

VESSEL: MV British Diver
OWNER: British Sub-Aqua Club (BSAC)
OPERATOR: Plymouth Ocean Projects Ltd
Fort Bovisand Underwater Centre
Fort Bovisand
Plymouth
PL9 OAB
Tel: Plymouth (0752) 42570

CRUISE PERIOD: 1200 on 25.3.80 to 1100 on 27.3.80

PERSONNEL: J D Humphery HSO Senior Scientist/Diver
A J Marks SSO Diver
E J Moore HGCD Diving Officer
B M Norman ASO Trainee Diver
P J Hardcastle SSO Shore Operator

ITINERARY: 25.3.80 Travelled to Plymouth, loaded equipment. Performed training dive in Plymouth Sound.
26.3.80 Proceeded to Eddystone Waverider station, retrieved old Waverider, deployed new Waverider, returned to mooring.
27.3.80 Unloaded equipment, returned to Taunton.

OBJECTIVES: To replace the Waverider buoy on an existing mooring to the South of the Eddystone lighthouse. To recover the old Waverider. To deploy another Waverider in the free-floating mode operating on 29.725 MHz to compare received signal strengths at HMS Cambridge. To perform in-date training dives in preparation for the Blackpool Sands experiment after Easter. To give B M Norman his first salt-water dive.

PROCEDURE AND METHODS:

25.3.80 Arrived at 'British Diver' moorings, Cattewater, Plymouth, at approx 1200. Loaded Waveriders, diving gear and other equipment using IOS(T) inflatable as tender.

Wind was SW 4-5 with sharp chop in Plymouth Sound and fair swell outside. Decided not to attempt Waverider change; instead performed an in-date training dive in Cawsand Bay, using inflatable. Gave BMN his first salt-water dive, but conditions very unsatisfactory with visibility 50cm max. Returned to British Diver.

26.3.80 Day dawned cloudy with light SE breeze. RAF Mountbatten meteorological office forecast light conditions at first, but conditions deteriorating rapidly with SE gale forecast 'by lunch time'. Decided to attempt Waverider exchange; phoned PJH at IOS(T) so that he could drive to HMS Cambridge to set up receivers.

Waveriders were energised on deck as follows:
67144 on 26.990MHz (Eddystone replacement)
67213 on 29.725MHz (Signal strength comparison)
Mooring components for 67144 assembled. Proceeded to site into freshening breeze; on arrival Eddystone wind blowing SE 4-5, sea rising quickly. Divers kitted up when nearing Eddystone.

Used inflatable to take divers and surface marker buoy (SMB) to existing Waverider no 67151. Moored inflatable to 67151, took SMB rope to sub-surface float (SSF), made secure on a short line. Detached Waverider mooring, returned to surface. Took 67151 to 'British Diver' with inflatable, pulled buoy onto deck by hand.

Lowered new Waverider no 67144 into water with new mooring attached. Towed 67144 to SMB (difficult in rising wind/sea). Divers took tail of mooring down SMB line and connected mooring to SSF. SMB line was released, divers returned to inflatable, thence to British Diver. Time 1315 BST.

67213 had been transmitting on 29.725 MHz with a standard 2.06m antenna since 1000 BST. By the time that the Waverider exchange was completed, wind was SE 5-6, and sea was worsening rapidly. Decided to abort the free-floating experiment. Passed message to this effect to PJH via HMS Cambridge Wembury Range radio, and started for Plymouth. Fitted 1.81m aerial to 67123 at 1320 BST. Arrived Cattewater approx 1530 BST, in heavy rain and squalls.

27.3.80 Unloaded equipment and returned to Taunton, arriving approx 1415 BST.

EQUIPMENT

PERFORMANCE: Waveriders were prepared at IOS(T) prior to departure and worked satisfactorily on site. IOS(T) inflatable keel leaked rapidly, allowing boat to flex considerably on site. Outboard motor performed well, despite being swamped several times. VHF radio on British Diver worked well - this was the only instrument used for IOS work.

DEPLOYMENT

POSITION: Waverider number 67144 deployed with roofhatch number L-074 on 26.990MHz at 1240 approx on 26.3.80. Position approx 300m S of Eddystone lighthouse.
Depth (mid-tide) approx 41m.

PREPARED BY: *John Humphery* J D HUMPHERY
APPROVED BY: *A P Salkield* A P SALKIELD
DATE: 27.3.80