

**ANNEX II  
SUMMARY OF RECOMMENDATIONS OF THE COMMISSION**

**United Nations Convention on the Law of the Sea**

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**Commission on the Limits  
of the Continental Shelf**

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**SUMMARY OF RECOMMENDATIONS OF THE COMMISSION ON THE  
LIMITS OF THE CONTINENTAL SHELF IN REGARD TO THE  
SUBMISSION MADE BY THE FEDERAL REPUBLIC OF NIGERIA ON  
7 MAY 2009\***

Recommendations prepared by the Subcommittee established for the consideration  
of the Submission made by Nigeria

Adopted by the Subcommittee on 17 February 2023

Approved by the Commission, with amendments, on 11 August 2023

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\* The aim of this Summary is to provide information which is not of confidential or proprietary nature in order to facilitate the function of the Secretary-General in accordance with paragraph 11(3) of annex III to the rules of procedure of the Commission (CLCS/40/Rev.1). This Summary is based on excerpts of the Recommendations and may refer to material not necessarily included either in the full Recommendations or this Summary.

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## GLOSSARY OF TERMS

<b>60 M formula line</b>	The line delineated by reference to fixed points not more than 60 nautical miles from the foot of the continental slope
<b>60 M formula point</b>	Fixed point not more than 60 nautical miles from the foot of the continental slope
<b>200 M line</b>	The line at a distance of 200 nautical miles from the baselines from which the breadth of the territorial sea is measured
<b>2,500 m isobath</b>	A line connecting the depth of 2,500 metres
<b>Article 76</b>	Article 76 of the Convention
<b>Baselines</b>	The baselines from which the breadth of the territorial sea is measured
<b>BOS</b>	Base of the continental slope
<b>Commission</b>	The Commission on the Limits of the Continental Shelf
<b>Convention</b>	The United Nations Convention on the Law of the Sea of 10 December 1982
<b>Depth Constraint</b>	The constraint line determined at a distance of 100 M from the 2,500 m isobath
<b>Distance Constraint</b>	The constraint line determined at a distance of 350 M from the baselines
<b>DOALOS</b>	Division for Ocean Affairs and the Law of the Sea, Office of Legal Affairs, United Nations
<b>FOS</b>	Foot of the continental slope
<b>Guidelines</b>	The Scientific and Technical Guidelines of the Commission (CLCS/11 and CLCS/11/Add.1)
<b>M</b>	Nautical mile
<b>Rules of procedure</b>	The Rules of Procedure of the Commission (CLCS/40/Rev.1)
<b>Secretary-General</b>	The Secretary-General of the United Nations
<b>Sediment thickness formula line</b>	The line delineated 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 FOS
<b>Sediment thickness formula point</b>	Outermost fixed point at which the thickness of sedimentary rocks is at least 1 per cent of the shortest distance from that point to the FOS

## I. INTRODUCTION

- 1 On 7 May 2009, the Federal Republic of Nigeria (“Nigeria”) submitted to the Commission, through the Secretary-General,<sup>1</sup> information on the limits of the continental shelf beyond 200 M from the baselines, in accordance with article 76, paragraph 8 (“Submission”).
- 2 The Convention entered into force for Nigeria on 16 November 1994.
- 3 The Submission was made in respect of the western part of the Gulf of Guinea. According to the coastal State, there might be overlapping claims in the region by other States and consultations were expected to take place for their delimitation. Furthermore, there were no disputes in the region relevant to the Submission, which was made without prejudice to the delimitation of continental shelf boundaries between States according to article 76, paragraph 10.
- 4 On 11 May 2009, the Secretary-General issued Continental Shelf Notification CLCS.38.2009.LOS<sup>2</sup> giving due publicity to the Executive Summary of the Submission in accordance with rule 50 of the rules of procedure. Pursuant to rule 51 of the rules of procedure, the consideration of the Submission was included in the agenda of the twenty-fourth session of the Commission held from 10 August to 11 September 2009.
- 5 Pursuant to section 2 of annex III to the rules of procedure, a presentation of the Submission was made to the plenary of the twenty-fourth session of the Commission on 28 August 2009 by Michael Aondoakaa, Attorney General and Minister of Justice, Head of Delegation, and Aliyu Omar, Director, National Boundary Commission. The Delegation of Nigeria also included U. Joy Ogwu, Permanent Representative of Nigeria to the United Nations, and a number of advisers. In addition to elaborating on substantive points of the Submission, Mr. Aondoakaa informed that Mr. Awosika and Mr. Carrera, members of the Commission,<sup>3</sup> had assisted Nigeria by providing scientific and technical advice with respect to the Submission. In reference to paragraph 2 (a) of annex I to the rules of procedure, Mr. Aondoakaa indicated that there were no disputes in the region relevant to the Submission. In this regard, he informed the Commission that Nigeria had held consultations with the Governments of its neighbouring States with the aim to prevent any obstacles to the implementation of article 76 on the part of Nigeria. In this connection, he also noted that no State had presented a note verbale informing the Commission about any maritime or land disputes relating to the Submission.
- 6 The Commission received and took note of the contents of the following communication transmitted to the Commission in regard to the Submission and of the views expressed by the Delegation in connection with the communication.
- 7 In note verbale UN-15(1)a dated 28 July 2009, the Republic of Ghana informed the Secretary-General that it had no objection to the consideration of the Submission.

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<sup>1</sup> The Submission was received by DOALOS as the secretariat of the Commission.

<sup>2</sup> See Continental Shelf Notification CLCS.38.2009.LOS at [http://www.un.org/depts/los/clcs\\_new/submissions\\_files/submission\\_nga\\_38\\_2009.htm](http://www.un.org/depts/los/clcs_new/submissions_files/submission_nga_38_2009.htm)

<sup>3</sup> Mr. Carrera was a member of the Commission from 1997-2017. Mr. Awosika was a member of the Commission from 1997-2023. The Amended Executive Summary of the Submission (see paragraph 17) indicated that the Submission also benefited from advice provided by Mr. Harald Brekke, a current member of the Commission.

- 8 The Commission addressed the modalities for the consideration of the Submission and decided that, as provided for in article 5 of annex II to the Convention and in rule 42 of the rules of procedure, the Submission would be addressed by a subcommission to be established in accordance with rule 51, paragraph 4 *ter*, of the rules of procedure at a future session.
- 9 The Subcommission for the consideration of the Submission made by Nigeria was established on 3 August 2015 during the plenary of the thirty-eighth session of the Commission. The following members of the Commission were appointed as members of the Subcommission: Martin Vang Heinesen, Wenzheng Lyu, Estevão Stefane Mahanjane, Simon Njuguna, Carlos Marcelo Paterlini and Tetsuro Urabe. The Commission decided that the seventh member of the Subcommission would be appointed at a future session. The Subcommission elected Mr. Mahanjane as its Chairperson, and Messrs. Heinesen and Lyu as its Vice-Chairpersons.
- 10 The term of the 20 members of the Commission elected in 2012 expired on 15 June 2017. On 14 June 2017, during the twenty-seventh Meeting of States Parties, 20 members of the Commission were elected for a term of five years (SPLOS/316, paras. 77-86) and this resulted in one vacancy in the Subcommission. At the forty-fourth session, the Commission appointed Mr. Yamazaki to replace Mr. Urabe and appointed Ms. De Landro-Clarke as the seventh member of the Subcommission, so that the membership of the Subcommission became as follows: Ms. De Landro-Clarke and Messrs. Heinesen, Lyu, Mahanjane, Njuguna, Paterlini and Yamazaki. The Subcommission subsequently re-elected Mr. Mahanjane as its Chairperson and Messrs. Heinesen and Lyu as its Vice-Chairpersons.
- 11 Following the resignation of Mr. Lyu on 25 July 2018, at the forty-seventh session of the Commission, the Subcommission elected Mr. Yamazaki to replace him as one of the Vice-Chairs. On 15 January 2019, during a resumed twenty-eighth Meeting of States Parties, Mr. Tang was elected as a member of the Commission for the remainder of Mr. Lyu's term of office. At the forty-ninth session, the Commission appointed Mr. Tang as a member of the Subcommission to replace Mr. Lyu.
- 12 At the fifty-second session, in order to ensure quorum and sufficient expertise amongst all subcommissions, the Commission decided to appoint Ms. De Landro-Clarke to another subcommission. The Commission also decided that a seventh member of the Subcommission would be appointed at a subsequent stage.
- 13 The Subcommission examined the Submission from the thirty-eighth to the fifty-seventh sessions. During these sessions, the Subcommission held 24 meetings with the Delegation, posed questions in writing and presented considerations involving documents and presentations. During the course of the examination of the Submission by the Subcommission, the Delegation provided responses to the questions posed both in writing and as presentations, and provided additional data and information.
- 14 The Subcommission conducted its interactions with the Delegation in accordance with the rules of procedure and practice of the Commission, outlined in a document presented to the Delegation at the first meeting with the Subcommission.
- 15 Following its establishment, the Subcommission met during the thirty-eighth session to commence its consideration of the Submission and to conduct a preliminary analysis of the Submission pursuant to paragraph 5.1 of annex III to the rules of procedure.

- 16 At the thirty-ninth session, the Subcommission commenced the main scientific and technical examination of the Submission pursuant to paragraph 9 of annex III to the rules of procedure.
- 17 On 18 November 2016, during the forty-second session, Nigeria transmitted an amendment to the Submission ("Amended Submission"), which was to be considered in conjunction with the original Submission made on 7 May 2009.
- 18 On 1 December 2016, the Secretary-General issued Continental Shelf Notification CLCS.38.2009.LOS.Add.1 giving due publicity to the amendment to the Executive Summary in accordance with rule 50 of the rules of procedure of the Commission.
- 19 On 23 March 2017, the Republic of Cameroon transmitted note verbale No. 163/DCN/ in connection with the Amended Submission.<sup>4</sup>
- 20 The main scientific and technical examination continued until the fifty-sixth session when, on 19 October 2022, the Subcommission provided a comprehensive presentation of its views and general conclusions arising from the examination of the Submission in accordance with paragraph 10.3 of annex III to the rules of procedure. On 21 October 2022, during the same session, the Delegation provided its response to the presentation by the Subcommission, pursuant to paragraph 10.4 of annex III to the rules of procedure.
- 21 The Subcommission adopted its Recommendations on 17 February 2023, during the fifty-seventh session, and submitted them to the Commission on the same date for consideration and approval.
- 22 The Subcommission made a presentation to the Commission on the substance and rationale for its Recommendations on 6 March 2023. On the same date, the Delegation made a presentation to the Commission in accordance with paragraph 15.1 *bis* of annex III to the rules of procedure. On 19 July 2023, in light of the change in membership of the Commission, the continuing members of the Subcommission, Messrs. Mahanjane, Njuguna, Tang and Yamazaki, reintroduced the presentation by the Subcommission to the Commission. On 8 August 2023, the Delegation delivered a repeat of its presentation in accordance with paragraph 15.1 *bis*, following its request to do so in view of the election of the new members of the Commission.
- 23 The Commission prepared these Recommendations, which were approved on 11 August 2023, taking into consideration article 76 and annex II to the Convention, the Guidelines and the rules of procedure.
- 24 The Recommendations of the Commission are based on the scientific and technical data and other material provided by the submitting State in relation to the implementation of article 76. The Commission makes these Recommendations to Nigeria in fulfilment of its mandate as contained in article 76 and in articles 3 and 5 of annex II to the Convention.
- 25 The Recommendations of the Commission only deal with issues related to article 76 and annex II to the Convention and shall not prejudice matters relating to delimitation of boundaries between States with opposite or adjacent coasts, or prejudice the position of States which are parties to a land or maritime dispute, or the application of other parts of the Convention or any other treaties.

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<sup>4</sup> At the request of the Republic of Cameroon, the note verbale was not made public.

- 26 The Commission makes Recommendations to coastal States on matters related to the establishment of the outer limits of their continental shelf in accordance with article 76, paragraph 8. Pursuant to this provision, the limits of the continental shelf established by a coastal State on the basis of these Recommendations shall be final and binding.
- 27 Throughout the examination of the Submission, the Subcommittee requested and received support from DOALOS.

## **II. CONTENTS OF THE SUBMISSION**

### **A. Original Submission**

- 28 The original Submission received on 7 May 2009 contained three parts: an Executive Summary; a Main Body which is the analytical and descriptive part; and Scientific and Technical Data.

### **B. Amendment to the Submission**

- 29 On 18 November 2016, during the forty-second session, Nigeria transmitted an amendment to the Submission, based on newly acquired scientific data, which was to be considered in conjunction with the original Submission made on 7 May 2009. The Amended Submission contained three parts: an Executive Summary; a Main Body which is the analytical and descriptive part; and Scientific and Technical Data.

### **C. Communications and additional material**

- 30 In the course of the examination of the Submission by the Subcommittee, the Delegation submitted additional material, including responses to questions and requests for clarifications of the Subcommittee.

