

The Problems of Overlapping Governance on the Arctic Continental Shelves Pending Delineation and Delimitation

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Matter commented on: Problems of overlapping governance on Arctic continental shelves

1. Introduction

The continental shelf has been the dispute par excellence in the narrative that the Arctic is an ungoverned region. The seabed of the Central Arctic Ocean is subject to overlapping “claims” by Canada, Russia, and Denmark (via Greenland), and alarming reports have suggested that competing rights over the resources might culminate in conflict between Russia and the West. This myth has been widely challenged, but another myth lives on: that the seabed beyond 200 nautical miles (M) remains ungoverned until the Commission on the Limits of the Continental Shelf (CLCS) issues recommendations on the outer limits of continental shelves and the asserting states divvy up the pie. In fact, these states already can and do exercise control over the seabed areas they assert by virtue of the doctrine of inherent rights.

This coastal state prerogative creates problems at all stages before a final delineation of the shelf's outer limits and a final delimitation of overlapping entitlements. Most importantly, where entitlements overlap and have not yet been delimited, potential users might proceed with some activities without approval from all states asserting entitlements to the relevant shelf area. Action based on unilateral decision could sharpen tensions and undercut trust among Arctic states. To minimize the risk of this pending the final delimitation of the Arctic continental shelves, Arctic states should establish a mechanism to authorize activities on overlapping entitlements beyond 200 M. This mechanism should be created as soon as possible among the United States, Canada, Denmark, and Russia (subject to changes in the geopolitical situation). On this backdrop, this blog post explores legal issues connected with activities on overlapping continental shelf entitlements in the Arctic Ocean and pre-delineation and pre-delimitation problems that the Arctic coastal States are facing.

2. The Continental Shelf under the United Nations Convention on the Law of the Sea

The geological continental shelf refers to the relatively shallow submerged prolongation of the landmass. A “broad” continental shelf can extend a considerable distance from shore (continental shelves beyond 200 M are referred to as extended continental shelves (ECS)), compared to continental shelves that drop off into the deep sea relatively quickly. Common causes of a broad continental shelf include major river mouths and submarine features. In the Arctic, the many north-flowing rivers of Eurasia and North America have contributed to the formation of broad shelves under the Arctic Ocean. Submarine features, particularly the Lomonosov and Alpha-Mendeleev Ridge Complex, also play a prominent role in extending Arctic continental shelf entitlements.

The United Nations Convention on the Law of the Sea (UNCLOS) recognizes exclusive coastal states rights and jurisdiction with respect to the legal continental shelf. The legal continental shelf is defined in Article 76, with an option of establishing the outer limits at the distance of 200 M (regardless of the presence of a geological continental shelf), or beyond that limit with the application of complex

formulae and constraints depending on the distance from the foot of the slope, water depth, soil depth, and distance from shore (extended continental shelf or ECS). Because the scientific criteria in Article 76 are complex, the outer limits of the continental shelf beyond 200 M are harder to determine than those of the distance-based maritime zones. This creates indeterminacy in ocean governance as a coastal state and other actors might have different views on whether an area in question is a continental shelf or seabed and subsoil thereof beyond the limits of national jurisdiction (the Area). Thus, coastal States-parties to UNCLOS must determine the outer limits of their continental shelves beyond 200 M (if there are any) and submit scientific data supporting the limits to the CLCS to identify the limit of national jurisdiction.

The CLCS established by UNCLOS has an important but nuanced role in ascertaining the ECS entitlements. The CLCS considers data submitted by a coastal state against the criteria set out in Article 76 to make a recommendation on the outer limits. More nuanced is that the CLCS' findings are a recommendation, not a binding act (Article 76 (8) of the UNCLOS). It remains up to the coastal state to define the outer limits of its continental shelf. Conforming with the CLCS recommendation, however, makes the limits final and binding on all Parties to UNCLOS. In addition, the CLCS has no power to resolve overlaps or do anything prejudicial in relation to final delimitations.

