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9GR84

IN CONFIDENCE: not to be quoted without reference to the Laboratory

FRV "Goldseeker"

LD

Cruise 9/84

REPORT

30 August - 14 September

OBJECTIVES

- 1) To carry out sea trials of the Marine Laboratory's underwater vehicle.
- 2) To evaluate commercially available equipment.

NARRATIVE

Goldseeker arrived at Portree at 1700 hours on the 31 August, and as this time coincided with dead low water the immediate offloading of the fishing gear (left onboard from the previous cruise) was not possible. However, over the weekend the vehicle and control systems were installed onboard, and necessary modifications made to the stern gantry.

The vessel was fully prepared for putting to sea on the Monday but gale force winds prevented this. Sea trials commenced the following morning and continued without interruption until the evening of the 11 September when the vessel was offloaded allowing her to start for Crinan early on the following morning.

RESULTS

Through a range of operating conditions measurements were made of vehicle depth together with roll and pitch angles. Tension was also measured simultaneously on deck and underwater at the vehicle tow bar. The following table is an extract from the information obtained.

Cable length (M)	Speed (Knots)	Depth (M) reached when powered	Tension: (Kg) on deck at vehicle	
200	3	72	223	172
200	4	52	325	264
200	5	45	447	376
300	3	104	244	162
300	4	78	336	244
300	5	67	437	336
360	3	119	275	173
360	4	91	356	256
360	5	77	478	356

Component parts of the system were tested over many hours and a new digital control for remotely switching instruments attached to the vehicle was proved. The television picture was much improved and at no time was any discernible noise showing up on the TV monitors.

Of the 3 firms invited to participate in these sea trials only the one, Norland RCV Systems Ltd, put forward a vehicle; it's performance can now be compared with the model used by the laboratory in observing fish and fishing gear.

R Priestley

24 October 1984

Seen in draft: D Findlay