I. INTRODUCTION

In reports of increasing tensions, bellicose rhetoric, and renewed “Great Power Competition” in the Arctic Ocean, analysts and the media at large too often mistakenly identify territorial disputes as a source of those tensions.1 In fact, there are no meaningful territorial disputes in the Arctic Ocean. The process for determining the outer limits of continental shelf entitlements – known colloquially as the outer or extended continental shelf (ECS)2 – is peaceful, rules-based and cooperative in the Arctic.

In 2020, the five States with continental shelf in the Central Arctic Ocean – Canada, Denmark in respect of Greenland, Norway, Russia, and the United States – continue their longstanding collaboration to determine the extent of their respective continental shelves through established scientific, diplomatic, and legal processes. The common rules and information-sharing established pursuant to Article 76 of the UN Convention on the Law of the Sea (the “LOS Convention”) are described in Part II of this article. The States’ collective adherence to these robust and respected processes epitomizes successful international cooperation.
The five States are peacefully establishing their respective entitlements to continental shelf in the Arctic Ocean—even though some maritime boundaries separating those shelf areas have yet to be established, and even in the face of geopolitical differences on other matters in and beyond the Arctic. For example, whatever friction exists between Russia and the United States does not concern any overlapping continental shelf entitlements in the Arctic. Thanks to a 1990 maritime boundary agreement, detailed in Part III below, the two countries have no overlap in the extended continental shelf or any other maritime claims they make in the Arctic Ocean.

Part IV addresses boundary agreements beyond the Arctic, some made prior to and others in parallel with the ECS process. The States involved are expected to resolve any remaining overlaps or boundary differences through diplomatic negotiations that, while independent of the Article 76 process, will be able to draw upon the scientific data and international collaboration that the process has generated.

II. COMMON RULES AND SHARED INFORMATION

Peaceful cooperation among the five Central Arctic Ocean shelf States is facilitated by Article 76 of the LOS Convention, which sets forth the rules a State uses to determine the outer limits of its continental shelf. Canada, Denmark, Norway, and Russia follow those rules as States party to the Convention, and the United States, a non-party, follows them as a matter of customary international law. For the last twenty years, the five States have engaged individually and collectively in painstaking, measured, and deliberate preparations to demonstrate the extent of their respective continental shelves in the region. They have gathered seafloor data on solo scientific cruises and in pairs, and established national teams of scientists, diplomats and lawyers that regularly convene to discuss their ECS projects.

Because the five States have been exchanging information for so long, they have been well aware that some of their asserted Arctic ECS entitlements would overlap, which occurs between Russia, Canada, and Denmark/Greenland in the Central Arctic Ocean and may occur for Canada and United States in the Beaufort Sea. The five States have also been laying the groundwork for diplomatic negotiations that will resolve those overlaps independent of the Article 76 process.

Establishing a coastal State’s ECS entitlement determines where that State may explore, exploit and protect a range of resources, from oil and gas and methane hydrates to minerals and biological resources that live on the seafloor. The LOS Convention provides that the “coastal State exercises over the continental shelf sovereign rights for the purpose of exploring it and exploiting its natural resources [living and non-living]” (Article 77.1). These rights are exclusive: no other State may exercise them on the coastal State’s ECS without that State’s express consent (Article 77.2).

Little is known about shelf resources beyond 200 nautical miles (nm) in the Arctic Ocean, which may or may not be of commercial value, but it is widely agreed that the most valuable such resources lie predominantly within 200 nm (USGS 2008).

States have ten years from the date the LOS Convention entered into force to make a formal submission on the extent of their shelf limits to the Commission on the Limits of the Continental Shelf (CLCS) – the body of scientific experts established to review all ECS submissions worldwide, pursuant to the Convention. The Convention does not appear to preclude a non-Party from making a submission. The CLCS faces no time limit to issue recommendations and, due to a backlog of
submissions, it could be fifteen to twenty years before it acts on all Arctic Ocean coastal State submissions received to date (Kunoy 2017/372, CLCS 2010).

The CLCS “shall make recommendations to coastal States on matters related to the establishment of the outer limits of their continental shelf,” and the limits established by a State “on the basis of these recommendations shall be final and binding” (Article 76.8). That said, the State is not bound to follow the CLCS recommendations. It is up to each coastal State to establish the final outer extent of its continental shelf – based on CLCS recommendations or otherwise – and publish those limits.

