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**A Trip to Lomonosov Ridge:
The Arctic, UNCLOS, and “Off the Shelf”
Sovereignty Claims**

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INTRODUCTION

The Arctic Ocean remains one of the last frontier regions on earth to be explored and exploited. “However, due to [climate change], technological advances, and declining stocks of global resources, increasing interest and activity in the Arctic is underway.”¹ This renewed interest in the Arctic has sparked a new vigor by the littoral states,² whose shores border our world’s smallest and most northern ocean, and by the technologically able non-Arctic states, who are anxious for access to vast resources beneath the ice-laden surface of the region.³

The Arctic Ocean isn’t currently governed by any form of comprehensive, multilateral, and legal framework recognized by the Arctic nations because, historically, it was never expected to become a navigable waterway or a site for large-scale, commercial development.⁴ Recent attempts by the United Nations to address this issue have come away without ratification by all Arctic nations.⁵

Scott G. Borgerson (International Affairs Fellow at the Council on Foreign Relations and a former Lieutenant Commander in the U.S. Coast Guard) reports that the Arctic ice caps are melting fast because of global warming, which is creating access to natural resources and enabling shortcuts for ships. Additionally, the area does not have any clear, governing rules, so the Arctic may become an area of armed conflict. Thus, the United States must form a multilateral, diplomatic solution.⁶

¹ Christopher Mark Macneill, *Gaining Command & Control of the Northwest Passage: Strait Talk on Sovereignty*, 34 *TRANSP. L.J.* 355, 356 (2007); see generally *Arctic Sea Ice Minimum*, NASA, <https://climate.nasa.gov/vital-signs/arctic-sea-ice> [<https://perma.cc/QZM5-39LY>] (last visited Feb. 23, 2020). “Arctic sea ice is now declining at a rate of 12.85 percent per decade” since 1979. *Id.*

² See HEATHER CONLEY & JAMIE KRAUT, *CTR. FOR STRATEGIC & INT’L STUD., U.S. STRATEGIC INTERESTS IN THE ARCTIC* (Apr. 2010), https://csis-prod.s3.amazonaws.com/s3fs-public/legacy_files/files/publication/100426_Conley_USStrategicInterests_Web.pdf [<https://perma.cc/GF9K-H5MT>]. Littoral states are Russia, Canada, the United States, Denmark (Greenland), and Norway. *Id.*

³ Barret Weber, *Increased Shipping in the International Arctic? An Overview*, 43 *J. MAR. L. & COM.* 301, 306 (2012). “China, Korea, Germany and so on, show unprecedented interest in Arctic developments.” *Id.*

⁴ See generally *GOVERNING THE NORTH AMERICAN ARCTIC: SOVEREIGNTY, SECURITY, AND INSTITUTIONS* (Dawn Alexandra Berry, Nigel Bowles & Halbert Jones eds., 2016).

⁵ Scott G. Borgerson, *Arctic Meltdown: The Economic and Security Implications of Global Warming*, *FOREIGN AFF.* 63, 64–65 (Mar.–Apr. 2008).

⁶ *Id.* at 73–77.

"The ultimate problem involving the access and sovereignty rights to the [Arctic Ocean's seabed] is one of 'command and control.'"⁷ Namely, who should control access to the vast untapped reserves of energy and mineral resources the region potentially offers the world, and similarly, who, if any, should control the important shipping access to the region?

Up to the beginning of the nineteenth century, the course of opinion and practice with respect to the sea was originally based on the presumption that the world's seas could be appropriated.⁸ Throughout history, the world's seas and oceans were effectively appropriated in some instances; in many other instances, ineffective nations postured and grandstanded with respect to their national aspirations for domination of the seas and world trade.⁹ According to *A Treatise on International Law*, with respect to nations' territorial claims of the sea,

as appropriation of the larger areas was found to be generally unreal, to be burdensome to strangers, and to be unattended by compensating advantages, a disinclination to submit to it arose, and partly through insensible abandonment, partly through opposition to the exercise of inadequate or intermittent control, the larger claims disappeared, and those only continued at last to be recognized which affected waters the possession of which was supposed to be necessary to the safety of a state, or which were thought to be within its power to command.¹⁰

While Russia may aspire to control the whole Arctic, it is a vast ocean and territory with numerous Arctic nations sharing its coastline, and inevitably, it will prove impossible for Russia to gain and maintain its control from other Arctic nations. Whereas, the United Nations Convention for the Law of the Sea (UNCLOS) has provided each nation a demarcated territorial sea, security of its coastline based on its continental shelf, and any accepted underwater extensions that the U.N. approves.

⁷ Macneill, *supra* note 1, at 356.

⁸ Marvin S. Soroos, *The International Commons: A Historical Perspective*, 12 ENVTL. REV. 1, 13–14 (1988).

⁹ WILLIAM EDWARD HALL, M.A., *A TREATISE ON INTERNATIONAL LAW* 147–50 (3d ed. 1890).

¹⁰ *Id.* at 150.

I STATEMENT OF CLAIM

This Article explores the substantive merit of Russia's sovereignty claims over the extension of its 200-nautical-mile continental shelf limit via the Lomonosov Ridge to include an additional 150 nautical miles reaching almost to the North Pole.¹¹ In particular, the issue is whether Russia's claims are justified and what legal premises support its position. In view of counter claims by Canada, Denmark (Greenland), and the littoral states in the region, this Article also attempts to identify the inherent conflict within the competing sovereignty claims and potential alternatives for amicably resolving an appropriate international legal framework for the region.

First, this Article commences with a historical examination of the development of the international law in relation to the propriety of the sea. Next, this Article discusses contemporary law as developed by the 1958 and 1982 UNCLOS. Then, this Article reviews competing claims of sovereignty over large sections of the Arctic by Russia, Denmark (Greenland),¹² and Canada. Finally, this Article presents a set of solutions to consider for resolving the competing claims and jurisdictional issues in the Arctic.

II INSUSCEPTIBILITY OF THE OPEN SEA TO BE APPROPRIATED AS PROPERTY: A HISTORICAL EXAMINATION

Historically, it was assumed and established as customary international law "that states are unable to maintain effective control over large spaces of sea, so as to be able to reserve their use to

¹¹ ITSSD Charitable Mission, *UNCLOS Ratification Would Provide a 'Shield of U.S. Sovereignty' Against EU & Environmentalist-Inspired 'Lawfare'??*, INST. FOR FREE TRADE, STANDARDS & SUSTAINABLE DEV. J. ON U.N. L. SEA CONVENTION BLOG (May 7, 2008, 5:44 PM), <https://itssdjournalunclos-lost.blogspot.com/2008/05/unclos-ratification-would-provide.html> [<https://perma.cc/N2CT-SLEK>] (citing Bernard H. Oxman, *The Territorial Temptation: Siren Song at Sea*, 100 AM. J. INT'L L. 830 (2006)).

¹² Greenland is a Danish province, and it received home rule in 1979. *Greenland Profile*, BBC NEWS (July 23, 2018), <https://www.bbc.com/news/world-europe-18249474> [<https://perma.cc/49ES-52PT>]. Greenland is the world's largest island and is located between the Arctic and Atlantic Oceans. *Id.* While geographically and ethnically an Arctic island and Inuit (Eskimo) nation associated with the continent of North America, Greenland's political and economic history is associated with Europe, specifically Denmark, Norway, and Iceland. Rasmus Ole Rasmussen, *Greenland*, ENCYCLOPEDIA BRITANNICA, <https://www.britannica.com/place/Greenland/History> [<https://perma.cc/N26B-B5JU>] (last visited Feb. 23, 2020).

themselves, it is a principle of international law that the sea is in general insusceptible of appropriation as property.”¹³ However, at the same time, it was also broadly recognized that portions of the seas, as W.E. Hall pointed out in 1890, “are affected by proprietary rights on the part of the states of which the territory is washed by it; but no distinct understanding has yet been come to as to the extent which may be appropriated, or which may be considered to be attendant on the bordering land.”¹⁴

During the sixteenth century, when W.E. Hall argues international law came into existence,¹⁵ the common European practice for allocating rights to the sea was founded upon the possibility of the acquisition of property in it, and it was customary to look upon most seas as being, in fact, appropriated.¹⁶ During this period and preceding, Spain and Portugal, respectively, asserted dominion over the Pacific, the Gulf of Mexico, the Indian Ocean, and the Atlantic south of Morocco.¹⁷ Under their claims, sovereignty was extended over the seas of their dominion to exclude all foreigners from access and navigation on their waters.¹⁸ This position logically and historically was met with opposition and proved impossible to enforce, as noted by Queen Elizabeth I of England’s response to Spanish opposition to English vessels in the waters of the Indies:

[S]he refused to admit any right in Spain to debar her subjects from trade, or from ‘freely navigating that vast ocean, seeing the use of the sea and air is common to all; neither can a title to the ocean belong to any people or private persons, forasmuch as neither nature nor public use and custom permitteth any possession thereof.’ Elizabeth was indifferent to consistency. If the principle which she enunciated was correct, it applied as fully to the British seas as to those of the Indies.¹⁹

¹³ HALL, *supra* note 9, at 62.

¹⁴ *Id.* at 139.

¹⁵ *Id.* at 141.

¹⁶ Ricardo J. Romulo, *Unclos: ‘Mare Liberum’ or ‘Mare Clausum’?*, INQUIRER.NET (Aug. 13, 2016, 12:31 AM), <https://opinion.inquirer.net/96462/unclos-mare-liberum-or-mare-clausum> [<https://perma.cc/9K5L-TGRE>]. “In the 17th century, John Selden published his work, ‘Mare Clausum sen de Domino Maris Libri Duo,’ which translates to ‘closed seas.’” *Id.* Mare Clausum advocates “use and exploitation only to states with naval capabilities, particularly England.” *Id.*

¹⁷ HALL, *supra* note 9, at 141–42.

¹⁸ Charles Leben, *Hebrew Sources in the Doctrine of the Law of Nature and Nations in Early Modern Europe*, 27 EUR. J. INT’L L. 79, 97 (2016).

¹⁹ HALL, *supra* note 9, at 142. As Hall further explained,

Between the sixteenth and seventeenth century, international law underwent a transition as the world began balancing rights to navigation with the fundamental right of access to the sea for public enjoyment and state sovereignty over coastal resources that accompany ownership.²⁰ During this period, the position of a renowned Dutch jurist, Grotius, “espoused in his works *Mare Liberum* and *De Jure Belli ac Pacis*, was that states may not individually or collectively acquire high seas areas. This view was disputed at the time by various writers, especially John Selden (1584–1654).”²¹

Selden and other jurists of the seventeenth century agreed that while the right of appropriation was a principle of customary law, a state that holds right to the sea cannot prohibit navigation if the sea is accessible by others without compromising basic, fundamental obligations to their

It was essentially the same as that on which Grotius relied in his attack upon the Portuguese in the “*Mare Liberum*.” All property, he says, is grounded upon occupation, which requires that movables shall be seized and that immovable things shall be enclosed; whatever therefore cannot be so seized or enclosed is incapable of being made a subject of property. The vagrant waters of the ocean are thus necessarily free. The right of occupation, again, rests upon the fact that most things become exhausted by promiscuous use, and that appropriation consequently is the condition of their utility to human beings. But this is not the case with the sea; it can be exhausted neither by navigation nor by fishing, that is to say in neither of the two ways in which it can be used.

