

INFORMAL REPORT AND INDEX OF  
NAVIGATION, DEPTH AND MAGNETIC DATA

(Issued November 30, 1978)

MARIANA EXPEDITION

LEG 1

San Diego, California (24 July 1978)  
to  
Honolulu, Hawaii (1 August 1978)

R/V T. Washington

Chief Scientist - R. Wilson (SIO)

Resident Marine Tech - R. 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, ONR

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 Geological Data Center, Scripps Institution of Oceanography, La Jolla, California 92093.

Informal Report and Index of Navigation, Depth, Magnetic and Subbottom Profiler Data\*

Contents:

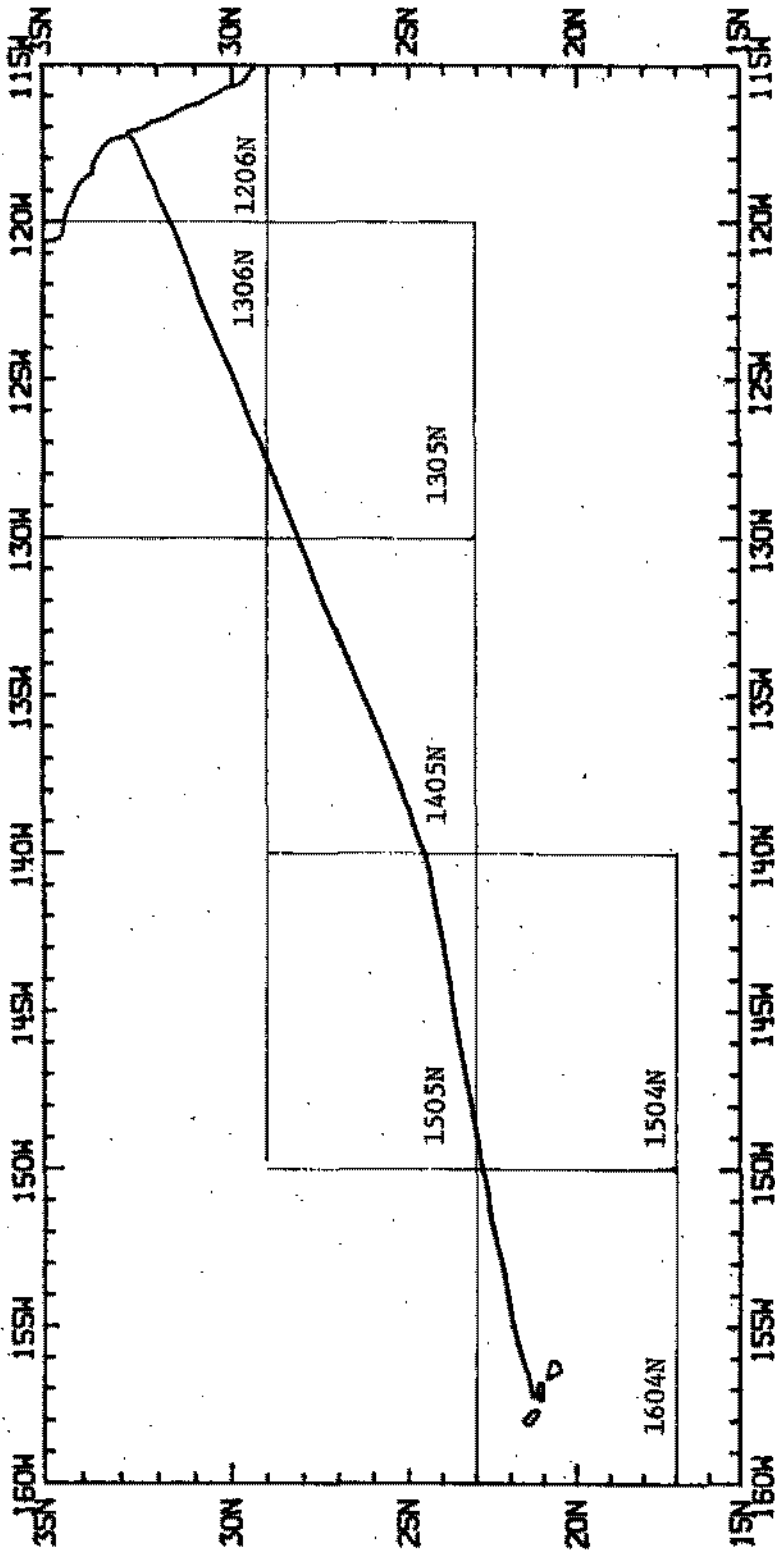
- Index Chart - gives track of cruise leg and boundaries of depth compilation plots (see below).
- Track Charts - annotated with dates (day/month) and hour ticks. The scale is .3"/deg. long.
- Profiles - Depth and magnetic anomaly vs. distance. Dates (day/month) and positions of major course changes (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.) at approximately 1 mile spacing, plotted at 4"/degree with standard U. S. Navy Oceanographic Office BC series boundaries (see index chart).
3. Plots of magnetic anomaly profiles along track - map scale = 1.2"/degree; anomaly scale between 15°N and 15°S latitude = 500 gamm/inch; anomaly scale north of 15°N and south of 15°S = 1000 gamm/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

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\* NO SUBBOTTOM PROFILER DATA COLLECTED



