CRUISE REPORT

FREDERICK RUSSELL CRUISE 11

9.11.85 - 17.11.85

Participants

Miss S. Harris	IMER
B. Lecann	University of Brest
G. Mardell	IOS/MBA
R. Pingree	IOS/MBA
Mrs J. Sleep	MBA
P. Taylor	RVS
P. Tarreau	University of Brest

Objectives

1) To recover current meter moorings 091, 092, 093, 094, 095 and 096 which were deployed in September (Cruise 8).
2) To deploy long term current meter moorings 097 and 098 at positions 092 and 095 respectively.
3) To map out surface distributions of temperature, salinity, chlorophyll 'a' and inorganic nutrients at the shelf-break during autumn conditions.
4) To complete a number of CTD stations at the mooring sites and along transects normal to the slope.
5) To deploy a satellite tracked drifting buoy to measure long term residual drift at the slope.

Results

The cruise was due to start on 8.11.85 but was delayed until 2100 on 9.11.85 due to severe weather conditions. The ship eventually left

Falmouth Bay on Sunday morning (10.11.85) and steamed at half-speed towards 096 arriving at 0430 on Monday (11.11.85). After interrogating the acoustic release and finding the closest approach the mooring was released at 0815 and inboard by 0915. We then steamed north-west to 095 arriving at 1500 on 11.9.85 and completed the recovery by 1630. A CTD station was also completed on this position.

The vessel then steamed north-west again along the slopes to arrive at 091 at 0500 on 12.11.85. On interrogation it was obvious that the mooring was lying on the bottom. This conclusion was drawn because the acoustic release was fitted with tilt switches which show whether the release is upright or on its side. The release was fired anyway but as expected nothing appeared on the surface. It was concluded that the 48" sub-surface sphere had probably been cut off by trawling activity. It was arranged with the captain to grapnel for this mooring later in the cruise.

The ship steamed south-east to 092 arriving at 1030 on 12.11.85 the mooring being recovered by 1215. We then steamed to 093(A) arriving 1400 and recovering the mooring by 1615. We arrived at 094 one hour later and all recovery was complete by 1800. No problems were encountered with any of these three moorings.

The vessel steamed back to 091 to grapnel, this was started at 0000 on 13.11.85. The grapnelling continued through the night until the gear was hauled at 0800. The release seemed to be dragged at one stage but came off when the wire was hauled in. It was quite possible that only the acoustic release and a small length of wire was left on the bottom so that the grapnel had very little to catch on to.

