

PROVISIONAL CRUISE REPORT

VESSEL: Reul Na Maidne

OWNER: D B MacLeod
Oiteag na Mara
Bruernish
North Bay
Barra
Outer Hebrides
Scotland

Telephone: North Bay (08715) 384

LOCATION: Offshore Waverider Site west of South Uist, Hebrides

CRUISE PERIOD: 0930 - 1830 on 25 April 1981

PERSONNEL: J D Humphery HSO (Senior Scientist)
E J Moore P and TO 3
M A Scott Student

OBJECTIVES: To recover defective Offshore Waverider, complete with sub-surface float mooring if possible. To deploy a new Offshore Waverider on a new sub-surface float mooring.

PROCEDURE AND METHOD: Met D B MacLeod on Castlebay jetty at approximately 0830. Reeled 13 mm lowering wire onto port side of trawl winch, and pulled approximately 900 kg anchor clump into port gallows using 13 mm chain strop. Reeled 75 m x 13 mm recovery wire onto starboard side of trawl winch (attached to end of trawl-warp). Reeved wire through deck-sheaves and gallows, and attached 115 kg chain grapnel. Loaded rest of equipment by hand and by using jilson.

Sailed from Castlebay approximately 0930 for Offshore Waverider position, via Sound of Watersay.

Energised new Waverider while still in sheltered water; tested output with absorption wavemeter.

Arrived alongside Offshore Waverider approximately 1230. Its condition appeared the same as on the visit of 1 March 1981.

Lifted Waverider onto deck using jilson, recovered rubbercord using winch. Attached A4-size Polyform float to rope of mooring, and freed mooring.

Lowered grapnel on recovery wire, and made several unsuccessful attempts to recover mooring. Snagged rope above sub-surface float at each attempt.

Shortened rope so that mooring was marked "straight up and down". Lowered grapnel onto bottom and steamed approximately 400° around mooring paying out recovery wire and more than 75 fathoms of trawl warp. Hauled on winch, grapnel snagged riser chain, recovered complete mooring (including anchor clump) using jilson, at approximately 1330.

New mooring was assembled; all galvanised shackles were greased and moused with wire; stainless shackles were not

greased, but were moused with nylon twine.

Waverider was lowered over side by hand, rubber-cord and rope were paid out.

Sub-surface float was dropped overboard and riser chain paid out, ensuring that no shackles were left upset or that any mooring components were twisted together. Anchor clump was lowered to bottom on wire, and wire was cut when moving slowly away from mooring position. Noted time, depth and Decca position.

Returned to Castlebay via Sound of Vatersay, and unloaded equipment. Left ship at approximately 1830.

EQUIPMENT
PERFORMANCE:

The Offshore Waverider was a 90 cm shell buoy, number 67406/9, installed on 17 January 1981. It contained an internal clock which initiated transmissions (power-boosted to a full 200 mW at the aerial) every three hours. Very shortly after installation a fault developed within the buoy which caused a straight-line output (ie constant sub-carrier frequency) at the receiver. This fault has still to be identified.

The new Offshore Waverider was energised and tested on deck prior to deployment, after being prepared in the laboratory at IOS(T). The buoy and mooring were deployed faultlessly using the trawl winch.

Signals from the new buoy were monitored at the receiver sometime later; good signals were being received and logged.

All equipment aboard the Reul na Maidne performed satisfactorily during the cruise period.

ITINERARY:

25.4.81

0830 Rendezvous with Reul na Maidne at Castlebay jetty. Loaded equipment.

0930 Sailed for Offshore Waverider position, passing through Sound of Vatersay.

1230 Alongside Offshore Waverider. Recovered buoy and complete mooring.

1445 New Offshore Waverider and mooring deployed. Sailed for Castlebay.

1730 Arrived Castlebay, offloaded equipment.

WEATHER:

A favourable forecast for the 25th was obtained from Prestwick meteorological office on 24th April, and a better forecast was broadcast to shipping at 0630 on 25th.

During the whole of the cruise period, the wind was N, 3-4 with some sea and some swell. Maximum ship motion during

the cruise period was approximately 1.5 m. Visibility very good (>25 miles), sunny.

POSITIONS:

Old Offshore Waverider recovered:

Decca readings (Chain 8E/MP (Hebridean))

Red	A	15.0
Green	D	32.20
Purple	A	58.80

Time: approximately 1245 on 25.4.81.

New Offshore Waverider laid:

Decca readings:

Green	D	32.04
Purple	A	58.90

Depth: 42.5 m approximately mid-tide

Time: 1445 on 25.4.81.

PREPARED BY:

John Humphery

J D HUMPHERY

APPROVED BY:

AP Salkield

A P SALKIELD

DATE:

21/5/81

Abridged Details of Hebrides Visit, April/May 1981

Waverider deployment:

Buoy No: 67041
Calibrated: 27.11.80
Sensitivity: 1.825 Hz m⁻¹
Position: 057° 18' 21" N
007° 38' 12" W

Decca readings: Chain 8E/MP (Hebridean)
Green D 32.04
Purple A 58.90

Date laid: 25.4.81
Time laid: 1445
Depth: 42.5 m mid-tide approximately
Battery voltages: 18.8 + 18.8 V on 16.4.81
Personnel: J D Humphery
E J Moore
M A Scott

Waverider Recovery:

Buoy No: 67406/9
Decca readings: Chain 8E/MP (Hebridean)
Red A 15.0
Green D 32.20
Purple A 58.80

Time: 1245 approximately
Date: 25.4.81

New Offshore Receiving System:

Eddystone receiver number: 964/7c/455
Working to: Microdata logger no: 1029 (single channel)
System calibrated: 29.4.81 at 1520 approximately

Sensitivity: 64.00 Hz⁻¹
Unlocked display: -0000
Logged readings prefixed by: -
Microdata display channel: 6

Note: Transmission-initiated logging facility removed on 29.4.81, since transmissions from new buoy are continuous.