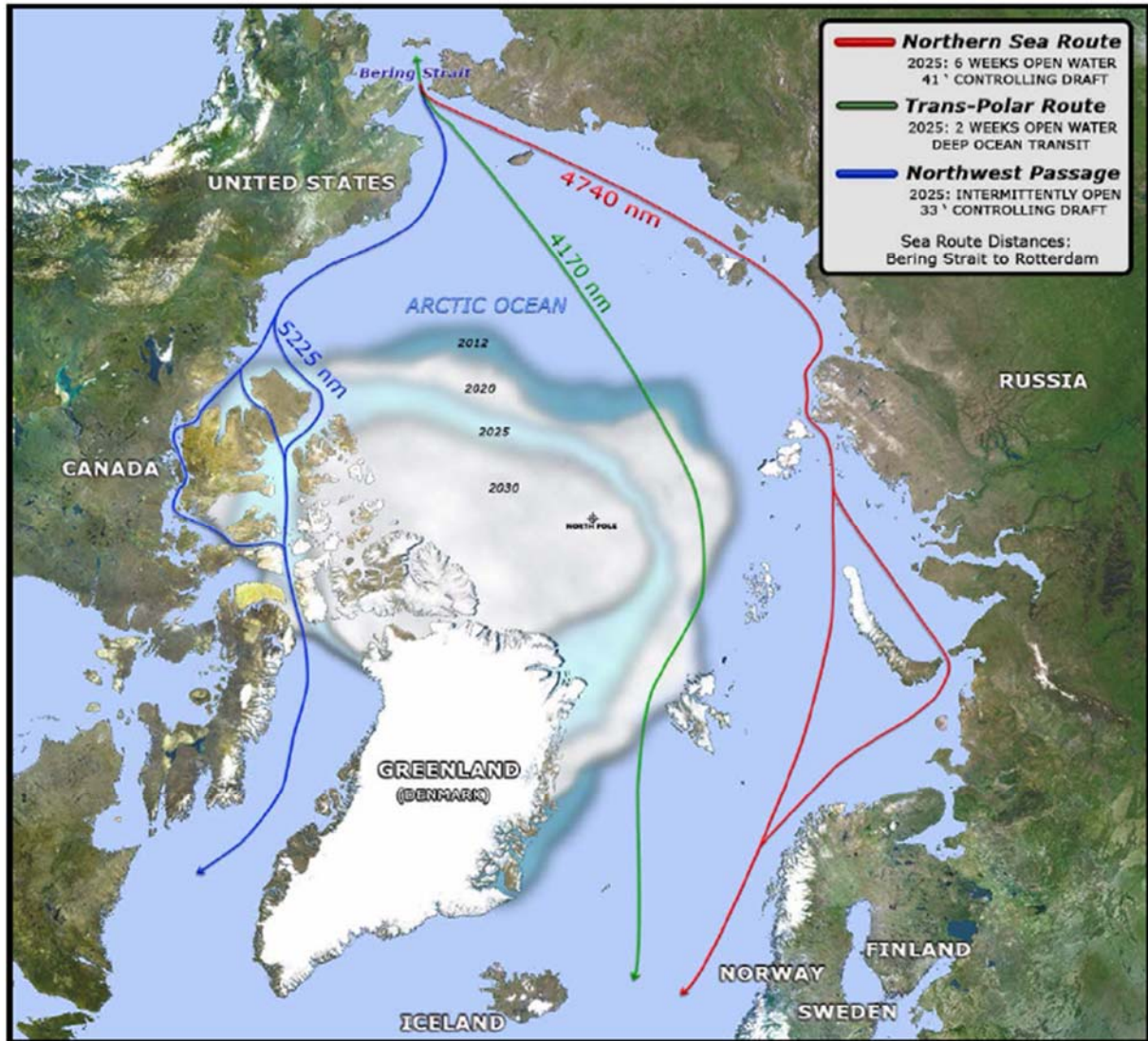


Fig. 4 The Arctic sea routes (US Navy graphic) [1]

Even from this minimal data it is clear that the Arctic plays and will play a very significant role in the evolution of the Russian Federation. Russia's federal budget and, consequently, its economy depend on the extraction and sale of hydrocarbons – oil and natural gas. Russia has made major investments in the Arctic and has made plans to make more. The real issue is not whether these investments will remain in the plans, but when they will occur. Consequently, a long term view is

required. The energy prospects and related issues associated with oil and natural gas exploration in the Arctic are discussed in Section 3.

As interest in the Arctic is increasing not only by the five littoral states but also by the countries with observer status in the Arctic Council, questions of governance and security and the application of UNCLOS arise. The harshness of the Arctic environment has led to an uncommon spirit of cooperation by the interested parties. However, as resource exploitation and related sovereignty issues arise, the situation is becoming very complex. These issues are discussed in Section 4.

2. Navigation

A simple analysis of the distances show that passage through the Arctic routes during the navigable summer months would reduce by a substantial percentage the distance between the Atlantic and Pacific oceans. For example, taking the Northern Sea Route (NSR) would reduce by 30% the distance from Shanghai, PRC to Hamburg, Germany. This would imply lower costs and faster transit. While transit shipping through the Arctic has increased, the situation is very complex and projections need to be moderated not only by risk and cost, but also by engineering issues.

“Although the Arctic passages offer a considerable shortcut for shipping between ports located in northern parts of Europe, Asia, and North America as compared to routes using the Suez or Panama canals, the savings in distance may not necessarily translate in savings in time. The high cost of operations in Arctic seas and a range of limitations and uncertainties such as slower sailing speed may outweigh potential benefits, limiting the Arctic’s commercial shipping potential.” [5]

The risk analysis is complex. On the one hand, current routes (e.g., the Strait of Malacca) are infested by pirates while the risk of the Arctic sea routes is based on sea ice conditions such as floating ice, shallow waters, and extreme weather conditions resulting in poor visibility. To reduce the risk of drifting ice, escort by icebreakers may be required that will both increase substantially the cost and generate delays. Furthermore, the width of the cargo ships cannot exceed the width of the icebreakers. This means that only bulk cargo ships could use the arctic route and not container ships. The constraints are engineering ones. The controlling draft of 33 or 41 ft. (See Fig. 4) limits the size of the container ships that could sail through these waters. Carmel [4] states that the deeper one, the Northern Sea Route, could handle container ships with about 2,500 TEUs (twenty-foot equivalent unit) while current container ships go up as high as 15,000 TEUs with 6,000-8,000 being the common size. The Northern Sea Rout has a beam restriction of 30 meters while the largest container ships have a beam exceeding 50 meters.

