# ON THE LAW OF THE SEA



# COMMISSION ON THE LIMITS OF THE CONTINENTAL SHELF

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SCIENTIFIC AND TECHNICAL GUIDELINES OF THE COMMISSION ON THE LIMITS OF THE CONTINENTAL SHELF

Annexes II-IV\* to the Guidelines adopted by the Commission on 3 September 1999 at its sixth session

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#### ANNEX II

# FLOWCHARTS AND ILLUSTRATIONS SUMMARIZING THE PROCEDURE FOR ESTABLISHING THE OUTER LIMITS OF THE CONTINENTAL SHELF

1. The purpose of Annex II is to provide a simplified outline of the Scientific and Technical Guidelines of the Commission, and to illustrate the procedures involved. It is not intended to introduce any new information or interpretation of the detailed descriptions contained in chapters 1 to 9 of the Guidelines. If the need for clarification arises, the reader is encouraged to consult the relevant parts of the chapters. Should any apparent contradiction between this Annex and the Guidelines occur as a result of this simplification process, then the Guidelines shall prevail.

2. The entire process for a coastal State to establish the outer limits of its continental shelf under article 76 of the Convention is presented in the Master Flowchart (fig. II.1) and five sub-flowcharts (figs. II.2 - II.6). These sub-flowcharts outline in greater detail the following five procedures shown in bold in the Master Flowchart:

- I. Establishment of the 200 M limit from the baselines (article 76
  (1));
- II. Determination of the foot of the continental slope:
  - (a) Maximum change in the gradient at the foot of the continental slope (article 76 (4));
  - (b) Evidence to the contrary to the general rule (article 76 (4) (b));
- III. Application of the formulae:
  - (a) Sediment thickness (article 76 (4) (a) (i));
  - (b) 60 M from the foot of the continental slope (article 76 (4) (a) (ii);
- IV. Determination of the limits in the case of submarine elevations and/or ridges (article 76 (3) and (6));
- V. Application of the constraints:
  - (a) 350 M from the baselines (article 76 (5), first provision);(b) 2500 metre isobath plus 100 M (article 76 (5), second provision).

3. For the application of the distance criteria of 200 or 350 nautical miles from the baselines from which the breadth of the territorial sea is measured, a coastal State may refer to the methodologies described in chapter 3 of the Guidelines.

4. The application of the formulae and constraints for establishing the outer limits of the continental shelf, defined by the criteria contained in

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article 76, is illustrated in figure II.7.

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- Figure II.7. Illustration of the application of various formulae and constraints for establishing the outer limits of the continental shelf.

