INFORMAL REPORT AND INDEX OF

NAVIGATION AND DEPTH DATA

(ISSUED SEPTEMBER 1980)

RAMA EXPEDITION

LEG 2

Honolulu, Hawaii (23 April 1980)
to
Midway Island (20 May 1980)

R/V T. Washington

Chief Scientist - K. L. Smith (SIO)

Resident Marine Tech - R. C. Wilson

Post-Cruise Processing and Report Preparation
by S.I.O. Geological Data Center

Data Collection funded by NSF
Grant Number OCE77-23258
Data Processing funded by SIA, NSF and ONR

GDC I.D.# - 181

INFORMAL REPORT AND INDEX OF NAVIGATION, DEPTH, MAGNETIC AND SUBBOTTOM PROFILER DATA **

Contents:

Index Chart - gives track of cruise leg and boundaries of depth compilation plots (see below).

Track Charts - annotated with dates (day/month) and hour ticks. The scale is .3 in/degree longitude.

Profiles - depth and magnetic anomaly vs. distance. Dates (day/month) and positions of major course changes (greater than 30 degrees) are annotated. Sections of track having subbottom profiler (airgun) records have a solid black line along the bottom of the profile.

For information on the availability and reproduction costs of data in the following forms, contact S. M. Smith, Curator, Geological Data Center, Scripps Institution of Oceanography, La Jolla, California 92093. Phone (714) 452-2752.

1. Navigation listing of times and positions of course and speed changes, fixes and drift velocity.

2. Depth compilation plots - in fathoms (assumed sound velocity of 800 fm/sec) or meters (assumed sound velocity of 1500m/sec) at approximately 1 mile spacing, plotted at 4in/degree with standard U. S. Navy Oceanographic Office BC series boundaries (see index chart).

3. Plots of magnetic anomaly profiles along track - map scale = 1.2inch/degree, anomaly scale between 15N and 15 S latitude = 500 gamma/inch, anomaly scale north of 15N and south of 15S = 1000 gamma/inch, from values retrieved at approximately 1 mile spacing and regional field removed using the 1975 IGRF.
4. Card decks of navigation, depth and magnetics (for specific formats, contact S. M. Smith, Geological Data Center).

5. S.I.O. Sample Index - list of beginning and end times and positions of all underway records as well as all other samples (geology, biology, physical oceanography, etc.) collected on the cruise leg.

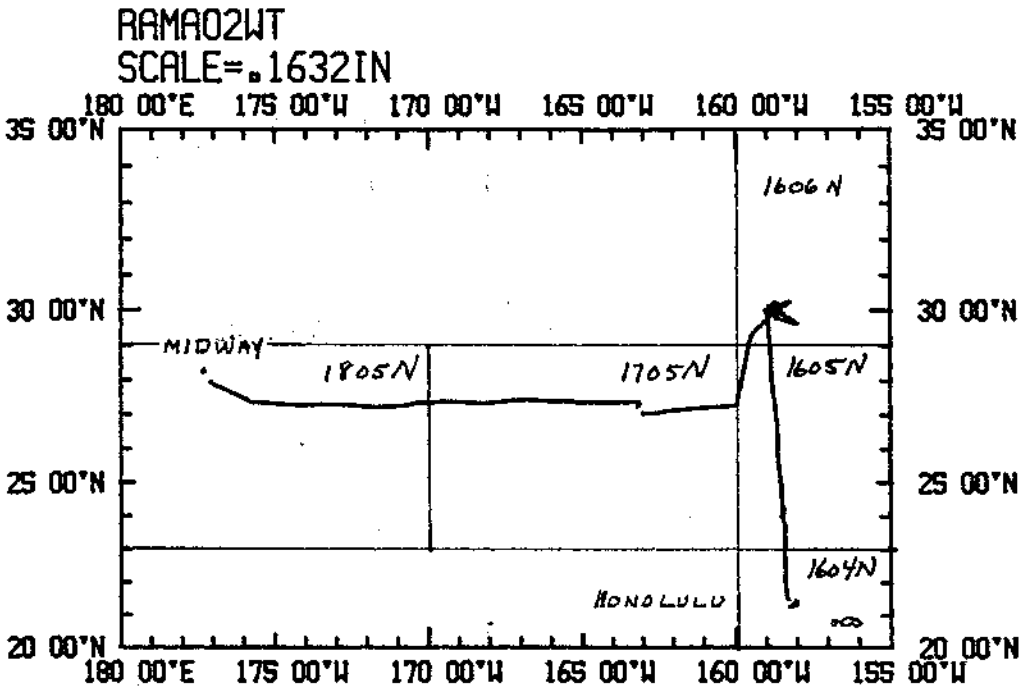
6. Microfilm or Xerox copies of:
   a. Echosounder records - 12 and 3.5 kHz frequency

   b. Subbottom profiler records (airgun)

