

# Continental Shelf Submission of Union of Myanmar

A satellite-style map of Myanmar's continental shelf, showing the coastline and the deep blue ocean. The land is depicted in shades of green and brown, while the ocean is a deep blue. The map shows the extensive continental shelf extending into the Andaman Sea.

## Executive Summary

December, 2008

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## I. INTRODUCTION

After the declaration of Territorial Sea and Straight baseline in 1968, Myanmar declared its Territorial Sea and Maritime Zones Law in 1977, prior to the conclusion of the 1982 United Nations Convention on the Law of the Sea (hereinafter UNCLOS). Myanmar signed UNCLOS when it opened for signature and ratified on 21 May 1996. It entered into force for Myanmar on 20 June 1996.

This submission is made by Myanmar to the United Nations Commission on the Limits of the Continental Shelf (CLCS) pursuant to Article 76, paragraph 8 of the Convention in respect of the establishment of the outer limits of the continental shelf beyond 200 nautical miles (M) from the baselines from which the breadth of the territorial sea of Myanmar is measured.

Myanmar is making its submission for extension of its continental shelf in the Bay of Bengal, off Rakhine, and referred to as **Rakhine Continental Shelf**, beyond 200 M. The outer limits of Rakhine Continental Shelf as herein submitted to the Commission are based on the provisions of Article 76 and of Annex II of the Final Act of the Third United Nations Conference on the Law of the Sea.

## II. COMMISSION MEMBER WHO PROVIDED ADVICE DURING THE PREPARATION OF THE SUBMISSION

Dr. Sivaramakrishnan Rajan, present Commission member, has provided advice in the processing and interpretation of acquired geophysical data, and preparation of the submission of Myanmar.

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### III. GENERAL DESCRIPTION OF THE CONTINENTAL MARGIN AND PROVISIONS OF ARTICLE 76 INVOKED

The natural prolongation from land mass of Myanmar through the outer edge of the Rakhine continental margin has three aspects: morphologic, geologic and tectonic aspects.

Morphologically, the land mass of Myanmar progressing westward can be described in terms of the shelf, the slope and the rise. Beyond the rise lies the deep ocean floor of the Bay of Bengal. Geologically, the Rakhine continental margin is the westward advancing accretionary complex of the Burma plate. Regarding both geological and tectonic aspects, the land territory of Myanmar embraces two major tectonic domains and the “Burma plate” is the western domain of the two. The Burma plate and the accretionary complex along its western margin are comprised dominantly of marine sedimentary rocks. The abyssal plain in the northern Bay of Bengal is underlain by the Bengal Submarine Fan System. As a consequence, the accretionary complex is built up with the sediment scraped off from the subducting Indian plate beneath the Burma plate. Therefore, in this region, the fundamental prolongation between the land mass (accretionary complex) and the deep ocean floor (submarine fan) can be established mainly based on the rock type and tectonic episodes within the last hundred million years or so.

Along the periphery of the Bay of Bengal, Sri Lanka, mainland India, Bangladesh, Myanmar, India’s Andaman Islands and Indonesia’s Sumatra are the coastal territories in opposite as well as the adjacent positions. Because of the geographic significance of the Bay of Bengal, the area to be extended which is appurtenant to Myanmar intervenes between the Exclusive Economic Zones of neighbouring countries.

The test of appurtenance is the means to demonstrate the entitlement of extending the limits of a coastal State beyond 200 M. Paragraph 2.2.8 of the Scientific and Technical Guidelines (1999) defines the test of appurtenance as:

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*If either the line delineated at a distance of 60 M from the foot of the continental slope, or the line delineated at a distance where the thickness of sedimentary rocks is at least 1 per cent of the shortest distance from such point to the foot of the slope, or both, extend beyond 200 M from the baselines from which the breadth of the territorial sea is measured, then a coastal state is entitled to delineate the outer limits of the continental shelf as prescribed by the provisions contained in article 76, paragraphs 4 to 10.*

