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## Implications of Global Warming on State Sovereignty and Arctic Resources Under the United Nations Convention on the Law of the Sea: How the Arctic is no Longer *Communis Omnium Naturali Jure*

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**IMPLICATIONS OF GLOBAL WARMING ON STATE  
SOVEREIGNTY AND ARCTIC RESOURCES  
UNDER THE UNITED NATIONS  
CONVENTION ON THE LAW OF THE SEA:  
HOW THE ARCTIC IS NO LONGER COMMUNIS  
OMNIUM NATURALI JURE<sup>1</sup>**

*Parker Clote\**

I. INTRODUCTION

The Arctic region has long been an area of singular potential, possessing both a sui generis geography and an invaluable supply of natural resources. Yet this potential has long remained unrealized and speculative, owing to the Arctic's harsh climate and the absence of any cognizable claim of sovereignty. Recently, however, global warming and a worldwide scramble for new energy sources have made the Arctic the most recent strategic cynosure of international law. With various State governments and private entities eyeing unprecedented levels of access as the ice retreats, the Arctic is witnessing "nothing less than a great rush for virgin territory and natural resources worth hundreds of billions of dollars."<sup>2</sup>

As a matter of course, the revived interest in the Arctic implicates the only international legal regime that purports to administer the region: the United Nations Convention on the Law of the Sea ("UNCLOS"). A comprehensive multilateral treaty, UNCLOS not only establishes general normative standards of conduct, but also governs the extent of national maritime sovereignties. Due to its position as the polestar of maritime law, the Convention's limits on State sovereignty ostensibly will be used to inform the process of allocating newly-available Arctic resources.

However, with so much at stake, the seemingly obvious task of simply applying UNCLOS to the Arctic is belied by the potential repercussions of delimitating sovereignty improperly or in a way that is per-

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<sup>1</sup> The second century Roman jurist Marcianus is attributed this quote regarding the oceans as being "common or open to all men by the operation of natural law." 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, 249 (2007).

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<sup>2</sup> Clifford Krauss et al., *As Polar Ice Turns to Water, Dreams of Treasure Abound*, N.Y. TIMES, Oct. 10, 2005, at A1, available at <http://www.nytimes.com/2005/10/10/science/10arctic.html>.

ceived as illegitimate, especially among countries so close in proximity. Indeed, a discernible lack of political unity and uncertainty under UNCLOS has developed over the years, preceding the increasingly unpredictable effects of climate change and the novelty of an open Arctic Ocean.

Further, economic affinities<sup>3</sup> have shaped international maritime policy to a great degree in recent decades, supplanting the traditional conception of the oceans as a universally-accessible resource.<sup>4</sup> In the Arctic especially, competition over previously inaccessible resources has emerged as the prism through which sovereign interest is expressed. Thus, despite nearly universal participation in the regime, as global warming continues to reshape the character of Arctic disputes, it complicates the role of UNCLOS itself as well.

This Comment focuses on how the record melting of the Arctic ice has rekindled avid international interest in the region, and which sovereign nations might have the most viable claim to the exploration and exploitation of Arctic seabed resources under the administration of UNCLOS.

Section II chronicles the evolution of the Convention and provides an overview of the pertinent provisions of the treaty, including sovereign maritime rights, the extent of a coastal State's jurisdiction, and subsequent modifications to the original version of UNCLOS. Section III will examine several deficiencies that are likely to arise within the Arctic context. Section IV discusses the status of claims to the Arctic and which countries might have a recognized legal claim of sovereign rights under UNCLOS. Finally, Section V will evaluate the United States' objections to the Convention against the continuing admonition that America should ratify UNCLOS. The Comment concludes that UNCLOS, although perhaps not ideal, is the only extant international agreement capable of governing the disputing claims of Arctic sovereignty that will arise due to global warming.

#### A. *Historical Overview of the Arctic and State Interest*

The Arctic region consists of the North Pole, the Arctic Ocean, and the area demarcated by the Arctic Circle, an imaginary line that marks the latitude above which the sun does not set on the day of the summer solstice and does not rise on the day of the winter solstice.<sup>5</sup> There are five countries with coastal territory within the Arctic Circle,

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<sup>3</sup> Prows, *supra* note 1, at 263.

<sup>4</sup> See Kevin V. Cook, *The Discovery of Lunar Water: An Opportunity to Develop a Workable Moon Treaty*, 11 GEO. INT'L ENVTL. L. REV. 647, 685 (1999).

<sup>5</sup> See NAT'L SNOW AND ICE DATA CTR., WHAT IS THE ARCTIC?, [http://nsidc.org/arcticmet/basics/arctic\\_definition.html](http://nsidc.org/arcticmet/basics/arctic_definition.html) (last visited Mar. 1, 2009).

referred to collectively as the Arctic Nations: the United States (via Alaska), Denmark (via Greenland), Canada, Russia, and Norway.<sup>6</sup>

The most important strategic and natural resource of the region, the Arctic Ocean, lies mostly to the north of the Arctic Circle. Spanning an area less than twice the size of the United States, it is the smallest of the world's five oceans.<sup>7</sup> Yet despite its diminutive size, the Arctic is extraordinarily unique. Geographically, the Arctic serves as a northern epicenter, bringing together the borders of the United States, Russia, Canada, Norway, and Denmark. Finland, Sweden, and Iceland also surround the Arctic, but do not have a littoral coast. As a result, several commercially and strategically important waterways are enclosed by the Arctic, and their access varies greatly depending on seasonal changes.<sup>8</sup> The region also boasts extensive untapped gas, petroleum, and mineral deposits, as well as a pristine livestock market devoid of well-established regulations.

Historically, the Arctic was open to all nations for fishing and navigation, at least in theory, until the twentieth century and the advent of the modern warfare. During World War II, the Arctic was used extensively by the Axis powers since it was the shortest submarine route between Russia and North America.<sup>9</sup> In the aftermath of the War, Canada and the United States erected defense projects to forestall perceived Soviet threats.<sup>10</sup> Throughout the Cold War, the Arctic Circle served as a strategic area from which to monitor nuclear submarine movement.<sup>11</sup> However, the importance of the Arctic faded when its limited use as a tactical outpost was no longer needed. In fact, after the Cold War, most nations simply lost interest in the Arctic.<sup>12</sup>

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<sup>6</sup> Stephanie Holmes, Comment, *Breaking the Ice: Emerging Legal Issues in Arctic Sovereignty*, 9 CHI. J. INT'L L. 323, 326 (2008).

<sup>7</sup> Central Intelligence Agency, *The 2008 World Factbook*, available at <https://www.cia.gov/library/publications/the-world-factbook/geos/xq.html> (last visited Mar. 1, 2009) [hereinafter *Arctic World Factbook*].

<sup>8</sup> Global warming will expand access to the Arctic's seasonal waterways such as the renowned Northwest Passage between America and Canada and the Northern Sea Route connecting Eurasia. Currently these passageways are only open to navigation a few scant weeks during the summer. *Id.*; see also Andrew King, Note, *Thawing a Frozen Treaty: Protecting United States Interests in the Arctic with a Congressional-Executive Agreement on the Law of the Sea*, 34 HASTINGS CONST. L.Q. 329, 330–31 (2007). Other important bodies of water include the southern Chukchi Sea, which is the "major chokepoint" for northern access to the Pacific via the Bering Strait, the Barents Sea, the Beaufort Sea, and Hudson Bay. See *Arctic World Factbook*, *supra* note 7.

<sup>9</sup> Holmes, *supra* note 6, at 328.

<sup>10</sup> *Id.*

<sup>11</sup> James Stuhltrager, *Global Climate Change and National Security*, 22 NAT. RESOURCES & ENV'T 36, 39 (2008).

<sup>12</sup> *Id.*

No regional treaty was ever created to address control over Arctic resources, and an inimical climate traditionally has prevented any unilateral exercise of jurisdiction or regulatory enforcement. Snow cover in the Arctic region lasts ten months of the year, and its central surface is covered by a drifting icepack that is three meters thick.<sup>13</sup> While the Arctic ice sheet is surrounded by open seas in the summer, it more than doubles in size each winter, extending to the encircling landmasses and remaining locked from October to June.<sup>14</sup>

Nevertheless, the Arctic has remained quietly significant, precisely because its geography has continued to defy any recognized claim of national jurisdiction over its resources and passageways. However, the possibilities brought about by global warming have caused new uses of the Arctic to be contemplated. The Arctic is not a continental landmass like Antarctica. If the surface ice disappears, so too does the most significant physical impediment to the exploitation of its resources.

#### *B. The Implications of Global Warming on UNCLOS in the Arctic*

Due to customary standards of international law and obvious logistical constraints, previous attempts to lay claim to areas of the Arctic have amounted merely to symbolic gestures of sovereignty or abstract academic debates.<sup>15</sup> Global warming, however, recently has made the Arctic the focus of disproportionate international interest relative to its size. However, as the region becomes more accommodating to surface navigation, it appears increasingly vulnerable to potential for conflicts to develop at a commensurate pace.<sup>16</sup> Peter Croker, the current chair of the Commission on the Limits of the Continental Shelf (CLCS), has remarked that the Arctic is “the only place where a number of countries encircle an enclosed ocean.”<sup>17</sup> There is also sig-

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<sup>13</sup> Arctic World Factbook, *supra* note 7.

<sup>14</sup> *Id.*

<sup>15</sup> For example, relying on variations of a claim from 1909, Canada attempted to enforce its Arctic Pollution Act against U.S. vessels in 1969, after the American tanker *Manhattan* navigated the Northwest Passage. Despite the politically sensitive overtones, the policy that emerged to govern the central issue of vessel-source pollution deliberately skirted the topic of pollution zones beyond a nation's recognized territorial sea; the issue proved merely a display of political bravado. See Donald R. Rothwell, *The Canadian-U.S. Northwest Passage Dispute: A Reassessment*, 26 CORNELL INT'L L.J. 331, 366 (1993); ANN L. HOLLICK, U.S. FOREIGN POLICY AND THE LAW OF THE SEA 274–76 (1981).

<sup>16</sup> Andrew C. Revkin, *A Push to Increase Icebreakers in the Arctic*, N.Y. TIMES, Aug. 16, 2008, available at <http://www.nytimes.com/2008/08/17/world/europe/17arctic.html>.

<sup>17</sup> Paul Reynolds, *The Arctic's New Gold Rush*, BBC NEWS, Oct. 25, 2005, available at <http://news.bbc.co.uk/2/hi/business/4354036.stm>.

nificant overlap between the five Arctic States, and it is a region long characterized by tension.<sup>18</sup>

By September 2005, the Arctic ice cap had shrunk to the smallest size ever recorded,<sup>19</sup> and scientists predict that continued melting will eventually open up a seasonal sea nearly five times the size of the Mediterranean.<sup>20</sup> With the receding Arctic ice comes the possibility to excavate, for the first time, deep seabed mineral deposits and fuel sources on the sea floor, estimated by the United States Geological Survey to account for a quarter of the world's undiscovered oil and gas reserves.<sup>21</sup> If current trends continue, increasing temperatures will further reduce the polar ice caps, making vast new areas available for the exploitation of scant natural resources.<sup>22</sup>

The Arctic Nations have responded by levying exclusive claims, leaving political and diplomatic tensions in the wake of a sprint to claim polar resources. Currently, the littoral states surrounding the Arctic are engaged in various stages of establishing competing claims of sovereignty over large swaths of the region, attempting to demonstrate the limits of their continental shelves beyond 200 nautical miles<sup>23</sup> in order to prove control.

Here again the geography of the Arctic itself forecasts the influential role to be played by the Convention: the region that is becoming more accessible due to the thinning ice is precisely the areas of the continental margin within the Arctic Circle that lie beyond national jurisdictions. The outer border of this region roughly coincides, in ironic fashion, with the 200 nautical-mile default limit on exclusive economic rights.<sup>24</sup> Further complicating the imbroglio, about fifty percent of the Arctic deep seafloor is connected to more than one Arctic State via the continental shelf, the highest percentage of any ocean.<sup>25</sup>

## II. UNITED NATIONS CONVENTION ON THE LAW OF THE SEA

The intensification of old maritime practices and the discovery of new utilities during the twentieth century highlighted the need for a

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<sup>18</sup> *Id.*

<sup>19</sup> King, *supra* note 8, at 330.

<sup>20</sup> Arctic World Factbook, *supra* note 7.

<sup>21</sup> See Krauss et al., *supra* note 2.

<sup>22</sup> Stuhltrager, *supra* note 11, at 37.

<sup>23</sup> Arctic World Factbook, *supra* note 7.

<sup>24</sup> For a "political" rendering of the jurisdictional boundaries as they stand currently, see INT'L BOUNDARIES RES. UNIT, DURHAM UNIVERSITY, MARITIME JURISDICTION AND BOUNDARIES IN THE ARCTIC REGION, available at [www.dur.ac.uk/resources/ibru/arctic.pdf](http://www.dur.ac.uk/resources/ibru/arctic.pdf).

<sup>25</sup> Arctic World Factbook, *supra* note 7.

new, more unified approach to the law of the sea.<sup>26</sup> Especially in the aftermath of the Cold War, technological innovation and the globalization of the free trade paradigm and capitalist ideals<sup>27</sup> cast a worldwide diaspora of changes in geopolitical policy that included the law of the sea.<sup>28</sup> Essentially, modern political and technological developments began to foment a paradigm shift in the approach to the law of the sea, wrought out of issues framed by exclusive sovereignty rather than the traditional principle of unfettered freedom. Accordingly, UNCLOS responded in comparable terms, devoting significant effort to differentiating among the nature of the rights pertaining to different areas of the oceans.

The evolution of a comprehensive body of international maritime law proved a labyrinthine and protracted effort. The negotiations that produced the version of UNCLOS now in force lasted eight years, and were preceded by many piecemeal conventions of varying degrees of success, as well as two previous failed efforts by the UN to codify a comprehensive body of international maritime law.<sup>29</sup> Even after it became clear that a new legal order was needed, negotiating the integral provisions of the Convention required the efforts of delegates from over 149 countries over the course of eleven decision-making sessions.<sup>30</sup> By 1982, the final version of UNCLOS had endured twelve years of diplomatic posturing before gaining the support of enough countries to enter into force in 1994.

Ultimately, UNCLOS has been met with overwhelming international approval.<sup>31</sup> Eventually entering into force in November of 1994, UNCLOS has become a comprehensive and authoritative “constitution” of the seas, governing “nearly every aspect of maritime law, including [territorial] sovereignty limits, navigation, seabed mining,”<sup>32</sup> international rights of passage, environmental safeguards, and many

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<sup>26</sup> HOLLICK, *supra* note 15, at 9.

<sup>27</sup> Cesare P.R. Romano, *The Proliferation of International Judicial Bodies: The Pieces of the Puzzle*, 31 N.Y.U. J. INT'L. L. & POL. 709, 732 (1999).

<sup>28</sup> See Harry N. Scheiber, *Japan, the North Atlantic Triangle, and the Pacific Fisheries: A Perspective on the Origins of Modern Ocean Law, 1930-1953*, 6 SAN DIEGO INT'L L.J. 27, 30 (2004).

<sup>29</sup> NATALIE KLEIN, DISPUTE SETTLEMENT IN THE UN CONVENTION ON THE LAW OF THE SEA 16–20 (2005).

<sup>30</sup> SUZETTE V. SUAREZ, THE OUTER LIMITS OF THE CONTINENTAL SHELF: LEGAL ASPECTS OF THEIR ESTABLISHMENT 43, 73 (2008).

<sup>31</sup> See Howard S. Schiffman, *United States Membership in UNCLOS: What Effects for the Marine Environment?*, 11 ILSA J. INT'L & COMP. L. 477, 478 (2005).

<sup>32</sup> Holmes, *supra* note 6, at 330–31.

other fundamental issues.<sup>33</sup> Over 140 States currently are parties to the Convention,<sup>34</sup> and a record 119 countries signed UNCLOS on the first day it was open to signature.<sup>35</sup> The Convention has been ratified by all of the Arctic Nations, as well as every permanent member of the UN Security Council, except for the United States.<sup>36</sup>

#### A. *The Evolution of UNCLOS—A Departure from mare liberum*

The principle of *mare liberum*—the freedom of the seas—is generally considered to be the founding principle of international maritime law.<sup>37</sup> This primeval maritime doctrine rested on the secular philosophical contention that, as a condition of nature rather than divine law, the high seas were inherently common to all men and therefore not susceptible to claims of exclusivity.<sup>38</sup> The tenets of *mare liberum* endured nearly five centuries of maritime developments virtually unchallenged.<sup>39</sup> Indeed, the “[h]istory of the law of the sea is to a large extent the story of the development of [the] freedom of the seas doctrine and the vicissitudes through which it has passed through the centuries.”<sup>40</sup>

The doctrine itself originated in Roman times,<sup>41</sup> but it was left for a jurist from the Netherlands to revive its international observance.<sup>42</sup> In the early seventeenth century, the Dutch scholar and international lawyer Hugo Grotius published what is generally

<sup>33</sup> Candace L. Bates, *U.S. Ratification of the U.N. Convention on the Law of the Sea: Passive Acceptance is Not Enough to Protect U.S. Property Interests*, 31 N.C. J. INT’L L. & COM. REG. 745, 745 (2006).

<sup>34</sup> *Id.* at 746.

<sup>35</sup> Recent Development, *A Review of Developments in Ocean and Coastal Law 2001-2002*, 7 OCEAN & COASTAL L.J. 367, 387 (2002).

<sup>36</sup> Bates, *supra* note 33, at 746.

<sup>37</sup> KLEIN, *supra* note 29, at 5; *see also* Arnaut, *infra* note 46, at 27.

