

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

(Issued June 1986)

PAPATUA EXPEDITION

LEG 4

Pago Pago, Samoa (1 January 1986)  
to  
Nuku'alofa, Tongatapu, Tonga (27 January 1986)

R/V T. Washington

Chief Scientist - J. Hawkins

Resident Marine Tech - J. Hargreaves

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

Data Collection and Processing funded by  
NSF Grant Number OCE83-17741

NOTE: This is an index of underway geophysical data edited and processed 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.

GDC Cruise I.D.# 220

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

Contents:

- Index Chart - gives track of cruise leg, dates, ports, and mileage of each type of data collected.
- Track Charts - annotated with dates (day/month) and hour ticks. The scale is .312 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 profiles (airgun or watergun) records have a wide black line along the bottom of the profile. Sections having Sea Beam are indicated by a narrow black line.
- 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.

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 (619)452-2752.

1. Navigation listing of times and positions of course and speed changes, fixes and drift velocity.
2. Depth compilation plots - compilation plots at the traditional scale of 4in/degree longitude (1:1,000,000) are no longer produced for Sea Beam cruises. Custom plots may be requested of vertical beam (2 $\frac{2}{3}$  degree beam width) depths retrieved at one minute intervals of ship time.
3. Plots of magnetic anomaly profiles along track - map scale = 1.2in/degree, anomaly scale between 15N and 15S 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 1980 IGRF.
4. Separate time series files of navigation, depth and magnetics of data merged in the MGD77 Exchange format on magnetic tape.
5. Microfilm or Xerox copies of:
  - a. Echosounder records - 12 and 3.5 kHz frequency
  - b. Subbottom profiler records (air or water guns)
  - c. Magnetometer records
  - d. Underway data log

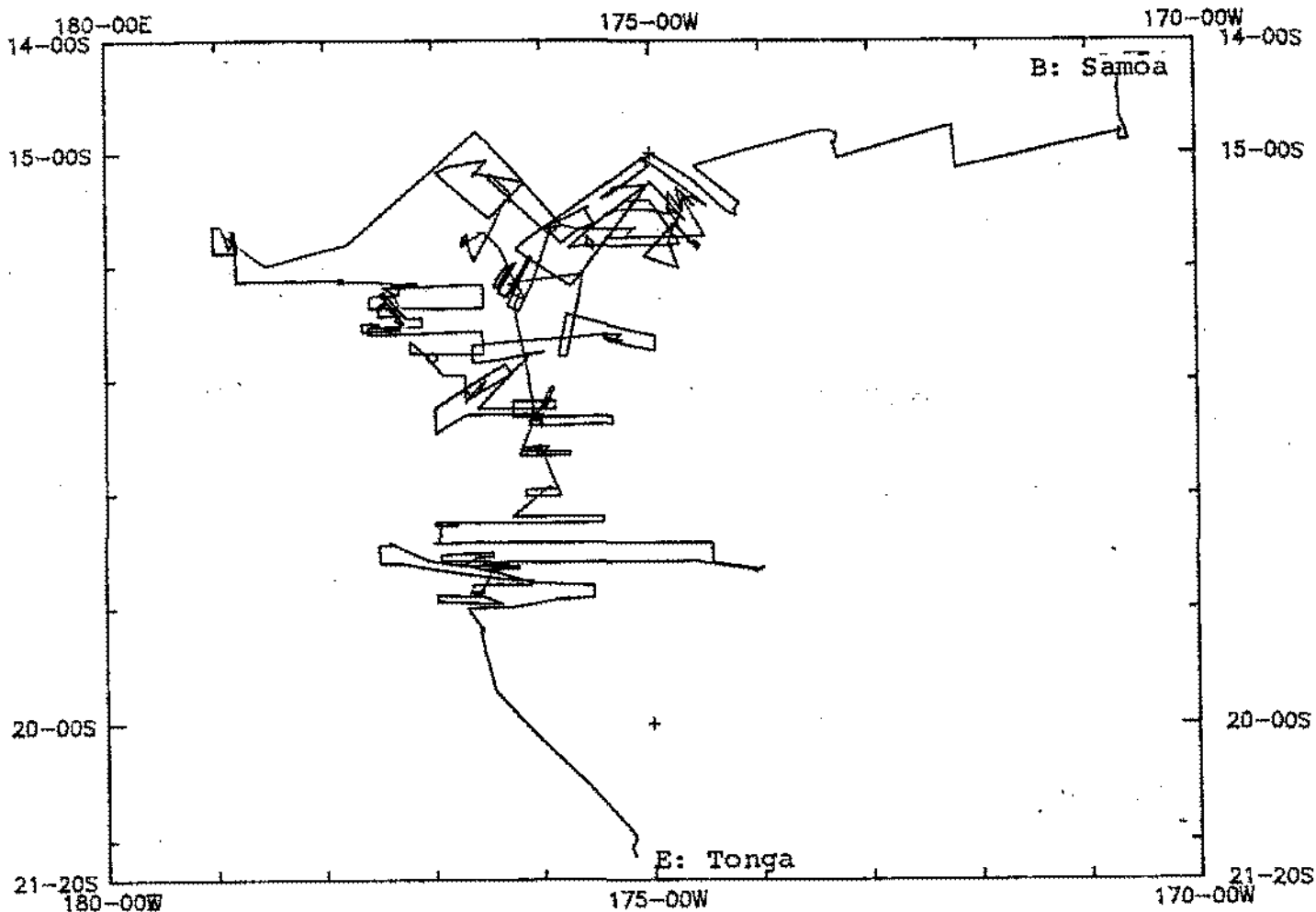
Revised June 1985 (Sea Beam)

## SIO Sea Beam Data

The following forms are available, subject to approval of the cruise leg chief scientist.

- 1) Archive contour copy of contour swath books generated in real time on board ship available for inspection at the Data Center.
- 2) Microfilm (35mm flowfilm) containing swath books plus, for some cruises, the UGR monitor record and navigation listings.
- 3) Sea Beam merged tapes - Sea Beam data merged with navigation. (Navigation is edited to the extent that poor fixes are removed after inspection of drift vectors between fix pairs. No editing is done on the basis of adjusting to overlapping Sea Beam swaths.)
- 4) Custom generated plots of Sea Beam swaths on Mercator projection in four colors at variable plot scales and contour intervals. There are provisions to adjust positions of individual track lines and to edit out beams (bad data or overlapping data on inside of turns).

S. M. Smith - June 1985



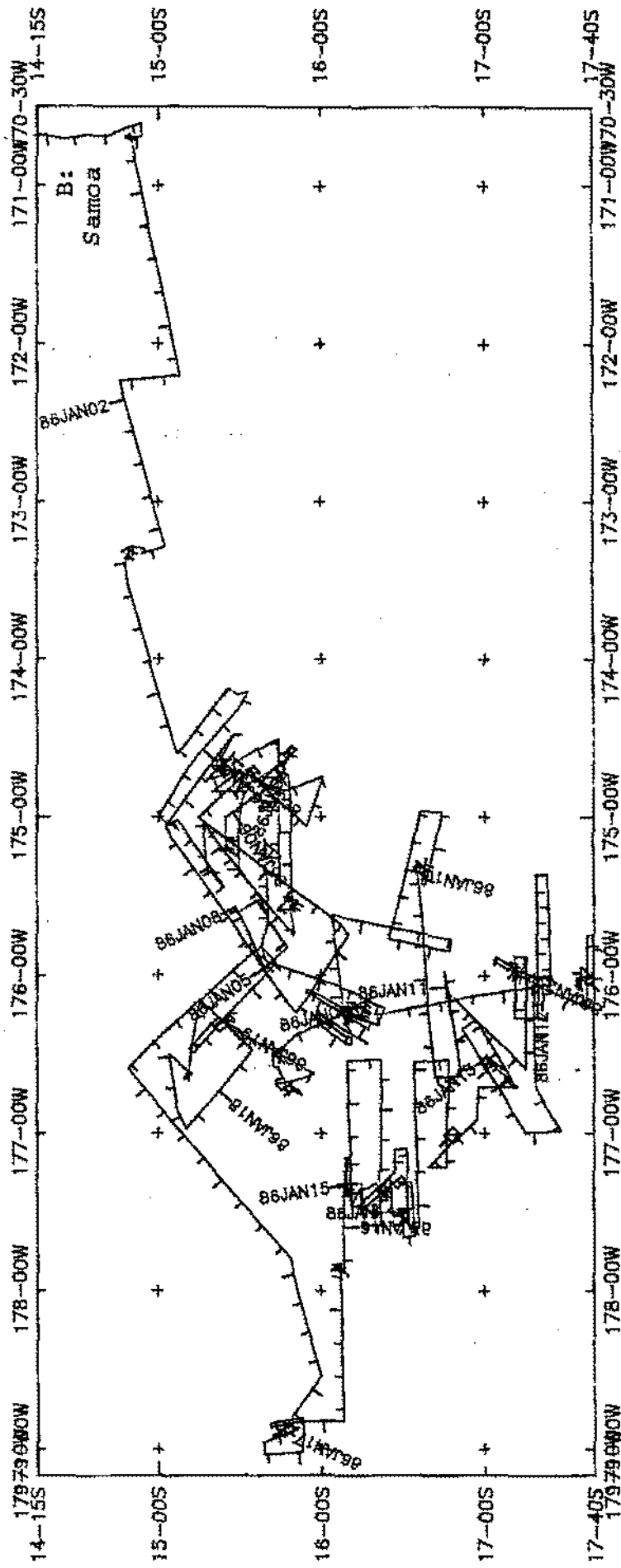
PAPATUA LEG 04 Track at .624in/degree

PAPATUA EXPEDITION  
LEG 4

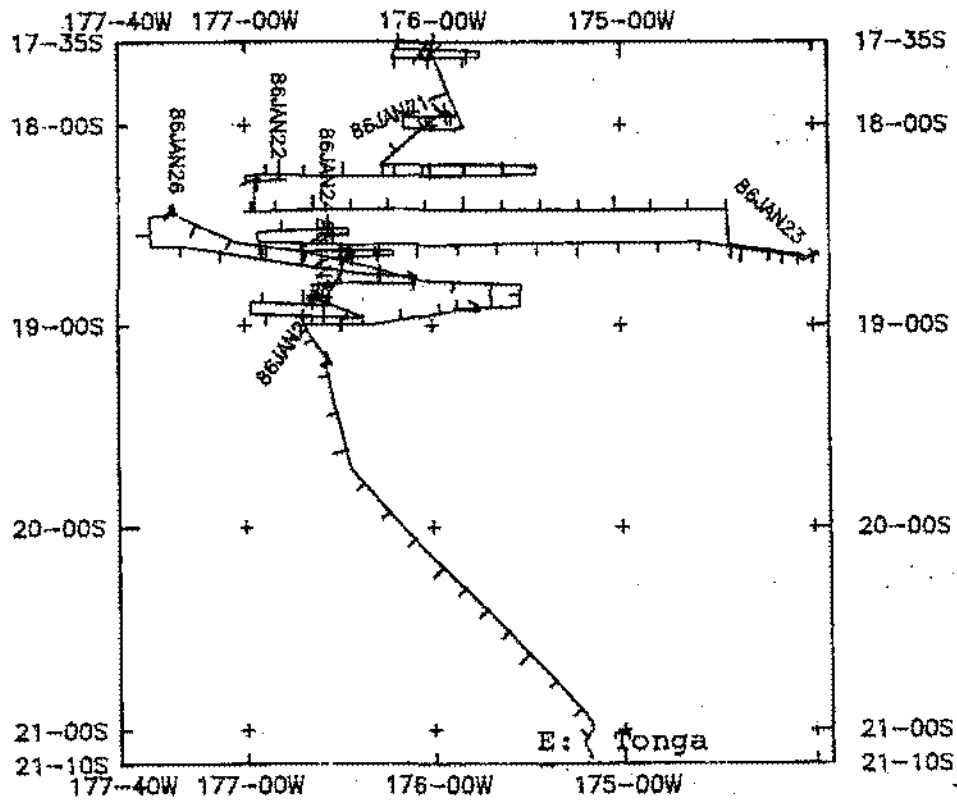
CHIEF SCIENTIST: J. Hawkins  
 PORTS: Pago Pago, Samoa - Nuku'alofa, Tongatapu, Tonga  
 DATES: 1 - 27 January 1986  
 SHIP: R/V T. Washington