Utilising the provisions contained in paragraphs 4 to 10 of Article 76 it is demonstrated that Myanmar is entitled to extend its continental shelf limits beyond 200 M due to the morphological and geological as well as tectonic significance of the Rakhine continental margin. Therefore, both one per cent sediment thickness formula and provision of Annex II of UNCLOS are used to delineate the outer limit of the extended Rakhine continental shelf as shown in Figure 1. Analysis based on the distance and sediment formula, and provision of the Annex II of UNCLOS indicate that the western portion of the outer edge of the Rakhine continental margin is situated seaward beyond the 200 M measured from the baseline as well as beyond the constraint lines as shown in Figure 2. The outer limit of the extended continental shelf is delineated by fixed points connected by straight lines not longer than 60 nautical miles as shown in Figure 3.

Table 1 contains a list of coordinates of the fixed points used to define the outer limits of the continental shelf beyond 200 M, the distance in nautical miles between adjacent points and the provision of Article 76 on which each point is based.

#### **IV. RELEVANT MARITIME DELIMITATIONS**

In accordance with paragraph 2 (a) of Annex I to the Commission's Rules of Procedures, Myanmar wishes to inform the Commission that the area of continental shelf that is the subject of this submission is not subject to any dispute between Myanmar and other States. Delimitation of Maritime Boundary between Myanmar and India in the Bay of Bengal and Andaman Sea has been completed and signed a Treaty in 23 December, 1986. Delimitation negotiations between Myanmar and Bangladesh are ongoing and consistent

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with Article 76, paragraph 10, and this submission has been made without prejudice to the eventual delimitation.

## **V. STATE BODIES RESPONSIBLE FOR THE PREPARATION OF THE SUBMISSION**

This submission, together with all maps, figures, appendices and data bases was prepared jointly by following institutions:

- Consular and International Law and Treaty Department, Ministry of Foreign Affairs
- Myanmar National Hydrographic Centre, Ministry of Defence
- Department of Higher Education, Ministry of Education
- Myanma Oil and Gas Enterprise, Ministry of Energy
- Remote Sensing Department, Mandalay Technological University, Ministry of Science and Technology
- Department of Land Survey, Ministry of Agriculture and Irrigation

The following institutions cooperated and acted as advisors in the preparation of this submission:

### **Institutions:**

**National Centre for Antarctic and Ocean Research (NCAOR), India** – Quality Control for both bathymetry and geophysical surveys and cooperation in preparation of submission with Myanmar Scientists.

**National Geophysical Research Institute (NGRI), India** - Seismic Data Processing and Interpretation.

### **Consultant:**

**Dr. N. K. Thakur**, Consultant, former member of the Commission, - Processing and interpretation of acquired geophysical data and preparation of the submission.

TABLE 1. FIXED POINTS COMPRISING THE OUTER LIMIT OF THE EXTENDED RAKHINE CONTINENTAL SHELF OF MYANMAR IN THE BAY OF BENGAL

Fixed Point No.	N. Latitude (Degree decimal)	E. Longitude (Degree decimal)	Article 76 Provision Invoked	Distance to next Point (Nautical Miles)
A	15.80006259	86.38976935	Provisional point located on approximate position of other State's EEZ	27.42
1	15.42614223	86.71761283	Article 76(4)(a)(i)	56.69
2	14.64728239	87.24851119	Article 76(4)(a)(i)	57.84
3	13.68827854	87.22133274	Article 76(4)(a)(i)	59.59
4	13.24401943	88.12814305	As per provision stated in Annex II of the Final Act, UNCLOS	58.55
B	12.8578199	89.071843	Provisional point located on approximate position of other State's EEZ	-