<sup>38</sup> 1 D.P. O’CONNELL, *THE INTERNATIONAL LAW OF THE SEA* 9–10 (I.A. Shearer ed., Clarendon Press 1982). Many rejoinders to the notion of *mare liberum* were written, attacking both its secular underpinnings as well as its conclusion. One of the main opponents to Grotius’ theory was the English jurist John Selden. *Id.* at 10. *See generally* JOHN SELDEN, *MARE CLAUSUM: OF THE DOMINION, OR, OWNERSHIP OF THE SEA* (Marchmont Nedham trans., The Lawbook Exchange 2004) (1652).

<sup>39</sup> O’CONNELL, *supra* note 38, at 29. Even in modern times it persists, as virtually every international maritime legal regime, including UNCLOS, has attempted to preserve some vestige of equal access to the high seas. *See generally* KLEIN, *supra* note 29, at 5–28 (describing the historical context of the doctrine).

<sup>40</sup> Ram P. Anand, *Freedom of the Seas: Past, Present and Future*, in *LAW OF THE SEA* 261, 261 (Hugo Caminos ed., 2001).

<sup>41</sup> The Justinian Code of 529 A.D. did not extend authority into the oceans, merely limiting control to the “high-water mark.” BARRY E. CARTER ET AL., *INTERNATIONAL LAW* 849 (Aspen Publishers 5th ed. 2007).

<sup>42</sup> Anand, *supra* note 40, at 262.



considered the first authoritative treatise espousing the doctrine of the freedom of the seas.<sup>43</sup>

Attempting to secure Dutch maritime rights in the Indies against Portuguese and Spanish dominance, Grotius rejected the notion of *mare clausum*—a closed sea—as an illegitimate exercise of sovereignty.<sup>44</sup> Rather, he advocated that maritime rights were common among all nations, regardless of the authority of any other sovereign ranging from the individual to the papacy.<sup>45</sup> The only possible exception to the proscription against exclusive maritime rights was reserved for the waters immediately adjoining a coastal State.<sup>46</sup>

Within this context of maritime law, prior to UNCLOS a nation-state “legally” could advance its national maritime interests to the extent that it was able to enforce such jurisdiction. However, outside practical boundaries, the high seas were considered either *res communis* or *res nullius*, alternately belonging to everyone or to no one, depending on the viewpoint to which a nation adhered.<sup>47</sup> For all intents and purposes, the exploitation and use of ocean resources functioned entirely independently from claims of national sovereignty.

By modern times, this economic and political global commons paradigm<sup>48</sup> was still accepted as the prevailing *jus gentium* around which the validity of all other rules governing interstate maritime conduct revolved.<sup>49</sup> Nevertheless, during the twentieth century, changes in the geopolitical climate, technology, economics, and society in general rendered complete freedom of the seas untenable and anachronistic.<sup>50</sup> The range of ocean uses was expanding at a level commensurate with economic developments, and national interests came to bear on the extent of maritime sovereignty and ocean resources rather than freedom of navigation. In particular, discoveries of deep seabed natural resources and improved technologies to exploit them “led to in-

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<sup>43</sup> See generally HUGO GROTIUS, THE FREEDOM OF THE SEAS OR THE RIGHT WHICH BELONGS TO THE DUTCH TO TAKE PART IN THE EAST INDIAN TRADE (James Brown Scott ed., Ralph Van Deman Magoffin, trans., The Lawbook Exchange 2001) (1916).

<sup>44</sup> KLEIN, *supra* note 29, at 5–6.

<sup>45</sup> GROTIUS, *supra* note 43, at 15–25.

<sup>46</sup> Damir Arnaut, *Stormy Waters on the Way to the High Seas: The Case of the Territorial Sea Delimitation Between Croatia and Slovenia*, 8 OCEAN & COASTAL L.J. 21, 27–28 (2002).

<sup>47</sup> See Alexandre Kiss, *The Common Heritage of Mankind: Utopia or Reality?*, in LAW OF THE SEA, *supra* note 40 at 323, 323.

<sup>48</sup> HOLLICK, *supra* note 15, at 9.

<sup>49</sup> Anand, *supra* note 40, at 261.

<sup>50</sup> See Prows, *supra* note 1, at 247–48.

creasing claims of exclusive control over wider areas of the sea adjacent to coastal States.”<sup>51</sup>

Recognizing the burgeoning international concern for sovereignty over parts of the oceans, as well as the need for peaceful and communal exploitation of certain resources, the UN General Assembly issued a resolution that convened the first United Nations Conference on the Law of the Sea in 1958.<sup>52</sup> Various multilateral conventions were negotiated regarding the high seas, international fisheries, the continental shelf, and dispute settlement.<sup>53</sup> However, when these proved insufficient to meet emerging issues, it became clear that a more comprehensive approach was necessary. A second Conference on the Law of the Sea two years later again sought to resolve the contentious issues, in particular the breadth of the territorial sea and the classification of international straits, but ultimately proved fruitless.<sup>54</sup>

Prompted by the failure to settle these inveterate and polemic issues, a third Conference on the Law of the Sea was held in Caracas in 1974 and Geneva in 1975, eventually resulting in the United Nations Convention on the Law of the Sea that passed the United Nations on December 10, 1982.<sup>55</sup> In the final version of UNCLOS, a relatively compendious, unified body of international maritime law was finally produced.

The fundamental platform of UNCLOS purports to maintain the balance between sovereign rights and Grotius' freedom of the seas.<sup>56</sup> However, the new Convention carved out substantial new sov-

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<sup>51</sup> KLEIN, *supra* note 29, at 12. The advancements in technology also led States to assert claims over other ocean resources, most particularly fish. The development of deep water fishing fleets, equipped with sonar and mechanized canneries, allowed the seas to be used increasingly as a source of food. *Id.*

<sup>52</sup> G.A. Res. 1105, ¶ 2, U.N. GAOR, 11th Sess., Supp. No. 17, U.N. Doc. A/3572 (1957).

<sup>53</sup> *See, e.g.*, Geneva Convention on the Continental Shelf, Apr. 29, 1958, 15 U.S.T. 471, 499 U.N.T.S. 311, Geneva Convention on Fishing and Conservation of the Living Resources of the High Seas, Apr. 29, 1958, 17 U.S.T. 138, 559 U.N.T.S. 285, Geneva Convention on the Territorial Sea and Contiguous Zone, Apr. 29, 1958, 15 U.S.T. 1606, 516 U.N.T.S. 205, Optional Protocol to the 1958 Law of the Sea Conventions concerning the Compulsory Settlement of Disputes, Apr. 29, 1958, 450 U.N.T.S. 169. *See generally* KLEIN, *supra* note 29, at 1–28.

<sup>54</sup> KLEIN, *supra* note 29, at 18.

<sup>55</sup> *See generally* Third United Nations Conference on the Law of the Sea, *opened for signature* Dec. 10, 1982, S. Treaty Doc. No. 103-39 (1994), 1833 U.N.T.S. 397, 21 I.L.M. 1245, available at <http://www.un.org/Depts/los/index.htm> (follow “United Nations Convention on the Law of the Sea” hyperlink) [hereinafter UNCLOS].

<sup>56</sup> It has been argued that while Grotius opposed the conception of *mare clausum* and outright ownership of the seas, he drew a distinction between such a proprietary ownership (*dominium*) and the power of a State to rule its own coastal waters (*imperium*). This latter concept is more analogous to the modern understanding of

foreign rights over various parts of the world's oceans. Most of these prerogatives were secured at the expense of the traditional concept of universal freedom of the seas, essentially codifying its erosion.<sup>57</sup> The most novel of these was a provision granting exclusive economic rights out to 200 nautical miles from a State's coastline.<sup>58</sup> Far from allowing universal access to the sea, this 200-mile zone explicitly reserves 37.7 million square nautical miles for the exclusive use of individual States, an area containing an estimated 90 percent of the exploitable fishery stock, around 85 percent of known oil deposits, and 10 percent of the seabed manganese nodules.<sup>59</sup>

Although UNCLOS is a significant departure from Grotius' notion of *mare liberum*, it has been hailed nonetheless as a celebration of human solidarity.<sup>60</sup> It is truly a singular international achievement in light of its scope, levels of dispute resolution, and the marathon negotiations that yielded such significant balancing of interests.<sup>61</sup>

### *B. The Provisions of UNCLOS: the Territorial Sea, Exclusive Economic Zone, and Continental Shelf*

The Convention codified several essential maritime conceptions of jurisdiction. First, UNCLOS established a "territorial sea" of twelve nautical miles, as measured from a country's coastal baseline.<sup>62</sup> As suggested by its name, the territorial sea essentially functions as an extension of a State's territory.<sup>63</sup> States Parties to the Convention not only exercise exclusive control over their territorial seas, but they also retain full sovereignty over the air space above, the seabed below, its superjacent waters, as well as all living and inanimate resources.<sup>64</sup>

The only exception to the absolute sovereignty of the territorial sea is the obligation to permit the "continuous and expeditious" inno-

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maritime jurisdiction, as opposed to complete sovereignty, and it is precisely the distinction UNCLOS seeks to create in the areas beyond the territorial sea, especially in the "uneasy coincidence of the high seas and the exclusive economic zone." See O'CONNELL, *supra* note 38, at 14-16.

<sup>57</sup> Anand, *supra* note 40, at 276.

<sup>58</sup> M.K. Nawaz, *On the Advent of the Exclusive Economic Zone: Implications For a New Law of the Sea*, in *LAW OF THE SEA: CARACAS AND BEYOND* 180, 180-81 (Ram Prakash Anand ed., 1980).

<sup>59</sup> CARTER ET AL., *supra* note 41, at 888.

<sup>60</sup> See Tommy T.B. Koh, Conference President, Remarks at the Third United Nations Conference on the Law of the Sea (Dec. 6 & 11, 1982), available at [http://www.un.org/Depts/los/convention\\_agreements/convention\\_overview\\_convention.htm](http://www.un.org/Depts/los/convention_agreements/convention_overview_convention.htm).

<sup>61</sup> Schiffman, *supra* note 31, at 477.

<sup>62</sup> UNCLOS, *supra* note 55, art. 2.

<sup>63</sup> *Id.* art. 3.

<sup>64</sup> *Id.* art. 2.

cent passage of foreign vessels.<sup>65</sup> It is important to note also that a State's full sovereignty ends in the maritime zones beyond the territorial sea.<sup>66</sup>

The Convention also provides for an unprecedented concept in the exclusive economic zone ("EEZ"),<sup>67</sup> which extends to a maximum of 200 nautical miles, as measured from the same coastline as the territorial sea.<sup>68</sup> Within the EEZ, a State may exercise preferential rights and jurisdiction only over the natural resources in, on, and below the seabed and the superjacent waters, and maintains exclusive economic rights to exploit, conserve, and manage that zone.<sup>69</sup> Sovereign rights to resources may also be exercised "with regard to other activities for the economic exploitation and exploration of the zone, such as the production of energy."<sup>70</sup>

Finally, what constitutes a State's continental shelf, and the pertinent sovereign rights over the sea floor and subsoil, is the most important designation within the context of the changing Arctic. In general, entitlement to submarine resources under the Convention is based inextricably on the delimitation of the continental shelf and the idea that the shelf is a natural prolongation of a coastal State's territory.<sup>71</sup> Whereas the principles underlying the territorial sea and EEZ are largely premised on sovereign rights that can be exercised or enforced fairly easily, UNCLOS compensates for resources on the continental shelf that are not immediately within reach, but still technically belonging to a coastal State.<sup>72</sup>

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<sup>65</sup> *Id.* art. 18(2).

<sup>66</sup> See Carlos Ramos-Mrosovsky, *International Law's Unhelpful Role in the Senkaku Islands*, 29 U. PA. J. INT'L L. 903, 910 (2008). Compare UNCLOS, *supra* note 55, art. 2 (specifically employing the term "sovereignty") with *id.* art. 56(1) (employing the terms "sovereign rights" and "jurisdiction" as opposed to "sovereignty").

<sup>67</sup> See KLEIN, *supra* note 29, at 130–31; Nawaz, *supra* note 58, at 188–89.

<sup>68</sup> UNCLOS, *supra* note 55, art. 57.

<sup>69</sup> *Id.* art. 56.

<sup>70</sup> SHIGERU ODA, *Exclusive Economic Zone, in FIFTY YEARS OF THE LAW OF THE SEA* 621, 625 (2003).

<sup>71</sup> See UNCLOS, *supra* note 55, art. 76(1), 77(3).

<sup>72</sup> The Convention states explicitly that the rights of a coastal State over the continental shelf do not depend on occupation or even any express proclamation. *Id.* art. 77(3).

### 1. *The Continental Shelf Defined*

In geologic terms, the continental shelf is the nearest part of the offshore, submerged prolongation of land territory.<sup>73</sup> The continental shelf, slope, and rise are known collectively as the continental margin, which has considerable variation worldwide.<sup>74</sup> Generally though, the shelf is the relatively shallow part of the continental margin lying between the shoreline and the shelf break—essentially the area where there is no noticeable slope, usually located at a depth between 100 and 200 meters.<sup>75</sup>

For the purposes of the Convention, the continental shelf is comprised of “the seabed and subsoil of 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.”<sup>76</sup> Under the UNCLOS regime, a State is afforded “a continental shelf of 200 miles regardless of technological capabilities and geological formations.”<sup>77</sup> Should a State’s continental shelf extend beyond 200 miles, it may claim an extension up to the outer edge of the continental margin. However, such a boundary claim cannot exceed 350 nautical miles, as measured from the same coastal baseline as the territorial sea, or, alternately 100 nautical miles beyond the 2500-meter isobath (an imaginary contour line drawn along the continental shelf at a constant depth of 25,000 meters).<sup>78</sup>

Thus, it is only in the case of the “geological construct of the continental shelf extending beyond 200 miles may a legal continental shelf of up to 350 miles be recognized.”<sup>79</sup> The simplest conception under the Convention, therefore, is a country with a very narrow continental shelf that does not extend to 200 nautical miles. In such a case, the coastal State may still claim sovereign rights over seabed resources to that distance, but no further, exercising concurrent jurisdiction within its EEZ to exploit livestock as well within that area.

Absent recognition of an extended continental shelf, any territory lying beyond the outer boundary of 200 miles is referred to as “the

<sup>73</sup> Robert Smith, *The Continental Shelf Commission*, in OCEANS POLICY: NEW INSTITUTIONS, CHALLENGES, AND OPPORTUNITIES 135, 137 (Myron H. Nordquist et al., eds. 1999).

<sup>74</sup> *Id.* at 138.

<sup>75</sup> THE COMMISSION ON THE LIMITS OF THE CONTINENTAL SHELF (CLSC), THE CONTINENTAL SHELF, [http://www.un.org/Depts/los/clcs\\_new/continental\\_shelf\\_description.htm#definition](http://www.un.org/Depts/los/clcs_new/continental_shelf_description.htm#definition) (last visited Mar. 1, 2009) [hereinafter CLCS].

<sup>76</sup> UNCLOS, *supra* note 55, art. 76(5).

<sup>77</sup> KLEIN, *supra* note 29, at 130 n.15.

<sup>78</sup> UNCLOS, *supra* note 55, art. 76(5); *see also* ODA, *supra* note 70, at 595, 618.

<sup>79</sup> KLEIN, *supra* note 29, at 130 n.15.

Area" throughout UNCLOS.<sup>80</sup> It is defined as the "seabed and ocean floor and subsoil thereof, *beyond the limits of national jurisdiction*,"<sup>81</sup> which stands at 200 nautical miles unless proven to extend farther.<sup>82</sup> The Area and all of its seabed resources instead are reserved for "the common heritage of mankind" and vested in mankind as a whole.<sup>83</sup>

## 2. *Rights over the Continental Shelf*

The natural resources of the continental shelf are defined as the immobile or seabed-dwelling living organisms at a harvestable stage as well as mineral and other non-living resources of the seabed and subsoil.<sup>84</sup> UNCLOS Article 77 confers sovereign rights on a coastal State for the purpose of exploration and exploiting such resources, arguably the most important of which is the "exclusive right to authorize and regulate drilling on the continental shelf for all purposes"<sup>85</sup> in order to harvest the resources.

UNCLOS premises jurisdiction over these deep seabed resources, even if not logistically susceptible to possession, on preserving the resources that are naturally part of a coastal State's geography.<sup>86</sup> As the International Court of Justice ("ICJ") has noted, the continental shelf itself is a stretch of "submerged land" governed by a legal regime that focuses on soil and subsoil, terms that are themselves evocative of the land and not the sea.<sup>87</sup> Since the rights of the continental shelf under UNCLOS emanate from its conception as a natural extension of sovereign territory, the appertaining rights to its resources are justified in terms of a State's sovereignty over land. Accordingly a State's sovereign rights are restricted to resources that would be analogous to those harvested from land, i.e. resources found on the seabed rather than the waters above it.<sup>88</sup> Indeed, the rights of a coastal State exist independently and "do not depend on occupation . . . or on any express proclamation" under the Convention.<sup>89</sup>

Nevertheless, these rights are not limitless. The term "sovereign rights" is a deliberate phrase, used to specify that the circumscribed authority granted over the shelf would be compatible with the

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<sup>80</sup> See UNCLOS, *supra* note 55, art. 1(1).

<sup>81</sup> *Id.* (emphasis added).

<sup>82</sup> *Id.* art. 76(4)(a).

<sup>83</sup> *Id.* art. 136.

<sup>84</sup> *Id.* art. 77.

<sup>85</sup> *Id.* art. 81.

<sup>86</sup> O'CONNELL, *supra* note 38, at 467.

<sup>87</sup> North Sea Continental Shelf (F.R.G. v. Den. & Neth.), 1969 I.C.J. 3, 51 (Feb. 28).

<sup>88</sup> See UNCLOS, *supra* note 55, arts. 77(4), 78(1).

