SW

MINISTRY OF AGRICULTURE, FISHERIES AND FOOD
FISHERIES LABORATORY, LOWESTOFT, SUFFOLK, ENGLAND

1975 RESEARCH VESSEL PROGRAMME

REPORT: RV CIROLANA: CRUISE 1

(PROVISIONAL: Not to be quoted without prior reference to the author)

PART A

STAFF

S J Lockwood	C R Hood
M G Pawson	N D Pearson
H R Stewardson	L Cox

DURATION

Left Grimsby 0900 h 3 January

Arrived Plymouth 0730 h 13 January

LOCALITY

Western English Channel

AIMS

1. Tests of acoustic equipment performance.

2. Measurements of signals returned from pelagic fish.

3. To investigate the reaction of mackerel to a mid-water trawl (with CLIONE and ARL Scanner).

4. To investigate the reaction of pelagic fish to a towed underwater camera (with CLIONE and ARL Scanner).

NARRATIVE

Staff embarked at Grimsby 2 January, CIROLANA sailed 0900 h 3 January and arrived at the anchorage off Brixham, Tor Bay 1645 h 4 January. CIROLANA remained at the anchorage until 0700 h 7 January during which time tests and measurements of the 30 KHz towed body transducer were made. CIROLANA steamed from Tor Bay to Mevagissey Bay anchorage stopping for a few hours 3-4 miles off Fowey to catch live mackerel for target strength measurements. These measurements, along with other acoustic tests were made in Mevagissey Bay on 8-11 January.

During the afternoon of 9 January the combined exercise with CLIONE to observe the underwater camera was carried out 3-4 miles off Fowey. During the afternoon of 10 and the morning 11 January a survey of shoals to measure signal attenuation was made. At 1630 h 10 January CIROLANA rendezvouzed with CLIONE in Plymouth sound to embark Dr Johnson and Mr Dann before returning to Mevagissey Bay. CIROLANA was forced to dodge during the nights of 10 and 11 January because of strong southerly winds.

At 0900 h 12 January CIROLANA entered Plymouth Sound where she anchored to enable final transducer tuning to be carried out.

Anchor was weighed at 0710 h 13 January and Mill Bay dock Plymouth entered at 0730 h 13 January.

RESULTS

1. Measurements were obtained of the towed body 30 KHz transducer beam pattern, receiver sensitivity, source level and impedance at varying frequency (circle diagrams), In addition circle diagrams and noise measurements were obtained for the hull transducer.

2. Target strengths of various sized floats and varying mackerel densities within a test cage were measured. Attempts to measure signal attenuation within mackerel shoals were unsuccessful as no suitably large shoals were found.

3. No trawling was carried out during this part of the cruise.

4. CLIONE was able to follow the towed underwater camera with the ARL Scanner.

Stephen J Lockwood
12 January 1975

SEEN IN DRAFT: T H Finn
G W Argumont

INITIALLED: AJL

DISTRIBUTION:

Basic list +

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