At its current pace of 4 recommendations a year (See [CLCS](#)), and considering the COVID-19 pandemic, the remaining submissions will likely take 20 years to process: taking into consideration that since 2001 the CLCS issued 35 recommendations, 57 submissions are pending in the queue (and states can still submit new information), the recent submissions (such as Canada's) will be considered in 10 years in the best possible scenario. Most likely, it will take 18-20 years to consider all the submissions present in the queue today (E Antsygina, [The Interplay between Delineation and Delimitation in the Arctic Ocean](#)). Even then some submissions may remain unconsidered because the CLCS will not examine submissions contested by a concerned state if there is a dispute (Para. 5 (a) of [Annex I to the CLCS Rules of Procedure](#)). The CLCS can consider submissions when several states' submissions cover the same area, provided all states do not object to such a consideration but the CLCS will not delimit any overlap, the latter task is left to the coastal states with the overlapping entitlements.

Even before the CLCS rules (or before a coastal state makes a submission to the CLCS), coastal states enjoy jurisdiction over continental shelves stemming from the doctrine of inherent rights that is a part of customary law ([North Sea Continental Shelf Cases](#), para. 19, p. 22). Under this doctrine (which equally applies to ECS), rights over the continental shelf exist *ipso facto* and *ab initio* and do not require any occupation, express proclamation, or even the deposit of charts showing the shelf's outer limits. Article 77 (3) of UNCLOS explicitly mentions that no proclamation is required to assert rights over the continental shelf – in contrast to other maritime zones (See also Alexander Proelss, “Commentary to Article 55” in A Proelss (ed) [United Nations Convention on the Law of the Sea, A Commentary](#), at p. 409). Although Article 84 of UNCLOS provides that states must give due publicity to charts or lists of geographical coordinates of the outer limits of their continental shelves, failure to do so would not preclude a state from enjoying its rights over the continental shelf. Yet, such a failure would be a violation of an obligation to make known the exact limits of its jurisdiction.

Judicial decisions of domestic courts also support the right of a coastal State to exercise jurisdiction over the ECS pending delineation of the outer limits. In [R. v. Perry](#) (Canada v. Perry, 2003 CanLII 52758 (NL PC)), the Provincial Court of Newfoundland and Labrador considered the case of Captain Michael Perry charged with a violation of s. 4 (2) of Canada's Coastal Fisheries Protection Act, R.S.C.

1985, c. 33, for fishing or preparing to fish in a portion of the continental shelf beyond the limits of Canadian fisheries waters for a sedentary species of fish (sedentary species belong to the resources of the continental shelf and hence are within the exclusive jurisdiction of the coastal state). At the time of the offence, Canada had not published the outer limits of its continental shelf. As the Court noted, "...the exclusive economic zone is relatively easy to discern. It was marked on all the maps tendered in evidence before the court. The question that is more troubling is the interpretation of the definition of the continental shelf and the effect of Canada's claim to it as against the world" (p. 9). It further concludes that the Oceans Act establishes the operative definition of the "continental shelf" as the seabed and subsoil of the submarine areas of Canada which extend beyond the territorial sea, and which form the natural prolongation of the land territory of Canada. The Court did not consider the extent of the continental shelf, it rather stated that this would only be necessary if [the Court] was forced to consider whether the accused was fishing at or near the boundary of the continental shelf (which was not the case since the accused was nowhere near the outer limit of the Canadian shelf). Hence, Arctic States with pending CLCS submissions can already exercise sovereign rights over the continental shelf independently of the delineation procedure. They have concurrent jurisdiction and any activities violating these sovereign rights would be and have already been deemed illegal.

3. Continental Shelves in the Arctic

In the Arctic Ocean, all five coastal states appear to be entitled to a continental shelf that extends beyond 200 M, and all but the United States have made submissions to the CLCS (discussed below). The entitlements, depicted below, involve both bilateral and trilateral overlaps principally involving Canada, Denmark (via Greenland), and Russia.

