

DEPARTMENT FOR ENVIRONMENT, FOOD AND RURAL AFFAIRS.

2006 RESEARCH VESSEL PROGRAMME

REPORT: *RV CEFAS ENDEAVOUR*: CRUISE 6

STAFF:

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DURATION:

24th Feb – 6th March

LOCALITY:

English Channel

AIMS:

1. To conduct acoustic survey work in the Eastern English Channel in support of MEPF 04/01 (C2617).

NARRATIVE:

Endeavour sailed from Lowestoft at 19:30 hrs on 24th Feb. On passage to the English Channel, a CEFAS Waverider buoy was laid at the Gabbard site in the outer Thames Estuary in the early hours of the morning of 25th Feb. At 09:00 hrs on 25th Feb a tide gauge was laid at the Channel Waverider site prior to commencement of the acoustic survey. Following a calibration of the EM3000 multibeam bathymetry system, the acoustic survey was commenced later that day on the first of 45 planned survey lines. CTD profiles were conducted every 24hrs to measure values of speed of sound in water. Gale force winds and rough seas prevented the collection of good quality sidescan sonar data during the early part of the survey, although multibeam data was of good quality throughout the survey. Consequently, sidescan data of acceptable quality was not collected until the morning of 27th Feb, when the weather had abated sufficiently. Acoustic survey work was temporarily halted during the afternoon of 27th Feb whilst a drifting Waverider buoy was successfully picked up at the south-westerly extent of the survey grid. Acoustic work recommenced until late afternoon on 2nd March when Dave Limpenny was put ashore at Sovereign Harbour. A short multibeam survey of a wreck (*MV Ville de Dunkirk*) was completed on route to the acoustic survey area. Acoustic survey work continued until the afternoon of 3rd March

when Dave Limpenny rejoined the vessel at Sovereign Harbour. A short multibeam survey of a wreck just south of Eastbourne, possibly the MV *Branksome Chine*, was then conducted prior to resumption of the acoustic survey lines. Acoustic survey work resumed in continuing good weather until 16:30 hrs on 5th March when the errant Waverider buoy was re-deployed in its rightful place. Unfortunately, the tide gauge which had been deployed at the Waverider site had vanished off the face of the earth. It is likely that it had either been picked up by a beam trawler or moved during gale force winds. The final acoustic lines were surveyed during the night of 5th/6th March and Endeavour sailed via the Lowestoft multibeam calibration site, docking in Lowestoft at 13:30 hrs on 6th March.

Backscatter data were collected using a Benthos SIS1624 dual frequency sidescan system linked to an Triton ISIS/Delphmap Processing suite. The multibeam survey was performed using a Kongsberg EM3000D sonar coupled to an MRU5 motion reference unit, a Reson SVP10 sound velocity gauge, and a Thales 3011 DGPS with Seastar correction. Depth and backscatter data were acquired on a Kongsberg SIS system and quality control checked using CARIS Hips.

RESULTS:

Approximately 2,000 line kilometers of high quality acoustic data were collected in the Eastern English Channel region during the cruise. The sidescan data was processed to Geotiff level on-board the vessel and multibeam data was catalogued and archived for subsequent processing. Tidal data from three south-coast sites was received on board the ship via E-mail every 24hrs. This cruise has ably demonstrated the capability of CEFAS staff and the *Endeavour* to conduct high quality acoustic mapping surveys in a cost effective manner in a challenging location and during adverse weather conditions.

The results from this work will contribute towards other ongoing projects in the Eastern English Channel (e.g. MEPF 04/01). Information on wrecks surveyed in the area will be passed onto English Heritage and other interested parties.

D.S. Limpenny
6.3.2006

INITIALLED:

DISTRIBUTION:

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All scientific cruise personnel +
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