MARIANA EXPEDITION  
LEG 1

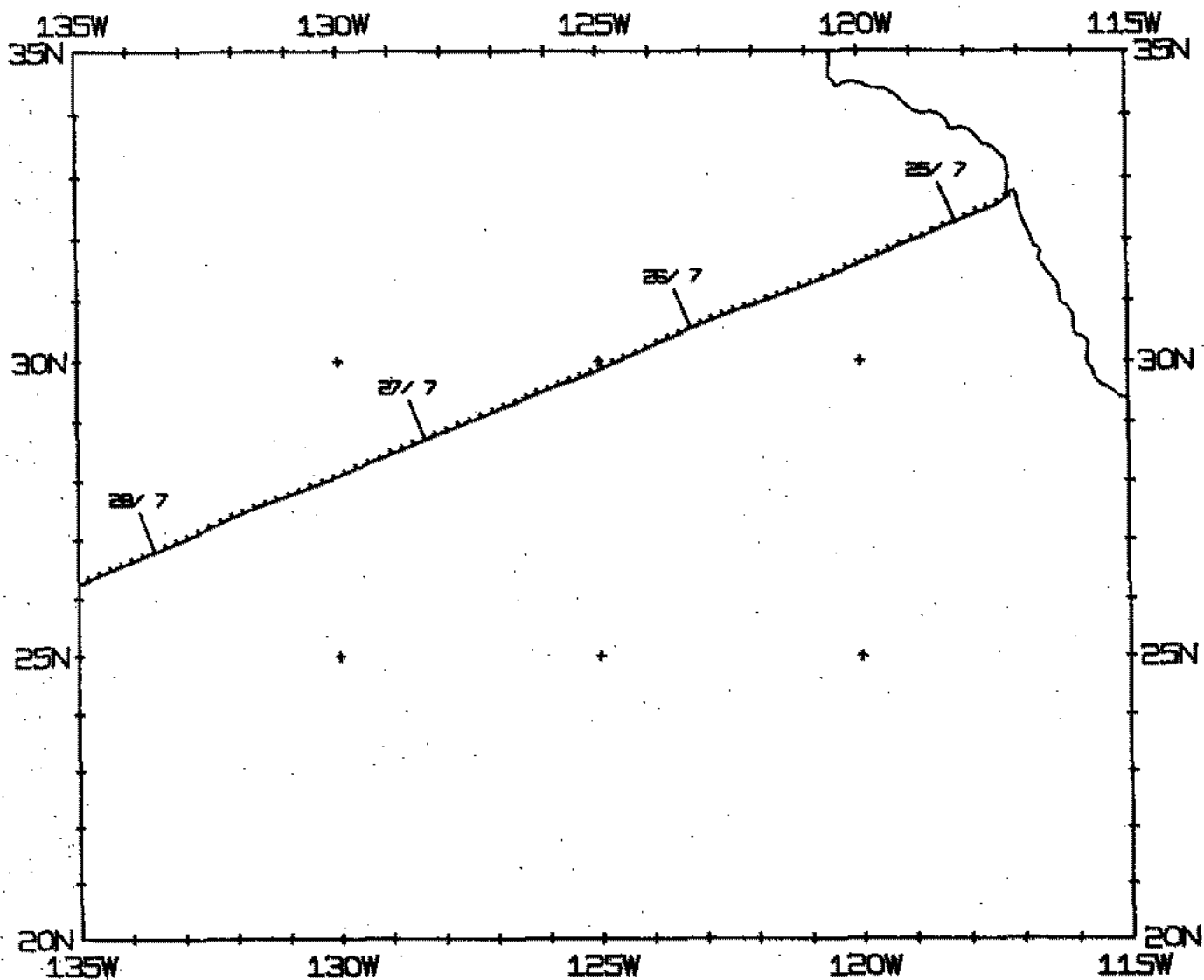
Chief Scientist - R. Wilson  
 Ports: San Diego to Honolulu, Hawaii  
 Dates: 24 July to 1 August 1978  
 Ship: R/V T. Washington

TOTAL MILEAGE

- 1) Cruise - 2305 miles
- 2) Bathymetry - 2923 miles
- 3) Magnetics - 2990 miles
- 4) Seismic Reflection - none collected
- 5) Gravity - none collected

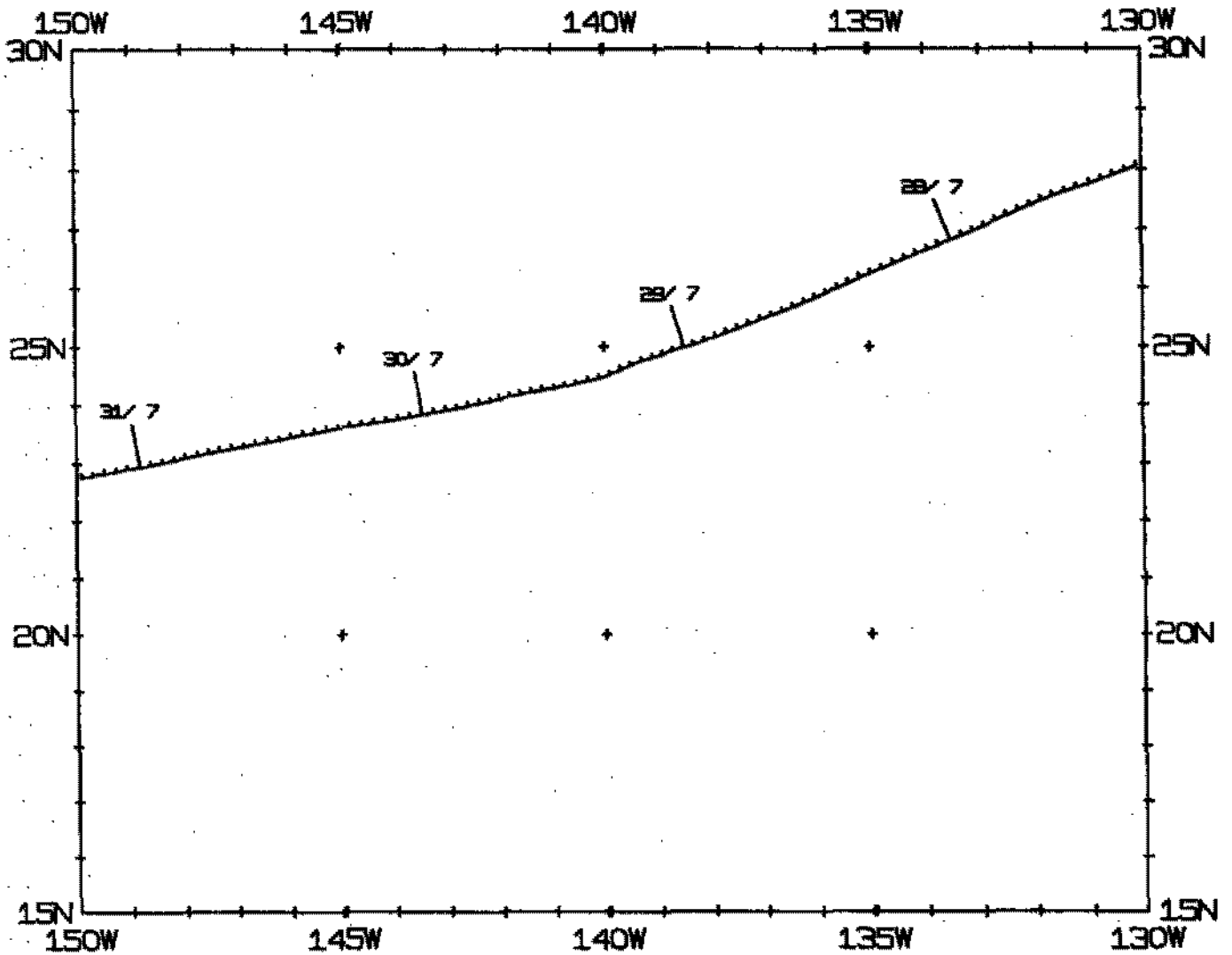
MARA01WT TRACK PLOT (1 OF 3)

