R1/6 In Confidence - Not to be quoted without prior reference to the laboratory 1CR81; AR

FRV 'Clupea'
Cruise 1/81
REPORT
9-13 February 1981

Objectives

1. To deploy current meter moorings in the Moray Firth area at the following positions:-
   1. 57° 56'N 2° 54'W
   2. 58° 11.6'N 3° 1.2'W
   3. 58° 25.2'N 1° 36.5'W

2. To work hydrographic/chemistry stations at the positions given on the attached list.

3. To collect grab samples for organic carbon analysis along section B (see attached station list).

Narrative

After the loading of scientific equipment was completed in Aberdeen on 5 February, 'Clupea' proceeded to Buckie where scientific staff joined on the morning of 9 February.

'Clupea' left Buckie at 13.30 hours on 9 February and proceeded to lay moorings 1 and 2, the latter being completed by 19.30 hours.

On 10 February, 'Clupea' left her overnight anchorage in Lybster Bay at 06.00 hours and proceeded to the position of mooring 3 which was deployed by 12.30 hours. Severe weather conditions forced the abandonment of station C2 and, in heavy seas, 'Clupea' sought shelter overnight in Lybster Bay.

The next day, 11 February, stations B8 through B1 and C8 through C11 were successfully completed before 'Clupea' anchored in Dornoch Firth.

Leaving there at 06.30 hours on the morning of 12 February, stations A6 through A1 were worked before 'Clupea' proceeded to the Burghead Bay area where acoustic ranging trials were conducted on the pinger on loan from ORE.

Since SE gales were persisting, 'Clupea' proceeded to Gamrie Bay to complete the analysis of oxygen samples rather than attempt further station work on the outer part of section C.

'Clupea' left Gamrie Bay at 23.00 hours and proceeded to Aberdeen where she docked at 05.30 hours on 13 February.

Results

Most of the hydrographic/chemistry samples await analysis.

The lightness of the Van Veen grab and the prevailing sea conditions and/or the nature of the bottom prevented grab samples being obtained except at stations B8 and B1.

The testing of the ORE pinger was very successful. This pinger could be detected faintly at a range of approximately ½-¾ mile, the signal was very strong at a range of ¼-½ mile.