   c. Magnetometer records

   d. Underway data log

** There were no magnetic or subbottom profiler data collected.

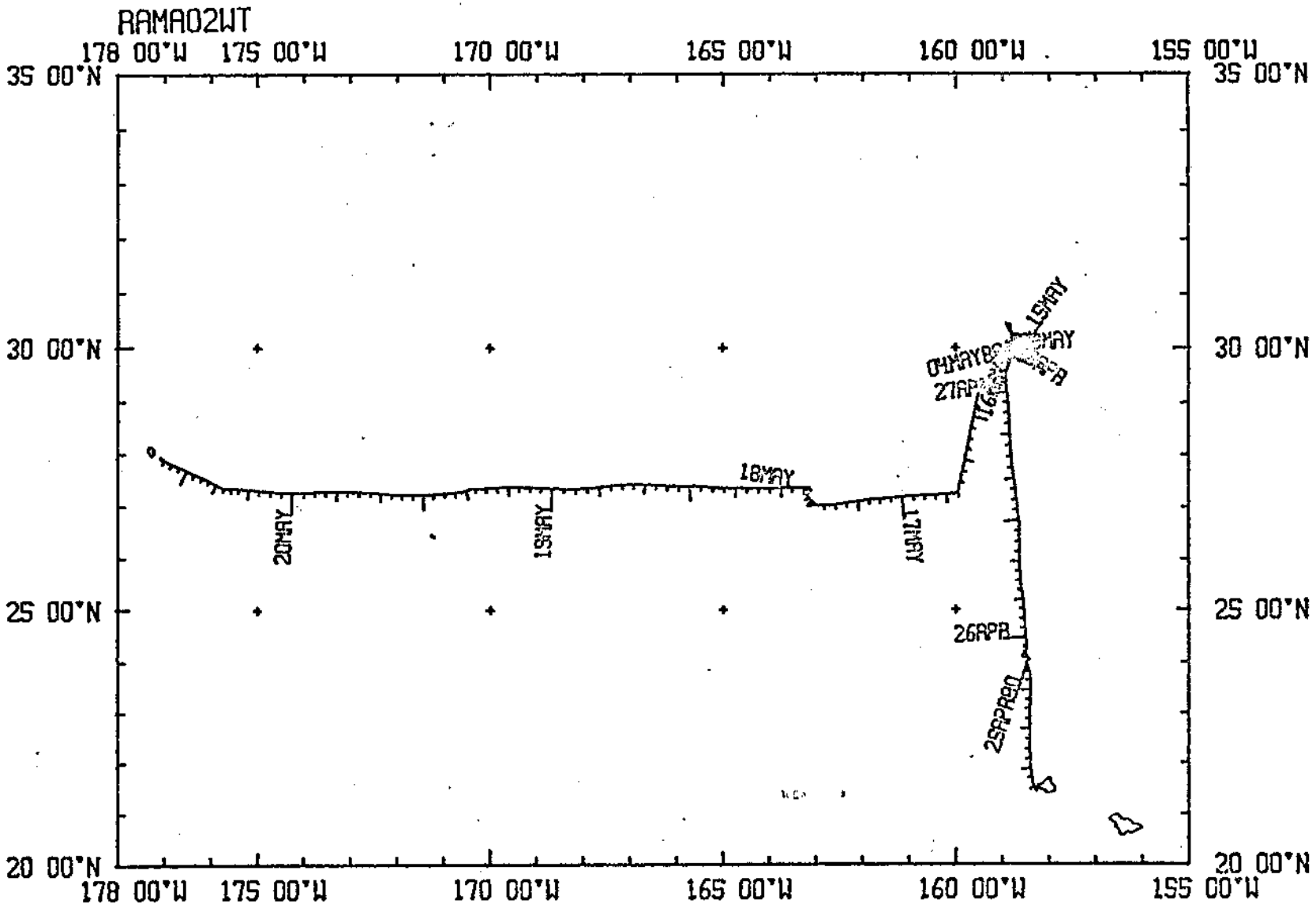


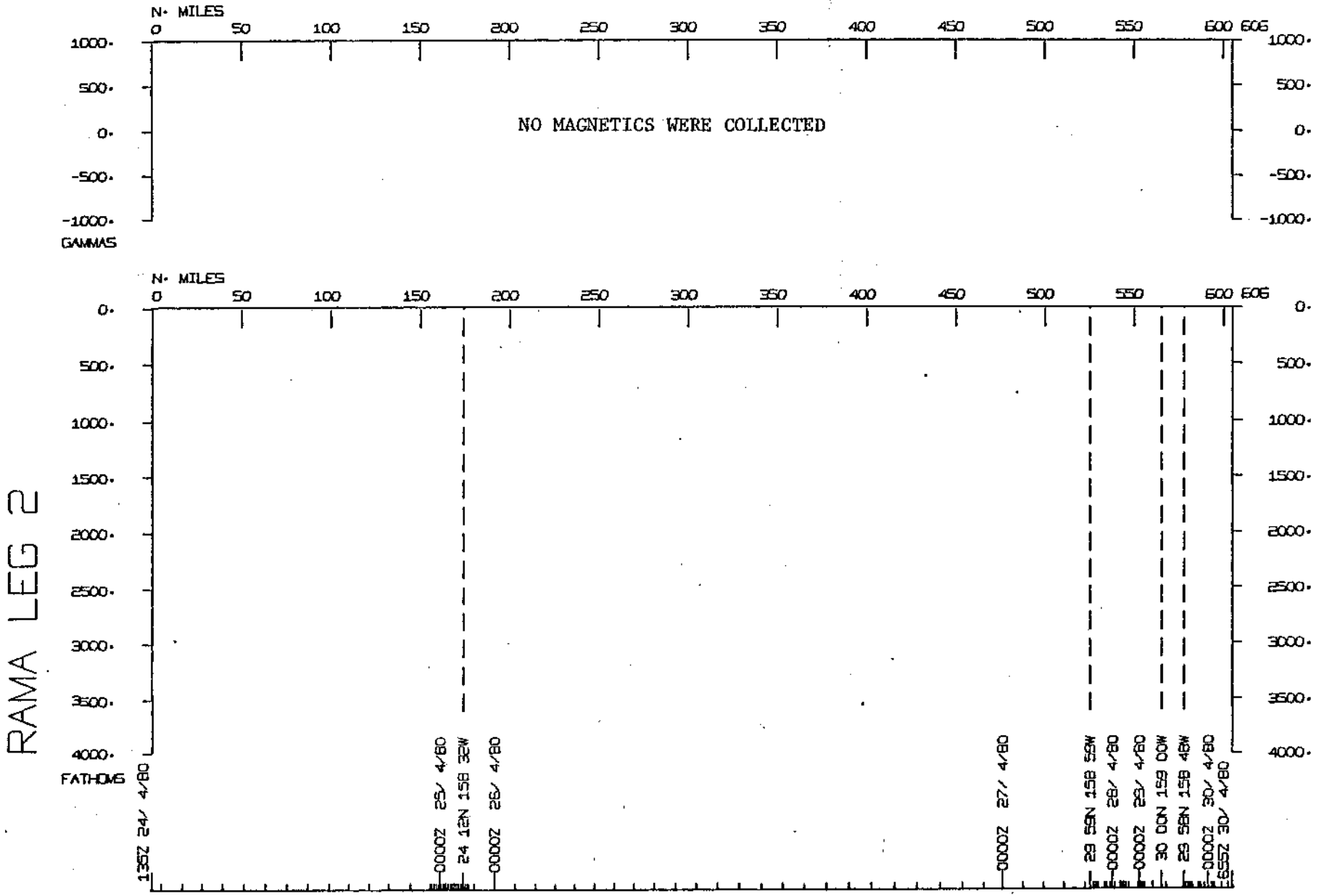
RAMA EXPEDITION LEG 2

Chief Scientist - K.L. Smith (SIO)
Ports: Honolulu, Hawaii - Midway Island
Dates: 23 April - 20 May 1980
Ship: R/V T. Washington