<sup>89</sup> *Id.* art. 77(3).

principle of the freedom of the seas.<sup>90</sup> Other nations are precluded from pursuing activities without the express consent of the coastal State, but that State's exercise of sovereign rights cannot interfere with the legal status of the superjacent waters, the airspace above, or rights of other States, such as the ability of any State to lay submarine cables.<sup>91</sup>

*C. The Common Heritage of Mankind: A New Economic Order Based on Polymetallic Nodules*

Somewhat ironically, among the manifold number and diversity of ocean resources, vast beyond imagination, it was the discovery of fist-sized mineral deposits that effectively changed everything. In the 1960s it was determined that "deposited wealth, valuable beyond imagination, [existed] in the continental slope" and beyond.<sup>92</sup> Commonly referred to as manganese nodules, these deposits contain significant quantities of important minerals such as "nickel, copper, cobalt, and manganese . . . found at depths of 12,000 to 20,000 feet, well removed from continental margins."<sup>93</sup>

In fact, the areas beyond national jurisdictions contain an estimated 22 billion tons of polymetallic nodules, but located on the ocean floor at the impractical depth of approximately three miles.<sup>94</sup> Nevertheless, once the presence of such mineral wealth was made known, it proved a contentious point of departure for international maritime policy that remains today.

For all intents and purposes, the so-called first in time, first in right theory governed exploitation of seabed resources prior to UNCLOS. President Truman, for example, declared in 1945 that the United States retained jurisdiction and control over *all* new sources of fuel and other resources on its continental shelf, regardless of proximity to the coastline.<sup>95</sup> By the time the United States became a party to the 1958 Geneva Convention on the Continental Shelf,<sup>96</sup> any nation that developed adequate mining technology conceivably was able to excavate the sea floor beyond its boundaries, even to the middle of the ocean if so desired.<sup>97</sup>

Once offshore technology was developed to harvest the manganese nodules from the ocean floor and continental shelf, claims of ex-

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<sup>90</sup> KLEIN, *supra* note 29, at 129.

<sup>91</sup> UNCLOS, *supra* note 55, art. 79.

<sup>92</sup> ODA, *supra* note 70, at 257, 259.

<sup>93</sup> HOLLIICK, *supra* note 15, at 8.

<sup>94</sup> See KLEIN, *supra* note 29, at 317.

<sup>95</sup> Exec. Order No. 9633, 10 Fed. Reg. 12305 (Sept. 28, 1945).

<sup>96</sup> Geneva Convention on the Continental Shelf, *supra* note 53.

<sup>97</sup> HOLLIICK, *supra* note 15, at 8.

clusive control over wider areas of the sea increased drastically.<sup>98</sup> The U.S. was soon joined by other countries seeking to supplement their domestic resources with eighty-one countries making 231 jurisdictional claims under the previous international convention governing the continental shelf between 1967 and 1973.<sup>99</sup> The debate over who was entitled to lay claim to offshore resources, and how disputes might be settled, came to dominate the UNCLOS proceedings.<sup>100</sup> Eventually it was determined that a new international structure was needed to ensure maritime justice in conformity with the international norm of the equality of sovereign rights.<sup>101</sup>

In an impassioned speech before the United Nations in 1967, Dr. Arvid Pardo, the ambassador from Malta, proposed a revolutionary regime, which galvanized support for the third UN Conference on the Law of the Sea.<sup>102</sup> As a means to remedy the disparities between the industrial and developing nations, Pardo advocated for the use of seabed mineral resources as "the common heritage of mankind," and not subject to exploitation by any State for its sole use.<sup>103</sup>

Propelled by these lofty ideals, the General Assembly set about to create a new international economic order ("NIEO") based on the common heritage doctrine.<sup>104</sup> For developing States, this new economic order was a cardinal concern. There was a fear that adhering to the piecemeal status quo of maritime law based on the traditional freedom of the seas and notions of bilateral reciprocity would result in the use of the sea such that "few countries benefitted . . . while the rest lived in poverty, as had been done with the riches of the land."<sup>105</sup> The "technological under-development [of the developing world] meant that established maritime States could profit tremendously" while non-industrialized countries would struggle to compete.<sup>106</sup> Eventually Ambassador Pardo prevailed, and the language of his speech was adapted into a UN General Assembly resolution,<sup>107</sup> codified in Part XI,

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<sup>98</sup> KLEIN, *supra* note 29, at 12.

<sup>99</sup> Holmes, *supra* note 6, at 330.

<sup>100</sup> KLEIN, *supra* note 29, at 19–20.

<sup>101</sup> See Anand, *supra* note 40, at 275.

<sup>102</sup> See Ambassador Arvid Pardo, Address at the 22nd Session of the General Assembly of the United Nations (Nov. 1, 1967).

<sup>103</sup> See O'CONNELL, *supra* note 38, at 459–60.

<sup>104</sup> See Declaration on the Establishment of a New International Economic Order, G.A. Res. 3201, at 3, U.N. GAOR, 6th Spec. Sess., U.N. Doc. A/6695 (1967).

<sup>105</sup> Anand, *supra* note 40, at 275 (quoting Venezuelan President Carlos Andrés Pérez).

<sup>106</sup> KLEIN, *supra* note 29, at 12.

<sup>107</sup> See G.A. Res. 2749, U.N. GAOR, 25th Sess., Supp. No. 28, U.N. Doc. A/8028 (1970).



Article 136 of UNCLOS, which classified the deep seabed as part of the common heritage of mankind.<sup>108</sup>

However, as codified under the Convention, resources belonging to “the common heritage of mankind” eventually gained a more nuanced meaning.<sup>109</sup> Specifically, no State may exercise exclusive sovereignty over any part of the Area or its resources, no part of the Area may be appropriated by any natural or juridical person, and finally, the mining of resources within the Area may only be carried out under the procedures pursuant to Part XI and the Seabed Authority, which will act on behalf of State parties to UNCLOS.<sup>110</sup>

### 1. *The Part XI Mining Regime and the 1994 Implementing Agreement*

Part XI of UNCLOS addresses the deep seabed mining regime for areas beyond national jurisdictions and established the International Seabed Authority (“ISA”) to administer and regulate the natural resources of the Area on behalf of all nations.<sup>111</sup> The ISA established three principal organs: the Council, the executive organ; the Assembly, a fully-representative policy-making body; and the Secretariat, which fulfills the administrative functions of the ISA.<sup>112</sup> Also consequential was the creation of the Enterprise, a significant entity charged with carrying out the mining activities of the Area meant essentially to serve as the operating arm of the ISA, subject to the control of the Council.<sup>113</sup>

The original provisions of the UNCLOS mining administration were objectionable for a multitude of reasons, but all were seen as uni-

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<sup>108</sup> UNCLOS, *supra* note 55, art. 136.

<sup>109</sup> There is a certain amount of irony in the application of the common heritage of mankind doctrine under UNCLOS. The common heritage axiom is strongly reminiscent of Hugo Grotius’ notion of the freedom of the seas, and it did indeed establish a new, more egalitarian economic order. However, it did not necessarily reflect the freedom of the seas, given its high level of regulation. The structure and procedure of the ISA threatened the private market interests of industrialized nations by attempting to compensate for economic with rules that were designed to be disadvantageous to certain countries. Whereas Grotius advanced his argument based on the inability of any nation to seize or own the ocean, Pardo’s rationale is directed at seabed minerals—resources known precisely in terms of possession.

<sup>110</sup> Jason Warren Howard, Note, *Don’t Be Left Out in the Cold: An Argument for Advancing American Interests in the Arctic Outside the Ambits of the United Nations Convention on the Law of the Sea*, 42 GA. L. REV. 833, 845 n.81 (2008).

<sup>111</sup> UNCLOS, *supra* note 55, art. 156.

<sup>112</sup> *Id.* art. 158.

<sup>113</sup> See KLEIN, *supra* note 29, at 324.

formly antithetical to capitalism and free market principles.<sup>114</sup> As originally proposed, this regime “required mandatory transfers of technology, employed an economic model that preempted free-market enterprise, failed to assure access to future deep seabed resources, and included a voting structure that gave all nations equal control regardless of their technological capabilities or contributions.”<sup>115</sup> The Seabed Authority also reserved the power to conduct its own activities through the Enterprise as a parallel mining company, essentially allowing the ISA to claim mining rights equal to the combined total of “all competing private consortia and State-sponsored mining concerns authorized to operate in the Area.”<sup>116</sup>

The result was a commingling of private and public mining systems that was not well received. The amount of control afforded each of these bodies, primarily the Enterprise, proved a highly controversial issue. Indeed, even Ambassador Pardo did not envision a large role and such wide discretion for the Seabed Authority.<sup>117</sup> At the time, such an economic order was entirely unprecedented, and the reaction among industrialized nations was fairly predictable.

While the number of ratifications increased throughout the 1980s, there was a discernible lack of participation by the industrialized countries.<sup>118</sup> The United States, for one, was unwilling to compromise its vital interests “for the sake of world opinion” or participation in what it considered an experimental, protectionist regime with an institutional bias weighted disproportionately in favor of the developing world.<sup>119</sup> America viewed the regime as contrary to ideals of liberty, private property, and free enterprise, but many other countries harbored similar concerns. In response to the general reluctance of industrialized countries, the UN Secretary General sought to entice the developed world to adopt the Convention by redressing these and other concerns with an Implementing Agreement.<sup>120</sup>

Specifically, the Agreement streamlined the procedure for approving commercial mining applications, and the thorny issue of the role of the Enterprise was discarded entirely, save for the situation in

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<sup>114</sup> *Id.* at 321.

<sup>115</sup> Rosanna Sattler, *Transporting a Legal System for Property Rights: From the Earth to the Stars*, 6 CHI. J. INT'L L. 23, 34–35 (2005).

<sup>116</sup> KLEIN, *supra* note 29, at 326.

<sup>117</sup> *Id.* at 347.

<sup>118</sup> *Id.* at 321.

<sup>119</sup> *Id.* at 321 n.19 (quoting James L. Malone, *The United States and the Law of the Sea*, 24 VA. J. INT'L L. 785, 785–86 (1984)).

<sup>120</sup> See Bernard H. Oxman, *Law of the Sea Forum: The 1994 Agreement on Implementation of the Seabed Provisions of the Convention on the Law of the Sea*, in LAW OF THE SEA, *supra* note 40, at 343, 343.

which market demand warrants its functioning.<sup>121</sup> The regulatory discretion of the Seabed Authority itself was significantly curtailed<sup>122</sup> by obliging compliance with the requirements of private miners<sup>123</sup> and reinterpreting production restrictions based on market-oriented GATT requirements.<sup>124</sup>

The Agreement also relaxed the financial obligations on private mining applicants.<sup>125</sup> While payments to the Seabed Authority are still required after five years of production, they are minimal and eventually capped at 7% of production, and royalties must be paid only if production in the offshore Area is successful.<sup>126</sup> Finally, the forced transfer of technology was specifically eliminated, and although an admonition to facilitate the acquisition of seabed mining technology remains, it is permissible only if conducted in a manner consistent with respect for intellectual property rights.<sup>127</sup>

Overall, the 1994 Agreement accomplished its purpose, overcoming the original objections of developed nations and crafting incentives rather than obligations. The distasteful principle of the common heritage of mankind was retained, but its claws were removed. Further, the changes made by the Agreement prevail over the original Convention in the event of any inconsistency.<sup>128</sup> As a reflection of its success, the Agreement was signed by over fifty countries within the first year, including the U.S.<sup>129</sup>

### III. PROBLEMS ARISING UNDER UNCLOS AND THE IMPLICATIONS ON ARCTIC SOVEREIGNTY

A myriad of problems are likely to surface in the Arctic context under the Convention. As substantial, untouched resources become available for the first time in a new frontier, worldwide energy scarcities are unlikely to lead to a communal sharing of resources. States are more determined to secure resources for their own populations instead,<sup>130</sup> which is likely to incite a "petroleum rush"<sup>131</sup> and arouse old

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<sup>121</sup> KLEIN, *supra* note 29, at 326.

<sup>122</sup> *Id.* at 326-27.

<sup>123</sup> Holmes, *supra* note 6, at 336.

<sup>124</sup> Oxman, *supra* note 120, at 347.

<sup>125</sup> *See id.* at 350; *see also* Agreement Relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, Aug. 17, 1994, 33 I.L.M. 1309 (1994) [hereinafter Implementation Agreement].

<sup>126</sup> *The UN Convention on the Law of the Sea: Hearing Before the S. Foreign Relations Comm.*, 110th Cong. (2007) (written testimony of John D. Negroponte, Deputy Secretary of State).

<sup>127</sup> Oxman, *supra* note 120, at 347.

<sup>128</sup> *See* Implementation Agreement, *supra* note 125, at 1326.

<sup>129</sup> Oxman, *supra* note 120, at 343.

<sup>130</sup> KLEIN, *supra* note 29, at 347.

tensions. UNCLOS effectively prohibits unsubstantiated expansionism by a coastal State, but private or state-sponsored offshore resource mining is unlikely to facilitate any collaboration.<sup>132</sup> In such an atmosphere, UNCLOS may prove insufficient to check the self-interest of States and enforce proper distribution of resources for the benefit of all. Ultimately, however, these shortcomings are unlikely to pose an insurmountable obstacle to the successful operation of the Convention as a whole.

#### A. *Classification of Arctic Resources*

Part XI of UNCLOS precludes exclusive control of “all solid, liquid or gaseous mineral resources *in situ* in the Area at or beneath the seabed, including polymetallic nodules”<sup>133</sup> beyond 200 nautical miles. Since resources in the Arctic fall precisely in this category, for the time being the Arctic must be used for the benefit of all, and not simply in the economic interests of the superpowers who may be best able to harvest its resources.<sup>134</sup>

Any State seeking to mine in the Arctic therefore would be required to adhere to the procedures established by the Authority.<sup>135</sup> At a minimum, these would entail abiding by the financial requirements as well as mapping “a single continuous area,” and dividing it into two separate areas of equal commercial value, and submitting all data obtained with respect to these areas.<sup>136</sup> To circumvent these requirements, the objective of the Arctic States has become removing polar resources from under the jurisdiction of the Seabed Authority entirely by claiming a continental shelf beyond 200 nautical miles.

#### B. *The Juridical Continental Shelf*

Since the extent of a State’s continental shelf essentially will determine the extent of its sovereign rights over the seabed, one would assume that UNCLOS provides conclusive legal guidelines. Thus, within the context of global warming and the changing climate in the Arctic, the vagaries of continental shelf boundaries are fraught with the most potential for conflict.

In delimiting the continental shelf under UNCLOS, signatory States must derive sovereign rights outside the EEZ by presenting evi-

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<sup>131</sup> Krauss et al., *supra* note 2.

<sup>132</sup> Unless, of course, a common problem arises, or another sovereign interest apart from resource recovery, such as environmental integrity, is threatened. See HOLLICK, *supra* note 15, at 17.

<sup>133</sup> UNCLOS, *supra* note 55, art. 133.

<sup>134</sup> Anand, *supra* note 40, at 275.

<sup>135</sup> See KLEIN, *supra* note 29, at 324.

<sup>136</sup> See *id.* at 326.

dence that their territorial shelf is connected to the seabed, up to a maximum of 350 nautical miles.<sup>137</sup> Therefore, in order to assert domestic jurisdiction in what would otherwise be part of the Area, a State must base its claim on an extension of its territorial jurisdiction based on the extent to which their continental shelf reaches into the Arctic. Yet determining the extent of a broad shelf, based on the “natural prolongation” of land territory, is hindered by the Convention’s inherently ambiguous and subjective language.

UNCLOS employs a juridical understanding of the continental shelf<sup>138</sup> based on an extension of a coastal State’s continental land mass, but without much concern for the *mot juste*. Consequently, this definition is far from straightforward. The term “continental shelf” assumed several variegated and political meanings during UNCLOS negotiations,<sup>139</sup> eventually coming to refer to the extent of the relatively shallow underwater sea floor a State sought to control.<sup>140</sup>

As the terms mentioned above are the product of protracted negotiations and refinements, they depend on such a nuanced conception of the continental shelf. With a definition of the shelf that essentially consists of “science . . . applied within a legal framework,”<sup>141</sup> this perhaps was inevitable. While the Convention’s continental shelf regime obviously cannot be implemented without scientific and technical expertise,<sup>142</sup> the development of ocean sciences played an ancillary role in its political and legal rendering.<sup>143</sup> In fact, the final text of Article 76 contains some concepts which “are stripped of their purely scientific meaning in order to maximize the legal concept[s].”<sup>144</sup> The conclusion

<sup>137</sup> Stuhltrager, *supra* note 11, at 40.

<sup>138</sup> See CLCS, *supra* note 75.

<sup>139</sup> See SUAREZ, *supra* note 30, at 74 (arguing that “the definition, composition and outer limits of the continental shelf” are products of long-standing negotiations and an incomplete reliance on science). “For example, the fundamental principle upon which the juridical continental shelf is based asserts that the continental shelf belongs to the coastal state and not to the bigger land mass or continent as a whole.” *Id.*; cf. O’CONNELL, *supra* note 38, at 488–498 (stating that the question of legal limits of the continental shelf arose as a part of the definition of the doctrine itself, the inevitable result of which was the search for a pragmatic limit on the extent of rights within the context of a definition that did not treat legal and geographical concepts of the continental shelf equally); Prows, *supra* note 1, at 279–80.

<sup>140</sup> See generally SUAREZ, *supra* note 30, at 39–74 (detailing the evolution of the continental shelf during the UNCLOS sessions and various State submissions regarding its legal meaning).

<sup>141</sup> CONTINENTAL SHELF LIMITS: THE SCIENTIFIC AND LEGAL INTERFACE 12 (Peter J. Cook & Chris M. Carleton eds., 2000) [hereinafter CONTINENTAL SHELF LIMITS].

<sup>142</sup> SUAREZ, *supra* note 30, at 132.

<sup>143</sup> See *id.* at 74.

