

# FRANKLIN

National Facility  
Oceanographic Research Vessel

**TROPICS97**

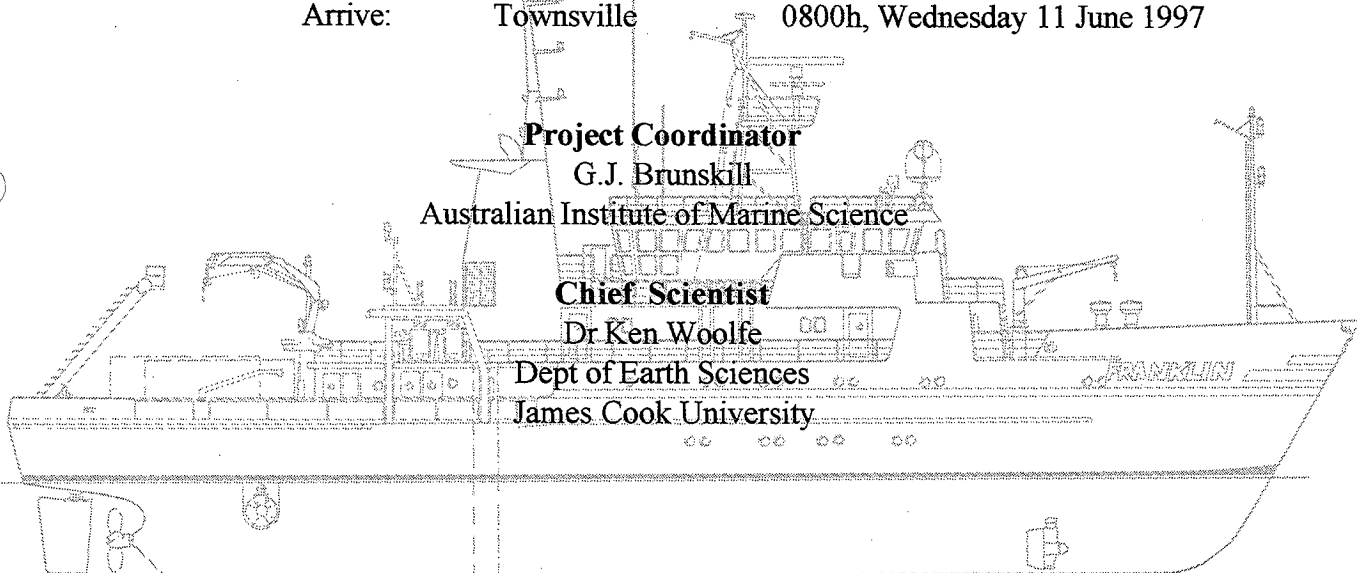
**CRUISE SUMMARY  
RVFRANKLIN**

**Fr5/97**

Leg 1	Depart:	Madang	1000h, Saturday 24 May 1997
	Arrive:	Madang	0715h, Wednesday 28 May 1997
Leg 2:	Depart:	Madang	0900h, Wednesday 28 May 1997
	Arrive:	Port Moresby	0730h, Wednesday 4 June 1997
Leg 3:	Depart:	Port Moresby	1230h, Wednesday 4 June 1997
	Arrive:	Townsville	0800h, Wednesday 11 June 1997

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## **CRUISE SUMMARY RV FRANKLIN**

**Fr5/97**

### **PROJECT TROPICS LEG 2 MARINE GEOLOGY GROUP CRUISE**

#### **ITINERARY**

Leg 1	Depart:	Madang	1000h, Saturday 24 May 1997
	Arrive:	Madang	0715h, Wednesday 28 May 1997
Leg 2:	Depart:	Madang	0900h, Wednesday 28 May 1997
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#### **SCIENTIFIC OBJECTIVES**

To understand mechanisms & establish models of coastal ocean trapping, bypassing, and cycling of solutes and sediments from wet tropical rivers draining the high relief areas of PNG into very different coastal shelves. We hope to determine the processes that control the dispersal of wet tropical riverine dissolved and particulate material into the coastal ocean, and how these processes affect estuarine, deltaic, coastal, shelf, & slope productivity, marine resources, & sustainable development options.

