

Article 76

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



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ABLOS



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

ABLOS

not AB-LOS



ABLOS



- abandon
- abase
- abash
- abattoir
- abduct
- aberrance
- abet
- abeyance
- abhor
- abide
- abject
- abjure
- ablation
- abnormal
- abolish
- abomb
- abominate
- abort
- abrade
- abrogate
- abrupt
- abscess
- abscond
- absence
- absurd
- abuse
- abusive
- abysmal



ABLOS



United Nations Convention on the Law Of the Sea

UNCLOS

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IHO/IAAG **A**dvisory **B**oard on the **L**aw **O**f the **S**ea



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

chart	12 art.	20 times	Hydrogr
distance	10 art.	14 times	Geodesy
nautical mile	11 art.	11 times	Geodesy
coordinate	3 art.	6 times	Geodesy
low tide elevation	2 art.	6 times	Hydrogr
low water line	4 art.	5 times	Hydrogr
low water mark	1 art.	5 times	Hydrogr
metre	3 art.	4 times	Geodesy
ratio of water & land	1 art.	2 times	Geodesy
median line	1 art.	1 time	Geodesy

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 elevations, 2,500 metre isobath, foot of the continental slope, maximum change in the gradient



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their **Member States** or to

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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

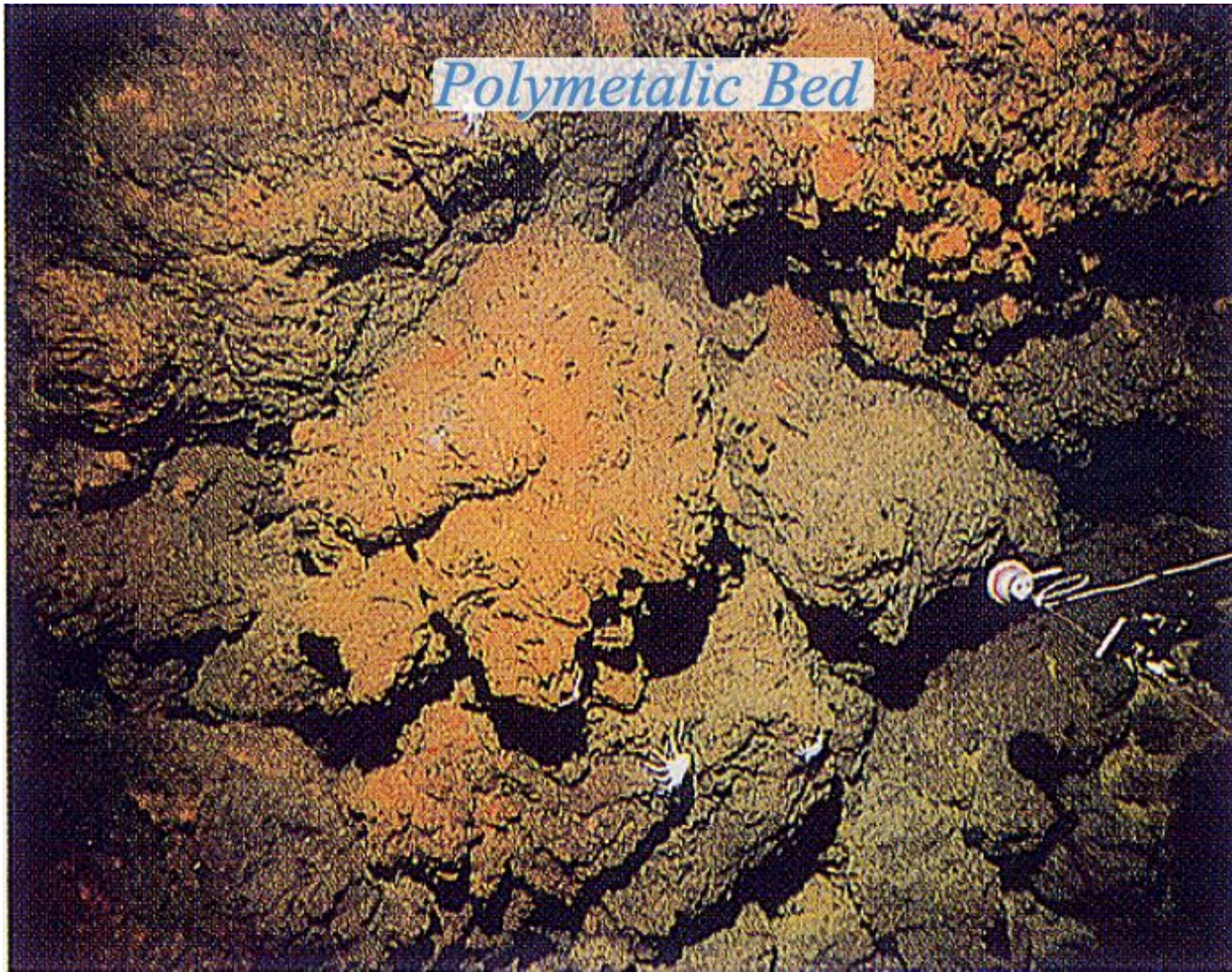
...







Provided by: Japan Oil, Gas and Metals National Corporation (JOGMEC)



Provided by: Japan Oil, Gas and Metals National Corporation (JOGMEC)

Methane Hydrate



Provided by the Research Consortium for Methane Hydrate Resources in Japan (the MH21 Research Consortium)

Deep Sea Creatures ... Biological Res.

Vesicomyid clam



Source: Website of Japan Agency for Marine-Earth Science and Technology (JAMSTEC)

<http://www.jamstec.go.jp/e/index.html>

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,

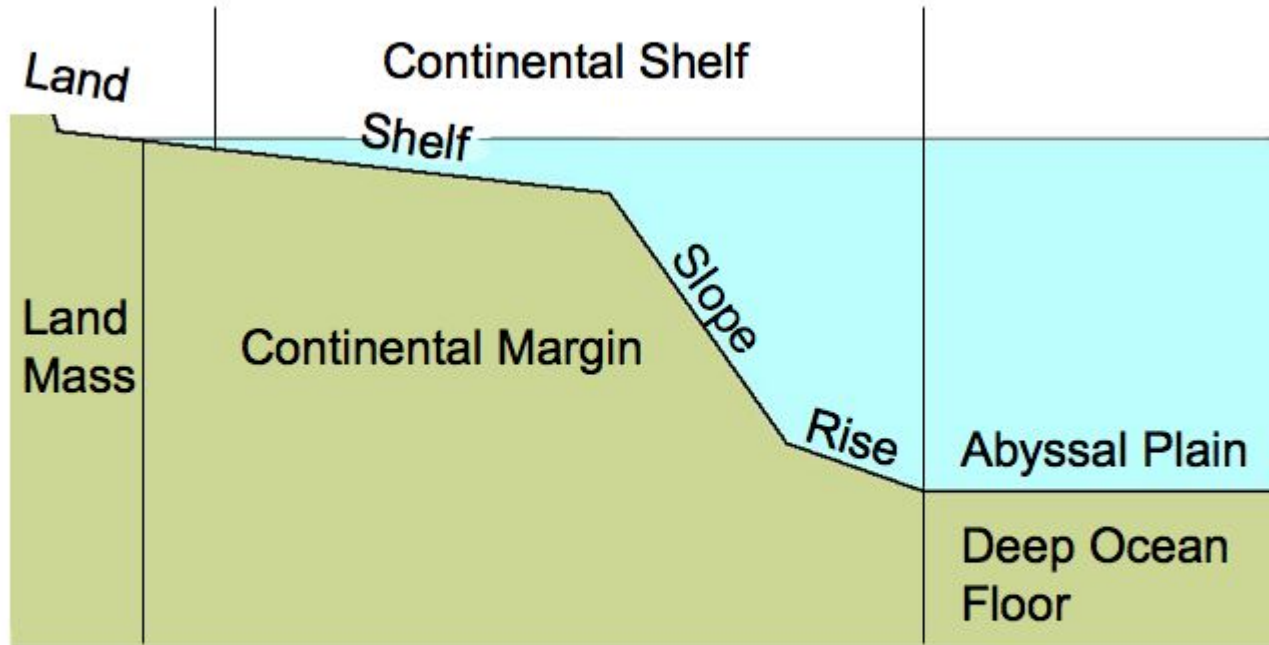
and consists of the seabed and subsoil of

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



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

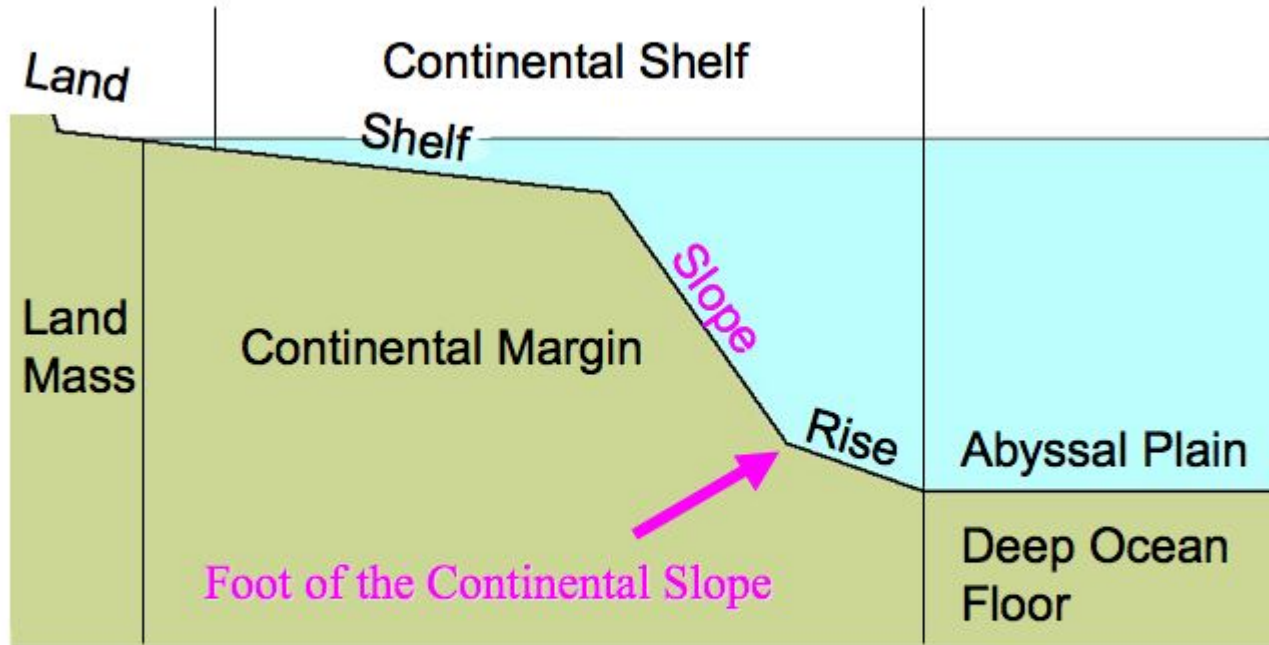
at each of which the thickness of sedimentary rocks is at least 1 per cent of the shortest distance

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



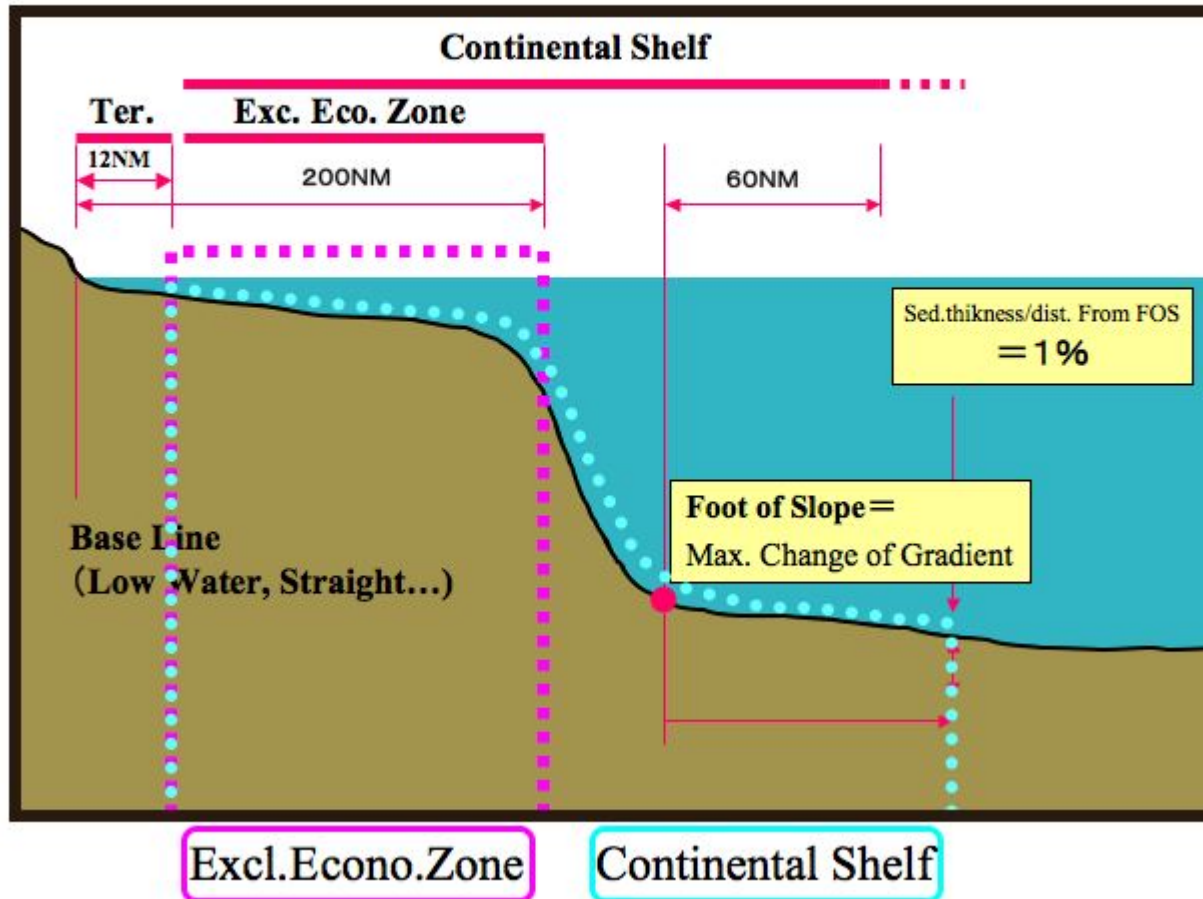
Formula Line (ii)

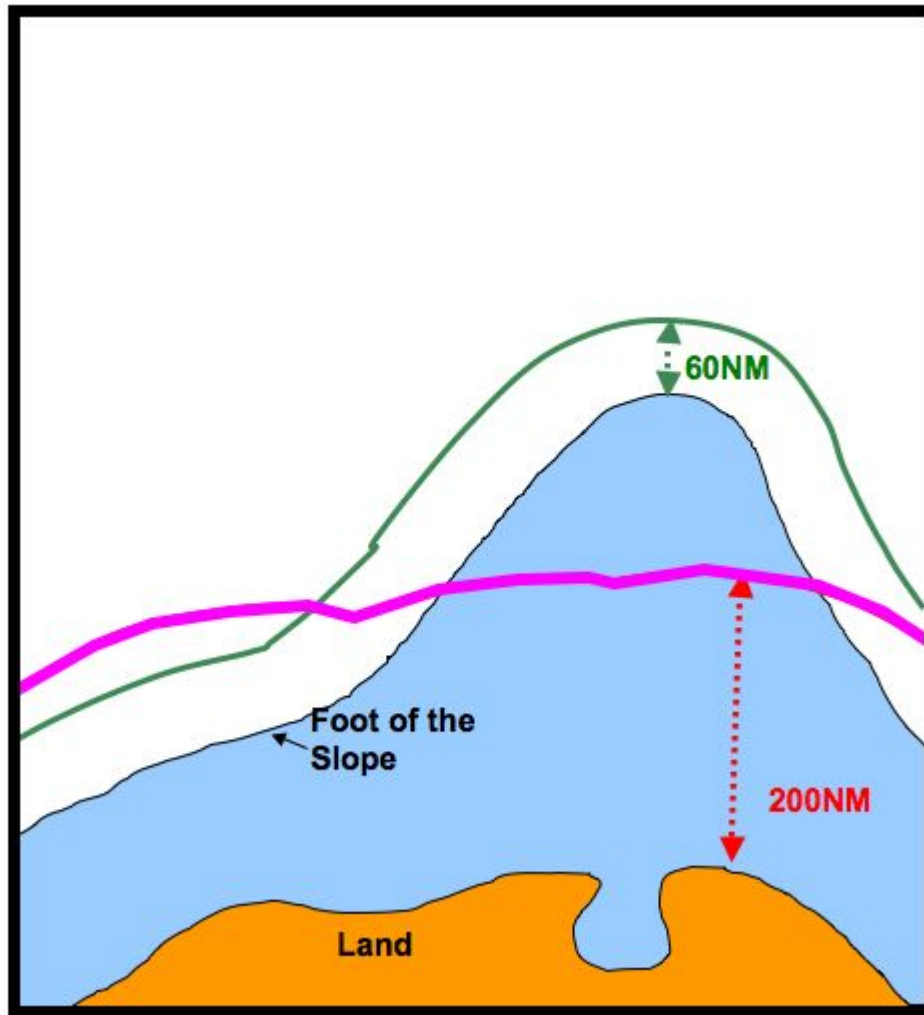
a line delineated in accordance with
paragraph 7 by reference to fixed points

