

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

(Issued September 1985)

MARATHON EXPEDITION

LEG 15

Balboa, Panama (22 May 1985)
to
San Diego, Calif (12 June 1985)

R/V T. Washington

Chief Scientist - J. Orcutt

Resident Marine Tech - G. Pillard

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

Data Collection and Processing funded by ONR
Grant Number ONR-0440
Data Processing funded by SIA and ONR

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.# 215

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

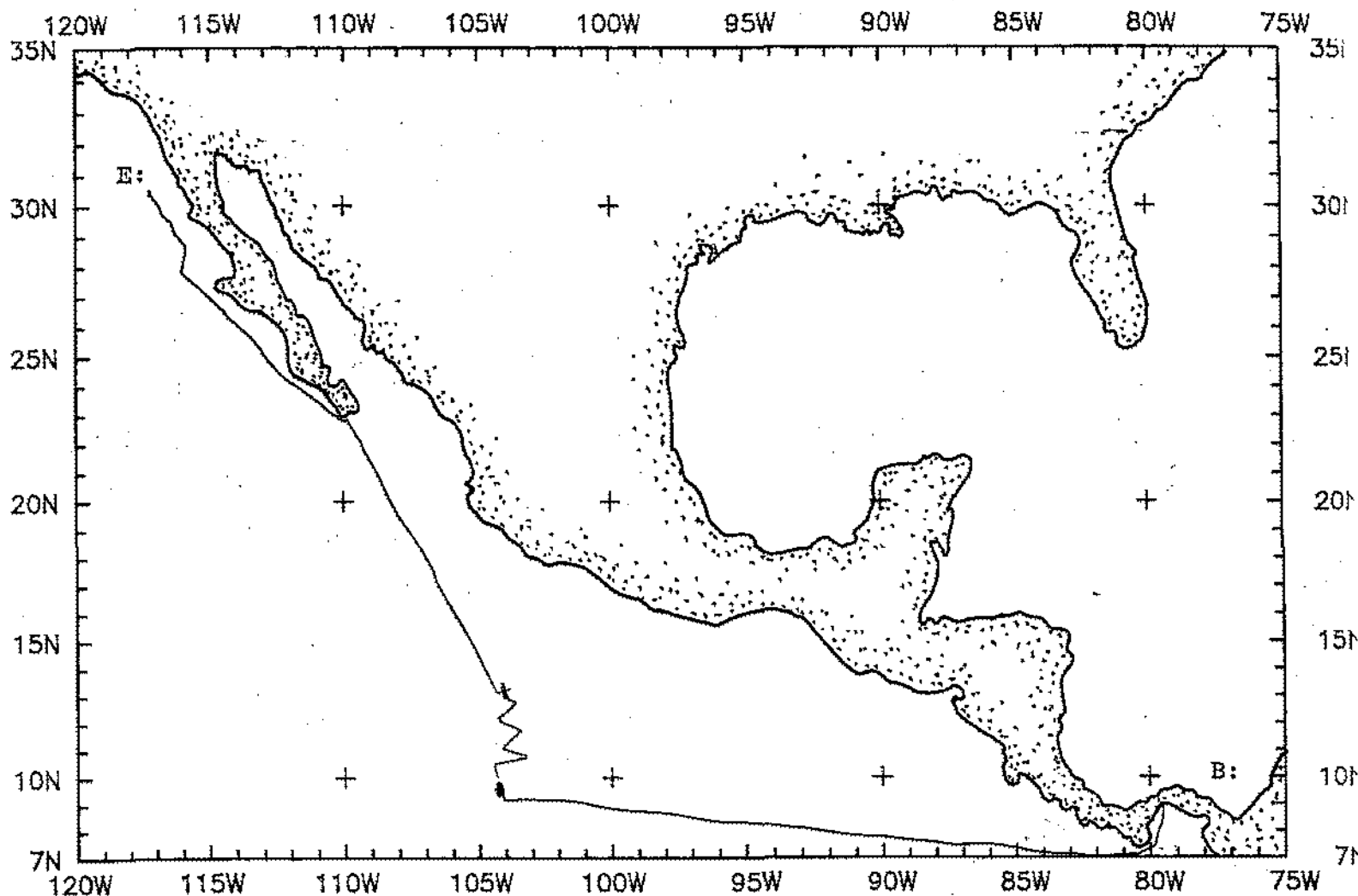
Revised June 1985 (Sea Beam)