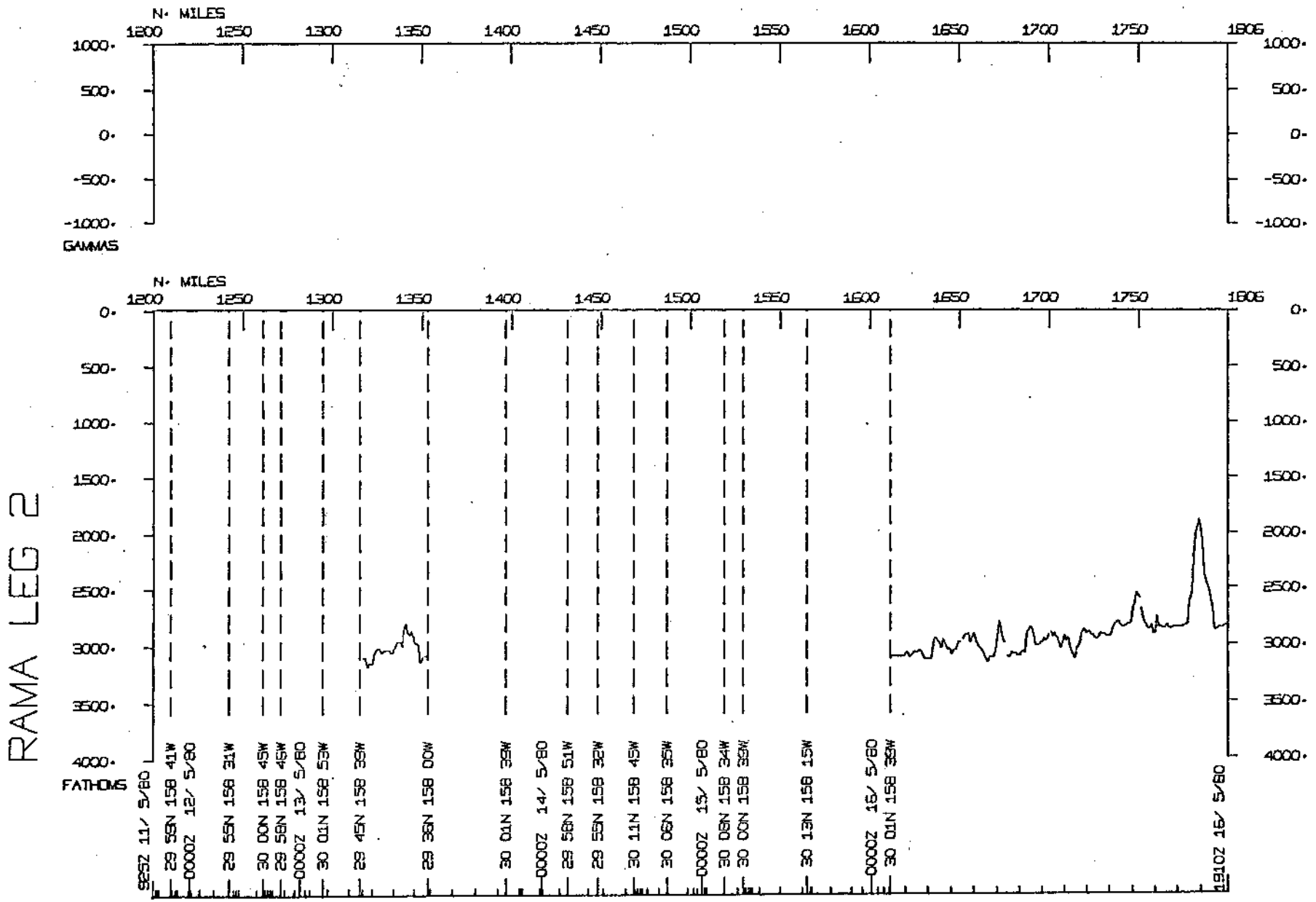
TOTAL MILEAGE

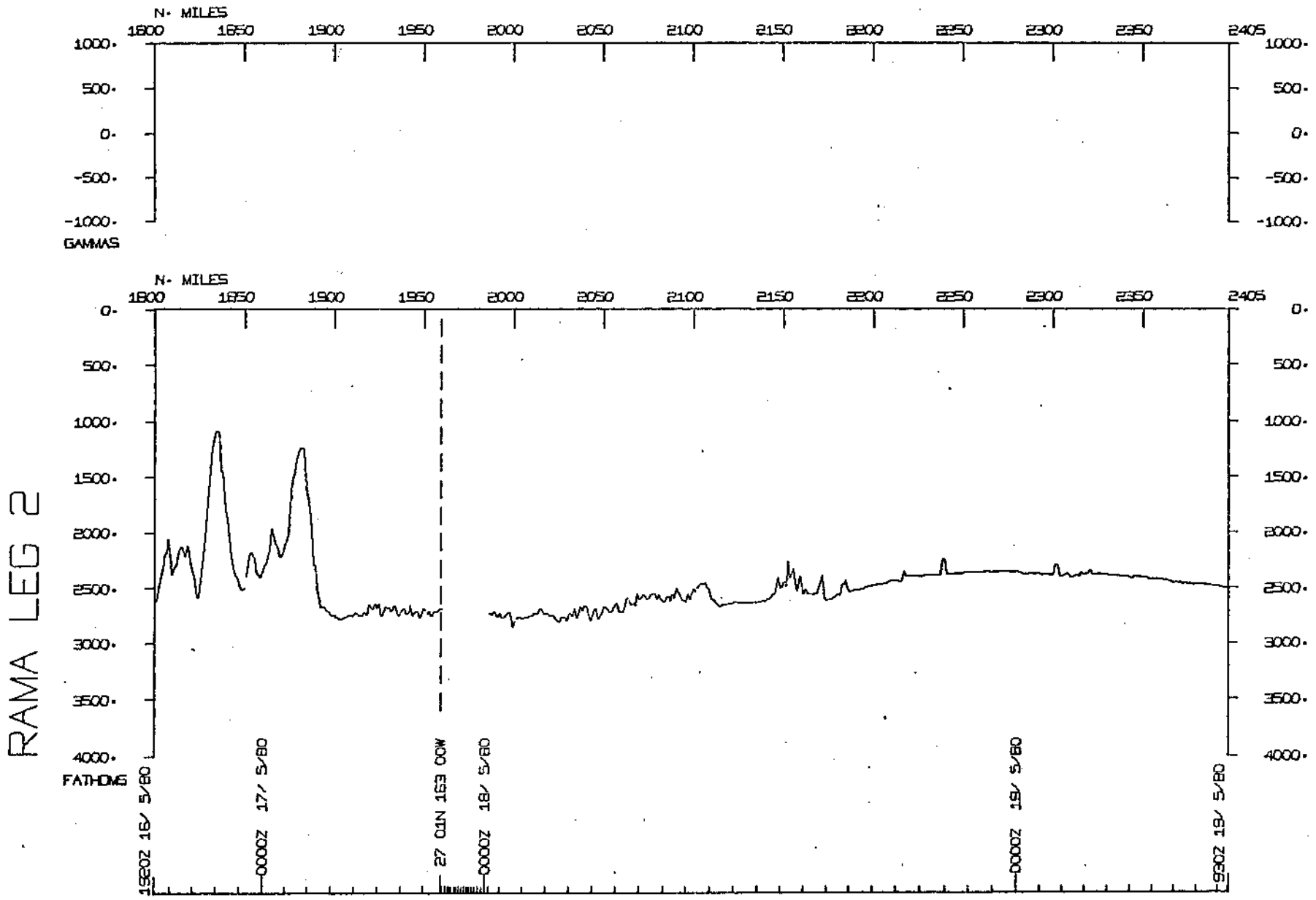
1) Cruise - 2748 miles
2) Bathymetry - 1055 miles
3) Magnetics - none collected
4) Seismic Reflection - none collected
5) Gravity - none collected

