



## 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 SURINAME ON 5 DECEMBER 2008<sup>1</sup>**

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

Adopted by the Subcommittee on 23 March 2011, and submitted to the Commission  
on the Limits of the Continental Shelf for consideration and approval by the  
Commission

Adopted by the Commission, with amendments, on 30 March 2011

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<sup>1</sup> 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 Rule 11.3 of Annex III to the Rules of Procedure of the Commission. 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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## **I. INTRODUCTION**

- 1 On 5 December 2008, Suriname submitted through the Secretary-General of the United Nations to the Commission on the Limits of the Continental Shelf, in accordance with Article 76, paragraph 8 of the United Nations Convention on the Law of the Sea of 10 December 1982, information on the limits of the continental shelf beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured. The Convention entered into force for Suriname on 8 August 1998.

## **II. GENERAL PRINCIPLES ON WHICH THESE RECOMMENDATIONS ARE BASED**

- 2 The Recommendations of the Commission are based on the scientific and technical data and other material provided by Suriname in relation to the implementation of article 76. The Recommendations of the Commission only deal with issues related to article 76 and Annex II to the Convention and are without prejudice to matters relating to delimitation between States, or application of other parts of the Convention or any other treaties.

## **III. RECOMMENDATIONS**

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

- 3 The continental margin of Suriname consists of (i) an approximately 150 km wide shelf, (ii) a seaward bathymetric depression ("Suriname-Guyana Margin Basin") deepening to the north, (iii) the prominent Demerara Rise (Plateau) with its steep seaward flank, and (iv) the Suriname-Guyana deep water basin with water depths of over 4000 m (Figure 1). Most of the Demerara Rise (Plateau), stretching about 380 km along the shelf of Suriname and adjacent French Guiana to the east, lies in relatively shallow water (~700 m), but the north-western margin is a gentle ramp reaching water depths of 3000-4000 m. The Demerara Rise (Plateau) marks the eastern termination of the Suriname-Guyana Margin Basin, while the northern portion is open to the Suriname-Guyana deep-water basin.
- 4 The Suriname-Guyana Margin Basin is bounded to the south by the Precambrian Guiana Craton. The Margin Basin is a passive margin basin whose formation began presumably in the mid-Late Jurassic and was related to the Central Atlantic rift phase which resulted in the formation of rift grabens along the coast of Suriname and Guyana. The Demerara Rise (Plateau) is an uplifted portion of the Margin Basin. The formation of the Demerara Rise and its conjugate West African Guinea Plateau has been attributed to the compression due to the counter-clockwise rotation of Africa relative to South America during the South Atlantic rift and drift phase. There is a general agreement that the Demerara Rise is built on rifted continental crust of Precambrian and Early Mesozoic age covered by 2-3 km of sediments that thin out near the northeastern escarpment. The steeply seaward dipping Demerara escarpment bounds the Demerara Rise against the Suriname-Guyana deep-water basin.

