

INFORMAL REPORT AND INDEX OF
NAVIGATION, DEPTH AND MAGNETIC DATA
(ISSUED AUGUST 1981)

RAMA EXPEDITION

LEG 14

Adak, Alaska (7 June 1981)
to
Dutch Harbor, Alaska (19 June 1981)

R/V T. Washington

Chief Scientist - B. Owens (WHOI)

Resident Marine Tech - J. Boaz

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

Data Collection Funded by ONR
Grant Number ONR-0440
Bathymetric Data Collection
and Processing Funded by
Defense Mapping Agency
Contract 800-81-C-0023
Data Processing Funded by SIA and DMA

NOTE

This is an index of underway geophysical data edited and processed shortly after the completion of the cruise leg and is intended primarily for informal use within the institution. This document is not to be reproduced or distributed outside Scripps without prior approval of the chief scientist or the Geological Data Center, Scripps Institution of Oceanography, La Jolla, California 92093.

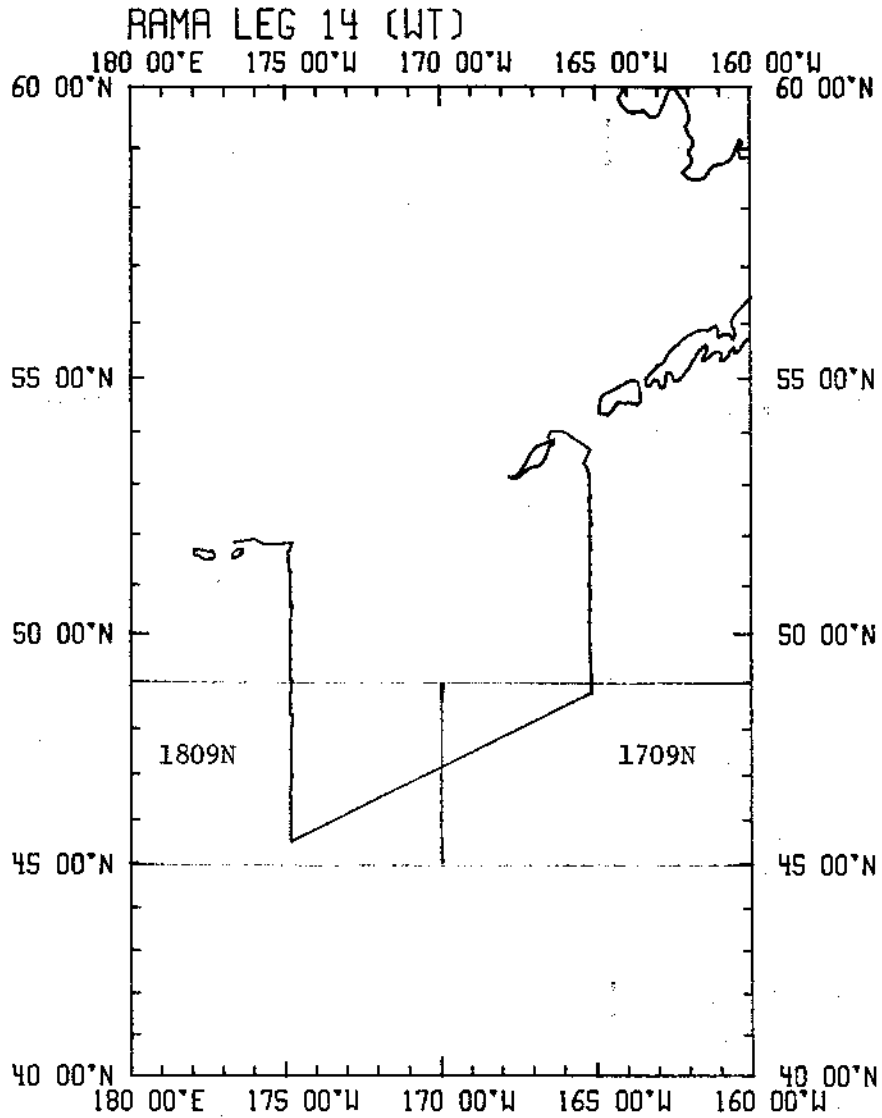
INFORMAL REPORT AND INDEX OF NAVIGATION, DEPTH, MAGNETIC
AND SUBBOTTOM PROFILER DATA