## **III. EXAMINATION OF THE SUBMISSION BY THE SUBCOMMISSION**

### **A. Examination of the format and completeness of the Submission**

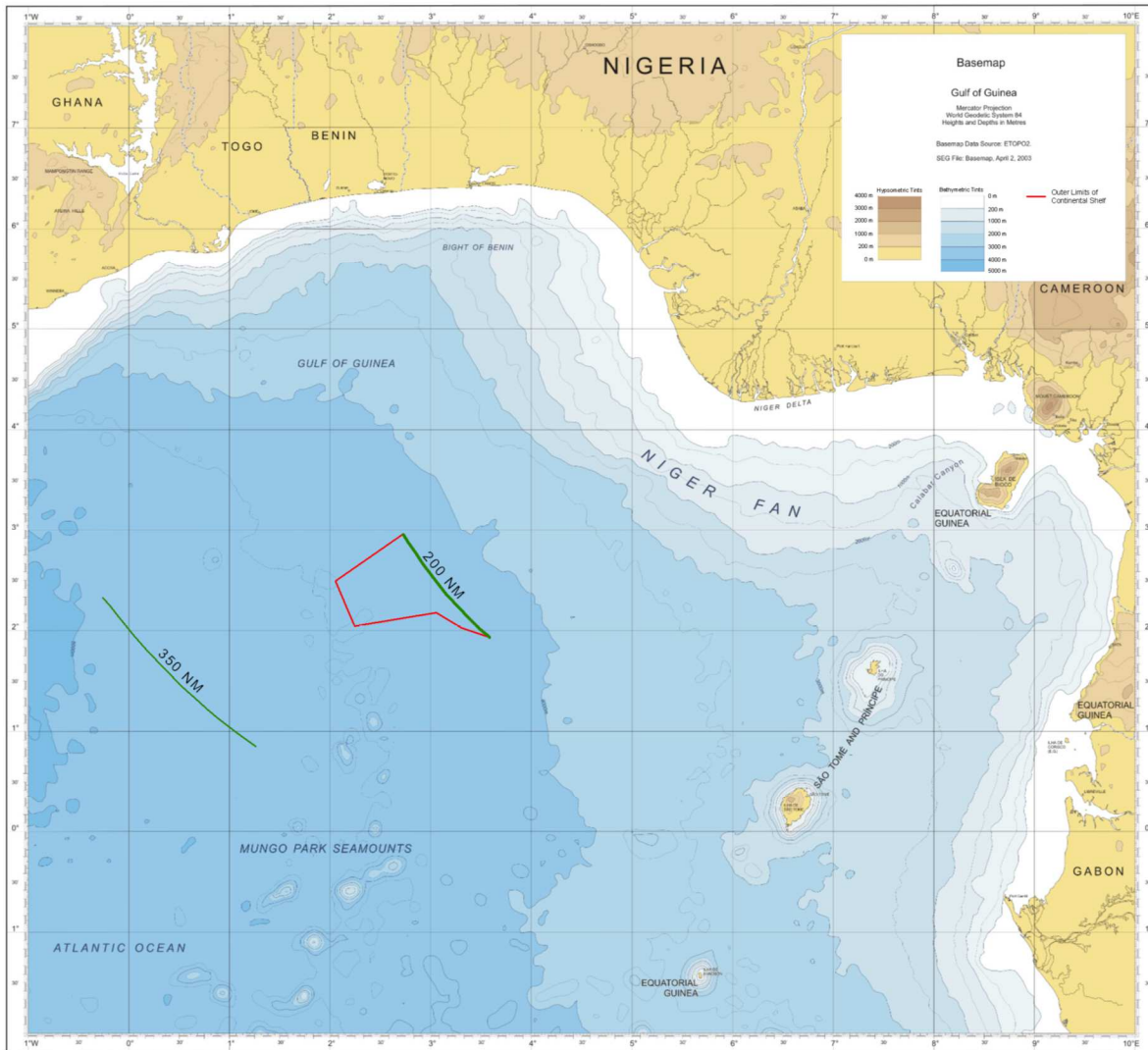
- 31 Pursuant to paragraph 3 of annex III to the rules of procedure, the Subcommittee verified the format and completeness of the Submission.

### **B. Preliminary analysis of the Submission**

- 32 Pursuant to paragraph 5 of annex III to the rules of procedure, the Subcommittee undertook a preliminary analysis of the original Submission, in accordance with article 76 and the Guidelines and determined that:
  - (a) The outer edge of the continental margin, established from the FOS by applying the provisions of article 76, paragraph 4 (a) (i), as submitted, extends beyond the 200 M line of Nigeria. The Subcommittee concluded that, subject to verification during the main scientific and technical examination of the Submission, the test of appurtenance was satisfied. At an advanced stage of the examination of the Submission, the Subcommittee verified that the test of appurtenance is met, based on the final revised and verified locations of FOS and formula points.



- (b) The proposed outer limits of the continental shelf of Nigeria beyond 200 M (**Figure 1**) are based on sediment thickness formula points that are located landward of the distance constraint;



**Figure 1.** Bathymetric map showing the configuration of the outer limits of the continental shelf as proposed in the original Submission of Nigeria made on 7 May 2009 [Figure 4.15, original Main Body]

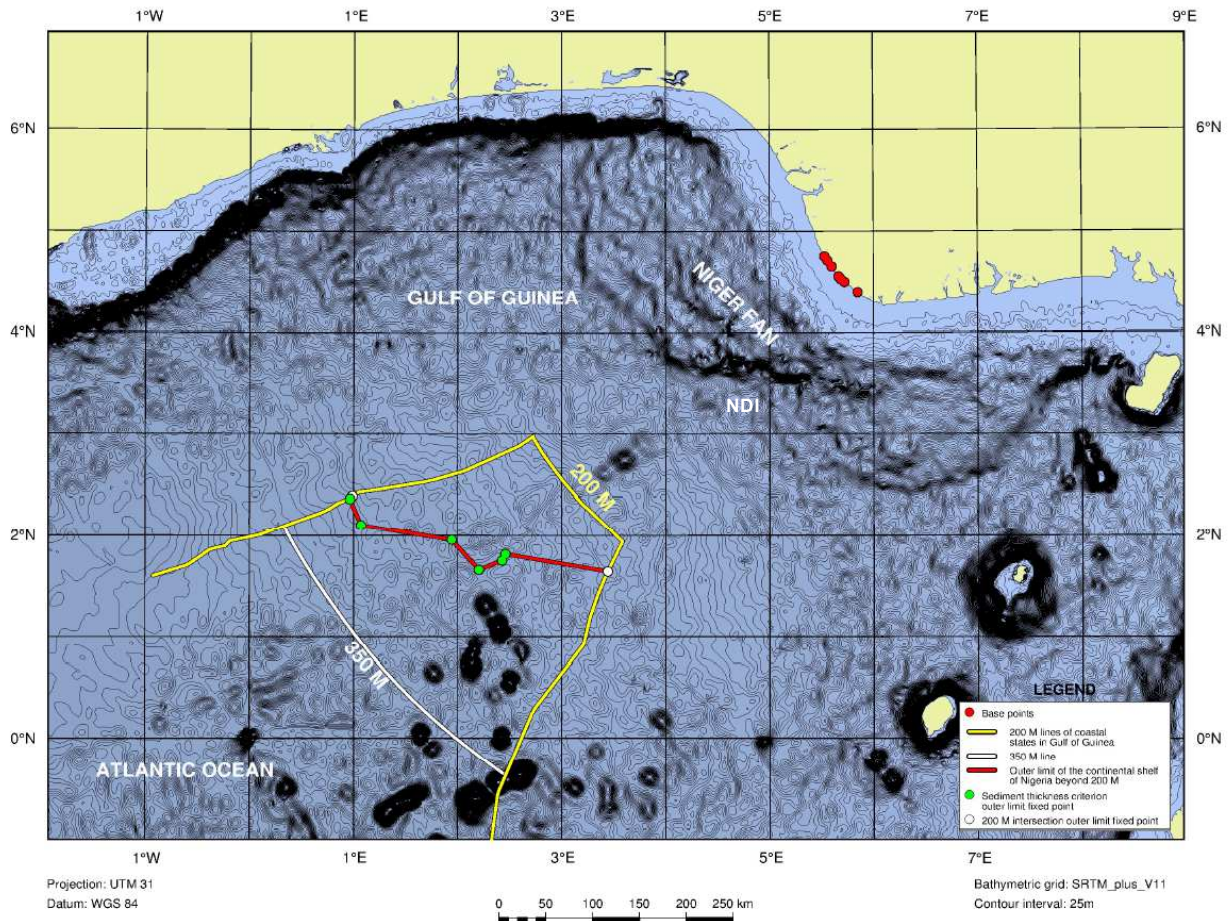
- (c) The outer limits contain straight lines not exceeding 60 M in length;
- (d) The cooperation of relevant international organizations, in accordance with rule 56 of the rules of procedure, or the advice of a specialist in accordance with rule 57 and/or of any other member of the Commission would not be sought; and
- (e) Additional time would be required to review all the data and to prepare its Recommendations during future sessions of the Commission.

### C. Main scientific and technical examination of the Submission

- 33 Pursuant to paragraph 9 of annex III to the rules of procedure, the Subcommission conducted an examination of the Submission based on article 76 and the Guidelines and evaluated the following, as applicable:
- (a) The data and methodology employed to determine the location of the FOS;
  - (b) The methodology used to determine the formula line at a distance of 60 M from the FOS;
  - (c) The data and methodology used to determine the sediment thickness formula line, or the formula line envisaged in the Statement of Understanding;
  - (d) The data and methodology employed to determine the 2,500 metre isobath;
  - (e) The methodology used to determine the depth constraint;
  - (f) The data and methodology used to determine the distance constraint;
  - (g) The construction of the formulae line as the outer envelope of the two formulae;
  - (h) The construction of the constraint line as the outer envelope of the two constraints;
  - (i) The construction of the inner envelope of the formulae and constraint lines;
  - (j) The delineation of the outer limit of the continental shelf by means of straight lines not exceeding 60 M in length with a view to ensuring that only the portions/areas of the seabed that satisfy all the provisions of article 76 and the Statement of Understanding are enclosed;
  - (k) The estimates of the uncertainties in the methods applied, with a view to identifying the main source(s) of such uncertainties and their effect on the Submission; and
  - (l) Whether the data submitted are sufficient in terms of quantity and quality to justify the proposed limits.
- 34 In conducting its examination of the Submission, the Subcommission:
- (a) Proceeded with a detailed examination of the data and information supporting every FOS point selected for the establishment of the outer edge of the continental margin;
  - (b) Sought clarifications and additional data and information from the Delegation, where necessary, through exchanges with the Delegation;
  - (c) Presented preliminary views and conclusions to the Delegation; and
  - (d) Made a comprehensive presentation of its views and general conclusions to the Delegation at an advanced stage of the examination of the Submission, as provided for in paragraph 10.3 of annex III to the rules of procedure.

### IV. RECOMMENDATIONS OF THE COMMISSION WITH RESPECT TO NIGERIA

- 35 The Submission of Nigeria of 7 May 2009, as amended on 18 November 2016, relates to the western part of the Gulf of Guinea (**Figure 2**).

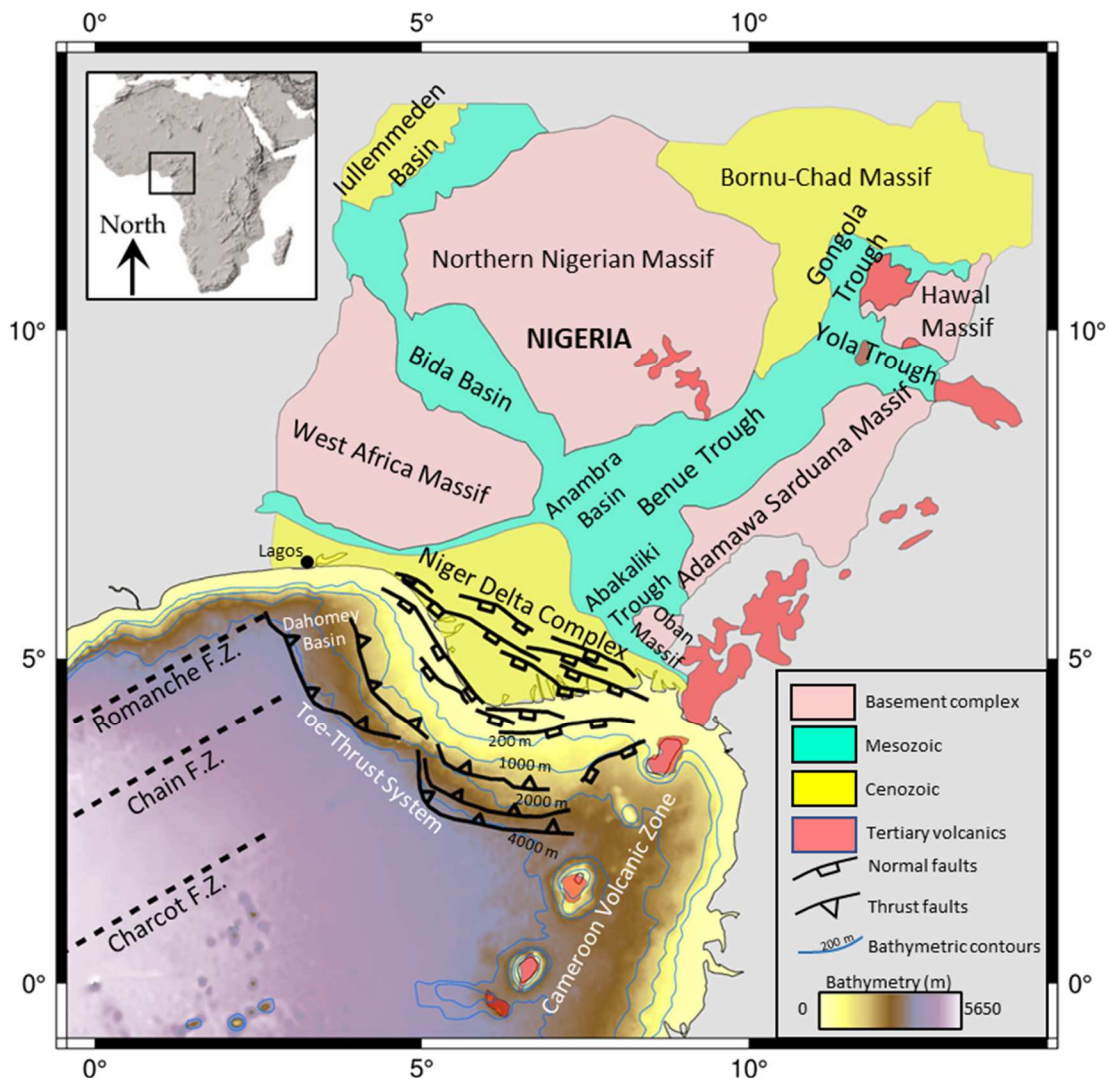


**Figure 2.\*** Bathymetric map showing the outer limits of the continental shelf as proposed in the Amended Submission of Nigeria made on 18 November 2016 [Figure 5.2, amended Main Body]; label for the Niger Delta Indentation (NDI) added by the Subcommittee.

### 1. Geographical and geological description of the region

36 According to the submitting State, the dominant feature of the Nigerian continental margin is the Niger Delta with its convex-shaped coast located at the southern end of the Benue Trough, which corresponds to a failed arm of a triple junction. The boundaries of the Niger Delta are defined by the Cameroon Volcanic Zone to the east, the Dahomey Basin to the west, and the 4,000 m isobath (**Figure 3**). The subaerial portion of the deltaic system covers an area of about 75,000 km<sup>2</sup>, while the submarine portion down to abyssal depths of the inner Gulf of Guinea has an area of approximately 275,000 km<sup>2</sup>.

