

Legal Aspects of Continental Shelf Limits⁺

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1. INTRODUCTION

In my presentation I will deal with legal aspects of continental shelf limits, bearing in mind, however, that the legal and scientific aspects are very much intertwined and not easily separated. My focus will naturally be on the determination of the outer limits of the continental shelf, which is the subject matter of this Conference, but I will also say a few words about the legal status of the continental shelf.

In keeping with the title of this first Panel, my intention is to introduce and give an overview of some of the most important issues we will be dealing with at this Conference. To some extent I will refer to the subsequent specialized presentations for a more thorough consideration of the issues.

1.1. What is the continental shelf?

Let us start by taking a quick look at some key terms regarding the continental shelf.

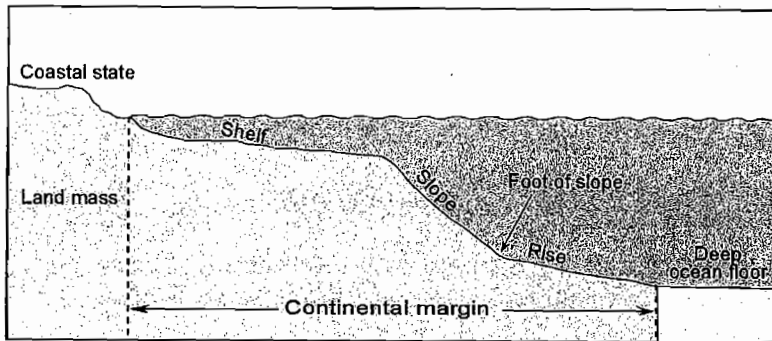
Continental shelf in the traditional scientific sense is the platform on which the land lies. This is marked *shelf* on picture 1. We could say that this is the continental shelf in a narrow sense.

Continental shelf in the broader, legal sense, however, extends throughout the natural prolongation of the land territory to the outer edge of the so-called continental margin, *or* to a distance of 200 nautical miles (M) from the baselines where the outer edge does not extend up to that distance.

⁺ The author's PowerPoint presentation, flowchart and pictures may be viewed on the accompanying CD.

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2.1. The Truman Proclamation, 1945



Picture 1

The *continental margin* consists of the seabed and subsoil of the *shelf*, the *slope* and the *rise*. In this area, particularly the rise, there are typically sediments that have washed down from the continents through the ages. Beyond the continental margin is the *deep ocean floor*.

The Law of the Sea Convention is based on this broader meaning of the term continental shelf, but the Convention provides important limitations to the breadth of the continental shelf. The so-called *foot of the slope* plays a very important role in that respect, as we shall see later. As a general rule, the foot of the slope shall be determined as the point of maximum change in the gradient at the base of the slope.

2. HISTORICAL BACKGROUND

Awareness of the historical background often helps to understand the current situation. How did we get to where we are today?

Until the 20th Century the seabed was generally regarded as an international area. No distinction was made between the continental shelf and the deep ocean floor, and coastal States had only sovereign rights over the seabed within their 3-M territorial sea.

In the first decades of that Century, however, States started declaring sovereign rights for the exploitation of sedentary species on the continental shelf, or even asserting rights of control over specific areas of the shelf. With technical advances, the interest in having control over the shelf resources beyond the territorial sea increased, and the development was rapid.¹

It is customary, however, to regard the Proclamation made by President Truman of the United States in 1945 as the first clear assertion of the idea that the resources of the continental shelf belong to the coastal State.

The Truman Proclamation stated that “the Government of the United States regards the natural resources of the subsoil and seabed of the continental shelf beneath the high seas but contiguous to the coasts of the United States as appertaining to the United States, subject to its jurisdiction and control.”² A press release attached to the Proclamation stated that the continental shelf was considered as extending to a water depth of 100 fathoms, which equals 600 feet or 200 metres.³

The Truman Proclamation was followed by similar claims of many other States. Within a decade, a consistent and general State practice had developed in this field that other States did not object to. This is a classic example of the formation of a new rule of customary law.

The South American countries Chile, Ecuador and Peru, which have no real continental shelf in the physical sense, went one step further with the Santiago Declaration in 1952. They claimed full sovereignty over the seabed and subsoil for a distance of 200 M from their coasts, and they also claimed sovereignty over the superjacent waters and the air space above. This practice was met with resistance by other States, but was going to have a huge impact on the development of the law of the sea as far as the breadth of the exclusive economic zone and the continental shelf was concerned.

2.2. The Geneva Convention on the Continental Shelf, 1958

One of the four conventions adopted by the first United Nations Conference on the Law of the Sea in Geneva in 1958 was the Convention on the Continental Shelf. The Convention provided that the coastal State had sovereign rights for the purpose of exploring and exploiting the natural resources of the continental shelf. It also made clear that the rights of the coastal State over the continental shelf did not affect the legal status of the superjacent waters as high seas or that of the air space above.⁴

The inner limit of the continental shelf was defined in the Geneva Convention as the outer limit of the territorial sea. The outer limits of the continental shelf were defined by two different criteria. The sovereign

rights of the coastal State should extend to a depth of 200 metres *or*, beyond that limit, to where the depth of the superjacent waters admitted of the exploitation of the natural resources of the shelf.⁵ This latter criterion was called the *exploitability criterion*.

