

R1/12

In Confidence: Not to be quoted without prior reference to the laboratory

FRV Scotia

Cruise 13/83

Report

7-22 December 1983

13SR83

MB

Objectives

- 1 To recover the three current meter moorings presently deployed on the Wyville-Thomson Ridge and to deploy one mooring in the Faroe Shetland Channel.
- 2 To work hydrographic stations in the Faroe Shetland Channel and across the Wyville-Thomson Ridge.
- 3 To conduct trials of the remote control vehicle (RCV) handling facilities.
- 4 To make observations of BT 101 trawl using the RCV.
- 5 To deploy satellite buoys.

Narrative

Scotia, after fuelling, left Aberdeen 1600 on 7 December and proceeded to the Wyville-Thomson Ridge. One mooring was partially recovered on the 9th, a second one completely recovered on the 10th. Unfortunately early on the 10th the bow thruster broke down and with gale force winds hydrographic work was severely restricted. However missing equipment was trawled for unsuccessfully at the centre mooring position.

On the way to Stornoway four satellite buoys were successfully launched on the 12th. Scotia was delayed in Stornoway from 1300 on the 13th until 1100 on the 16th while essential engine repairs were carried out. The ship proceeded back to the Wyville-Thomson Ridge where further attempts were made to recover missing gear but again unsuccessfully. From the 17th until 21st gale to storm force winds prevailed, the work on the Wyville-Thomson Ridge was abandoned and Scotia made passage up the Faroe Shetland Channel but with no abatement in the wind the ship was diverted to the north coast of Scotland where a little lee enabled the RCV to be handled in conjunction with the BT 101 trawl.

The Scotia left the north coast in the early hours of 21st and proceeding via Buckie to take a caesium sample to dock in Aberdeen at 0200 on 22 December.

Results

Two moorings were due for recovery but only one was completely recovered. The other was found to be largely missing due either to corrosion or having been tampered with. Unfortunately during recovery the remaining line parted while submerged and a release mechanism and current meter were lost. The position where they are lying is accurately known but successive trawls to recover them had to be conducted in very adverse weather and nothing was found. There was no trace of a third mooring that had been partially recovered after being trawled by a fishing boat.

Because of the lack of a bow thruster and adverse weather only five hydrographic stations were done on the crest of the ridge but these showed the presence of cold

water immediately over the ridge. No stations were done in the Faroe Shetland Channel. A number of samples for trace metal analysis were obtained on the continental shelf and in the Minches.

The remote vehicle was launched four times over the period 19/20 December. Conditions were again unfavourable with gale force winds and poor daylight. Nevertheless all launches and recoveries were straightforward and on three occasions when the trawl was shot the vehicle was put on to the net.

A combination of the trawling position (dictated by the weather) and the ambient light prevailing at the time did not produce useful material for fish reaction studies. The opportunity was therefore taken to familiarise the ships personnel with the vehicle and at the same time prove the installation.

Areas of concern were failure of communication between winch platform and the general laboratory due to the screening of radio waves by the metal deckhead and minor modifications in the recovery procedure should be experimented with in the future.

Caesium samples were collected for the Lowestoft Laboratory.

J. H. A. Martin
14 March 1984

Seen in draft J W Gillon