Id. at 142–43.

²⁰ Leben, *supra* note 18, at 104–05.

²¹ W.E. Butler, *Grotius and the Law of the Sea*, in HUGO GROTIUS & INTERNATIONAL RELATIONS 209 (Hedley Bull et al. eds., Oxford Scholarship Online 2003) (1992), <https://www.oxfordscholarship.com/view/10.1093/0198277717.001.0001/acprof-9780198277712-chapter-6> [<https://perma.cc/7CE9-ZJ7K>]. “However, it eventually came to be the foundation of the modern regime of the high seas. The 1982 UN Convention on the Law of the Sea constitutes a continuation of the balancing process between coastal and high seas interests to which Grotius had contributed.” *Id.*

neighbors and mankind.²² But, by the end of the eighteenth century, these proprietary rights over the open sea had broadly deteriorated.²³

During the nineteenth century, Russia was the last nation to claim sovereignty over a large body of the sea when it established its sovereignty of the Pacific lying north of latitude 51° and prohibited foreign vessels from approaching that region of the ocean.²⁴ During the end of the nineteenth century and commencement of the twentieth century, jurists seemed at odds over freedom of the seas versus ownership and sovereignty.²⁵ Some scholars believed the sea should be subject to proprietary rights, while others rejected ownership of the sea.²⁶ Hall summarized the customary view at the time as “[t]he true

²² HALL, *supra* note 9, at 143–44.

[F]reedom is not in itself a bar to property, as is proved by the case of rivers; that though the sea is inexhaustible for some purposes, its fish, and the pearls, the coral, and the amber that it yields, are not inexhaustible, and that “there is no reason why the borderers should not rather challenge to themselves the happiness of a wealthy shore or sea than those who are seated at a distance from it;” finally, that the sea is a defence [sic], “for which reason it must be a disadvantage to any people that other nations should have free access to their shores with ships of war without asking their leave, or without giving security for their peaceful and inoffensive passage.” The extent over which dominion exists in any particular case is to be determined from the facts of effective possession or from treaties; and in cases which, after the application of these tests, are doubtful, it is to be presumed that the sea belongs to the states bordering on it so far as may be necessary for their defence [sic], and that they also own all gulfs and arms.

Id.

²³ *Id.*

²⁴ *Id.* at 147–48.

This pretension was resisted by the United States and Great Britain, and was wholly given up by Conventions between the former powers and Russia in 1824 and 1825. So late as 1875 Russia seems to have made a claim elsewhere to property in some considerable extent of water, for in that year Mr. Fish, the American Secretary of State, wrote “There was reason to hope that the practice which formerly prevailed with powerful nations of regarding seas and bays usually of large extent near their coast as closed to any foreign commerce or fishery not specially licensed by them, was, without exception, a pretension of the past, and that no nation would claim exemption from the general rule of public law which limits its maritime jurisdiction to a marine league from its coasts. We should particularly regret if Russia should insist on any such pretension.” With flagrant inconsistency the United States, since acquiring possession of Alaska, have claimed as attendant upon it, by virtue of cession from Russia, about two thirds of the Behring Sea,—a space 1500 miles long and 600 miles wide.

Id. at 147–48 n.2 (footnotes omitted).

²⁵ YOSHIFUMI TANAKA, *THE INTERNATIONAL LAW OF THE SEA* 16–17 (Cambridge U. Press, 2d ed. 2015).

²⁶ HALL, *supra* note 9, at 149–50.

key to the development of the law is to be sought in the principle that maritime occupation must be effective in order to be valid.”²⁷

III

LEGAL FRAMEWORKS FOR THE DEEP SEABED

A. The 1958 United Nations Convention on the Law of the Sea

Generally, the Law of the Sea is interesting because it represents the first successful attempt of the United Nations International Law Commission to develop a large segment of international law on a multilateral treaty basis.²⁸ In 1956, the International Law Commission submitted *Articles Concerning the Law of the Sea with Commentaries* to the United Nations General Assembly with eighty-six states participating. The first two conventions in 1958 and 1960 produced four conventions: (1) the Convention on Territorial Sea and the Contiguous Zone, (2) Convention on the High Seas, (3) Convention on the Continental Shelf, and (4) Convention on Fishing and Conservation of the Living Resources of the High Seas.²⁹

Essentially, the first four Geneva Conventions on the Law of the Sea produced from the 1958 United Nations Conference on the Law of The Sea were only a starting point, albeit a very impressive beginning from an organizational perspective.³⁰ The Conventions did not address basic questions, such as fishing rights beyond the territorial sea, but did address “the width of the territorial seas and the establishment of an equitable international regime for the seabed and the ocean floor and

It was universally felt that states cannot maintain effective occupation at a distance from their shores, and that free commercial navigation had become necessary to the modern world. There was therefore a general willingness to declare the ocean to be free, and to consider states as holding waters, which might fairly be looked upon as territorial, subject to a right of navigation on the part of other states. But acceptance of the freedom of the open seas merely marked a stage in a gradual settlement of the conditions under which occupation, when applied to the sea, may be held to be valid; and recognition of the right of passage only saddled private property with a kind of servitude for the general good.

Id.

²⁷ *Id.* at 150.

²⁸ Tullio Treves, *United Nations Convention on the Law of the Sea*, U.N. AUDIOVISUAL LIBR. INT’L L. 1, 4 (2008).

²⁹ Tullio Treves, *1958 Geneva Conventions on the Law of the Sea*, U.N. AUDIOVISUAL LIBR. INT’L L. 1, 1 (2008).

³⁰ See generally *Unresolved Issues Under the UN Convention of the Law of the Sea*, in UNRESOLVED ISSUES AND NEW CHALLENGES TO THE LAW OF THE SEA: TIME BEFORE AND TIME AFTER 1 (Anastasia Strati, Maria Gavouneli & Nikolaos Skourtos eds., 2006).

the subsoil beyond the limits of national jurisdiction.”³¹ A regime for the deep seabed was considered a necessity,³² and

[i]n 1969, the UN General Assembly adopted resolution 2574 (XXIV) calling for a moratorium on deep seabed activities and a year later a Declaration of Principles Governing the Seabed and Ocean Floor and the Subsoil Thereof, beyond the Limits of National Jurisdiction (“the Area”) was adopted. This provided that the Area and its resources were the “common heritage of mankind” and could not be appropriated, and that no rights at all could be acquired over it except in conformity with an international regime to be established to govern its exploration and exploitation.³³

To address the remaining unresolved problems, the Seabed, Ocean Floor Declaration flowed to

the impetus behind the [United Nations] General Assembly’s decisions in its Resolution 2750 of 17 December 1970. . . . [This called for the 1973 Conference.] This conference on the law of the sea . . . examine[d] the above listed problems and would also deal with issues concerning the regimes of the high seas, the continental shelf, the territorial sea (including the question of its breadth and the question of international straits and contiguous zone), fishing and conservation of the living resources of the high seas (including the question of preferential rights of coastal States), the preservation of the marine environment (including, *inter alia*, the prevention of pollution) and scientific research.³⁴

The term *common heritage of mankind* is often confused with the term *res nullius*, which is a Roman property law concept literally meaning “property of no one.”³⁵ As Rosalyn Higgins, former President of the International Court of Justice, noted, the

notion of common heritage over a resource was different from the perception of, for example, fish in the waters of the high seas. In the latter case, fish were *res nullius*—that is to say, belonging to no one, and therefore exploitable by anyone who wished to, and was in position to, exploit them. But a resource that was termed a “common heritage” apparently meant something different: it meant a resource

³¹ MAZEN ADI, *THE APPLICATION OF THE LAW OF THE SEA AND THE CONVENTION ON THE MEDITERRANEAN SEA* 12 (2009).

³² *United Nations Convention on the Law of the Sea of 10 December 1982*, DIVISION FOR OCEAN AFF. & L. SEA, https://www.un.org/Depts/los/convention_agreements/convention_overview_convention.htm [<https://perma.cc/JF7S-M3PK>] (last updated Feb. 11, 2020).

³³ MALCOM N. SHAW, *INTERNATIONAL LAW* 561 (5th ed. 2003).

³⁴ ADI, *supra* note 31 (alteration in original).

³⁵ F.S. Ruddy, *Res Nullius and Occupation in Roman and International Law*, 36 U. MO. KAN. CITY L. REV. 274, 274 (1968).

that could, like fish swimming above it, in principle be exploited by anyone—but only with the permission of the world community and upon such conditions as the institutions representing that community would lay down. It is hard to see any reason of logic why, in areas beyond national jurisdiction, resources in water (fish, plankton, indeed the water itself) should be treated as *res nullius*; whereas in those same areas resources located in the sea-bed, rather than in the water above it, should be treated as falling under a different regime—one in which the legal consequences of commonality and lack of state jurisdiction would be treated differently. But of course it was not simply a matter of logic. There were economic and political considerations at play. The economic consideration was that the resources of the deep sea-bed were likely to be of profoundly more commercial value than the fish that swim above them. And we live in a world of finite and dwindling natural resources. The political consideration at play was that the *res nullius* approach to commonality meant that, while *anyone* could exploit these resources, in fact only a few did so.³⁶

Advanced states' wealth and technological endowment provide a comparative advantage over underdeveloped states in regard to access, exploration, and exploitation of deep seabed resources when the system is regulated under the principle of *jus humanitas*³⁷ (i.e., the common heritage of mankind). Thus, essentially because of an imbalance in economic and technological might and know-how, the common heritage of mankind resources will ultimately fall into the hands of the few.³⁸ Although Higgins responds with the logical counterargument that "it made good sense for those states with the financial and technical capability to do the physical exploring and exploiting; what *did* matter was that these resources should then be made available . . . to the community Whether one agrees with this will depend upon one's political philosophy."³⁹ The majority of the General Assembly obviously found this rationale as unacceptable, and the notion of the common heritage of mankind was normatively embraced.⁴⁰ The result

³⁶ ROSALYN HIGGINS, PROBLEMS AND PROCESS: INTERNATIONAL LAW AND HOW WE USE IT 130–31 (1994).

³⁷ Ian Ward, *Universal Jurisprudence and the Case for Legal Humanism*, 38 ALTA. L. REV. 941, 942 (2001).

³⁸ HIGGINS, *supra* note 36.

³⁹ *Id.* at 131.

⁴⁰ *Id.* The U.N.'s General Assembly majority

also took the view that prices would inevitably be set by those who did the physical exploring and exploiting, and that the resources would often be put on the market at a price beyond the reach of the poor countries, making common access to a resource beyond any single state's jurisdiction an illusion.