MERCATOR PROJECTION, SCALE= 0.312 IN/DEG LONGITUDE



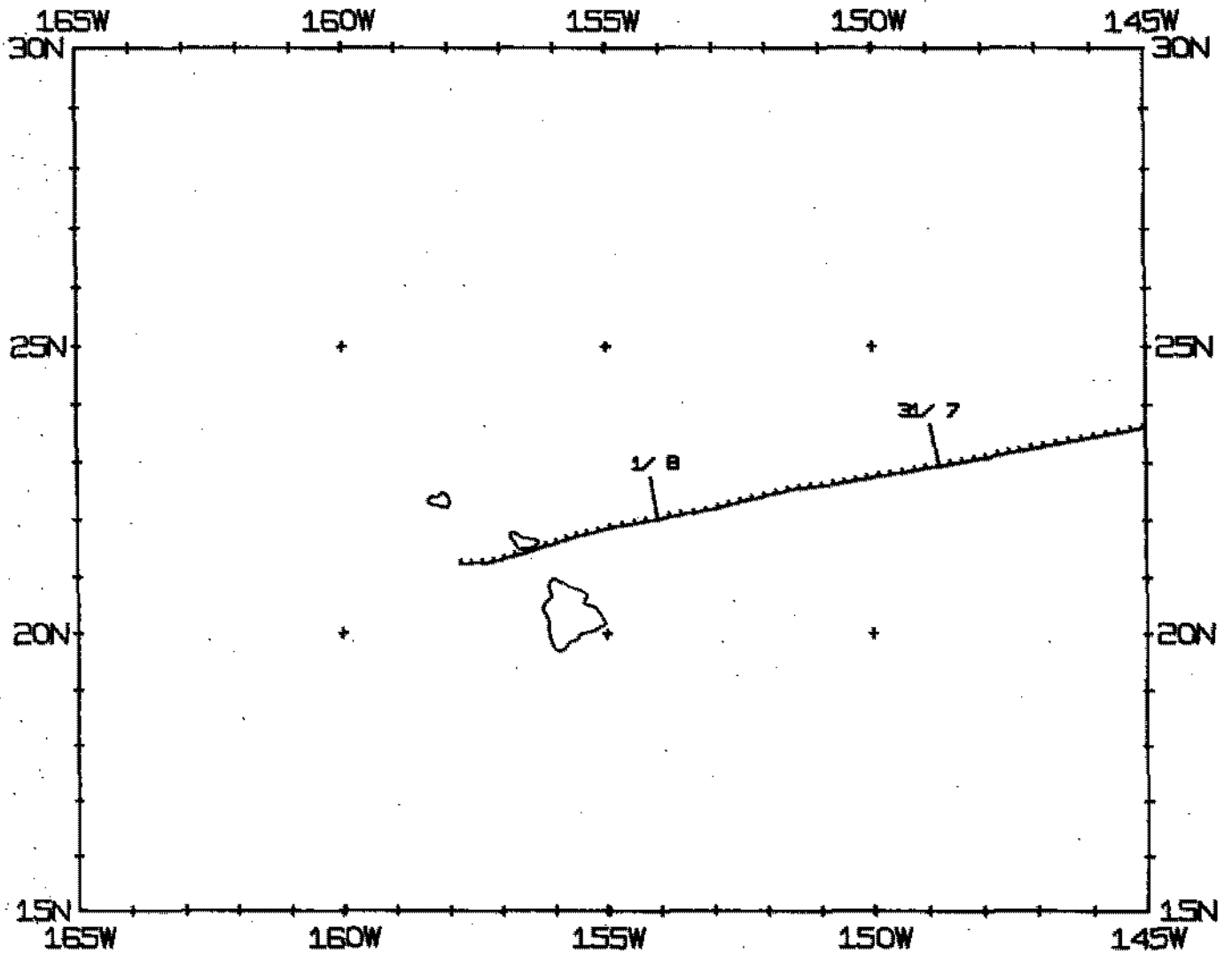
MARAD1WT TRACK PLOT (2 OF 3)

