

VESSEL R.V. EDWARD FORBES

CRUISE PERIOD 16 August - 30 August 1978. Cruise No 13/78.

PERSONNEL

B.J. Lees	HSO	Senior Scientist
A.P. Carr	PSO	
M.W.L. Blackley	HSO	
J.E. Blower	ASO	
D.H. Joyce	Ind	
K.A. Reeves	ASO	
G. McNelly	P & TO	
G.W.J. Miller	HSO	(RVS Barry)
D. Tennant	SSO	(MAFF, Lowestoft)

ITINERARY

A copy of the relevant part of Admiralty Chart No. 1543 is attached.

Wednesday	16 August	Vessel berthed at Lowestoft. Current meter rigs loaded.
Thursday	17 August	Deployed 2 current meter moorings. Changed longterm mooring.
Friday	18 August	Grab sampled for background survey to fluorescent tracer experiment.
Saturday	19 August	
Sunday	20 August	Set up and checked equipment for fluorescent tracer sand injection.
Monday	21 August	Ship unable to sail due to oil in engine freshwater cooling system. Finally sailed 2100 hrs.
Tuesday	22 August	Tracer sand injected. 4 post injection grab sampling surveys carried out. Box coring undertaken until A-frame failed. 9 cores obtained.
Monday	28 August	
Tuesday	29 August	Packed up. Ship sailing to Barry.
Wednesday	30 August	

OBJECTIVES

To continue sediment transport studies in the Sizewell-Dunwich Banks area by measuring bedload transport, using a fluorescent tracer technique. To deploy current meters to measure current speeds and directions during the experiment, and to box core to measure the depth of mixing of the tracer after the first survey.

PROCEDURE AND METHODS

Plessey M021 current meters were deployed at midwater level on conventional U-shaped rigs. 0.75 tonne fluorescent tracer sand was injected by making it into a slurry and pumping it down a plastic pipe to the seabed. The tracer cloud was subsequently delineated by Shipek grab sampling, examining the samples under UV light on retrieval, and modifying the sampling pattern according to the amount of tracer found. Part of each sample was packed for return to the laboratory and accurate counting. A MAFF designed box corer was used to measure the depth of tracer mixing.

EQUIPMENT
PERFORMANCE

No problems were encountered with either IOS(T), or MAFF equipment. The ship's A-frame failed, curtailing the box coring programme. However, a plus mark to Master and Officers for excellent tight navigation during the surveys.

RESULTS

Bedload transport measurement results incorporated in paper read at IAS Conference on Holocene Sedimentation in the North Sea, at Texel, Netherlands, in September 1979. Published in Abstracts, No. 37.

PREPARED BY :

Sabrina J. Lees.

(B J LEES)

APPROVED BY :

Allen

(A P CARR)

DATE :

22.2.80.

22 February 1980