Id.

was that the General Assembly passed a resolution calling for a moratorium on the exploitation of the deep seabed pending the conclusion of an international agreement as to how the legal regime of the common heritage of mankind would operate.⁴¹

Unfortunately, nations resisted the U.N. recommended moratorium on the exploitation of the deep seabed.⁴² Higgins raises the question of whether it is really unlawful under general international law for a state unilaterally to attempt to exploit the mineral resources of the deep seabed. To which, she cites the BP-Texaco case:

where the UN resolutions had to have the support of the major actors in the practice in question (the capital-investing countries, in that case), the case would not seem to be made for the "common heritage of mankind" to be regarded as a compulsory norm. But the matter is not entirely analogous to *BP-Texaco*—the support of the great majority of UN members for the common-heritage approach was evidenced by the text of a negotiated treaty, and that text was approved by many of the industrialized governments—albeit at the end of the day they did not ratify.⁴³

B. The 1982 Law of the Sea Convention

It was under the political environment described above that, after nine long years of negotiations, the 1982 Convention on the Law of the Sea was adopted.⁴⁴ This new version of the Law of the Sea contains 320 articles and nine annexes (including many commenced in the four 1958 Conventions) and was established in 1994.⁴⁵ The Convention aimed to "contribute to the realization of a just and equitable international economic order which takes into account the interests and needs of mankind as a whole and, in particular, the special interests and needs of developing countries, whether coastal or land-locked."⁴⁶

⁴¹ John Alton Duff, *UNCLOS and the New Deep Seabed Mining Regime: The Risks of Refuting the Treaty*, 19 SUFFOLK TRANSNAT'L L. REV. 1, 6–7 (1995).

⁴² HIGGINS, *supra* note 36, at 131–32. "[V]irtually all the states concerned took domestic legal powers to exploit the deep sea-bed when the moment might be ripe." *Id.* at 132.

⁴³ *Id.* at 132–33.

⁴⁴ JOE BIDEN, S. COMM. ON FOREIGN REL., CONVENTION ON THE LAW OF THE SEA, S. EXEC. DOC. NO. 110-9, at 2 (1st Sess. 2007).

⁴⁵ 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*, GLOBE L. 1, 6 (Aug. 5, 2007), http://www.globelaw.com/LawSea/Climate_Change_and_Arctic_Sovereignty.html [<https://perma.cc/G6YU-AQXZ>].

⁴⁶ United Nations Convention on the Law of the Sea, pmbl., Dec. 10, 1982, 1833 U.N.T.S. 398.

Under the 1982 Convention, the deep seabed and its resources are deemed to be the common heritage of mankind, and no sovereignty or other rights may be recognized.⁴⁷ As an applied principle, this infers that

[m]inerals recovered from the Area [deep sea-bed] in accordance with the Convention are alienable, however. Activities in the Area are to be carried out for the benefit of mankind as a whole by or on behalf of the International Seabed Authority (the Authority) established under the Convention. The Authority is to provide for the equitable sharing of such benefits.⁴⁸

However, under UNCLOS Article 76, a state can claim a 200-nautical-mile exclusive zone.⁴⁹ The baseline from which these distances are measured depends on where the continental shelf ends.⁵⁰ The North Pole region is considered international territory in international law and is administered by the International Seabed Authority.⁵¹

At least one problem remains with the fact that the 1982 UNCLOS had not been initiated with respect to whether the new definition of outer limits of the continental shelf now represents customary international law or not.⁵² It has also been noted that under both the 1958 and 1982 Conventions, “the coastal state has sovereign jurisdiction for purposes of the exploration and exploitation of the

⁴⁷ Michael W. Lodge, *The Common Heritage of Mankind*, 27 INT’L J. MARINE & COASTAL L. 733, 733 (2012).

⁴⁸ SHAW, *supra* note 33, at 561–62 (citations omitted).

⁴⁹ Sarra Sefrioui, *Adapting to Sea Level Rise: A Law of the Sea Perspective*, in THE FUTURE OF THE LAW OF THE SEA: BRIDGING GAPS BETWEEN NATIONAL, INDIVIDUAL AND COMMON INTERESTS 3, 5 (Gemma Andreone ed., 2017) (ebook).

⁵⁰ *Id.*

However, since the coastal State’s right to outer limits of continental shelf relies not only on the 200 nautical miles rule but also on the “natural prolongation” criterion, it implies that the outer limits of the continental shelf must not always be measured from baselines. The coastal State has sovereign rights over this area in respect to the exploration and exploitation of natural resources (article 77 § 1 UNCLOS). Finally, the high seas are not subject to the State’s sovereignty and are located beyond the external limit of the EEZ [exclusive economic zones] (as a maximum of 200 miles from the baselines) (article 86 UNCLOS). The outer limit of all these zones are determined and delimited from baselines except for one of the situations where outer limits of continental shelf exceed 200 nautical miles.

Id.

⁵¹ See generally Laura Neilson Bonikowsky, *The Arctic, Country by Country*, DIPLOMAT & INT’L CAN. (Oct. 4, 2012), <http://diplomatonline.com/mag/2012/10/the-arctic-country-by-country> [<https://perma.cc/SU83-2X9M>].

⁵² HIGGINS, *supra* note 36, at 132.

resource.”⁵³ This is essentially a form of “functional sovereignty” and flies against the objective of UNCLOS, as described in its preamble.⁵⁴

Finally, Higgins also identifies a significant, inherent constraint in the legal framework of UNCLOS whereby separation of private ownership in the “property” of the offshore resources causes problems with capitalizing the exploration and exploitation of minerals using international capital because title is required as collateral security for lending purposes.⁵⁵ In essence,

[i]f on-shore mineral resources have been vested in the state, it is clear that it owns them. But it has no right of ownership in the resources *in situ* in the continental shelf—it has only sovereignty for the purposes of exploring and exploiting. This means no-one else may explore and exploit without permission; that it may grant licenses for that purpose; but it does not *itself* “own” the petroleum. What then does a licensee of off-shore petroleum get? . . . But the holder of an off-shore license cannot thereby get title to a resource over which the licensing government does not itself get title. It gets, instead, an entitlement to explore and exploit (which action would otherwise be illegal) and to reduce into possession. It is the actual reduction into possession which gives the licensee title. Thus it is, for example, that in the North Sea title passes not with the granting of the license but at the well-head, when the recovered petroleum is reduced into possession.⁵⁶

This issue is also significant to the potential licensee of the exploration and exploitation leases because the UNCLOS legal framework implicitly means that “what is altered or taken is not the title to petroleum, but the entitlement to reduce the petroleum into possession.”⁵⁷

While the United States has signed the Convention, it has not ratified it because it opposes several provisions of the Convention, including the Convention’s seabed provision. “Concern was particularly expressed regarding the failure to provide assured access to seabed minerals, lack of a proportionate voice in decision-making for countries most affected, and the problems that would be caused by not permitting the free play of market forces in the development of seabed

⁵³ *Id.* at 137. The implication is most significant in that it means states have had to be careful in presenting policy and legislation pertaining to the shelf to ensure that it is limited to the exploration and exploitation of the shelf resources. *Id.*

⁵⁴ *Id.* (emphasis omitted).

⁵⁵ *Id.* at 138.

⁵⁶ *Id.*

⁵⁷ *See id.*

resources.”⁵⁸ As well, it would appear that other states are at odds with the effect of the Convention on the seabed, raising concern over its legal credence on the international stage.⁵⁹

At an international level, the Arctic circumpolar region is closely monitored and collectively guided to a large extent by the Arctic Council, which is referred to as a supranational governance structure.⁶⁰ The Arctic Council is a multilateral organization created and composed of the previously identified eight Arctic circumpolar states and six indigenous organizations that are designated as permanent participants.⁶¹ It was established in 1996 in order to promote cooperation among the Arctic states⁶² and to address environmental issues.⁶³ In the process of creating the Arctic Council, the United States restricted its scope by insisting the Council refrain from addressing security concerns.⁶⁴ “Since it is the national environmental laws of the eight Arctic states that apply in their Arctic areas, the most the Arctic Council has been able to do . . . has been to adopt guidelines and recommendations on how the Arctic states should apply their regulations in those areas.”⁶⁵ The Arctic Council’s *2004 Arctic Climate Impact Assessment* found that “[t]he Arctic is extremely vulnerable to

⁵⁸ SHAW, *supra* note 33, at 563.

⁵⁹ *See id.*

⁶⁰ Bernard P. Herber, *Economic Change in the Arctic: Is the Antarctic Governance Model Needed?* 5–6 (Univ. Ariz. Envtl. Policy Working Paper, 2013), http://www.udallcenter.arizona.edu/eppubs/herber_economic_2013.pdf [<https://perma.cc/GVB8-9XWT>].

⁶¹ Supreme Audit Institutions of Denmark, Norway, the Russian Federation, Sweden and the United States of America, A Joint Memorandum of a Multilateral Audit on the Arctic States’ National Authorities’ Work with the Arctic Council 3 (May 5, 2015), <http://www.rigsrevisionen.dk/media/2038912/Joint-memorandum-2015.pdf> [<https://perma.cc/T9V3-RLP8>] [hereinafter Supreme Audit, Joint Memorandum].

⁶² Erika M. Zimmerman, Comment, *Valuing Traditional Ecological Knowledge: Incorporating the Experiences of Indigenous People into Global Climate Change Policies*, 13 N.Y.U. ENVTL. L.J. 803, 834 (2005). The Arctic Council is described as

an intergovernmental forum that addresses the concerns of Arctic people and governments consisting of the eight Arctic states (Canada, Denmark/Greenland/Faroe Islands, Finland, Iceland, Norway, Russia, Sweden, and the United States) as well as six indigenous people’s organizations (the Aleut International Association, Arctic Athabaskan Council, Gwich’in Council International, Inuit Circumpolar Conference, Russian Association of Indigenous Peoples of the North, and Saami Council).

Id.

⁶³ Supreme Audit, Joint Memorandum, *supra* note 61, at 1.

⁶⁴ Wilfrid Greaves, *Canada, Circumpolar Security, & The Arctic Council*, NORTHERN PUB. AFF. 58, 58–59 (2013).