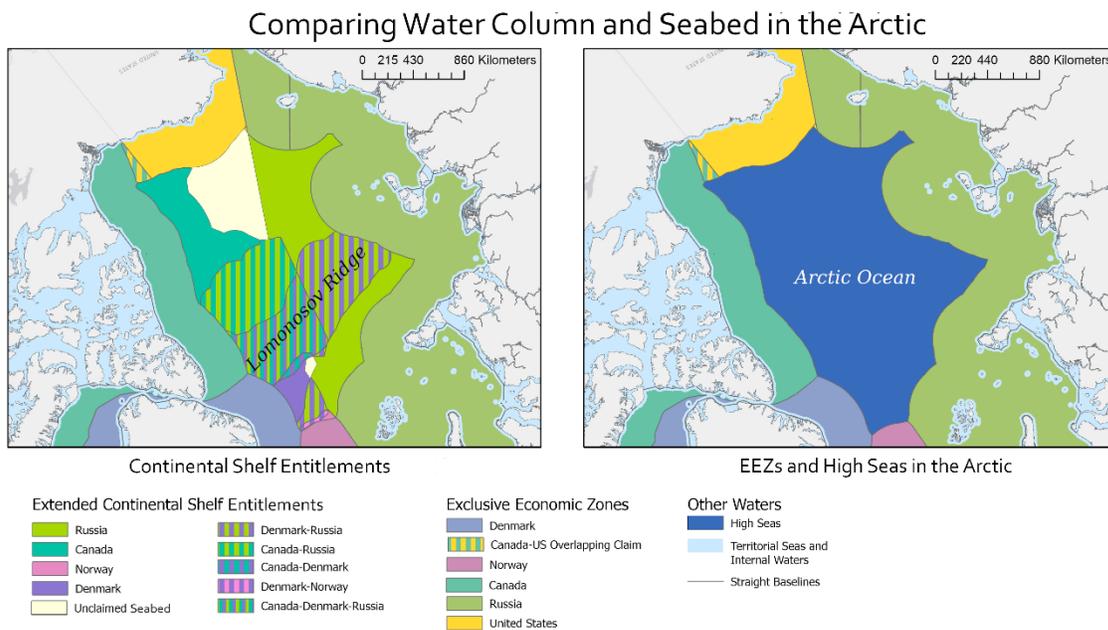


Figure 1. Areas of Overlapping ECSs between Canada, Denmark, and Russia

Author of the map: Cornell Overfield

Based on the CLCS submissions to date, most of the Arctic seabed is subject to at least the jurisdiction of one coastal state over the continental shelf. And while the United States has not officially posited the outer limits of its shelf north of Alaska, some or much of that region will likely be part of the US entitlement. Each of the Arctic coastal states have laws and regulations that stake jurisdiction and governance over these entitlements.

The US has asserted jurisdiction over its continental shelf since 1945. The exclusive right of the US to utilize and conserve natural resources of the shelf was asserted in the Truman Proclamation long before UNCLOS was adopted ([United States, Presidential Proclamation 2667 of 28 September 1945, 'Policy of the United States with Respect to the Natural Resources of the Subsoil and Sea Bed of the Continental Shelf'](#) 10 Fed. Reg. 12303 (2 October 1945)). Current provisions can be found in Title 43, Chapter 29 of the US Code, which defines the continental shelf to be “all submerged lands lying seaward and outside of the area of lands beneath navigable waters” that “appertain to the United States and are subject to its jurisdiction and control.” The Chapter extends various US laws, including the US Constitution to the covered regions, and also sets out an exclusive right to consider, approve, and regulate exploration and development of marine resources on and in the shelf. The US has attempted to describe areas it considers under its jurisdiction ahead of its submission being filed to the CLCS through the naming of geological features in the Arctic (on the US side of the US-Russia maritime boundary in the following areas: the Chukchi Shelf, Chukchi Borderland, Canada Basin, and Nautilus Basin) or distance from coast in the Atlantic ([Government of the United States, Guidelines to Applicants Seeking the US Consent](#)).

In September 2020, the US president announced that the exercise of jurisdiction over marine scientific research will be conducted to the extent permitted under international law over its EEZ and its continental shelf (United States, [Presidential Proclamation 10071 of 9 September 2020, 'Proclamation on Revision to United States Marine Scientific Research Policy'](#) 85 Fed. Reg. 59165 (18 September 2020)). Previously, the US acknowledged that international law allowed coastal States to exercise jurisdiction over marine scientific research in their respective EEZ, but stated that the US had chosen not to do so to the fullest extent permitted under international law in an effort to encourage scientific research (United States, [Presidential Proclamation 5030 of 10 March 1983, 'Exclusive Economic Zone of the United States of America'](#) 48 Fed. Reg. 10605, 3 CFR, 1983 Comp., p. 22.). This demonstrates that coastal states have started to consider enforcing their jurisdiction in the ocean to the maximum possible extent, that is, the outer limit of the ECS ([E Antsygina, 'Prohibition of Bottom Trawling on Extended Continental Shelves: Creeping Jurisdiction or Enforcement of Sovereign Rights?'](#)).

