

John Stevens

CSIRO

MARINE LABORATORIES

Division of Fisheries Research
Division of Oceanography

A Division of the Institute of Animal and Food Sciences
A Division of the Institute of Physical Sciences

Castray Esplanade, Hobart, Tas. 7000

GPO Box 1538, Hobart, Tas. 7001
Telephone (002) 20 6222 Telex AA 57182
Facsimile (002) 23 7125

RJE/JLF
TM200/1/3

29 March 1985

CRUISE PLAN
O.R.V. 'FRANKLIN'
MAIDEN VOYAGE
FR1/85

Itinerary	Sail Cairns	1000 hrs	Tuesday 16 April 1985
	Call Jervis Bay	0800 hrs	Wednesday 24 April 1985
	Arrive Hobart	1400 hrs	Sunday 28 April 1985

Cruise Track	Cairns	- 20°S; 155°E
		- 34°S; 155°E
		- 35°S; 151°E (Jervis Bay)
		- Hobart

- Objectives**
- This cruise will be the maiden voyage and delivery cruise.
 - Tests of scientific and ships equipment will be carried out en route.
 - Training of scientific and ship's crews in operating the new ship under practical conditions.
 - To undertake scientific sampling as opportunity arises.

Underway Sampling

At least one station using one of hydro, CTD or trawl winches or the capstan will be undertaken each six hours.

Hourly:

- Time
- Position
- Ship's head
- Ship's speed
- Wind speed
- Wind direction
- Bottom depth
- Sea surface temperature
- Sea surface salinity
- Sea surface fluorescence

Two Hourly: As above
Water sample for calibration

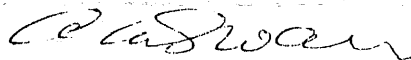
Four Hourly: As above
XBT (alternate between deck and stern launchers)

Station Work: See Appendix A for details of winch trials and CTD stations.

CSIRO Equipment

Hydrology winch	50 Kg weights
CTD winch	Depressor
Towing winch	Deck hose
Capstan	Dredge
Neil Brown CTD	Rosette System
Meteorological sensors	Refrigerator/Freezer
Thermosalinograph	Pingers (2)
10 l Niskin bottles	UBT
Fluorometer (underway)	XBT
Towing nets	Drop nets (incl. rope)
Autoanalyzer	Salinometer
Oxygen Titration Equipment	Spectrophotometer

Personnel Bob Edwards (Chief Scientist)
Angus McEwan
Andrew Forbes
David Vaudrey
Bruce Barker
Alex Papij
Alan Poole
Tony Woods
John Volkman
Bob Beattie
Leigh McGrath (NOEA)
David Rimmer (DFR)



A.D. McEwan,
Chief, Division of Oceanography

APPENDIX A

Hydro Winch

Equipment: 50 Kg weight plus 1 Niskin with thermometers to check depth.

- . deploy weight, zero meter wheel, put on bottle and veer away at 60-80 mpm to within 50m of P.D.R. bottom depth.
- . drop messenger (200 mpm @ zero wire angle rounded to next 5 minutes)
- . retrieve at 60-80 mpm.
- . recover bottle.
- . recover weight.

Repeat three times as check on:

- . winch control (inching etc.)
- . wire speed
- . depth accuracy
- . spooling
- . winch capability
- . A-frame
- . deck-control communications.

N.B. As both the CTD and hydro drums are on the same Winch/A-frame this will be a good test of system without risking expensive CTD wire. For following three trials put on a maximum of 10 Niskin bottles with thermometers for bottom casts. This will give experience in making a hydro cast, putting on and taking off bottles, manipulating A-frame etc.

Trawl Winch

Equipment:

- . Depressor, ship speed of less than 3 knots, UPT.
- . attach depressor with A-frame inboard, take up on winch, swing A-frame outboard, veer 4000m (?) of wire.
- . manoeuvre ship at slow speed at various attitudes to sea and wind.
- . recover wire and depressor.

Repeat three times for checks as per hydro winch.

For the following trials mount pair of Bonqo trawls complete with flow meters, deploy and retrieve.

CTD Winch

- . all tests at 60 mpm maximum.
- . for first three deployments carry out same exercise as with hydro winch.
- . attach CTD/Rosette to wire and then carry out bottom casts for the rest of the cruise.

Seamount Sampling

- . make run over seamount and determine sampling depth - move into deep water in direction which gives best ship control.
- . deploy sampler with appropriate amount of wire and commence run towards seamount.
- . on hitting seamount stop ship and recover sampling gear.

ORV FRANKLIN

SUNDAY 28 APRIL 1985

FRANKLIN will arrive to seaward of White Rock at 0800 hours to disembark cruise personnel and to embark guests and media.

Depending on the weather FRANKLIN will go to sea and to the vicinity of Tasman Island to perform some sampling tasks to show some of the capabilities of the vessel.

The pilot will be picked up at 1300 hours at White Rock and the ship should dock at about 1400 hours.