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



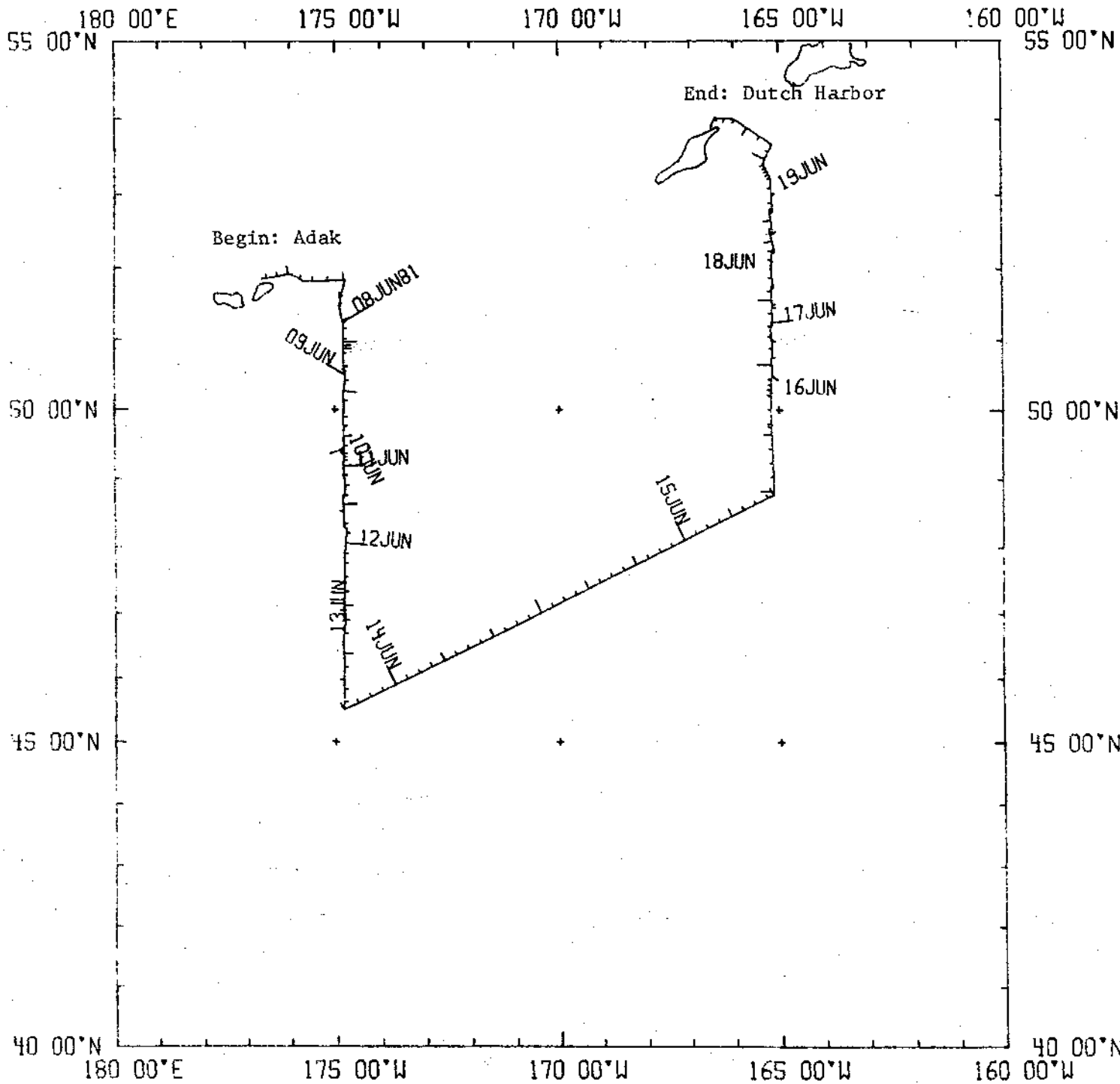
RAMA EXPEDITION
LEG 14

Chief Scientist: B. Owens (WHOI)
 Ports: Adak - Dutch Harbor, Alaska
 Dates: 7 - 19 June, 1981
 Ship: R/V T. Washington

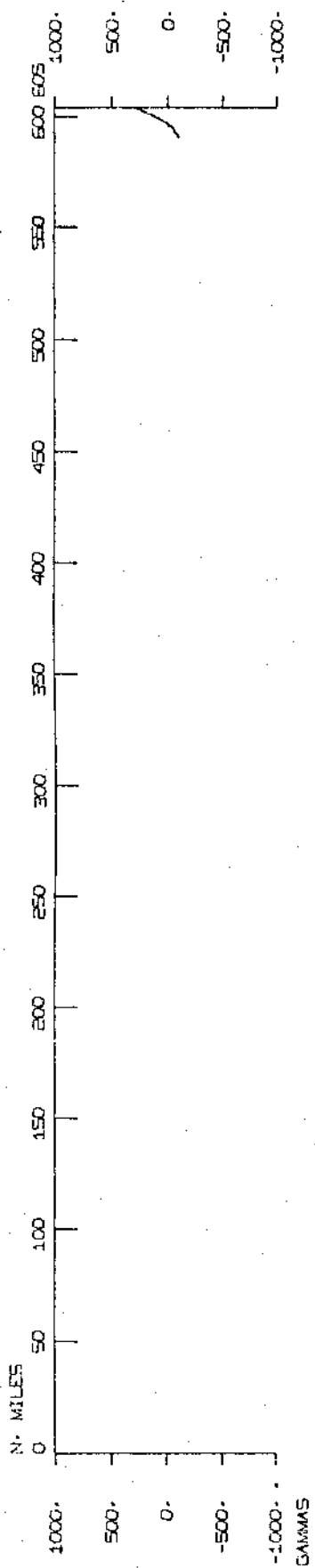
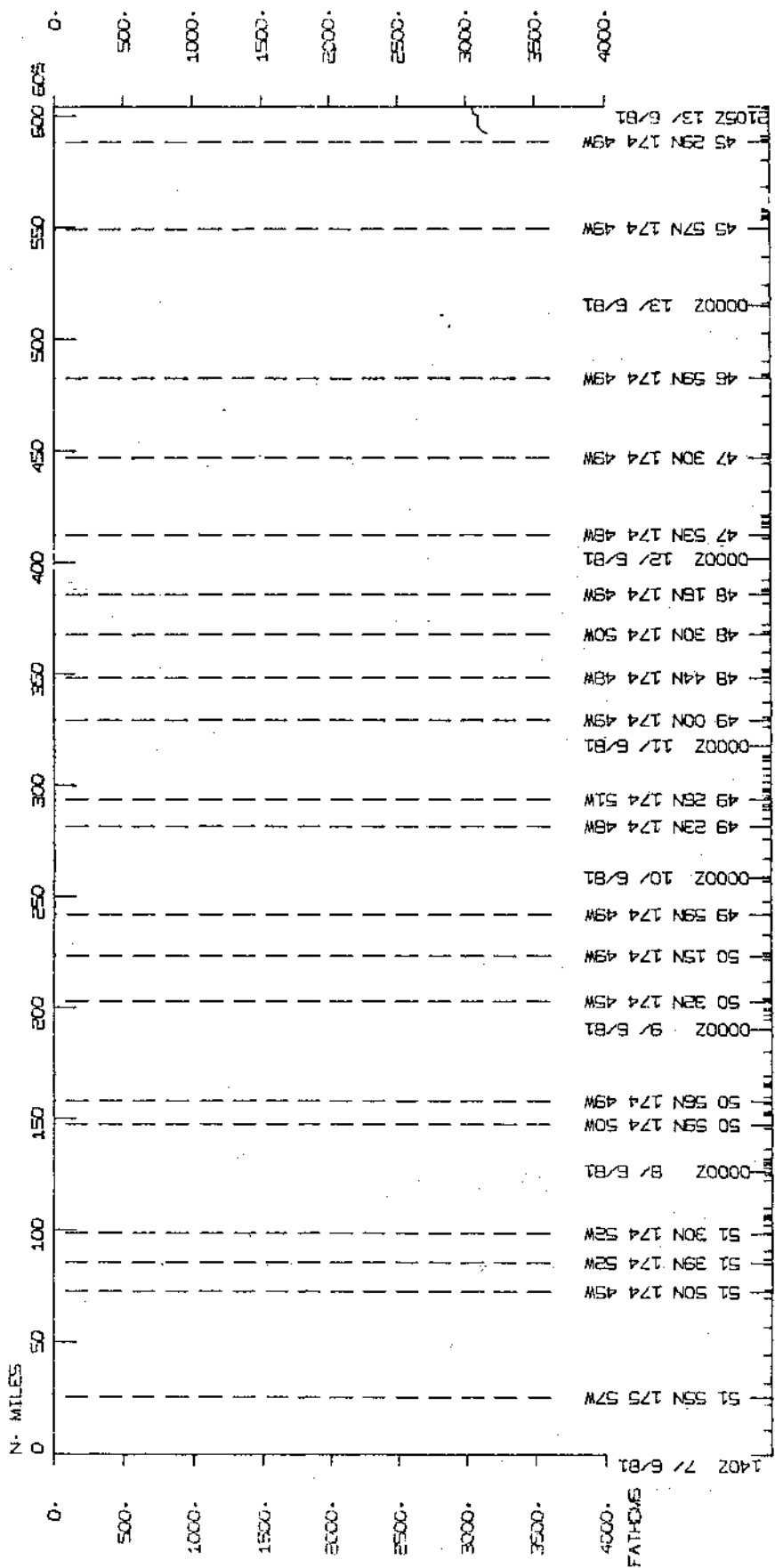
TOTAL MILEAGE OF UNDERWAY DATA COLLECTED

