

ON THIN ICE: WATER RIGHTS AND RESOURCE DISPUTES IN THE ARCTIC OCEAN

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In August 2007, a Russian submarine surprised the world by planting the country's flag on the Arctic seabed, almost 14,000 feet below the North Pole. The titanium tricolor was the culmination of a scientific mission to demonstrate Russia's claim to a vast, potentially resource-rich region along its northern coast. Recent geological surveys suggest the Arctic may hold up to a quarter of the world's remaining oil and gas reserves. Predictably, other circumpolar powers criticized the Russian voyage. "This isn't the 15th century," said Canadian foreign minister Peter MacKay. "You can't go around the world and just plant flags and say 'We're claiming this territory.'"¹

Over the past few years, several factors have converged to make the Arctic a new front for global tensions. First, the sustained increase in energy prices has changed the economics of surveying and mining hostile climates, making the Arctic ever more attractive as hydrocarbon reserves continue to dwindle.² Second, rapidly shrinking ice cover has made these untapped resources more accessible and opened up lucrative shipping lanes previously blocked by ice. Over the past twenty years, an area the size of one-third of the continental United States has disappeared from the Arctic ice cover due to climate change, reducing the costs and risks of access.³ In 2007, the long-sought Northwest Passage, which could potentially cut a journey from Europe to Asia by 2,500 miles, opened to commercial shipping for the first time. The passage remains a point of contention between the United States, which considers it international waters, and Canada, which considers it to be under Canadian sovereignty.

Adding to the convergence of high energy prices and melting ice is a third factor, the weakness of international law governing the region. No country currently owns the North Pole or the Arctic region around it. Unlike its Antarctic counterpart, the Arctic is not a continent; it is an ocean of drifting and increasingly thin chunks of ice that shrink and expand with the seasons, and that until recently were considered too barren and remote to be worth claiming. According to the rules established by the 1982 United Nations Convention on the Law of the Sea (UNCLOS), countries

have exclusive economic rights to a 230-mile zone around their coastline.⁴ At issue today is a roughly circular territory around the extreme north that extends beyond this perimeter. In 2001, Russia claimed 460,800 square miles of this territory, an area about the size of Western Europe. By law, states that have ratified UNCLOS can petition a special UN commission, the Commission on the Limits of the Continental Shelf (CLCS), to extend their economic zone—but only if they can demonstrate that the area in question is connected to their own continental shelf. Russia's delegation argued that its continental shelf is connected to the North Pole via the 1,100-mile Lomonosov Ridge, which bisects the Arctic Ocean, stretching between Siberia and Canada's Ellesmere Island.⁵ The CLCS has so far neither approved nor rejected the claim, asking the delegation to come back with more evidence—which they are expected to do in the wake of the *Arktika-2007* expedition, as the flag-planting mission was called.⁶

A problem with this process is that upon ratifying UNCLOS, countries have ten years to launch a petition. Four of the five circumpolar countries have ratified the convention within the past decade, with the fifth—the United States—poised to join this year. Russia's 2009 deadline means it must intensify the pressure for territorial claims, while other circumpolar powers have little choice but to respond with counter-claims and escalations of their own. Russia's last mission created a surge of expeditions and denunciations from other circumpolar states, with Denmark and Canada pursuing their own claims to the Lomonosov Ridge and thus the North Pole. In short, the deadline has “sparked just the kind of the disorderly rush to put down markers that the treaty's drafters had once hoped to head off.”⁷

Nor does the law provide for effective dispute resolution. The CLCS only has a mandate to review the evidence and make recommendations, not enforce decisions. Claims are subject to counter-claims by other states, with the whole process liable to degenerate into lengthy bilateral negotiations. The weakness of Arctic international law during a crucial time in the region's development threatens to create “a cacophony of arguments that could keep lawyers and geographers busy for decades.”⁸

Unlike geopolitical rivalries of the past, where possession enforceable by force usually amounted to nine-tenths of the law, competition over the Arctic has so far been set up to emphasize legal claims backed up by verifiable scientific data. If Russia's flag-planting marks a potential return to the *realpolitik* of yesteryear, then conflict over the Arctic offers an important test case for international law and global conflict management. The future of Arctic sovereignty could therefore provide some important lessons for drafting durable international treaties and managing resource disputes in the modern age.

