

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

(Issued June 1986)

PAPATUA EXPEDITION

LEG 5

Nuku'alofa, Tongatapu, Tonga (31 January 1986)
to
Auckland, New Zealand (13 February 1986)

R/V T. Washington

Chief Scientist - H. Craig

Resident Marine Tech - R. Comer

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

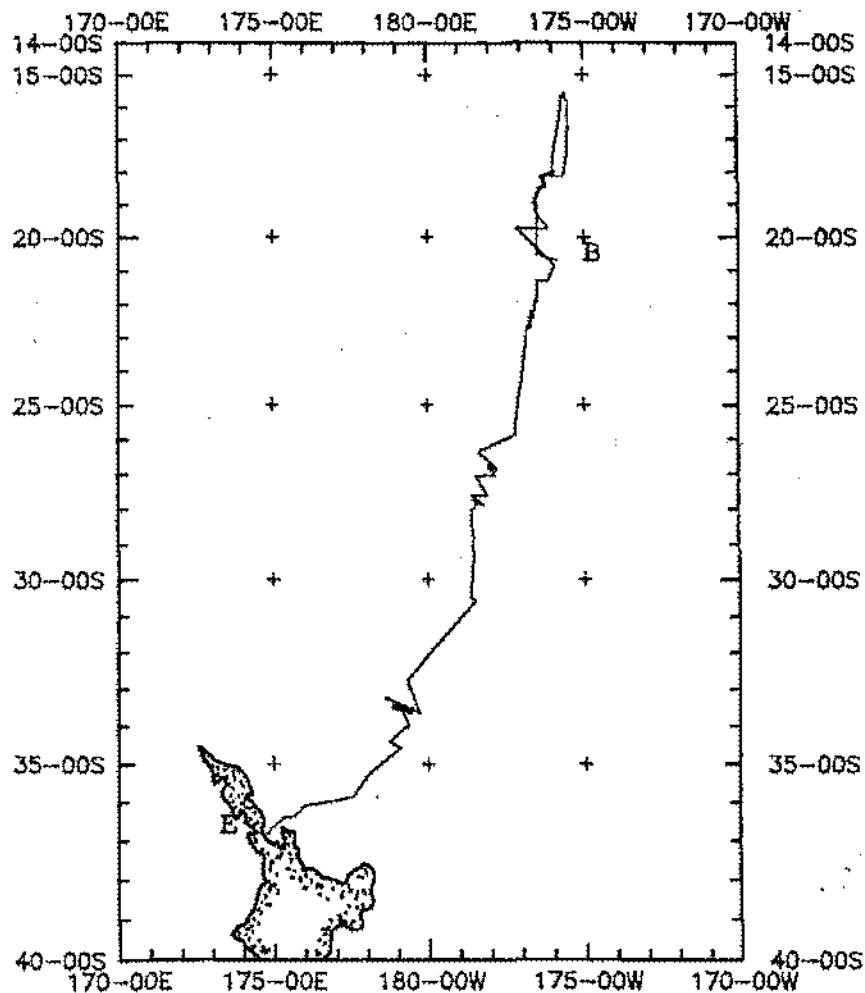
Revised June 1985 (Sea Beam)

