

BOS'ing Fans: Identification of the Base of the Continental Slope on Sedimentary Fans

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Comparative studies of Summaries of Recommendations issued by the Commission on the Limits on the Continental Shelf (CLCS) with respect to identification of the base of the continental slope (BOS), in particular based on sedimentary processes and on submarine fans, reveal some ambiguity in the approach taken by the CLCS. Recommendations to Australia and Ireland do include guidelines on how the CLCS considers the identification of the BOS region supported by geological and geophysical evidence. Australia utilized geologic and tectonic evidence to identify the BOS region at the base of the Lower Recherche Slope. In the Ireland and Indonesia cases the CLCS states that the BOS region should be identified at the base of those morphological features that owe their genesis to down-slope sedimentary processes. This set the precedence for many future recommendations by the CLCS. The BOS regions on the submarine sedimentary fans off Norway and Ghana have been identified distally on these morphological features. The geomorphological analysis conducted to identify the BOS region is supported by geological and geophysical data and in particular by identification of down-slope processes. However, the BOS regions off French Guiana and Brazil were identified comparatively more proximal on the relevant submarine fans, despite the fact that the same types of geological and geophysical evidence apparently were submitted to the CLCS. It seems that for these two regions the identification of the BOS region by the CLCS has been guided by the values of the seafloor gradients on the slope and on the continental rise. The CLCS adopted their Scientific and Technical Guidelines in 1999 with the primary intent to guide coastal States in preparing their submissions and a reference for recommendations by the CLCS. Thus, it should be expected that the CLCS' Recommendations are uniform and predictable.