This essay examines the status of Arctic international law, and offers policy suggestions for building a peaceful and durable legal regime in the region. First, this

essay will quickly examine the history and resources of the region and the competing claims made by the five circumpolar powers—Canada, Denmark (via Greenland), Russia, Norway and the United States.

ARCTIC GEOGRAPHY AND RESOURCES

Interest in the Arctic region began with the ancient Greeks, but the conquest of the North Pole became, according to Robert Peary, “the last great geographical prize the world has to offer adventurous men.”⁹ Peary’s 1909 expedition ended several decades of failed British, American and Norwegian attempts. A number of North Pole firsts followed shortly thereafter, including the first airship observation and undisputed sighting by Roald Amundsen and his American sponsor in 1926, and the first submarine surfacing, by a U.S. boat, in 1958.¹⁰

Although enthusiastic hobbyists still set records by swimming or walking the Arctic, today’s exploration is mainly scientific, meteorological and what might be called proto-industrial (the latter consisting of tentative but optimistic oil company surveys). Last year marked the beginning of the International Polar Year (actually a two-year project that will run until March 2009), a major scientific consortium involving over sixty countries and more than 200 research projects.¹¹ This year, a Russian expedition will drift for eight months on an ice floe, and a team of French and German scientists will travel by airship to provide the most detailed profile of the sea ice yet. Ice buoys, probes, robot vehicles and sensors will all help contribute to mapping the ocean floors, analyzing ocean currents and fish populations and searching for signs of natural resources. Scientists will also be looking at the impact of climate change on the 160,000 indigenous Inuit people that inhabit the region.¹²

In short, in a few years we will know more about the Arctic than ever before. Yet two facts have already emerged: Arctic ice is melting faster than anyone expected, and its seabed may contain the world’s last great reserve of metals and hydrocarbons. The Arctic contains proven reserves of oil and gas, tin, manganese, gold, nickel, lead, platinum, diamonds and fish. Estimates of hydrocarbons—considered by the far the most important resource—vary but generally suggest a large number. One study argues that Arctic hydrocarbons already discovered amount to 233 billion barrels of oil equivalent (BOE) and 166 BOE yet to be found.¹³ The Norwegian company Statoil suggests that the region contains a quarter of the world’s hydrocarbon reserves, a figure that’s expected to be verified later this year, when the American Geological Survey announces the results of its extensive study of the Arctic.¹⁴

Scientific research has also revealed the staggering pace of climate change in the Arctic. Only last year two scientists surprised their colleagues by projecting the total disappearance of summer ice by 2040.¹⁵ But in early 2008, new NASA satellite data has led its researchers to predict an ice-free summer Arctic in less than five years,

warning that the process may have reached a critical “tipping point.”¹⁶ Last year shattered several meteorological records for Arctic melt. A record amount of surface ice was lost over Greenland, 15 percent more than the previous worst year, 2005, and nearly quadruple the amount that melted fifteen years ago. The surface area of Arctic summer ice shrunk 23 percent below the previous minimum record. The changes have already produced tangible effect on wildlife and shipping lanes, and two firsts in recorded history: 6,000 walrus coming ashore in northwest Alaska, and the Northwest Passage opening to navigation. Meanwhile, surface temperatures in the Arctic Ocean during the summer were the highest in seventy-seven years of record-keeping.¹⁷

The Arctic is now unfrozen in both nature and law. The next few years will be a critical time in the region, as melting ice exposes more untapped resources and shipping lanes, further raising the stakes for circumpolar states. Climate change and the search for energy have already intensified rivalries in a region that lacks a solid legal framework. Yet, the Arctic also has a history of territorial disputes that continues to shape its development today.

