Naval War College Review

Volume 63 Number 3 Summer

Article 3

2010

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Recommended Citation

 $Antrim, Caitlyn \ L. \ (2010) \ "The \ Next \ Geographical \ Pivot," \ \textit{Naval War College Review}: Vol. \ 63:No. \ 3, Article \ 3. \\ Available \ at: \ https://digital-commons.usnwc.edu/nwc-review/vol63/iss3/3$

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THE NEXT GEOGRAPHICAL PIVOT

The Russian Arctic in the Twenty-first Century

Caitlyn L. Antrim

n the summer of 2007, when the Russian flag was placed on the ocean floor at the North Pole and the Arctic ice cover receded to the lowest extent ever recorded, the media sought story lines that would grab the public's attention. Titles and headlines such as "Arctic Meltdown," "A New Cold War," and "Arctic Land Grab," focusing on Russian activities in the Arctic, all fed a sense of competition, conflict, and crisis.¹

These story lines were effective because they built upon geopolitical beliefs that have been with us for over a century, from the final years of the Russian Empire through the Soviet era and into the first years of the Russian Federation. For all that time, the core of Western geopolitical thought has held that there is a natural conflict between the landlocked Eurasian heartland and the Western maritime nations. In this analysis, the Arctic has played an essential, yet unrecognized, role as the northern wall in the Western strategy to enclose and contain the world's largest land power. Throughout the twentieth century, scant attention was given by the West to changes in Arctic technology, economics, climate, and law that had been under way since the 1930s. Stories of Russian claims to the Arctic Ocean seabed and control of new sea-lanes, interpreted through the old (and by now, creaky) geopolitics of the early twentieth century, heightened fears of conflict.

The geopolitics of the twenty-first century will be different from the days of empire and conflict of the nineteenth and twentieth. The increased accessibility of the Arctic, with its energy and mineral resources, new fisheries, shortened sea routes, and access to rivers flowing north to the Arctic, is pushing Russia to become a maritime state. As it progresses, Russia will no longer be susceptible

to geographic isolation or encirclement. At the same time, these changes will require Russia to become more closely integrated into global commercial and financial networks, to welcome international business involvement, and to participate in international bodies that harmonize international shipping, safety, security, and environmental regulations.

These changes are already opening the way for a new geostrategy that has its roots in the geopolitical thinking of the twentieth century but addresses the changes that are turning the Arctic from an afterthought to a central front in the new geopolitical view of the world. In this new geostrategy, Russia assumes a role as one of the maritime powers of the "rimland," and the Russian Arctic becomes a new geographical pivot among the great powers. Decades will pass before Russia can fully make the shift from Eurasian heartland to Arctic coastal state, but it is already integrating policies toward this end into the strategies of its national security council and federal ministries, and it shows every indication of expecting to seize its future seat among the major maritime states of the world.

THE ARCTIC IN TWENTIETH-CENTURY GEOPOLITICS

The twentieth century began with Alfred Thayer Mahan's geopolitical study The Problem of Asia.² In it, Mahan addressed the competition between the land power of the Russian Empire and the colonial and trading nations whose interests lay along the periphery of the Asian continent, from the Near East to China.

Mahan saw Russia as a land power that was limited in its ability to bring its strength to bear through the "debatable lands" that separated Russia from the Western powers in southern Asia, particularly the British Empire and the United States, which could maintain their dominance along the Asian coast by way of maritime trade and sea power. Maintenance of Western dominance in southern Asia depended on Russia's inability to mount a naval front from the south in addition to its potential land approach from the north. To challenge the West, Russia needed either access to the sea from its own ports or an overland route to other ports, a possibility that gave rise to the "Great Game" of the nineteenth century and the armed and political conflicts in twentieth-century Afghanistan and Iran.

In assessing Russia's access to the sea, Mahan emphasized the geographical limitations on Russian sea power. From St. Petersburg, Russia had to pass through the Baltic Sea, facing the sea power of the Nordic states in the Gulf of Finland and the Danish straits. From the Crimea on the Black Sea, Russian ships had to pass through the Dardanelles and either the Strait of Gibraltar or the Suez Canal. Ocean access from the Far Eastern port of Vladivostok was possible, but its distance from the economic, political, and military center of Russia and the growing maritime challenge of Japan made that outpost only a limited threat to Western interests in Asia.

Four years after the publication of Mahan's work on Asia, Halford Mackinder laid the groundwork for East-West geopolitics in the twentieth century. In a presentation to the Royal Geographical Society titled "The Geographical Pivot of History," Mackinder identified the southwest region of the Russian empire as the crossroads of power between East Asia and Western Europe.³ He viewed the steppes and plains of this region as an avenue by which a central land power, with internal lines of communication, could come to dominate the crescent from the coasts of China and South Asia westward through the Balkans and up to the English Channel.

Mackinder saw technological change, in the form of the railroad, as increasing the power of the heartland and amplifying the historical role of the steppes of Central Asia as the route by which invading peoples had for millenniums moved from Asia into Europe. He represented control of this region, with its wealth of agricultural production and industrial raw materials, and with the power of movement provided by the railroad, as the pivot around which the conflict between the heartland and the crescent of maritime states revolved (see map 1).

Thus, in the opening years of the twentieth century Mahan and Mackinder laid the groundwork for the most enduring perspective on the century of conflict yet to come: land power versus sea power, the contest between the Eurasian heartland and Great Britain and the United States for access to the marginal crescent from China to Western Europe.

MAP 1 MACKINDER'S GEOGRAPHIC PIVOT AND THE ICY SEA

Source: Mackinder, "Geographical Pivot of History."

