

IN CONFIDENCE:

CRUISE PROGRAMME

FRS "EXPLORER"

11 August - 12 September 1970

SCIENTIFIC STAFF

<u>Parts 1 and 2</u>	D N MacLennan	SSO (in charge)
	S T Forbes	SSO (Part 1 only)
	M J D Mowat	SEO
	C Moir	HEO
	R Priestley	EO
	D Cattanaoh	EO
	A Ranachan	SA
	S A Headley	SA (Part 2 only)
	W R Leys	TO III
	A MacDonald	TO III
<u>Part 3</u>	J J Foster	PSO (In charge)
	M J D Mowat	SEO
	C Moir	HEO
	R Priestley	EO
	D Cattanaoh	EO
	R Galbraith	SA
	S A Headley	SA
	W R Leys	TO III
	A MacDonald	TO III

OBJECTIVES

Part 1 (11 - 15 August)

(a) The 920C computer and associated instrumentation system will be operated with an Engels pelagic gear. Calibration data will be obtained for the system. The recently installed Simrad echosounder, and the Furuno netsonde, will be tested under trawling conditions.

(b) The 48 ft "standard" trawl will be fished and reference engineering data obtained for comparison with past results.

Part 2 (16 - 29 August)

(a) A survey will be carried out of the St Kilda area to locate concentrations of pelagic fish, principally herring. The Engels gear will be used to sample shoals detected by echosounder.

(b) The Engineering performance of the Engels gear will be studied, with particular reference to its manoeuvrability and aimed trawling.

(c) If time permits a wide opening bottom gear will be fished and its performance calculated to isolate any variations in its operating characteristics from design figures.

Part 3 (30 August - 12 September)

(a) The work with the wide opening gear will be continued and extended to include a study of the effect of alternative rigging arrangements on performance. The problems associated with maximising horizontal net opening on a large gear will be investigated.

(b) The performance studies on the pelagic gear will be continued.

PROCEDURE

On arrival in Aberdeen, the computer system will be installed aboard and a set of conductor cored trawl warps fitted on to the winch. At the beginning of Part 1 a number of runs will be made over the measured mile in Aberdeen Bay, to calibrate the electro-magnetic log. The ship will then operate in the Fladen area, returning to Aberdeen on or about 15 August.

The ship will then proceed to the St Kilda area for Part 2 of the cruise. Depending on the results obtained in this part, in terms of the concentration of herring found in the area, the ship may remain in the St Kilda area for Part 3. In this case the staff change over between parts will take place in Stornoway on or about 29 August. But if the pelagic fishing is light, the change will take place in Aberdeen and Part 3 will operate in the Fladen area. The decision on the port of call for the change over will be made by 25 August at the latest, to allow the necessary administrative arrangements to be made.

Normal contacts with the laboratory will be maintained.

J H FRASER

4/8/70