Consequently, navigation through the Arctic would require slower speeds so that, while the distance is reduced substantially, sailing time may not. However, slower speeds reduce fuel costs, something already being done by the cargo ships. The business case for transit shipping becomes more complex if the cost not per voyage but per container, the actual measure of productivity, is considered. Then the cost of the Arctic routes, even under unhindered circumstances, doubles

the cost of the conventional routes because a much small number of containers can be carried by a ship in the Arctic. And the hulls of the ships will have to be reinforced adding costs especially when considering that the arctic sea routes will be accessible for several months only.

In addressing shipping in the Arctic, it is important to distinguish between destination shipping, i.e., shipping that is to and from the Arctic region or serves the Arctic region itself, and transit shipping, i.e., shipping from Asia to Europe or the Americas that transits through the Arctic. [2], [4] Destination shipping has been increasing and is expected to increase further as the Arctic resources are exploited. Much of this increase will be categorized as bulk shipping such as transporting oil from Arctic fields. Such shipping will need to pass through the ports of the five littoral countries in the Arctic. Russia has been making plans for and major investments in the construction of new ports of call or upgrading existing ones. It should be noted that the Russian Federation controls the Northern Sea Route and has an icebreaker fleet consisting, as of 2013, of 25 polar icebreakers of at least 20,000 horsepower, 4 in construction and 8 planned. [2]. The Russian icebreaker fleet includes 6 nuclear icebreakers (four of the *Arktica* class, and two of the *Taymir* class that are river icebreakers). The biggest and most powerful of all the new vessels is under construction at the Baltiisky Yard. The nuclear-powered LK-60 icebreaker will be the world's most powerful icebreaking vessel – 173 meters long, 34 meters wide and able to sail in 3-meter thick ice, (longer and wider than the currently largest icebreaker, the nuclear *NS 50 Let Pobedy* or *50 Year Victory*.) It will be part of the state-owned Rosatomflot fleet of nuclear icebreakers based in Murmansk. Russia intends to build at least two more vessels of this class, the first to be ready by the end of 2019, the other by the end of 2020. The Baltiisky Yard is also constructing the world's most powerful diesel-engine icebreaker. The LK-25 (Viktor Chernomyrdin) will be 146.8 meters long and have a deadweight of 22,258 tons. It will be able to operate autonomously for 60 days in up to two meters thick ice. It is built for the Russian state company Rosmorport and was originally to be completed by the end of 2015. However, delays have been reported from the yard. [7]

In contrast, the U.S. has three icebreakers with one being used for spare parts. The medium-class USCGC *Healy* is deployed in the Arctic while the heavy-duty USCGC *Polar Star* is assigned to a five year mission in the Antarctic and therefore unavailable for duty in the Arctic. The USCGC *Polar Sea* suffered a catastrophic failure in 2010 and is in dry dock in Seattle. The U.S. Administration intends to propose accelerated acquisition of the proposed heavy-duty icebreaker for 2020 from the currently planned 2022 and to plan for additional icebreakers. However, the financing of such undertaking has not been resolved.

Zysk [5] wrote that Russia intended in 2010 to introduce legislation that would regulate operations in the Northern Sea Route that it controls. Indeed, on 15 March 2013, the Russian government issued an order to establish the Administration of the Northern Sea Route to implement the regulations of Federal Law 132-FZ, which entered into force in January 2013. The new law specifies the following: [8]

- Navigation of the route must be conducted in accordance with the Rules of Navigation in the Northern Sea Route Area, which will be issued by the competent authority. The rules

will include safety requirements and rules for navigation, icebreaker escort, ice pilotage, and radio communications.

- General organization and supervision of navigation of the route will be undertaken by the Administration of the Northern Sea Route, which will be responsible for, among other things:
 - Issuing permits for passage via the route;
 - Monitoring the route;
 - Assisting with rescue operations; and
 - Providing information services.
- The administration will issue permits to sail the route on application of the ship owners (both Russian and foreign), provided that the vessel in question is suitable for navigating the route and has insurance or similar coverage against possible pollution damage.
- The costs of icebreaker escort and ice pilotage on the route will be regulated in accordance with the legislation on natural monopolies.

3. Energy

“In accordance with international law, Russia intends to establish the boundaries of its continental shelf, thus expanding opportunities for exploration and exploitation of its mineral resources.” *Office of the President, Official Web Portal, “The Foreign Policy Concept of the Russian Federation,” July 12, 2008*

archive.kremlin.ru/eng/docs/2008/07/204750.shtml

The UN Convention on the Law of the Sea (UNCLOS) specifies that a nation may claim an Exclusive Economic Zone (EEZ) over the continental shelf abutting its shores. If the shelf extends far out to sea, so can the boundaries of the zone. Russia, in 2002, submitted a claim that the continental shelf extends far out from its land mass and reaches the North Pole. The UN did not accept the claim because of insufficient evidence. So, in 2007, Russia sent a North Pole expedition led by Arctic explorer, Artur N. Chilingarov, who is also a member of the Duma. A miniature submarine sailed to the sea floor directly under the North Pole and planted a titanium flag there (Fig. 5) but also collected soil samples. [9]

On August 4, 2015, Russia resubmitted its claim to the UN; the claim according to the Russian Foreign Ministry would expand the territory of the Russian Federation by about 1.2 million square kilometers, or about 463,000 square miles. The 2007 expedition, therefore, was to provide the required data to support the claim. The Ministry quote was: *“To base its claim, Russia in this region used a broad range of scientific data collected over many years of Arctic exploration...Submitting the claim to the commission is an important step in formulating Russia’s right to the Arctic Shelf in accordance with the United Nations Convention on the Law of the Sea.”*



Russia planted a titanium flag on the Arctic seabed in 2007.
Russian Polar Explorers, via Associated Press

Fig. 5 Russian flag on the Arctic seabed, 2007

The reason, of course, was “to expand the resource base of the Arctic zone of the Russian Federation , which is capable in large part of fulfilling Russia’s needs for hydrocarbon resources, aqueous biological resources, and other forms of strategic materials,¹” so that by 2020 the Arctic zone would be the leading strategic resource base of Russia. If the application is approved by the UN, the region will become part of Russia’s EEZ with the attendant rights for fishing, oil and gas exploration, and mineral extraction.

