

## Definition of the Foot of Slope in the Brazil Northeast Margin

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This study intends to present the methodology developed by Brazilian Hydrographic Bureau in order to determine the foot of continental slope of Brazilian Continental Margin in accordance to United Nations Convention on the Law of the Sea (UNCLOS).

The UNCLOS defines that the foot of the continental slope is determined as the point of maximum change in the gradient at its (slope) base. The methodology's development takes into account the international morphological concept proposed by Heezen (1959) and Fairbridge (1966) and the concept presented by UNCLOS.

Bathymetric data carried out by Brazilian Government Program to Delineation of the Continental Margin (LEPLAC) acquired on East Brazilian Margin was used. The data was displayed in profiles and had the spikes removed. It was sampled at same interval and filtered in order to preserve the major features of slope and rise. In addition the first and second derivatives were calculate. The foot of slope was determined in a maximum of the second derivative.

This data set was also used to generate bathymetric maps of contour and gradient, giving a spatial visualization of the seafloor morphology. Bathymetric measurements available at public domain were also used to make the maps. The methodology was capable to determine the continental shelf break, slope and rise and showed characteristic features like: Bahia Seamounts, Pernambuco Channel and Royal Charlotte Plataforma.