

Provisional: not to be quoted without reference to the writer

R.V. ERNEST HOLT

Report for Cruise 1(b) 1967

Staff:

- R. B. Mitson
- G. P. Fox
- W. L. Huggins
- C. R. Hood
- N. D. Pearson
- E. Allison (W.F.A.)

Duration:

27 January-3 February

Aims:

1. To carry out tests of the acoustic arch headline system.
2. Test the F.M.T.D. system with X-Y plotter.
3. Use the high-powered 100 Kc/s echo sounder.

Weather conditions were bad. It was impossible to start work south west of Plymouth as had been intended. The District Inspector of Fisheries, Mr. Williams, visited the ship and suggested an area off Torbay which would give some shelter against the force 9 S.W. wind. The Captain of SARSIA also visited ERNEST HOLT and arranged for Skipper Argumont to meet SARSIA's skipper to discuss clear trawling grounds in the area.

Captain Binnington and I were taken by SARSIA's Captain to the Marine Biological Laboratory and shown around. We also spoke further to the District Inspector who gave us positions from which recent fish landings had been made.

ERNEST HOLT left Plymouth at 1620 hrs, 27 January after some delay due to refuelling. After a rough passage the first of the recommended areas was reached at 1930 hrs. An echo survey revealed diffuse fish traces from sea bed to within 5 fathoms of the surface. The wind was still force 7, so it was decided to lie for the rest of the night and rig equipment on the trawl next day.

The first haul was made during the afternoon of 28 January. Good results were obtained by all but one of the headline units. No fish were seen to enter the net but $\frac{1}{2}$ basket of flatfish were caught. The trawl was shot again at 0730 hrs, 29 January but with a steadily increasing wind and a local forecast of force 9, the gear was hauled at 0900. Only 10 minutes' record was taken at the start of this tow before a power failure stopped the recording. Two cod and a few flatfish were caught. ERNEST HOLT anchored in Torbay in company with a dozen or so vessels.

It was possible to start trawling again at 0830 hrs, 30 January. A tow of 50 minutes showed fair results on 3 channels of the equipment. On hauling it was found that the units were tilted, so the lashings were re-arranged. A temperature-depth probe lowering was made whilst the trawl units were being adjusted.

Near the end of trawl haul No. 3 a fault occurred in the slipping winch. It was decided that the winch barrel should be completely dismantled for inspection. Whilst this work was carried out the ship steamed to the Hurd Deep where aim 2 was completed.

After this ERNEST HOLT returned to the previous fishing ground, where the work of winch repair and cable rewinding continued. Meanwhile the high-powered H.F. echo sounder was prepared for use with the narrow beam transducer.

The transducer was mounted in a high speed tow net and towed on a warp. A towing block was fitted aft for this purpose and the ship was able to steer a straight course with this arrangement. Good results were obtained with a high degree of target resolution. Later the transducer was towed looking sideways.

A number of trawl hauls were made with the acoustic arch on 1 February and records taken. No fish were detected, but an average of 1 basket of large cod were caught per haul.

The towed transducer was used for several hours during the evening of 1 February. Work ceased and the ship set course for Grimsby just after midnight.

Mr. Fox collected livers from many species of fish for Mr. Iles. ERNEST HOLT docked in Grimsby at 1130 hrs on 3 February.

R. B. Mitson
8.2.67

Seen in draft:

E. A. Binnington
G. W. Argumont
A. J. Lee

Distribution:

Dr. Cole	Mr. Simpson
Mr. Lee	Dr. Reynolds
Captain Aldiss	Chief Inspector
Dr. Cushing	All District Inspectors
Mr. Bolster	Fisheries Registry
Mr. Burd	Captain Binnington
Mr. Cattley	Mr. Tector
Mr. Corlott	Skipper Argumont
Mr. Garrod	Mr. Burgess
Dr. Harden Jones	Mr. Baird, D.A.F.S.
Mr. Iles	Prin. Inf. Officer, D.A.F.S.
Dr. Jamieson	Mr. Glover
Mr. Margetts	Dr. Grant
Mr. Trout	Hydrographic Department
Dr. Purdom	Dr. Lovern
Mr. Bridger	Dr. Lucas
Mr. Mitson	Director N.I.O.
Mr. Tungate	Dr. Peachey
Mr. Williams	Mr. Shelbourne
Mr. Wood	Mr. Steele
Mr. Adams	White Fish Authority
Mr. Mills	Director, Bergen
Mr. Kay	Mr. Joensen
Miss Conolly	<u>Director, Reykjavik</u>
General Lab.	Mr. Fox
Lab. Registry	Mr. Huggins
Library (2)	Mr. Hood
Mr. Whiting	Mr. Pearson
ERNEST HOLT file (N.I.C. next cruise)	Mr. Allison (W.F.A.)