Containment of Russia and its Eurasian heartland became the geostrategic theme of the century. Mackinder's vision was refined in the early 1940s by Yale University professor Nicholas Spykman.⁴ Spykman died in 1943, but his ideas of enclosure and containment were to be put into practice in the postwar era in response to Soviet expansion of control over Eastern Europe and the short-lived alliance with communist China.

Spykman, like Mahan and Mackinder before him, did not address Russian access to the Arctic. The significance of this omission is hinted at by the crucial role of the port of Murmansk as the eastern terminus for supplies from the West in World War II, as well as by the establishment of the Soviet navy's Northern Fleet in 1933 and the growing importance of sea routes linking ports along the Eurasian Arctic coast to the Soviet Union.

Even as late as 1997, Zbigniew Brzezinski (who had been President Jimmy Carter's national security adviser), presented a view of an enclosable Russia bounded by Europe in the west, by former Soviet republics to the southwest, and by India, China, and Japan to the south and east.⁵ Although he updated the geopolitical situation to reflect the breakup of the Soviet Union, his geostrategic approach remained one of enclosure and containment, with new relationships being established with the former Soviet republics and client states by the United States and NATO. Once again, the northern enclosure of Russia, the "fourth wall," was assumed but not addressed—and so the twentieth century was closing with the same blind spot that had been introduced a hundred years before.

By the end of the twentieth century, the enclosure and containment of Russia seemed complete, with NATO and the European Union to the west, Western military involvement in Iraq and Afghanistan, and the rise of India and China as substantial powers on land and sea. The strategy of enclosure and containment, which rested on the belief that geography and political power could permanently enclose Russia, appeared to have endured. But change was coming to the Arctic, the frozen north was changing, and the geopolitical wall to the north was beginning to crumble.

RUSSIA AND THE ARCTIC

Most of the attention paid to the benefits of Arctic warming and retreat of the polar ice cover has focused on the economic potential of offshore oil and gas deposits and the savings of time and fuel made possible by new transarctic shipping routes. These benefits are significant, but for Russia there are other interests related to the increased accessibility of the Arctic, including securing a newly opened Arctic frontier and increasing access to the rivers that reach throughout the interior of the country. Russia's perception of its Arctic interests can be grouped into four categories: economics, security, transportation, and development.

Russia's Arctic Seas and Their Economic Importance

Russia's Arctic encompasses the northern seas, islands, continental shelf, and the coast of the Eurasian continent; in addition, it is closely linked to the vast watershed that flows to the sea. The Arctic coast of Russia spans from its border with Norway on the Kola Peninsula eastward to the Bering Strait. Along the coast is a wide continental shelf, running eastward from the Barents Sea in the west to the Kara Sea, the Laptev Sea, the East Siberian Sea, and the Chukchi Sea. Of these seas, only the Barents is largely ice-free throughout the year, a result of the Gulf Stream returning there to the Arctic. The continental shelf extends northward far beyond the two-hundred-nautical-mile exclusive economic zone (EEZ). When free of ice, the coastline along the Arctic extends almost forty thousand kilometers (including the coasts of the northern islands), which must be patrolled and protected. The Russian Arctic coast drains a watershed of thirteen million square kilometers, equal to about three-quarters of the total land area of Russia and an area larger than any country on earth save Russia itself.

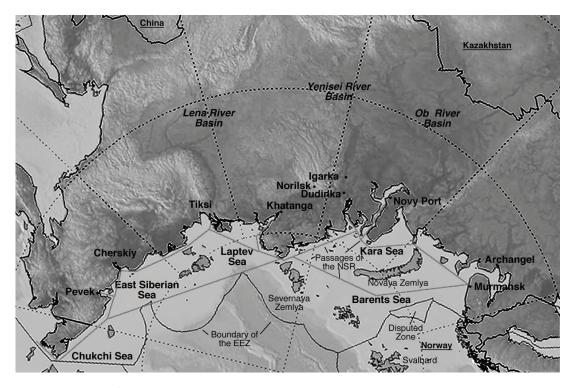
Russia has long been a major producer of oil and gas from land-based resources. Now the resources of the Arctic continental shelf are drawing increasing attention. Deposits in the Barents Sea are already being developed, with other known deposits in both the Barents and the Kara seas being eyed for future exploitation. Still more energy resources are awaiting discovery. In 2008, the U.S. Geological Survey, estimating the as-yet-undiscovered resources of oil and gas in the Arctic, projected over 60 percent of the total resources (equivalent to about 412 billion barrels of oil) to be located in Russian territory, with all but a very small percentage on shore or inside the EEZ.6 The area of greatest potential is in the Kara Sea basin, with smaller, yet still respectable, prospects in the Laptev and East Siberian seas.

Security and Naval Operations

Russia's Northern Fleet has been based on the Kola Peninsula, on the southwest shore of the Barents Sea, since 1933. The fleet is now the largest and most powerful component of the Russian navy. From its bases, the fleet's ballisticmissile submarines deploy under the Arctic ice, as will be discussed below. The Northern Fleet is also well situated to deploy year-round to the North and South Atlantic and to escort commercial shipping to or from ports in northwest Russia. While the mobility of the Northern Fleet could be restricted to the Arctic in the case of unrestricted naval warfare, at other times it has the free access to the ocean that was sought by imperial Russia for centuries (see map 2).

If Western geostrategists had a blind spot with regard to the fourth wall of Russia's enclosure, the potential for change was apparent to others even before World War II. In a 1938 article in Foreign Affairs, H. P. Smolka offered a prescient

MAP 2



Source: Complied by author from polar projection and topography in GeoMapApp, Marine Geoscience Data System, Lamont-Doherty Earth Observatory, Columbia University, www.goemapapp.org/.

outlook for Russia in the Arctic. He addressed the basing of the Northern Fleet on the Kola Peninsula and examined the role of the newly formed Central Administration of the Northern Sea Route as the development agency for the Russian Arctic coast in Asia, even comparing the Administration to the British East India Company.⁷ In spite of this prominent discussion, no hint of reconsideration of the strategy of enclosure was to appear in the work of the geostrategists who followed Mahan and Mackinder.