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



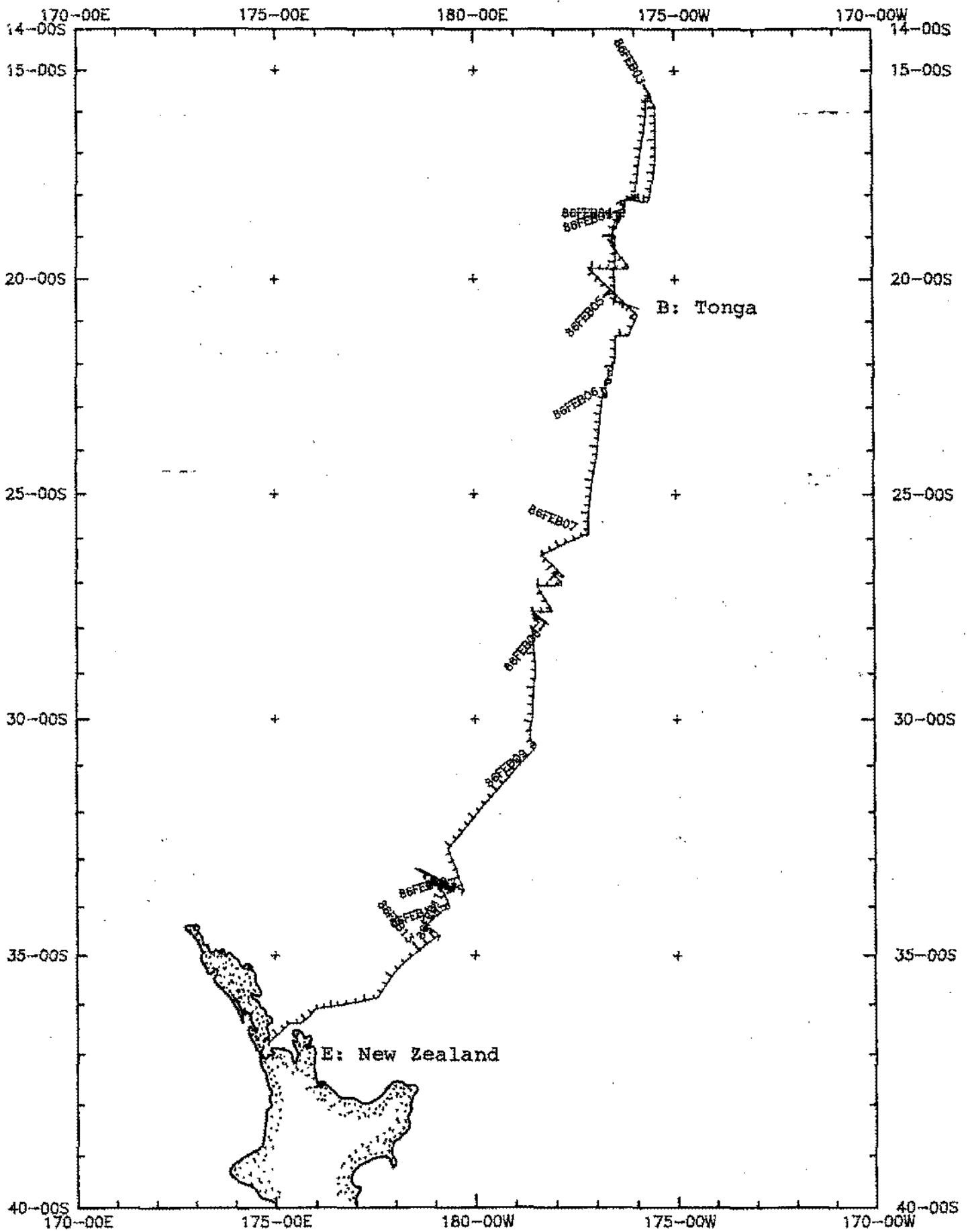
PAPATUA LEG 05 .1632in/degree

PAPATUA EXPEDITION
LEG 5

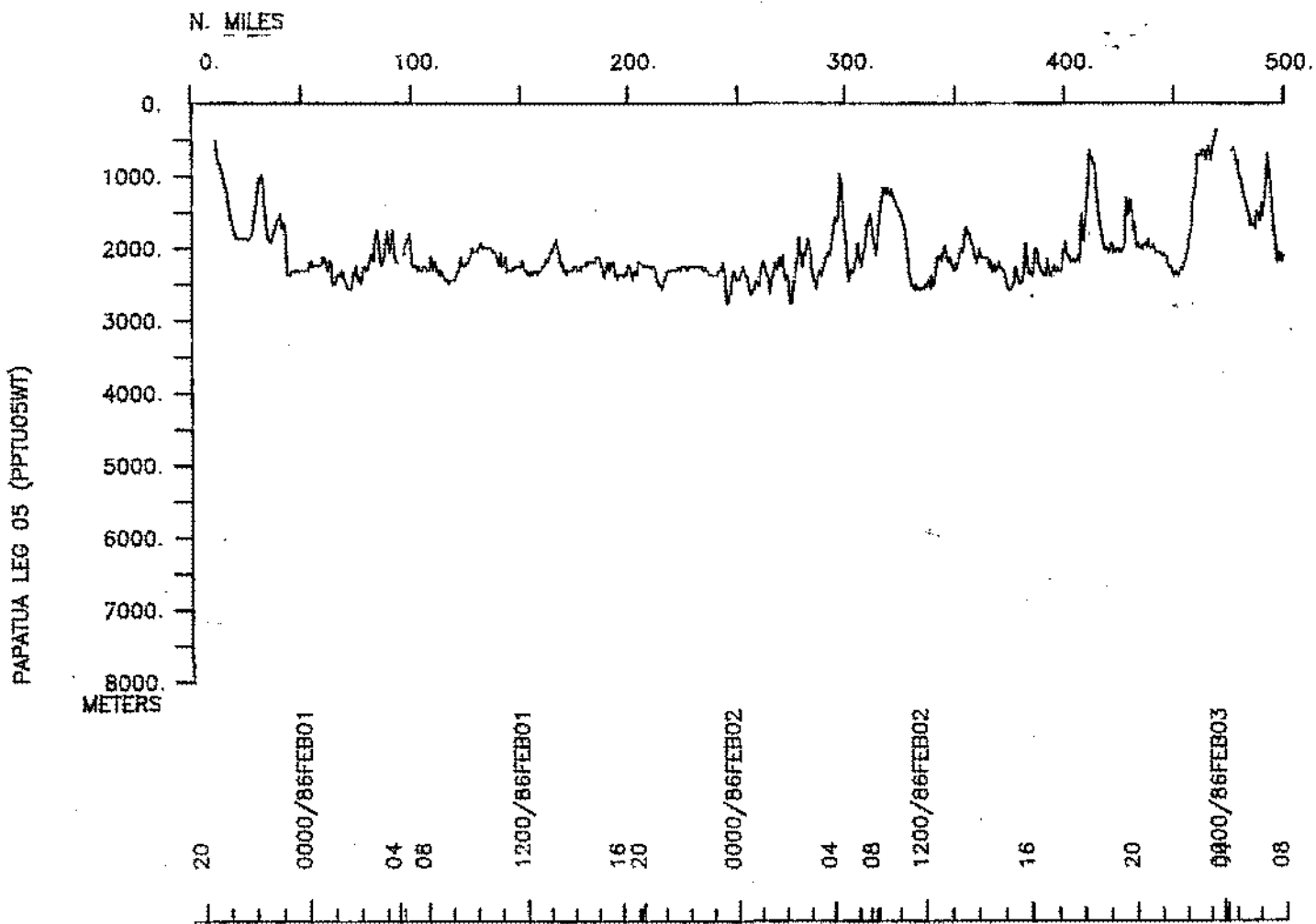
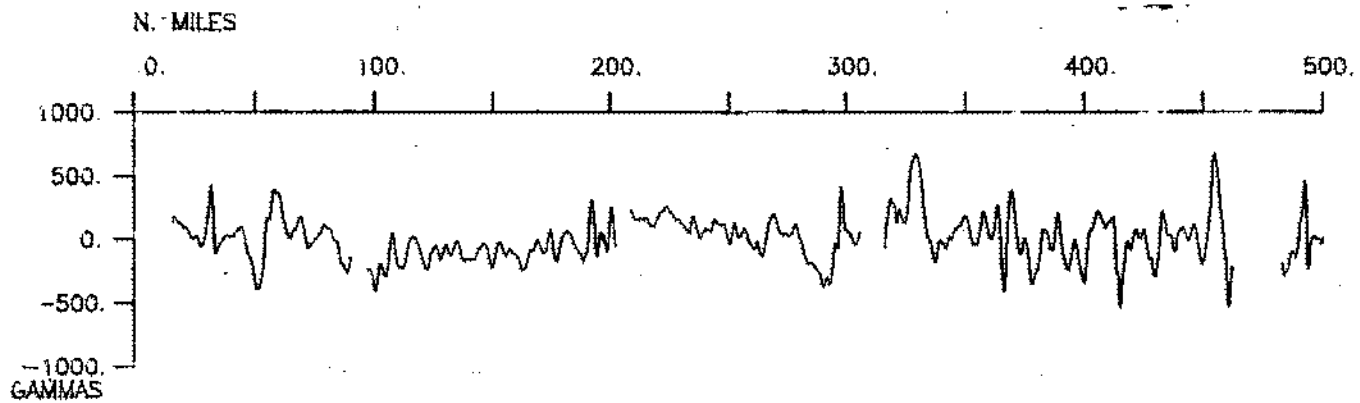
CHIEF SCIENTIST: H. Craig
 PORTS: Nuku'alofa, Tonga - Auckland, New Zealand
 DATES: 31 January - 13 February 1986
 SHIP: R/V T. Washington