MERCATOR PROJECTION, SCALE= 0.312 IN/DEG LONGITUDE

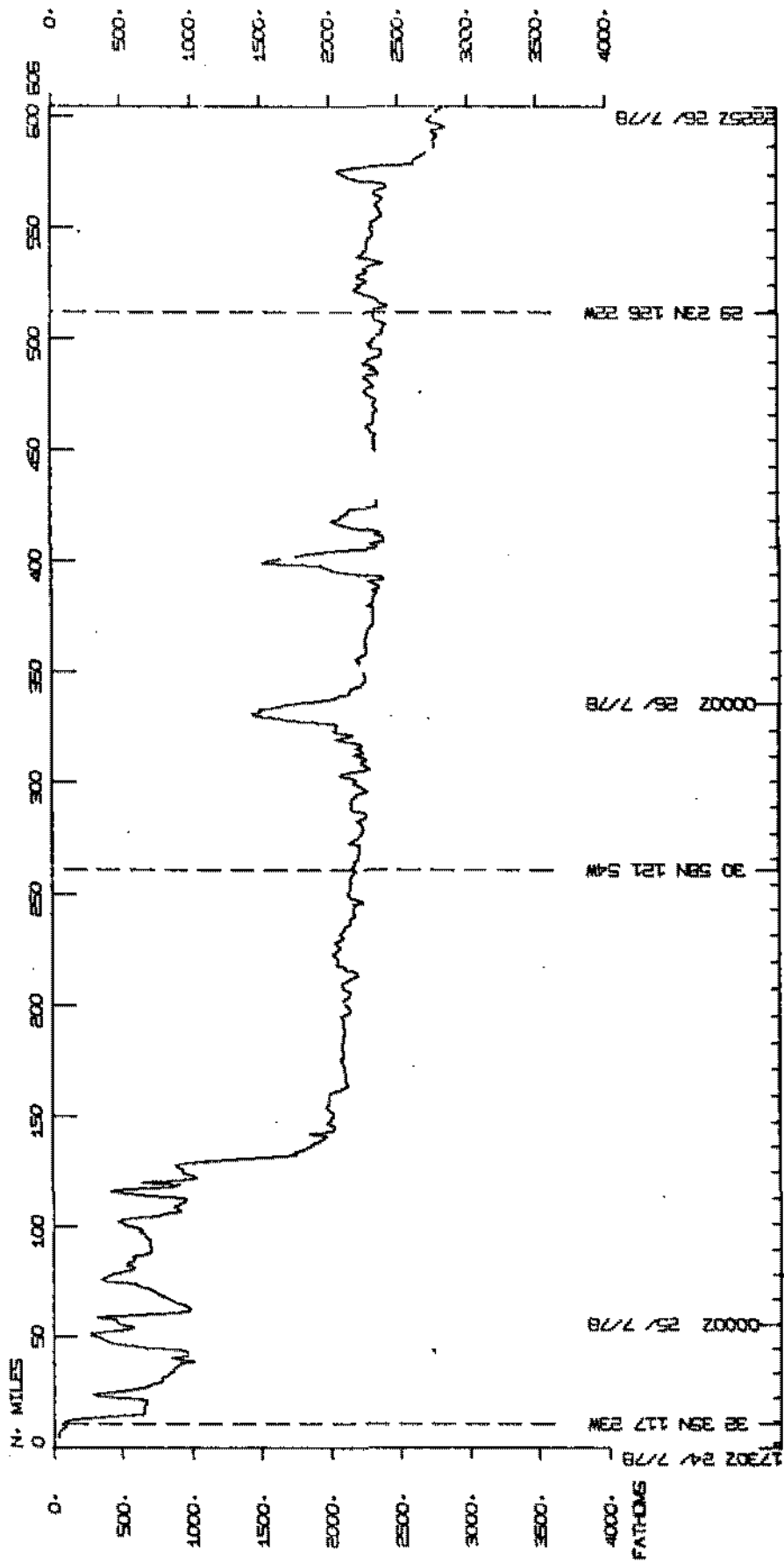
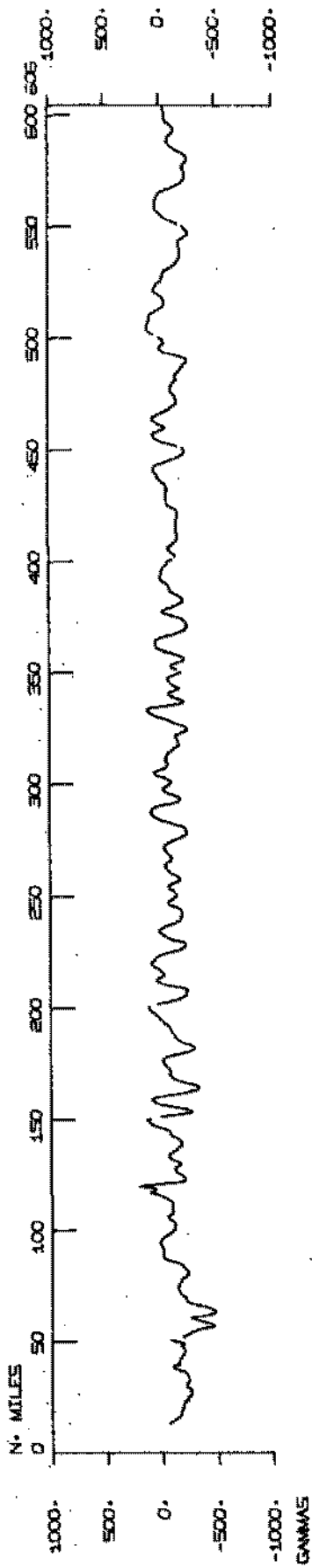


MARAD1WT TRACK PLOT (3 OF 3)

