

All but Quiet on the Northern Front: The Sector Principle as a Means of Resolving Arctic Territorial Disputes

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Introduction	839
I. Factual Background	840
II. The Law of Arctic Territorial Ownership	843
A. UNCLOS	843
B. Sector Theory	848
III. Relations Between Russia and the Other Arctic Powers	850
IV. Claims to the Lomonosov Ridge	852
V. Using a Mechanical Rule to Decide Claims	857
Conclusion	860

Introduction

As climate change continues to melt the Arctic and pave the way for its commercial exploitation, several states have claimed part of what is currently international territory around the North Pole.¹ Unfortunately, while all parties involved have already agreed not to create a new international legal regime to govern such claims, the existing legal regime, the United Nations Convention for the Law of the Sea (UNCLOS), does not provide a dependable framework for resolving territorial disputes.² Rather, UNCLOS largely relies on the claimants themselves to resolve conflicting territorial claims through careful negotiation and diplomacy, and only involves the courts as a last resort. While this framework may not present a problem in many cases, it could prove inadequate in an Arctic territorial dispute due to a significant lack of trust between the Russian Federation and the other Arctic UNCLOS signatories. A serious territorial dispute

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1. See Eilis Quinn, *Canada Files Submission to Establish Continental Shelf Outer Limits in Arctic Ocean*, BARENTS OBSERVER (May 27, 2019), <https://thebarentsobserver.com/en/Arctic/2019/05/canada-files-submission-establish-continental-shelf-outer-limits-Arctic-ocean> [https://perma.cc/F2VY-5HSY].

2. Arctic Ocean Conf., *The Ilulissat Declaration*, ARCTIC PORTAL (May 28, 2008), <https://arcticportal.org/images/stories/pdf/Ilulissat-declaration.pdf> [https://perma.cc/B4VG-PPJ7].

may already be underway as Russia, Denmark, and Canada have all submitted claims with the Commission on the Limits of the Continental Shelf to overlapping parts of the underwater Arctic Mountain range known as the Lomonosov Ridge.³ This Note will argue that UNCLOS by itself is likely inadequate to resolve territorial disputes in the Arctic because of its open-endedness. However, the Arctic nations could make up for UNCLOS' shortcomings by agreeing among themselves to resolve overlapping claims using an objective mechanical rule.

Part I of this Note will provide background information about the value of Arctic territory, and why various nations may be interested in claiming it. Part II will analyze the legal framework of the Arctic. More specifically, it will discuss the historical development of the Sector Theory and outline the legal framework of UNCLOS. Part III will examine the lack of trust between Russia and the other Arctic UNCLOS signatories, and the extent to which it might affect the ability of Arctic nations to resolve future territorial disputes through diplomacy. Part IV will provide an overview of Russia's, Denmark's, and Canada's overlapping claims to the Lomonosov Ridge. Finally, Part V will look at two examples of mechanical rules that the Arctic nations could use to resolve conflicting territorial claims, and how each nation (i.e., Russia, Denmark, and Canada) might view the use of these rules in the context of the Lomonosov Ridge. In conclusion, I will suggest that Russia, Denmark, and Canada should agree to the sectoral division of the Arctic.

I. Factual Background

Arctic nations may be interested in claiming territory now for several reasons. While the economic incentives to claim Arctic territory are the most apparent motivations, there are non-economic factors to consider as well. In addition to seeking profits, states may also be interested in demonstrating strength, affirming national values, gaining international prestige, or placating some third party. Thus, nations may find it in their best interests to claim Arctic territory for a variety of reasons, which may compel them to expend significant resources in acquiring the disputed territory.

The strongest incentives for claiming Arctic territory are most likely related to its potential economic value. Based on a probabilistic analysis, the United States Geological Survey's *Circum-Arctic Resource Appraisal* report concluded that "[t]he total mean undiscovered conventional oil and gas resources of the Arctic are estimated to be approximately 90 billion barrels of oil, 1,669 trillion cubic feet of natural gas, and 44 billion barrels of natural gas liquids."⁴ Even if the inhospitable nature of the Arctic makes exploitation of these resources cost prohibitive for now,⁵ global warming

3. See Quinn, *supra* note 1.

4. KENNETH BIRD ET AL., U.S. GEOLOGICAL SURV., *CIRCUM-ARCTIC RESOURCE APPRAISAL: ESTIMATES OF UNDISCOVERED OIL AND GAS NORTH OF THE ARCTIC CIRCLE 1* (2008), <https://pubs.usgs.gov/fs/2008/3049/> [<https://perma.cc/2AQM-U2ND>].

5. See Juliet Eilperin & Steven Mufson, *Royal Dutch Shell Suspends Arctic Drilling Indefinitely*, WASH. POST (Sept. 28, 2015), <https://www.washingtonpost.com/news/>

may soon change that. While the planet continues to warm at an already alarming rate, the Arctic is warming at twice the rate of the rest of the globe due to a phenomenon called “Arctic amplification,” which has led to a drastic reduction in the amount of Arctic ice.⁶ If this trend continues, it will make the extraction of resources in the Arctic much more lucrative because the more hospitable conditions could lower the overall cost of economic operations in the Arctic.⁷ Additionally, the thawing ice could also allow for lucrative shipping lanes over the northern coasts of Canada and Russia—or even across the Arctic itself—that would significantly reduce the cost of shipping and thus provide even more economic benefits to the nations that control these routes.⁸

Economic incentives are only one part of the picture, however. In fact, some of the activities in which the Arctic states are currently engaged are decidedly unprofitable. For example, Norway and Russia have both operated unprofitable coal mines, which have required state subsidies for decades, on the island of Svalbard.⁹ While this may seem strange, it can be explained by these states’ desire to flaunt their strengths to one another. Thus, proceeding with territorial claims in the Arctic may be just as much about denying the territory to other states as it is about claiming it for oneself. Russia, in particular, has built up a military presence in the Arctic, and the other Arctic states—all of which are members of the North Atlantic Treaty Organization (NATO)—have done the same.¹⁰ This suggests that, at least for some nations, securing Arctic territory may be seen as a necessary part of projecting strength, even if at an economic cost.

Another reason for making Arctic territorial claims may be cultural in nature. Some states may identify as Arctic nations more so than others, and therefore may be more motivated to make their presence known in the Arctic as a display of pride. For example, both Canadian and Russian politicians have suggested that the Arctic is a core aspect of their national identities.¹¹ Additionally, these states once claimed huge swaths of Arctic

energy-environment/wp/2015/09/28/royal-dutch-shell-suspends-Arctic-drilling-indefinitely/ [https://perma.cc/6L4Z-KAPP].

6. See NAT’ L OCEANIC & ATMOSPHERIC ADMIN., ARCTIC REPORT CARD 2018, at 2 (2018).

7. See Oistein Harsem et al., *Factors Influencing Future Oil and Gas Prospects in the Arctic*, 39 ENERGY POL’Y 8037, 8038–40.

8. See John E.D. Larkin, *UNCLOS and the Balance of Environmental and Economic Resources in the Arctic*, 22 GEO. INT’L ENV’T L. REV. 307, 321–22 (2010).

9. See Sarah McFarlane & James Marson, *Cold War in the Arctic: Russia, Norway Dig In*, WALL ST. J. (Oct. 10, 2017), <https://www.wsj.com/articles/cold-war-in-the-Arctic-russia-norway-dig-in-1507627802> [https://perma.cc/Y3VF-6JCZ].

10. See Andrew Osborne, *Putin’s Russia in Biggest Arctic Military Push Since Soviet Fall*, REUTERS (Jan. 30, 2017), <https://www.reuters.com/article/us-russia-Arctic-insight/putins-russia-in-biggest-Arctic-military-push-since-soviet-fall-idUSKBN15E0W0> [https://perma.cc/9B6J-9J45]; Helene Cooper, *Military Drills in Arctic Aim to Counter Russia, but the First Mission Is to Battle the Cold*, N.Y. TIMES (Apr. 12, 2019), <https://www.nytimes.com/2019/04/12/world/europe/global-warming-russia-Arctic-usa.html> [https://perma.cc/5BSQ-DLZ7].

