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Russia's Revised Arctic Seabed Submission

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Introduction

On 3 August 2015, the Russian Federation submitted to the Commission on the Limits of the Continental Shelf (the Commission), in accordance with Article 76, paragraph 8, of the UN Convention on the Law of the Sea (the LOS Convention),² information on the limits of the continental shelf beyond 200 nautical miles from the baselines from which the breadth of its territorial sea is measured in respect of the Arctic Ocean.³ In accordance with Article 8 of Annex II to the LOS Convention, the submission of Russia is a partial revised one. The area was included in the Russian continental shelf submission of 10 December 2001,⁴ for which the Commission on 27 June 2002 adopted Recommendations.⁵ Consideration of Russia's new and partly revised submission will be included on the provisional agenda of the Commission, and upon completion of its consideration the Commission will issue recommendations. Pursuant to the Rules of Procedure,⁶ the Commission has publicised an Executive Summary of the 2015 submission, including all charts and coordinates. The Executive Summary provides a good basis for examining the main features of Russia's claim to an extended continental shelf in the Arctic Ocean. The summary prompts a discussion of a number of substantive and procedural legal issues.

This article begins by examining the key aspects of Russia's revised Arctic seabed submission and also presenting the international legal framework, Article 76 of the LOS Convention, that applies to Russia with respect to establishing the outer limits of its continental shelf. The major legal issues related to the implementation of Article 76 in the Arctic Ocean are addressed. The article subsequently turns to Russia's revised submission and gives a description of the provisionally delineated outer limits. Procedural and substantive legal issues with respect to the submission are addressed, including how seafloor highs have been classified, and Russia's application of apparent sector lines for determining its outer limits. Next, some remarks on future maritime delimitation issues and the key role of the Commission in implementing Article 76 in the Arctic Ocean are offered. The article concludes with a summation of the key points and views on a number of issues.

Applicable Law

The truth about the ‘race’ to the North Pole and regarding the Arctic Ocean seafloor begins and ends with Article 76 of the LOS Convention. Basically, the issue is about one thing only: Which part of the seabed, in legal terms, constitutes a state’s continental shelf, and which does not? The question may sound easy, but Article 76 is a complex provision. It consists of 10 paragraphs, most of which (paragraphs 2 to 8) relate exclusively to the outer limits of the continental shelf extending beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured.

Under Article 76 of the LOS Convention, the basis for a coastal state to determine the outer limits of its continental shelf is either the natural prolongation of the land mass to the end of the continental margin or a distance of 200 nautical miles from the baselines from which the breadth of the territorial sea is measured.

When a state seeks to delineate the outer limits of its shelf beyond 200 nautical miles the detailed provisions of Article 76 come into play. The provision is designed to ensure that a coastal state is entitled to its continental shelf floor extending ‘beyond its territorial sea throughout the natural prolongation of its land territory to the outer edge of the continental margin’.⁷ Thus, the continental shelf can include all or part of the ocean floor considered by scientists to comprise the continental shelf, the continental slope, and the continental rise.

Beyond the complexities of the language of Article 76, which are described in detail in the following, the LOS Convention has introduced a specific process to be followed by coastal States respecting the outer limits of shelf areas beyond 200 nautical miles. The most distinctive element of this process concerns the specialised treaty body, the Commission on the Limits of the Continental Shelf (the Commission).

The Commission is established by Annex II of the LOS Convention. To support its proposed outer limit of a shelf area beyond 200 nautical miles a coastal state is to present a submission to the Commission.⁸ The Commission has 21 members, all of whom are scientists elected by the states that are parties to the convention.⁹ According to Article 3 of Annex II to the LOS Convention, the Commission has two functions: first, to consider the data and other material submitted by coastal states concerning the outer limits of the continental shelf in areas where those limits extend beyond 200 nautical miles and make recommendations in accordance with Article 76; and second, to provide scientific and technical advice, if requested by the coastal state concerned, during the preparation of such data.

The process for establishing the outer limits beyond 200 nautical miles under the LOS Convention can be summarised as follows. After a coastal state has provisionally delineated the outer limits on the basis of the provisions of the LOS Convention, it is to submit information on these limits to the Commission. The Commission, following the procedure set out in Annex II to the LOS Convention, prepares recommendations for the coastal state on the establishment of the outer limits and submits these recommendations to the coastal state. The coastal state is to establish the outer limits in domestic law. If a coastal state disagrees with the recommendations of the Commission, it can, within a reasonable time, lodge a revised or new submission with the Commission.¹⁰

Specific Legal Issues Related to the Continental Margin Beyond 200 Nautical Miles in the Arctic Ocean

In implementing Article 76 in the Arctic Ocean, at least two substantive issues stand out. First is the criterion of natural prolongation. Second is the application of constraint lines for determining the maximum seaward extent of the continental shelf.

Natural prolongation

For any coastal state, the process of establishing the outer limits of its continental shelf under the LOS Convention begins by determining whether it is legally entitled to delineate the outer limits throughout the natural prolongation of its land territory to either the outer edge of the continental margin, or only to a distance of 200 nautical miles from the baselines. This process is described by the Commission in its Scientific and Technical Guidelines as the ‘test of appurtenance’.¹¹

The test of appurtenance may create some challenges for Russia in delineating the outer limits of its continental shelf in the Arctic Ocean. Notably, the criterion natural prolongation is challenging from the perspective of treaty interpretation.

In Article 76, as reflected in the practice of both coastal states and the Commission, determining whether the legal continental shelf extends beyond 200 nautical miles is both a geological and geomorphological exercise. Geological measurements, such as sampling crust types and so on, can indicate whether the more seaward part of the seafloor is, or used to be, naturally linked to the seafloor near the coast. There is also the issue of geomorphology, that is, the form and structure of the seafloor. For instance, does the Lomonosov Ridge have features that indicate a present or former relationship with the Barents–Kara shelf? Possible discontinuities in the continental margin may arise as an acute problem in relation to the seafloor highs that extend across the Arctic Ocean. A cursory glance at charts and maps of the Arctic Ocean seafloor seems to reveal contours of ruptures separating the Lomonosov Ridge and the Alpha-Mendelev from the Russian continent.

Maximum constraint lines and classification of seafloor highs

In delineating the outer limits of the continental shelf beyond 200 nautical miles in the Arctic, an issue that is problematic in the interpretation and application of Article 76 concerns whether the seafloor highs that stretch across the Arctic Ocean are submerged prolongations of the surrounding coastal state’s land territory such that they can be considered as submarine ridges or submarine elevations.