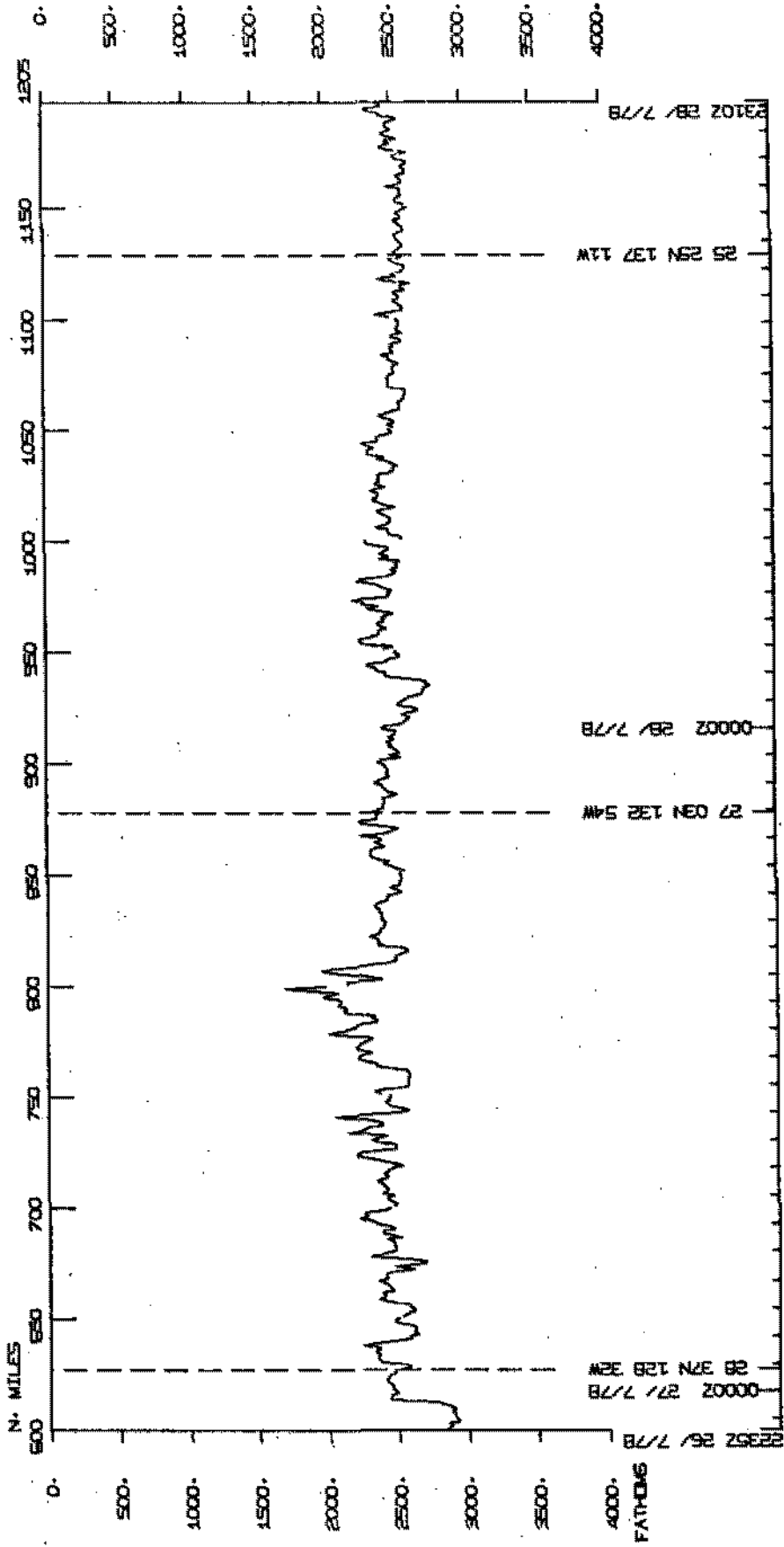
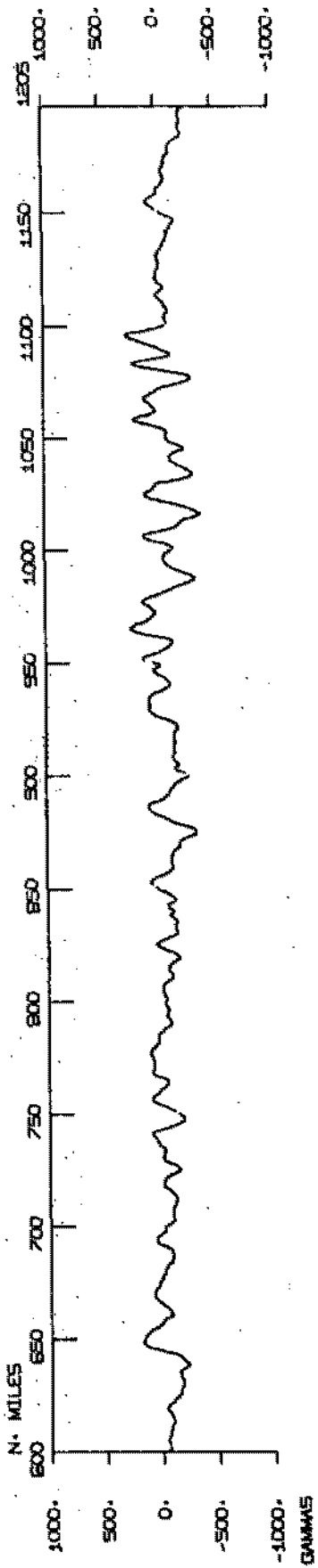
MERCATOR PROJECTION, SCALE= 0.312 IN/DEG LONGITUDE