Smolka identified the military benefit of the northern development activities by addressing Mahan's points about Russia's lack of access to the high seas. He argued that the fleet based in Murmansk would have access to the open ocean: "Russia would thus be bottled up on three sides: west, south and east. But in the North—and there only—there is an independent, continuous and all-Russian coastline, unassailable by anyone."

Today, Russia's Coastal Border Guard, which has been evolving from the maritime division of the Soviet-era KGB into a modern coast guard with functions comparable to those of similar services in Western states, is responsible for monitoring maritime activities along the coast and in the EEZ and for enforcing

national laws and regulations. It is a small service with assets that include conventional frigates and corvettes assigned to the Pacific and Black Sea fleets, several fisheries and EEZ patrol vessels, and lighter vessels intended for near-coast operations, but only a handful of these are designed for Arctic conditions or ice operations. Russia's ability to patrol and monitor its increasingly accessible Arctic EEZ has not kept pace with the receding summer ice cover.9

The Northeast Passage and the Northern Sea Route

The first single-season transit of the Northeast Passage (that is, along the full length of the Arctic coast of Russia) was not completed until 1932, coinciding with the Soviet Union's recognition of the north as a new and critical dimension of its national security. The Central Administration of the Northern Sea Route was created that same year with the mission of developing the resources of the north. Sea routes were charted and icebreakers were built to make it possible to reach ports from the Kara Gate (the passage between the island of Novaya Zemlya and the mainland, separating the seas north of Europe from those of Asia) eastward to the Bering Strait. This section of the Northeast Passage is defined as the "Northern Sea Route" (NSR). Military bases and closed industrial cities, as well as some of the infamous gulags, were established along this northern frontier in the 1930s and 1940s, and air bases and monitoring stations were operated along the Arctic during the Cold War era. Port facilities were maintained near the mouths of the major rivers feeding into the Arctic to support access to the interior. Traffic along the NSR grew slowly but continuously through the rest of the Soviet era.

The economic disruptions accompanying the transition from the Soviet Union to the Russian Federation led to a decade of neglect of the NSR and of the port facilities that had supported it. Cargo along the NSR declined precipitously during the 1990s. In 2000, then-president Vladimir Putin brought renewed attention to the NSR, as part of a national economic strategy that marked the end of the decline and a new vision of the Northern Sea Route as a core component of Russia's economic development strategy.¹⁰

The NSR serves both as a set of regional sea-lanes and as a transarctic passage, with a natural divide at the Taymyr Peninsula, which separates the Kara Sea to the west from the Laptev Sea to the east. This is the northernmost point of Asia and the last point that opens during the summer ice melt. The passage is constrained by the Vilkitski Strait, which separates the mainland from the island of Severnaya Zemlya, where the shallow depth and retention of ice late into the summer limit the transit of ships between east and west. Partial, regional routes continue to operate even when transit along its full length is prevented by the freezing of the straits along the way.

The NSR provides access to such regional ports as Novy Port, near the mouth of the Ob River; Dikson, Dudinka, and Ingarka (towns on the Yenisei that have served as loading points for mineral and timber resources); and Tiksi, at the mouth of the Lena River. These ports also support coastal shipping during the summer season, when ice cover is at its minimum.

Beyond providing a national route connecting northern ports and access to the interior, the NSR is of interest to global shipping firms as an alternative to the longer southern route between the Far East and Europe. The journey from Yokohama to Rotterdam can be reduced by about four thousand miles by way of the NSR. Even with reduced speeds in a northern passage, the shortened distance translates to a quicker transit time and decreased fuel consumption, with substantial financial savings to the shipper. At present, the Arctic shipping season is of unpredictable length, dependent on changing climate patterns and sea and ice conditions that require ships designed specifically for passage through icy waters. The NSR will not appeal to major shipping firms as a regular route until more experience is gained and the route is upgraded with modern aids to navigation, port facilities, and search-and-rescue capabilities. Over time, those developments, with or without further retreat of the polar ice, will make the Northeast Passage more attractive, particularly as the number of ice-capable vessels increases.

The NSR depends on powerful icebreakers to open routes through the ice and to escort shipping even in summertime. Six nuclear icebreakers, four of the heavy Arktika class and two of the shallow-draft Taymyr class, maintain the NSR, and major Russian commercial enterprises have begun acquiring their own icebreaking cargo ships. In 2009, the fleet operated by Norilsk Nickel MMC, in north-central Siberia, accounted for nearly a million tons of shipping from Dudinka through the Kara Sea and on to the Kola Peninsula. Norilsk's success is leading to the design of similar vessels for unescorted transport of oil and natural gas in the Arctic.11

In theory, the NSR can also serve as a sea corridor by which the Northern Fleet could reach the Pacific Ocean, but such passage remains hazardous, because naval vessels are not designed to ice-class standards. Passage through ice-infested waters, even with icebreaker escorts, is potentially dangerous to the hulls and propulsion systems of warships, whose complex superstructures are also susceptible to icing, to the detriment of stability.¹²

The Arctic Watershed

Russia's Arctic watershed comprises the Eurasian heartland and the northern coastal regions that until recently served as the fourth wall enclosing Russia and limiting its communication and commerce with the rest of the world. The Asian watershed alone, which constitutes what Mackinder defined as the "Pivot Area" Antrim: The Next Geographical Pivot

and Spykman called the "Heartland," accounts for about two-thirds of the land area of Russia.