This is a critical distinction, as the category of submarine elevation confers a more favourable maximum limitation on the extent of the continental shelf under the LOS Convention. According to Article 76, paragraphs 5 and 6, the continental shelf can extend to 350 nautical miles from the baselines on submarine ridges, but to either 350 nautical miles or 100 nautical miles beyond the 2500-meter isobath on submarine elevations. If the seafloor highs in the Arctic are legally classified as elevations, there may not be any areas of the seafloor in the Central Arctic Ocean beyond the Gakkel Ridge (see later discussion) that are not under coastal state jurisdiction.¹²

The distinction between ridges and elevations is not clear in Article 76. Nor is it clear in the Scientific and Technical Guidelines of the Commission.¹³ However, the term ‘submarine elevations’ in Article 76(6) is followed by the qualification ‘that are natural components of the continental margin, such as its plateaux, rises, caps, banks and spurs’. Thus, a basis for the distinction may lie in the fact that submarine elevations can be distinguished as separate features that are a more integral part of the prolongation of the land mass than ridges.¹⁴ It is also argued that a basis for the distinction between ridges and elevations could lie in the geomorphological, geological, and tectonic relationship of the seafloor high to the land mass.¹⁵

The 2001 Russian Submission portrayed its continental shelf as extending all the way to the North Pole. The North Pole is, however, located beyond 350 nautical miles from the baselines of Russia, and hence, at a more seaward position than a continental shelf may extend on submarine ridges under the LOS Convention. Thus, the ridges must have been classified by Russia as submarine elevations. The same position is taken in Denmark's 2014 Submission.¹⁶ Canada will also have to take a position on the issue of the classification of the seafloor highs in the central Arctic Ocean. For the United States, a non-party to the LOS Convention, the question is also relevant in relation to the Chukchi Plateau off the north coast of Alaska.¹⁷ During the Third United Nations Conference on the Law of the Sea (UNCLOS III), the United States argued that seafloor highs such as the Chukchi Plateau were covered by the term 'submarine elevations', and thus not subject to the 350-nautical-mile limitation provided for under Article 76, paragraph 6, of the LOS Convention.¹⁸

General Description of the Russian Outer Limit

In the 2015 Partial Revised Russian Submission, the area of continental shelf beyond 200 nautical miles in the Arctic Ocean covers 1,191,347 square kilometres, that is, approximately 100,000 square kilometres more than in Russia's 2001 Submission.¹⁹ Segments of the outer limits and the sea floor areas bounded by these limits – as shown in Figure 8.1 – are divided into six main areas.

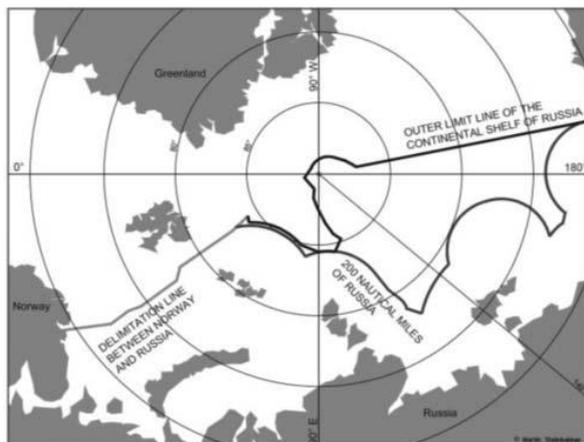


Figure 8.1 Outer limit line of Russia in the Arctic Ocean.²⁰

In addition, one section of the Submission is devoted to describing the intersection of the last segment of the western outer limit and the delimitation line between Norway and Russia in the Barents Sea and the Arctic Ocean.²¹ For the purpose of describing the outer limit in this chapter, however, it is appropriate to examine the outer limit in terms of three main areas.

Western outer limit

The western segment of the outer limit (Figure 8.2) bounds the area of the Southern Gakkel Ridge and the adjacent ocean area of the Nansen Basin. The Russian proposed outer limit of its shelf begins here from the agreed Norwegian–Russian endpoint of the bilateral maritime boundary between Norway and Russia in the Barents Sea and the Arctic Ocean. Article 2 of the 2010 Agreement describes how the endpoint of the delimitation line is to be established:

The terminal point of the delimitation line is defined as the point of intersection of a geodetic line drawn through the points 7 and 8 and the geodetic line connecting the easternmost point of the outer limit of the continental shelf of Norway and the westernmost point of the outer limit of the continental shelf of the Russian Federation, as established in accordance with Article 76 and Annex II of the Convention. [Translated from Norwegian]

Russia in its Submission draws a geodetic line from its westernmost outer limit fixed point to the geodetic line through coordinates 7 and 8 of the delimitation agreement. It is the point at which this geodetic line intersects the delimitation line that denotes the initial westernmost point of the outer limit of Russia's continental shelf in the Arctic Ocean. Thus, the outer limit of the Russian continental shelf begins in the west slightly to the south of the coordinates of point 8 set by the 2010 delimitation treaty between Norway and Russia.

The outer limit then runs eastward in the western Nansen Basin through seven fixed points constructed on the basis of both Article 76(4)(b) – 60 nautical miles from the foot of the continental slope (the Hedberg formula) for one fixed point and Article 76(4)(a) – where the thickness of sedimentary rocks is at least 1 per cent of the shortest distance to the foot of the slope (the Gardiner formula) for the remaining six fixed points.

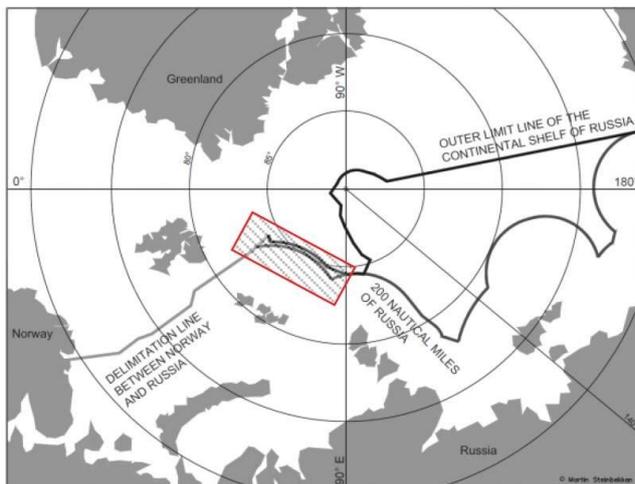


Figure 8.2 Western segment of the outer limit line.²²

In this area, none of the fixed points comprising the line of the outer limit of the continental shelf goes beyond 350 nautical miles from the territorial sea baselines of Russia.

The outer limit ends in the eastern Nansen Basin on a line drawn along 24 fixed points coinciding with the outer limit of Russia's exclusive economic zone (EEZ). There is, therefore, in this section no area of continental shelf that extends beyond 200 nautical miles. A part of the seabed in this area within Russia's EEZ is undoubtedly deep ocean floor in terms of the LOS Convention.