11. See Prime Minister Stephen Harper Announces New Arctic Offshore Patrol Ships, GOV’T OF CANADA (July 9, 2007), <https://www.canada.ca/en/news/archive/2007/07/>

territory under the Sector Theory of Arctic ownership (which will be explained in detail below), further demonstrating these states' commitment to playing a significant role in the Arctic.¹²

Finally, Denmark is specifically interested in placating its autonomous territory, Greenland.¹³ Denmark is unique among the Arctic states in that it does not actually border the Arctic.¹⁴ Rather, Greenland does, which allows Denmark to have a seat at a table with much more prominent and powerful states, such as Russia, the United States, and Canada.¹⁵ While Denmark is seemingly uninterested in exploiting the Arctic's resources (and is in fact scaling back its domestic oil and gas production to comply with self-imposed environmental regulations), it evidently values the prestige that comes with playing a significant role in the Arctic.¹⁶ However, Denmark needs Greenland's loyalty to maintain this status;¹⁷ and, unfortunately for Denmark, Greenland is all but ready to secede, having passed laws that allow it to do so with a single referendum.¹⁸ Wary of this possibility, Denmark has gone to great lengths to court Greenland, going so far as to fund a quarter of Greenland's public budget with its own money.¹⁹ With that in mind, it seems likely that Denmark is motivated to claim territory on Greenland's behalf in the Arctic to demonstrate to Greenland that its relationship with Denmark is a beneficial one.²⁰

In all, there are a variety of factors that are likely motivating nations to claim Arctic territory and compelling enough that states will go to great lengths for the disputed said territory.

prime-minister-stephen-harper-announces-new-Arctic-offshore-patrol-ships.html [https://perma.cc/Q2S2-MM5R]; Davide Monteleone, *Russia's Arctic Obsession*, FIN. TIMES (Oct. 21, 2016), <https://ig.ft.com/russian-Arctic/> [https://perma.cc/7ES9-AZJH].

12. See U.N. Div. Ocean Affs. & L. Sea, *Commission on the Limits of the Continental Shelf (CLCS), Outer Limits of the Continental Shelf Beyond 200 Nautical Miles from the Baseline: Submissions to the Commission: Submission by the Russian Federation*, U.N. (June 30, 2009), https://www.un.org/Depts/los/clcs_new/submissions_files/submission_rus.htm [https://perma.cc/D4MJ-XZFX] [hereinafter *Russian Submission*]; U.N. Div. Ocean Affs. & L. Sea, *Commission on the Limits of the Continental Shelf (CLCS), Outer Limits of the Continental Shelf Beyond 200 Nautical Miles from the Baseline: Submissions to the Commission: Partial Submission by Canada*, U.N. (July 5, 2020), https://www.un.org/Depts/los/clcs_new/submissions_files/submission_can1_84_2019.html [https://perma.cc/E6JV-LYET].

13. See Marc Jacobsen, *Denmark's Strategic Interests in the Arctic: It's the Greenlandic Connection, Stupid!*, ARCTIC INST. (May 4, 2016), <https://www.theArcticinstitute.org/denmark-interests-Arctic-greenland-connection/> [https://perma.cc/NDT5-QLMV].

14. See *id.*

15. See *id.*

16. Stine Jacobsen, *Denmark Weighs Ending North Sea Oil and Gas Hunt*, REUTERS (Oct. 11, 2019), <https://www.reuters.com/article/us-denmark-oil/denmark-weighs-ending-north-sea-oil-and-gas-hunt-idUSKBN1WQ1J8> [https://perma.cc/L2AR-URWE].

17. See Jacobsen, *supra* note 13.

18. See *id.*

19. See *id.*

20. See *id.*; *Denmark Challenges Russia and Canada over North Pole*, BBC NEWS (Dec. 15, 2014) <https://www.bbc.com/news/world-europe-30481309#:~:text=Denmark%20has%20presented%20a%20claim,Greenland%2C%20a%20Danish%20autonomous%20territory> [https://perma.cc/X4FU-Y4HD].

II. The Law of Arctic Territorial Ownership

The process of making territorial claims under UNCLOS is a relatively new one.²¹ Although UNCLOS, in its current form, has been law since 1982, no state attempted to claim territory under its provisions until Russia did so in 2001.²² While UNCLOS is undeniably the relevant legal regime with regard to territorial claims in the Arctic today, older theories of territorial ownership, such as Sector Theory, may influence how certain states make territorial claims under UNCLOS. The purpose of this part is, firstly, to provide an overview of the legal framework of UNCLOS as it relates to territorial claims and, secondly, to describe the development of Sector Theory and explore the extent of its relevance to modern day Arctic territorial claims.

A. UNCLOS

The United Nations Convention for the Law of the Sea is a codification of international law that defines the legal status of the world's oceans.²³ One of the main principles that emerged during the formulation of UNCLOS is that outside of clearly defined national jurisdiction, the world's oceans are the common heritage of humanity, and thus do not belong to any one nation.²⁴ In keeping with that principle, UNCLOS does not actually allow any nation to gain total and absolute control of any part of the sea. Rather, UNCLOS grants every coastal state exclusive economic access to a defined area which the state can later expand under certain conditions.²⁵ Unfortunately, while UNCLOS provides a very thorough and well-defined process by which states can expand their economic control, it does not provide a dependable means by which to resolve disputes that arise when two states both try to expand into the same area. UNCLOS largely relies on the states themselves to figure it out, making litigation before an international tribunal a method of last resort. Thus, these tribunals may be forced to divide the contested territory without the benefit of a firm rule.²⁶ While the UNCLOS framework for dispute resolution is adequate in most cases, it may prove problematic when the states involved do not trust each other, are powerful, or have significant interests at stake.

UNCLOS automatically confers some economic rights to all coastal states. Under UNCLOS, each coastal state has an "exclusive economic

21. See Nick Korger, *Going Boldly Where No Country Has Gone Before: UNCLOS and the Russian Federation's Claim to the Arctic Circle*, 34 *WIS. INT'L L.J.* 731, 740 (2017).

22. U.N. Div. Ocean Affs. & L. Sea, Submissions, *Through the Secretary-General of the United Nations, to the Commission on the Limits of the Continental Shelf, Pursuant to Article 76, Paragraph 8, of the United Nations Convention on the Law of the Sea of 10 December 1982*, U.N. (Jan 4, 2021), https://www.un.org/Depts/los/clcs_new/commission_submissions.htm [<https://perma.cc/CD7P-EP57>] [hereinafter *CLCS Submissions*].

23. See Korger, *supra* note 21, at 740.

24. See *id.* at 741.

25. See *id.* at 743.

26. See *id.* at 754.

zone” (EEZ).²⁷ The EEZ can extend as far as 200 nautical miles away from a state’s coast.²⁸ Within this zone, each state has, among other rights,

sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the seabed and of the seabed and its subsoil, and with regard to other activities for the economic exploitation and exploration of the zone, such as the production of energy from the water, currents and winds.²⁹

However, consistent with the idea that the world’s oceans are the common heritage of humanity, UNCLOS places some limitations on the ability of a coastal state to regulate and control its EEZ.³⁰ In particular, Article 58 of UNCLOS severely limits a state’s control over its EEZ by giving all states freedom of navigation within it.³¹

Outside of the EEZs, the question of economic rights is more complicated. A state is entitled to exclusive economic rights to an area outside its EEZ if that area falls within that state’s continental shelf.³² Keep in mind, however, that a state must pay the other signatories of UNCLOS a share of its profits if it exploits economic resources outside of its own EEZ, even if the resources are within its continental shelf.³³ Article 76 defines the continental shelf as “the seabed and subsoil of the submarine areas that extend beyond its territorial sea throughout the natural prolongation of its land territory,” either to the edge of the “continental margin” or to a distance of 200 nautical miles, whichever is farther.³⁴ The continental margin in turn is “the submerged prolongation of the land mass of the coastal State, and consists of the seabed and subsoil of the shelf, the slope and the rise.”³⁵ The outermost edge of the continental margin is determined using one of two formulas that involve calculating the thickness of sedimentary rock and the distance from the foot of the continental slope.³⁶

