

# R.V. FRANKLIN

NATIONAL FACILITY  
OCEANOGRAPHIC RESEARCH VESSEL

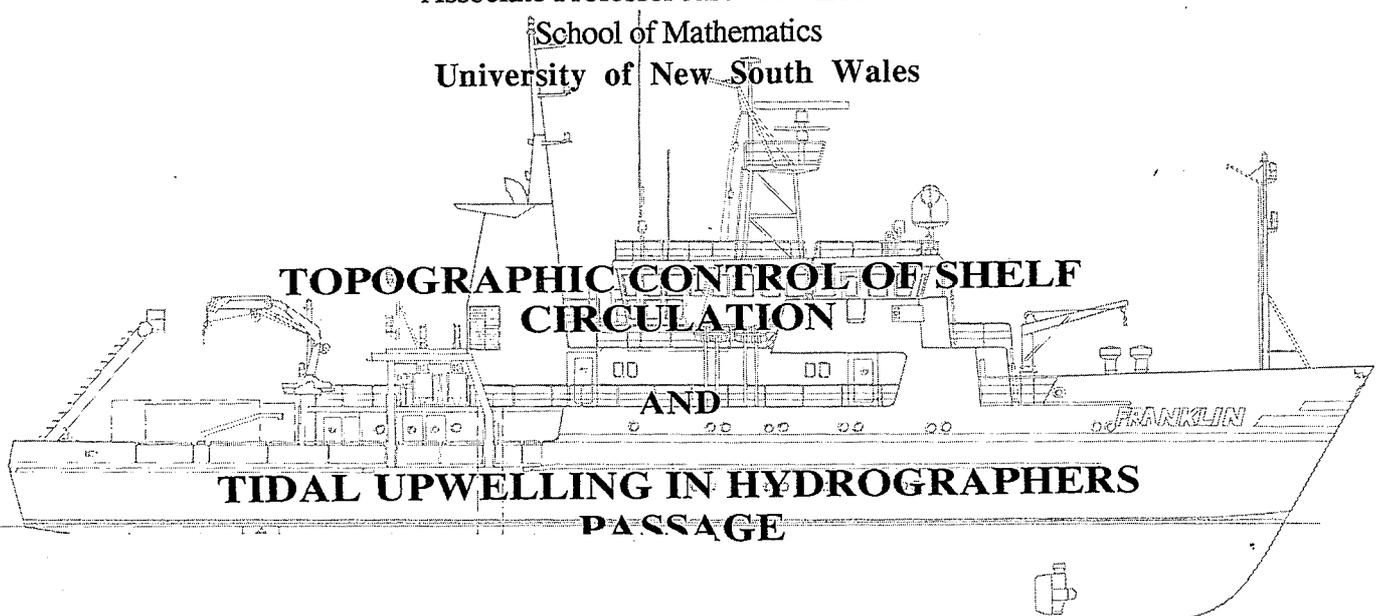
RESEARCH PLAN

CRUISE FR 9/90

Sail Townsville 0600 Friday 16 November 1990  
Arrive Sydney 1200 Monday 26 November 1990

## Principal Investigator

Associate Professor Jason H. Middleton  
School of Mathematics  
University of New South Wales



21 September 1990

Bernadette Baker

CSIRO Division of Oceanography

HOBART

For further information contact

ORV Operations Manager

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D AND OPERATED BY CSIRO

**Cruise Plan  
R.V. Franklin  
FR 9/90**

**Itinerary**

Depart Townsville: 0600 Hrs Friday 16 Nov 1990  
Arrive Sydney: 1200 Hrs Monday 26 Nov 1990

**Scientific Program**

The overall aims of this scientific program (which has also utilised R.V. Franklin in May, 1990) are to understand the role played by Fraser Island in the modification of continental shelf circulation, and the role of the sudden jump in width of the continental shelf at 22 S. The scientific program is also concerned with understanding the way in which the flood and ebb tides mix on the shelf and slope of Hydrographers Passage in the Great Barrier Reef offshore from southern Great Barrier Reef, and the Hydrographers Passage offshore from Mackay.

**Principal Investigator**

Associate Professor Jason H. Middleton  
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**Cruise Objectives**

1. To retrieve current meter moorings from the vicinity of Capricorn channel and Fraser Island (see Figure 1).
2. To undertake CTD work on transects through the outer end of Hydrographers Passage, and in the vicinity of Capricorn Channel and Fraser Island.
3. To undertake Acoustic Doppler Current Profiler work on selected transects associated with the mooring locations and the CTD transects.

**Cruise Track**

A cruise track is shown in Figure 1.

**ORV Equipment Required**

All standard systems, but especially the CTD system with altimeter and 12 bottle rosette, the

ADCP system with operational bottom tracking, scientific sounder, Inmarsat, thermosalinograph, GPS, VAX computers, and the Aanderaa tape reader. *FLUOROMETERS.*

We will also require a large storage space and clear deck area for the retrieval of moorings (ie, no more than one container).