As detailed in Table 1, four of the five Central Arctic Ocean shelf States have filed their Arctic submissions for evaluation by the CLCS. As the only one of the five States not party to the Convention, it remains to be seen whether the United States will present a submission to the CLCS as a non-Party, accede to the Convention, or opt to publicize its ECS information independently.

Russia, Denmark, and Canada have submitted information to the CLCS that includes overlapping areas on the Lomonosov Ridge (Figure 1). Contrary to the popular narrative that these overlaps

![Figure 1: Submitted and potential assertions to Extended Continental Shelf (ECS) in the Central Arctic Ocean](image)

Map Credit: Excerpted from International Boundary Research Unit/ IBRU of Durham University. Original map at [https://www.dur.ac.uk/ibru/resources/arctic/simplifiedmaps/](https://www.dur.ac.uk/ibru/resources/arctic/simplifiedmaps/) and explanatory notes at [https://www.dur.ac.uk/ibru/resources/arctic/](https://www.dur.ac.uk/ibru/resources/arctic/)
are causing friction over who “owns” the North Pole, nothing in the Convention prohibits the CLCS from acknowledging that two or more States have demonstrated the same area to be within their respective ECS limits. The Convention makes clear that States, not the CLCS, are to resolve such overlaps “by agreement on the basis of international law” (Article 83.1). As in past cases, diplomatic processes are expected to resolve any overlapping assertions through the negotiation of maritime boundary agreements. Two successful examples of such agreements between Central Arctic Ocean shelf States are discussed in Part III, below.

Table 1. Submissions to the CLCS by the five coastal States with continental shelf in the Central Arctic Ocean*

*Some submissions also cover areas outside of the Central Arctic Ocean

<table>
<thead>
<tr>
<th>State</th>
<th>Submission(s) to CLCS</th>
<th>CLCS Action(s)</th>
<th>Notable Overlaps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russian Federation</td>
<td>December 2001: All Russian Federation ECS including Arctic</td>
<td>June 2002: Interim Recommendations, including need for additional data</td>
<td>With Denmark and Canada: Lomonosov Ridge</td>
</tr>
<tr>
<td></td>
<td>August 2015: Partial revised submission for the Arctic Ocean</td>
<td>Awaiting Final Recommendations (expected in 2020)</td>
<td>With Norway: north of Svalbard, subsequently resolved by the 2010 Norway-Russia agreement discussed in Part III.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>One with Denmark (Faroe Islands) and Iceland: Southern Banana Hole in the Norwegian Sea. As discussed in Part IV below, 2006 Agreed Minutes set procedure to resolve overlap.</td>
</tr>
<tr>
<td>State</td>
<td>Submission(s) to CLCS</td>
<td>CLCS Action(s)</td>
<td>Notable Overlaps</td>
</tr>
<tr>
<td>-------</td>
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</tr>
<tr>
<td>Kingdom of Denmark/Greenland/Faroe Islands</td>
<td>December 2014: Partial Submission in respect of Greenland’s Northern Continental Shelf</td>
<td>Sub-commission not yet established</td>
<td>With Russia and Canada: Lomonosov Ridge</td>
</tr>
<tr>
<td></td>
<td>April 2009: Partial Submission in respect of the Continental Shelf North of the Faroe Islands</td>
<td>March 2014: Final Recommendations</td>
<td>With Norway and Iceland: Southern Banana Hole (2006 Agreed Minutes set procedure to resolve overlap, see Part IV below)</td>
</tr>
<tr>
<td>Canada</td>
<td>May 2019: Partial Submission in respect of the Arctic Ocean</td>
<td>Sub-commission not yet established</td>
<td>With Denmark: Lomonosov Ridge With US: Canada Basin**</td>
</tr>
<tr>
<td>United States</td>
<td>As non-State party to the Convention, the form and forum for presenting ECS data and limits are not yet known.</td>
<td>N/A</td>
<td>With Canada: Canada Basin**</td>
</tr>
</tbody>
</table>