- 1) Cruise - 1459 miles
- 2) Bathymetry - 1006 miles
- 3) Magnetics - 1025 miles
- 4) Seismic Reflection - none collected
- 5) Gravity - none collected

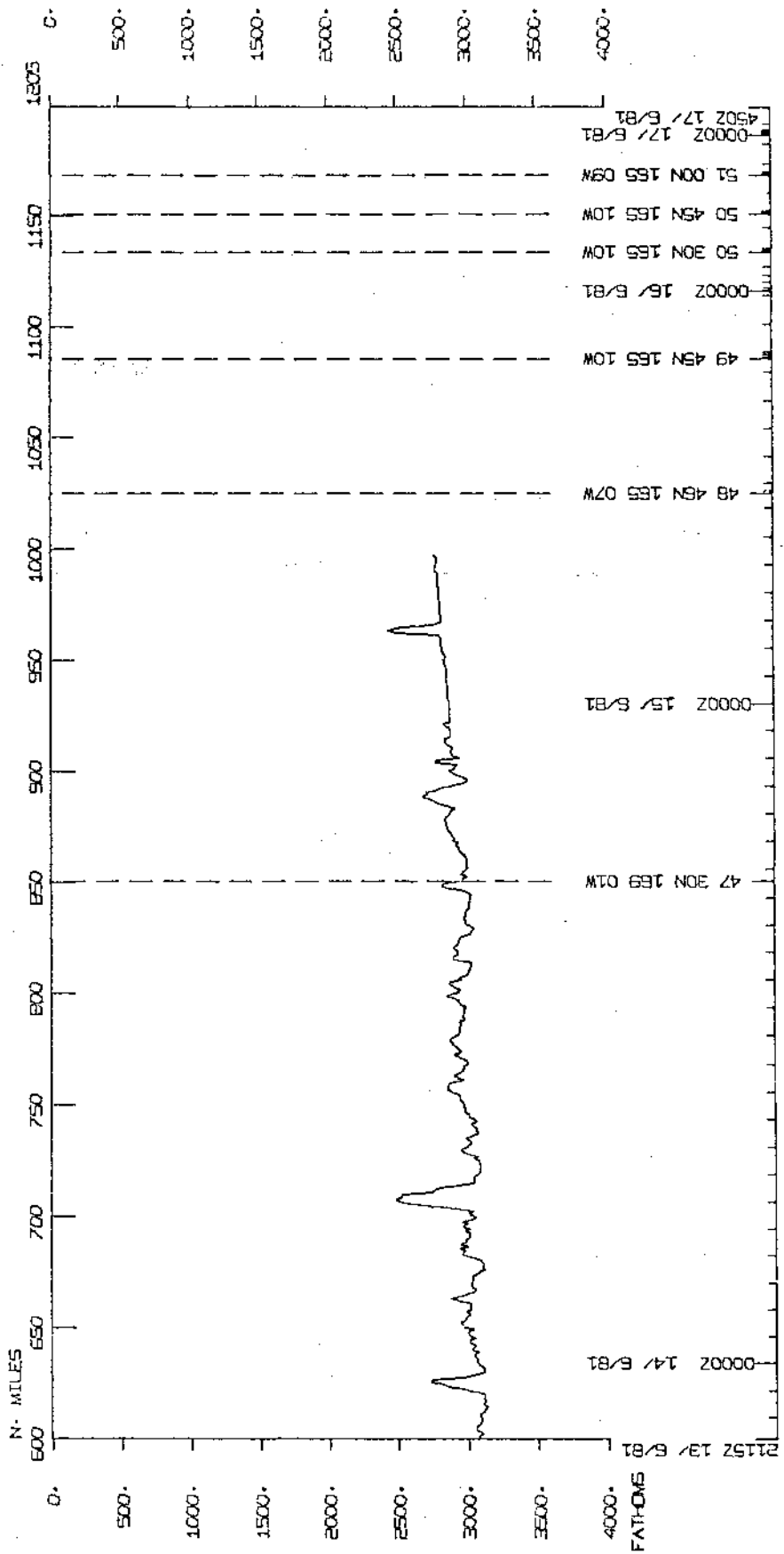
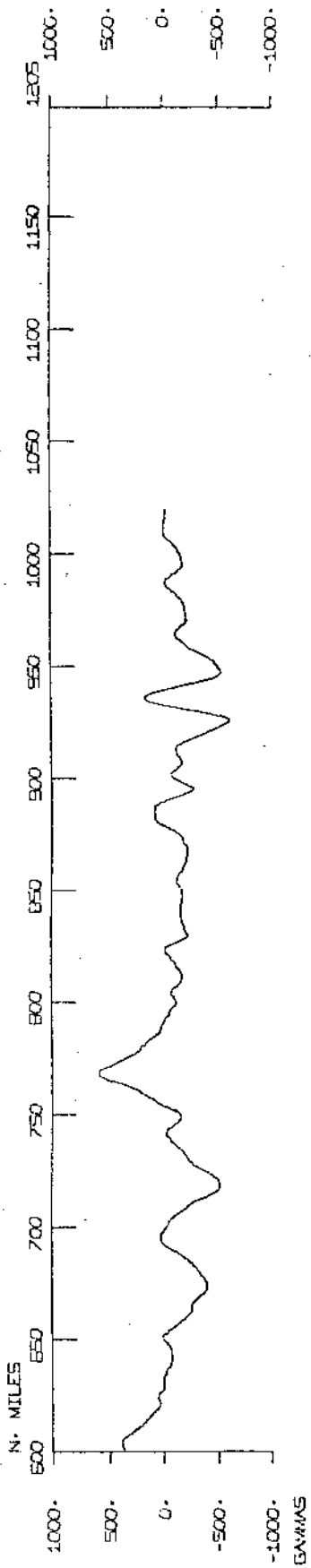
RAMA14WT
TRACK AT .312IN/DEGREE