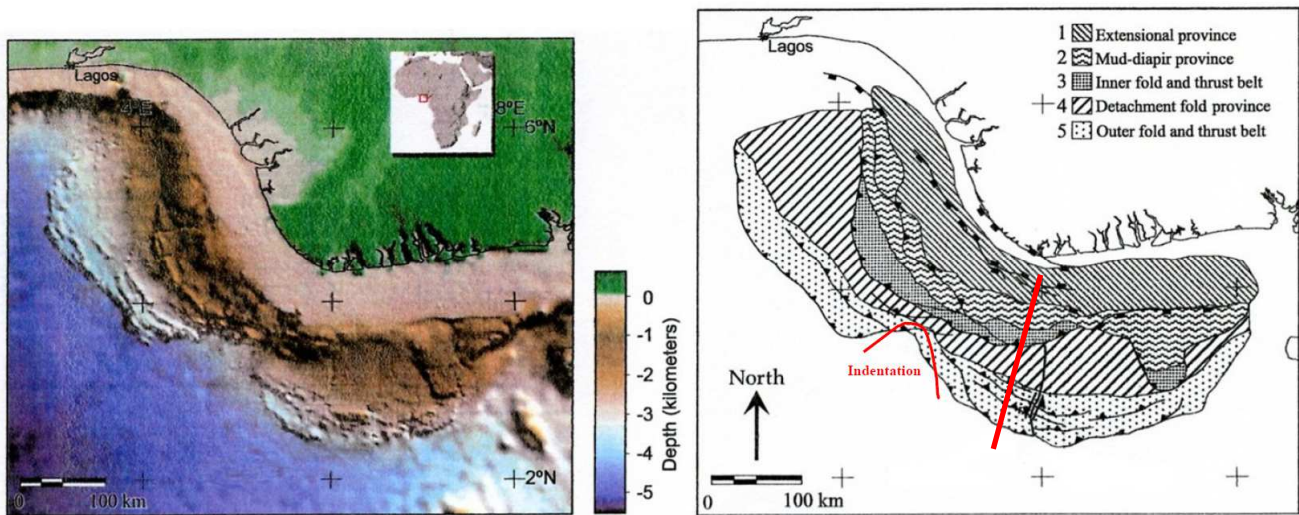
\* The figures marked by an asterisk were prepared by the Subcommittee or the Commission on the basis of the submitted information. The designation employed and the presentation of material on any illustrative maps does not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.



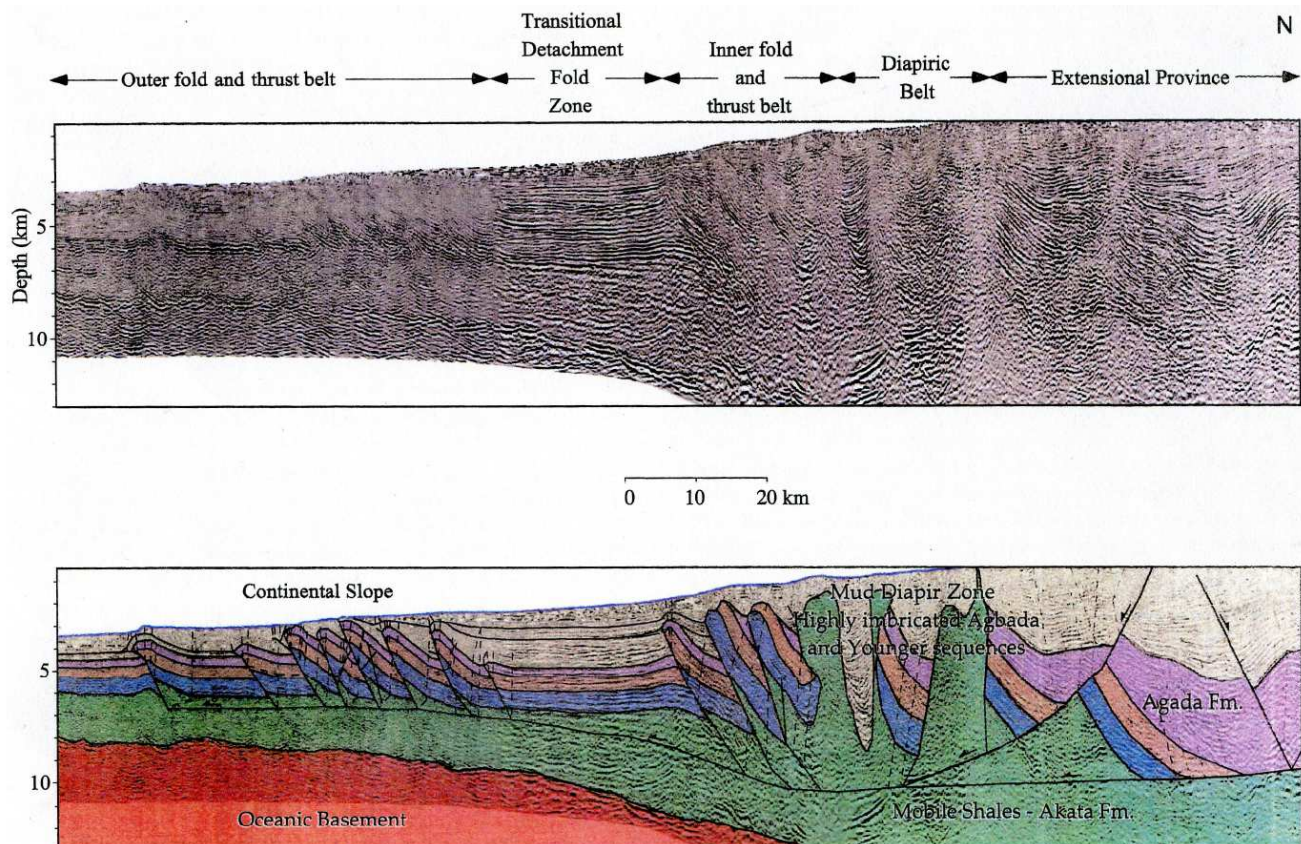
**Figure 3.\*** Main sedimentary basins, structural and tectonic features of the Niger Delta region, modified from Corredor et al. (2005).

- 37 The internal structures of the Niger Delta are controlled by fracture zones, such as the Chain and Charcot Fracture Zones and associated oceanic basement highs formed during the opening of the equatorial Atlantic in the Jurassic and the Cretaceous. Nigeria explains that these two deep-seated fracture zones are aligned in a SW-NE direction from the equatorial Mid-Atlantic Ridge to the Niger Delta and the Benue Trough.
- 38 According to Nigeria, integrated multi-channel seismic reflection, potential field, and multibeam bathymetric data demonstrate that the large elongated, and mostly sediment-covered Charcot Fracture Zone basement elevation, rises up to 3,000 m above the surrounding oceanic basement at several locations, and underlies the Niger Delta Indentation (NDI, **Figure 2**) between longitudes 4°20'E and 5°20'E at latitude 3°30'N.

- 39 The stratigraphy of the Niger Delta, as described by Nigeria, consists of Cretaceous to Holocene clastic strata that overlie oceanic and rifted continental crust. Exposed Cretaceous rocks include Albian-Maastrichtian shallow marine deposits. The Tertiary section of the Niger Delta is divided into three time-transgressive formations that represent prograded depositional environments ranging from subaerial to marine. The sediment thickness distribution across the Niger Delta ranges, as described in the Submission, from 2,000 m at the most distal part of the delta to 7,000 m beneath the shelf.
- 40 In the scientific literature, as described in the Main Body, the Niger Delta is subdivided into several actively deforming structural zones (**Figure 4**). Essentially, these zones form a classical linked system of up-dip extension and down-dip compression mainly driven by gravity processes (**Figure 5**). The compressional zone is characterized by complex imbricated thrust sheets forming the outer fold and thrust belt (toe-thrust belt) resulting from contraction caused by gravity-driven extension on the shelf.
- 41 According to Nigeria, the outer fold and thrust belt (toe-thrusts) consists of northern and southern segments, which define two outboard lobes of the delta. These two lobes and their associated fold belts are separated by the NDI (**Figure 4**), which represents a mega-slide that resulted from tectonic destruction due to interaction with the Charcot Fracture Zone (**Figure 3**).



**Figure 4.\*** (Left) Bathymetric map of the Niger Delta obtained from a combination of 2D-seismic reflection profiles and the global bathymetric database (Smith and Sandwell, 1997). (Right) Main structural zones in the region; both figures from Corredor et al. (2005) [Figure 3.3, original Main Body]. Red line indicates the approximate location of the seismic profile shown in **Figure 5** [taken from slide 5, Presentation NIGER DELTA 1st Response].



**Figure 5.** Uninterpreted (upper panel) and interpreted (lower panel) regional reflection seismic profile across the eastern Niger Delta, i.e. the region situated to the east of the NDI indicated in **Figure 4**; modified from Corredor et al. (2005). [Figure 3.4, original Main Body].

- 42 Nigeria explained that the NDI extends about 60 km to 80 km landward from a projected toe-thrust belt offshore to a complex headwall in less than 2,500 m water depth. The NDI covers an area of about 10,000 km<sup>2</sup>. Debris avalanches, characterized by slide blocks of up to several kilometres in length and an irregular to hummocky seafloor topography, extend seaward from the headwall to a water depth of about 3,400 m.
- 43 Based on multibeam data, Nigeria suggested that beyond 3,400 m water depth, sediments are transported and deposited primarily as debris and turbidity flows and related gravity-controlled density flows, which are believed to merge seaward into fine debris and turbidity flows. The mass wasting was initiated when the outer toe-thrust zone of the Niger Delta started to build over a chain of basement highs associated with the Charcot Fracture Zone. Several submarine canyons and associated channel systems extend locally down to more than 3,800 m water depth. According to Damuth (1994), these submarine canyons are predominantly erosional features which probably originated from mass wasting processes.

## 2. The determination of the foot of the continental slope (article 76, paragraph 4(b))

44 The FOS should be established in accordance with article 76, paragraph 4(b).

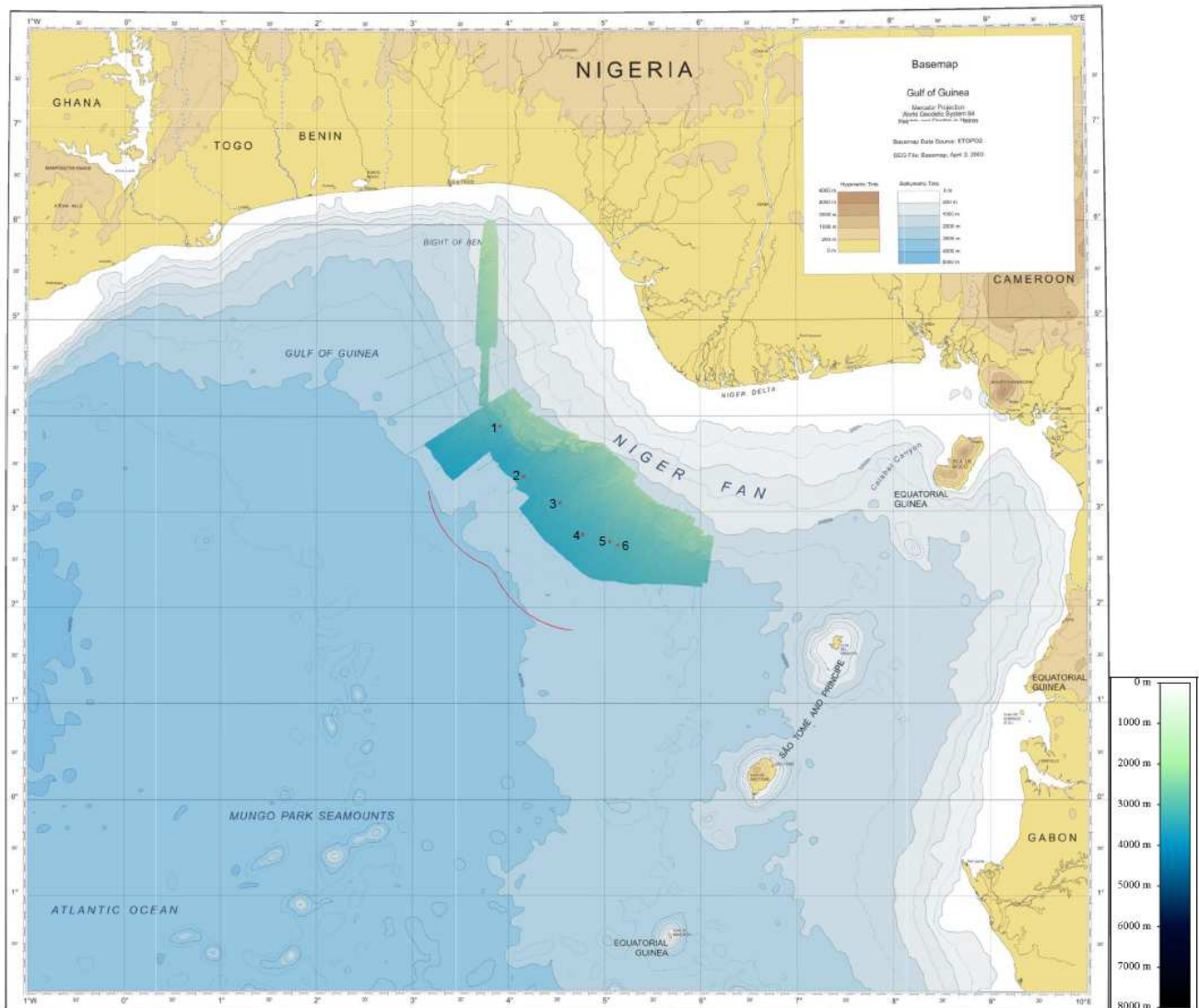
### 2.1 Considerations

#### Original Submission of 7 May 2009

- 45 Six FOS points (FOS-NGA-1 to -6) were submitted in the original Submission (**Figure 6**). Three of them (FOS-NGA-1 to -3) were considered critical for determination of sediment thickness formula points beyond the 200 M line of Nigeria. FOS point FOS-NGA-1 was located at the base of the toe-thrust belt and was determined as the point of maximum change in the gradient at the BOS (“general rule”), while FOS points FOS-NGA-2 and -3 were located in the distal part of the delta lobe associated with the NDI and were determined by invoking the evidence to the contrary provision of article 76, paragraph 4(b).
- 46 The Subcommittee examined the critical FOS points only and agreed with the location of FOS point FOS-NGA-1. Regarding the other two critical FOS points (FOS-NGA-2 and -3), the Subcommittee sought further clarification and additional data and information from the Delegation with respect to determination of the BOS and FOS in the area of the NDI, and the application of the evidence to the contrary provision.