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



MARATHON LEG 15 Mercator at 0.1632in/deg longitude

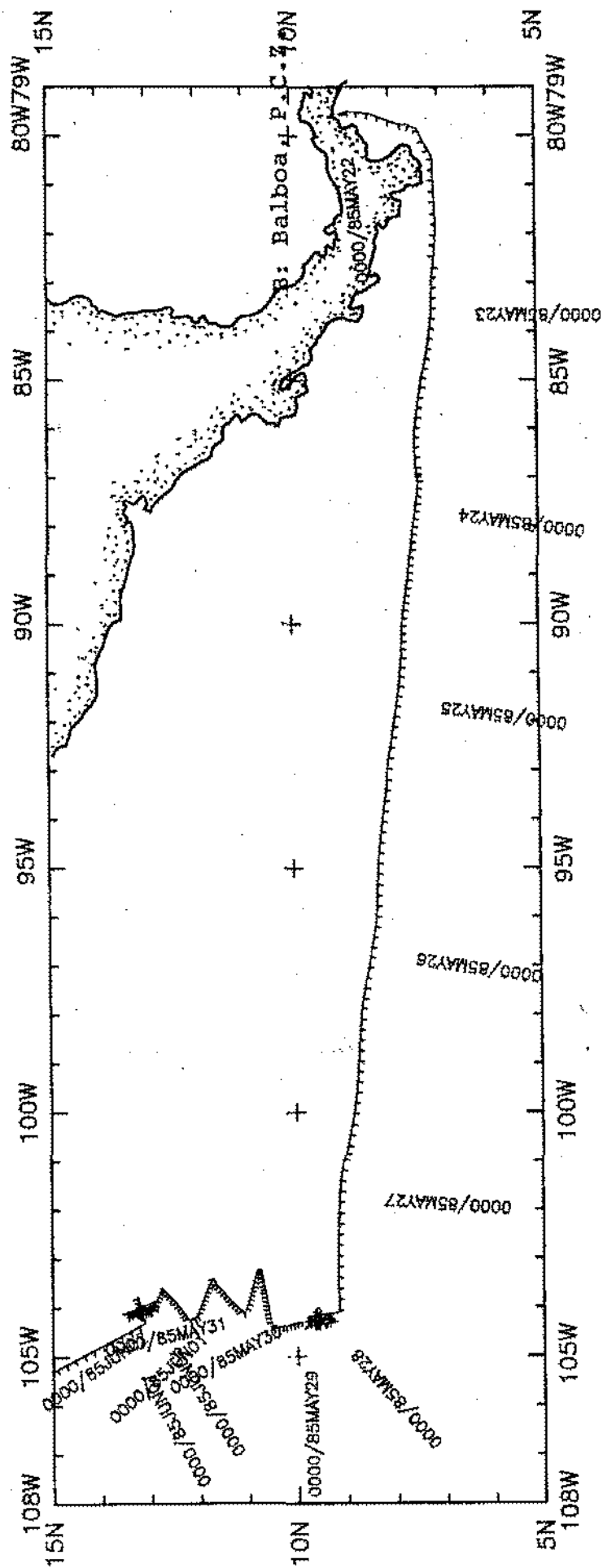
MARATHON EXPEDITION LEG 15

CHIEF SCIENTIST: J. Orcutt (SIO)
PORTS: Balboa, Panama - San Diego, Calif.
DATES: 22 May 1985 - 12 June 1985
SHIP: R/V Washington

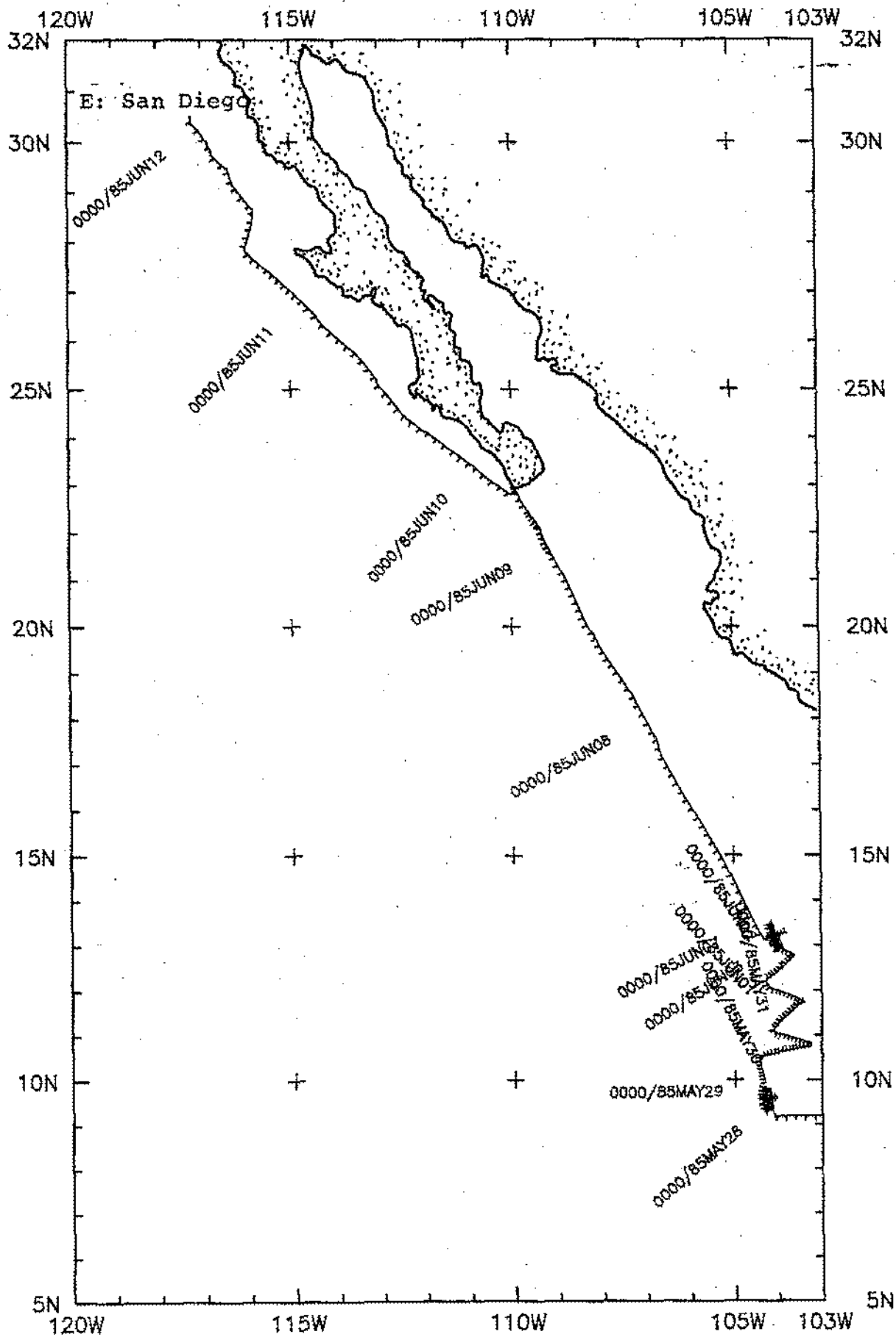
TOTAL MILEAGE OF UNDERWAY DATA COLLECTED

- 1) Cruise - 4295 miles
- 2) Bathymetry - 3835 miles
- 3) Magnetics - 1190 miles
- 4) Seismic Reflection - none collected
- 5) Gravity - none collected
- 6) Sea Beam - none collected