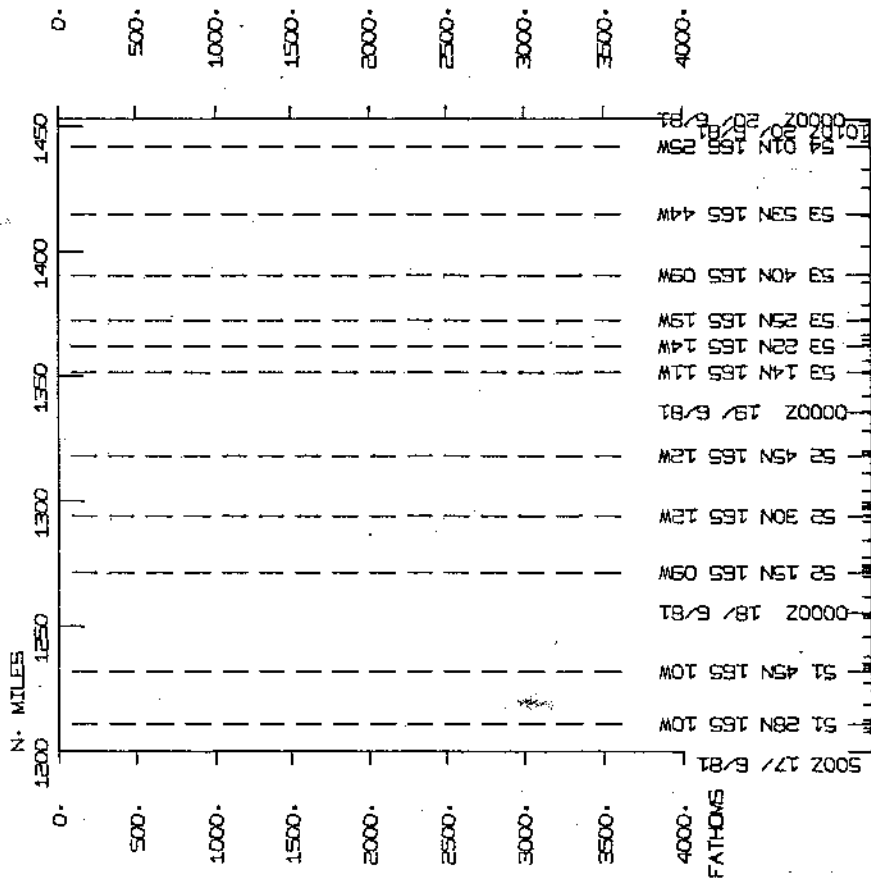
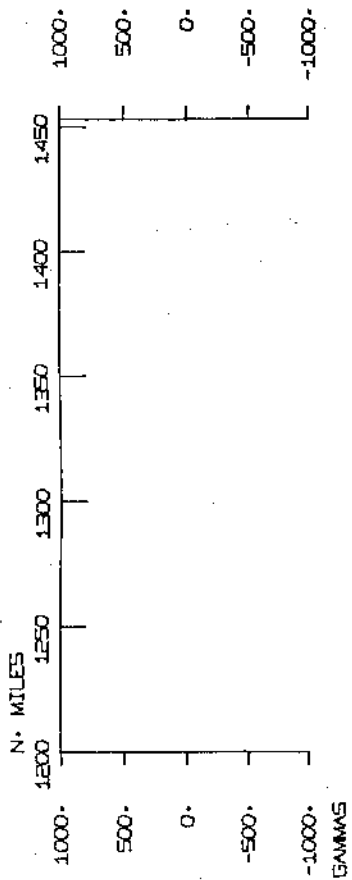
RAMA1/IWT



RAMA14WT



RAMA14WT



5002 17/ 6/81
 51 28N 165 10W
 51 45N 165 10W
 00002 18/ 6/81
 50 15N 165 09W
 50 30N 165 12W
 50 45N 165 12W
 00002 19/ 6/81
 50 14N 165 11W
 50 22N 165 14W
 50 32N 165 15W
 50 40N 165 09W
 50 53N 165 44W
 51 01N 165 09W
 51 02N 165 09W
 00002 20/ 6/81
 51 03N 165 09W
 00002 21/ 6/81

S.I.O. Sample Index
(Issued August 1981)

RAMA EXPEDITION

Leg 14

Adak, Alaska (7 June 1981)
to
Dutch Harbor, Alaska (19 June 1981)

R/V T. Washington

Chief Scientist - B. Owens (WHOI)

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

Index Encoding Funded by NSF
Grant Number OCE80-22996
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 cards. 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 11AUG81