Northern outer limit

The northern segment of the outer limit in the Revised Russian Submission is centred on the Lomonosov Ridge and bounds Russia's northernmost continental shelf areas, including the North Pole, and shelf areas to the North American side of the North Pole (Figure 8.3). The outer limit begins from a point on Russia's 200 nautical mile zone in the eastern Amundsen Basin and stretches northward through three fixed points constructed on the basis of the Gardiner formula (sediment thickness) and one fixed point calculated on the basis of the Hedberg criterion (foot-of-the-slope plus 60), with the result of incorporating a portion of

continental shelf area beyond 200 nautical miles not included in Russia’s 2001 Submission. In accordance with paragraph 7 of Article 76, the fixed points are connected by straight lines not exceeding 60 nautical miles.

The outer limit continues through the central Amundsen Basin, where 20 fixed points are constructed on the basis of the Hedberg formula (foot-of-the-slope plus 60), while one fixed point is constructed on the basis of the Gardiner formula (sediment thickness). Noticeably, the outer limit in this seabed area is delineated at a slightly more landward position than what was the case in Russia’s 2001 Submission.

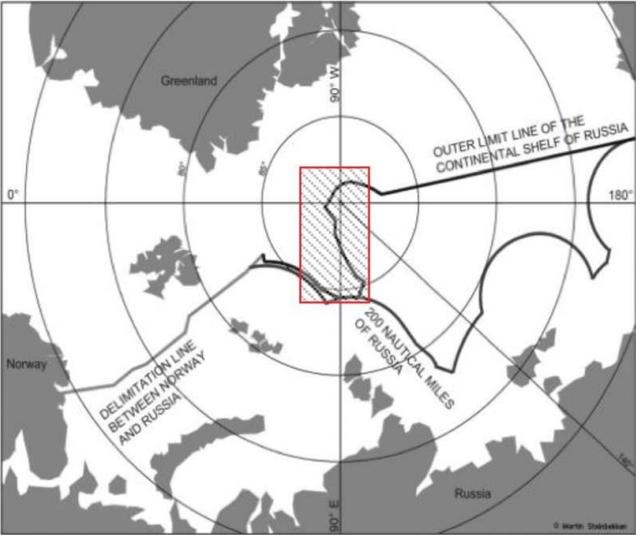


Figure 8.3 Northern segment of the outer limit line.²³

Then the final segment of the northern outer limit continues through 52 fixed points in the Amundsen Basin and the Makarov Basin, constructed on the basis of both the Gardiner and Hedberg formulas. This last segment of the outer limit connects to the northbound straight line described in the following and covers seabed areas not included in Russia’s 2001 Submission. The continental shelf area enclosed by the Russian outer limits in the North Pole region can expect to be part of future maritime boundary negotiations involving Russia, Canada, and Denmark (Greenland).

In this region, parts of the Russian outer limits lie beyond 350 nautical miles from its territorial sea baselines. Russia is clearly of the view that the Lomonosov Ridge is a submarine elevation, naturally affiliated with the continental margin of Eurasia, which permits the use of the LOS Convention’s most favourable constraint rule with respect to outer shelf limits (100 nautical miles from the 2,500-meter isobaths).

Eastern outer limits

The eastern outer limit of Russia’s Submission bounds shelf areas within the Makarov Basin and the Mendeleev Rise (Figure 8.4). The proposed outer limit here runs along the line coinciding with the eastern so-called ‘sector line’ of Russia in the Arctic Ocean.²⁴ Thus, the intermediate point of the outer limit of the shelf is the point where the straight line intersects the outer limit of Russia’s EEZ in the Chukchi Sea. The outer limit (‘sector line’) is an extension of the conditional delimitation line of the maritime spaces between Russia and the United States set out in the 1990 Agreement between the United States and the Soviet Union on the Maritime Boundary.²⁵ The northernmost part of this straight line outer limit in the

eastern segment will potentially be the subject of delimitation negotiations between Russia, Canada and Denmark (Greenland).

Sections of the submitted outer limit lie beyond 350 nautical miles from Russia's territorial sea baselines. The delineation seems to be based on an affiliation of the Mendeleev Rise with the natural components of the Russian continental margin, with the elevation wording again being invoked.

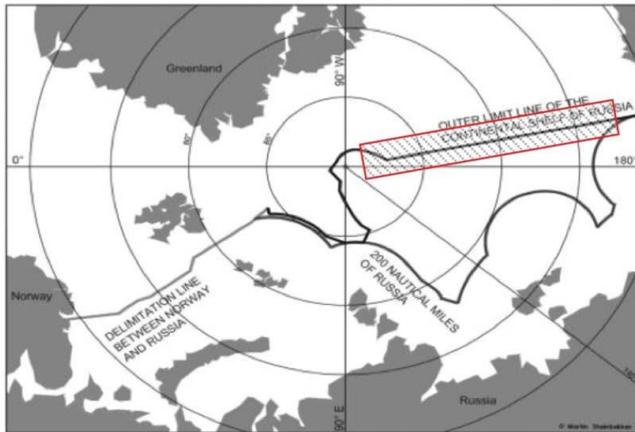


Figure 8.4 Eastern segment of the outer limit line.²⁶

Legal Assessment

Russia's Revised 2015 continental shelf Submission prompts a discussion of a number of legal questions.

Procedural issues

Time and a revised submission

According to Article 8 of Annex II to the LOS Convention, following a difference of view between the Commission and a submitting state, the coastal state is to make a new or revised submission to the Commission 'within [a] reasonable time'. Russia received its Recommendations in 2002. The Partial Revised Submission was thus lodged 13 years later. Does this constitute a reasonable time?

The wording of Article 8 of Annex II indicates that the coastal state should be granted a great deal of flexibility. While the preparatory works provide little help and state practice is sparse, as only four revised submissions have been submitted,²⁷ the relevant context is important. Article 4 of Annex II, which determines that the original submission is to be lodged no later than 10 years after ratification, suggests that 13 years to prepare and lodge a revised submission is too long to fall within the reasonable time limit.

However, in order to respond to the Commission's recommendations a coastal state may have to undertake new surveys of the seafloor. A revision may easily take at least as long as the preparation of the original submission. Russia's Revised Submission seems to be an example of this. In 2002, the Commission not only advised Russia that based on the submitted information, the Lomonosov Ridge and the Alpha-Mendeleev Ridge Complex could not be considered submarine elevations under the LOS Convention,²⁸ but more generally advised that Russia, in making revisions to its proposed outer limit, should be more scrupulous in following the Commission's Scientific and Technical Guidelines.²⁹ The Commission basically

urged Russia to go back to the drawing board. With regard to the Arctic Ocean, the additional constraints are caused by natural conditions, with the presence of ice being but one complicating factor.

