The objective of this research cruise were concluding investigations of the origin and structure of the Reykjanes Ridge and the Iceland-Faeroes Ridge within the framework of the DHI programme "Geophysical Investigations in the North Atlantic".
The magnetic, gravimetric and bathymetric measurements, as well as seismic profiling by Sparker during METEOR cruises No. 4, 43 and 45 (in 1975 also SRV KOMET and RV BARTLETT) were completed by measurements between 56°N and 60°N on the western flank of the Ridge and in the adjacent deep sea basins. With the same methods the transition zone between the Iceland Faeroes Ridge and the area of sea floor spreading was subsequently investigated; former measurements during cruises No. 14, 20 and 38 were thus continued.