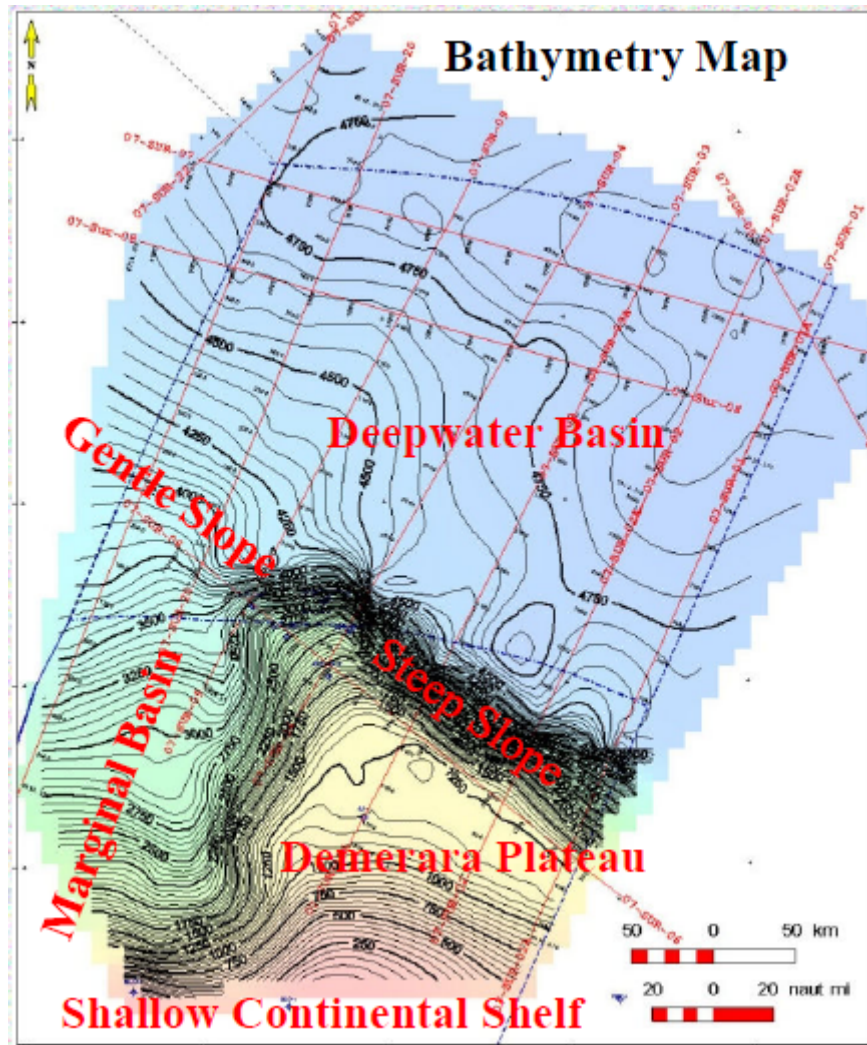


Figure 1. Locality map of the Submission of Suriname showing the main physiographic and geological features (Source: presentation by Suriname to the Commission 24 August 2009)

## 2. Notes verbales submitted by other States

- 5 In its note verbale HR/fh No. 800, dated 22 December 2008, the Permanent Mission of France to the United Nations informed that it "takes note of the Declaration of the Government of the Republic of Suriname, pursuant to article 76, paragraph 10, of the Convention, according to which the submission of Suriname does not prejudice the delimitation of the maritime boundary between France and Suriname. On this basis, it confirms that France has no objection to the Commission on the Limits of the Continental Shelf addressing its recommendations to Suriname with regard to the delineation of the outer limits of the continental shelf as long as those recommendations do not prejudice the definitive delimitation of the continental shelf between France and Suriname, for which negotiations are presently ongoing between the two States."

- 6 It is reiterated, in relation to the above note verbale from France, that the recommendations of the Commission relating to Suriname only deal with the outer limits of the continental shelf of Suriname in this region and shall not prejudice any bilateral delimitation issues between States.
- 7 In its note verbale No. 076, dated 29 April 2009, the Permanent Mission of Trinidad and Tobago to the United Nations informed the Secretary-General that “[h]aving regard to the areas of potential overlap between areas of continental shelf appertaining to Trinidad and Tobago and to Suriname, the Permanent Mission takes due note of the declaration of the Government of the Republic of Suriname, made pursuant to article 76, paragraph 10, of the Convention, and according to which the submission of Suriname does not prejudice the delimitation of maritime boundaries with neighbouring States. On this basis, the Permanent Mission confirms the reciprocal undertaking entered into between Trinidad and Tobago and Suriname not to object to the submission of the other State to the Commission”.
- 8 It is reiterated, in relation to the above note verbale from the Republic of Trinidad and Tobago, that the recommendations of the Commission relating to Suriname only deal with the outer limits of the continental shelf of Suriname and shall not prejudice any bilateral delimitation issues between States.
- 9 In its note verbale UN 6/6/3 Vol. IV, dated 31 July 2009, the Permanent Mission of Barbados to the United Nations informed the Secretary-General that:

“... the Government of Barbados notes that there is potential overlap in respect of areas of its submission to the Commission relating to its continental shelf beyond 200 M and that of the Republic of Suriname.

The Government of Barbados further notes that article 76 of the United Nations Convention on the Law of the Sea (“UNCLOS”) as well as Annex II of UNCLOS and the Rules of Procedure of the Commission on the Limits of the Continental Shelf (including Annex I thereto) provide that the actions of the Commission shall not prejudice matters relating to delimitation of boundaries between States with opposite or adjacent coasts. It is therefore the position of the Government of Barbados that the submission made by Suriname and any recommendations by the Commission are without prejudice to Barbados’ submission and the delimitation of boundaries between Barbados and Suriname.”
- 10 It is reiterated, in relation to the above note verbale from Barbados, that the recommendations of the Commission relating to Suriname only deal with the outer limits of the continental shelf of Suriname and shall not prejudice any bilateral delimitation issues between States.
- 11 The Commission took note of the contents of the three notes verbales referred to above from France, the Republic of Trinidad and Tobago and Barbados, and in accordance with its Rules of Procedure, proceeded to consider the Submission made by Suriname and make recommendations.