“Denmark submitted an expanded claim of its own to the United Nations last year, seeking control of economic activity around the North Pole and asserting that the area is part of the continental shelf jutting north from Greenland, not Russia.” [9]

Greenpeace and other conservation organizations have objected to the claims for taking economic control of the central area of the Arctic that is now considered international waters.

This is just the most recent step in Russian efforts in the Arctic. The interest of Russia in the Arctic north is not new. This interest was there during the czarist period, it was there during the Soviet era, especially under Stalin, and it is there now. [10] Internal and external events may cause ebbs and flows in the interest, but Russia has always come back to the Arctic taking a long term view.

The 2008 US Geological Survey Circum-Arctic Resource Appraisal (CARA) of undiscovered conventional oil and gas resources in all areas north of the Arctic Circle estimated, using a geology-based probabilistic methodology, the occurrence of undiscovered oil and gas in 33 geologic provinces thought to be prospective for petroleum. The sum of the mean estimates for each province indicated that 90 billion barrels of oil, 1,669 trillion cubic feet of natural gas, and 44 billion barrels of natural gas liquids may remain to be found in the Arctic, of which

¹ Ilan Berman, Ed., “Russia’s new Arctic Strategy,” *Russia Reform Monitor*, American Foreign Policy Council, May 4, 2009 http://www.afpc.org/publication_listings/viewBulletin/647

approximately 84 percent is expected to occur in offshore areas. [11] This is nearly one-quarter of the earth's undiscovered recoverable petroleum resources that lay in the region: 13 percent of its oil, 30 percent of its natural gas, and 20 percent of its liquefied natural gas. More than 80 percent of these resources are thought to be offshore. Of the nearly sixty large oil and natural gas fields discovered in the Arctic, there are forty three in Russia, eleven in Canada, six in Alaska, and one in Norway. [2]

Investment in oil extraction in the Arctic depends on the business case that can be made which depends on a variety of factors including the expected price of a barrel of oil, technology, infrastructure, and environmental concerns among many others. On September 27, 2015, Royal Dutch Shell announced the closure for the foreseeable future of the highly publicized drilling in the Chukchi Sea 80 miles north of the Alaskan coast. After drilling successfully 6,800 feet under 150 ft. of water, it found oil and gas but not in sufficient quantities for the extraction to be profitable.

Infrastructure is a key element for the financially successful exploitation of Arctic energy (and mineral) resources. While there is a lack of infrastructure in the North American Arctic, Russia has been making major investments of the order of tens of billions of dollars in its Arctic region through the state-owned firms (e.g., Gazprom) including the construction of new ports of call. This is necessary for achieving Russia's Arctic goals because the port system is in bad condition, and the polar stations, meteorological and hydrological satellites, and securitization of its navigation systems are not yet operational. [12] For a detailed and well documented discussion of Russian energy related efforts in the arctic see Chapter 7 of Marlène Laruelle's book on *Arctic Strategies and the Future of the Far North*. [13] These efforts have been accompanied by revamping its military presence in the Arctic.

4. Governance and Security

"In Russia, the conquest of the High North is an identity building project." [12]

"The change from bloc confrontation to the principles of multi-vector diplomacy and the [natural] resource potential of Russia, along with the pragmatic policies of using them, has expanded the possibilities of the Russian Federation to strengthen its influence in the world arena." Strategy and the National Security of the Russian Federation until 2020, No. 537, May 12, 2009, available from www.scrf.gov.ru/documents/99.html.

A thoughtful discussion of the place that the Far North holds in Russian culture (and psyche) as well as in defining the Russian identity is found in Chapter 2 of Laruelle's book. [13] Russia's plans for the Arctic are very ambitious; however, implementation is proving to be difficult, technically challenging, and costly. It is interesting to note that the military developments in the Arctic seem to support the economic imperatives for the development of the region.

The Federal Security Service (FSB) of the Russian Federation is responsible for guarding Russia's external borders. In 2004, the service created an Arctic Directorate. In 2014, Vladimir Putin told the FSB that it was a priority to continue the development of border infrastructure in the Arctic region. Indeed, Russia's Arctic policy emphasizes FSB elements more than Ministry of Defense

units, stating that the FSB will provide a system of coastal defenses. This system will augment the FSB-controlled border troops and will patrol Russia's Arctic borders. [14] In late 2013, Putin ordered the creation of a new strategic military command in the Russian Arctic by the end of 2014. [2]

Until November 30, 2014, the primary Russian military entity in the Arctic was the Northern Fleet, the largest of Russia's four fleets. The Northern Fleet has been the most effective component of Russia's Navy (2/3 of Russian naval power is concentrated in the Northern Fleet). And at 2013 it had approximately 80 operational ships. These included approximately 35 submarines, six missile cruisers, and the flagship, *Peter the Great*, a nuclear-powered guided missile cruiser. [13] All bases of the Northern Fleet are located in the Arctic region: its headquarters are in Severomorsk in the Kola Gulf on the Barents Sea, while the other naval bases are in Polaryarnoye, Gadzhievo, Ostrovnoye, Nerpichya Guba, Olenya Guba, Sayda-Guba, Bolshaya Lopatka, Lokange (Gremikha), Granite, and Vidyaevo. A marine infantry brigade is located in Spetskik and Pechenga. [15] The fleet operates in the Atlantic as well as the Arctic and is a primary component of the Russian nuclear deterrent.