*** RAMA LEG 14 SAMPLE INDEX

(RAMA14WT) ***

	60E	120E	180	120W	60W	0W
85N+.....+.....+.....+.....+.....+.....+.....+.....+.....+					
	'X' = SHIP'S TRACK BY 5 DEGREE SQUARE					
80N					0 0000	80N
75N		0		0 00000	0000000000	75N
70N		000000000000		0000 0 00 0	00000000	70N
65N	0000	00000000000000000000000000000000		0000000000000000	00 0000 0	65N
60N	000000000000000000000000000000000000			0000000000000000	00 00	60N
55N	0 000000000000000000000000000000	00	0	00000000	000	0 55N
50N	000000000000000000000000000000000000	0	XX	0000000000 0000		00 50N
45N	0000000000 0000000000000000000000		XX	000000000000 0		45N
40N	0 00 00 0000000000000000 0			000000000000		40N
35N	0 00000 0000000000000000 0			00000000		0 35N
30N	000 000 000000000000000000 0			00000000		00 30N
25N	0000000000 00000000000000			0000 0		000 25N
20N	0000000 0000 000 00000		0	0 00		000 20N
15N	00000000 00 0 00 0			00 0		000 15N
10N	000000000 0 0 0 0			0		000 10N
5N	0000000000		0		00000	000 5N
0N	0000000	00 00			000000	0N
5S	000000	0 0 0 00			0000000	5S
10S	00000	0 00 00			000000000	10S
15S	00000	0 0			000000	15S
20S	000000 0	00000			000000	20S
25S	0000 0	0000000			000000	25S
30S	00	00000000			0000	30S
35S	00	00 000	0		00000	35S
40S		00 0			000	40S
45S		0			00	45S
50S					00	50S
55S					0	55S
60S						60S
65S						65S
70S	00	0000000000			0	70S
75S	000000000000000000000000000000000000			0 00000	0000	75S
80S	000000000000000000000000000000000000			0000000000000000000000	000000	80S
85S	000000000000000000000000000000000000			000000000000000000000000000000000000		85S
90S	000000000000000000000000000000000000			000000000000000000000000000000000000		90S
+.....+.....+.....+.....+.....+.....+.....+.....+.....+					
	60E	120E	180	120W	60W	0W

07JUN81 - ADAK, ALASKA
TO
19JUN81 - DUTCH HARBOR, ALASKA

CHIEF SCIENTIST - OWENS, B. WHO

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
	CM	DP	HC	LB	MG	PE	TD	
GDC	I		1	1	1			I 3
MTG	I					2		I 2
SIX	I					1		I 1
WHO	I	10		37		12	40	I 99
TOTAL	I	10	1	37	1	15	40	I 105

SAMPLE 'TYPE' CODES USED ABOVE

- CM = CURRENT MEASUREMENT
- DP = DEPTH
- HC = HYDROGRAPHIC CAST
- LB = LOG BOOKS
- MG = MAGNETICS (TOWED VEHICLE, SURFACE, TOTAL FIELD)
- PE = PERSONNEL IN SCIENTIFIC PARTY
- TD = SALINITY/TEMPERATURE/DEPTH (STD)

SAMPLE 'DISP' CODES USED ABOVE

- GDC = GEOLOGICAL DATA CENTER -- S. SMITH (EXT. 2752)
- MTG = MARINE TECHNOLOGY GROUP (EXT 4194)
- SIX = SCRIPPS INSTITUTION NON-EMPLOYEE - CONTACT D. UTTER (EXT.3675)
- WHO = WOODS HOLE OCEANOGRAPHIC INSTITUTION

GMT D /M /Y	LOC	LOC	CODE	SAMPLE IDENT.	CODE	LAT.	LONG.	LEG-SHIP
TIME DATE	TIME	TZ	SAMP		DISP			CRUISE

RAMA LEG 14 SAMPLE INDEX

RAMA14WT

*** PORTS ***

0152	7/	6/81		LGPT B ADAK, ALASKA	51	51.6N	176 38.4W S	RAMA14WT
2000	19/	6/81		LGPT E DUTCH HARBOR, ALASKA	53	53.3N	166 31.3W S	RAMA14WT

PERSONNEL

*** NAME ***

*** TITLE ***

*** AFFILIATION ***

1 OWENS, B.	CHIEF SCIENTIST	WOODS HOLE OCEANOGRAPHIC INSTITUTION
2 BOAZ, J.	RESIDENT TECH	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
3 MOE, R.	COMPUTER TECH	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
4 WARREN, B.	PROFESSOR	WOODS HOLE OCEANOGRAPHIC INSTITUTION
5 BUDCOURT, R.	PROFESSOR	SCRIPPS INSTITUTION NON-EMPLOYEE - CONTACT D. UTTER (EXT.3675)
6 BROWN, E.	STUDENT	WOODS HOLE OCEANOGRAPHIC INSTITUTION
7 STANLEY, B.	TECHNICIAN	WOODS HOLE OCEANOGRAPHIC INSTITUTION
8 KNAPP, G.	TECHNICIAN	WOODS HOLE OCEANOGRAPHIC INSTITUTION
9 MLODZINSKA, Z.	TECHNICIAN	WOODS HOLE OCEANOGRAPHIC INSTITUTION
10 MC DEVITT, B.	TECHNICIAN	WOODS HOLE OCEANOGRAPHIC INSTITUTION
11 HORN, W.	TECHNICIAN	WOODS HOLE OCEANOGRAPHIC INSTITUTION
12 WORRILLOW, S.	TECHNICIAN	WOODS HOLE OCEANOGRAPHIC INSTITUTION
13 OSTRUM, W.	TECHNICIAN	WOODS HOLE OCEANOGRAPHIC INSTITUTION
14 KEMP, J.	TECHNICIAN	WOODS HOLE OCEANOGRAPHIC INSTITUTION
15 RAYMER, M.	TECHNICIAN	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 U /M /Y TIME DATE	LOC LOC TIME T2	CODE SAMP	SAMPLE IDENT.	CODE DISP	LAT.	LONG.	LEG-SHIP CRUISE
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**** UNDERWAY DATA CURATOR - STUART M. SMITH EXT. 2752 ****

*** LOG BOOKS ***

2015 13/06/81		LBWU B	UNDERWAY LOG	GDC 45	32.5N	174 42.6W	S RAMA14WT
0710 15/06/81		LBWU E	UNDERWAY LOG	GDC 48	44.8N	165 12.0W	S RAMA14WT