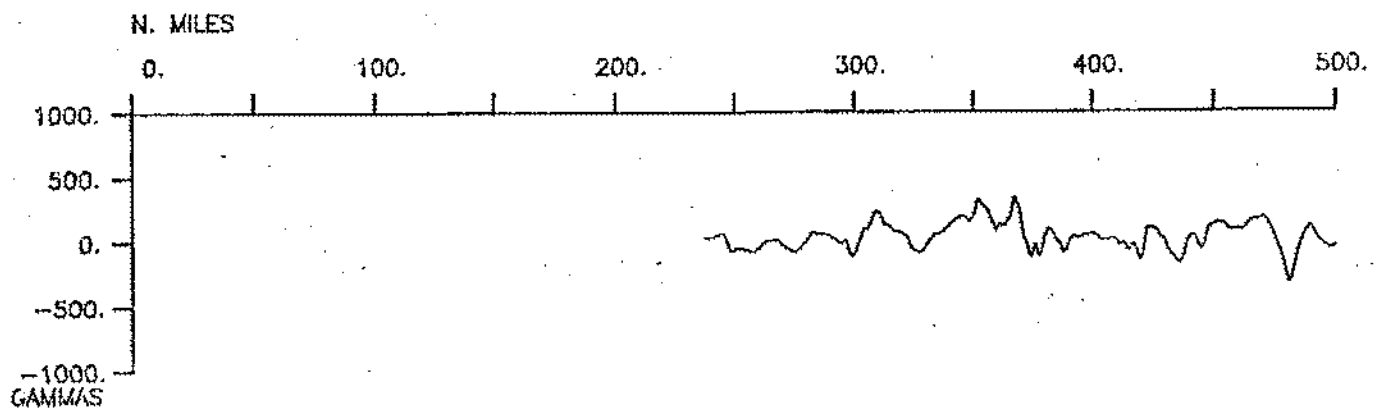
3835 miles



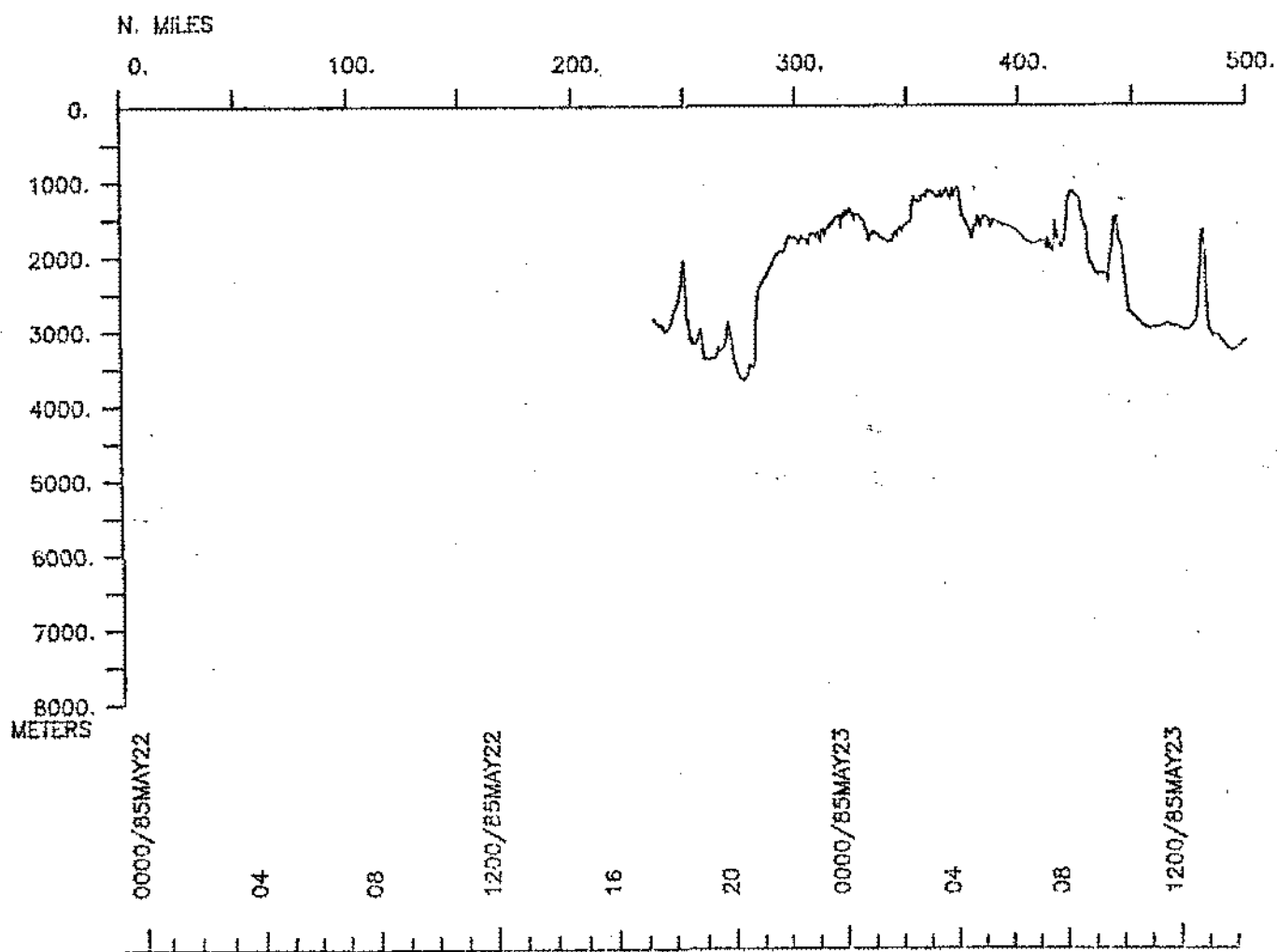
MARATHON LEG 15 Mercator at 0.312 in/deg long. (plot 1 of 2)