2.3. The North Sea Continental Shelf cases, 1969

In the *North Sea Continental Shelf* cases in 1969, the International Court of Justice confirmed that these provisions of the Geneva Convention represented customary law.⁶ However, the Court also laid much stress on the continental shelf being the natural prolongation of the coastal State's land mass. The Court said the following: "More fundamental than the notion of proximity appears to be the principle ... of the natural prolongation or continuation of the land territory ..."⁷ This conclusion of the Court was to have big influence on the development of this issue at the Third United Nations Conference on the Law of the Sea in 1973 to 1982.

2.4. The Third United Nations Conference on the Law of the Sea

The exploitability criterion used in the 1958 Geneva Convention to define the outer limits of the continental shelf was subject to a lot of criticism. This criterion was considered too imprecise and unclear. It became obvious to States that if it was to be maintained, new technology would push the limit farther and farther from the shore and that, eventually, coastal State continental shelf claims would cover the entire ocean floor.

In 1970 the United Nations General Assembly adopted a resolution where the deep seabed beyond national jurisdiction was declared the common heritage of mankind.⁸ This also called for a clearer and more decisive definition of the outer limits of the continental shelf.

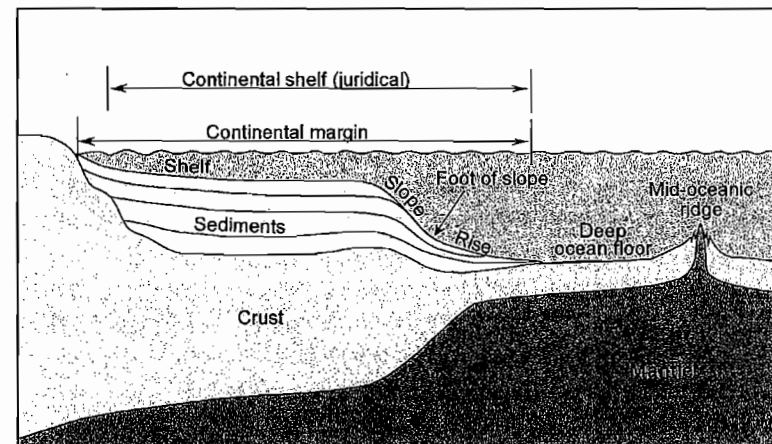
While there was general agreement at the Third United Nations Conference on the Law of the Sea to build on the provisions of the Geneva Convention regarding the legal status of the continental shelf and its inner limit, there were divergent views on what the definition of the outer limit should be. Many States favoured a continental shelf limit which coincided, in all circumstances, with the 200-M exclusive economic zone. This position followed from the fact that physically, most States do not have any possibility of extending their continental shelf jurisdiction beyond 200 M. However, a number of coastal States with a potential for extended

continental shelves favoured a definition which would, subject to certain conditions, extend the continental shelf seaward of the 200-M limit.

After lengthy and complicated negotiations, a compromise was reached between the two groups. It was recognized that coastal States could, subject to detailed conditions that I will describe in a moment, extend their continental shelf jurisdiction beyond 200 M. In turn the coastal States in question agreed on a provision pertaining to revenue sharing with respect to exploitation of non-living resources of the continental shelf beyond 200 M.⁹

3. DETERMINATION OF THE OUTER LIMITS OF THE CONTINENTAL SHELF

The provisions on the continental shelf are to be found in Part VI of the 1982 Convention on the Law of the Sea. The first article, article 76, deals with the definition of the continental shelf. The determination of the outer limits of the continental shelf is a complicated process and I think it is practical to go through it in four steps.



Picture 2

3.1. General definition of the continental shelf

Firstly, paragraph 1 of article 76 provides the general legal definition of the continental shelf:

The continental shelf of a coastal State comprises the seabed and subsoil of the submarine areas that extend beyond its territorial sea throughout the natural prolongation of its land territory to the outer edge of the continental margin, or to a distance of 200 nautical miles from the baselines from which the breadth of the territorial sea is measured where the outer edge of the continental margin does not extend up to that distance.

This paragraph establishes the right of coastal States to determine the outer limits of the continental shelf by means of two criteria based on either natural prolongation or distance. The latter provides a minimum breadth of the continental shelf of 200 M. It applies in cases where the natural prolongation does not reach that limit.

Natural prolongation is the key parameter in the general part of the definition of the continental shelf. By the plain meaning of the word “prolongation” the required continuity must be unbroken from the shoreline to the outer edge of the continental margin.

