# R.V. FRANKLIN

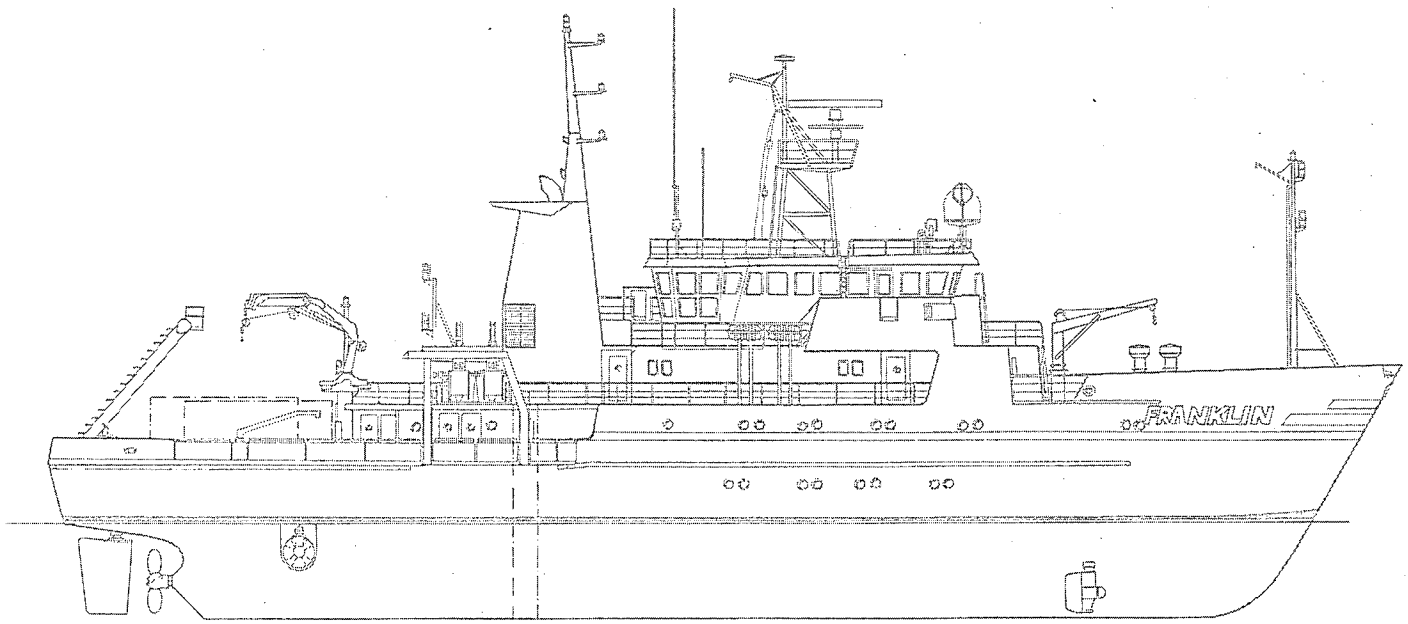
## NATIONAL FACILITY

## OCEANOGRAPHIC RESEARCH VESSEL

CRUISE PLAN

R.V. 'FRANKLIN'

FR 7/87




Mr Alistair Paul
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**For further information contact**

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AUSTRALIA

R.V. FRANKLIN IS OWNED AND OPERATED BY CSIRO

Cruise Plan
R.V. Franklin
FR7/87

Itinerary

| | | |
|---|---|---|
| Depart Fremantle: | 0800Hrs | 4 August 1987 |
| Arrive Fremantle: | 0800Hrs | 25 August 1987 |

Scientific Program

This is the last of a series of cruises in the Leeuwin Current Interdisciplinary Experiment (LUCIE). This experiment is a study of the dynamics of the Leeuwin Current which seasonally flows southward along the coast of Western Australia then turns eastward at Cape Leeuwin.

Principal Investigator

Dr. J.A. Church
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Cruise Objectives

1. Recover all LUCIE moored instruments. These include 6 shelf-edge pressure gauge/current meter moorings, 8 current meter moorings on two cross-shelf lines, and two meteorological buoys.

2. Complete at least 6 CTD sections normal to the coast, each 120 n. miles in length.

3. Complete a north/south CTD section along longitude 113°E between the 34°S and Dongara CTD sections.

4. Short CTD sections (3 casts) will be completed across each pressure gauge site before mooring recovery.

Cruise Track

A proposed cruise track is shown in Figure 1. The order of events depends on weather to a large degree, but we will first attempt to recover Cape Naturaliste pressure gauge, then the current meter moorings and meteorological buoy on the 34°S line. Two CTD sections will

then be completed, at 116°E and Albany, and a pressure gauge recovered on the 116°E section.
Next, three CTD sections will be completed with casts to the bottom, forming a closed box with the coast. The ship will then be in a position to recover all moorings on the Dongara line and the two outlying pressure gauge moorings. After these operations, there remain two CTD sections to complete and two pressure gauge moorings to recover at Carnarvon and North West Cape, before returning to Fremantle.

