

R1/12

Not to be cited without prior reference to the Marine Laboratory, Aberdeen

FRV *Scotia*

Cruise 1894S

REPORT

12-19 December 1994 Part I

Ports

Loading: Aberdeen 12 December 1994
Unloading: Aberdeen 19 December 1994

Personnel

R Payne	HSO (in charge)
P A Gillibrand	HSO
G Slessor	HSO
R D Adams	SO

Objectives

1. To collect hydrographic and chemical samples along the Fair Isle - Munken (Faroe) [SEFOS section 18] and Nolso (Faroe) - Flugga (Shetland) [SEFOS section 19] standard sections. The extended lines of inshore stations through the moorings will be worked as far west as the 1000 m contour.
2. Check the four oceanographic buoy moorings NW of Fair Isle and NW of Flugga.
3. To survey the standard JONSIS section.
4. If time permits work the East Shetland (ES3) [including SEFOS section 20] standard sections.
5. Collect radio-caesium samples for analysis by MAFF, Lowestoft.

Out-turn Costs per Project: GBG1 5.0; BKC1 3.0

Narrative

Scotia was delayed in Aberdeen due to faults in the Decca navigation system. These faults proved impossible to rectify in the short term, leading to sailing at 1640 hours 12 December 1994 with the GPS navigation system only. Further mechanical and electrical faults delayed the passage of the vessel to the JONSIS line, and work commenced at the east end of the JONSIS line at 1430 hours on 13 December 1994. Work continued westward and the eastern half of the Fair Isle-Munken line was completed by 2100 hours on 14 December 1994.

The eastern half of the Nolso-Flugga line was commenced at 0230 hours on 15 December 1994 but after only one station severe weather forced the ship to stop work. In view of the poor weather conditions and the equally poor weather forecast for the foreseeable future, the line was abandoned and the vessel steamed to Shetland hoping to work the ES3 line from Shetland to Norway. The ES3 line was started at 1300 hours on 15 December 1994 and continued, with short breaks during the most extreme weather conditions until 1915 hours on 16 December 1994. The two stations nearest to Norway were not completed owing to the lack of permission to enter this part of Norwegian waters. With the weather still severe in the Atlantic, it was decided to steam south and pick up the extension to the JONSIS line and the EC line into Fraserburgh. However the weather deteriorated steadily and no further work was possible, the vessel making a rough passage to Aberdeen arriving at 0600 hours on 19 December 1994.

Results

- Objective 1 Was partially achieved with the stations on the Fair Isle-Munken line being completed. The SBE25 CTD was used throughout. Severe weather conditions allowed only one station to be completed on the Nolso-Flugga line.
- Objective 2 Was completed with all three surface buoys on position. The pick-up pallets were missing from mooring A off Fair Isle.
- Objective 3 Was completed with all stations sampled with the STD12 CTD and ROSIE. Calibration salinities were analysed on board, and samples were taken for Nitrate, Phosphate and Silicate. These will be returned to the Laboratory for analysis.
- Objective 4 Was completed with all stations outwith the Norwegian four mile limit being sampled with the SBE25 CTD.
- Objective 5 Was completed with Caesium samples taken at the Aberdeen and Fair Isle stations.

R Payne
30 January 1995

Seen in draft: P Ramsay, Master, FRV *Scotia*

F.R.S. SCOTIA CRUISE 18 12-19 DECEMBER 1994

