**Analysis of Submarine Physiographic Features
in the Bay of Bengal**

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***Abstract***

Bay of Bengal is a northwardly extended arm of the Indian Ocean and characterised by a broad inverted U-shaped basin which is open in the south to the Indian Ocean. Digital Terrain Model of the Bay of Bengal and surrounding terrestrial lands has been studied with its generalized geomorphic features.

Myanmar

Bay of Bengal is bounded on the west by the east coasts of India and Sri Lanka, on the north by the deltaic shelf of the Ganges-Brahmaputra-Meghna Rivers system, and on the east by the Rakhine coast and submerged shelf. The abyssal floor of this basin is undulant and occupies almost the entire Bay of Bengal gently sloping southward at an angle of 0.8°-1.0°. Submarine channels dissecting the abyssal plain have been encountered. To the east and northeast, this abyssal plain ascends to continental rise gradually and then arises as a steep continental slope and narrow shelf. The shelf, Rakhine continental shelf is a narrow shelf and bounded on the east by a narrow coastal land and folded mountain ranges. These western folded mountain ranges of Myanmar are known as Naga-Chin-Rakhine Ranges (NCR Ranges) (has been known as Indo-Burman Ranges) and the ranges and coastal land are regarded as the western part of the Myanmar’s territorial land or landmass.

Length of the Rakhine coastline was estimated based on the General Bathymetric Chart of the Oceans (**GEBCO**) Digital Atlas data which adopted the World Vector Shoreline (WVS) database of the US Defense Mapping Agency (DMA) as the standard coastline. The estimates presented here were calculated using Mapinfo software with a resolution of 1:250,000 and attained as approximately 740 km.

Depth along the shelf break varies between 150 m to 250 m. The isobaths map was generated from the GEBCO Digital Atlas data and ETOPO2 data with Caris Lots Software. GEBCO Digital Atlas data, ETOPO2 data and survey data were used for analysis of submarine physiographic features with the help of Caris Lots Software.

Keywords: Bay of Bengal, Digital Atlas data, submarine physiographic features, isobaths map