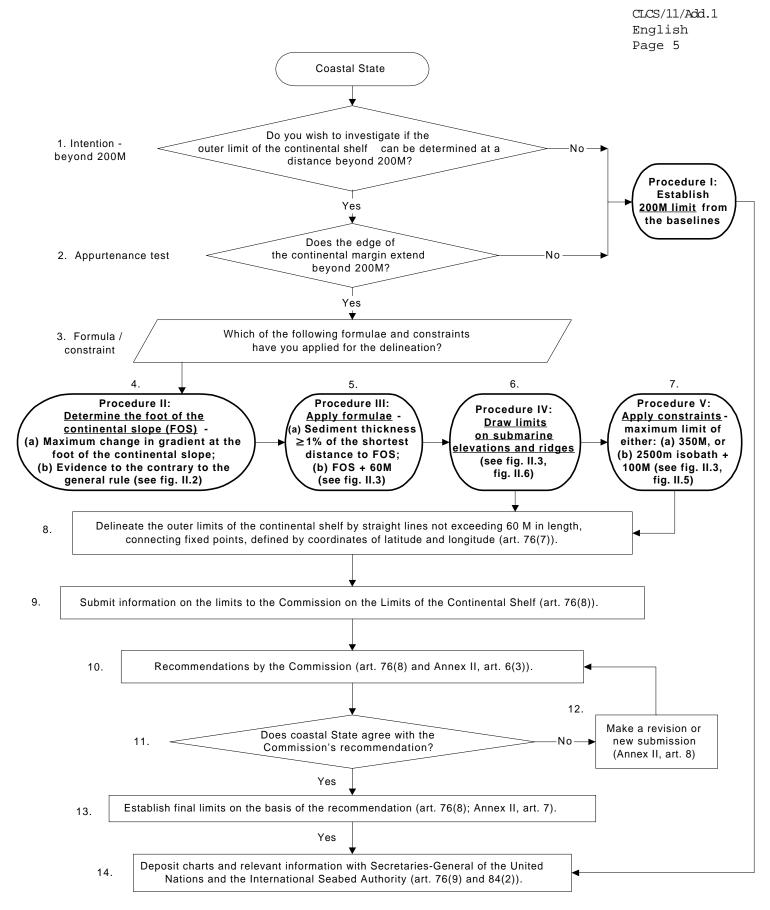


Figure II.1. Master Flowchart for the establishment of the outer limits of the continental shelf.

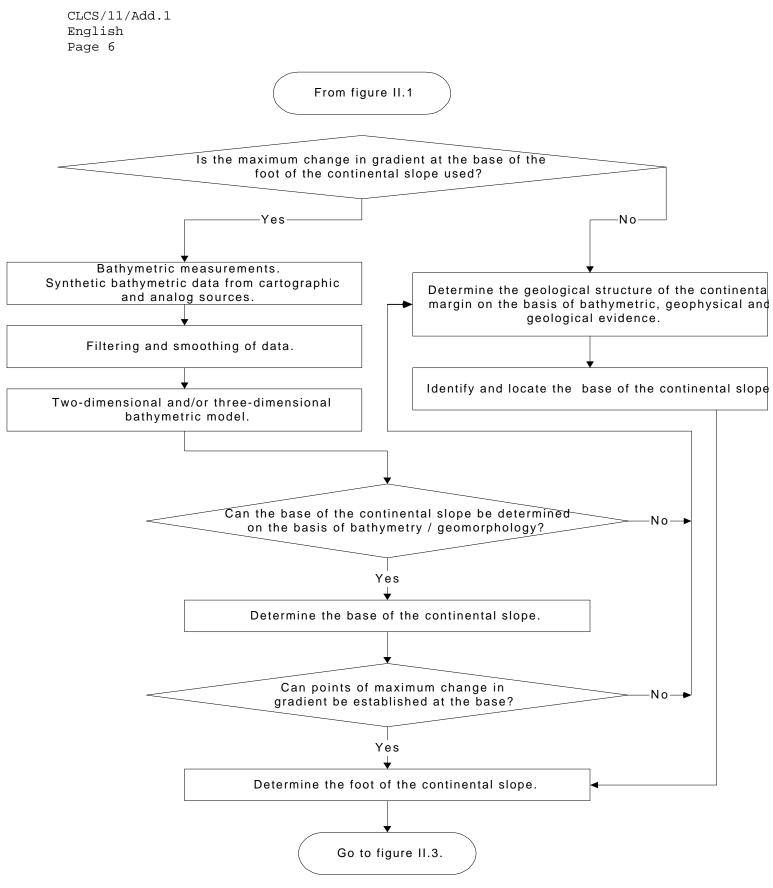


Figure II.2. Sub-flowchart showing the determination of the foot of the continental slope - indicated on Master Flowchart (fig. II.1) as procedure II.