TOTAL MILEAGE OF UNDERWAY DATA COLLECTED

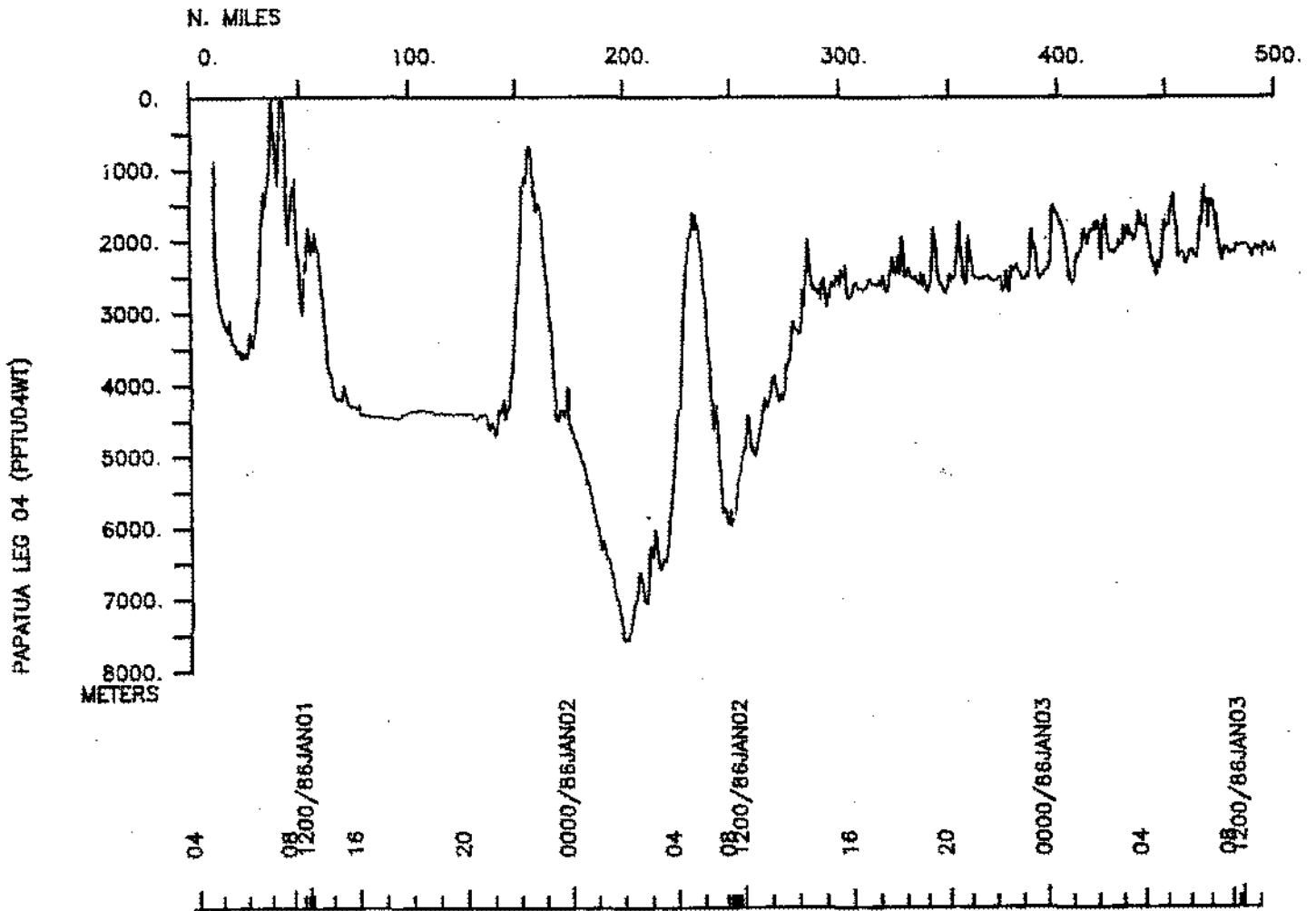
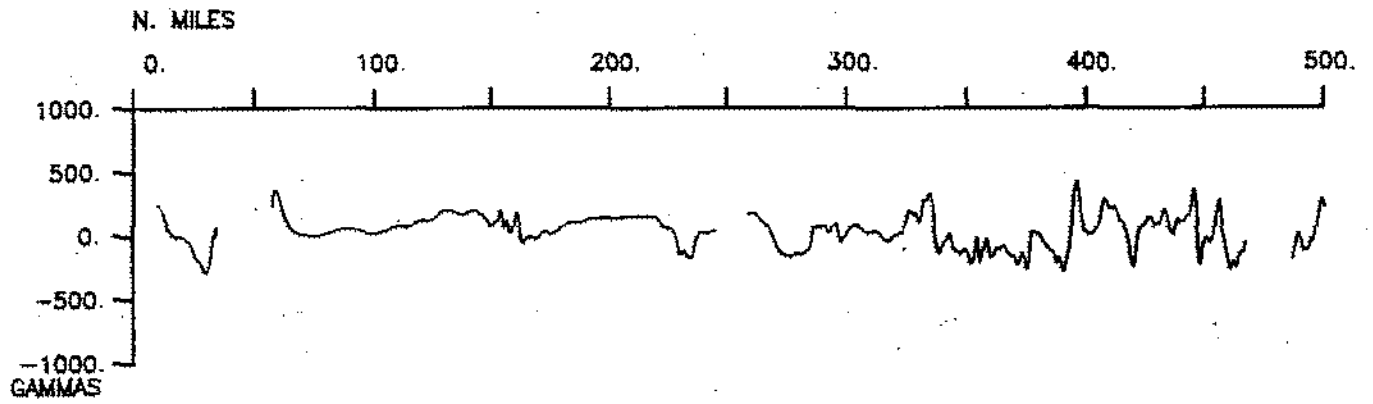
- 1) Cruise - 5356 miles
- 2) Bathymetry - 5311 miles
- 3) Magnetics - 4971 miles
- 4) Seismic Reflection - none collected
- 5) Gravity - none collected
- 6) SeaBeam - 5311 miles



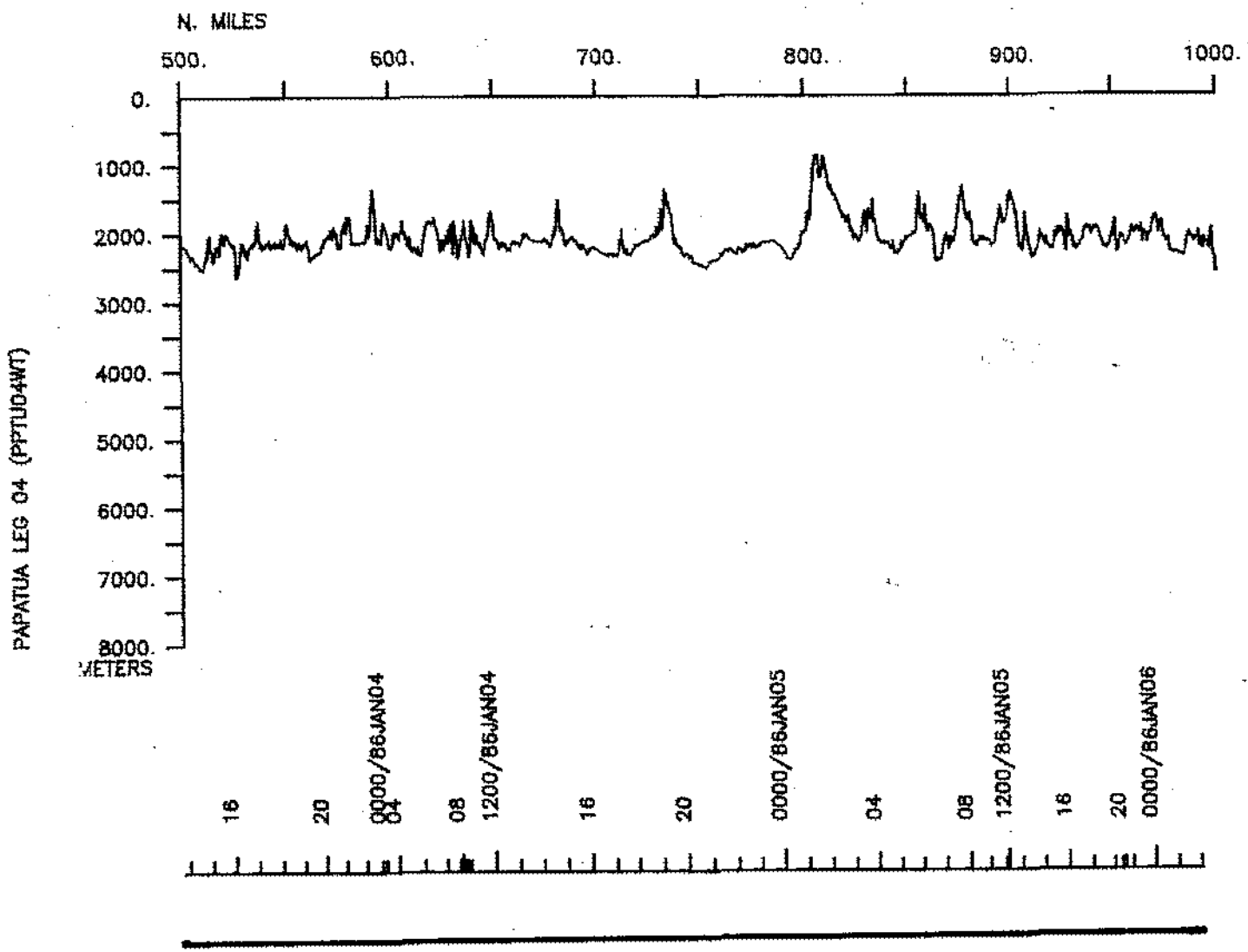
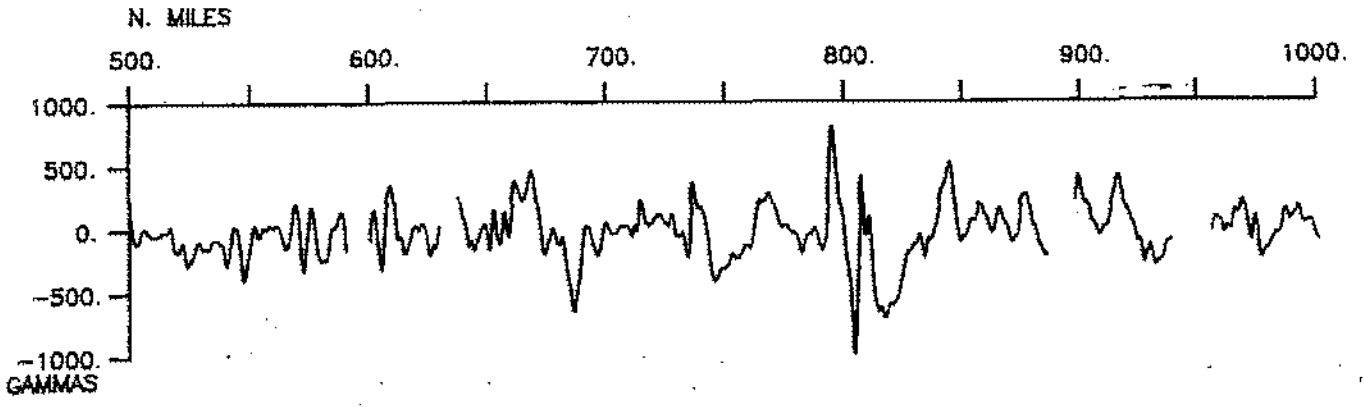
PAPATUA LEG 04 Track at 1.00in/degree (plot 1 of 2)



PAPATUA LEG 04 Track at 1.00in/deg (plot 2 of 2)