TOTAL MILEAGE OF UNDERWAY DATA COLLECTED

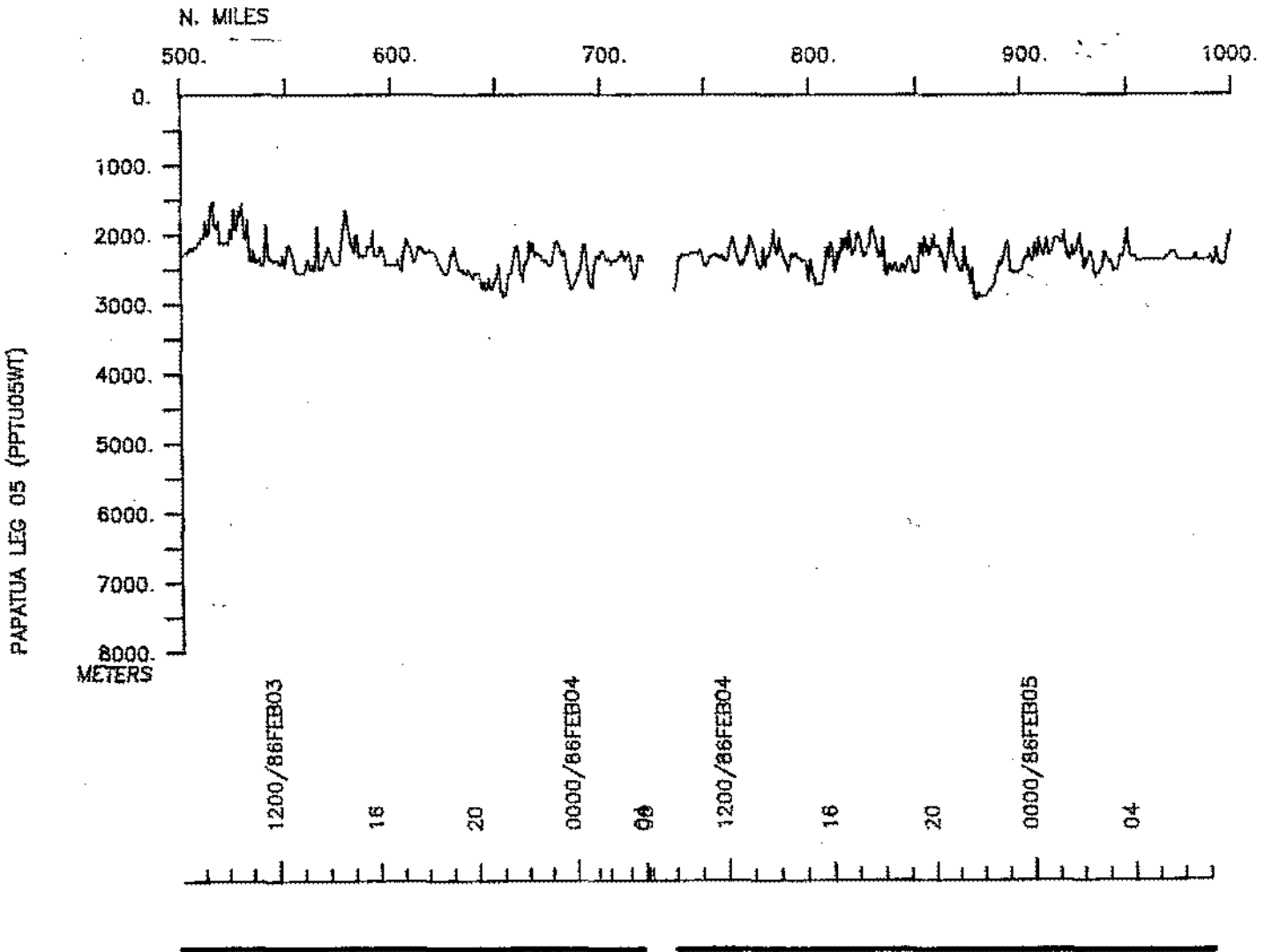
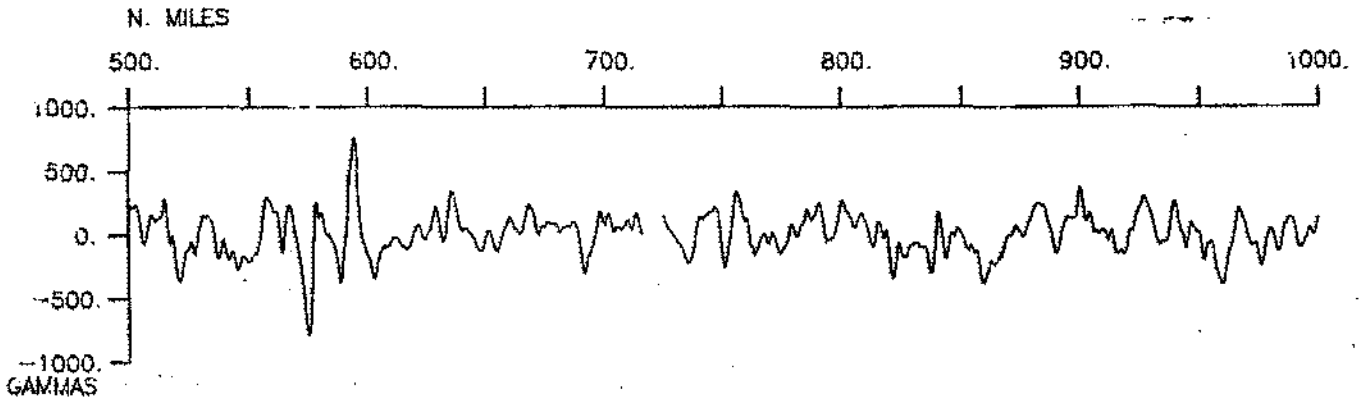
- 1) Cruise - 2739 miles
- 2) Bathymetry - 2689 miles
- 3) Magnetics - 2579 miles
- 4) Seismic Reflection - none collected
- 5) Gravity - none collected
- 6) SeaBeam - 2689 miles