# MARIANA LEG 1

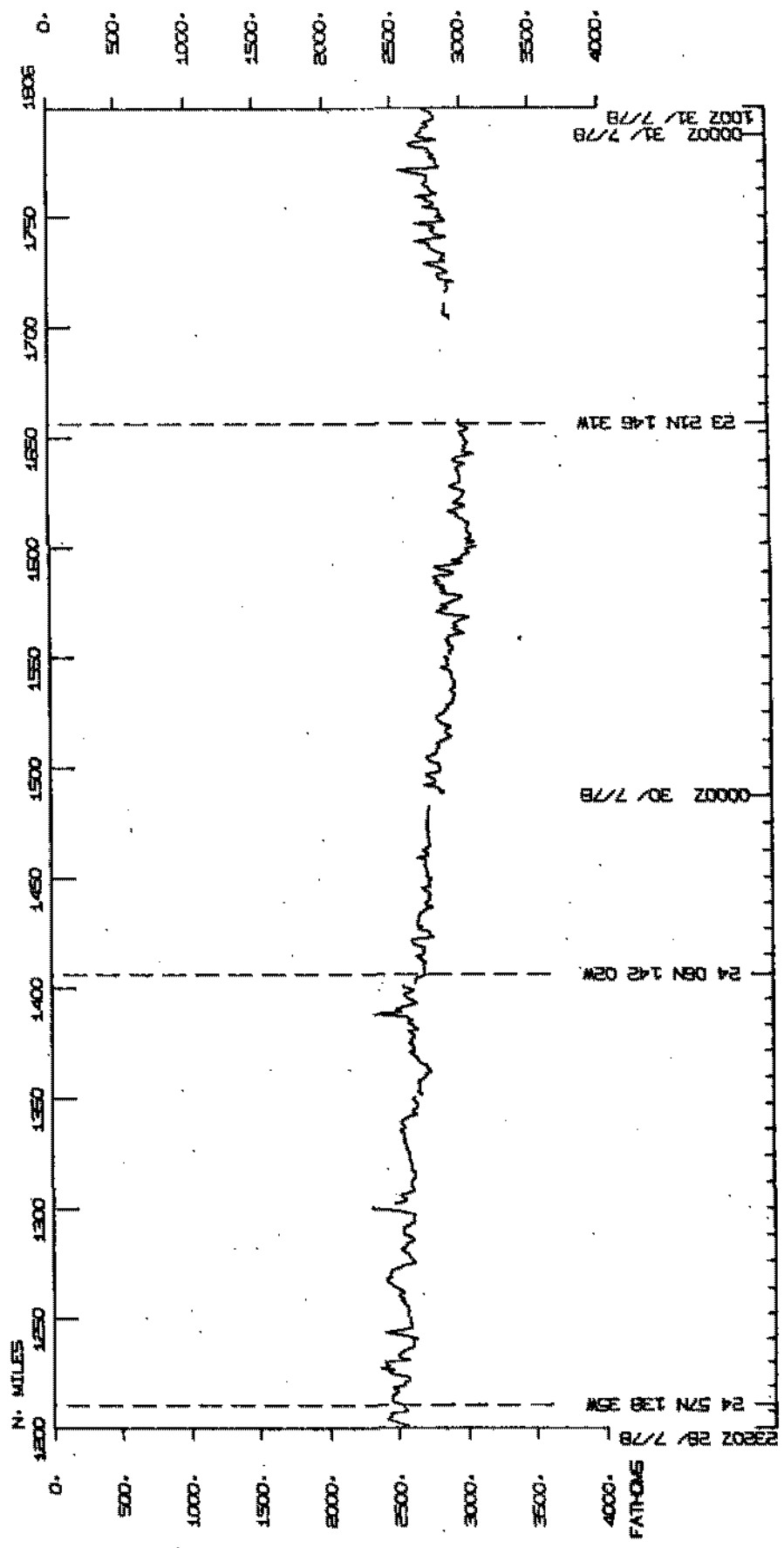
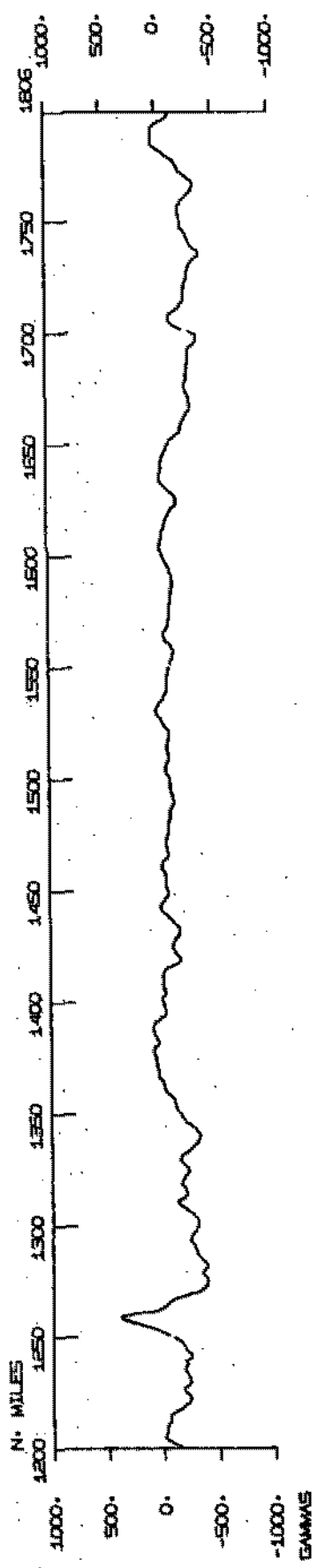