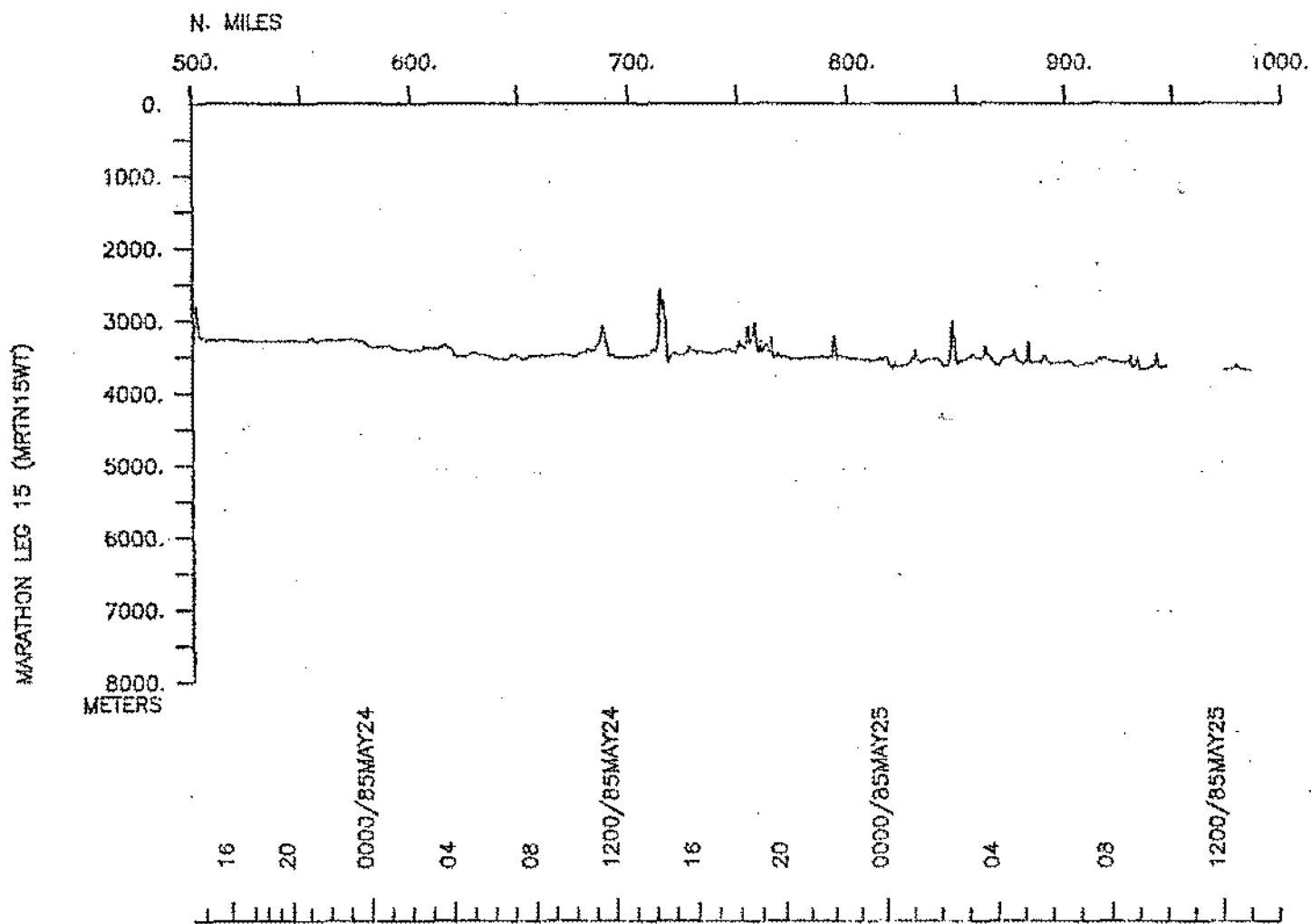
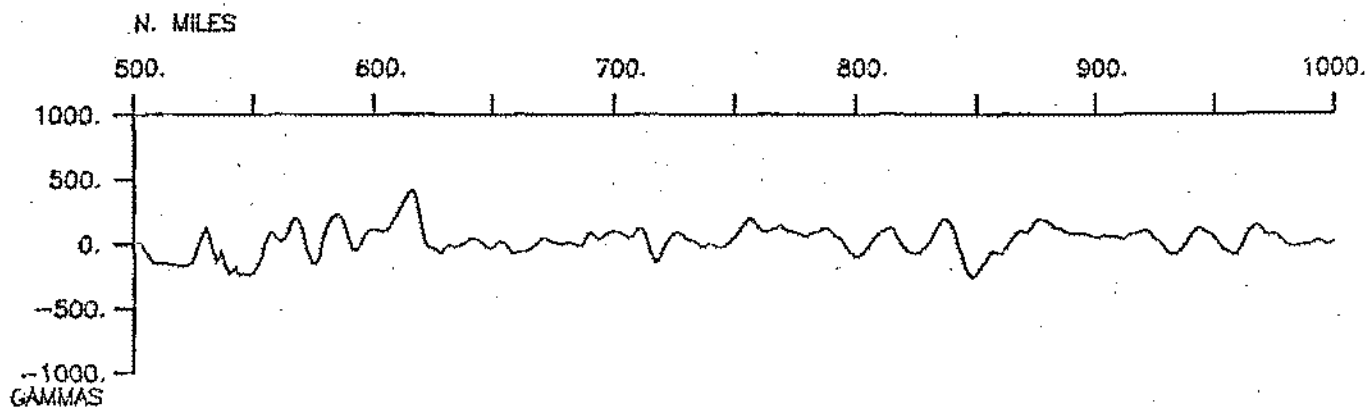


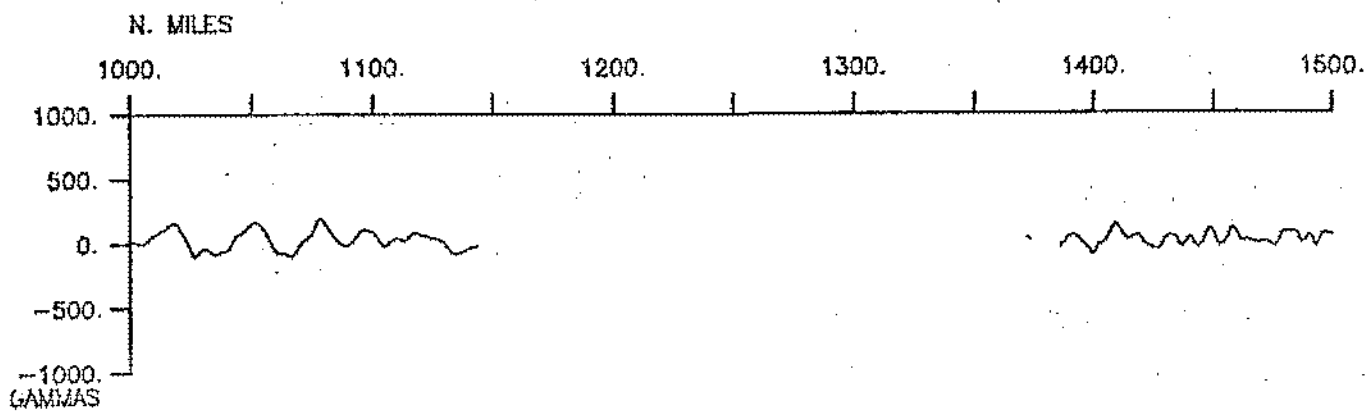
MARATHON LEG 15 Mercator at 0.312 in/deg long. (plot 2 of 2)