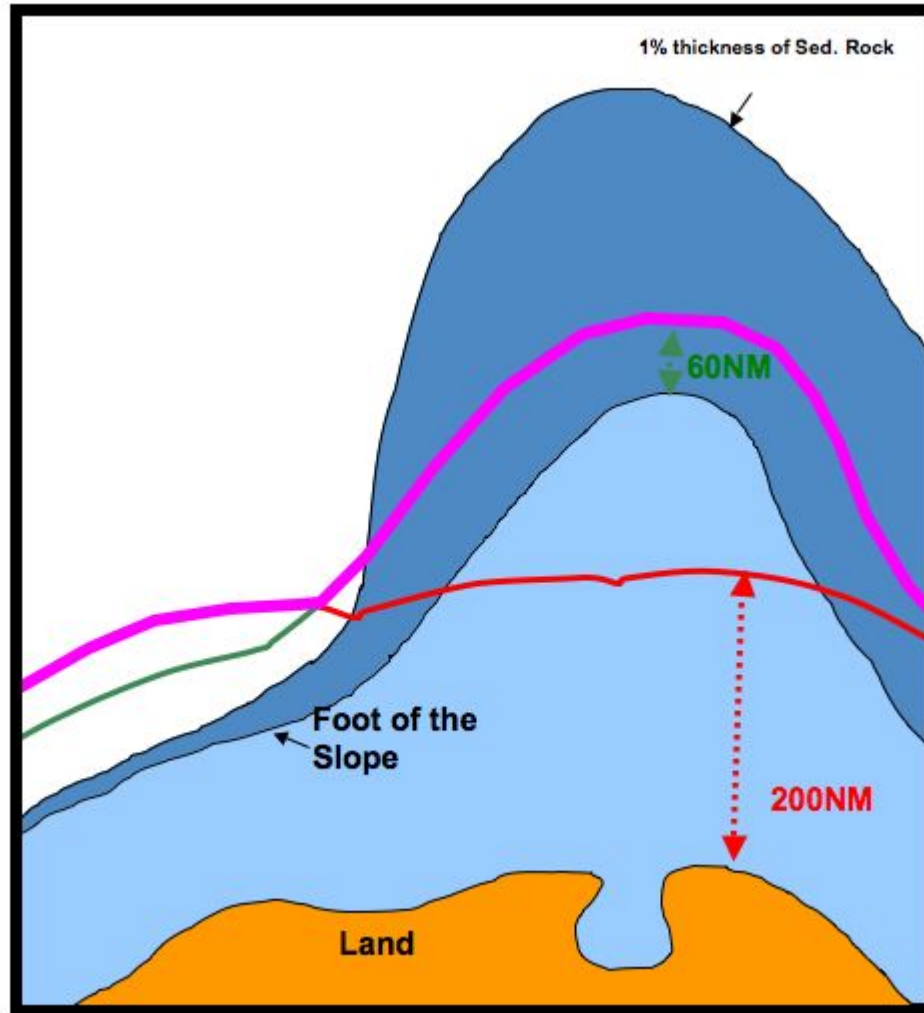
not more than 60 nautical miles

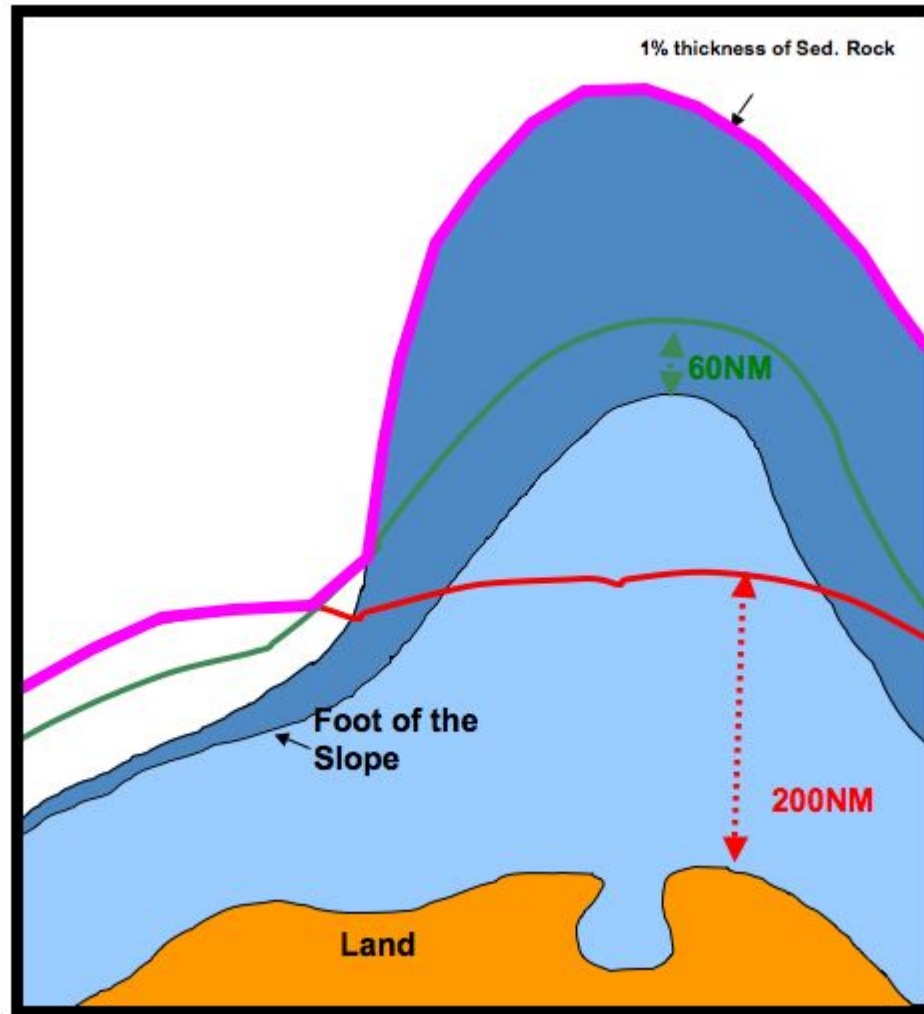
from the foot of the continental slope

Continental Shelf by UNCLOS

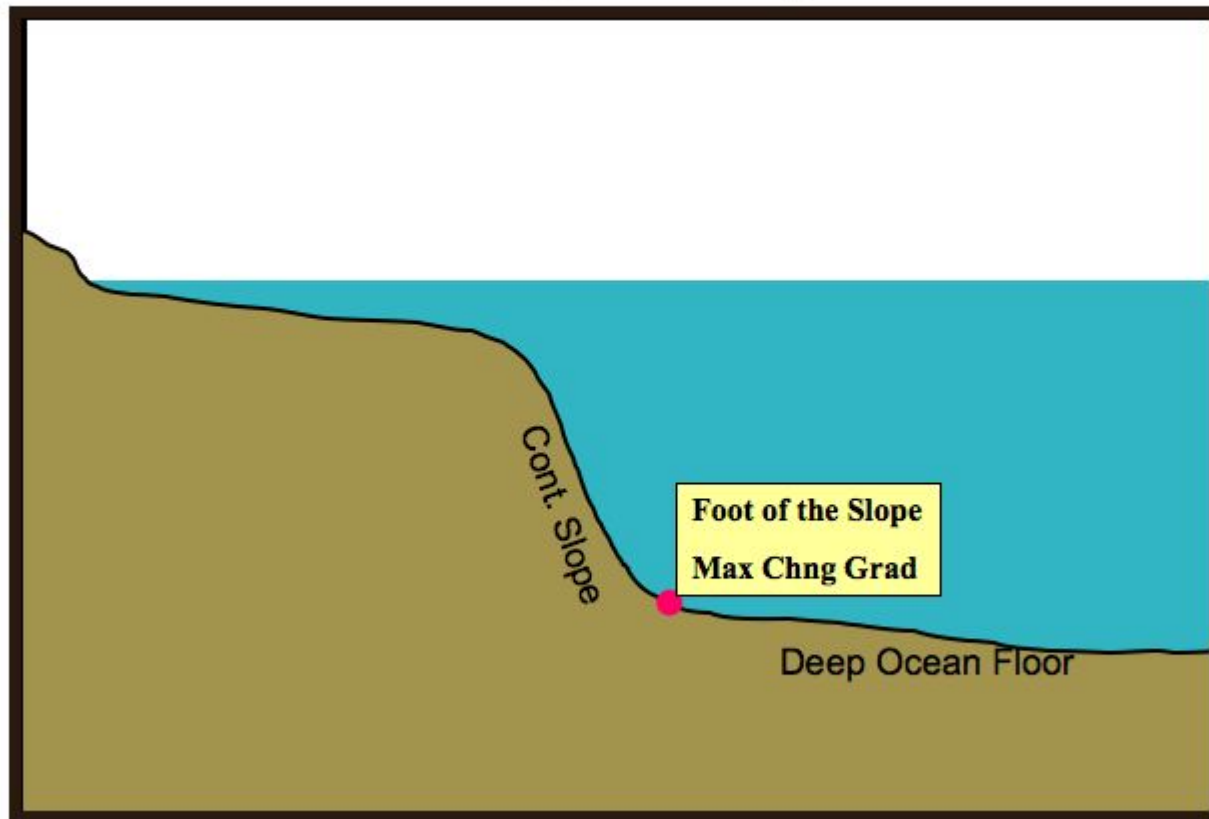


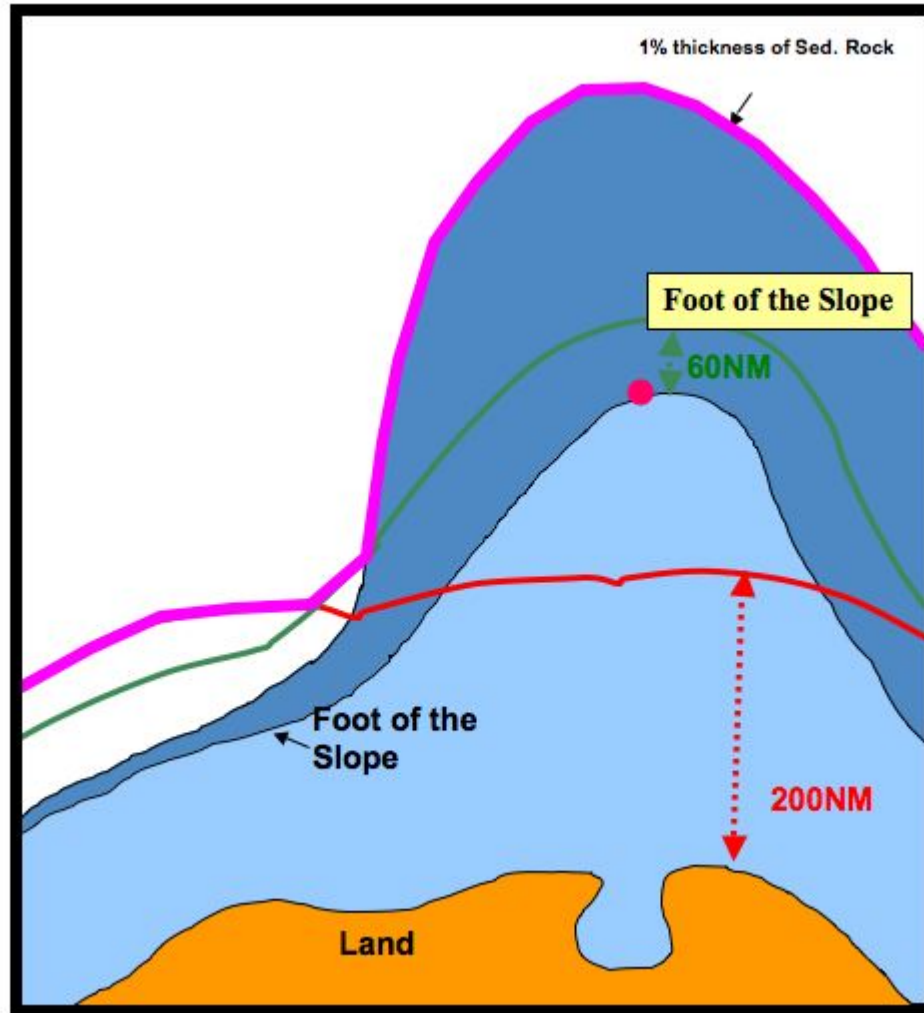


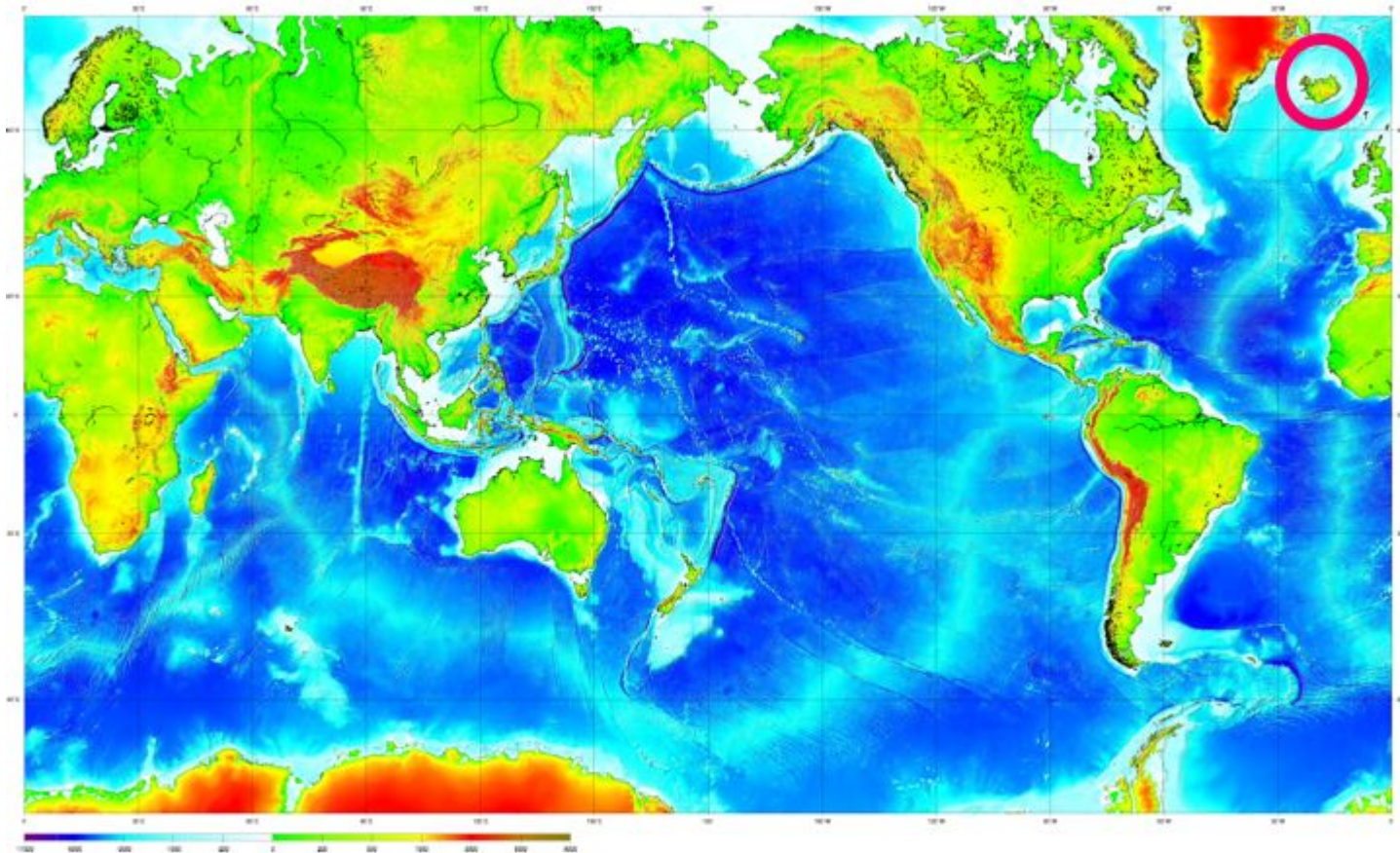




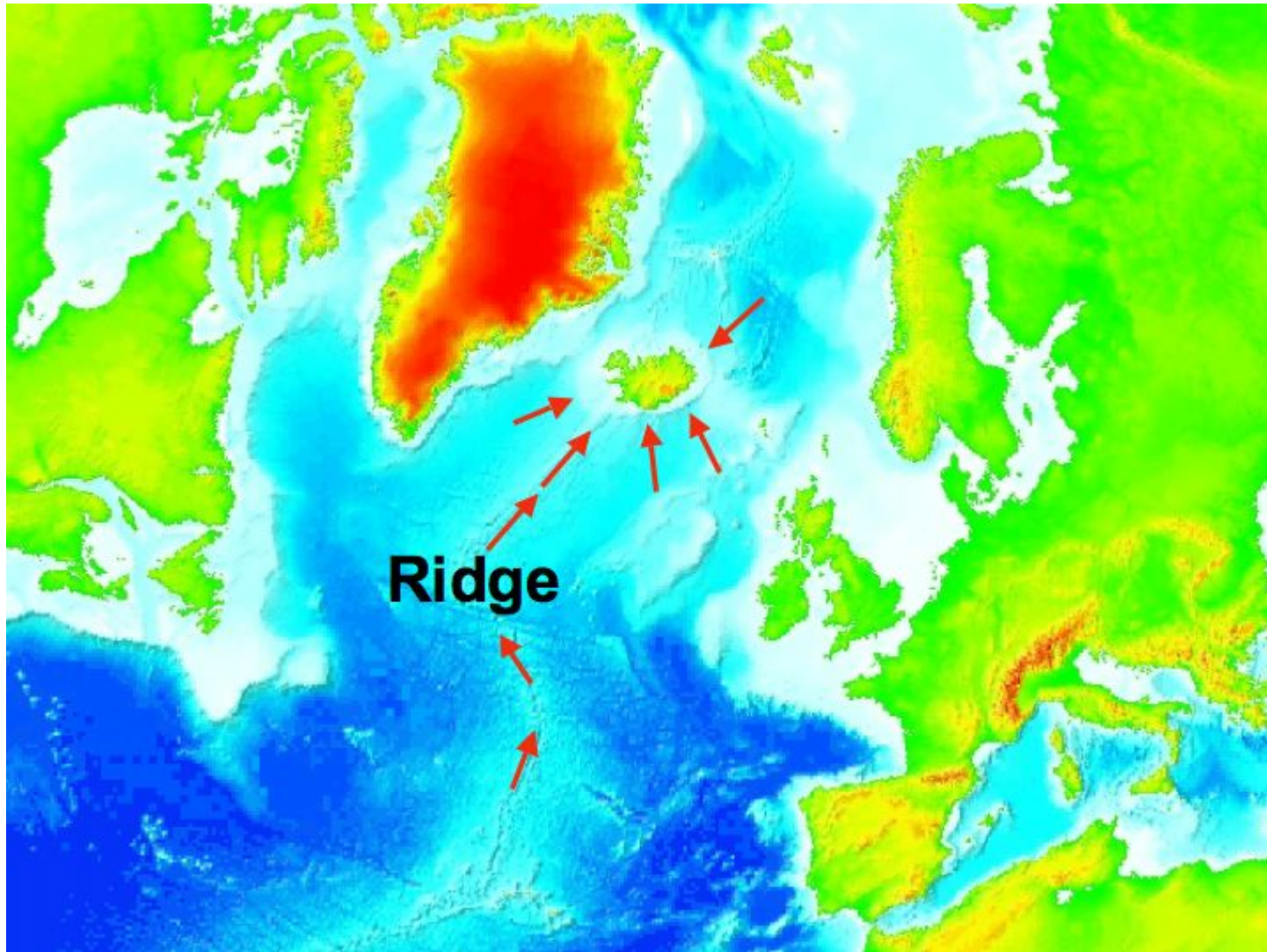
Foot of the Slope



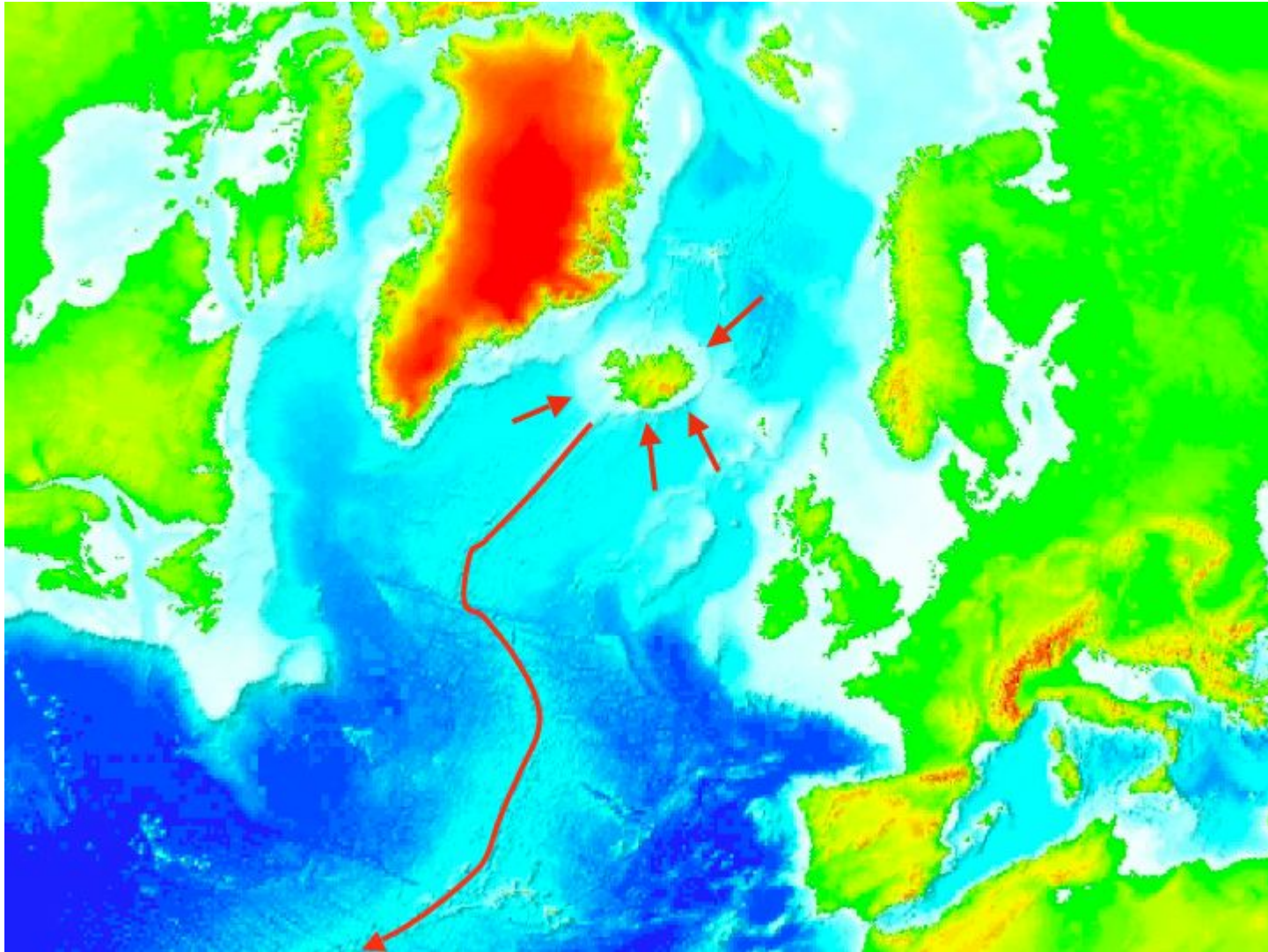




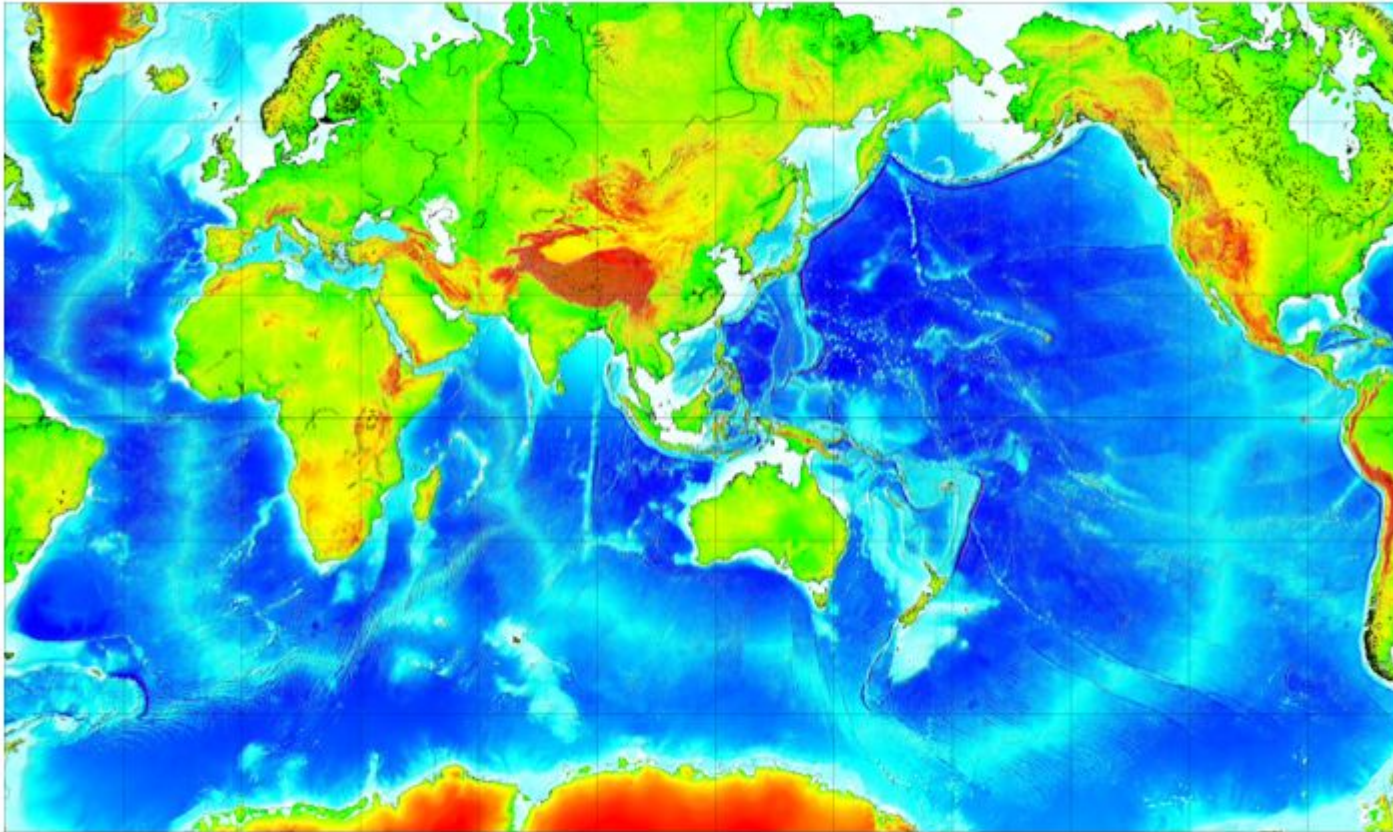