### Time Estimates

Steaming time 1300 nm @ 11 kn = 5.0 days

CTD stations 1.5 days

ADCP surveys 1.5 days

Moorings 2.3 days

Total 10.3 days

Time Available 10.3 days

### Personnel

Jason Middleton (UNSW), (Chief Scientist)  
Greg Nippard (UNSW)  
David Griffin (UNSW)  
Madeleine Cahill (UNSW)  
Mark Merrifield (UNSW)  
Rick Thomson (IOS)  
Andrew MacTaggart (UNSW)  
Anthony Macks (UNSW)  
Dave Vaudrey (CSIRO DO), (Cruise Manager)  
Phil Adams (CSIRO DO)  
Jeff Dunn (CSIRO DO)  
Val Latham (CSIRO DO)

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

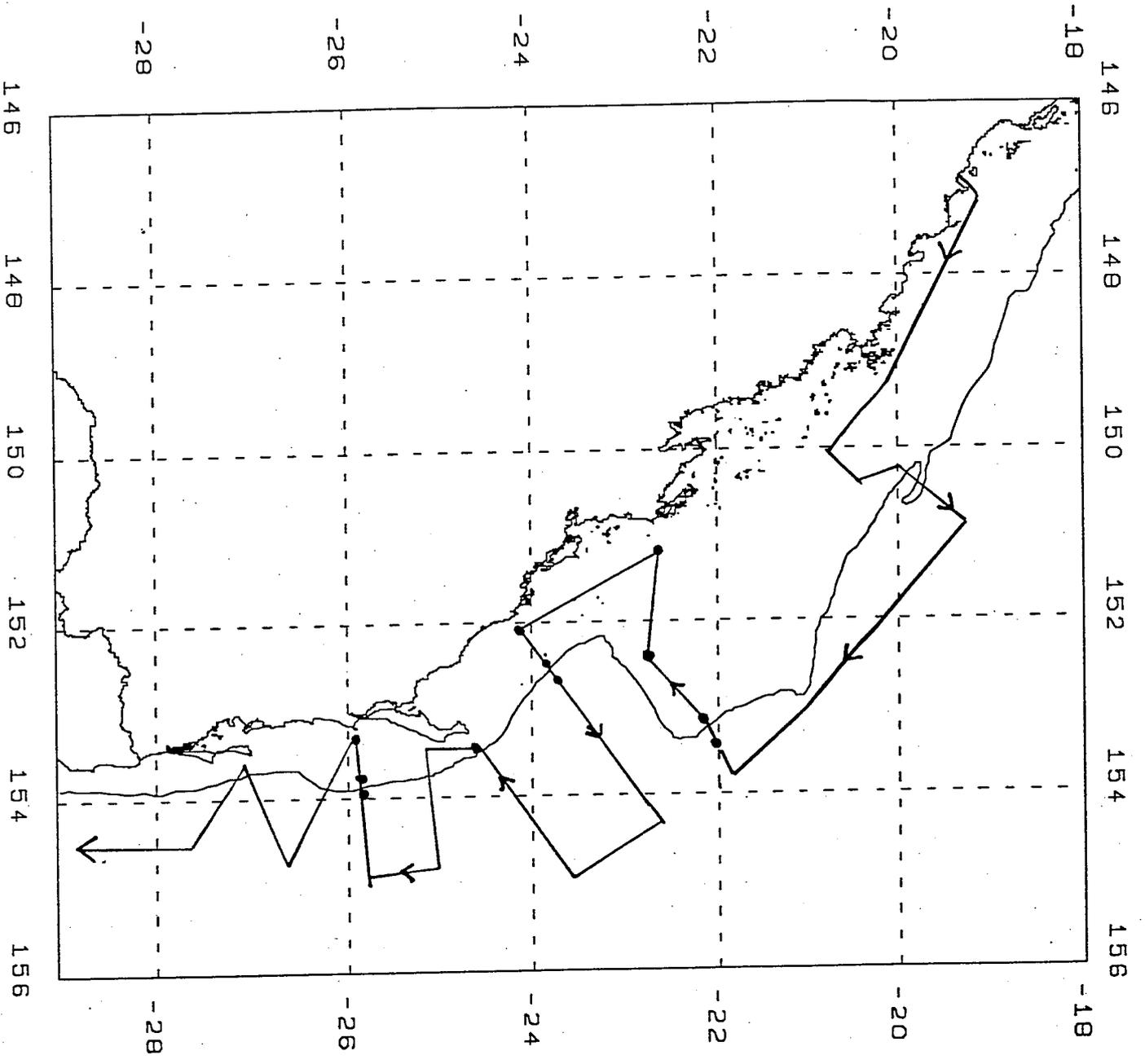


Figure 1  
FR 9/90 SCHWANH  
CRUISE TRACK