It follows that a coastal State can not avail itself of the minimum 200-M provision in order then to apply natural prolongation only from that limit farther seaward, and not all the way from the shore.

Paragraph 4 (a) of article 76 suggests the formulation of a *test of appurtenance* in order to entitle a coastal State to extend the outer limits of the continental shelf beyond the limit set by the 200-M distance criterion. This test consists in the demonstration of the fact that the natural prolongation of its land territory to the outer edge of the continental margin extends beyond the 200-M limit.¹⁰

Paragraph 3 describes the *continental margin* as comprising “the submerged prolongation of the land mass of the coastal State”, and as consisting “of the seabed and subsoil of the shelf, the slope and the rise.” The continental margin “does not include the deep ocean floor with its oceanic ridges or the subsoil thereof.”

Apparently, the definition of the continental margin is first and foremost based on geomorphology, or submarine landscape, and it is neutral with respect to crustal type, in the sense of “continental” and

“oceanic” crust. No reference is made to crustal type in article 76 despite many suggestions to that effect during the negotiations. This implies that the submerged prolongation of the landmass of a coastal State, regardless of its characteristics, comprises its continental margin and creates its entitlement to a continental shelf.

My countryman, Steinar Thor Gudlaugsson, will deal specifically with natural prolongation and the concept of the continental margin in Panel II.

Finally, under the general part of the definition of the continental shelf, it should be borne in mind that according to article 121, paragraph 2, of the Law of the Sea Convention, the continental shelf of an island is determined in accordance with the provisions of the Convention applicable to other land territory. No distinction is thus made between the determination of the outer limits of the continental shelf of a mainland on the one hand and of an island on the other hand.

3.2. Determination of the foot of the slope

The second step in the process is the determination of the foot of the continental slope, which is a primary feature in the delimitation of the continental shelf beyond the 200-M limit. According to paragraph 4 (a), it is the reference baseline from which the breadth of the limits specified by the Irish formula and the Hedberg formula is measured.

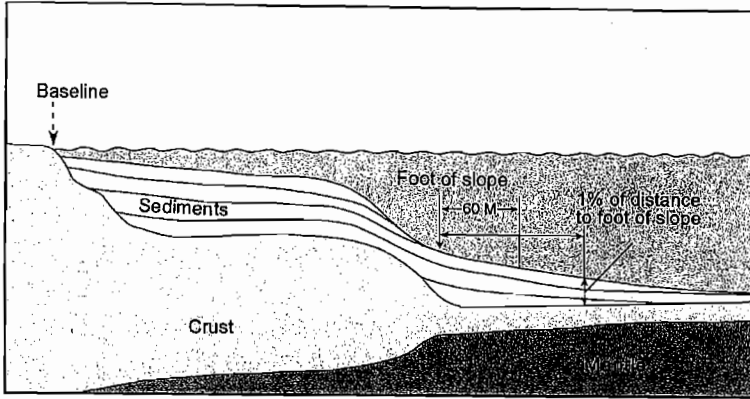
Paragraph 4 (b) provides a dual regime for the determination of the foot of the slope. According to the Scientific and Technical Guidelines of the Commission on the Limits of the Continental Shelf, as a general rule the foot of the slope shall be determined as the point of maximum change in the gradient at its base. This implies that morphological and bathymetric evidence shall be applied whenever possible.¹¹

However, when such evidence given by the maximum change in the gradient does not or cannot locate reliably the foot of the slope at its base, coastal States are allowed to use evidence to the contrary to the general rule, which is the best geological and geophysical evidence available to them, to locate the foot of the slope.¹²

In Panel II Dave Monahan will deal with the determination of the foot of the slope on the basis of the general rule, and Richard T. Haworth will deal with the determination of the foot of the slope by means of evidence to the contrary to the general rule.

3.3. Determination of the outer limits of the continental margin

The third step is establishing the outer edge of the continental margin when it extends beyond the 200-M mark by two alternative formulas set out in paragraph 4 (a).



Picture 3

The *Irish formula* entails drawing a line connecting points not more than 60 M apart, at each of which points the thickness of sediments is at least 1 per cent of the shortest distance from such point to the foot of the slope. Thus, if the formula is to apply at a distance of 100 M from the foot of the slope, 1-M thickness of sediment must be present.

The aim of the Irish formula was to ensure that coastal State sovereign rights would extend to a major portion of the continental rise where significant hydrocarbon resources were expected to exist.

According to the Scientific and Technical Guidelines, the Commission invokes a principle of continuity in the application of this formula to state that:

“(a) to establish fixed points a coastal State may choose the outermost location where the 1 per cent or greater sediment thickness occurs within and below the same continuous sedimentary apron; and that

(b) for each of the fixed points chosen the Commission expects documentation of the continuity between the sediments at these points and the sediments at the foot of the continental slope.”¹³

The *Hedberg formula* entails drawing a line connecting points not more than 60 M apart, which points are not more than 60 M from the foot of the slope.