Source: Website of the United States National Geophysical Data Center (NGDC)
<http://www.ngdc.noaa.gov/ngdc.html>



Source: Website of the United States National Geophysical Data Center (NGDC)
<http://www.ngdc.noaa.gov/ngdc.html>



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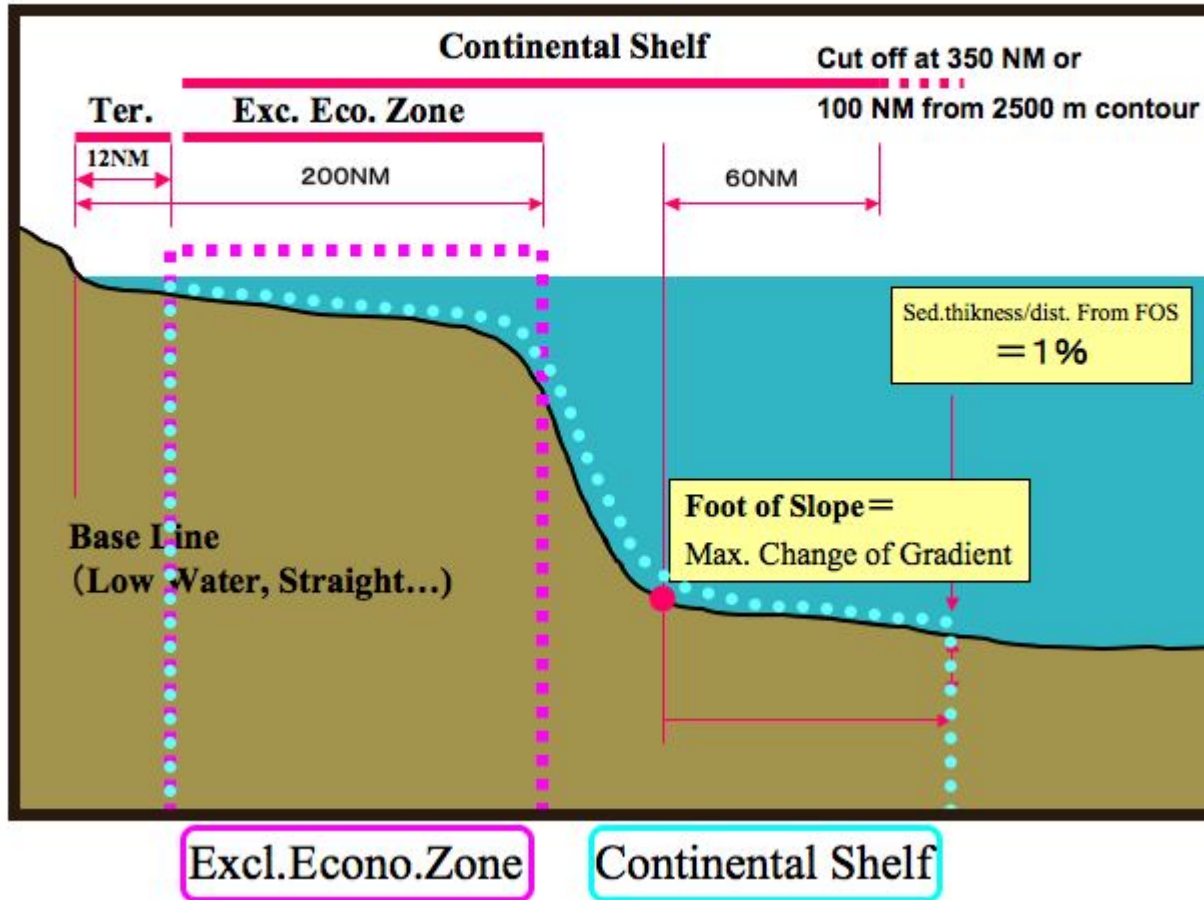
Source: Website of the United States National Geophysical Data Center (NGDC)
<http://www.ngdc.noaa.gov/ngdc.html>

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.