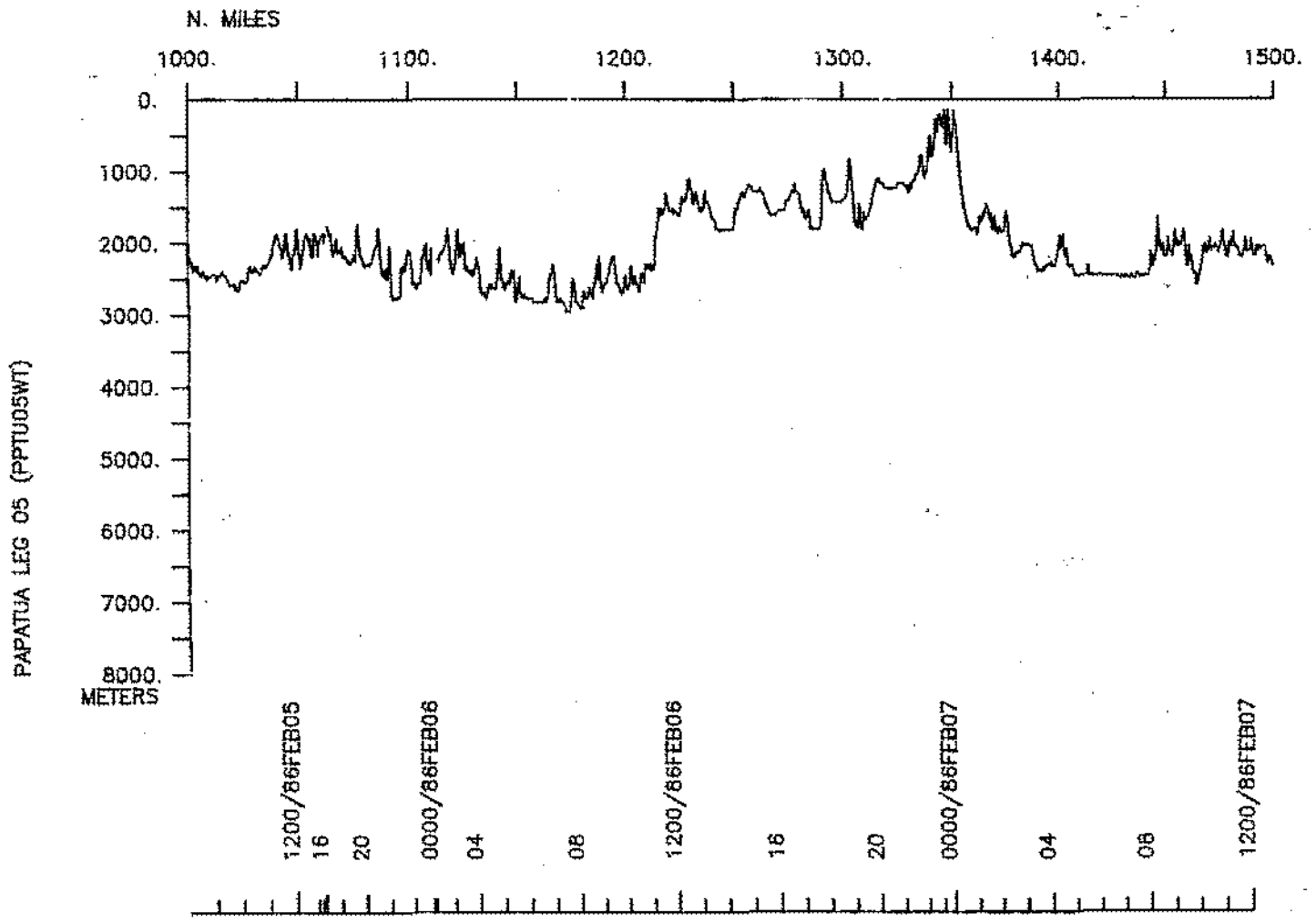
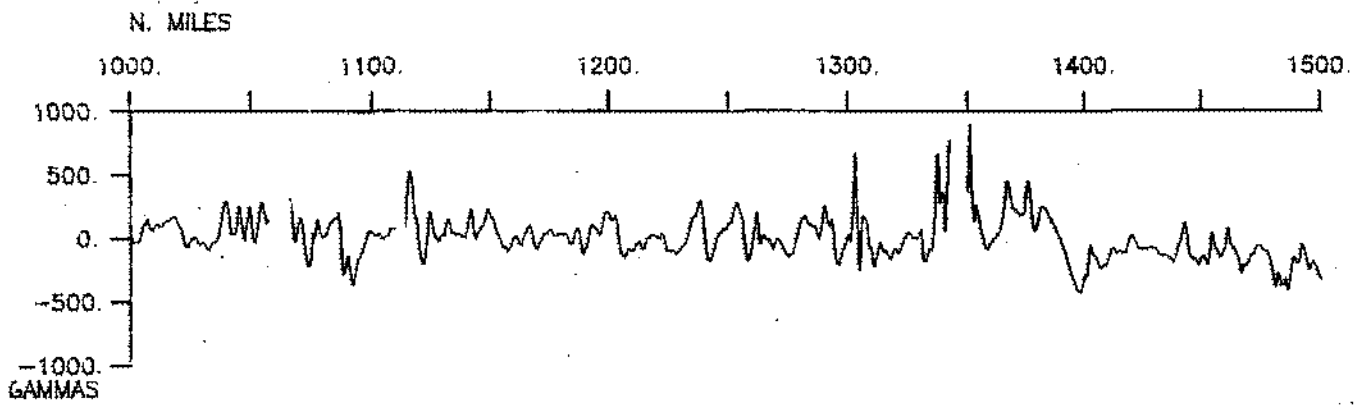