Article 76(8) dictates that if a state wishes to establish that its continental shelf extends to an area farther than 200 nautical miles from the coast, that state must scientifically prove its claim by submitting data to the Commission on the Limits of the Continental Shelf (CLCS).³⁷ Thus, in many cases the continental shelf of a state will be identical to its EEZ unless that state is able to prove to the CLCS that the edge of its continental shelf extends beyond the borders of the EEZ.³⁸ Article 76(5) identifies an outer limit on the size of the continental shelf by specifying that the conti-

27. See U.N. Convention on the Law of the Sea art. 57, Dec. 10, 1982, 1833 U.N.T.S. 397 [hereinafter UNCLOS].

28. See *id.* at arts. 5, 57.

29. See *id.* at art. 56.

30. See *id.* at art. 2.

31. See *id.* at art. 58.

32. See *id.* at art. 77.

33. See *id.* at arts. 77, 82.

34. *Id.* at art. 76(1).

35. *Id.*

36. See *id.* at art. 76(4).

37. See *id.* at art. 76(8).

38. See *id.*

mental margin “either shall not exceed 350 nautical miles from the baselines from which the breadth of the territorial sea is measured or shall not exceed 100 nautical miles from the 2,500 [meter] isobath, which is a line connecting the depth of 2,500 [meters].”³⁹ In other words, the points that define the outermost limit of a state’s continental margin may exceed 350 nautical miles from that state’s coast, or they may exceed 100 nautical miles from the point at which the water becomes more than 2,500 meters deep, but they may not do both.

Consider the effect of this rule in the case of a submarine ridge. Absent any additional provisions, a submarine ridge could be used to extend a continental shelf considerably because the depth requirement is unlikely to be triggered within the vicinity of the ridge. It follows that if a large enough ridge existed, a state could extend its continental margin hundreds and hundreds of nautical miles farther away from its coastline than it would be able to under normal circumstances. For that reason, Article 76(6) provides that in the case of submarine ridges, only the 350-nautical-mile distance limitation applies. However, there is an exception to this exception for submarine ridges, which are “submarine elevations that are natural components of the continental margin.”⁴⁰ In the case of submarine ridges, both of the limitations of Article 76(5) apply as they normally would.⁴¹ Thus, a submarine elevation that qualifies for this exception to the exception could be strategically valuable, as it might allow a state to claim exclusive economic rights to an area that is very far from its coast, depending on the geological features of the ridge and surrounding area.

As stated above, in order to extend its continental shelf, a state must prove its case to the CLCS.⁴² However, the CLCS has no authority to decide between two or more equally valid claims. The conclusions of the CLCS—termed “recommendations”—are “final and binding.”⁴³ Nevertheless, the conclusions are “without prejudice to the question of delimitation of the continental shelf between States,” meaning that while the refusal of the CLCS to extend the continental shelf may conclusively prevent a state from gaining exclusive economic access to a new area, a recommendation that the shelf be extended is more ambiguous because the CLCS may still recommend the claims of other contenders.⁴⁴ Thus, the CLCS is in no position to decide between two equal and scientifically valid claims.

This is not surprising, as the drafters of UNCLOS intended the CLCS to be a scientific, fact-finding body rather than a judicial one.⁴⁵ Annex II of UNCLOS describes the CLCS as a body of twenty-one members who “shall be experts in the field of geology, geophysics or hydrography, elected by States Parties to th[e] Convention from among their nationals, having

39. *Id.* at art. 76(5).

40. *Id.* at art. 76(6).

41. *Id.*

42. *See id.*

43. *See id.* at art. 76(8).

44. *Id.* at art. 76(10).

45. Peter Prows, *Tough Love: The Dramatic Birth and Looming Demise of UNCLOS Property Law (and What Is to Be Done About It)*, 42 *TEX. INT’L L.J.* 241, 274-75 (2007).

due regard to the need to ensure equitable geographical representation, who shall serve in their personal capacities.”⁴⁶ Under Article 3 of Annex II, the only functions of the Commission are to (1) make recommendations concerning the extension of the outer limits of the continental shelf based on scientific data, and (2) provide scientific and technical advice to states seeking to prepare such scientific data.⁴⁷ Evidently, the CLCS takes its role as an impartial scientific fact finder very seriously. For example, when Russia submitted its first Arctic claim to the CLCS in 2001, the CLCS “stated that the commission would ‘serve the cause of maintaining stability in international relations’ and ‘appl[y] [its] expertise with complete independence and integrity.’”⁴⁸ Thus, not only is the CLCS in no position to weigh in on territorial disputes under the framework of UNCLOS, it also seems not to want to.

Rather, when a dispute arises as to the delineation of the continental shelf between states with opposite or adjacent coasts, Article 83 puts the onus on the parties themselves to resolve the dispute through a private agreement and makes such a private agreement binding on any subsequent litigation.⁴⁹ Pending such an agreement, the parties are obliged to “make every effort to enter into provisional arrangements of a practical nature and, during this transitional period, not to jeopardize or hamper the reaching of the final agreement.”⁵⁰ Thus, UNCLOS heavily relies on the ability of the parties themselves to trust one another and work together to resolve territorial disputes.

If the parties are not able to come to an agreement they are free to choose one of the dispute resolution methods listed in Article 287.⁵¹ These methods include submitting the case to the International Court of Justice (ICJ), the International Tribunal for the Law of the Sea, or a U.N. tribunal.⁵² While these forums may appear to offer a reliable substitute for failed negotiations, the ability of international courts to successfully resolve such disputes and enforce their rulings is suspect at best—especially in the case of powerful states, who can, and often do, ignore international law when they have significant interests at stake. For example, the Canadian government claimed the right to regulate pollution in international waters by enacting the Arctic Waters Pollution Prevention Act in 1970.⁵³ When several states challenged the legality of the act, Canada simply adjusted its recognition of the jurisdiction of the ICJ to exclude dis-

46. UNCLOS, *supra* note 27, at Annex II, art. 2.

47. *See id.* at Annex II, art. 3.

48. Angelle C. Smith, *Frozen Assets: Ownership of Arctic Mineral Rights Must Be Resolved to Prevent the Really Cold War*, 41 *GEO. WASH. INT'L L. REV.* 651, 665-66 (2010) (alterations in original) (citations omitted).

49. *See* UNCLOS, *supra* note 27, at art. 83.

50. *Id.*

51. *See id.* at arts. 83, 287.

52. *See id.* at art. 287.

53. *See* Brian Finneran, *U.S. Policy in the Arctic: The Implications of the South China Sea Arbitration Award on American Policy and UNCLOS*, 6 *PENN. ST. J.L. & INT'L AFFS.* 290, 305-06 (2018); Erik Franckx, *UNCLOS and the Arctic*, 47 *REV. BDI* 157, 162-63 (2014).

putes relating to the control of pollution, thereby avoiding any legal consequences for its actions.⁵⁴ Similarly, when a U.N. tribunal rejected China's territorial claims to the South China Sea, China simply refused to follow the ruling.⁵⁵

In theory, the risk of noncompliance by one party or another may be higher with regard to disputes arising under UNCLOS. States are likely less inclined to comply with a ruling if they suspect the ruling is based on the personal discretion of a judge rather than on black-letter law.⁵⁶ This reasoning is relevant to territorial disputes that arise under UNCLOS because in many cases courts may be unable to resolve a dispute based on the text of UNCLOS alone.⁵⁷ For example, in a dispute between Tunisia and Libya over the limits of their respective continental shelves, the ICJ concluded it could not make a decision based on objective geological features as called for by Article 76 because the seabed of the continental shelf in question was a natural prolongation of both states' land territory.⁵⁸ Consequently, the court essentially drew a line dividing the contested territory between the two parties as best as it could in accordance with "equitable principles."⁵⁹ While the ICJ undoubtedly attempted to be as fair possible, the court had to depart a great deal from the formal text of UNCLOS in making its decision, which could have opened the door to attacks on the legitimacy of the ruling.⁶⁰ While this solution worked for Tunisia and Libya, a state powerful enough to disregard international law might not feel bound by the ruling if it believed that the final result was too far removed from the text of the treaty itself.