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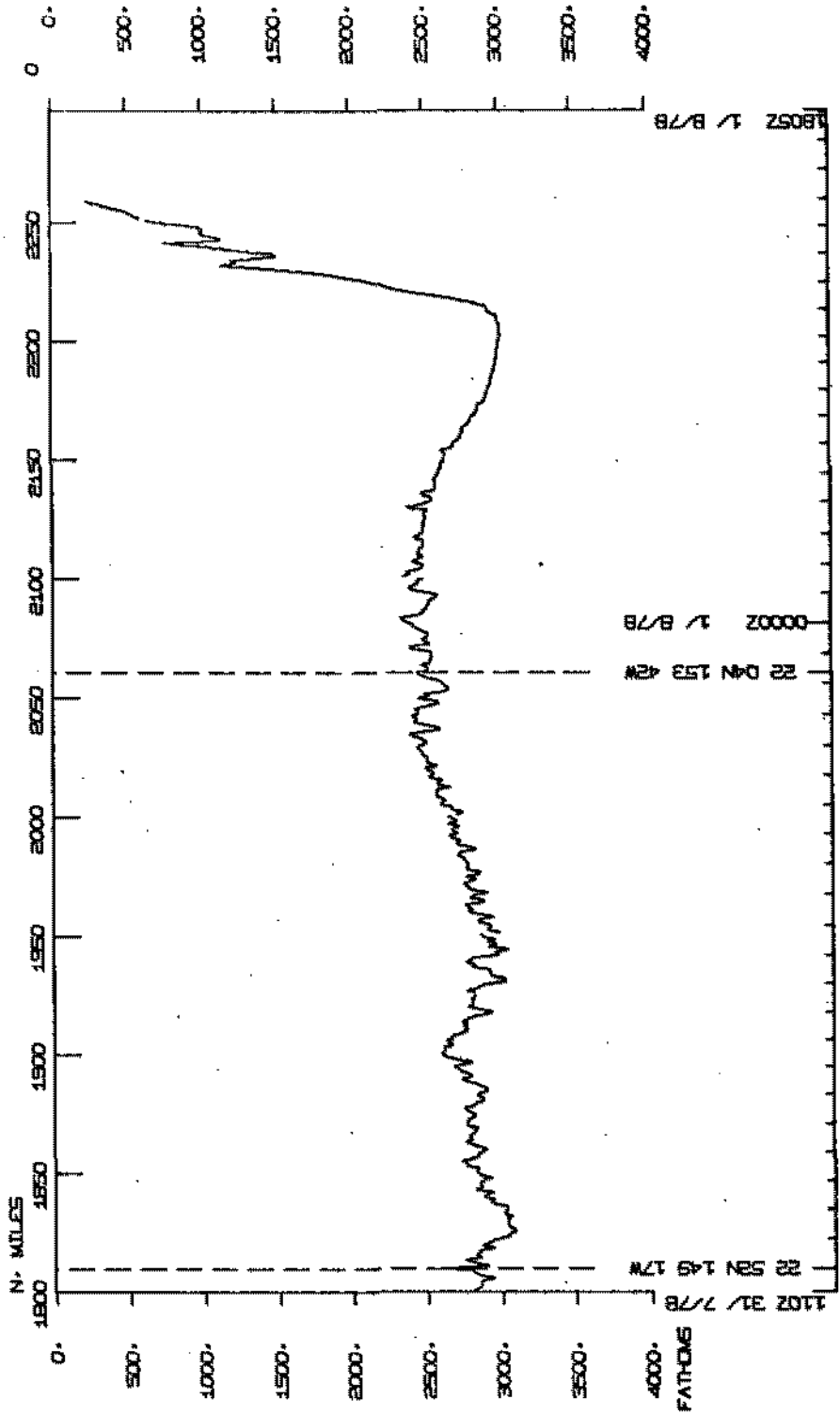
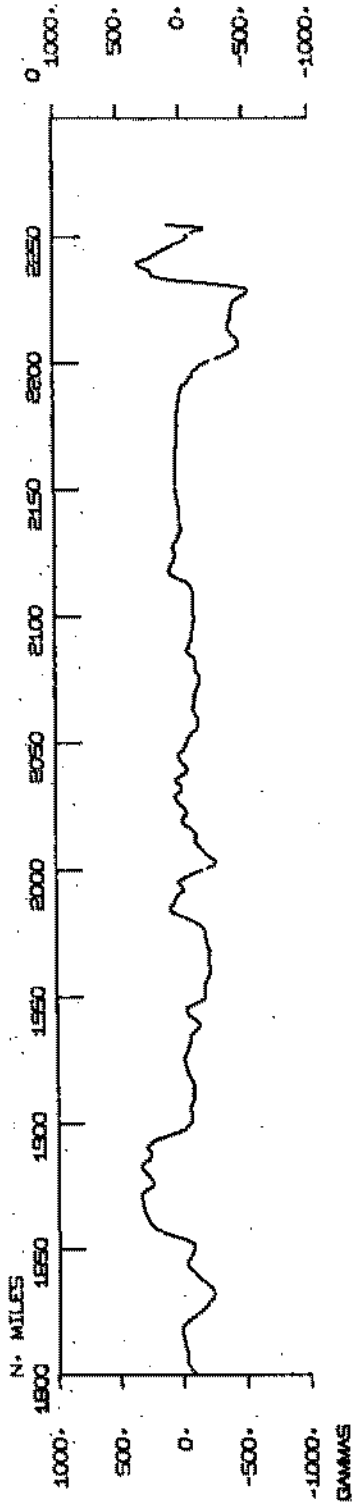




# MARIANA LEG 1



# MARIANA LEG 1



S.I.O. SAMPLE INDEX

GFNEKATFD 04DEC78

\*\*\* MARADLWT SAMPLE INDEX

(MARADLWT) \*\*\*

	60E	120E	180	120W	60W	0W	
85N							85N
80N							80N
75N		U					75N
70N							70N
65N							65N
60N							60N
55N							55N
50N							50N
45N							45N
40N							40N
35N							35N
30N							30N
25N				X X			25N
20N							20N
15N							15N
10N							10N
5N							5N
0N							0N
5S							5S
10S							10S
15S							15S
20S							20S
25S							25S
30S							30S
35S							35S
40S							40S
45S							45S
50S							50S
55S							55S
60S							60S
65S							65S
70S							70S
75S							75S
80S							80S
85S							85S
90S							90S

24JUL78 - SAN DIEGO, CA.  
 TO  
 01AUG78 - HONOLULU, HAWAII

CHIEF SCIENTIST - WILSON, K. MTG

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	
	DP	LB	MG	NV	PE		
GDC	1	4	1	2	4	1	11
GRD	1					1	1
IMR	1					1	1
MTG	1					1	1
SCG	1					1	1
SIO	1					1	1
SIX	1					8	8
TOTAL	1	4	1	2	4	13	24

SAMPLE 'TYPE' CODES USED ABOVE

- DP = DEPTH
- LB = LDG BOOKS
- MG = MAGNETICS (TOWED VEHICLE, SURFACE, TOTAL FIELD)
- NV = NAVIGATION
- PE = PERSONNEL IN SCIENTIFIC PARTY

