

# The Republic of the Union of Myanmar Continental Shelf Submission

A satellite-style map of Myanmar's continental shelf, showing the coastline and the surrounding ocean. The land is depicted in shades of green and brown, while the ocean is a deep blue. The map is centered on the Bay of Bengal.

## Executive Summary

Amended July 2015

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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 was a signatory member on the very first day and ratified it on 21 May 1996. The UNCLOS entered into force for Myanmar on 20 June 1996. In 2008, Myanmar made her amendment of the Territorial Sea and Maritime Zones Law (1977) to include more accurate and specific points measured around Prepara and Co Co groups of islands.

Myanmar presented the **initial Submission** in 2008 to the United Nations Commission on the Limits of the Continental Shelf (hereinafter CLCS) for the extension of her continental shelf in the Bay of Bengal 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.

Taking account of the Judgment of the International Tribunal of the Law of the Sea (ITLOS) (14 March, 2012) in Case 16 “Dispute concerning delimitation of the maritime boundary between Bangladesh and Myanmar in the Bay of Bengal (Bangladesh/Myanmar)”, Myanmar amended her initial Submission.

This amended Submission is submitted with respect to the statement of the chair of the CLCS described in the “Progress of work in the Commission on the Limits of the Continental Shelf”, Thirty-first Session, 2013.

Myanmar’s Submission mainly deals with the **Rakhine Continental Shelf** (the westernmost submerged shelf of Myanmar’s continental shelves) in the Bay of Bengal, based on the provisions of “Article 76” and “Annex II, Statement of understanding concerning a specific method to be used in establishing the outer edge of the continental margin, Final Act of the Third United Nations Conference on the Law of the Sea (excerpts)” (hereinafter Annex II). The scientific data and information for the fulfilment of the provision described in the Article 76 and Annex II have not been changed or modified and hence remained as they are deposited in CLCS.

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## **II. GENERAL DESCRIPTION OF THE CONTINENTAL MARGIN**

The natural prolongation from land mass of Myanmar through the outer edge of the Rakhine continental margin have been discussed in detail in the Main Body of initial Submission as well as in present amended Submission.

Morphologically, the land mass of Myanmar progressing westward can be illustrated in terms of the shelf, the slope, the rise and the abyssal plain. To the off-Rakhine, the slope descends to the rise and then abyssal plain without any prominent break, such as a deep trench. Geologically, the Rakhine continental margin is regarded as a westward advancing accretionary complex of the Burma Plate and is being built up with the sedimentary rocks of the adjacent Bengal Submarine Fan of which underlies the deep ocean floor of the Bay of Bengal. In addition, the development of both Bay of Bengal and Rakhine-Chin-Naga Ranges are being generated by a single tectonic process, the convergent tectonics of Indian Plate and Burma Plate.

## **III. PROVISIONS OF THE ARTICLE 76 AND ANNEX II INVOKED**

Applying the provisions contained in paragraphs 4 to 10 of Article 76 which has already demonstrated in the Main Body, 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.

The outer edge of the Rakhine continental margin is established based on the four points, three points applying the sediment thickness formula provided in the Article 76, paragraph 4(a)(i) and one point applying the provision of Annex II. The continental margin comprising with these points are as shown in Figure 1.

To the extent that a coastal state which applying the terms stated in the Annex II is required to furnish scientific and technical data and materials to the CLCS for the purpose of demonstrating that the conditions for the application of the specific method are

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satisfied. Therefore, Myanmar has done so in the Main Body of her initial Submission as well as in present amended Submission.

The situation in the southern part of the claimed area of Myanmar warrants application of the provision stated in the Annex II. The special circumstances of Rakhine continental margin which are in compliance with the provision clearly described in the first paragraph of the Annex II are (i) the average distance of the 200 m isobath from the Rakhine coastline and the Preparis and Co Co groups of islands is less than 20 M, and (ii) the greater accumulation of sedimentary material lies beneath the Rakhine continental rise.