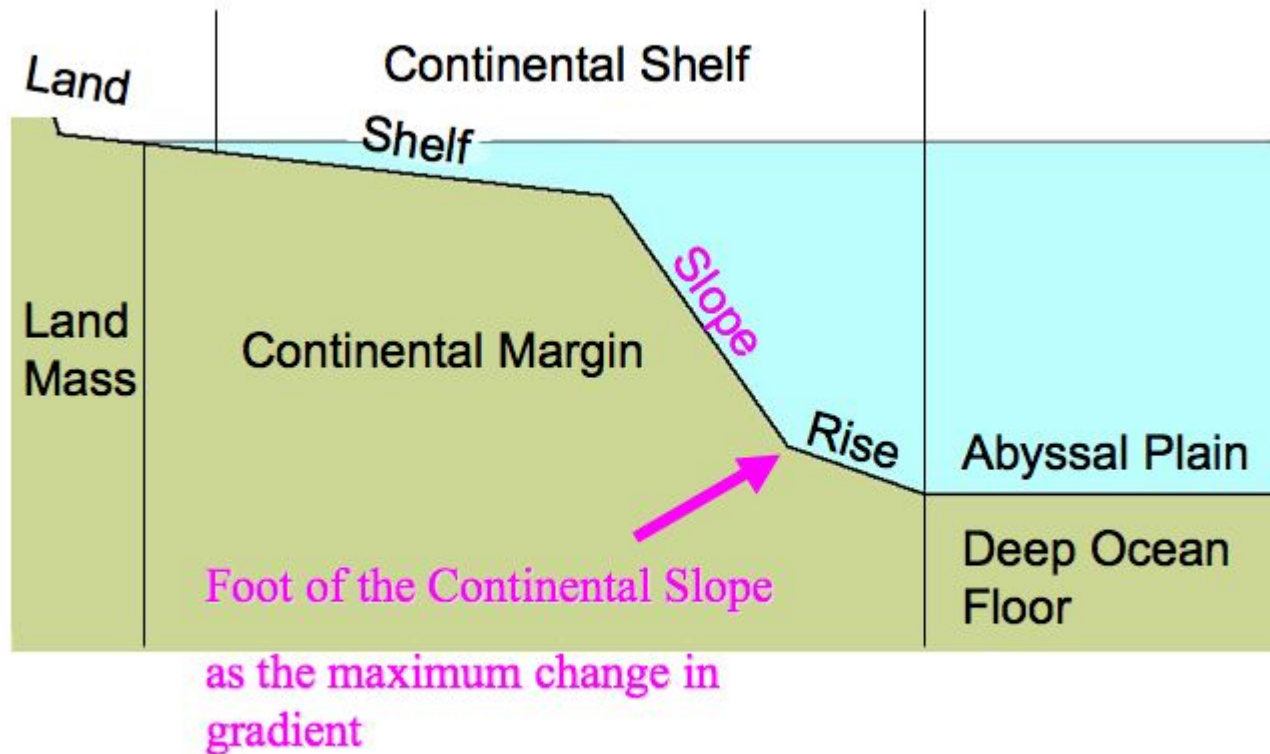
Continental Shelf by UNCLOS



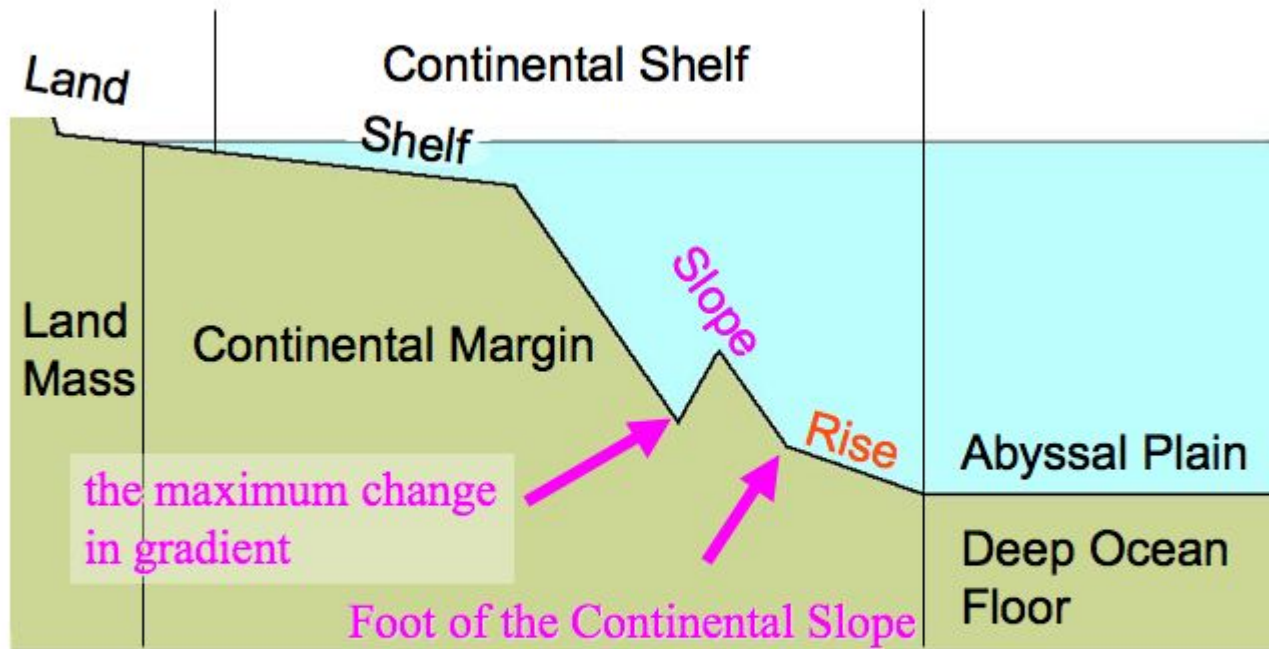
Foot of the Continental Slope

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

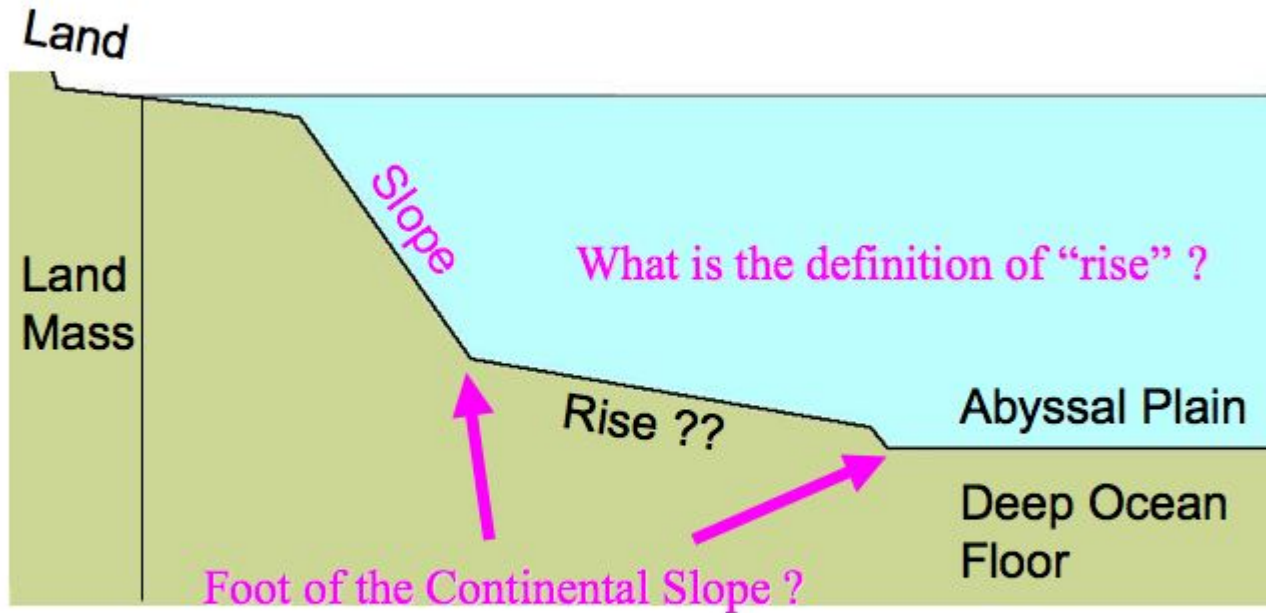


Possible Cross Section A



as the maximum change in gradient at its base

Possible Cross Section B

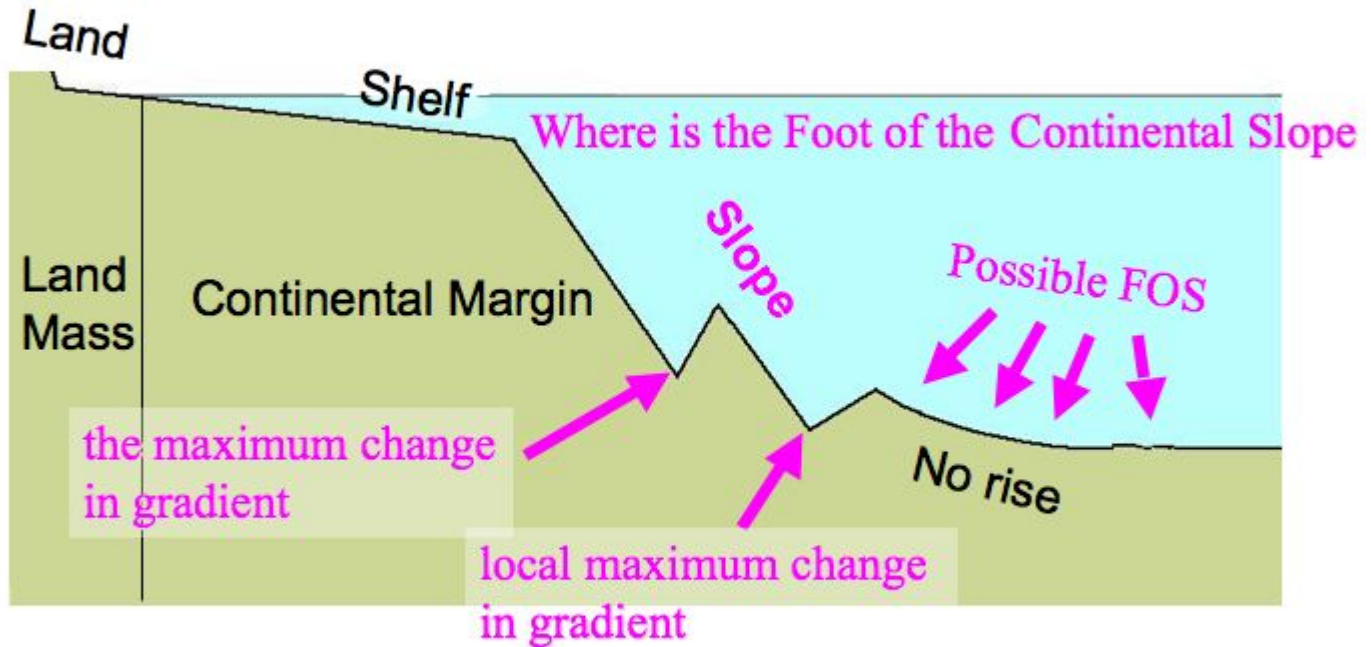


Continental Rise

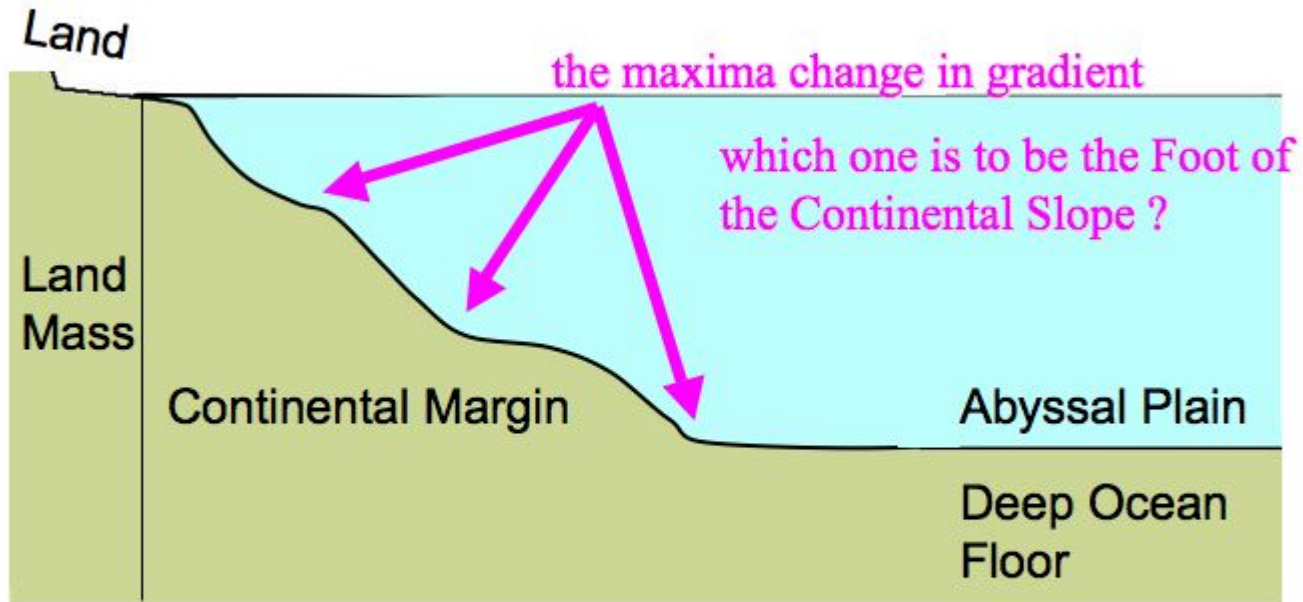
A broad elevation that rises gently and generally smoothly from the sea floor.

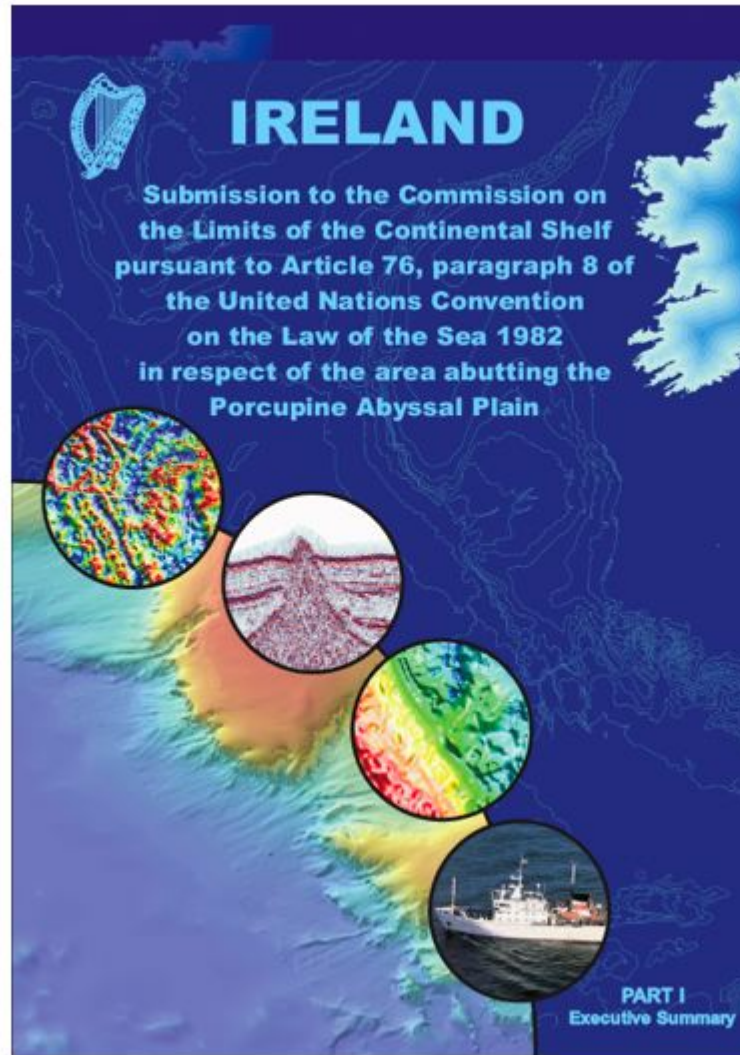
(IHO/IOC Standardization of Undersea Feature Names, GEBCO)

Possible Cross Section C

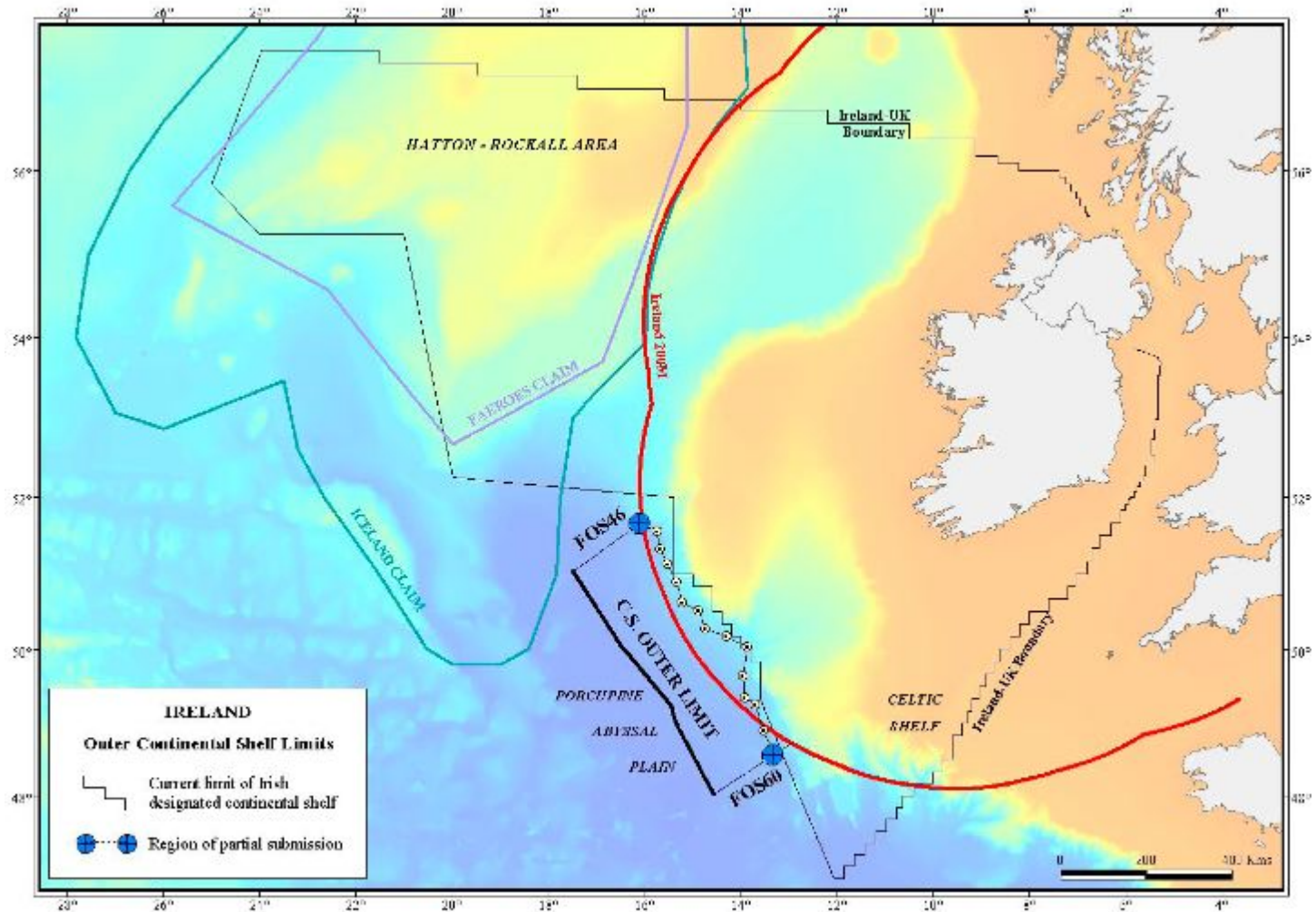


Possible Cross Section D





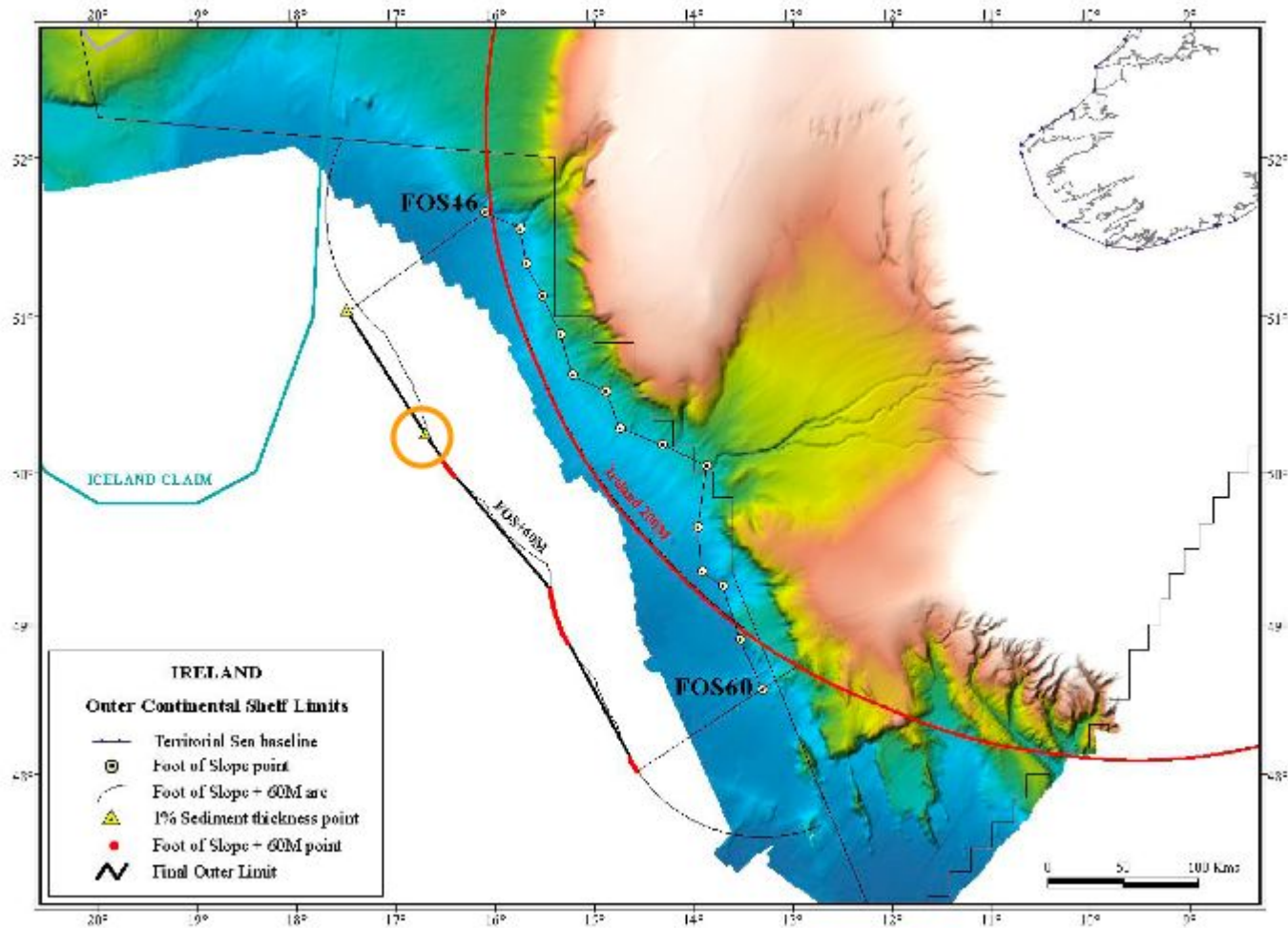
Front page of the Executive Summary of the the submission by Ireland
It is available at the website of the Commission on the Limits of the Continental Shelf in the website of the Division for
Ocean Affairs and the Law of the Sea (DOALOS), United Nations.
http://www.un.org/Depts/los/clcs_new/submissions_files/submission_irl.htm



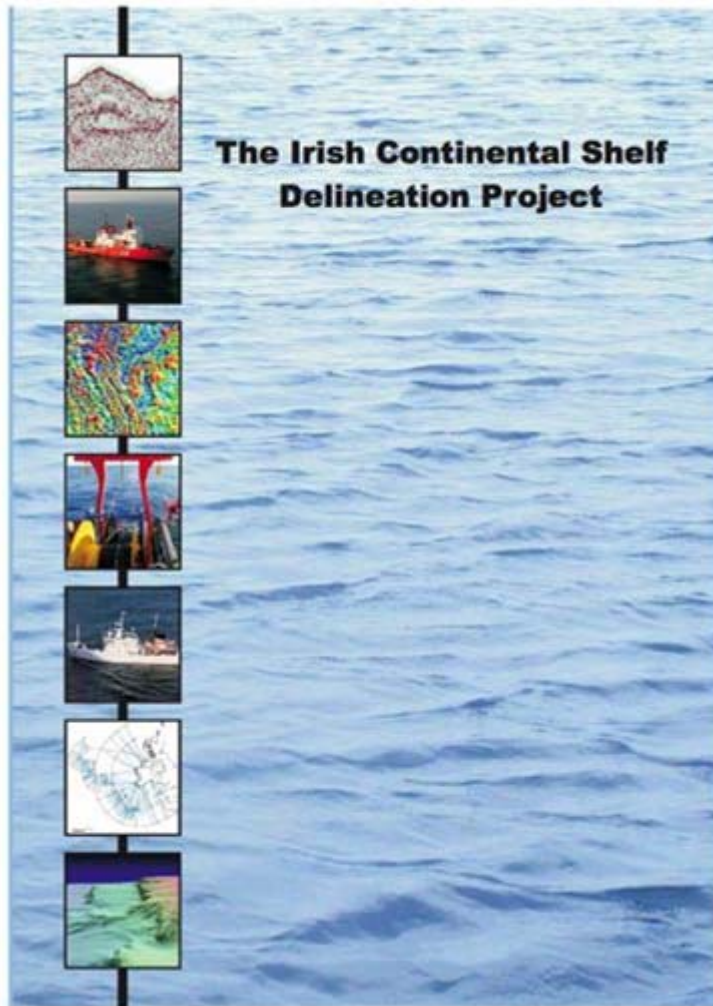
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Preparation of the Submission on the Limits of the Continental Shelf

The preparation of a submission to the CLCS by a coastal State involves the acquisition and analysis of considerable amounts of scientific and technical 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 (see back of this leaflet for more details). Ireland began acquiring data for the express purpose of making its extended continental shelf submission to the CLCS in 1995.

