

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

1975 RESEARCH VESSEL PROGRAMME

REPORT: RV CLIONE: CRUISE 10B/75

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

STAFF

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DURATION

Left Lowestoft 1327h 1 July

Arrived Lowestoft 0648h 8 July

All times are Greenwich Mean Time

LOCALITY

North Sea

AIMS

1. To establish an array of current meter stations in the vicinity of JONSIS 2 in order to measure spatial variability of the currents and to provide surface markers for the R.A.E. Doppler navigation trials.
2. To carry out tests of a new electromagnetic current meter supplied by F.E.P. controls.
3. To make D.R.C.M. measurements adjacent to some of the current meter stations and to release Woodhead sea-bed drifters at each of them.
4. To service JONSIS 1 and 2.
5. To recover the array of current meter stations established at the beginning of the cruise.

NARRATIVE

RV CLIONE sailed from Lowestoft at 1327h 1 July and set course for current meter station A. During the afternoon and evening the gear for 3 current meter stations was rigged. Laying of the current meter stations commenced at 0300h the following morning and by 1543h that afternoon stations A, C, F, G and the new JONSIS 2 had been laid. The surface buoy was missing from the old JONSIS 2 rig, but the pellet line attached to the subsurface buoy was visible. The grapnel was rigged, and on the first tow the meter wire was caught. Not only was the rig recovered completely except for the surface buoy, but in addition two meters, an acoustic release, subsurface buoy and one weight were recovered from the previous station laid by RV CLIONE in April.

Whilst this recovery operation was in progress the first contact with the R.A.E. helicopter was made, and the exact positions of the square array comprising stations C, F, G and JONSIS 2 were passed over the VHF radio. Laying of the next station, D, was completed by 2106h, and the last two stations, E and B, were laid the next morning. At all the current meter stations temperature and salinity samples were taken. The vessel then proceeded to the first test station site and a rig consisting of the E.G.&G. electromagnetic current meter, and a Plessey meter designed to send pressure measurements back to the ship via an acoustic link, was laid at 1354h. The ship then anchored nearby and the signal from the Plessey meter was listened for and heard clearly on the acoustic release receiver. No attempt was made to decipher the signal. A Direct Reading Current Meter (D.R.C.M.) was rigged and measurements were commenced at 1730h and continued until 1830h 4 July. Throughout the anchored station wind measurements were taken every half hour. The vessel weighed anchor at 1900h and after recovering the test station proceeded to JONSIS 1.

The next morning, 5 July, JONSIS 1 was serviced. The acoustic release on the old station could be switched on and off, but attempts to activate the cutting circuit were unsuccessful. When the rig was recovered in the conventional manner it showed signs of interference. Following this recovery at 0841h RV CLIONE steamed to the second test station in the centre of the square array. The test rig was laid with the E.G.&G. meter and a Plessey meter as close together as possible in midwater. An acoustic release was fitted using the guillotine recovered from JONSIS 1. The ship anchored nearby and wind and D.R.C.M. measurements were taken from 1330h 5 July until 0730h 6 July when the vessel weighed anchor. The acoustic release on the test station was interrogated and successfully cut the meter wire at the first command. As soon as the test rig was on board recovery of the other stations commenced with station A. At each station temperature and salinity samples were taken and Woodhead sea-bed drifters were released. By 2013h stations A, B, E and D had been successfully recovered. At 0500h 7 July the laying of the long term JONSIS 2 began, and by 0643h the new rig had been laid and the old one recovered intact. The recovery of the other three stations G, F and C was accomplished by 1442h, the only losses being one weight at each of stations F and C. At each station temperature and salinity samples were taken and Woodhead sea-bed drifters released. RV CLIONE made a leisurely overnight passage to Lowestoft and docked at 0648h 8 July.

RESULTS

1. All aims were accomplished.
2. The major components of the JONSIS 2 rig laid by RV CLIONE in April and since lost were recovered.

SEEN IN DRAFT: J R F
G F L

INITIALLED: A J L

DISTRIBUTION:

Basic list +	J A Bedwell
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J A Durance
24 July 1975