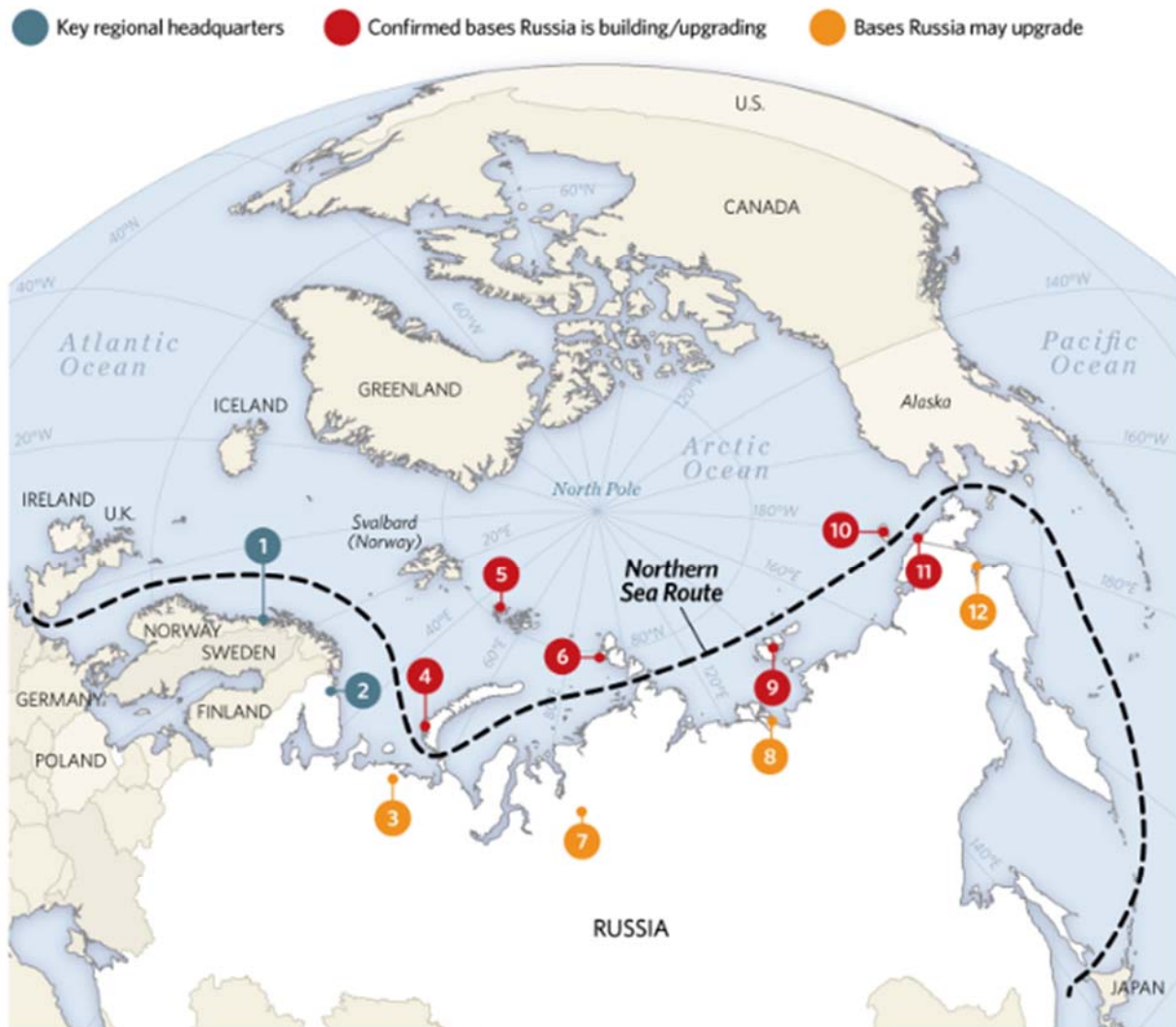
On December 1, 2014, the Arctic Joint Strategic Command became operational with headquarters in Severomorsk. This command has the same legal status as Russia's other four Military Districts. The plans show that it will acquire military, naval surface and strategic nuclear subsurface units, air force and aerospace defense units, and bases transferred from Russia's Western, Central, and Southern (but not Eastern) Military Districts. The Northern Fleet will be absorbed in its entirety into the command, together with substantial elements of the 1st Air Force and Air Defense Command. [16]

Figure 6, developed by the Heritage Foundation, shows Arctic bases that Russia is building or upgrading (confirmed) and bases that it may upgrade. Also, Russia is constructing ten Arctic Search and Rescue (SAR) stations, sixteen deep water ports to expand the infrastructure for the Northern Sea Route, thirteen airfields, and ten air-defense radar stations across the Arctic coast. [17] It has been reported that Russia reopened an abandoned military base at Alakurti, less than 30 miles from the Finnish border. [18]

Part of the Arctic militarization plan include the renovation of the airstrip of the archipelago of Novaya Zemlya to accommodate fighter aircraft and air-defense systems and a formation of a 6,000-soldier military group consisting of two motorized infantry brigades located in the Murmansk area and the Yamal-Nenets autonomous region. In 2014, Russia held the Vostok 2014 exercise, the largest ever held by the Russian Federation. For details on the exercise, see [19]

In March 2015, the Russian military held a five-day Arctic drill involving 38,000 servicemen, more than 50 ships and submarines, 110 aircraft with the objective of testing military's ability to deploy additional forces from central Russia. [20] Given the size of the exercise, its objectives were not clear to some western military observers. [21] Others, quoting a Finnish Defense Ministry official, speculated that Russia's objectives in the Arctic are to "secure the Northern Sea Route and [exploit] the energy-resources potential," while the military changes and exercises are focused on improving "their ability to surveil that part of the world, to refurbish their abilities for the Air Force and the Northern Fleet." More specifically, Russian military planners are "exercising their ability to move their airborne troops from the central part of Russia to the north." [22], [23], [24]

Russia Fortifying Bases in Arctic Region



Key Locations

- | | |
|---|--|
| <ul style="list-style-type: none"> 1 Bodø, Norway's National Joint Headquarters 2 Severomorsk, home of Russia's Northern Fleet 3 Naryan-Mar 4 Rogachevo 5 Nagurskoye | <ul style="list-style-type: none"> 6 Sredny Ostrov 7 Alykel 8 Tiksi 9 Temp 10 Zvyozdny 11 Mys Shmidta 12 Ugolny |
|---|--|

There is division inside NATO as to the role of the alliance in the Arctic. Norway is a leader in promoting NATO's role in the Arctic.

