

Current Meters ✓ NB  
CTD /

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

1985 RESEARCH VESSEL PROGRAMME

REPORT: RV CLIONE: CRUISE 7

(Provisional: Not to be quoted without prior reference to the author)

STAFF:

J. A. Durance  
K. J. Medler  
E. Gmitrowicz  
S. R. Jones  
D. Harper  
Mrs C. Fileman

DURATION:

Left Lowestoft 1045h 7 June  
Arrived Lowestoft 0900h 17 June

LOCALITY:

North Channel

AIMS:

1. To recover the 6 current meter stations laid by CLIONE 5B/85 in the North Channel.
2. To recover the current meter station laid by CLIONE 5B/85 at Nab Tower.
3. To make a CTD survey of the North Channel and take water samples for nutrient analysis.
4. To release sea bed drifters at each current meter station in the North Channel.
5. To take water samples for on board analysis of cadmium, lead, copper and mercury.
6. To take water samples for caesium analysis on passage to the Irish Sea and in the North Channel.

NARRATIVE:

RV CLIONE sailed from Lowestoft at 1045h on 7 June and set course for the Irish Sea. Surface water samples for caesium analysis were taken throughout the day and the current meter acoustic release gear was set up and the transducer cable repaired. At 0510 the next day the vessel arrived at the Nab Tower current meter station. The acoustic release was interrogated and then released. It worked perfectly and the two parts of the rig were successfully recovered by 0620. The rotors of both current meters were fouled by weed but previous experience suggests this is normal for the area at this time of year. As RV CLIONE proceeded down the English Channel the wind increased from the north west, and once the vessel rounded Lands End in the early hours of Sunday morning all shelter from the land was lost. Progress against the wind was slow and it was not until 0530h on Monday 10 June that the vessel reached the shelter of the Irish coast and was able to proceed to the North Channel at full speed. As the vessel approached the Scottish end of the line of current meter stations a flashing light was spotted approximately 5 miles south of station E.

At 0500 on Tuesday 11 June RV CLIONE began a CTD and water sample section across the North Channel along the line of current meter stations. It was already known that stations E and I had been trawled through, the bottom meter and

acoustic release from station E had been brought in by RV CLIONE on Cruise 6 and the top meter and some other gear from station I was reported to be in Belfast. During the CTD section no sign of the remains of these stations was found. No search for these two stations was made but the other three stations on the section were recovered complete. At each station the acoustic release was interrogated and released, but only at station F did the subsurface buoy appear. At the other two stations the release signal was sent repeatedly without success, but as the station was being recovered from the surface buoy end the release operated and the subsurface buoy and meters floated free. The CTD section was completed by 2145h and the vessel lay overnight and began the search for the missing equipment the following morning.

The surface buoy from station E was recovered at 0802 on 12 June at the position of the flashing light seen on arrival in the area on the morning of the previous day. Station D in Belfast Lough was recovered intact but again the release responded electronically but the motor failed to operate correctly. A visual and acoustic search for station I was begun but after a number of telephone calls to the Belfast Fisheries Office and the Navy suggested that both current meters had been landed the search was abandoned.

A CTD and water sample section across the southern entrance to the North Channel from the Irish coast to the Mull of Galloway was begun at 1640h. Five stations were completed that evening and the last two were completed before breakfast the next day. A further CTD and water sample section to the north of the line of current meters was begun at 0830h and completed by 1430h. RV CLIONE then steamed to Belfast Lough to await a naval patrol vessel which brought out the current meter gear from Belfast. The gear was collected at 1645h and consisted of the subsurface float both current meters and the acoustic release outer frame. A final visual search for the surface buoy from station I was made between the laid position and the reported position of the subsurface buoy recovery some 15 miles to the south, Nothing was seen and the search was abandoned at 2035h when RV CLIONE set course for Lowestoft. Surface water samples for caesium analysis were completed by 1835 the next day, Friday 14 June. The passage home was completed in perfect weather and the vessel docked at 0900h on 17 June.

#### RESULTS

1. Four current meter stations from the North Channel were recovered intact. The subsurface buoy and current meters from one station were collected from a Naval Patrol vessel. Only the surface buoy and weights were recovered from the other missing station but the bottom meter and acoustic release from this station had been brought back by RV CLIONE on the previous cruise.
2. The current meter station at Nab Tower was recovered intact.
3. Three CTD sections across the North Channel were completed. Water samples for nutrient analysis were taken at each station, and water samples were analysed for cadmium lead copper and mercury.
4. Sea bed drifters were released at each current meter station.
5. Surface water samples for caesium analysis were taken on passage to the Irish Sea, and both surface and subsurface samples were taken in the North Channel.

SEEN IN DRAFT: M J Willcock Master  
E W Pearson Fishing Skipper

J A Durance  
17 June 1985

INITIALLED: M W H

DISTRIBUTION: K J Medler  
Basic List + E Gmitrowicz  
R R Dickson S R Jones  
J A Durance D Harper Mrs C Fileman