Purposive considerations also suggest that coastal states should have great flexibility with regard to the time limit. The purpose of the Convention's continental shelf regime is to attain a correct interpretation and application of Article 76. It serves neither a coastal state nor other states if the former must run against the clock to meet a deadline to delineate its outer limits. The argument is especially pertinent with respect to the Arctic Ocean, where any commercial exploitation of the continental shelf's resources lies far into the future. Both Russia and other states are better served with Russia taking enough time to prepare fully its submission. This must be reflected in the legal interpretation of what a reasonable time means in the context of Annex II.

When will the partial revised submission be processed by the Commission?

Rule 51, paragraph 4 ter, of the Rules of Procedure of the Commission reads: 'The submissions shall be queued in the order they are received.'³⁰ Since the Russian Submission is a revised one, an issue is whether it will move to the front of the queue of the submissions lodged. Neither the LOS Convention nor the Commission's Rules of Procedure address this issue specifically. At its 26th session in 2010, however, the Commission discussed the order in which revised submissions would be considered were the need to arise.³¹ They decided that any revised submission in the future would be considered as a priority notwithstanding the queue. This decision was followed respecting the revised submission made by Barbados in 2011³² and Russia's resubmission for the Sea of Okhotsk in 2013.³³ At the time of writing no information is available concerning the processing of the two other resubmissions to the Commission – that of Brazil, made on 15 April 2015, and of Russia with respect to the Arctic. There seems to be no reason, however, why the Commission should deviate from its 2010 decision. Russia's resubmission will thus probably be considered before Denmark's 2014 Arctic Submission. This is something Russia expects.³⁴

Changes in the membership of the Commission

Having received Russia's Submission in 2001, the Commission established a subcommission as per Article 5 of Annex II to the LOS Convention and Section X of (the current) of the Rules of Procedure.³⁵ Seven members of the Commission were nominated to serve on the subcommission and, in order to ensure the highest possible integrity of the proceedings, the members of the Commission who were nationals of a state with opposite or adjacent coasts, or of a state that might have a dispute with Russia regarding the submission, were not selected as members of the subcommission.³⁶ The following commissioners were on the subcommission: Alexandre Tagore Medeiros de Albuquerque, Lawrence Folajimi Awosika, Galo Carrera Hurtado, Peter F. Croker, Karl H. F. Hinz, Iain C. Lamont, and Yong Ahn Park. The subcommission elected Hurtado as its chairperson, Hinz as its vice-chairperson, and Croker as the rapporteur.

The Commission's practice is not to dissolve a subcommission once established. It continues to exist, if only on paper. As of 2015, however, only Awosika and Park are currently members of the Commission, so thus even though the subcommission of 2001 has been in operation for 13 years, many vacancies have to be filled and its composition will be very different from the original. This is the inevitable result of the LOS Convention's system of five-year terms for commissioners and that they are not necessarily reelected. The subcommission tasked with

examining Russia's Partial Revised Submission for the Sea of Okhotsk³⁷ also had vacancies to fill.³⁸

Substantive Issues

The Lomonosov ridge and the Alpha-Mendeleev Rise

In its 2001 Submission, Russia clearly took the view that the Lomonosov Ridge and the Alpha-Mendeleev Rise were submarine elevations under paragraph 6 of Article 76 and, accordingly, that these seafloor highs fit the wording 'natural components of the continental margin, such as its plateaux, rises, caps, banks and spurs'.

In its Recommendations, the Commission expressed the view that based on the evidence, neither the Lomonosov Ridge nor the Alpha-Mendeleev Rise could be considered a submarine elevation under the Convention.³⁹ In the Executive Summary of its Revised Submission, Russia describes the main conclusion drawn by the Commission in 2002 as indeed indicative of the 'state of scientific knowledge' at the time.⁴⁰ Russia noted that the original submission was based on seismic surveys carried out before 1990 from drifting ice stations, and that modern technology and extensive activity support the Russian Revised Submission. One figure in the Executive Summary shows clearly the vast differences of seismic reflections received on multichannel surveys before 2002 – which served as the basis for the 2001 submission – and those received between 2012 and 2015 – serving as the basis of the resubmission.⁴¹

The notable finding of Russia's recent surveys of the Arctic Ocean seabed is that the bathymetric and seismic surveys demonstrate 'a natural morphological prolongation without traces of any interruption' of the shallow shelves of the East Siberian and Chukchi Seas to the Lomonosov Ridge and the Mendeleev Rise.⁴² Thus, Russia asserts that it is now 'clearly' demonstrated that the Lomonosov Ridge, the Mendeleev Rise, the Chukchi Rise, and separating them, the Podvodnikov Basin and the Chukchi Basin form a single consolidated block of continental crust, which is elevated to 1.5 kilometres above the level of the deep seabed of the Canada and Amundsen Basins.⁴³ From Russia's perspective, the seafloor highs, including the Lomonosov Ridge and the Mendeleev-Alpha Rise, are components of the continental margin of the Arctic Ocean and constitute a natural prolongation of the continental margin of Eurasia. Noticeably, a new term has been introduced in the Russian Revised Submission to describe how these seabed areas are both natural prolongations and submarine elevations according to Article 76, paragraph 6, of the LOS Convention: 'Complex of the Central Arctic Submarine Elevations.'⁴⁴ What is considered deep seabed, however, is the Gakkel Ridge, the geomorphology of which seems to be completely different (Figure 8.5).

In terms of origin and tectonic evolution, Russia claims that the entire area of the Complex of the Central Arctic Submarine Elevations comprises structures of rifting extension and expansion of the earth's crust, with an approximate north-south orientation, that is, similar to the directions mapped on the shallow shelves adjacent to the Russian Arctic territories. Notably, Russia begins from the premise in the Commission's Scientific and Technical Guidelines, under which both the geological crust type (paragraph 7.2.9) and the formation processes of continental margins and growth of continents (paragraph 7.3.1) are relevant qualifiers in the classification of ridges and elevations in paragraph 6 of Article 76.

Regarding crust types, it appears that the seismic sounding lines run by Russia on the Arctic seabed have not allowed for any reliable determination of the crust types.⁴⁵ With respect to

formation processes of continental margins and growth of continents, however, Russia asserts that it has developed a reliable geological model of the evolution of the Arctic Basin.⁴⁶