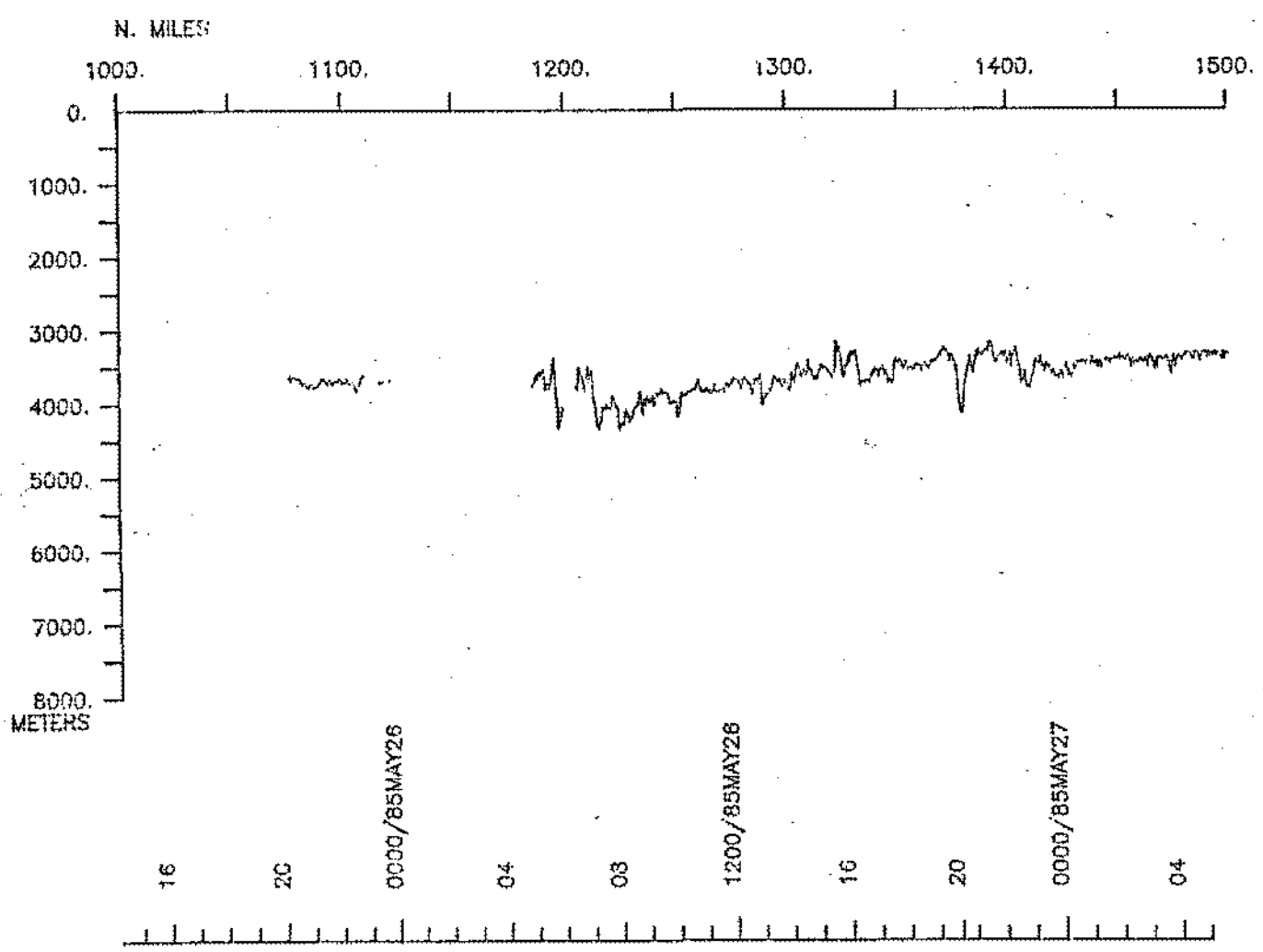
MARATHON LEG 15 (MRTN15WT)

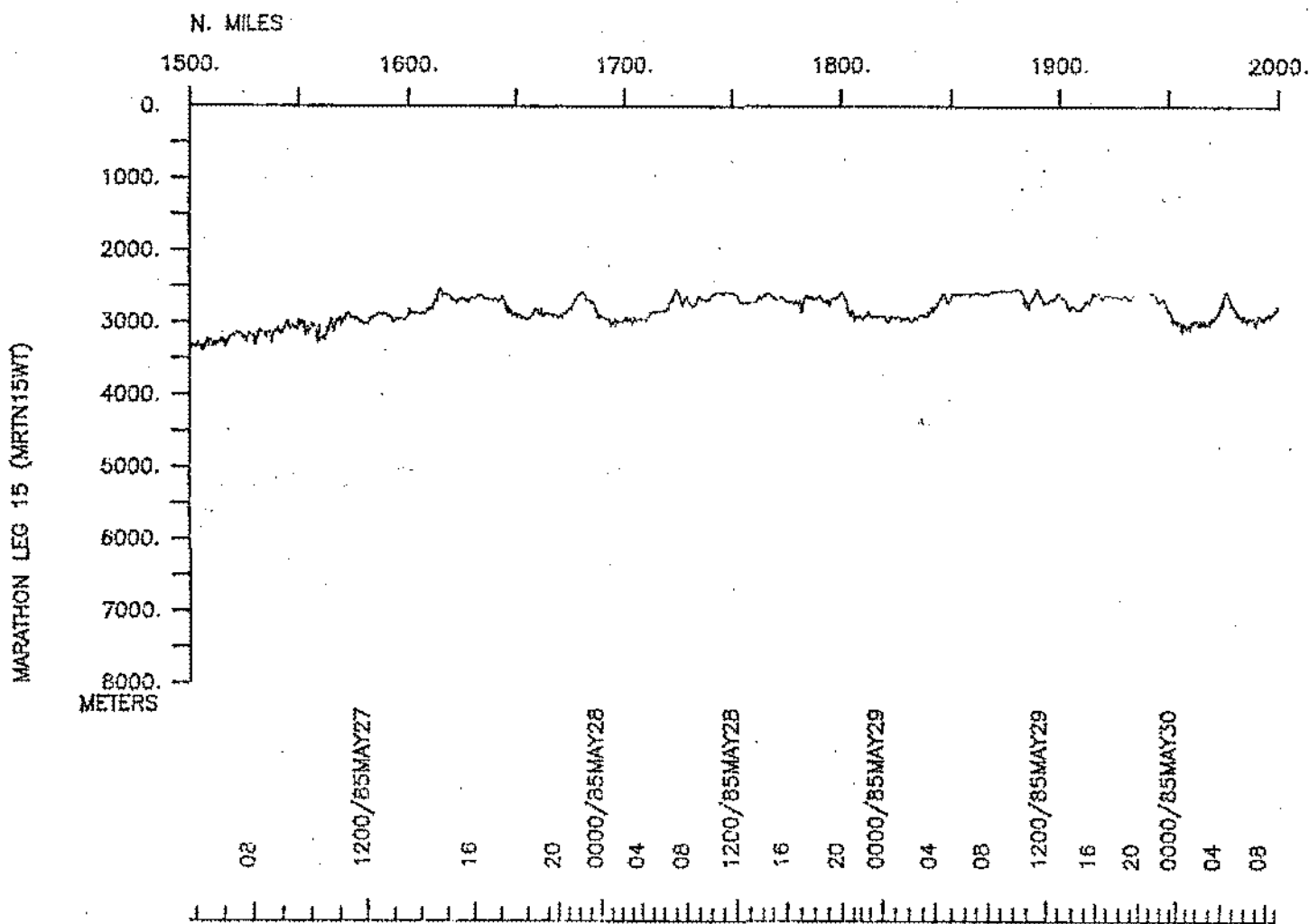
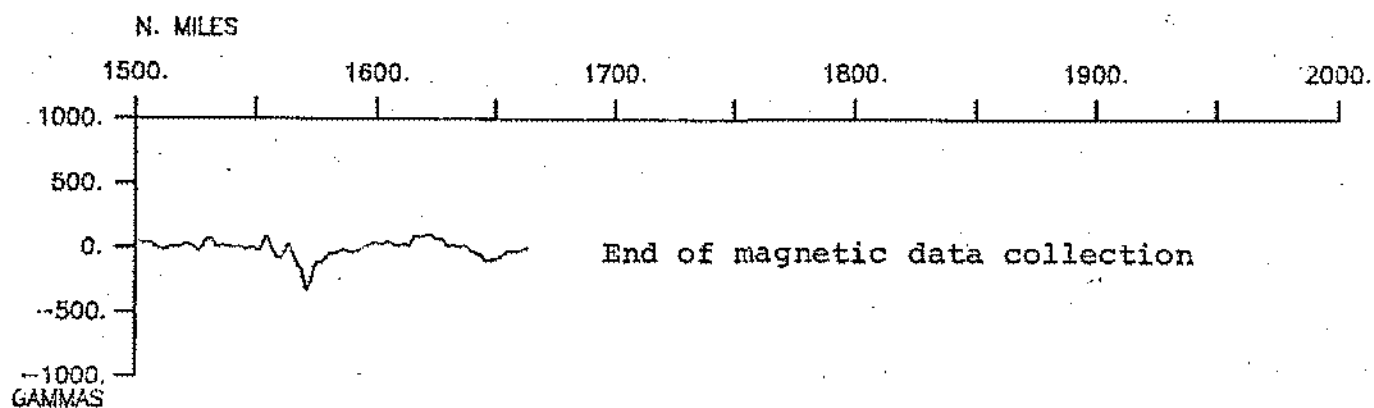