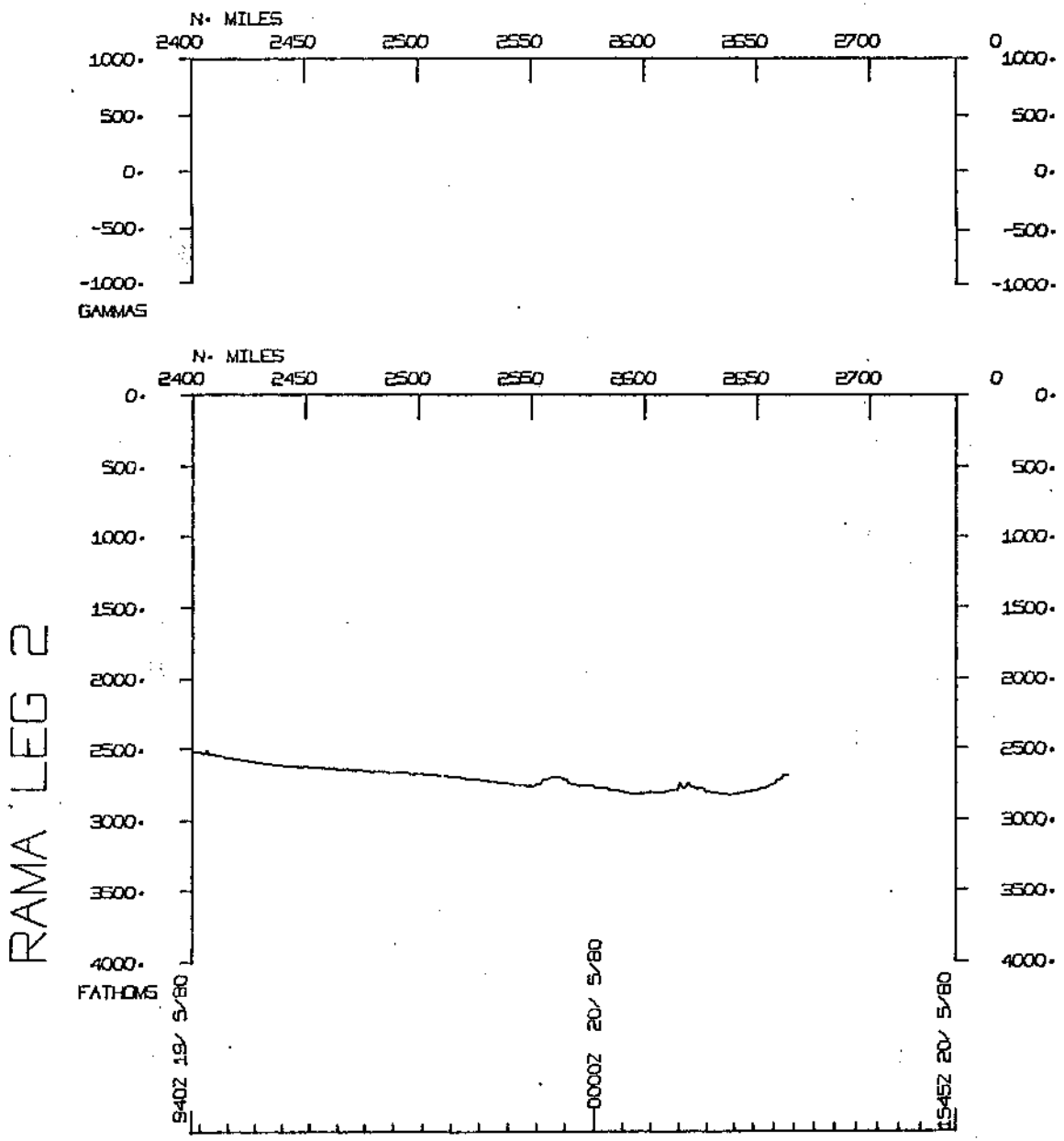

RAMA02WT
178 00°W
175 00°W
170 00°W
165 00°W
160 00°W
155 00°W
35 00°N
30 00°N
25 00°N
20 00°N
20MAY
15MAY
18MAY
17MAY
26RPB
25RPRBD


RAMA LEG 2
N. MILES
0 50 100 150 200 250 300 350 400 450 500 550 600 606
1000.
500.
0.
-500.
-1000.
GAMMAS
NO MAGNETICS WERE COLLECTED
N. MILES
0 50 100 150 200 250 300 350 400 450 500 550 600 606
0.
500.
1000.
1500.
2000.
2500.
3000.
3500.
4000.
FATHOMS
1352 24/ 4/80
00002 25/ 4/80
24 12N 158 32W
00002 26/ 4/80
00002 27/ 4/80
29 55N 158 55W
00002 28/ 4/80
00002 29/ 4/80
30 00N 159 00W
29 58N 158 48W
00002 30/ 4/80
6552 30/ 4/80

RAMA LEG 2
N. MILES
GAMMAS
FATHOMS
1205
1150
1100
1050
1000
950
900
850
800
750
700
650
600
1000.
500.
0.
-500.
-1000.
1500.
2000.
2500.
3000.
3500.
4000.
7052 30/ 4/80
30 01N 158 53W
30 02N 158 43W
00002 1/ 5/80
29 58N 158 54W
29 57N 158 54W
29 58N 158 45W
00002 2/ 5/80
30 05N 158 44W
30 02N 158 43W
29 57N 158 49W
30 04N 158 37W
00002 3/ 5/80
29 57N 158 42W
30 05N 158 41W
29 57N 158 32W
29 57N 158 30W
00002 4/ 5/80
30 04N 158 46W
00002 5/ 5/80
29 57N 158 53W
29 57N 158 36W
30 04N 158 33W
30 07N 158 36W
30 01N 158 52W
00002 6/ 5/80
30 10N 158 37W
30 01N 158 51W
00002 7/ 5/80
30 04N 158 39W
30 00N 158 49W
30 03N 158 47W
00002 8/ 5/80
29 58N 158 34W
29 58N 158 51W
00002 9/ 5/80
29 58N 158 49W
00002 10/ 5/80
30 09N 158 39W
29 45N 158 39W
29 59N 158 49W
00002 11/15/80


RAMA LEG 2
N. MILES
1200
1250
1300
1350
1400
1450
1500
1550
1600
1650
1700
1750
1805
1000.
500.
0.
-500.
-1000.
GAMMAS
N. MILES
0.
500.
1000.
1500.
2000.
2500.
3000.
3500.
4000.
FATHOMS
0252 11/ 5/80
29 58N 158 41W
00002 12/ 5/80
29 55N 158 31W
30 00N 158 45W
29 58N 158 45W
00002 13/ 5/80
30 01N 158 53W
29 45N 158 39W
29 38N 158 00W
30 01N 158 39W
00002 14/ 5/80
29 58N 158 51W
29 55N 158 32W
30 11N 158 45W
30 06N 158 35W
00002 15/ 5/80
30 08N 158 34W
30 00N 158 39W
30 13N 158 15W
00002 16/ 5/80
30 01N 158 36W
1910Z 16/ 5/80


