DEFRA
CEFAS LABORATORY, LOWESTOFT, SUFFOLK, ENGLAND, UK.
2014 RESEARCH VESSEL REPORT
RV *CEFAS ENDEAVOUR* : **CRUISE 22/14**

STAFF:

Name	Role	Cabin	Shift
Dave Sivyer	SIC	SIC	Not specified
Dave Pearce		C2	Deck
Neil Needham		C1	Deck
Chris Read		C4	Deck
Anthony Barker (NRW)		D2	INNS
Anna Huk		C6	Chemist
Matt Thomson		D3	Chemist
Marc Whybrow		B2	MIST - CTD and cameras
Chris Balfour (NOCL)		B1	ADCPs and thermistors
Sam Ward (NOCS)		C7	Gliders +
Alvaro Lorenzo (NOCS)		C3	Gliders +

DURATION: 21 to 30 October 2014

MOBILISE: Swansea

DEMOBILISE: **LOWESTOFT CEFAS QUAY**

OPERATION AREAS: Celtic Seas, English Channel, Southern North Sea

AIMS:

1. Service SmartBuoys at Dowsing, Warp and West Gabbard (SLA25 – 2 day)
2. Service SmartBuoy at CandyFloss Array (C6058B – 1 day)
3. Service SmartBuoy at Celtic Deep (SLA42B – 1 day)
4. Service minilanders at SSB sites in Celtic Sea (C6057C – 1 day)
5. Service waverider at Poole and West Gabbard (C6029 – 1 day)
6. Search for lost gear at all sites (camera, grapple, trawl)
7. Collect 1 x Wave Glider and 2 x Glider at Candyfloss array (C5206 2 day)

CRUISE PLAN - All times in GMT

We sailed at 18:30 on 21 October 2014 (all staff having joined the ship on evening of 20th as we were due to sail in the morning and do some camera trials but it turned out to rough for that work).

The Endeavour proceeded directly to "East of Celtic Deep" to search for the two missing minilanders. On arrival the HiPap showed the lander deployed in March was still present. After a CTD, the acoustic release responded to the rented transponder system but the recovery rope did not appear. The grapple was deployed from the stern off the split net drum. After two tows we picked up the ground wire and retrieved the lander safely. A search grid for the remaining lander was instigated using the HiPap but after a fruitless hour this was abandoned and the ship moved off to the Nymphe Bank minilander site. Here the ships HiPap did not detect the lander so we tried the "grapple cam" to

survey over the site and then towed the grapple on a wire but without success. The Endeavour moved overnight to Celtic Deep SmartBuoy. Next day (23rd) after a CTD, the SmartBuoy was recovered along with the mid –tether ADCP and thermistors on the mooring wire. Whilst the instruments were turned around the camera was deployed to search for a missing mid-tether frame. Unfortunately we did not find the frame. The SmartBuoy, thermistors and tether were re-deployed after lunch. The "Nymphe Bank" minilander was also deployed here before a CTD cast and departing for the final lander site. The first CTD on the 24th was at 06:00 and a quick check on the HiPap revealed the minilander still on position although there was no sign of the surface buffs. The acoustic release was fired but no recovery line appeared so we reverted to the "standard" method of grappling. The lander was recovered easily and it was discovered that the recovery line must have deployed previously but somebody had cut the buffs off. The new lander was deployed after lunch and then we made best speed to the SSB CandyFloss array collecting a steam through water steam en-route.

At CandyFloss on 25/10.14 the first job was to collect a CTD, then recover the SmartBuoy. We spent a couple of hours search for missing mid-tether frame before re-deploying the SmartBuoy. After another CTD the afternoon was dedicated to the successful recovery of the NOCL SV2 Wave Glider (deployed as part of the MASSMO fleet). Four more CTDs were collected during the evening and early morning. The two NOCS Slocum gliders deployed for MASSMO project were recovered un-damaged in 5m swell. A CTD here was aborted due to a problem with the wire, the standard back-up of the ESM2 profiler on the hydro wire was instigated.

There then followed a long steam towards Poole to swap out the waverider. En-route, a staff transfer request came in from NOCS so we detoured to Weymouth on the morning of 27/10/14 and dropped off all 3 NOC staff. There was fire drill before lunch and the Poole waverider was later serviced in pleasant conditions.

The Endeavour ran at best speed through the Dover Straits and around into the Warp to be sat off the SmartBuoy at 07:00 on 28/10/14. A pre recovery CTD was collected (proving the new termination was good) and the SmartBuoy was recovered and re-deployed in less than 30 mins. A post deployment CTD was collected before racing to the West Gabbard. One waverider was retrieved but the tide had turned and was ripping through, combining with an un-forecast increase in the wind speed to 30kts to force suspension of mooring work. At 20:00 work re-commenced and the extra waverider and the SmartBuoy (not lit) were eventually recovered. A replacement waverider and the SmartBuoy were deployed before a CTD dip and moving off to the Dowsing.

On the morning of 29/10/14 the Dowsing SmartBuoy was serviced and CTD cast taken before recovery and after deployment.

Scrape samples and settling plates were collected and preserved from all 5 SmartBuoys. Temperature and pressure DSTs were recovered and replaced on Celtic Deep, Warp and Dowsing.

We returned to Lowestoft for the midnight tide on 29th, docking at 00:10.

De-mob early on 30th.

Dave Sivyer 30/10/14