

*Indexed
AR*

26

R1/10

PB

Not to be cited without prior reference to the Laboratory

3GR86

FRV "Goldseeker"
Cruise 3/86

Report

4-24 February 1986

Personnel

Part 1 4-14 February

G Urquhart	PSO (in charge)
A MacDonald	PTO III
J Hunter	PTO IV
N Collie	PTO IV

Part 2 15-24 February

G Urquhart	PSO (in charge)
R Mitchell	HSO
G Booth	SO
R Ferro	SSO (15-19 February)
C Hall	HSO (21-24 February)

Objectives

Part 1

- 1 Tests on new rope angle meters for measurements on seine net ropes.
- 2 Trials of digital spreadmeter system modified for long range operation on pair trawls and seine nets.
- 3 Evaluation of Scanmar distance measuring equipment (on loan) for use as a spreadmeter system.
- 4 Testing and calibration of offset range depthmeters.
- 5 Testing of newly constructed and refurbished underwater tension meters.
- 6 Trials with self recording deck instrumentation developed for operation on commercial vessels.

Part 2

- 1 Calibration of speed logs.
- 2 Trials with enhanced gear data logging computer system.
- 3 Evaluations of prototype fishing activity recorder.
- 4 Investigation of the velocity distribution inside a net.
- 5 Drag and velocity measurements on PT 163 codend and extension.

Narrative

On 3 and 4 February the motor launch "Shuna" was placed on the low loader, heavy equipment for "Goldseeker" was loaded on the lorry and electronic equipment loaded on the mobile laboratory and its towing vehicle. The lorry travelled to Muirton to meet "Goldseeker" while the mobile laboratory was taken to Fort Augustus. After transferring loads "Goldseeker" proceeded to Fort Augustus.

On 5 February, "Shuna" was launched at Muirton and steamed to Fort Augustus where "Goldseeker" had already begun trials. A number of tests were successfully carried out using both vessels on parallel course.

The staff changed over as planned on 15 February and part II of the programme got under way. Towards the end of the cruise some equipment had to be transferred to another research cruise and some members of staff departed early because of a staff inspection in the Laboratory.

"Goldseeker" returned to Muirton on 24 February and the mobile laboratory returned to Aberdeen. "Shuna" remained at Fort Augustus and was returned to Aberdeen on 27 February.

Results

Part 1

- 1 The electronics of the rope angle meter worked well but it became clear that minor mechanical modifications were required to the attachment and towing arrangements.
- 2 One Marine Laboratory acoustic spreadmeter set was modified, tested and calibrated for maximum range.
- 3 Due to limitations in the software supplied, the distance measuring system ~~could be calibrated only over a limited range but the uplink of data was~~ achieved over a distance of approximately 1 mile in good conditions.
- 4 and 5 Depth meters and tension meters were successfully tested and calibrated.
- 6 The portable deck unit was tested and some reliability problems were identified.

Part 2

- 1 A number of calibration runs were made but considerable difficulties were experienced in obtaining a sufficiently straight course for the method to be valid. Some data had to be rejected for this reason.
- 2 The new computer system was not ready in time for any tests to be made.
- 3 The fishing activity recorder gave good results and further development will take place.

4 and 5 A method was devised for attaching speed logs inside and outside the codend simultaneously so that comparative measurements could be made. Some interesting and important results were obtained and further development of the technique will be undertaken.

G Urquhart
2 September 1986

Seen in draft: A Mair