RAMA LEG 2
N. MILES
1800
1850
1900
1950
2000
2050
2100
2150
2200
2250
2300
2350
2405
1000.
500.
0.
-500.
-1000.
GAMMAS
N. MILES
0.
500.
1000.
1500.
2000.
2500.
3000.
3500.
4000.
FATHOMS
1900Z 16/ 5/80
0000Z 17/ 5/80
27 01N 163 00W
0000Z 18/ 5/80
0000Z 19/ 5/80
0900Z 19/ 5/80


N. MILES
2400
2450
2500
2550
2600
2650
2700
0
1000.
500.
0.
-500.
-1000.
GAMMAS
N. MILES
2400
2450
2500
2550
2600
2650
2700
0
0.
500.
1000.
1500.
2000.
2500.
3000.
3500.
4000.
FATHOMS
9402 19/ 5/80
00002 20/ 5/80
15452 20/ 5/80

RAMA LEG 2

S.I.O. SAMPLE INDEX

(Issued October 1980)

RAMA EXPEDITION

LEG 2

Honolulu, Hawaii (23 April 1980)
to
Midway Island (20 May 1980)

R/V T. Washington

Chief Scientist - K. L. Smith (SIO)

Resident Marine Tech - R. C. Wilson

Post-Cruise Processing and Report Preparation
by S.I.O. Geological Data Center

Index Encoding Funded by NSF
Grant Number OCE77-23258
Index Processing and Report Preparation
funded in part by SIA

The Sample Index is a first level interdisciplinary listing of time, position, sample identification and disposition of all samples, records and measurements collected on this cruise leg. The index data are encoded at sea by the resident technician and processed on shore by the S.I.O. Geological Data Center shortly after the completion of the cruise leg.

Positions are interpolated on the basis of sample time by comparison to a single, edited navigation file. Samples beginning at one time and position and ending at another are entered on two consecutive lines. Disposition and sample type are represented by three and four character codes to permit future computer searches on these parameters. (Listings defining these codes are available from the Geological Data Center.)

S.I.O. SAMPLE INDEX GENERATED 11AUG80

*** RAMA LEG 2 SAMPLE INDEX (RAMA02WT) ***

23APR80 - HONOLULU, HI.

TO

20MAY80 - MIDWAY ISLAND

CHIEF SCIENTIST - SMITH K. L. SIO

SHIP - R/V THOMAS WASHINGTON (SIO)

PRODUCED BY GEOLOGICAL DATA CENTER, SCRIPPS INSTITUTION
OF OCEANOGRAPHY, LA JOLLA, CALIFORNIA 92093

NUMBER OF SAMPLES OF CLASS 'TYPE' GOING TO DESTINATION 'DISP'

DISP	TYPE											TOTAL
	BD	CO	DP	GC	LB	PE	SS	TO	TM	TR	YN	
GDC			2		1							3
MBD	6				1		1		2	28		38
MTG						2						2
SIO						2						2
SIX						1						1
WHO		1		17	1			5			10	34
WHOI						4						4
TOTAL	6	1	2	17	3	9	1	5	2	28	10	84

SAMPLE 'TYPE' CODES USED ABOVE

BD = BIOLOGICAL SAMPLE COLLECTED BY DIVER
CO = CORE
DP = DEPTH
GC = GEOCHEMICAL SAMPLING
LB = LOG BOOKS
PE = PERSONNEL IN SCIENTIFIC PARTY
SS = SURFACE SAMPLE
TO = SALINITY/TEMPERATURE/DEPTH (STD)
TM = MIDWATER TRAWL
TR = TRAP
YN = YINCH PUMP(HIGH VOLUME SUBMERSIBLE,FCRG)

SAMPLE 'DISP' CODES USED ABOVE

GDC = GEOLOGICAL DATA CENTER -- S. SMITH (EXT. 2752)
MBD = MARINE BIOLOGY RESEARCH DIVISION (EXT. 4245)
MTG = MARINE TECHNOLOGY GROUP (EXT 4194)
SIO = SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA, CAL. 92093
SIX = SCRIPPS INSTITUTION NON-EMPLOYEE - CONTACT D. UTTER (EXT.3675)
WHO = WOODS HOLE OCEANOGRAPHIC INSTITUTION

GMT TIME	D /M /Y DATE	LOC TIME	LOC TZ	CODE SAMP	SAMPLE IDENT.	CODE DISP	LAT.	LONG.	LEG-SHIP CRUISE
					RAMA LEG 2 SAMPLE INDEX				RAMA02WT
*** PORTS ***									
2300	23/ 4/80			LGPT	B HONOLULU, HI.		21 18. N	157 52. W	F RAMA02WT
1900	20/ 5/80			LGPT	E MIDWAY ISLAND		28 13. N	177 23. W	F RAMA02WT

PERSONNEL

	*** NAME ***	*** TITLE ***	*** AFFILIATION ***
1	SMITH K. L.	CHIEF SCIENTIST	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
2	WILSON R. C.	RES TECH	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
3	HENRY A, J.	COMPUTER TECH	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
4	NELSON D. M.	PHD EQUILIVENT	SCRIPPS INSTITUTION NON-EMPLOYEE - CONTACT D. UTTER (EXT.3675)
5	BALDWIN R. J.	BIOLOGY TECH	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
6	GOUDREAU J. E.	RESEARCH ASST.	WOODS HOLE OCEANOGRAPHIC INSTITUTION
7	CLARKE, W. R.	RESEARCH ASST.	WOODS HOLE OCEANOGRAPHIC INSTITUTION
8	MOORE D.	RESEARCH ASST.	WOODS HOLE OCEANOGRAPHIC INSTITUTION
9	SCHNEIDER D. L.	RESEARCH ASST.	WOODS HOLE OCEANOGRAPHIC INSTITUTION

NOTES AN 'X' IN THE (B)EGIN/(E)ND COLUMN FOLLOWING THE SAMPLE CODE INDICATES NO SAMPLE OR DATA RECOVERED .
A 'C' INDICATES CONTINUATION OF DATA COLLECTION FROM BEFORE THE BEGINNING OR AFTER THE END OF THIS LEG. (MOORED BOTTOM INSTRUMENTS, FOR EXAMPLE).
THE NUMBER APPEARING IN THE COLUMNS BETWEEN THE SAMPLE IDENTIFIER AND THE DISPOSITION CODE, FOR MANY SAMPLE ENTRIES, IS THE WATER DEPTH IN CORRECTED METERS.