#### **CRUISE OBJECTIVES**

The objectives of the TROPICS97 Geology cruise are:

- To map the distribution of riverine sediment on the continental shelf, slope and rise between Manam Island and Wewak on the north coast of PNG.
- To obtain samples of sea floor sediment from the shelf, slope and rise along the north coast of PNG to a) ground truth interpretations based on geophysical records, b) characterise the sediment chemically and c) to determine the textural characteristics of sediment in this region. The ultimate object being to identify sites of sediment trapping, storage and accumulation.
- To map the distribution of riverine sediment on the continental shelf, slope and rise in the Gulf of Papua area, with special reference to identifying sites of sediment accumulation.
- To extend the existing Gulf of Papua sample array seaward in the Gateway Fan and Moresby Trough areas.
- To conduct a coring and sampling program to support the geochemical and biogeochemical programs which are attempting to determine sediment and chemical budgets for the Gulf of Papua region.

## **CRUISE NARRATIVE**

### Wed May 21 (Day -3)

Science Party for TROPICS Leg 2A assembles at Brisbane International. Missing are John Milliman and Tim Dallapenna who evidently failed to make their connection out of the US. One crate containing a mini-sparker array which failed to arrive in Townsville in time for ship loading is also missing at this stage as is all of J-P's luggage and all of our charts. In addition, two members of the party, including the Chief Scientist don't have visas to enter PNG. Enroute to Moresby, Air Nuigini donates a stainless steel desert spoon that is to form the basis of the CSIRO sampling program for the duration of the cruise. By night fall, those members of the science party who have made it to PNG settle in for a few ales at the Madang Resort Hotel.

### Thu May 22 (Day -2)

The morning was spent scouring Madang for tonic and replacement charts. By lunch time the search for charts was abandoned and efforts concentrated around drinking the carton of tonic water that had been purchased during the morning following the revelation that tonic contained quinine and was therefore the thing to drink. It transpired that most of the party disliked the taste on tonic water and its consumption in such large quantities was only made palatable following its dilution with excess duty free gin. During the course of the afternoon, J-P and Richard were assaulted by a lusty hornbill. Both Sparkers and Luggage were located, two members of the ship board party were however still unaccounted for.

### Fri May 23 (Day -1)

Franklin steamed into Madang this morning and those members of the ship-board science party who weren't paddling dugouts around Madang Harbour or otherwise having a good time worked with the Deck Officer to ready the ship for sea. An emergency TROPICS meeting was held at the Madang Resort this afternoon to council those members of TROPICS Leg 1 who were suffering alcohol deprivation after days at sea. The two missing members of the science party swept into town, minus one very important electronic item - which was evidently accidentally abandoned in Cairns.

### Sat May 24 (Day 1)

After boarding the ship at 0800, we duly made ready for sea. Cast-off was temporarily delayed as a search was mounted for a missing and evidently critical cable - However, after some the cable was located and the ship sailed 20 minutes late. As we approached Manam Island on a calm tropical evening tension grew in the chem lab as cable after cable was suspended from the ceiling until the room resembled a large electronic spiders web. We commenced a seismic survey just before midnight although didn't start to recover good data till early in the following morning.

### Sun May 25 (Day 2)

During the night the seismic system failed repeatedly, forcing the Duty Scientist to wake Dave on an almost hourly basis. However, despite these set backs an exciting picture of the low-stand shelf was emerging. Seismic operations using both the mini-sparker and Uniboom continued till noon. After lunch the piston corer was deployed as a gravity corer, but the core was lost on pull-out. After reconfiguring in piston mode a core was recovered. However, on the third deployment, the trigger weights made a desperate bid for freedom and attempted to lure Andy off the side in the process. Coring was abandoned for the day and the ship commenced a series of grab lines.

