

Arctic Region

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A. Overview

- 1 The Arctic is variously defined as the area to the north of the tree-line, north of the 10° isotherm in July, or north of the Arctic Circle (66.5° latitude). In addition to territories belonging to the five Arctic Ocean coastal States—Canada, Denmark (→ *Greenland*), Norway, Russia and the United States—parts of Sweden and Finland lie north of the Arctic Circle, as do parts of Iceland's → *continental shelf*.
- 2 Unlike the → *Antarctica*, a continent surrounded by oceans, the Arctic is an ocean surrounded by continents. For this reason, it is governed in large part by the → *law of the sea*, a body of unwritten but nevertheless binding rules of → *customary international law* which were codified into the 1982 United Nations Convention on the Law of the Sea.
- 3 With the exception of Hans Island, a tiny 1.3 km² islet between Greenland and Canada's Ellesmere Island, there are no disputes over territory in the Arctic. However, there are several existing or potential disputes over maritime boundaries and possible international straits (→ *Straits, International*) that will likely become more important due to environmental changes, rising prices for natural resources and new security concerns.
- 4 Climate change is more apparent in the Arctic than anywhere else on earth. In addition to rising temperatures caused by greenhouse gas emissions, change is being driven by 'feedback loops' arising out of the precarious balance between water and ice. An increase in average annual temperature of just a fraction of one degree can transform a large expanse of highly reflective sea-ice into dark, heat-absorbing open water. In 2004, the Arctic Climate Impact Assessment reported that the average extent of sea-ice cover in summer had declined by 15–20% over the previous 30 years. The rate of ice-melt has accelerated since then, with a loss of one million km² in 2007 alone.
- 5 When a complete, late summer melt-out of the sea-ice occurs, Arctic waters will become navigable 12 months a year. This is because a complete melt-out will spell the end of the 'multi-year' ice that, after surviving the summer, becomes thicker and harder as a result of the accretion of new ice and the leaching out of sea-salt during the warming-and-cooling cycle. From that point onward, the Arctic Ocean will resemble the → *Baltic Sea* where ice-strengthened ships and icebreaker-escorted convoys can safely operate in winter.
- 6 Persistent organic pollutants ('POPs') also have a disproportionate effect upon the Arctic. These toxic chemicals are carried north by a process of global distillation involving volatilization at low latitudes and condensation at high latitudes, also known as the 'grasshopper effect'. The Stockholm Convention on Persistent Organic Pollutants ('Stockholm Convention') was adopted in 2001 and has since been ratified by more than three quarters of the world's countries. It requires specific steps to reduce or eliminate the production of these chemicals and to dispose safely of existing stocks (→ *Environment*,

