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Oceanographic study of the Faroe-Shetland channel using seismic reflection data

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We present seismic reflection images showing the complex oceanic structure of the Faroe-Shetland channel. Our 2-D acoustic images reveal the geometric and seismic impedance details of the dipping horizons (horizontal length scale $\sim 1-10$ km) in the shallow water layers, which are likely to be associated with the mixing processes between the North Atlantic Water and modified North Atlantic Water. Relatively transparent bottom waters are identified. We applied conventional crustal seismic processing techniques to the seismic reflection data (12 km-long streamer) from the iSIMM (integrated Seismic Imaging and Modelling of Margins) experiment. The effects of source-receiver offset on the quality of the resulting acoustic images are presented.