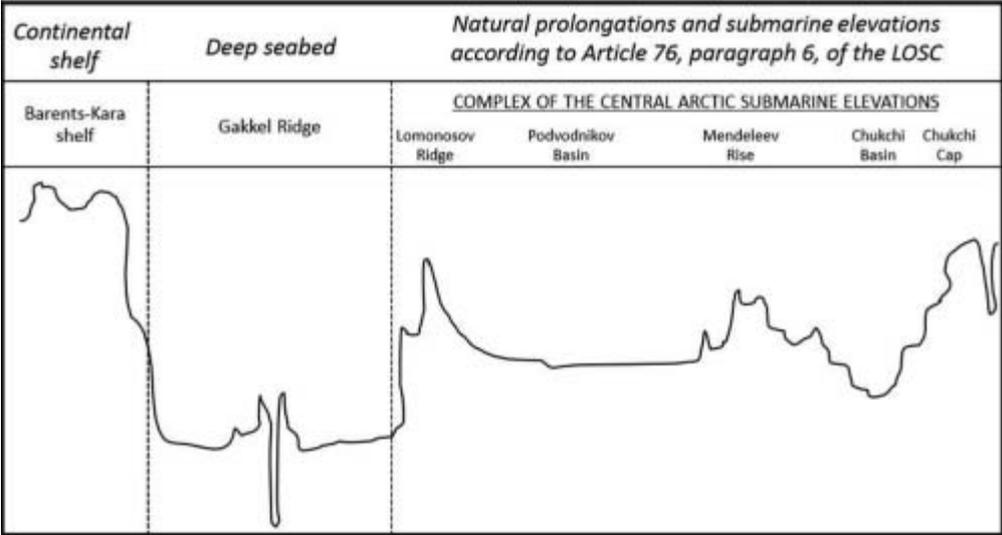


Figure 8.5 Scheme of elements in the seabed areas in the Russian submission.⁴⁷

The 2015 Revised Submission emphasises that the mapping of the seafloor since 2002 does not confirm the viewpoint of the Commission’s recommendations that the Mendeleev-Alpha Rise was formed by volcanic activity creating an oceanic plateau built on the oceanic crust of the Canada Basin. Rather, a three-stage model is described for the formation of the Arctic Basin, which demonstrates submarine elevations and not ridges. First, after the opening of the Canada Basin during the Late Jurassic–Early Cretaceous, the Complex of the Central Arctic Submarine Elevations became part of the Siberian shelf, and thus a natural component of the Chukchi–Siberian continental margin.⁴⁸ Second, submarine elevations were created following rift stretching, which occurred from the continental crust from the Lomonosov Ridge and eastwards. This rifting and stretching led to the subsiding of the Podvodnikov Basin and the Chukchi Basin. Third, the opening of the Eurasian Basin as a result of spreading along the Gakkel Ridge led to the Lomonosov Ridge splitting off and moving away from the Barents–Kara shelf. The rifting then continued in the Amerasian Basin, within the Chukchi Borderland and the Mendeleev-Alpha Rise, and in the Chukchi and Podvodnikov Basins. Whether the Commission is convinced by this explanation remains to be seen.

Northbound extension of the shelf

With regard to the seaward extension of the outer limit line proposed by Russia, there are two aspects to be noted. First, as compared to Russia’s 2001 Submission, the outer limit extends past the North Pole and south in the direction of the Greenlandic and North American continents. In the 2001 Submission the North Pole was the northern geographical maximum of Russia’s outer limit.

It is difficult to understand why Russia has defined a larger shelf area toward the North American continent. The question is whether the Lomonosov Ridge would allow the outer limit to be extended even farther in the direction of the Greenlandic and Canadian continents, or, phrased differently, why is the outer limit established only marginally beyond the North Pole? Reference is helpful to Denmark’s 2014 continental shelf Submission, in which it was proposed that the shelf related to the Greenlandic continent extended across the Arctic basin, stopping only at the outer limit of Russia’s EEZ.⁴⁹ According to Denmark, there are areas

seaward of Russia's proposed outer limit that are continental shelf under the LOS Convention. Judging from Denmark's Submission, it appears that Russia could have extended its outer limit as far as Greenland's and Canada's respective 200-nautical-mile limits.

There are several possible explanations for the discrepancy in Russia's and Denmark's Submissions with respect to the geographical extension of the continental shelf. First, it may be that Russia did not collect scientific evidence to underpin an extension of the shelf in this area. Second, Russia may simply have found it opportune not to delineate the outer limit at a more seaward position. A coastal state has no obligation to maximise its shelf area. The rationale behind the decision may thus be the result of political considerations. It is worth noting that the shelf area beyond the proposed Russian outer limit most likely would end up on the Danish/Canadian side of any future delimited boundaries based on equidistance,⁵⁰ so surveying this part of the seafloor might have been seen as of little value. A third explanation may be that Russia believes that the continental shelf does not extend beyond its proposed outer limit.

The 'sector' line

The proposed outer limit in the easternmost segment of Russia's extended continental shelf merits special attention. In this area – 'Area VII' in the Russian Submission – the outer limit is a straight line coinciding with the so-called sector line of Russia in the Arctic Ocean.⁵¹ As already noted, the segment is drawn along the conditional delimitation line between Russia and the United States. As noted in Article 2 of the 1990 Agreement, the maritime boundary extends north along the 168°58'37" W across the Bering Strait and Chukchi Sea into the Arctic Ocean as far as permitted under international law.⁵²

Based on the Executive Summary, Russia has not used Article 76 to delineate the outer limit of its shelf in this area. One question that arises is whether the sector line or the 1990 delimitation is a basis for delineating the outer limit of the continental shelf beyond 200 nautical miles in accordance with Article 76 of the LOS Convention.

The answer is no. Having ratified the LOS Convention, Russia has removed any legal support that might have existed for a pie-shaped section of the Arctic Ocean extending from its eastern and western borders to the North Pole based on a sector principle argument. It is, therefore, surprising to see Russia now refer to the sector approach in the 2015 Submission, and even more so considering that sector lines were not used for the other segments of the outer limit or in the maritime delimitation with Norway.⁵³

Regarding the Delimitation Agreement between Russia and the United States, states can and do delimit shelf areas beyond 200 nautical miles prior to implementing Article 76.⁵⁴ States are free to use sectors for such delimitation. But a delimitation agreement in itself does not indicate whether or not a legal continental shelf exists. Separate rules of the LOS Convention determine what in legal terms is a continental shelf (Article 76) and how a state's shelf is to be delimited if it overlaps with that of another state (Article 83). Thus, notwithstanding a preceding delimitation agreement, the seafloor area beyond 200 nautical miles to which an agreement applies must be surveyed to affirm the existence of a legal continental shelf. This appears to have been understood in the 1990 US–Soviet Union Agreement, where it states in Article 2, 'into the Arctic Ocean as far as permitted under international law'.⁵⁵

'International law' in Article 2 refers to the definition of continental shelf in Article 76 and corresponding rules of customary international law.⁵⁶ Based on the 2015 Executive Summary, Russia has done nothing to clarify how 'far' the delimitation line between the two States

extends into the Arctic Ocean. The eastern segment of the Russian outer limit is nothing more than a provisional delimitation line, with no scientific evidence to indicate whether a continental shelf exists in this area or not. It will not be possible for the Commission to evaluate and make recommendations on an outer limit in this area.

