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Not to be cited without prior reference to the Laboratory.

FRV "Scotia"

Cruise 6/88 Part 2

6Pt2SR88

Report

17-28 June 1988

Personnel

J H A Martin	PSO
E W Henderson	PSO
N T Nicoll	HSO
R Payne	HSO
W R Turrell	HSO
S Slesser	HSO
R D Adams	SO
A Milne	Visitor (Ferranti-ORE) 17-20 <u>and</u> 24-28 June

Objectives

1. To complete the hydrochemical survey of the Clyde Basin and deploy two current meter moorings on the Great Plateau.
2. To deploy three current meter moorings west of Orkney and one west of Shetland.
3. To carry out an extensive hydrographic survey in the area of the Fair Isle and Dooley currents.
4. To attempt the recovery by trawl of mooring EC4 at  $58^{\circ}21'N$   $00^{\circ}27.6'W$  approximately.
5. To collect water samples for radio-caesium analyses.
6. To conduct tests of the prototype version of the Marine Position Recorder.

Narrative

"Scotia" sailed at 1300 on Friday 17 June when a hydrochemical survey of the Clyde was commenced. This survey was interrupted on the Saturday morning and early afternoon while two current meter moorings were laid west of Ailsa Craig. The survey was resumed and completed by 2100 on 19 June. Passage was then made to the north coast. The work on the Marine Position Recorder (MPR) having been apparently completed, Mr Milne was landed by boat at Stornoway and "Scotia" resumed her journey to Rona where hydrographic work commenced and continued on the north western shelf as far north as  $60^{\circ}20'N$  and until 23 June, except for two periods of successful laying of current meter moorings off Sule Skerry and Foula.

"Scotia" docked in Lerwick on the evening of 23 June to retrieve a surface buoy and to re-embark Mr Milne who had returned north to investigate a malfunction in the MPR. Hydrographic work was resumed on 24 June west of Shetland and then in the North Sea from 26 June. The following day an attempt was made by creeping and trawling to recover part of a lost mooring (from EC4), but this was unsuccessful.

Hydrographic work was resumed and completed the same evening. "Scotia" then proceeded to Aberdeen and docked at 0830 on 28 June.

### Results

The hydrochemical survey of the Clyde awaits chemical analysis but marked stratification was found throughout the basin accentuated by the warm calm weather. Surface temperatures as high as 14.8°C and bottom temperatures of 7.7°C were recorded, contrasting with temperatures on the north west shelf and in the northern North Sea of 12.5°C and 12.8°C respectively at the surface and 8.6°C and 6.9°C respectively at the bottom.

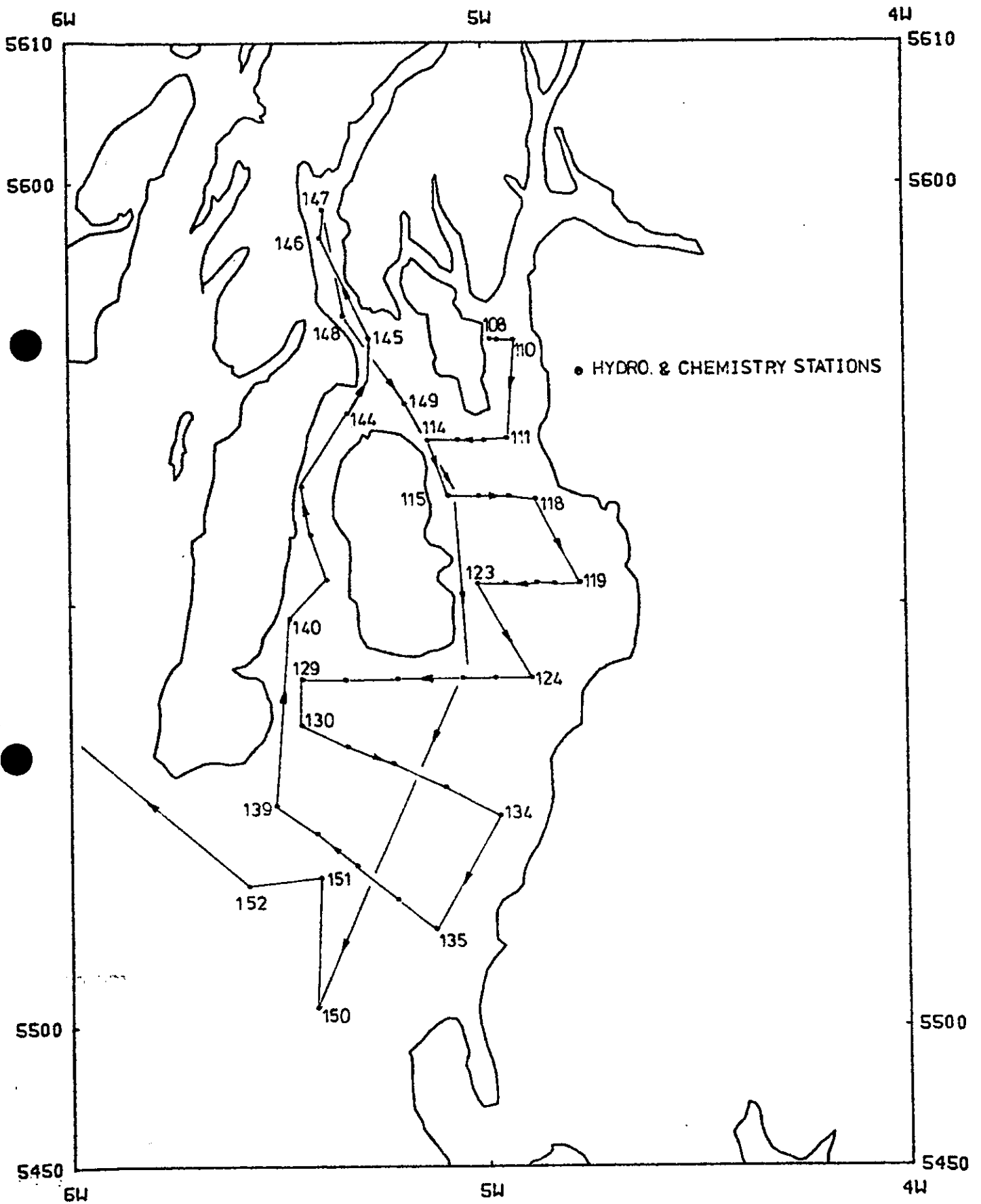
A considerable amount of hydrographic data awaits analysis but one prominent feature was a bolus of low salinity water in the vicinity of Foula. At the time of sampling, low salinity water was not however found as far north as 60°20'N.