In summary, UNCLOS provides a process that enables states to claim exclusive economic control over new areas. Unfortunately, UNCLOS does not provide a dependable process for resolving disputes that arise when multiple states claim exclusive economic control of the same area. Instead, UNCLOS largely relies on the states themselves to resolve disputes. When the parties to the dispute cannot resolve the issue on their own, UNCLOS might not provide a clear-enough procedure for apportioning the contested area among claimants, so international courts will sometimes need to craft their own solutions based on equitable principles. While this framework may work well in many cases, its ability to succeed is most suspect where the states are distrustful of one another, powerful enough to ignore the decisions of international bodies, and heavily invested in the outcome.

54. *See id.*

55. Tom Phillips et al., *Beijing Rejects Tribunal's Ruling in South China Sea Case*, THE GUARDIAN (July 12, 2016), <https://www.theguardian.com/world/2016/jul/12/philippines-wins-south-china-sea-case-against-china> [<https://perma.cc/7SQR-PNTD>].

56. CONG. RSCH. SERV., R44555, *ARBITRATION CASE BETWEEN THE PHILIPPINES AND CHINA UNDER THE UNITED NATIONS CONVENTION ON THE LAW OF THE SEA (UNCLOS) I* (2016).

57. *See, e.g., Case Concerning the Continental Shelf (Tunis./Libyan Arab Jamahiriya)*, Judgment, 1982 I.C.J. 133, ¶ 1 (Feb. 24).

58. *Id.* ¶ 67.

59. *Id.* ¶ 133.

60. *Id.*

B. Sector Theory

Although it has no formal recognition under international law, the Sector Theory of Arctic territorial ownership likely continues to influence some states' behavior with regard to territorial claims. While no state has explicitly relied on Sector Theory in making a territorial claim under UNCLOS, some nations have relied on the basic premise of Sector Theory in the past for other purposes, such as establishing maritime borders. This suggests that although Sector Theory may be formally irrelevant under modern international law, certain states find its reasoning persuasive and voluntarily choose to incorporate it into their treaties.

The development of Sector Theory can be traced to over 100 years ago. Even before explorers reached the North Pole for the first time, some states were already formulating how to best partition it.⁶¹ Canada and the Soviet Union were pioneers in this regard, which is unsurprising given that these two nations—the largest two in the world—have considerably more Arctic-adjacent territory than any other.⁶² In 1907, Canadian Senator Pascal Poirier proposed that all Arctic states should have the right to “all the lands that are to be found in the waters between a line extending from its eastern extremity north, and another line extending from the western extremity north.”⁶³ Thus, each nation adjacent to the Arctic would be entitled to a triangle-shaped slice of territory. This approach to territorial sovereignty in the Arctic, which eventually became known as Sector Theory, was a huge departure from all prior existing approaches to territorial ownership in that it did not require permanent occupation of the claimed territory.⁶⁴ Proponents of Sector Theory believed this to be a necessary adaption to more traditional means of claiming sovereignty because the harsh conditions in the Arctic prevented the effective occupation that the traditional rule demanded.⁶⁵ However, many proponents of Sector Theory argued that sovereignty should be limited to the land within a states' sector because otherwise the result would be a handful of nations gaining complete control over a huge portion of the globe.⁶⁶ Thus, Sector Theory represented a departure from traditional theories of territorial sovereignty in almost every way.⁶⁷

By 1926, both Canada and the Soviet Union had officially relied on Sector Theory in creating legislation to “prevent scientific and economic expansion by other states on lands and islands within the Arctic sector.”⁶⁸ Canada did so in a 1925 amendment to the Northwest Territories Act,

61. See F.M. AUBURN, *THE ROSS DEPENDENCY* 24 (1972).

62. See Leonid Timtchenko, *The Russian Arctic Sectoral Concept: Past and Present*, 50 *ARCTIC* 29, 33-34 (1997).

63. *Id.* at 29.

64. See AUBURN, *supra* note 61, at 25.

65. See Peggy C.Y. Leung, *Arctic Continental Shelf Delineation and Delimitation: The Significance of Ratifying the United Nations Convention on the Law of the Sea and the Sector Theory*, 24 *OCEAN Y.B.* 475, 490-91 (2010).

66. See *id.* at 490-91.

67. See *id.*

68. Timtchenko, *supra* note 62, at 29-30.

which required scientists to get permits in order to do research within the Canadian sector. The Soviet Union did so in 1926 when its Central Executive Committee issued a decree claiming ownership of “all lands and islands” within the Soviet sector.⁶⁹ For a while, Sector Theory seemed to be gaining traction. However, not everyone was so enthusiastic. States with less Arctic-adjacent territory, which would be entitled to a relatively small slice of Arctic land, were careful to avoid legitimizing Sector Theory. For example, in 1931, Norway explicitly denied that its recognition of British sovereignty over the Otto Sverdrup Islands (which lie within the Canadian sector) was an endorsement of the Sector Theory.⁷⁰ More recently, in 1990, when the United States established a maritime boundary with the Soviet Union along a meridian that lines up almost exactly with the eastern sector line that the Central Executive Committee of the Soviet Union described in 1926, American diplomats emphasized that the boundary was entirely treaty-based.⁷¹ In doing so, the United States explicitly declined to recognize Sector Theory as a principle of international law. Thus, while several states seemingly relied on the principles of Sector Theory as a basis for voluntary agreements, few wanted it to ripen into international law.

By the end of the twentieth century, Sector Theory had little to no legitimacy in international law, despite its early adoption by Canada and the Soviet Union.⁷² Most scholars examining the issue have concluded that there is insufficient legal support for Sector Theory today, especially with the advent of UNCLOS.⁷³ That being said, a handful of Russian academics have argued that because UNCLOS never mentions the Arctic by name, it does not apply there.⁷⁴ Accordingly, Sector Theory is still viable as a means of claiming Arctic territory.⁷⁵ Nevertheless, this argument evidently holds little sway even in Russia given that the Russian government itself has relied on UNCLOS’ applicability to the Arctic in international litigation.⁷⁶

Despite its apparent irrelevance in international law, states may—and occasionally do—rely upon the basic principles of Sector Theory in forming voluntary agreements.⁷⁷ This not only suggests that states may voluntarily agree to resolve territorial conflicts using the principles of Sector Theory, but also that some states still find those principles reasonable. Thus, while Sector Theory unquestionably does not carry the force of law, it is still a tool which could be used to shape international agreements in the Arctic.

69. See *id.*

70. See AUBURN, *supra* note 61, at 24-25.

71. See Leung, *supra* note 65, at 492.

72. See *id.* at 491.

73. See *id.*

74. See Franckx, *supra* note 53, at 166-67.

75. See *id.* at 167-68.

76. See *id.* at 177-79.

77. See Leung, *supra* note 65, at 491.

III. Relations Between Russia and the Other Arctic Powers

Russia's relations with the rest of the Arctic states have come under strain in recent times, to say the least. In fact, every other Arctic nation is currently levying economic sanctions against Russia.⁷⁸ However, the significance of these strained relations to potential Arctic territorial disputes is somewhat diminished by the fact that the main confrontation is between Russia and the United States, which has not ratified UNCLOS and is therefore not even capable of making claims under its provisions. Admittedly, relations between Russia and the rest of the First World have gradually improved.⁷⁹ Still, the lack of trust between Russia and the other Arctic UNCLOS signatories (i.e., Canada, Denmark, and Norway) could complicate future territorial disputes in the Arctic. This Part argues that Russia and the other Arctic UNCLOS signatories strongly distrust each other; and, because UNCLOS largely relies on the parties themselves to resolve territorial disputes that arise under its provisions, there is a significant possibility that this distrust could hamper the ability of Russia and the other Arctic UNCLOS signatories to reach an agreement if a territorial dispute ensues.

