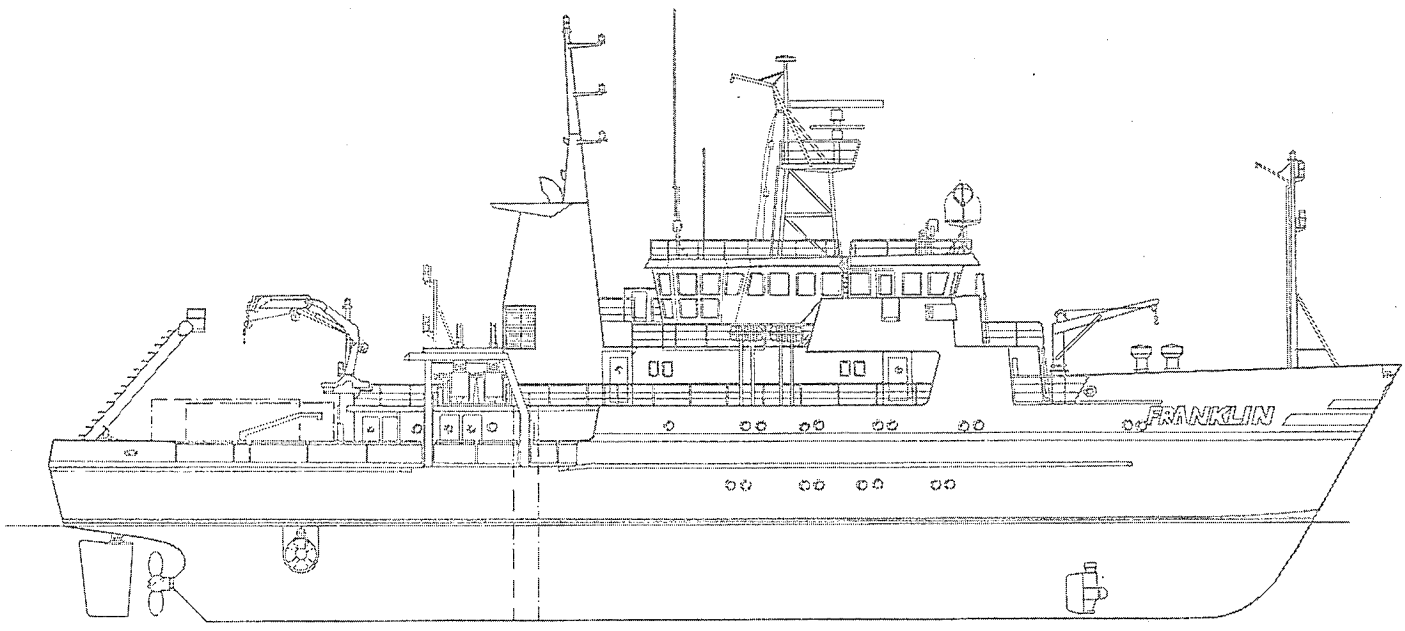
R.V. FRANKLIN

NATIONAL FACILITY
OCEANOGRAPHIC RESEARCH VESSEL

CRUISE PLAN

R.V. 'FRANKLIN'

FR 5/86



For further information contact

ORV Operations Manager
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AUSTRALIA

R.V. FRANKLIN IS OWNED AND OPERATED BY CSIRO

AJF/NP

24 June 1986

CRUISE PLAN
R.V. 'FRANKLIN'
FR5/86

ITINERARY

Depart Sydney:	1000 hrs	14 July 1986
Arrive Hobart:	1800 hrs	28 July 1986

SCIENTIFIC PROGRAM

1. Benthic, demersal and mesopelagic communities of south-eastern Australian continental slopes.

2. Pilot study of circulation in the Tasman Sea.

3. Geomagnetic deep sounding of the ocean-continent transition zone.

PRINCIPAL INVESTIGATORS

Program 1

Dr G. Poore (Chief Scientist), Dr C.C. Lu, Dr M.F. Gomon
Museum of Victoria
Swanston Street
Melbourne, Victoria, 3000
Tel: (03) 419 5200 (Poore); (03) 669 9888 (Lu & Gomon).