Future Maritime Delimitations

If the Commission finds that a continental shelf exists along the seafloor highs and emerges at the opposite side of the Arctic Basin and in the direction of the land masses of North America and Greenland, this will still be only half the story. As noted, Denmark has made a Submission in which the continental shelf areas portrayed overlap with those in Russia's Submission.⁵⁷ Canada will undoubtedly follow suit, though details of Canada's submission have not yet been made public. In time, the United States will also finalise the establishment of the outer limits of its continental shelf in the Arctic. Three of the coastal states may have a continental shelf that extends throughout the Arctic basin, overlapping with that of Russia. And continental shelf areas – if they are demonstrated to exist and overlap – may need to be delimited.

Russia may have to negotiate boundary agreements with two of its Arctic neighbours. This eventuality is clearly anticipated in the 2015 Revised Submission. Mention is made of delimitation disputes that have been resolved, including the 2010 Norwegian–Russian Delimitation Agreement⁵⁸ and the 1990 Agreement with the United States.⁵⁹

Russia, in accordance with paragraph 2 of Annex 1 of the Rules of Procedure of the Commission,⁶⁰ has informed the Commission of the presence of two unresolved maritime areas in the Arctic Ocean. One area is in the Amundsen Basin, on the Lomonosov Ridge and in the Makarov and Podvodnikov Basins with Denmark (Greenland).⁶¹ The continental shelf areas in Denmark's 2014 Submission north of Greenland overlap with shelf areas included in Russia's Revised Submission. However, Russia and Denmark have held talks on the issue and have agreed on procedures for moving forward.⁶² A similar understanding has been reached by Russia and Canada regarding areas in the Arctic Ocean included in the revised submission of Russia, that is, the Makarov Basin and on the Mendeleev Rise,⁶³ which may also be covered in the Canadian submission. The Commission has been requested to consider the Russian submission without prejudice to unresolved delimitation disputes concerning the continental shelf.

The Fundamental Role of the Commission: Some Procedural Challenges

Under the LOS Convention, the Commission's role is crucial to the process of a coastal state delineating the outer limits of its continental shelf beyond 200 nautical miles. The Commission is not an adversarial institution. Judging from its composition, it is to be a scientific body, but such nomenclature does not indicate a true picture. The Commission must interpret and apply Article 76 respecting each submission. It frequently relies on its Scientific and Technical Guidelines, which are clearly interpretations of the LOS Convention. Even though establishing which part of the seafloor is part of a state's legal continental shelf, and which is not, is ultimately determined by coastal states and not on the views of the Commission, nevertheless, the recommendations have important legal effects, notably as interpretations of Article 76 as understood under the rules on treaty interpretation in international law.⁶⁴

The role of the Commission is further reinforced by the interests of other states in the Arctic region. Legally, while the discussion is about unilateral limits, the continental shelf in the Arctic is subject to wider interests, driven by the likelihood of petroleum deposits. Canada and Denmark (Greenland) will be keeping a watchful eye on the handling by the Commission of Russia's Submission and the Commission's recommendations. The Commission will likely also attract broader public interest, as indeed have all Arctic matters in recent years.

A process issue of importance raised by the Russian Arctic Submission concerns the assessment by the Commission of the evidence. It is up to the coastal state to demonstrate, through its submission, the existence of a continental shelf beyond 200 nautical miles. Under the LOS Convention, only the coastal state may provide the Commission with scientific data and information on the limits of its continental shelf.⁶⁵

The Commission is to assess the evidence in the coastal state's submission, including hypotheses on the geological evolution of different parts of the seafloor. What standard of proof is to apply to statements and hypotheses in a state's submission? For instance, has the Lomonosov Ridge split off and moved away from the Barents–Kara shelf? In law, this is a point of fact, that is, a question to be answered by reference to facts and evidence and inferences arising from those facts. Such questions of fact are amenable to proof or disproof by reference to a certain standard of proof. The LOS Convention and the Rules of Procedure of the Commission are, however, silent on the sufficiency of the evidence a coastal state must present. Put a different way, is what is necessary a preponderance of the evidence, meaning that the coastal state has to demonstrate that its contentions are more likely to be true than false? Is a higher standard of proof required? Is evidence beyond a reasonable doubt required, meaning that the commissioners in making up their minds should have no reasonable doubts that what the coastal state asserts is correct? The complexity of the Arctic Ocean seafloor brings such issues to the fore.

Conclusion

Russia's much-discussed foray into the Arctic Ocean has nothing to do with occupying or annexing new territory. Neither is it the expression of a fading superpower's expansionist foreign policy. In seeking to show the seafloor in the Arctic Ocean that is the natural prolongation of its land mass – its continental shelf in sense of the LOS Convention – Russia has observed and applied the relevant international law.

Certain substantive matters are, nevertheless, put to the test, including the concept of natural prolongation and the classification of seafloor highs into the categories of Article 76, paragraph 6, of the LOS Convention. Also with respect to the easternmost seabed area (Chukchi Sea), where it seems as if Article 76 has not been applied by Russia, questions may arise. Based on the Executive Summary, the Revised Submission appears to be founded on more extensive scientific documentation than the 2001 Submission.

The new Submission will, in line with Commission practice, be put at the front of a long and growing queue of first-time submissions. The Commission's recommendations may be forthcoming in not too many years, and before the Commission issues recommendations respecting Denmark's 2014 Submission.

The scientific complexity of Russia's 2015 continental shelf Submission may be the biggest challenge for the Commission. Russia's Revised Submission goes back millions of years and explores the theories of the geological origins of the different parts of the Arctic seafloor. The

uncertainty on the proof/evidence of facts to be utilised by the Commission is one of the challenges raised by the 2015 Russian Revised Submission.

Notes

¹ Jensen is a senior research fellow at the Fridtjof Nansen Institute (FNI) in Norway.

² United Nations Convention on the Law of the Sea, 10 December 1982, 1833 UNTS (hereinafter LOS Convention).

³ Russian Federation, 'Partial Revised Submission of the Russian Federation to the Commission on the Limits of the Continental Shelf in Respect of the Continental Shelf in the Arctic Ocean', Executive Summary (2015). Available at http://www.un.org/depts/los/clcs_new/clcs_home.htm (accessed 24 April 2018).

⁴ Russian Federation, 'Russian Federation Submission to the Commission on the Limits of the Continental Shelf', Executive Summary (2001). Available at http://www.un.org/depts/los/clcs_new/clcs_home.htm (accessed 24 April 2018).

⁵ AU: See: Commission on the Limits of the Continental Shelf (CLCS), 'Statement by the Chair on the Progress of Work', Doc. CLCS/34, 1 July 2002, paragraph 33. Available at http://www.un.org/depts/los/clcs_new/clcs_home.htm (accessed 24 April 2018). For an overview of the 2001 Russian Submission, see David Colson, 'The delimitation of the outer continental shelf between neighbouring states', *American Journal of International Law* 97 (2003), pp. 91–107, pp. 97–9.