#### Amended Submission of 18 November 2016

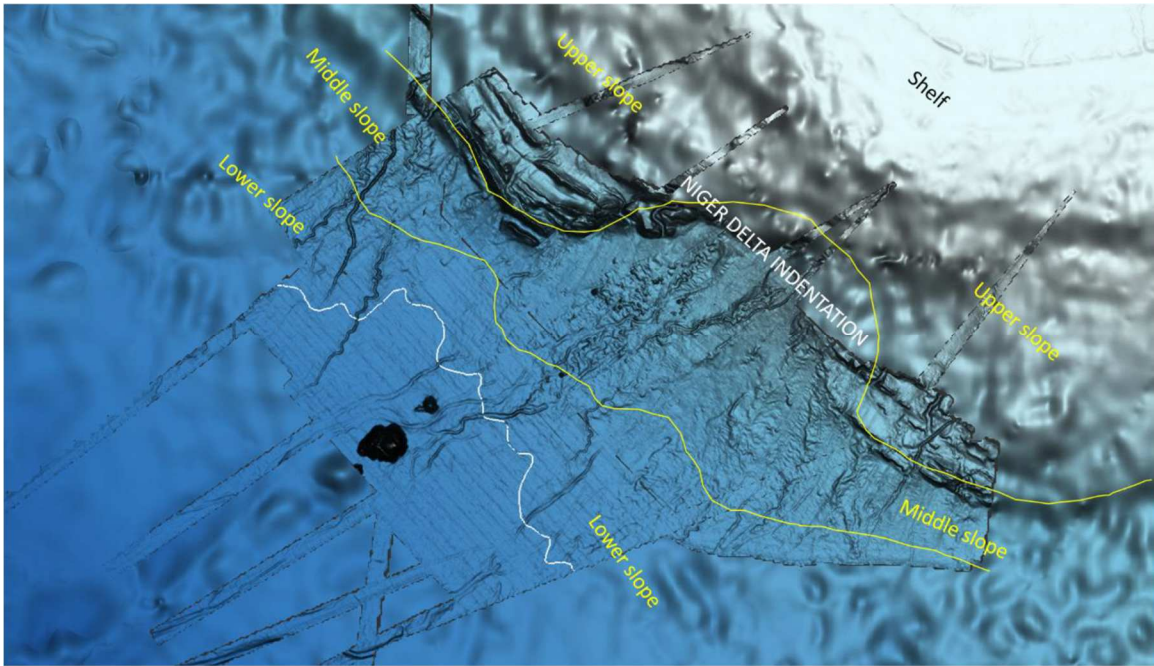
- 47 Following the acquisition of additional multibeam echosounder data (bathymetry and backscatter) and geophysical data (2D multi-channel seismic, high-speed seismic (HSS), and sub-bottom profiler data) in 2016, Nigeria revised its analysis of the BOS and FOS based on a re-evaluation of the structural and sedimentary processes that shaped the margin. These revisions led to the determination of new FOS points, sediment thickness formula points, outer edge of the continental margin and outer limits of the continental shelf, as reflected in the Amended Submission received on 18 November 2016.



**Figure 6.** Bathymetric map showing the initial set of FOS points as contained in the original Submission made by Nigeria on 7 May 2009 [Figure 4.10, original Main Body].

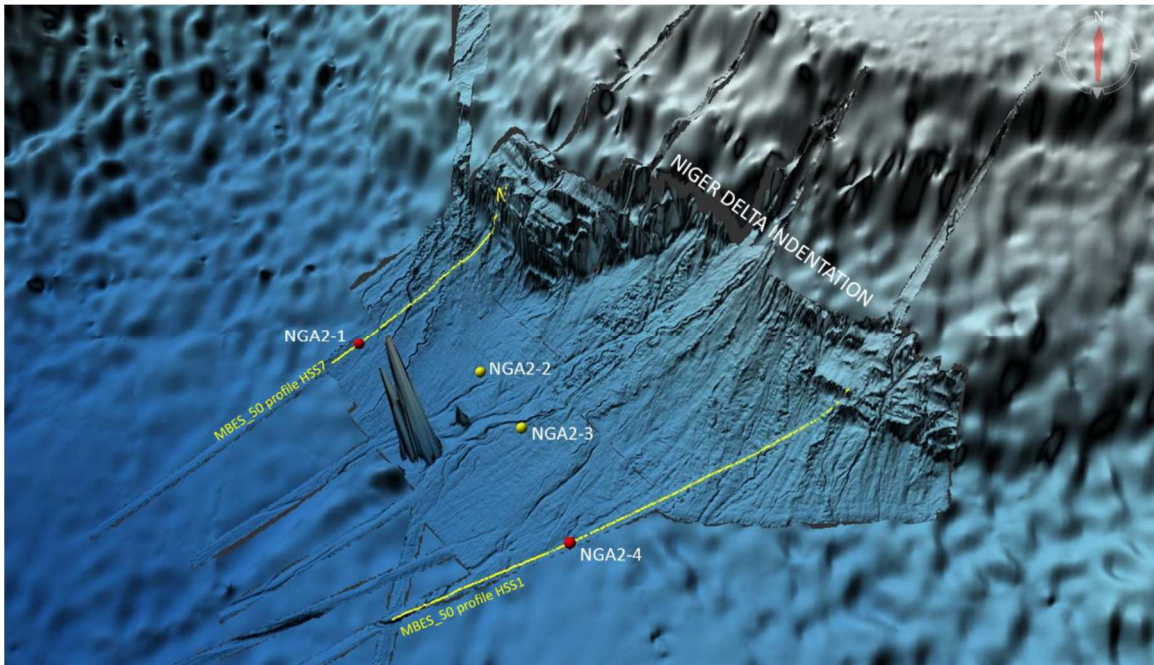
- 48 Nigeria presented a new approach and subdivided the continental slope in this area into an upper, middle and lower slope based on additional data collected in 2016. According to Nigeria, the upper slope is the steep part located between the flat, shallow shelf and the escarpment of the fold and thrust belt where gravity collapse takes place; the middle slope is the area of the accumulation of proximal mass transport deposits (MTDs) such as major rock falls, slumps and debris flow lobes; and the lower slope is the area of accumulation of more distal MTDs characterized by minor slumps, slides and debris flow lobes cut by lower slope erosional channels (**Figure 7**).





**Figure 7.** Subdivision of the continental slope of the Niger Delta with the white line indicating the BOS on the transition from the lower slope to the smoother seabed of the rise. [Figure 2.5B, amended Main Body]

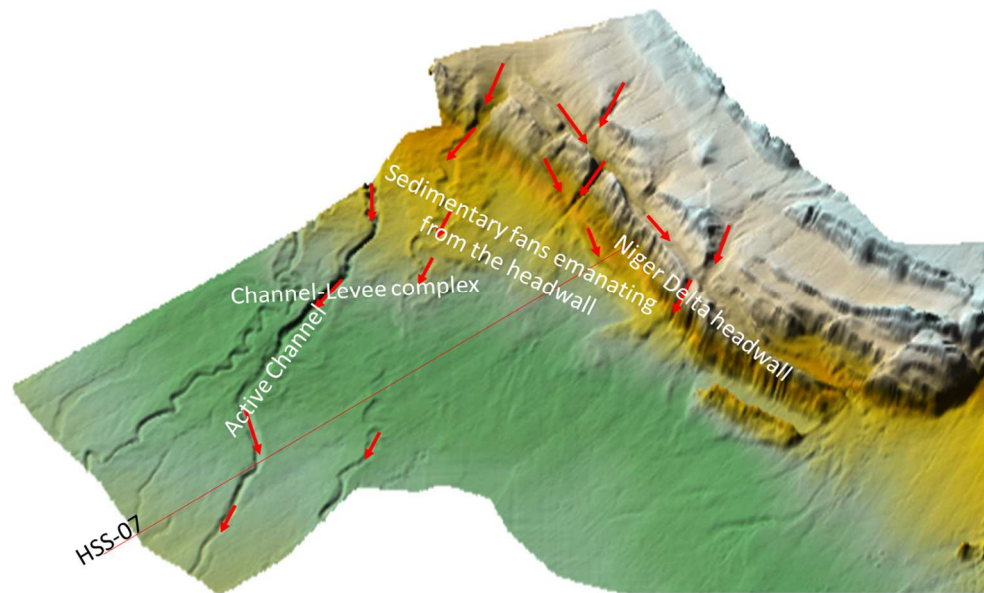
- 49 According to the amended Main Body, near-surface sediments of the continental slope of Nigeria were affected by deformation due to gravity-driven tectonism initiated in response to rapid seaward loading. The structural styles indicate that large portions of the thick sedimentary prism are slowly moving downslope by gravity-driven gliding or sliding on decollement surfaces within the so-called “mobile shales” series, in a manner analogous to giant mass movements or mega-landslides.
- 50 The BOS, as described in the Amended Submission, was identified along submitted bathymetric profiles in a region with gradient changes from less than 0.2° to ca. 0.3°, and supported by geological/sedimentological evidence of interpreted slope processes associated with a complex set of depositional and erosional features related to mass-wasting. According to Nigeria, the lower slope is distinguished from the continental rise by a seaward transition to a smoother seafloor with a lower gradient.
- 51 Nigeria submitted four new FOS points (FOS-NGA2-1 to FOS-NGA2-4) to replace the originally submitted points. All of these amended FOS points were determined according to the “general rule”.
- 52 Two of the new FOS points, FOS-NGA2-1 and FOS-NGA2-4, were considered by Nigeria as critical for the establishment of the outer edge of the continental margin, while the other two were supplementary (**Figure 8**).



**Figure 8.** Perspective view of bathymetric data showing the location of the four FOS points presented in the Amended Submission made by Nigeria on 18 November 2016. The critical FOS point locations (red dots) are shown alongside the relevant segments of the bathymetric and HSS profiles on which they were determined (yellow lines). The location of the supplementary FOS points is shown as yellow dots. [Figure 3.1, amended Main Body].

- 53 The Subcommittee noted the emphasis that Nigeria had placed on geological evidence to support the proposed location of the BOS. While acknowledging that geological and geophysical data can be used to supplement proof for an identified BOS location (Guidelines, para. 5.4.6), the Subcommittee highlighted the need to conduct a thorough morphological and bathymetric analysis in the search for the BOS location as the principal criterion.
- 54 The Subcommittee recognized that the BOS location identified by Nigeria is associated with an apparent regional change in the seafloor gradient from typically  $<0.2^\circ$  seaward to  $\approx 0.3^\circ$  landward of the BOS. The Subcommittee also noted other zones with more pronounced regional changes in seafloor gradients located further landward, which it considered more likely locations of the BOS as also supported by geological and geophysical evidence.
- 55 In response, the Delegation argued in favor of a low-gradient continental slope stating that “it is not the magnitude of the gradient that counts in terms of Art. 76, Para. 4.b, but the change itself,” and that gradient values only take on significance when they are considered in the context of regional geography and geological processes.
- 56 The Subcommittee agreed with the Delegation insofar as article 76, paragraph 4(b), refers to the maximum change in the gradient in the process of determining the FOS point at the BOS. Article 76 does not prescribe seafloor gradient values for the slope and rise.

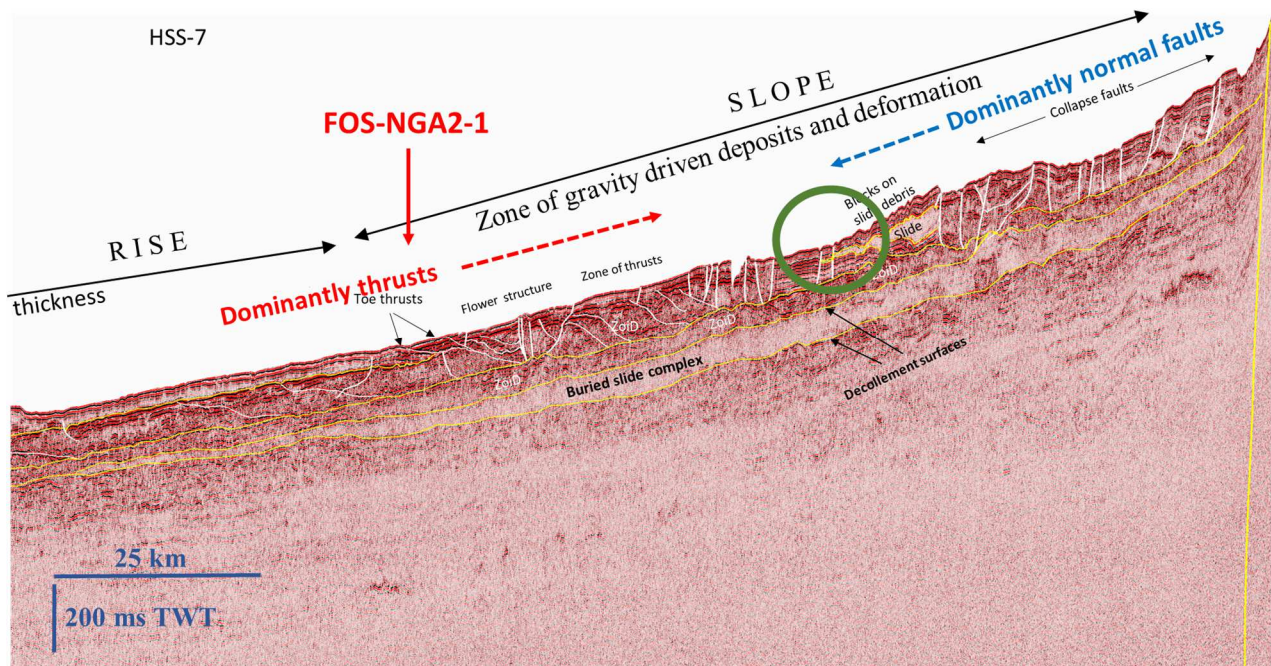
- 57 From the submitted bathymetric and high-resolution seismic data, the Subcommittee observed several distinct sedimentary fans and lobes emanating from the Niger Delta headwall (**Figure 9**). These morphological features are partly overprinted by channels and levees across the margin and also by debris flow deposits in the region of the NDI. Based on the presence of these morphological features and widespread indications of extensional faulting within the surface sediments in this region, the Subcommittee agreed that the BOS is located seaward of the Niger Delta headwall.