**3. Submerged prolongation of the landmass and entitlement to the continental shelf beyond 200 M**

- 12 From a morphological point of view, the Demerara Rise (Plateau) is a submerged prolongation of the Suriname landmass.
- 13 The outer edge of the continental margin, established from the foot of the continental slope of Suriname by applying the provisions of article 76, paragraph 4, of the Convention, extends beyond the 200 M limit. On this basis, the Commission recognises the legal entitlement of Suriname to delineate its continental shelf beyond the 200 M limit in this region.

**4. The determination of the foot of the continental slope**

- 14 The Demerara Rise (Plateau) and the Suriname-Guyana Margin Basin are the morphological features where Suriname conducted its analyses in search of the base and the foot of the continental slope.
- 15 The original Submission included seven critical FOS points (FOS-SUR-1 to 7). Five of them (FOS-SUR-1 to 5), which were determined based on the general rule (maximum change in the gradient at the base), are located at the base of the Demerara Rise (Plateau) while the other two (FOS-SUR-6 and 7), which were determined based on evidence to the contrary, are located in the Margin Basin. All these FOS points were used by Suriname to establish the outer limits of the continental shelf.
- 16 Suriname had determined the locations of the FOS points FOS-SUR-6 and 7 by means of evidence to the contrary, as corresponding to the location where the buried Demerara escarpment meets the surface of the oceanic basement of the Suriname-Guyana deep-water basin. The Subcommittee was, however, of the opinion that the geological/geophysical evidence provided in support of this argument was equivocal and therefore requested the Delegation to provide additional evidence from this region in support of the locations of the FOS.
- 17 In response, the Delegation in a presentation made to the Subcommittee on 31 August 2010 as well as in the "Addendum to the submission of the Republic of Suriname for the establishment of the outer limits of the continental shelf of Suriname", provided additional geophysical information in the form of free-air gravity maps of the region in support of invoking evidence to the contrary for locating the two FOS points. The Subcommittee examined the additional information and came to the conclusion that it was still not in agreement with the proposed locations of the two FOS points. This was conveyed to the Delegation by the document of 2 September 2010 on the "Preliminary consideration regarding certain issues on the submission made by Suriname".
- 18 In two communications dated 16 December 2010 and 4 February 2011, Suriname provided additional information in the form of gravity data as well as the results of gravity modeling carried out along the profiles SUR-20 and SUR-21 on which the FOS points FOS-SUR-6 and 7 were located. The Subcommittee examined the additional information as well as the seismic data along these lines but found no evidence to support a boundary between transitional crust and oceanic crust in the area of FOS-SUR-6 and 7.
- 19 The Subcommittee observed that the geophysical data provided by Suriname in support of invoking evidence to the contrary to locate the FOS points FOS-SUR-6

and 7 were inadequate. This was conveyed to the Delegation by a letter dated 3 March 2011 as well as during a meeting with the Delegation on 15 March 2011.

- 20 Based on its consideration of the technical and scientific documentation contained in the Submission of Suriname and the additional information provided in documents referred to in paragraphs 17-18 above, the Commission concluded that the FOS points FOS-SUR-1, 2, 3, 4 and 5 fulfil the requirements of article 76 of the Convention and Chapter 5 of the Guidelines.

#### **5. The establishment of the outer edge of the continental margin**

- 21 The outer edge of the continental margin of Suriname beyond 200 M is based on sediment thickness points established from the foot of the continental slope by applying the provisions of article 76, paragraph 4(a)(i), of the Convention. Based on its consideration of the technical and scientific documentation contained in the Submission of 5 December 2008 and the additional information provided by the Delegation in its communications of 31 August 2010, 1 September 2010 and 14 March 2011, the Subcommission is in agreement with the methodology adopted by Suriname for the determination of five points measured on 1 per cent sediment thickness formula from FOS points FOS-SUR-1 to 5 as well as with the locations of two additional points measured on the same formula from FOS-SUR-5.
- 22 The Commission recommends that these seven points be used as the basis for delineating the outer limits of the continental shelf in this region.

#### **6. The delineation of the outer limits of the continental shelf**

- 23 The outer limits of the continental shelf should be based on the established outer edge of the continental margin, taking into consideration the constraints contained in article 76, paragraphs 5 and 6, of the Convention. The Subcommission agrees with the way Suriname has applied the constraint line constructed by the application of the distance constraint contained in article 76, paragraph 5, of the Convention.