⁶ Commission on the Limits of the Continental Shelf (CLCS), 'Rules of Procedure of the Commission on the Limits of the Continental Shelf', Doc. CLCS/40/ Rev.1, 17 April 2008. Available at http://www.un.org/depts/los/clcs_new/clcs_home.htm (accessed 24 April 2018).

⁷ LOS Convention, Article 76, paragraph 1.

⁸ *Ibid.*, Article 76(8).

⁹ *Ibid.*, Article 2 of Annex II.

¹⁰ *Ibid.*, Article 8 of Annex II.

¹¹ Commission on the Limits of the Continental Shelf (CLCS), 'Scientific and Technical Guidelines', Doc. CLCS/11, 13 May 1999, paragraph 2.2. Available at http://www.un.org/depts/los/clcs_new/clcs_home.htm (accessed 24 April 2018).

¹² See Ron Macnab, 'The outer limits of the continental shelf in the Arctic Ocean', in M. Nordquist, J.N. Moore and Tomas Heidar (eds), *Legal and Scientific Aspects of Continental Shelf Limits* (Hague, Martinus Nijhoff, 2004), pp. 301–11, p. 302.

¹³ CLCS, 'Scientific and Technical Guidelines', paragraphs 7.2. and 7.3.

¹⁴ See International Law Association, *Legal Issues of the Outer Continental Shelf*, Second Report (2006), Toronto Conference, pp. 4–7. Available at <http://www.ila-hq.org/> (accessed 24 April 2018).

¹⁵ Harald Brekke and Philip Symonds, 'The ridge provisions of article 76 of the UN Convention on the Law of the Sea', in M. Nordquist, J.N. Moore and Tomas Heidar (eds), *Legal and Scientific Aspects of Continental Shelf Limits* (Hague, Martinus Nijhoff, 2004), pp. 301–11, p. 187.

¹⁶ Denmark, 'Partial Submission to the Commission on the Limits of the Continental Shelf – The Northern Continental Shelf of Greenland', Executive Summary (2014). Available at http://www.un.org/depts/los/clcs_new/clcs_home.htm (accessed 24 April 2018).

¹⁷ On the relationship between the substantive definition of the continental shelf in Article 76 of the LOS Convention and US policy with respect to delineation of the continental shelf beyond 200 nautical miles, see generally J. Ashley Roach and Robert W. Smith, 'Policy governing the continental shelf of the United States of America', in J.A. Roach and R.W. Smith (eds), *Excessive Maritime Claims* (Hague, Martinus Nijhoff, 2012), p. 188.

¹⁸ Third United Nations Conference on the Law of the Sea, Official Records, Vol. VIII, United Nations (1977), p. 36: The United States understands that features such as the Chukchi plateau and its component elevations, situated to the north of Alaska, are covered by this exemption, and thus not subject to the 350 mile limitation set forth in paragraph 6. Because of the potential for significant oil and gas reserves in the Chukchi plateau, it is important to recall the US statement made to this effect on April 3, 1980 during a Plenary session of the Third

United Nations Conference on the Law of the Sea, which has never given rise to any contrary interpretation. In the statement, the United States representative expressed support for the provision now set forth in Article 76(6) on the understanding that it is recognised that features such as the Chukchi plateau situated to the north of Alaska and its component elevations cannot be considered a ridge and are covered by the last sentence of paragraph 6.

¹⁹ Russian Federation, 'Partial Revised Submission of the Russian Federation to the Commission on the Limits of the Continental Shelf in Respect of the Continental Shelf in the Arctic Ocean', p. 20.

²⁰ Map created by Martin Steinbekken.

²¹ Norwegian Ministry of Foreign Affairs, 'Treaty between Norway and the Russian Federation Concerning Maritime Delimitation and Cooperation in the Barents Sea and the Arctic Ocean' (Oslo, Norwegian Ministry of Foreign Affairs, 2010), reprinted in *Overenskomster med fremmede stater*, 2011, p. 575 and Law of the Sea Bulletin, Vol. 77 (2012), p. 24. See Geir Ulfstein and Tore Henriksen, 'Maritime delimitation in the Arctic: The Barents Sea Treaty', *Ocean Development & International Law* 42 (2011), pp. 1–21, and; Øystein Jensen, 'The Barents Sea: Treaty between Norway and the Russian Federation concerning maritime delimitation and cooperation in the Barents Sea and the Arctic Ocean', *International Journal of Marine and Coastal Law* 26 (2011), pp. 151–68.

²² Map created by Martin Steinbekken.

²³ Ibid.

²⁴ The sector line was approved by Decree of the Presidium of the Supreme Council of the USSR No. 8908, dated 21 February 1979, and provided for 'making clarification to presentation in the Soviet maps of the eastern boundary of polar domains of the USSR in the Arctic Ocean'. See Russian Federation, 'Partial Revised Submission of the Russian Federation to the Commission on the Limits of the Continental Shelf in Respect of the Continental Shelf in the Arctic Ocean', p. 29.

²⁵ United States of America and Russian Federation, 'Agreement between the United States and the Soviet Union on the Maritime Boundary', 1 June 1990, in I.L.M., Vol. 29 (1990), p. 941. See generally: Robert W. Smith, 'United States–Russia maritime boundary', in G.H. Blake (ed.), *Maritime Boundaries* (New York, Routledge, 1994), p. 91.

²⁶ Map created by Martin Steinbekken.

²⁷ It took Russia 11 years to make a Revised Submission with respect to the Sea of Okhotsk after having received the Commission's recommendations in 2002 (Recommendations were adopted on 27 June 2002, and the Resubmission was lodged on 28 February 2013). Russian Federation, 'Revision of the Partial Submission to Commission on the Limits of the Continental Shelf Related to the Sea of Okhotsk', Executive Summary (2013). It took Brazil eight years to lodge a Partial Revised Submission in respect of the Brazilian Southern Region (Recommendations were adopted on 4 April 2007, and the Resubmission was lodged on 10 April 2015). It took Barbados only one year to make a Revised Submission with respect of its seabed areas beyond 200 nautical miles (Recommendations were adopted on 15 April 2010, and the Resubmission was lodged on 25 July 2011). Respecting the submissions and recommendations, see http://www.un.org/depts/los/clcs_new/clcs_home.htm (accessed 24 April 2018).

²⁸ Russian Federation, 'Partial Revised Submission of the Russian Federation to the Commission on the Limits of the Continental Shelf in Respect of the Continental Shelf in the Arctic Ocean', p. 5.

²⁹ A short summary of the 2002 Recommendations as it relates to the Arctic Ocean is contained in the 'Report of the UN Secretary-General to the Fifty-Seventh Session of the UN General Assembly under the agenda item "Oceans and the Law of the Sea"', Doc. A/57/57/Add.1, 8 October 2002, paragraph 41.

³⁰ CLCS, 'Rules of Procedure of the Commission on the Limits of the Continental Shelf'.