**Figure 9.\*** 3D view of the north-western part of the Nigerian continental margin. The red arrows show the direction of sediment flow crossing the Niger Delta headwall and its contribution to the geomorphology further seaward, such as channel-levee systems and sedimentary fans. The view also shows the relative orientation between the seismic profile (HSS-07) and the main morpho-sedimentary features. The BOS/FOS identified by Nigeria along that line is located seaward of the area shown in this Figure.

- 58 While the near-surface sediment layers in the region characterized by Nigeria as middle slope seemed in general to be affected by gravitationally related sediment instability, characteristic of a slope environment, the Subcommittee could not recognize similar indications further seaward and considered the low-gradient region of the proposed lower slope to be more representative of the continental rise.
- 59 Consequently, the Subcommittee requested Nigeria to investigate the possibility of identifying the region of the BOS further landward from the proposed BOS, particularly in zones of regional gradient changes associated with those morphological features that are connected to the headwall of the Niger Delta.

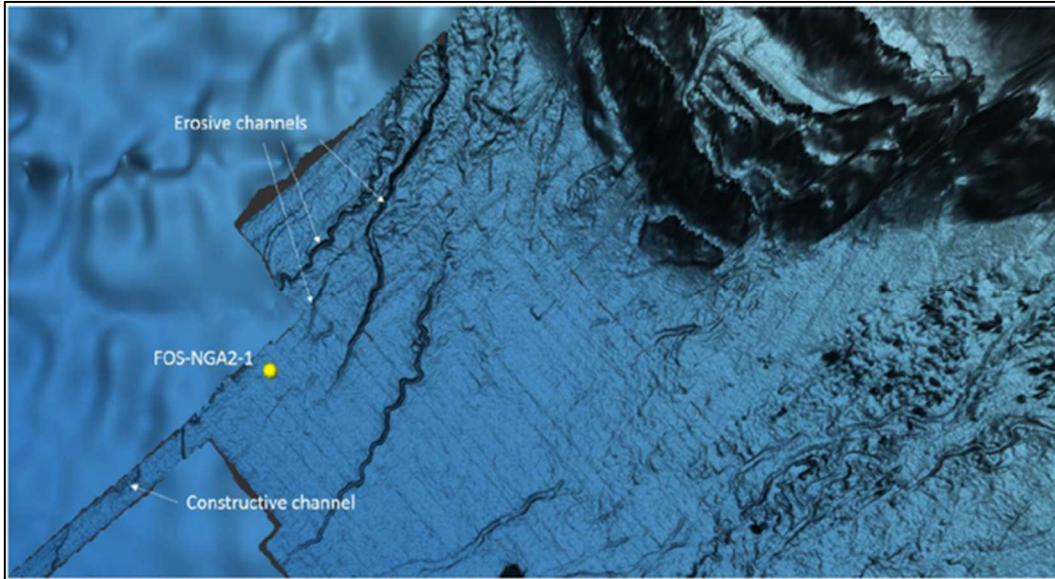
- 60 The geological and geophysical evidence provided by Nigeria in support of the proposed BOS location was mainly based on high-speed seismic (HSS) data. Nigeria explained that “The downslope change in the intensity of the gravity-driven sedimentary and deformational processes that builds the fan complexes determines the change in the characteristics from the slope to the rise. The slope is the zone of high-level, gravity-driven deposition and deformation. It is characterized by rock falls, slides, slumps and creep, overprinted by intense, small-scale, shallow-rooted collapse-faulting, toe-thrusting and translational faulting. The rise is in the outer zone of flat-lying, uniform layering. It exhibits very minor internal deformation, a smooth surface, and tapering of the overall thickness of the sedimentary sequences.” An example showing seismic line HSS-7, including the location of FOS point FOS-NGA2-1 is shown in **Figure 10**.



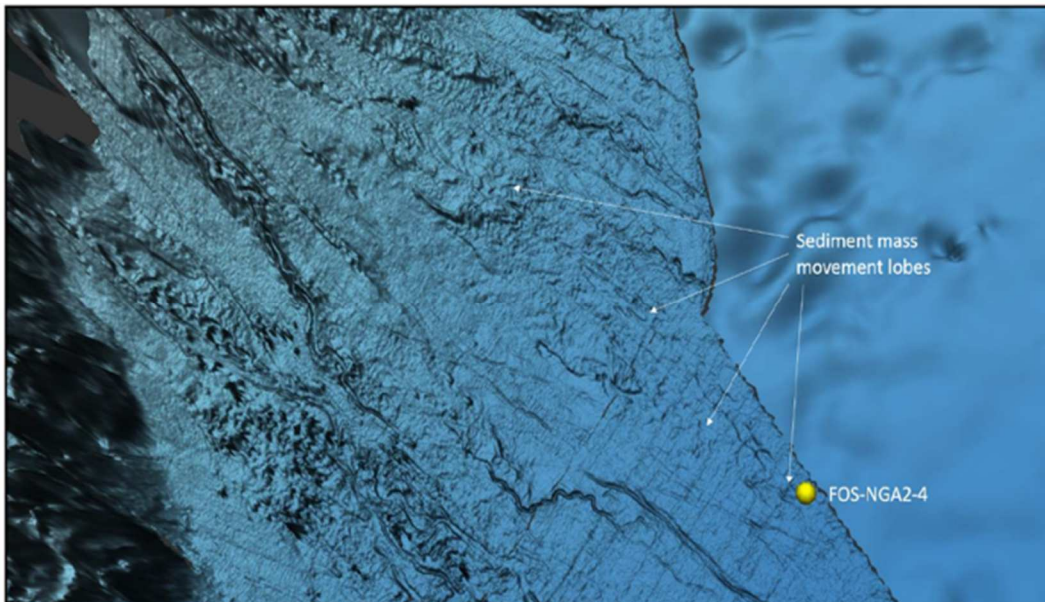
**Figure 10.\*** Section of seismic line HSS-7 (for location, see **Figure 8**) with interpretation by Nigeria (ZoiD – Zone of internal deformation) [Slide 88, ECS AMENDED SUBMISSION PRESENTATION TO SC 12 February 2018-12022018]; location of FOS-NGA2-1 and scale added by the Subcommittee. Annotations in blue and red (added by the Subcommittee) indicate zones with predominantly normal faults updip and thrusts downdip, respectively, with a transitional zone that the Subcommittee has determined coincides with a regional change in the seafloor gradient (green circle). [after Figure 3, 2018\_11\_02\_SCNGA\_DOC\_NGA\_010]

- 61 In its Amended Submission, Nigeria explained that the continental slope in this region is a zone of intense gravity-driven deposition and deformation resulting in an uneven seafloor topography and complex subsurface structures. The subsurface is characterized by an upper sequence of bedded layers disrupted by small-scale, shallow-rooted steep listric faults, local detachments, thrusts and folds, which form collapse fault trains, slide blocks and flower structures (**Figure 10**).
- 62 Nigeria further explained that FOS-NGA2-1 and FOS-NGA2-4 are located within a regional change in gradient at the base of the zone of chaotic deposits due to

downslope mass transport from the steep escarpments of the middle and upper slope to the north and south of the NDI, respectively. This zone of mass transport coincides with a transition, from numerous erosive channels and MTDs upslope, to less numerous, discrete, constructional channels (commonly associated with levee bank deposits) downslope (**Figure 11** and **Figure 12**). According to Nigeria, this is characteristic of the morphology and depositional/erosional characteristics of the BOS region and the geomorphological shaping of the continental margin.

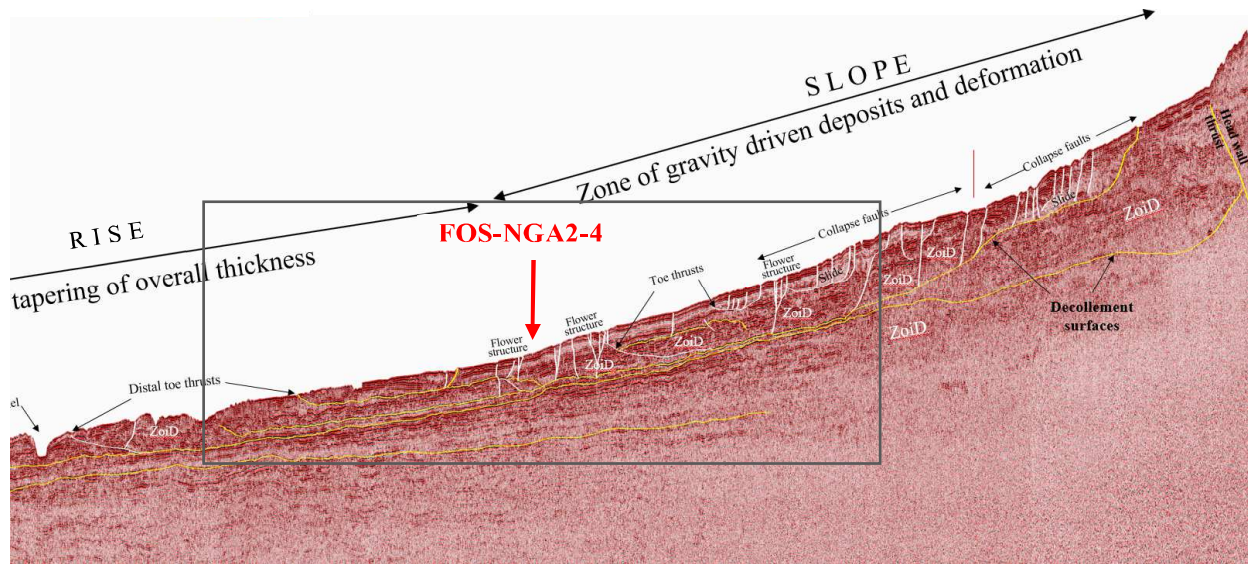


**Figure 11.** Bathymetry compiled from Multibeam Echo Sounder (MBES) and SRTM30plus data in the region of the submitted FOS point FOS-NGA2-1. [Figure 3.3, amended Main Body]



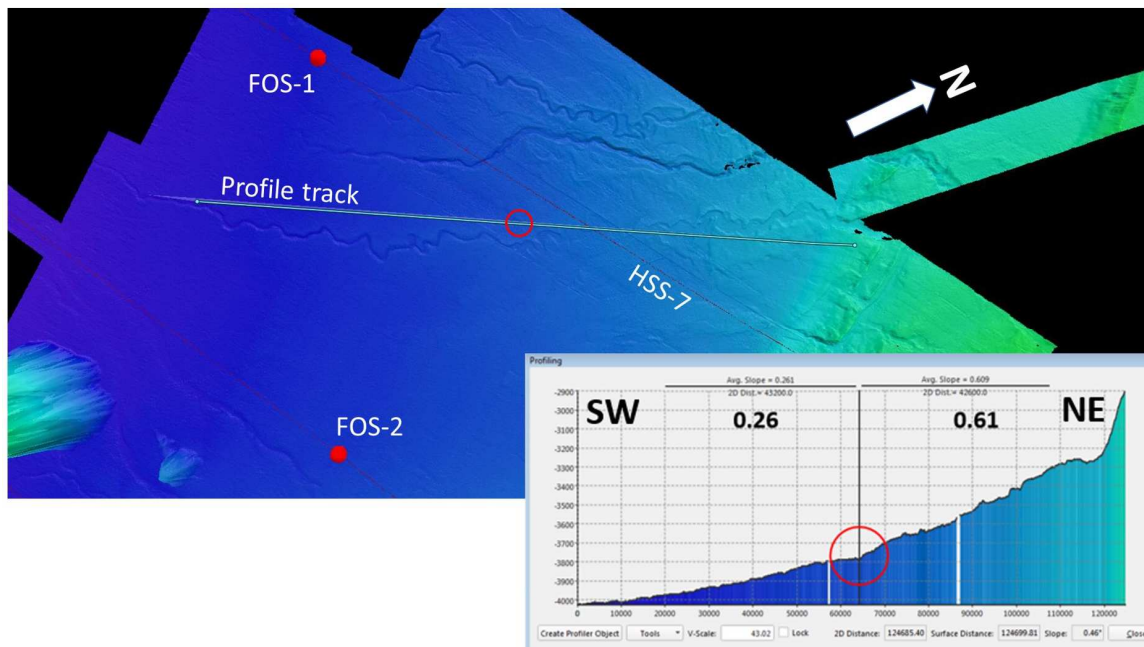
**Figure 12.** Bathymetry compiled from MBES and SRTM30plus data in the region of the submitted FOS point FOS-NGA2-4. [Figure 3.5, amended Main Body]

- 63 The Subcommittee agreed with the Delegation on the existence of normal, collapse faults on the landward side of the profile section and reverse, thrust faults on its seaward side (**Figure 10** and **Figure 13**). The Subcommittee considered the normal faulting on the landward side as indicative of extension and downslope movement of the sediments due to gravity-driven slope instability. The Subcommittee did not agree with the Delegation that the seaward extent of the MTDs represents the BOS. The fact that there is evidence of MTDs is not the determining factor in the location of the BOS as the principal criteria must be morphological and bathymetric evidence.

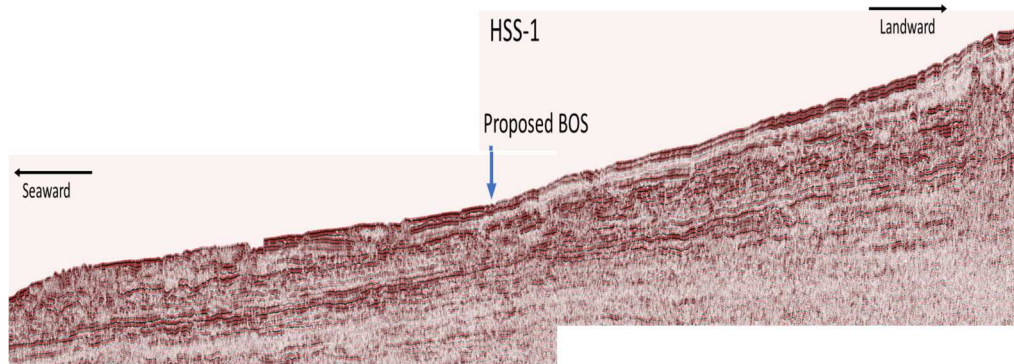


**Figure 13.\*** Section of seismic line HSS-1 with interpretation, as presented by Nigeria [Slide 102, ECS AMENDED SUBMISSION PRESENTATION TO SC 12 February 2018-12022018]; location of FOS-NGA2-4 added by the Subcommittee. The grey box indicates the approximate location of the section shown in an uninterpreted version in **Figure 15**.