SOVEREIGNTY DISPUTES IN THE ARCTIC

In 1909, Canada became the first country to make a legal claim to the extreme Arctic, from its Arctic Sea shore to the North Pole via a sector claim.¹⁸ In 1924, the United States claimed the North Pole was an underwater continuation of Alaska. Two years later, the newly-formed Soviet Union claimed the waters north of its coast, from the Kola Peninsula to the Bering Strait, extending up the North Pole (thus overlapping with Russia’s current Lomonosov claims). At the time, the other circumpolar states did not dispute this claim. None of these sector claims were seriously pursued, although the Soviet Union continued to maintain a presence in the region.¹⁹

The Arctic acquired a new strategic importance during the Cold War. The Great Circle Route provided the shortest direct path between North America and the Soviet Union, acting as a superpower corridor for long-range bombers and submarines. The Denmark Strait and the Norwegian Sea, outlets for open ocean vessels of the Soviet Northern Fleet, were both NATO frontlines.²⁰ Today, the Arctic continues to offer some advantages to submarine deployment—the ambient noise generated by the ice reduces the effectiveness of acoustic listening devices like sonar, while the ice shelf prevents visual and thermal monitoring. Both advantages will disappear with the thinning ice cover.²¹

While Russia’s flag-planting in the Arctic may evoke fears of a new Cold War, two factors complicate this scenario. First, the end of the Cold War brought about a fragmentation of territorial legitimacy all over the world. Freed from the shackles of bipolar unity, Canada, Denmark, Norway and the United States increasingly began to quarrel about Arctic claims. For example, Canada and the United States disagree

over the Northwest Passage and a slice of water in the Beaufort Sea; Denmark and Canada dispute ownership of Hans Island, a barren rock in a strait near Greenland.²²

Second, today's global economy does not work well with politically rigid alliances. Norway, for instance, has not joined the other circumpolar countries in condemning the Russian expedition due to the two countries' ongoing economic cooperation over hydrocarbon extraction in the extreme North. Since 2002, the two states have signed a number of declarations that outline Norway's role as Russia's strategic partner in hydrocarbon development.²³ Norwegian companies Statoil and Norsk Hydro have decades of experience drilling for oil in the region, and Norwegian expertise is likely to be critical to Russia's development of offshore development projects.

The fragmentation of political and economic interests in the Arctic may prove beneficial to crafting a durable Arctic regime by acting as a system of checks and balances on state interests. The Russian Federation, wary as always of Western collusion, is especially likely to see such a regime as more credible. At the same time, the Arctic presents new and unique challenges to international law. During the Cold War, strategic rivalry between the superpowers meant that few multinational or even bilateral efforts were possible. This situation changed drastically with a 1987 initiative by Mikhail Gorbachev that welcomed extensive cooperation with Western states and led to the establishment of several scientific and environmental bodies.²⁴

Nevertheless, scientific and environmental organizations play only a marginal role in Arctic sovereignty disputes and the only international body likely to play a major role in the evolution of Arctic sovereignty is the aforementioned UN Commission on the Limits of the Continental Shelf, which was created as part of UNCLOS. The 1982 Law of the Sea Convention is generally considered to be one of the most important pieces of international law. It establishes a legal framework for regulating the uses and resources of all ocean space. According to the convention, states have rights to a 230-mile exclusive economic zone (EEZ) in which they can exploit all natural resources including subsoil hydrocarbons. The commission consists of twenty-one people who, according to the convention, "shall be experts in the field of geology, geophysics or hydrography, elected by States Parties to this Convention from among their nationals, having due regard to the need to ensure equitable geographical representation."²⁵ Of the current members, Russia and Norway are the only Arctic countries represented, with one member each.²⁶

Russia has historically been the dominant power around the North Pole, at least in terms of physical presence. It governs over half of the Arctic territories and nearly half of its inhabitants. Russia's extractable offshore hydrocarbon reserves are approximately 100 billion tons, of which 80 percent are in the Arctic.²⁷ Then-president Vladimir Putin talked about the urgent need for Russia to secure its "strategic,

economic, scientific, and defense interests” in the Arctic.²⁸ The Russian Ministry of Natural Resources has stated that the Russian region of the Arctic contains about 80 billion tons of hydrocarbons. If the Lomonosov Ridge claim is successful, its share will increase by at least 10 billion tons.²⁹