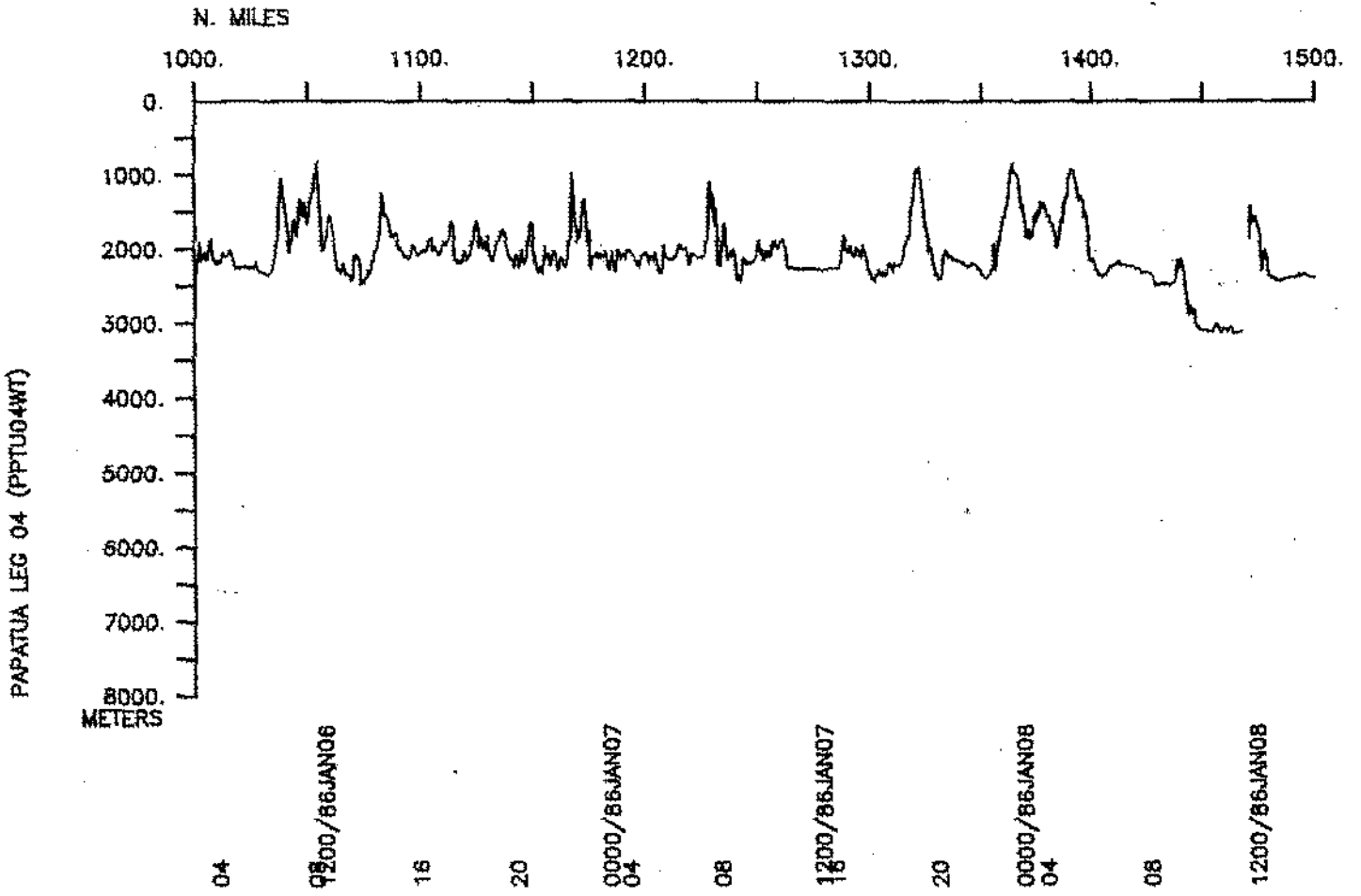
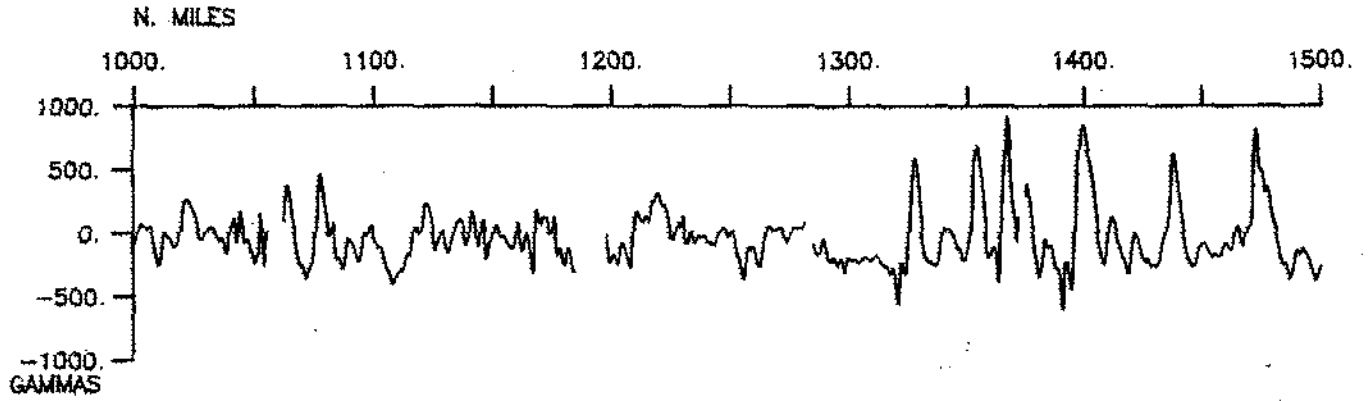


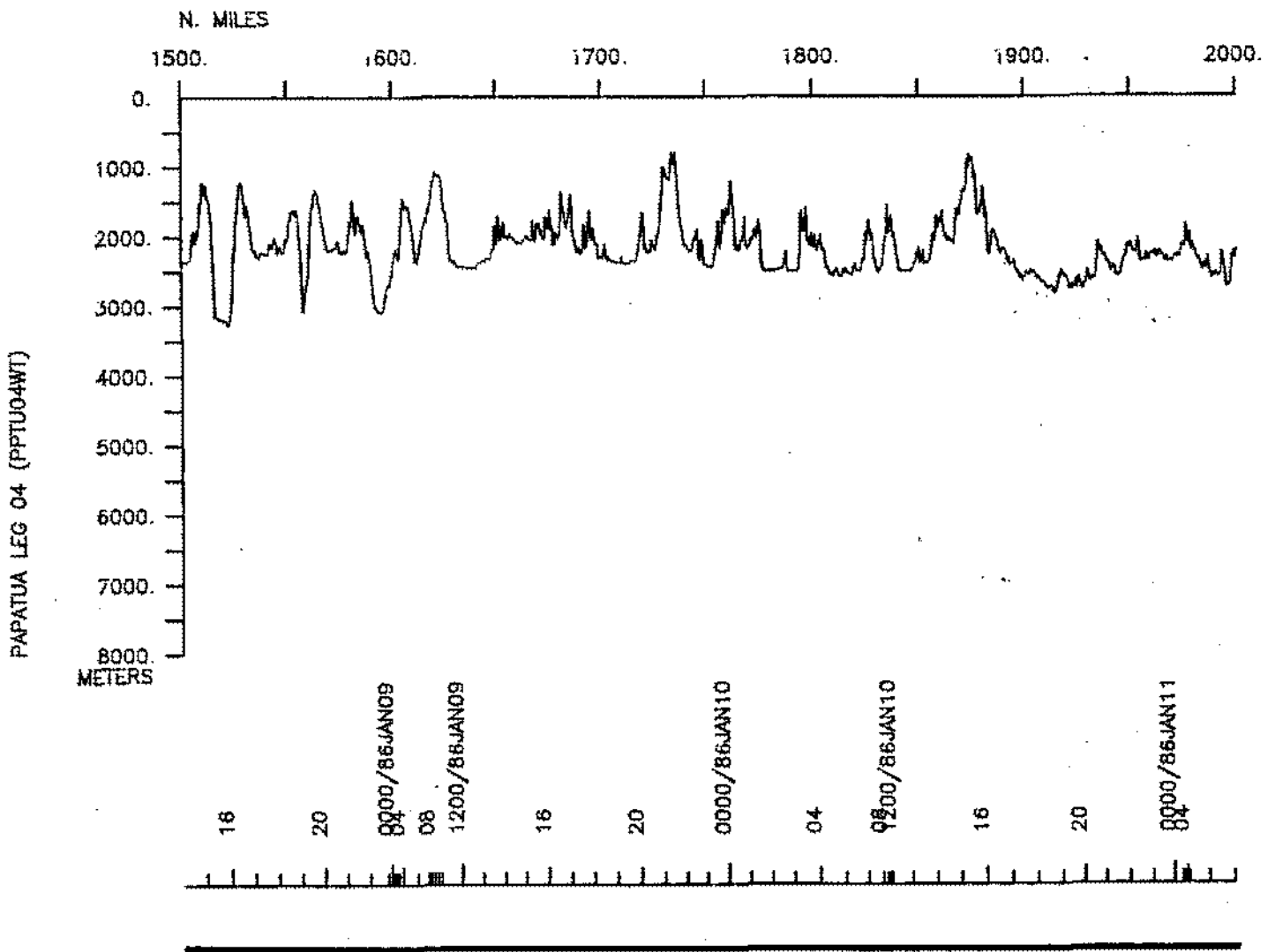
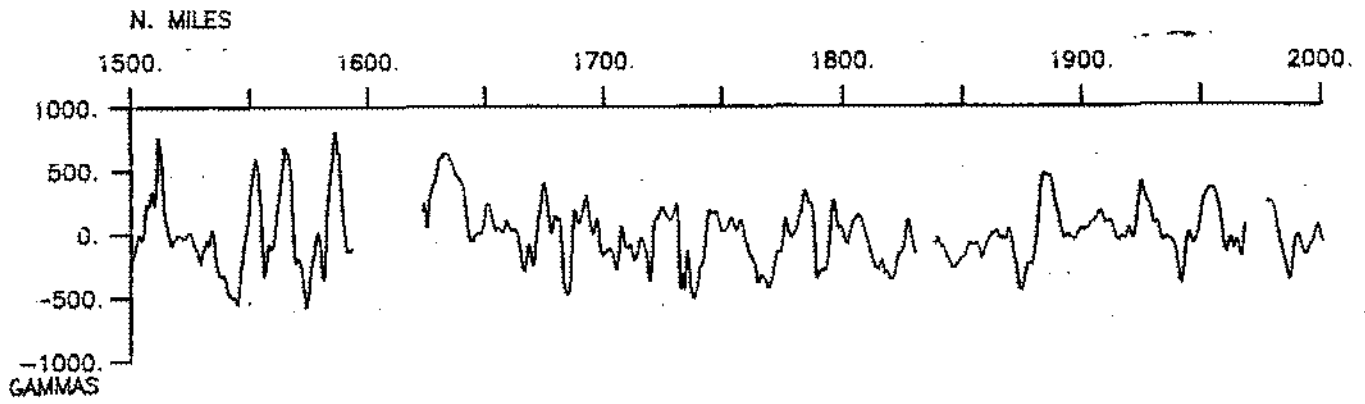
SEABEAM