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- International Protection*). In May 2009, the Stockholm Convention was amended to include nine new chemicals, some of which are still widely used and will now be phased out.
- 7 Other Arctic-related environmental instruments include the 1916 Convention between the United Kingdom and the United States of America for the Protection of Migratory Birds in Canada and the US; the 1973 Polar Bear Treaty between Canada, Denmark, Norway, Russia and the US (Agreement on the Conservation of Polar Bears); the 1987 Agreement on the Conservation of the Porcupine Caribou Herd between Canada and the US; and the widely ratified—though not yet by Russia or the US—1991 Espoo Convention on Environmental Impact Assessment in a Transboundary Context. The Polar Bear Treaty requires that its parties take ‘appropriate action to protect the ecosystems of which polar bears are a part’ (Art. 2 Polar Bear Treaty). It prohibits the killing of bears except for scientific or conservation purposes or hunting ‘by local people using traditional methods in the exercise of their traditional rights’ (Art. 3 Polar Bear Treaty). The Espoo Convention requires that its parties conduct environmental impact assessments early in the planning process and notify and consult on projects likely to have a significant adverse impact across boundaries.
 - 8 The Arctic is rich in hydrocarbons, with the US Geological Survey estimating in 2009 that the region contains 83 billion barrels of oil and 44 trillion cubic metres of natural gas (Gautier). Most of the projected reserves are located in waters less than 500 metres deep and will likely fall within the uncontested jurisdiction of one or another Arctic Ocean coastal State.
 - 9 As the ice melts, ships will increasingly be used to transport oil and gas from and through the Arctic. Oil tankers entail particular risks, since Arctic ecosystems are exceedingly fragile, oil degrades and dissipates slowly at cold temperatures, and long distances would render cleanup efforts expensive and time-consuming (→ *Marine Pollution from Ships, Prevention of and Responses to*). Other forms of shipping will be drawn to the Northwest Passage which offers a 7000 km shortcut between East Asia and the Atlantic Seaboard of the US, as compared with the usual route through the → *Panama Canal*. On the Russian side of the Arctic Ocean, the Northern Sea Route is already being used by cargo vessels.
 - 10 The → *International Maritime Organization (IMO)* spent years negotiating an Arctic Code for shipping, but the document was downgraded to a set of guidelines before it was adopted in 2002. The Guidelines for Ships Operating in Arctic Ice-covered Waters (‘IMO Guidelines’) establish seven ‘polar classes’ for vessels—with PC1 applying to the most robust vessels capable of year-round operation in all Arctic ice-covered waters—and include recommendations aimed at the protection of crew and passengers (eg ‘All lifeboats carried by Polar Class ships should be of the fully enclosed type to provide adequate shelter from the environment’ [Art. 11.5.1 IMO Guidelines]) and the marine environment (eg ‘No pollutants should be carried directly against the shell [of a vessel] in areas at significant risk of ice impact’ [Art. G-2.2 IMO Guidelines]).
 - 11 In 2009, the Arctic Council released the Arctic Marine Shipping Assessment Report which highlighted the environmental risks, especially from oil spills, but also from ‘ship strikes on marine mammals, the introduction of alien species, disruption of migratory patterns of marine mammals and anthropogenic noise produced from marine shipping activity’ (at 5; → *Environmental Impact Assessment*; → *Marine Mammals*). The Assessment urged Arctic Council Member States to liaise with international organizations, promote the development and mandatory application of the IMO Guidelines, and harmonize domestic safety regimes.

B. Current International Legal Situation

- 12 Denmark and Canada only learned of their dispute over Hans Island in 1973 when they were delimiting the continental shelf boundary between Greenland and Canada. Instead of delaying the negotiations, they simply drew the boundary line up to the low-water mark on one side of the island and continued it from the low-water mark on the other. In 2005, Canada and Denmark affirmed that the dispute concerned the land only, and not the surrounding seabed or water column, and that they were working cooperatively to reach a solution.
- 13 The → *Spitsbergen/Svalbard* archipelago was recognized as Norwegian territory in the 1920 Treaty concerning the Archipelago of Spitsbergen ('Spitsbergen Treaty'), subject to the right of the other parties to engage in commercial activities there. In 1930, the Norwegian Government sought to obtain commercial rights in the Sverdrup Islands, but recognized Canadian sovereignty in an exchange of notes before making that request, which Canada subsequently denied.
- 14 In the Beaufort Sea, Canada and the US both claim a 21,436 km² pie-shaped sector located directly northeast of the land border between Alaska and the Yukon Territory. The dispute, which did not become apparent until Washington protested the boundary line that Ottawa was using when issuing oil and gas concessions in 1976, turns on the application of a 1825 treaty between Russia and Great Britain (Convention between Great Britain and Russia concerning the Limits of their Respective Possessions on the North-West Coast of America and the Navigation of the Pacific Ocean ['Convention between Great Britain and Russia']), the two countries which, at the time, held title over Alaska and Canada. The treaty sets the eastern border of Alaska at the 'meridian line of the 141st degree, in its prolongation as far as the frozen ocean' (Art. III Convention between Great Britain and Russia). Canada claims that the maritime boundary, like the land border, follows the 141° W meridian straight north. The US position is that 'as far as the frozen ocean' means the boundary follows the 141st meridian only as far as the coast. Offshore, Washington argues that a general principle of equity requires that every point on the boundary be an equal distance from each of the two adjacent coasts (→ *Equity in International Law*). Since the coast of Alaska, the Yukon and Northwest Territories slants east-southeast, such an 'equidistance' line would give more of the ocean and seabed to the US. For more than three decades now, the two countries have treated the matter with restraint. In 1977, they even considered the possibility of a joint development zone for hydrocarbons.
- 15 The negotiators who delimited the boundary between Greenland and Canada in 1973 stopped when they reached the Lincoln Sea, which lies directly north of Greenland and Ellesmere Island. As a result, the 200 nautical miles of continental shelf boundary to the north was left unresolved. In 1977, Canada claimed a fisheries zone in the Arctic Ocean (→ *Fishery Zones and Limits*). The zone was bounded in the east by a Lincoln Sea boundary that was based on the equidistance principle, using the low-water line of the coasts and several fringing islands as reference marks. Three years later, Denmark drew → *baselines* around Greenland. But unlike Canada's claim, the Danish baselines use tiny (10 km²) Beaumont Island as a reference point. This had the effect of pushing the equidistance line slightly westward, adding two isolated, lens-shaped areas of 105 km² and 115 km² to the Greenland side. The Lincoln Sea dispute has been treated with restraint by both countries and could be left unresolved. It does not affect the delimitation of the extended continental shelf boundary between Denmark and Canada more than 200 nautical miles from shore.