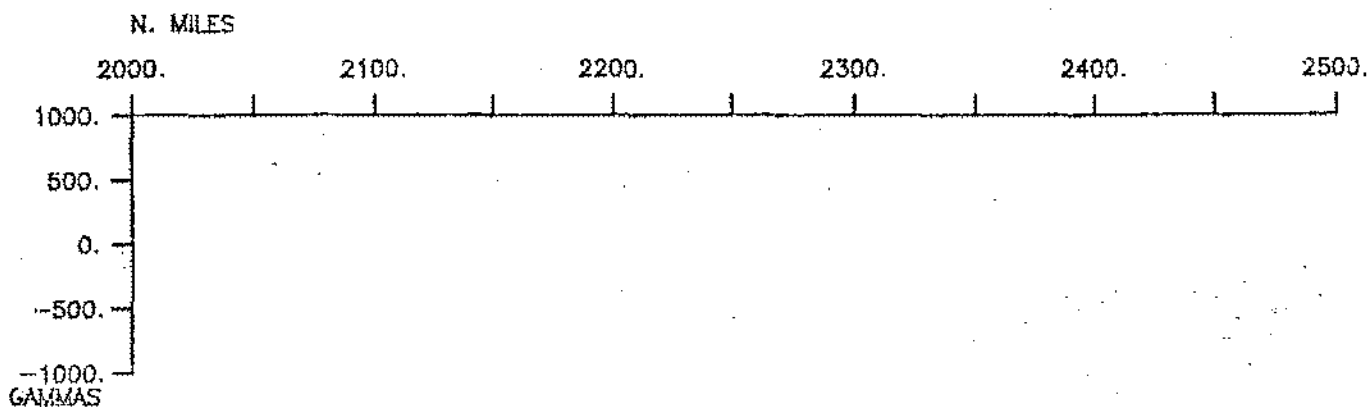




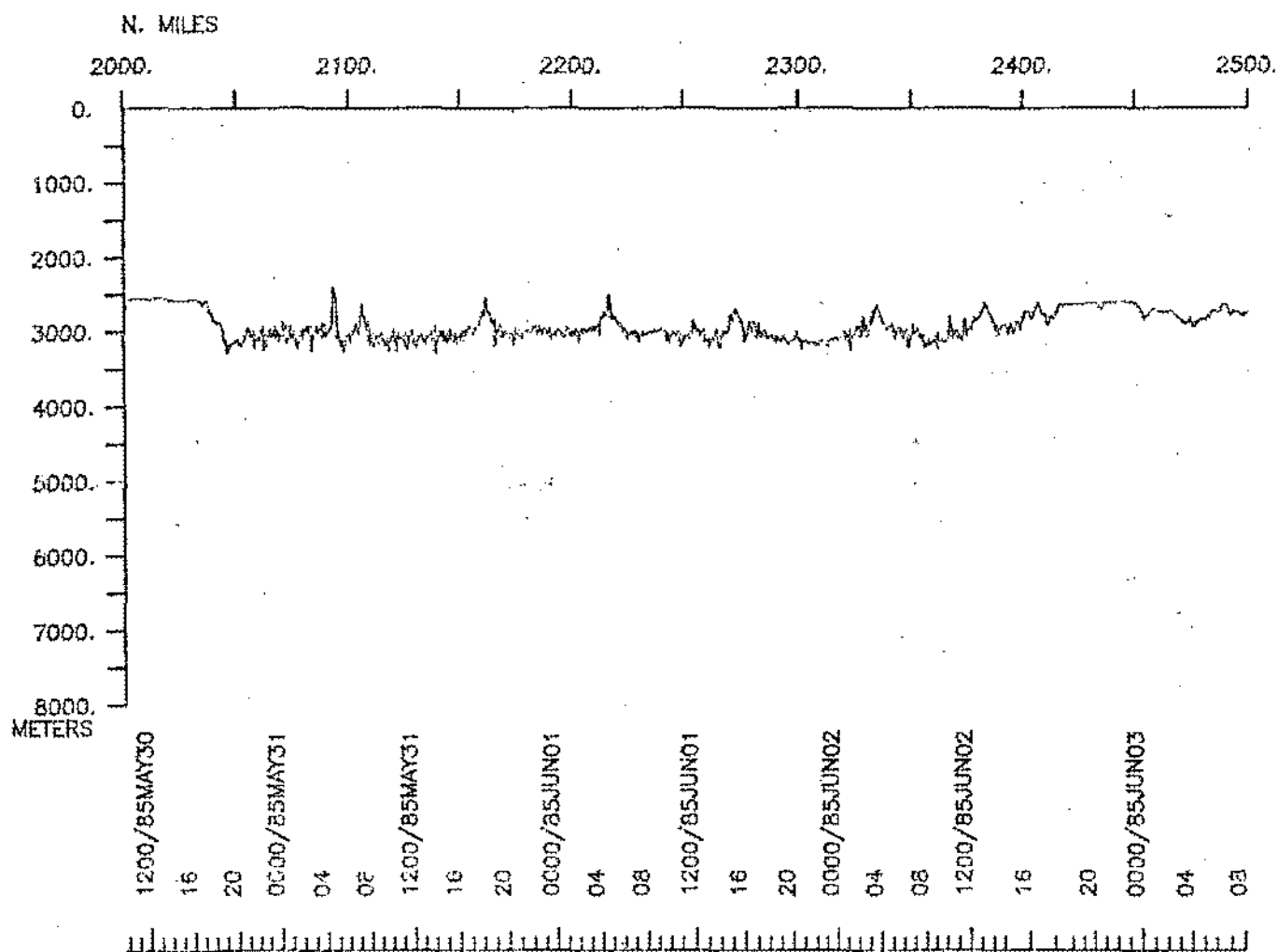
MARATHON LEG 15 (MRTN15WT)