### Mon May 26 (Day 3)

Seismic profiling commenced at 0030 and continued throughout the night. At dawn we deployed the sidescan sonar fish into the Sepik Canyon but were unable to interpret the images being fed back to the ship. It appears from the twisted mass of tow cable recovered that the tow-fish, stunned by the spectre

of the canyon, had been spiralling behind the ship, rendering both the data and the tow cable useless. The afternoon and evening was spent grab sampling while J-P and Tim began processing the cores collected yesterday. However, with mud and plastic shards peppering the casting deck, the Skill saw was banished back to its box and core processing was halted. Seismic profiling commenced late evening and continued through the night.

#### Tue May 27 (Day 4)

At dawn Andy took over from Richard as Duty Scientist and a piston core was collected and a grab line commenced. We ended the grab line a mile or two off Manam Island and a number of locals paddled out from the steaming volcano to check us out and during the encounter Richard managed to become the owner of a paddle. This evening we shot a seismic line with the streamer outrigged from the port davit and the ship in silent mode - a great improvement. Work ceased at 2015 and the ship began its transit to Madang.

#### Wed May 28 (Day 5)

We anchored in Madang at 0800, and exchanged David and Tim, for Katie, Megan and John using the rescue boat, before sailing again shortly after. The remainder of the day was spent in transit.

#### Thu May 29 (Day 6)

Pan fried trout proved the highlight of the day as we continued our passage towards the Gulf of Papua.

#### Fri May 30 (Day 7)

We passed through Raven Passage and China Straight this morning busting with pent-up enthusiasm to conduct a seismic and grab line just west of the entrance to China Straight. However, with 30 kts over the bow and a steep sea we were forced to give science away and continue our transit into the gulf.

#### Sat May 31 (Day 8)

A stunningly calm morning saw us make good progress into the Gulf and by 1130 we were shooting our first line, which we retraced and grabbed before positioning to shoot an all night line across the head of the gulf.

#### Sun Jun 1 (Day 9)

The day consisted of a mixture of grab and seismic transects designed to maximise our understanding of the shelf adjacent to the Gateway fan. The weather continued to be kind to us and excellent data and samples were recovered.

#### Mon Jun 2 (Day 10)

Another day of grab lines and seismic profiles across the Gulf of Papua shelf. The highlight being the unceremonious recovery of a highly stressed moray eel, plucked from the depths in the jaws of the grab. After a brief tour of the ship the eel, with slightly modified tail, was released.

#### Tue Jun 3 (Day 11)

Grabs and seismics continued until 1620, when we hauled gear and headed for Port Moresby.

#### Wed Jun 4 (Day 12)

We put into Moresby at 0730, and after completing formalities we exchanged John, Dave, Katie and Megan, for John, Gregg, Irena and Chuck. The joint AIMS-US coring team swept across the back deck like a swarm of scrap metal dealers at a plane crash and before long the deck was strewn with an array of stainless steel implements of science. By evening we were on station, and commenced a grab-

core routine which would continue for the next few days, punctuated only by the deployment of Gregg's sediment traps.

#### Thu Jun 5 (Day 13)

Shortly after Breakfast we began the deployment of a AIMS sediment trap mooring. These large finned, stainless steel contraptions leave little room on the aft deck and can only be deployed and recovered in good weather. Following a successful deployment, we continued with the grab-core routine.

#### Fri Jun 6 (Day 14)

This morning we deployed a set of sediment traps without hitch. However, beyond that the day was plagued by minor glitches. At one stage we attempted to take a piston core on the aft deck, the result being a twisted core barrel and a broken bail arm. We then proceeded to bend another core barrel in stiff sand - although we still managed a 3 m core. By evening we were inshore and faced sediment which were so poorly consolidated that the grab repeatedly failed to trigger.