Given Russia’s historic interests and presence in the Arctic, it will be virtually impossible to resolve any pending disputes without Russian support. So far the signs have not been encouraging. In response to Russia’s flag-planting, on 12 August 2007, the Danish government launched their own expedition to gather evidence that the Lomonosov Ridge is an extension of Greenland rather than Russia. “The preliminary investigations done so far are very promising,” said the country’s science minister. “There are things suggesting that Denmark could be given the North Pole.”³⁰

The Canadian response was even more vigorous. Prime Minister Stephen Harper, who has often used Canada’s Arctic sovereignty as a campaign issue, toured the northern regions days after the flag-planting. Declaring that the “first principle of Arctic sovereignty [is] use it or lose it,” Harper announced the construction of a new deep-water port on Baffin Island and a military training base for one hundred troops at a northern extreme named Resolute Bay.³¹ Canada is also planning to spend \$7 billion on eight new Arctic patrol vessels. On 7 August, the government launched a “sovereignty operation” codenamed Operation Nanook, sending two surface ships, a submarine and 700 personnel into military maneuvers along the Canadian Arctic.³² Canada has argued that the Lomonosov Ridge could actually be an extension of its own Ellesmere Island.³³

The American reaction was a mixture of skepticism and concern. “I’m not sure of whether they’ve put a metal flag, a rubber flag or a bed sheet on the ocean floor. Either way, it doesn’t have any legal standing or effect on this claim,” State Department Deputy Spokesman Tom Casey told reporters.³⁴ Days after the Russian flag-planting, the United States launched its own Arctic expedition when the Coast Guard sent an icebreaker into the Bering Sea. According to the government, the icebreaker’s mission was to study global warming in the region. This ship, one of four operational icebreakers in the U.S. fleet, is the only one that can routinely complete its missions. The U.S. Senate is considering spending \$100 million to build two new polar icebreakers and update three aging ones.³⁵

The United States is in a difficult position to negotiate Arctic claims, since the U.S. Congress has yet to ratify UNCLOS, which was negotiated but not signed by the Reagan administration in 1982. A vocal minority of Republican legislators has opposed the convention on the grounds that it gives too much power to unaccountable international organizations. With Russia, however, pressing new claims upon the commission, and the United States unable to file its own territorial claims or counter-claim other petitions, even isolationist conservatives have begun to favor

ratification.³⁶ The U.S. administration has been pushing congress to pass legislation ratifying the convention before the end of 2008. The U.S. State Department recently claimed that if the United States ratified the law, it could claim sovereignty over 600 miles of seabed off the Alaskan coast and “exert diplomatic influence” on the commission.³⁷ On 15 May 2007, President George W. Bush asked the U.S. Senate to ratify the convention. The next day, Senator Richard Luger, the ranking Republican on the U.S. Senate Committee on Foreign Relations, echoed Bush, saying:

Russia has used its rights under the convention to claim large parts of the Arctic Ocean in the hope of claiming potential oil and gas deposits that might become available as the polar ice cap recedes due to global warming. If the United States did not ratify the convention, Russia would be able to press its claims without the United States at the negotiating table. This would be directly damaging to U.S. national interests.³⁸

The evolution of American foreign policy toward UNCLOS might be viewed as a triumph of international law, a case where even stalwart isolationists come to see the benefits of resolving geopolitical claims on the basis of a legalistic multinational framework rather than costly bilateral squabbles lacking in global legitimacy. Perhaps they reason that “international bureaucrats are a better bet than the Kremlin’s crony capitalists when it comes to getting a fair slice of the polar action.”³⁹ Yet here it may be the weakness of the law itself that has drawn U.S. support. Washington hopes to use membership because it knows decisions are non-binding, and hopes to use its presence as a leverage of influence, not for the sake of cooperation itself. At the same time, even international institutions that lack strong enforcement mechanisms can promote cooperation by reducing transaction and information costs for member states. Given this state of affairs, how might international law in the Arctic be shaped to reconcile competing claims and build a regime of cooperation in the region?

BUILDING AN ARCTIC REGIME

Several obstacles face the creation of a durable Arctic regime. Few legal precedents exist, although one useful example is the 1959 Antarctic Treaty, which will be examined below. Most importantly however, international law is bound to remain weak for the foreseeable future, since the stakes are too high for any of the powers involved (especially Russia and the United States) to yield too much sovereignty to an outside body.