<sup>144</sup> *Id.*

reached was that “the continental shelf, although originally a physical concept, is principally a legal or artificial concept that developed to suit the purpose of the states.”<sup>145</sup>

To the point, Article 76 of UNCLOS defines the continental shelf using externally-imposed legal criteria mixed with imprecise scientific terms to justify the rights conferred.<sup>146</sup> Such conflation of scientific terms with political meanings is inherently problematic. Indeed, such a legal theory that purports to regulate behavior over tangible resources cannot ignore the boundaries of the scientific terms it employs. The practice of implementing hypothetical concepts “without taking into account the scientific facts that constitute reality” can only lead to contradiction.<sup>147</sup> Nevertheless, the outer limits of the continental shelf “do not necessarily lie on the outer edge of the continental margin . . . [but rather] where the application of the rules and formulae under Article 76 places them.”<sup>148</sup>

### C. *The Commission on the Limits of the Continental Shelf*

The CLCS is the entity that inevitably must deal with the unwieldy juridical continental shelf. It is a body established under Annex II of the Convention consisting of twenty-one experts empowered to make recommendations regarding the continental shelf and help resolve disputes.<sup>149</sup> In order to extend the outer limit of its continental shelf beyond the 200-nautical mile maximum, a coastal State must substantiate its claim with scientific data and make a formal submission to the CLCS.<sup>150</sup> Thus, the outer limit of a State’s continental shelf beyond 200 nautical miles is not fixed under UNCLOS until a claim is researched, submitted to the CLCS, approved, and then officially promulgated by that State. This process of delimitation is summed up as “submission preparation, CLCS review, and delineation deposit.”<sup>151</sup>

Yet here again, reality complicates what is essentially a straightforward process. In practical terms, the entire continental

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<sup>145</sup> *Id.* at 241.

<sup>146</sup> There are two methods that may be used to determine the extent of the continental shelf, but both require the drawing of a line using fixed points that are based on either (i) the thickness of sedimentary rocks in relation to the foot of the continental slope, or (ii) fixed points that are no more than sixty nautical miles from the foot of the continental slope. The foot of the continental slope “shall be determined as the point of maximum change in the gradient at its base” but only absence “evidence to the contrary.” UNCLOS, *supra* note 55, art. 76(4).

<sup>147</sup> O’CONNELL, *supra* note 38, at 440.

<sup>148</sup> SUAREZ, *supra* note 30, at 241.

<sup>149</sup> UNCLOS, *supra* note 55, annex II, art. 2(2).

<sup>150</sup> *Id.* annex II, art. 4.

<sup>151</sup> Prows, *supra* note 1, at 273.

margin varies considerably from one coastal area to another.<sup>152</sup> For example, the margin “along the west coast of South America drops away very steeply,” but in other places it extends “gradually outward to distances of over 500 miles before meeting the deep ocean floor.”<sup>153</sup> The continental shelf of countries with a particularly broad continental margin, such as Argentina, Australia, Canada, New Zealand, the United States, and Russia, is therefore negotiable under the criteria of the Convention.<sup>154</sup>

However, the CLCS does not instill confidence that continental shelf claims can be submitted or approved with predictability and uniformity. The Commission has not yet ruled affirmatively on any continental shelf proposal and suffers from a lack of transparency,<sup>155</sup> so the criteria it considers probative is not yet known. Nor does the CLCS have the authority to settle continental shelf disputes.<sup>156</sup> The power of CLCS is advisory only, and its recommendations are binding only if they are incorporated into a member State’s official submission.<sup>157</sup> Further, the submission process is conceivably infinite, and does not promote reliability. If the CLCS finds the claim unsubstantiated, it can reject it, but the State may make as many subsequent submissions as it desires within a given time frame.<sup>158</sup>

Some have argued that this formulation affords disproportionate weight to a State’s individual interpretation of geologic and scientific data, which defies the imposition of any true outer limit, especially when claims overlap.<sup>159</sup> For example, the technical terms used by Article 76 to define the continental shelf are based on imprecise scientific concepts and naturally subject to interpretation. One method of determining the outer limit of the shelf is to draw a line no more than sixty nautical miles from the foot of the continental slope.<sup>160</sup> Ideally speaking, the foot of the continental slope is determined at the point of maximum change in the gradient at its base.<sup>161</sup> However, it is unknown where the CLCS will posit the point of maximum change, where the base itself is, or even how it will view support-

<sup>152</sup> HOLLICK, *supra* note 15, at 7.

<sup>153</sup> *Id.* at 7–8.

<sup>154</sup> Cf. RESTATEMENT (THIRD) OF FOREIGN RELATIONS LAW § 515 cmt. a (1987).

<sup>155</sup> The Commission has completed evaluating the submissions of only two countries: Russia and Brazil. While several recommendations were revealed, the CLCS has yet to publish any legally binding ruling. See SUAREZ, *supra* note 30, at 2–3.

<sup>156</sup> Prows, *supra* note 1, at 275.

<sup>157</sup> See UNCLOS, *supra* note 55, art. 76(8); annex II, art. 3(1).

<sup>158</sup> Prows, *supra* note 1, at 274.

<sup>159</sup> See ODA, *supra* note 70, at 618–619.

<sup>160</sup> UNCLOS, *supra* note 55, art. 76(4)(a)(ii).

<sup>161</sup> See Prows, *supra* note 1, at 280.

ing data. Nor has any international tribunal has been willing to establish universal guideposts, preferring to judge each continental shelf case on its own merits with regard to its peculiar circumstances.<sup>162</sup> The result is that, in the absence of precedent, such issues are dependent on State interpretation.

Analogously, the continental shelf drop-off to the deep seabed may be alternately a gradual, sloping extension of the landmass, or a connection to "long-submerged ridges."<sup>163</sup> It is a subject of debate when, if ever, these ridges may be considered a permissible part of the continental shelf. In defining the continental shelf, UNCLOS explicitly excludes "the deep ocean floor with its oceanic ridges or the subsoil thereof" from comprising part of a shelf.<sup>164</sup> However, certain ridges, which developed separately to continental margins, may come to attach to them through accretion as a result of tectonic movement.<sup>165</sup>

In this latter category, the ridges "might add thousands of square miles to a country's exploitable seabed" if properly mapped.<sup>166</sup> Thus a coastal State's conception of an "oceanic ridge" is an essential element of any prospective continental shelf claim. Yet science does little to clarify the Convention's political terminology. Indeed, the scientific conceptions of accreted oceanic ridges themselves fail to yield uniformity.<sup>167</sup> "According to some scientists, accreted margins are not [the proscribed] oceanic ridges of the deep ocean floor."<sup>168</sup> Others maintain that, while they emanate from the ocean floor, they may nevertheless be treated as a component of the shelf for the purposes of Article 76.<sup>169</sup> Finally, other experts insist that the Convention's principle of "submerged prolongation of the land mass does not apply in the case of accreted ridges."<sup>170</sup>

While outright manipulation of scientific data is unlikely, a State's construing certain geologic findings favorable to the Convention's definition of the continental shelf is all but assured. The crucial

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<sup>162</sup> See *Continental Shelf (Tunis. v. Libya)*, 1982 I.C.J. 18, 92 (Feb. 24) (guarding explicitly against the over-conceptualizing the application of the principles relating to the continental shelf).

<sup>163</sup> Krauss et al., *supra* note 2.

<sup>164</sup> UNCLOS, *supra* note 55, art. 76(3).

<sup>165</sup> SUAREZ, *supra* note 30, at 165.

<sup>166</sup> Krauss et al., *supra* note 2.

<sup>167</sup> SUAREZ, *supra* note 30, at 168 (discussing Russia's inclusion of ridges in its original 2001 continental shelf submission and the lack of public knowledge regarding the CLCS's treatment of ridges).

<sup>168</sup> *Id.* at 165.

<sup>169</sup> This theory is grounded in the formation and physical presence of the ridges, rather than their origin. Since accretion is a "natural process of forming margins" they should not be considered distinct from them. *Id.* at 166.

<sup>170</sup> *Id.*



power to determine not only the evaluation process, but also the validity of scientific data, seems ill placed in the hands of an advisory committee. Thus, while Article 76 of the Convention establishes a useful framework for the Arctic, it fails to specify the exact nature of the scientific evidence necessary to identify continental shelf boundaries conclusively.

#### *D. Lack of Dispute Resolution Mechanisms for Conflicting Boundaries*

Also troublesome for the Arctic is the inability of UNCLOS to adjudicate conclusively any potentially conflicting claims of sovereignty based on an extended continental shelf. Part XV imposes an overarching obligation on all States to first attempt to settle disputes by peaceful means.<sup>171</sup> For disputes that cannot be settled amicably, UNCLOS provides only a limited compulsory dispute resolution mechanism for most potential conflicts, allowing a State to select one of four alternatives.<sup>172</sup> Each procedure is relatively straightforward, but their interaction is complex, and success depends greatly upon whether or not opposing States have agreed to be bound by the same measures. However, notwithstanding these inchoate responsibilities, territorial issues “are neither completely nor comprehensively regulated by the Convention,”<sup>173</sup> and it is unlikely that disputes arising from claims of Arctic sovereignty based on continental shelf extensions will be addressed adequately by UNCLOS.

The weakness of the Convention’s binding methods of dispute resolution has even been observed by a tribunal constituted under UNCLOS.<sup>174</sup> To the point, Section 2 of UNCLOS fleshes out the compulsory dispute resolution process,<sup>175</sup> but Article 297 specifically omits from the compulsory binding procedure precisely the type of jurisdictional disputes likely to arise in the Arctic.<sup>176</sup> Only the freedoms and rights pertaining to navigation, overflight, submarine cables, and cer-

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<sup>171</sup> UNCLOS, *supra* note 55, art. 279.

<sup>172</sup> Part XV of the Convention (Articles 279-299) requires all disputes to be settled by peaceful means, but in the event that no settlement is reached, the dispute must be submitted to a tribunal with appropriate jurisdiction. Article 287 limits the acceptable judicial bodies to: (a) The International Tribunal for the Law of the Sea (established under Annex VI of UNCLOS); (b) The ICJ; (c) an arbitral tribunal constituted pursuant to Annex VII of the Convention; or (d) a special arbitral tribunal for certain categories of disputes under Annex VIII. *See id.* art. 287.

<sup>173</sup> *See* KLEIN, *supra* note 29, at 22.

<sup>174</sup> *See* Southern Bluefin Tuna (Austl. v. Japan), 39 I.L.M 1359, 1390 (noting that it appears that “UNCLOS falls significantly short of establishing a truly comprehensive regime of compulsory jurisdiction entailing binding decisions.”).

<sup>175</sup> UNCLOS, *supra* note 55, arts. 286–296.

<sup>176</sup> *Id.* art. 297.

tain other internationally lawful uses are specifically subject to compulsory dispute settlement.<sup>177</sup> Any dispute involving jurisdiction in extended maritime zones, e.g. overlapping continental shelf claims, is explicitly exempted from compulsory resolution at the option of the Member State.<sup>178</sup>

### 1. Territorial Disputes

In the likely event of conflicting territorial claims between States with opposite or adjacent coasts, as is the case in the Arctic, "delimitation is to be effected by agreement."<sup>179</sup> Interim boundary agreements are encouraged, but no precise method is prescribed to reach such an agreement.<sup>180</sup> States may invoke "the panoply of international law articulated in treaties, customary, and general international law, and as recognized in arbitral and judicial decision" to reach an equitable resolution.<sup>181</sup> Yet should these fail, there is no mandatory procedure to solve conflicts over the limits of the continental shelf.

Articles 74 and 83 discuss the continental shelf and the EEZ respectively, but do not address cases where natural resources overlap between the two areas.<sup>182</sup> Instead, agreements are to be reached "in accordance with international law in order to achieve an equitable solution."<sup>183</sup> Further, Article 298 allows for a State to opt-out of even the potential to have a jurisdictional dispute resolved under the Convention.<sup>184</sup> Therefore, a State may eliminate even the possibility of voluntary compliance by indicating "in writing that it does not accept any one or more of the procedures" available under the compulsory dispute resolution mechanism for these disputes.<sup>185</sup> All of the Arctic nations, save for Norway, have done so, indicating that they would not accept any of the procedures if conflicting claims of jurisdiction arose in the Arctic.<sup>186</sup>

The logical inference is obvious that boundary disputes involving the territorial sea, EEZ, continental shelf, and inland waters were

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<sup>177</sup> See KLEIN, *supra* note 29, at 141.

<sup>178</sup> See UNCLOS, *supra* note 55, art. 298(1)(a)(i).

<sup>179</sup> *Id.*

<sup>180</sup> See KLEIN, *supra* note 29, at 278.

<sup>181</sup> *Id.*

<sup>182</sup> See ODA, *supra* note 70, at 618–19.

<sup>183</sup> KLEIN, *supra* note 29, at 244.

<sup>184</sup> UNCLOS, *supra* note 55, art. 298(1) (allowing a State to waive the applicability of dispute resolution to various maritime boundary conflicts at any time upon ratifying UNCLOS).

<sup>185</sup> *Id.*

<sup>186</sup> Holmes, *supra* note 6, at 325.

intentionally excluded from binding dispute resolution.<sup>187</sup> Rather, UNCLOS first defers to a State's preferred method of dispute resolution and next gives primacy to any existing external bilateral agreements.<sup>188</sup> The only obligation imposed is to exchange views regarding a settlement or its implementation,<sup>189</sup> and the ability to "invite" opposing parties to submit a feeble process of conciliation.<sup>190</sup> As an uneasy compromise between the common heritage requirements of Part XI and national interests, the requirements for delimiting the continental shelf leaves "room to doubt whether there is any legal rule at all."<sup>191</sup>

## 2. *The Common Heritage Principle: A Contradiction in Dispute Resolution*

Finally, the nature of Arctic geography and the close proximity of all five Arctic Nations predispose the region to conflicting continental shelf claims. However, the exceptions to the "mandatory system in UNCLOS may demonstrate that the system in Part XV is unlikely to function well, if at all."<sup>192</sup>

Despite the Convention's requirement that the delimitation of the continental shelf between such neighboring States be conducted in accordance with existing international law, its approach is remarkably passive.<sup>193</sup> For example, Annex VI of UNCLOS established the International Tribunal for the Law of the Sea ("ITLOS") with jurisdiction to pass upon all maritime disputes that relate to the use of the oceans.<sup>194</sup> However, submission of a dispute to ITLOS is entirely voluntary and it exists only as one of four fora competent to hear disputes arising under the Convention.<sup>195</sup>

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<sup>187</sup> Cf. UNCLOS, *supra* note 55, art. 298(1).

<sup>188</sup> *Id.* arts. 280, 281(1) (addressing alternate methods resolution prior to the Convention's own procedures at the beginning of the "Settlement of Disputes" section).

<sup>189</sup> *Id.* art. 283.

<sup>190</sup> *Id.* art. 284.

<sup>191</sup> See KLEIN, *supra* note 29, at 245.

<sup>192</sup> *Id.* at 26.

<sup>193</sup> Article 83 provides for the delimitation of the continental shelf in cases of potential overlap between countries that have opposite or adjacent coasts, but its rhetorical standards are mostly broad recapitulations of the Convention's general prerogatives to act in conformity with international law, in an equitable manner, and within a reasonable time frame. Further, it confines its scope to the actual extent of territory that affords sovereign rights and does not address the question of resources that might lie on or beneath the shelf that might also be shared. See UNCLOS, *supra* note 55, art. 83.

<sup>194</sup> *Id.* annex VI, art. 21.

<sup>195</sup> *Id.* art. 287(a).

Further, the Seabed Disputes Chamber,<sup>196</sup> an ancillary chamber under ITLOS, provides compulsory legal recourse only for disputes involving the interpretation or application of the mining regime itself.<sup>197</sup> Essentially, the jurisdiction of the tribunal is confined to claims regarding the application of rules and contractual obligations,<sup>198</sup> rather than the underlying claims of sovereignty. Thus even ITLOS, the only international tribunal with maritime-specific jurisdiction, does not have the authority to issue binding decisions regarding claims of extended maritime jurisdiction.

The contradiction that this arrangement presents cannot be avoided. First of all, the ability of a State to claim any modicum of sovereignty outside 200 nautical miles appears to operate in derogation from the traditional law of the sea.<sup>199</sup> Nevertheless, Article 76 does permit coastal States to circumvent the common heritage principle by proving an extended continental shelf. If the outer limits of national jurisdictions imposed by UNCLOS are not absolute, it hardly seems logical to rely on the Convention to settle disputes. Even more perplexing, the extent to which the common heritage principle applies cannot be settled by the Convention's own procedures.

The absence of true legal constraint will inevitably complicate the drawing of extended maritime boundaries in the Arctic.<sup>200</sup> Indeed, any dispute over the boundaries of a continental shelf claim in the Arctic would be subject to compulsory dispute resolution only by specific agreement between the parties.<sup>201</sup> By sacrificing certainty to preserve a vestigial element of the freedom of the seas in extended maritime zones, UNCLOS has made itself vulnerable to the subjective expression of a State's cartographic designs.

#### IV. UNCLOS, GLOBAL WARMING, AND ARCTIC RESOURCES

##### A. *Global Climate Change*

The issue of global warming, or the more politically correct term, "global climate change," has risen to the forefront of international consciousness, especially in the past two decades.<sup>202</sup> The Arctic

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<sup>196</sup> The Convention created the Seabed Disputes Chamber under the authority of ITLOS to adjudicate disputes between States Parties concerning mining procedures in the Area. *Id.* arts. 186–187.

<sup>197</sup> Prows, *supra* note 1, at 289; UNCLOS, *supra* note 55, art. 187(a).

<sup>198</sup> UNCLOS, *supra* note 55, art. 189.

<sup>199</sup> O'CONNELL, *supra* note 38, at 73.

<sup>200</sup> See KLEIN, *supra* note 29, at 245.