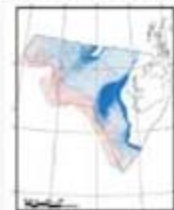
These data consisted of eighteen seismic profiles (total length 4120 km), acquired in 1995 and shot across the continental margin to image the subsurface geology of the region. This data has been used to interpret the geology and structure of the continental margin and to determine the thickness of sediments at the outer parts of the continental shelf. Data collection continued in 1996 with a bathymetric survey (measuring water depth), which mapped an area of some 230,000 km² with water depths ranging from 500 m down to 4800 m. This data was used to map the 2500 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 Ireland's submissions to the CLCS.

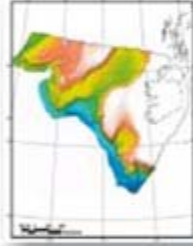


Seismic Line FAD05-13

The bathymetric data acquired by the Petroleum Affairs Division in 1996 mapped 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 the Marine Institute, which began in 1999 and which has mapped the entire Irish designated continental shelf below 200 m - the largest single bathymetric survey of a coastal State's continental shelf in the world.



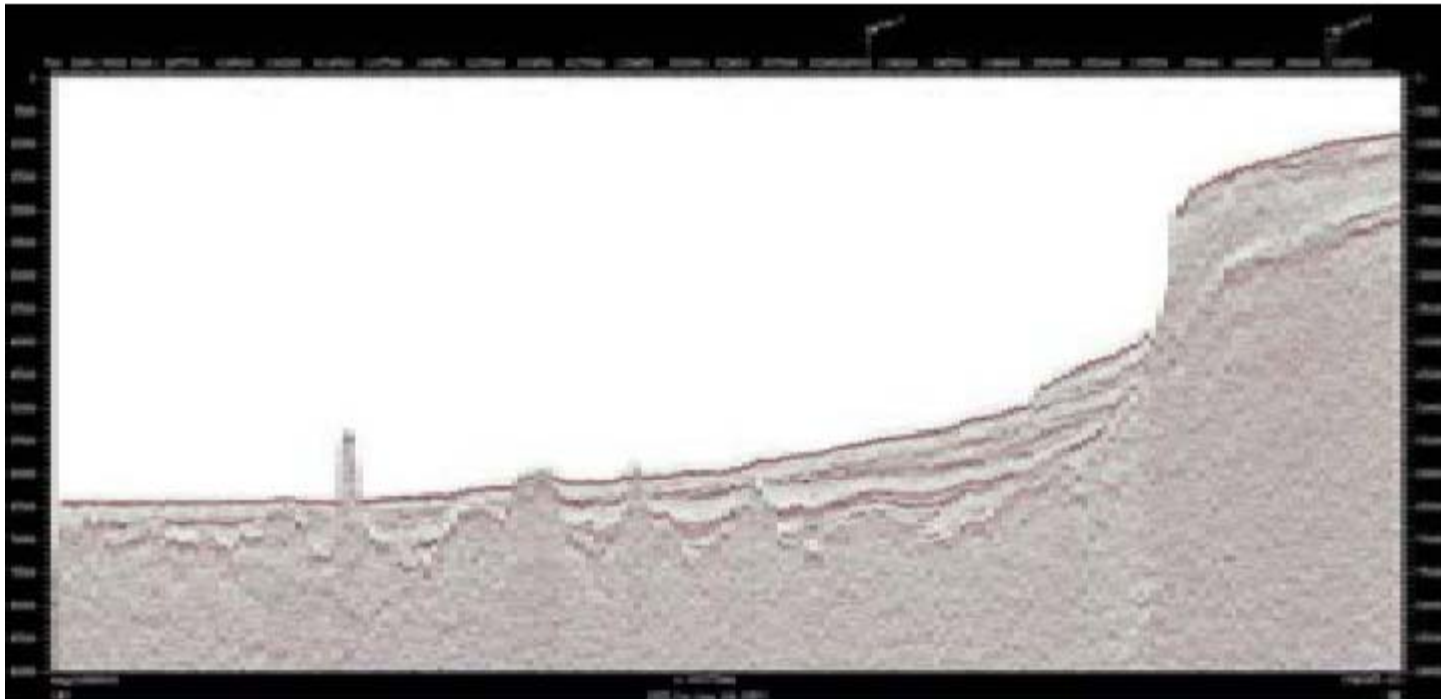
Tracklines for bathymetric surveys of the Irish continental shelf. Red lines: FAD 1996 survey. Blue lines: INSS (1999-2003)



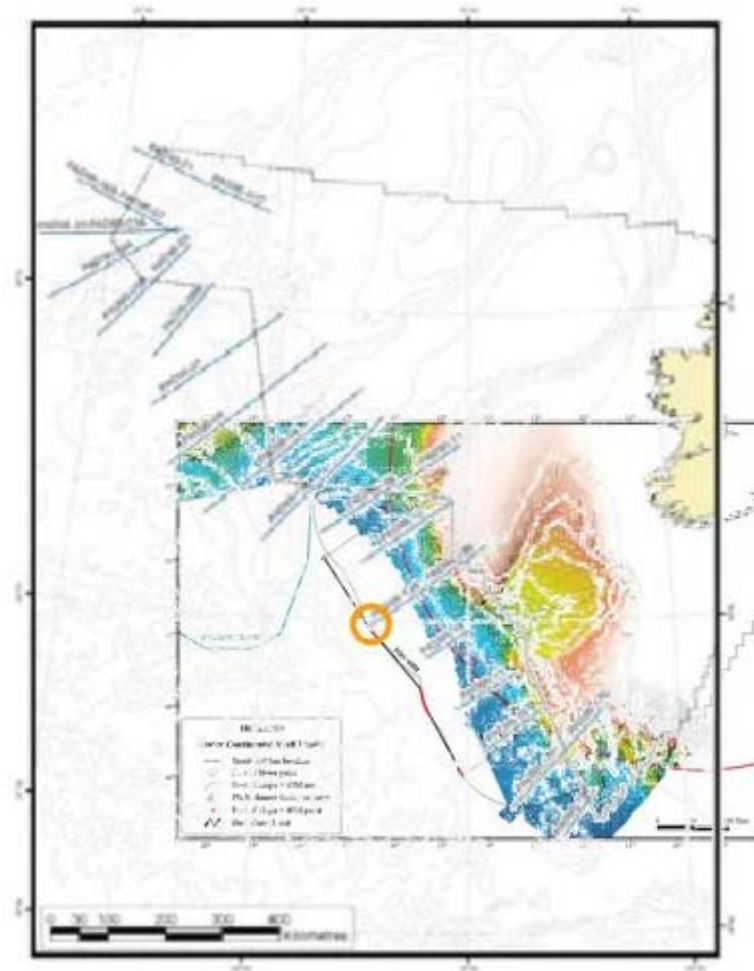
Shaded bathymetry based on the data collected during the FAD (1996) and INSS (1999-2003) surveys

Over image (from top to bottom): Section of FAD 1995 seismic line. Spanish research vessel Hebrides in seismic survey stage of Irish continental shelf (captured on R/V Hebrides); R/V National Survey which acquired the 1996 seismic survey of the Irish continental margin. Article 76 contour line (blue) showing the Irish continental margin to the Dublin Spur.

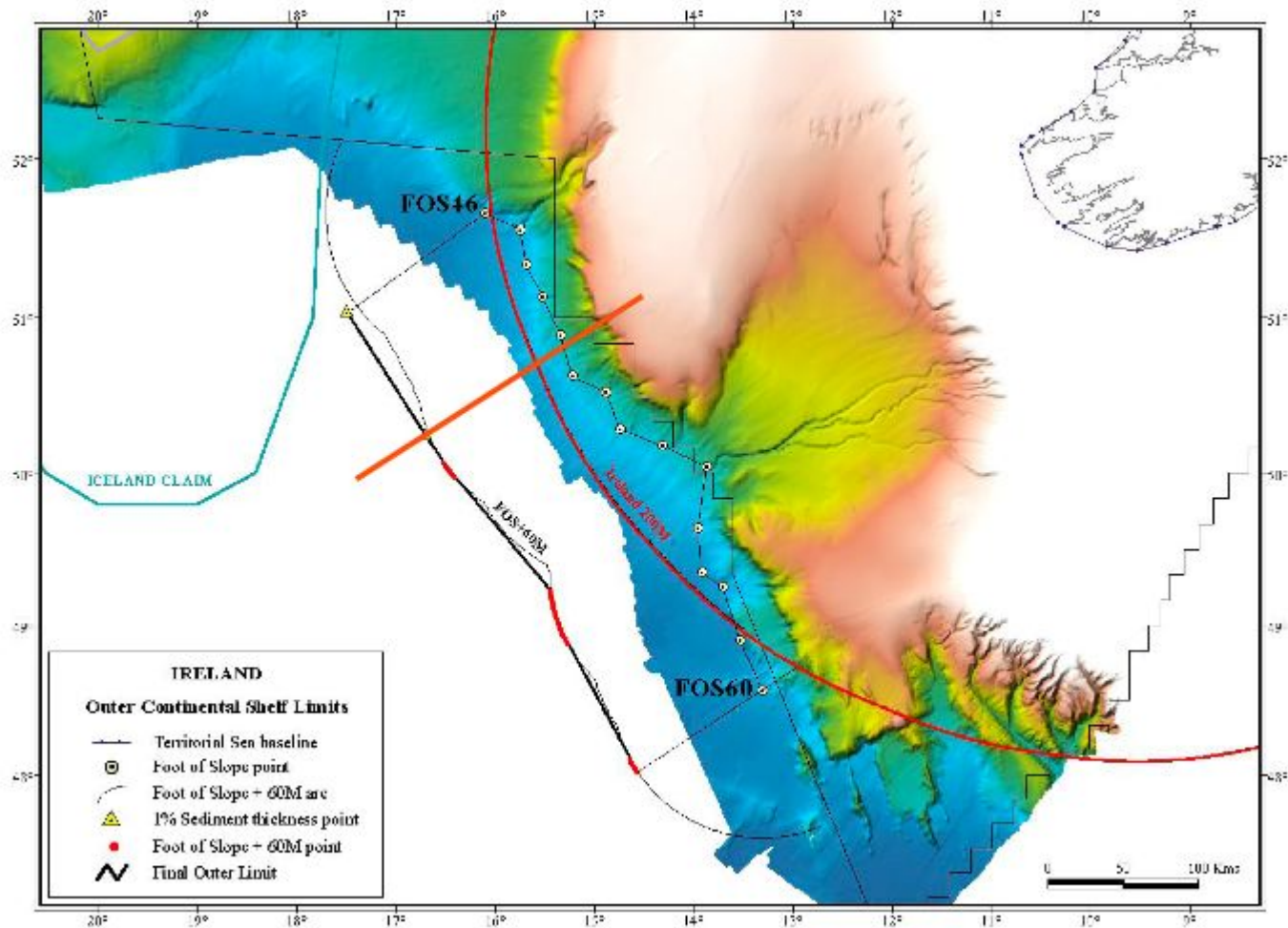
From the brochure on the Irish Continental Shelf Delineation Project available at the following website.
http://www.dcmnr.gov.ie/NR/rdonlyres/50A67AD0-4594-44BE-AB2A-FD8D00CE34E40/CSDP_Ireland.pdf



From the brochure on the Irish Continental Shelf Delineation Project



From the brochure on the Irish Continental Shelf Delineation Project



From the Executive Summary of the submission by Ireland.

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From the brochure on the Irish Continental Shelf Delineation Project

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.

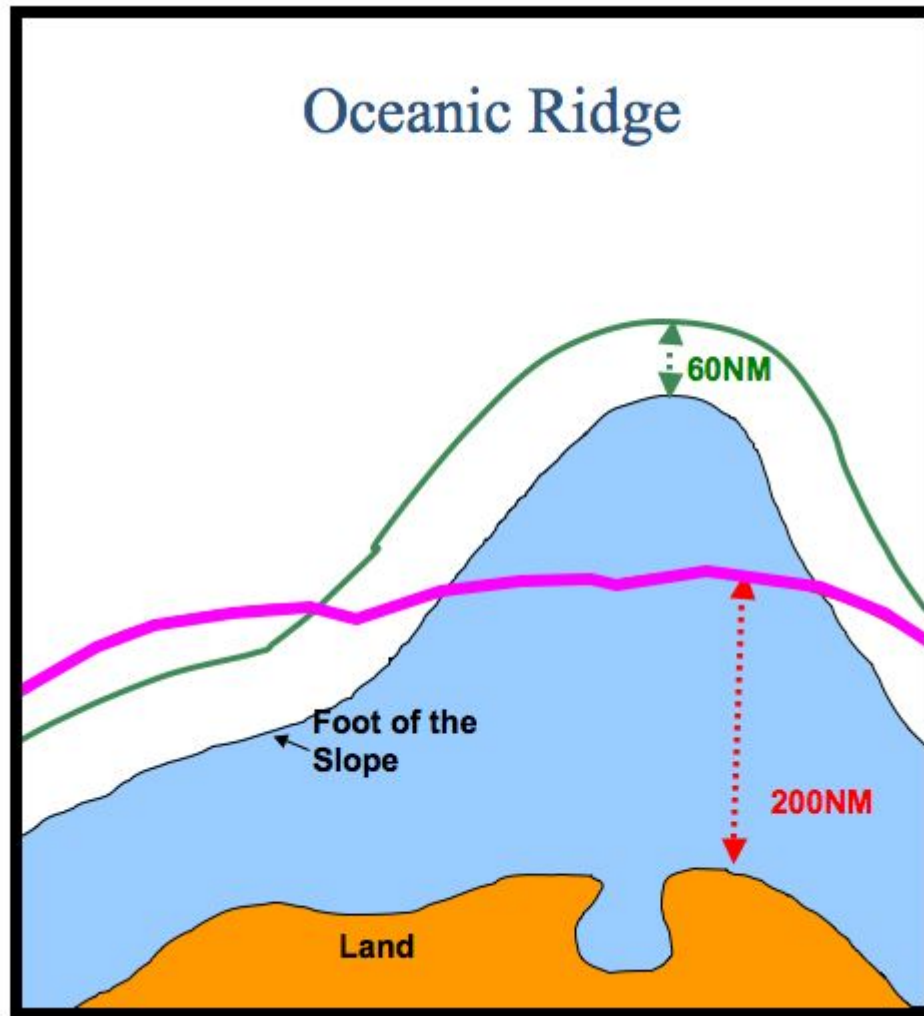
The continental margin

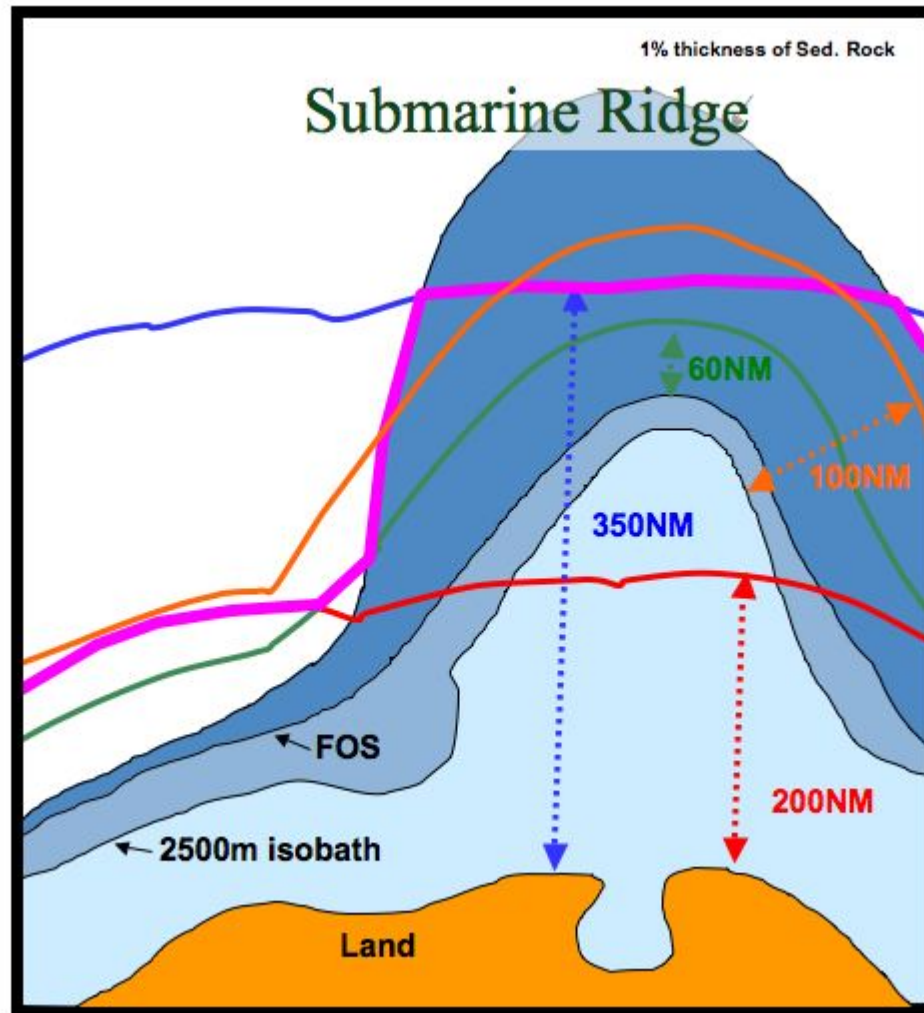
comprises the submerged prolongation of the land mass of the coastal State,

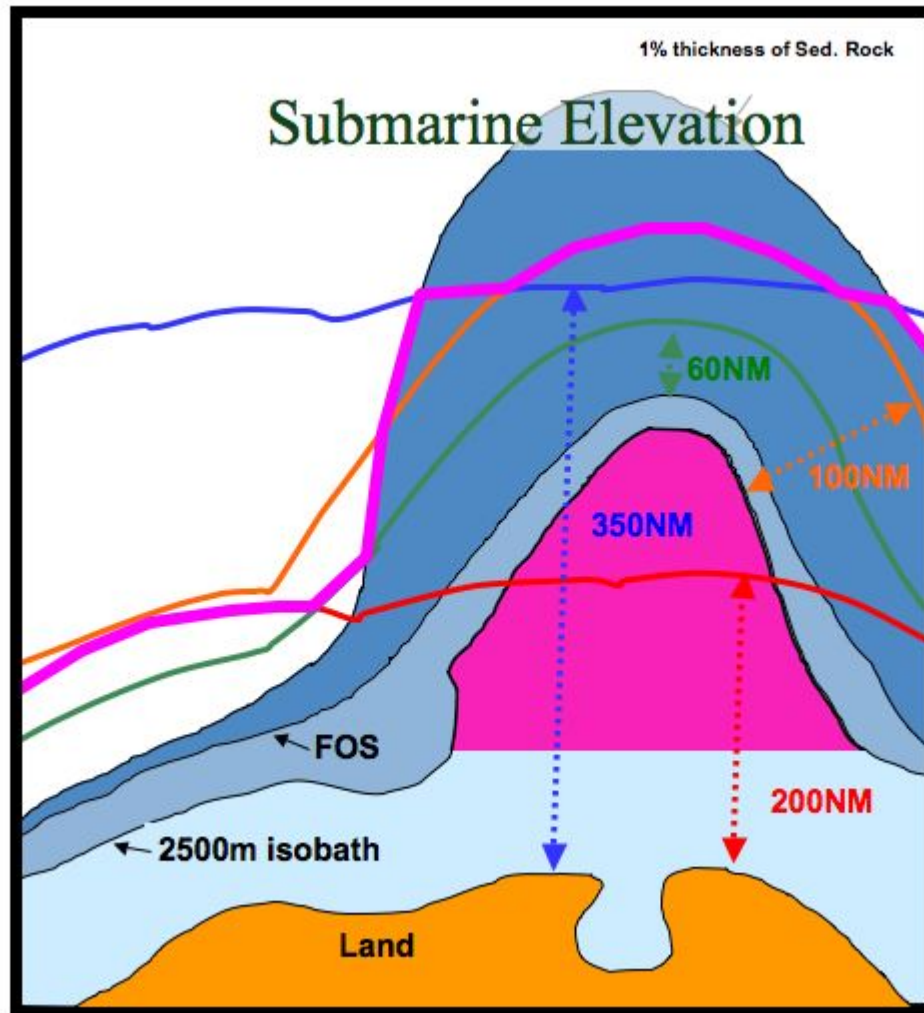
and consists of the seabed and subsoil of the shelf, the slope and the rise.