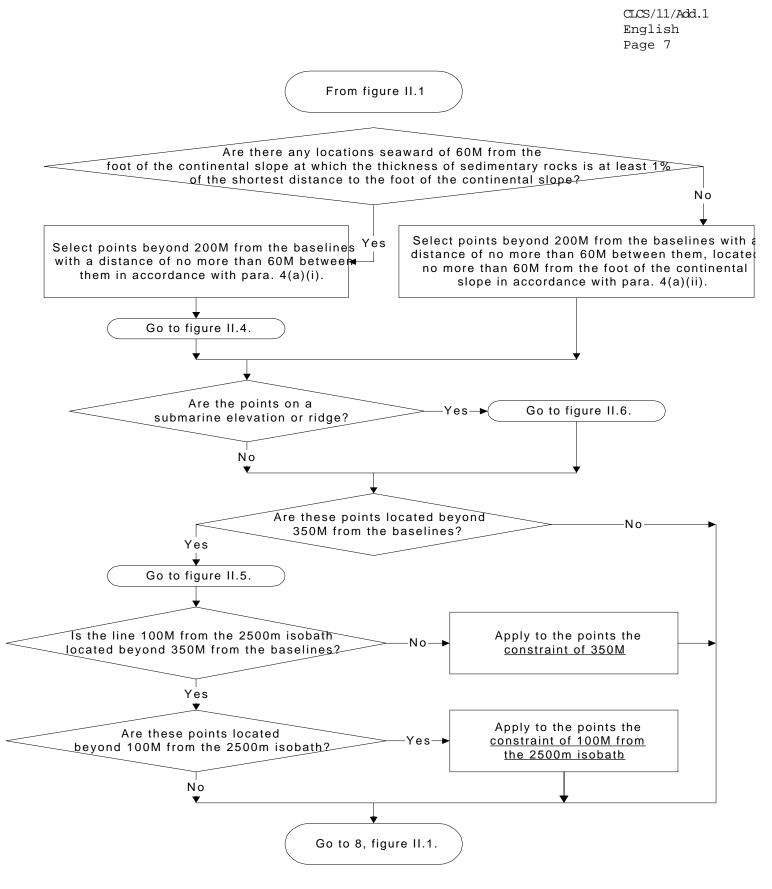


Figure II.3. Sub-flowchart showing the application of the distance formulae and constraints - indicated in Master Flowchart (fig. II.1) as procedures III and V.

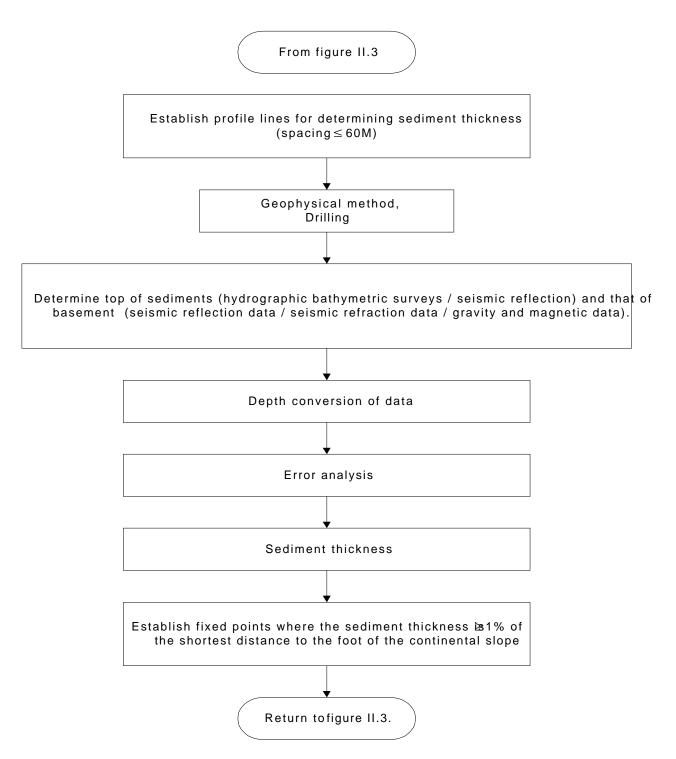


Figure II.4. Sub-flowchart showing the establishment of fixed points where the sediment thickness is  $\geq 1\%$  of the shortest distance to the foot of the continental slope - indicated on Master Flowchart (fig. II.1) as procedure III - application of formulae.