##### **6.1 The outer limits of the continental shelf**

- 24 The Commission recommends the determination of the fixed points listed in Annex I to these Recommendations, establishing the outer limits of the continental shelf from OL-SUR-01 to OL-SUR-19 (Figure 2).
- 25 The Commission recommends that the delineation of the outer limits of the continental shelf of Suriname be conducted in accordance with article 76, paragraph 7, of the Convention, by straight lines not exceeding 60 M in length, connecting fixed points, defined by coordinates of latitude and longitude. The establishment of the final outer limits of the continental shelf of Suriname may depend on delimitation between States. The Commission recommends, taking into consideration article 9 of Annex II, of the Convention, that Suriname proceeds to delineate the outer limits of the continental shelf on the basis of:
- (i) the outer edge of the continental margin referred to in paragraphs 21 and 22 above;
  - (ii) the Commission's views on the outer limits of the continental shelf of Suriname as referred to in paragraphs 23 and 24 above; and
  - (iii) the provisions of article 76, paragraphs 7, 8, 9 and 10, of the Convention.

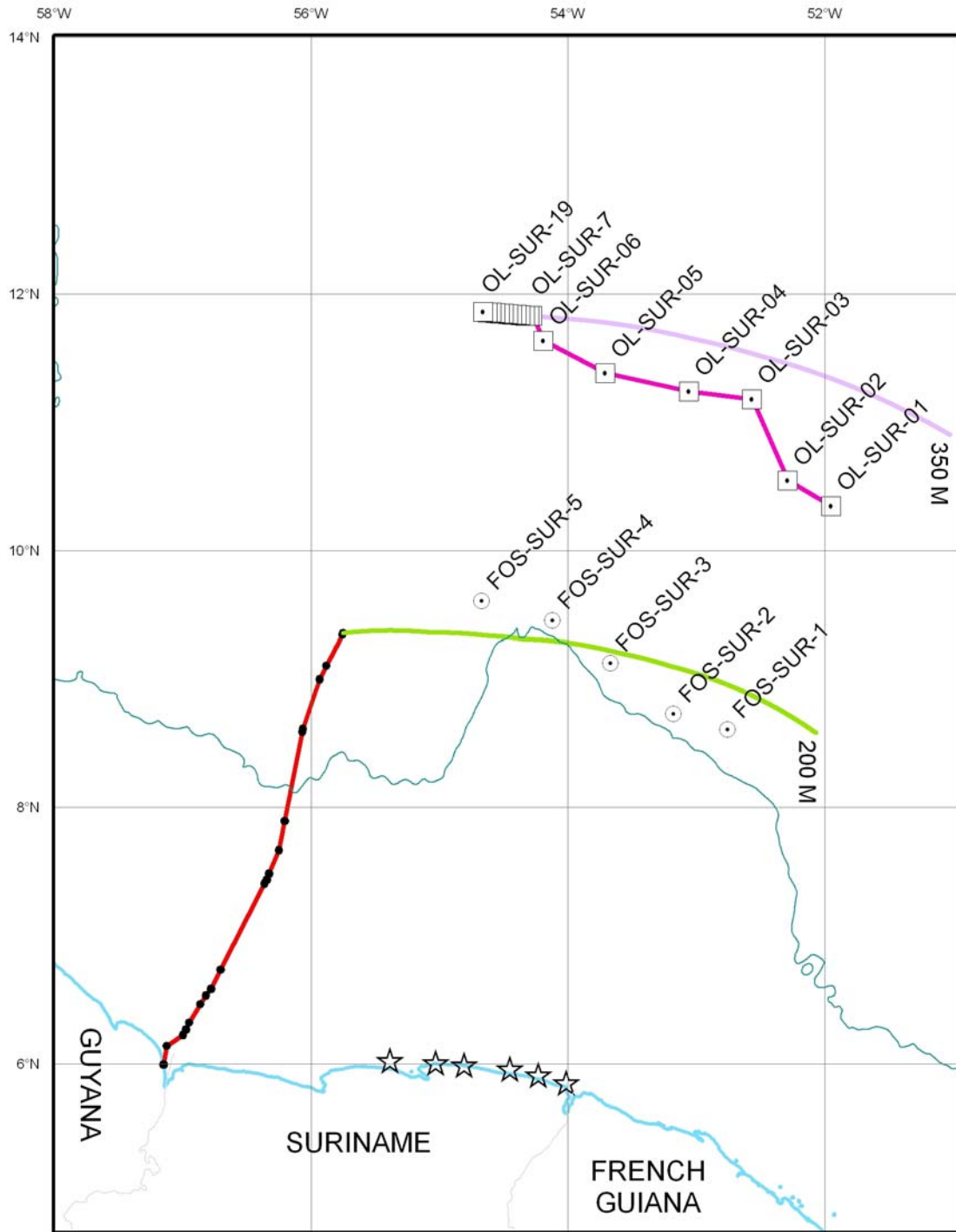


Figure 2. Extended Continental Shelf of Suriname as proposed by Suriname in its letter of 17 March 2011 and agreed by the Commission (map prepared by the Commission)