⁶⁵ Timo Koivurova, *Environmental Protection in the Arctic and Antarctic: Can the Polar Regimes Learn from Each Other?*, 33 INT’L J. LEGAL INFO. 204, 214 (2005).

observed and projected climate change and its impacts. The Arctic is now experiencing some of the most rapid and severe climate change on earth.”⁶⁶

The Indigenous people of the Arctic nations collectively represent one million people and represent the majority of the Arctic inhabitants in Canada and Greenland.⁶⁷ The Indigenous people are the customary residents of the Arctic region and now have high-level input in the region via the Arctic Council.⁶⁸ Their professed rights include the right to hunt, safety next to future shipping lanes, and share of economic benefits derived from the Arctic.⁶⁹

The division of Canada’s Northwest Territory and the creation of the Nunavut Territory and Yukon Territory indicate that all of the northern territories of the Canadian Arctic are on devolutionary tracks to become self-governing provinces within a new Canadian confederation.⁷⁰ “Canada has committed to a renewed, nation-to-nation relationship with Indigenous peoples based on recognition of rights, respect, co-operation and partnership, and rooted in the principles of the United Nations Declaration on the Rights of Indigenous Peoples [UNDRIP].”⁷¹ The declaration was adopted by the General Assembly on September 13, 2007, and was voted against by Australia, Canada, New Zealand, and the United States.⁷² Subsequently, in November

⁶⁶ Randall S. Abate, *Climate Change, the United States, and the Impacts of Arctic Melting: A Case Study in the Need for Enforceable International Environmental Human Rights*, 26 STAN. ENVTL. L.J. 3, 31 (2007) (quoting SUSAN JOY HASSOL, IMPACTS OF A WARMING ARCTIC: ARCTIC CLIMATE IMPACT ASSESSMENT 10 (2004), <https://acia.amap.no> [<https://perma.cc/X47U-5QV6>]).

⁶⁷ *Indigenous Population in the Arctic*, NORDREGIO (Mar. 21, 2019), <https://www.nordregio.org/maps/indigenous-population-in-the-arctic> [<https://perma.cc/YK3D-MP3V>].

⁶⁸ DEAN ALLISON, CANADA AND THE ARCTIC COUNCIL: AN AGENDA FOR REGIONAL LEADERSHIP, 41ST PARLIAMENT, REP. STANDING COMMITTEE FOREIGN AFF. & INT’L DEV., at 5 (1st Sess. 2013).

⁶⁹ Borgerson, *supra* note 5, at 73.

⁷⁰ Stephanie Irlbacher-Fox & Stephen J. Mills, *Devolution and Resource Revenue Sharing in the Canadian North: Achieving Fairness Across Generations*, CHRISTIAN ABORIGINAL INFRASTRUCTURE DEV. 19, <http://caid.ca/ResRevShaCanNor2007.pdf> [<https://perma.cc/JB3D-GMTM>] (last visited Feb. 23, 2020).

⁷¹ *United Nations Declaration on the Rights of Indigenous Peoples*, INDIGENOUS & NORTHERN AFF. CAN., <https://www.aadnc-aandc.gc.ca/eng/1309374407406/1309374458958> [<https://perma.cc/8QQF-ABVY>] (last updated Aug. 3, 2017) [hereinafter U.N. Declaration].

⁷² *United Nations Declaration on the Rights of Indigenous Peoples*, U.N. DEPT. ECON. & SOCIAL AFF., <https://www.un.org/development/desa/indigenouspeoples/declaration-on-the-rights-of-indigenous-peoples.html> [<https://perma.cc/N8K7-KH4E>] (last visited Feb. 23, 2020). There were eleven abstentions: Azerbaijan, Bangladesh, Bhutan, Burundi, Colombia, Georgia, Kenya, Nigeria, Russian Federation, Samoa, and Ukraine.

2010, Canada formally endorsed UNDRIP in a manner consistent with Canada's Constitution and laws.⁷³

The critical issues facing the circumpolar regions are “sustainability, subsistence living, community well-being, and self-government,”⁷⁴ all of which must be balanced with a diverse array of dominating variables, such as climate change, economics, and political and social development.⁷⁵ Other supranational entities that have emerged in response to an ever-growing interest in the Arctic are the Barents-Euro Arctic Council (regional cooperation among Norway, Sweden, Finland, and Russia); The Northern Forum (circumpolar forum of regions with Alaska as the headquarters); Nordic Council (five Nordic States plus Greenland and the Faroe Islands); and the EU⁷⁶—although, it will be interesting to see the impact of Brexit in cultivating an active role in the Arctic and in developing policy on the preservation of Arctic resources.

The race for the Arctic goes beyond the supranational organizations and riparian states identified above and also includes a strong international lobby by other nations, such as China, claiming “Near-Arctic State” status who have expansive interests⁷⁷ and will likely push for an international model of Arctic global management similar to the Antarctic.⁷⁸ The conflicting claims of sovereignty for Antarctica essentially led to agreement and collaboration of states with vested interests to recognize each other's disagreement. Rather than disputing

⁷³ U.N. Declaration, *supra* note 71.

⁷⁴ U. ARCTIC, INTRODUCTION TO THE CIRCUMPOLAR WORLD 4, <https://core.ac.uk/download/pdf/5211896.pdf> [<https://perma.cc/FRD9-KS3Q>] (last visited Feb. 23, 2020).

⁷⁵ *Bachelor of Circumpolar Studies (BSC) 100: Introduction to the Circumpolar World*, NORTHERN RES. PORTAL, http://scaa.usask.ca/gallery/northern/en_courses_bcs100.php [<https://perma.cc/7MDX-9DY5>] (last visited Feb. 21, 2020).

⁷⁶ Adam Stepien & Andreas Raspotnik, *The EU's Arctic Future Following the Spring of Statements*, ARCTIC PORTAL, <https://arcticyearbook.com/arctic-yearbook/2016/2016-briefing-notes/206-the-eu-s-arctic-future-following-the-spring-of-statements> [<https://perma.cc/26ZU-VQXM>] (last visited Feb. 21, 2020).

⁷⁷ In January 2018, China released “China's Arctic Paper,” which claims “rights in respect of scientific research, navigation, overflight, fishing, laying of submarine cables and pipelines, . . . and rights to resource exploration and exploitation in the Area . . . and shoulders the important mission of jointly promoting peace and security in the Arctic.” Sherman Xiaogang Lai, *China's Arctic Policy and Its Potential Impact on Canada's Arctic Security*, CAN. NAVAL REV. (Apr. 17, 2019), <http://cimsec.org/chinas-arctic-policy-and-its-potential-impact-on-canadas-arctic-security/40180> [<https://perma.cc/93HJ-LAZK>] (quoting CHINA'S ARCTIC POLICY, STATE COUNCIL INFO. OFFICE CHINA (2018), http://english.www.gov.cn/archive/white_paper/2018/01/26/content_281476026660336.htm [<https://perma.cc/5JTM-RC6E>]).

⁷⁸ *Id.*

and developing conflict, they worked collectively. In contrast, in the Arctic, the eight Arctic nations have long established sovereignty and history of governance in the Arctic circumpolar region, and it is recognized respectfully that these riparian nations have much at stake.⁷⁹

The governance structure in the circumpolar north is also shaped and directed by international law, such as UNCLOS, general international laws and precedence recognized by the International Court of Justice, and a myriad of respective state jurisdictional tools for power and controls, along with their respective economic, environmental, and national security policies.⁸⁰

IV COMPETING SOVEREIGNTY CLAIMS TO THE ARCTIC: THE RACE IS ON!

The Arctic region is commonly perceived as frozen polar seawater known as the Arctic Ocean, which is the smallest of the world’s five oceans,⁸¹ surrounded by vast and remote northern lands of North America, Europe, and Asia⁸² (e.g., Canada, the United States, Denmark [Greenland],⁸³ Norway, and Russia all border the Arctic Ocean), and sparsely inhabited by small communities across all the Arctic states.⁸⁴

⁷⁹ P. WHITNEY LACKENBAUER & ROB HUEBERT, *An Important International Crossroads*, in (RE)CONCEPTUALIZING ARCTIC SECURITY: SELECTED ARTICLES FROM THE JOURNAL OF MILITARY AND STRATEGIC STUDIES, at i, iv (P. Whitney Lackenbauer et al. eds., 2017) (ebook).

⁸⁰ HEATHER EXNER-PIROT, *Beyond the Arctic Council: Cooperation Needs and Gaps in the Arctic Region*, in NORTH OF 60: TOWARD A RENEWED CANADIAN ARCTIC AGENDA 51, 53–54 (John Higginbotham & Jennifer Spence eds., 2016), https://www.cigionline.org/sites/default/files/north_of_60_special_report_lowres.pdf [<https://perma.cc/3EP4-DFC3>].

⁸¹ Amanda Briney, *Arctic Ocean or Arctic Seas*, THOUGHTCO., <https://www.thoughtco.com/arctic-seas-overview-1435183> [<https://perma.cc/F8BE-5UY8>] (last updated Nov. 6, 2019).

⁸² *Id.* The Antarctic (in contrast to the Arctic) is both an uninhabitable continent and is surrounded by ocean, whereas the Arctic land mass is collectively inhabited by approximately one million indigenous Inuit people. From an international law perspective, a comparison of the Arctic Ocean with the Mediterranean Sea has also been made in that it is a large sea body surrounded by littoral states, except in the latter case they have had clearer historical claims and it has not been rendered unnavigable by frozen ice cover. See Borgerson, *supra* note 5, at 73.

⁸³ Briney, *supra* note 81. “Sovereignty over Greenland is exercised by Denmark and Greenlanders are viewed by the Danish government as an indigenous people within Denmark.” Currie, *supra* note 45, at 3.

⁸⁴ Mona Elisabeth Brother, *What Can the Arctic Governments Do About Climate Change?*, HUFFINGTON POST (Nov. 13, 2014, 5:59 AM), https://www.huffingtonpost.ca/mona-elisabeth-brother/arctic-climate-change_b_5811612.html [<https://perma.cc/3BT5-UYX3>].

“The Arctic Ocean features internal sea waters, territorial seas, contiguous zones, exclusive economic zones [EEZs], the high seas, the continental shelf, and seabed areas beyond the limits of the continental shelf.”⁸⁵ See Figure 1.

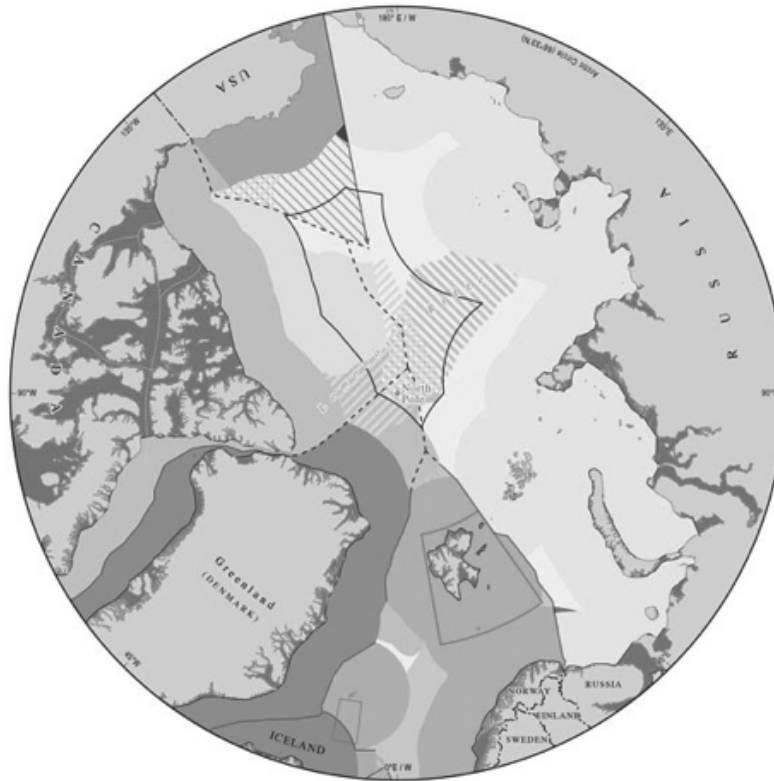


Figure 1. Map of maritime jurisdiction and boundaries in the Arctic region.⁸⁶

The Arctic Ocean’s seabed is about fifty percent continental shelf⁸⁷ (highest percentage of all oceans) with a central basin that has three

⁸⁵ Currie, *supra* note 45, at 6.