³¹ Commission on the Limits of the Continental Shelf (CLCS), 'Statement by the Chairperson of the Commission on the Limits of the Continental Shelf on the Progress of Work in the Commission', Doc. CLCS/68, 17 September 2010, paragraph 57. Available at http://www.un.org/depts/los/clcs_new/clcs_home.htm (accessed 24 April 2018).

³² Commission on the Limits of the Continental Shelf (CLCS), 'Progress of Work of the Commission on the Limits of the Continental Shelf – Statement by the Chairperson', Doc. CLCS/72, 16 September 2011, paragraph 49. Available at http://www.un.org/depts/los/clcs_new/clcs_home.htm (accessed 24 April 2018).

³³ Commission on the Limits of the Continental Shelf (CLCS), 'Progress of Work of the Commission on the Limits of the Continental Shelf – Statement by the Chairperson', Doc. CLCS/80, 24 September 2013, paragraph 38. Available at http://www.un.org/depts/los/clcs_new/clcs_home.htm (accessed 24 April 2018).

³⁴ Russian Ministry of Foreign Affairs, ‘Comment by the Information and Press Department on Russia’s application for Arctic shelf expansion’, 4 August 2015. Available at http://en.mid.ru/en/%20web/guest/foreign_policy/news/-/asset_publisher/cKNonkJE02Bw/content/id/1633205 (accessed 24 April 2018).

³⁵ The Rules of Procedure of the Commission applicable at the time of Russia’s Submission were contained in ‘Internal procedure of the subcommission of the Commission on the Limits on the Continental Shelf’, Doc. CLCS/L.12, issued 25 May 2001. Available at http://www.un.org/depts/los/clcs_new/clcs_home.htm (accessed 24 April 2018).

³⁶ See generally: Commission on the Continental Shelf (CLCS), ‘Statement by the Chairperson of the Commission on the Limits of the Continental Shelf on the Progress of Work in the Commission’, Doc. CLCS/32, 12 April 2002. Available at http://www.un.org/depts/los/clcs_new/clcs_home.htm (accessed 24 April 2018).

³⁷ Russian Federation, ‘Revision of the Partial Submission to Commission on the Limits of the Continental Shelf Related to the Sea of Okhotsk’.

³⁸ CLCS, ‘Progress of Work of the Commission on the Limits of the Continental Shelf – Statement by the Chairperson’, paragraphs 33–34.

³⁹ Russian Federation, ‘Partial Revised Submission of the Russian Federation to the Commission on the Limits of the Continental Shelf in Respect of the Continental Shelf in the Arctic Ocean’, p. 5.

⁴⁰ *Ibid.*, p. 12.

⁴¹ *Ibid.*, p. 15.

⁴² *Ibid.*, p. 13.

⁴³ *Ibid.*

⁴⁴ *Ibid.*, p. 13.

⁴⁵ *Ibid.*, p. 17.

⁴⁶ *Ibid.*

⁴⁷ Created by Øystein Jensen, FNI.

⁴⁸ Russian Federation, ‘Partial Revised Submission of the Russian Federation to the Commission on the Limits of the Continental Shelf in Respect of the Continental Shelf in the Arctic Ocean’, p. 18.

⁴⁹ Denmark, ‘Partial Submission to the Commission on the Limits of the Continental Shelf – The Northern Continental Shelf of Greenland’.

⁵⁰ On maritime claims and boundaries in the Arctic region, see generally Ted L. McDorman and Clive Schofield, ‘Maritime limits and boundaries in the Arctic Ocean: Agreements and disputes’, in L.C. Jensen and G. Hønneland (eds.), *Handbook of the Politics of the Arctic* (Cheltenham, Edward Elgar Publishing, 2015), pp. 207–26.

⁵¹ On doctrinal views and State practice of the Soviet Union and Russia relating to the sector principle, see generally Leonid Timtchenko, ‘The Russian Arctic sectoral concept: Past and present’, *Arctic* 50 (1997), pp. 29–35.

⁵² United States of America and Russian Federation, ‘Agreement between the United States and the Soviet Union on the Maritime Boundary’.

⁵³ ‘Treaty between Norway and the Russian Federation Concerning Maritime Delimitation and Cooperation in the Barents Sea and the Arctic Ocean’.

⁵⁴ States are not obliged to enter into a delimitation agreement within a specific time frame and there is practice that states delimit shelf areas beyond 200 nautical miles before proceeding to delineate the outer limits. See; Øystein Jensen, ‘Maritime boundary delimitation beyond 200 nautical miles: The international judiciary and the Commission on the Limits of the Continental Shelf’, *Nordic Journal of International Law* 84 (2015), pp. 580–604, pp. 583–4. A useful compilation of State practices regarding delimitation of the continental shelf beyond 200 nautical miles is provided in B.M. Magnusson, ‘Outer continental shelf boundary agreements’, *International and Comparative Law Quarterly* 62 (2013), pp. 345–72.

⁵⁵ United States of America and Russian Federation, ‘Agreement between the United States and the Soviet Union on the Maritime Boundary’.

⁵⁶ On the assertion that the substantive rights of Article 76 are part of customary international law, see Ted L. McDorman, ‘The outer continental shelf in the Arctic Ocean: Legal framework and recent developments’, in D. Vidas (ed.), *Law, Technology and Science for Oceans in Globalisation – IUU Fishing, Oil Pollution, Bioprospecting, Outer Continental Shelf* (Hague, Martinus Nijhoff Publishers, 2010), p. 505.

⁵⁷ Denmark, 'Partial Submission to the Commission on the Limits of the Continental Shelf – The Northern Continental Shelf of Greenland'.

⁵⁸ 'Treaty between Norway and the Russian Federation Concerning Maritime Delimitation and Cooperation in the Barents Sea and the Arctic Ocean'.

⁵⁹ United States of America and Russian Federation, 'Agreement between the United States and the Soviet Union on the Maritime Boundary'.

⁶⁰ 'Treaty between Norway and the Russian Federation Concerning Maritime Delimitation and Cooperation in the Barents Sea and the Arctic Ocean'.

⁶¹ CLCS, Rules of Procedure of the Commission on the Limits of the Continental Shelf'.

⁶² *Ibid.*, p. 11.

⁶³ *Ibid.*

⁶⁴ On legal effects of the Commission's recommendations, see Øystein Jensen, *The Commission on the Limits of the Continental Shelf: Law and Legitimacy* (Leiden, Brill/Nijhoff, 2014), pp. 92–152.

⁶⁵ LOS Convention, Article 76, paragraph 8, indicates that information on the limits of the continental shelf beyond 200 nautical miles is to be submitted by 'the coastal State' to the Commission. In Article 4 of Annex II, this is restated: 'Where a coastal intends to establish the outer limits of its continental shelf, the coastal State shall submit particulars of such limits to the Commission along with supporting scientific and technical data.'