Russia's Arctic watershed is richly endowed. The southern part of western Siberia is a highly productive agricultural area. The region is rich in oil and coal, and the Ob and Yenisei provide hydroelectric power. Iron and bauxite provide the raw materials for steel and aluminum production. The central Siberian plateau in the north is home to Norilsk Nickel, the world's largest producer of nickel and palladium. The Lena provides access to gold and diamond mines. The watershed is also home to the largest forest in the world, stretching across Siberia from the northwest to the southeast.

Vast distances, rugged terrain, and severe climate preclude the construction of highways and railroads in the north, but three major river systems—the Ob, Yenisei, and Lena—reach throughout the watershed, from the Ural Mountains to the west, Mongolia and Kazakhstan in the south, and the mountains bordering the Pacific in the east. The potential of these rivers to support the development of the watershed can be seen in comparison to the importance of the Mississippi River for the United States (see figure 1). At present, this potential has been blocked by the Arctic climate, which opens the rivers in the north for only a couple of months each year.

The climate of the Eurasian coast is one of the most extreme and inhospitable in the world, with winter temperatures reaching minus forty degrees centigrade and ice on the sea as much as two meters thick. The climate takes a severe toll on port facilities, produces extreme fluctuations in river depth and flow during the summer melting season, and requires costly resupply to sustain human habitation during the long and frigid winters. Costs that were borne as security expenses during the Cold War now have to be justified on commercial grounds. As

FIGURE 1 **MAJOR RIVERS OF RUSSIA'S ARCTIC WATERSHED**

River System	Greatest Length (km)	Basin (sq. km)	Average Discharge (m³/sec)
Ob	5,410	2,972,497	12,500
Yenisei	5,539	2,580,000	19,600
Lena	4,472	2,490,000	17,000
Comparison			
Mississippi	6,300	3,225,000	16,200

Source: Russian river data from Global International Waters Assessment, Russian Artic, Regional Assessment 1a (Nairobi, Kenya: United Nations Environmental Programme, 2005)

a result, many old facilities have deteriorated or been abandoned over the past two decades and now need to be rebuilt from scratch. Maintenance of facilities has been complicated by seasonal warming, which causes melting and refreezing of the permafrost that was once, but is no longer, a structurally stable base for construction. Only when commercial traffic provides economic incentives to maintain facilities near or on the Arctic coast do ports (such as Dudinka, which services Norilsk Nickel) manage to operate at their former capacities.

CHANGE IN THE ARCTIC: BREACHING THE FOURTH WALL OF CONTAINMENT

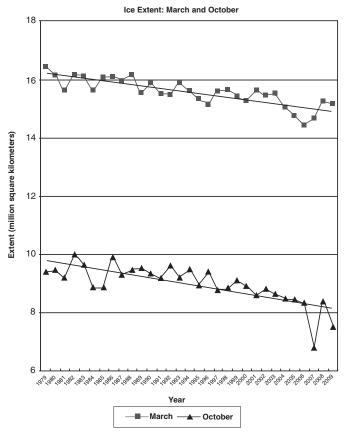
In all of the geostrategic analyses that guided Western strategy in the twentieth century, the Arctic played, as we have seen, a critical but unrecognized role as the fourth wall of the box that enclosed Russia. Western geostrategists from Mahan and Mackinder to Spykman and Brzezinski saw the frozen rivers and seas of the Arctic as completing the containment of Russia. The assumption of an impervious North was reasonable for the analysts of the early twentieth century, who, like Nicholas Spykman, were convinced that "geography is the most fundamental factor in foreign policy because it is the most permanent." This maxim, seemingly obvious though it appears, proved incorrect during the first decade of the twenty-first century as changing climatic conditions led to a string of summers that set record lows for ice cover—losses of 30 percent of average ice cover in the late summer and declines in maximum ice cover in winter of more than 10 percent (see figure 2).

Had geostrategists in the middle to late twentieth century examined the evolution of the Arctic in Russia, they would have recognized that the role of the Arctic in completing the enclosure of the heartland rested on four factors: technology, economics, climate, and law. Changes in these factors went unnoticed in the West, even though evidence that they were subject to change began to appear as early as the 1930s.

Arctic Transportation Technology. Russia has fought the barrier of the polar ice for over a century, building an impressive fleet of icebreakers and ice-strengthened vessels. In the four and a half decades between World War II and the breakup of the Soviet Union, traffic along the route rose from less than a half-million tons per year in 1945 to 6.6 million tons in 1989. During that time, the technology of Arctic transportation evolved from simple reinforced bows and strengthened hulls to specialized hull designs and coatings, ballast-shifting capability, nuclear power, pod-mounted directional thrusters, and other remarkable technologies.

Russia's commitment to the development of ice-covered regions is illustrated by its investment in icebreakers. The current fleet includes six second-generation

FIGURE 2
MAXIMUM AND MINIMUM ICE EXTENT IN THE ARCTIC
1979–2009



Source: National Snow and Ice Data Center, "Archived Data and Images," Sea Ice Index, nsidc. org/data/seaice_index/archives/index.html.

nuclear-powered icebreakers, four heavy-duty dual-reactor ships for use along the length of the NSR, and two smaller single-reactor icebreakers capable of clearing routes and escorting ships into ports and rivers. A focus on nuclear icebreakers, however, fails to reflect the full Russian commitment to shipping in the Arctic. Diesel-electric icebreakers that support regional operations and maintain port and river access are being constructed to replace and expand the aging fleet of Soviet-era vessels. The recent introduction of tankers and cargo vessels of the "double acting" type-with azimuthal pod propulsion, cruising bows (for good performance in open water, steaming ahead), and icebreaking hulls aft (for icebreaking, steaming astern)—is helping privatize Arctic routes. Norilsk Nickel's five icebreaking cargo ships run throughout the year. In 2009 they

carried almost a million tons of cargo between Dudinka and Murmansk. The state-owned shipping firm SovComFlot just commissioned its third seventy-thousand-deadweight-ton (dwt) dual-acting tanker for use along the NSR.