Dr L.S. Hamond
Victorian Institute of Marine Sciences
14 Parliament Place
Melbourne, Victoria, 3002
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Professor W. Muntz
Faculty of Science
Monash University
Clayton, Victoria, 3168
Tel: (03) 541 0811

Program 2

Dr G. Meyers
CSIRO Division of Oceanography
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Program 3

Dr Anthony White
School of Earth Sciences
Flinders University
Bedford Park, South Australia, 5042
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CRUISE OBJECTIVES

Program 1:	Collect benthic demersal and mesopelagic invertebrates from transects across the continental slope off Tasmania and southern New South Wales.
Program 2:	Deploy current meter/thermistor moorings at two sites 400 km apart in the Tasman Sea.
Program 3:	Deploy recording magnetometer packages at four sites across the continental slope off New South Wales.

CRUISE TRACK

Proceed from Sydney to the first benthic transect (Program 1) at 35°S commencing at 200 m depth. Work east to 2000 m depth over next 82 hours.

At 0000 hrs 18 July proceed to 35°42'S, 150°26'E, the first site of Program 3. Over next 8 hours deploy geomagnetic equipment.

Proceed to 35°54'S, 151°23'E to deploy C.M. moorings at first site of Program 2. Depart at 1800 hrs 18 July and proceed to second site of Program 2 at 38°S, 155°E.

At 1900 hrs 19 July depart for second benthic transect at 39°S, 149°E and sample between 200 and 2000 m.

At 0600 hrs 24 July depart for third benthic transect at 42°S, 149°E and sample between 200 and 2000 m.

At 0900 hrs 28 July depart for Hobart.

Note 1: The location of benthic transects will depend on finding suitable soft sediments in which to dredge.

Note 2: Program 1 transects will utilise any extra time available (on a 24 hour basis) or be cut if time runs out.

Note 3: Loading and unloading is before and after cruise dates.

O.R.V. EQUIPMENT REQUIRED

1. All winches and maximum cable, including crane, A-frame and boom, with tensiometer and wire-out meter on main towing cable.
   Connectors for dredge/trawl
2. Scientific sounder
3. 12 kHz pinger and facility to receive behind ship while dredging/trawling
4. Photocopier
5. Shipboard communications
6. Bench space with power outlets
7 Closed circuit T.V.
8. Deck laboratory
9. Deck hose with water pressure adjustable at nozzle
10. Satellite navigation

EQUIPMENT PROVIDED BY USERS

1. Benthic sleds x 2
2. RMT net (Antarctic Div.)
3. Trawl net
4. Five gallon plastic drums x 30
5. Miscellaneous small storage items (bags, vials etc.)
6. Bank of sieves 1 m^2
7. Ocean bottom magnetometers and associated test equipment (will require 4 m x 2 m with tie down points to secure)
8. Stereoscopic microscope with cold light source
9. Sorting trays
10. Programmable profiling water sampler
11. C.M. mooring x 2

ON BOARD ANALYSIS

Program 1: Bottom samples will be taken from 200, 500, 800, 1100, 1400, 1700 and 2000 m depths and sieved on deck using the bank of sieves and a deck hose. Material will be picked from the coarser residues and fine fractions kept for microscopic sorting. Some material will be examined alive microscopically.

Time estimates must be approximate but are calculated on the basis of:

- sled towing times of 15-60 minutes depending on depth
- trawl and RMT towing times of 60 minutes
- cable laying and recovery rate of 30 m/min with 2.5 times depth laid

- seven sled stations at 200, 500, 800, 1100, 1400, 1700, 2000 m and six trawl and RMT stations (same except for 200 m)
- deck time per transect of 4 hours

Total transect time 82 hours

Program 2: Deployment of equipment at 2 sites - 2 x 5 = 10 hours

Program 3: Deployment of equipment at 4 sites on transect - 8 hours

PERSONNEL

Program 1: Gary Poore (Chief Scientist) - Museum of Victoria
C.C. Lu - Museum of Victoria
Martin Gomon - Museum of Victoria
Laurie Hamond - VIMS
Bill Muntz - Monash University