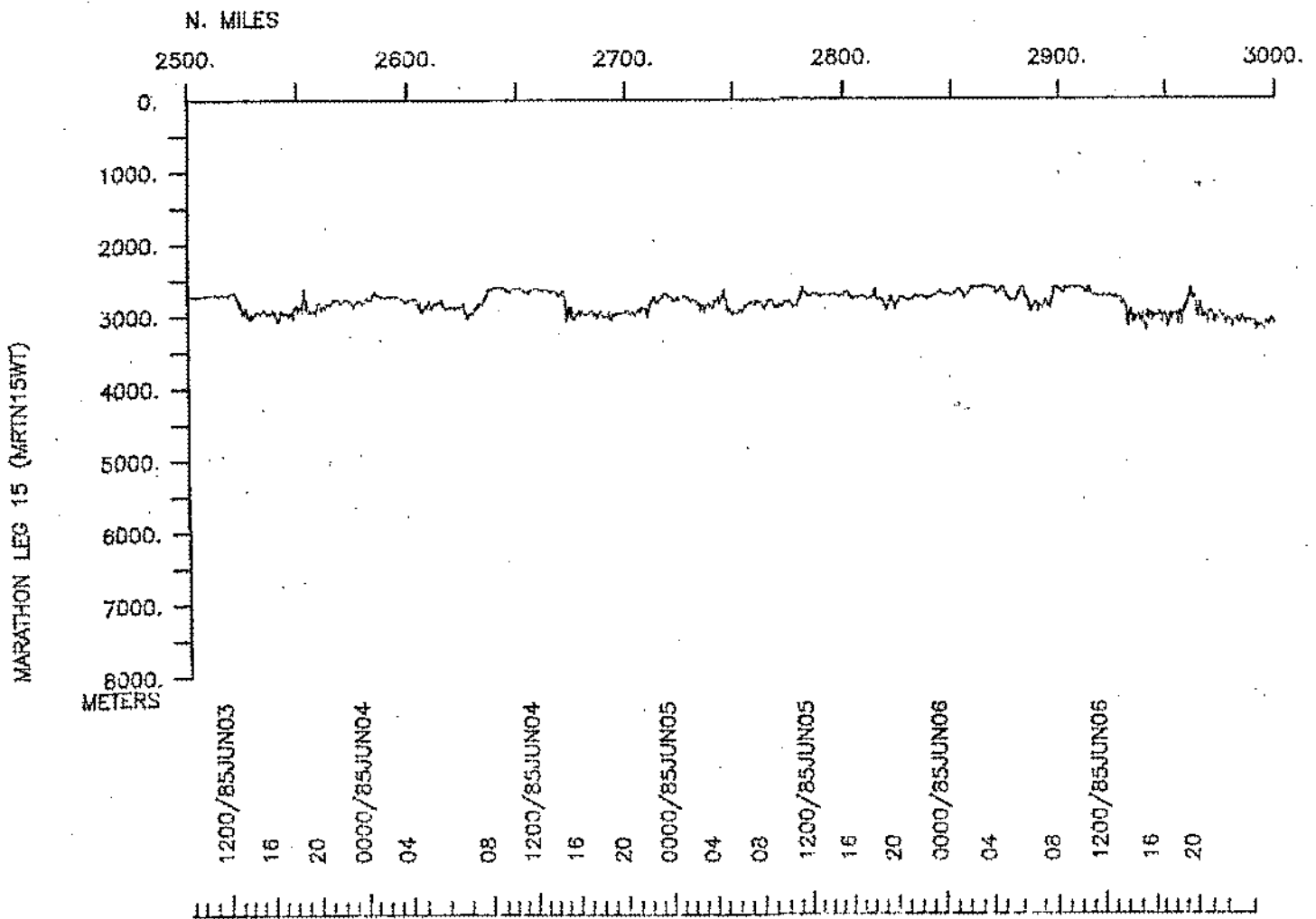
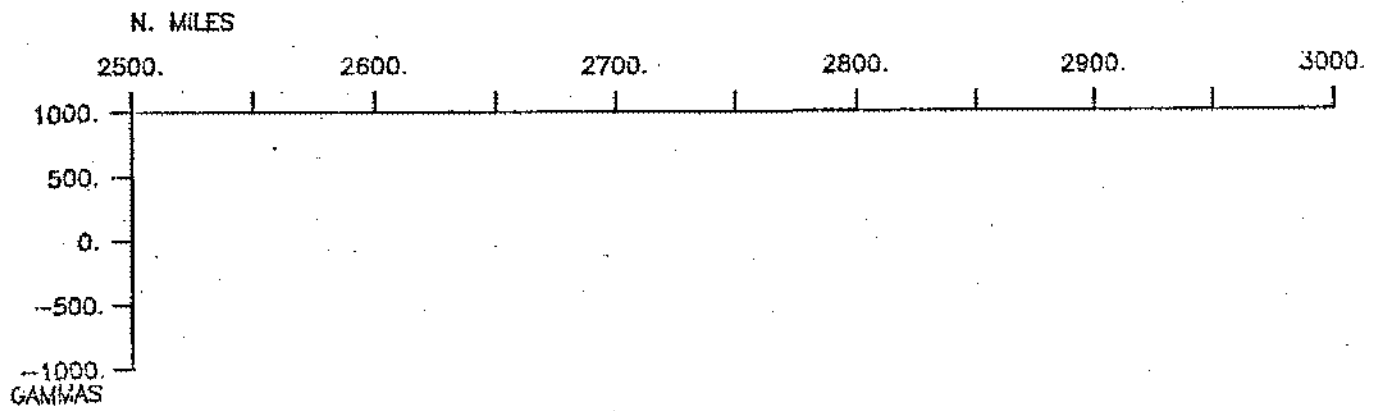