Oil and gas technology developed for the Gulf of Mexico and the North Sea is improving access to offshore oil and gas deposits in the Arctic. Advanced offshore techniques, including remote-exploration technology, directional drilling that allows a single well site to reach through the seafloor to tap deposits many kilometers away, and seabed-based production technology, among others, are making development in the Arctic seas more attractive.

New ships and oil and gas technology are only parts of the key to opening the Russian Arctic watershed. Development of ports and river transport systems are necessary to connect to currently isolated regions with the Eurasian heartland. Winter freezing of the northern reaches of rivers will require both new icebreaking capabilities and improvements to ports and waterways to extend the period during which shipping can reach the sea.

Energy Economics. Economic containment of the Soviet Union began to crumble in the early 1980s, when European nations decided to facilitate the construction of a pipeline to bring natural gas from western Siberia to Western Europe. The pipeline had been opposed by the United States, because it put control over the most strategic of materials, energy, in Soviet hands and because it provided funds and technology to the struggling Soviet economic system. American proponents of using trade as a tool to influence the Soviet Union lost out to European policies that favored East-West trade for mutual benefit.¹⁴ A decade later, with the breakup of the Soviet Union and the rapid privatization of state enterprises, fears of trade and interdependence with Russia declined further. Rising oil and gas prices, the discovery of oil and gas deposits in the Barents Sea, and demonstration of deepwater and cold-weather exploration and exploitation technology made Arctic deposits attractive candidates for development. By the beginning of the twenty-first century, with energy supplies already flowing to Europe, there was little concern about the shift to new Russian sources in the Arctic. Finally, although the Russian Federation still sends mixed messages about foreign investment, particularly in strategic sectors of the economy, opportunities for foreign participation in oil and gas development and transportation now draw Western attention and investment at levels unheard-of only two decades ago.

Changing Climate. Over the last decades of the twentieth century scientists plotted a slow reduction in the extent of ice cover in the Arctic. In the past decade this trend has accelerated. Scientists now are contemplating a continuation of the decline that could lead to a complete seasonal loss of ice cover toward the middle of the century.¹⁵ Arctic winters, however, will continue to be long and harsh, and there is no projection of a complete loss of ice cover in wintertime, though ice then will be of the thinner and less dense first-year variety, and of lesser geographic extent.

RosHydroMet, Russia's hydrometeorological agency, has projected a winter temperature increase of up to four degrees centigrade along Russia's Arctic coast by 2040. Base temperatures near minus forty degrees centigrade, however, mean that the winter ice of the coastal sea and rivers and temperatures will continue to be a challenge. Still, such a change in temperature would be significant, because it would lead to a shorter and less extreme winter in the North, with less time for ice to spread and thicken. Warming in the southern Arctic region of the watershed, estimated at two degrees centigrade, will gradually increase growing periods and lead to the melting of permafrost, slowly moving northward the lands available to human development.

Changes of International Law. Just as Arctic technology, economics, and climate changed over the twentieth century, so did international law as it applies to the Arctic. At the beginning of the twentieth century, when the Arctic was an ice-locked and unexplored realm, there was little need for an international legal regime. In the 1920s, Russia proposed that the coastal states simply divide the northern area into sectors bounded by lines drawn from the North Pole to the coastal borders between states, but this proposal was not accepted by the other Arctic states and eventually was dropped by Russia as well.

It was not until a comprehensive law of the sea was negotiated and implemented in the 1982 United Nations Convention on the Law of the Sea (UNCLOS) that rules applicable to the Arctic were agreed upon. Other laws and agreements, including the 1990 U.S.-USSR Maritme Boundary Agreement, the 1995 Fish Stocks Agreement, and conventions and guidelines of the International Maritime Organization, have further extended the legal regime of the Arctic.¹⁷ The Arctic Council, established in 1996, provides a forum for collaborative study of issues of sustainable development in the Arctic. The Ilulissat Declaration of 2008 commits the five Arctic coastal states (Russia, the United States, Canada, Norway, and Denmark) to resolve issues through diplomatic channels. ¹⁸ Additional effort will be needed to resolve disputes over boundaries and access rights between Russia and Norway, but these two nations have far more to gain from one another amicably than they could hope to gain through open conflict. They are currently working to resolve their boundary in the Barents Sea and sovereignty issues around the Svalbard Archipelago.

From the perspective of Russia's interests in the Arctic, the most important aspects of UNCLOS were its creation of the exclusive economic zone, recognition of national jurisdiction over the resources of the continental shelf beyond the EEZ, and establishment of the right of coastal states bordering ice-covered waters to establish and enforce regulations to protect the marine environment within the EEZ. These provisions give Russia jurisdiction over shipping in the NSR, fisheries in the EEZ, and seabed minerals to the outer limit of the continental shelf, all subject to a responsibility to observe the rights of other states as specified in the convention. Under the convention, Russia proposed boundaries of the shelf drawn on the basis of scientific data and a complex formula accounting for distance from shore, depth of seafloor, thickness of sediment, slope of seabed, and the nature of underlying rock. The boundary proposal was submitted in 2001 to the Commission on the Limits of the Continental Shelf, an international commission of experts in marine geology and related fields established by UNCLOS for confirmation of national claims. 19 The Commission returned the proposal to Russia, saying that additional evidence would be needed before

it could rule on the proposal and a new submission is anticipated in the near future.

