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Attn.

In Confidence - Not to be quoted without reference to the Laboratory

2GR82

FRV "Goldseeker"

Cruise 2/82

REPORT

15 February - 5 March 1982

### Objectives

#### Part I

- 1 To make diving observations on the behaviour and operation of a sledge carrying TV and photographic cameras when towed over a mud bottom.
- 2 To calibrate the field of view of the cameras.

#### Part II

- 3 Trials of RCTV system.

### Narrative

The sledge and TV cable were loaded in Aberdeen at the end of the previous cruise. The remainder of the camera equipment was loaded in Buckie on 15 February and the sledge was fitted up during the passage to Invergordon. For part I of the cruise "Goldseeker" was based at Invergordon working on a daily basis with the diving team staying ashore. Most diving observations were made on the sledge towed on Nephrops grounds off Nairn in 25-30 m depth. The weather was exceptionally good and the programme was completed on 25 February, when "Goldseeker" returned to Buckie.

Storage for diving gear was kindly made available by the RN Fuel Oil Storage Depot at Invergordon Harbour.

The RCTV vehicle for part II was loaded and made ready on 1 March and trials of the vehicle in the vicinity of Buckie commenced on 2 March. Mr L Dominy (AUWE) attended the trials as an observer. The cruise ended at Buckie on 5 March.

### Results

#### Part I

By descending the towing warp divers were able to make useful observations on the sledge on five occasions. At the end of these dives a buoyed line was released to mark the tracks of the sledge in the mud. Once the disturbed mud had cleared the tracks were examined, measured and on one occasion, cast in

polyester resin. The 200 mm wide sledge runners left distinct tracks on the mud but surprisingly there was little sinking into the mud. The Hassalblad Camera was calibrated by (a) photographing 30 cm plastic strips dropped in front of the sledge by the divers and (b) by towing the sledge across the tracks and photographing them. 95 photographs were taken and six video cassettes recorded. These are being analysed.

## Part II

This part of the cruise was restricted by bad weather to two working days but useful observations of the RCTV were made. The results are being evaluated.

C J Chapman  
R Priestley  
27 April 1982