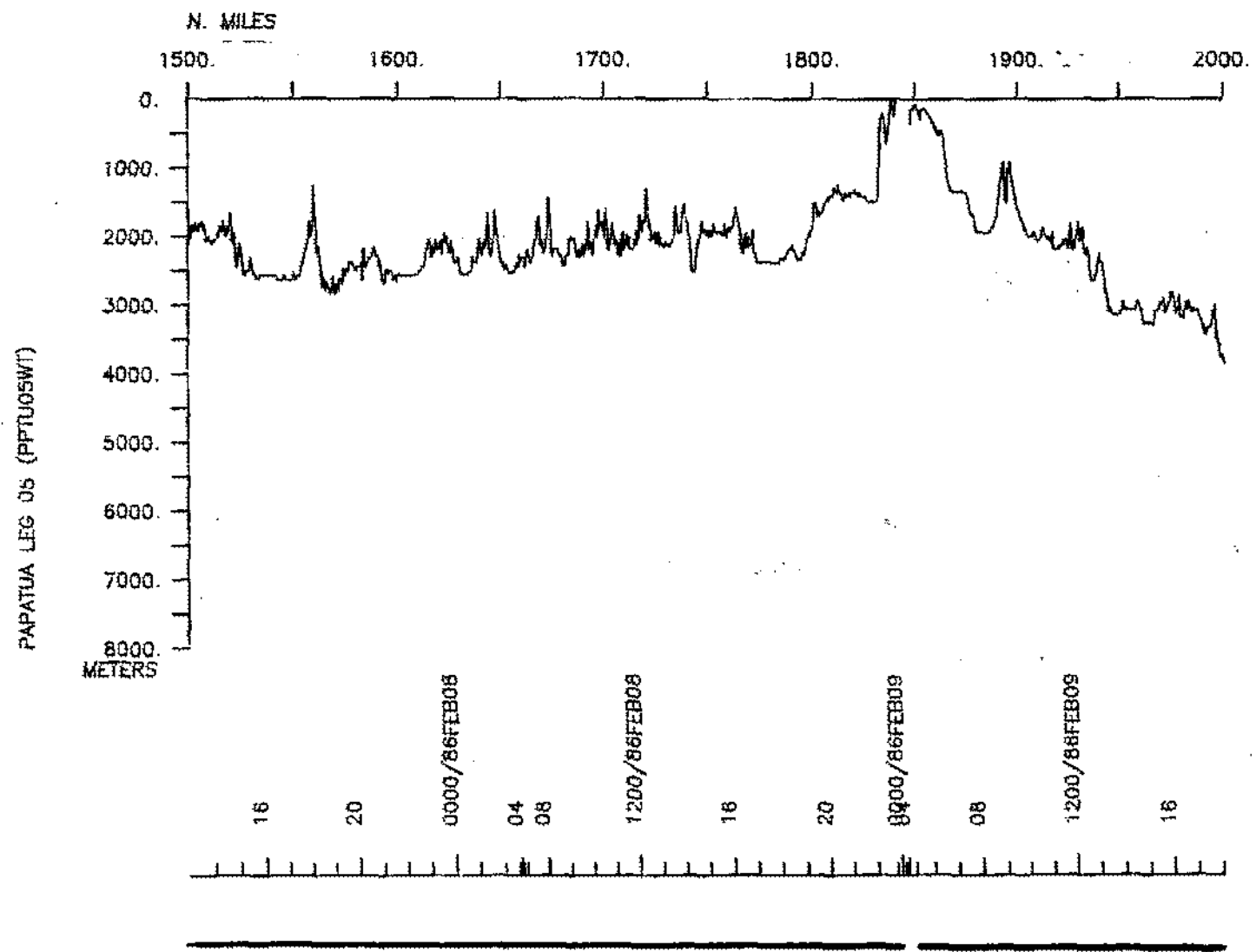
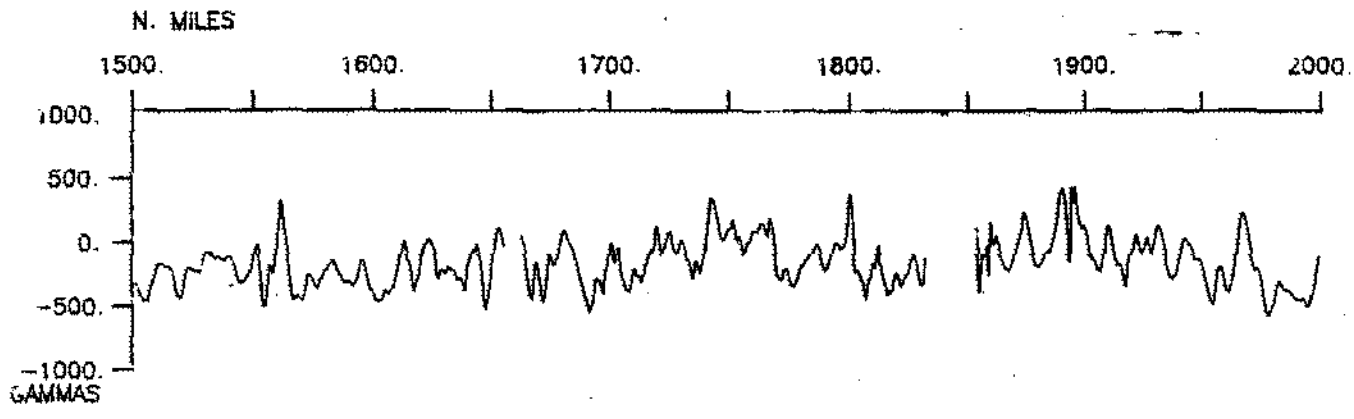
PAPATUA LEG 05 Track with times at .312in/degree

