Article 76

Variations in annotation and implementation seen in submission documents for the claim of Extended Continental Shelf

Shin TANI

Chairman of ABLOS
IHO/IAG Advisory Board on the Law of the Sea

t@ni.777.ac
ABLOS

United Nations Convention on the Law Of the Sea
UNCLOS
Law Of the Sea Treaty
LOST

ABLOS
not AB-LOS
| **abandon** | **abject** | **abrogate** |
| **abase** | **abjure** | **abrupt** |
| **abash** | **ablation** | **abscess** |
| **abattoir** | **abnormal** | **abscond** |
| **abduct** | **abolish** | **absence** |
| **aberrance** | **abomb** | **absurd** |
| **abet** | **abominate** | **abuse** |
| **abeyance** | **abort** | **abusive** |
| **abhor** | **abrade** | **abysmal** |
| **abide** | | |
ABLOS

United Nations Convention on the Law Of the Sea

UNCLOS

Law Of the Sea Treaty

LOST

ABLOS

not AB-LOS

IHO/IAG Advisory Board on the Law Of the Sea
TOR of ABLOS

To provide advice, guidance and, where applicable, offer expert interpretation of the technical aspects of the Law of the Sea to the parent Organizations, their Member States or to other organizations on request.
**UNCLOS and ABLOS**

**UNCLOS** a very technical convention

<table>
<thead>
<tr>
<th>Term</th>
<th>Appearances</th>
<th>Times</th>
<th>Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>chart</td>
<td>12</td>
<td>20</td>
<td>Hydrography</td>
</tr>
<tr>
<td>distance</td>
<td>10</td>
<td>14</td>
<td>Geodesy</td>
</tr>
<tr>
<td>nautical mile</td>
<td>11</td>
<td>11</td>
<td>Geodesy</td>
</tr>
<tr>
<td>coordinate</td>
<td>3</td>
<td>6</td>
<td>Geodesy</td>
</tr>
<tr>
<td>low tide elevation</td>
<td>2</td>
<td>6</td>
<td>Hydrography</td>
</tr>
<tr>
<td>low water line</td>
<td>4</td>
<td>5</td>
<td>Hydrography</td>
</tr>
<tr>
<td>low water mark</td>
<td>1</td>
<td>5</td>
<td>Hydrography</td>
</tr>
<tr>
<td>metre</td>
<td>3</td>
<td>4</td>
<td>Geodesy</td>
</tr>
<tr>
<td>ratio of water &amp; land</td>
<td>1</td>
<td>2</td>
<td>Geodesy</td>
</tr>
<tr>
<td>median line</td>
<td>1</td>
<td>1</td>
<td>Geodesy</td>
</tr>
</tbody>
</table>
Technical terms in Article 76 only

- natural prolongation, subsoil, land mass, thickness of sedimentary rocks, natural components of the continental margin
- geodetic data, distance of 200 nautical miles, 350 nautical miles, 100 nautical miles, coordinates of latitude and longitude
- continental shelf, seabed, continental margin, shelf, slope, rise, deep ocean floor, plateaux, cap, bank, spur, oceanic ridges, submarine ridges, submarine plateaus, 2,500 metre isobath, foot of the continental slope, maximum change in the gradient
TOR of ABLOS

To provide advice, guidance and, where applicable, offer expert interpretation of the technical aspects of the Law of the Sea to the parent Organizations, their Member States or to other organizations on request.
Annex II to the UNCLOS

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.
TOR of ABLOS

To review State practice and jurisprudence on Law of the Sea matters which are relevant to the work of ABLOS so as to be in a position to provide expert advice when needed.
Rights of the coastal State over its continental shelf

The coastal State exercises over the continental shelf sovereign rights for the purpose of exploring it and exploiting its natural resources. The rights referred to in paragraph 1 are exclusive...

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...

Manganese Nodules
Cross Section of a Manganese Nodule

採取地点
北緯 22度55.4分
東経134度41.2分
水深 1622m
Methane Hydrate

提供: メタンハイドレート資源開発研究コンソーシアム
Deep Sea Creatures... Biological Res.