⁸⁶ Map showing the coastal Arctic states, their joint Exclusive Economic Zones (EEZs), and the natural prolongations of their land territories. Reprinted by permission from IBRU: Centre for Borders Research, *Arctic Maps*, DURHAM U., U.K., full color version available at <http://www.durham.ac.uk/ibru/resources/arctic> [<https://perma.cc/3XPD-XPFM>] (last updated Jan. 20, 2020) [hereinafter IBRU].

⁸⁷ In general terms, a continental shelf is the submerged border of a continent that slopes downward gradually and extends to a point of steeper descent to the ocean bottom. In legal terms, the continental shelf of a coastal State comprises the sea-bed and subsoil of

submarine ridges running across its body and circumference (Alpha Cordillera, Nansen Cordillera, and Lomonosov Ridge).⁸⁸ The Lomonosov Ridge, as noted, is one of the special features of the Arctic seabed, and Russia claims the underwater ridge, which crosses the Arctic Ocean between the New Siberian Islands and Ellesmere Island (Canada), representing an extension of its Asian continental shelf.⁸⁹ See Figure 2.

the submarine areas that extend beyond its territorial sea, throughout the natural prolongation of its land territory, to the outer edge of the continental margin, or to a distance of 200 nautical miles from the baselines from which the breadth of the territorial sea is measured where the outer edge of the continental margin does not extend up to that distance.

Currie, *supra* note 45, at 10.

⁸⁸ *Topography of the Ocean Floor*, ENCYCLOPEDIA BRITANNICA, <https://www.britannica.com/place/Arctic-Ocean/Topography-of-the-ocean-floor> [https://perma.cc/M76W-2D4M] (last visited Feb. 23, 2020).

⁸⁹ Michael Byers, *The North Pole Is a Distraction*, GLOBE & MAIL (Aug. 20, 2014), <https://www.theglobeandmail.com/opinion/the-north-pole-is-a-distraction/article20126915> [https://perma.cc/VU3L-SYAV].

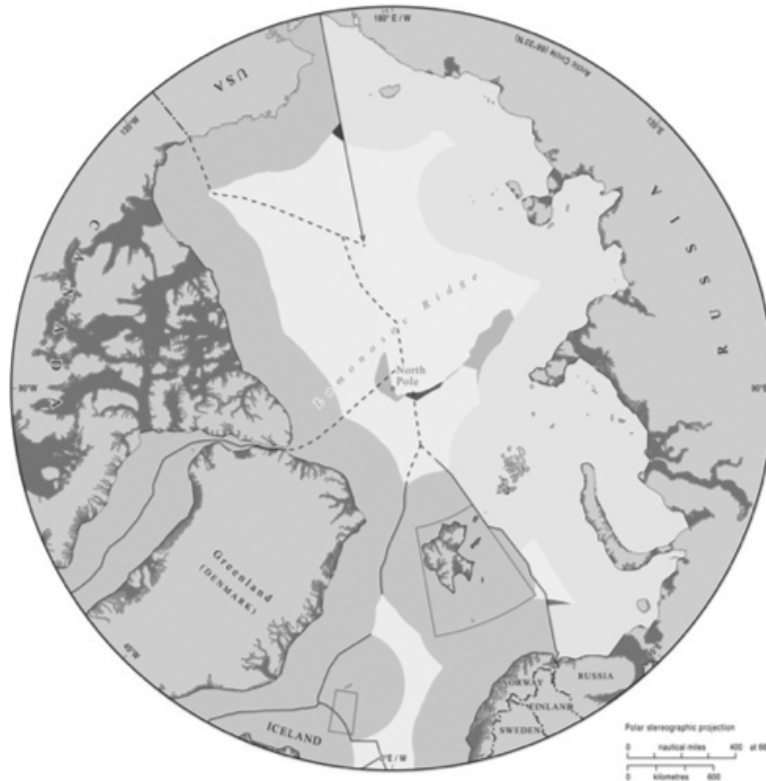


Figure 2. Map of Russian claims to the Arctic.⁹⁰

This claim by Russia has been contested by Norway, the United States, Denmark (Greenland),⁹¹ and Canada. The latter two seek to establish before UNCLOS that the Lomonosov Ridge is an extension of the North American continental shelf.⁹² The motive appears to be that if any of these countries are successful in establishing the Lomonosov Ridge as an extension of their continental shelf, then they may claim up to an additional 150 nautical miles of seabed rights (under UNCLOS Article 76) in the central area of the Arctic Ocean, which

⁹⁰ Reprinted by permission from IBRU, *supra* note 86, full color version available at <http://www.durham.ac.uk/ibru/resources/arctic> [https://perma.cc/3XPD-XPFM].

⁹¹ Alyona Burdina, *Several Countries Lay Claim to Disputed Lomonosov Ridge, ARCTIC* (Nov. 15, 2018), <https://arctic.ru/analytic/20181115/804847.html> [https://perma.cc/M3NZ-9K6Q].

⁹² *Id.*

otherwise is considered *res nullius*,⁹³ or the common heritage of mankind.⁹⁴ With acceptance of their claims under UNCLOS, the claimants will gain exclusive economic rights for that area's Arctic seabed's precious minerals and hydrocarbons.⁹⁵

A. Russia's Arctic and Lomonosov Ridge Claims

Russian legal claims over the Arctic go back to April 1926 (and further back to the period of 1824–1875)⁹⁶ when the former Soviet Union government staked a claim to the region.⁹⁷ The claim stated the following:

All lands and islands, both discovered and which may be discovered in the future, which do not comprise at the time of publication of the present decree the territory of any foreign state recognized by the Government of the USSR, located in the northern Arctic Ocean, north of the shores of the Union of Soviet Socialist Republics up to the North Pole between the meridian 32°04'35" E. long. from Greenwich, running along the eastern side of Vaida Bay through the triangular marker on Cape Kekurskii, and the meridian 168°49'30" W. long. from Greenwich, bisecting the strait separating the Ratmanov and Kruzenstern Islands, of the Diomedede group in the Bering Sea, are proclaimed to be territory of the USSR.⁹⁸

Russia has also claimed vast areas of the Arctic ice cap as its own territory based on a principle of international law known as the "sector

⁹³ See generally Ruddy, *supra* note 35. *Res nullius* means owned by no one, and it is considered by many as common to all. *Id.*

⁹⁴ On a technical note, Shaw distinguishes between *res nullius* (I equate *terra nullius* with *res nullius*) and *res communis* quite nicely in the following comment:

Apart from territory actually under the sovereignty of a state, international law also recognises territory over which there is no sovereign. Such territory is known as *terra nullius*. In addition, there is a category of territory called *res communis* which is (in contrast to *terra nullius*) generally not capable of being reduced to sovereign control. The prime instance of this is the high seas, which belong to no-one and may be used by all. Another example would be outer space.

SHAW, *supra* note 33, at 413.

⁹⁵ Thomas Renard, *Russia in the Arctic: A Race for Oil or Patriotism?*, NEW SECURITY BEAT (Nov. 8, 2007), <http://newsecuritybeat.blogspot.com/2007/11/russia-in-arctic-race-for-oil-or.html> [<https://perma.cc/K8VG-XU5A>].

⁹⁶ *Russian Northern Expeditions (18th–19th Century)*, BEAUFORT GYRE EXPLORATION PROJECT, https://www.whoi.edu/beaufortgyre/history/history_russian1819.html [<https://perma.cc/ZC6Q-JQR3>] (last visited Feb. 23, 2020).

⁹⁷ LASSI HEININEN, ALEXANDER SERGUNIN & GLEB YAROVY, *RUSSIAN STRATEGIES IN THE ARCTIC: AVOIDING A NEW COLD WAR 50* (Valdai Discussion Club 2014).

⁹⁸ Leonid Timtchenko, *The Russian Arctic Sectoral Concept: Past and Present*, 50 *ARCTIC* 29, 30 (1997).

theory” (also referred to as “sector principle”),⁹⁹ which involves the drawing of a triangle: the two sides beginning at the edge of the territorial land border and, in this case, going up to the North Pole. This “sector principle” has also been used by Canada, which asserts that its Arctic lands give it sovereignty over a triangular sector extended from the most northeastern and northwestern points of their Arctic baseline to the North Pole.¹⁰⁰ As the two Arctic states with the largest land masses adjacent to the Arctic Ocean, it is both logical and advantageous for Russia and Canada to seek application of the “sector principle” and equally compelling for the Arctic states with smaller Arctic coastlines to oppose it.

Concerning the application of the “sector principle” in the Arctic, many American and British jurists find that the theory is “not generally accepted under international law and the legality of any territorial claims based upon this theory must be doubted, although it may be noted that other Arctic states have applied the theory to various extents.”¹⁰¹ However, based on the concepts of both contiguity and proportionality, it can be argued that the fairest means of assigning sovereignty in the Arctic region—if it is to be assigned via international law—is on the basis of the sector principle.¹⁰² This contrasts with the alternative regimes of *res communis*—which permits freedom of access, exploration, and exploitation—or a common heritage regime that “would strictly regulate exploration and exploitation, would establish management mechanisms, and would employ the criterion of equity in distributing the benefits of such activity”¹⁰³ for the benefit of the world.

Both approaches are reminiscent of the fabled story of the “tragedy of the commons,” which, as an economic theory, asserts that resources left in common management and owned by no one will ultimately

⁹⁹ Use has been made of the concept of contiguity to assert claims over areas forming geographical units with those already occupied, in the form of the so-called sector principle. This is based on meridians of longitude as they converge at the North Pole and as they are placed on the coastlines of the particular nations, thus producing a series of triangular sectors with the coasts of the Arctic states as their baselines.

SHAW, *supra* note 33, at 455–56.

¹⁰⁰ Alexander Proelss & Till Müller, *The Legal Regime of the Arctic Ocean*, 68 ZEITSCHRIFT FÜR AUSLÄNDISCHES ÖFFENTLICHES RECHT UND VÖLKERRECHT [ZAÖRV] 651, 655 (2008) (Ger.).

¹⁰¹ STEVEN WHEATLEY, INTERNATIONAL LAW 65 (Blackstone Press 1996); see Currie, *supra* note 45.