#### Sat Jun 7 (Day 15)

Grab sampling and kasten coring continued through till early afternoon, when set course for an AIMS-nominated core site in the central, southern gulf, NE of Eastern Fields.

#### Sun Jun 8 (Day 16)

We successfully cored NE of Eastern Fields at 0330 before continuing south to the sediment traps deployed SE of Eastern Fields by TROPICS Leg 1. These were duly recovered and a core, grab and hydrocast completed at the trap site. A piston core was successfully obtained about 20 miles SE of the trap site.

#### Mon Jun 9 (Day 17)

Moderate to rough seas frustrated attempts to piston core as we head southwards across the Coral Sea. The first two attempts failed when the corer triggered on its way to the bottom. The 3rd and 4th sites were abandoned due to sea conditions.

#### Tues Jun 10 (Day 18)

Moderate to rough sea and fresh SE winds as we continue south across the Coral Sea, entering the Great Barrier Reef Lagoon via Grafton Passage in the early afternoon.

#### Wed Jun 11 (Day 19)

Arrive Townsville, early morning. Commence ship off-load.

## RESULTS

### SEISMIC LINES

The following lines were shot:

24 May	PNG9701a	4°02.89'S 144°48.68'E	- 4°02.89'S 144°48.68'E
24 May	PNG9701b	3°55.19'S 144°37.39'E	- 3°55.12'S 144°37.37'E
24 May	PNG9701c	3°55.06'S 144°37.35'E	- 3°51.19'S 144°35.86'E
24 May	PNG9701d	3°51.19'S 144°35.86'E	- 3°49.05'S 144°34.71'E
24 May	PNG9701e	3°49.05'S 144°34.71'E	- 3°46.66'S 144°32.95'E
24 May	PNG9701f	3°46.66'S 144°32.95'E	- 3°45.83'S 144°28.78'E
24 May	PNG9701g	3°45.83'S 144°28.78'E	- 3°44.52'S 144°22.90'E
24 May	PNG9701h	3°44.52'S 144°22.90'E	- 3°43.09'S 144°15.43'E
24 May	PNG9701i	3°43.09'S 144°15.43'E	- 3°42.45'S 144°11.98'E
25 May	PNG9701j	3°42.17'S 144°11.08'E	- 3°40.85'S 144°03.57'E
25 May	PNG9702	3°40.62'S 144°15.46'E	- 3°43.34'S 144°19.01'E
25 May	PNG9703	3°43.34'S 144°19.03'E	- 3°42.07'S 144°24.23'E
25 May	PNG9704	3°42.23'S 144°24.34'E	- 3°45.47'S 144°27.38'E
25 May	PNG9705	3°45.47'S 144°27.40'E	- 3°45.25'S 144°32.36'E
25 May	PNG9706	3°45.26'S 144°32.37'E	- 3°48.01'S 144°34.79'E
26 May	PNG9707	3°57.28'S 144°40.08'E	- 3°57.00'S 144°37.86'E
26 May	PNG9708	3°57.00'S 144°37.86'E	- 3°54.20'S 144°38.50'E
26 May	PNG9709	3°54.20'S 144°38.50'E	- 3°51.63'S 144°35.25'E
26 May	PNG9710	3°51.63'S 144°35.24'E	- 3°49.88'S 144°36.52'E
26 May	PNG9711	3°49.88'S 144°36.52'E	- 3°49.88'S 144°36.52'E
27 May	PNG9714	4°02.22'S 144°46.94'E	- 3°58.90'S 144°45.97'E
27 May	PNG9715	3°58.90'S 144°45.97'E	- 3°59.81'S 144°47.86'E
31 May	PNG9716	9°03.68'S 146°32.30'E	- 8°56.52'S 146°32.11'E
31 May	PNG9717	8°56.52'S 146°32.11'E	- 8°53.24'S 146°21.28'E
31 May	PNG9718	8°42.18'S 146°11.59'E	- 8°29.74'S 146°14.53'E
31 May	PNG9718b	8°29.74'S 146°14.53'E	- 8°27.23'S 146°14.83'E
31 May	PNG9719	8°27.23'S 146°14.83'E	- 8°26.26'S 146°05.70'E
31 May	PNG9719b	8°26.26'S 146°05.70'E	- 8°22.62'S 145°39.14'E
1 Jun	PNG9720	8°07.27'S 145°52.45'E	- 8°25.26'S 145°52.51'E
1 Jun	PNG9721	8°25.26'S 145°52.51'E	- 8°25.32'S 145°53.63'E
1 Jun	PNG9722	8°25.32'S 145°53.63'E	- 8°22.99'S 145°53.90'E
1 Jun	PNG9723	8°22.99'S 145°53.90'E	- 8°22.76'S 145°51.41'E
1 Jun	PNG9724	8°22.76'S 145°51.41'E	- 8°25.30'S 145°51.59'E
1 Jun	PNG9725	8°25.30'S 145°51.59'E	- 8°25.33'S 145°52.94'E
1 Jun	PNG9726	8°20.48'S 146°10.25'E	- 8°16.31'S 145°38.71'E
1 Jun	PNG9727	8°16.08'S 145°37.15'E	- 8°24.21'S 145°13.03'E
2 Jun	PNG9728	7°55.73'S 145°08.32'E	- 8°21.20'S 145°21.83'E
2 Jun	PNG9728d	8°21.84'S 145°22.05'E	- 8°38.59'S 145°30.66'E
3 Jun	PNG9729	8°40.88'S 145°19.03'E	- 8°48.71'S 145°16.97'E
3 Jun	PNG9730	8°48.71'S 145°16.97'E	- 9°04.02'S 145°08.89'E