**Potential overlap because US has not indicated the outer limits of its continental shelf**

### III. MARITIME BOUNDARIES – RESOLVED OR NOT – COMPLEMENT THE ARTICLE 76 PROCESS

The Article 76 process is without prejudice to how coastal States with opposite or adjacent coasts delimit their respective pieces of the ECS; that is, how States resolve any overlaps and draw maritime boundaries that separate their shelf entitlements (Article 76.10). Delimitation of a maritime boundary between States and delineation of a State’s ECS extent are separate processes, but States may decide on a case-by-case basis to link the two in parallel initiatives. Unresolved maritime boundaries need not be delimited before States with opposite or adjacent coasts delineate the extent of their respective ECS entitlements, nor is it expected that the five States with continental shelf in the Central Arctic Ocean will resolve all of them prior to establishing the extent of their respective ECS entitlements there.
Neighboring States have already resolved several maritime boundaries in the Arctic Ocean and neighboring seas. Where boundary agreements exist, the States involved are incorporating them into the Arctic Ocean extended continental shelf process. For example, the Russian Federation specifically submitted the 1990 Agreement with the United States regarding the Maritime Boundary in the Bering Sea, Chukchi Sea and Arctic Ocean to the CLCS in 2001 and 2015. The map of the Arctic region that Russia filed in 2001 with the CLCS adheres to the 1990 boundary line, and specific coordinates taken directly from the 1990 Agreement were included in Russia’s 2015 partial submission to support part of its shelf limits in the Arctic Ocean.

The 30-year old accord is significant for many reasons, including actual and potential petroleum and fisheries resources along much of the boundary line. The parties agreed to continue the boundary north “into the Arctic Ocean as far as permitted under international law” (Article 2.1), even though the extent of the shelf was not known at the time. The United States has ratified the agreement and, while the State Duma has not yet ratified, Russia has honored the agreement since signing it in 1990. The Executive Summary of Russia’s 2015 partial submission references the accord, which both countries apply provisionally by agreement.

Russia also concluded a landmark 2010 agreement resolving a maritime boundary with Norway in the Barents Sea Loophole that had remained unsettled for forty years. The Article 76 process contributed to the accord, which established the boundary after both countries had made submissions and Norway received final recommendations from CLCS. As one observer states:

It must be emphasized that Norway was in the unusual position that CLCS had accepted her claim to the area beyond 200 nm before the treaty was concluded [...] and the CLCS had indicated in its recommendations to Russia that a ratified maritime boundary agreement with Norway in the Barents Sea “would represent the outer limits of the continental shelf to the Russian Federation extending beyond 200 nautical miles in the Barents Sea” (Magnússon 2013).
Unresolved boundaries within and beyond 200 nm from a coastal State’s baselines are not uncommon in the world’s oceans, and the Arctic is no exception. The Central Arctic Ocean submissions to the CLCS by Canada, Denmark, and Russia (see Table 1) reflect several notable overlapping ECS entitlements that must be resolved by the States involved, either on a bilateral or trilateral basis. As noted above, the CLCS has no authority to decide maritime boundaries, its mandate being limited to reviewing submissions and providing recommendations on the outer limits of a State’s continental shelf. None of the unresolved Arctic boundaries threaten the stability or security of the region. All continue to be peacefully and diplomatically well-managed, and the States involved can draw on the Article 76 process to inform subsequent or parallel boundary negotiations.

IV. BEYOND THE ARCTIC: DIPLOMATIC ENGAGEMENT AND COOPERATION BY ARCTIC OCEAN COASTAL STATES IN THEIR NON-ARCTIC ECS SUBMISSIONS

Two examples demonstrate how States have cooperated in areas beyond the Central Arctic Ocean to successfully resolve overlapping ECS situations. Both examples involve States that also have coastlines on the Central Arctic Ocean and shed light on the approach they may bring to the ECS process generally and in the region. Both examples also involve trilateral situations that, while not exact parallels, may be instructive for the overlapping continental shelf of Russia, Denmark, and Canada in the Arctic Ocean (Figure 1).