*** FATHOGRAMS ***

2015 13/ 6/81		DPRT B	UGR 12 KHZ R-01	GDC 45	32.5N	174 42.6W	S RAMA14WT
0710 15/ 6/81		DPRT E	UGR 12 KHZ R-01	GDC 48	44.8N	165 12.0W	S RAMA14WT

*** MAGNETOMETER ***

2015 13/ 6/81		MGRA B	MAGNETICS R-01	GDC 45	32.5N	174 42.6W	S RAMA14WT
0705 15/ 6/81		MGRA E	MAGNETICS R-01	GDC 48	44.3N	165 13.5W	S RAMA14WT

CURRENT MEASUREMENT

1150 8/ 6/81		CMAB B	DROP RAMA 14-729	WHO 50	59.6N	174 52.1W	S RAMA14WT
2000 19/ 6/81		CMAB C	RAMA 14-729	WHO 53	53.3N	166 31.3W	S RAMA14WT
0319 9/ 6/81		CMAB B	DROP RAMA 14-730	WHO 50	32.1N	174 50.4W	S RAMA14WT
2000 19/ 6/81		CMAB C	RAMA 14-730	WHO 53	53.3N	166 31.3W	S RAMA14WT
0753 10/ 6/81		CMAB B	DROP RAMA 14-731	WHO 49	25.9N	174 48.0W	S RAMA14WT
2000 19/ 6/81		CMAB C	RAMA 14-731	WHO 53	53.3N	166 31.3W	S RAMA14WT
0253 12/ 6/81		CMAB B	DROP RAMA 14-732	WHO 47	54.6N	174 47.7W	S RAMA14WT
2000 19/ 6/81		CMAB C	RAMA 14-732	WHO 53	53.3N	166 31.3W	S RAMA14WT
0754 13/ 6/81		CMAB B	DROP RAMA 14-734	WHO 45	58.4N	174 49.4W	S RAMA14WT
2000 19/ 6/81		CMAB C	RAMA 14-734	WHO 53	53.3N	166 31.3W	S RAMA14WT

HYDROGRAPHIC CAST

0815 7/ 6/81		HCNI	TSON	STA-01 05	WHO 51	50.6N	174 45.4W	S RAMA14WT
1007 7/ 6/81		HCNI	TSON	STA-02 13	WHO 51	39.4N	174 52.4W	S RAMA14WT
1515 7/ 6/81		HCNI	TSON	STA-03 24	WHO 51	30.2N	174 49.9W	S RAMA14WT
0535 8/ 6/81		HCNI	TSON	STA-04 24	WHO 51	14.8N	174 49.5W	S RAMA14WT
1330 8/ 6/81		HCNI	TSON	STA-05 24	WHO 50	56.8N	174 48.8W	S RAMA14WT
1735 8/ 6/81		HCNI	TSON	STA-06 24	WHO 50	49.7N	174 50.5W	S RAMA14WT
0500 9/ 6/81		HCNI	TSON	STA-07 24	WHO 50	32.2N	174 45.5W	S RAMA14WT
1215 9/ 6/81		HCNI	TSON	STA-08 24	WHO 50	15.0N	174 50.3W	S RAMA14WT
1810 9/ 6/81		HCNI	TSON	STA-09 24	WHO 49	59.5N	174 49.1W	S RAMA14W

GMT TIME	D / M / Y DATE	LOC TIME	LOC TZ	CODE SAMP	SAMPLE IDENT.	CODE DISP	LAT.	LONG.	LEG-SHIP
2228	9/ 6/81			HCNI	TSON	STA-10 24	WHO 49 50.2N	174 50.4W	S RAMA14WT
0917	10/ 6/81			HCNI	TSON	STA-11 25	WHO 49 26.1N	174 51.1W	S RAMA14WT
1927	10/ 6/81			HCNI	TSON	STA-12 24	WHO 49 15.2N	174 50.0W	S RAMA14WT
0138	11/ 6/81			HCNI	TSON	STA-13 24	WHO 49 00.2N	174 49.0W	S RAMA14WT
0718	11/ 6/81			HCNI	TSON	STA-14 24	WHO 48 44.4N	174 48.5W	S RAMA14WT
1306	11/ 6/81			HCNI	TSON	STA-15 24	WHO 48 30.3N	174 50.8W	S RAMA14WT
1830	11/ 6/81			HCNI	TSON	STA-16 24	WHO 48 16.6N	174 49.5W	S RAMA14WT
0426	12/ 6/81			HCNI	TSON	STA-17 24	WHO 47 55.9N	174 48.6W	S RAMA14WT
1025	12/ 6/81			HCNI	TSON	STA-18 24	WHO 47 30.9N	174 49.6W	S RAMA14WT
1646	12/ 6/81			HCNI	TSON	STA-19 24	WHO 46 59.3N	174 49.7W	S RAMA14WT
2308	12/ 6/81			HCNI	TSON	STA-20 24	WHO 46 29.9N	174 50.9W	S RAMA14WT
0915	13/ 6/81			HCNI	TSON	STA-21 24	WHO 45 59.2N	174 49.7W	S RAMA14WT
1545	13/ 6/81			HCNI	TSON	STA-22 24	WHO 45 29.9N	174 49.8W	S RAMA14WT
0738	15/ 6/81			HCNI	TSON	STA-23 24	WHO 48 46.4N	165 07.1W	S RAMA14WT
1635	15/ 6/81			HCNI	TSON	STA-24 24	WHO 49 45.4N	165 10.2W	S RAMA14WT
0025	16/ 6/81			HCNI	TSON	STA-25 24	WHO 50 14.8N	165 10.7W	S RAMA14WT
0725	16/ 6/81			HCNI	TSON	STA-26 24	WHO 50 27.1N	165 10.2W	S RAMA14WT
1239	16/ 6/81			HCNI	TSON	STA-27 24	WHO 50 45.0N	165 10.0W	S RAMA14WT
1758	16/ 6/81			HCNI	TSON	STA-28 24	WHO 51 00.8N	165 09.9W	S RAMA14WT
2324	16/ 6/81			HCNI	TSON	STA-29 24	WHO 51 15.5N	165 10.2W	S RAMA14WT
0631	17/ 6/81			HCNI	TSON	STA-30 24	WHO 51 29.9N	165 08.5W	S RAMA14WT
1340	17/ 6/81			HCNI	TSON	STA-31 24	WHO 51 45.5N	165 10.4W	S RAMA14WT
2008	17/ 6/81			HCNI	TSON	STA-32 24	WHO 52 00.1N	165 11.2W	S RAMA14WT
0215	18/ 6/81			HCNI	TSON	STA-33 24	WHO 52 15.6N	165 09.6W	S RAMA14WT
0925	18/ 6/81			HCNI	TSON	STA-34 24	WHO 52 30.8N	165 12.4W	S RAMA14WT
1718	18/ 6/81			HCNI	TSON	STA-35 24	WHO 52 46.0N	165 11.8W	S RAMA14WT
2253	18/ 6/81			HCNI	TSON	STA-36 24	WHO 52 60.0N	165 10.9W	S RAMA14WT
0305	19/ 6/81			HCNI	TSON	STA-37 24	WHO 53 14.4N	165 11.3W	S RAMA14WT