- 64 The Subcommittee also noted the importance of profile orientation relative to the general sediment transport direction and the presence of channel-levees that may extend seaward of the proposed location of the BOS/FOS (**Figure 14**). In this context, the Subcommittee observed that the MBES grid data show a change in seafloor gradient further landward, which is regarded as a more likely position of the BOS.
- 65 Regarding the supporting geological evidence, the Subcommittee could not confirm significant differences in intensity of internal deformation or subsurface structures between the landward and seaward sides of the proposed BOS, e.g., along seismic line HSS-1 (**Figure 13** and **Figure 15**).

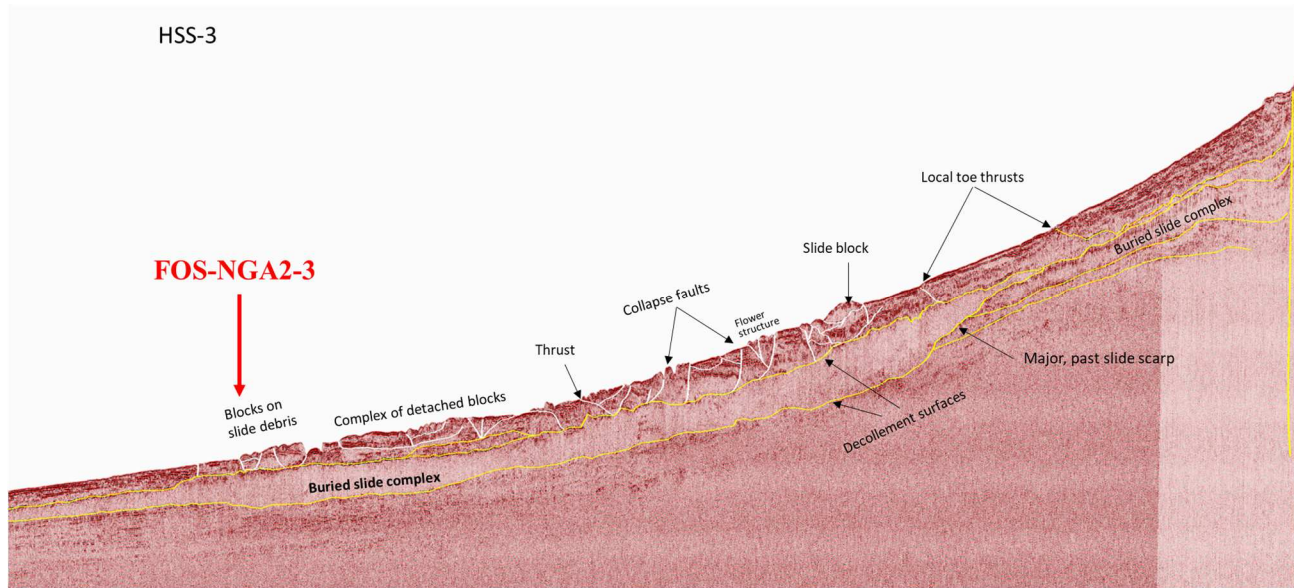


**Figure 14.\*** SW-NE bathymetric profile in the region of seismic line HSS-7, approximately orthogonal to depth contours and following the general sediment transport direction down from the Niger Delta headwall (right to left). Red circle indicates a change in seafloor gradient; black numbers show measured seafloor gradient values along the profile; red dots are FOS points identified by Nigeria.



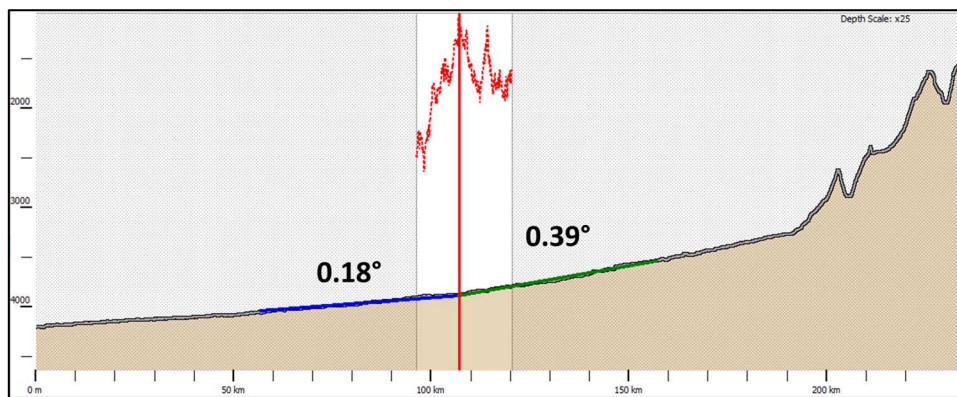
**Figure 15.\*** Extract from the uninterpreted seismic line HSS-1 (see grey box in **Figure 13**) showing the location of the BOS/FOS-NGA2-4 proposed by Nigeria.

- 66 FOS-NGA2-3, located in the NDI, is determined on the survey line HSS-3 along a region influenced by channels and levees, which affect the upper sequence of disrupted bedded layers and produce some of the “slide blocks” and “blocks on slide debris” interpreted by Nigeria (**Figure 16**). It is also noted from the MBES data that the proposed BOS and FOS point is located at a local feature at the edge of a channel levee, which continues further seaward and does not represent a valid BOS region. The Subcommittee further noted a regional change in the seafloor gradient further landward along the survey line with gradients of 0.23° on the seaward side and 0.57° on the landward side.



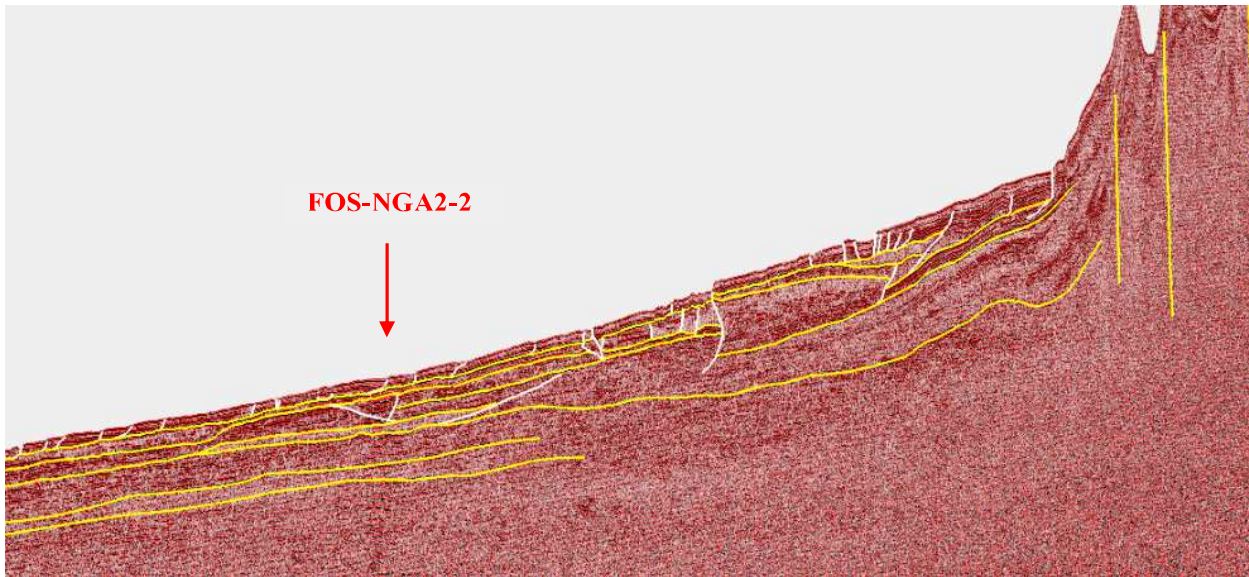
**Figure 16.\*** Section of seismic line HSS-3 with interpretation, as presented by Nigeria [Slide 88, ECS\_NG\_RESPONSE\_50TH SESSION\_PPT2\_1STJULY\_2019]; location of FOS-NGA2-3 added by the Subcommittee.

- 67 By contrast, FOS-NGA2-2, also located in the NDI, seaward of its western sector, is on a relatively smooth seafloor with low gradients and no recognizable channel and levee features along the survey line HSS-6. A regional change in gradient occurs at the location of the proposed FOS point with seafloor gradients measured at ca.  $0.18^\circ$  seaward and ca.  $0.39^\circ$  landward from the FOS point (**Figure 17** and **Figure 18**).



**Figure 17.\*** MBES profile along line HSS-6 with gradient analysis showing the location of FOS-NGA2-2 (red vertical line), as presented by Nigeria in its GIS project; gradient values added from the analysis window by the Subcommittee.





**Figure 18.\*** Section of seismic line HSS-6 with interpretation, as presented by Nigeria [Slide 66, ECS\_NG\_RESPONSE\_50<sup>TH</sup> SESSION\_PPT2\_1STJULY\_2019]; location of FOS-NGA2-2 added by the Subcommittee.

- 68 Normal faults indicative of slope instability can be recognized along seismic line HSS-6 and provide supplementary geological evidence that the BOS is located seaward of the headwall (**Figure 18**).
- 69 The Subcommittee agreed with the BOS region along the line HSS-6, as presented by Nigeria. The Subcommittee also verified and agreed with the location of FOS-NGA2-2 determined at the point of maximum change in the gradient at the BOS.
- 70 Based on submitted data and information, the Subcommittee could not identify any regional morphological or bathymetric evidence and geological evidence that supports the location of the BOS as identified by the Delegation for the location of FOS-NGA2-1, -3, and -4. In the view of the Subcommittee, the BOS more likely lies landward.
- 71 During the fifty-fourth session, while maintaining its position on the validity of the two critical FOS points FOS-NGA2-1 and FOS-NGA2-4, Nigeria proposed two revised FOS locations (FOS-Rev-1 and FOS-Rev-4) to replace the previous ones. According to Nigeria, the revised FOS points “correspond to a regional change in gradient associated with gradient magnitudes that the Subcommittee has already accepted in the case of FOS-NGA2-2”. These revised FOS points were determined using gradient band analysis that indicated a change in gradient at  $0.3^\circ$ .
- 72 Based on further bathymetric and gradient analyses in those regions, the Subcommittee did not find sufficient support for the proposed location of the revised FOS points. In particular, the Subcommittee could not confirm the presence of a regional change in gradient at those locations. Consequently, the Subcommittee recommended that the Delegation consider further revising the FOS points or establishing the outer edge / outer limits based on the agreed FOS-NGA2-2. In this context, the Subcommittee encouraged the Delegation to explore additional locations of the BOS/FOS along the regional inflection in the seafloor gradient, as

pointed out by the Subcommittee, by making use of the full MBES grid, since the optimal FOS points would not necessarily need to be located along the tracks of the HSS lines.

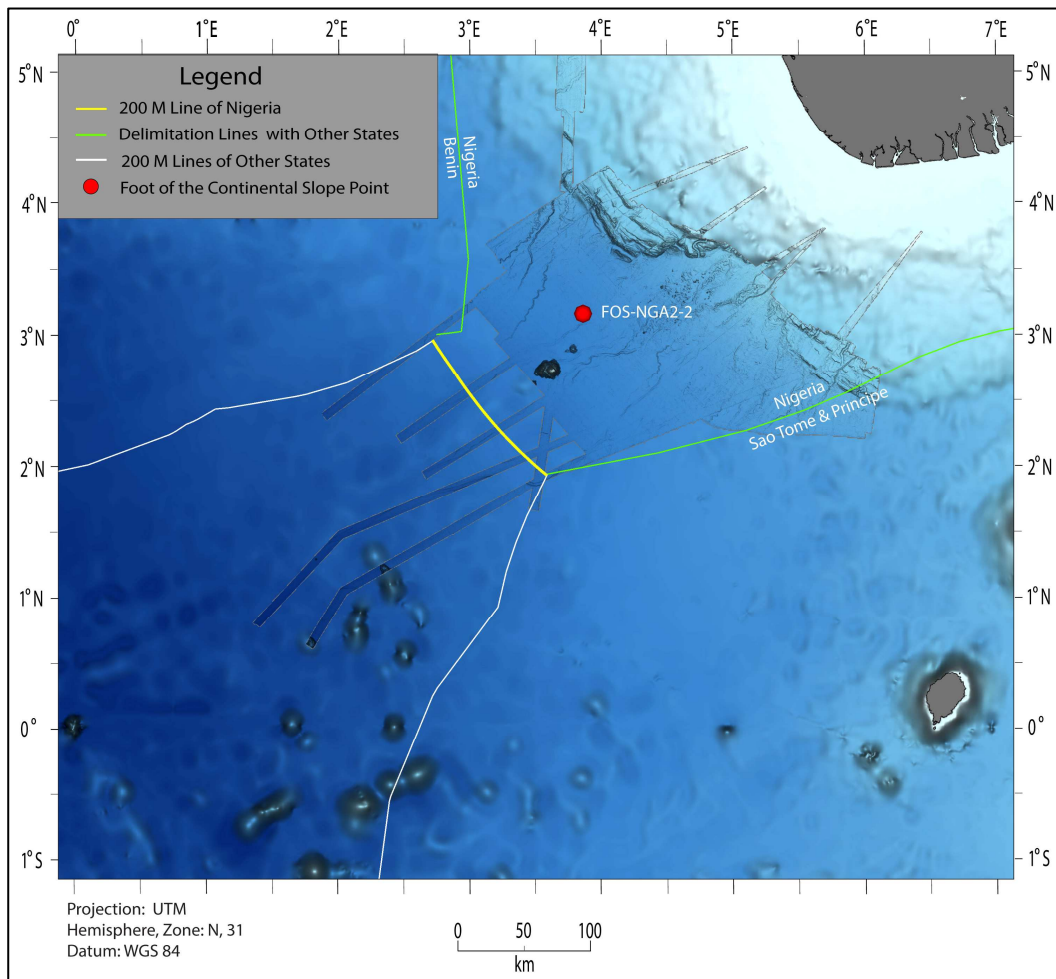
- 73 Nigeria maintained its view that the BOS/FOS locations as submitted in the Amended Submission were valid. Notwithstanding this view, Nigeria indicated its willingness to establish the outer limits of its continental shelf based on the agreed FOS point FOS-NGA2-2.

