

RI/12

Not to be cited without prior reference to the Laboratory

FRV *Scotia*

Cruise 12/90 Part 1

12pt1SR90

REPORT

31 October-5 November 1990

Personnel

J Dunn                                 HSO (in charge)

Other staff and visitors who sailed as required were:-

E W Henderson	PSO
R B Mitchell	SSO
D G Reid	SSO
P J Copland	HSO
E Macdonald (Miss)	SO
A Macdonald	HPTO
P J Brennan	Student
A Gallego	Student
J R M Langsdale	Student
Lourdes Gonzalez	Student
N T Nicoll	Visitor
B Lees	Visitor (Simrad Albatross)

Objectives

1. To carry out a series of engineering tests and trials on a range of sampling and monitoring equipment.
2. To carry out an evaluation of new sonar equipment.
3. To train staff and students on use of equipment.

Narrative

*Scotia* left port at 1030 on 31 October following repair of an electrical fault and steamed to a position off Aberdeen where test tows with a new CTD frame were carried out. These continued interspersed with plankton tows for live and bulk plankton until 1630 when the vessel made its way to the fairway buoy to enter port.

The vessel left port at 0930 on 1 November and continued with more engineering performance trials of the CTD frame. Test deployments of the sea bird CTD system were also carried out. Plankton tows for live and bulk plankton were carried out throughout the day while adjustments were being made to instrumentation.

Mr B Lees of Simrad Albatross carried out evaluation of new sonar equipment with members of the ship's company and Laboratory staff during the day. The vessel docked at 1700.

**Scotia** left port at 0830 on 2 November and recommenced engineering performance trials of the CTD frame following modification to the tow wire and frame. The optical plankton counter was then bolted into the frame and towed at a range of speeds.

Live and bulk plankton tows were carried out during the day before the vessel docked at 1700.

The vessel remained in port for the weekend and scientific staff joined the ship on Monday 5th at 0830 when the vessel left port and deployed a rock hopper trawl just off Aberdeen. Plankton hauls were carried out while the net was being cleared away.

The vessel then proceeded to a deeper hole off Aberdeen to again deploy the rock hopper trawl. When this was recovered the vessel proceeded to port and docked at 1630.

### Results

Valuable engineering performance information was gained during the cruise on the new CTD frame and several unforeseen problems overcome.

The Sea Bird CTD system was successfully deployed at a range of speeds from 4 to 10 knots and also vertically.

The optical plankton counter was successfully test towed through a range of speeds from 4 to 10 knots. Training and evaluation on new sonar equipment was carried out during the cruise.

Significant quantities of live and bulk plankton were obtained for use in experiments in the Laboratory. Photographs and video of live plankton were obtained during the cruise.

Live fish were obtained for experiments at the Laboratory.

**J Dunn**

**13 November 1990**

**Seen in draft: A Mackenzie, OIC**