Another necessary criterion according to the second and fourth paragraphs of the Annex II is that the mathematical average of the thickness of sedimentary rocks along an ad hoc line which is drawn from the foot of the slope point to the point which is located at the maximum permissible distance in accordance with the provisions of paragraph 4(a)(i) of the Article 76 would not be less than 3.5 km. In addition, in the third paragraph of the Annex II, it is also suggested to recognize, that each fixed point identified to establish the outer edge of the continental margin must have sediment thickness not less than 1 km.

In accordance with the above provision described in the Annex II, a point is identified where the total sediment thickness at that point is not less than “one km” and it is described as Fixed Point 4 in the Table 1 and Figures. Furthermore, that point is within the range of permissible distance from a foot of slope in accordance with the formula provided in the Article 76, paragraph 4(a)(i). In addition, the mathematical average of the thickness of sedimentary rocks from the Rakhine coast to that Fixed Point 4 was calculated based on the acquired four seismic survey lines and more than 3.5 km was obtained. The analysis is already demonstrated in the Main Body of both initial Submission and present amended Submission.

Then the outer edge of the Rakhine continental margin is established by comprising with this point (Annex II) and other three points (identified by the one per cent sediment thickness formula provided in the Article 76), as shown in Figure 1.

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Then it is obvious in the Figure 2 that the three points identified by one per cent sediment thickness formula are located seaward beyond the combined constraint line while the point identified according to the Annex II is located within the combined constraint line.

To delineate the outer limits of the continental shelf, the three points identified outside the combined constraint are re-located backward to the intersection of the combined constraint line and the respective seismic survey line, in accordance with the paragraphs (5) and (6) of the Article 76. Then, these three new points are regarded as “Fixed Points 1, 2, and 3,” and the point identified by the Annex II is also regarded as Fixed Point 4 as shown in Table 1 and Figure 3.

Finally, the outer limits of the extended continental shelf is delineated by connecting these four Fixed Points and two provisional points (points A and B) located on the approximate 200 M limits of the neighbouring with straight lines not longer than 60 nautical miles as shown in Figure 3.

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

Along the periphery of the Bay of Bengal, Sri Lanka, India’s mainland, Bangladesh, Myanmar, India’s Andaman Islands and Indonesia’s Sumatra are the coastal territories in opposite as well as the adjacent positions. Due to the geographic significance of the Bay of Bengal, the area claimed by Myanmar will be overlapped with areas claimed by the neighbours.

In accordance with the 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 eastern part of Bay of Bengal and the Andaman Sea has been completed (as shown in Figure 1) and Treaty was signed in 23 December, 1986. Final delimitation for the overlapping claims in the Bay

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of Bengal will be proceeded with peaceful negotiation after the recommendation made by CLCS for each States.

In 2012, the maritime boundary between Myanmar and Bangladesh from land-boundary terminus to the 200 M limits and beyond is already delineated by the International Tribunal on the Law of the Sea (ITLOS) of which both Bangladesh and Myanmar declared their mutual consent to the jurisdiction of the tribunal.

At present, the maritime boundaries between Bangladesh and Myanmar as well as Bangladesh and India have already delineated. Therefore, Myanmar has to carry out peaceful negotiation with her neighbouring States for the final delineation of the outer limits of the extended continental shelf in the Bay of Bengal after the recommendation made by the CLCS. Regarding the good faith among neighbours, Myanmar's Submission has been made without prejudice to the eventual final delimitation.

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

The initial Submission, together with all maps, figures, appendices and data bases was prepared jointly by the following institutions:

- Consular and Legal Affairs 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 Environmental Conservation and Forestry

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The following institutions and scientists cooperated and acted as advisors in the preparation of the initial Submission:

**Institutions:**

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

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

**Consultant:**

**Dr. Sivaramakrishnan Rajan**, former member of the CLCS, has provided technical advice as well as necessary arrangement.

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



TABLE 1. FIXED POINTS COMPRISING THE OUTER LIMITS 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	-

All coordinates of fixed points are expressed in the WGS-84 geodetic reference system.

