

In Confidence: Not to be quoted without reference to the Laboratory

FRV "SCOTIA"

R1/12 /JR

CRUISE 5/83

Report

25 May - 3 June 1983

Objectives

1. To service current meter moorings presently deployed north-west of Scotland and on the east side of Rockall Bank.
2. To work hydrographic and plankton sections in the oceanic area to the west and north of Scotland.

Narrative

Scotia left Aberdeen at 1530 on 25 May and proceeded directly to the Wyville-Thomson Ridge where current meter mooring 224 was replaced the following day. The ship then made passage for the Faroe-Shetland mooring position. At first this mooring (225) would not respond to acoustic interrogation but the problem was quickly traced to the shipboard dunking transducer. 225 was recovered, without further trouble, by 1100. The ship then returned to the Wyville-Thomson Ridge where a hydrographic section along its crest was worked on 27 May. Mooring 223, also on the ridge, was checked but it was decided not to replace it until December. Hydrographic stations were worked on 28 May whilst on passage to Rockall Bank to replace the mooring (226) on the eastern flank of the Bank. It soon became clear however that the position information for this mooring was incorrect and the correct position had to be deduced. This mooring was replaced by 1630 on 29 May. Because of the faulty position information it was decided that the other moorings on the Bank should also be checked and the ship proceeded to the western flank of the Bank, working hydrographic and plankton stations on route. The mooring deployed there in April 1983 (228), was located, correctly positioned. This mooring had been deployed adjacent to the one which had to be abandoned during the April cruise after attempts to recover by acoustic means, creeping and trawling had failed. This time the mooring responded immediately to interrogation and recovery was completed by 1000 on 30 May, the 368th day of its deployment. A hydro-plankton survey of the northern sector of the Bank was conducted and a third mooring was checked prior to the ship returning to the Wyville-Thomson Ridge on 30/31 May.

Further hydrographic work was undertaken in this area and a current meter mooring was deployed at the south-eastern end of the Ridge on 1 June. On route to Aberdeen on 1/2 June Decca readings in the inner Moray Firth were calibrated for DAS purposes.

The ship docked at 2000 on 2 June.

Results

1. All but one of the ten current meters recovered during this cruise functioned well. One of the instruments recovered from the mooring which

was temporarily lost had expired 3 days prior to recovery whereas the other instrument still had about one week to run. A dominant feature of all records was the very highly coherent signals at periods of 40-50 days. This was particularly evident in the northern part of the area where the signal extended into the sub-zero Norwegian Sea water as well as dominating fluctuations in the north-flowing Oceanic water. The details of these findings are to be presented to the forthcoming IUGG Hamburg meeting.

2. Plankton tows on Rockall Bank contrasted with those made in the preceding month. The samples comprised principally haddock larvae.