If sufficient time remains, additional CTD work will be undertaken at Geraldton or Beagle Islands on the way south to Fremantle.

ORV Equipment Required

All standard instrumentation. It is essential that the aft deck and hold be clear - no containers.

Time Estimates

| | |
|---|---|
| Steaming @ 11kt | 6.6 days |
| CTD stations (78) | 9.0 days |
| Mooring ops. | 1.6 days |
| Weather allowance | 2.8 days |
| Total | 21.0 days |
| Time available | 21.0 days |

Personnel

A. Forbes (Chief Scientist)
N. White
F. Boland
K. Miller
D. Mclaughlan
J. Butt
E. Madsen
R. Beattie
R. Plaschke
M. Rayner

This Cruise Plan is in accordance with the directions of the National Facility Steering Committee for the oceanographic research vessel RV 'Franklin'.

A.D. McEwan
CSIRO Division of Oceanography

D.H. Green
National Facility Steering Committee

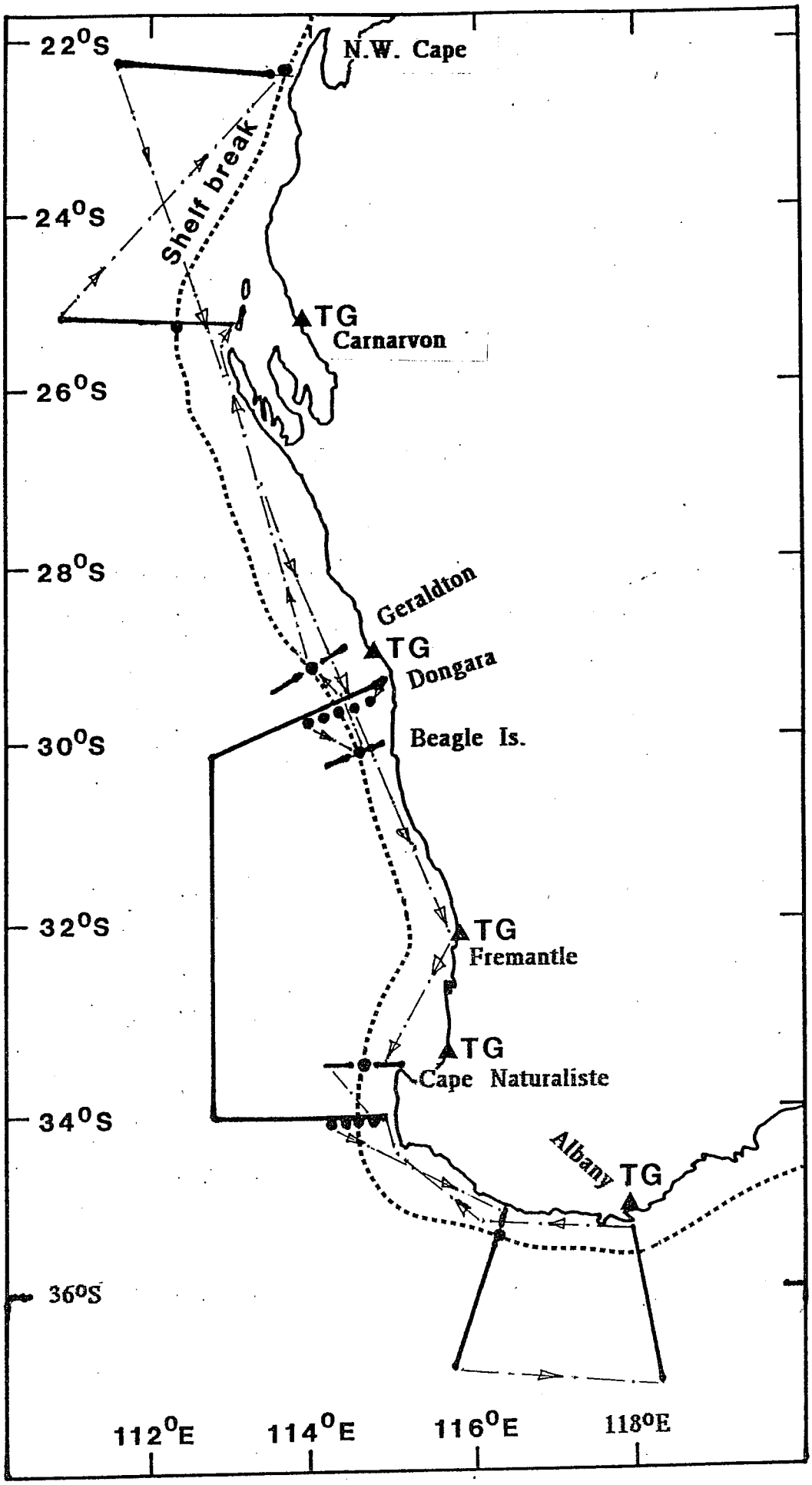


Figure 1. Proposed cruise track ——·——·——

Moorings ●

CTD sections ——