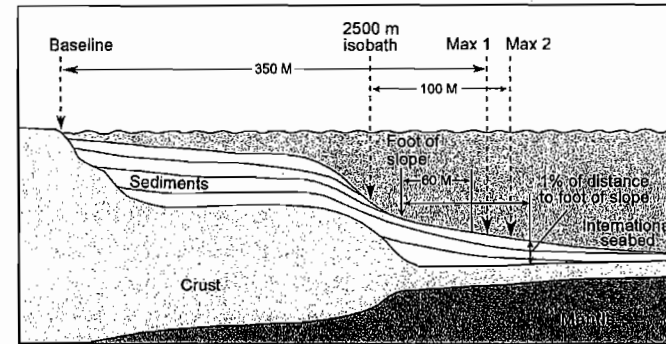
A State may apply the two formulas alternatively; it may apply the Irish formula in certain portions of its continental shelf and the Hedberg formula in other portions, in a manner to maximize its entitlement.

Clearly, the application of the formulas in determining the outer limits of the continental margin results in a considerable limitation of the continental shelf compared to the general definition of the continental shelf.

3.4. Maximum limits of the continental shelf

The fourth and last step in the process of determining the outer limits of the continental shelf consists of further constraints, the maximum limits.

According to paragraph 5 of article 76, the fixed points drawn in accordance with the Irish formula and the Hedberg formula shall either not exceed 350 M from the baseline of the territorial sea or shall not exceed 100 M from the 2,500 metre isobath, which is a



Picture 4

line connecting the depth of 2,500 metres. The first constraint is based purely on a distance criterion, whereas the second is based on a depth-cum-distance criterion.

As the formulas, the constraints may, as a general rule, be used alternatively, and only one of them has to be respected in each portion of the continental shelf. It should be emphasized, however, that the constraints do not provide per se the basis for entitlement to an extended continental shelf. They are solely constraints to the lines produced by the Irish and Hedberg formulas in order to delineate the outer limits of the continental shelf.

By virtue of paragraph 6, the 100 M from the 2,500 meter isobath constraint may not be used on submarine ridges – the maximum limit on such ridges is fixed at 350 M. This exception does not apply to submarine elevations that are natural components of the continental margin, such as its plateaux, rises, caps, banks and spurs.

3.5. Ridges

I have mentioned three types of sea floor highs that are all subject to different treatment:

1. According to paragraph 3 of article 76, the continental margin does not include the deep ocean floor with its *oceanic ridges*.
2. According to paragraph 6, the maximum limit on *submarine ridges* is 350 M from the baseline of the territorial sea.
3. According also to paragraph 6, both constraints can be applied to *submarine elevations* that are natural components of the continental margin.

Submarine ridges have been described as ridges that are part of the natural prolongation of the land territory of a coastal State¹⁴ and are thus distinct from oceanic ridges of the deep ocean floor. Based on the concept of neutrality with respect to crustal type, however, it would seem that submarine ridges are not easily distinguished from submarine elevations.¹⁵

In Panel III on ridge issues, Philip A. Symonds will give a scientific overview of ridges related to article 76, Arthur Grantz will speak on treatment of ridges and borderland under article 76 and take the example

of the Arctic Ocean, and Harald Brekke will deal with the ridge provisions of article 76.

3.6. Commission on the Limits of the Continental Shelf

The Commission on the Limits of the Continental Shelf is one of the three institutions set up by the Law of the Sea Convention. The Commission was an integral part of the compromise reached regarding article 76 and its provisions on the determination of the outer limits of the continental shelf.

3.6.1. Functions

According to paragraph 8 of article 76, the coastal State shall submit information on the limits of the continental shelf beyond the 200-M limit to the Commission on the Limits of the Continental Shelf set up under Annex II to the Convention. After reviewing the submitted information, the Commission shall make recommendations to the coastal State on matters related to the establishment of the outer limits of the continental shelf. The limits of the shelf established by the coastal State on the basis of these recommendations shall be final and binding.

Annex II, article 4, provides that where a coastal State intends to establish the outer limits of its continental shelf beyond 200 M, it shall submit particulars of such limits to the Commission along with supporting scientific and technical data as soon as possible, but in any case within 10 years of the entry into force of the Convention for that State.

The Convention entered into force on 16 November 1994, but at the Eleventh Meeting of the States Parties to the Convention in 2001, the States Parties decided that the ten-year time period would commence as of 13 May 1999, the day the Commission adopted the Scientific and Technical Guidelines,¹⁶ for those States that were by that time Parties to the Convention.¹⁷

Besides making recommendations to coastal States regarding the establishment of their extended continental shelves, the Commission has the function of providing scientific and technical advice if requested by the coastal State concerned during the preparation of the relevant data.¹⁸

Finally, from the recommendatory role of the Commission follows that it has the function of interpreting the Convention – in particular article 76. The Scientific and Technical Guidelines of the Commission, which are not

legally binding, represent in essence an interpretation thereof. According to the Guidelines, the Commission aims to “clarify its interpretation of scientific, technical and legal terms contained in the Convention. Clarification is required in particular because the Convention makes use of scientific terms in a legal context which at times departs significantly from accepted scientific definitions and terminology.”¹⁹

In Panel IV Peter F. Croker will talk about the progress of the Commission to date and future challenges.