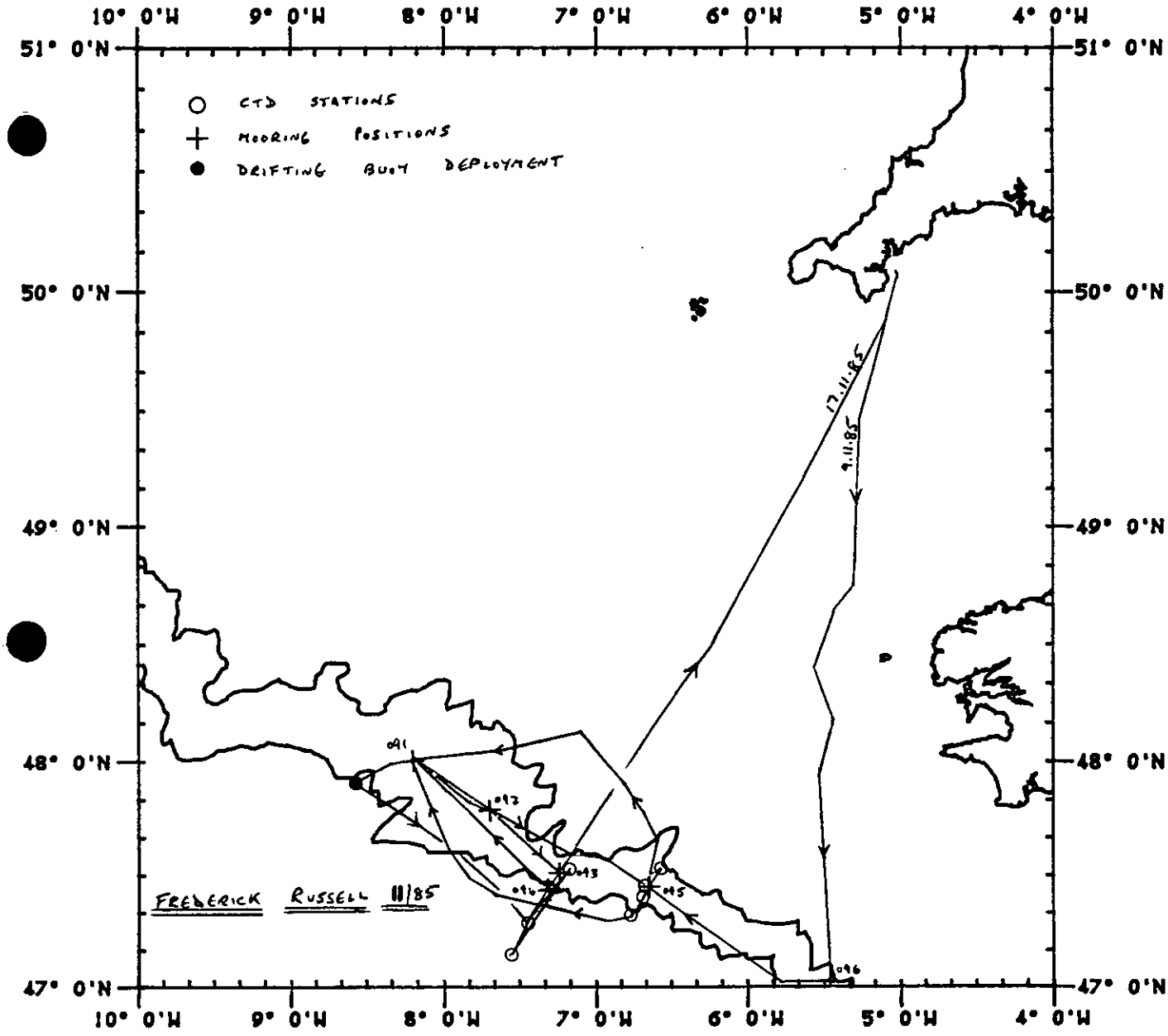
We then steamed south-east to position 092 to deploy mooring 097 this was completed successfully at 1400 on 13.11.85. The vessel then continued on to position 095 where mooring 098 was deployed, the work being

completed by 2000. A CTD and a number of current shear profiles were also done at this position and repeated at the 200m contour. This work was finished at 0430 on 14.11.85 and the vessel steamed back to position 091 arriving at 1500. The weather was judged too rough to grapnel so the vessel hoved to until dragging commenced at 0600 on 15.11.85. This was carried out for ten hours without success. We then steamed west to the 2000m contour to deploy satellite tracked buoy 1823 which was connected to a 60 square metre sheet drogue at 100m depth. The buoy went away at 1830.

The vessel then steamed to a position approximately 25 miles south-west of position 093. A line of CTD and current shear profile stations were completed between this position and 093. The vessel then steamed back to deep water for a CTD station at 47°19'N 07°30'W. This was finished at 1600 on 16.11.85 and the vessel steamed back across the shelf-break to Falmouth arriving at 1100 on Sunday 17 November.

Mooring positions

091	48°02.6'N	08°14.0'W	500m
092/097	47°43.0'N	07°34.0'W	500m
093(A)	47°33.0'N	07°15.8'W	500m
094	47°29.4'N	07°20.0'W	1,000m
095/098	47°28.3'N	06°38.8'W	500m
096	47°01.2'N	05°26.5'W	500m



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