Vesicomyid clam

提供：独立行政法人海洋研究開発機構（JAMSTEC）
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
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.
Schematic Cross Section

- Land
- Continental Shelf
- Continental Margin
- Slope
- Rise
- Abyssal Plain
- Deep Ocean Floor
Outer edge of the continental shelf

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...
Formula Line (i)

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
Foot of the Continental Slope

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.
Schematic Cross Section

Land Mass

Continental Margin

Slope

Rise

Foot of the Continental Slope

Land

Continental Shelf

Abyssal Plain

Deep Ocean Floor
Formula Line (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
Continental Shelf by UNCLOS

- Terrestrial Zone (12NM)
- Exclusive Economic Zone (200NM)
- Continental Shelf

- Base Line (Low Water, Straight...)
- Excl. Econo. Zone
- Continental Shelf

- Sed. thickness/dist. From POS = 1%
- Foot of Slope = Max. Change of Gradient
Seminar on the Establishment of the Outer Limits of the Continental Shelf beyond 200 Nautical Miles under UNCLOS (Feb. 27, 2008)
Foot of the Slope
Seminar on the Establishment of the Outer Limits of the Continental Shelf beyond 200 Nautical Miles under UNCLOS (Feb. 27, 2008)
Seminar on the Establishment of the Outer Limits of the Continental Shelf beyond 200 Nautical Miles under UNCLOS (Feb. 27, 2008)

出典: 米国地球物理データセンター（National Geophysical Data Center）ホームページ
http://www.ngdc.noaa.gov/mgg/topo/img/globenew.gif
Seminar on the Establishment of the Outer Limits of the Continental Shelf beyond 200 Nautical Miles under UNCLOS (Feb. 27, 2008)

出典: 米国地球物理データセンター (National Geophysical Data Center) ホームページ
http://www.ngdc.noaa.gov/mgg/topo/img/globenew.gif
Seminar on the Establishment of the Outer Limits of the Continental Shelf beyond 200 Nautical Miles under UNCLOS (Feb. 27, 2008)

出典: 米国地球物理データセンター（National Geophysical Data Center）ホームページ
http://www.ngdc.noaa.gov/mgg/topo/img/globenew.gif
Seminar on the Establishment of the Outer Limits of the Continental Shelf beyond 200 Nautical Miles under UNCLOS (Feb. 27, 2008)

出典: 米国地球物理データセンター (National Geophysical Data Center) ホームページ
http://www.ngdc.noaa.gov/mgg/topo/img/globenew.gif
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.
Continental Shelf by UNCLOS

Base Line
(Low Water, Straight...)

Excl.Econo.Zone

Continental Shelf

Foot of Slope =
Max. Change of Gradient

Sed.thickness/dist. From FOS
= 1 %

Ter. Exc. Eco. Zone

Continental Shelf

Cut off at 350 NM or
100 NM from 2500 m contour

12NM
200NM
60NM
Foot of the Continental Slope

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.
Schematic Cross Section

- Land
- Continental Shelf
- Continental Margin
- Slope
- Rise
- Abyssal Plain
- Deep Ocean Floor
- Foot of the Continental Slope as the maximum change in gradient
Possible Cross Section A

Land Mass → Continental Margin → Continental Shelf

- The maximum change in gradient
- Foot of the Continental Slope
- As the maximum change in gradient at its base

Land → Shelf → Abyssal Plain → Deep Ocean Floor
Possible Cross Section B

What is the definition of “rise”?

Foot of the Continental Slope?
Continental Rise

A broad elevation that rises gently and generally smoothly from the sea floor.