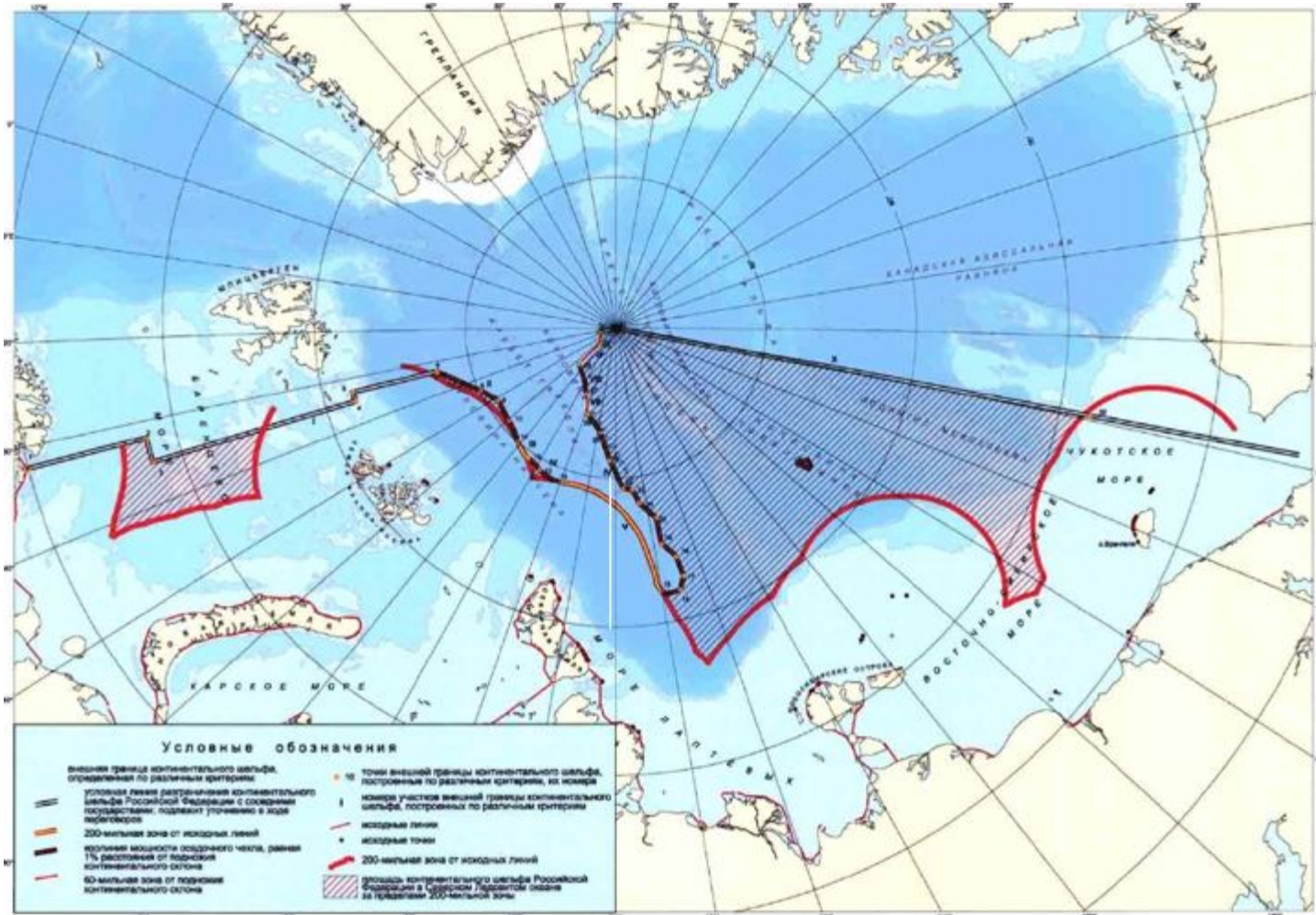
It does not include

the deep ocean floor with its oceanic ridges or the subsoil thereof.





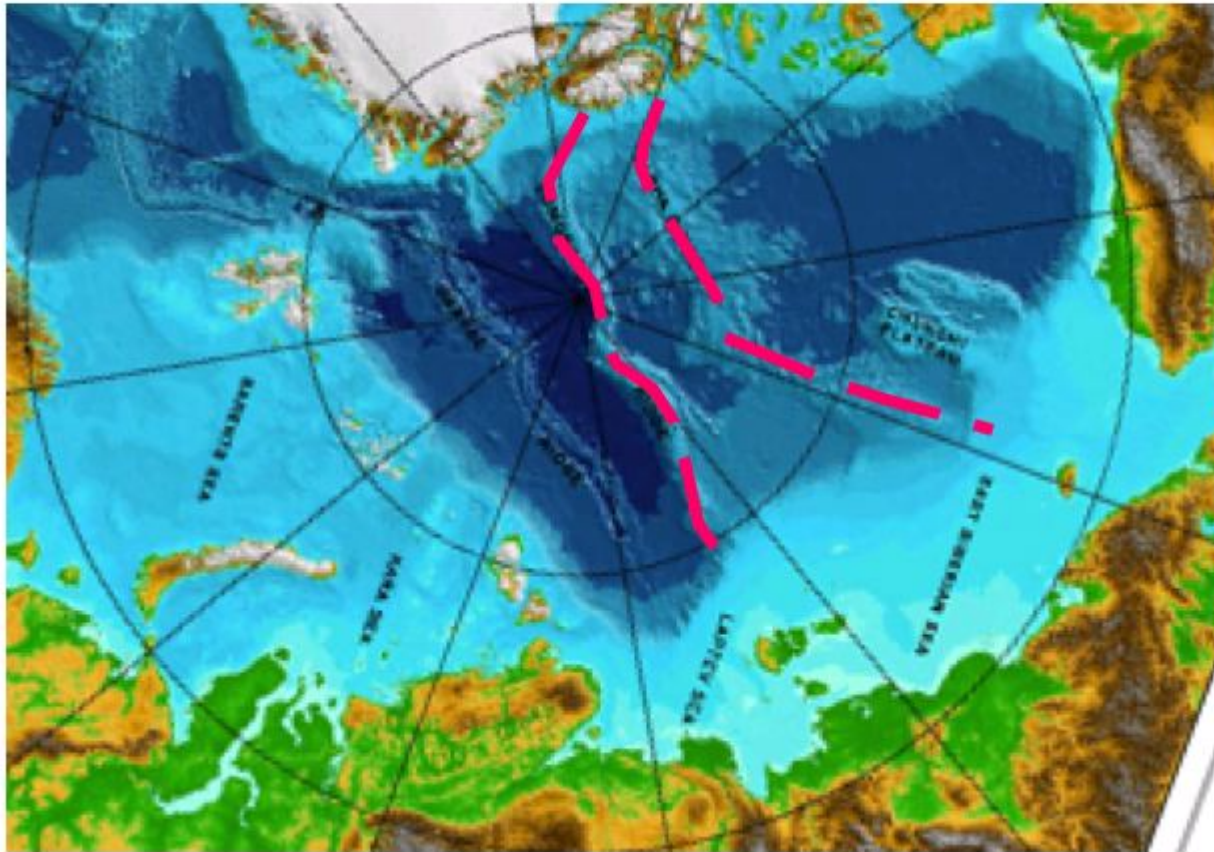




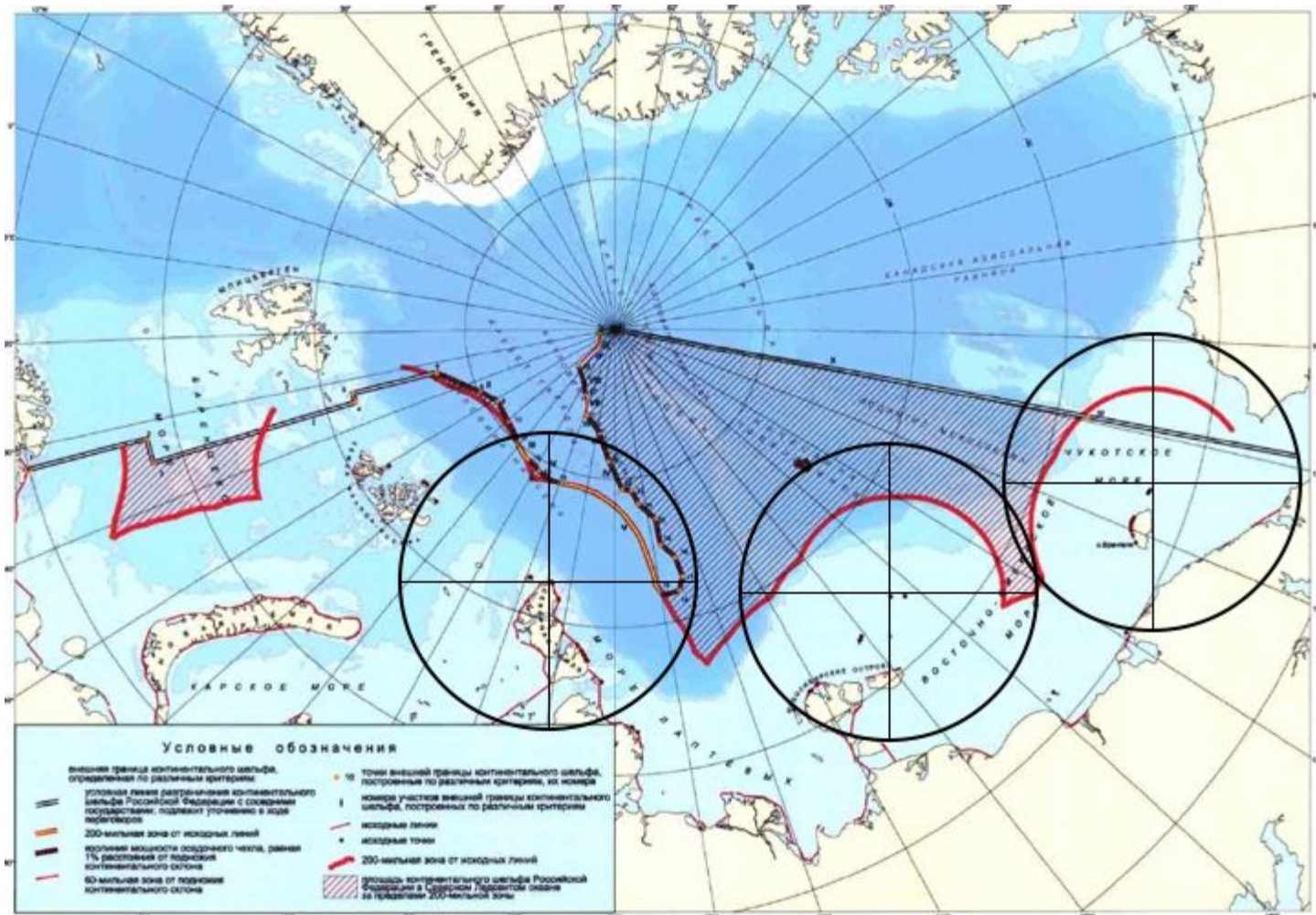
From the Executive Summary of the submission by the Russian Federation
 It is available at the website of the Commission on the Limits of the Continental Shelf in the website of the Division for Ocean Affairs and the Law of the Sea (DOALOS), United Nations.