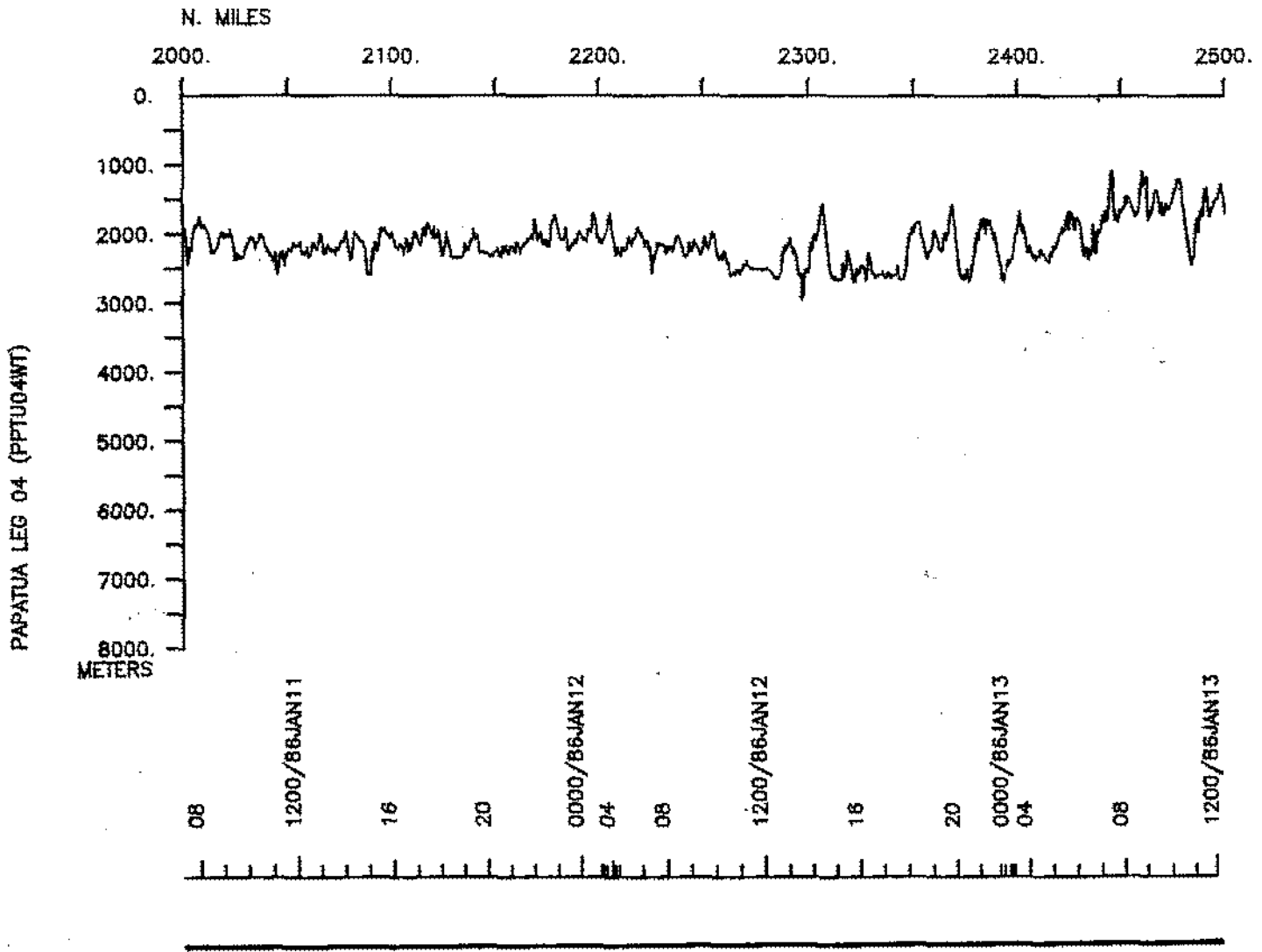
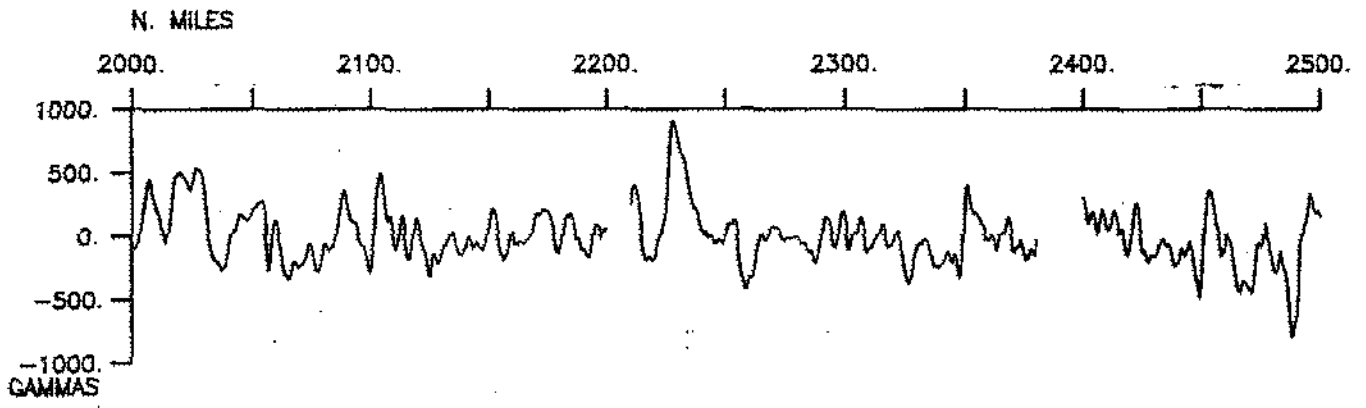


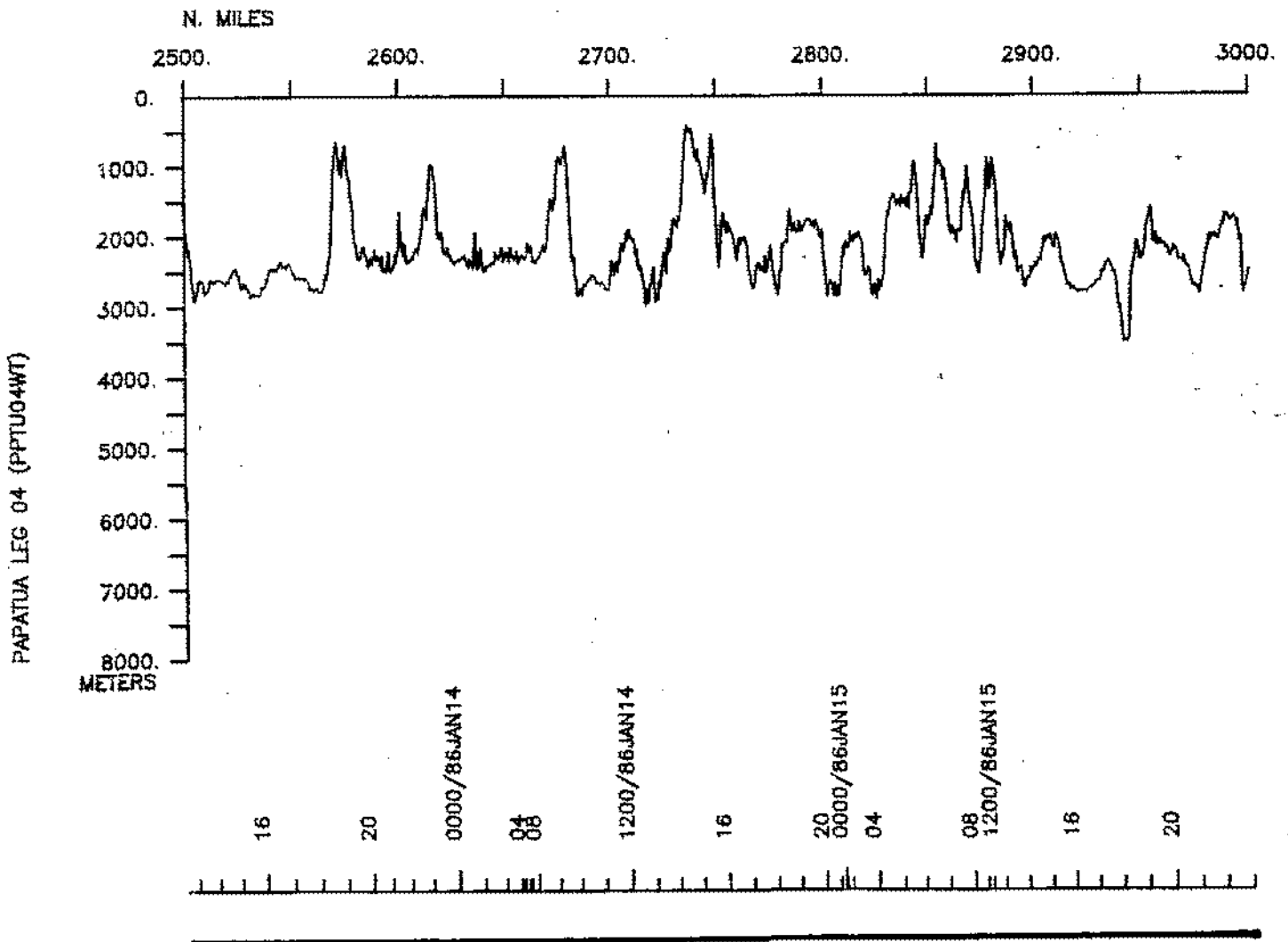
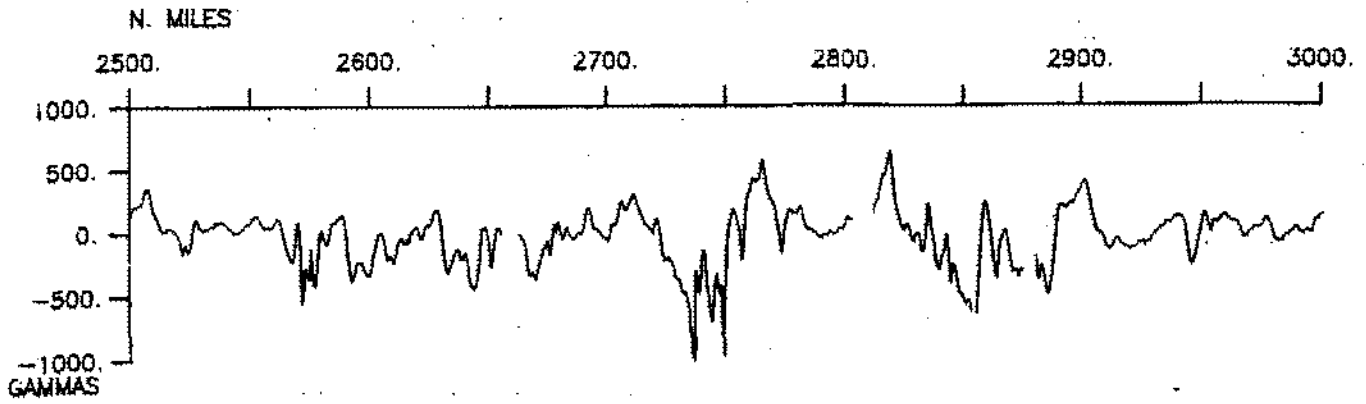
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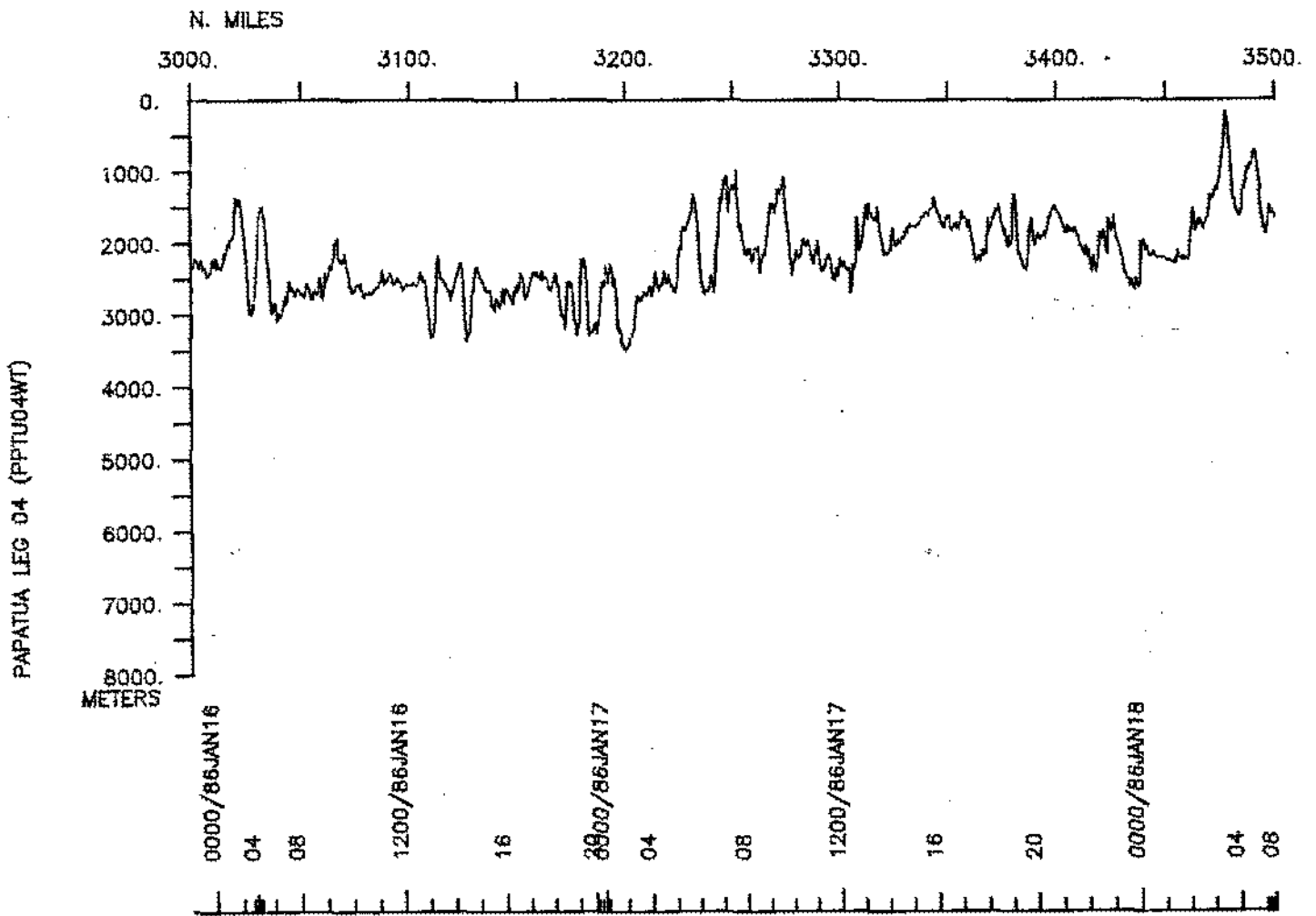
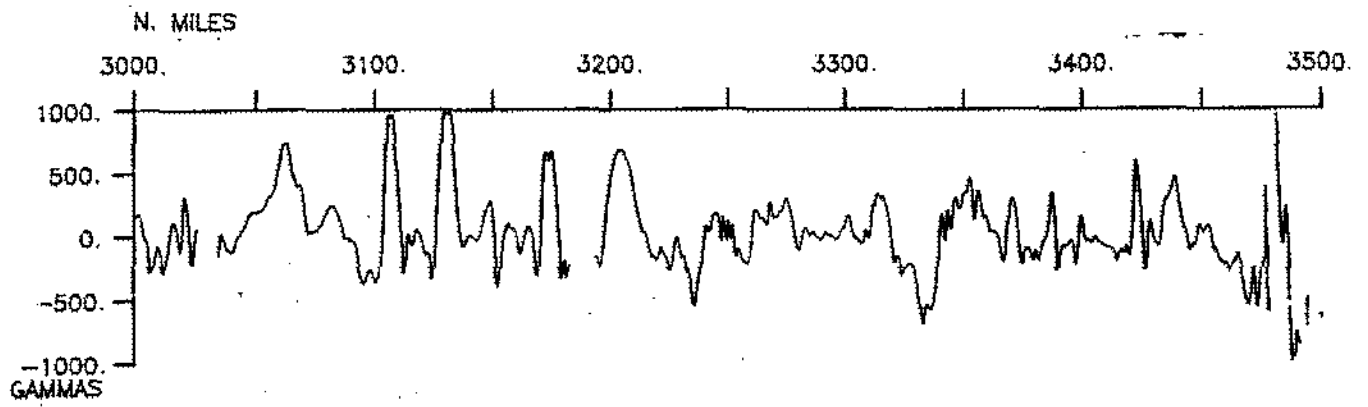