3.6.2. Composition

The Commission consists of 21 members who shall be experts in the field of geology, geophysics or hydrography. They are elected by the States Parties from among their nationals, having due regard to the need to ensure equitable geographical representation. They serve in a personal capacity.²⁰

The Convention does not provide for the participation of legal experts in the Commission. This omission has been criticized by many in light of the fact that, even though it is not a court, one of the cardinal functions of the Commission must necessarily be to interpret or apply the relevant provisions of the Convention, which is essentially a legal task.²¹

In my view, the absence of legal experts in the Commission makes it all the more important that the members of the Commission not only get good legal support from the UN Secretariat but also that they themselves appreciate the legal framework and context provided by the Law of the Sea Convention, in particular article 76. This includes the *travaux préparatoires* and compromises reached at the Law of the Sea Conference,²² which do not necessarily make much sense from a strictly scientific point of view.

3.6.3. Interpretation of article 76, paragraph 8

Paragraph 8 of article 76 gives rise to many questions regarding its interpretation. According to the paragraph, coastal States shall make a submission to the Commission within the 10-year period. What happens if they do not? Although States Parties are under a legal obligation to comply with the provisions of the Convention, there is no sanction for failure to make a submission within that period. Article 77, paragraph 3, provides that the rights of the coastal State over the continental shelf do

not depend on occupation, effective or notional, or any express proclamation. However, a coastal State that explores the continental shelf or exploits its natural resources beyond 200 M before its outer limits are final and binding faces a degree of uncertainty, in particular if there is a bilateral issue involved with a neighbouring opposite or adjacent State.²³

Are non-Parties under the obligation under customary international law, or are they allowed, on the basis of the Convention or customary law, to make a submission to the Commission? In my view, that does not appear to be the case, even though the term *coastal State* is used both in paragraph 8 and in Annex II, article 4.²⁴ In any event, this question may prove academic if the relevant non-Parties decide to ratify the Convention. Canada and Denmark, for example, are now in the final stages of their ratification process.

In his presentation in Panel IV, Alexei A. Zinchenko will deal with this question and other emerging issues in the work of the Commission, including the issue of confidentiality, which I will not deal with here.

The last sentence of paragraph 8 reads: “The limits of the continental shelf established by a coastal State *on the basis of* these recommendations shall be *final and binding* [emphasis added].”

What if the coastal State disagrees with the recommendations of the Commission? Article 8 of Annex II provides that in such a situation the coastal State shall, within a reasonable time, make a revised or new submission to the Commission. This process, which theoretically could go on indefinitely, has been described as being a *narrowing down ping-pong procedure*.²⁵ Preferably this process between the coastal State and the Commission should be continued until some accommodation is reached.²⁶

Failing that, however, it has to be borne in mind that the Commission has only *recommendatory* powers and it has not been granted the power to impose its recommendations on coastal States, thus determining the outer limits of the continental shelves of coastal States.²⁷ The coastal State has the sovereign rights to establish the outer limits.

The Commission has also not been granted the power to submit any dispute concerning the determination of the limit of the outer continental shelf to the dispute settlement procedures provided for in the Convention.²⁸ This would include a dispute on whether or not outer limits established by the coastal State are *on the basis of* recommendations of the Commission.²⁹ The International Seabed Authority does not either possess the *locus standi* to mount a legal action with respect to any dispute

concerning the outer limits of the continental shelf. Only those third States directly affected seem to have the possibility to take legal action.³⁰

The use of the words *on the basis of* seems to provide the coastal State with some flexibility, although unspecified.³¹ However, it seems to imply a closer fit between a coastal State's established outer limit and Commission recommendations than the alternative wording of *taking into account* that was considered during the negotiations at the Law of the Sea Conference.³²

My predecessor at the Foreign Ministry, Gudmundur Eiriksson, will discuss the case of disagreement between the coastal State and the Commission in Panel IV.

According to paragraph 8, the limits established by the coastal State on the basis of the recommendations of the Commission shall be *final*. This means that, unlike under the evolutionary exploitability rule of the Geneva Convention,³³ the limits are established once and for all.

On whom are the limits binding? The submitting State alone or other States as well?

The US Government has noted that "final and *binding*" means that a claim may not be contested.³⁴ One author states that the limit thus established will become obligation *erga omnes*, which means final and binding on all States.³⁵ This suggests that "final and *binding*" applies to both the submitting State and all other States. If this is the case then the recommendations of the Commission obviously carry much more weight than if the limits established on the basis thereof would only be binding on the submitting State.