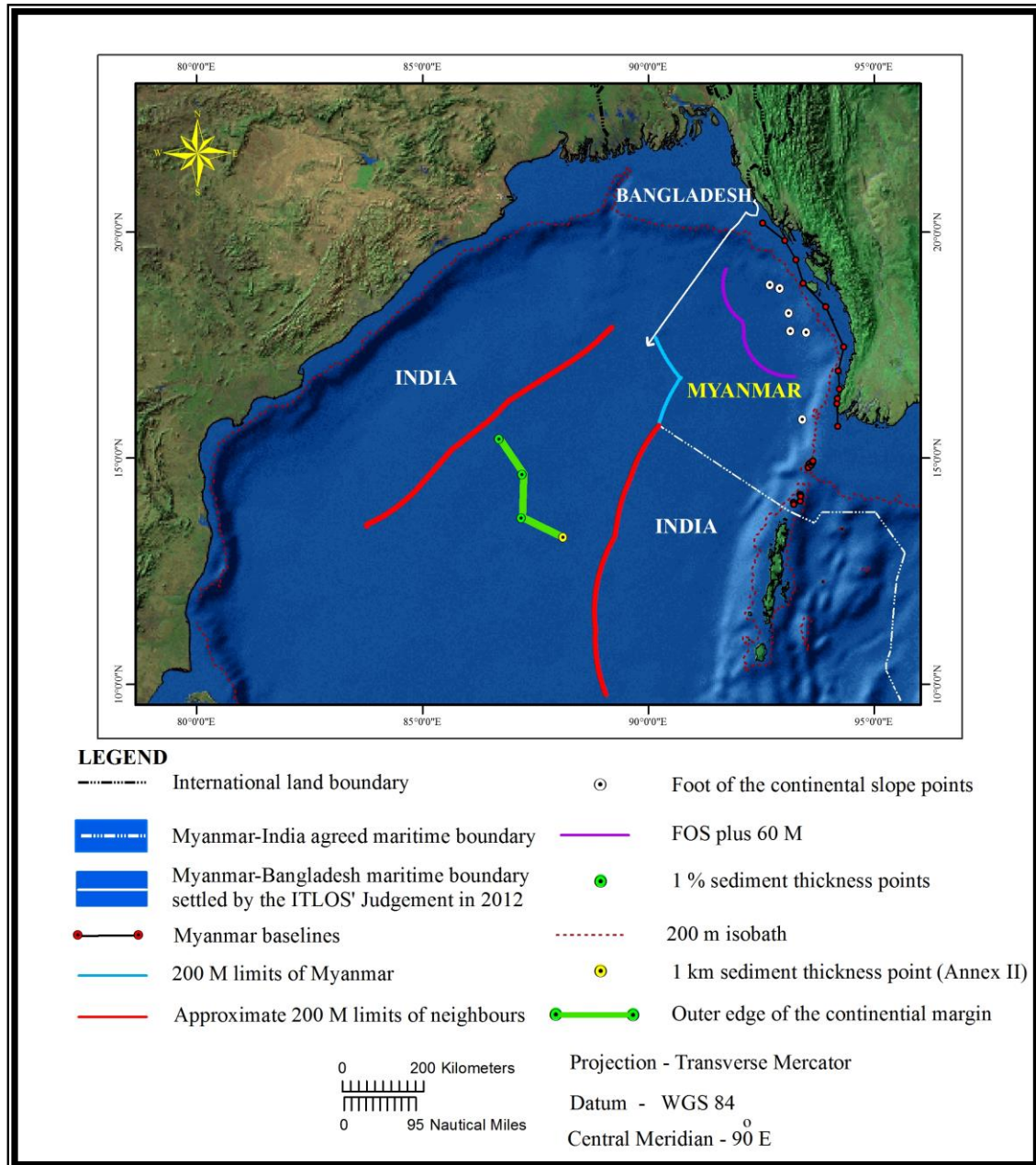


Figure 1. Amended map demonstrating the delineation of formula lines for the identification of the outer edge of Rakhine continental margin of Myanmar, beyond 200 M. Distance formula line, 1 % sediment thickness points and 1 km sediment thickness point are generated and thoroughly analysed in the Main Body. The white dash line is agreed maritime boundary between India and Myanmar. The solid white line is maritime boundary between Myanmar and Bangladesh settled by ITLOS's Judgment in 2012. The red lines are approximate positions of part of the 200 M limits of neighbours.