<sup>201</sup> UNCLOS, *supra* note 55, art. 299(1).

<sup>202</sup> In a report to President Carter in 1979, the National Research Council of the National Academy of Sciences concluded that "if carbon dioxide continues to increase . . . [there is] no reason to doubt that climate changes will result" with

environment in particular is witnessing changes unprecedented in modern times. While scientists may disagree as to the “cause and permanence of the rapid polar melt,” there is a general consensus that the “new Arctic will likely have less permanent ice . . . resulting in ice-free summers within a century.”<sup>203</sup>

The environmental implications of global warming are irrefutably dire. However, a fundamental change in the *de jure* international legal order of the sea is also inevitable. The cumulative, long-term effect of the impending climate change will destabilize existing standards and methodology in many other fields. Accordingly, the ambit of State interests affected by global warming is also comprehensive.

As new strategic military areas change, national security concerns arise.<sup>204</sup> Crop reductions caused by global warming may cause mass migrations and other humanitarian and socio-political consequences.<sup>205</sup> The loss of glaciers will also aggravate already severe problems concerning access to potable water,<sup>206</sup> and international fisheries markets will be further depleted.<sup>207</sup> Driven by the retreating ice, pink salmon are colonizing Arctic tributaries, cod are traveling northward, and large-scale commercial fisheries are becoming increasingly

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substantial implications for the future. Katie Simpson, Comment, *Massachusetts v. EPA: Supreme Court Ruling Spurns Green Investment*, 14 U. BALT. J. ENVTL. L. 189, 193 (2007) (quoting CLIMATE RESEARCH BOARD, CARBON DIOXIDE AND CLIMATE: A SCIENTIFIC ASSESSMENT, ¶ vii (1979)). Preliminary congressional action followed in the form of the Global Climate Protection Act of 1987, finding that manmade pollution “may be producing long-term and substantial increase in the average temperature on Earth” and recognizing the international character of the issue. National Climate Program, 15 U.S.C. § 2901 (2006). More recently, the Supreme Court rejected an assertion by the Environmental Protection Agency that greenhouse gasses were not within its purview to regulate under the Clean Air Act. *Massachusetts v. EPA*, 549 U.S. 497, 542 (2007).

<sup>203</sup> Mark Jarashow et al., Note, *UNCLOS and the Arctic: the Path of Least Resistance*, 30 FORDHAM INT’L L.J. 1587, 1587 (2007).

<sup>204</sup> See Stuhltrager, *supra* note 11, at 36 (explaining that “global climate change represents considerable uncertainty and risk” for the military). See generally CNA CORP., NATIONAL SECURITY AND THE THREAT OF CLIMATE CHANGE (2007), available at <http://www.securityandclimate.cna.org> (examining the effects of climate change on national security).

<sup>205</sup> See generally Erica J. Thorson, *On Thin Ice: The Failure of the United States and the World Heritage Committee to Take Climate Change Mitigation Pursuant to the World Heritage Convention Seriously*, 38 ENVTL L., Winter 2008, at 139, 142–43 (2008) (describing the effect global warming and melting glaciers in particular have on nearby ecosystems).

<sup>206</sup> Stuhltrager, *supra* note 11, at 37–38.

<sup>207</sup> Ken Alex, *A Period of Consequences: Global Warming as Public Nuisance*, 43 STAN. J. INT’L L. 77, 80 n.15 (2007).

viable in the Arctic,<sup>208</sup> all in regions historically untouched.<sup>209</sup> In terms of navigation, a prolonged shipping season would create new shortcuts and yield increased traffic. Canada and America again are disputing navigation rights in the Northwest Passage and the Beaufort Sea as maritime traffic continues to increase.<sup>210</sup> The lesser-known Northeast Passage, which links Europe with China, is also currently the focus of a dispute between Russia and Norway.

The remainder this Comment will examine the legal implications of global warming on the newly-navigable waters of the Arctic and the concomitant access to natural resources. As supplies of natural resources and livestock continue to diminish in traditional areas, new access points in the Arctic and developing technologies provide an opportunity to the Arctic Nations to harvest untapped resources and support the dwindling domestic supply.

### B. *Prospective Claims to the Arctic*

Recently, there has been a flurry of activity and international developments in the Arctic, as various countries attempt to stake a claim to the region in order to reap the benefits of widening access to Arctic resources. Every Arctic State has at least kicked the tires on its potential claim under UNCLOS.

In 2001, Russia staked a claim of sovereignty to virtually half the Arctic based on a proclamation once made by Joseph Stalin,<sup>211</sup> when he simply “drew a line from the northern Russian port of Murmansk to the North Pole and declared it to be the Soviet Union’s polar territory.”<sup>212</sup> Despite the unilateral origin, the Russian claim to Arctic territory turned on an assertion that Russia’s continental shelf was connected to the Arctic by a submarine mountain range called the Lomonosov Ridge.<sup>213</sup> The Lomonosov Ridge, cutting across 1200 miles of the Arctic basin, is itself a source of an estimated 10 billion tons of gas and oil deposits, as well as significant stores of diamonds, gold, tin, and platinum.<sup>214</sup> However, when the CLCS<sup>215</sup> rejected this assertion,

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<sup>208</sup> See Alex Duval-Smith, *Arctic Booms As Climate Change Melts Polar Ice Caps: The Global Hunger for Oil is Fueling a New Gold Rush*, OBSERVER (U.K.), Nov. 27, 2005, at 21, available at <http://www.commondreams.org/headlines05/1127-03.htm>.

<sup>209</sup> Krauss et al., *supra* note 2.

<sup>210</sup> King, *supra* note 8, at 331.

<sup>211</sup> *Id.*

<sup>212</sup> See Reynolds, *supra* note 17.

<sup>213</sup> Stuhltrager, *supra* note 11, at 39.

<sup>214</sup> *Putin’s Arctic Invasion: Russia Lays Claim to the North Pole – And All Its Gas, Oil, and Diamonds*, DAILY MAIL (London), June 2007, available at <http://www.dailymail.co.uk/news/article-464921/Putins-Arctic-invasion-Russia-lays-claim-North-Pole—gas-oil-diamonds.html> [hereinafter *Putin’s Arctic Invasion*].

Russia began compiling more evidence to corroborate its continental shelf proposal, which is scheduled to be resubmitted in 2009.<sup>216</sup>

Efforts were redoubled in 2007, when a nuclear-powered ice-breaker was dispatched into the Arctic, along with a research ship and two deep sea submarines, in order to collect samples of the Arctic seabed. Russia hopes that this mission will yield data that prove that the Lomonosov Ridge is a continuation of Russia's Siberian continental shelf, based on geologic composition.<sup>217</sup> The expedition also notoriously planted a Russian flag encased in titanium on the Lomonosov Ridge, purportedly in support of the 2001 claim.<sup>218</sup> Not only was this considered the first submarine mission to the deep seabed in the North Pole,<sup>219</sup> but it revealed Russia's Arctic designs to the international community in a very overt manner. Indeed, the "new addition" claimed by Russia includes the pole itself, spanning 1.2 million square kilometers<sup>220</sup>—an area five times the size of Britain—and containing twice the amount of oil as Saudi Arabia.<sup>221</sup>

The other Arctic Nations wasted little time responding. Within a month, Canadian Prime Minister Stephen Harper toured the Arctic and recommitted to the expansion of Canada's military presence in the region.<sup>222</sup> Specifically, Canada intends to build a new fleet of naval vessels to patrol the Northwest Passage and open an Arctic deepwater port.<sup>223</sup> Harper also announced plans to expand the Canadian Rangers patrol (an armed Inuit volunteer force) by 900 members and to con-

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<sup>215</sup> As discussed above in Section III(C), the CLCS is the only entity able to analyze and assist in establishing claims under the Convention. The CLCS cannot issue any binding proclamations, but it may veto a State's proposal if it determines that it lacks the necessary scientific support mandated by Article 76. The Commission rejected the claim made by Russia in 2001, admonishing it to "reconsider and resubmit its claim" which resulted in the current submission. Howard, *supra* note 110, at 851.

<sup>216</sup> *Id.* at 839; American Geological Institute, *Cold Wars: Russia Claims Arctic Land*, GEOTIMES, Aug. 1, 2007, available at <http://www.geotimes.org/aug07/article.html?id=WebExtra080107.html> [hereinafter *Cold Wars*].

<sup>217</sup> Stuhltrager, *supra* note 11, at 39.

<sup>218</sup> *Id.* at 40.

<sup>219</sup> Holmes, *supra* note 6, at 323.

<sup>220</sup> Jacquelyn Coston, Recent Development, *What Lies Beneath: The CLCS and the Race to Lay Claim Over the Arctic Seabed*, 3 ENV'T'L & ENERGY L. & POL'Y J. 149, 149 (2008).

<sup>221</sup> *Putin's Arctic Invasion*, *supra* note 214.

<sup>222</sup> Holmes, *supra* note 6, at 324.

<sup>223</sup> Stuhltrager, *supra* note 11, at 39.

struct several military training facilities in order to preserve its continuing presence in the Arctic.<sup>224</sup>

More recently, the Canadian government has commissioned the construction of two robotic submarines, set to be launched in 2010 in order to map the Canadian "gateway to the open Arctic Ocean."<sup>225</sup> The purpose of the mission, virtually identical to the Russian expedition, is to gather evidence that would link Canada's northern coastline with the Alpha and Lomonosov Ridges.<sup>226</sup>

Norway, although an Arctic Nation, has previously admitted that it did not possess a continental shelf sufficient to base a claim of sovereignty in the Arctic.<sup>227</sup> Nevertheless, it too filed a legal claim in 2006 to extend its continental shelf into the Arctic Ocean pursuant to UNCLOS Article 76.<sup>228</sup> While Norway's submission does address the limits of its continental shelf, it is primarily concerned with sovereignty over a shallow basin in the Barents Sea, an oil field that is reported to hold more than twice all of Canada's gas reserves.<sup>229</sup> Russia has staked an overlapping claim to the basin,<sup>230</sup> which lies 350 miles north of Russian territory in the Arctic. Perhaps in an effort of good faith, Norway has continued negotiations with Russia regarding the conflicting jurisdictional claims in the Barents and Norwegian Seas.<sup>231</sup>

Denmark also sent an expedition to the Arctic to collect evidence attempting to bolster a claim to the North Pole itself, based on a link between the Arctic continental shelf and that of Greenland, a Danish province.<sup>232</sup> Interestingly, the Danish bid is based on new geological data linking the North Pole and Greenland via the Lomonosov Ridge,<sup>233</sup> the same underwater mountain range upon which Russia stakes its own claim.<sup>234</sup> Further, the ridge also approaches Canadian

<sup>224</sup> Tenille Bonoguore & Alexander Panetta, *Canada Steps Up Fight for the Arctic*, GLOBE AND MAIL (Canada), Aug. 10, 2007, available at <http://www.theglobeandmail.com/servlet/story/RTGAM.20070810.wharper0810/BNStory/National/home>.

<sup>225</sup> Randy Boswell, *Robot Subs to Help Canada Probe Arctic Waters*, CANWEST NEWS, Nov. 7, 2008, available at <http://www.canada.com/story.html?id=941539>.

<sup>226</sup> *Id.*

<sup>227</sup> Holmes, *supra* note 6, at 324.

<sup>228</sup> *See id.*; CONTINENTAL SHELF SUBMISSION OF NORWAY IN RESPECT OF THE ARCTIC OCEAN, THE BARENTS SEA AND THE NORWEGIAN SEA, EXECUTIVE SUMMARY, [http://www.un.org/Depts/los/clcs\\_new/submissions\\_files/nor06/nor\\_exec\\_sum.pdf](http://www.un.org/Depts/los/clcs_new/submissions_files/nor06/nor_exec_sum.pdf).

<sup>229</sup> Krauss et al., *supra* note 2.

<sup>230</sup> Holmes, *supra* note 6, at 338.

<sup>231</sup> Krauss et al., *supra* note 2.

<sup>232</sup> Holmes, *supra* note 6, at 324.

<sup>233</sup> Julian Coman, *Denmark Causes International Chill by Claiming North Pole*, TELEGRAPH, Oct. 17, 2004, available at <http://www.telegraph.co.uk/news/worldnews/1474377/Denmark-causes-international-chill-by-claiming-North-Pole.html>.

<sup>234</sup> *See* Howard, *supra* note 110, at 839.



territory via Ellesmere Island.<sup>235</sup> Denmark hopes to make a formal claim once the survey of the ridge is complete, but its own claim of sovereignty is inherently weakened by the semiautonomous status of Greenland, the only Danish territory geologically associated with the Arctic.

The United States, for its part, has participated in seabed exploratory activities as well. While America did not respond with the alacrity of other nations, the aging U.S. Coast Guard Cutter *Healy* was dispatched to the Arctic in order “to map the sea floor on the northern Chukchi Cap . . . to better understand its morphology and the potential for including this area within the United States’ extended continental shelf under [UNCLOS]” according to the National Oceanographic and Atmospheric Administration.<sup>236</sup> The U.S. also is considering building two new polar icebreakers to supplement its minimal and outdated Arctic fleet.<sup>237</sup> The U.S. Navy has further concluded that the receding ice levels in the Arctic will necessitate increased naval and air operations.<sup>238</sup>

### C. *Rival Claims and Uncertainty in the Arctic*

The behavior of the Arctic Nations has done little to foster predictability, especially as various States pursue disparate methods of asserting sovereignty in the polar region. As discussed previously, the United States has been slow to act due to its rejection of the Convention, Denmark has only just begun to examine its ability to claim an extended continental shelf, and Russia and Norway are the only nations to have submitted proposals to the CLCS in support of an extension based on Arctic seabed geology and composition. On the other hand, Canada traditionally has based Arctic sovereignty on its continued presence in the Arctic<sup>239</sup> and has yet to submit a proposal on its continental shelf to the CLCS.<sup>240</sup> Thus the Canadian assertion is com-

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<sup>235</sup> Coston, *supra* note 220, at 154 n.49.

<sup>236</sup> Stuhltrager, *supra* note 11, at 40.

<sup>237</sup> Holmes, *supra* note 6, at 323.

<sup>238</sup> Stuhltrager, *supra* note 11, at 40.

<sup>239</sup> For example, rising temperatures have made the Northwest Passage fully navigable, prompting renewed claims that the waterway is a critical part of Canadian history and territorial waters. See David Shukman, *Ice Melt Raises Passage Tension*, BBC NEWS, Oct. 8, 2007, available at <http://news.bbc.co.uk/2/hi/science/nature/7033498.stm>.

<sup>240</sup> This omission is not as illogical as it might seem, given that Canada first claimed an interest in the North Pole in the 1950s, and most atlases place the Pole within Canadian borders. See Coman, *supra* note 233.

plicated by reliance on an “‘amalgam of archipelagic, historic waters and sector claims.’”<sup>241</sup>

Further, the responses of Arctic nations have been framed more as nationalistic and emotional arguments, rather than legal opinions. Despite the dubious legal authority of the Russian flag-planting in 2007, the incident provoked a degree of international consternation. True, a “19th Century imperial land grab”<sup>242</sup> in the Arctic is not a feasible outcome, since UNCLOS does provide a mechanism for resolving disputes that can be relied on to a certain extent. However, the illegality of a land grab does little to dampen the excited clamor of an Arctic “resource rush,” poorly disguised by the other Arctic States.

For example, Canada’s Foreign Minister at the time objected to the imperial nature of Russia’s expedition.<sup>243</sup> Prime Minister Stephen Harper also hopes that Canada’s renewed commitment to the region will bolster its long-term presence and strengthen the nation’s sovereignty over the Arctic.<sup>244</sup> A Danish scientist has stated that “[t]he Vikings hope to get [to the Arctic] first.”<sup>245</sup> The Russian scientist and legislator Artur Chilingarov has avowed that “[t]he Arctic is ours and we should demonstrate our presence.”<sup>246</sup> There is good reason to expect that the frenetic scramble to establish Arctic sovereignty will only gain momentum as the ice continues to recede, especially considering “[t]he alacrity with which coastal states [first] ‘implemented’ the sovereign rights . . . with respect to oil and gas, fisheries, and other natural resources of the economic zone and continental shelf” when UNCLOS entered into force.<sup>247</sup>

Matters are further complicated by political relations, as the five coastal Arctic States are not the only nations with a foothold in the Arctic, let alone with an interest in new sources of fuel.<sup>248</sup> Among the

<sup>241</sup> 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, 18 (2005) (quoting BRIAN D. SMITH, STATE RESPONSIBILITY AND THE MARINE ENVIRONMENT: THE RULES OF DECISION 223 (Ian Brownlie ed., Oxford University Press 1988)).

<sup>242</sup> Howard, *supra* note 110, at 851 (quoting Peter Croker, the United Nations Commission on the Limits of the Continental Shelf).

<sup>243</sup> *Id.* at 838.

<sup>244</sup> Bonoguoire et al., *supra* note 224.

<sup>245</sup> Coman, *supra* note 233.

<sup>246</sup> See *Russians to Dive Below the North Pole*, BBC NEWS, July 24, 2007, available at <http://news.bbc.co.uk/2/hi/europe/6914178.stm>.

<sup>247</sup> John R. Stevenson & Bernard Oxman, *The Future of the United Nations Convention on the Law of the Sea*, 88 AM. J. INT’L L. 488, 496 (1994).

<sup>248</sup> There are a total of eight countries with a presence in the Arctic, and even non-Arctic countries have showed increasing interest in the region. China, for in-

littoral States themselves, the position of the United States also adds to the uncertainty. The U.S. already maintains a significant commercial presence in the Arctic and fosters economic ties with other Arctic Nations, which will be affected by the claims of other States vying for sovereignty. For example, the U.S. currently imports mass amounts of oil from Norway and would likely stand to gain if Norway established a recognized claim to Arctic reserves.<sup>249</sup> To this end, the U.S. ambassador in Oslo, John Doyle Ong, inserted himself in the ongoing negotiations between Russia and Norway over the Barents Sea in 2005.<sup>250</sup> Yet this has not prevented America from collaborating with other Arctic States, or from exploring the possibility of its own claim based on the limits of Alaska's continental shelf.