However, some authors are of the opinion that only the submitting State is bound and that other States are not deprived of their legal right to disagree with and challenge another State's established outer limit, even if that outer limit delineation can be said to be on the basis of Commission recommendations.³⁶

My view on this question is that if the coastal State establishes the outer limits of its continental shelf on the basis of the recommendations of the Commission, then the limits are binding on the coastal State and all States Parties to the Convention, but not on non-Parties.

3.6.4. *Submissions in cases of unresolved land or maritime disputes*

According to article 9 of Annex II to the Convention, the actions of the Commission shall not prejudice matters relating to delimitation of

boundaries between States with opposite or adjacent coasts. This problem is dealt with by Rule 44 of and Annex I to the Rules of Procedure adopted by the Commission on 4 September 1998.³⁷

In its Rules the Commission first expressly recognizes that the competence with respect to matters regarding disputes that may arise in connection with the establishment of the outer limits of the continental shelf rests with States.³⁸

The Rules provide for the possibility of partial submissions. A submission may be made by a coastal State for a portion of its continental shelf in order not to prejudice questions relating to the delimitation of boundaries between States in any other portion or portions of the continental shelf for which a submission may be made later, notwithstanding the provisions regarding the ten-year period.³⁹

According to the Rules, in cases where a land or maritime dispute exists, the Commission shall not examine and qualify a submission made by any of the States concerned in the dispute. However, the Commission may examine one or more submissions in the areas under dispute with prior consent given by all States that are parties to such a dispute.⁴⁰ Two or more States are entitled to make joint or separate submissions by agreement.⁴¹

This is very important as it is clear that the outer limits of the continental shelf will not be finally established without recommendations by the Commission.⁴²

In order to settle issues finally in a disputed area of an extended continental shelf, two things are required: First, the coastal States in question must reach an agreement on how to divide the disputed area between them, or, alternatively, agree on a joint exploitation area. Second, the coastal States concerned must establish the outer limits of the continental shelf, vis-à-vis the international seabed area, after having made joint or separate submissions to the Commission and having received recommendations from the Commission.

In Panel IV Alex G. Oude Elferink will address submissions of coastal States to the Commission in cases of unresolved land or maritime disputes, and David A. Colson will deal with delimitation of the outer continental shelf between States with opposite or adjacent coasts.

3.7. Submission of charts and other information to the UN and publication thereof

Paragraph 9 of article 76 describes the last stage in the process of the coastal State in the determination of the outer limits of its continental shelf. It shall submit to the Secretary-General of the United Nations charts and relevant information, including geodetic data, permanently describing the outer limits of its continental shelf. The Secretary-General shall give due publicity thereto.

These provisions ensure that other States and institutions are informed of the extent of a coastal State's continental shelf.

Before turning my remarks to the legal status of the continental shelf, I would like to mention that Panel V will deal with case studies on the implementation of article 76 and the International Seabed Authority.

4. THE LEGAL STATUS OF THE CONTINENTAL SHELF

4.1. Rights of coastal States over the continental shelf

According to article 77 of the Law of the Sea Convention, the coastal State exercises sovereign rights for the purpose of exploring the continental shelf and exploiting its natural resources.⁴³ The coastal State does not enjoy full sovereignty over the continental shelf, but functional rights and jurisdiction, as is the case in the exclusive economic zone.⁴⁴ This includes the right to construct artificial islands, installations and structures⁴⁵ and to authorize and regulate drilling⁴⁶ on the continental shelf. The coastal State also has jurisdiction over marine scientific research on its continental shelf⁴⁷ and can, in principle, withhold its consent to the conduct of resource oriented research on the shelf by another State.⁴⁸

The sovereign rights of the coastal State are exclusive in the sense that if it does not explore the continental shelf or exploit its natural resources, no one may undertake these activities without the express consent of the coastal State.⁴⁹

Paragraph 3 of article 77 codifies the rule established in the *North Sea Continental Shelf* cases in 1969 that the rights of the coastal State over the continental shelf do not depend on occupation, effective or notional, or on any express proclamation. The rights of the coastal State over the shelf

exist *ipso facto* and *ab initio* by virtue of its sovereignty over the land territory. In short, there is an inherent right.⁵⁰

4.2. Resources of the continental shelf

The resources of the continental shelf are the mineral resources and other non-living resources of the seabed and subsoil, together with so-called sedentary species,⁵¹ for instance some types of shellfish.

The most important resources are, of course, the huge oil and gas reserves, but various other types of resources, such as living organisms, are getting increased attention. With new technology we are able to both gain more information on the resources and have more possibilities of utilizing them.

Obviously, the existence of these resources makes the legal status of the continental shelf a very important matter. It is appropriate that we should include in this Conference a special panel, Panel VI, on the various resources of the shelf.