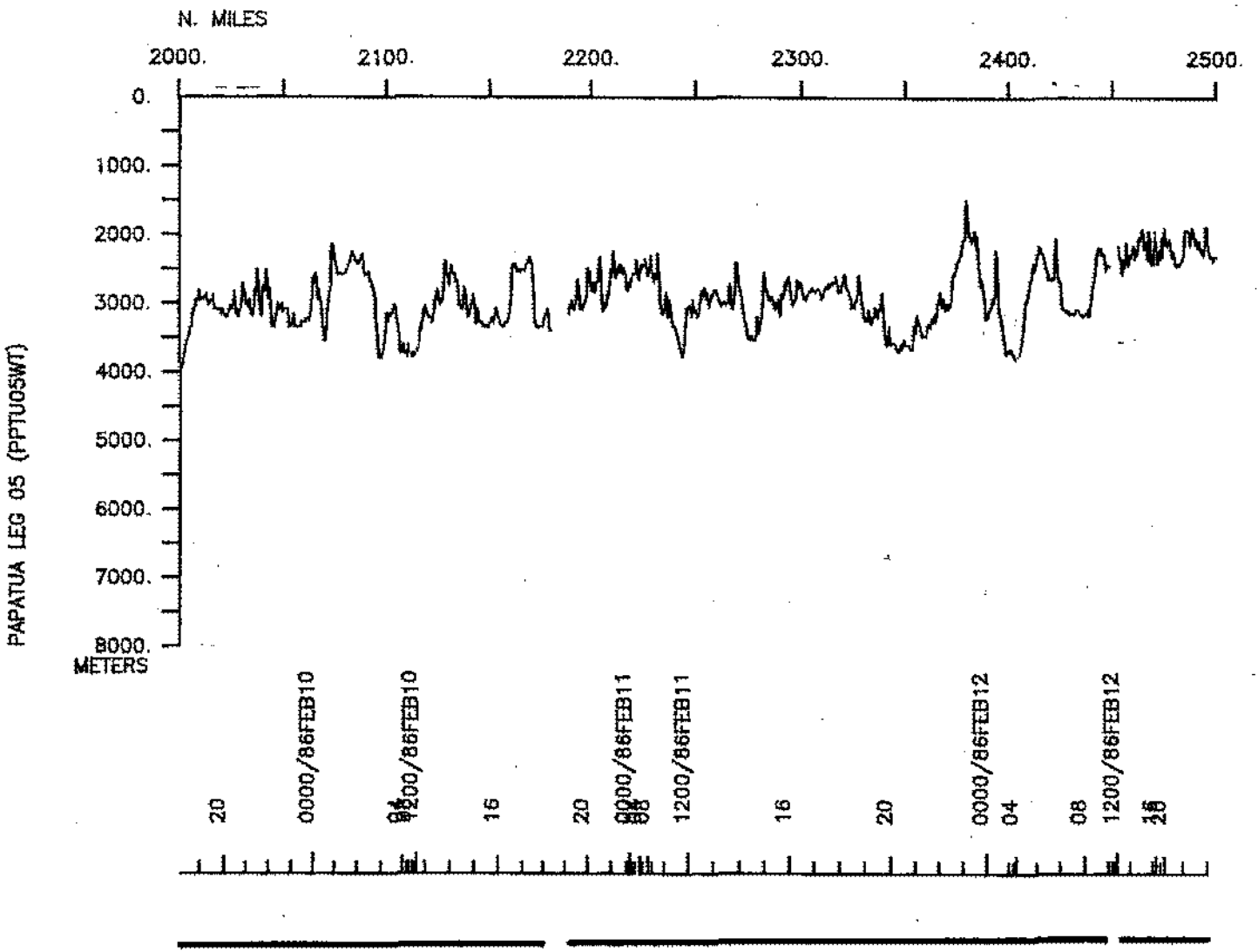
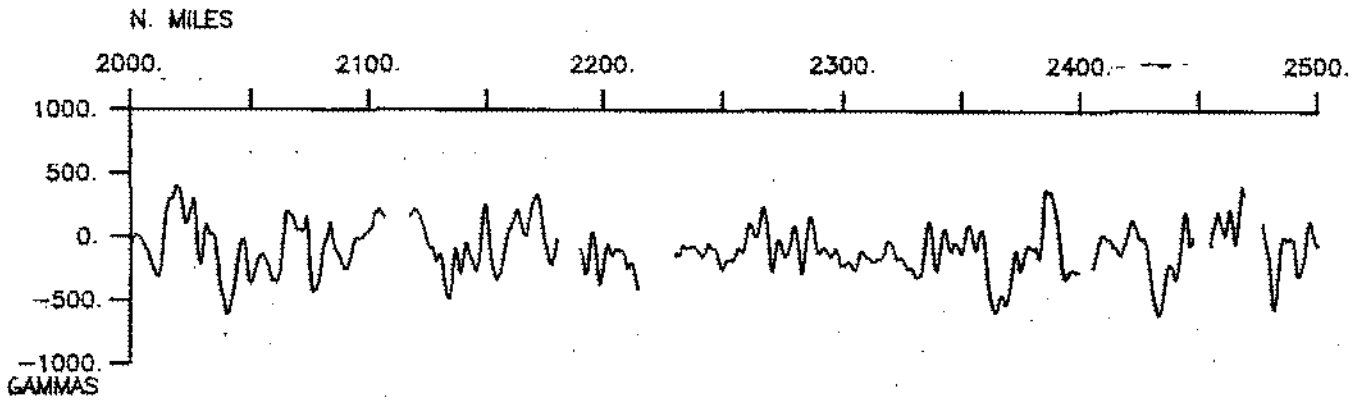


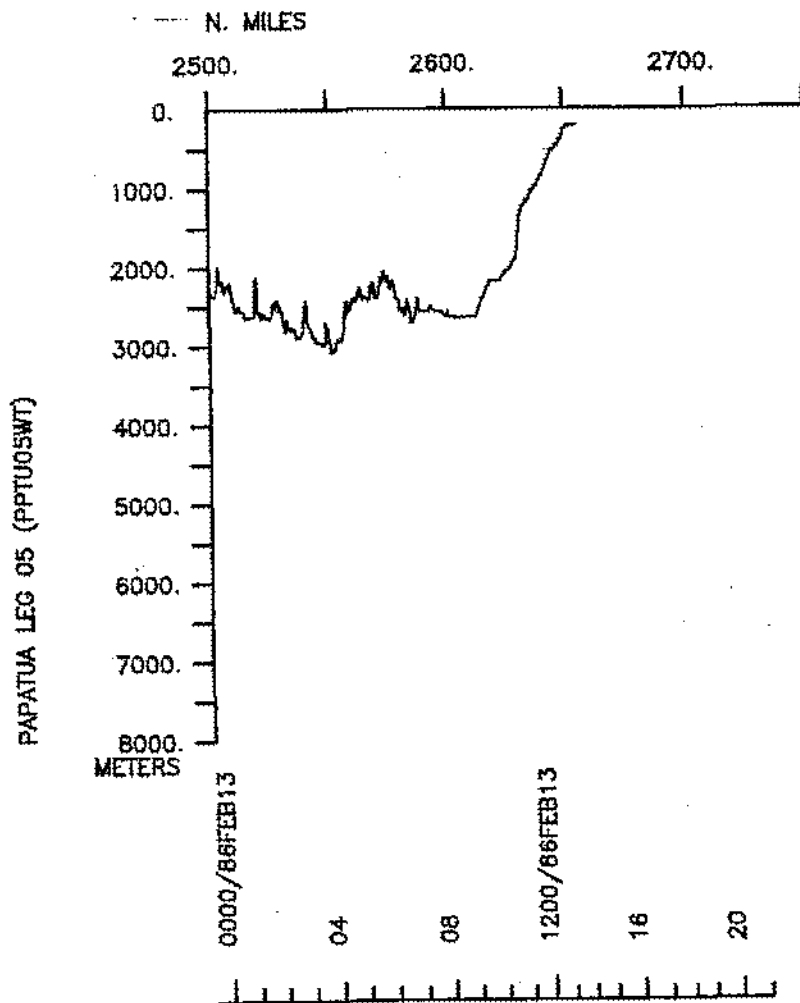
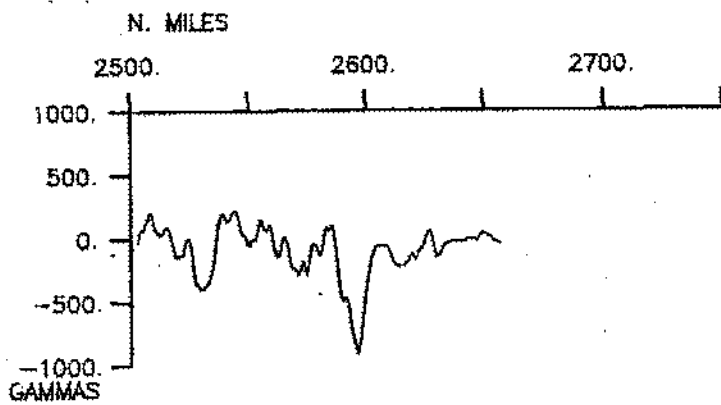
SEABEAM











