R1/12

IN CONFIDENCE - NOT TO BE QUOTED WITHOUT REFERENCE TO LABORATORY

FRV SCOTIA 6SR81

CRUISE 6/81

REPORT:
17 June - 7 July 1981

OBJECTIVES:

(1) To investigate the physical, chemical and biological factors relevant to enhanced summer phytoplankton levels off Orkney.

(2) To monitor hydrographic conditions in the Faroe-Shetland Channel.

(3) To commission the software and hardware being developed for hydrographic and biological instrumentation to be interfaced to the PDP 11/34 and Commodore PET computers.

NARRATIVE:

'Scotia' left Aberdeen at 1500 on 17 June and proceeded directly to the East Orkney area where 3 current meter moorings were deployed the following day. The current meter mooring off Little Halibut Bank was replaced on 19 June and the moorings deployed off Buckie and Clythness were replaced on 20 June. Thirty five environmental stations were worked in this area before the ship returned to East of Orkney on 23 June where detailed productivity measurements involving station sampling, C_{14} measurements and moored and drifting sediment traps were undertaken until 26 June. The ship then proceeded to the Faroe-Shetland Channel where CTD work was undertaken until the half landing at Lerwick where the ship was docked from 0700 on 29 June to 1100 on 30 June. The productivity work was then resumed in the Orkney area with a format similar to that undertaken in the first half of the cruise. The three current meter moorings deployed East of Orkney were recovered on 5 July thereafter the ship made passage to Aberdeen where she docked at 1500 on 6 July.

RESULTS:

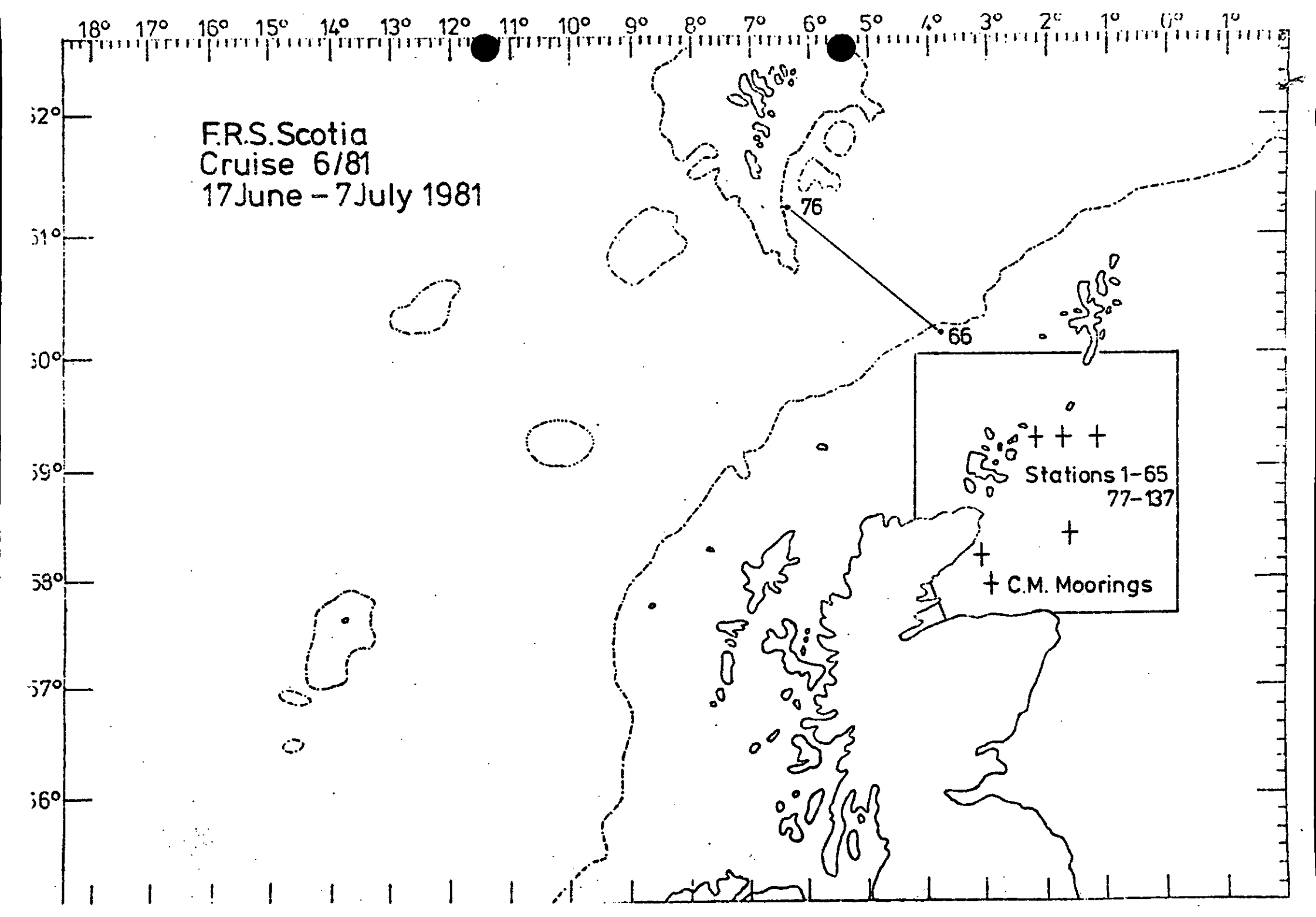
(1) The detailed experiments planned for the area to the East of Orkney and also in the Moray Firth were completed satisfactorily except that two of the current meter moorings were not deployed because of the high level of fishing activity in the neighbourhood of the proposed positions.