Data quality on the mini-sparker and uni-boom was greatly improved by running the ship in silent mode. Excellent data were recovered in water depths down to c. 300 m. However, below this we were limited by insufficient source energy. Initial interpretations confirm the presence of low-stand barrier reefs along the Sepik Coast and along the eastern Gulf of Papua. The shelf clino-forms in the gulf were found to be gas-prone and in some instances this limited data quality.

JCU's 3.5 kHz systems was mounted in the transducer well and run continuously during the latter part of the cruise in the Gulf of Papua. This returned excellent results in water depths below 200 m, even while cruising at full speed. There can be little doubt that data of this sort could and should be collected routinely with a hull mounted system.

### GRAB SAMPLES

The following Grab samples were collected:

Date	Grab	Location	Depth
May 25	TG1	3°40.67'S 144°03.20'E	27
May 25	TG2	3°40.88'S 144°05.67'E	30
May 25	TG3	3°40.66'S 144°08.16'E	27
May 25	TG4	3°39.38'S 144°09.48'E	103
May 25	TG5	3°38.98'S 144°09.83'E	215
May 25	TG6	3°37.84'S 144°11.09'E	294
May 25	TG7	3°35.65'S 144°11.95'E	411
May 25	TG8	3°33.75'S 144°12.20'E	519
May 25	TG9	3°31.73'S 144°12.76'E	669
May 25	TG10	3°36.19'S 144°21.98'E	715
May 25	TG11	3°38.39'S 144°21.08'E	458
May 25	TG12	3°39.67'S 144°20.55'E	303
May 25	TG13	3°41.06'S 144°20.04'E	145
May 26	TG14	3°45.03'S 144°49.77'E	1484
May 26	TG15	3°45.22'S 144°43.63'E	1321
May 26	TG16	3°44.37'S 144°37.53'E	781
May 26	TG17	3°46.73'S 144°36.02'E	582
May 26	TG18	3°48.48'S 144°34.83'E	484
May 26	TG19	3°49.58'S 144°33.59'E	132
May 26	TG20	3°39.33'S 144°34.78'E	869
May 26	TG21	3°42.31'S 144°36.31'E	823
May 26	TG22	3°49.51'S 144°39.16'E	649
May 26	TG23	3°55.43'S 144°41.82'E	585
May 26	TG24	3°59.61'S 144°43.66'E	190
May 26	TG25	3°58.54'S 144°45.52'E	371
May 26	TG26	3°58.00'S 144°46.75'E	516
May 27	TG27	3°56.68'S 144°49.71'E	914
May 27	TG28	3°55.69'S 144°52.26'E	1151
May 27	TG29	3°58.40'S 144°54.16'E	992
May 27	TG30	4°01.94'S 144°56.49'E	890
May 27	TG31	4°06.43'S 144°59.15'E	543
May 27	TG32	4°00.68'S 144°51.72'E	646
May 31	TG33	8°52.91'S 146°20.38'E	343
May 31	TG34	8°54.58'S 146°24.56'E	58