Canada has exercised jurisdiction over the continental shelf beyond 200 M before and its laws imply acceptance of the doctrine of inherent rights, including to the Arctic shelf. [The Oceans Act](#) defines Canada’s continental shelf as “the seabed and subsoil of the submarine areas...that extend beyond the territorial sea of Canada throughout the natural prolongation of the land territory of Canada” (para. 17(1)). The law specifically asserts jurisdiction over Canada’s entitlement *ipso facto* and *ab initio* -- paragraph 17(2) notes that Canada’s continental shelf extends to its maximum extent regardless of whether regulations are made under subparagraph 25(a)(iv) describing the continental shelf’s outer limits. This means that the provisions of the Ocean Act on the rights to resources already apply to Canada’s entire shelf – whether within or beyond the 200 M. Canada requires foreign researchers to seek consent from the Government of Canada at least 180 days prior to the commencement of research activities on the continental shelf, or vessel entry into waters under Canadian jurisdiction or sovereignty, whichever comes first (See Government of Canada, [Conducting marine scientific](#)

[research in Canada](#)).

Russia asserts jurisdiction over its continental shelf beyond 200 M. The [Federal Law 187-FZ of 1995](#) defines Russia's continental shelf as extending "at a distance of 200 nautical miles from the baselines" or, if the continental margin extends beyond 200 M, to "the outer boundary of the continental shelf coincides with the outer boundary of the submarine margin of the continent, determined in accordance with the norms of international law" (Article 1). On its continental shelf, Russia stakes its sovereign rights to exploit and explore the resources of the shelf, to authorize and regulate all drilling activity on the continental shelf, to construct and exercise jurisdiction over artificial islands, installations, and structures. Russian law also stakes jurisdiction over marine scientific research, marine protection, and preservation of the marine environment in connection with the exploration or exploitation of the continental shelf, and pipe- and cable-laying (Article 5 of 187-FZ).

Denmark has also asserted jurisdiction over its entire continental shelf. [The Continental Shelf Act](#) currently in force claims exclusive exploration and exploitation rights to the living and non-living resources of the shelf, as well as rights to regulate construction of installations on the shelf and safety zones around them, it also requires a Danish permit for any pipe- or cable-laying. (Sec. 4). However, the law does not define the continental shelf or its limits.

Norway has asserted rights and jurisdiction on its entire shelf. The 2021 [Law on Norway's Continental Shelf](#) defines Norway's shelf as extending "to the outer edge of the continental margin, but not less than 200 nautical miles from the baselines from which the width of the maritime territory is measured" (Art. 1). A series of [other laws](#) require foreign persons to obtain permission from Norwegian authorities to extract resources and conduct marine scientific research on the continental shelf as defined in the 2021 law. The 2021 law also requires the King to establish the outer limits based on CLCS recommendations. These provisions make it binding for Norway to follow the CLCS recommendations and eliminate the discretionary power of a coastal state to deviate from the recommendations. These changes are, most likely, connected to the fact that Norway already received the CLCS recommendations that satisfied the interests of Norway.

4. Cooperation over Overlapping Entitlements Pending Delimitation

The doctrine of inherent rights implies that a coastal State may exercise its sovereign rights on ECS, even in the areas of the overlapping ECS entitlements, pending the finalization of outer limits. Following the reasoning of the Special Chamber of the ITLOS in the dispute between [Ghana and Côte d'Ivoire](#), a coastal state's activities in the area of the overlapping shelves, even in an area which is subsequently attributed to another state, cannot be considered to be in violation of the sovereign rights of another state if those activities were carried out before the delimitation. This was also confirmed in the recent decision of the ICJ over the [Somalia v. Kenya case](#) (para. 203).