J H A Martin

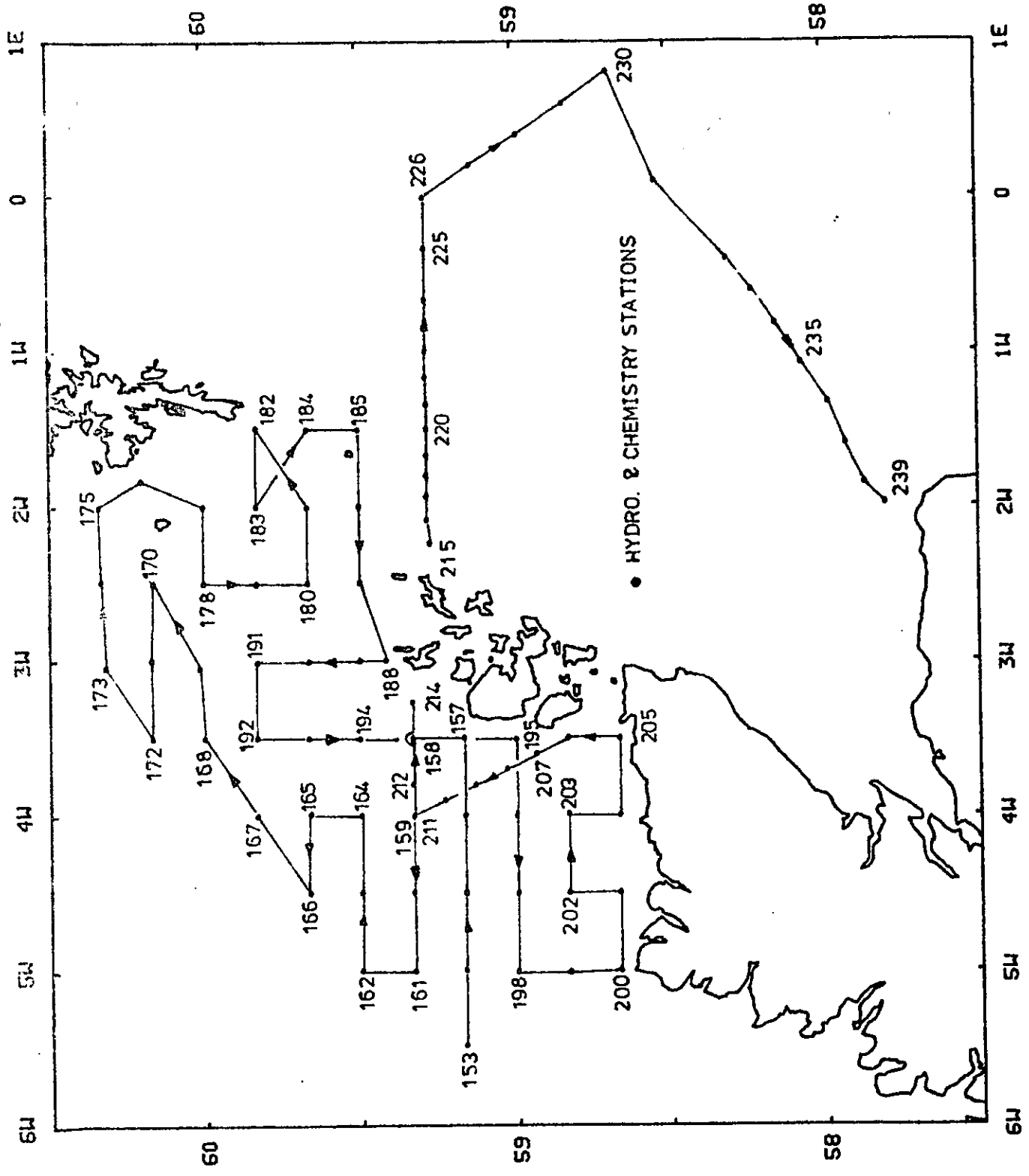
3 August 1988

Seen in draft: D Beveridge

F.R.S. SCOTIA CRUISE 6 17-28 JUNE 1988 (PART 2)



F.R.S. SCOTIA CRUISE 6 17-26 JUNE 1988 (PART 2)



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