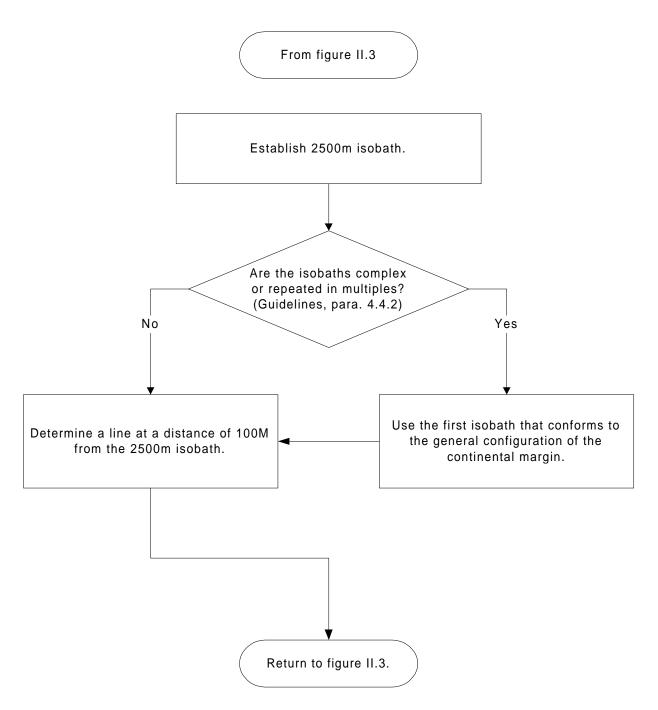


Figure II.5. Sub-flowchart showing the establishment of the 2500m isobath and determination of the 100M line from that isobath - indicated on Master Flowchart (fig. II.1) as procedure V - application of constraints.

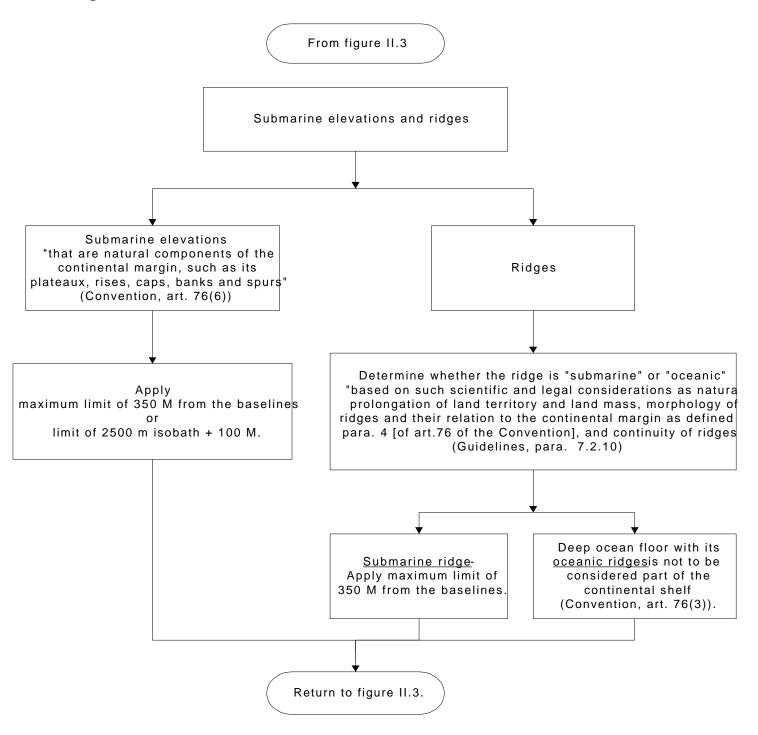


Figure II.6. Sub-flowchart showing the formulation of the solution to the problem arising from article 76 (3) and (6) and relating to sea floor highs, whether submarine elevations or ridges, indicated on Master Flowchart (fig. II.1) as procedure IV - determination of the limits in the case of submarine elevations and/or ridges.

Page 11 DETERMINATION OF THE FOOT OF ESTABLISHMENT OF THE 200 M LIMIT FROM THE BASELINES THE CONTINENTAL SLOPE (FOS) (a) Gradient FOS 200 M maximum (b) Evidence ine to the contrary \ to the general Land rule Territory of the Coastal State (a) FOS (b)\* 2500 m isobath + 100M /+ 60 M 100 M 2500 m isobath (b) sediment (a) 350 M thickness  $\geq 1\%$ maximum of the shortest distance to FOS APPLICATION OF APPLICATION OF CONSTRAINTS FORMULAE Note: \* This criterion applies in the case of submarine elevations but does not apply in the case of submarine ridges (see fig. II.6).

Figure II.7. Illustration of the application of various formulae and constraints for establishing the outer limits of the continental shelf.

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#### ANNEX III

# EXCERPTS FROM THE UNITED NATIONS CONVENTION ON THE LAW OF THE SEA AND THE FINAL ACT OF THE THIRD UNITED NATIONS CONFERENCE ON THE LAW OF THE SEA OF DIRECT RELEVANCE TO THE ISSUE OF THE CONTINENTAL SHELF

1. UNITED NATIONS CONVENTION ON THE LAW OF THE SEA

### PART VI

#### CONTINENTAL SHELF

#### Article 76

## Definition of the continental shelf

1. 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.