THE SOUTHERN PART OF THE BANANA HOLE IN THE NORTH ATLANTIC OCEAN

The Southern Part of the Banana Hole lies in the North Atlantic Ocean, west of Norway and northeast of Iceland and the Faroe Islands, a self-governing part of the Kingdom of Denmark. In 2006, the three parties signed ‘Agreed Minutes on the Delimitation of the Continental Shelf beyond 200 Nautical Miles,’ which defined continental shelf boundaries there and established a process for resolving overlaps upon conclusion of the Article 76 process (Agreed Minutes 2006).

The Agreed Minutes were concluded in September 2006 before any of the three parties filed submissions with the CLCS. All three have since done so and received their recommendations from the CLCS. In 2019, Denmark/Faroe Islands, Iceland, and Norway concluded three parallel bilateral
agreements on the final determination of the boundary lines as required by the Agreed Minutes (Figure 2; and Norwegian Ministry of Foreign Affairs 2019).

Further, the parties demonstrated creative diplomacy in their “shared view that the whole area concerned consists of continuous continental shelf” (Agreed Minutes, para. 4). In Figure 2, that “whole area” is contained within the outermost black lines shown. The Minutes provide that if the CLCS ascertains any part of the areas claimed in the three national submissions belong to “The Area” as defined in the LOS Convention Art. 1.1, “the coastal State(s) concerned will establish the outer limits of the continental shelf in accordance with Article 76 (8) of the Convention, without this otherwise affecting the lines established in paragraph 2." In short, the affected State(s) would set aside their claims to the seafloor that the CLCS deems to be part of “The Area,” thereby reducing their shelf entitlement and adjusting the other State(s)' limits accordingly.

Conclusion of the Agreed Minutes was facilitated by existing agreements on maritime boundaries within 200 nautical miles, another reflection of longstanding diplomatic cooperation among these States. The fact that little was known about the potential for exploitable natural resources in the Southern Part of the Banana Hole at the time of negotiation did not stand in the way of agreement (Fife 2011).
THE GULF OF MEXICO

Coastal States that do not necessarily enjoy the same long history of favorable relations as those in the preceding example have nonetheless also been able to reach diplomatic agreement on their continental shelf entitlements in connection with the Article 76 process. Cuba, Mexico, and the United States all border the Gulf of Mexico and, in a series of bilateral maritime boundary agreements, agreed the area in question is extended continental shelf and established their respective boundaries there.

As noted above, the United States has neither made a submission nor stated its ECS limits. Mexico and Cuba already made their submissions to the CLCS: Mexico in two partial submissions regarding the western (2007) and eastern (2011) Gulf of Mexico and Cuba in a single submission pertaining to the eastern Gulf (2009).

Mexico received its CLCS recommendations for the western Gulf in 2009, a process made easier by the existence of the 1978 Treaty on maritime boundaries between the United Mexican States and the United States of America and the 2000 Treaty between the United States of America and United Mexican States on the delimitation of the continental shelf in the western Gulf of Mexico. Mexico included in its submission the boundary points set forth in the 2000 treaty, and the CLCS recommendations noted that the points defining the outer limit of Mexico’s continental shelf correspond to the points agreed upon in the 2000 treaty.

Mexico then established the outer limits of its ECS on the basis of CLCS recommendations (Carrera Hurtado, 2011).

For the eastern Gulf, negotiations between Cuba, Mexico, and the United States resulted in three separate maritime boundary agreements, concluded in 2017. For the eastern Gulf, negotiations between Cuba, Mexico, and the United States resulted in three separate maritime boundary agreements, concluded in 2017, between Cuba and Mexico (now in force); Cuba and the United States (being provisionally applied, pending entry into force), which “reflects acceptance of Article 76’s delineation provisions” (Baumert 2017, 852); and Mexico and the United States (not yet in force). The Eastern Gulf agreements demonstrate that even countries with a history of fraught relations were able to nonetheless reach agreement on a three-way boundary line in an area rich with natural resources.

V. CONCLUSIONS

The experiences of the five Central Arctic Ocean shelf States in determining their respective entitlements to continental shelf beyond 200 nm offer ample evidence that overlapping continental shelf entitlements are unlikely to produce serious conflicts in the Arctic Ocean. The process set forth in Article 76 for States to establish the outer limits of their continental shelves is both robust and respected. The five States have worked together, following the same rules and exchanging scientific, diplomatic, and legal information, to the benefit of all. The cooperation and good will on display in the Arctic ECS process both resulted from and helped generate good working relationships in the Arctic. The Article 76 process has provided an additional structure to cultivate good science and diplomacy, both of which require time, dedication of resources, collaboration, and data sharing.