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- 16 In the → *Barents Sea*, Norway and Russia disagree on the boundary between their respective continental shelves, from the Varangerfjord on the mainland coast to the Arctic Ocean north of Spitsbergen/Svalbard. Within 200 nautical miles from shore, they also disagree on the boundary between their → *exclusive economic zone[s]*. The entire area in dispute amounts to 155,000 km², or roughly 11% of the Barents Sea.
- 17 Russia's position is that a common maritime boundary should be drawn along a sector line at longitude 32° 04' 35" E. It relies on Arts 74 and 83 United Nations Convention on the Law of the Sea, as well as the decision in the → *North Sea Continental Shelf Cases*, to argue that the 'relevant circumstances' (*North Sea Continental Shelf Cases (Federal Republic of Germany/Denmark; Federal Republic of Germany/Netherlands)* [1969] ICJ Rep 3, para. 101). involved in an 'equitable solution' (ibid at para. 92) include the shape and length of the Russian coast, the relatively large population living there, Russia's fishing, shipping and other economic interests, and the fact that the Treaty concerning the Archipelago of Spitsbergen ('Svalbard Treaty') precludes points on Spitsbergen/Svalbard being used to influence a delimitation.
- 18 Norway argues that equity requires the drawing of a median line from Varangerfjord—where the agreed land border meets the sea—to the easternmost edge of the Spitsbergen/Svalbard archipelago. But Oslo has also expressed a willingness to negotiate the consideration of additional geographic features. In the meantime, Norway and Russia have imposed a moratorium on hydrocarbon-related activities in the disputed zone. In July 2007, they agreed on the delimitation of their maritime boundaries in the Varangerfjord out to approximately 20 nautical miles from shore.
- 19 In the → *Bering Sea* and Chukchi Sea, a 1600 nautical mile single maritime boundary between the US and Russia has been provisionally settled through a 1990 treaty signed by the US and the Soviet Union (Agreement between the Government of the United States of America and the Government of the Union of Soviet Socialist Republics on the Maritime Boundary). North of 65° 30' N the boundary follows the 168° 58' 37" W meridian into the Arctic Ocean 'as far as permitted under international law' (Art. 2 (1) Agreement between the US and Soviet Union). South of 65° 30' N, the boundary is defined by 87 turning points. Although the treaty has not yet entered into force because of political sensitivities within Russia, both countries are abiding by its provisions.
- 20 Disputed maritime boundaries around → *Jan Mayen* have been resolved through → *conciliation* or adjudication. In 1980, Norway and Iceland established a conciliation commission that recommended a common maritime boundary and joint development regime in a 45,470 km² zone between the Norwegian island and Iceland. The commission's recommendations led to a 1981 treaty which delimited a common maritime boundary and accorded Norway a right to 25% participation in hydrocarbon activities in the identified zone. In 2008, the two countries adopted a follow-up treaty setting out the framework for cooperative oil and gas exploration.
- 21 In 1988, Denmark instituted proceedings against Norway in the → *International Court of Justice (ICJ)* over the boundary between Jan Mayen and Greenland (→ *Maritime Delimitation between Greenland and Jan Mayen Case [Denmark v Norway]*). The Court took the median line as its point of departure before examining possible factors justifying adjustments. Two such factors were identified: an absence of proportionality in the length of the relevant coastlines; and the need to ensure access to fisheries. Norway and Denmark were attributed 57% and 43%, respectively, of the 64,600 km² disputed zone.

