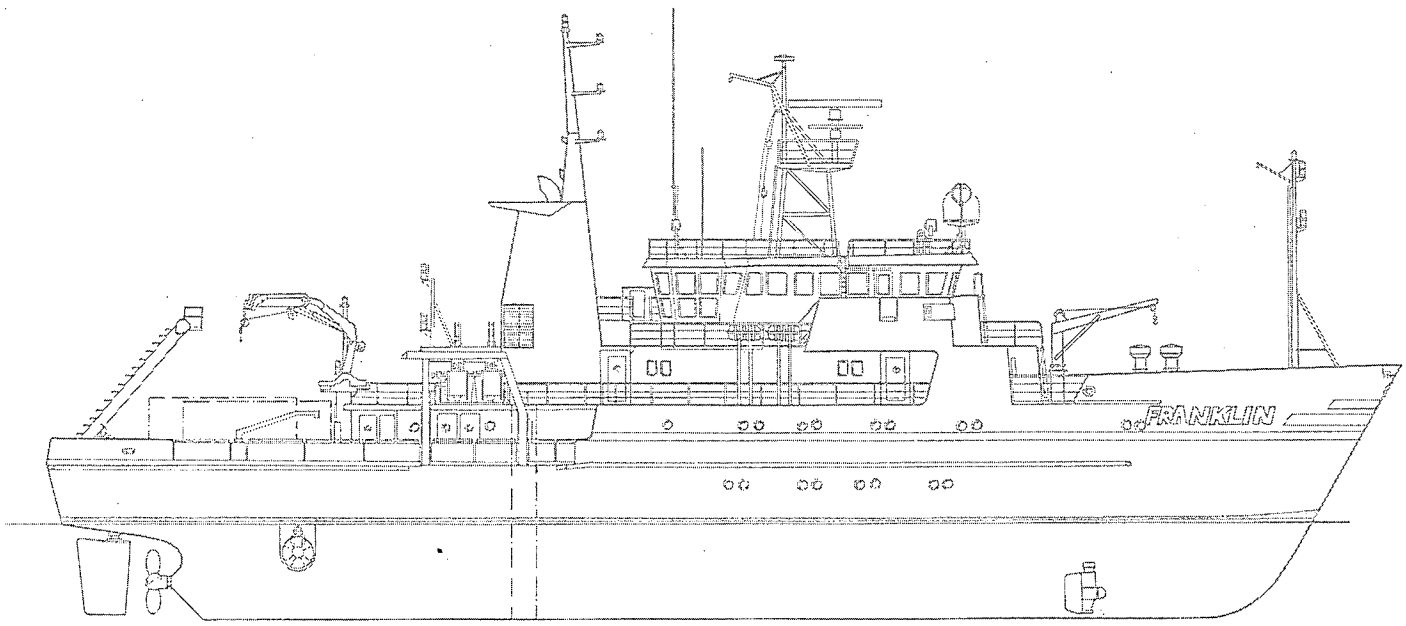
R.V. FRANKLIN

NATIONAL FACILITY
OCEANOGRAPHIC RESEARCH VESSEL

CRUISE PLAN

R.V. 'FRANKLIN'

FR 6/87



Mr Alistair Paul
CSIRO Division of Oceanography
Hobart, Tasmania

For further information contact

ORV Operations Manager
c/- CSIRO Division of Oceanography
GPO Box 1538, Hobart, Tas. 7001
Telephone (002) 20 6222
Telex AA 57182

AUSTRALIA

R.V. FRANKLIN IS OWNED AND OPERATED BY CSIRO

TJM/NP

27 April 1987

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ITINERARY

Depart Fremantle:	1000 hrs	Tuesday	2 June 1987
Arrive Fremantle:	1600 hrs	Tuesday	23 June 1987

SCIENTIFIC PROGRAM

LUCIE : Microscale turbulence and the momentum and heat budgets, and
LUCIE : Circulation features of the Southwest corner of Australia

PRINCIPAL INVESTIGATORS

Dr T. McDougall
CSIRO, Division of Oceanography
GPO Box 1538
HOBART TAS 7001

Dr George Cresswell
CSIRO, Division of Oceanography
GPO Box 1538
HOBART TAS 7001

CRUISE OBJECTIVES

The first objective is to obtain a sufficiently large data set for calculating representative interfacial stresses and density fluxes and to attempt a parameterization of these fluxes. This will involve towing Bunyip, with the turbulence-measuring microfish, and concentrating in regions of high vertical shears at the edges of eddies. These features will be investigated in three geographical areas (subject to the presence of the eddies) (i) off Geraldton, (ii) west of Cape Leeuwin and (iii) south of Albany.

The second objective is to provide a detailed three-dimensional description of the Leeuwin Current when it is running most strongly, concentrating in the region south of Geraldton. We expect results from the Doppler Acoustic current Profiler to provide new, and very interesting contributions to this description. These data will be used in conjunction with the CTD, real-time satellite imagery of the sea surface temperature, and several ARGOS-tracked surface drifters.

CRUISE TRACK

The cruise track will consist of several cross-shelf transects of the Leeuwin Current from Geraldton to Albany in addition to much time spent following the evolution of frontal features aided by satellite images and drifting buoys.

O.R.V. EQUIPMENT REQUIRED

Bunyip, including winch, seasoar and deck electronics, CTD, ADCP, GPS, Salinometer, O_2-Anal., Autoanalyser, Sci. Sounder, Thermosalinograph, XBT.

PERSONNEL

Trevor McDougall (Chief Scientist)	CSIRO,	Division	of	Oceanography
George Cresswell (Co-Chief Scientist)	"	"		"
Lindsay Pender	"	"	"	"
Ian Helmond	"	"	"	"
Paul Boult	"	"	"	"
Stuart Swan	"	"	"	"
Mike Meerding	"	"	"	"
Jan Peterson	"	"	"	"
Leigh Carter	"	"	"	"
Gary Critchley	"	ORV	Support	Staff
Erik Madsen	"	"	"	"
Ken Suber	"	"	"	"

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