However, an international legal regime in the Arctic can be created even without an external enforcement agent. A proposed Arctic treaty that creates a forum for communication and negotiation could smooth the path to resolving Arctic disputes. The Far

Arctic, unlike Hans Island or the Northwest Passage, is not an indivisible territory with long-standing claims, which makes successful resolution more likely.⁴⁰ The successful resolution of disputes will depend on the institutional and legal framework within which states can work out their differences. In what follows, this analysis offers several proposals for an Arctic treaty, the first step in creating an international legal regime specifically for the Arctic region.

An Arctic treaty could create a body composed of members from countries that signed and ratified it. A multilateral body open solely to circumpolar states would provide a more manageable forum for addressing Arctic concerns than the 192-member United Nations.⁴¹ The body could meet regularly to exchange information and negotiate outstanding claims in an open discussion. Such institutions reduce information and transaction costs, making cooperation more likely even without enforcement powers.⁴²

In addition, the treaty should emphasize common concerns and economic cooperation. Few countries are equipped to engage the Arctic alone. Despite the general aura of pride and paranoia on Russian television, even the flag-planting was an international affair, with a participating Swede and Australian who paid \$3 million each for their tickets.⁴³ Even the coveted prize of natural resources relies on a global network of trade and industrial cooperation, as Norway's involvement with the Russian oil industry demonstrates.

An Arctic treaty could foster the common interests of scientific research and environmental cooperation by providing for freedom of scientific investigation and cooperation among scientists of all nations, including provisions for scientist exchanges and joint expeditions. The window for such cooperation is rapidly shrinking as countries build up their sovereignty in the Arctic. Today, governments and scientists cooperate simply because they often lack the resources to do it alone. The expedition Denmark sent in the wake of Russia's flag-planting employed a Swedish icebreaker, and was led by an even larger Russian one, the "50 Years of Victory." The Canadians may have to draw on Russian help to visit the North Pole as well, since even their newly commissioned ships are smaller than Russia's mammoth icebreakers.⁴⁴

New icebreakers and research stations mean that countries will rely less on each other to achieve their aims in the future. An international body that formalizes joint scientific ventures—which do little to undermine state sovereignty and could thus be seen as less threatening—would help maintain a spirit of cooperation in the Arctic.

The question of territorial claims is the thorniest problem facing Arctic states. The 1959 Antarctic Treaty addressed the problem through carefully worded language: Nothing in the Treaty "shall be interpreted as a renunciation...of previously asserted rights of or claims to territorial sovereignty in Antarctica." At the same time, no new claim, or enlargement of an old claim, can be asserted while the Treaty is in force. In

other words, no signatory would either recognize new claims or deny the existing territorial claims of others.⁴⁵

Such a resolution is unlikely in the Arctic case, since new claims need to be made after the treaty is signed. Instead, a useful provision of the Arctic treaty might be to create a working group composed of member states devoted solely to negotiating territorial claims in the Arctic. This body would work in parallel with the CLCS, allowing claims to be discussed before they are presented in open forum to the UN-affiliated body. To reassure states that their claims will not be threatened by joining, one article of the treaty should explicitly state that entering the group does not equate to renouncing or freezing existing claims, or validating the pending claims of others.

Another article of the treaty might set a deadline for dissolving the working group or amending its procedures if no progress can be made. The Antarctic Treaty, for example, set a deadline of fifty years after any of its members could propose to scrap or alter its procedures, but the timeline is likely to be much shorter in the Arctic case.

Finally, an Arctic treaty could consider mandating a demilitarization of the region to emphasize the spirit of economic cooperation and scientific investigation. Exceptions could be made for military personnel protecting scientists and engineers. This aspect of the treaty would be least likely to be adopted, since it conflicts with the interest of national sovereignty. Yet an Arctic demilitarization, like the one undertaken in the Antarctic, would alleviate tensions surrounding the geopolitics in the region. One way to make this provision more palatable would be by starting with a nuclear test ban, followed by a total nuclear ban, gradually building up institutional inertia towards the banning of conventional weapons in the future.

