Crossway, Taunton, Somerset. TA1 2DW

# PROVISIONAL CRUISE REPORT

VESSEL:

RV Squilla

OPERATED BY:

Marine Biological Association, Plymouth

LOCATION:

English Channel in the vicinity of the Eddystone

Lighthouse

CRUISE PERIOD:

13 June to 16 June 1981

PERSONNEL:

C H Clayson PSO

P R Hancock Industrial Craftsman - Mechanic

E G Pitt PSO

N D Smith PSO

C H Woodley SO

### **OBJECTIVES:**

#### All times BST

To make directional measurements of the surface waves and the concurrent wind-speed and direction to the South of the Eddystone as part of experiment number 32GB in the European SAR-580 campaign.

# PROCEDURE AND METHOD:

13 June 1981 Loading of the Squilla took place on Saturday afternoon in Sutton Harbour, Plymouth.

14 June 1981 On Sunday morning at 0930, the anemometer was fitted and a preliminary deployment of the Cloverleaf buoy was made while the ship was still at the mooring. Squilla then left Sutton Harbour at about 1030 to a position just to seaward of the breakwater. After some experimentation it was found best to carry the buoy resting on and suspended between the starboard gunwale and a board which was lashed between the main winch and a stanchion further aft. From here it was a simple matter to deploy and recover the buoy over the starboard side using the main derrick.

Made a trial deployment, checked that buoy electrics were functioning correctly, recovered buoy and returned to Sutton Harbour. Checked that anemometer was recording successfully on the way. Arrived Sutton Harbour at 1330.

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15 June 1981 Rejoined Squilla at 0830 on Monday morning, left Sutton Harbour 0850. Arrived at Position 2 (see chart) at 1030. Preliminary checks on the cloverleaf buoy revealed that gyro was not operating correctly. Central compartment was opened and it was found that the integrated circuit voltage regulator supplying the gyro motor had failed. Problem solved by supplying motor with unsmoothed full-wave rectified A/C.

Cloverleaf deployed by 1130 and recording starting 1133, anemometer record started 1135. Information received on Sunday from the SAR-580 project manager was that aircraft would be over the area from 1100 to 1600, however a message was received at 1230 which informed us that the SAR-580 aircraft had not yet taken off, and ETA over Eddystone was now 1400. Stopped recording waves and wind at 1245. Buoy inboard by 1255.

Proceeded to position 3 which was reached at 1405. Buoy deployed by 1410 and recording by 1415; anemometer recording started at 1408. Buoy recording and anemometer recording stopped at 1535. Buoy inboard at 1550. Further message received informing of revised ETA for SAR-580 aircraft of 1745, and ETD of about 2100.

Decided to proceed back to a position midway between positions 2 and 3: position  $2\frac{1}{2}$ . Buoy in water at position  $2\frac{1}{2}$  at 1625; buoy and anemometer recording 1628. Stopped recording 1806, buoy inboard 1810. Aircraft sighted at about 1800.

Proceeded to position 2. Buoy deployed at 1855. Anemometer recording at 1859; buoy recording from 1904. Buoy record ended 1943; anemometer recording ended 1944. Buoy inboard by 1950.

Proceeded back to Plymouth. Berthed in Sutton Harbour at 2130.

16 June 1981. Squilla was unloaded in the morning.

# **EQUIPMENT PERFORMANCE:**

Difficulties with buoy gyro power supply noted above, otherwise all scientific equipment performed well. All equipment on board Squilla performed well, and in the prevailing conditions launching and recovery were comparatively simple operations. We felt that we could have carried on in more severe conditions, up to Force 5 at least.

# ITINERARY ON 15 JUNE 1981:

0850 : Left Sutton Harbour, Plymouth

1030 : Position 2 (see chart)

1405 : Position 3 1620 : Position  $2\frac{1}{2}$ 1850 : Position 2

2130 : Berthed in Sutton Harbour

## WEATHER:

The day started overcast with moderate-poor visibility. Weak cold front crossed area at about 1030. Thereafter visibility improved and cloud decreased to give bright sunny afternoon. Wind veered gradually after cold front to just North of West by afternoon, Force 4.

# STATIONS:

| Station<br>Number | Position<br>Number | Time<br>(BST) | Decca | Co-ordinates | Visual Ob<br>Wind | servations<br>Sea             | Remarks .                                  |
|-------------------|--------------------|---------------|-------|--------------|-------------------|-------------------------------|--|
| 1                 | 2                  | 1030          | A15.0 | C44.0        | W'N F3-4          | ½-im 4sec<br>W'ly swell       |  |
| 2                 | 3                  | 1405          | B9.5  | D43.5        | WNW F3            | ½-lm 4sec<br>W'ly swell<br>lm | Swell<br>period<br>difficult<br>to observe |
| 3 -               | 2½                 | 1620          | B1.0  | D33.5        | W'N F3-4          | lm 4sec<br>Some swell         | Sea short                                  |
| 4                 | . 2                | 1850          | A15.0 | C44.5        | W'N F3-4          | lm 4sec                       |  |

Notes: 1 Times are times of arrival at each station.

2 Decca co-ordinates are those recorded as buoy was deployed. Some drifting on tidal current occurred during each run.

PREPARED BY: E G PITT

APPROVED BY:

SCALE 1:250,000