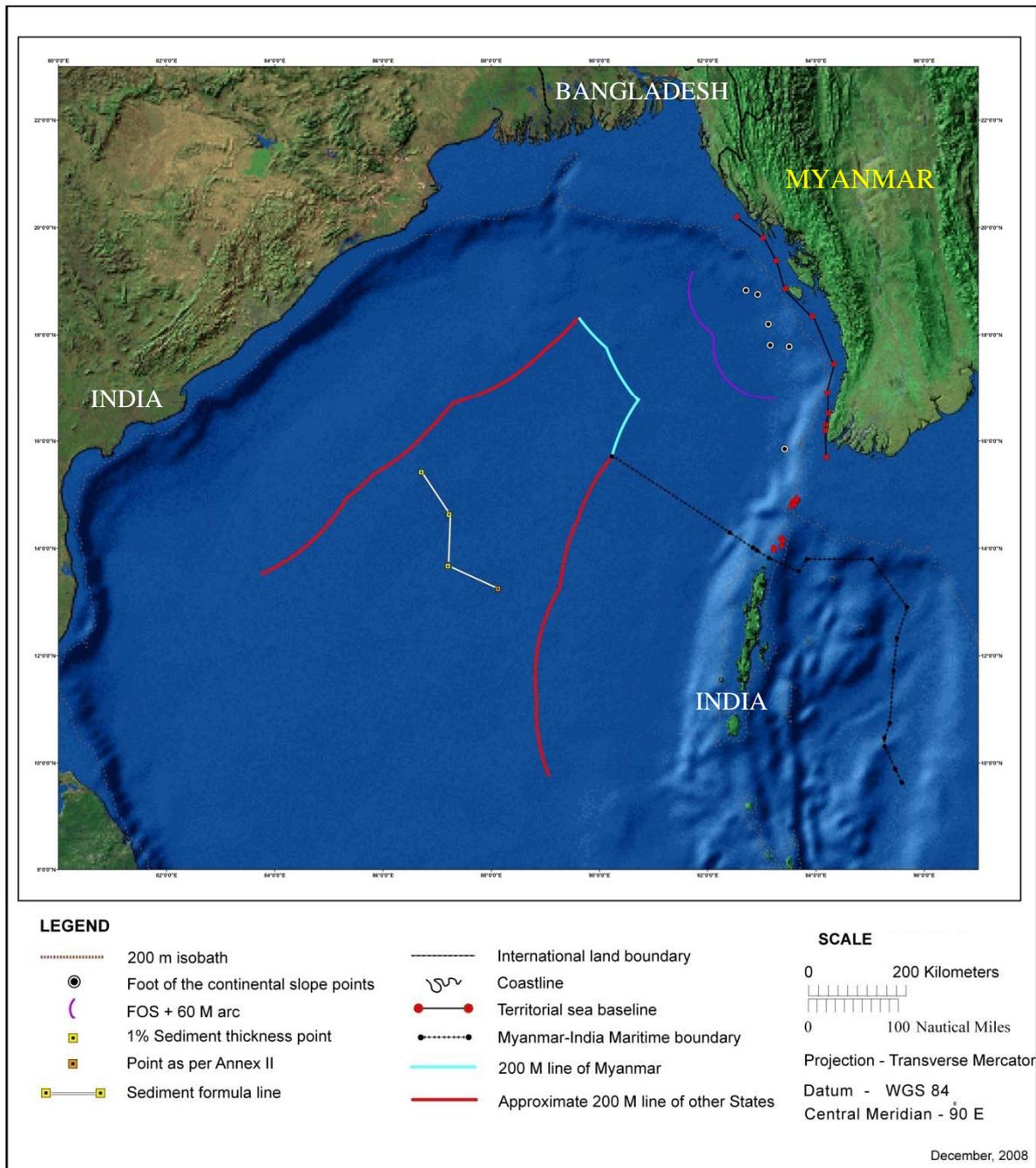


Figure 1. Map demonstrating the delineation of formula lines for extending the outer limit of Rakhine continental shelf, Union of Myanmar, beyond 200 M. The groups of red dots are territorial sea baseline points of Preparis and Co Co Islands Groups. The red lines are approximate positions of 200 M limit of the Exclusive Economic Zone of neighbouring States.