S.I.O. SAMPLE INDEX

(Re-Issued June 1986)

PAPATUA EXPEDITION

Leg 5

Nuku'alofa, Tongatapu, Tonga (31 January 1986)
to
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R/V T. Washington

Chief Scientist - H. Craig

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****

2000 310186	LGPT B NUKU'ALOFA, TONGA	21-08 S 175-12 W	FPPTU05WT
2100 130286	LGPT E AUCKLAND, NEW ZEALAND	34-51 S 174-46 E	FPPTU05WT
2330 020286	LGSS B NIUAFO'OU	15-343S 175-382W	SPPTU05WT
0540 030286	LGSS E NIUAFO'OU	15-343S 175-382W	SPPTU05WT
2315 080286	LGSS B CURTISS IS., KERMADEC IS.	30-318S 178-329W	SPPTU05WT
0430 090286	LGSS E CURTISS IS., KERMADEC IS.	30-318S 178-329W	SPPTU05WT

****PERSONNEL****

PECS GRD CRAIG, Dr. H.	CHIEF SCIENTIST	SCRIPPS INSTITUTE	PPTU05WT
PERT STS COMER, R.L.	RESIDENT TECH.	SCRIPPS INSTITUTE	PPTU05WT
PECT SCG MOE, R.	COMPUTER TECH.	SCRIPPS INSTITUTE	PPTU05WT
PEBE SCG HYLAS, T.	SEABEAM TECH.	SCRIPPS INSTITUTE	PPTU05WT
PEBO GDC SMITH, W.	SEABEAM OPERATOR	SCRIPPS INSTITUTE	PPTU05WT
PEXN SIX EADE, J.	GEOLOGIST	NEW ZEALAND	PPTU05WT
PEXN SIX HALL, L.	ENGINEER	NEW ZEALAND	PPTU05WT
PESP STS COSTELLO, J.	STAFF RES. ASSOC.	SCRIPPS INSTITUTE	PPTU05WT
PESP GRD WOLGAST, D.	STAFF RES. ASSOC.	SCRIPPS INSTITUTE	PPTU05WT
PEXN SIX KIM, Dr. K.R.	GEOCHEMIST	KOREA	PPTU05WT
PESP GRD POREDA, Dr. R.J.	RESEARCH ASST.	SCRIPPS INSTITUTE	PPTU05WT
PEST GRD CARESS, D.	GRAD. STUDENT	SCRIPPS INSTITUTE	PPTU05WT
PEST GRD APITZ, S.	GRAD. STUDENT	SCRIPPS INSTITUTE	PPTU05WT
PEST GRD LOUGEE, B.	GRAD. STUDENT	SCRIPPS INSTITUTE	PPTU05WT

****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

2030	310186			LBUW	B UNDERWAY WATCH LOG	GDC	20-568S	175-131W	sPPTU05WT
1330	130286			LBUW	E UNDERWAY WATCH LOG	GDC	36-048S	176-053E	sPPTU05WT

12 KHZ EPC SEABEAM MONITOR

2030	310186			MBRM	B SEABEAM MONITOR R-01	GDC	20-568S	175-131W	sPPTU05WT
1934	040286			MBRM	E SEABEAM MONITOR R-01	GDC	19-446S	176-599W	sPPTU05WT
1937	040286			MBRM	B SEABEAM MONITOR R-02	GDC	19-446S	177-005W	sPPTU05WT
0513	080286			MBRM	E SEABEAM MONITOR R-02	GDC	27-449S	178-282W	sPPTU05WT
0520	090286			MBRM	B SEABEAM MONITOR R-03	GDC	30-344S	178-301W	sPPTU05WT
0945	130286			MBRM	E SEABEAM MONITOR R-03	GDC	35-589S	176-488E	sPPTU05WT
0952	130286			MBRM	B SEABEAM MONITOR R-04	GDC	35-592S	176-472E	sPPTU05WT
1330	130286			MBRM	E SEABEAM MONITOR R-04	GDC	36-048S	176-053E	sPPTU05WT

SEABEAM ARCHIVE SWATH BOOKS

2028	310186			MBSB	B SB ARCHIVE SW.BK 01	GDC	20-570S	175-129W	sPPTU05WT
0445	020286			MBSB	E SB ARCHIVE SW.BK 01	GDC	18-016S	176-030W	sPPTU05WT
0445	020286			MBSB	B SB ARCHIVE SW.BK 02	GDC	18-016S	176-030W	sPPTU05WT
1725	030286			MBSB	E SB ARCHIVE SW.BK 02	GDC	17-447S	175-353W	sPPTU05WT
1725	030286			MBSB	B SB ARCHIVE SW.BK 03	GDC	17-447S	175-353W	sPPTU05WT
0032	050286			MBSB	E SB ARCHIVE SW.BK 03	GDC	20-194S	176-315W	sPPTU05WT
0032	050286			MBSB	B SB ARCHIVE SW.BK 04	GDC	20-194S	176-315W	sPPTU05WT
1004	060286			MBSB	E SB ARCHIVE SW.BK 04	GDC	23-328S	176-551W	sPPTU05WT
1004	060286			MBSB	B SB ARCHIVE SW.BK 05	GDC	23-328S	176-551W	sPPTU05WT
1239	070286			MBSB	E SB ARCHIVE SW.BK 05	GDC	26-547S	177-552W	sPPTU05WT
1239	070286			MBSB	B SB ARCHIVE SW.BK 06	GDC	26-547S	177-552W	sPPTU05WT
1841	080286			MBSB	E SB ARCHIVE SW.BK 06	GDC	29-499S	178-347W	sPPTU05WT
1841	080286			MBSB	B SB ARCHIVE SW.BK 07	GDC	29-499S	178-347W	sPPTU05WT
0226	100286			MBSB	E SB ARCHIVE SW.BK 07	GDC	33-372S	179-364E	sPPTU05WT
0226	100286			MBSB	B SB ARCHIVE SW.BK 08	GDC	33-372S	179-364E	sPPTU05WT
2232	110286			MBSB	E SB ARCHIVE SW.BK 08	GDC	33-404S	179-117E	sPPTU05WT
2232	110286			MBSB	B SB ARCHIVE SW.BK 09	GDC	33-404S	179-117E	sPPTU05WT
1331	130286			MBSB	E SB ARCHIVE SW.BK 09	GDC	36-048S	176-051E	sPPTU05WT