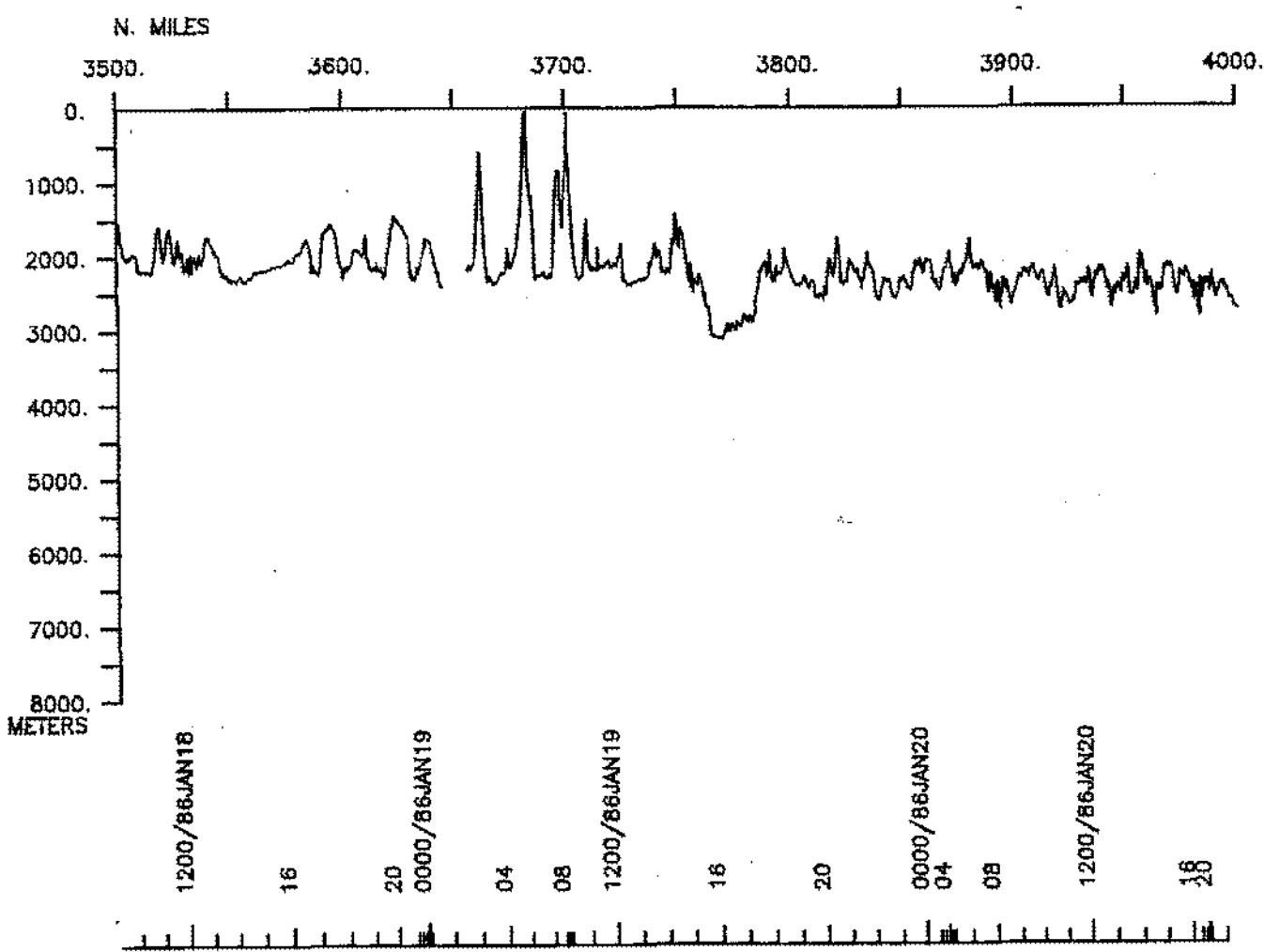
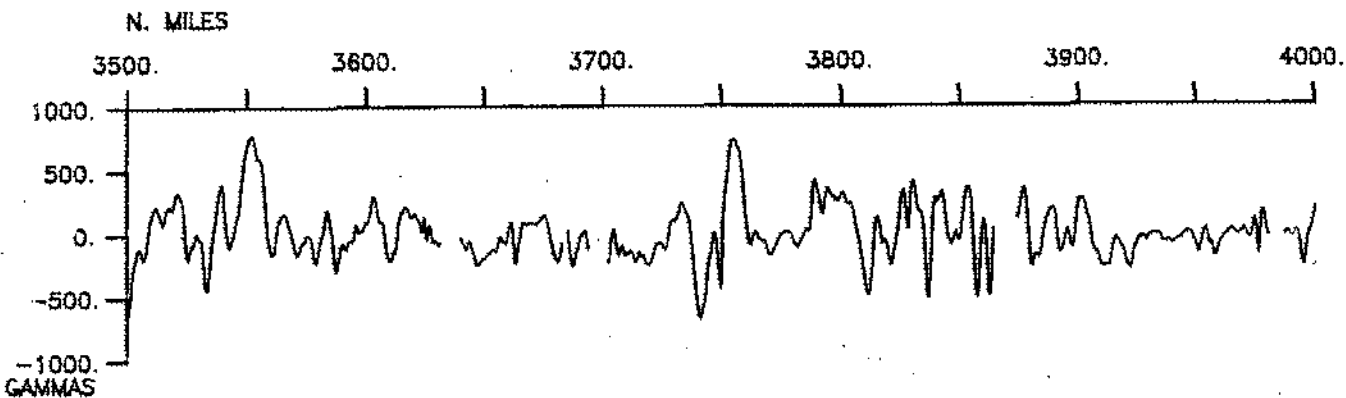




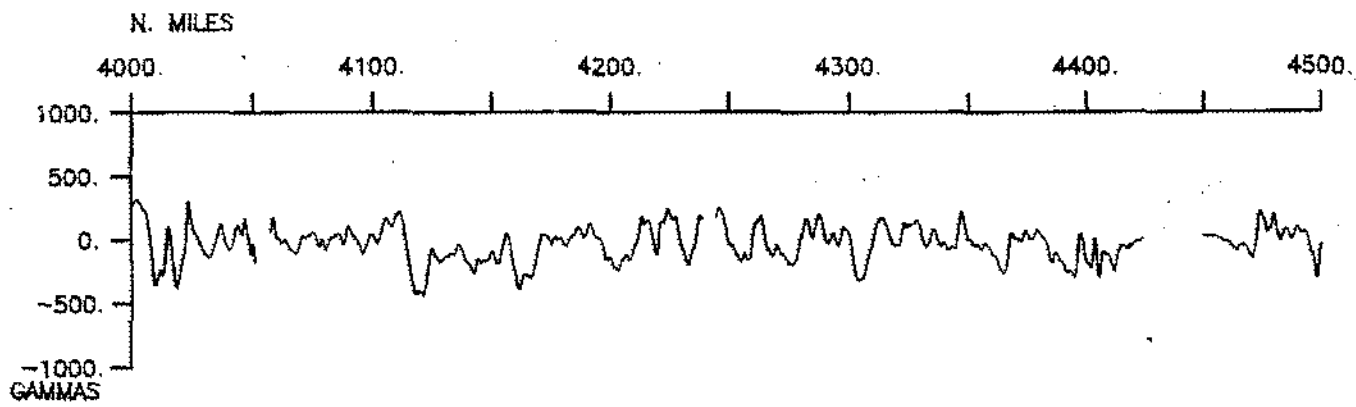


PAPATUA LEG 04 (PPTU04WT)