2. The continental shelf of a coastal State shall not extend beyond the limits provided for in paragraphs 4 to 6.

3. The continental margin comprises the submerged prolongation of the land mass of the coastal State, and consists of the seabed and subsoil of the shelf, the slope and the rise. It does not include the deep ocean floor with its oceanic ridges or the subsoil thereof.

- 4. (a) For the purposes of this Convention, the coastal State shall establish the outer edge of the continental margin wherever the margin extends beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured, by either:
  - a line delineated in accordance with paragraph 7 by reference to the outermost fixed points at each of which the thickness of sedimentary rocks is at least 1 per cent of the shortest distance from such point to the foot of the continental slope; or
  - (ii) a line delineated in accordance with paragraph 7 by reference to fixed points not more than 60 nautical miles from the foot of the continental slope.
  - (b) In the absence of evidence to the contrary, the foot of the continental slope shall be determined as the point of maximum change in the gradient at its base.

5. The fixed points comprising the line of the outer limits of the continental shelf on the seabed, drawn in accordance with paragraph 4 (a) (i) and (ii), either shall not exceed 350 nautical miles from the baselines from which the breadth of the territorial sea is measured or shall not exceed 100 nautical miles from the 2,500 metre isobath, which is a line connecting the depth of 2,500 metres.

6. Notwithstanding the provisions of paragraph 5, on submarine ridges, the outer limit of the continental shelf shall not exceed 350 nautical miles from the baselines from which the breadth of the territorial sea is measured. This paragraph does not apply to submarine elevations that are natural components of the continental margin, such as its plateaux, rises, caps, banks and spurs.

7. The coastal State shall delineate the outer limits of its continental shelf, where that shelf extends beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured, by straight lines not exceeding 60 nautical miles in length, connecting fixed points, defined by coordinates of latitude and longitude.

8. Information on the limits of the continental shelf beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured shall be submitted by the coastal State to the Commission on the Limits of the Continental Shelf set up under Annex II on the basis of equitable geographical representation. The Commission shall make recommendations to coastal States on matters related to the establishment of the outer limits of their continental shelf. The limits of the shelf established by a coastal State on the basis of these recommendations shall be final and binding.

9. The coastal State shall deposit with 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.

10. The provisions of this article are without prejudice to the question of delimitation of the continental shelf between States with opposite or adjacent coasts.

#### Article 77

# Rights of the coastal State over the continental shelf

1. The coastal State exercises over the continental shelf sovereign rights for the purpose of exploring it and exploiting its natural resources.

2. The rights referred to in paragraph 1 are exclusive in the sense that if the coastal State 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.

3. The rights of the coastal State over the continental shelf do not depend on occupation, effective or notional, or on any express proclamation. 4. The natural resources referred to in this Part consist of the mineral and other non-living resources of the seabed and subsoil together with living organisms belonging to sedentary species, that is to say, organisms which, at the harvestable stage, either are immobile on or under the seabed or are unable to move except in constant physical contact with the seabed or the subsoil.

# Article 78

# Legal status of the superjacent waters and airspace and the rights and freedoms of other States

1. The rights of the coastal State over the continental shelf do not affect the legal status of the superjacent waters or of the airspace above those waters.

2. The exercise of the rights of the coastal State over the continental shelf must not infringe or result in any unjustifiable interference with navigation and other rights and freedoms of other States as provided for in this Convention.

# Article 79

# Submarine cables and pipelines on the continental shelf

1. All States are entitled to lay submarine cables and pipelines on the continental shelf, in accordance with the provisions of this article.

2. Subject to its right to take reasonable measures for the exploration of the continental shelf, the exploitation of its natural resources and the prevention, reduction and control of pollution from pipelines, the coastal State may not impede the laying or maintenance of such cables or pipelines.

3. The delineation of the course for the laying of such pipelines on the continental shelf is subject to the consent of the coastal State.

4. Nothing in this Part affects the right of the coastal State to establish conditions for cables or pipelines entering its territory or territorial sea, or its jurisdiction over cables and pipelines constructed or used in connection with the exploration of its continental shelf or exploitation of its resources or the operations of artificial islands, installations and structures under its jurisdiction.