http://www.un.org/Depts/los/clcs_new/submissions_files/submission_rus.htm

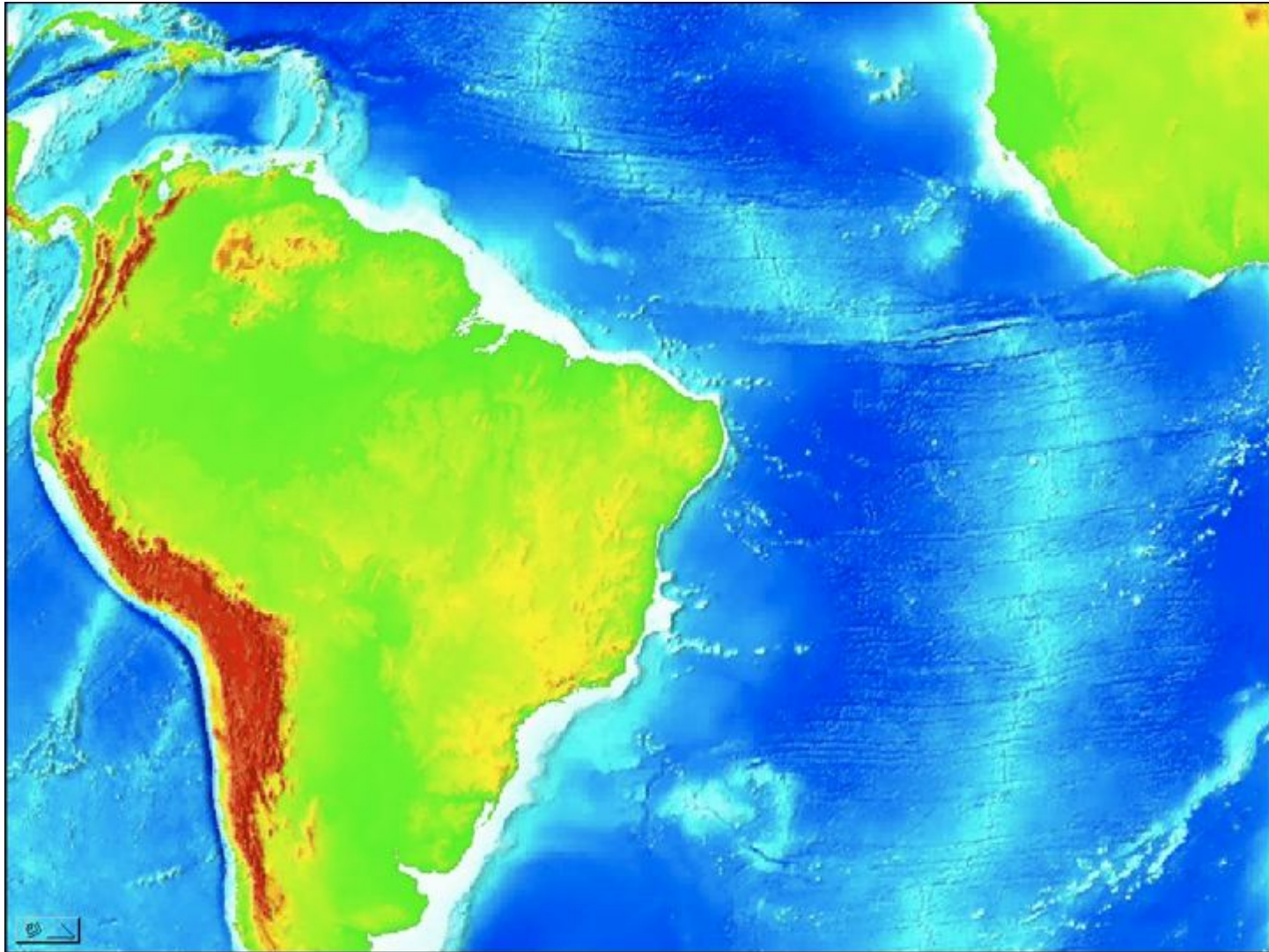
Arctic Bathymetry



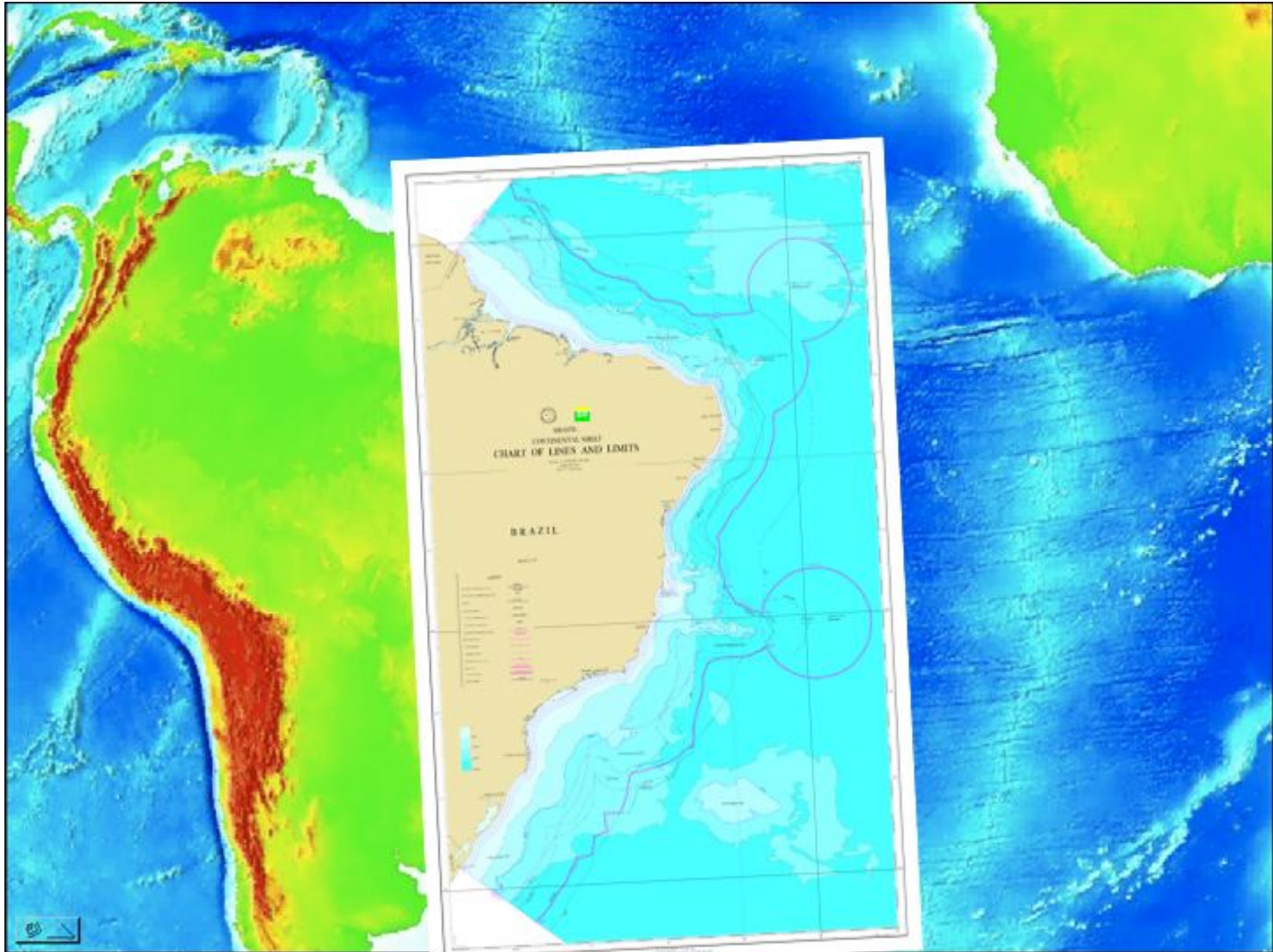
Source: Website of the United States National Geophysical Data Center (NGDC)
<http://www.ngdc.noaa.gov/ngdc.html>



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Source: Website of the United States National Geophysical Data Center (NGDC)
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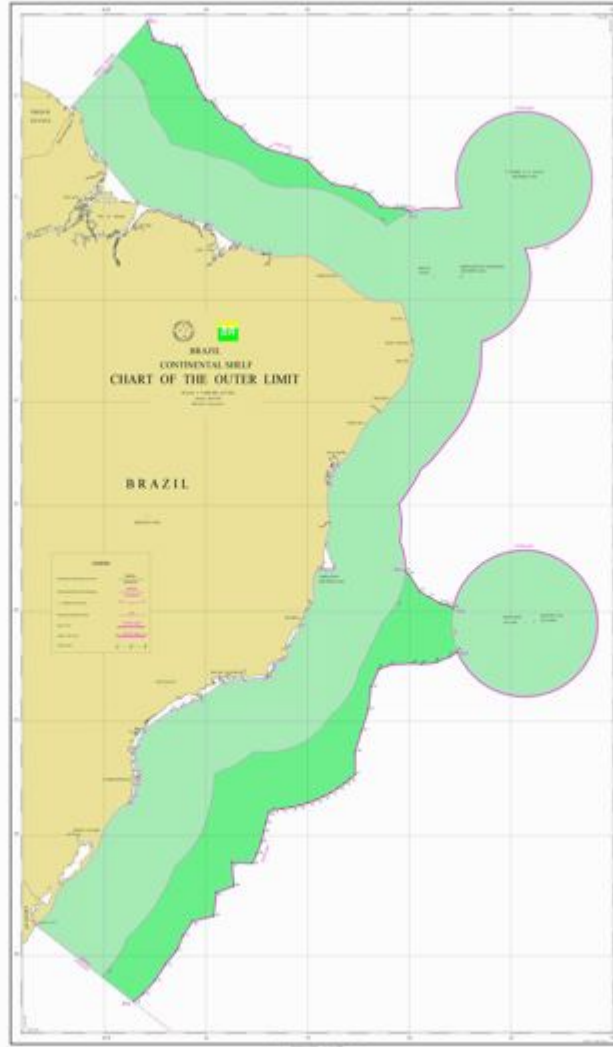
Pasted document is from the Executive Summary of the submission by Brazil.
It is available at the website of the Commission on the Limits of the Continental Shelf in the website of the Division for
Ocean Affairs and the Law of the Sea (DOALOS), United Nations.

http://www.un.org/Depts/los/clcs_new/submissions_files/submission_bra.htm



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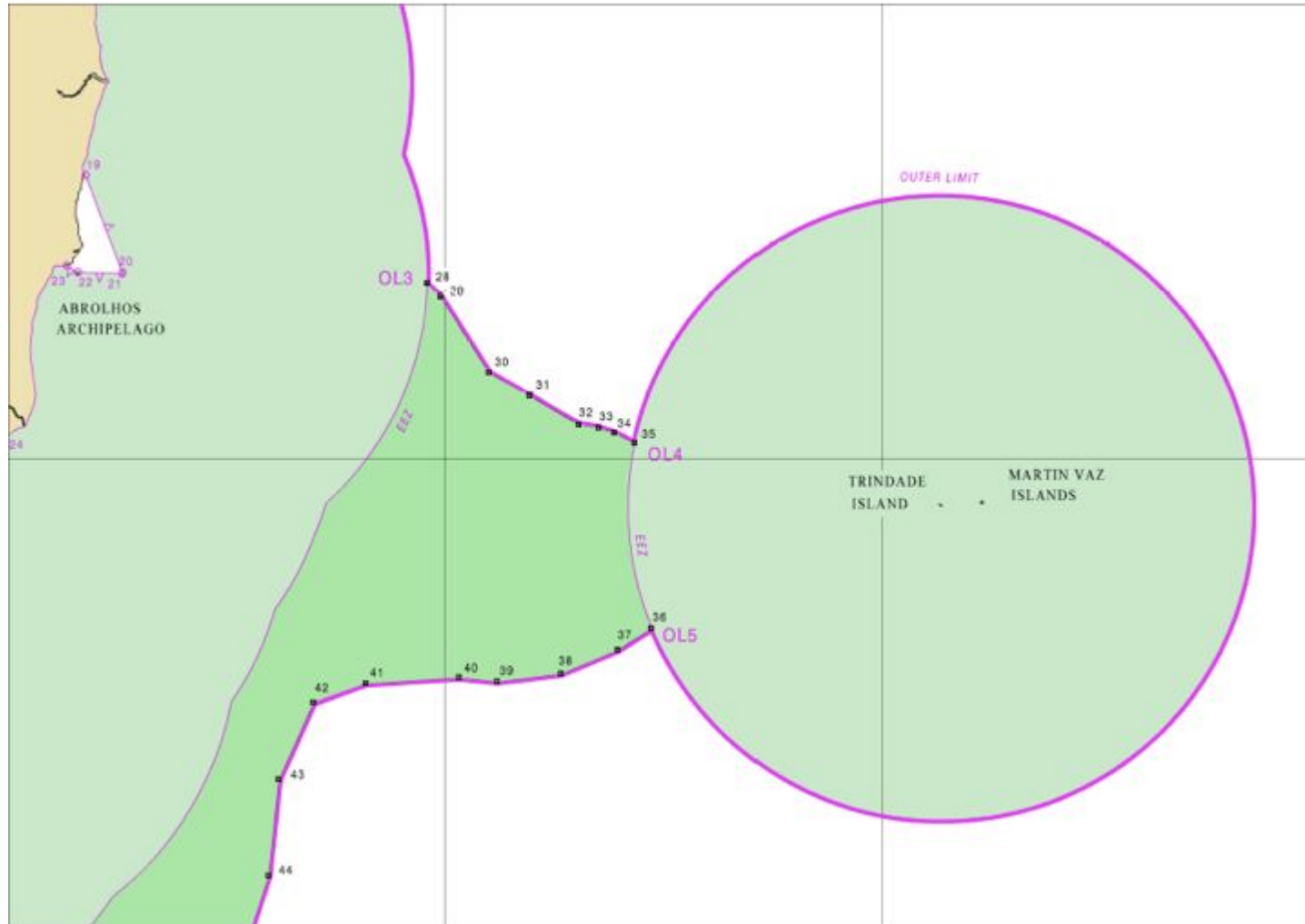
http://www.un.org/Depts/los/clcs_new/submissions_files/submission_bra.htm



From the Executive Summary of the submission by Brazil.

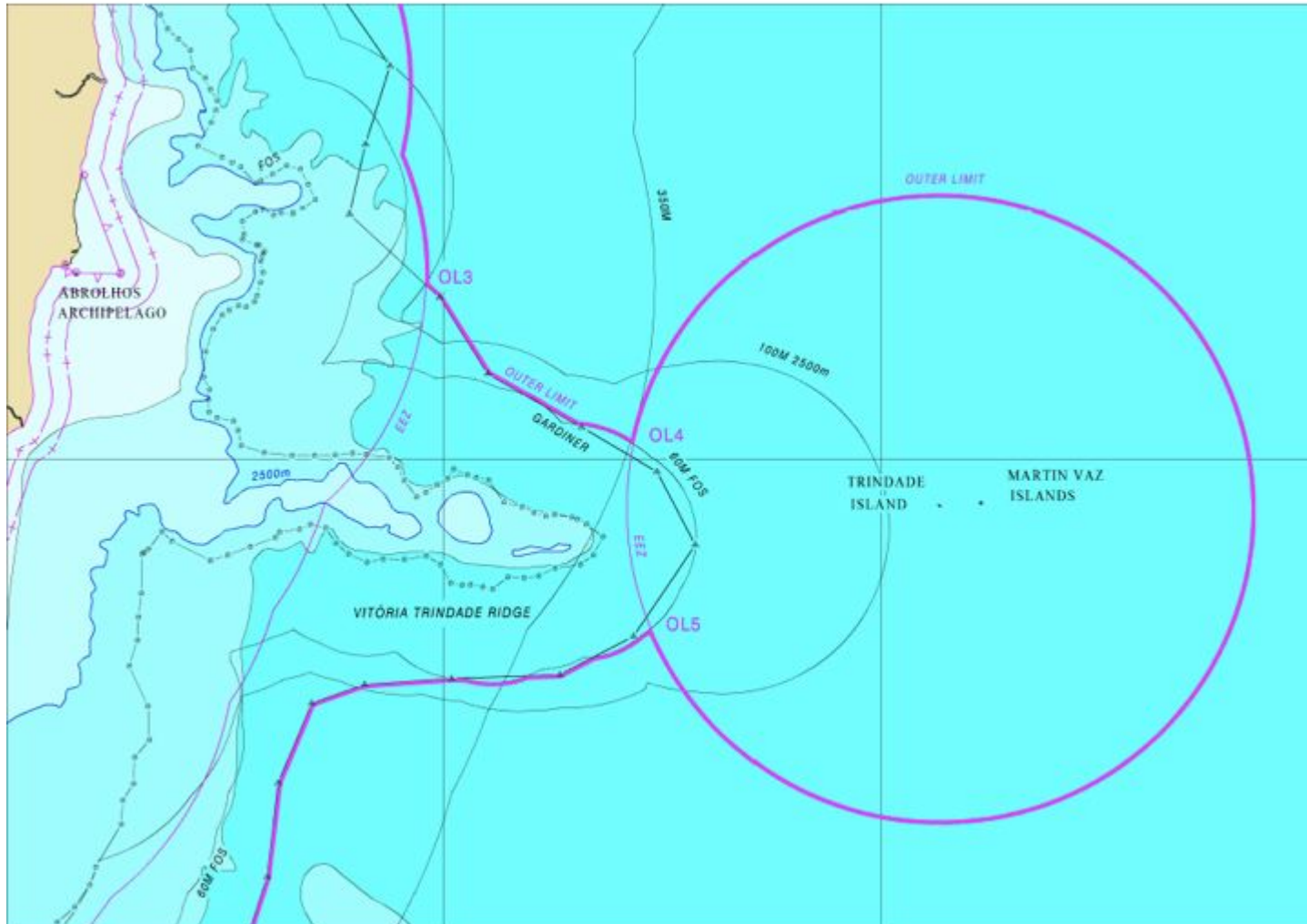
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Letter to UN from USA

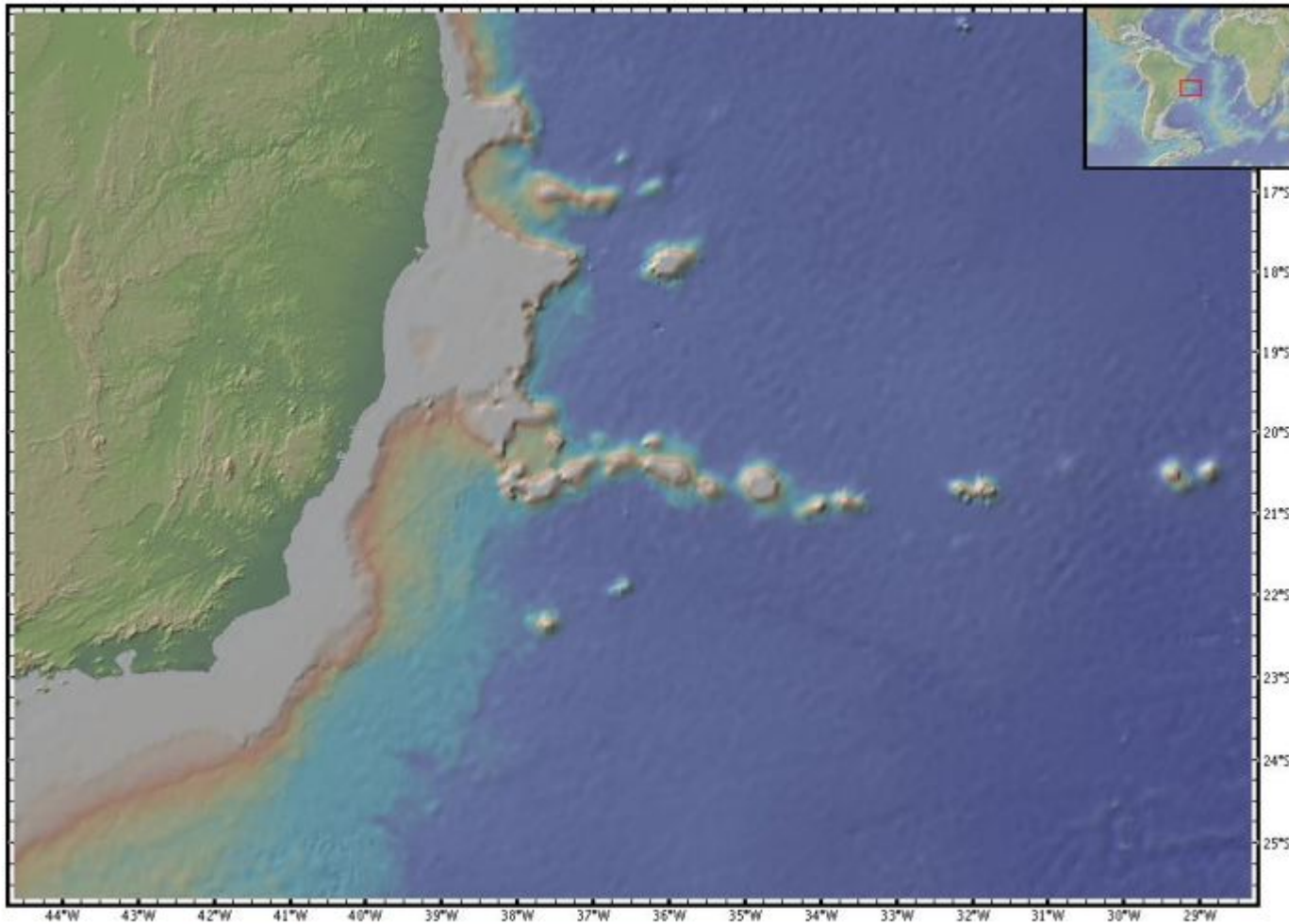
Vitoria-Trindade Feature

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 (SCUFN) 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.