(IHO/IOC Standardization of Undersea Feature Names, GEBCO)
Possible Cross Section C

- Land
- Shelf
- Continental Margin
- Slope
- Where is the Foot of the Continental Slope
- Possible FOS
- the maximum change in gradient
- local maximum change in gradient
- No rise
Possible Cross Section D

Land Mass

Continental Margin

Abyssal Plain

Deep Ocean Floor

the maxima change in gradient

which one is to be the Foot of
the Continental Slope?
Seminar on the Establishment of the Outer Limits of the Continental Shelf beyond 200 Nautical Miles under UNCLOS (Feb. 27, 2008)

アイルランドの提出したエグゼクティブ・サマリーの表紙。国連ウェブサイト内の大陸棚限界委員会の以下のページより閲覧可能。
アイルランドの提出したエグゼクティブ・サマリーより。国連ウェブサイト内の大陸棚限界委員会の以下のページより閲覧可能。
アイルランドの提出したエグゼクティブ・サマリーより。国連ウェブサイト内の大陸棚限界委員会の以下のページより閲覧可能。
The Irish Continental Shelf Delineation Project

The preparation of a submission to the CLCS by a coastal State involves the acquisition and analysis of a large volume of data. These data are required to apply the specific formulae outlined in Article 76 of UNCLOS to identify the outer edge of the continental margin and to determine the thickness of the continental shelf. These data consisted of eighteen seismic profiles (total length 450 km) acquired in 1993 and shot across the continental margin to image the sedimentary geology of the region. This data has been used to interpret the geology and structure of the continental margin and to determine the thickness of sediments on the outer parts of the continental shelf. Data collection continued in 1994 with a bathymetric survey of the deep water area to a depth of 250 m with water depths ranging from 90 m down to 4800 m. This data was used to make the 200 m isobath and to locate the foot of the continental slope.

Technical experts at the Petroleum Affairs Division of the Department of Communications, Marine and Natural Resources have been analysing this data for the past ten years and have used a range of modern analytical software and techniques to prepare the submission to the CLCS.

Seismic Line (RA06-13)

The bathymetric data acquired by the Petroleum Affairs Division in 1994 covered the outer edge of the continental margin and has since been expanded on with the subsequent Irish National Seabed Survey (INSS), managed jointly by the Geological Survey of Ireland and Marine Institute, which began in 1999 and which has re-visited the entire Irish designated continental shelf before 200 miles - the largest single data set of a continental shelf in Europe.

Over larger bathymetric surveys of 1997, 1999 and 2001, a coverage of 213,000 square km of the outer edge of the continental margin has been acquired using an advanced multi-beam echosounder. The data has been processed using a wide range of advanced software to enhance the resolution and accuracy of the data.
アイルランドの大陸棚プロジェクトに関するパンフレットより。
アイルランドの大陸棚プロジェクトに関するパンフレットより。
アイルランドの大陸棚プロジェクトに関するパンフレットより。
Seminar on the Establishment of the Outer Limits of the Continental Shelf beyond 200 Nautical Miles under UNCLOS (Feb. 27, 2008)


アイルランドの提出したエグゼクティブ・サマリーより。国連ウェブサイト内の大陸棚限界委員会の以下のページより閲覧可能。

アイルランドの大陸棚プロジェクトに関するパンフレットより。
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.
Constraint Lines

- on submarine ridges, the outer limit of the continental shelf shall not exceed 350 nautical miles from the territorial sea baseline.

- 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.
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.
Seminar on the Establishment of the Outer Limits of the Continental Shelf beyond 200 Nautical Miles under UNCLOS (Feb. 27, 2008)
Seminar on the Establishment of the Outer Limits of the Continental Shelf beyond 200 Nautical Miles under UNCLOS (Feb. 27, 2008)
ロシアの提出したエグゼクティブ・サマリーより。国連ウェブサイト内の大陸棚限界委員会の以下のページより閲覧可能。
Arctic Bathymetry

出典: 米国地球物理データセンター (National Geophysical Data Center) ホームページ
http://www.ngdc.noaa.gov/mgg/topo/img/globenew.gif
ロシアの提出したエグゼクティブ・サマリーより。国連ウェブサイト内の大陸棚限界委員会の以下のページより閲覧可能。
Seminar on the Establishment of the Outer Limits of the Continental Shelf beyond 200 Nautical Miles under UNCLOS (Feb. 27, 2008)