¹⁰² Stephanie Holmes, *Breaking the Ice: Emerging Legal Issues in Arctic Sovereignty*, 9 CHI. J. INT’L L. 323, 345 (2008).

¹⁰³ SHAW, *supra* note 33, at 454.

suffer a rapid demise as competition versus proprietorship over finite assets will prevail.¹⁰⁴ In essence, humans will rush to use a limited resource owned by no one but rather held in common by all. They believe that by not using it themselves, someone else will come along and use it first, thus promoting the competitive view of using a limited resource for your own benefit before you are excluded by someone else.¹⁰⁵ This Article argues that if the Arctic seabed is owned by the Arctic states under a sovereign basis, and ownership is determined using the sector principle, then the "freedom of the seas" navigation principle would remain unaffected when applied to areas beyond the Arctic nations' territorial seas.

With the melting polar ice, the Arctic region has become of strategic importance, representing a vast region of otherwise inhospitable territory between North America and Russia.¹⁰⁶ The military defense and national security concerns from climate change and improved navigation mean global access has taken on new dimensions that represent a potential challenge to all the Arctic states. As such, control of the Arctic has taken on new significance beyond solely mineral, oil and gas, and shipping access.¹⁰⁷

The Russian Navy has stated the following:

One of the key elements of the concept of a unipolar world (globalisation) is the joint efforts of countries on the Atlantic periphery in a military-political union (NATO) to establish control over the world's sea communications, to win and maintain dominance at sea, and to expand maritime threats to, primarily, Russia, China and India . . . Hence NATO's emphasis on naval power as a counterweight to the enormous land power of the Eurasian states . . . Even if the likelihood of a major war is now small, the possibility of a series of local maritime conflicts aimed at gaining access to and control over Russian maritime resources, primarily hydrocarbons, is entirely likely.¹⁰⁸

¹⁰⁴ Mark Griffiths & Jill Kickul, *The Tragedy of the Commons*, IVEY BUS. J. (Mar./Apr. 2013), <https://iveybusinessjournal.com/publication/the-tragedy-of-the-commons> [<https://perma.cc/VK78-9JL6>].

¹⁰⁵ Barry Schwartz, *Tyranny for the Commons Man*, NAT'L INT. ONLINE (June 23, 2009), <https://nationalinterest.org/article/tyranny-for-the-commons-man-3153> [<https://perma.cc/XRG5-6U4G>].

¹⁰⁶ SHAW, *supra* note 33, at 422.

¹⁰⁷ Luiza Ch. Savage, *Why Everyone Wants a Piece of the Arctic*, MACLEAN'S (May 13, 2013), <https://www.macleans.ca/news/canada/why-the-world-wants-the-arctic> [<https://perma.cc/EQ47-SSW5>].

¹⁰⁸ KEIR GILES, *Looking North, in RUSSIA AND THE ARCTIC: THE "LAST DASH NORTH"* 10, 15 (2007).

It is also quite significant to note that, politically, it is only via the Arctic seas that Russia has full, open access to the high seas, and it has been argued that—to a large extent—“the basis for Russia’s future and socioeconomic stability and security is now being laid down in developing the resources and spaces of the Arctic.”¹⁰⁹ See Figure 3. For instance, modern defensive infrastructure will be installed along the Russian Northern Sea Route (e.g., observation points, space and ground surveillance, and operational research).¹¹⁰ Also, the Russian Navy’s current building program should make it the world’s second largest by 2027 (e.g., 25% of massively increased Russian procurement budget is for building new ships).¹¹¹ A new generation of Russian aircraft carriers has also been announced.¹¹²

From a geopolitical security and defense perspective, it is disconcerting that the United States has over 1000 miles of Alaskan coastline (including the Bering Strait, a gateway to the Arctic Ocean)¹¹³ and a navy that may be as large as the next thirteen navies in the world combined,¹¹⁴ but owns only three nonnuclear¹¹⁵ icebreaking vessels (two heavy and one medium icebreakers). In comparison, “[w]ith 46 vessels, including six nuclear-powered models, Russia already has the world’s largest fleet of icebreakers by far. A distant second place, with 10 ships, goes to Finland. Canada has seven, as does Sweden.”¹¹⁶

Historically, it is interesting to note that the Arctic region was the world’s most militarized maritime space due to the large presence of

¹⁰⁹ *Id.* at 10.

¹¹⁰ *Id.* at 16–17.

¹¹¹ See Michael Peck, *Russia Says It Will Add 180 New Warships by 2027 (But There Is a Big Problem)*, NAT’L INT. ONLINE (Apr. 4, 2019), <https://nationalinterest.org/blog/buzz/russia-says-it-will-add-180-new-warships-2027-there-big-problem-50587> [<https://perma.cc/26G5-F7HY>].

¹¹² Nikolai Litovkin, *Why Is Russia Creating the Biggest Aircraft Carrier in the World?*, RUSSIA BEYOND (Apr. 13, 2017), https://www.rbth.com/defence/2017/04/13/why-is-russia-creating-the-biggest-aircraft-carrier-in-the-world_741689 [<https://perma.cc/83TA-H4S3>].

¹¹³ Peter J. Davies et al., *Bering Sea and Strait*, ENCYCLOPEDIA BRITANNICA, <https://www.britannica.com/place/Bering-Sea> [<https://perma.cc/L9MU-RSYK>] (last visited Feb. 23, 2020).

¹¹⁴ Larry Abramson, *How Big Should the U.S. Navy Be?*, NPR (Oct. 22, 2012, 3:00 PM), <https://www.npr.org/2012/10/22/163419358/what-does-the-navys-size-tells-about-u-s-power> [<https://perma.cc/2D3W-NWXA>].

¹¹⁵ See generally Polar Icebreaker Program; Record of Decision for the Polar Security Cutter Environmental Impact Statement, 84 Fed. Reg. 13,050 (Mar. 29, 2019).

¹¹⁶ Jeremiah Jacques, *Russian Icebreakers and the War for the Arctic*, TRUMPET (Apr. 18, 2019), <https://www.thetrumpet.com/20548-russian-icebreakers-and-the-war-for-the-arctic> [<https://perma.cc/2829-L7BL>].

nuclear submarines and intercontinental missiles during World War II and the Cold War.¹¹⁷

The millennial boom in energy and commodity prices has changed exploration economics for oil, gas, and minerals (e.g., steadily shrinking polar ice and Arctic access).¹¹⁸ New sea lines are emerging with ships now able to pass directly over the North Pole, through ice-free waters for a short duration during the summer months, which shortens a circumpolar shipping route, saving Russia’s Northern Sea Route and the Canadian Northwest Passage five thousand to eight thousand miles.¹¹⁹ See Figure 3.

¹¹⁷ Borgerson, *supra* note 5, at 68–69.

¹¹⁸ See generally STEFAN FOURNIER & MARGARET CARON-VUOTARI, CHANGING TIDES: ECONOMIC DEVELOPMENT IN CANADA’S NORTHERN MARINE WATERS (Conf. Bd. of Can. Oct. 2013).

¹¹⁹ Peter Tyson, *Future of the Passage*, NOVA (Feb. 2006), <http://www.pbs.org/wgbh/nova/arctic/passage.html> [<https://perma.cc/9JN4-TA6G>].

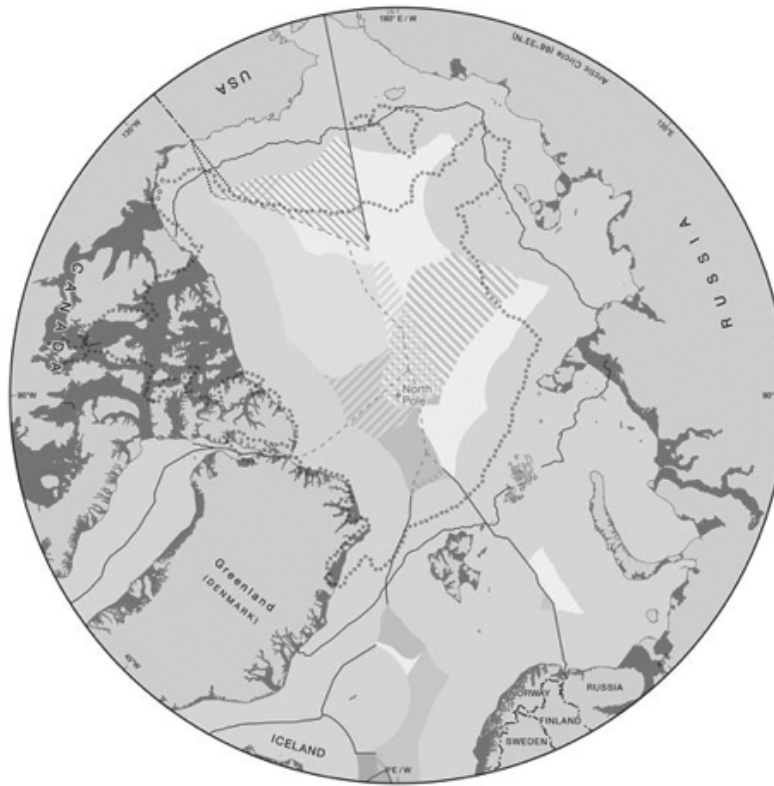


Figure 3. Map of status of Arctic waters beyond 200 nautical miles from shore.¹²⁰

Essentially, the Russian Northern Sea Route reduces the shipping “distance between Rotterdam and Yokohama from 11,200 nautical miles—via the current route, through the Suez Canal—to only 6,500 nautical miles.”¹²¹ This reduction in shipping distance translates into a significant savings in time and money (e.g., savings of canal fees, fuel costs, and other variable costs that determine freight rates).¹²² In essence, the estimated costs of a single voyage would be cut by \$17.5 million or more.¹²³ Savings would also be greater for mega ships that are unable to fit through the Panama and Suez Canals as they currently

¹²⁰ Reprinted by permission from IBRU, *supra* note 86, full color version available at <http://www.durham.ac.uk/ibru/resources/arctic> [<https://perma.cc/3XPD-XPFM>].

¹²¹ Borgerson, *supra* note 5, at 69.

¹²² *Id.*

¹²³ *Id.* at 69–70.

sail around the Cape of Good Hope and Cape Horn.¹²⁴ Also, sailing the Arctic is arguably safer for commercial and military vessels than the politically unstable Middle East waters and pirate-infested South China Sea.¹²⁵

"[T]he world's shipyards are already building ice-capable ships. The private sector is investing billions of dollars in a fleet of Arctic tankers."¹²⁶ The private sector is focusing on

the development of cutting-edge technology and the construction of new types of ships, such as double-acting tankers, which can steam [ahead] bow first through open water and then turn around and proceed stern first to smash through ice. These new ships can sail unhindered to the Arctic's burgeoning oil and gas fields without the aid of icebreakers. Such breakthroughs are revolutionizing Arctic shipping and turning what were once commercially unviable projects into booming businesses.¹²⁷

The Arctic resource development and exploration activity described above should come as no wonder as it is reported that the Russian-controlled Gazprom has approximately "113 trillion cubic feet of gas already under development in Barents Sea fields" and that the territory recently claimed by Russia may contain as much as 586 billion barrels of oil (unproven).¹²⁸ In contrast, all of Saudi Arabia's proven oil reserves equals approximately 260 billion barrels.¹²⁹ It is also significant to note that Russia gets 90% of its gas, 60% of its oil, greater

¹²⁴ *Implications for International Shipping*, CLIMATE POL'Y WATCH, <https://www.climate-policy-watcher.org/natural-resources/implications-for-international-shipping.html> [<https://perma.cc/3M37-Z8MY>] (last updated Aug. 13, 2019).