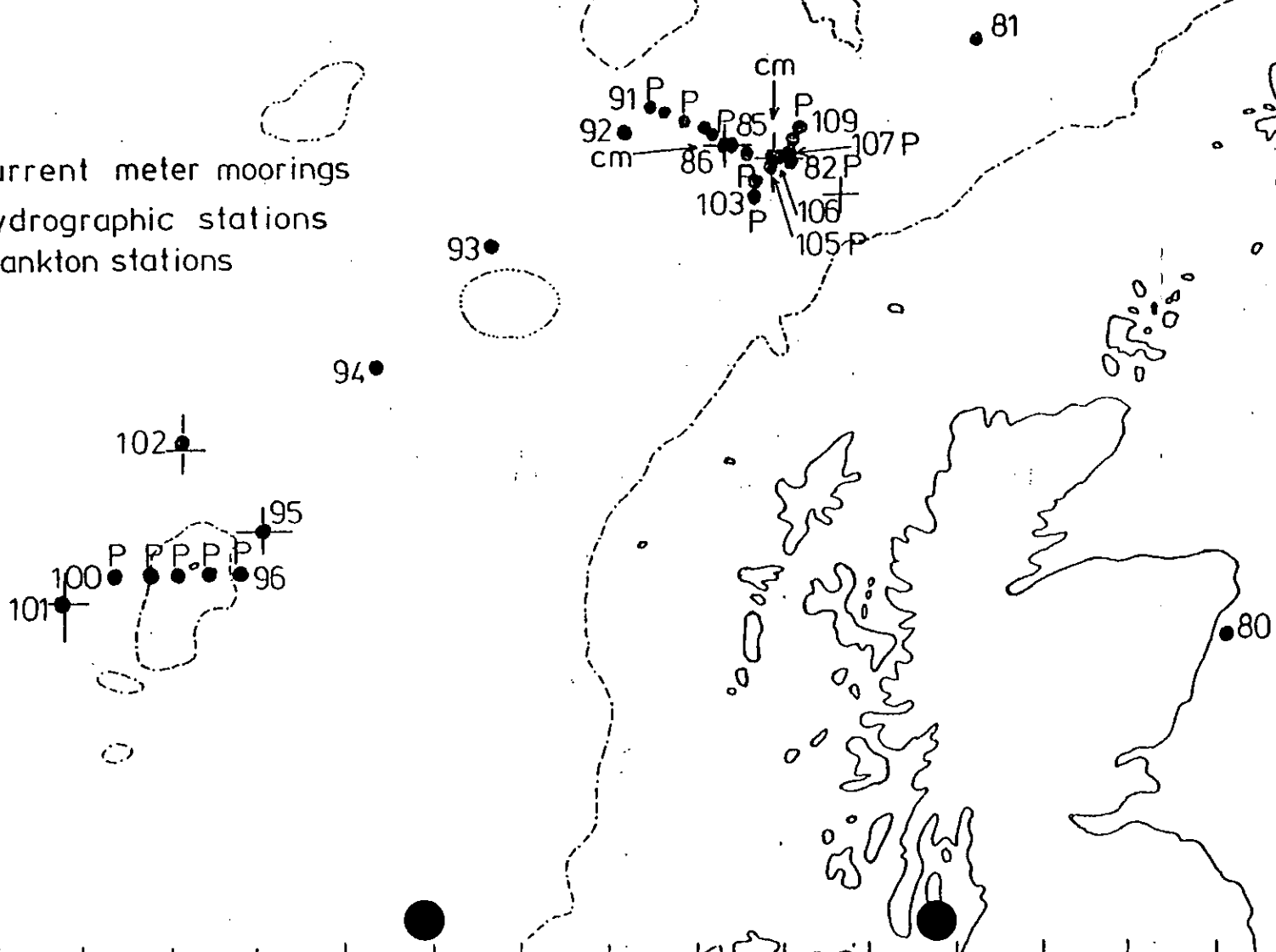
H D Dooley

6 September 1983

Seen in draft: I C McLeod

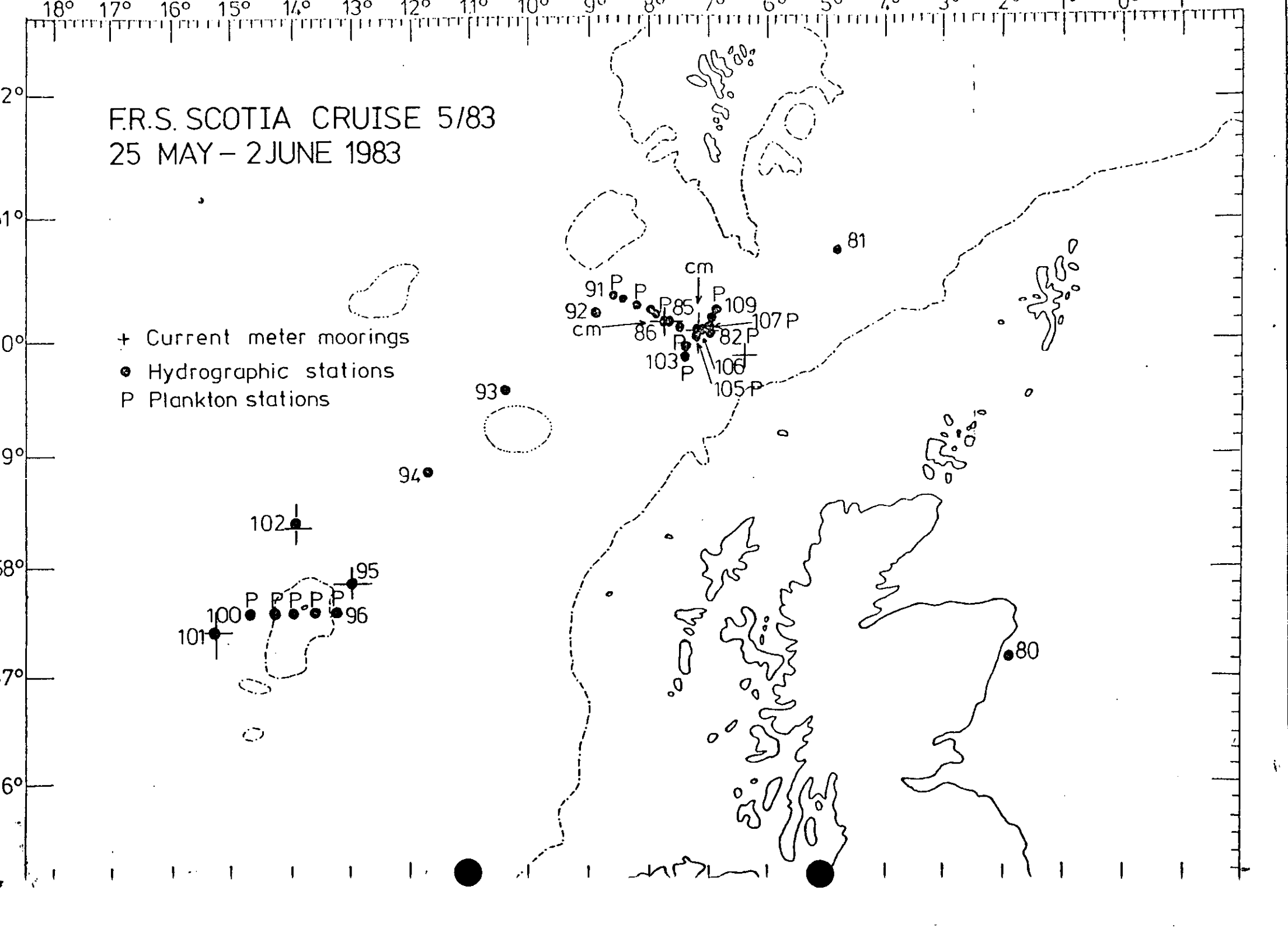
F.R.S. SCOTIA CRUISE 5/83
25 MAY - 2 JUNE 1983

- + Current meter moorings
- Hydrographic stations
- P Plankton stations



F.R.S. SCOTIA CRUISE 5/83
25 MAY - 2 JUNE 1983

- + Current meter moorings
- Hydrographic stations
- P Plankton stations



F.R.S. SCOTIA CRUISE 5/83
25 MAY - 2 JUNE 1983

- + Current meter moorings
- Hydrographic stations
- P Plankton stations