Scientists who study global warming have always viewed the Arctic as an ecological "canary in a coalmine" because of its sensitivity to climate shocks. Weather changes in the Arctic portend bigger changes to come. Now this situation risks becoming true on the political front as well. Arctic tensions may be a harbinger of an increasingly common type of future conflicts that revolve around dwindling resources and the consequences of environmental degradation. But the situation is not altogether hopeless if international law is carefully drafted to reflect the competing claims of circumpolar states while maximizing the chances for future cooperation. Doing so will require patience and luck, but also the firm background of shared interests in scientific collaboration and hydrocarbon trade. ♣

NOTES

¹ "Russia Plants Flag Under N Pole," BBC News, 2 August 2007, <http://news.bbc.co.uk/2/hi/europe/6927395.stm>.

² For example, Russia currently has the world's largest gas reserves and is the second-largest exporter of oil (after Saudi Arabia), but its resource fortunes are fading in the medium run. Oil and gas production is expected to decline after 2010, and Russia's natural resources ministry estimates that national oil

reserves will be depleted by 2030. U.S. oil reserves are expected to last another decade, Norway's another seven and the British North Sea reserves another five, according to the 2005 BP World Energy Survey.

3 "Arctic Summer Ice Anomaly Shocks Scientists," European Space Agency Portal (19 September 2006), http://www.esa.int/esaCP/SEM7ZF8LURE_index_0.html

4 The text of the convention can be found in the *United Nations Convention on the Law of the Sea*, http://www.un.org/Depts/los/convention_agreements/texts/unclos/closindx.htm.

5 "Cold Wars: Russia Claims Arctic Land," *Geotimes: Earth, Energy, and Environment News* (1 August 2007), <http://www.geotimes.org/aug07/article.html?id=WebExtra080107.html>.

6 *Ibid.* The Russian Minister of Natural Resources Yuri Trutnev said in October 2007, "we believe that the research results of the Arktika-2007 expedition are sufficient for a bid to include the Lomonosov Ridge in Russia's economic zone." See Duncan E.J. Currie, "Sovereignty and Conflict in the Arctic Due to Climate Change: Climate Change and the Legal Status of the Arctic Ocean," (5 August 2007), 5, <http://www.globelaw.com>.

7 David R. Sands, "Sea Treaty Sparks Rivalries; Senate Fight Looms Amid Race to North Pole," *Washington Times*, 12 November 2007.

8 "Drawing Lines in Melting Ice; The Arctic," *Economist* (18 August 2007).

9 "Says Pole Will Be Found; Lieut. Peary Lectures Before National Geographic Society; In His Address at Washington He Pleads for America's Grasping of the Arctic Prize," *New York Times*, 30 November 1902.

10 For a general overview, see Mark Nuttall and Terry V. Callaghan, eds., *The Arctic: Environment, People, Policy* (Amsterdam: Harwood Academic Publishers, 2000); a more theoretical approach is E.C.H. Keskitalo, *Negotiating the Arctic: The Construction of an International Region* (New York: Routledge, 2004).

11 Alun Anderson, "The Great Melt," *Economist World in 2008*. http://www.economist.com/the-world-in-science/displayStory.cfm?story_id=10105011&d=2008.

12 *Ibid.*

13 Russia, which has passed Saudi Arabia as the largest world oil producer in BOE terms, produces 13.3 million BOE per day. John Helmer, "Russian Energy Model Challenges OPEC," *Asia Times*, 18 July 2006, http://www.atimes.com/atimes/Central_Asia/HG18Ag01.html

14 For data on Arctic resource potential, see Shamil M. Yenikeyeff and Timothy F. Krysiak, "The Battle for the Next Energy Frontier: The Russian Polar Expedition and the Future of Arctic Hydrocarbons," *Oxford Energy Comment*, (August 2007), 1-4.

15 Seth Borenstein, "Ominous Arctic Melt Worries Experts," Associated Press, 12 December 2007.

16 http://www.nasa.gov/topics/earth/tipping_points.html.

17 Borenstein.

18 A sector claim is a pie-shaped wedge of water stretching from the longitude of the national boundaries to the North Pole.

19 While permanent stations cannot be maintained in the Arctic due to the shifting ice, the Soviet Union and later Russia constructed a number of manned drifting stations.