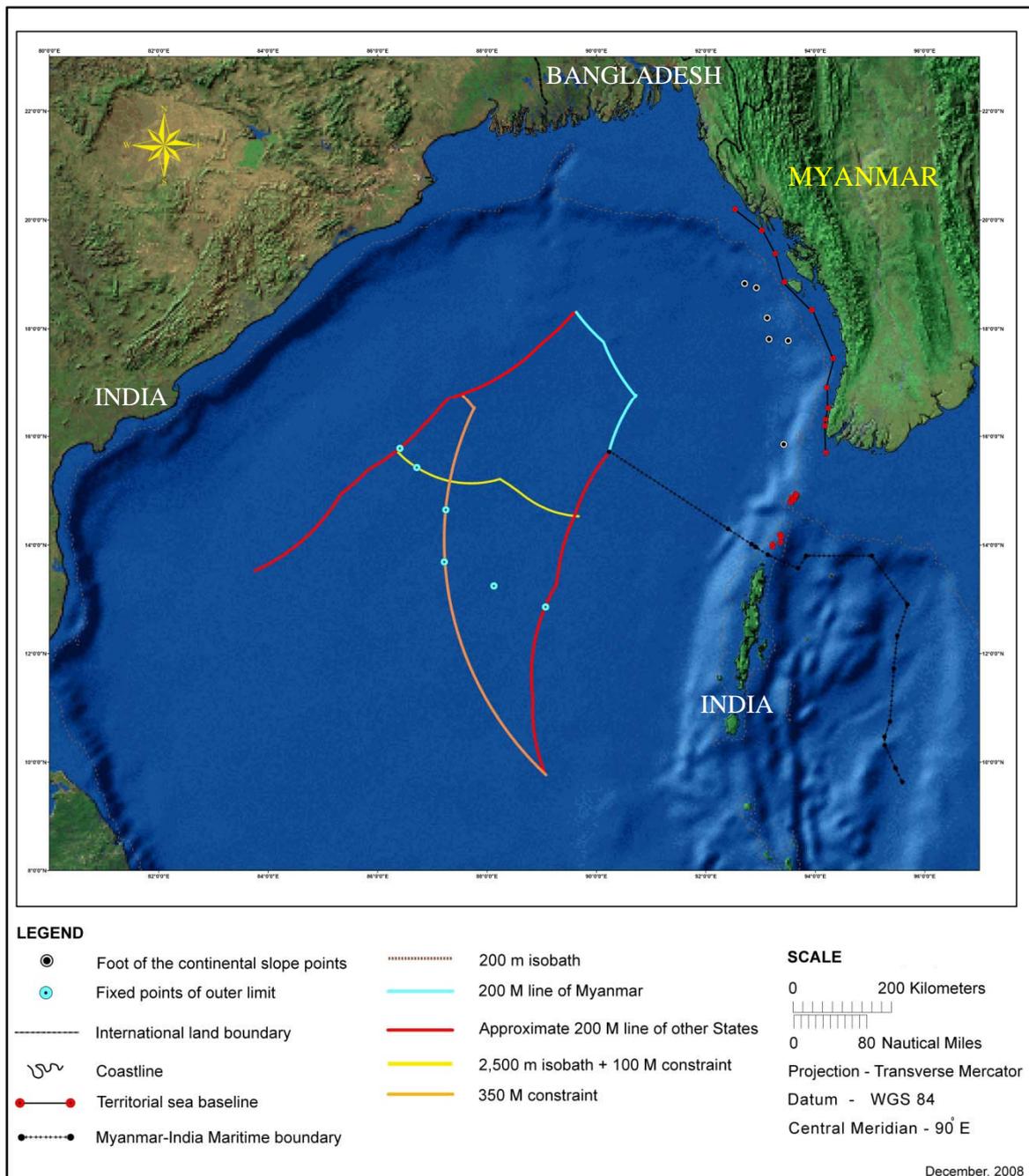


Figure 2. Map demonstrating the delineating the constraints line and fixed points for extending the outer limit of Rakhine continental shelf, Union of Myanmar, beyond 200 M. The groups of red dots are territorial sea baseline points of Preparis and Co Co Islands Groups. The red lines are approximate positions of 200 M limit of the Exclusive Economic Zone of neighbouring States.