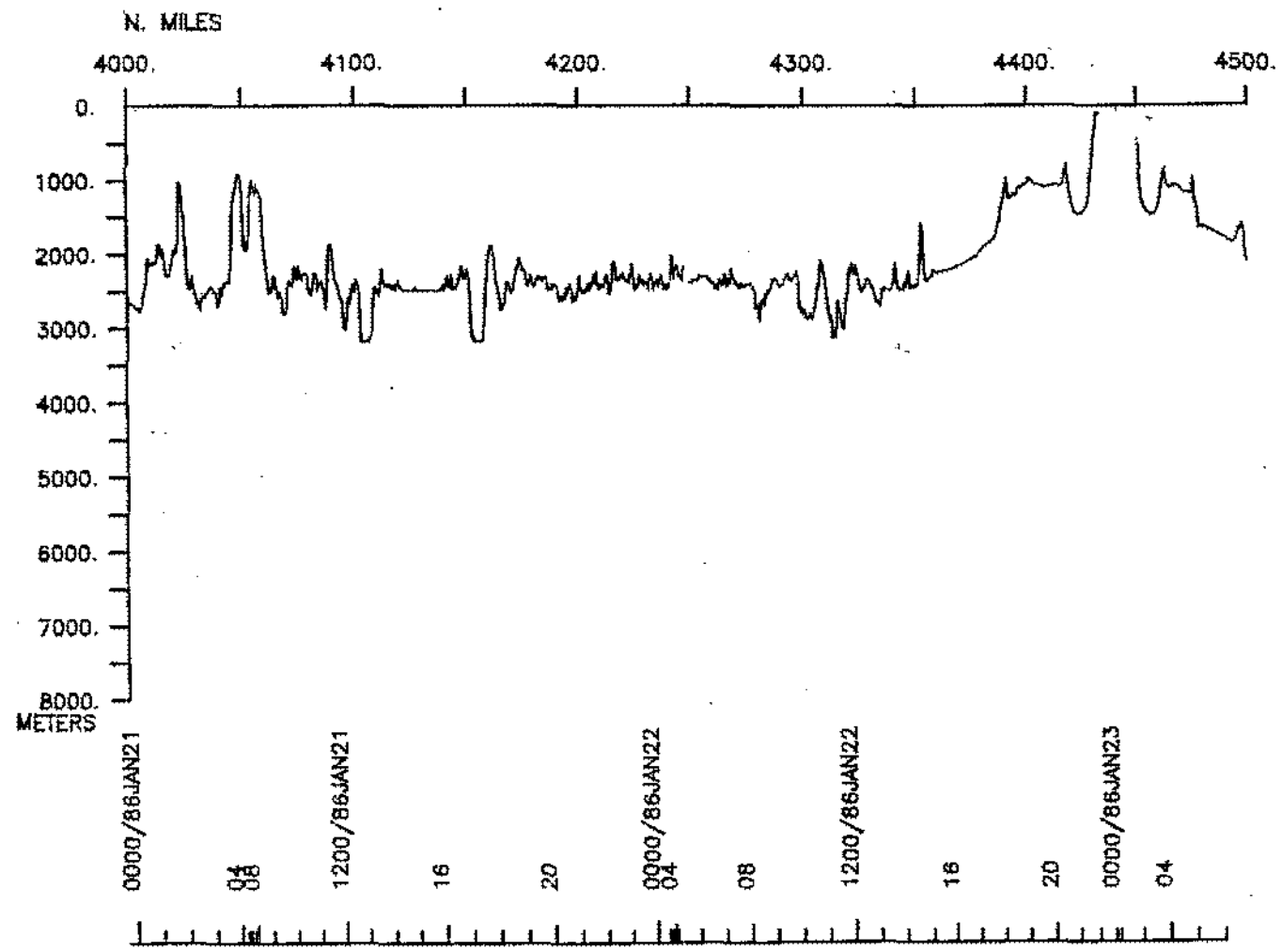


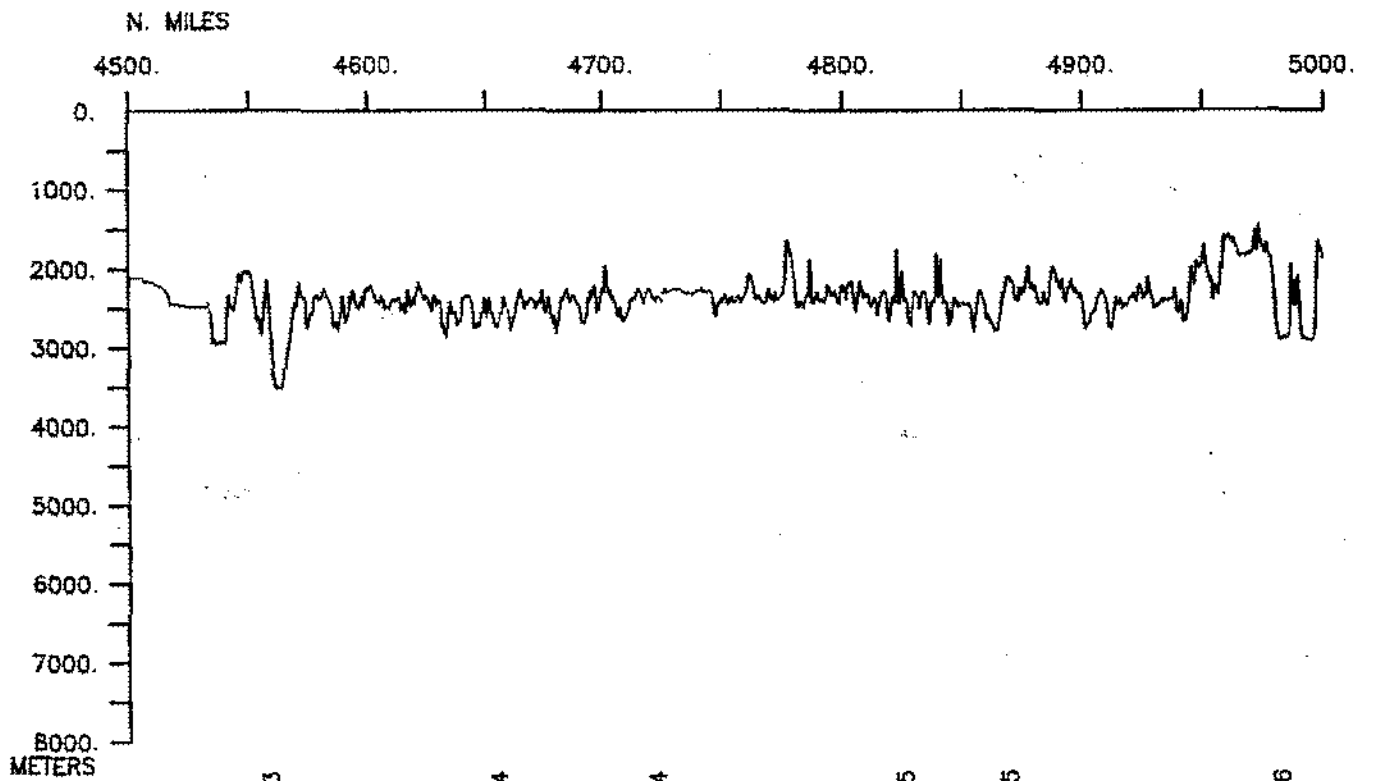
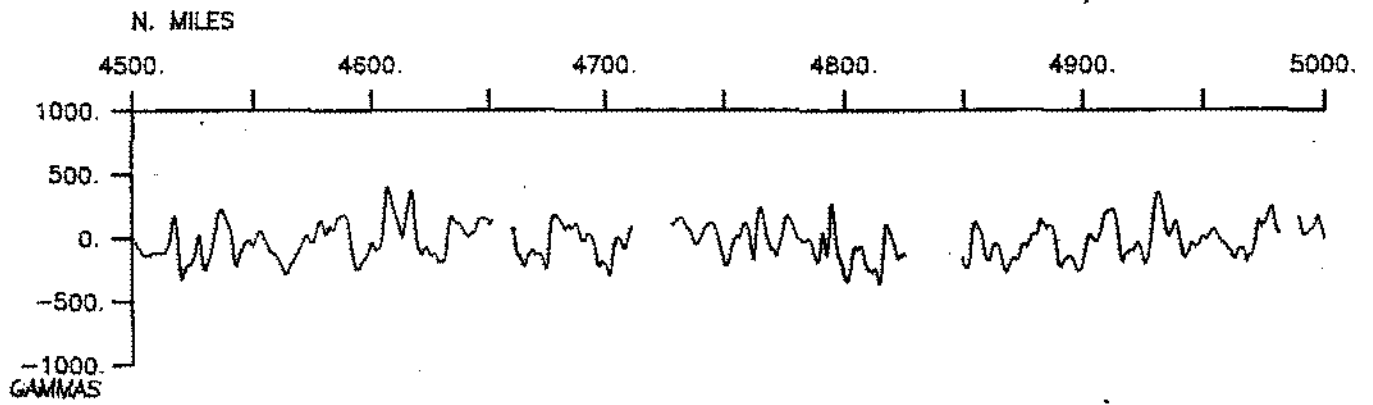


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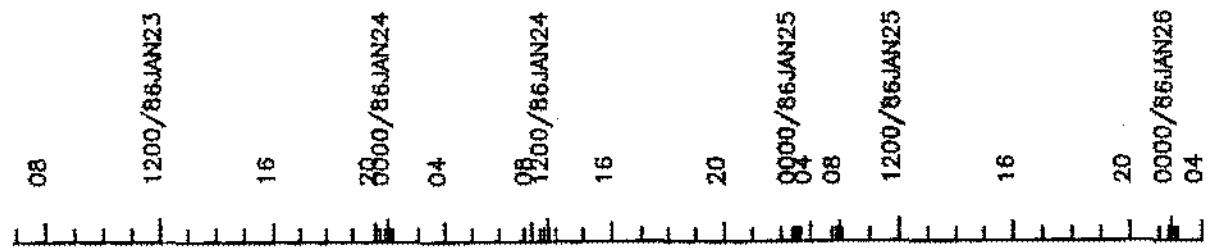


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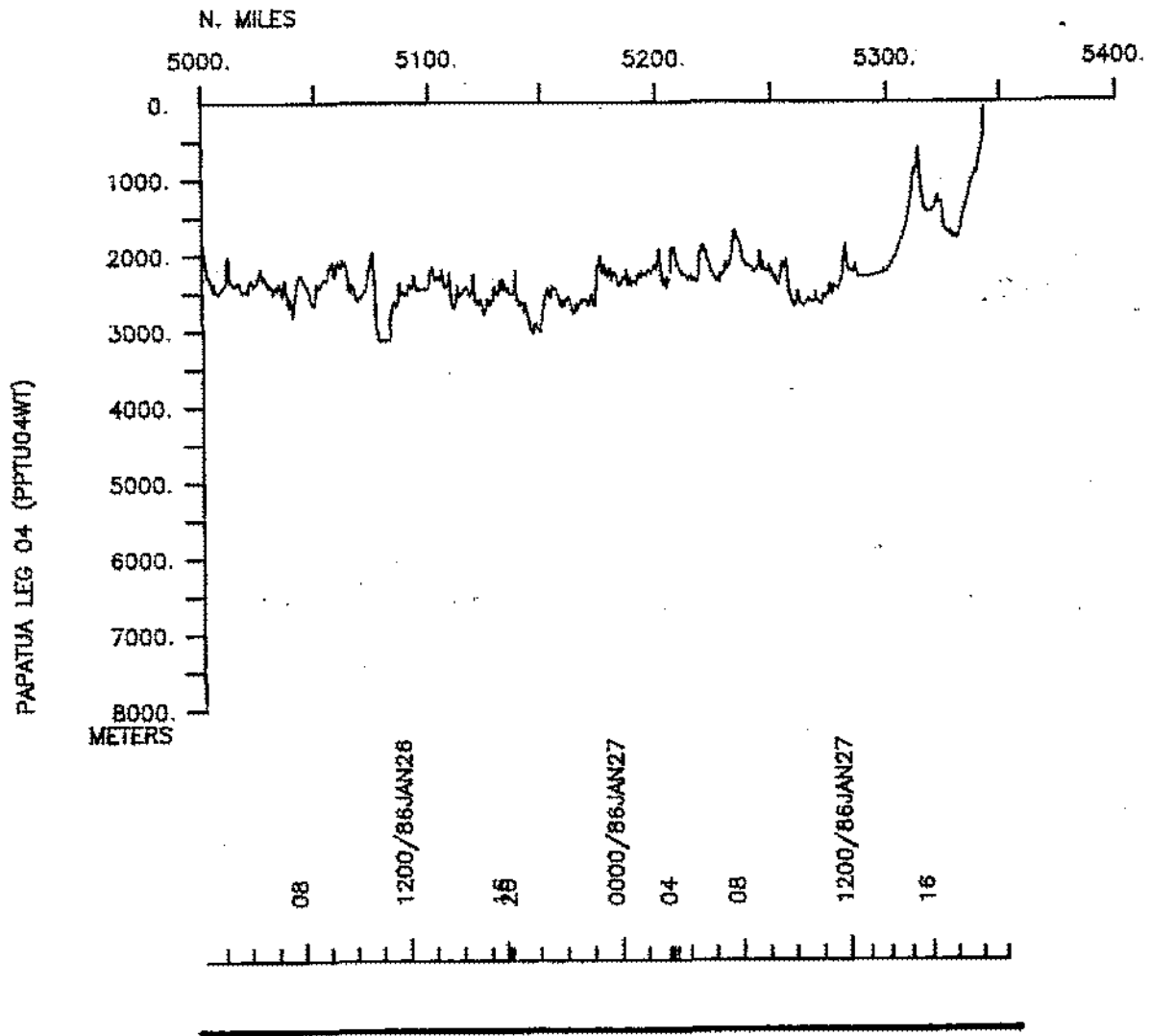
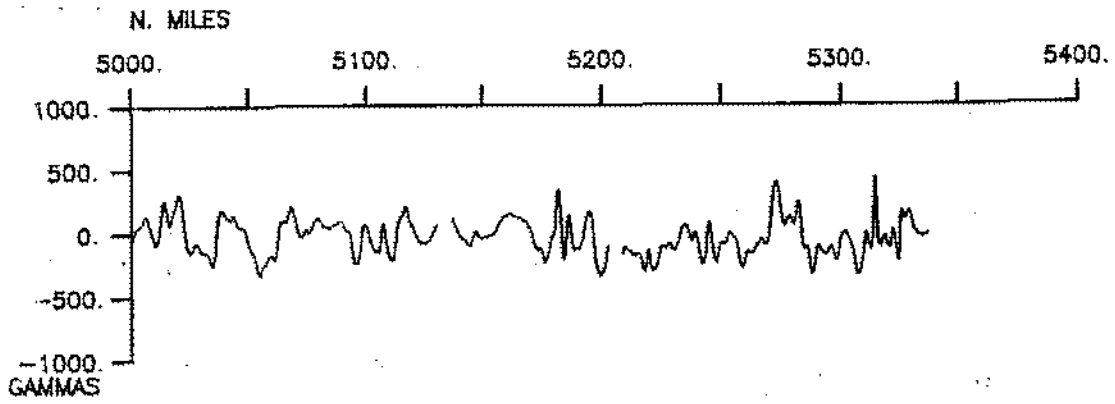




PAPATUA LEG 04 (PPTU04WT)







S.I.O. SAMPLE INDEX

(Issued June 1986)

PAPATUA EXPEDITION

Leg 4

Pago Pago, Samoa (1 January 1986)  
to  
Nuku'alofa, Tonga (27 January 1986)

R/V T. Washington

Chief Scientist - J. Hawkins

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

Index Encoding Funded by NSF  
Grant Number OCE83-16603  
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 marine 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.)