20 Lincoln P. Bloomfield, "The Arctic: Last Unmanaged Frontier," *Foreign Affairs* (Fall 1981); Oran R. Young, "The Age of the Arctic," *Foreign Policy* 61 (Winter 1985-6).

21 Arctic skies are also filled with natural phenomena like aurora borealis and electromagnetic storms that can jam communications and defense systems. These disturbances can also interfere with cruise missiles guidance systems and submarine communications.

22 "Arctic Sovereignty: Drawing a Line in the Water," CBC News, 2 August 2007, <http://www.cbc.ca/news/background/cdnmilitary/arctic.html>.

23 Yenikeyeff and Krysiak (2007), 6.

24 The International Arctic Science Committee, an NGO devoted to developing cooperative science projects with a circumpolar relevance, was founded in 1990. The Arctic Environmental Protection Strategy, an intergovernmental initiative for protecting the Arctic environment, was founded the following year, and later subsumed into the Arctic Council. The council, created in 1996, is the only inter-governmental body with powers in the region, but its mandate is narrowly environmental. On scientific and environmental

Arctic NGOs and international organizations, see Olav Schram Stokke and Geir Honneland, eds., *International Cooperation and Arctic Governance: Regime Effectiveness and Northern Region Building* (London and New York, Routledge: 2007), 3. On Gorbachev's 1987 "Murmansk Initiative" see Daniel Snowman, *Pole Positions* (United Kingdom: Hodder and Stoughton, 1993), 172.

²⁵ Much of the information about the Commission can be found on its website at www.un.org/Depts/los/clcs_new/clcs_home.htm.

²⁶ In June 2007, the UN Commission on the Limits of the Continental Shelf warned that it badly needed money and technical aid to manage its workload. In a UN news release, commission chairman Peter Crocker warned that states might have to wait until 2035 to have their submissions processed. If so, Russia, the United States and others will have little choice but to proceed in asserting and consolidating their claims through other means.

²⁷ Yenikayeff and Krysiak (2007).

²⁸ "Putin Vows to Develop Arctic Transport for Energy, Strategy," *RIA Novosti*, 2 May 2007.

²⁹ Yenikayeff and Krysiak (2007).

³⁰ Ewen MacAskill, "Canada Uses Military Might to Arctic Scramble," *Guardian*, 11 August 2007.

³¹ "Drawing Lines in Melting Ice."

³² Yenikayeff and Krysiak (2007).

³³ "Drawing Lines in Melting Ice."

³⁴ "Russia's Flag on the Ocean Floor Has No Legal Standing, Casey Said," *Kommersant* (3 August 2007).

³⁵ Yenikayeff and Krysiak (2007), 4-5.

³⁶ Benjamin Friedman and Daniel Friedman, "How the Law of the Sea Convention Benefits the United States," Global Security Institute (20 November 2004), http://www.gsainstitute.org/docs/11-20-04_UNCLOS.pdf.

³⁷ Ibid.

³⁸ Vladimir Frolov, "The Coming Conflict in the Arctic," *RussiaProfile* (17 July 2007). On 31 October 2007, the Senate Foreign Relations Committee voted seventeen to four to send the ratification vote to the full Senate; as of March 2008, the Senate has yet to ratify the law.

³⁹ "Gold Rush Under the Ice," *Economist* (3 August 2007).

⁴⁰ On indivisible issues as one of the chief causes of conflict, see James D. Fearon, "Rationalist Explanations for War," *International Organization* 49, no. 3 (Summer 1995), 379-414.

⁴¹ Potential members would include Canada, Denmark, Finland, Iceland, Norway, Sweden, Russia and the United States.

⁴² For theories and examples of how such institutions foster cooperation without central enforcement, see Lisa L. Martin and Beth A. Simmons, *International Institutions: An International Organization Reader* (Cambridge, Mass.: MIT Press, 2001).

⁴³ "Drawing Lines in Melting Ice," *Economist* (16 August 2007).

⁴⁴ Ibid.

⁴⁵ Information on the Antarctic Treaty is available online at <http://www.ats.aq/>. See also Sanjay Chaturvedi, *The Polar Regions: A Political Geography* (Chichester, U.K.: John Wiley & Sons, 1996), 105-42.