May 31	TG35	8°55.66'S 146°28.46'E	40
May 31	TG36	8°56.71'S 146°32.21'E	33
May 31	TG37	8°58.81'S 146°32.29'E	39
May 31	TG38	9°02.55'S 146°32.58'E	60
May 31	TG39	9°05.01'S 146°32.70'E	83
Jun 01	TG40	8°22.51'S 145°39.13'E	95
Jun 01	TG41	8°20.09'S 145°41.14'E	59
Jun 01	TG42	8°22.93'S 145°41.12'E	82
Jun 01	TG43	8°20.44'S 145°42.96'E	76
Jun 01	TG44	8°17.65'S 145°45.02'E	67
Jun 01	TG45	8°15.29'S 145°46.67'E	52
Jun 01	TG46	8°12.97'S 145°48.28'E	42
Jun 01	TG47	8°10.12'S 145°50.26'E	34
Jun 01	TG48	8°07.09'S 145°52.49'E	20
Jun 01	TG49	8°26.29'S 145°52.55'E	453
Jun 01	TG50	8°24.95'S 145°56.98'E	126
Jun 01	TG51	8°23.27'S 146°02.36'E	74
Jun 01	TG52	8°21.88'S 146°06.92'E	47
Jun 01	TG53	8°20.50'S 146°10.89'E	24
Jun 02	TG54	8°24.24'S 145°12.70'E	101
Jun 02	TG55	8°20.39'S 145°11.82'E	97
Jun 02	TG56	8°16.46'S 145°10.59'E	94
Jun 02	TG57	8°12.52'S 145°09.56'E	107
Jun 02	TG58	8°08.59'S 145°08.27'E	94

Jun 02	TG59	8°04.72'S 145°08.28'E	92
Jun 02	TG60	7°59.90'S 145°08.29'E	76
Jun 02	TG61	7°55.72'S 145°08.35'E	25
Jun 02	TG62	8°21.12'S 145°21.83'E	97
Jun 02	TG63	8°38.59'S 145°30.32'E	562
Jun 02	TG64	8°48.94'S 145°35.64'E	1098
Jun 02	TG65	8°45.12'S 145°27.38'E	734
Jun 03	TG66	8°40.65'S 145°19.41'E	123
Jun 04	TG67	9°00.01'S 145°48.99'E	1526
Jun 04	TG68	8°49.81'S 145°48.97'E	1275
Jun 04	TG69	8°56.88'S 145°37.72'E	1318
Jun 04	TG70	9°06.98'S 145°26.07'E	1237
Jun 05	TG71	9°16.04'S 145°16.81'E	1280
Jun 05	TG72	8°39.55'S 145°39.63'E	840
Jun 05	TG73	8°33.26'S 145°45.41'E	664
Jun 05	TG74	8°31.35'S 145°51.93'E	750
Jun 05	TG75	8°32.61'S 145°59.84'E	759
Jun 05	TG76	8°35.39'S 146°06.02'E	490
Jun 06	TG77	8°37.18'S 145°32.30'E	569
Jun 06	TG78	8°31.70'S 145°28.87'E	154
Jun 06	TG79	8°26.62'S 145°26.57'E	116
Jun 06	TG80	8°24.80'S 145°25.86'E	105
Jun 06	TG81	8°15.22'S 145°22.03'E	110
Jun 06	TG82	8°08.51'S 145°19.01'E	92 failed after 5 attempts
Jun 06	TG83	7°57.63'S 145°14.26'E	54
Jun 06	TG84	7°57.95'S 145°00.96'E	56 failed
Jun 06	TG85	8°05.95'S 144°48.40'E	72
Jun 06	TG86	8°02.45'S 144°47.06'E	51 failed
Jun 06	TG87	8°00.44'S 144°45.99'E	30
Jun 07	TG88	8°24.99'S 144°29.13'E	82 failed
Jun 07	TG89	8°30.38'S 144°16.69'E	43 failed
Jun 07	TG90	9°48.57'S 145°59.95'E	2045
Jun 08	TG91	11°09.48'S 145°47.37'E	1468