GMT TIME	D /M /Y DATE	LOC TIME	LOC TZ	CODE SAMP	SAMPLE IDENT.	CODE DISP	LAT.	LONG.	LEG-SHIP CRUISE
					UNDERWAY DATA CURATOR - STUART M. SMITH (EXT.2752)				
					*** LOG BOOKS ***				
0630	27/ 4/80			LBUW B	UNDERWAY LOG	GDC	29 60.0N	159 01.0W S	RAMA02WT
0745	20/ 5/80			LBUW E	UNDERWAY LOG	GDC	27 25.1N	175 50.6W S	RAMA02WT
2300	23/ 4/80			LBSC B	SMITH LAB LOG	MBD	21 26.6N	158 15.2W S	RAMA02WT
1000	20/ 5/80			LBSC E	SMITH LAB LOG	MBD	27 34.5N	176 11.1W S	RAMA02WT
1726	24/ 4/80			LBSC B	BOWEN LAB LOG	WHO	24 01.1N	158 29.5W S	RAMA02WT
1000	20/ 5/80			LBSC E	BOWEN LAB LOG	WHO	27 34.5N	176 11.1W S	RAMA02WT
					*** FATHOGRAMS ***				
1810	24/ 4/80			DPR3 B	UGR 3.5KHZ R-01	GDC	24 01.2N	158 29.2W S	RAMA02WT
1822	19/ 5/80			DPR3 E	UGR 3.5KHZ R-01	GDC	27 17.7N	172 54.6W S	RAMA02WT
1843	19/ 5/80			DPR3 B	UGR 3.5KHZ R-02	GDC	27 17.8N	172 59.6W S	RAMA02WT
0747	20/ 5/80			DPR3 E	UGR 3.5KHZ R-02	GDC	27 25.2N	175 50.9W S	RAMA02WT
					SURFACE SAMPLE				
1939	27/ 4/80			SSFM B	FLOATING ARRAY	MBD	30 01.0N	158 59.3W S	RAMA02WT
2000	15/ 5/80			SSFM E	FLOATING ARRAY	MBD	30 14.2N	158 15.5W S	RAMA02WT
					*** CORES ***				
0842	29/ 4/80			COXX	SPHINCTER	WHO	29 58.7N	158 48.0W S	RAMA02WT
					TRAP				
0627	27/ 4/80			TRFV B	FREENET 106 5727	MBD	29 60.0N	159 01.0W S	RAMA02WT
0630	29/ 4/80			TRFV E	FREENET 106 5727	MBD	30 00.7N	159 00.7W S	RAMA02WT
2344	28/ 4/80			TRFV B	FREENET 112 5807	MBD	29 57.8N	158 53.8W S	RAMA02WT
0030	1/ 5/80			TRFV E	FREENET 112 5807	MBD	29 56.8N	158 53.6W S	RAMA02WT
0344	29/ 4/80			TRFV B	FREENET 114	MBD	29 57.6N	158 51.1W S	RAMA02WT
0830	2/ 5/80			TRFV E	FREENET 114	MBD	29 56.5N	158 50.6W S	RAMA02WT
0100	30/ 4/80			TRFV B	FREENET 117 5891	MBD	30 05.7N	158 42.7W S	RAMA02WT
0426	3/ 5/80			TRFV E	FREENET 117 5891	MBD	30 05.2N	158 41.8W S	RAMA02WT

GMT TIME	D /M /Y DATE	LOC TIME	LOC TZ	CODE SAMP	SAMPLE IDENT.	CODE DISP	LAT.	LONG.	LEG-SHIP CRUISE
0621	30/ 4/80			TRFV B	FREETRAP119 5899	MBD	30 03.7N	158 40.7W	S RAMA02WT
0650	2/ 5/80			TRFV E	FREETRAP119 5899	MBD	30 03.9N	158 40.9W	S RAMA02WT
2153	30/ 4/80			TRFV B	FREETRAP121 5917	MBD	30 05.2N	158 45.7W	S RAMA02WT
0606	4/ 5/80			TRFV E	FREETRAP121 5917	MBD	30 04.2N	158 46.1W	S RAMA02WT
2350	1/ 5/80			TRFV B	FREETRAP123 5795	MBD	29 56.8N	158 54.4W	S RAMA02WT
0125	5/ 5/80			TRFV E	FREETRAP123 5795	MBD	29 56.8N	158 53.7W	S RAMA02WT
0350	2/ 5/80			TRFV B	FREENET 124 5801	MBD	29 57.9N	158 54.1W	S RAMA02WT
0637	5/ 5/80			TRFV E	FREENET 124 5801	MBD	29 57.8N	158 53.2W	S RAMA02WT
0703	3/ 5/80			TRFV B	FREENET 128 5904	MBD	30 06.0N	158 41.0W	S RAMA02WT
0607	7/ 5/80			TRFV E	FREENET 128 5904	MBD	30 05.4N	158 41.8W	S RAMA02WT
0006	4/ 5/80			TRFV B	FREENET 131 5843	MBD	29 54.8N	158 29.5W	S RAMA02WT
0531	8/ 5/80			TRFV E	FREENET 131 5843	MBD	29 54.9N	158 29.5W	S RAMA02WT
0353	4/ 5/80			TRFV B	FREENET 133 5801	MBD	29 56.4N	158 31.4W	S RAMA02WT
0623	8/ 5/80			TRFV E	FREENET 133 5801	MBD	29 56.9N	158 30.3W	S RAMA02WT
2012	4/ 5/80			TRFV B	FREETUBE136 5807	MBD	30 01.1N	158 52.3W	S RAMA02WT
2330	5/ 5/80			TRFV E	FREETUBE136 5807	MBD	30 02.3N	158 50.4W	S RAMA02WT
0326	5/ 5/80			TRFV B	FREENET 137 5861	MBD	29 58.7N	158 48.6W	S RAMA02WT
0531	9/ 5/80			TRFV E	FREENET 137 5861	MBD	29 58.7N	158 49.5W	S RAMA02WT
0339	6/ 5/80			TRFV B	FREETRAP139 5849	MBD	30 10.9N	158 37.9W	S RAMA02WT
0104	10/ 5/80			TRFV E	FREETRAP139 5849	MBD	30 05.6N	158 43.6W	S RAMA02WT
0637	6/ 5/80			TRFV B	FREENET 140 5891	MBD	30 09.8N	158 40.7W	S RAMA02WT
0340	9/ 5/80			TRFV E	FREENET 140 5891	MBD	30 09.8N	158 41.7W	S RAMA02WT
2304	7/ 5/80			TRFV B	TUBETRAP146 5841	MBD	29 57.8N	158 47.7W	S RAMA02WT
0712	9/ 5/80			TRFV E	TUBETRAP146 5841	MBD	29 58.7N	158 48.5W	S RAMA02WT
0421	8/ 5/80			TRFV B	FREENET 148 5847	MBD	29 55.2N	158 31.1W	S RAMA02WT
0803	12/ 5/80			TRFV E	FREENET 148 5847	MBD	29 55.6N	158 31.8W	S RAMA02WT
2102	8/ 5/80			TRFV B	FREENET 151 5815	MBD	30 02.0N	158 52.9W	S RAMA02WT
0340	13/ 5/80			TRFV E	FREENET 151 5815	MBD	30 01.2N	158 53.6W	S RAMA02WT
0212	9/ 5/80			TRFV B	FREENET 152 5865	MBD	30 10.2N	158 46.5W	S RAMA02WT
0820	14/ 5/80			TRFV E	FREENET 152 5865	MBD	30 11.1N	158 46.7W	S RAMA02WT
2330	9/ 5/80			TRFV B	FREENET 155 5833	MBD	29 58.2N	158 50.6W	S RAMA02WT
0300	10/ 5/80			TRFV E	FREENET 155 5833	MBD	30 05.2N	158 39.6W	S RAMA02WT
0104	10/ 5/80			TRFV B	FREETUBE156 5883	MBD	30 05.6N	158 43.6W	S RAMA02WT
0324	12/ 5/80			TRFV E	FREETUBE156 5883	MBD	30 05.6N	158 43.7W	S RAMA02WT
0551	10/ 5/80			TRFV B	FREENET 157 5861	MBD	29 45.6N	158 38.1W	S RAMA02WT
0630	13/ 5/80			TRFV E	FREENET 157 5861	MBD	29 46.2N	158 38.3W	S RAMA02WT

