

# Selection of Algorithms to Determine Foot of the Continental Slope to Delineate the Extended of the Continental Shelf

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## SUMMARY

Foot of the continental slope is a key feature to implement a provision under Article 76 of United Nations Conventions on the Law of the Sea (UNCLOS) in respect of the delineation of the outer limits of the continental shelf beyond 200 nautical miles (M) from the baseline from which the breadth of the territorial sea is measured (UNCLOS, 1982). The coastal States are eligible to claims the outer limits of its continental shelf to the Commission on the Limits of the Continental Shelf (CLCS).

The foot of the continental slope is defined in Article 76 in paragraph 4(b) as "In the absence of evidence to the contrary, the foot of the continental slope shall be determined as the point in maximum change in the gradient at its base" (UNCLOS, 1982). The general rule to determine the foot of the continental slope is based on a geomorphologic evidence by identification of greatest change in the gradients at the base of continental slope. Nevertheless, evidence to the contrary by implements of the geological and geophysical evidence can be used if failed to prove the geomorphologic evidence.

There is a saying among seafarers that "the hardest part about captaining a ship is finding a ship to captain" (Carleton et al., 2000) and this relates to an implementation of Article 76, where the toughest part about mapping the foot of the continental slope is to find the foot of the continental slope (Carleton et al., 2000). The problematic on different interpretations to identify foot of the continental slope about the aspect of quantification of gradients, depth, sea floor morphology and a question about the location of base of the slope region were answered with developments of software packages come in a selection of an algorithm to determine foot of the continental slope. This papers will examines the selection of algorithms to determine the possible foot of the continental slope and what is the benefits to the coastal Sates in solution of appropriate algorithms

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and methods to determine these so-called vital features to the outer limits of continental shelf claim among the coastal States.

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