In 2001, Russia became the first nation to submit a claim to the CLCS; and, at that time, Russia's relations with the First World were quite different than they are today.⁸⁰ Around that time, U.S. Senator Joseph Biden "proclaimed that 'No Russian leader since Peter the Great has cast his lot as much with the West as [Russian President Vladimir] Putin has.'"⁸¹ By 2014, this was evidently no longer true, as almost every First World nation (including all of the other Arctic UNCLOS signatories) began to levy sanctions against Russia for its actions in Ukraine.⁸²

While many would point to the events of 2014 as creating the current rift between Russia and the First World, the events of 1990, at least from the Russian point of view, are just as important.⁸³ Around that time, two contrasting visions for the future of Europe emerged.⁸⁴ The first vision, "Wider Europe," called for a Europe which would be "coterminous with the

78. See Press Release, Robert J. Palladino, Deputy Spokesperson, U.S. Dep't of St., Transatlantic Community Imposes Sanctions on Russia (Mar. 15, 2019), <https://www.state.gov/transatlantic-community-imposes-sanctions-on-russia/> [https://perma.cc/7SQR-PNTD].

79. See *A Thaw in EU-Russia Relations Is Starting*, THE ECONOMIST (Oct. 12, 2019), <https://www.economist.com/europe/2019/10/12/a-thaw-in-eu-russia-relations-is-starting> [https://perma.cc/6G9Z-E6ML].

80. See *CLCS Submissions*, *supra* note 22.

81. Thomas Ambrosio, *The Russo-American Dispute over the Invasion of Iraq: International Status and the Role of Positional Goods*, 57 EUR-ASIA STUD. 1189, 1190 (2005).

82. See Karen DeYoung & Michael Birnbaum, *U.S. Imposes New Sanctions on Russia*, WASH. POST (Apr. 28, 2014), https://www.washingtonpost.com/world/national-security/us-imposes-new-sanctions-on-russia/2014/04/28/974c579e-ced6-11e3-b812-0c92213941f4_story.html [https://perma.cc/HUF3-YKBZ].

83. See generally THOMAS BLANTON ET AL., *MASTERPIECES OF HISTORY: THE PEACEFUL END OF THE COLD WAR IN EUROPE*, 1989 (2010).

84. See Noam Chomsky, *Who Rules the World? America Is No Longer the Obvious Answer*, THE GUARDIAN (May 9, 2016), <https://www.theguardian.com/us-news/2016/may/09/noam-chomsky-who-rules-the-world-us-foreign-policy> [https://perma.cc/X7NF-B23N].

Euro-Atlantic security and political community”⁸⁵ The other vision, “Greater Europe,” was that of a collaborative European block committed to overcoming internal political divisions among equal partners.⁸⁶ Although Mikhail Gorbachev, as well as other Russian leaders after him, pushed heavily for Greater Europe, these attempts were mostly met with contempt and suspicion by the West, which continued to see Russia as an enemy even as the Cold War came to a close.⁸⁷ Any hope for a long-term cooperation between Russia and the West ended when—despite U.S. Secretary of State James Baker’s 1990 promise to Gorbachev that NATO’s borders would not move “one inch to the east” if Gorbachev allowed Germany to unify—NATO quickly expanded toward Russia’s borders.⁸⁸ For Russia, a nation which had been almost destroyed twice in the past century by Germany, NATO’s actions posed an intolerable security threat.

The result was not hard to foresee. For example, in 1998, the American diplomat and father of the containment strategy George Kennan said:

I think it is the beginning of a new cold war, . . . I think the Russians will gradually react quite adversely and it will affect their policies. . . . Of course there is going to be a bad reaction from Russia, and then [the NATO expanders] will say that we always told you that is how the Russians are—but this is just wrong. . . . This has been my life, and it pains me to see it so screwed up in the end.⁸⁹

Russian outrage over the broken promise continues to this day.⁹⁰ According to Stephen Cohen, professor emeritus of Russian studies and politics at New York University and Princeton University, “it is the broken promise to Gorbachev that lingers as America’s original sin, partly because it was the first of many such perceived duplicities, but mainly because it has resulted in a Russia semi-encircled by U[S.]-led Western military power, an encroachment that continues today.”⁹¹ Some scholars, such as Richard Sakwa, have drawn a straight line between 1990 and the Russian invasions of Georgia and Ukraine in 2008 and 2014, respectively, arguing that those invasions were, from the Russian perspective, wars to stop NATO enlargement.⁹² Regardless of the merits of these claims, it is clear that Russia’s leadership does not trust Western nations, which includes the other Arctic UNCLOS signatories, to live up to diplomatic agreements.

Likewise, the other Arctic UNCLOS signatories do not trust Russia either and have evidently not done so for some time. For example, when

85. *Id.*

86. *See id.*

87. *See id.*

88. *Id.*

89. Thomas L. Friedman, *Foreign Affairs; Now a Word From X*, N.Y. TIMES (May 2, 1998), <https://www.nytimes.com/1998/05/02/opinion/foreign-affairs-now-a-word-from-x.html> [https://perma.cc/NKS6-HCLA].

90. *See* Stephen F. Cohen, *The US ‘Betrayed’ Russia, but It Is Not ‘News That’s Fit to Print’*, THE NATION (Jan. 10, 2018), <https://www.thenation.com/article/the-us-betrayed-russia-but-it-is-not-news-thats-fit-to-print/> [https://perma.cc/H7N2-TKYC].

91. *Id.*

92. *See* Chomsky, *supra* note 84.

Russia planted its flag on the Arctic floor in 2007 as part of a scientific expedition to gather data for a submission to the CLCS—a relatively innocuous gesture—many Western states perceived it as an act of aggression.⁹³ That suspicion has only gotten worse in recent years to the point where the other Arctic UNCLOS signatories see Russia as an explicit military threat in the Arctic.⁹⁴

Thus, at a fundamental level, both Russia and its various Arctic neighbors do not trust one another to follow through with their commitments. While many nations (or groups of nations) have mutual distrust and nevertheless manage to find diplomatic solutions to their problems, the distrust between Russia and the West is significant in that there exists, at least among some, a general belief that diplomacy is futile.⁹⁵ Consider, for example, the U.K. Defence Committee's findings in a 2015 report that Russian leaders believe "the world is a harsh place, the strong prosper, the weak get crushed," and that Russia has adopted the view that "if it cannot compete within the political arena, it must 'fight for its interests by whatever means available . . .'"⁹⁶ Besides confirming Kennan's prediction that the NATO expansionists that broke their 1990 promise to Russia would one day say "that is how the Russians are" when Russia reacted negatively, it also almost necessarily precludes the possibility of peaceful settlement.⁹⁷ Why bother negotiating if that is true?⁹⁸ Ironically, there are certainly Russians saying the exact same thing about Western leaders.⁹⁹ Thus, the atmosphere of distrust and suspicion between Russia and the West has reached a point in which it could make diplomatic resolution of territorial disputes in the Arctic significantly more complicated and, considering UNCLOS' reliance on parties themselves to proactively find solutions, hinder the possibility of peaceful resolution to such disputes.

IV. Claims to the Lomonosov Ridge

Russia, Denmark, and Canada have all submitted claims to the CLCS, asking it to recommend extending their respective continental shelves to cover a portion of the Lomonosov Ridge.¹⁰⁰ As we shall see, although each state claims a different portion of the ridge, parts of these claims do overlap, and thus may give rise to a territorial dispute should the CLCS find that two or more of these claims are scientifically sound.¹⁰¹ This Part will summarize the claims that Russia, Denmark, and Canada have made to the

93. C.J. Chivers, *Russians Plant Flag on the Arctic Seabed*, N.Y. TIMES (Aug. 3, 2007), <https://www.nytimes.com/2007/08/03/world/europe/03Arctic.html> [<https://perma.cc/5DFW-TEW6>].