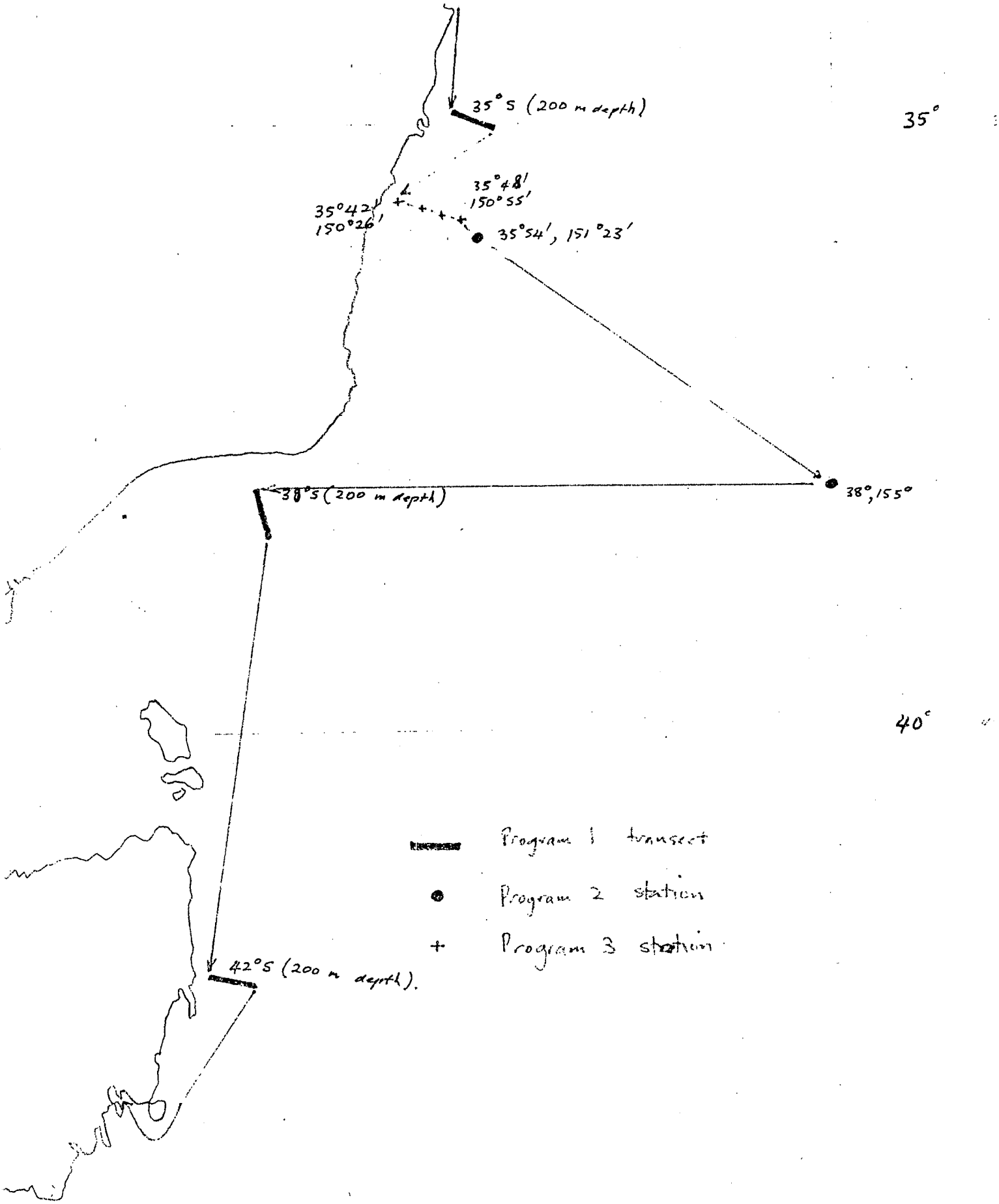
Program 2: Gary Meyers - CSIRO Division of Oceanography, Hobart
Fred Boland - CSIRO Division of Oceanography, Hobart

Program 3: Anthony White - Flinders University
Brenton Perkins - Flinders University
Richard Kellet - Australian National University
Andrew Forbes (Cruise Manager) - CSIRO Division of Oceanography
Dave Edwards - (Electronics) - CSIRO Division of Oceanography

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


35°S (200 m depth)
35°
35°48'
150°55'
35°42'
150°26'
35°54', 151°23'
38°S (200 m depth)
38°, 155°
40°
Program 1 transect
Program 2 station
Program 3 station
42°S (200 m depth).
150°
155°