#### Summary of FOS consideration

- 74 Based on the Submission, including the additional data and information provided by Nigeria, the Subcommittee did not find sufficient morphological and supporting geological evidence for the proposed locations of the BOS in the area of FOS-NGA2-1, -3 and -4, as well as FOS-Rev-1 and -4. However, based on the morphological and bathymetric evidence, supplemented by geological and geophysical data provided by Nigeria, the Subcommittee agreed with Nigeria in its identification of the BOS in the area of FOS-NGA2-2. The Subcommittee agreed with the location of that FOS point (**Figure 19**).

## **2.2 Recommendations**

- 75 Based on its consideration of the scientific and technical documentation contained in the Submission of Nigeria and the additional scientific and technical data and information provided in the documents referred to in paragraphs 29 and 30 above, the Commission concludes that the FOS point listed in Table 1 of Annex I fulfills the requirements of article 76 and Chapter 5 of the Guidelines (**Figure 19**). The Commission recommends that this FOS point should form the basis for the establishment of the outer edge of the continental margin of Nigeria.



**Figure 19.** Bathymetric map showing FOS-NGA2-2, as received from the Delegation on 25 January 2023.

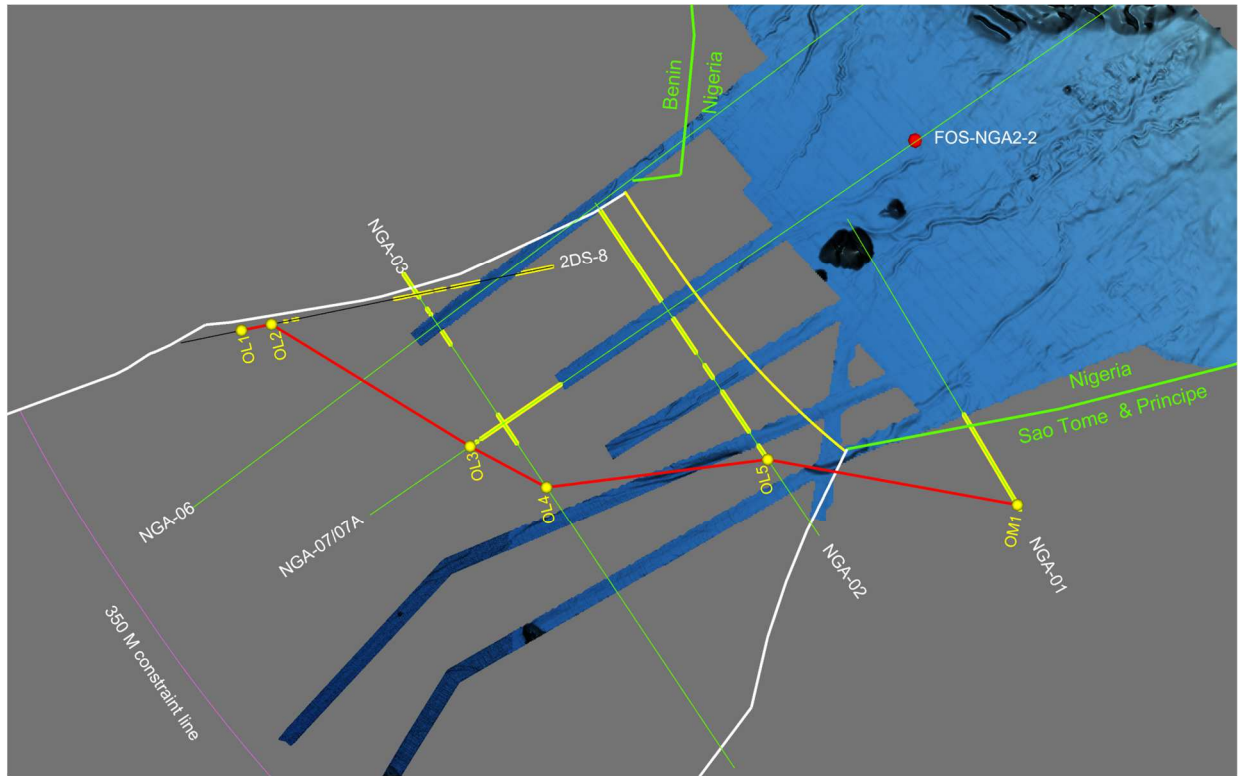
**3. The establishment of the outer edge of the continental margin (article 76, paragraph 4(a))**

76 The outer edge of the continental margin of Nigeria shall, for the purposes of the Convention, be established in accordance with article 76, paragraph 4(a).

77 For the construction of the outer edge of the continental margin, Nigeria invoked the sediment thickness provision of article 76, paragraph 4 (a)(i). The consideration of the outer edge of the continental margin therefore only involves an examination of the construction of the sediment thickness formula line.

**3.1 The application of the 1% sediment thickness formula (article 76, paragraph 4(a)(i))**

78 Following exchanges with the Subcommittee on the base and the foot of the continental slope, Nigeria revised the sediment thickness formula line to be defined by six revised sediment thickness formula points based solely on FOS point FOS-NGA2-2 (**Figure 20**). Nigeria established these sediment thickness formula points (OL1 through OL5 and OM1) based on seismic lines 2DS-8 (two points), NGA07A, NGA03, NGA02 and NGA01, respectively.



**Figure 20.** Bathymetric image showing the location of the six sediment thickness formula points (labelled yellow dots), used to define the extent of the outer edge of the continental margin (red line), as provided by the Delegation on 8 March 2023. Points at each of which the sediment thickness is at least 1 per cent of the shortest distance from such point to the FOS are shown as rows of yellow points along each line and were determined on multi-channel seismic (MCS) lines (thin green (2006 survey) and black (2016 survey) lines) using FOS-NGA2-2 (red dot); 200 M line of Nigeria (yellow line) and of other States (white lines).

79 In calculating sediment thickness at each of the four submitted sediment thickness formula points OL3, OL4, OL5 and OM1, located on MCS lines surveyed in 2006, as provided by the Delegation on 14 July 2022, Nigeria utilized a seismic velocity model based on a Wide-Angle Reflection and Refraction Profile (WARRP) using nine ocean bottom seismometers (OBS) along seismic line NGA-07/07A, as described in Chapter 3 of the Main Body and External Appendix A of Part II of the original Submission (**Figure 21**). The velocity model was derived for each OBS station and was compared with the velocity model derived at the shot points from the multi-channel seismic (MCS) survey closest to that OBS station. The MCS interval velocities were derived from stacking velocities determined by maximum coherency during the stacking process. The final velocity-depth model used for the sediment thickness calculations at fixed points OL3, OL4, OL5 and OM1 is shown in **Figure 22**. The sedimentary unit overlying oceanic crust ( $V_p \geq 4,900$  m/s) is subdivided into six discrete layers with quasi-constant velocities. According to Nigeria, the OBS velocity model proved to be accurate and more reliable than the stacking velocities. Arguing that the seismic stratigraphy in the region exhibits no substantial lateral changes in the geology of the sedimentary column beyond the outer fold and thrust belt, Nigeria applied a constant interval velocity model for each layer.

*Figure 21 and related caption not made public at the request of the coastal State by virtue of paragraph 11.3 of annex III to the rules of procedure.*

**Figure 21.**

- 80 Regarding the sediment thickness calculation at fixed points OL1 and OL2, Nigeria used the MCS line 2DS-8, and the MCS interval velocities were derived from stacking velocities determined by maximum coherency during the stacking process.
- 81 During the examination of the sediment thickness information provided by Nigeria, the Subcommittee sought clarifications from the Delegation, namely regarding velocity model calculations, source and magnitude of errors in the depth conversion, and sediment thickness documentation. Nigeria subsequently provided the requested clarifications and additional data and information, mainly in the context of the Amended Submission.

*Figure 22 and related caption not made public at the request of the coastal State by virtue of paragraph 11.3 of annex III to the rules of procedure.*

**Figure 22.**

- 82 The Subcommittee examined the Delegation's comparison of OBS-based sediment thicknesses with those derived from stacking velocities of the 2006 survey and noted that sediment thicknesses based on OBS data were consistently less than those based on stacking velocities. The Subcommittee also observed that the sediment thicknesses for the 2016 survey as calculated from RMS velocities of the MCS data were less than those based on the OBS-derived velocity model.
- 83 After examining the sediment thickness information, the Subcommittee agreed with the methodology as applied by the Delegation for depth conversion and sediment thickness calculation at the six sediment thickness formula points (**Figure 23**).
- 84 The Subcommittee also determined that there was sediment continuity from each of the sediment thickness fixed points to the FOS, as outlined in paragraph 8.5.3 of the Guidelines.

*Figure 23 and related caption not made public at the request of the coastal State by virtue of paragraph 11.3 of annex III to the rules of procedure.*

**Figure 23.**

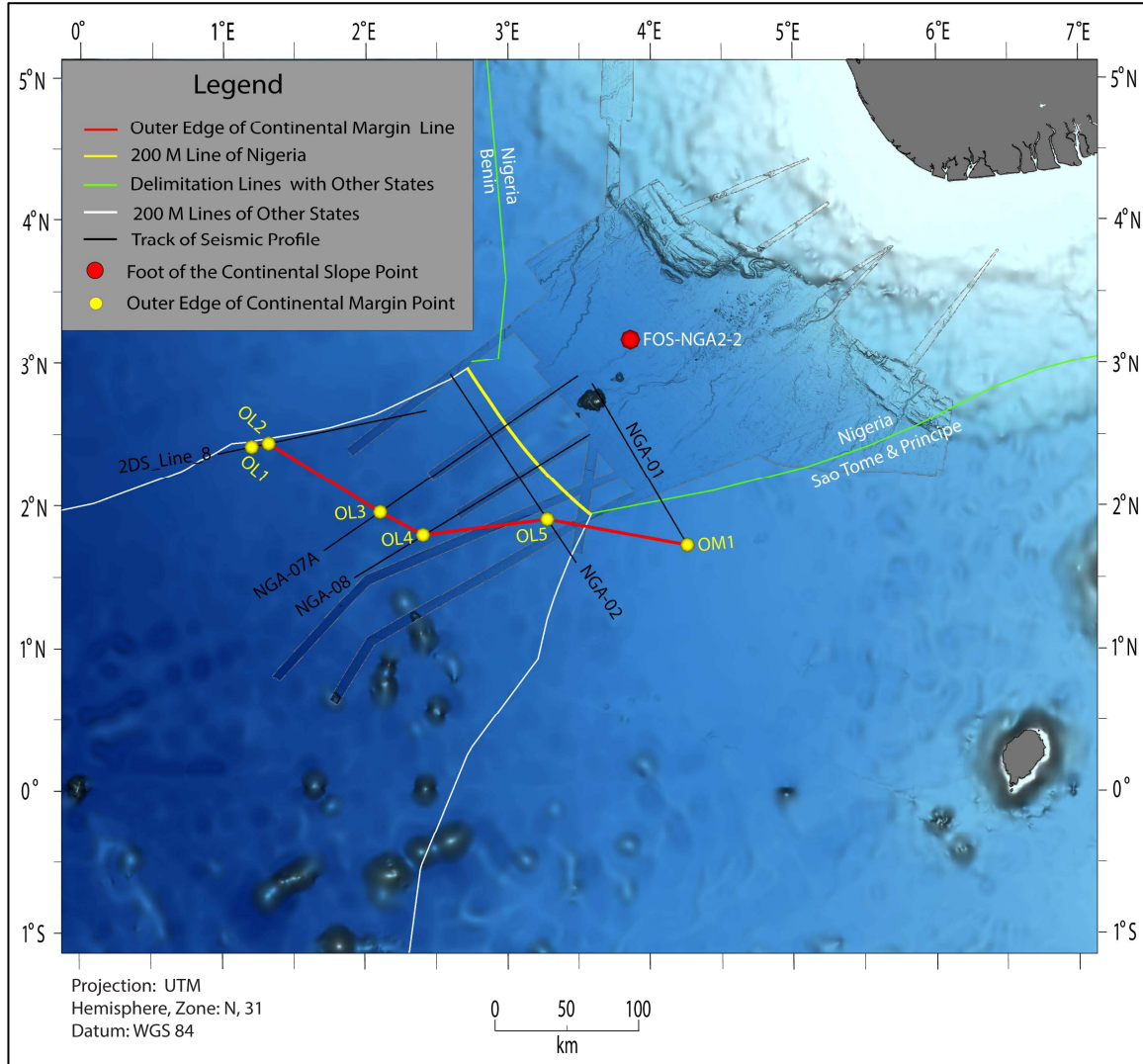
- 85 The Commission agrees with the procedure and accuracy by which Nigeria established the six sediment thickness formula points utilizing FOS point FOS-NGA2-2 on the continental margin of Nigeria, as contained in Table 2, Annex I, including the data provided, the seismic interpretation, the methods of depth conversion, and the distance calculations.

### **3.2 Configuration of the outer edge of the continental margin**

- 86 The outer edge of the continental margin of Nigeria extends beyond the 200 M line of Nigeria throughout the entire margin and is delineated by reference to six fixed points (**Figure 24**).

### **3.3 Recommendations**

- 87 The outer edge of the continental margin of Nigeria beyond 200 M is based on straight lines not exceeding 60 M in length connecting six sediment thickness formula points as described in section 3.1, in accordance with article 76, paragraph 4 (**Figure 24**). The fixed points are listed in Table 2 of Annex I to these Recommendations. The Commission recommends that these points be used as the basis for delineating the outer limits of the continental shelf, subject to the application of the relevant constraints (see section 4).



**Figure 24.** Bathymetric map showing the outer edge of the continental margin of Nigeria, as provided by the Delegation on 25 January 2023.