The need for a functioning legal order capable of governing the various competing claims of Arctic sovereignty is manifest. Despite the Convention's deficiencies, it is an authoritative, internationally-recognized regime with comprehensive maritime jurisdiction under which legal claims to the Arctic may be advanced and disputed.

#### *D. Legally Viable Claims to the Arctic Under UNCLOS and Russia's Preeminence*

Divining a cognizable claim out of the current state of affairs is a difficult and unprecedented endeavor. As discussed above in Section IV(B), the near universality of UNCLOS has caused most of the Arctic States, at a minimum, to incorporate elements of its provisions. While it remains unclear exactly how the putative claims to the Arctic will be addressed, States appear to defer to the primacy of UNCLOS, at least superficially.

Accordingly, in order to remove sections of the Arctic seabed from the communal jurisdiction of the International Seabed Authority, sovereign rights must be predicated on an extended continental shelf claim, in accordance with the requirements of Article 76, and approved by the CLCS.<sup>251</sup> Since the CLCS has not recognized an outer limit of any nation's continental shelf that would justify exclusive jurisdiction within the Arctic, it is likely that the country with the most legally

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stance, has taken note of the polar melt, setting up a research station on the Norwegian island of Spitsbergen and sending an icebreaker into the Arctic to conduct climate research. Krauss et al., *supra* note 2.

<sup>249</sup> *Id.*

<sup>250</sup> *Id.*

<sup>251</sup> See Prows, *supra* note 1, at 247 (citing Article 76 as the dispositive factor in deciding Arctic claims since it operates as the "crucial nexus separating the extent of coastal State jurisdiction over seabed natural resources from the 'common heritage' beyond.").

cognizable claim of sovereignty over Arctic resources is that which is first able to prove such an extension.

If Russia's latest claim proves a connection between the Lomonosov Ridge and Russian territory, it stands a good chance of being accepted, regardless of the status of other States' submissions based on intersecting territory. While speculation only,<sup>252</sup> this would entail at least two elements: (1) proving that the Lomonosov Ridge truly is a geological extension of the Siberian shelf, as opposed to oceanic crust or part of a different continental margin entirely,<sup>253</sup> based on the scientific data gathered, and (2) overcoming the deficiencies noted by the CLCS in the 2001 submission.<sup>254</sup> Since the Russian submission included "accreted ridges" in its continental shelf claim, it bears the added difficulty of proving that its claim does not incorporate any artificial formations that do not technically compose part of the shelf.<sup>255</sup>

Although Russia's original 2001 bid was rejected and its current proposal incorporates territory arguably belonging to other Arctic States, its second submission should not be considered an empty act of cartographic aggression. Rather, Russia must be considered the frontrunner in the Arctic race simply by virtue of its consistent and overt positive steps under the Convention's provisions.

Notwithstanding the objections of other Arctic States or the fact that the CLCS does not define with any reliable degree of particularity the scientific evidence it would require, a deputy head of the Institute of World Ocean Geology has stated that Russia has obtained sufficient proof that the Lomonosov Ridge is an extension of its continental margin.<sup>256</sup> In anticipation of its claim, Russia has expanded its fleet of oceangoing icebreakers to around fourteen, including the

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<sup>252</sup> Not only is CLCS evaluation a highly technical and involved process, but it also suffers from a lack of oversight based on confidentiality concerns. Given the nature of the Commission and the fact that only a handful of countries have made submissions, none in its final and binding form, predicting the outcome of continental shelf proposals is simply an exercise in guesswork. *See id.* at 275–76.

<sup>253</sup> *See Cold Wars, supra* note 216. This is fundamentally a "matter of definition" in light of other States' overlapping claims and the complicated nature of the ridge itself. Fifty million years ago, "the ridge was ripped away from the outer part of the continental margin of Eurasia . . . and a new ocean basin formed between the ridge and the shelf." Not only is the Russian basin younger than the basin on the Alaskan side, but it also shows evidence of faulting and rifting, indications that it may not be geologically connected to the Siberian shelf. *Id.*

<sup>254</sup> For the few CLCS recommendations that were made public, *see SUAREZ, supra* note 30, at 3, 203–204.

<sup>255</sup> *See supra* text accompanying note 169; SUAREZ, *supra* note 30, at 168.

<sup>256</sup> Howard, *supra* note 110, at 839 (citing Nikolaus von Twickel, *Soil Sample Backs Up Pole Claim*, TIMES (Moscow), Aug. 24, 2007 (quoting Viktor Posyolov)).

world's largest nuclear-powered cold water vessel.<sup>257</sup> In 2007 alone, Russia conducted military exercises in the Arctic at a level not seen since the Cold War.<sup>258</sup> Last year, the Russian energy giant Gazprom even selected finalists in a search for partners to develop the Barents Sea basin, in spite of a conflicting Norwegian claim to the same area.<sup>259</sup>

More to the point, Russia benefits from being the first to submit its continental shelf proposal. Not only does it have the aid of experience, but its second submission will be considered by the CLCS in 2009, likely well before the submissions of any other Arctic State.<sup>260</sup> Regardless of the position a given country may favor,<sup>261</sup> it is clear that the window of opportunistic guesswork is closing: UNCLOS imposes a ten-year timeframe on all broad-margin States that intend to claim areas of the continental shelf beyond 200 nautical miles.<sup>262</sup> States that ratified UNCLOS prior to May 13, 1999, such as Russia and Norway,<sup>263</sup> must submit a claim before May 13, 2009.<sup>264</sup> All other States must complete a submission within ten years of from the date of accession.<sup>265</sup> In light of the totality of these circumstances, it is not surprising that Russia is proceeding as if its continental shelf claim will be approved.

Further, the CLCS already is a functional body, and has promulgated recommendations on submissions made by Brazil and Ireland and is in the process of considering several others.<sup>266</sup> In July of 2000, the UN General Assembly approved a Mining Code under the ISA that specifically governs the polymetallic nodules beyond national

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<sup>257</sup> Revkin, *supra* note 16.

<sup>258</sup> Stuhltrager, *supra* note 11, at 40.

<sup>259</sup> Krauss et al., *supra* note 2.

<sup>260</sup> Russia must deposit a final submission with the CLCS prior to May 2009 or forfeit the right to claim an extended continental shelf. Further, preparing a continental shelf submission is an extremely intensive and time-consuming process, requiring an "executive summary" that contains the charts indicating the proposed limits; how the criteria of Article 76 were applied, the names of members of the CLCS who provided advice with respect to the delineation, information regarding related disputes, and comments from other States regarding how the data reflect upon the claim. See SUAREZ, *supra* note 30, at 184.

<sup>261</sup> See Krauss et al., *supra* note 2 (providing an overview of the recent speculative actions taken by different countries in the Arctic without much deference to UNCLOS).

<sup>262</sup> SUAREZ, *supra* note 30, at 2.

<sup>263</sup> Norway ratified UNCLOS in 1996, followed by Russia in 1997. Canada and Denmark did not ratify the Convention until 2003 and 2004 respectively. Holmes, *supra* note 6, at 331.

<sup>264</sup> SUAREZ, *supra* note 30, at 2; Krauss et al., *supra* note 2.

<sup>265</sup> SUAREZ, *supra* note 30, at 2.

<sup>266</sup> Negroponte, *supra* note 126.

jurisdiction, allowing for the first exploration contracts to be signed by initial investors.<sup>267</sup>

This was the first tangible regulatory role played by the ISA. Although commercial mining of the deep sea floor may still be a long way into the future,<sup>268</sup> if the CLCS awards Russia a continental shelf drawn to its own specifications, other nations likely will be forced to accept those boundaries or submit to voluntary methods of dispute resolution, at least until they submit their own proposals. Therefore, amid all the uncertainty and despite the ambiguity inherent in the Convention, Russia appears to be leading the way under the existing framework.

### *E. Forestalling Instability: the Necessity of Adhering to UNCLOS Procedure*

While it may be peculiar that geologic structures might dictate ownership of resources,<sup>269</sup> Russia has obtained a competitive edge by operating persistently and adhering to the provisions of the Convention. Most importantly, other Arctic States have seen the writing on the wall. Aware of the undeniable progress Russia has made, the other littoral countries have been stirred from their casual observance of UNCLOS within the Arctic, and have undertaken new cartographic data-gathering expeditions to claim as much territory as they can under the parameters of the Convention.<sup>270</sup> In fact, following Russia's 2001 submission, eight other countries began work on filing their own CLCS submissions under UNCLOS.<sup>271</sup>

For example, Canada recently changed the nature of its Arctic claims to conform to UNCLOS procedure, by departing from simple reaffirmations of past assertions of sovereignty and instead beginning work on a continental shelf proposal due for submission in 2013.<sup>272</sup>

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<sup>267</sup> Maria Gavouneli, *From Uniformity to Fragmentation? The Ability of the UN Convention on the Law of the Sea to Accommodate New Uses and Challenges*, in *UNRESOLVED ISSUES AND NEW CHALLENGES TO THE LAW OF THE SEA: TIME BEFORE AND TIME AFTER 205*, 220 (Anastasia Strati et al. eds., 2006). The ISA's Mining Code, although still inchoate, already includes extensive regulations for excavating marine minerals in the international seabed Area. See INT'L SEABED AUTH., *REGULATIONS ON PROSPECTING AND EXPLORATION FOR POLYMETALLIC NODULES IN THE AREA* (2000), available at <http://www.isa.org.jm/en/documents/mcode> (follow "Mining Code" hyperlink).

<sup>268</sup> Gavouneli, *supra* note 267, at 220.

<sup>269</sup> *Putin's Arctic Invasion*, *supra* note 214.

<sup>270</sup> Krauss et al., *supra* note 2.

<sup>271</sup> These new claims included submissions from Brazil, Australia, Ireland, New Zealand, Norway, France, Mexico, and a collective submission on behalf of France, Ireland, Spain, and the U.K. Coston, *supra* note 220, at 154 n.41.

<sup>272</sup> Boswell, *supra*, note 225.

Even the United States participated in a joint seabed-mapping mission in the Beaufort Sea last month, a region widely considered the “top prize in the Arctic oil rush.”<sup>273</sup>

### 1. *Alternate Methods of Apportionment*

Nevertheless, resistance to the applicability of UNCLOS within the Arctic persists.<sup>274</sup> In the event that several Arctic Nations succeed in declaring an extended continental shelf, UNCLOS does not prescribe a procedure for settling any disputes beyond its general dispute resolution provisions and requirements of equity.<sup>275</sup> Accordingly, distinguishing between geologic formations, even in conformity with the Convention’s “natural prolongation” language, is a subject rife with contention. For example, Ted Nield of the Geological Society in London has singled out Russia’s proposed claim as meritless, contending that the Lomonosov Ridge is not actually part of any continental shelf, arguing instead that it is the departure point where two ocean floor plates spread apart.<sup>276</sup>

Further, applying UNCLOS as customary international law in the case of *Tunisia v. Libyan Arab Jamahiriya*, the ICJ found that it would not be possible or appropriate “to establish that the natural prolongation of one State extends, in relation to the natural prolongation of another state, just so far and no farther, so that the two prolongations meet along an easily defined line” under the circumstances.<sup>277</sup> This would seem to cast doubt on the viability of scientific expeditions, such as the Russian mapping mission mentioned above, as the exclusive means of establishing sovereignty or economic rights.

However, allotting sovereignty based on external theories such as proportionality or equidistance,<sup>278</sup> rather than the requirements of UNCLOS, is even more troublesome. Despite the inextricable relationship between economic interests and geology under the Convention, geography alone is unlikely to be dispositive, or even very helpful. The economic interests of each nation depend almost wholly on an area in which the continental shelf topography of all five Arctic Nations is interconnected and indeterminate.<sup>279</sup> Scientific attempts to quantify a

<sup>273</sup> *Id.*

<sup>274</sup> See generally Jarashow et al., *supra* note 203.

<sup>275</sup> “The delimitation of the continental shelf between [neighboring] States shall be effected by agreement on the basis of international law . . . in order to achieve an equitable solution.” UNCLOS, *supra* note 55, art. 83(1).

<sup>276</sup> *Putin’s Arctic Invasion*, *supra* note 214.

<sup>277</sup> Continental Shelf (Tunis. v. Libya), 1982 I.C.J. 18, 47 (Feb. 24).

<sup>278</sup> Holmes, *supra* note 6, at 325.

<sup>279</sup> See, e.g., Nathan Read, Note, *Claiming the Strait: How U.S. Accession to the United Nations Law of the Sea Convention Will Impact the Dispute Between Ca-*

nation's continental shelf in geological absolutes are generally unhelpful because such efforts usually cannot provide an easily-identifiable boundary.<sup>280</sup>

Renowned scholar and ICJ member Judge Shigeru Oda has opined that the principle of equidistance would lead to the most equitable solution to the drawing of maritime boundaries between neighboring States.<sup>281</sup> However, Judge Oda predicates this opinion upon the idea that the EEZ and continental shelf limitations should be identical.<sup>282</sup> Given that this is not the case under the Convention, equidistance is similarly unable to provide definite boundaries. Moreover, there is no mandatory legal principle that requires delimitation based upon such a principle of equidistance.<sup>283</sup> Certainly it may be applied if it leads to the equitable solution always urged by UNCLOS, but State practice has always permitted deviation.<sup>284</sup>

Finally, in the North Sea Continental Shelf cases, the ICJ also explicitly rejected an argument to delimit the continental shelf based on equidistance.<sup>285</sup> Rather, it stressed that a State's continental shelf should not infringe upon the natural prolongation of another nation's territory.<sup>286</sup> In the most recent pertinent decision by the ICJ, involving a case between Libya and Malta, the court emphasized the importance of the Convention's equitable principles as well as all other "relevant circumstances" when resolving a dispute regarding the delimitation of a continental shelf.<sup>287</sup>

Ultimately it remains unclear how the Arctic will be apportioned under the UNCLOS framework, even after sovereign rights have been recognized. Yet the most likely outcome is that the first Arctic State successfully to delimit an extended continental shelf will set the standard for the others, and any ensuing disputes will be addressed as they arise. Not only is this process more in line with the operation of UNCLOS than a predetermined method of apportionment imposed externally, but it has already begun.

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*nada and the United States Over the Northwest Passage*, 21 TEMP. INT'L & COMP. L.J. 413, 433-35 (2007).

<sup>280</sup> See *Continental Shelf (Tunis. v. Libya)*, 1982 I.C.J. 18, 92 (Feb. 24).

<sup>281</sup> See generally ODA, *supra* note 70, at 579.

<sup>282</sup> *Id.*

<sup>283</sup> *Tunis. v. Libya*, 1982 I.C.J. at 79.

<sup>284</sup> *Id.*

<sup>285</sup> See *North Sea Continental Shelf*, (F.R.G. v. Den. & Neth.), 1969 I.C.J. 3, 32, 54-56 (Feb. 28).

<sup>286</sup> *Id.* at 47.

<sup>287</sup> *Continental Shelf (Libya v. Malta)*, 1985 I.C.J. 13, 18 (June 3).



## 2. *The Impracticality of a New Agreement*

Given the present difficulties associated with escalating claims to the Arctic, there have been calls to create a regional supplement to UNCLOS, negotiated under the auspices of the Convention but among only the Arctic States.<sup>288</sup> Such an “Arctic Treaty” could establish a separate forum to assess the competing claims of sovereignty and provide for a loose but insular affiliation between Member States to address the specific goals of each. However, given the pace of global warming, this is not a preferable option to ratifying UNCLOS.

The concept of an “Arctic Convention” is hardly a novel idea. In fact, there is wide support for a more narrowly-tailored agreement that would address the host of Arctic issues, from environmental degradation and commercial fisheries<sup>289</sup> to sea floor drilling and dispute resolution.<sup>290</sup> To avoid chasing the tail of dogma<sup>291</sup> in blind support of the infallibility of UNCLOS and its labyrinthine provisions, two alternative frameworks will be considered briefly: the Antarctic Treaty System and the Moon Treaty. Both of these international conventions address the shared use of resources and have been suggested as models for a potential Arctic convention.<sup>292</sup>

In particular, the rush to reclaim the Arctic is “reminiscent of early efforts to conquer Antarctica.”<sup>293</sup> The Antarctic Treaty System is a unique international legal regime and has developed international

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<sup>288</sup> See generally Erika Lennon, *A Tale of Two Poles: A Comparative Look at the Legal Regimes in the Arctic and the Antarctic*, 8 SUSTAINABLE DEV. L. & POL’Y 32 (2008).

<sup>289</sup> The Arctic Council was established in Ottawa in 1996 in order to coordinate “common Arctic issues” and efforts at sustainable development among regional nations, but its scope is confined primarily to environmental issues. See ARCTIC COUNCIL, DECLARATION ON ESTABLISHMENT OF THE ARCTIC COUNCIL (1996), available at <http://arctic-council.org/section/declarations>.

<sup>290</sup> See, e.g., Dubner, *supra* note 241, at 21 (2005) (proposing an “Arctic indicator” as a regional legal regime with the sole responsibility of protecting the fragile environment); Holmes, *supra* note 6, at 346–47 (proposing an “Arctic Treaty” based on the Antarctic Treaty System); Jarashow et al., *supra* note 203, at 1589 (concluding that accession to UNCLOS is the most efficient mechanism to balance competing interests).

<sup>291</sup> This particular wording is taken from the work of visionary musician Maynard James Keenan. TOOL, *Third Eye*, on ÆNIMA (Volcano 1996).

