

The Subject of Data in Submissions to the CLCS: Documenting the outer limits of the Northern Continental Shelf of the Faroe Islands

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The first partial submissions made by the Kingdom of Denmark, in respect of the continental shelf north of the Faroe Islands (North Faroe Margin, NFM), was submitted to the Commission on the Limits of the Continental Shelf in April 2009 as the result of 7 years of preparation which also included 4 additional continental shelf regions around the Faroe Islands and Greenland, on which individual partial submissions were made subsequently. The NFM covers parts of the NW European continental margin, it continues onto the Faroe-Iceland Ridge and the extinct Ægir (spreading) Ridge and overlaps with the continental margin of Iceland and Norway in the sediment rich Ægir Basin located between the European margin to the south and south-east, and the Jan Mayen Micro-continental margin to the west and north-west.

Prior to the onset of the continental shelf project of the Kingdom of Denmark, arrangements had already been made with Norway and Iceland regarding the sharing of existing data and acquisition of new seismic data in the overlapping regions. Before that, the main database in the area included a comprehensive multi-beam bathymetric data set covering large parts of the Ægir Ridge with scattered single beam bathymetric lines in the remaining regions. It also comprised a number of single- and multi-channel seismic lines and a long refraction seismic line transecting the entire eastern part of the basin, from the Norwegian shelf to the Ægir Ridge, in addition to local side scan sonar and regional potential field data.

During the project, additional high quality multi-channel seismic data, extensive multi-beam bathymetric data, and a comprehensive high resolution aeromagnetic dataset were acquired, allowing detailed mapping of the morphological and geological nature of the margin, including accurate identification of the base of the continental slope and mapping of the sediment thickness and sediment continuation in the basin. This data proved to be crucial for the documentation to the CLCS of the outer limits of the continental shelf to the north of the Faroe Islands.