Most of the national interests of Arctic states are not military in nature, but rather economic concerns involving shipping routes, fishing, and mineral rights. Even so, Russia has taken steps to militarize the Arctic. Russia's Northern Fleet, based at **Severomorsk**, accounts for two-thirds of the Russian Navy. A new Arctic command called the Northern Fleet-Joint Strategic Command will be

established by 2015 to coordinate all Russian military activities in the region.

Over the next few years, two new brigades will be permanently based in the Arctic region, and Russian Special Forces have been training in the region. Old Soviet-era facilities have been reopened and modernized above the Arctic Circle. These will provide a string of military fortresses along the important Northern Sea Route. In light of Russia's recent behavior in Ukraine, the U.S. and NATO should continue to monitor Russian activity in the Arctic.

Source: Heritage Foundation research.

heritage.org

Fig. 6 Russia fortifying bases in the Arctic region (Source: The Heritage Foundation)

Russia held military drills in the Arctic in May 2015 and in August 2015 in which more than 1,000 soldiers, 14 aircraft and 34 special military units took part in drills in northern Siberia, "These drills are aimed at increasing the security of the Russian Arctic, ensuring our state's economic freedom in this region, and protecting our territory and targets from potential military threats," the defense ministry quoted Vladimir Korolyov, the commander of Russia's Northern Fleet. [25]

On Oct 9, 2015, it was reported that the Northern Fleet held anti-terrorist exercises on the coast of Novaya Zemlya. Arctic brigade marine units supported by warships and aircraft landed from large amphibious ships in Rogachevo Bay on the western shore of southern island of the Novaya Zemlya archipelago. This was the third major drill of the Northern Joint Strategic Command in 2015. [26]

It is clear that Russia is upgrading and enhancing its military presence in its Arctic region where the military infrastructure had fallen in disrepair after the dissolution of the Soviet Union. It is also clear (see section 5) that Russia's economic future is strongly tied to its Arctic region. The scope of the planned Russian effort is depicted clearly in the more recent Figure 7. However, one should not consider it in isolation from the other on-going and planned investments in the Arctic infrastructure, such as the Search and Rescue stations, the major improvement of ports to accommodate bulk cargo ships, the repair of existing and the construction of new rail lines to connect the ports with the sources of the commodities. Part of the effort is based on the expectation that the Northern Sea Route will be a major (and profitable) shipping lane and part on the expectation that the resources of the Arctic can be exploited.

Since 1972, the U. S. Navy and the Soviet Navy had used the Incidents at Sea Agreement (INCSEA) as the vehicle for holding talks among the respective staffs. In April 2012 the U. S. Coast Guard and Russia's Border Patrol Guard (a component of FSB) signed an agreement for collectively managing maritime traffic and illegal fishing in Arctic waters. The two services have been holding bilateral meeting on matters of safety and security in the Arctic region. Specifically, every two years, the Northern Eagle exercise was held to practice Search and Rescue (SAR) missions, exercise anti-piracy operations, air supply operations with helicopters, and so forth. In addition, military leaders from both countries have been holding, periodically, a multilateral tabletop exercise called Arctic Zephyr focused on SAR operations in the Arctic. The military of both countries have also been holding the Vigilant Eagle exercise with focus on hijacked airliners traveling through the airspace of both countries. [29] Both Vigilant Eagle and Northern Eagle have been put on hold as one of the actions taken by the US Government in response to Russia's actions in the Crimea.

The U.S. Command responsible for the US Arctic is USNORTHCOM (Note that CDR of NORTHCOM is also CDR of NORAD). One of the objectives of the Command, together with US Allies and partners, is to contribute to the peaceful opening of the Arctic in a manner which strengthens international cooperation. Admiral William E. Gortney, CDR of USNORTHCOM and NORAD, stated before the Senate Armed Services Committee on March 12, 2015 that "The Arctic requires advocacy and partnerships from both within and outside the USNORTHCOM Area of Responsibility (AOR) as the region grows in importance to our national security over the next few decades. USNORTHCOM is assigned as the DOD advocate for Arctic capabilities and coordinates DOD efforts to that end." [30] In a recent interview, ADM Gortney commented on the Russian

efforts in the Arctic: “We are seeing activity in the Arctic, but it hasn’t manifested in a significant change at this point.” [31]

