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

1986 RESEARCH VESSEL PROGRAMME

REPORT: RV CLIONE: CRUISE 5a
(PROVISIONAL: Not to be quoted without prior reference to the author)

STAFF

- J A Durance (SIC)
- N D Pearson (11-14 April)
- K J Medler
- Miss C Hudson
- N C Fulcher
- J M Rees

DURATION

7-14 April 1986 Left Lowestoft 0930 h 7 April
Arrived Fleetwood 0200 h 14 April

LOCATION

Eastern Irish Sea

AIMS

1. To service six current meter stations and establish three additional current meter stations (moorings M, N, P, Q, R, S, V, W, Y).
2. To recover and relay the Near Bed Velocity Recorder plus guard toroids and bottom c/m frames.
3. To anchor for one tidal cycle in the vicinity of the NBVR launch site, to make DRCM measurements and take Nansen-cast water samples for particle-size analysis hourly over a tidal cycle.
4. To work CTD sections between the Isle of Man and the Scottish/English coast.
5. To collect water samples for Caesium analysis on passage to the Irish Sea.

NARRATIVE

RV CLIONE sailed on the morning tide of 7 April and set course for the Irish Sea. On passage surface water samples for Caesium analysis were taken and three current meter buoys were assembled. When the vessel arrived at the first new current meter station north of Anglesey on the morning of 10 April the weather was too bad to lay the buoy and the vessel dodged for most of the day. A brief lull in the wind in the late afternoon permitted the wire testing of some of the acoustic releases before the wind strengthened again.

The following day (Friday 11 April) the wind dropped and RV CLIONE was able to begin deploying the new current meter stations. All of these (Y W V and S) were completed by 1400 h and by 1533 h the vessel was ready to recover the first of the existing stations to be serviced (N). The wires on this rig were in very poor condition. The recovery strop below the surface buoy parted and the main buoy strap had become detached. The acoustic release and bottom meter were recovered but the top meter and subsurface buoy were missing. Whilst new wires

were prepared the remaining acoustic releases were wire tested and then the new station was laid. It was 1900h before this station was completed a total of almost 3½ hours for recovery and relaunch leaving insufficient time to service station M before dark. After verifying that the buoy at station M was on position the vessel steamed to Whitehaven where Mr Pearson joined by pilot boat at 2300h.

Overnight the vessel returned to station M. When the station had been recovered it was found that the release had operated prematurely and all instruments and the subsurface buoy were missing. As this was the second confirmed case of premature release and there were two more suspected from reports received after the vessel sailed it was felt prudent to fasten a 6 foot stop across the release when the station was relaid. If the release operates prematurely the instruments will not be lost, but neither can they be released deliberately. The release can only be used for location of the equipment. Once this station had been relaid the vessel steamed to the position of the near bed velocity recorder where the instrument was recovered at the mid-day slack water. RV CLIONE then moved to the new position for the NBVR and began the anchor station (Aim 3) whilst the NBVR was being serviced. During this anchor station it was discovered that the recorder in the NBVR had been damaged and the instrument could not be repaired on board. On completion of the anchor station at 0700h on 13 April the servicing of the remaining current meter stations began. The first of these (P) was the only remaining station which was not known to have lost its subsurface buoy. When this station was discovered to have released prematurely it was decided to lift stations S and N and relay them with safety stops across the acoustic release as had been done with station M. Stations V, W and Y were too far away to be modified within the time available. Recovery of the last station I was completed by 1857h and the vessel docked at Fleetwood at 0200h on Monday 14 April.

RESULTS

1. Two current meter stations were serviced (M, N) and 4 new stations established. No subsurface buoys and only one current meter were recovered from the 6 existing stations.
2. The Near Bed Velocity Recorder was recovered but could not be repaired and relaid at the new position. The three guard buoys were left at the old position of the NBVR. No bottom current meter frames were deployed.
3. A 15 hour anchor station at the proposed launch site of the NBVR was completed. [RCM and surface turbidity measurements were made continuously and subsurface water samples for particle size analysis were taken at hourly intervals.
4. No CTD sections were worked.
5. Water samples for Caesium analysis were collected on passage to the Irish Sea.

J A Durance
21 April 1986

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INITIALLED: AP

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