

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

1985 CHARTER VESSEL PROGRAMME

REPORT: RV PRINCE MADOG, CRUISE 1/85  
 (PROVISIONAL: Not to be quoted without prior reference to the author)

STAFF:

A K Steele

D J Allington

R J Read

D J Coles

A Cousins

DURATION:

Left Menai 1010h 10 April

Arrived Menai 1010h 18 April

LOCALITY:

Irish Sea

AIMS:

1. To collect and process for radiocaesium analysis, surface and near bottom seawater from a grid of stations in the Irish Sea.
2. To determine the suspended load content of seawater at selected stations.
3. To search for the missing Sellafield current meter.
4. To service the existing Sellafield current meter.

NARRATIVE:

Prince Madog sailed on the morning of 10 April and commenced sampling on the station grid at 1115 h, 25 litre samples were collected and processed on board for subsequent analysis of the  $^{134}\text{Cs}$  and  $^{137}\text{Cs}$  concentrations. At stations where near bottom sampling took place, 2 litre aliquots of the sample were taken and filtered for suspended load determinations.

At 0500 h, 11 April the sampling programme was suspended and Prince Madog sought shelter from strong to gale force westerly winds in the lee of the Isle of Man. With a worsening forecast Prince Madog made for Douglas and berthed in the outer harbour at 0945 h, 11 April. A shortage of suitable berths made it necessary to move to the inner harbour and a combination of bad weather, neap tides and a restriction on weekend working made it necessary to remain there until 0835, 15 April. The sampling programme recommenced at 1007 h, 15 April and by 1815 the Sellafield current meter position was reached.

The Incastor transducer was lowered but the equipment failed to locate the 76 kHz tag attached to the rig, which was visible, less than 200 metres away. The replacement 76 kHz tag was suspended from a buff and this could not be detected at 30 metres. The transducer was raised and the current meter was recovered. After servicing the gear and changing the meter and tag the ship continued the survey at 2034 h.

The sampling programme was completed to the North and West of the Isle of Man and Prince Madog berthed at Menai at 1010 h, 18 April.

**RESULTS:**

Aims 1 and 2 were completed with the exception of the inshore station off Blackpool which was omitted in order to work the inshore stations off Sellafield in daylight.

Aim 3 was not attempted because of shortage of time and the inability to detect the 76 kHz tag on either the current meter rig or when suspended from a drifting buff.

Aim 4 was successfully completed. Two buffs and 1 Dahn were missing from the rig when it was recovered.

As the incastor had been tested in the laboratory and at the ships berths at Lowestoft and Menai it can only be assumed that noise from the ships machinery prevented the detection of a signal which could be attributed to a 76 kHz source.

A K Steele

9 May 1985

Seen in Draft: TD Master

Initialled: H W H

Distribution:

Basic List +

A K Steele

D J Allington

R J Read

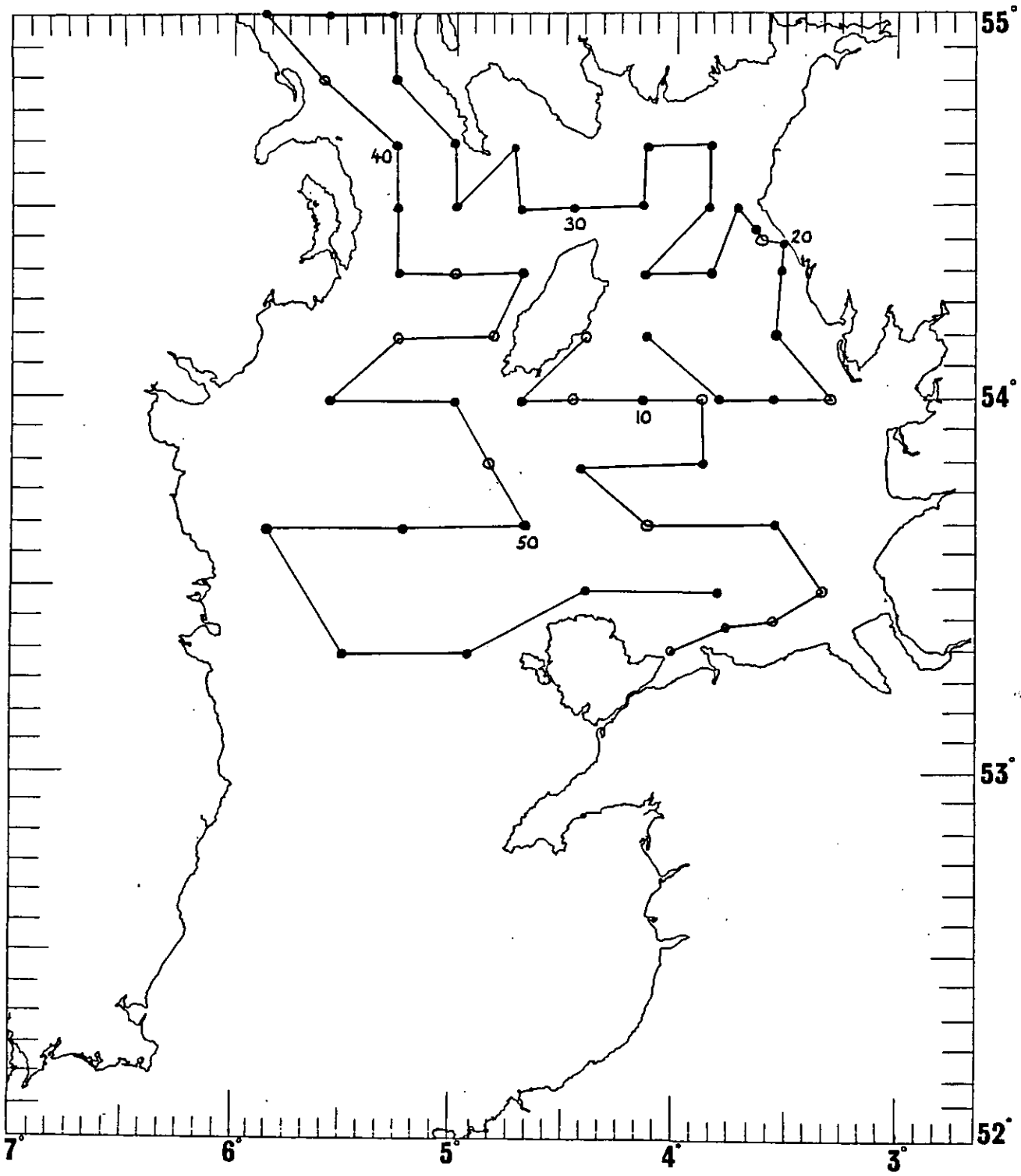
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R.V. PRINCE MADOG CRUISE 1/85