Grab sampling with the CSIRO stainless steel Smith-Mac grab proceeded extremely smoothly using the hydro-winch. We were however, unable to recover very soft sediment from the inner Gulf of Papua. Sub-samples from grabs were collected for radio chemistry, bulk chemistry and grain size analysis.

## CORES

The following cores were collected:

Date	Core	Location	Depth	Type	Rmx
May 25	PC5	3°39.14'S 144°10.28'E	229.5	Gravity	Core Lost
May 25	PC6	3°37.98'S 144°11.50'E	292	Piston	Successful
Jun 04	KC1	8°59.29'S 145°48.42'E	1509	Kasten	Successful
Jun 04	KC2	8°49.19'S 145°48.48'E	1258	Kasten	Successful
Jun 04	KC3*	8°56.88'S 145°37.72'E	1318	Kasten	Successful
Jun 04	KC4*	9°06.98'S 145°26.07'E	1237	Kasten	Successful
Jun 04	KC5*	9°16.04'S 145°16.81'E	1280	Kasten	Successful
Jun 05	KC6*	8°39.55'S 145°39.63'E	840	Kasten	Successful
Jun 05	KC7	8°32.88'S 145°45.09'E	637	Kasten	fail after 2 attempts
Jun 05	KC8*	8°31.35'S 145°51.93'E	750	Kasten	Successful
Jun 05	KC9*	8°32.61'S 145°59.84'E	759	Kasten	Successful
Jun 05	KC10*	8°35.39'S 146°06.02'E	490	Kasten	Successful
Jun 06	PC77	8°37.18'S 145°32.30'E	569	Piston	Successful
Jun 06	PC78	8°31.70'S 145°28.87'E	154	Piston	Successful - bent barrel
Jun 06	PC81	8°14.69'S 145°21.61'E	110	Piston	Successful



Jun 06	PC82	8°08.02'S 145°18.53'E	90	Piston	Successful
Jun 06	KC12	7°57.86'S 145°00.88'E	55	Kasten	Successful
Jun 06	KC13	8°05.84'S 144°48.27'E	74	Kasten	Successful
Jun 06	KC14	8°02.40'S 144°46.92'E	49	Kasten	Successful
Jun 07	KC15	9°48.57'S 145°59.94'E	2045	Kasten	Successful
Jun 08	KC16	9°34.02'S 145°47.12'E	1472	Kasten	Successful
Jun 08	P1	11°09.30'S 146°07.23'E	1434	Piston	Successful
Jun 08	P2	11°53.85'S 146°02.79'E	2425	Piston	Broke Corer on deck
Jun 09	P3	13°11.34'S 146°01.81'E	2999	Piston	Corer triggered early

From 15 of the Kasten cores, 101 slab samples were taken and X-rayed on board using a portable X-ray source in the dark room. Samples were also taken for radio-chemical work. The Kasten Corer worked well through the later part of the cruise. Piston coring progressed less smoothly, in part due to poor design of the release pin and in part by bad luck and towards the end of the cruise bad weather. However, a number of cores were obtained and these were returned (unopened) in 1 m lengths to Townsville.