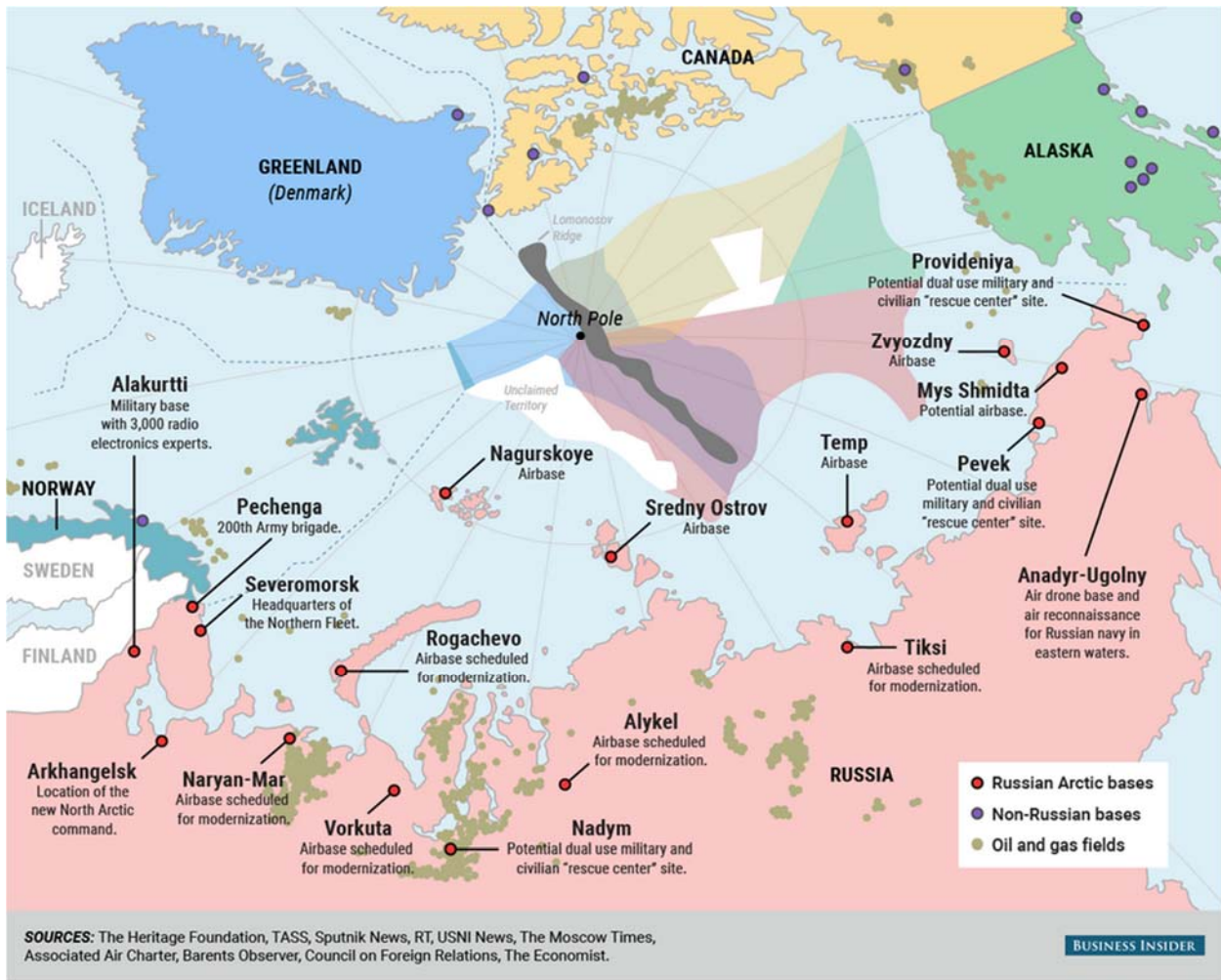


Fig. 7 Russia’s militarization of the Arctic [27]

5. Russia in the Arctic: Dreams and Realities

“For Moscow, however, its future as an energy great power is an Arctic future. For the last few years, Russia has thus faced a revival of strategic thinking on the High North. ... Russia’s goals [in the Arctic] are far more pragmatic: attempts to reform the Army, upgrade the Navy, modernize the Northern Fleet, increase civil-military cooperation, and resurrect the shipyard sector.”

Marlène Laruelle ([26], p. 64)

The official national interests of the Russian Federation have been articulated in the *Russian Federation Policy for the Arctic to 2020* [28] as follows:

The basic national interests of the Russian Federation in the Arctic are:

- a) Use of the Arctic zone of the Russian Federation as a strategic resource base of the Russian Federation providing the solution of problems of social and economic development of the country;
- b) Maintenance of the Arctic as a zone of peace and cooperation;
- c) Preservation of unique ecological systems of the Arctic;
- d) Use of the Northern Sea Route as a national single transport communication of the Russian Federation in the Arctic (further – the Northern Sea Route).

Two of the basic objectives are of particular relevance:

- b) In the sphere of military security, defense and protection of the state border of the Russian Federation lying in the Arctic zone of the Russian Federation - maintenance of a favorable operative regime in the Arctic zone of the Russian Federation, including maintenance of a necessary fighting potential of groupings of general purpose armies (forces) of the Armed Forces of the Russian Federation, other armies, military formations and organs in this region;
- f) In the sphere of international cooperation - maintenance of a mutually advantageous bilateral and multilateral cooperation treatment of the Russian Federation with the sub-Arctic states on the basis of international treaties and agreements to which the Russian Federation is a party.

The relevant strategic priorities are:

- a) Carrying out of an active interaction of the Russian Federation with the sub-Arctic states with a view of delimitation of maritime areas on the basis of norms of international law, mutual arrangements taking into account national interests of the Russian Federation, and also for tackling issues of an international legal substantiation of the external border of the Arctic zone of the Russian Federation;
- b) Building-up of efforts of the sub-Arctic states for the creation of a uniform regional system of search and rescue, and also prevention of man-caused accidents and liquidation of their consequences, including coordination of activity of rescue forces;
- c) Strengthening, on a bilateral basis and within the framework of regional organizations, including the Arctic Council and the Barents/EuroArctic region Council, good-neighborhood of Russia with the sub-Arctic states, atomization of economic, scientific and technical, cultural interaction, and also frontier cooperation, including in the field of effective natural resources management and environment preservation in the Arctic;
- d) Assistance in the organization and effective utilization of transit and cross Polar air routes in the Arctic, and also in the use of the Northern Sea Route for international navigation under the jurisdiction of the Russian Federation and according to international treaties of the Russian Federation.

Indeed, the behavior of the Russian Federation on Arctic matters in the past has been substantially different from that on its southern borders. But it is changing. So, the question

becomes: How much of the above has been accomplished and what are the implications for the future?