(2) The Faroe-Shetland section was completed, and in addition, more detailed measurements were made near the centre of the channel where satellite imagery demonstrated persistent eddy-like activity.

(3) The PDP 11/34 computer was used primarily for navigational purposes and to this extent it proved useful. On-board data analysis, and instrument logging, was undertaken using Commodore PET microcomputers. The hardware and software packages developed specifically for this cruise were entirely satisfactory.

H.D. DOOLEY
21 September 1981

Seen in draft: J.W. Gillon


F.R.S.Scotia
Cruise 6/81
17 June – 7 July 1981
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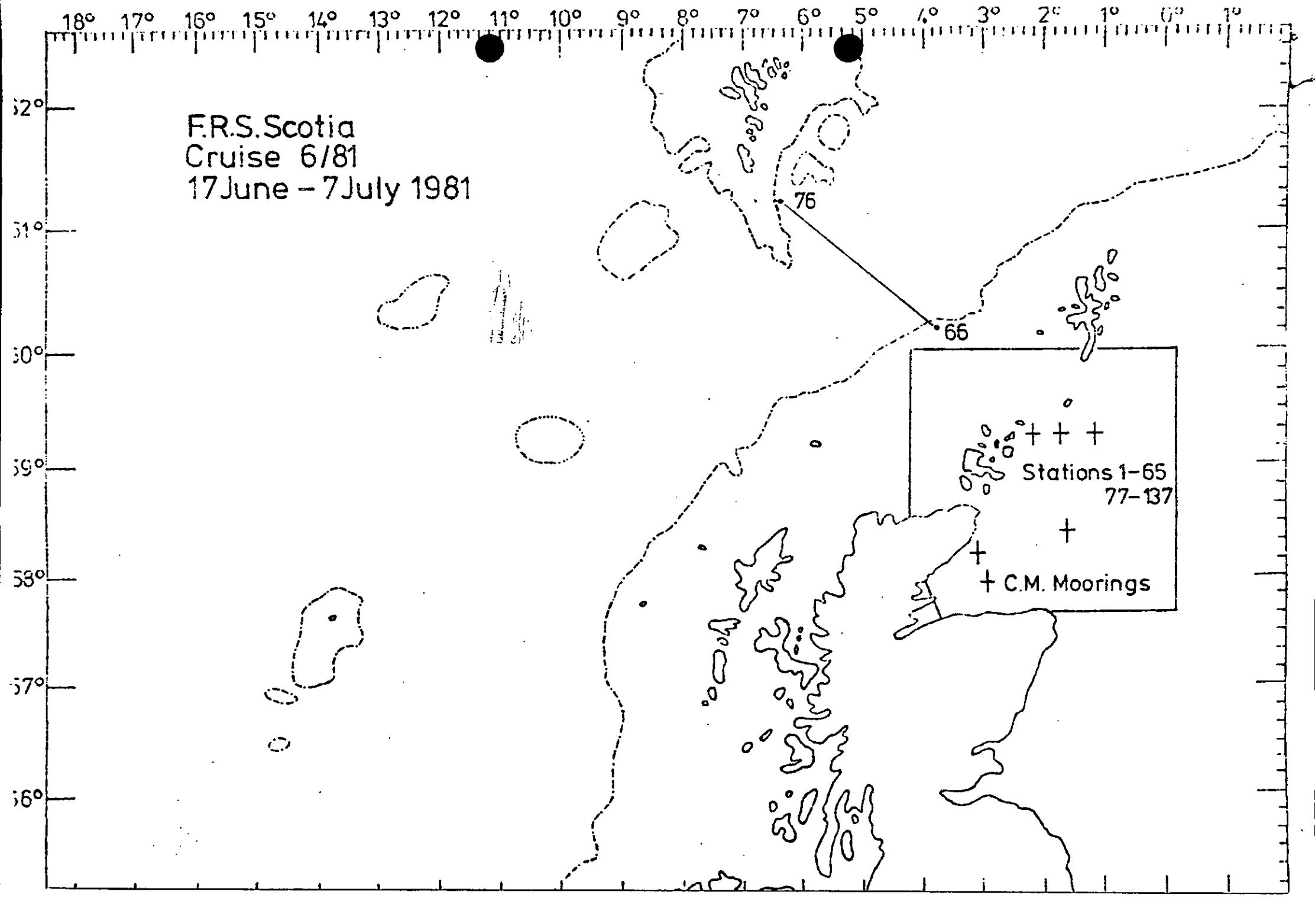
Stations 1–65
77–137
C.M. Moorings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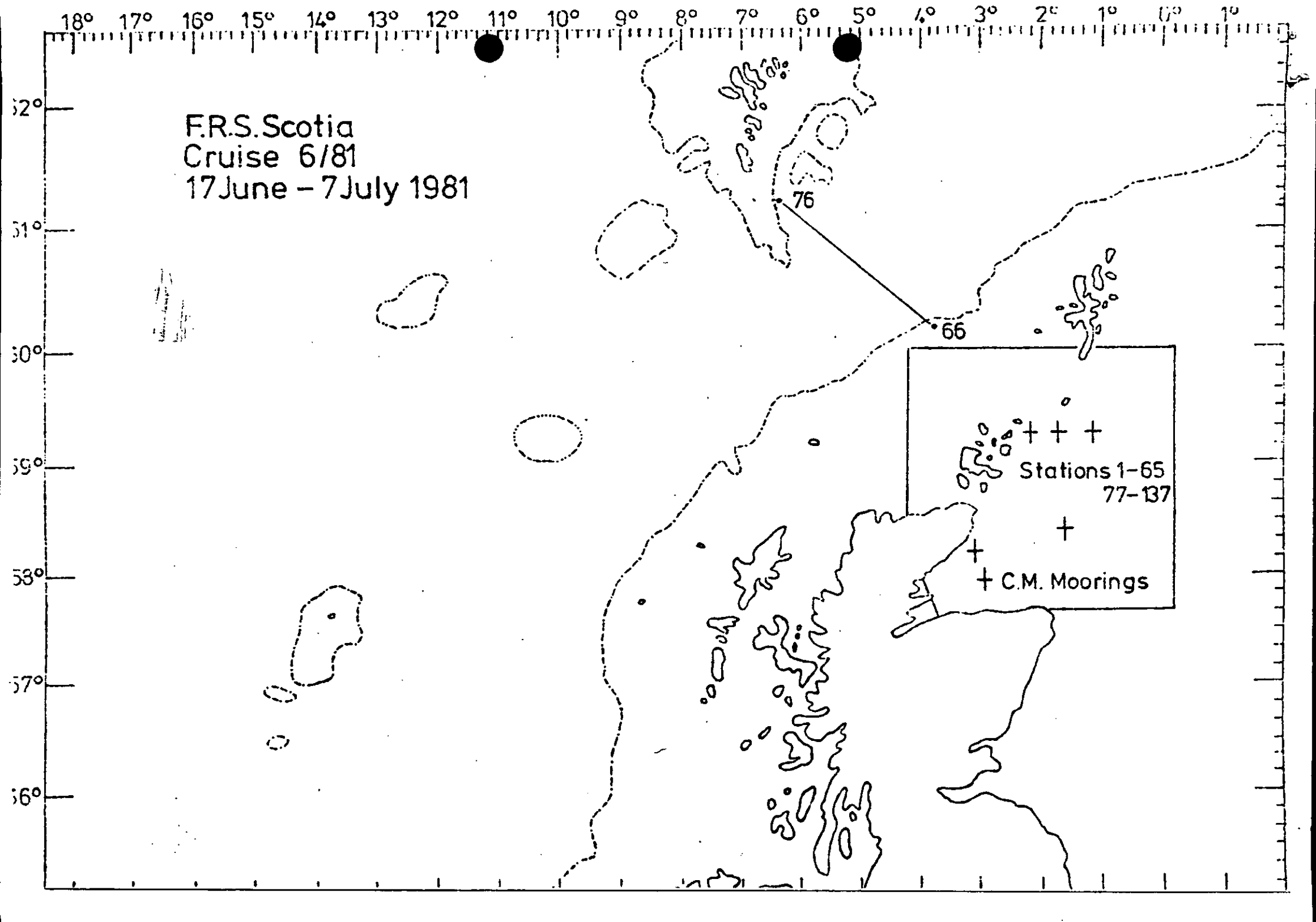
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