5. When laying submarine cables or pipelines, States shall have due regard to cables or pipelines already in position. In particular, possibilities of repairing existing cables or pipelines shall not be prejudiced.

#### Article 80

# <u>Artificial islands, installations and structures</u> <u>on the continental shelf</u>

Article 60 applies <u>mutatis mutandis</u> to artificial islands, installations and structures on the continental shelf.

# Article 81

## Drilling on the continental shelf

The coastal State shall have the exclusive right to authorize and regulate drilling on the continental shelf for all purposes.

#### Article 82

# <u>Payments and contributions with respect to the exploitation</u> of the continental shelf beyond 200 nautical miles

1. 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 200 nautical miles from the baselines from which the breadth of the territorial sea is measured.

2. 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 production at the site. The rate shall increase by 1 per cent for each subsequent year until the twelfth year and shall remain at 7 per cent thereafter. Production does not include resources used in connection with exploitation.

3. A developing State which is a net importer of a mineral resource produced from its continental shelf is exempt from making such payments or contributions in respect of that mineral resource.

4. The payments or contributions shall be made through the Authority, which shall distribute them to States Parties to this 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.

#### Article 83

# Delimitation of the continental shelf between States with opposite or adjacent coasts

1. The delimitation of the continental shelf between States with opposite or adjacent coasts shall be effected by agreement on the basis of international law, as referred to in Article 38 of the Statute of the International Court of Justice, in order to achieve an equitable solution. 2. If no agreement can be reached within a reasonable period of time, the States concerned shall resort to the procedures provided for in Part XV.

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

4. Where there is an agreement in force between the States concerned, questions relating to the delimitation of the continental shelf shall be determined in accordance with the provisions of that agreement.

## Article 84

# Charts and lists of geographical coordinates

1. Subject to this Part, the outer limit lines of the continental shelf and the lines of delimitation drawn in accordance with article 83 shall be shown on charts of a scale or scales adequate for ascertaining their position. Where appropriate, lists of geographical coordinates of points, specifying the geodetic datum, may be substituted for such outer limit lines or lines of delimitation.

2. The coastal State shall give due publicity to such charts or lists of geographical coordinates and shall deposit a copy of each such chart or list with the Secretary-General of the United Nations and, in the case of those showing the outer limit lines of the continental shelf, with the Secretary-General of the Authority.

# Article 85

#### Tunnelling

This Part does not prejudice the right of the coastal State to exploit the subsoil by means of tunnelling, irrespective of the depth of water above the subsoil.

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

#### ANNEX II. COMMISSION ON THE LIMITS OF THE CONTINENTAL SHELF

## <u>Article 1</u>

In accordance with the provisions of article 76, a Commission on the Limits of the Continental Shelf beyond 200 nautical miles shall be established in conformity with the following articles.

#### Article 2

1. The Commission shall consist of 21 members who shall be experts in the field of geology, geophysics or hydrography, elected by States Parties to this Convention from among their nationals, having due regard to the need to ensure equitable geographical representation, who shall serve in their personal capacities.

2. The initial election shall be held as soon as possible but in any case within 18 months after the date of entry into force of this Convention. At least three months before the date of each election, the Secretary-General of the United Nations shall address a letter to the States Parties, inviting the submission of nominations, after appropriate regional consultations, within three months. The Secretary-General shall prepare a list in alphabetical order of all persons thus nominated and shall submit it to all the States Parties.

3. Elections of the members of the Commission shall be held at a meeting of States Parties convened by the Secretary-General at United Nations Headquarters. At that meeting, for which two thirds of the States Parties shall constitute a quorum, the persons elected to the Commission shall be those nominees who obtain a two-thirds majority of the votes of the representatives of States Parties present and voting. Not less than three members shall be elected from each geographical region.

4. The members of the Commission shall be elected for a term of five years. They shall be eligible for re-election.

5. The State Party which submitted the nomination of a member of the Commission shall defray the expenses of that member while in performance of Commission duties. The coastal State concerned shall defray the expenses incurred in respect of the advice referred to in article 3, paragraph 1 (b), of this Annex. The secretariat of the Commission shall be provided by the Secretary-General of the United Nations.