Trying to exploit the resources of the Arctic has been a national goal during the imperial/czarist period, during the Soviet period, and again now. There are nationalistic, geopolitical, economic, and very much domestic issues that drive the current efforts. In many analyses, the historical and domestic issues are underplayed in favor of business case analyses and an adversarial framework. The latter are rational perspectives whereas the former often are not. But it is a mistake to ignore the historic role that the Arctic has played in defining Russia and the domestic appeal that the development (even as just a plan) has on the Russian people. Interference by external entities such as the West or China in achieving these plans (unrealistic from a pragmatic point of view as they may be) will be seen as a hostile act that tries to prevent Russia from achieving its destiny as a “great nation.” The policy statements above clearly indicate that Russia aspires to cooperation in the Arctic with the subtext indicating that it would expect to be in a leading position in such efforts.

During the early Soviet period, before WWII (The Great Patriotic War), arctic explorers were national heroes lionized by the Soviet propaganda machine (e.g., Valerii Chkalov, who landed his plane on the North Pole in 1937) [10]. The Russian Arctic is an integral part of the country; it is where in the public mind the key to the future lies. This has been a narrative for a long time, even though that future is always a little distant. This, from a rational point of view, would be described as aspirational rather than realistic. The costs and associated risks for developing the Arctic region are enormous, made more difficult by the harsh climate and the lack of adequate infrastructure. The old infrastructure is decaying both because of neglect during the 90s and because of the current thawing of the permafrost that results in serious damage to what infrastructure already exists. And there is the question of population. The ethnic Russian population is decreasing (as it is in many other European states); in the Arctic region the population changes are more diverse as there have been population shifts and migrations to cities and where industrial employment exists. For a detailed discussion, see Chapter 3 of [13]

In the present and the near term Russia is investing heavily through the Armed Forces and the FSB in creating a military/industrial infrastructure in its Arctic coastal areas. Could that be interpreted as an explicit militarization of the area? Or could it be that using the Armed Forces and the FSB is the way the State can pursue its development goals while at the same time energizing and improving its military? It is both with the unknowns being the relative weights given to the two aspects. Furthermore, as world events occur those weights will change.

One thing is clear: these plans are not short term. Stalin had major plans for the Arctic where he spent a part of his early career. Some projects were completed, many never made it. The Northern Sea Route is now projected to be more navigable in 2030 and beyond. Will the Northern Polar Route be also navigable for a sufficiently long period to become an economically viable route? China is probably exploring that as are the other north Pacific countries.

The current market for oil and the drop in commodity prices have had an adverse impact on Russia’s economy. The sanctions imposed by the West in response to the Crimea annexation and Russia’s action in the eastern Ukraine have affected adversely the ability of Russia not only to have access to long term financing, but also to much needed western technology. This makes

the business case for the Arctic's economic development even more challenging. [33] Delays, postponements, and stretching out projects are behaviors one would expect. But will the long term plans change?

That would depend on the long term scenarios that one would envision for Russia. In the current literature, they range from the Russian "we have gone through worse, we will get through this too" to total collapse of the state and chaos. A reasonable approach is to consider a set of extreme scenarios that define the boundary of the space of possibilities without any attempt to associate probabilities with them. Such an approach was taken in a recent Global Trends war game conducted in May of 2015 in which a cooperative and an aggressive Russian foreign policy were considered. [33] Another set of four such scenarios to 2030 and beyond have been described in the very recent book by Bobo Lo *Russia and the New World Disorder* [34]

The four scenarios Lo describes are:

- (a) Soft Authoritarianism. This scenario describes a Russia that continues along the path of the early Putin era characterized by little change with some modernization but continuing dependence on energy and other natural resources. "In foreign policy we would see the entrenchment of traditional interpretation of Russian identity, norms, and values." Russian influence would decline as other states move ahead. This is not a realizable scenario but one that bounds the scenario space.
- (b) Hard Authoritarianism. This scenario is an extension and "hardening" of the post 2012 Putin era. Authority would become even more centralized with attendant strengthening of the security and military establishments. This is already taking place with the reduction in the size of the military but large investments in improving its equipment and training. Such a regime would pursue an aggressive foreign policy but be mindful of the costs. This is evidenced by the use of "gray zone" approaches (or multi-vector diplomacy) to achieve goals. A turn to the East would also be an element of this scenario but that poses some unique problems as does a turn toward Central Asia.
- (c) Regime Fracturing. In this scenario there is an economic collapse followed by political instability. Again, this is not a projection but a bounding extreme scenario. This is a very problematic scenario not only for Russia but for the West and Asia.
- (d) Second-wave Liberalism. This is the opposite boundary case to the regime fracturing scenario. Russia succeeds in achieving needed reforms and modernization which would lead to a more pluralistic approach to governance. Foreign policy would be internationalist with emphasis on multi-lateral relationships of the type Russia has been pursuing in the Arctic.

The diversity of these scenarios is such that the scenario space they circumscribe is extremely broad. This indicates clearly the uncertainty regarding the direction that Russia will take as the regime tries to balance domestic issues with international challenges and assert its place in the geopolitical space.

6. Conclusion

Clearly, the Arctic plays a major role in the future of Russia not only for economic reasons but also as a common theme, a common narrative that resonates with the Russian people. It will be unwise to interpret all Russian actions in the Arctic as being statements to the West or to the East. It will be helpful if they are also interpreted in terms of internal domestic (and nationalistic) considerations.