¹²⁵ Borgerson, *supra* note 5, at 70.

¹²⁶ *Id.* at 71.

¹²⁷ *Id.* (alteration in original).

As soon as marine insurers recalculate the risks involved in these voyages, trans-Arctic shipping will become commercially viable and begin on a large scale. In an age of just-in-time delivery, and with increasing fuel costs eating into the profits of shipping companies, reducing long-haul sailing distances by as much as 40 percent could usher in a new phase of globalization. Arctic routes would force further competition between the Panama and Suez Canals, thereby reducing current canal tolls; shipping chokepoints such as the Strait of Malacca would no longer dictate global shipping patterns; and Arctic seaways would allow for greater international economic integration. When the ice recedes enough, likely within this decade, a marine highway directly over the North Pole will materialize.

Id. at 70.

¹²⁸ *Id.* at 67–68.

¹²⁹ *Id.* at 68.

than 90% of its nickel and cobalt, 60% of its copper, and 98% of its platinum metals from its Arctic region.¹³⁰

The Arctic Ocean could contain 25% of the world's undiscovered oil and gas,¹³¹ and, as noted in the U.K.'s *Guardian* on June 28, 2007, Russia already has the world's largest gas reserves and is the second largest exporter of oil after Saudi Arabia, and Putin is keen to secure Russia's hegemony over global markets and to find new sources of fuel.¹³²

The U.N. rejected Moscow's first claim on the Lomonosov Ridge continental shelf extension in 2001 due to lack of scientific proof.¹³³ In 2007, Russia sent a scientific expedition to the North Pole which garnered attention and consternation by littoral states when Russia planted its flag on the North Pole.¹³⁴ The Lomonosov Ridge is "a 1,240 mile long underwater mountain range that spans the length of its polar region . . . [which Russia asserts] is actually an extension of the Siberian shelf and therefore Russia should be granted exclusive economic rights to it."¹³⁵ After using scientific data it collected, Russia resubmitted its claim in 2015.¹³⁶ Its revised bid includes an underwater seabed area of over 463,000 square miles and extends 350 nautical miles from the shore, which includes claims for Lomonosov Ridge, the Mendeleev-Alpha Ridge, and the Chuchi Plateau.¹³⁷

B. Denmark's (Greenland) Arctic and Lomonosov Ridge Claims

The Kingdom of Denmark is composed of three parts of the unity of the Realm—Denmark, Greenland, and the Faroe Islands—and, by virtue of Greenland, is centrally located as a coastal state in the

¹³⁰ MARK A. SMITH, *Russia and the Arctic: The New Great Game*, in *RUSSIA AND THE ARCTIC: THE "LAST DASH NORTH"* 1, 1 (2007).

¹³¹ *Id.*

¹³² Luke Harding, *Kremlin Lays Claim to Huge Chunk of Oil-Rich North Pole*, *GUARDIAN* (June 28, 2007), <https://www.theguardian.com/world/2007/jun/28/russia.oil> [<https://perma.cc/6Y8C-429W>].

¹³³ Robyn Winz, *Lomonosov Shelf, Arctic Claims, and Climate Change*, *MANDALA PROJECTS* (May 2013), <http://mandalaprojects.com/ice/ice-cases/lomonosov.htm> [<https://perma.cc/PBG8-LWPN>].

¹³⁴ *Id.*

¹³⁵ Andy Deahn, *Arctic Geopolitics: Future Conflict Beyond the Caspian*, *MOD. DIPL.* (Sept. 4, 2015), <https://modern diplomacy.eu/2015/09/04/arctic-geopolitics-future-conflict-beyond-the-caspian> [<https://perma.cc/9DC4-M53G>].

¹³⁶ *Id.*

¹³⁷ *Russia Submits Revised Claims for Extending Arctic Shelf to UN*, *RT QUESTION MORE* (Feb. 10, 2018, 10:45 PM), <https://www.rt.com/news/332089-russia-arctic-claim-un> [<https://perma.cc/2QV8-G7LQ>] [hereinafter *Russia Submits Claims*].

Arctic.¹³⁸ “[B]oth the Faroe Islands and Greenland have extensive self-government” and a devolved set of legislative and administrative powers from Denmark.¹³⁹

“The Faroe Islands and Greenland have had home rule since 1948 and 1979, respectively.”¹⁴⁰ Home rule legislation has been modernized, most recently in the Faroe Islands by the Takeover Act of the Faroe Islands, the Act on the Power of Matters and Fields of Responsibility, and the Foreign Policy Act on the Faroes Islands of 2005 and in Greenland by the Greenland Self-Government Act of 2009.¹⁴¹ “Considerable parts of the separation of powers that are central in an Arctic context are matters that fall within the exclusive powers of the respective Faroese and the Greenland authorities.”¹⁴² Greenland has authority over mineral resources.¹⁴³ Also, exploration, development, and exploitation of resources in Greenland are authorized by the Greenlandic authorities.¹⁴⁴ “However, revenues from mineral activities will benefit both the Greenland and Danish people, given that cf. Self-Government Act for Greenland there will be a reduction of the annual block grant in line with possible revenues from mineral resources.”¹⁴⁵

In December 2014, Denmark, through its territorial hold over Greenland, staked a claim of about 350,000 square miles of continental shelf in the Arctic, contending that its data shows Greenland’s continental shelf connected to the Lomonosov Ridge.¹⁴⁶ To date, Denmark has submitted five Arctic continental shelf extension claims to the U.N.: (1) a submission for north of the Faroe Islands in 2009; (2) a submission for south of the Faroe Islands in 2010; (3) a submission for south of Greenland in 2013; (4) a submission for northeast of Greenland; and (5) most recently, a submission for

¹³⁸ DENMARK, GREENLAND AND THE FAROE ISLANDS: KINGDOM OF DENMARK STRATEGY FOR THE ARCTIC 2011–2020, at 7 (Ministry Foreign Aff. Aug. 2011), https://naalakkersuisut.gl/~media/Nanoq/Images/Udenrigsdirektoratet/100295_Arktis_Rapport_UK_210x270_Final_Web.pdf [<https://perma.cc/VQ2S-7FYU>].

¹³⁹ *Id.* at 10.

¹⁴⁰ *Id.*

¹⁴¹ *Id.*

¹⁴² *Id.*

¹⁴³ *Id.*

¹⁴⁴ *Id.*

¹⁴⁵ *Id.*

¹⁴⁶ Krishnadev Calamur, *Denmark Claims Part of the Arctic, Including the North Pole*, NPR (Dec. 15, 2014, 1:39 PM), <https://www.npr.org/sections/thetwo-way/2014/12/15/370980109/denmark-claims-part-of-the-arctic-including-the-north-pole%20Dec.%2015,%202014> [<https://perma.cc/ELM7-WYNQ>].

Lomonosov Ridge, north of Greenland in 2014.¹⁴⁷ Several other disputed Arctic areas between Russia and Canada and “parts of Amundsen Basin, the Lomonosov Ridge, Makarov-Podvodnikov Basins and Mendeleev Rise are also claimed by Denmark as an extension of Greenland.”¹⁴⁸

“The submission of our claim to the continental shelf north of Greenland is a historic and important milestone for . . . Denmark The objective of this huge project is to define the outer limits of our continental shelf and . . . of the Kingdom of Denmark.”¹⁴⁹ The 2014 Lomonosov Ridge claim is an assumed natural prolongation of northern Greenland.¹⁵⁰ If this claim is successful, Denmark would expand its EEZ, which would enable Denmark to exercise control of shipping, mining, and drilling rights within 200 nautical miles of the Lomonosov Ridge.¹⁵¹ Since 2008, Denmark also has an ongoing strategic partnership with China,¹⁵² which, in 2018, released its white paper on the Arctic, and Denmark plans to make extensive use of developing Arctic shipping routes.¹⁵³ “The document also encapsulated Beijing’s emerging goals in the far north as the need to ‘understand, protect, develop, and participate in the governance of the Arctic.’”¹⁵⁴ Chinese firms have been investing in Greenland’s emerging mineral wealth that is becoming more accessible due to climate change, and Chinese firms are being considered for the expansion of three airports

¹⁴⁷ *Id.*

¹⁴⁸ *Russia Submits Claims*, *supra* note 137.

¹⁴⁹ *Denmark and Greenland Will Today File a Submission Regarding the Continental Shelf North of Greenland*, MINISTRY FOREIGN AFF. DEN., <https://um.dk/en/news/newsdisplaypage/?newsid=71574e42-6115-4d16-9c8a-4c056f8603f3> [<https://perma.cc/D8BS-9SGX>] (last visited Feb. 23, 2019).

¹⁵⁰ Christian Marcussen et al., *Exploring for Extended Continental Shelf Claims Off Greenland and the Faroe Islands—Geological Perspectives*, 4 GEOLOGICAL SURV. DEN. & GREEN. BULL. 61, 63 (2004).

¹⁵¹ Wendy Koch, *Denmark Eyes North Pole, but How Much Oil and Gas Await?*, NAT’L GEOGRAPHIC (Dec. 17, 2014), <https://www.nationalgeographic.com/news/energy/2014/12/141217/oil-natural-gas-denmark-north-pole-arctic> [<https://perma.cc/CV3M-PKTW>].

¹⁵² See generally Andreas Bøje Forsby, *Denmark and China as Strategic Partners: An Odd Couple’s Quest for Bilateral Harmony*, in CHINA AND NORDIC POLICY 27 (Bjørnar Sverdrup-Thygeson, Wrenn Yennie Lindgren & Marc Lanteigne eds., 2017).

¹⁵³ Ekaterina Klimenko, *Shipping Along the Arctic’s Northern Sea Route Will Be Determined by Russia–China Cooperation in the Region*, STOCKHOLM INT’L PEACE RES. INST. (Feb. 7, 2018), <https://www.sipri.org/commentary/expert-comment/2018/shipping-along-arctics-northern-sea-route-will-be-determined-russia-china-cooperation-region> [<https://perma.cc/9VGP-HLAB>].

