'IN CONFIDENCE: Not to be quoted without reference to the laboratory. 8SR70

R1/5

CRUISE REPORT

FRS SCOTIA

20 October - 7 November

OBJECTIVES:

- 1. To lay two moorings off the east coast and two in the Fair Isle area.
- 2. To carry out detailed hydrographic sampling in the Fair Isle area using the S.T.D. recorder.
- 3. To obtain zooplankton samples and samples of ozygen, nitrate and phosphate at selected positions.
- 4. Current meter/parachute drogue calibrations.

NARRATIVE:

FRS SCOTIA, delayed by gales in the North Sea, sailed from Aberdeen at 0800 hrs on Thursday, 22 October. The current meter off Collieston was lifted and replaced and a current meter was placed in position, 20 miles east of Aberdeen. The ship then proceeded to the Fair Isle area with the thermosalinograph annotated hourly throughout the cruise except while at anchor or in exceptionally bad sea conditions.

With gales and storm force winds on eleven of the fifteen days of the cruise, work in the Fair Isle area was very restricted. However, a mooring with two current meters was laid east of Start Point, Orkney on the 23rd and another mooring with one current meter was placed south east of Sumburgh the following day. These moorings were recovered during a temporary lull in the weather on Tuesday, 3 November.

Due to the weather only three hydrographical sections were worked before SCOTIA put into Lerwick for water, mail etc on Friday 30 October. She sailed to anchor on Monday 2 November, but was unable to sail out of sheltered waters until the following morning due to continuing severe gales.

A hydrobiological section was commenced on the 3rd, interrupted by a northerly gale, resumed the following morning and finished before fresh gales made work impossible in the area. SCOTIA sailed for the area off Aberdeen to check the current meters there and with the hope that better conditions there might allow some hydrographic work to be done in conjunction with the current meters. SCOTIA arrived off Collieston early on the 5th. Both buoys were checked but soon after commencing a hydrographic section, a severe gale made further work impossible and with a sick member of the crew in urgent need of medical attention, SCOTIA sailed for Aberdeen and docked at 1630 hrs the same day.

RESULTS:

The processed data from the current meters are still undergoing interpretation. Preliminary results, however, indicate that currents at the Fair Isle moorings were similar to those existing last autumn, except for short periods, when they were apparently associated with the prevailing strong to storm force winds. The thermosalinograph, supported by the limited serial hydrography that was carried out, also indicated a temperature and salinity distribution similar to that of last year.

J H A MARTIN 7:12:70