SAMPLE 'DISP' CODES USED ABOVE

- GDC = GEOLOGICAL DATA CENTER -- S. SMITH (EXT. 2752)
- GRD = GEOLOGICAL RESEARCH DIVISION (EXT. 3360)
- IMR = INSTITUTE MARINE RESOURCES (EXT. 2866)
- MTG = MARINE TECHNOLOGY GROUP (EXT. 4194)
- SCG = SHIPBOARD COMPUTER GROUP (EXT. 4195)
- SIO = SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA, CAL. 92093
- SIX = SCRIPPS INSTITUTION NON-EMPLOYEE -(CONTACT DORCAS UTTER EXT. 2356)

MARAOIWT SAMPLE INDEX

MARAOIWT

\*\*\* PORTS \*\*\*

1700 24 778	LGPT B SAN DIEGO, CA.	32 43 N 117 11 W F	MARAOIWT
1810 1 878	LGPT E HONOLULU, HAWAII	21 18 N 157 52 W F	MARAOIWT

\*\*\*PERSONNEL\*\*\*

PECS	WILSON, R.	MTG	MARAOIWT
PECT	MOORE, M.	SCG	MARAOIWT
PE	ARSENAULT, B.	SIX	MARAOIWT
PE	BUNGO, J.	SIX	MARAOIWT
PE	BYRNE, B.	SIX	MARAOIWT
PES	FRANCIS, D.	GRD	MARAOIWT
PE	MICHAEL, L.	SIX	MARAOIWT
PE	MOORE, C.	SIX	MARAOIWT
PE	MOORE, P.	SIX	MARAOIWT
PE	SHUTTS, G.	IMR	MARAOIWT
PE	THOMAS, J.	SID	MARAOIWT
PE	WARD, M.	SIX	MARAOIWT
PE	WILSON, P.	SIX	MARAOIWT

\*\*\* NOTE \*\*\* TIME ZONES AND MINUTES OF LATITUDE AND LONGITUDE ARE LISTED IN TENTHS (E.G. 10.6 IS LISTED AS 106)

\*\*\* NOTE \*\*\* AN 'X' IN THE (R)EGIN/(F)IND COLUMN FOLLOWING THE SAMPLE CODE INDICATES NO SAMPLE OR DATA RECOVERED

04DEC78 PAGE 1  
 CRUISE  
 LEG-SHIP

TIME	DATE	TIME	TZ	SAMP	DISP				
GMT	D.M.Y.	LOC	LOC	CODE	CODE	LAT.	LONG.		

UNDERWAY DATA CURATOR - STUART M. SMITH (EXT. 2752)

\*\*\* LOG BOOKS \*\*\*

1728	24	778		LBOW	B	UNDERWAY DATA LOG	GDC	32	416N	117	149W	S	MARAO1WT
1500	1	878		LBOW	E	UNDERWAY DATA LOG	GDC	21	170N	157	108W	S	MARAO1WT

\*\*\* FATHOGRAMS \*\*\*

1930	24	778		OPR3	B	UGR 3.5KHZ R-01	GDC	32	377N	117	183W	S	MARAO1WT
55	26	778		OPR3	E	UGR 3.5KHZ R-01	GDC	30	282N	123	269W	S	MARAO1WT
130	26	778		OPR3	B	UGR 3.5KHZ R-02	GDC	30	254N	123	343W	S	MARAO1WT
1040	31	778		OPR3	E	UGR 3.5KHZ R-02	GDC	22	354N	151	85W	S	MARAO1WT
1620	30	778		OPR3	B	GDR 3.5KHZ R-2A	GDC	23	139N	147	113W	S	MARAO1WT
1807	30	778		OPR3	E	GDR 3.5KHZ R-2A	GDC	23	99N	147	342W	S	MARAO1WT
1100	31	778		OPR3	B	UGR 3.5KHZ R-03	GDC	22	350N	151	126W	S	MARAO1WT
1500	1	878		OPR3	E	UGR 3.5KHZ R-03	GDC	21	170N	157	108W	S	MARAO1WT

\*\*\* MAGNETUMETER \*\*\*

2015	24	778		MGR	B	MAGNETICS R-01	GDC	32	335N	117	273W	S	MARAO1WT
153	31	778		MGR	E	MAGNETICS R-01	GDC	22	523N	149	155W	S	MARAO1WT
200	31	778		MGR	B	MAGNETICS R-02	GDC	22	520N	149	170W	S	MARAO1WT
1435	1	878		MGR	E	MAGNETICS R-02	GDC	21	178N	157	66W	S	MARAO1WT

\*\*\* NAVIGATION PLOTS \*\*\*

1330	24	778		NVBP	B	BRIDGE PLOT 01	GDC	32	416N	117	149W	S	MARAO1WT
1200	26	778		NVBP	E	BRIDGE PLOT 01	GDC	29	361N	125	467W	S	MARAO1WT
1144	26	778		NVBP	B	BRIDGE PLOT 02	GDC	29	372N	125	433W	S	MARAO1WT
1218	28	778		NVBP	E	BRIDGE PLOT 02	GDC	25	485N	136	72W	S	MARAO1WT
1218	28	778		NVBP	B	BRIDGE PLOT 03	GDC	25	485N	136	72W	S	MARAO1WT
1200	30	778		NVBP	E	BRIDGE PLOT 03	GDC	23	243N	146	134W	S	MARAO1WT

TIME GMT	DATE D.M.Y.	TIME LDC	TZ LDC	SAMP CODE	SAMPLE IDENT.	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
1200	30	778		NVBP B	BRIDGE PLOT 04	GDC 23	243N	146 134W	S MARAO1WT
2212	31	778		NVBP E	BRIDGE PLOT 04	GDC 22	50N	153 408W	S MARAO1WT
9900					END SAMPLE INDEX				MARAO1WT