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

SEABEAM SURVEY SWATH BOOKS

2029	310186		MBSB B	SB SURVEY SW.BK. 01	GDC	20-569S	175-129W	sPPTU05WT
0445	020286		MBSB E	SB SURVEY SW.BK. 01	GDC	18-016S	176-030W	sPPTU05WT
0446	020286		MBSB B	SB SURVEY SW.BK. 02	GDC	18-016S	176-032W	sPPTU05WT
1725	030286		MBSB E	SB SURVEY SW.BK. 02	GDC	17-447S	175-353W	sPPTU05WT
1725	030286		MBSB B	SB SURVEY SW.BK. 03	GDC	17-447S	175-353W	sPPTU05WT
0033	050286		MBSB E	SB SURVEY SW.BK. 03	GDC	20-195S	176-313W	sPPTU05WT
0033	050286		MBSB B	SB SURVEY SW.BK. 04	GDC	20-195S	176-313W	sPPTU05WT
1004	060286		MBSB E	SB SURVEY SW.BK. 04	GDC	23-328S	176-551W	sPPTU05WT
1004	060286		MBSB B	SB SURVEY SW.BK. 05	GDC	23-328S	176-551W	sPPTU05WT
1231	070286		MBSB E	SB SURVEY SW.BK. 05	GDC	26-536S	177-565W	sPPTU05WT
1231	070286		MBSB B	SB SURVEY SW.BK. 06	GDC	26-536S	177-565W	sPPTU05WT
1839	080286		MBSB E	SB SURVEY SW.BK. 06	GDC	29-495S	178-346W	sPPTU05WT
1840	080286		MBSB B	SB SURVEY SW.BK. 07	GDC	29-497S	178-346W	sPPTU05WT
0226	100286		MBSB E	SB SURVEY SW.BK. 07	GDC	33-372S	179-364E	sPPTU05WT
0226	100286		MBSB B	SB SURVEY SW.BK. 08	GDC	33-372S	179-364E	sPPTU05WT
2232	110286		MBSB E	SB SURVEY SW.BK. 08	GDC	33-404S	179-117E	sPPTU05WT
2232	110286		MBSB B	SB SURVEY SW.BK. 09	GDC	33-404S	179-117E	sPPTU05WT
1331	130286		MBSB E	SB SURVEY SW.BK. 09	GDC	36-048S	176-051E	sPPTU05WT

MAGNETICS

2050	310186		MGRA B	MAGNETICS ROLL 01	GDC	20-551S	175-165W	sPPTU05WT
0600	060286		MGRA E	MAGNETICS ROLL 01	GDC	22-466S	176-496W	sPPTU05WT
0610	060286		MGRA B	MAGNETICS ROLL 02	GDC	22-485S	176-499W	sPPTU05WT
1333	130286		MGRA E	MAGNETICS ROLL 02	GDC	36-048S	176-048E	sPPTU05WT

THERMOGRAPHS

2035	310186		TGRC B	THERMOGRAPHS 1-10	GDC	20-562S	175-136W	sPPTU05WT
2100	130286		TGRC E	THERMOGRAPHS 1-10	GDC	36-448S	174-502E	sPPTU05WT

DREDGES

1614	050286		DRRO	ROCK DREDGE-37 1940M	GCR	22-028S	176-356W	sPPTU05WT
0407	080286		DRRO	ROCK DREDGE-38 2340M	GCR	27-457S	178-282W	sPPTU05WT
0547	100286		DRRO	ROCK DREDGE-39 3700M	GCR	33-323S	179-300E	sPPTU05WT
2320	100286		DRRO	ROCK DREDGE-40 2710M	GCR	33-289S	179-133E	sPPTU05WT
1037	120286		DRRO	ROCK DREDGE-41 2500M	GCR	34-288S	178-523E	sPPTU05WT

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

HYDROCASTS

0540	010286			HCNI	HC-1 STA-1 12B	2193M	GRD 20-323S	176-286W	sPPTU05WT
1831	010286			HCNI	HC-1 STA-2 12B	2250M	GRD 18-577S	176-336W	sPPTU05WT
0726	020286			HCNI	HC-1 STA-3 5B	2010M	GRD 18-042S	175-588W	sPPTU05WT
0910	020286			HCNI	HC-2 STA-3 6B	2020M	GRD 18-046S	175-592W	sPPTU05WT
0510	040286			HCNI	HC-1 STA-4 6B	2404M	GRD 18-360S	176-244W	sPPTU05WT
0744	040286			HCNI	HC-2 STA-4 6B	2383M	GRD 18-371S	176-250W	sPPTU05WT
1415	050286			HCNI	HC-1 STA-5 11B	1860M	GRD 22-021S	176-345W	sPPTU05WT
0036	060286			HCNI	HC-1 STA-6 11B	2029M	GRD 22-275S	176-410W	sPPTU05WT
1047	100286			HCNI	HC-1 STA-7 15B	3745M	GRD 33-316S	179-303E	sPPTU05WT
0522	110286			HCNI	HC-1 STA-8 6B	2454M	GRD 33-268S	179-144E	sPPTU05WT
0920	110286			HCNI	HC-2 STA-8 6B	2344M	GRD 33-270S	179-134E	sPPTU05WT
0320	120286			HCNI	HC-1 STA-9 12B	3740M	GRD 34-025S	179-147E	sPPTU05WT
2021	120286			HCNI	HC-1 STA10 9B	2110M	GRD 34-345S	179-055E	sPPTU05WT

END SAMPLE INDEX