GDC Cruise I.D. #220

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

0445 010186	LGPT B PAGO PAGO, SAMOA	13-49 S 171-46 W	FPPTU04WT
1745 270186	LGPT E NUKU'ALOFA, TONGA	21-08 S 175-12 W	FPPTU04WT

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

#	***NAME***	***TITLE***	***AFFILIATION***	**CRID**
PECS GRD	HAWKINS, J. W.	CHIEF SCIENTIST	SCRIPPS INSTITUTE	PPTU04WT
PEST GRD	CARESS, D. W.	GRAD. STUDENT	SCRIPPS INSTITUTE	PPTU04WT
PECT SCG	CHARTERS, J. S.	COMPUTER TECH.	SCRIPPS INSTITUTE	PPTU04WT
PEST SIO	HANSON, W. K.	GRAD. STUDENT	SCRIPPS INSTITUTE	PPTU04WT
PERT STS	HARGREAVES, G.	RESIDENT TECH.	SCRIPPS INSTITUTE	PPTU04WT
PEXN SIX	HELU, S. P.	GEOLOGIST	TONGA	PPTU04WT
PESP GRD	HEY, R. N.	RESEARCH ASSOC.	SCRIPPS INSTITUTE	PPTU04WT
PEBE SCG	HYLAS, T. A.	SEABEAM TECH.	SCRIPPS INSTITUTE	PPTU04WT
PEST SIO	LAVAV, D.	RES. ASSIST.	SCRIPPS INSTITUTE	PPTU04WT
PEST GRD	LOUGEE, B. A.	GRAD. STUDENT	SCRIPPS INSTITUTE	PPTU04WT
PEST SIO	PHIPPS-MORGAN, J.	POST DOCTORATE	SCRIPPS INSTITUTE	PPTU04WT
PESP SIX	PHIPPS-MORGAN, M.	VOLUNTEER	SAN DIEGO	PPTU04WT
PEBO STS	SMITH, W. L.	SEABEAM OPERATOR	SCRIPPS INSTITUTE	PPTU04WT
PEST SIO	MUNASINGHE, I.	GRAD. STUDENT	SCRIPPS INSTITUTE	PPTU04WT
PEST SIO	VOLPE, A. M.	GRAD. STUDENT	SCRIPPS INSTITUTE	PPTU04WT

\*\*\*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 A PARTICULAR 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. POSITIONS ARE IN TENTHS  
 #OF MINUTES.

#GMT	DDMMYY	LOC	T	SAMP	SAMPLE	DISP			CRUISE
#TIME	DATE	TIME	Z	CODE	IDENTIFIER	CODE	LAT.	LONG.	LEG-SHIP

\*\*\*UNDERWAY DATA CURATOR - S. M. SMITH EXT.2752

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

0445	010186			LBSC	B UNDERWAY WATCH LOG	GDC	14-255S	170-424W	sPPTU04WT
1745	270186			LBSC	E UNDERWAY WATCH LOG	GDC	20-523S	175-153W	sPPTU04WT

\*\*\*12 KHZ EPC SEABEAM MONITOR\*\*\*

0454	010186			MBRM	B SEABEAM MONITOR R-01	GDC	14-273S	170-421W	sPPTU04WT
0015	030186			MBRM	E SEABEAM MONITOR R-01	GDC	15-144S	174-368W	sPPTU04WT
0021	030186			MBRM	B SEABEAM MONITOR R-02	GDC	15-137S	174-377W	sPPTU04WT
2352	060186			MBRM	E SEABEAM MONITOR R-02	GDC	15-282S	174-358W	sPPTU04WT
2355	060186			MBRM	B SEABEAM MONITOR R-03	GDC	15-278S	174-363W	sPPTU04WT
2312	100186			MBRM	E SEABEAM MONITOR R-03	GDC	16-456S	176-003W	sPPTU04WT
2318	100186			MBRM	B SEABEAM MONITOR R-04	GDC	16-454S	175-591W	sPPTU04WT
0211	140186			MBRM	E SEABEAM MONITOR R-04	GDC	16-303S	177-303W	sPPTU04WT
0215	140186			MBRM	B SEABEAM MONITOR R-05	GDC	16-303S	177-311W	sPPTU04WT
0740	190186			MBRM	E SEABEAM MONITOR R-05	GDC	15-488S	176-439W	sPPTU04WT
0742	190186			MBRM	B SEABEAM MONITOR R-06	GDC	15-488S	176-439W	sPPTU04WT
1700	230186			MBRM	E SEABEAM MONITOR R-06	GDC	18-317S	176-485W	sPPTU04WT
1705	230186			MBRM	B SEABEAM MONITOR R-07	GDC	18-316S	176-475W	sPPTU04WT
1745	270186			MBRM	E SEABEAM MONITOR R-07	GDC	20-523S	175-153W	sPPTU04WT

\*\*\* SEABEAM ARCHIVE SWATH BOOKS \*\*\*

0456	010186			MBSB	B SEABEAM SWATH BK 01	GDC	14-276S	170-421W	sPPTU04WT
1737	020186			MBSB	E SEABEAM SWATH BK 01	GDC	15-060S	174-331W	sPPTU04WT
1737	020186			MBSB	B SEABEAM SWATH BK 02	GDC	15-060S	174-331W	sPPTU04WT
0627	040186			MBSB	E SEABEAM SWATH BK 02	GDC	15-334S	174-427W	sPPTU04WT
0627	040186			MBSB	B SEABEAM SWATH BK 03	GDC	15-334S	174-427W	sPPTU04WT
1540	050186			MBSB	E SEABEAM SWATH BK 03	GDC	15-214S	175-083W	sPPTU04WT
1540	050186			MBSB	B SEABEAM SWATH BK 04	GDC	15-214S	175-083W	sPPTU04WT
0307	070186			MBSB	E SEABEAM SWATH BK 04	GDC	15-237S	174-422W	sPPTU04WT
0307	070186			MBSB	B SEABEAM SWATH BK 05	GDC	15-237S	174-422W	sPPTU04WT
1311	080186			MBSB	E SEABEAM SWATH BK 05	GDC	15-562S	176-062W	sPPTU04WT
1311	080186			MBSB	B SEABEAM SWATH BK 06	GDC	15-562S	176-062W	sPPTU04WT
1509	100186			MBSB	E SEABEAM SWATH BK 06	GDC	16-382S	175-512W	sPPTU04WT
1510	100186			MBSB	B SEABEAM SWATH BK 07	GDC	16-383S	175-514W	sPPTU04WT
0050	120186			MBSB	E SEABEAM SWATH BK 07	GDC	17-235S	176-002W	sPPTU04WT
0050	120186			MBSB	B SEABEAM SWATH BK 08	GDC	17-235S	176-002W	sPPTU04WT
1215	130186			MBSB	E SEABEAM SWATH BK 08	GDC	16-462S	176-579W	sPPTU04WT
1215	130186			MBSB	B SEABEAM SWATH BK 09	GDC	16-462S	176-579W	sPPTU04WT
1950	140186			MBSB	E SEABEAM SWATH BK 09	GDC	16-094S	177-172W	sPPTU04WT
1950	140186			MBSB	B SEABEAM SWATH BK 10	GDC	16-094S	177-172W	sPPTU04WT
1214	160186			MBSB	E SEABEAM SWATH BK 10	GDC	15-578S	178-497W	sPPTU04WT

#	GMT #TIME	DDMMYY DATE	LOC TIME	T Z	SAMP CODE	SAMPLE IDENTIFIER	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
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2050	170186				MBSB E	SEABEAM SWATH BK 11	GDC	15-221S	176-158W	sPPTU04WT
2050	170186				MBSB B	SEABEAM SWATH BK 12	GDC	15-221S	176-158W	sPPTU04WT
0658	190186				MBSB E	SEABEAM SWATH BK 12	GDC	15-486S	176-442W	sPPTU04WT
0658	190186				MBSB B	SEABEAM SWATH BK 13	GDC	15-486S	176-442W	sPPTU04WT
2021	200186				MBSB E	SEABEAM SWATH BK 13	GDC	17-343S	176-011W	sPPTU04WT
2021	200186				MBSB B	SEABEAM SWATH BK 14	GDC	17-343S	176-011W	sPPTU04WT
1049	220186				MBSB E	SEABEAM SWATH BK 14	GDC	18-254S	176-045W	sPPTU04WT
1049	220186				MBSB B	SEABEAM SWATH BK 15	GDC	18-254S	176-045W	sPPTU04WT
1603	230186				MBSB E	SEABEAM SWATH BK 15	GDC	18-350S	176-559W	sPPTU04WT
1604	230186				MBSB B	SEABEAM SWATH BK 16	GDC	18-350S	176-560W	sPPTU04WT
1334	250186				MBSB E	SEABEAM SWATH BK 16	GDC	18-454S	176-120W	sPPTU04WT
1334	250186				MBSB B	SEABEAM SWATH BK 17	GDC	18-454S	176-120W	sPPTU04WT
0052	270186				MBSB E	SEABEAM SWATH BK 17	GDC	19-028S	176-393W	sPPTU04WT
0052	270186				MBSB B	SEABEAM SWATH BK 18	GDC	19-028S	176-393W	sPPTU04WT
1745	270186				MBSB E	SEABEAM SWATH BK 18	GDC	20-523S	175-153W	sPPTU04WT

\*\*\*\* SEABEAM SURVEY SWATH BOOKS \*\*\*\*

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1604	020186				MBSB E	SEABEAM SWATH BK 01	GDC	15-004S	174-141W	sPPTU04WT
1604	020186				MBSB B	SEABEAM SWATH BK 02	GDC	15-004S	174-141W	sPPTU04WT
0627	040186				MBSB E	SEABEAM SWATH BK 02	GDC	15-334S	174-427W	sPPTU04WT
0627	040186				MBSB B	SEABEAM SWATH BK 03	GDC	15-334S	174-427W	sPPTU04WT
1540	050186				MBSB E	SEABEAM SWATH BK 03	GDC	15-214S	175-083W	sPPTU04WT
1540	050186				MBSB B	SEABEAM SWATH BK 04	GDC	15-214S	175-083W	sPPTU04WT
0307	070186				MBSB E	SEABEAM SWATH BK 04	GDC	15-237S	174-422W	sPPTU04WT
0307	070186				MBSB B	SEABEAM SWATH BK 05	GDC	15-237S	174-422W	sPPTU04WT
1311	080186				MBSB E	SEABEAM SWATH BK 05	GDC	15-562S	176-062W	sPPTU04WT
1311	080186				MBSB B	SEABEAM SWATH BK 06	GDC	15-562S	176-062W	sPPTU04WT
1509	100186				MBSB E	SEABEAM SWATH BK 06	GDC	16-382S	175-512W	sPPTU04WT
1510	100186				MBSB B	SEABEAM SWATH BK 07	GDC	16-383S	175-514W	sPPTU04WT
0049	120186				MBSB E	SEABEAM SWATH BK 07	GDC	17-234S	176-002W	sPPTU04WT
0050	120186				MBSB B	SEABEAM SWATH BK 08	GDC	17-235S	176-002W	sPPTU04WT
1220	130186				MBSB E	SEABEAM SWATH BK 08	GDC	16-462S	176-571W	sPPTU04WT
1220	130186				MBSB B	SEABEAM SWATH BK 09	GDC	16-462S	176-571W	sPPTU04WT
1951	140186				MBSB E	SEABEAM SWATH BK 09	GDC	16-095S	177-174W	sPPTU04WT
1951	140186				MBSB B	SEABEAM SWATH BK 10	GDC	16-095S	177-174W	sPPTU04WT
1205	160186				MBSB E	SEABEAM SWATH BK 10	GDC	15-596S	178-497W	sPPTU04WT
1205	160186				MBSB B	SEABEAM SWATH BK 11	GDC	15-596S	178-497W	sPPTU04WT
2050	170186				MBSB E	SEABEAM SWATH BK 11	GDC	15-221S	176-158W	sPPTU04WT
2050	170186				MBSB B	SEABEAM SWATH BK 12	GDC	15-221S	176-158W	sPPTU04WT
0658	190186				MBSB E	SEABEAM SWATH BK 12	GDC	15-486S	176-442W	sPPTU04WT
0658	190186				MBSB B	SEABEAM SWATH BK 13	GDC	15-486S	176-442W	sPPTU04WT
2021	200186				MBSB E	SEABEAM SWATH BK 13	GDC	17-343S	176-011W	sPPTU04WT