### CTD

A single CTD deployment was made at the Eastern Fields Sediment Trap Site:

### SEDIMENT TRAPS

Two trap arrays were deployed:

Jun 05 9°11.68'S 145°15.00'E in 1040 m  
Jun 06 8°35.43'S 145°52.92'E in 900 m

A trap array was recovered from near Eastern Fields:

Jun 08 10°53.00'S 146°00.00'E deployed on May 10 by Cresswell et al.

All sediment trap deployments and recoveries went well, thanks to good weather and excellent support from the ship's crew. There were some contamination concerns during deployment of the traps, due to leaking hydraulic oil from the ship's crane and from dirt and gravel introduced into the traps prior to deployment. However, the traps were deployed unwashed.

## **PARTICIPANTS**

### **TROPICS 2A Madang-Madang**

Ken Woolfe	School of Earth Sciences, James Cook University
Richard Purdon	School of Earth Sciences, James Cook University
Andy Revill	CSIRO - Marine Research, Hobart.
Kevin Hooper	School of Earth Sciences, James Cook University
David Smith	Dept. of Chemistry, University of Melbourne.
J.P. Walsh	State University of New York, Stony Brook.
Tim Dellapenna	College of William & Mary
Dave Mucciarone	Rice University.
Bob Beattie	CSIRO - ORV
Erik Madsen	CSIRO - ORV

### **TROPICS 2B Madang-Port Moresby**

Ken Woolfe	School of Earth Sciences, James Cook University
Richard Purdon	School of Earth Sciences, James Cook University
Andy Revill	CSIRO - Marine Research, Hobart.

Kevin Hooper	School of Earth Sciences, James Cook University
J.P. Walsh	State University of New York, Stony Brook.
John Milliman	Virginia Institute of Marine Science (VIMS)
Katie Farnsworth	VIMS
Dave Mucciarone	Rice University
Megan Bolin	VIMS
Bob Beattie	CSIRO - ORV
Erik Madsen	CSIRO - ORV

#### **TROPICS 2C Port Moresby-Townsville**

Ken Woolfe	School of Earth Sciences, James Cook University
Richard Purdon	School of Earth Sciences, James Cook University
Andy Revill	CSIRO - Marine Research, Hobart.
Kevin Hooper	School of Earth Sciences, James Cook University
J.P. Walsh	State University of New York, Stony Brook.
Gregg Brunskill	Australian Institute of Marine Science (AIMS)
Irena Zagorskis	AIMS
John Soles	AIMS
Chuck Nittrouer	State University of New York, Stony Brook.
Bob Beattie	CSIRO - ORV
Erik Madsen	CSIRO - ORV

#### **RV Franklin Crew**

Dick Dougal	Master
Ian Menzies	Chief Officer
Wendy Doran	2nd Mate
Syd Allen	Chief Eng
Greg Pearce	1st Eng
Don Roberts	E/Eng
Jannik Hansen	Bosun
Wayne Browning	AB
Norm Marsh	AB
Gerry O'Halloran	AB
Les Clarke	Greaser
Gary Hall	C/Cook
Peter Dux	2nd Cook
Dianne Kelly	C/Stwd

#### **GENERAL COMMENTS**

With out exception, we received excellent support from the entire crew and their efforts are very much appreciated. For the most part the cruise proceeded smoothly and excellent data and samples were recovered. However, a couple of issues arose that caused some disquiet amongst the ship-board science party:

The science party (including the Chief Scientist) was not adequately informed as to the scientific plans of a number of the cruise participants. This situation was in part caused by a change of Chief Scientist and a subsequent lack of communication, and because much of the pre-cruise planning and liaison was done through a third party. This ultimately resulted in number of participants attempting to do the same science and as a result some participants felt that they had been mislead. I personally found this aspect of the cruise very frustrating.