94. See Cooper, *supra* note 10.

95. See, e.g., Korger, *supra* note 21, at 751.

96. *Id.*

97. See Friedman, *supra* note 89.

98. *Id.*

99. See Korger, *supra* note 21, at 751-52.

100. See Quinn, *supra* note 1.

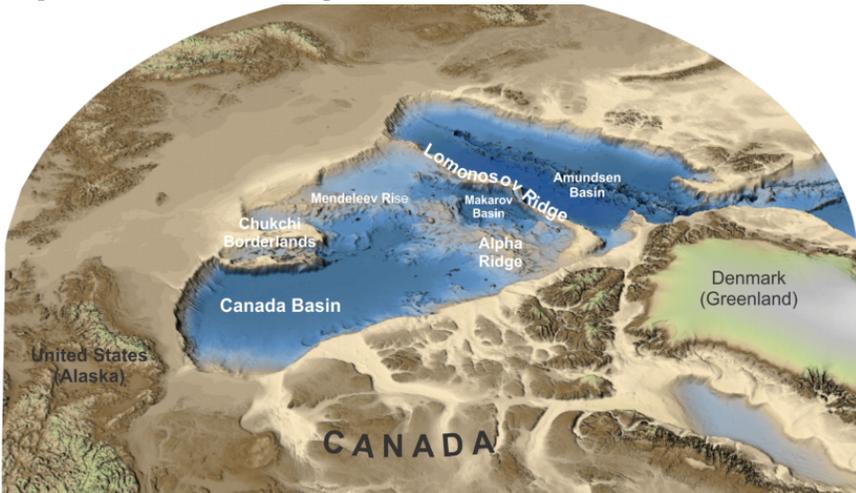
101. *Id.*

CLCS, as well as analyze what a future territorial dispute might look like should the CLCS recommend overlapping claims.

As illustrated in Figure 1 below, the Lomonosov Ridge is a 1,100-mile-long underwater mountain range that divides the Arctic Ocean into two major basins.¹⁰² While its exact dimensions are the subject of ongoing dispute, it appears that the ridge may connect the continental shelves of North America, Europe, and Asia; thus, theoretically, the CLCS could consider the ridge to be a natural prolongation of either continent thereby multiple states could have a valid claim to it.¹⁰³ Because of the depth requirement of Article 76(5), a state could use the ridge to claim exclusive economic control of a vast area stretching across the Arctic Ocean if the ridge is a “natural component[] of the continental margin.”¹⁰⁴ Thus, strategically, the Lomonosov Ridge is a very valuable geological formation because, if certain conditions are met, it could allow a state to claim a vast territory stretching across the Arctic Ocean.

Figure 1

Map of the Lomonosov Ridge from Canada’s Submission to the CLCS¹⁰⁵



In 2001, Russia became the first nation in the world to attempt to extend its continental shelf through UNCLOS.¹⁰⁶ In this initial submission, Russia claimed a large amount of territory, including virtually every-

102. See *Lomonosov Ridge*, ENCYC. BRITANNICA (Mar. 22, 2016), <https://www.britannica.com/place/Lomonosov-Ridge> [<https://perma.cc/3ULV-JN6G>].

103. See *id.*

104. See Smith, *supra* note 48, at 657; UNCLOS, *supra* note 27, at art. 76.

105. GOV'T OF CANADA, PARTIAL SUBMISSION OF CANADA TO THE COMMISSION ON THE LIMITS OF THE CONTINENTAL SHELF REGARDING ITS CONTINENTAL SHELF IN THE ARCTIC OCEAN: EXECUTIVE SUMMARY 14 fig.1 (2019), https://www.un.org/Depts/los/clcs_new/submissions_files/can1_84_2019/CDA_ARC_ES_EN_secured.pdf [<https://perma.cc/E3DH-M2QZ>] [hereinafter CANADA'S SUBMISSION].

106. See *CLCS Submissions*, *supra* note 22.

thing within its Arctic sector.¹⁰⁷ Russia's claims also included a portion of the Lomonosov Ridge that went right up to, but not past, the North Pole.¹⁰⁸ Russia argued that the Lomonosov Ridge was a natural component of its continental margin, and thus its claims were not bound by the normal limitation of Article 76(6), which prevents a state from claiming a submarine ridge beyond 350 nautical miles from that states' baselines.¹⁰⁹

Russia's claims are noteworthy in that they seem to be based—implicitly at least—on Sector Theory, despite it having no formal place in international law. While it is true that Russia never referenced Sector Theory in any of its submissions, it nevertheless appears that Sector Theory has informed Russia's decision-making process behind the scenes. Consider the fact that Russia claimed that the Lomonosov Ridge was a natural component of its continental margin.¹¹⁰ If this is true, Russia could have validly claimed the ridge far beyond the North Pole. Despite this, Russia elected to stop right at the North Pole, forgoing the possible upside of claiming additional territory.¹¹¹ Here, Russia's claims look strikingly similar to those that the Central Executive Committee of the Soviet Union made in 1926, suggesting that even if Russia abandoned Sector Theory as a formal legal doctrine, Russia still accepted the reasoning behind Sector Theory as persuasive.

Whatever the reasoning may have been behind Russia's 2001 submission, the CLCS found that it was simply overwhelmed by the scientific complexity of the claims, and asked Russia to resubmit its claims after gathering more extensive data.¹¹² In response to this setback, Russia engaged in a variety of geological and geophysical studies in the Arctic between 2005 and 2014 before resubmitting its claim in 2015.¹¹³ In its second submission, Russia claimed essentially the same exact territory as it did the first time.¹¹⁴ This time, however, Russia came prepared with extensive data from bathymetric and seismic surveys which, according to Russia, demonstrated that “the Lomonosov Ridge, the Mendeleev Rise, the Chukchi Rise and . . . the Podvodnikov Basin and the Chukchi Basin form a single consolidated block of continental crust” that is a natural component of the European and Asian continents.¹¹⁵ As in its first submission, Russia did not claim any territory past the North Pole, but claimed nearly all the

107. See *Russian Submission*, *supra* note 12.

108. *Id.*

109. See MINISTRY NAT. RES. & ENV'T RUSSIAN FEDERATION ET. AL, PARTIAL REVISED SUBMISSION OF THE RUSSIAN FEDERATION TO THE COMMISSION ON THE LIMITS OF THE CONTINENTAL SHELF IN RESPECT OF THE CONTINENTAL SHELF OF THE RUSSIAN FEDERATION IN THE ARCTIC OCEAN: EXECUTIVE SUMMARY 6 (2015), https://www.un.org/Depts/los/clcs_new/submissions_files/rus01_rev15/2015_08_03_Exec_Summary_Russian.pdf [https://perma.cc/HVA7-TS5T] [hereinafter RUSSIA'S 2015 SUBMISSION]; UNCLOS, *supra* note 27, at art. 76.