<sup>292</sup> These treaties are only two examples of many potential options for resolving maritime boundary disputes. Submitting all such territorial disputes to the ICJ, for example, has been suggested as one alternative to constructing an entirely new legal regime. See Jarashow et al., *supra* note 203, at 1631–37.

<sup>293</sup> Stuhltrager, *supra* note 11, at 40.

cooperation for almost fifty years.<sup>294</sup> When the Antarctic Treaty was negotiated in 1959, it designated the continent as a completely demilitarized zone of peace, halting all claims of sovereignty in order to focus on exploration and scientific research.<sup>295</sup> Drilling was also prohibited without the approval of three-fourths of the nations with voting power.

However, the South Pole is an inexact parallel. Antarctica, in contrast to the Arctic, is an expansive landmass, and over 90% of the Antarctic is entirely inaccessible. Measuring 14 million square kilometers, the continent is larger than the U.S. and Mexico combined, and dwarfs the Arctic.<sup>296</sup> While there is extensive marine biodiversity, the mineral and hydrocarbon resources of the Antarctic do not exist in the same commercially exploitable quantities as they do in the North Pole.<sup>297</sup> Several effete attempts have been made to stake a claim of sovereignty in the pursuit of Southern Ocean seabed mining, but these are without precedential value.<sup>298</sup> The most dispositive reason militating against using the Antarctic Treaty system as a basis for a new Arctic regime is simply that some Arctic States are far more concerned with their own claims of sovereignty than with environmental issues.<sup>299</sup>

The Moon Treaty is another regime that employs substantially similar terms to UNCLOS regarding restrictions on sovereignty.<sup>300</sup> In fact, the Moon Treaty specifically prohibits claims of exclusive sovereignty by classifying all resources outside earth as the common heritage of mankind.<sup>301</sup> Also, like the Arctic, the moon is inhospitable yet increasingly more accessible due to improvements in technology. Fi-

<sup>294</sup> In 1959, all claims to Antarctica were suspended by the Antarctic Treaty. See Antarctic Treaty, art. IV, Dec. 1, 1959, 12 U.S.T. 794; see also Central Intelligence Agency, The 2008 World Factbook, available at <https://www.cia.gov/library/publications/the-world-factbook/geos/ay.html> [hereinafter Antarctic World Factbook].

<sup>295</sup> See Antarctic Treaty, *supra* note 294, art. IV.

<sup>296</sup> See Antarctic World Factbook, *supra* note 294.

<sup>297</sup> See *id.*

<sup>298</sup> Donald R. Rothwell & Stuart Kaye, *Law of the Sea and the Polar Regions: Reconsidering the Traditional Norms*, in LAW OF THE SEA, *supra* note 40, at 525, 536 (1994). The Convention for the Regulation of Antarctic Mineral Resource Activities ("CRAMRA") was drafted as a separate instrument to the Antarctic Treaty. However, the treaty failed to receive critical support and essentially was delivered stillborn, preserving the status quo. See Convention on the Regulation of Antarctic Mineral Resource Activities, June 2, 1988, 27 I.L.M. 859 (not in force).

<sup>299</sup> Jarashow et al., *supra* note 203, at 1650.

<sup>300</sup> See Agreement Governing the Activities of States on the Moon and Other Celestial Bodies art. 11, Dec. 5, 1979, 1963 U.S.T. 21.

<sup>301</sup> David Collins, *Efficient Allocation of Real Property Rights on the Planet Mars*, 14 B.U. J. SCI. & TECH. L. 201, 204 (2008).

nally, only a handful of States are parties to the Treaty,<sup>302</sup> further likening it to the Arctic situation. Nevertheless, the Moon Treaty also fails to provide an adequate model for an Arctic Convention. Not only has the treaty been poorly received in general because of the perennially troublesome notion of common heritage,<sup>303</sup> but the U.S. has remained outside this treaty as well. If the point of a new Arctic regime is to tailor provisions to the needs of all the Arctic States, the Moon Treaty proves insufficient.

## V. AMERICAN SOVEREIGNTY IN THE ARCTIC AND UNCLOS

The United States stands in a unique and unprecedented position regarding Arctic resources: it has one of the largest continental shelves in the world, and America is among the elite in maritime power, technology, and commerce.<sup>304</sup> Yet the U.S. lags far behind in the pursuit of new opportunities in the Arctic due to its failure to accede to UNCLOS.

### A. *American Abstention from the Convention and the Part XI Mining Regime*

The U.S. currently resides in a gray area regarding UNCLOS. For most of the Convention's existence, the United States Senate has steadfastly refused ratification for fear of the obligations it would place upon American economic interests.<sup>305</sup> Yet even despite clinging to its non-party status for a quarter of a century, America nevertheless has come to defer to the Convention in virtually all other material aspects.

One of the fundamental issues addressed by UNCLOS, and ultimately the overriding provision that spawned internecine opposition in the United States, was the Convention's regulation of proprietary interests over naturally-occurring seabed minerals on the continental shelf. Firmly grounded in the fundamentals of the new international economic order, the operation of the International Seabed Authority did indeed slant heavily against deep-seated free market entrepreneurialism and capitalist tenets.<sup>306</sup>

As a result, when UNCLOS opened for signature in 1982, President Reagan declined to make the U.S. a signatory, citing problems with the "the provisions in Part XI . . . relating to the deep seabed

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<sup>302</sup> Adam G. Quinn, Comment, *The New Age of Space Law: The Outer Space Treaty and the Weaponization of Space*, 17 MINN. J. INT'L L. 475, 482 (2008).

<sup>303</sup> See John Adolph, Comment, *The Recent Boom in Private Space Development and the Necessity of an International Framework Embracing Private Property Rights to Encourage Investment*, 40 INT'L LAW. 961, 972 (2006).

<sup>304</sup> Negroponte, *supra* note 126.

<sup>305</sup> Bates, *supra* note 33, at 757.

<sup>306</sup> See KLEIN, *supra* note 29, at 331-32.

mining regime<sup>307</sup> as a pretext upon which to reject the Convention out of hand. In fact, the ISA was perceived as so detrimental to the economic interests of the United States that the institutions created under Part XI have even been referred to pejoratively as “an OPEC of the oceans . . . .”<sup>308</sup> Reagan articulated six fundamental prerequisites to ratification.<sup>309</sup> These unsatisfied, the United States withdrew to pursue its own provisional mining regime based on domestic legislation<sup>310</sup> and reciprocal arrangements to resolve issues of competing claims.<sup>311</sup> America was quite content to allow a maritime laissez faire system to continue,<sup>312</sup> applying the rules of the economy to ocean resources, since it had the most technological competence and investment potential to exploit vast areas of the sea. The Senate Foreign Relations Committee has not yielded from this position, twice preventing the Convention from being presented to the full Senate for a vote after it entered into force in 1994.<sup>313</sup>

Yet despite its problems, over the course of the years the Convention has gained support from the legislative, executive, and judicial branches of the U.S. Government. Indeed, UNCLOS has served as

<sup>307</sup> *Id.* at 21–22.

<sup>308</sup> *Id.* at 321 n.21.

<sup>309</sup> These objectives “required a deep seabed mining regime that would: (1) ‘not deter development of any deep seabed mineral resources to meet national and world demand’; (2) ‘assure national access to these resources by current and future qualified entities to enhance U.S. security of supply, avoid monopolization of the resources by [the Enterprise] . . . .’; (3) ‘provide a decisionmaking [sic] role in the deep seabed regime that fairly reflects and effectively protects the political and economic interests and financial contributions of participating states’; (4) ‘not allow for amendments to come into force without the approval of the participating states . . . .’; (5) ‘not set other undesirable precedents for international organizations’; and (6) ‘be likely to receive the advice and consent of the Senate. In this regard, the [C]onvention should not contain provisions for the mandatory transfer of private technology . . . .’” Dinmukhamed Eshanov, *Hot Markets: The Future of the American Legal Practice in the Regulation and Business of Greenhouse Gases*, 16 N.Y.U. ENVTL. L.J. 110, 141 n.157 (2008) (quoting *Statement Before the House Merchant Marine and Fisheries Comm.*, (1982) (statement of James L. Malone, Special Representative of the President for the Third U.N. Conference on the Law of the Sea)).

<sup>310</sup> See, e.g., Deep Seabed Hard Mineral Resources Act, Pub. L. No. 96-283, 94 Stat. 553 (1980) (codified at 30 U.S.C. §§ 1401-1473 (2000)).

<sup>311</sup> KLEIN, *supra* note 29, at 321. In 1984, the U.S. signed a provisional understanding with several other industrialized nations to prevent overlapping claims that might arise under UNCLOS. See Provisional Understanding Regarding Deep Seabed Matters, Aug. 3, 1984, 1409 U.N.T.S. 463, available at [untreaty.un.org/unts/60001\\_120000/14/8/00026380.pdf](http://untreaty.un.org/unts/60001_120000/14/8/00026380.pdf).

<sup>312</sup> See ANAND, *supra* note 40, at 274–75.

<sup>313</sup> See CARTER ET AL., *supra* note 41, at 848.

“the cornerstone of U.S. oceans policy since 1983.”<sup>314</sup> In 1980, anticipating both the mass appeal of UNCLOS and the potential conflict with American interests, Congress passed the Deep Seabed Hard Mineral Resources Act<sup>315</sup> in order to establish a provisional regime that advanced the interests of the mining industry.<sup>316</sup> The Act is still in force, having been reauthorized by Congress in 1986, four years after UNCLOS was available for signing.<sup>317</sup>

Even after refusing to sign the Convention, Reagan issued an Ocean Policy Statement in 1983 announcing that the United States “accepted, and would act in accordance with, the Convention’s balance of interests relating to traditional uses of the oceans—everything but deep seabed mining.”<sup>318</sup> In an executive order several years later, Reagan further elaborated that the United States would maintain a territorial sea of twelve nautical miles in compliance with UNCLOS, and that negotiations would remain open to develop a deep seabed mining regime.<sup>319</sup> Faced with an obstinate Senate that refused UNCLOS in 1994, after the amended Convention was submitted for ratification, President Clinton issued a similar proclamation recognizing a contiguous zone consistent with UNCLOS in 1999.<sup>320</sup>

Finally, U.S. domestic case law also reflects an intention to refrain from action that would be antithetical to the purposes of UNCLOS.<sup>321</sup> Indeed, many federal court cases consider and apply provisions of the Convention, considering it an expression of customary international law at minimum.<sup>322</sup>

### B. *Status of American Economic Interests in the Arctic*

In spite of the imperfect domestic status of UNCLOS, the United States government has recognized the importance of establish-

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<sup>314</sup> Negroponte, *supra* note 126.

<sup>315</sup> Deep Seabed Hard Mineral Resources Act, *supra* note 310.

<sup>316</sup> KLEIN, *supra* note 29, at 340.

<sup>317</sup> Deep Seabed Hard Mineral Resources Reauthorization Act of 1986, Pub. L. No. 99-507, 100 Stat. 1847 (1986).

<sup>318</sup> Negroponte, *supra* note 126.

<sup>319</sup> Holmes, *supra* note 6, at 331 n.56.

<sup>320</sup> *Id.* at 334.

<sup>321</sup> See *United States v. Royal Caribbean Cruises, Ltd.*, 24 F. Supp. 2d 155, 159–60 (D.P.R. 1997).

<sup>322</sup> Since UNCLOS has been submitted for ratification, many jurisdictions have implied a manifest intent of the United States to be bound by the Convention. See *Royal Caribbean Cruises*, 24 F. Supp. 2d at 159–60 (holding that pending the Convention’s rejection or ratification by the Senate, the U.S. is bound to uphold the “purpose and principles” of UNCLOS); *United States v. Alaska*, 503 U.S. 569, 588 (1992) (stating that UNCLOS and its baseline provisions reflect customary international law).

ing an extended continental shelf in the Arctic based on the Convention's terms. In conjunction with a partner of the National Oceanic and Atmospheric Administration ("NOAA"), Congress commissioned a study in 2001 to collect data that would support a claim based on an extension of Alaska's continental shelf.<sup>323</sup> After several Arctic cruises, the study has collected data suggesting that America could claim an extended continental shelf off the coast of Alaska about the size of 500,000 square kilometers, roughly the size of California.<sup>324</sup>

Further, an interagency task force was organized in 2007 under the State Department for the purpose of delimiting the American continental shelf.<sup>325</sup> Dubbed the U.S. Extended Continental Shelf Project, this task force has dispatched individual and collaborative voyages, each one charged specifically with collecting data that would shore up a claim under Article 76 of UNCLOS.<sup>326</sup>

The military, too, has expressed concern over the faltering American presence in the Arctic. A letter from three military commands to the Joint Chiefs of Staff last spring stated that the U.S. was "at risk of being unable to support our national interests in the Arctic regions."<sup>327</sup> It warned that the lack of American preparation to deal with Arctic claims is at a crisis point, due to climate change and escalating economic activity.<sup>328</sup>

Commercial interest in the Arctic also is patently obvious. In fact, it was the American mining industry that first observed the presence of the manganese nodules on the seabed floor and advocated for exclusive rights in order to ensure secure investments.<sup>329</sup> The manganese nodules that were so determinative of both the structure and the ensuing response to UNCLOS are found in some of the greatest concentrations in the North Pacific Ocean.<sup>330</sup> This finding suggests a similar distribution near the Bering, Chukchi, and Beaufort Seas, all three of which surround Alaska.

The inevitable market incentive to exploit Arctic resources already is experiencing growing pains. In 2008, a Las Vegas-based company called Arctic Oil & Gas levied a claim to virtually all the seabed petroleum in the Arctic, which it estimates to be around 400 billion

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<sup>323</sup> U.S. DEPT. OF STATE, DEFINING THE LIMITS OF THE U.S. CONTINENTAL SHELF, <http://www.state.gov/g/oes/continentalshelf/> (last visited Oct. 30, 2008) [hereinafter U.S. CONTINENTAL SHELF PROJECT].

<sup>324</sup> Krauss et al., *supra* note 2.

<sup>325</sup> U.S. CONTINENTAL SHELF PROJECT, *supra* note 323.

<sup>326</sup> *Id.*

<sup>327</sup> Revkin, *supra* note 16.

<sup>328</sup> *See id.*

<sup>329</sup> *See ODA, supra* note 70, at 616.

<sup>330</sup> HOLLICK, *supra* note 15, at 8.

barrels of oil.<sup>331</sup> While acknowledging that the vast petroleum deposits are the “common heritage of mankind,” the firm nevertheless filed a claim with the UN for exclusive Arctic rights.<sup>332</sup> Even in spite of American abstention from UNCLOS, Arctic Oil & Gas argues that the polar region needs a private “lead manager’ to organize a multinational consortium of oil companies to extract undersea resources responsibly and equitably.”<sup>333</sup>

Nevertheless, it is doubtful that anything will come of such claims given their lack of international recognition under UNCLOS. In the absence of the legal certainty that the Convention provides for sovereign rights over an extended continental shelf, it is unlikely that enough U.S. companies will be willing or able to secure the necessary financing to exploit Arctic resources, or to keep other countries from exploiting them.<sup>334</sup>

### *1. American Interests Will be Harmed by Lack of Participation*

Not only will the U.S. face several obstacles to the advancement of economic interests in the Arctic, but continued abstention from the Convention will dangerously weaken its future claims of sovereignty in the region. Currently the U.S. is unable to assert a claim to the Arctic that would be internationally cognizable because America’s ability to claim an extended continental shelf is in jeopardy. Also worrisome is that America remains unable to influence any new policy decisions regarding the Arctic that are made pursuant to the Convention.

The Convention provides institutional methods through which the other Arctic States are able to protect their rights under UNCLOS, which may well come at the expense of American interests. Instrumental bodies such as the ISA’s executive body, the Council, will assume a highly influential role in the Arctic. In particular, the Council is responsible for promulgating the policies that would apply to Arctic mining.<sup>335</sup> The ability of the U.S. to play a part in the Arctic and protect against potentially inimical mining policies require participation in the Authority, and in the decision-making Council in particular.<sup>336</sup>

The CLCS presents a similar problem. The CLCS process is kept secret, and only Member States may appoint commissioners to

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<sup>331</sup> Randy Boswell, *U.S. Firm Lays Claim to ‘Potentially Vast’ Arctic Oil Resources*, OTTAWA CITIZEN, Mar. 21, 2008, available at <http://www.canada.com/ottawacitizen/news/story.html?id=2699b272-8fed-4da6-8c2a-d54390f7d54b>.

<sup>332</sup> *Id.*

<sup>333</sup> *Id.*

<sup>334</sup> See Negroponce, *supra* note 126.

<sup>335</sup> See UNCLOS, *supra* note 55, art. 162.

<sup>336</sup> Cook, *supra* note 4, at 685.

take part in the decision and review the data submitted by other countries.<sup>337</sup> Acceptance or rejection of a shelf proposal is final, and such a crucial decision may well depend on a variety of subjective factors, such as “the knowledge, the experience, and occasionally the bias of the scientist involved.”<sup>338</sup>

Without an American commissioner, the U.S. cannot evaluate the content or feasibility of continental shelf submissions set to be filed by the other Arctic States.<sup>339</sup> The element of time also adds to the sense of urgency, since a State must wait ten years from the date of ratification before submitting a continental shelf claim to the CLCS.<sup>340</sup>

Further, UNCLOS does not allow any reservations to the treaty other than those explicitly provided for when acceding to the Convention.<sup>341</sup> It is possible to amend the Convention, but only as a full Member State.<sup>342</sup> UNCLOS established a ten-year prohibition on amending the Convention subsequent to its entry into force.<sup>343</sup> Since UNCLOS entered into force in 1994, a year after the date of the sixtieth ratification,<sup>344</sup> this moratorium expired on November 16, 2004.<sup>345</sup> Accordingly, only Canada, Denmark, Norway, and Russia currently are able to proffer amendments to UNCLOS regarding Arctic mining. But should any such amendment be ratified before America accedes to the Convention, the U.S. would not be able to avoid its application when signing.