4.3. Legal status of the superjacent waters and rights of other States

The continental shelf only includes the seabed and the subsoil. The superjacent waters and the airspace above do not fall thereunder, and it is expressly stated in article 78 that the rights of the coastal State over the continental shelf do not affect the legal status of those areas.⁵²

On the high seas other States enjoy freedom of navigation, overflight, fishing and scientific research under article 87 of the Law of the Sea Convention. Within the exclusive economic zone other States only enjoy freedom of navigation and overflight.⁵³ According to article 79, all States are entitled to lay submarine cables and pipelines on the continental shelf, subject to the provisions of that article.

4.4. Payments and contributions with respect to the exploitation of the continental shelf beyond 200 M

The aforementioned provisions of the Law of the Sea Convention regarding the legal status of the continental shelf are almost repeated *ad verbatim* from the 1958 Geneva Convention. However, article 82, which provides for revenue sharing with respect to exploitation of non-living resources of the continental shelf beyond 200 M, is new to international

law. This provision, it will be recalled, formed an imperative part of the compromise at the Law of the Sea Conference on the definition of the outer limits of the continental shelf.⁵⁴

According to article 82, the coastal State shall make payments or contributions in kind in respect of the exploitation of the non-living resources of the continental shelf beyond the 200-M limit.⁵⁵ The payments and contributions shall be made annually with respect to all production at a site after the first five years of production at that site. For the sixth year, the rate of payment or contribution shall be 1 per cent of the value or volume of the production. The rate shall increase by 1 per cent for each subsequent year until the twelfth year and shall remain at 7 per cent thereafter.⁵⁶

The payments or contributions shall be made through the International Seabed Authority, which shall distribute them to States Parties to the Convention, on the basis of equitable sharing criteria, taking into account the interests and needs of developing States, particularly the least developed and the land-locked among them.⁵⁷

Notes

¹ See R.R. Churchill and A.V. Lowe, *The Law of the Sea*, Manchester University Press, 3rd edition, 1999, pp. 142–143.

² Proclamation No. 2667, Concerning the Policy of the United States with Respect to the Natural Resources of the Subsoil and Sea Bed of the Continental Shelf. Reproduced in the Code of Federal Regulations 1943–1948 Comp. 3, at p. 67.

³ See *Public Papers of the Presidents of the United States: Harry S. Truman (1945)*, p. 353 (1961). See further A.L. Hollick, “US Oceans Policy: the Truman Proclamation”, *Virginia Journal of International Law* 17 (1976–7), pp. 23–35.

⁴ Article 2(1) and (2) of the 1958 Convention on the Continental Shelf.

⁵ Article 1 of the 1958 Convention on the Continental Shelf.

⁶ [1969] *International Court of Justice Reports* 3.

⁷ *Ibid.*, at p. 31.

⁸ General Assembly Resolution 2749 (XXV) of 17 December 1970.

⁹ See further *United Nations Convention on the Law of the Sea 1982 – A Commentary*, ed. Myron H. Nordquist *et al.*, Center for Oceans Law and Policy, University of Virginia School of Law, vol. II, 1993, pp. 841–890 and p. 932.

¹⁰ See Scientific and Technical Guidelines of the Commission on the Limits of the Continental Shelf, United Nations Doc. CLCS/11, adopted on 13 May 1999, pp. 12–13.

¹¹ *Ibid.*, pp. 37–42.

¹² *Ibid.*, pp. 43–49.

¹³ *Ibid.*, pp. 56–67.

¹⁴ See *United Nations Convention on the Law of the Sea 1982 – A Commentary*, *supra* note 9, p. 880.

¹⁵ See further L.D.M. Nelson, “The Continental Shelf: Interplay of Law and Science”, in *Liber Amicorum Judge Shigeru Oda*, ed. N. Ando *et al.*, Kluwer Law International, 2002, pp. 1245–1247. According to Nelson, “[t]he interpretative statements made during plenary sessions of the Third United Nations Conference, with no dissenting voices, [by Denmark, Iceland and the United States] seem to form part of the travaux préparatoires of Article 76, especially of paragraphs 3 and 6 of that article. They must at least play a role in the interpretation of these difficult provisions.”, *ibid.*, p. 1247. The interpretative statements are reproduced in *ibid.*, pp. 1246–1247, and in *United Nations Convention on the Law of the Sea 1982 – A Commentary*, *supra* note 9, p. 870. See also Scientific and Technical Guidelines, *supra* note 10, pp. 52–55.

¹⁶ Scientific and Technical Guidelines, *supra* note 10.

¹⁷ Decision regarding the date of commencement of the ten-year period for making submissions to the Commission on the Limits of the Continental Shelf set out in article 4 of Annex II to the United Nations Convention on the Law of the Sea, United Nations Doc. SPLOS/72, adopted on 29 May 2001.

¹⁸ Article 3(1)(b) of Annex II to the Law of the Sea Convention.