REFERENCES

1. U.S. Navy Task Force Climate Change, *U.S. Navy Arctic Roadmap 2014 -2030*, February 2014 http://www.navy.mil/docs/USN_arctic_roadmap.pdf
2. *Council on Foreign Relations*, “The Emerging Arctic” 2014. http://www.cfr.org/polar-regions/emerging-arctic/p32620#!/?cid=otr_marketing_use-arctic_Infoguide#!
3. Ariel Cohen, “Russia in the Arctic: Challenges to US Energy and Geopolitics of the North.” In Stephen J. Blank, Ed., *Russia in the Arctic*, Strategic Studies Institute, U.S. Army War College, Carlisle, PA, 2011.
4. Stephen M. Carmel, “The Cold, Hard Realities of Arctic Shipping,” *Proc. of the US Naval Institute*, vol. 139, July 2013
5. Katarzyna Zysk, “The Evolving Arctic Security Environment: An Assessment.” In Stephen J. Blank, Ed., *Russia in the Arctic*, Strategic Studies Institute, U.S. Army War College, Carlisle, PA, 2011.
6. U.S. Coast Guard's 2013 Review of major Icebreakers of the world <http://news.usni.org/2013/07/23/u-s-coast-guards-2013-reivew-of-major-ice-breakers-of-the-world>
7. Atle Staalesen, “New icebreakers open way for Russia in Arctic,” *Barents Observer*, 5 May 2015. <http://barentsobserver.com/en/arctic/2015/05/new-icebreakers-open-way-russia-arctic-05-05>
8. Alexander Mednikov, “New regulations for the Northern Sea Route,” 10 April 2013. <http://www.internationallawoffice.com/Newsletters/Shipping-Transport/Russia/Jurinflot-International-Law-Office/New-regulation-for-the-Northern-Sea-Route>
9. Andrew E. Kramer, “Russia stakes New Claim to Expanse in the Arctic,” *NY Times*, 4 August 2015.
10. Charles Emmerson, *The Future History of the Arctic*, Public Affairs, NY, NY, 2010.
11. U.S. Geological Survey, “Circum-Arctic Resource Appraisal: Estimates of Undiscovered Oil and Gas North of the Arctic Circle.” <http://pubs.usgs.gov/fs/2008/3049/>
12. Marlene Laruelle, “Russian Military Presence in the High North: Projection of Power and Capacities of Action.” In Stephen J. Blank, Ed., *Russia in the Arctic*, Strategic Studies Institute, U.S. Army War College, Carlisle, PA, 2011.
13. Marlene Laruelle, *Russia’s Arctic Strategies and the Future of the Far North*, M. E. Sharpe, Inc. Armonk, NY, 2014
14. Marcel de Haas, “Russia’s Arctic Strategy – challenge to Western energy security,” http://www.clingendael.nl/sites/default/files/20090831_cscp_art_haas_russia_arctic.pdf

15. Alexandr' Golts, "The Arctic: A clash of interests or a clash of ambitions?" In Stephen J. Blank, Ed., *Russia in the Arctic*, Strategic Studies Institute, U.S. Army War College, Carlisle, PA, 2011.
16. Bruce Jones, "Russia activates new Arctic Joint Strategic Command," HIS Jane's 360, 1 December 2014.
<http://www.janes.com/article/46577/russia-activates-new-arctic-joint-strategic-command>
17. Jeremy Bender, "The Nordic countries are banding together against Russia's Arctic push," Business Insider, 23 April 2015.
18. Jeff Stein, "What is Russia up to in the Arctic?" *Newsweek*, 6 March 2015.
19. STRATFOR, "Russia's Plans for Arctic Supremacy," 16 January 2015.
<http://www.stratfor.com/analysis/russias-plans-arctic-supremacy>
20. The Associated Press, "Russia launches massive Arctic drills," 16 March 2015
21. Ryan Faith, "Russia's massive military exercise in the Arctic is utterly baffling," *Vice News*, 20 March 2015
<https://news.vice.com/article/russias-massive-military-exercise-in-the-arctic-is-utterly-baffling>
22. Jeremy Bender, "Finnish defense official: Russia has 'twofold objectives' in the Arctic," *Business Insider*, 20 June 2015.
<http://www.businessinsider.com/finnish-defense-official-russia-has-twofold-objectives-in-the-arctic-2015-6>
23. Jeremy Bender, "Russia is deploying advanced aerial weapon systems to the Arctic" *Business Insider*, 22 June 2015.
<http://www.businessinsider.com/russia-deploying-advanced-weapons-to-arctic-2015-6>
24. Duncan Depledge, "How Russia Could Annex the Arctic," *Defense One*, 23 March 2015.
25. Defense News, "Russia Launches Military Drills In Arctic" provided by Agence France-Presse, August 24, 2015.
<http://www.defensenews.com/story/defense/international/europe/2015/08/24/russia-launches-military-drills-arctic/32276347/>
26. The Barents Observer, "Arctic Brigade trains counter-terrorism at Novaya Zemlya," 13 October 2015.
<http://barentsobserver.com/en/security/2015/10/arctic-brigade-trains-counter-terrorism-novaya-zemlya-13-10>
27. Jeremy Bender and Mike Nudelman, "This map shows Russia's dominant militarization of the Arctic," Business Insider, Aug. 7, 2015.
<http://www.businessinsider.com/chart-of-russias-militarization-of-arctic-2015-8>

28. "Russian Federation Policy for the Arctic to 2020," March 30, 2009
<http://www.arctis-search.com/Russian+Federation+Policy+for+the+Arctic+to+2020>
29. Walter Berbrick, "Strengthening US Arctic policy through US-Russia maritime cooperation." In L. C. Jensen and G. Hønneland, Eds. *Handbook of the Politics of the Arctic*, Edward Elgar Publishing, Cheltenham, UK, 2015
30. "Statement of ADM Willian E. Gortney CDR USNORTCOM and NORAD before the Senate Armed Services Committee, 12 March 2015.
http://www.northcom.mil/Portals/28/Documents/Gortney_03-12-15_posture%20statement.pdf
31. Steven Lee Myers, "U.S. is Playing Catch-Up with Russia in Scramble for the Arctic," *N.Y. Times*, 29 August 2015.
32. Heather A. Conley and Caroline Rolhoff, "The New Ice Curtain: Russia's Strategic Reach to the Arctic," Center for Strategic and International Studies, Washington, DC, August 2015.
33. "The Future of Europe and Russia: A Global Trends game," Global Trends, 12-13 may 2015.
34. Bobo Lo, *Russia and the New World Disorder*, Brookings Institution Press, Baltimore, MD, 2015.

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