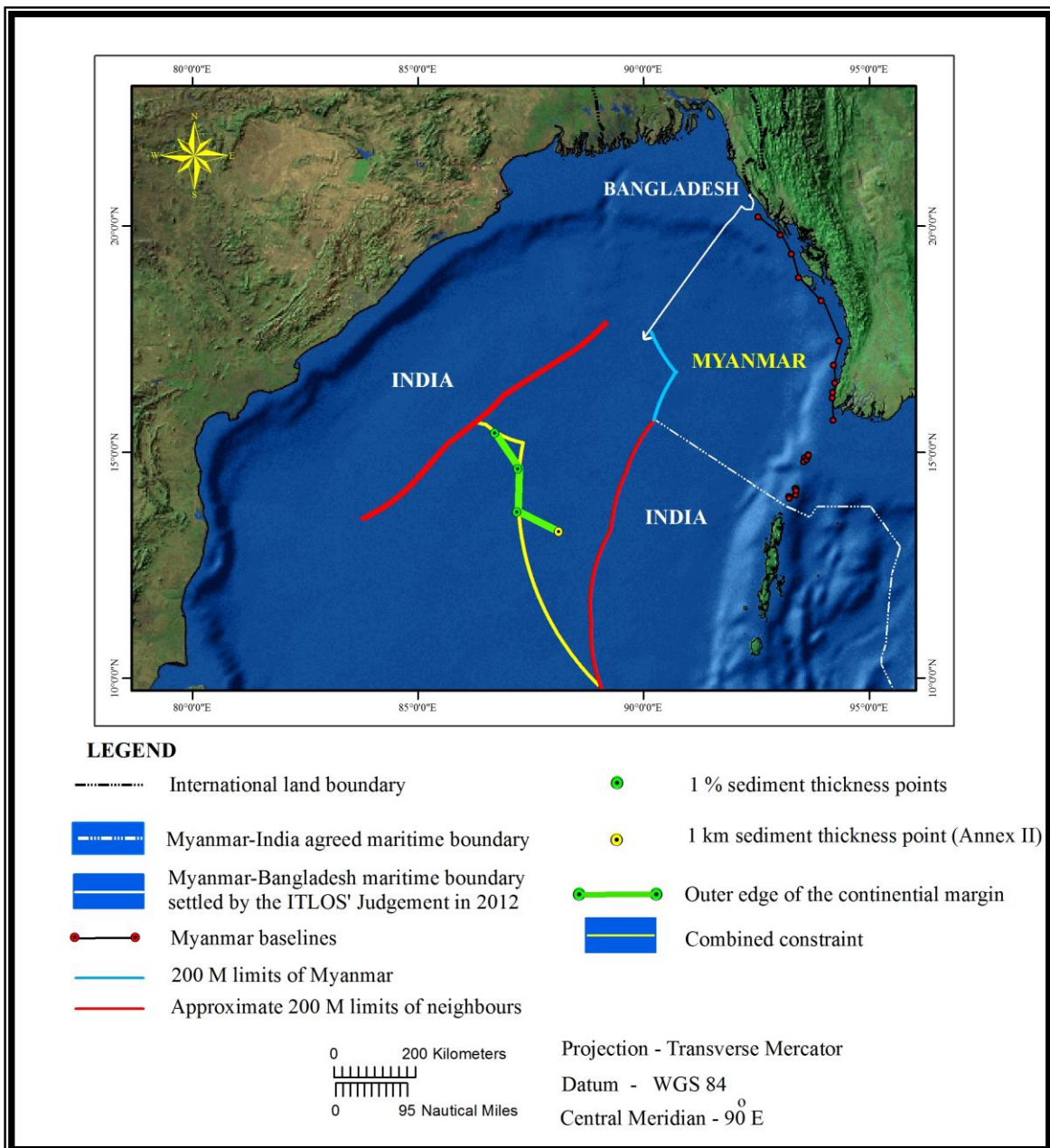


Figure 2. Amended map showing the superimposition of the outer edge of continental margin and the combined constraint line. The one per cent sediment thickness formula points are located beyond the combined constraint line, while the point identified by the provision stated in the Annex II is within the constraint.

