

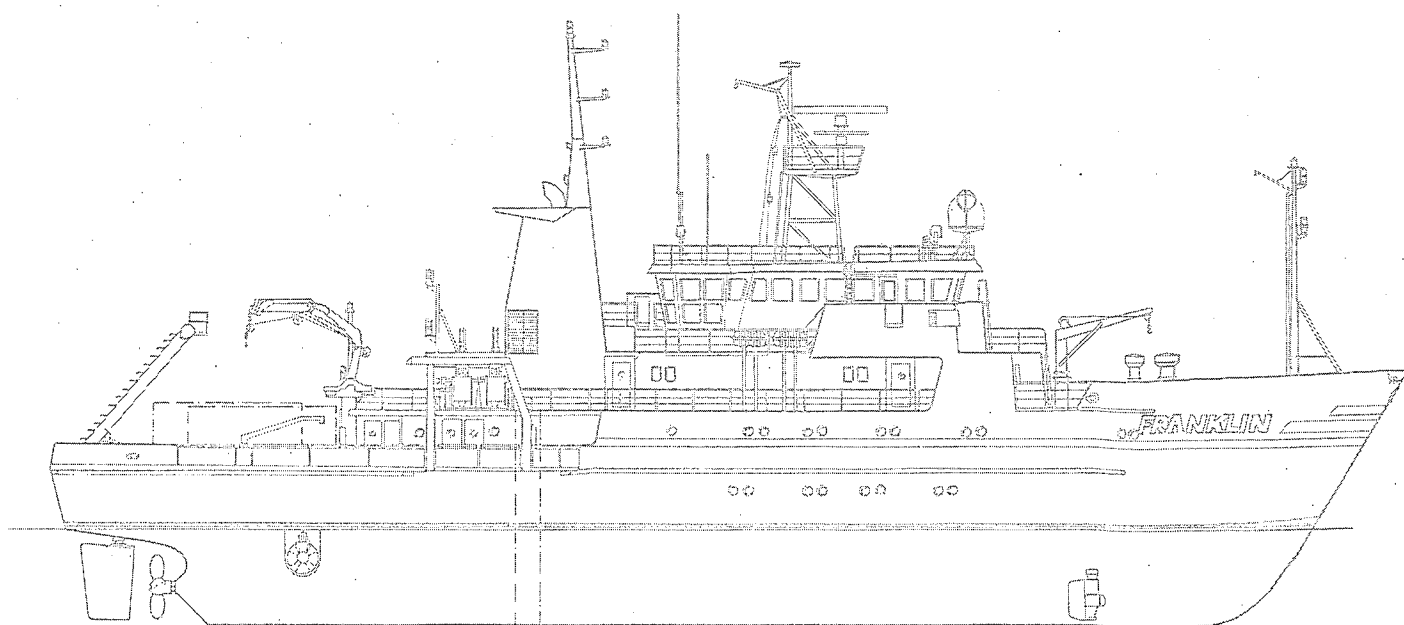
R.V. FRANKLIN

NATIONAL FACILITY
OCEANOGRAPHIC RESEARCH VESSEL

CRUISE PLAN

R.V. 'FRANKLIN'

FR 4/87



Alistair Paul,
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R.V. FRANKLIN IS OWNED AND OPERATED

GAM/TMG

CRUISE PLAN
R.V. 'FRANKLIN'
FR 4/87

ITINERARY

Depart Fremantle:	0800 hrs	12 March 1987
Arrive Port Hedland:	1200 hrs	29 March 1987

SCIENTIFIC PROGRAM

This is the third of a series of cruises in the Leeuwin Current Interdisciplinary Experiment (LUCIE). This phase of LUCIE will observe hydrographic properties (temperature, salinity, phosphate, nitrate, silicate, current velocity) in the Leeuwin Current and adjacent open ocean. The magnitude of advection and mixing processes which change properties will be estimated by comparison to other surveys as the flow strengthens in winter. Sea surface biology (phyto- and zooplankton) will also be sampled.

PRINCIPAL INVESTIGATOR

Dr G. Meyers
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CRUISE OBJECTIVES

1. 115 CTD/Nutrient stations along cruise track (Fig. 1)
2. Continuous ADCP along cruise track
3. Temperature survey in areas between XBT tracks monitored routinely by volunteer observing ships (Fig. 1)
4. Calibration of SEAS and Franklin XBT systems
5. Biological stations at sunrise and at selected stations
6. Internal tides experiment - NW Shelf

O.R.V. EQUIPMENT

CTD, ADCP, GPS, AutoAnal., Salinom., O₂-Anal., Sci. Sounder, Thermosal., XBT,
? → SDL, Biol. Container, Scintillation Counter (Note: some CTD stations will
reach 4000m depth requiring reversing thermometers with small range, expanded
scale).

EQUIPMENT PROVIDED BY USERS

Biological sampling equipment.

PERSONNEL

G. Meyers (Chief Scientist)	CSIRO Division of Oceanography
S. Godfrey (Co-chief Scientist)	CSIRO Division of Oceanography
G. Harris	CSIRO Division of Fisheries Research
R. Beattie	CSIRO Division of Oceanography
D. Edwards	CSIRO Division of Oceanography
B. Griffiths	CSIRO Division of Fisheries Research
R. Griffiths	CSIRO Division of Fisheries Research
R. Plaschke	CSIRO Division of Oceanography
K. Ridgway	CSIRO Division of Oceanography
T. Holdway	University of Sydney
Student	University of Sydney
Student	University of Tasmania

CRUISE TRACK

Fremantle - Port Hedland as in Fig. 1. The tidal experiment will be located
in the vicinity of North Rankin platform for a period of 12-24 hours,
depending on available time.

TIME ESTIMATES

Steaming @ 11kn	9.6 days
CTD Stations	6.1 days
Biological Stations	0.4 days
Internal tides exp.	1.0 days

Total	17.1 days
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A.D. McEwan
CSIRO Division of Oceanography



D.H. Green
National Facility Steering Committee

