

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

FRV "EXPLORER"

CRUISE 3/78

REPORT

28 February - 15 March 1978

Objectives

1. To install and commission a data logging system based on the PDP 11/34 computer.
2. To measure the towing loads and geometry of a modified wing trawl.
3. To test sub-surface buoys and sedimentation rigs.
4. To demonstrate various aspects of research work at sea (training exercise for new members of staff).

Narrative

The installation of the PDP 11/34 computer system began on 28 February, and "Explorer" remained in port at Aberdeen until the installation and preliminary testing of the system were completed on 3 March. The ship left Aberdeen at 0930 the next morning, having first taken on fuel, and proceeded to the Buchan Deeps area to begin the gear measurement part of the programme (objective 2). Fishing continued in excellent weather conditions for two days, and at daybreak on the morning of 6 March several runs were made over the measured mile off Aberdeen to calibrate the towed and ship logs used to record speed during the gear trials. "Explorer" berthed in Aberdeen at 0930 the same day.

The official acceptance trials of the PDP 11/34 system (objective 1) began at mid-day on 6 March. The first part of the acceptance trials, with the ship in port, was completed successfully by 0130 on 7 March. "Explorer" left Aberdeen at 1030 hours that day to continue with the second part of the trials which required the ship to be working under normal sea-going operational conditions. The ship returned to the Buchan Deeps area where two hauls were made. The official acceptance tests were successfully completed that day, and "Explorer" returned to Aberdeen berthing at 1230 on 8 March.

"Explorer" sailed again at 1000 on 9 March and proceeded to a position 6 miles off Buchan Ness in 70 m of water. Testing of subsurface buoys (objective 3) commenced at 1315 and finished at 1500, one buoy surviving the pressure test to 60 m, the other failing.

At 1530 the first sedimentation rig was shot away and familiarisation continued until 1940 hrs, one rig being left in position overnight. This rig was successfully recovered at 0700 on 10 March. To make full use of the day the ship steamed south for one hour to 57°19'N 01°45.4'W and the sedimentation rig work continued at this position until 1600 hours.

"Explorer" then made for Aberdeen, docking at 1800 hrs to await the staff joining for the training exercise on 13-14 March when the vessel made two trips, of approximately 12 hours each, to the area immediately east of Aberdeen. Fourteen members of staff (seven on each day) received instructions from Capt Gillon (safety at sea etc) and from four instructors from the laboratory (hydrography, plankton, benthos and fish work). On 14 March the opportunity was taken to show films of the laboratory's work to the officers and crew.

D N MacLennan
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13 April 1978

Seen in draft J W Gillon