110. See RUSSIA'S 2015 SUBMISSION, *supra* note 109.

111. See Quinn, *supra* note 1.

112. See Korger, *supra* note 21, at 746.

113. See RUSSIA'S 2015 SUBMISSION, *supra* note 109.

114. See Korger, *supra* note 21, at 748-49.

115. See RUSSIA'S 2015 SUBMISSION, *supra* note 109.

territory within its Arctic sector, suggesting Russia is quite serious about gaining the territory it claimed.¹¹⁶

By the time Russia resubmitted its claim in 2015, however, there was another contender for the Lomonosov Ridge.¹¹⁷ In December 2014, Denmark submitted a claim to the CLCS, arguing that the Lomonosov Ridge belonged to the continental shelf of its autonomous territory: Greenland.¹¹⁸ Like Russia, Denmark used the exception to the exception under Article 76(6) to claim the ridge despite it being beyond 350 nautical miles from the relevant baselines.¹¹⁹ Unlike Russia, however, Denmark did not stop at the North Pole, resulting in significant overlap between the claims of Denmark and Russia.¹²⁰ Denmark essentially claimed the entire Lomonosov Ridge from Eurasia to North America, only stopping when its claims would have otherwise conflicted with another states' EEZ.¹²¹ Denmark additionally claimed that the Alpha-Mendelev ridge complex and the Chuchki Borderland—which are on the opposite side of the Arctic Ocean—were parts of Greenland's continental shelf, but found that these submarine elevations could not be claimed because they were not natural components of Greenland's continental shelf and were more than 350 nautical miles away from Greenland's coast.¹²²

Denmark's claims are, on their face, surprising. Denmark, a comparatively small nation which does not actually border the Arctic itself, has claimed a huge amount of territory that spans the entire Arctic Ocean. As one political geographer put it, “there [is] no way in hell they [will] get that.”¹²³ One explanation, already hinted at above, is that Denmark is attempting to maintain good relations with its autonomous territory of Greenland. If Denmark wishes to maintain its prestigious position as a member of the Arctic Council, it needs to convince Greenland—which is otherwise free to leave Denmark at any time—that staying with Denmark is a good idea. Thus, Denmark's seemingly aggressive posture in the Arctic may be a big show for Greenland.¹²⁴ After all, claims made under Article 76 do not have any prejudicial effect with regard to the eventual delamination of the continental shelf between parties, so Denmark is not necessarily

116. *See id.*

117. *See generally* PARTIAL SUBMISSION OF THE GOVERNMENT OF THE KINGDOM OF DENMARK TOGETHER WITH THE GOVERNMENT OF GREENLAND TO THE COMMISSION ON THE LIMITS OF THE CONTINENTAL SHELF: THE NORTHERN CONTINENTAL SHELF OF GREENLAND: EXECUTIVE SUMMARY (2014), https://www.un.org/Depts/los/clcs_new/submissions_files/dnk76_14/dnk2014_es.pdf [<https://perma.cc/99M8-54SY>] [hereinafter DENMARK & GREENLAND'S JOINT SUBMISSION].

118. *See CLCS Submissions*, *supra* note 22.

119. *See* DENMARK & GREENLAND'S JOINT SUBMISSION, *supra* note 117, at 11.

120. *Id.* at 8.

121. *Id.*

122. *Id.* at 14.

123. Richard Kemeny, *As Countries Battle for Control of North Pole, Science Is the Ultimate Winner*, *SCI. MAG.* (June 20, 2019), <https://www.sciencemag.org/news/2019/06/countries-battle-control-north-pole-science-ultimate-winner> [<https://perma.cc/M9WK-TGJG>].

124. Jacobsen, *supra* note 13.

committing itself to anything.¹²⁵ Therefore, while Denmark's claims may appear to put it on a collision course with other Arctic states, this appearance may be misleading. Unlike other states, Denmark's primary aim in the Arctic is likely not related to natural resources or national pride. Thus, Denmark may be amenable to compromising its territorial claims in return for something else, as all Denmark really wants is a win for Greenland.¹²⁶

Lastly, Canada became the most recent state to claim that a part of the Lomonosov Ridge falls within its continental shelf, doing so in May 2019.¹²⁷ In its submission, Canada argued that the Lomonosov Ridge, Alpha Ridge, and Mendeleev Rise (which Canada refers to collectively as the "Central Arctic Plateau") are continuous with, and a natural component of, the Canadian landmass.¹²⁸ In line with this analysis, Canada has claimed an enormous area that includes all of what would be its Arctic sector under Sector Theory and more.¹²⁹ Because Canada has claimed the Lomonosov Ridge on both sides of the Pole, its claims overlap with both Russia's and Denmark's.¹³⁰ Like Russia and Denmark, Canada has argued that the Lomonosov Ridge is a natural component of its territory, allowing it to claim an area beyond the normal 350-nautical-mile limit that normally applies to claims on submarine elevations.¹³¹ Furthermore, like Russia, Canada has refrained from claiming all territory that it theoretically could, but nevertheless has claimed territory beyond the North Pole.¹³²

The significance of Canada's claims is hard to decipher. On the one hand, Canada has intentionally limited itself in its submission, suggesting that it is serious about gaining the territory that it has claimed. On the other hand, Canada has claimed an enormous amount of territory that extends far beyond the North Pole. Thus, as opposed to Russia and Denmark, Canada's claims are more ambiguous in terms of what Canada truly expects. Likely, Canada's position is somewhere between Russia's and Denmark's with regards to how much of its claimed territory it actually expects to gain.

Altogether, the dispute which these contradictory submissions to the CLCS may precipitate is exactly the kind that we should be worried about under UNCLOS because it involves, at least in part, powerful states that do not trust each other and have strong interests in acquiring their claimed territories. Thus, UNCLOS may be incapable of producing a true resolution to a dispute over the Lomonosov Ridge, and some additional mechanism may be desirable.

125. See UNCLOS, *supra* note 27, at art. 76(10).

126. See Kemeny, *supra* note 123.

127. See CLCS Submissions, *supra* note 22.

128. See CANADA'S SUBMISSION, *supra* note 105, at 7.

129. See *id.* at 15.

130. See *id.*

131. See *id.* at 7, 15.

132. See *id.* at 15.

V. Using a Mechanical Rule to Decide Claims

If the legal framework provided by UNCLOS is by itself inadequate for resolving territorial conflicts like the one that is developing over the Lomonosov Ridge, how should we approach the problem? One approach could be to have the parties agree to a mechanical rule ahead of time that would tell the parties how to delineate borders in the case of overlapping and scientifically valid claims. While using such a rule would not eliminate all of the problems of the UNCLOS framework—namely, that its success would largely rest on the willingness of the parties to bind themselves to the rule—it would nevertheless be much more practical and convenient than whatever political process arises out of the vacuum created by UNCLOS. While there are many possible mechanical rules that the states could agree to, two stand out: the equidistance principle and the sector principle. This Part will (1) argue that the sector principle is best situated for the Arctic, and (2) describe how this rule would play out in a dispute over the Lomonosov Ridge.

Before going further, it is worth examining what the legal context of a mechanical rule to delineate conflicting claims would be. While international courts are tasked with equitably delineating conflicting claims under UNCLOS, international courts can not apply such a rule if it is not international law.¹³³ Thus, the parties are the only ones that can bind themselves to such a rule. Although it would surely be illegal for a state to simply create a new law of territorial ownership, creating a mechanical rule to decipher contradictory recommendations of the CLCS would not be a violation of UNCLOS. In fact, as discussed above, in the case of a territorial dispute that arises under its provisions, UNCLOS gives a significant amount of freedom to the parties to decide for themselves how best to divide the overlapping claims.¹³⁴ Parties are actually encouraged to proactively attempt to resolve conflicting claims amongst themselves before turning to an international tribunal. To be sure, Article 83, which obligates parties to make a voluntary agreement in the case of conflicting claims, likely anticipated such an agreement happening after the claims were recommended by the CLCS. However, there is nothing in that article or elsewhere in the treaty to suggest that two or more states could not make an agreement about how to resolve a hypothetical dispute before the CLCS makes its recommendations.¹³⁵ Therefore, a voluntary agreement to apply a mechanical rule to resolve overlapping CLCS recommendations would not violate UNCLOS at all—in fact, it would be well within the legal framework established by UNCLOS.

How would such a rule operate in practice? We will apply the rule to the dispute over the Lomonosov Ridge to see how such a mechanical rule would function and supplement UNCLOS. Let us first assume that Den-

133. See *North Sea Continental Shelf Cases* (Ger./Den.; Ger./Neth.), Judgment, 1969 I.C.J. 21, 36 (Feb. 20) [hereinafter *North Sea Continental Shelf Cases*].