Pending delimitation, coastal states with overlapping continental shelf entitlements carry obligations set up by Article 83(3) which prescribes that:

[p]ending agreement as provided for in paragraph 1 [delimitation agreement], the States concerned, in a spirit of understanding and cooperation, shall make every effort to enter into provisional arrangements of a practical nature and, during this transitional period, not to jeopardize or hamper the reaching of the final agreement. Such arrangements shall be without prejudice to the final delimitation.

There are two obligations following from these provisions: to make every effort to enter into provisional arrangements and not to jeopardize or hamper the reaching of the final agreement. The Special Chamber in the *Ghana/Côte d'Ivoire* case considered what Article 83(3)'s obligations mean in practice. First, it found that entering into a provisional agreement is not obligatory, and second, that any unilateral actions should do as little as possible to jeopardize a final delimitation agreement.

The nature of activities in the zone of overlapping entitlements influences the analysis on the violation of obligations under Article 83 (3): while harvesting sedentary species might not amount to a violation of these obligations, the construction of permanent installations would be more harmful to the spirit of cooperation and thus more likely to be considered as a breach of the obligations ([E Antsygina, Prohibition of Bottom Trawling on Extended Continental Shelves: Creeping Jurisdiction or Enforcement of Sovereign Rights?](#)). Under Article 300 of UNCLOS, States should exercise the rights, jurisdiction, and freedoms recognized in UNCLOS in good faith in a manner which would not constitute an abuse of rights.

4.1. Problems and Prescriptions

The problems arising from the nature of the continental shelf's extent and the coastal state's jurisdiction pending delineation and delimitation are two-fold. First, some problems are pre-delineation problems, arising from inconsistent application of or adherence to coastal state rights and jurisdiction in entitlements beyond 200 M before the CLCS issues its recommendations. The other class of problems are pre-delimitation problems between the states with overlapping entitlements. Until the CLCS issues its findings, these coexist with pre-delineation problems; after the CLCS moves, these will remain sore points until overlapping entitlements are delimited.

I. Pre-Delineation Problems

The most pernicious pre-delineation problem is one of ignorance about a coastal state's entitlement. If foreign parties do not know whether a coastal state believes it is entitled to an ECS, they will struggle to know whether some activities, such as marine scientific research, require authorization by a coastal state in a certain location outside the EEZ. It is possible to ascertain on charts that there is a natural prolongation of a state's landmass beyond 200 M, but its extent may not coincide with the outer limits of the ECS identified following Article 76. Recall that several states already assert rights and jurisdictions over their entire shelf (such as the US), including areas not yet defined but nonetheless appertaining to the landmass, and thus researchers and other users of the shelf could be violating coastal state rights and opening themselves to legal jeopardy. This problem is acute where states have not made a CLCS submission or otherwise marked the edge of what they believe their entitlement to be. In light of this, the US should move quickly to indicate the extent of its ECS entitlement off Alaska's coast.

Another pre-delineation problem is inconsistent application. Take for instance the Xue Long 2's 2021 [research activities](#). This Chinese icebreaker collected samples on the Gakkel Ridge including rocks and magma. Whether the Xue Long 2 was engaged simply in marine scientific research or natural resource assessments, Russia has domestic law asserting sole jurisdiction to authorize scientific activities on its ECS. Since all but a sliver of the Gakkel Ridge was within Russia's continental shelf submission as of 31 March 2021, and thus presumptive entitlement, the PRC vessel may have violated Russian law. However, in the absence of clear communication about the vessel's location, precise activities, and its communication with Russian authorities, it is difficult to judge whether the Xue Long 2 violated Russian law. Indeed, some states have a clear history of enforcing their law on the ECS, while others might not be active in enforcing their jurisdiction. This again will at the very least put a drag on research

activities; at worst it could lead to misunderstandings and diplomatic incidents that further worsen international relations in the Arctic.

II. Pre-Delimitation Problems

Since Russia, Canada, and Denmark assert undelimited, bi- and tri-lateral continental shelf entitlement overlaps in the Arctic Ocean, Article 83(3) applies to them. Pipelines and cables play important roles in various plans for economic development in the Arctic. Already, at least one [cable-laying project](#) has been proposed to connect Asia, North America, and Europe with a map showing possible routing through overlapping shelf entitlements of Canada and Denmark, and Canada and the US. In theory, all the entitled states should be able to take reasonable measures to regulate laying of submarine pipelines (while Article 79(3) of UNCLOS provides that coastal states have the right to delineate the course for the laying of pipelines and does not mention cables, many states still require delineation of the course of submarine cables as well). However, the project could possibly proceed with approval from only one rights-holder.