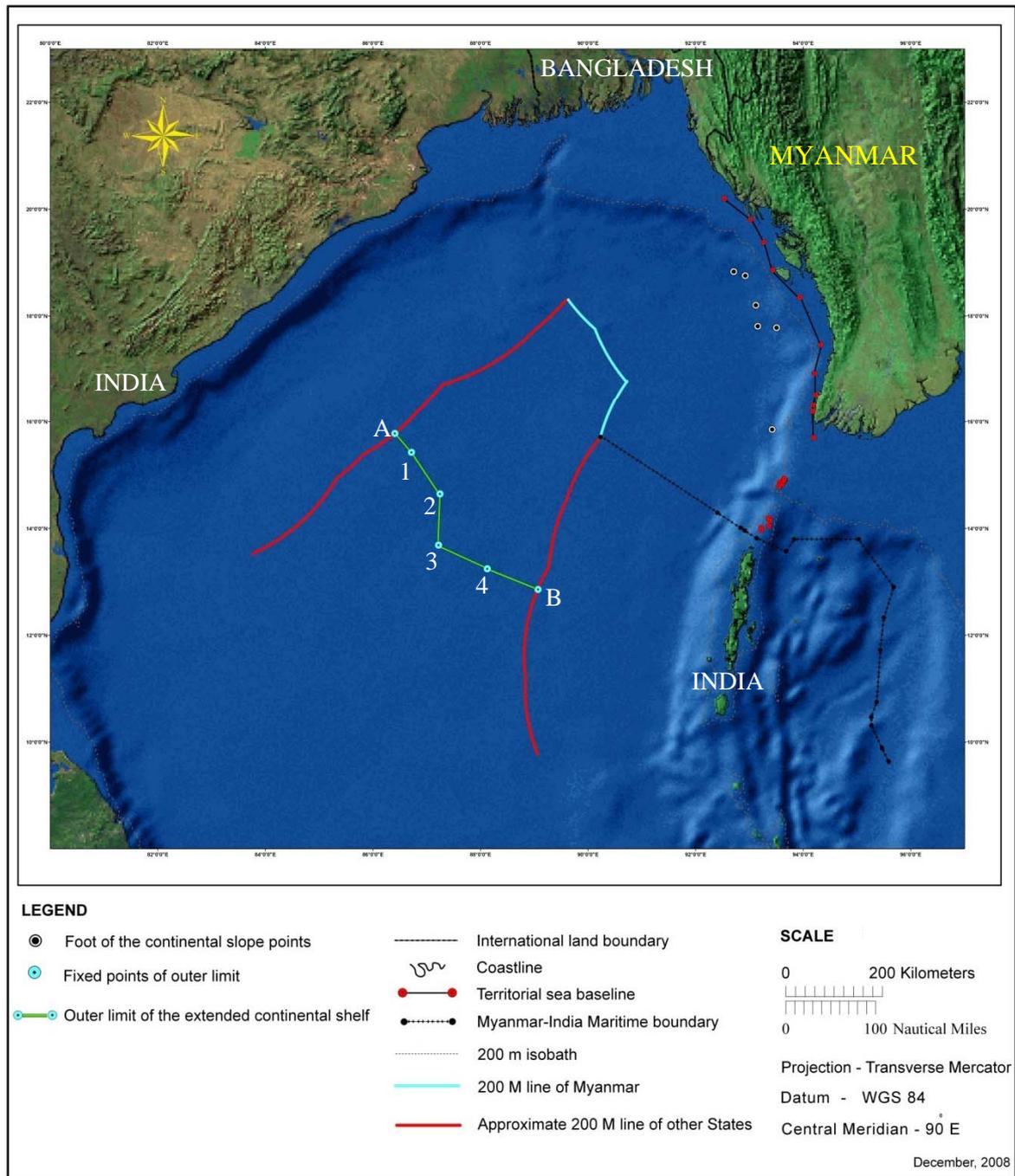


Figure 3. Map demonstrating the outer limit of extended Rakhine continental shelf, Union of Myanmar, beyond 200 M. The groups of red dots are territorial sea baseline points of Preparis and Co Co Islands Groups. The red lines are approximate positions of 200 M limit of the Exclusive Economic Zone of neighbouring States.