**4. The application of the constraint criteria (article 76, paragraphs 5 & 6)**

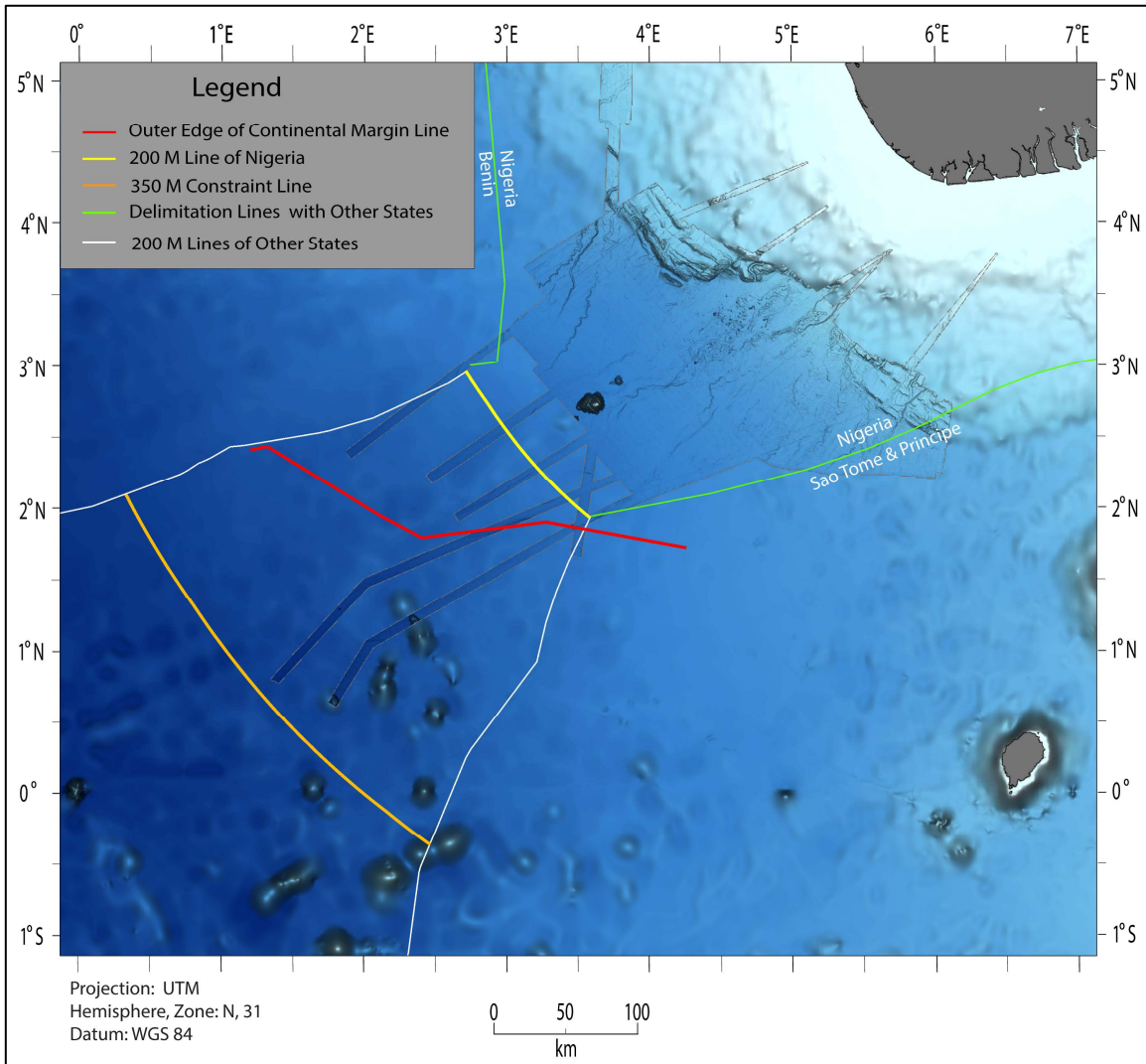
88 The outer limits of the continental shelf cannot extend beyond the constraints as per the provisions contained in article 76, paragraphs 5 and 6. Consequently, the fixed points comprising the line of the outer limits of the continental shelf on the seabed, drawn in accordance with paragraph 4(a)(i) and (ii), either shall not exceed the distance constraint, or shall not exceed the depth constraint.

89 For the outer limits of the continental shelf, Nigeria invoked the distance constraint. The consideration of the outer limits of the continental shelf therefore only involves an examination of the construction and application of that constraint line.



#### 4.1 The construction of the distance constraint line

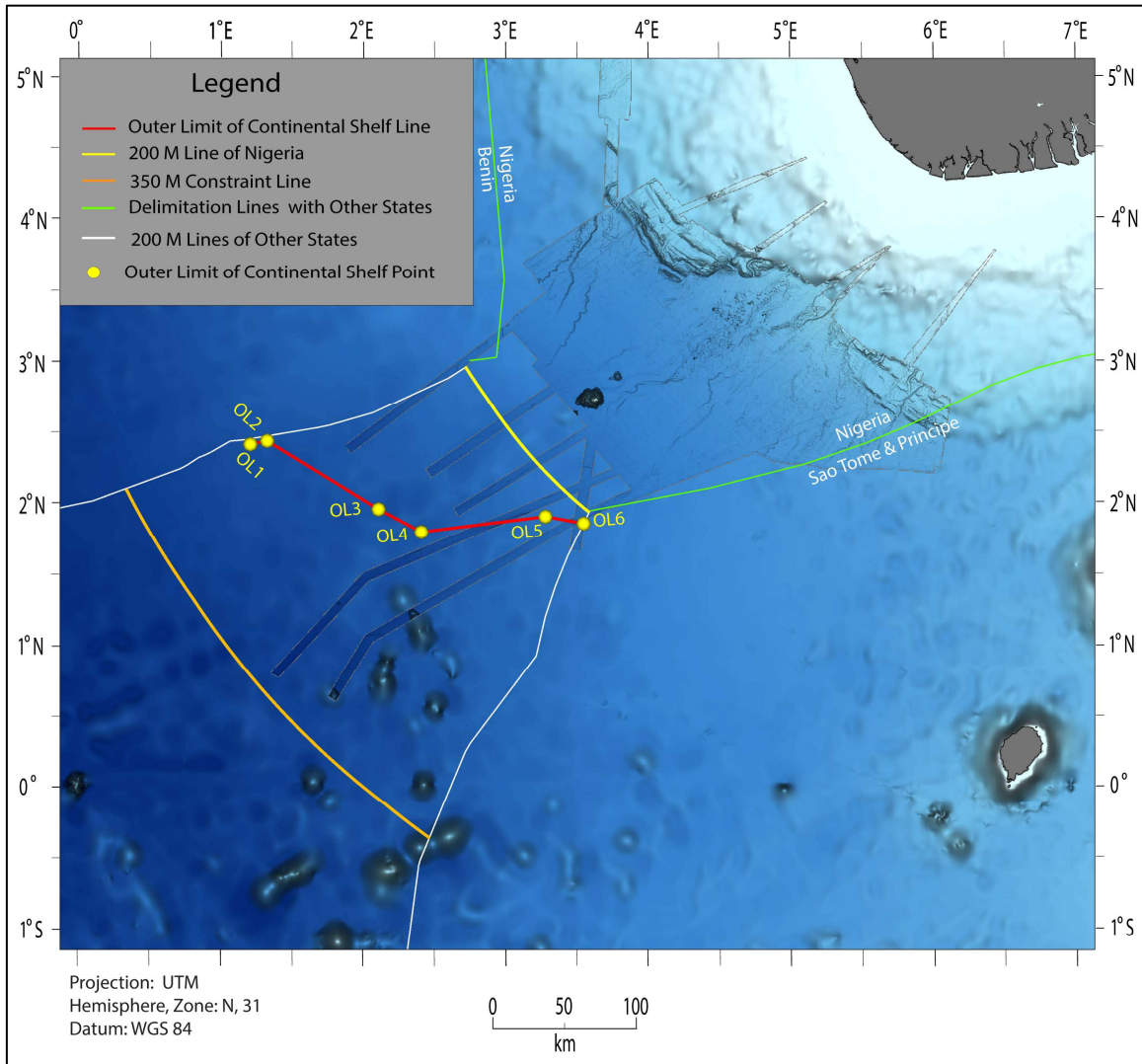
- 90 The distance constraint line submitted by Nigeria was constructed by arcs at 350 M distance from the baselines of Nigeria (**Figure 25**). The Commission agrees with the procedure and its accuracy applied by Nigeria in the construction of this line.
- 91 The distance constraint line is located entirely seaward of the outer edge of the continental margin of Nigeria in that area. Therefore, the distance constraint line has no limiting effect on the extent of the outer limits of the continental shelf.



**Figure 25.** Bathymetric map showing the distance constraint (orange) and the outer edge of the continental margin of Nigeria (red), as provided by the Delegation on 25 January 2023.

## 5. The outer limits of the continental shelf (article 76, paragraph 7)

92 The outer limits of the continental shelf, as transmitted by Nigeria on 14 July 2022, consist of six fixed points connected by straight lines not exceeding 60 M in length. The fixed points are listed in Table 3 of Annex I to these Recommendations. The fixed points are established in accordance with article 76 (OL1-OL5), or as an intersection point (OL6) between the outer edge of the continental margin of Nigeria, established in accordance with article 76, and the 200 M line of São Tomé and Príncipe (Figure 26).



**Figure 26.** Bathymetric map showing the outer limits of the continental shelf of Nigeria, and its defining fixed points, connected with straight lines not exceeding 60 M in length, as provided by the Delegation on 25 January 2023.

- 93 The Commission recommends that from outer limit fixed point OL5<sup>5</sup> the outer limits of the continental shelf follow a straight line eastward towards fixed point OM1<sup>6</sup>, located on the outer edge of the continental margin, until this straight line intersects with the 200 M line of São Tomé and Príncipe.

#### **6. Recommendations for Nigeria (article 76, paragraph 8)**

- 94 Recognizing the challenges presented in applying the criteria of article 76 and the Guidelines to submarine fan environments and considering paragraph 73, the Commission agrees with the determination of the fixed points listed in Table 2, Annex I, establishing the outer edge of the continental margin of Nigeria.
- 95 The Commission recommends that the delineation of the outer limits of the continental shelf be conducted in accordance with article 76, paragraph 7, by straight lines not exceeding 60 M in length, connecting fixed points, defined by coordinates of latitude and longitude. Further, the Commission agrees with the methodology and its accuracy applied in delineating the outer limits of the continental shelf of Nigeria, including the determination of the fixed points listed in Table 3, Annex I, and the construction of the straight lines connecting those points. The Commission recognizes that the establishment of the final outer limits of the continental shelf of Nigeria in the western part of the Gulf of Guinea may depend on delimitation between States.
- 96 The Commission recommends, taking into consideration article 9 of annex II to the Convention, that Nigeria proceeds to delineate the outer limits of its continental shelf on the basis of:
- (i) the outer edge of the continental margin referred to in paragraph 87;
  - (ii) the Commission's views on the outer limits of the continental shelf as referred to in paragraphs 92 and 93; and
  - (iii) the provisions of article 76, paragraphs 7, 8, 9 and 10.

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Smith, W.H.F., and Sandwell, D.T. (1997): Global Sea Floor Topography from Satellite Altimetry and Ship Depth Soundings. *Science*, **277**, 1956-1962

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<sup>5</sup> See Table 3 of Annex I to these Recommendations.

<sup>6</sup> See Table 2 of Annex I to these Recommendations.

**ANNEX I**

**TABLES OF GEOGRAPHICAL COORDINATES OF: THE FOOT OF THE CONTINENTAL SLOPE POINT, THE OUTER EDGE OF THE CONTINENTAL MARGIN BEYOND 200 M AND THE OUTER LIMITS OF THE CONTINENTAL SHELF BEYOND 200 M AS RECOMMENDED BY THE COMMISSION, BASED ON THE SUBMISSION BY NIGERIA**

**Table 1. Coordinates of the FOS point, as provided by Nigeria on 25 January 2023**

<b>FOS point</b>	<b>Lon [dd E]</b>	<b>Lat [dd N]</b>	<b>Water depth [m]</b>	<b>Bathymetric Line</b>	<b>Data Type</b>
FOS-NGA2-2	3.8563531	3.1630456	3890	MBES_50m profile HSS6*	MBES

\* Bathymetric profile extracted from the MBES swath acquired along the track of seismic line HSS-6

**Table 2. Coordinates of fixed points defining the outer edge of the continental margin beyond 200 M and their corresponding FOS points, as provided by Nigeria on 25 January 2023**

Continental Margin Fixed Point	CM Point Lon [dd E]	CM Point Lat [dd N]	Article 76 criterion	MCS line	Shotpoint	Sediment thickness [km]	Relevant FOS Point	Relevant FOS Point Lon [dd E]	Relevant FOS Point Lat [dd N]	Distance to FOS [km]	Distance to previous CM Point [M]
OL1	1.202232	2.407984	4 (a) (i)	2DS_Line_8	2885	3.075	FOS-NGA2-2	3.8563531	3.1630456	306.690	0.0000
OL2	1.320220	2.432498	4 (a) (i)	2DS_Line_8	2617	2.939	FOS-NGA2-2	3.8563531	3.1630456	293.327	7.235
OL3	2.102444	1.950079	4 (a) (i)	NGA07A	3737	2.369	FOS-NGA2-2	3.8563531	3.1630456	236.713	55.1097
OL4	2.402937	1.787979	4 (a) (i)	NGA03	2260	2.227	FOS-NGA2-2	3.8563531	3.1630456	221.915	20.4832
OL5	3.273506	1.898315	4 (a) (i)	NGA02	814	1.554	FOS-NGA2-2	3.8563531	3.1630456	154.140	52.7143
OM1	4.255834	1.718405	4 (a) (i)	NGA01	2923	2.141	FOS-NGA2-2	3.8563531	3.1630456	165.806	59.9858

**Table 3. Coordinates of fixed points defining the outer limits of the continental shelf beyond 200 M and their corresponding FOS points, as provided by Nigeria on 25 January 2023**

Outer Limit Fixed Point	OL Point Lon [dd E]	OL Point Lat [dd N]	Article 76 criterion	MCS line	Shotpoint	Sediment thickness [km]	Relevant FOS Point	Relevant FOS Point Lon [dd E]	Relevant FOS Point Lat [dd N]	Distance to FOS [km]	Distance to previous OL Point [M]
OL1	1.202232	2.407984	4 (a) (i)	2DS_Line_8	2885	3.075	FOS-NGA2-2	3.8563531	3.1630456	306.690	0.0000
OL2	1.320220	2.432498	4 (a) (i)	2DS_Line_8	2617	2.939	FOS-NGA2-2	3.8563531	3.1630456	293.327	7.235
OL3	2.102444	1.950079	4 (a) (i)	NGA07A	3737	2.369	FOS-NGA2-2	3.8563531	3.1630456	236.713	55.1097
OL4	2.402937	1.787979	4 (a) (i)	NGA03	2260	2.227	FOS-NGA2-2	3.8563531	3.1630456	221.915	20.4832
OL5	3.273506	1.898315	4 (a) (i)	NGA02	814	1.554	FOS-NGA2-2	3.8563531	3.1630456	154.140	52.7143
OL6	Point of intersection between the outer edge of the continental margin of Nigeria and the 200 M line of São Tomé and Príncipe. See paragraph 93 for the methodology to be used in the construction of this point.										