Under the convention's provisions governing navigation in ice-covered seas, Russia is allowed to establish and enforce regulations applicable to the protection of the Northern Sea Route as long as that route is ice covered for much of the year and the regulations are related to protecting the marine environment, are based on scientific evidence, and do not discriminate on the basis of national origin.²⁰

RUSSIA'S ARCTIC VISION

Russia's leadership has had long involvement in the development of its Arctic, from the establishment of the Northern Sea Route Administration in 1932 to the recent statement of Russia's strategy for the Arctic. In September of 2008, the Security Council of the Russian Federation laid out its vision of Russia's Arctic future, setting out its basic national interests in the Arctic:²¹

- a. Use of the Arctic zone of Russia as a strategic resource base of Russia to tackle socioeconomic development of the country;
- b. Preservation of the Arctic as a zone of peace and cooperation;
- c. Conservation of unique ecosystems of the Arctic;
- d. Use of the Northern Sea Route as a national integrated transport communications line in Arctic Russia.

The document Foundations of State Policy of the Russian Federation in the Arctic for the Period up to 2020 and Beyond focuses on priorities for Arctic policy, many of them incorporated into more specific strategies and concepts in other functional areas. From a functional perspective, the key provisions can be grouped into foreign policy, military security, economic development, and transportation and maritime policy.

Foreign Policy. In seeking to establish the Arctic as a "zone of peace and cooperation," the Russian Arctic policy emphasizes mutually beneficial bilateral and multilateral cooperation among Russia and other Arctic states on the basis of international treaties and agreements to which Russia is a party. Underlying all Russian policies toward the Arctic is support for regional collaboration in the Arctic and commitment to UNCLOS and multilateral organizations and approaches, including the International Maritime Organization, the Arctic Council, and the five Arctic coastal states, who met in Ilulissat, Greenland, in 2008 to issue their declaration on management of the Arctic. The key foreign policy point in the Ilulissat Declaration—that the Arctic coastal states will resolve disputes peacefully in line with the law of the sea—is consistent with the Russian Arctic policy.²²

The Arctic Council consists of the five Arctic coastal states plus Sweden, Finland, and Iceland, as well as the organizations representing indigenous peoples of the Arctic. The council is not a decision-making body; in fact, it has no standing infrastructure or secretariat. It is, however, the principal body in which the regional agenda for environment and development issues in the Arctic is discussed.

Military Security. In military terms, Russia's Arctic policy focuses on the protection of the nation and its borders as they run north into the Arctic Ocean and on achieving a favorable operating regime in the Russian Arctic for the Russian Federation's armed forces and other troops, military formations, and bodies needed in the region, particularly the Federal Security Service's Coastal Border Guard.

The opening of the Arctic brings up four issues of military security: the protection of the ballistic-missile submarine fleet; protection of trade routes along the Arctic and from the Arctic to other parts of the world; defense of coasts, ports, and shipping; and the movement of warships between the Atlantic and Pacific.

The protection of the ballistic-missile submarine fleet, which is part of the traditional naval and strategic security of the region, is not addressed by the Russian Arctic policy. The majority of Russia's strategic missile submarines are based in the Kola Peninsula, from where they can deploy quickly in times of tension to stations under the polar ice cap. The thick and noisy ice pack provides security and eliminates the need to pass through the closely watched Bering Strait and the Greenland–Iceland–United Kingdom gap. Surface ships and the attack and patrol submarines of the Northern Fleet can provide additional security as the strategic submarines cross the relatively shallow continental shelf on the way to deep and ice-covered waters. The Northern Fleet also has the traditional roles of ensuring freedom of navigation for shipping and showing the flag overseas.

Instead, the military-security issue upon which the Russian Arctic policy primarily focuses is the defense and protection of the borders and area of the Russian Arctic zone. The primary border activities are

- Creation of a functioning coast guard in the Arctic from the Federal Security Service and effective interaction with the coast guards of other Arctic coastal states in combating terrorism at sea, preventing smuggling and illegal migration, and protecting biological resources;
- Development of the border infrastructure in the Russian border zone and reequipment of the border guard;
- Implementation of an integrated system for the monitoring of surface activities and oversight of fishing activities in the Russian Arctic.²³

It is in the area of the Coastal Border Guard in which change is most demanding. It has under nine thousand personnel and only some half-dozen 3,710-ton

patrol icebreakers, built almost thirty years ago, of which only two are reported to be in service in the Arctic. While naval vessels may take up some activities of the border patrol, these and a few lightly armed patrol tugs are the only icecapable armed vessels in either the Coastal Border Guard or the navy. These assets are spread thin: in addition to the Arctic, the Coastal Border Guard patrols the Baltic, Black, and Caspian seas; the Amur and Ussuri rivers; and the coastal Pacific Ocean.²⁴ Nor are ice-capable ships, other than the large icebreakers, available to provide quick search-and-rescue response along the northern shipping lanes. The sudden addition of the newly opened Arctic coast and the vast tract of EEZ and continental-shelf resources in the strenuous Arctic environment is adding a heavy responsibility for managing shipping, enforcing environmental regulation and fisheries policies, and providing search and rescue. It is not clear that the new demands upon the Coastal Border Guard have been fully understood. When they are, the service will need to increase its size and resources quickly to meet the new responsibilities. It will also need to collaborate with the navies and coast guards of other Arctic states in monitoring vessel traffic of commercial, economic, and scientific fleets.

Economic Development. Socioeconomic development is the core element of Russia's Arctic policy. Expanding the resource base of the Arctic zone of Russia would do much to fill the nation's needs for hydrocarbon resources, aquatic biological resources, and other strategic raw materials. It would also provide foreign exchange to accelerate domestic development and growth.

Regional development of the Arctic is also an area of interest. The Ministry for Regional Development has prepared a paper on sustainable development in the Arctic for the Arctic Council and is tasked to prepare for review by Russia's security council a regional development plan for the Arctic lands that addresses, finances, and promotes development of the Arctic region of Russia.²⁵ This plan is also to address revision of the state subsidies for activities that support Arctic development.