GMT TIME	D /M /Y DATE	LOC TIME	LOC TZ	CODE SAMP	SAMPLE IDENT.	CODE DISP	LAT.	LONG.	LEG-SHIP CRUISE
0054	11/ 5/80			TRFV B	FREENET 159 5870	MBD	29 56.3N	158 45.3W	S RAMA02WT
0030	16/ 5/80			TRFV E	FREENET 159 5870	MBD	29 57.3N	158 46.4W	S RAMA02WT
0516	12/ 5/80			TRFV B	BUTTERFLY1645789	MBD	29 55.9N	158 31.5W	S RAMA02WT
0545	14/ 5/80			TRFV E	BUTTERFLY1645789	MBD	29 56.1N	158 31.7W	S RAMA02WT
2153	12/ 5/80			TRFV B	FREENET 167 5880	MBD	29 59.0N	158 44.5W	S RAMA02WT
0143	16/ 5/80			TRFV E	FREENET 167 5880	MBD	29 59.6N	158 45.5W	S RAMA02WT
2020	13/ 5/80			TRFV B	TUBETRAP171 5837	MBD	30 07.9N	158 35.1W	S RAMA02WT
0300	15/ 5/80			TRFV E	TUBETRAP171 5837	MBD	30 08.3N	158 34.6W	S RAMA02WT
2345	13/ 5/80			TRFV B	FREENET 172 5883	MBD	30 01.3N	158 39.7W	S RAMA02WT
0215	16/ 5/80			TRFV E	FREENET 172 5883	MBD	30 00.4N	158 42.1W	S RAMA02WT
0510	15/ 5/80			TRFV B	TUBETRAP176 5857	MBD	29 60.0N	158 39.7W	S RAMA02WT
0338	16/ 5/80			TRFV E	TUBETRAP176 5857	MBD	30 01.3N	158 39.7W	S RAMA02WT
*** MIDWATER TRAWL ***									
2300	12/ 5/80			TMIK B	IKMTO 650 0	MBD	30 01.4N	158 49.6W	S RAMA02WT
0215	13/ 5/80			TMIK E	IKMTO 650 0	MBD	30 07.5N	158 56.6W	S RAMA02WT
2124	14/ 5/80			TMIK B	IKMTO 4000 0	MBD	30 12.9N	158 23.2W	S RAMA02WT
0200	15/ 5/80			TMIK E	IKMTO 4000 0	MBD	30 07.7N	158 23.2W	S RAMA02WT
BIOLOGICAL COLLECTION DIVE									
0100	28/ 4/80			BDIV B	BIOLOGY DIVE	MBD	29 59.6N	158 57.6W	S RAMA02WT
0200	28/ 4/80			BDIV E	BIOLOGY DIVE	MBD	29 59.3N	158 57.8W	S RAMA02WT
0100	30/ 4/80			BDIV B	BIOLOGY DIVE	MBD	30 05.7N	158 42.7W	S RAMA02WT
0200	30/ 4/80			BDIV E	BIOLOGY DIVE	MBD	30 06.2N	158 42.7W	S RAMA02WT
0200	6/ 5/80			BDIV B	BIOLOGY DIVE	MBD	30 10.3N	158 37.5W	S RAMA02WT
0300	6/ 5/80			BDIV E	BIOLOGY DIVE	MBD	30 10.3N	158 37.9W	S RAMA02WT
0100	7/ 5/80			BDIV B	BIOLOGY DIVE	MBD	30 03.7N	158 40.4W	S RAMA02WT
0200	7/ 5/80			BDIV E	BIOLOGY DIVE	MBD	30 03.8N	158 41.1W	S RAMA02WT
0200	11/ 5/80			BDIV B	BIOLOGY DIVE	MBD	29 56.4N	158 44.5W	S RAMA02WT
0300	11/ 5/80			BDIV E	BIOLOGY DIVE	MBD	29 56.4N	158 45.0W	S RAMA02WT
0200	14/ 5/80			BDIV B	BIOLOGY DIVE	MBD	30 01.0N	158 38.8W	S RAMA02WT
0400	14/ 5/80			BDIV E	BIOLOGY DIVE	MBD	29 58.3N	158 51.4W	S RAMA02WT