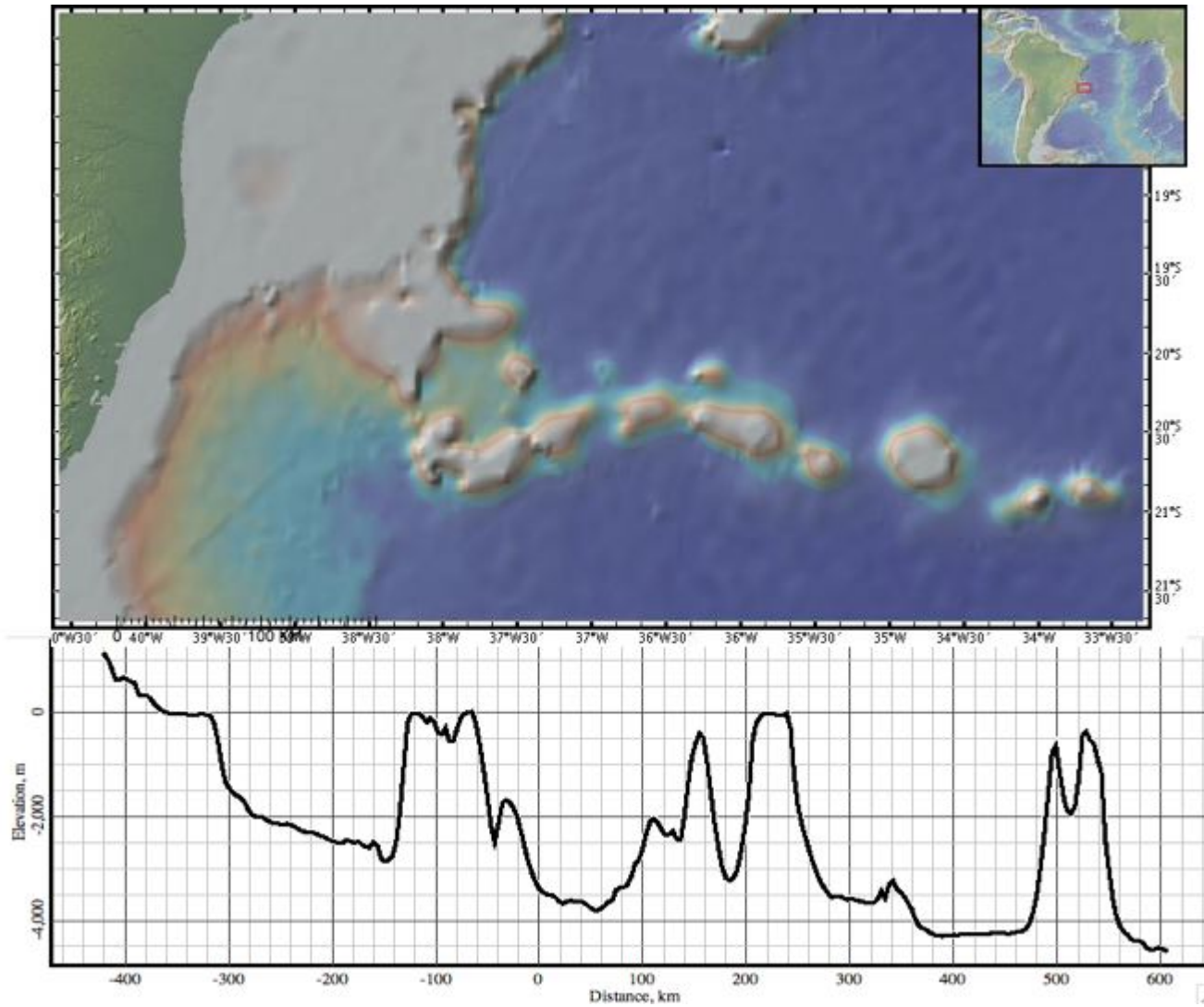
Source: Letter from the United States dated 25 August 2004

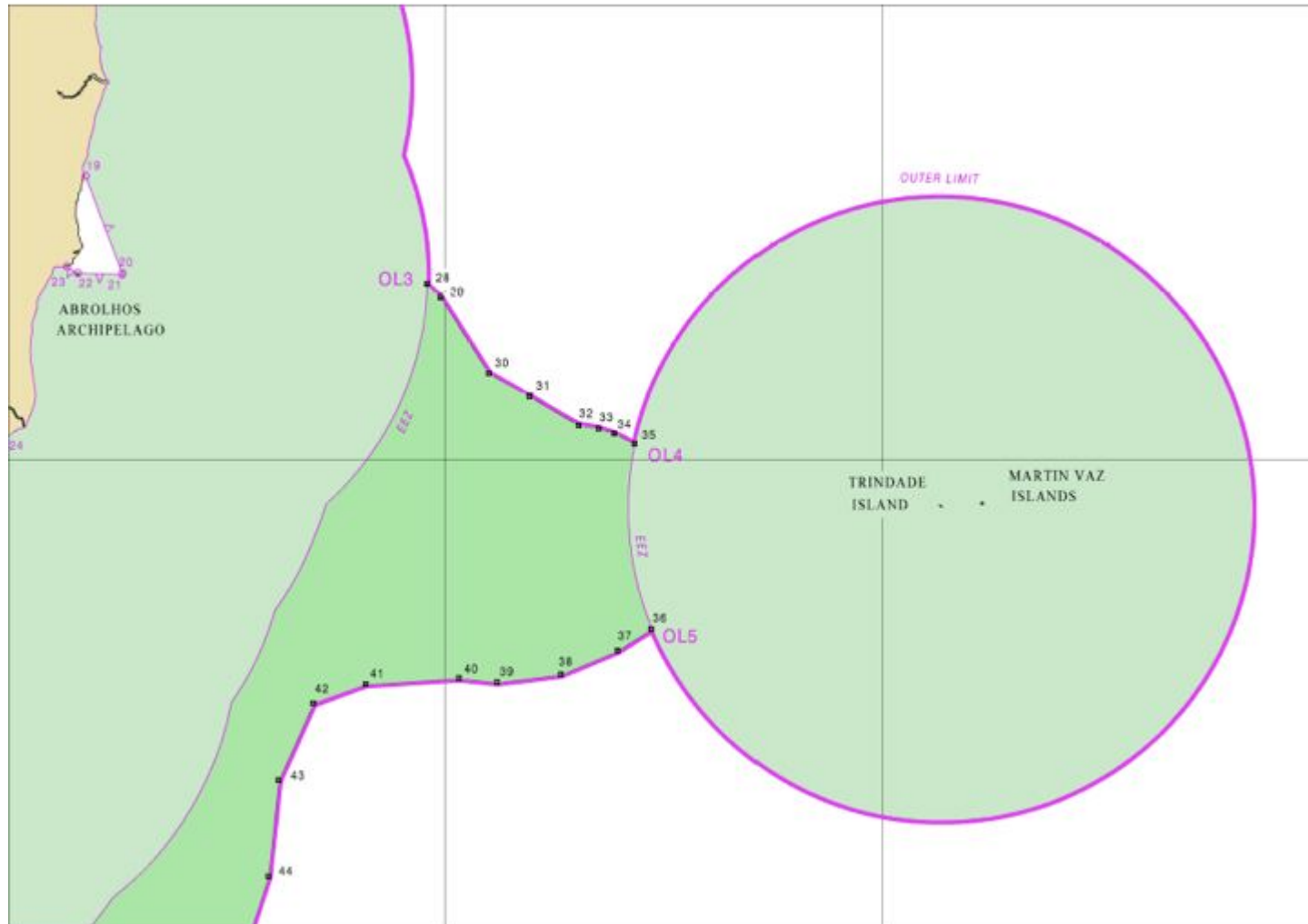
It is available at the website of the Commission on the Limits of the Continental Shelf in the website of the Division for Ocean Affairs and the Law of the Sea (DOALOS), United Nations.

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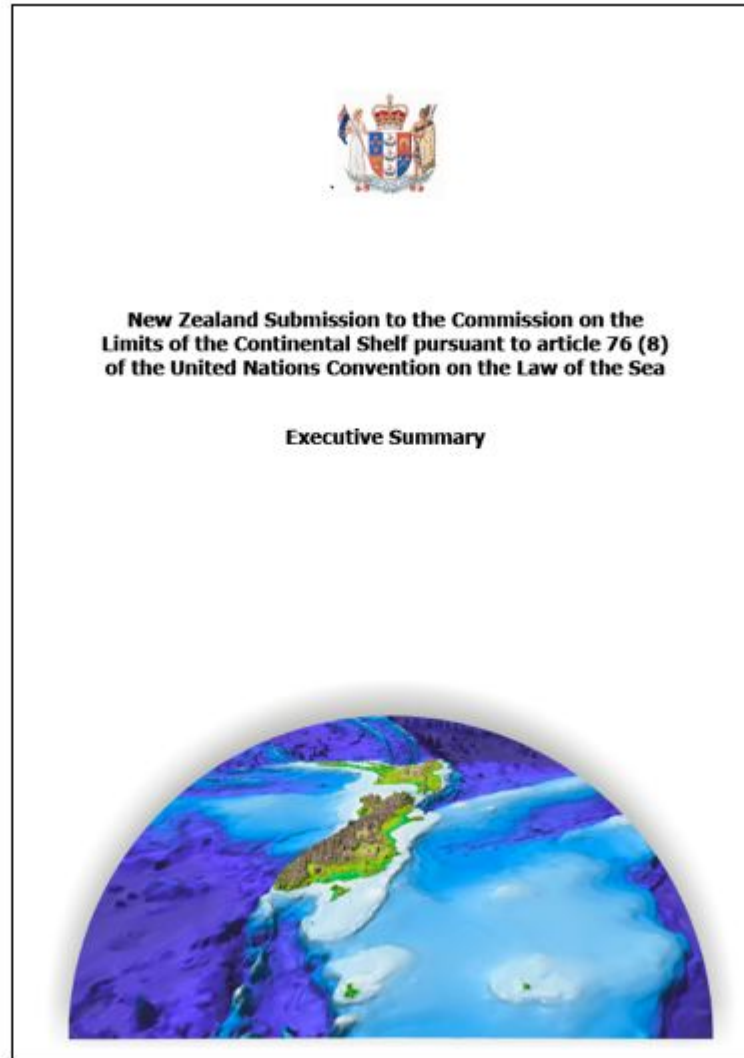


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http://www.un.org/Depts/los/clcs_new/submissions_files/submission_bra.htm

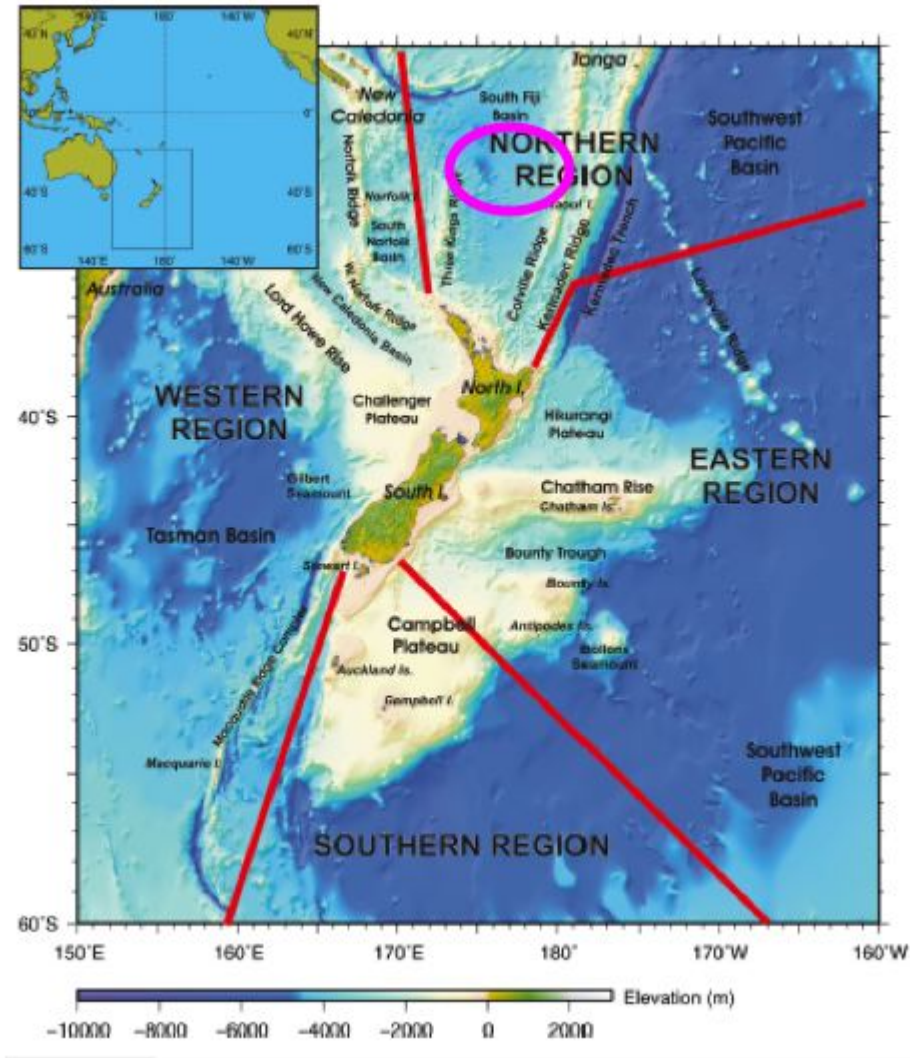
Straight lines

- 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.

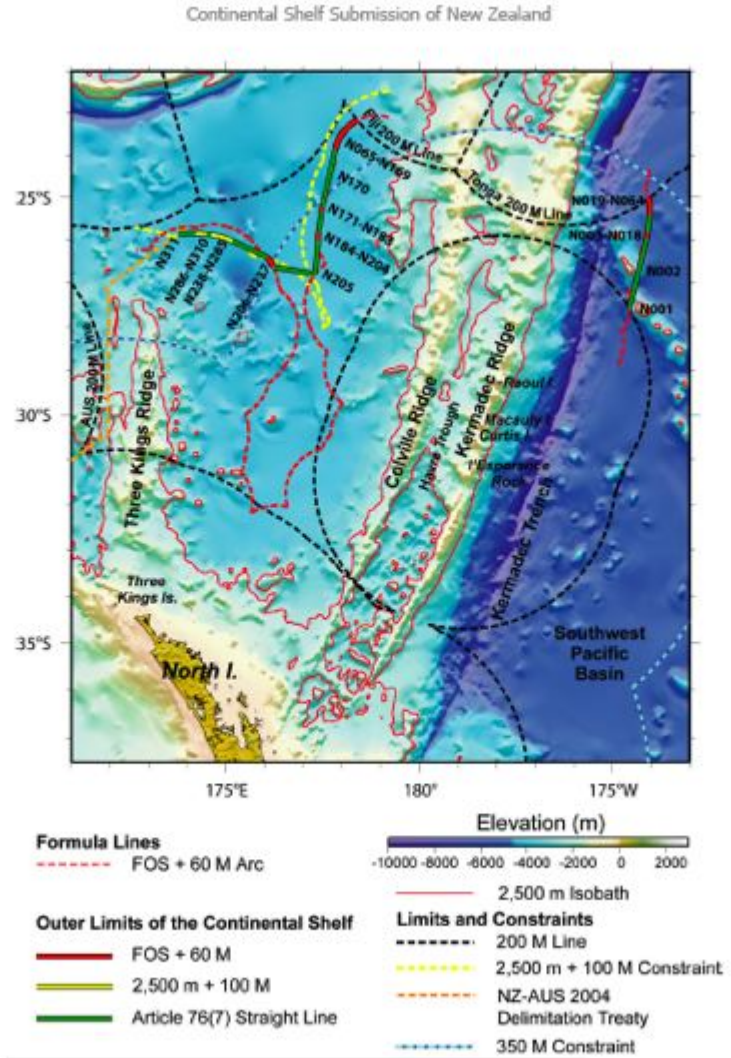


From the Executive Summary of the submission by New Zealand.
It is available at the website of the Commission on the Limits of the Continental Shelf in the website of the Division for
Ocean Affairs and the Law of the Sea (DOALOS), United Nations.

http://www.un.org/Depts/los/clcs_new/submissions_files/submission_nzl.htm

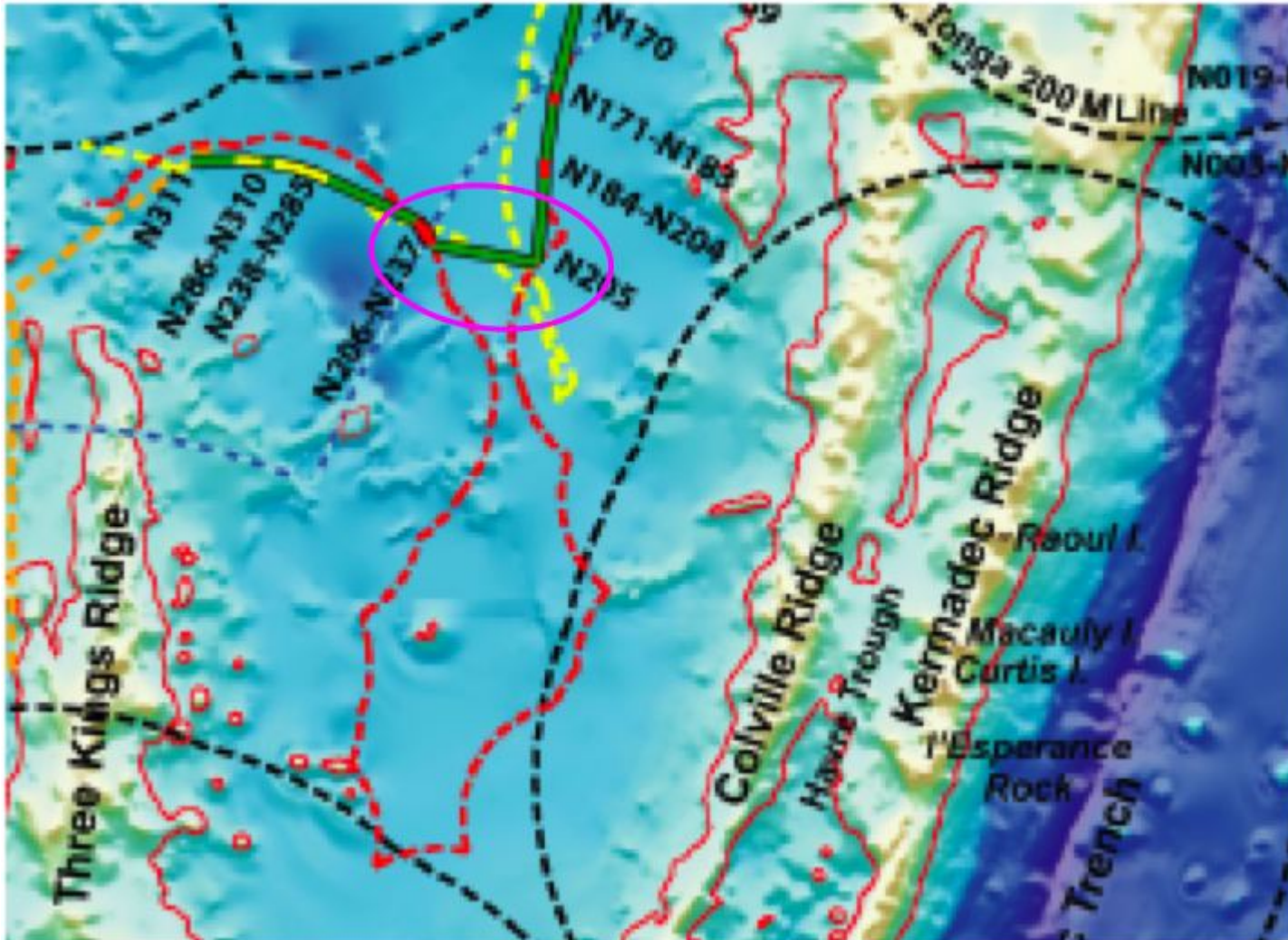


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Many thanks for your patience!

See you in Monaco at ABLOS Conference



From the website of IHO/IAG Advisory Board on the Law of the Sea (ABLOS)
http://www.gmat.unsw.edu.au/ablos/#ABLOS_Intro

An international conference on DIFFICULTIES IN IMPLEMENTING THE PROVISIONS OF UNCLOS, organised by ABLOS, will be held in Monaco on 16-17 October 2008. For the detail, please check the above website.



The International Hydrographic Bureau is located in this building.
The ABLOS international conference will be held here in October 2008.



For your information, this is the famous Monte-Carlo Casino in Monaco.