¹⁵⁴ Marc Lanteigne & Mingming Shi, *China Stakes Its Claim to the Arctic*, DIPLOMAT (Jan. 29, 2018), <https://thediplomat.com/2018/01/china-stakes-its-claim-to-the-arctic> [<https://perma.cc/X4LX-6CPA>].

on Greenland’s sparsely populated island.¹⁵⁵ However, there have been diplomatic concerns because the United States, which operates a military base at Thule in northern Greenland, may have homeland security issues with these projects.¹⁵⁶

C. Canada’s Arctic and Lomonosov Ridge Claims

Canada has also long argued that it owns a large part of the Arctic.¹⁵⁷ In 1946, the Canadian Ambassador to the United States Lester B. Pearson (who later became Prime Minister of Canada and a Nobel Peace Prize recipient) stated the following:

A large part of the world’s total Arctic area is Canadian. One should know exactly what this part comprises. It includes not only Canada’s northern mainland, but the islands and the frozen sea north of the mainland between the meridians of its east and west boundaries, extended to the North Pole.¹⁵⁸

In addition to Canada’s dispute with Russia over its Lomonosov Ridge claim, Canada, which filed a similar claim with UNCLOS in May 2019,¹⁵⁹ also disagrees with Denmark’s 2014 UNCLOS claim to the Lomonosov Ridge. However, both Denmark and Canada argue that the Lomonosov Ridge is an extension of the Northern American/Greenlandic continental shelf—not the Russian shelf.¹⁶⁰ Canada is also engaged in riparian, sovereignty, and maritime delimitation disputes in at least four other areas of the Arctic: (1) the Northwest Passage,¹⁶¹

¹⁵⁵ *Greenland’s Airports: A Balance Between China and Denmark?*, OVER CIRCLE (June 15, 2018), <https://overthecircle.com/2018/06/15/greenlands-airports-a-balance-between-china-and-denmark> [https://perma.cc/824L-7A2Z].

¹⁵⁶ *Id.*

¹⁵⁷ See generally T.E.M. McKitterick, *The Validity of Territorial and Other Claims in Polar Regions*, 21 J. COM. LEGIS. & INT’L L. 89, 89 (1939). Because of the “sector principle,” Canada became the first country to extend its boundaries northward to the North Pole. Russia and Norway have also made sector-based claims. Also, the U.S. has made a sector claim, but the claim has not been pressed. *Id.*

¹⁵⁸ Lester B. Pearson, *Canada Looks Down North*, 24 FOREIGN AFF. 638, 638–39 (1946).

¹⁵⁹ Eilis Quinn, *Canada Files Submission to Establish Continental Shelf Outer Limits in Arctic Ocean*, EYE ON ARCTIC (May 24, 2019, 4:35 PM), <https://www.rcinet.ca/eye-on-the-arctic/2019/05/24/canada-files-submission-to-establish-continental-shelfs-outer-limits-in-arctic-ocean> [https://perma.cc/JP6T-GPQL].

¹⁶⁰ See Borgerson, *supra* note 5, at 74.

¹⁶¹ The United States and other countries (but not Russia) claim a right of passage through Arctic seas north of Canada’s land mass, which weaves through an archaeological maze of about 35,000 islands. Macneill, *supra* note 1, at 356. Meanwhile, Canada draws its northern boundary baseline around the outer shores of this archipelago rendering the Arctic

(2) the Beaufort Sea,¹⁶² (3) Hans Island,¹⁶³ and (4) unresolved delimitation issues between Russia and Canada in the areas of the Makarov-Podvodnikov Basins and Mendeleev Rise.¹⁶⁴

The issue of Canadian sovereignty in the Arctic obviously is neither new nor a simplistic geopolitical matter, and global warming and the retreat of the Arctic ice cap has elevated the issue forward as nations seem to be juxtaposing and scurrying to gain access to the region and its resources. In response, Canada “launched a satellite surveillance system designed to search for ships trespassing in its waters”¹⁶⁵ and announced a new deep-water port (Port Nanisivik) and a military training base at Resolute Bay, with former Prime Minister Stephen Harper declaring that the first principle of Arctic sovereignty is “use it or lose it.”¹⁶⁶ Subsequently, in 2017, Canada committed to constructing eight light icebreaking arctic patrol ships¹⁶⁷ as part of its northern strategy to increase its military presence in the Arctic.¹⁶⁸

While Canada and the United States agreed to disagree with respect to their positions on the Northwest Passage, and with no agreement on the Beaufort Sea boundaries, under the Trump Administration the United States has been anxious to push ahead its Alaska and Beaufort

to the south as inland internal waters, which in context contrasts the United States’ claim of right of passage. *Id.*

¹⁶² This dispute is again between Canada and its littoral neighbor the United States and concerns the Canadian claim of a linear border extension into offshore region of the Beaufort Sea of the border between Alaska and Canada’s Yukon Territory, with the U.S. drawing its border at a different angle and giving it greater access to petroleum reserves in the region. See Currie, *supra* note 45, at 5.

¹⁶³ See John Ibbitson, *Dispute Over Hans Island Nears Resolution. Now for the Beaufort Sea*, GLOBE & MAIL (Jan. 26, 2011), <https://www.theglobeandmail.com/news/politics/dispute-over-hans-island-nears-resolution-now-for-the-beaufort-sea/article563692> [<https://perma.cc/45C6-UE85>]. Hans Island is a 0.5-square-mile uninhabited rock, situated between Ellesmere Island (Canada) and Greenland (Denmark) in the Kennedy Channel, Nares Strait. The rock is significant because of its effect on each respective countries’ ability to extend its sovereignty rights over the resources in the region. *Id.*

¹⁶⁴ *Russia Submits Claims*, *supra* note 137.

¹⁶⁵ Borgerson, *supra* note 5, at 74.

¹⁶⁶ Kristin Bartenstein, “Use It or Lose It”: An Appropriate and Wise Slogan?, POL’Y OPTIONS, (July 1, 2010), <https://policyoptions.irpp.org/magazines/immigration-jobs-and-canadas-future/use-it-or-lose-it-an-appropriate-and-wise-slogan> [<https://perma.cc/UF54-G229>].

¹⁶⁷ See *Canada Begins Construction of Fourth Arctic and Offshore Patrol Ship*, NAVALTODAY.COM (May 6, 2019), <https://navaltoday.com/2019/05/06/canada-begins-construction-of-fourth-arctic-and-offshore-patrol-ship> [<https://perma.cc/E7B9-BNB5>].

¹⁶⁸ Adam Lajeunesse, *The Canadian Armed Forces in the Arctic: Purpose, Capabilities, and Requirements*, CANADIAN GLOBAL AFF. INST. (May 2015), https://www.cgai.ca/canadian_armed_forces_in_the_arctic [<https://perma.cc/5UXG-4SD6>].

Sea reserve leases.¹⁶⁹ The United States has not yet ratified UNCLOS.¹⁷⁰ A small majority within the Senate failed to ratify the convention in 2004.¹⁷¹ Once the United States ratifies UNCLOS, it is expected to submit a claim to the Arctic seabed of up to 200 miles off the coast of Alaska.¹⁷² Alternatively, if the United States does not ratify UNCLOS,¹⁷³ “then Washington may not be able to present its claims.”¹⁷⁴

V RECOMMENDATIONS

To resolve the jurisdictional issues in the Arctic, this Article proposes several policy solutions:

- 1) form a new international legal regime to protect the fragile Arctic region’s environment;¹⁷⁵
- 2) form a jurisdictional boundary around the Arctic Ocean using the baselines of the littoral countries;¹⁷⁶
- 3) form a moratorium on development in the region to help maintain the fragile ecosystem;¹⁷⁷
- 4) designate the Arctic Ocean north of the littoral baselines as an International Arctic Conservation Area;¹⁷⁸
- 5) develop a regional approach in the Arctic and settle outstanding boundary disputes;

¹⁶⁹ See Elizabeth Harball, *Trump Administration Appeals Ruling That Blocked Arctic Offshore Drilling*, KTOO PUB. MEDIA (May 28, 2019), <https://www.ktoo.org/2019/05/28/trump-administration-appeals-ruling-that-blocked-arctic-offshore-drilling> [https://perma.cc/H2ZU-UU2H].

¹⁷⁰ Mark J. Valencia, *Might China Withdraw from the UN Law of the Sea Treaty?*, DIPLOMAT (May 3, 2019), <https://thediplomat.com/2019/05/might-china-withdraw-from-the-un-law-of-the-sea-treaty> [https://perma.cc/X637-439Q].

¹⁷¹ See Elizabeth M. Hudzik, *A Treaty on Thin Ice: Debunking the Arguments Against U.S. Ratification of the U.N. Convention on the Law of the Sea in a Time of Global Climate Crisis*, 9 WASH. U. GLOBAL STUD. L. REV. 353, 358 (2010).

¹⁷² SMITH, *supra* note 130, at 5.

¹⁷³ *Id.* “Ratification of the Law has been blocked by a small group of Republican senators who say the treaty would infringe on American sovereignty.” *Id.*

¹⁷⁴ *Id.*

¹⁷⁵ Modeled after the successful international treaty system that governs Antarctica known as the Antarctic Treaty System. *See id.* at 9 n.47.

¹⁷⁶ Barry Hart Dubner, *On the Basis for Creation of a New Method of Defining International Jurisdiction in the Arctic Ocean*, 13 MO. ENVTL. L. & POL’Y REV. 1, 11 (2005).

¹⁷⁷ *Id.* at 11–12.

¹⁷⁸ *See id.* at 11.

- 6) have the United States and Canada strike a deal to settle the Beaufort Sea boundary and the Northwest Passage dispute;¹⁷⁹
- 7) encourage western pan-Arctic cooperation (i.e., Bering Strait) between the United States and Russia¹⁸⁰ (China, Japan, and Canada may also invest); and
- 8) encourage eastern pan-Arctic cooperation between Canada, Denmark (Greenland), Iceland, Norway, and Russia (United States may also partake).

CONCLUSION

The 1982 Law of the Sea Convention assigns significant undersea portions of the Arctic Ocean to Canada, the United States, Russia, Norway, and Denmark. These nations can claim the resources on, above, and beneath the ocean floor up to 200 miles from their baselines. Their claim can also be extended up to 350 miles for any area that is proven to be part of their continental shelf. All these nations have gained significant oil, gas, mineral, fish, and other precious resources as a result of this treaty.

Implementing an international legal regime to protect the Arctic region through regulating transportation, exploration, and exploitation will be impossible unless states are willing to give up their right to control access to the Arctic seas or their sovereignty over the deep seabed's natural resources. Two questions remain: (1) Is the global marketplace willing to limit or alter its consumption in order to protect the Arctic Ocean as well as the Arctic region?¹⁸¹ And, (2) will littoral Arctic states relinquish their resource sovereignty?

¹⁷⁹ Joint management similar to 1817 Rush-Bagot Agreement, with Canada to take lead to establish a public/private Arctic Seaway Management Corporation. *See* Borgerson, *supra* note 5, at 75.

¹⁸⁰ *Id.* at 76.

¹⁸¹ If we cannot readily access the vast resources of the arctic (e.g., oil, gas, metals, and minerals), the world may have challenges due to regulatory access barriers to meet the demand for these extractive natural resources as global population and consumption continue to grow.