

MINISTRY OF AGRICULTURE, FISHERIES AND FOOD  
FISHERIES LABORATORY, LOWESTOFT, SUFFOLK, NR33 0HT, ENGLAND

1995 RESEARCH VESSEL

REPORT: RV CORYSTES: CRUISE 11B

STAFF:

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DURATION:

8-20 November 1995

LOCALITY:

Eastern Irish Sea

AIMS:

1. To deploy an array of six current meter moorings off the Cumbrian Coast for a four week deployment. The current meters will be serviced on Cirolana 10/95 and recovered on Cirolana 1/96. This works aims to help validate the Eastern Irish Sea Model (AE128D0).
2. To conduct short trial deployments of the Tetrapod and Quadrapod to test new sensors and new configurations of sensors (AE0135A0).
3. To deploy the Tetrapod, Quadrapod and four Minipods for a two month deployment being recovered on Cirolana 1/96. One Minipod will be recovered in December on Cirolana 10/95 so that water sampling syringes can be serviced (AE0135A0).
4. To conduct Sidescan and CTD surveys of the proposed trawling site (AE0135A0).

ADDITIONAL AIM

1. To deploy on a Minipod the prototype light sensor for the Micro Tag (MF0129E0).

NARRATIVE (all times are GMT):

RV Corystes sailed on the 2300 tide on the 8th from Birkenhead and proceeded to the experimental site off the Cumbrian coast.

Excellent weather conditions on the 9th allowed all six current meter moorings to be laid in a single day allowing J Read to be put ashore at Whitehaven on the morning of the 10th. In the afternoon the acoustic release systems of the Tetrapod and Quadrapod were tested. Later the Tetrapod and Quadrapod were deployed for 48 hours. On the 11th a Minipod with four syringes was deployed for a four day test at station U. A guard buoy was deployed at the Tetrapod and Quadrapod site. During the afternoon a sidescan survey was started but was aborted due to increasing waves.

The Tetrapod, Quadrapod and guard buoy were recovered on the 12th and the data analysed. A further Minipod test deployment was made on the 13th containing the prototype light sensor package at the centre site. The first long term Minipod deployment was also undertaken. Deck tests of the Quadrapod Ripple Bed Profiler (RBP) continued during the remainder of the morning and early afternoon. The Quadrapod was then deployed and the rest of the day was occupied with more sidescan survey lines.

The Quadrapod and Minipod on the centre site were recovered on the morning of the 14th. A photograph survey of five sites was undertaken in the afternoon interrupted for a short period to pick up a parcel from Lowestoft from the Whitehaven Laboratory. The four day test Minipod was recovered on the 15th and a second parcel from Lowestoft collected in the afternoon.

Over the 16th the Tetrapod, Quadrapod, three Minipods and five guard buoys were deployed for their long deployments.

A CTD survey of 14 sites was completed over the 17th before setting sail for Lowestoft at 1800 hours. RV Corystes docked at Lowestoft at 0615 on the 20th of November.

## RESULTS:

1. An array of six current meter moorings containing a total of 10 current meters was successfully deployed
2. The Tetrapod was deployed for 36 hours and all its sensors operated satisfactorily. The Quadrapod was deployed with the new RBP and nine Syringes. Two glass liners in the syringes were broken and a new mounting system was believed to be responsible. Modifications will be made for future deployments. Tests of the new RBP showed that all three transducers operated satisfactorily but further modifications will be required of the analysis and viewing software. In light of experience of the current system, two of the transducers were rotated through 90 degrees to "look" outward rather than towards the centre of the Quadrapod and the third was mounted to act as a seabed height indicator. Results from the Minipod suspended load sensors indicate very low values due to no wave activity and tides near Neaps. This will hopefully enable a better threshold in the suspended load algorithm for syringe firing.
3. The Tetrapod, Quadrapod (with seven syringes) and 4 Minipods (one with four syringes and another with three syringes) were deployed for a 50 day deployment.

4. A sidescan survey of the Tetrapod and Quadrapod site was completed. A CTD survey revealed warmer water than expected (maximum 12.4 °C) and low suspended loads throughout the whole area. Data will allow a cross calibration of the MOBS (Miniature Optical Backscatter Sensor), LSS (Light Scattering Sensor) and the 25 cm SeaTech Transmissometer.
5. Deployment/recovery and handling of the COSEDS landers is inherently a complex and difficult operation and it is a pleasure to record the skill and professionalism in which the Captain, officers and crew of the R.V. Corystes completed this work.

J M Rees, SIC  
20 November 1995

SEEN IN DRAFT: BC  
WM

INITIALLED: JEP

**DISTRIBUTION:**

Basic List +  
Staff on Cruise  
RR Dickson  
A Poole  
K Leonard

# Corystes 11b/95