CONDUCTIVITY, TEMPERATURE, DEPTH

0815	7/ 6/81			TDOT B	STA-01	0177M R05	WHO 51 50.6N	174 45.4W	S RAMA14WT
0855	7/ 6/81			TDOT E	STA-01	0177M R05	WHO 51 50.9N	174 46.1W	S RAMA14WT
1007	7/ 6/81			TDOT B	STA-02	2104M R13	WHO 51 39.4N	174 52.4W	S RAMA14WT
1209	7/ 6/81			TDOT E	STA-02	2104M R13	WHO 51 40.1N	174 55.4W	S RAMA14WT
1515	7/ 6/81			TDOT B	STA-03	4384M R24	WHO 51 30.2N	174 49.9W	S RAMA14WT
1838	7/ 6/81			TDOT E	STA-03	4384M R24	WHO 51 31.4N	174 55.7W	S RAMA14WT
0535	8/ 6/81			TDOT B	STA-04	4043M R24	WHO 51 14.8N	174 49.5W	S RAMA14WT
0825	8/ 6/81			TDOT E	STA-04	4043M R24	WHO 51 14.5N	174 49.2W	S RAMA14WT
1330	8/ 6/81			TDOT B	STA-05	4692M R24	WHO 50 56.8N	174 48.8W	S RAMA14WT
1637	8/ 6/81			TDOT E	STA-05	4692M R24	WHO 50 56.2N	174 49.1W	S RAMA14WT
1735	8/ 6/81			TDOT B	STA-06	6155M R24	WHO 50 49.7N	174 50.5W	S RAMA14WT
2138	8/ 6/81			TDOT E	STA-06	6155M R24	WHO 50 51.3N	174 50.1W	S RAMA14WT
0500	9/ 6/81			TDOT B	STA-07	7260M R24	WHO 50 32.2N	174 45.5W	S RAMA14WT
0956	9/ 6/81			TDOT E	STA-07	7260M R24	WHO 50 33.6N	174 46.0W	S RAMA14WT

GMT TIME	D DATE	/M /Y	LOC TIME	LOC TZ	CODE SAMP	SAMPLE IDENT.	CODE DISP	LAT.	LONG.	LEG-SHIP CRUISE
1215	9/	6/81			TDOT B	STA-08	5564M R24	WHO 50 15.0N	174 50.3W	S RAMA14WT
1605	9/	6/81			TDOT E	STA-08	5564M R24	WHO 50 15.9N	174 50.3W	S RAMA14WT
1810	9/	6/81			TDOT B	STA-09	5072M R24	WHO 49 59.5N	174 49.1W	S RAMA14WT
2120	9/	6/81			TDOT E	STA-09	5072M R24	WHO 49 59.7N	174 50.1W	S RAMA14WT
2228	9/	6/81			TDOT B	STA-10	5228M R24	WHO 49 50.2N	174 50.4W	S RAMA14WT
0300	10/	6/81			TDOT E	STA-10	5228M R24	WHO 49 45.3N	174 49.7W	S RAMA14WT
0917	10/	6/81			TDOT B	STA-11	5609M R24	WHO 49 26.1N	174 51.1W	S RAMA14WT
1426	10/	6/81			TDOT E	STA-11	5609M R24	WHO 49 27.2N	174 51.8W	S RAMA14WT
1927	10/	6/81			TDOT B	STA-12	5176M R24	WHO 49 15.2N	174 50.0W	S RAMA14WT
2312	10/	6/81			TDOT E	STA-12	5176M R24	WHO 49 16.1N	174 49.8W	S RAMA14WT
0138	11/	6/81			TDOT B	STA-13	5369M R24	WHO 49 00.2N	174 49.0W	S RAMA14WT
0510	11/	6/81			TDOT E	STA-13	5369M R24	WHO 49 00.9N	174 47.4W	S RAMA14WT
0718	11/	6/81			TDOT B	STA-14	5392M R24	WHO 48 44.4N	174 48.5W	S RAMA14WT
1000	11/	6/81			TDOT E	STA-14	5392M R24	WHO 48 45.6N	174 50.6W	S RAMA14WT
1306	11/	6/81			TDOT B	STA-15	5485M R24	WHO 48 30.3N	174 50.8W	S RAMA14WT
1635	11/	6/81			TDOT E	STA-15	5485M R24	WHO 48 31.6N	174 49.5W	S RAMA14WT
1830	11/	6/81			TDOT B	STA-16	5427M R24	WHO 48 16.6N	174 49.5W	S RAMA14WT
2220	11/	6/81			TDOT E	STA-16	5427M R24	WHO 48 16.5N	174 45.8W	S RAMA14WT
0426	12/	6/81			TDOT B	STA-17	5626M R24	WHO 47 55.9N	174 48.6W	S RAMA14WT
0805	12/	6/81			TDOT E	STA-17	5626M R24	WHO 47 56.0N	174 48.7W	S RAMA14WT
1025	12/	6/81			TDOT B	STA-18	5677M R24	WHO 47 30.9N	174 49.6W	S RAMA14WT
1300	12/	6/81			TDOT E	STA-18	5677M R24	WHO 47 32.0N	174 48.8W	S RAMA14WT
1646	12/	6/81			TDOT B	STA-19	5720M R24	WHO 46 59.3N	174 49.7W	S RAMA14WT
2029	12/	6/81			TDOT E	STA-19	5720M R24	WHO 46 59.1N	174 47.2W	S RAMA14WT
2308	12/	6/81			TDOT B	STA-20	5857M R24	WHO 46 29.9N	174 50.9W	S RAMA14WT
0320	13/	6/81			TDOT E	STA-20	5857M R24	WHO 46 30.1N	174 49.2W	S RAMA14WT
0915	13/	6/81			TDOT B	STA-21	5730M R24	WHO 45 59.2N	174 49.7W	S RAMA14WT
1258	13/	6/81			TDOT E	STA-21	5730M R24	WHO 45 59.6N	174 49.3W	S RAMA14WT
1545	13/	6/81			TDOT B	STA-22	5876M R24	WHO 45 29.9N	174 49.8W	S RAMA14WT
1943	13/	6/81			TDOT E	STA-22	5876M R24	WHO 45 30.6N	174 48.0W	S RAMA14WT
0738	15/	6/81			TDOT B	STA-23	5148M R24	WHO 48 46.4N	165 07.1W	S RAMA14WT
1130	15/	6/81			TDOT E	STA-23	5148M R24	WHO 48 46.5N	165 07.0W	S RAMA14WT
1635	15/	6/81			TDOT B	STA-24	5062M R24	WHO 49 45.4N	165 10.2W	S RAMA14WT
2058	15/	6/81			TDOT E	STA-24	5062M R24	WHO 49 47.8N	165 10.0W	S RAMA14WT
0025	16/	6/81			TDOT B	STA-25	4982M R24	WHO 50 14.8N	165 10.7W	S RAMA14WT
0400	16/	6/81			TDOT E	STA-25	4982M R24	WHO 50 14.3N	165 11.0W	S RAMA14WT