#	GMT #TIME	DDMMYY DATE	LOC TIME	T Z	SAMP CODE	SAMPLE IDENTIFIER	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
	2021	200186			MBSB B	SEABEAM SWATH BK 14	GDC	17-343S	176-011W	sPPTU04WT
	1049	220186			MBSB E	SEABEAM SWATH BK 14	GDC	18-254S	176-045W	sPPTU04WT
	1049	220186			MBSB B	SEABEAM SWATH BK 15	GDC	18-254S	176-045W	sPPTU04WT
	1603	230186			MBSB E	SEABEAM SWATH BK 15	GDC	18-350S	176-559W	sPPTU04WT
	1604	230186			MBSB B	SEABEAM SWATH BK 16	GDC	18-350S	176-560W	sPPTU04WT
	1332	250186			MBSB E	SEABEAM SWATH BK 16	GDC	18-454S	176-116W	sPPTU04WT
	1332	250186			MBSB B	SEABEAM SWATH BK 17	GDC	18-454S	176-116W	sPPTU04WT
	0005	270186			MBSB E	SEABEAM SWATH BK 17	GDC	18-598S	176-360W	sPPTU04WT
	0052	270186			MBSB B	SEABEAM SWATH BK 18	GDC	19-028S	176-393W	sPPTU04WT
	1745	270186			MBSB E	SEABEAM SWATH BK 18	GDC	20-523S	175-153W	sPPTU04WT
*** MAGNETICS ***										
	0440	010186			MGRA B	MAGNETICS ROLL 01	GDC	14-245S	170-425W	sPPTU04WT
	0950	170186			MGRA E	MAGNETICS ROLL 01	GDC	15-395S	177-368W	sPPTU04WT
	1000	170186			MGRA B	MAGNETICS ROLL 02	GDC	15-383S	177-354W	sPPTU04WT
	1745	270186			MGRA E	MAGNETICS ROLL 02	GDC	20-523S	175-153W	sPPTU04WT
*** EXPENDABLE BATHYTHERMOGRAPH ***										
	0943	250186			BTXP	XBT	GDC	18-513S	176-388W	sPPTU04WT
*** DREDGE STATIONS ***										
	0950	010186			DRRO B	DREDGE STATION 01	GRD	14-479S	170-414W	sPPTU04WT
	1321	010186			DRRO E	DREDGE STATION 01	GRD	14-491S	170-410W	sPPTU04WT
	0843	020186			DRRO B	DREDGE STATION 02	GRD	14-493S	173-187W	sPPTU04WT
	0951	020186			DRRO E	DREDGE STATION 02	GRD	14-486S	173-202W	sPPTU04WT
	1016	030186			DRRO B	DREDGE STATION 03	GRD	15-232S	174-403W	sPPTU04WT
	1142	030186			DRRO E	DREDGE STATION 03	GRD	15-230S	174-410W	sPPTU04WT
	0012	040186			DRRO B	DREDGE STATION 04	GRD	15-482S	174-359W	sPPTU04WT
	0230	040186			DRRO E	DREDGE STATION 04	GRD	15-478S	174-379W	sPPTU04WT
	0754	040186			DRRO B	DREDGE STATION 05	GRD	15-345S	174-424W	sPPTU04WT
	1008	040186			DRRO E	DREDGE STATION 05	GRD	15-359S	174-408W	sPPTU04WT
	1055	050186			DRRO B	DREDGE STATION 06	GRD	15-197S	175-210W	sPPTU04WT
	1232	050186			DRRO E	DREDGE STATION 06	GRD	15-185S	175-210W	sPPTU04WT
	1950	050186			DRRO B	DREDGE STATION 07	GRD	15-246S	175-127W	sPPTU04WT
	2145	050186			DRRO E	DREDGE STATION 07	GRD	15-253S	175-114W	sPPTU04WT
	0918	060186			DRRO B	DREDGE STATION 08	GRD	15-513S	175-320W	sPPTU04WT
	1131	060186			DRRO E	DREDGE STATION 08	GRD	15-488S	175-336W	sPPTU04WT
	0214	070186			DRRO B	DREDGE STATION 09	GRD	15-246S	174-421W	sPPTU04WT
	0335	070186			DRRO E	DREDGE STATION 09	GRD	15-230S	174-422W	sPPTU04WT
	1301	070186			DRRO B	DREDGE STATION 10	GRD	15-450S	175-159W	sPPTU04WT
	1442	070186			DRRO E	DREDGE STATION 10	GRD	15-449S	175-152W	sPPTU04WT

#GMT	DDMMYY	LOC	T	SAMP	SAMPLE	DISP			CRUISE
#TIME	DATE	TIME	Z	CODE	IDENTIFIER	CODE	LAT,	LONG.	LEG-SHIP
#									
0100	080186			DRRO	B DREDGE STATION 11	GRD	15-289S	175-350W	sPPTU04WT
0229	080186			DRRO	E DREDGE STATION 11	GRD	15-295S	175-364W	sPPTU04WT
0033	090186			DRRO	B DREDGE STATION 12	GRD	16-164S	176-122W	sPPTU04WT
0300	090186			DRRO	E DREDGE STATION 12	GRD	16-150S	176-150W	sPPTU04WT
0819	090186			DRRO	B DREDGE STATION 13	GRD	16-104S	176-144W	sPPTU04WT
1016	090186			DRRO	E DREDGE STATION 13	GRD	16-099S	176-175W	sPPTU04WT
0812	100186			DRRO	B DREDGE STATION 14	GRD	16-387S	175-194W	sPPTU04WT
1133	100186			DRRO	E DREDGE STATION 14	GRD	16-356S	175-169W	sPPTU04WT
0148	110186			DRRO	B DREDGE STATION 15	GRD	16-460S	176-089W	sPPTU04WT
0417	110186			DRRO	E DREDGE STATION 15	GRD	16-473S	176-078W	sPPTU04WT
0215	120186			DRRO	B DREDGE STATION 16	GRD	17-246S	176-010W	sPPTU04WT
0458	120186			DRRO	E DREDGE STATION 16	GRD	17-195S	176-006W	sPPTU04WT
2342	120186			DRRO	B DREDGE STATION 17	GRD	17-005S	176-305W	sPPTU04WT
0217	130186			DRRO	E DREDGE STATION 17	GRD	17-021S	176-335W	sPPTU04WT
0408	140186			DRRO	B DREDGE STATION 18	GRD	16-301S	177-356W	sPPTU04WT
0640	140186			DRRO	E DREDGE STATION 18	GRD	16-314S	177-326W	sPPTU04WT
2247	140186			DRRO	B DREDGE STATION 19	GRD	16-097S	177-216W	sPPTU04WT
0155	150186			DRRO	E DREDGE STATION 19	GRD	16-094S	177-194W	sPPTU04WT
0940	150186			DRRO	B DREDGE STATION 20	GRD	16-203S	177-298W	sPPTU04WT
1200	150186			DRRO	E DREDGE STATION 20	GRD	16-218S	177-307W	sPPTU04WT
0317	160186			DRRO	B DREDGE STATION 21	GRD	16-075S	177-528W	sPPTU04WT
0548	160186			DRRO	E DREDGE STATION 21	GRD	16-069S	177-500W	sPPTU04WT
2157	160186			DRRO	B DREDGE STATION 22	GRD	15-477S	178-518W	sPPTU04WT
0113	170186			DRRO	E DREDGE STATION 22	GRD	15-441S	178-535W	sPPTU04WT
0622	180186			DRRO	B DREDGE STATION 23	GRD	15-122S	176-372W	sPPTU04WT
0815	180186			DRRO	E DREDGE STATION 23	GRD	15-109S	176-377W	sPPTU04WT
2226	180186			DRRO	B DREDGE STATION 24	GRD	15-261S	176-162W	sPPTU04WT
0014	190186			DRRO	E DREDGE STATION 24	GRD	15-255S	176-188W	sPPTU04WT
0753	190186			DRRO	B DREDGE STATION 25	GRD	15-489S	176-438W	sPPTU04WT
0918	190186			DRRO	E DREDGE STATION 25	GRD	15-494S	176-427W	sPPTU04WT
0213	200186			DRRO	B DREDGE STATION 26	GRD	17-095S	175-559W	sPPTU04WT
0509	200186			DRRO	E DREDGE STATION 26	GRD	17-122S	175-594W	sPPTU04WT
1753	200186			DRRO	B DREDGE STATION 27	GRD	17-372S	176-021W	sPPTU04WT
2120	200186			DRRO	E DREDGE STATION 27	GRD	17-339S	176-011W	sPPTU04WT
0540	210186			DRRO	B DREDGE STATION 28	GRD	17-572S	175-535W	sPPTU04WT
0734	210186			DRRO	E DREDGE STATION 28	GRD	17-565S	175-565W	sPPTU04WT
0210	220186			DRRO	B DREDGE STATION 29	GRD	18-171S	176-553W	sPPTU04WT
0408	220186			DRRO	E DREDGE STATION 29	GRD	18-165S	176-573W	sPPTU04WT

#GMT	DDMMYY	LOC	T	SAMP	SAMPLE	DISP			CRUISE
#TIME	DATE	TIME	Z	CODE	IDENTIFIER	CODE	LAT.	LONG.	LEG-SHIP
2155	230186			DRRO B	DREDGE STATION 30	GRD 18-328S	176-306W		sPPTU04WT
0103	240186			DRRO E	DREDGE STATION 30	GRD 18-329S	176-339W		sPPTU04WT
0959	240186			DRRO B	DREDGE STATION 31	GRD 18-393S	176-254W		sPPTU04WT
1249	240186			DRRO E	DREDGE STATION 31	GRD 18-368S	176-266W		sPPTU04WT
0023	250186			DRRO B	DREDGE STATION 32	GRD 18-513S	176-355W		sPPTU04WT
0244	250186			DRRO E	DREDGE STATION 32	GRD 18-514S	176-335W		sPPTU04WT
0635	250186			DRRO B	DREDGE STATION 33	GRD 18-516S	176-359W		sPPTU04WT
0845	250186			DRRO E	DREDGE STATION 33	GRD 18-512S	176-388W		sPPTU04WT
2335	250186			DRRO B	DREDGE STATION 34	GRD 18-265S	177-216W		sPPTU04WT
0203	260186			DRRO E	DREDGE STATION 34	GRD 18-261S	177-239W		sPPTU04WT
1715	260186			DRRO B	DREDGE STATION 35	GRD 18-560S	175-452W		sPPTU04WT
1858	260186			DRRO E	DREDGE STATION 35	GRD 18-541S	175-457W		sPPTU04WT
0334	270186			DRRO B	DREDGE STATION 36	GRD 19-107S	176-330W		sPPTU04WT
0432	270186			DRRO E	DREDGE STATION 36	GRD 19-104S	176-334W		sPPTU04WT
#					END SAMPLE INDEX				