

## CRUISE REPORT

F.R.S. "EXPLORER"

12 August - 1 September 1976

Personnel:	R D Galbraith	SO (in charge)
	E S Strange	HSO
	A Naha	SO
	E Wright	ASO
	W R Leys	PTO IV
	A MacDonald	PTO IV
	W Gray	PTO IV
	A Grant	HCO

Objectives

To conduct full scale instrumented gear trials with three of the larger versions of the Laboratory Four Panel Trawl, i.e. versions suitable for vessels of 1400, 1000 and 600-800 HP. Various rig and door combinations were used to study the engineering performance and gear geometry of each net. Shipboard parameters were recorded using the 920C computer on-line data logging facility while underwater measurements were obtained by conventional self recording instruments.

Narrative

"Explorer" sailed from Aberdeen at 1730 on 12 August and completed speed log calibrations on the measured mile in Aberdeen Bay before setting off for the East Shetland grounds later that evening. Work commenced in the Balta area the following evening and continued until the evening of 17 August when "Explorer" shifted grounds to undertake deep water trials N.W. of Flugga. Six hauls were carried out in this area before "Explorer" returned to Balta on the morning of 20 August. The shallow water work continued until the morning of 23 August when "Explorer" entered Lerwick for the mid cruise break.

On leaving Lerwick at midday on 24 August "Explorer" returned to the Balta area and worked there until the evening of 25 August before continuing deep water work N.W. of Flugga on 26 and 27 August. The remainder of the cruise was spent in the Balta area and "Explorer" steamed south on 30 August, docking in Aberdeen on the morning of 1 September.

Results

A total of 43 hauls, 41 of which were fully instrumented, were carried out and the results are meantime undergoing computer analysis. It is intended that in addition to establishing the engineering performance and gear geometry of each net and rig tested these results, together with earlier data obtained on cruises on both "Mara" and "Clupea", will be used to produce an improved theoretical net drag formula for the whole series of Laboratory Four Panel Trawls.

R.D. Galbraith  
7 October 1976

Seen in draft - F.D. Orr