¹⁹ Scientific and Technical Guidelines, *supra* note 10, p. 7.

²⁰ Article 2(1) of Annex II to the Law of the Sea Convention.

²¹ L.D.M. Nelson, *supra* note 15, p. 1238.

²² See *United Nations Convention on the Law of the Sea 1982 – A Commentary*, *supra* note 9, pp. 841–890. With respect to ridges see *supra* note 15.

²³ Robert W. Smith and George Taft, “Legal Aspects of the Continental Shelf”, in *Continental Shelf Limits – The Scientific and Legal Interface*, ed. Peter J. Cook *et al.*, Oxford University Press, 2000, pp. 21–22.

²⁴ For the opposite view see Ted L. McDorman, “The Role of the Commission on the Limits of the Continental Shelf: A Technical Body in a Political World”, *The International Journal of Marine and Coastal Law*, 17 (2002), No 3, pp. 303–304. See also L.D.M. Nelson, *supra* note 15, pp. 1248–1250.

²⁵ P.R.R. Gardiner, “The Limits of the Area beyond National Jurisdiction – Some Problems with Particular References to the Role of the Commission on the Limits of the Continental Shelf” in *Maritime Boundaries and Ocean Resources*, ed. G. Blake, Croom Helm, London, 1987, p. 69.

²⁶ L.D.M. Nelson, *supra* note 15, p. 1239.

²⁷ *Ibid.*, p. 1240.

²⁸ *Ibid.*, p. 1250.

²⁹ See Ted L. McDorman, *supra* note 24, p. 315.

³⁰ L.D.M. Nelson, *supra* note 15, pp. 1251–1252.

³¹ Robert W. Smith and George Taft, *supra* note 23, p. 20: “The “based upon” requirement in paragraph 8 ... provides certainty and consistency for the international community, while preserving sufficient, although unspecified, flexibility for the coastal State.”

³² See Ted L. McDorman, *supra* note 24, p. 314, and L.D.M. Nelson, *supra* note 15, pp. 1239–1240.

³³ Article 1 of the 1958 Convention on the Continental Shelf.

³⁴ *Commentary – The 1982 United Nations Convention on the Law of the Sea and the Agreement on Implementation of Part XI*, attached to the Letter of Submittal from the US Secretary of State to the US President, part of the Message of Transmittal of the Law of the Sea Convention from the US President to the US Congress, US Senate, Treaty Doc. 103–39, 103rd Congress, 2nd Session, 1994, p. 57: “If the coastal State agrees, the limits of the continental shelf established by the coastal State on the basis of these recommendations are final and binding (article 76(8)), thus providing stability to these claims which may not be contested.”

³⁵ J.C. Lupinacci, “El regimen de la plataforma continental en la Convencion sobre el Derecho del Mar” in *Trabajos presentados a la Conferencia Internacional sobre Recursos Marinos del Pacifico, Vina del Mar, Chile, 1983*, ed. P.M. Arana, as cited in United Nations, Division for Ocean Affairs and the Law of the Sea, Office of Legal Affairs, *The Law of the Sea: Definition of the Continental Shelf*, New York, 1993, p. 29.

³⁶ Ted L. McDorman, *supra* note 24, p. 315.

³⁷ Rules of Procedure of the Commission on the Limits of the Continental Shelf, United Nations Doc. CLCS/3/Rev.2, adopted on 4 September 1998. A third revised version of the Rules, United Nations Doc. CLCS/3/Rev.3, was adopted on 6 February 2001.

³⁸ *Ibid.*, Annex I, paragraph 1.

³⁹ *Ibid.*, Annex I, paragraph 3.

⁴⁰ *Ibid.*, Annex I, paragraph 5(a).

⁴¹ *Ibid.*, Annex I, paragraph 4.

⁴² See article 76(8) *in fine* of the Law of the Sea Convention.

⁴³ Article 77(1) of the Law of the Sea Convention.

⁴⁴ See article 56(1) of the Law of the Sea Convention.

⁴⁵ Article 80 of the Law of the Sea Convention.

⁴⁶ Article 81 of the Law of the Sea Convention.

⁴⁷ Article 246 of the Law of the Sea Convention.

⁴⁸ *Ibid.*, paragraph 5.

⁴⁹ Article 77(2) of the Law of the Sea Convention.

⁵⁰ [1969] *International Court of Justice Reports*, 3, at p. 23.

⁵¹ Article 77(4) of the Law of the Sea Convention.

⁵² Article 78(1) of the Law of the Sea Convention.

⁵³ Article 58(1) of the Law of the Sea Convention.

⁵⁴ See *United Nations Convention on the Law of the Sea 1982 – A Commentary*, *supra* note 9, pp. 841–890 and, in particular, p. 932.

⁵⁵ Article 82(1) of the Law of the Sea Convention.

⁵⁶ Article 82(2) of the Law of the Sea Convention.

⁵⁷ Article 82(3) of the Law of the Sea Convention.