C. Special Problems of International Law

- 22 The Northwest Passage is a web of several possible shipping routes through Canada's High Arctic, a vast archipelago made up of about 19,000 islands. The US argues that the Northwest Passage is an international strait, which would bring it under the regime of → *transit passage*, while Canada argues that it constitutes → *internal waters* subject to full coastal State control (see also → *Northwest Passage [Canadian-American Controversy]*). An intermediate possibility is that the Northwest Passage could be → *territorial sea* subject to the right of → *innocent passage*.
- 23 The US argues that the existence of an international strait is determined by geography only. According to JC Kraska of the US Navy, 'if the water connects one part of the high seas or EEZ to another part of the high seas or EEZ, it is a strait... [T]here is no authority for the idea that a strait is only a strait if it meets a certain minimum threshold of shipping traffic' (Kraska 274).
- 24 Canada's position is based on the 1949 → *Corfu Channel Case* which set forth two criteria for an international strait, namely its geographical situation and the fact of its being used for international navigation. As of 2006, only 69 voyages had occurred through the Northwest Passage, with all but two of the foreign vessels requesting and receiving permission from Canada.
- 25 Canada sought to buttress its position in 1986 by drawing straight baselines around the archipelago. In doing so, Canada relied on customary international law as articulated in the 1951 → *Fisheries Case (United Kingdom v Norway)*, rather than the 1958 Convention on the Territorial Sea and the Contiguous Zone or the United Nations Convention on the Law of the Sea, neither of which it had ratified. It further argues that the baselines are consolidated by the historic use and occupation of the Inuit who have hunted, fished, travelled and lived on the ice of the Northwest Passage for millennia, and who explicitly support Canada's claim. The baselines, however, attracted diplomatic protests from the US and the European Union, with the latter focusing on the unusual length of some of the baselines rather than their adoption as such. Apart from the US, no country has ever explicitly opposed Canada's Northwest Passage claim.
- 26 In January 1988, the US and Canada concluded an Agreement on Arctic Cooperation and the Exchange of Notes concerning Transit of the Northwest Passage which provides that US Coastguard icebreakers will seek Canada's permission before using the Northwest Passage, and that Canada will consent. The Agreement is explicitly an agreement-to-disagree which specifies that it does not affect the two countries' respective positions 'on the Law of the Sea in this or other maritime areas' (at 143).
- 27 The Northwest Passage dispute has given rise to one advancement in international law, namely Art. 234 United Nations Convention on the Law of the Sea, which allows coastal States to enact laws against maritime pollution out to 200 nautical miles when almost year-round ice creates exceptional navigational hazards. Art. 234 United Nations Convention on the Law of the Sea is sometimes referred to as the 'Canadian exception' because it was prompted by the adoption of the 1970 Arctic Waters Pollution Prevention Act (Canadian Legislation on Arctic Pollution and Territorial Sea and Fishing Zones), which imposed strict safety and environmental requirements—including a prohibition on the dumping of waste—on all shipping within 100 nautical miles of Canada's Arctic coast. The US initially issued a protest, expressing concern that the Act could constitute a precedent for other assertions of jurisdiction on the → *high seas*, but later accepted the Act as legal. In 2009, Canada amended the Arctic Waters Pollution Prevention Act to