A similar problem arises with respect to marine scientific research. Strictly speaking, even a vessel with permission from one rights-holder is violating the sovereign rights of any other rights-holder that did not authorize these activities. However, the research activities are not in violation of UNCLOS since a researcher has authorization from another rights-holder. The jurisprudence has not addressed an obligation to involve other concerned states, inform them about the authorized activities, or share data. Since research activities are generally temporary, unilaterally approved MSR is less likely to jeopardize a final agreement on shelf delimitation contra Article 83 (3). But still, such actions could sap trust among the Arctic coastal states.

The ambiguities and potential clash triggered by these pre-delimitation problems on contested shelf areas can be best addressed by a multilateral mechanism for information sharing and joint approval – a shelf approval deconfliction mechanism. Not only would this comport with Article 83(3)'s call for states to enter into provisional arrangements, but it would also minimize the risk that unilateral approvals for activities on contested Arctic shelves heighten tensions. In normal times, the Arctic coastal states with overlapping entitlements could possibly agree to a supplemental treaty that establishes a legal obligation to consult all concerned states pending delimitation, affirming that the process would not prejudice any final delimitation. However, pan-Arctic cooperation is currently paused due to Russia's invasion of Ukraine. Instead, Canada, Denmark, US, and Norway could already begin to design and implement a shelf approval deconfliction mechanism for use among themselves. When the cooperation with Russia resumes in the Arctic, the mechanism could be broadened to include Russia.

5. Conclusion and Recommendations

The exercise of the sovereign rights over ECS pending delineation leads to problems with the uncertainty of the outer limits and the unilateral exercise of coastal state rights. The doctrine of inherent rights better suits the continental shelves within 200 M but creates legal uncertainty for the users of the seas in the areas that could be qualified either as ECS or the Area. These problems might intensify with the increasing uses of the oceans and seas beyond 200 M. In the Arctic, this means that activities on the vast majority of the seabed, including research, already come under coastal state jurisdiction. The US, Russia, and Canada clearly claim jurisdiction in line with the doctrine of inherent rights. In Canada, courts have long upheld the Crown's right to administer laws and punish violations and Canada had been issuing drilling permits on the continental shelf both within and beyond 200 M

in the Atlantic since the late 60's (before UNCLOS was adopted), based on the 1958 Convention on the Continental Shelf and customary law. Since both Russia and Canada have made clear their believed entitlements, any activities on the shelf within those outer limits should occur in conformity with Russian or Canadian law. The US has yet to announce the full extent of its Arctic shelf entitlement, but the US position and law clearly embraces the doctrine of inherent rights. This means that users of any part of the US Arctic shelf, including the ECS which still lacks official outer limits, must comply with US law. Although coastal state jurisdiction already exists, a CLCS recommendation will firm up the division between the Area and coastal state jurisdictions.

The Arctic seabed could be a source of tension not because of a lack of governance of the Arctic seabed, as some hold, but a surplus of it. Overlapping submissions over the vast majority of the Arctic seabed mean that multiple states simultaneously assert exclusive rights to manage the continental shelf and its resources. But in the rush to exploit opportunities (if any) emerging as ice recedes, some investors and states may embark on unilateral investment or research projects in areas of overlapping shelf entitlements before delimitation can take place. While this would not lead directly to conflict, it could sharpen suspicions and feelings that some states act in bad faith.

Transparency and communication are key to allow much needed research and investment to proceed on the Arctic seabed pending a final delimitation of overlapping entitlements without further souring Arctic relations. A shelf-approval deconfliction mechanism, initially among the US, Canada, Denmark, and Norway, with possible future extension to Russia, would be the best means to institutionalize this coordination. In absence of such an initiative, states in the Arctic should use bi- and tri-lateral channels to ensure that any research, drilling, or pipe-laying in areas with overlapping entitlements are considered and approved by all relevant states.

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