E W Henderson
19 March 1981

Seen in draft: G Geddes

SECTION A

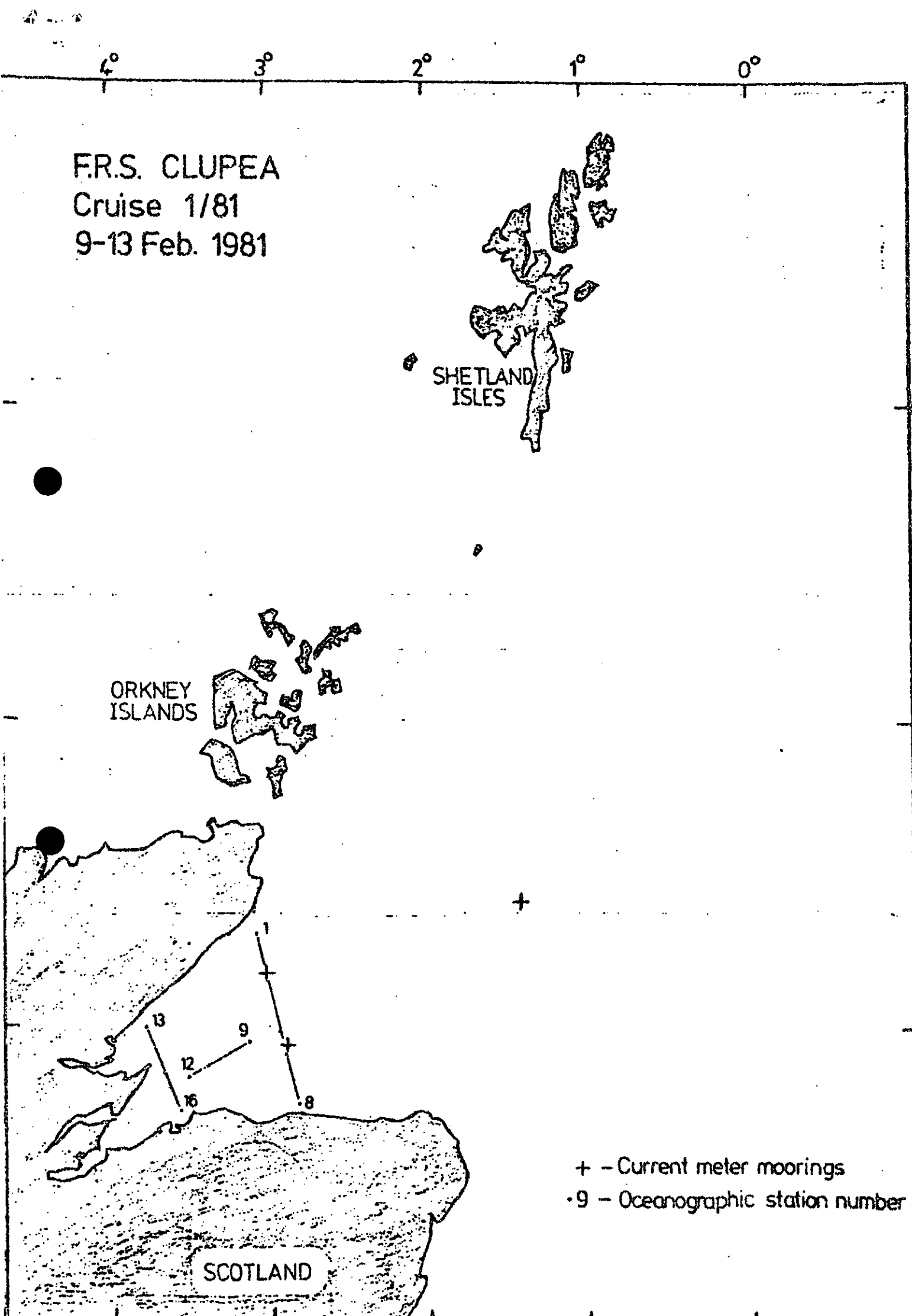
			Approx Depth
1	57°42.8'N	3°34.6'W	35
2	57°45.2'N	3°36.4'W	70
3	57°47.4'N	3°38.2'W	35
4	57°50.0'N	3°40.0'W	25
5	57°54.8'N	3°43.6'W	25
6	57°59.5'N	3°47.3'W	25

SECTION B

1	57°44.1'N	2°49.6'W	25
2	57°48.8'N	2°51.7'W	50
3	57°53.9'N	2°53.8'W	80
4	57°58.8'N	2°55.9'W	70
5	58°03.7'N	2°58.0'W	45
6	58°08.7'N	3°00.2'W	40
7	58°13.5'N	3°02.3'W	70
8	58°18.5'N	3°04.5'W	70

SECTION C

1	58°27.6'N	1°28.3'W	110
2	58°25.0'N	1°36.4'W	105
3	58°22.4'N	1°45.0'W	103
4	58°17.4'N	2°01.4'W	90
5	58°12.4'N	2°18.0'W	70
6	58°07.2'N	2°34.7'W	60
7	58°01.8'N	2°51.7'W	50
8	57°56.7'N	3°08.0'W	70
9	57°54.2'N	3°16.3'W	50
10	57°51.8'N	3°24.0'W	50
11	57°49.4'N	3°31.7'W	60


4°
3°
2°
1°
0°
F.R.S. CLUPEA
Cruise 1/81
9-13 Feb. 1981
SHETLAND
ISLES
ORKNEY
ISLANDS
1
13
9
12
16
8
SCOTLAND
+ - Current meter moorings
•9 - Oceanographic station number