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- extend its application to the full 200 nautical miles permitted under the United Nations Convention on the Law of the Sea.
- 28 Elsewhere, the Bering Strait is an international strait connecting the Pacific and Arctic Oceans. Russia and the US cooperate closely on the provision of navigation aids and search-and-rescue there. The US claims that the Northern Sea Route along the Russian coast is an international strait but no vessels have ever challenged Russia's position that the waterway constitutes internal waters.
 - 29 No country will ever 'own' the geographic North Pole, which is located roughly 400 nautical miles to the north of any land, including Greenland, Ellesmere Island and the Russian archipelago of Franz Josef Land. This is because coastal States do not possess full → *sovereignty* beyond the 12 nautical mile territorial sea. Instead, they have certain sovereign rights out to 200 nautical miles and sometimes farther, depending on the shape and sediments of the seabed and according to the criteria set out in the United Nations Convention on the Law of the Sea. Art. 76 United Nations Convention on the Law of the Sea specifies that coastal States may have rights over an 'extended continental shelf' if the depth and shape of the seabed and the thickness of underlying sediments indicate a 'natural prolongation' of the shelf closer inshore. If Russia, Denmark or Canada can scientifically demonstrate that the seabed at the North Pole is a 'natural prolongation' of its continental shelf, the country in question will have the exclusive right to exploit the resources of that particular area of seabed—and nothing more. The water column and sea-ice will remain part of the high seas.
 - 30 The sheer size of the Arctic Ocean and the lengths of uncontested coastlines mean that Russia might hold sovereign rights over an expanse of seabed larger than Western Europe. Canada, with the world's longest coastline, will also have a sizable extended continental shelf. Countries that do not border on the Arctic Ocean might feel left out, but because the United Nations Convention on the Law of the Sea applies globally, many have the opportunity to assert similar rights along their coastlines.
 - 31 Apart from the technical exercise of collecting and assessing the scientific evidence, the only significant issue concerns possible overlaps between the areas over which rights are asserted. Overlaps can occur where there are disputed maritime boundaries closer inshore, since the dividing line beyond 200 nautical miles is usually simply an extension from the starting point. The disputes between Canada and the US in the Beaufort Sea and Norway and Russia in the Barents Sea are of this character. A mid-ocean overlap is also possible between Russian, Canadian, and Danish assertions of rights along the Lomonosov Ridge, an undersea mountain range that bisects the Arctic Ocean near, but not at, the geographic North Pole.
 - 32 Art. 76 United Nations Convention on the Law of the Sea requires that scientific evidence of a natural prolongation be submitted to the United Nations Commission on the Limits of the Continental Shelf for review and recommendations. Russia made an initial submission in 2001 and, after a request from the Commission for more data, is preparing a further submission. Canada is due to make its submission in 2013; Denmark in 2014. However, the Commission will not make recommendations concerning overlaps in the rights asserted by different countries. It is up to the countries themselves to negotiate a solution, refer the matter to an international court or tribunal, or simply agree to disagree and not issue exploration licenses for the contested area.
 - 33 In response to widespread misreporting about possible conflicts over Arctic oil and gas, Denmark hosted a summit of the Arctic Ocean coastal States at Ilulissat, Greenland, in May 2008 (Arctic Ocean Conference 'Ilulissat Declaration'). The summit culminated in the Ilulissat Declaration in which all five States reaffirmed their commitment to resolving

disputes peacefully within the existing framework of the law of the sea. It now appears that Russia, Denmark and Canada might agree to make joint or coordinated submissions to the UN Commission on the Limits of the Continental Shelf, or even to delimit the boundaries between their extended continental shelves in advance of submitting. However, any such steps will require a much better scientific picture of the seabed, which the three countries are now working to achieve.

