

FRANKLIN

National Facility
Oceanographic Research Vessel
Research Plan

FR06/96

Sail Dampier 1000 Saturday 1 June 1996
Arrive Fremantle 1000 Tuesday 11 June 1996

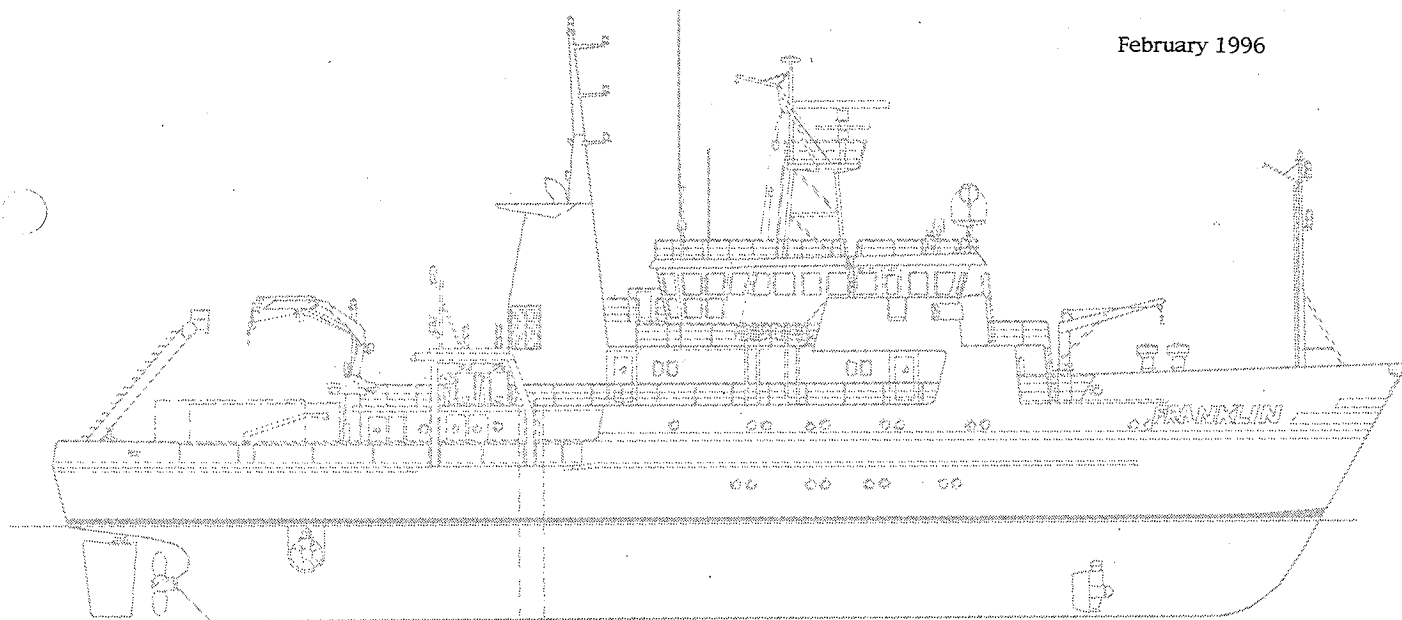
SEASONALITY OF OCEAN TRANSPORT IN THE LEEUWIN
CURRENT

Principal Investigators

Prof. M. Tomczak
Flinders Institute for Atmospheric and Marine Sciences

Dr. J. Church
Dr S Wijffels
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February 1996



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RESEARCH PLAN

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CURRENT

Itinerary

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Arrive:	Fremantle	1000	Tuesday	11 June 1996

Principal Investigators

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Scientific Programme

To determine the seasonality of the Leeuwin Current near 20°S and thus the variability in southward oceanic heat flux near north-western Australia, by measuring the current's transport and water mass characteristics using current meters (an Australian contribution to WOCE).

Cruise objectives

To retrieve all instrumentation from current meter array ICM6 of the World Ocean Circulation Experiment (WOCE).

To complete a CTD/ADCP/nutrient section along the line of ICM6 moorings and into deeper water.

Cruise track

RV *Franklin* will proceed from Dampier to 21°55'S, 111°49'E about 50 nautical miles offshore from the westernmost mooring of ICM6 (mooring 6); the position 21°55'S, 111°49'E will be the location of the

first CTD station. The ship will then proceed in a direction just south of east along the mooring array, retrieving instrumentation during daylight hours and performing CTD stations during night. On completion of instrument retrieval the ship will proceed to Fremantle.

ORV equipment required

All standard equipment including ADCP, 24 bottle rosette, ACR deck unit, Aanderaa tape reader.

A clear deck is required for the mooring work (no container labs), and large storage space is essential.

Equipment to be provided by users

Backup ACR units

Time estimates


Steaming time Dampier to work area	1.0 days
Mooring recovery	3.5 days
Safety margin for mooring recovery	1.0 day
CTD station time and waiting for daylight	2.0 day
Steaming time work area to Fremantle	2.5 days
Total time	10.0 days

Personnel

Susan Wijffels	CSIRO DO	Chief Scientist
Anna Lebedeva	FIAMS	
Colin Andrew	FIAMS	
Michael Schodlok	FIAMS	
Marion Tait	FIAMS	
Ian Helmond	CSIRO DO	
Kevin Miller	CSIRO DO	
Danny McLaughlin	CSIRO DO	
Dave Edwards	CSIRO - ORV	Cruise Manager
Bernadette Heaney	CSIRO - ORV	
Bob Griffiths	CSIRO - ORV	
Craig Macaulay	CSIRO - DO public relations	

This research plan is in accordance with the directions of the National Facility Steering Committee for the oceanographic research vessel *Franklin*.

C.B. FANDRY
CSIRO Division of Oceanography


G.W. PALTRIDGE
National Facility Steering
Committee