GMT TIME	D /M /Y DATE	LOC TIME	LOC TZ	CODE SAMP	SAMPLE IDENT.	CODE DISP	LAT.	LONG.	LEG-SHIP CRUISE
CONDUCTIVITY, TEMPERATURE, DEPTH									
1726	24/ 4/80			TDCT B CTD	1000	WHO	24 01.1N	158 29.5W	S RAMA02WT
1752	24/ 4/80			TDCT E CTD	1000	WHO	24 01.1N	158 29.4W	S RAMA02WT
0134	25/ 4/80			TDCT B CTD	1000	WHO	24 04.7N	158 27.7W	S RAMA02WT
0204	25/ 4/80			TDCT E CTD	1000	WHO	24 04.8N	158 28.0W	S RAMA02WT
0231	25/ 4/80			TDCT B CTD	4600	WHO	24 05.0N	158 28.1W	S RAMA02WT
0445	25/ 4/80			TDCT E CTD	4600	WHO	24 06.0N	158 28.9W	S RAMA02WT
0840	3/ 5/80			TDCT B CTD	1000	WHO	29 57.6N	158 32.8W	S RAMA02WT
0910	3/ 5/80			TDCT E CTD	1000	WHO	29 57.6N	158 32.8W	S RAMA02WT
0800	10/ 5/80			TDCT B CTD	5800	WHO	29 59.9N	158 49.8W	S RAMA02WT
1020	10/ 5/80			TDCT E CTD	5800	WHO	29 59.9N	158 49.9W	S RAMA02WT
GEOCHEMICAL SAMPLE									
1830	24/ 4/80			GCLV B LVW	750	WHO	24 01.4N	158 29.5W	S RAMA02WT
0118	25/ 4/80			GCLV E LVW	750	WHO	24 04.5N	158 27.6W	S RAMA02WT
0514	25/ 4/80			GCLV B LVW	4600	WHO	24 06.2N	158 28.6W	S RAMA02WT
1742	25/ 4/80			GCLV E LVW	4600	WHO	24 12.0N	158 32.2W	S RAMA02WT
0937	27/ 4/80			GCLV B LVW	4000	WHO	29 59.8N	159 02.3W	S RAMA02WT
1505	27/ 4/80			GCLV E LVW	4000	WHO	29 58.3N	159 02.5W	S RAMA02WT
0809	28/ 4/80			GCLV B LVW	5000	WHO	29 59.9N	158 59.5W	S RAMA02WT
1530	28/ 4/80			GCLV E LVW	5000	WHO	30 00.2N	159 00.5W	S RAMA02WT
1248	29/ 4/80			GCLV B LVW	5800	WHO	30 00.3N	158 48.6W	S RAMA02WT
1747	29/ 4/80			GCLV E LVW	5800	WHO	30 02.4N	158 47.6W	S RAMA02WT
0830	30/ 4/80			GCLV B LVW	5600	WHO	30 03.4N	158 52.7W	S RAMA02WT
1543	30/ 4/80			GCLV E LVW	5600	WHO	30 00.9N	158 54.9W	S RAMA02WT
0630	1/ 5/80			GCLV B LVW	5200	WHO	29 57.6N	158 54.0W	S RAMA02WT
1230	1/ 5/80			GCLV E LVW	5200	WHO	29 59.2N	158 51.5W	S RAMA02WT
1040	2/ 5/80			GCLV B LVW	750	WHO	30 04.6N	158 37.1W	S RAMA02WT
1110	2/ 5/80			GCLV E LVW	750	WHO	30 04.7N	158 37.1W	S RAMA02WT
1120	3/ 5/80			GCLV B LVW	5800	WHO	29 57.0N	158 31.9W	S RAMA02WT
1445	3/ 5/80			GCLV E LVW	5800	WHO	29 58.3N	158 31.4W	S RAMA02WT
1145	4/ 5/80			GCLV B LVW	5600	WHO	30 03.3N	158 47.5W	S RAMA02WT
1915	4/ 5/80			GCLV E LVW	5600	WHO	30 01.3N	158 51.5W	S RAMA02WT
0815	6/ 5/80			GCLV B LVW	5600	WHO	29 59.4N	158 48.4W	S RAMA02WT
1715	6/ 5/80			GCLV E LVW	5600	WHO	30 00.0N	158 52.4W	S RAMA02WT

GMT TIME	D /M /Y DATE	LOC TIME	LOC TZ	CODE SAMP	SAMPLE IDENT.		CODE DISP	LAT.	LONG.		LEG-SHIP CRUISE
1215	7/ 5/80			GCLV B	LVW	4800	WHO	30 00.1N	158 52.9W	S	RAMA02WT
1515	7/ 5/80			GCLV E	LVW	4800	WHO	30 00.6N	158 53.1W	S	RAMA02WT
0815	9/ 5/80			GCLV B	LVW	4300	WHO	29 59.2N	158 48.4W	S	RAMA02WT
1638	9/ 5/80			GCLV E	LVW	4300	WHO	29 58.7N	158 50.0W	S	RAMA02WT
1200	9/ 5/80			GCLV B	LVW	5400	WHO	29 58.7N	158 48.9W	S	RAMA02WT
1545	9/ 5/80			GCLV E	LVW	5400	WHO	29 58.6N	158 50.3W	S	RAMA02WT
1030	10/ 5/80			GCLV B	LVW	650	WHO	29 59.9N	158 50.0W	S	RAMA02WT
1100	10/ 5/80			GCLV E	LVW	650	WHO	30 00.0N	158 50.2W	S	RAMA02WT
1615	11/ 5/80			GCLV B	LVW	550	WHO	29 59.8N	158 49.0W	S	RAMA02WT
1645	11/ 5/80			GCLV E	LVW	550	WHO	29 60.0N	158 49.1W	S	RAMA02WT
1750	12/ 5/80			GCLV B	LVW	550	WHO	30 02.3N	158 48.3W	S	RAMA02WT
1815	12/ 5/80			GCLV E	LVW	550	WHO	30 02.5N	158 48.6W	S	RAMA02WT
YENCH PUMP											
1910	25/ 4/80			YNPM B	PUMP	0	WHO	24 13.1N	158 31.7W	S	RAMA02WT
2121	25/ 4/80			YNPM E	PUMP	0	WHO	24 13.8N	158 30.1W	S	RAMA02WT
1540	28/ 4/80			YNPM B	PUMP	300	WHO	30 00.2N	159 00.5W	S	RAMA02WT
1846	28/ 4/80			YNPM E	PUMP	300	WHO	30 00.9N	159 00.5W	S	RAMA02WT
0715	4/ 5/80			YNPM B	PUMP	550	WHO	30 03.6N	158 46.3W	S	RAMA02WT
1115	4/ 5/80			YNPM E	PUMP	550	WHO	30 03.3N	158 47.2W	S	RAMA02WT
1900	6/ 5/80			YNPM B	PUMP		WHO	30 00.4N	158 52.9W	S	RAMA02WT
2230	6/ 5/80			YNPM E	PUMP		WHO	30 00.5N	158 53.7W	S	RAMA02WT
0800	9/ 5/80			YNPM B	PUMP	750	WHO	29 59.2N	158 48.5W	S	RAMA02WT
1145	9/ 5/80			YNPM E	PUMP	750	WHO	29 58.7N	158 48.9W	S	RAMA02WT
0340	11/ 5/80			YNPM B	PUMP	550	WHO	29 56.3N	158 45.5W	S	RAMA02WT
0700	11/ 5/80			YNPM E	PUMP	550	WHO	29 57.7N	158 46.8W	S	RAMA02WT
0730	11/ 5/80			YNPM B	PUMP	5800	WHO	29 58.0N	158 47.2W	S	RAMA02WT
1600	11/ 5/80			YNPM E	PUMP	5800	WHO	29 59.7N	158 48.9W	S	RAMA02WT
0940	12/ 5/80			YNPM B	PUMP	5600	WHO	30 00.7N	158 45.1W	S	RAMA02WT
1740	12/ 5/80			YNPM E	PUMP	5600	WHO	30 02.2N	158 48.3W	S	RAMA02WT
0730	14/ 5/80			YNPM B	PUMP	3000	WHO	30 11.0N	158 45.9W	S	RAMA02WT
1800	14/ 5/80			YNPM E	PUMP	3000	WHO	30 14.1N	158 44.2W	S	RAMA02WT
0530	15/ 5/80			YNPM B	PUMP	3000	WHO	29 59.9N	158 40.0W	S	RAMA02WT
1340	15/ 5/80			YNPM E	PUMP	3000	WHO	29 56.6N	158 42.5W	S	RAMA02WT
9900				END SAMPLE INDEX							RAMA02WT