134. See UNCLOS, *supra* note 27, at art. 83(4).

135. See *id.*

mark, Canada, and Russia have all agreed that in the case of overlapping CLCS recommendations, they will partition any mutually recommended territory according to some mechanical rule. If the CLCS recommended Denmark's claims, but rejected both Canada's and Russia's claims (i.e., did not recommend contradictory claims), then the agreement would not be implicated at all; Denmark would simply get all the territory it claimed, and the other states would get nothing. However, if the CLCS recommended all three states' claims (i.e., recommended contradictory claims), then the agreement would be implicated, and the contested territory (but only the contested territory) would be divided according to the mechanical rule.

Of course, the biggest problem with this approach is that it requires the parties to bind themselves to a rule of their own accord. If we do not expect the parties to resolve a territorial dispute on their own after the CLCS makes its recommendations, then why is it any more likely that they would be able to come to an agreement before the CLCS makes any recommendations? The main benefit of a mechanical rule is the certainty it provides. In the absence of such a rule, each party is basically gambling not only that the CLCS will recommend their claims, but also that the CLCS will not recommend any other party's claims to the same area. With the right kind of mechanical rule, each party would reduce this uncertainty and guarantee that at least some of their claims would get priority even if the CLCS recommends multiple states' claims to the same area. If the parties do not agree to such a rule, then they are taking a huge gamble with both the CLCS and whatever international body eventually adjudicates the dispute. Thus, even if the parties have divergent interests and do not trust each other, it would be in their best interests to create a rule that would reduce risk and guarantee that at least some of their claims materialize.

One method to divide contested territory is by drawing a line that is made up of each point halfway between the nearest point of each nation's coast. This method, known as the equidistance method, has been used extensively. For example, the 1958 Convention on the Continental Shelf, a predecessor to UNCLOS, used a default equidistance formula to resolve overlapping claims if the parties were unable to come to an agreement on their own.¹³⁶ There is an obvious appeal to this method at first glance. As the ICJ once noted, "it would probably be true to say that no other method of delimitation has the same combination of practical convenience and certainty of application."¹³⁷ However, some, including the ICJ, have criticized the equidistance principle as leading to inequitable results because it unduly favors states with convex coastlines, and punishes those with concave coastlines.¹³⁸ As the ICJ explained in a case concerning the delineation of the maritime borders of Germany, Denmark, and the Netherlands

136. See U.N. Convention on the Continental Shelf art. 6, Apr. 29, 1958, 499 U.N.T.S. 311.

137. North Sea Continental Shelf Cases (Ger./Den.; Ger./Neth.), Judgment, 1969 I.C.J. at 24, ¶ 23.

138. See *id.* at 89-90.

in the North Sea, “[t]he slightest irregularity in a coastline is automatically magnified by the equidistance line as regards the consequences for the delimitation of the continental shelf.”¹³⁹ The court went on to say that it is “unacceptable . . . that a State should enjoy continental shelf rights considerably different from those of its neighbors merely because in the one case the coastline is roughly convex in form and in the other it is markedly concave, although those coastlines are comparable in length.”¹⁴⁰ With respect to the Arctic, Canada has voiced this exact criticism of the equidistance principle in its dispute with the United States over the delineation of maritime borders in the Beaufort Sea.¹⁴¹ Thus, while the equidistance principle provides convenience and certainty, it is vulnerable to the criticism that it can have quite arbitrary results under certain conditions.

Another method that could be used to delineate maritime boundaries in the Arctic is the sector principle. As discussed above, Sector Theory was a theory of Arctic territorial ownership that Canada and the Soviet Union supported in the early twentieth century before it disappeared almost entirely upon the arrival of UNCLOS. The basic idea behind Sector Theory, or the ‘sector principle,’ is that we can divide the Arctic into triangle-shaped areas starting at the North Pole and reaching each nation’s eastern and western extremities. While UNCLOS surely preempts Sector Theory as a theory of territorial ownership, the sector principle could still be voluntarily adopted by Arctic nations to resolve conflicting CLCS recommendations. In practice, the sector principle would function within the legal framework of UNCLOS just like the equidistance formula functions. That is, in the case of conflicting CLCS recommendations, each state would be given priority to recommended territory within their respective Arctic sector.

Unlike the equidistance method, the sector principle has not been extensively used to resolve territorial disputes. Nevertheless, some states have used the sector principle to a limited extent in establishing maritime borders, which demonstrates that states have recognized its utility in the past.¹⁴² However, this does not mean that applying the sector principle would be uncontroversial. After all, states that are closer to the North Pole are at a relative disadvantage under the sector principle than under the equidistance principle. For example, because Greenland is closer to the North Pole than Russia, the midway point between Russia’s and Greenland’s coasts is within the Russian sector. Thus, territory that would be Denmark’s under the equidistance method would be Russia’s under sectoral division because of the difference in these states’ proximities to the North Pole. However, this result is arbitrary only if the position of the North Pole is arbitrary to the delineation of maritime borders, and, with regard to most places on Earth, it probably is. However, within the Arctic,

139. *Id.*

140. *Id.*

141. ANTARCTICA AND THE ARCTIC CIRCLE: A GEOGRAPHIC ENCYCLOPEDIA OF THE EARTH’S POLAR REGIONS 137–38 (Andrew J. Hund ed., 2014).

142. See Leung, *supra* note 65, at 491.

the North Pole is an intuitive cutoff point, which is what most observers evidently thought when they predicted that the Arctic nations would simply stop their claims at the North Pole as a *quid pro quo*.¹⁴³ Nevertheless, states that do not benefit from such a rule, like Denmark, are likely to contest this logic, making the sector principle as controversial as the equidistance principle.

With regard to the dispute over the Lomonosov Ridge, a rule based on the sector principle has a greater chance of success compared to one based on the equidistance principle. While either could theoretically work, the sector principle is more likely to succeed in the dispute over the Lomonosov Ridge because Denmark, the party who would be the chief objector to the sector principle, is likely more willing to compromise its claims for some other benefit than Russia or Canada. As discussed above, Denmark is likely not as interested in gaining the physical territory itself as it is in gaining some benefit for Greenland. While this does not mean that Denmark is any less concerned with receiving some benefit, it does mean that Denmark may be willing to accept something other than the physical territory. On the other hand, Russia and Canada are *bona fide* Arctic nations with major oil and gas industries, and thus much more likely to be interested in the physical territory itself. Furthermore, Russia and Canada would comparatively benefit from a rule based on the sector principle, because they are both large and farther away from the North Pole than Greenland. Thus, at least when compared to the equidistance principle, the sector principle likely has a greater chance of success because it would be more beneficial to the states least willing to compromise their territorial claims for some other benefit. While this of course does not guarantee that an agreement involving the sector principle is possible, it at least suggests that there is a starting point for negotiations.

Conclusion

Climate change has already begun to melt the Arctic,¹⁴⁴ making Arctic territory potentially much more valuable. While every Arctic nation has committed to following the legal regime of UNCLOS in making territorial claims, that regime leaves a lot of uncertainty about how the nations will resolve overlapping territorial claims. The UNCLOS framework could prove inadequate for a territorial dispute in the Arctic because there are several states that are suspicious of one another, powerful enough to ignore international law, and strongly incentivized to secure Arctic territory. Such a dispute may be imminent, as Russia, Denmark, and Canada have all claimed overlapping parts of the Lomonosov Ridge, a large geological structure that is likely a natural prolongation of all three states' landmass. While there is no guaranteed way to solve a dispute over the Lomonosov

143. See Quinn, *supra* note 1.

144. See, e.g., Lorin Hancock, *Why Are Glaciers and Sea Ice Melting?*, WORLD WILDLIFE FOUND., <https://www.worldwildlife.org/pages/why-are-glaciers-and-sea-ice-melting> [<https://perma.cc/33QL-4GTC>] (last visited June 11, 2021).

Ridge, the Arctic nations could significantly simplify the process of delineating overlapping claims by agreeing to apply a mechanical rule ahead of time. While any such rule is bound to be controversial with one nation or another, a rule based on the sector principle is most likely to succeed.