Transportation and Maritime Policy. In 1987, General Secretary Mikhail Gorbachev broached the possibility of opening the Northern Sea Route to foreign traffic.²⁶ In 1991, this initiative was implemented by new rules governing the NSR. Finally, in the summer of 2009 the German ships MV *Beluga Fraternity* and MV *Beluga Foresight* became the first foreign vessels to transit the length of the Northern Sea Route. They passed from Ulsan, South Korea, to Rotterdam, with a stop at Novy Port near the mouth of the Ob River to off-load heavy cargo. A revised set of rules is anticipated in the near future to govern such traffic.²⁷

The identification of the Arctic as an area of strategic national interest has been incorporated into other national policies and plans. The *Transportation* Strategy to 2030 established objectives of strengthening the NSR and the river network that links the route to the interior.²⁸ It sets a specific goal of building three new "linear" icebreakers that will begin, after 2015, to replace the aging Arktika-class heavy nuclear icebreakers built in the 1970s and now due for retirement.²⁹ It also calls for building conventionally powered breakers to support regional development, river icebreaking, and port maintenance. Transportation Strategy to 2030 also anticipates a focus on developing ports and inland waterways along the NSR in the period from 2015 to 2030.

Russia's maritime policy emphasizes increasing capacity to conduct maritime trade. This can be seen in the Arctic in the introduction of sophisticated icecapable cargo ships and tankers built both in Russia and in foreign shipyards. The dual-acting Norilsk ships are proving their worth in the Kara Sea, while in the summer of 2010 SovComFlot plans to demonstrate the capability of its own dual-acting tankers to move crude oil from the Kara Sea eastward to Japan.³⁰

The relationship between maritime power and economic strength, a staple of American and British global strategies, has been becoming manifest in Russia as well. Reflecting on the increasing globalization and the role of the Russian navy, Fleet Admiral V. I. Kuroyedov, then the service's commander in chief, wrote in 2005,

We understand very well that the 21st century is a century of the World Ocean, and this country should be ready for this if it is going to participate, on a par with other countries, in the competition for access to their resources and international trade routes. Only a modern, advanced fleet, above all its naval component, can ensure Russia's full-fledged participation in the sustained use of natural resources of the seas in the interest of advancing the State's economic development.³¹

AN ARCTIC GEOGRAPHICAL PIVOT: IMPLICATIONS AND **OPPORTUNITIES**

Mackinder's original concept of the "geographical pivot" was of the area of Central Asia through which peoples and armies had, for centuries, moved westward to threaten European civilization. Over time, his concept evolved into the proposition that a powerful heartland could threaten Western interests across the southern rim of Asia and up through Central Europe. Concurrently, Mahan saw in southern Asia a potential battleground between the land power of the heartland and the maritime power of the British Empire and the United States over the resources of the coast of Asia.

Now, things have changed. Russia has lost its territories to the south and the independent nations along the southern rim of Asia are able to defend their own interests. Any latent imperial designs on reaching the Indian Ocean or Persian Gulf by force appear forgotten. In the twenty-first century, an accessible Arctic

will lead Russia to turn northward, not just to exploit Arctic resources but to connect its Asian interior to the rest of the world through maritime trade.

The old geostrategy of enclosure and containment of Russia is gone for good. In a new geopolitical vision for the twenty-first century, Russia takes a role not as a renewed heartland but as a maritime state that draws its strength from its Arctic coast and watershed. Even if the Arctic ice melt were to stall, advances in technology for Arctic shipping and resource development, combined with the economic return for development of the energy resources, would ensure that Russia increased its connections and commerce with the rest of the world. By midcentury, the Northern Sea Route is likely to be a regular shipping route, beginning with seasonal service based on ice-class vessels and expanding as climate and ice conditions allow. As the Arctic becomes more accessible, the northern coast of Eurasia may take the place of Mackinder's pivot, as both a route of passage and an area of exploitable resources.

This "geographical pivot" of the twenty-first century will not be without conflict, but with commitment to international law and respect for the rights of the coastal and distant states, the conflicts can be political rather than military. Unlike the "Great Game" of Asian geopolitics of the nineteenth century and the heartland-versus-rimland contest of the twentieth, the groundwork has been laid through the Law of the Sea Convention and the Ilulissat Declaration to assure peaceful development of the Arctic sea routes and recognize coastal-state rights to manage, develop, and protect the living and mineral resources in and under the Arctic coastal seas.

Several sovereignty issues have yet to be resolved: Russia and Norway have complex boundary and resource access issues to resolve, the United States may challenge some of Russia's claims of internal waters along the NSR, and the Commission on the Limits of the Continental Shelf has yet to decide whether to recommend recognition of Russia's expansive claim to much of the seabed on the Asian side of the Arctic. These are legal and diplomatic matters that, while important, do not touch on the security of the state or outweigh the overall benefits of maintaining peace and stability in the Arctic. As such, they are unlikely to lead to more than demonstrations of interest through ship patrols and occasional harassment or detention of accused violators of jurisdiction claimed by Russia.

As a maritime state with interests in sustaining freedom of navigation on a global stage and in maintaining safety and security in its offshore waters, Russia in the twenty-first century will increasingly share interests long held by the United States and other ocean powers. Russia's interests in its Arctic will foster a maritime policy that embraces coastal resource management and freedom of international navigation, though likely with a greater emphasis on offshore sovereignty and less on distant-water power projection. Strategic security policy will be a continuation of past and current policy, the U.S.-Russian maritime boundary is already resolved de facto (pending official approval of the boundary treaty by the Russian Duma), and current and potential territorial disputes between Russia and U.S. allies Norway, Denmark, and Canada are likely to be resolved through peaceful means. The United States and Russia also have an agreement that maritime-boundary and navigation disputes will be resolved diplomatically rather than by resort to arms.³² The conflicts that do arise will be focused on matters of commercial navigation, boundary delimitation, fisheries management, energy development, environmental protection, and ocean science, all the subjects of international diplomacy and regulatory enforcement rather than warfare.