## ANNEX I

**TABLE 1. GEOGRAPHIC COORDINATES AND OTHER INFORMATION RELATED TO THE AGREED FOS POINTS**

<b>FOS ID</b>	<b>Latitude (N)</b>	<b>Longitude (W)</b>	<b>Water Depth (m)</b>
FOS-SUR-1	08° 36.5640'	52° 45.2639'	4283
FOS-SUR-2	08° 43.8928'	53° 10.5079'	4352
FOS-SUR-3	09° 07.6796'	53° 40.1163'	4473
FOS-SUR-4	09° 27.4172'	54° 07.1447'	4558
FOS-SUR-5	09° 36.4831'	54° 40.3303'	4275

**TABLE 2. GEOGRAPHIC COORDINATES AND OTHER INFORMATION RELATED TO THE ESTABLISHMENT OF THE OUTER LIMITS OF THE CONTINENTAL SHELF BEYOND 200 M**

<b>OL Points</b>	<b>Latitude (N)</b>	<b>Longitude (W)</b>	<b>Article 76 provision invoked</b>	<b>Contributing FOS point</b>	<b>Distance to next Point (M)</b>
<b>OL-SUR-01</b>	10° 20' 41.0255"	51° 56' 53.4917"	76(4)(a)(i)	FOS-SUR-1	23.34
<b>OL-SUR-02</b>	10° 32' 42.5394"	52° 17' 13.6281"	76(4)(a)(i)	FOS-SUR-2	41.33
<b>OL-SUR-03</b>	11° 10' 47.8018"	52° 33' 57.1475"	76(4)(a)(i)	FOS-SUR-3	29.23
<b>OL-SUR-04</b>	11° 14' 25.3949"	53° 03' 27.7128"	76(4)(a)(i)	FOS-SUR-4	39.25
<b>OL-SUR-05</b>	11° 22' 52.7738"	53° 42' 28.7868"	76(4)(a)(i)	FOS-SUR-5	32.22
<b>OL-SUR-06*</b>	11° 38' 10.7106"	54° 11' 23.7185"	76(4)(a)(i)	FOS-SUR-5	12.57
<b>OL-SUR-07*</b>	11° 49' 44.3694"	54° 16' 32.6045"	76, paragraph 5, 350M		1.33
<b>OL-SUR-08</b>	11° 49' 45.0006"	54° 17' 53.9395"	76, paragraph 5, 350M		1.96
<b>OL-SUR-09</b>	11° 49' 55.6781"	54° 19' 53.2367"	76, paragraph 5, 350M		1.96
<b>OL-SUR-10</b>	11° 50' 06.3417"	54° 21' 52.5365"	76, paragraph 5, 350M		1.96
<b>OL-SUR-11</b>	11° 50' 16.9913"	54° 23' 51.8389"	76, paragraph 5, 350M		1.96
<b>OL-SUR-12</b>	11° 50' 27.6270"	54° 25' 51.1438"	76, paragraph 5, 350M		1.90
<b>OL-SUR-13</b>	11° 50' 37.1952"	54° 27' 47.1663"	76, paragraph 5, 350M		1.90
<b>OL-SUR-14</b>	11° 50' 46.7503"	54° 29' 43.1911"	76, paragraph 5, 350M		1.90
<b>OL-SUR-15</b>	11° 50' 56.2921"	54° 31' 39.2182"	76, paragraph 5, 350M		1.90
<b>OL-SUR-16</b>	11° 51' 05.8207"	54° 33' 35.2474"	76, paragraph 5, 350M		1.90
<b>OL-SUR-17</b>	11° 51' 15.3362"	54° 35' 31.2789"	76, paragraph 5, 350M		1.90
<b>OL-SUR-18</b>	11° 51' 24.8384"	54° 37' 27.3126"	76, paragraph 5, 350M		1.90
<b>OL-SUR-19</b>	11° 51' 34.3274"	54° 39' 23.3486"	76, paragraph 5, 350M		1.90

\* The locations of outer limit fixed points OL-SUR-06 and OL-SUR-07 were revised by Suriname during the consideration of the submission by the Commission. Point OL-SUR-07 corresponds to the intersection of the outer edge of the continental margin and the 350 M distance constraint line. The remainder of the outer limit fixed points are as proposed in the original submission.