出典: 米国地球物理データセンター (National Geophysical Data Center) ホームページ
http://www.ngdc.noaa.gov/mgg/topo/img/globenew.gif

63
Seminar on the Establishment of the Outer Limits of the Continental Shelf beyond 200 Nautical Miles under UNCLOS (Feb. 27, 2008)

ブラジルの提出したエグゼクティブ・サマリー。国連ウェブサイト内の大陸棚限界委員会の以下のページより閲覧可能。
ブラジルの提出したエグゼクティブ・サマリーより。国連ウェブサイト内の大陸棚限界委員会の以下のページより閲覧可能。
ブラジルの提出したエグゼクティブ・サマリーより。国連ウェブサイト内の大陸棚限界委員会の以下のページより閲覧可能。
ブラジルの提出したエグゼクティブ・サマリーより。国連ウェブサイト内の大陸棚限界委員会の以下のページより閲覧可能。
Seminar on the Establishment of the Outer Limits of the Continental Shelf beyond 200 Nautical Miles under UNCLOS (Feb. 27, 2008)

ブラジルの提出したエグゼクティブ・サマリーより。国連ウェブサイト内の大陸棚限界委員会の以下のページより閲覧可能。
Letter to UN from USA

Vitoria-Trindade Feature

The United States has reviewed publicly available information regarding what Brazil refers to as the "Vitoria Trindade Ridge." The Commission should be aware that the International Hydrographic Organization/Intergovernmental Oceanographic Commission (IHO/IOC) General Bathymetric Chart of the Oceans (GEBCO) Sub-Committee on Undersea Feature Names (SCUFI) refers to that feature as the "Vitoria-Trindade Seamount Chain," and formerly referred to it as a "Ridge." IHO-IOC GEBCO Gazetteer of Undersea Feature Names, p. 353 (May, 2004). (The United States officially refers to the feature as the "Vitoria-Trindade Seamounts.") Based on the information made public by the United Nations regarding this aspect of Brazil’s submission to the Commission, one cannot determine what data and analysis Brazil used and how Brazil applied relevant provisions of Article 76 to support its conclusion, in the area of this feature, that its continental margin extends beyond 200 nautical miles from the baselines from which the territorial sea is measured. The United States, after reviewing relevant literature, suggests that oceanic hot spot processes likely formed the feature in question. The United States doubts whether the feature in question is part of Brazil’s continental margin beyond 200 nautical miles from the baselines from which the territorial sea is measured. The United States suggests that the Commission takes a cautious approach with regard to this feature.
Seminar on the Establishment of the Outer Limits of the Continental Shelf beyond 200 Nautical Miles under UNCLOS (Feb. 27, 2008)

出典: 米国地球物理データセンター（National Geophysical Data Center）ホームページ
http://www.ngdc.noaa.gov/mgg/topo/img/globenew.gif
Straight lines

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.
New Zealand Submission to the Commission on the Limits of the Continental Shelf pursuant to article 76 (8) of the United Nations Convention on the Law of the Sea

Executive Summary
ニュージーランドの提出したエグゼクティブ・サマリーより。国連ウェブサイト内の大陸棚限界委員会の以下のページより閲覧可能。
ニュージーランドの提出したエグゼクティブ・サマリーより、国連ウェブサイト内の大陸棚限界委員会の以下のページより閲覧可能。
ニュージーランドの提出したエグゼクティブ・サマリーヨー。国連ウェブサイト内の大陸棚限界委員会の以下のページより閲覧可能。
Many thanks for your patience!
See you in Monaco at ABLOS Conference
次回のABLOS国際会議（2008年10月16日～17日）が開催される、モナコの国際水路機関オフィスが入っているビル。
ちなみに、これはモナコにある有名なモンテカルロ・カジノ。

ちなみに、これはモナコにある有名なモンテカルロ・カジノ。