Russia, with its newly accessible Arctic waters, will need to focus on developing the regulatory and enforcement capabilities to manage activities in an area that more than doubles the area of responsibility of the Coastal Border Guard. Its maritime security interests will focus on security (including customs, smuggling, and terrorism), management and protection of its offshore fishery and mineral resources, and the maintenance and safe operation of the Northern Sea Route, both for its own fleets and for foreign commercial transit.

The West, including the United States, can gain from the evolution of Russia's Arctic from an isolated heartland of limited economic activity—a "black hole," in the words of Zbigniew Brzezinski—to a maritime region trading in raw materials, agriculture, and industrial goods. The U.S. Arctic Policy, issued as a national security directive in early 2009, explicitly addressed military issues that Russia left out of its Arctic policy framework.³³ But the rest of the Arctic interests of the United States find counterparts in Russia's policy objectives. Strategic defense issues aside, Russia's objective of establishing the Arctic as a "zone of peace and cooperation" is equally applicable to the United States and its allies.

Mutual gain is the goal of U.S. and Russian policy that seeks to "reset" U.S.-Russian relations. Arctic cooperation consistent with the Global Maritime Partnership initiative and capabilities and priorities found in the 2007 "Cooperative Strategy for 21st Century Seapower" can promote the peaceful use of the Arctic while building familiarity among maritime users of the Arctic and demonstrating the potential to cooperate in an area of increasing geopolitical importance.³⁴ The mechanisms toward this goal will be diplomatic engagement, information sharing, business promotion, and cooperation between the Coastal Border Guard and the coast guards and navies of the other Arctic coastal states.

A regional application of the Global Maritime Partnership initiative, extended to include Arctic science, Arctic domain awareness, and ocean resource management, could support beneficial maritime collaborations to enhance the likelihood that the Arctic geographical pivot will be an area of peaceful collaboration rather than simply a shifting of conflict from the south and west of Eurasia to its north. Elements of such a partnership include

- Reinforcement of the rule of law: Russia and the United States need to take the lead in strengthening the rule of law in the Arctic. Russia should finally ratify the maritime boundary agreement with the United States, and the United States should accede to the UN Convention on the Law of the Sea. A firm commitment to a common understanding of the Law of the Sea Convention will help Arctic states to resolve issues among themselves and to implement policies and regulations governing Arctic use that will be accepted by nonarctic states seeking to transit the Arctic, exploit its resources, and conduct marine scientific research.
- Military cooperation and emergency response: Regional application of the Global Maritime Partnership initiative can improve the capability of all Arctic states to respond to natural disasters and man-made crises. Increased activity in the Arctic need not require each Arctic state to maintain a full spectrum of ships, aircraft, satellites, and observation stations or emergency supplies. Shared awareness of assets and practice in combined operations would benefit all users of the Arctic in providing combined aid and assistance.
- Maritime safety and security: The Arctic states, with Russia and the United States in the lead, should be prepared to provide response to maritime emergencies, from search and rescue to response to major disasters at sea, such as oil spills. Leadership by the Arctic states in the International Maritime Organization can help avoid different, perhaps conflicting, national design specifications and operating regulations for transarctic shipping, and collaboration on regional fisheries management can lead to sustainable fisheries rather than overexploitation.
- Arctic domain awareness: Maritime security, resource management, and marine environmental protection will all depend on accurate and up-todate information regarding human activities and ocean, ice, and climate data. Joint observation, identification, and tracking of ships and aircraft, particularly those of nonarctic states, will be needed to maximize the effectiveness of the limited assets available in the Arctic. While military security will limit access to some information, particularly regarding military submarines, shared knowledge and expertise will be the framework upon which most collaborative work will be undertaken and upon which collective decisions will be made.

- Arctic science: Conduct of Arctic research by all interested parties and sharing of results could be promoted. Successful multilateral polar science programs could be fostered and given access to nonsecurity, noncommercial data from national sources.
- Arctic policy of regional and transiting states: Distant parties have interests and rights in Arctic waters, and indigenous people have their own interests in maintaining and developing their cultures, both through traditional activities and through trade and economic development made possible by a warming Arctic. These parties must be involved in all Arctic management activities that touch their substantive interests, not just in the Arctic Council but in other organizations and agreements that address Arctic issues.

The opening of the Arctic in the twenty-first century will give Russia the opportunity to develop and grow as a maritime power, first in the Arctic and eventually wherever its merchant fleet carries Russian goods and returns with foreign products. This transformation of the threatening "heartland" of Mackinder and Spykman into a member of the maritime powers will require extensive effort to bring the new maritime Russia into the collaborations and partnerships of other oceangoing states. Commitment to the rule of law, shared Arctic domain awareness, joint security and safety operations, and collaboration in developing policies for the future can maintain the Arctic as a region of peace even while the coastal states maintain naval and law enforcement capabilities in the region.

The best course is to address Russia's evolving maritime role with an Arctic regional maritime partnership based on the model of the Global Maritime Partnership initiative, expanded to address civilian interests in climate, resources, science, and conservation. The American objective should be to work collaboratively to resolve disputes over continental shelf and fishery claims, negotiate a regional high-seas fisheries management plan, develop a regional Arctic maritime transportation plan, and coordinate security and safety policies on the ocean and ice surface and in the air, in line with the U.S. Arctic Policy and the sea services' "Cooperative Strategy for 21st Century Seapower."

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© 2010 by Caitlyn Antrim Naval War College Review, Summer 2010, Vol. 63, No. 3