

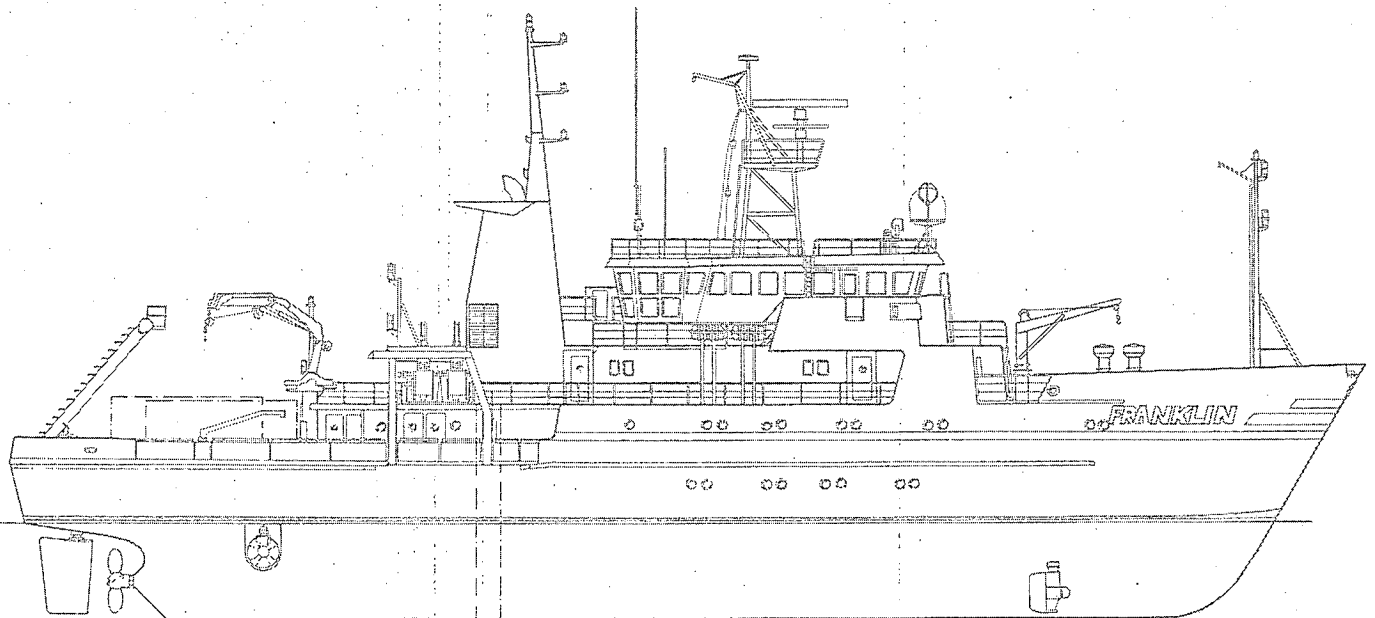
# R.V. FRANKLIN

NATIONAL FACILITY  
OCEANOGRAPHIC RESEARCH VESSEL

CRUISE PLAN

R.V. 'FRANKLIN'

FR 4/86



For further information contact

ORV Operations Manager

c/- CSIRO Division of Oceanography

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R.V. FRANKLIN IS OWNED AND OPERATED BY CSIRO

MT/NP

22 January 1986

**CRUISE PLAN  
RV 'FRANKLIN'  
FR 4/86**

**Itinerary**

Depart Townsville 1000 hrs Tuesday 20 May 1986  
Arrive Sydney 1600 hrs Sunday 8 June 1986

**Scientific Program**

**Origin of water masses in the eastern Coral Sea**

**Principal Investigators**

Dr M. Tomczak  
Marine Studies Centre  
The University of Sydney  
Sydney NSW 2006  
Tel: (02) 692 2003

**Cruise Objectives**

To complete CTD stations along sections in the eastern Coral Seas as outlined in Figure 1, to establish the horizontal distribution of the salinity maximum at the top of the thermocline, and to establish the path of the high-salinity water into and within the eastern Coral Sea.

**Cruise Track**

As shown in Figure 1. From 20°S, 160°E the ship will leave for Sydney, with no further stations on the way. If time permits, this departing point from the study area will be moved southward along 160°E and more CTD stations will be taken along 160°E following station 65 at one degree latitude intervals.

**R.V. Equipment**

Inmarsat  
Scientific sounder  
CTD and recorder  
Rosette (5 litre Niskins)  
Thermometers  
Thermosalinograph

Salinometer  
Oxygen analysis equipment  
Autoanalyser  
Acoustic doppler current profiler

### Equipment provided by Marine Studies Centre

Smart CTD with HP85 computer and portable winch

### On Board Analysis

On each CTD station samples will be taken for salinity, oxygen, nitrate, phosphate and silicate, with twelve bottles per cast (estimated total of samples ca. 800).

### Time Estimates

Townsville to station 1 (steaming)	2.6 days
Station 1 to station 65 (steaming)	10.8 days
Station time (65 stations at 1 hour)	2.7 days
Station 65 to Sydney	3.2 days
	<hr/>
	19.3 days

### Personnel

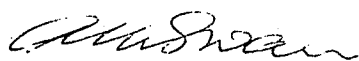
Marine Studies Centre, University of Sydney

Matthias Tomczak (Chief Scientist)  
Gu Yuhe (Y.H. Gu)  
Julie Padman  
Janet Sprintall  
Daniel Large  
Bohdan Pillich

CSIRO Marine Laboratories

Bob Edwards (Cruise Manager)  
Eric Madsen  
David Terhell  
Mark Rayner

This cruise plan is in accordance with the directions of the RV 'Franklin' Steering Committee.



A.D. McEwan  
Chief,  
Division of Oceanography



D.H. Green  
Chairman,  
National Facility Steering Committee

# Franklin Cruise FR 4/86