# <u>Article 3</u>

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- 1. The functions of the Commission shall be:
  - (a) 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 to make recommendations in accordance with article 76 and the Statement of Understanding adopted on 29 August 1980 by the Third United Nations Conference on the Law of the Sea;
  - (b) to provide scientific and technical advice, if requested by the coastal State concerned during the preparation of the data referred to in subparagraph (a).

2. The Commission may cooperate, to the extent considered necessary and useful, with the Intergovernmental Oceanographic Commission of UNESCO, the International Hydrographic Organization and other competent international organizations with a view to exchanging scientific and technical information which might be of assistance in discharging the Commission's responsibilities.

# <u>Article 4</u>

Where a coastal State intends to establish, in accordance with article 76, the outer limits of its continental shelf beyond 200 nautical miles, 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 this Convention for that State. The coastal State shall at the same time give the names of any Commission members who have provided it with scientific and technical advice.

# <u>Article 5</u>

Unless the Commission decides otherwise, the Commission shall function by way of subcommissions composed of seven members, appointed in a balanced manner taking into account the specific elements of each submission by a coastal State. Nationals of the coastal State making the submission who are members of the Commission and any Commission member who has assisted a coastal State by providing scientific and technical advice with respect to the delineation shall not be a member of the subcommission dealing with that submission but has the right to participate as a member in the proceedings of the Commission concerning the said submission. The coastal State which has made a submission to the Commission may send its representatives to participate in the relevant proceedings without the right to vote.

# <u>Article 6</u>

1. The subcommission shall submit its recommendations to the Commission.

2. Approval by the Commission of the recommendations of the subcommission shall be by a majority of two thirds of Commission members present and voting.

3. The recommendations of the Commission shall be submitted in writing to the coastal State which made the submission and to the Secretary-General of the United Nations.

# <u>Article 7</u>

Coastal States shall establish the outer limits of the continental shelf in conformity with the provisions of article 76, paragraph 8, and in accordance with the appropriate national procedures.

# Article 8

In the case of disagreement by the coastal State with the recommendations of the Commission, the coastal State shall, within a reasonable time, make a revised or new submission to the Commission.

# <u>Article 9</u>

The actions of the Commission shall not prejudice matters relating to delimitation of boundaries between States with opposite or adjacent coasts.

## 3. FINAL ACT OF THE THIRD UNITED NATIONS CONFERENCE ON THE LAW OF THE SEA

# ANNEX II. STATEMENT OF UNDERSTANDING CONCERNING A SPECIFIC METHOD TO BE USED IN ESTABLISHING THE OUTER EDGE OF THE CONTINENTAL MARGIN

#### The Third United Nations Conference on the Law of the Sea,

<u>Considering</u> the special characteristics of a State's continental margin where: (1) the average distance at which the 200 metre isobath occurs is not more than 20 nautical miles; (2) the greater proportion of the sedimentary rock of the continental margin lies beneath the rise; and

Taking into account the inequity that would result to that State from the application to its continental margin of article 76 of the Convention, in that, the mathematical average of the thickness of sedimentary rock along a line established at the maximum distance permissible in accordance with the provisions of paragraph 4 (a) (i) and (ii) of that article as representing the entire outer edge of the continental margin would not be less than 3.5 kilometres; and that more than half of the margin would be excluded thereby;

<u>Recognizes</u> that such State may, notwithstanding the provisions of article 76, establish the outer edge of its continental margin by straight lines not exceeding 60 nautical miles in length connecting fixed points, defined by latitude and longitude, at each of which the thickness of sedimentary rock is not less than 1 kilometre,

Where a State establishes the outer edge of its continental margin by applying the method set forth in the preceding paragraph of this statement, this method may also be utilized by a neighbouring State for delineating the outer edge of its continental margin on a common geological feature, where its outer edge would lie on such feature on a line established at the maximum distance permissible in accordance with article 76, paragraph 4 (a) (i) and (ii), along which the mathematical average of the thickness of sedimentary rock is not less than 3.5 kilometres,

The Conference requests the Commission on the Limits of the Continental Shelf set up pursuant to Annex II of the Convention, to be governed by the terms of this Statement when making its recommendations on matters related to the establishment of the outer edge of the continental margins of these States in the southern part of the Bay of Bengal.

#### ANNEX IV

#### MEMBERS OF THE COMMISSION ON THE LIMITS OF THE CONTINENTAL SHELF (1997-2002)

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