The Senate’s recalcitrance is based largely on a fear that the U.S. would be unable to play a dominant role within the Convention. Yet by refusing to ratify UNCLOS, the U.S. stands as one voice against the force of the entire Convention within the Arctic. Should

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<sup>337</sup> Prows, *supra* note 1, at 275. The consequence of such a “confidential” process is the stripping of all “details of the CLCS’s deliberations from the public executive summaries of its recommendations.” *Id.* at 276.

<sup>338</sup> Howard, *supra* note 110, at 851 (quoting Colin Woodard, *Who Resolves Arctic Oil Disputes?*, CHRISTIAN SCI. MONITOR, Aug. 20, 2007, at 1).

<sup>339</sup> It is conceivable, for example, that Canada might be tempted to claim a continental shelf extending into the Arctic legitimately based on its broad continental margin, but exceeds what its jurisdiction might otherwise be if the U.S. were a party to UNCLOS. There is no established forum under which the United States could dispute such a maneuver, and it could be used as a bargaining advantage in other disputes.

<sup>340</sup> Krauss et al., *supra* note 2.

<sup>341</sup> UNCLOS, *supra* note 55, art. 309.

<sup>342</sup> *Id.* art. 312.

<sup>343</sup> *Id.* art. 312(1).

<sup>344</sup> The Convention provides that the date of its entry into force would occur one year after the date of the sixtieth ratification. *Id.* art. 308(1).

<sup>345</sup> Samuel E. Logan, *The Proliferation Security Initiative: Navigating the Legal Challenges*, 14 J. TRANSNAT’L L. & POL’Y 253, 271 n.135 (2005).



the United States persist in its refusal to ratify UNCLOS, it will find itself in the same or weaker position if and when the CLCS recognizes the sovereign claims of other Arctic States that permit the exploitation of the pole's wealth. Indeed, regardless of American involvement, UNCLOS has established "a *de facto* regime governing the deep seabed, and U.S. interests are better served by active participation in the UNCLOS regime than by sitting on the sidelines."<sup>346</sup>

## 2. *Enforceability of UNCLOS Even Without Ratification*

Perhaps the most dangerous threat to American sovereignty in the Arctic is the enforceability of UNCLOS as part of American law, either as positive treaty-based domestic law or customary international law. While the reach of the Convention may be debated under both headings to some extent, it cannot help but affect the United States' Arctic designs.

Although still pending ratification, at times UNCLOS may be assigned virtually the same legal status as if it were a properly ratified treaty, albeit in a roundabout and piecemeal fashion. If President Reagan's culling UNCLOS for acceptable provisions bound the United States to a majority of the Convention's provisions, then President Clinton committed the United States to the remainder, including the amended Part XI mining regime, by signing the Convention in 1994 in spite of an obstinate Senate.<sup>347</sup>

The court in *United States v. Royal Caribbean Cruises* bore this out, holding that UNCLOS "carrie[d] the weight of law from the date of its submission by . . . President [Clinton] to the Senate."<sup>348</sup> In finding that the Convention applied to an oil spill within U.S. waters, the court reasoned that the United States was obliged to honor the agreement to which the executive branch has tentatively made the United States a party, and that the submission of the treaty alone to the Senate was indicative of the America's "ultimate intention" to be bound by the Convention.<sup>349</sup> Following this line of reasoning, albeit to somewhat of an illogical extreme, the Supremacy Clause would place UNCLOS atop the hierarchy of domestic laws in spite of non-ratification.<sup>350</sup>

Even acknowledging the suspect reasoning of this theory, emphasis still will fall to customary practice to determine the extent of

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<sup>346</sup> Cook, *supra* note 4, at 685.

<sup>347</sup> Michael A. Becker, *International Law of the Sea*, 42 INT'L LAW. 797, 798-800 (2008).

<sup>348</sup> *United States v. Royal Caribbean Cruises, Ltd.*, 24 F. Supp. 2d 155, 159 (D.P.R. 1997).

<sup>349</sup> *Id.*

<sup>350</sup> See U.S. CONST. art. VI, § 2.

U.S. presence in the Arctic, which could well lead to unsatisfying results. Indeed, America's ambiguous relationship to UNCLOS has done little to affect the Convention's operation, its actions actually facilitating its application as binding customary law.

Customary international law is a peculiar construct, and legal duties may arise passively from principles of major legal systems,<sup>351</sup> especially in insular areas such as the Arctic. While a State usually cannot be bound by a treaty that it has not ratified, it does not follow that the United States would be immune to UNCLOS requirements.<sup>352</sup> In fact, UNCLOS is precisely the sort of dominant legal system whose principles may be applied to all nations, regardless of their status under the Convention. As discussed above, UNCLOS often is considered legally enforceable in American courts, and the United States has specifically incorporated most of the Convention into its own maritime policy. Such actions in conformity with UNCLOS may result in the adoption of the ISA's policies in the Arctic as binding customary law.

Additionally, the practice of States in a regional grouping, such as the Arctic Circle, can result in special customary law for all of the similarly-situated States, applicable only in that area.<sup>353</sup> Further jeopardizing American interests is that the doctrine of the continental shelf in particular has been considered "instant customary law,"<sup>354</sup> provided that the practice of States whose interests are affected is sufficiently extensive and uniform to indicate a legal obligation.<sup>355</sup> If the other Arctic nations continue to assert sovereign rights, uniformly based on an extended continental shelf, America may easily be hamstrung by provisions that it does not acknowledge but nonetheless prove binding. By way of example, if an American mining corporation were to form a consortium under a bilateral treaty to harvest sea floor resources with a State that was already a member of UNCLOS, and sought to mine in an area already recognized by UNCLOS as an extension of another Arctic State's continental shelf, or even merely outside its own EEZ, it would contravene the Convention and also subject both countries to international judicial proceedings.<sup>356</sup>

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<sup>351</sup> RESTATEMENT (THIRD) OF FOREIGN RELATIONS LAW § 102(1)(c) (1987); *id.* at cmt. c.

<sup>352</sup> See Vienna Convention on the Law of Treaties, art. 16, May 23, 1969, 1155 U.N.T.S. 331. Even further, the United States has not ratified the Vienna Convention, thereby weakening any argument that it could prevent the enforcement of UNCLOS provisions without express acquiescence.

<sup>353</sup> RESTATEMENT (THIRD) OF FOREIGN RELATIONS LAW § 102 cmt. e (1987).

<sup>354</sup> SUAREZ, *supra* note 30, at 35-37; RESTATEMENT (THIRD) OF FOREIGN RELATIONS LAW § 102 n.2 (1987).

<sup>355</sup> North Sea Continental Shelf, (F.R.G. v. Den. & Neth.), 1969 I.C.J. 3, 43 (Feb. 28).

<sup>356</sup> KLEIN, *supra* note 29, at 345.

It has been suggested that the universal right of navigation under UNCLOS<sup>357</sup> might be able to provide an alternate legal basis for claiming Arctic economic rights.<sup>358</sup> However, finessing this argument into a circumvention of the Convention's obligations and limits within the Arctic would be nothing more than unilateralism disguised as political legerdemain. The blithe dismissal of UNCLOS in favor of reliance on the Grotian conception of the freedom of the high seas in order to legitimize American rights over Arctic resources mistakenly ignores the global support and position of authority UNCLOS has achieved.

Rather, in all likelihood, America might be forced to accept the *modus vivendi*<sup>359</sup> in the Arctic that has developed over two decades of widespread UNCLOS observance. If the Senate continues to blockade attempts to ratify the treaty, other contingencies should be considered, such as negotiating alternate regimes or implementing UNCLOS via executive order.<sup>360</sup> Should several "uncooperative members of the Senate" force the United States to the sidelines, "the short-term political costs of resubmitting UNCLOS [as an executive agreement would be justified] by America's need to be a full player in the remainder of this Arctic competition."<sup>361</sup>

### C. *Non-Ratification is no Longer a Defensible Position*

It is plausible that, given the broad reach of the Convention, it may lack the specificity needed for the sort of regional dispute that is

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<sup>357</sup> The high seas are reserved for peaceful purposes and open to every nation, with the enumerated freedoms of navigation, overflight, fishing, and the rights to lay submarine cable, construct artificial islands, and conduct scientific research. UNCLOS *supra* note 55, arts. 87–88.

<sup>358</sup> See generally Howard, *supra* note 110.

<sup>359</sup> This concept does indeed give rise to binding obligations and has no clear distinction between other treaties, despite its provisional nature. BLACK'S LAW DICTIONARY 1026 (8th ed. 2004).

<sup>360</sup> Although not a treaty, the President has the power to pass an executive order, similar to the way in which President Reagan approved select provisions of the Convention in 1988 while still abstaining from the mining regime. Holmes, *supra* note 6, at 331 n.56. Pursuant to the executive powers of Article II of the Constitution, the President may, of his own accord or with the authorization of congressional legislation, negotiate an executive agreement to incorporate UNCLOS in its entirety into U.S. domestic law. Two significant trade agreements, NAFTA and the WTO, were negotiated by the President alone and only later submitted to Congress, which passed upon the "treaties" without the formal constitutional "advice and consent" from the Senate required by the Constitution. Nevertheless, both these agreements are as powerful as any formally-negotiated treaty. See generally JEANNE J. GRIMMETT ET AL., CONG. RESEARCH SERV., WHY CERTAIN TRADE AGREEMENTS ARE APPROVED AS CONGRESSIONAL-EXECUTIVE AGREEMENTS RATHER THAN AS TREATIES (2002), available at [fpc.state.gov/documents/organization/9553.pdf](http://fpc.state.gov/documents/organization/9553.pdf).

<sup>361</sup> King, *supra* note 8, at 353.

likely to emerge in the Arctic. Indeed, the Convention's judicial and administrative mechanisms were designed to protect the universal interests of mankind "as a moral community,"<sup>362</sup> not to further individual State interest. Further, the Convention is beginning to show signs of its age, and after twenty years of its presence in international law, many things have changed.<sup>363</sup>

Indeed, both selective reliance and unilateral action threaten to disrupt the efforts to create "an orderly regime for exploiting resources and protecting the Arctic environment under international law."<sup>364</sup> Given the potential for conflict of the former and the damage to international standing of the latter, neither option is appealing.

Admittedly, UNCLOS is not ideally suited to address every aspect of a regional dispute, such as competing claims of Arctic sovereignty, given its broad scope and various ambiguities. Yet regardless of policy rationale, it is clear that the lack of U.S. participation is no longer justifiable. Both previous American legal authorities regarding the continental shelf, the 1945 Truman Proclamation and Geneva Convention on the Continental Shelf from 1958, effectively have been supplanted by UNCLOS, and the Convention is the only international agreement that may be relied on in the near future to secure rights and resolve disputes.

Moreover, the American chief negotiator to the 1994 Implementing Agreement stated that "[w]e have been successful in fixing all the major problems raised by the Reagan Administration."<sup>365</sup> Finally, and perhaps most importantly, the Agreement ensured that "[a]mendments to the deep seabed mining regime could not be adopted without U.S. consent."<sup>366</sup> The administration of George W. Bush also supported ratification, in order "to avoid the increasing costs of being a non-party,"<sup>367</sup> and in 2002, Bush classified UNCLOS as one of five treaties in urgent need of ratification.<sup>368</sup> Nevertheless, an intractable Congress has continued to block the Convention, thereby cutting off America's most direct path to asserting a claim in the Arctic.

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<sup>362</sup> Ulrich K. Preuß, *Equality of States—Its Meaning in a Constitutionalized Global Order*, 9 CHI. J. INT'L L. 17, 35 (2008).

<sup>363</sup> Gavouneli, *supra* note 267, at 205.

<sup>364</sup> Boswell, *supra* note 331.

<sup>365</sup> Steven Greenhouse, *U.S. Having Won Changes, Is Set to Sign Law of the Sea*, N.Y. TIMES, July 1, 1994, available at <http://query.nytimes.com/gst/fullpage.html?res=9401E2DD1739F932A35754C0A962958260>.

<sup>366</sup> Oxman, *supra* note 120, at 351.

<sup>367</sup> Negroponte, *supra* note 126; see also Krauss et al., *supra* note 2 (noting the continued deadlock in the Senate even though the current administration described the ratification of UNCLOS as an "urgent need").

<sup>368</sup> King, *supra* note 8, at 336.

Simply stated, accession to the Convention and adherence to its procedure based on a prolongation of Alaska's continental shelf would greatly facilitate American claims to Arctic resources, providing uniformity, predictability, and legal security. Accession also would demonstrate solidarity within the international community, bolstering a faltering reputation, and allow UNCLOS to "function as originally conceived."<sup>369</sup> Most important, ratification would give the U.S. a voice to assert its point of view and a recognized method to exercise jurisdiction within the Arctic.

Continuing to do nothing is an untenable position. It would be foolish and risky to assume that the U.S. can maintain *ad infinitum* the desultory and passive approach upon which it currently relies.<sup>370</sup> With the ever-increasing pressure from coastal States to augment their authority in a manner that would alter the balance of interests struck in the Convention,<sup>371</sup> the United States "need[s] to be in the game, at the table."<sup>372</sup> Thus, unless UNCLOS is ratified, or a separate Arctic convention is negotiated, the United States will remain tenuously wedged between Scylla and Charybdis, unable to assert a recognized claim of sovereignty, influence international maritime policy, or make substantive changes to parts of the Convention it finds troubling.

## VI. CONCLUSION

Global warming in the Arctic has placed the Convention in uncharted waters, so to speak, further emphasizing the need for an authoritative international legal regime in the polar north. For the first time in history, the strategic importance of the Arctic may extend beyond the superficial and hypothetical. As the supply of mineral and fuel sources within traditionally-recognized State jurisdictions is shrinking steadily precisely at the time of the greatest Arctic melting, the result has been that "everyone is pitching for action."<sup>373</sup> The Arctic ice cap is nearly only thirty percent of its size twenty-five years ago.<sup>374</sup> Should the North Pole become something more than "a frozen backyard, the fences matter," even if it is unclear where they are at the moment.<sup>375</sup>

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<sup>369</sup> Eshanov, *supra* note 309, at 142.

<sup>370</sup> Negroponte, *supra* note 126.

<sup>371</sup> *Id.*

<sup>372</sup> Krauss et al., *supra* note 2 (quoting Adm. James D. Watkins, Chairman of the United States Commission on Ocean Policy).

<sup>373</sup> Reynolds, *supra* note 17.

<sup>374</sup> Stuhltrager, *supra* note 11, at 40.

<sup>375</sup> Krauss et al., *supra* note 2.

Signed in December of 1982 and entering into force in November of 1994, UNCLOS represents a veritable constitution for the law of the sea. Yet the Convention is also something more: it provides an integrated and comprehensive regulatory regime for virtually all maritime issues which "has come to prevail over any other expression of State power by the sheer force of its existence."<sup>376</sup> While this system contains flaws, its mere existence is something of a rarity in international law, the bulk of which is predicated on voluntary consent at every turn. Indeed "[t]oo few step back to observe that this is a strong, innovative and comprehensive global . . . treaty governing two-thirds of the planet."<sup>377</sup>

At least for the time being, UNCLOS should govern claims of Arctic sovereignty for a wide variety of reasons, ranging from economic interests to international comity. The benefit of such a "constitution" of the seas is that it was designed to be comprehensive enough to adapt to changes by creating "institutional means for the formation of a collective will [and] by specifying the conditions under which the collective can claim supremacy over the individual spheres."<sup>378</sup> True to form, the legal framework of UNCLOS is flexible, premised on balancing the customary freedom of the seas with the tendency of recidivist States to expand towards the high seas.<sup>379</sup>

Global warming and the opening of new passageways to the Arctic undoubtedly have added a new dimension to the international law of the sea. Yet the Arctic still remains the province of UNCLOS. For all intents and purposes, global warming has consolidated the authority of UNCLOS and marked the beginning of the end for the freedom of the high seas in the Arctic. Irrespective of the environmental implications in the region, climate change has caused a departure in the international approach to the Arctic, shifting the paradigm away from physical dominion and towards control over resources on the sea floor.

Unprecedented access to untapped resources may soon cause an international "gold rush" with renewed fervor with the ability to reawaken dormant hostilities, necessitating a uniform approach. Indeed, claims of sovereignty driven by the mere possibility of exploiting Arctic resources are unlikely to be tempered by immediate impracticalities. The "acquisitive impulse" set off by technological developments is not directly related to actual capabilities, especially when combined with national interest,<sup>380</sup> and the process of establishing

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<sup>376</sup> Gavouneli, *supra* note 267, at 205.

<sup>377</sup> Stevenson et al., *supra* note 247, at 490.

<sup>378</sup> Stuhltrager, *supra* note 11, at 36.

<sup>379</sup> See Gavouneli, *supra* note 267, at 206.

<sup>380</sup> HOLLICK, *supra* note 15, at 10.

claims typically has far outpaced technological means, commercial viability, and even proof of significant resources.<sup>381</sup>

Despite its diffuse nature, for the moment UNCLOS remains the only regime prepared to address the myriad issues likely to arise from the acceleration of claims to the Arctic. Considering the potential wealth present, the importance of claiming an extended continental shelf under the Convention lies in the possible economic benefits to be gained as much as those to be lost.<sup>382</sup> Reluctance to conform to the provisions of UNCLOS should not result in wasted opportunities. Although UNCLOS might not survive the experiment in the Arctic intact, its true ability to govern the law of the sea and the distribution of resources should be tested.

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<sup>381</sup> For example, as early as the 1940s, the United States industry and government were interested in claiming areas of the sea floor up to 150 miles offshore and up to depths of 600 feet. At the time, the deepest offshore well operated at 60 feet. *Id.* at 10–11.

<sup>382</sup> CONTINENTAL SHELF LIMITS, *supra* note 142, at 6.