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PB

FRV "Goldseeker"
Cruise 3/87

REPORT

16 February - 7 March 1987

Personnel

Part 1: 16-21 February	P J Copland	SO (in charge)
	T V Taylor	ASO
Part 2: 21-28 February	R B Mitchell	SSO (in charge)
	C D Hall	HSO
	A K Naha	HSO
Part 3: 28 February - 7 March	G G Urquhart	PSO (in charge)
	R B Mitchell	SSO
	A K Naha	HSO
	G Mitchell (visitor)(2 March)	

Objectives

Part 1

Towing trials on 'deep-tow' dual frequency acoustic shark.

Parts 2 & 3

1 Tests on long range distance meters
2 Tests on universal acoustic link
3 Calibration of net speed logs and towed logs
4 Stability tests on flowmeters
5 Tests on MIDAS instrumentation package
6 Tests with Scanmar net monitoring system.

Narrative

"Goldseeker" was loaded in Buckie on 16 February and proceeded to Inverness in the early morning of 17 February. Trials of the deep tow acoustic body were conducted in Loch Ness and the scientific staff changed over on 21 February at Fort Augustus.

On the same day the motor launch 'Shuna' was unloaded at Muirtown and steamed up to Fort Augustus. "Goldseeker" operated from Fort Augustus every day and in conjunction with 'Shuna' on seven of these days. Three Decca Trisponder shore stations were deployed for speed measurement and drogue tracking.

Results

Part 1

Trials were conducted to achieve greater towing depths for the acoustic shark. Towing position, weighting and tail fin angles were altered to produce a maximum tow depth of 8.2 metres while still maintaining a stable horizontal body angle.

Parts 2 & 3

1 The acoustic elements of the new long range spreadmeter system were tested at both 10 KHz and 12 KHz. Ranges in excess of 2 Km were achieved, source level measurements were made and the receiver signal to noise ratio measured in various conditions.

2 A prototype version of the Leibnitz & Lann universal acoustic link was tested. The net to ship uplink part of the system operated satisfactorily.

3 Standard towed logs and net mounted logs were calibrated using Decca Trisponder. The water current in the Loch was measured using drogues both at the surface and at the mean gear depth of approx 30 m.

4 A method of attaching and deploying a new net flowmeter was devised to give stable operation but problems were experienced with the sensor mounting. An identical sensor worked well when mounted in a different way in a conventional net log.

5 Tests on the MIDAS package were confined largely to software developments.

6 The Scanmar net monitoring system was tested using depth, height and two sets of distance sensors simultaneously with good results. The distance sensors were tested up to maximum range using two boats and at speeds up to 7 Kt.

G Urquhart
P Copland
25 March 1987

Seen in Draft: D Findlay