Miss Howard

MINISTRY OF AGRICULTURE, FISHERIES AND FOOD
FISHERIES LABORATORY, LOWESTOFT, SUFFOLK, ENGLAND

1970 RESEARCH VESSEL PROGRAMME

REPORT: R.V CLIONE: CRUISE 3

STAFF

J W Talbot
G C Baxter
J Wooltorton
P A Ayers
J W Horwood
R L Keable

DURATION:

Left Lowestoft 1245 hours, 27 January
Arrived Lowestoft 1205 hours, 9 February

LOCALITY

Yorkshire coast

AIM

To carry out a hydrographic survey of the area within a few miles of the Yorkshire coast between Scarborough and Redcar.

NARRATIVE

CLIONE left Lowestoft at 1245 hours 27 January and proceeded to the survey area. The next day eight current meter stations were laid before the ship anchored for the night at 0100 29 January. The remaining 2 buoy rigs were found to be difficult to assemble as a result of distortion of the frames during the modifications involved in adapting them to take the latest type of buoy light. A shift of wind to the east and a forecast of an easterly gale prevented any attempt at laying these two rigs on 29 January and the ship dodged for most of the day. However, during the day the first 8 buoy stations were visited. One buoy, moored 6 miles offshore was under observation when it was seen to overturn as it was hit by a wave of height estimated as not more than 12 feet. This buoy had been under observation for some time before it capsized but had not appeared to be pitching excessively. The wind at the time was about 25 knots from the south east. Later during the day under similar conditions of wind and sea a few water samples were collected and filtered for suspended load analysis.

A continuation of the adverse weather on 30 January prevented any attempt to right the capsized buoy and CLIONE steamed to Middlesbrough for shelter and to enable the remaining two buoy rigs to be attended to and assembled.

CLIONE left Middlesbrough at 0600 hours, 31 January and proceeded direct to the buoy which had been observed to capsize two days earlier. The buoy was sighted the right way up with its light flashing correctly. The ship next laid the last two stations, completing this operation by 1214 hours. Soon after this one of the buoys laid on 28 January was sighted upside down. This buoy was righted and its light seen to be flashing correctly. A grid was then worked for surface salinity, temperature, turbidity and suspended load. By the end of this survey the wind had increased to 30 knots from the southeast and the ship laid and dodged during the night.

1, 2 and 3 February brought continued high winds which veered slowly to northwest and at times gusted to over 50 knots. During this time CLIONE took advantage of what shelter there was from the land but also inspected the moored buoys during lulls in the weather. On 2 February two buoys were found capsized; they were righted and their lights found to be in order. On 2 and 3 February, whilst sheltering at anchor a series of readings were taken over a tidal cycle for water velocity and turbidity at various depths.

On the morning of 4 February two buoys were found capsized, righted and their lights found to be in working order. At 1130 hours the same day 60 gallons of 20% Rhodamine-B solution was released a little over a mile from the shore in the vicinity of 54°35' North, 0°35'West, about 2 cables seaward of the current meter moored in this position. Observation of this dye patch was made as it moved south-east on the tide and the patch was surveyed over the high water slack period. For this survey CLIONE was joined by R V TELLINA, J Wooltorton having transferred temporarily from CLIONE for this work. After completion of the survey TELLINA left the survey area but a second survey was carried out by CLIONE over the next low water slack period.

Further surveys of the dye patch were carried out over the high and low slack water periods on 5 February. At the last survey, $2\frac{1}{2}$ tidal cycles after release, the detectable dye patch was about 6 miles long with its south easterly limit about $2\frac{1}{2}$ miles east-south-east from Whitby. On the same day a hydrographic section was worked normal to the coast and two releases of sea bed drifters were made close to the dye release position at low water slack. No surface drifters were released as it was thought the strong northerly wind would quickly have carried them ashore.

The next morning on receiving reports of a deep depression near Iceland, it was decided to start lifting the current meter rigs. All stations had been lifted by 2100 hours and CLIONE then proceeded to Middlesbrough for shelter in order that the gear from the ten current meter rigs could be stowed. With gale force westerly winds on 7 February it was deemed advisable for the ship to remain in Middlesbrough but she sailed 0920 hours the next day. CLIONE docked at Lowestoft 1205 hours 9 February.

J W Talbot
13 February 1970

SEEN IN DRAFT: M R S

INITIALLED: A J L

DISTRIBUTION

Basic List
Mr Talbot
Mr Baxter
Mr Wooltorton
Mr Ayers
Mr Horwood
Mr Keable