D. New Instruments and Actors

- 34 Established in 1976, the Arctic Council is an intergovernmental forum for promoting cooperation, coordination and interaction among the Arctic States. In addition to its eight Member States (Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden, and US), the Arctic Council includes organizations of Arctic → *indigenous peoples* as ‘permanent participants’. The Arctic Council focuses on issues of sustainable development and environmental protection and, by agreement of its Member States, does not deal with matters related to military security. The Arctic Council has commissioned a number of influential reports, including the Arctic Climate Impact Assessment 2004 and the Arctic Marine Shipping Assessment Report 2009.
- 35 In May 2008, some proponents of the Arctic Council were disappointed when Denmark invited the four other Arctic Ocean coastal States to Ilulissat, Greenland, without also inviting Finland, Iceland and Sweden. Similar disappointment was felt when consideration of an application for observer status from the European Union (‘EU’) was postponed in April 2009, though EU members France, Germany, Poland, Spain, the Netherlands and Great Britain already have such status. The postponement may have been related to EU efforts to assert rights and interests in the Arctic, based on climate change impacts elsewhere, that go beyond the rules set out in the United Nations Convention on the Law of the Sea.
- 36 The inclusion of indigenous groups within the Arctic Council is reflective of the important role played by these → *non-governmental organizations* in diplomacy and international law-making with respect to the Arctic (→ *Environment and Indigenous Peoples*). Indigenous peoples have lived in the Arctic for millennia. Today, their traditional way of life is threatened by rapid cultural and technological change, climate change, shipping and resource exploitation. In some Arctic States, such as Canada and Denmark, the traditional use and occupancy of indigenous peoples constitutes an element of sovereignty claims. Indigenous peoples have concluded a number of agreements with national governments, such as the 1971 Alaska Native Claims Settlement Act and the 1993 Nunavut Land Claims Agreement (→ *Indigenous Peoples, Treaties with*). Nunavut, with an 85% indigenous population, has a majoritarian government system that effectively gives the Inuit self-government. Greenland, which was accorded home rule in 1979, is 88% Inuit. In 1985, Greenlanders voted to leave the European Economic Community and, in 2008, to take on additional governing powers. As a result, Denmark is now responsible only for Greenland’s defence, foreign affairs, financial policy, and an annual transfer of 3.4 billion Danish krone.
- 37 Some Arctic indigenous groups are transnational in character, with the Inuit Circumpolar Council representing the Inuit of Greenland, Canada, Alaska and Russia. In 2009, the Inuit Circumpolar Council issued ‘A Circumpolar Inuit Declaration on Sovereignty in the Arctic.’ The document makes a strong political and moral case for Inuit involvement in any inter-State negotiations concerning sovereignty disputes and indicates specific concern about the exclusion of the Inuit from the 2008 summit in Ilulissat, Greenland.

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The Declaration also goes further, arguing that the Inuit have a right to be involved that is derived from international legal instruments such as the 2007 United Nations Declaration on the Rights of Indigenous Peoples (UNGA Res 61/295 'United Nations Declaration on the Rights of Indigenous Peoples' [13 September 2007] GAOR 61st Session Supp 49 vol 3, 15).

E. Evaluation

- 38 The Arctic is in crisis. The ice and the permafrost—the foundations of its highly specialized ecosystems—are literally melting away, and with them the traditional way of life of Arctic indigenous peoples. A vast, ice-bound, impenetrable ocean is being transformed into a new Mediterranean Sea, a 'middle sea' over which the world's powers will trade. Easier access and rising oil and gas prices could spark twenty-first-century gold rushes, challenging the political will and governance capabilities of national governments who, for decades, have largely ignored the Arctic.
- 39 Proposals have been made to develop an environment-oriented international regime for the Arctic that is modelled on the Antarctic Treaty (See eg A Grimaldi 'Governance of Both Poles' [2009] 326 Science 1042), as well as a Nuclear Weapons Free Zone. Achieving multilateral treaties on these matters will not be easy, given the strategic importance of the Arctic for the US and Russia; the significant populations that live there, especially in Alaska and Russia; and the considerable powers already vested in the Arctic Ocean coastal States under the United Nations Convention on the Law of the Sea.
- 40 Fortunately, sovereignty and international cooperation are not incompatible. Sovereign rights can sometimes facilitate cooperation by providing clear jurisdiction for regulating shipping and the extraction of natural resources, and for guarding against non-state security threats. International law results from centuries of inter-State cooperation, as countries have defined the boundaries between their respective jurisdictions and worked together in pursuit of common goals. The Arctic, much like the high seas globally, creates opportunities for the coordinated deployment of existing national rights on the model of the → *Proliferation Security Initiative (PSI)*.
- 41 International law will always play a central role in the Arctic: preventing inter-State conflict, guarding against non-State security threats, protecting the environment and promoting economic development. But the most important, long-term function of agreed rules in the region may well concern the root cause of climate change. We must never lose sight of the fact that the very opportunity to access Arctic oil and gas has arisen because we have burned so much oil and gas already. Ultimately, establishing clear maritime boundaries may enable responsible governments to ensure that the carbon stays locked in the seabed, where it cannot contribute to even more, ever more dangerous climate change.

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March 2010