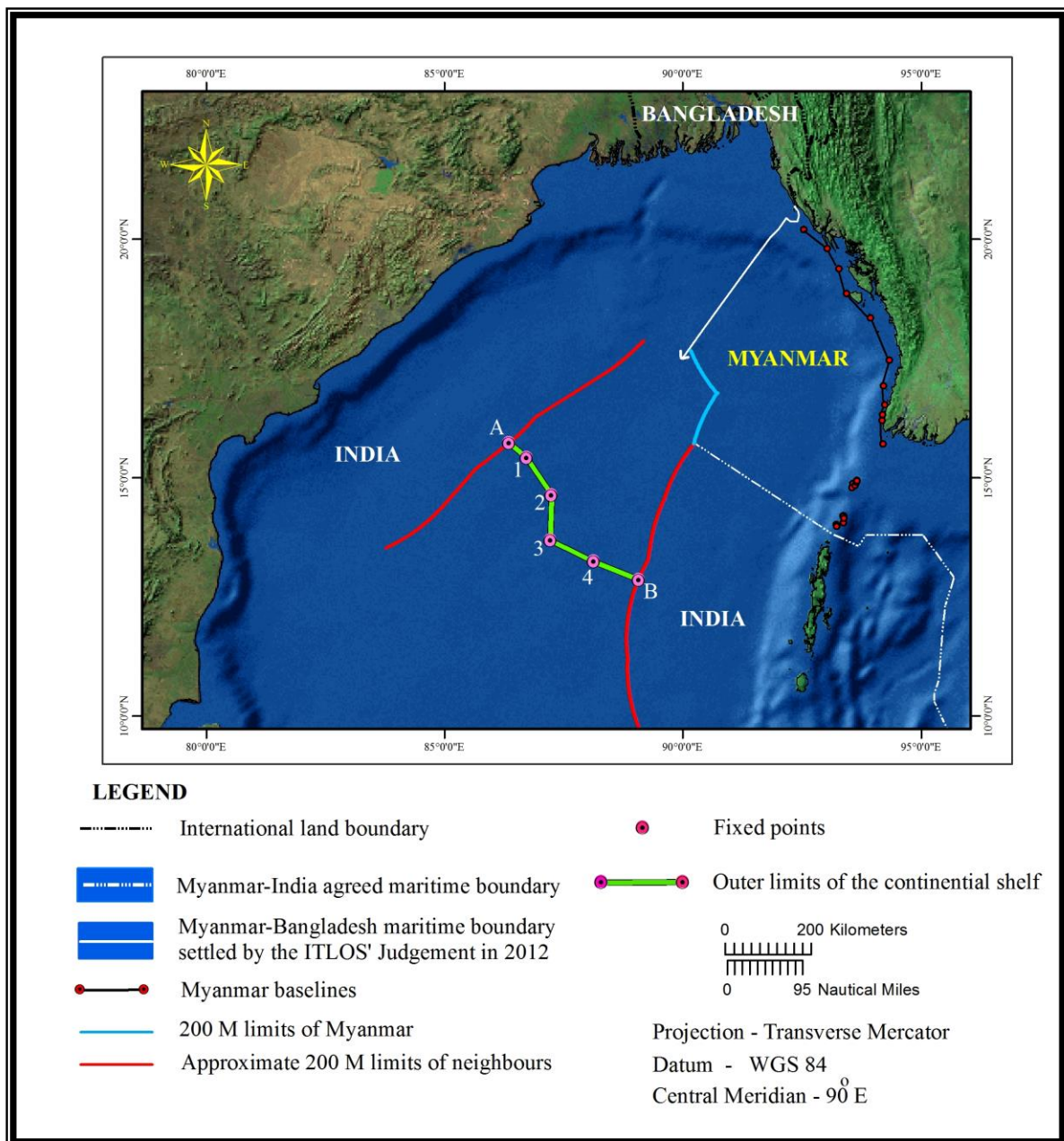


Figure 3. Amended map demonstrating the outer limits of the extended Rakhine continental shelf of Myanmar, beyond 200 M. All fixed points comprising the outer limits are connected with straight lines not more than 60 M. The white dash line is agreed maritime boundary between India and Myanmar. The solid white line is maritime boundary between Myanmar and Bangladesh settled by the ITLOS's Judgment in 2012. The red lines are approximate positions of part of the 200 M limits of neighbours.