One reason the Article 76 process is successful is that States, not the CLCS, determine the ultimate extent of their ECS. The role of CLCS is that of scientific and technical experts in fields relevant to understanding the extent of the ECS. It is plausible
that the CLCS could recommend that two or more of the States asserting overlapping entitlements in the Central Arctic Ocean, for example, at the North Pole, each present data and arguments to support those claims. It would then be up to those States to resolve any overlap through diplomacy. Unresolved maritime boundaries are not unusual in the Arctic or elsewhere, and the Article 76 process may facilitate their resolution.

Notably, there will be no overlap in the ECS or any other maritime claims made by the United States and Russia in the Arctic Ocean thanks to their maritime boundary agreement being in place since 1990. The number of boundary agreements, memoranda of understanding and diplomatic exchanges about boundaries not yet resolved between the Central Arctic Ocean shelf States exceeds the few examples highlighted in this article. All of these situations reflect well-managed relations among the States which smooth the way for the Article 76 delineation process. Whatever other tensions may exist between the Central Arctic Ocean shelf States, they are not based on the peaceful and ongoing process of resolving their continental shelf entitlements in the Arctic.

The opinions expressed in this article are those solely of the author.
SOURCES

Agreed Minutes on the Delimitation of the Continental Shelf beyond 200 Nautical Miles between the Faroe Islands, Iceland and Norway (Jan Mayen and mainland Norway) in the Southern Part of the Banana Hole of the Northeast Atlantic from 20 September 2006.


Galo Carrera Hurtado, 2011. Mexican experience in the establishment of outer limit of the continental shelf in the Western Polygon in the Gulf of Mexico, OPRF Seminar on Extension of the Continental Shelf and National Ocean Policy- lessons learnt from precedent cases of establishing the limits on the basis of recommendations.


CLCS/40/Rev.1, 2008. Rules of Procedure of the Commission on the Limits of the Continental Shelf, Annex I, Submissions in case of a dispute between States with opposite or adjacent coasts or in other cases of unresolved land or maritime disputes.

CLCS/50/2, Progress of work in the Commission on the Limits of the Continental Shelf Statement of the Chair, 5 September 2019 paras. 10-13 and 87-88.


Norwegian Ministry of Foreign Affairs, Norway signed maritime delimitation agreements with Iceland and Denmark/the Faroe Islands, Press release | Date: 30/10/2019.


Atle Staalesen, 2019. Russia is winning support for its claims on Arctic shelf, says chief negotiator, Barents Observer, November 28, 2019.

ENDNOTES


2 The Convention refers only to the “continental shelf.” This chapter adopts the term ECS for the portion of continental shelf that extends seaward of 200 nm beyond the baselines from which the breadth of the territorial sea is measured and up to that outer limit, though other sources refer to the Outer Continental Shelf. See Arbitration Between Barbados and Trinidad and Tobago, RIAA, Vol. XXVII, at 147, 208–09, para. 213 (Apr. 11, 2006): “there is in law only a single ‘continental shelf’ rather than an inner continental shelf and a separate extended or outer continental shelf.”

3 In 2008 the five States signed the Ilulissat Declaration, which states, “[T]he law of the sea provides for important rights and obligations concerning the delineation of the outer limits of the continental shelf, the protection of the marine environment, including ice-covered areas, freedom of navigation, marine scientific research, and other uses of the sea. We remain committed to this legal framework and to the orderly settlement of any possible overlapping claims.”

4 The unresolved Beaufort Sea boundary includes areas both within and beyond 200 nm; only the portion beyond 200 nm is of direct interest for this article. Byers & Østhagen (2017) discuss Canada’s five unresolved boundaries within 200 nm, four of which are with the United States and continue to be peacefully and diplomatically well-managed. They also report on Canada’s “two fully resolved boundaries in the waters between Canada and Greenland (Denmark) and around the French islands of St. Pierre and Miquelon,” 2.
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