GMT D /M /Y TIME DATE	LOC TIME	LOC TZ	CODE SAMP	SAMPLE IDENT.	CODE DISP	LAT.	LONG.	LEG-SHIP CRUISE
0725 16/ 6/81			TDOT B	STA-26	4948M R24	WHO 50	27.1N 165 10.2W	S RAMA14WT
1101 16/ 6/81			TDOT E	STA-26	4948M R24	WHO 50	29.7N 165 10.3W	S RAMA14WT
1239 16/ 6/81			TDOT B	STA-27	4847M R24	WHO 50	45.0N 165 10.0W	S RAMA14WT
1600 16/ 6/81			TDOT E	STA-27	4847M R24	WHO 50	44.5N 165 09.8W	S RAMA14WT
1758 16/ 6/81			TDOT B	STA-28	4775M R24	WHO 51	00.8N 165 09.9W	S RAMA14WT
2135 16/ 6/81			TDOT E	STA-28	4775M R24	WHO 50	59.4N 165 11.2W	S RAMA14WT
2324 16/ 6/81			TDOT B	STA-29	4845M R24	WHO 51	15.5N 165 10.2W	S RAMA14WT
0305 17/ 6/81			TDOT E	STA-29	4845M R24	WHO 51	13.5N 165 11.1W	S RAMA14WT
0631 17/ 6/81			TDOT B	STA-30	4955M R24	WHO 51	29.9N 165 08.5W	S RAMA14WT
1045 17/ 6/81			TDOT E	STA-30	4955M R24	WHO 51	26.7N 165 10.1W	S RAMA14WT
1340 17/ 6/81			TDOT B	STA-31	4914M R24	WHO 51	45.5N 165 10.4W	S RAMA14WT
1735 17/ 6/81			TDOT E	STA-31	4914M R24	WHO 51	43.2N 165 08.0W	S RAMA14WT
2008 17/ 6/81			TDOT B	STA-32	5185M R24	WHO 52	00.1N 165 10.2W	S RAMA14WT
2350 17/ 6/81			TDOT E	STA-32	5185M R24	WHO 52	59.7N 165 10.2W	S RAMA14WT
0215 18/ 6/81			TDOT B	STA-33	5974M R24	WHO 52	15.6N 165 09.6W	S RAMA14WT
0625 18/ 6/81			TDOT E	STA-33	5974M R24	WHO 52	12.8N 165 06.3W	S RAMA14WT
0925 18/ 6/81			TDOT B	STA-34	7095M R24	WHO 52	30.8N 165 12.4W	S RAMA14WT
1410 18/ 6/81			TDOT E	STA-34	7095M R24	WHO 52	28.0N 165 08.2W	S RAMA14WT
1718 18/ 6/81			TDOT B	STA-35	4678M R24	WHO 52	46.0N 165 11.8W	S RAMA14WT
2055 18/ 6/81			TDOT E	STA-35	4678M R24	WHO 52	45.4N 165 08.6W	S RAMA14WT
2253 18/ 6/81			TDOT B	STA-36	3471M R24	WHO 52	60.0N 165 10.9W	S RAMA14WT
0110 19/ 6/81			TDOT E	STA-36	3471M R24	WHO 52	59.1N 165 10.2W	S RAMA14WT
0305 19/ 6/81			TDOT B	STA-37	3680M R24	WHO 53	14.4N 165 11.3W	S RAMA14WT
0600 19/ 6/81			TDOT E	STA-37	3680M R24	WHO 53	16.5N 165 13.2W	S RAMA14WT
0647 19/ 6/81			TDOT B	STA-38	2775M R17	WHO 53	22.3N 165 14.2W	S RAMA14WT
0857 19/ 6/81			TDOT E	STA-38	2775M R17	WHO 53	20.0N 165 19.8W	S RAMA14WT
0942 19/ 6/81			TDOT B	STA-39	1675M R13	WHO 53	25.2N 165 18.1W	S RAMA14WT
1112 19/ 6/81			TDOT E	STA-39	1675M R13	WHO 53	24.9N 165 20.4W	S RAMA14WT
1320 19/ 6/81			TDOT B	STA -40	0305M R07	WHO 53	40.4N 165 09.2W	S RAMA14WT
1352 19/ 6/81			TDOT E	STA -40	0305M R07	WHO 53	40.5N 165 08.8W	S RAMA14WT

9900

END SAMPLE INDEX

RAMA14WT