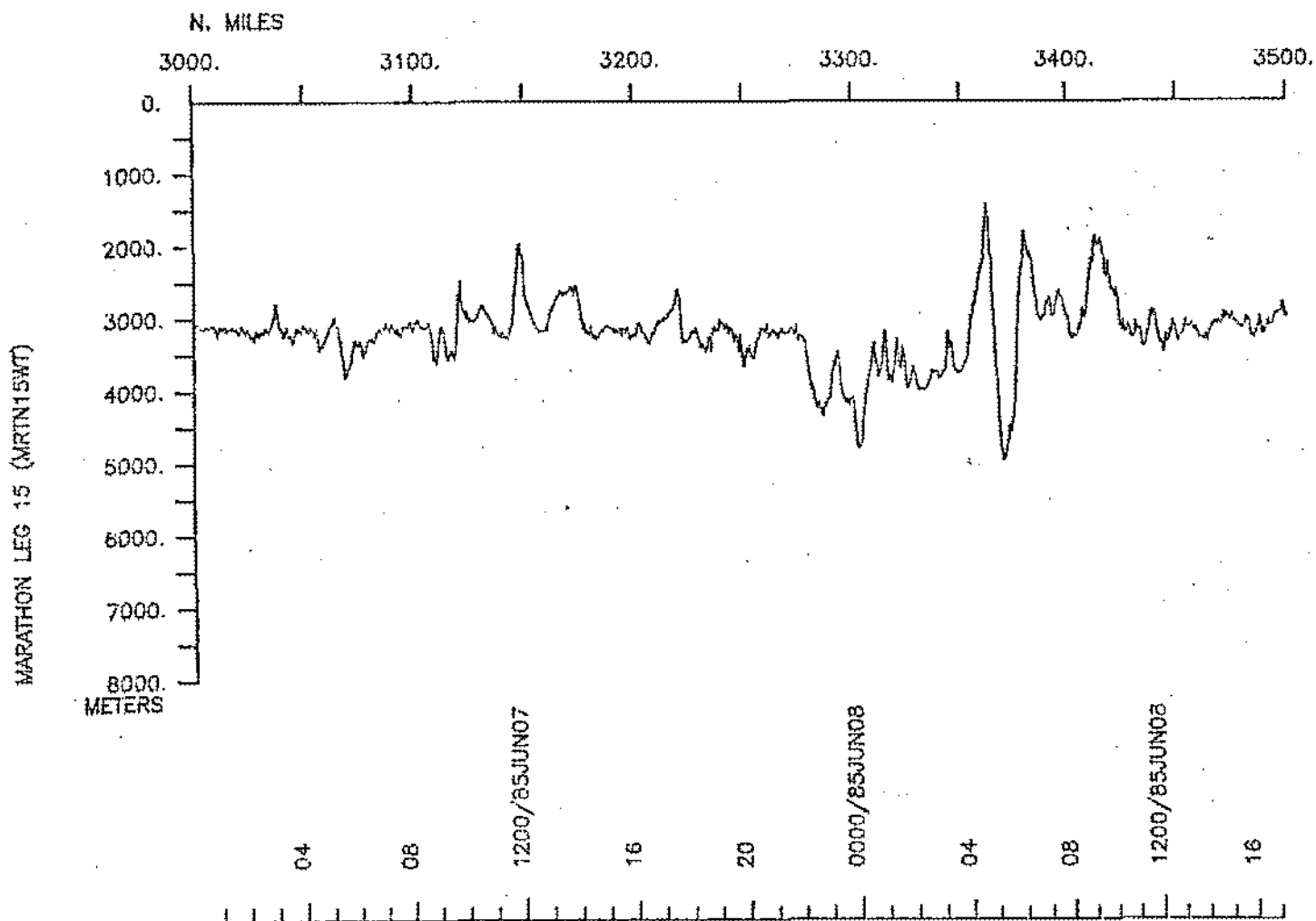
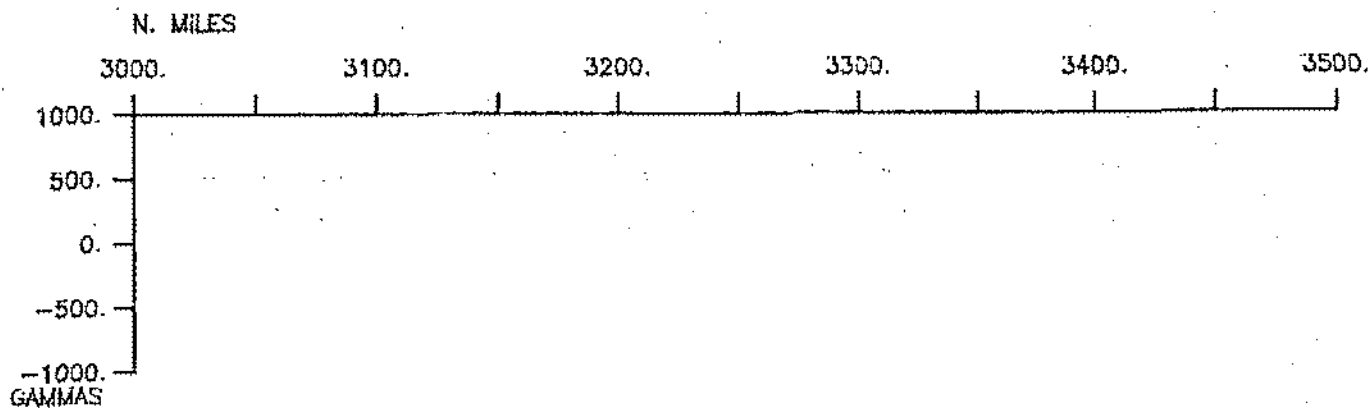


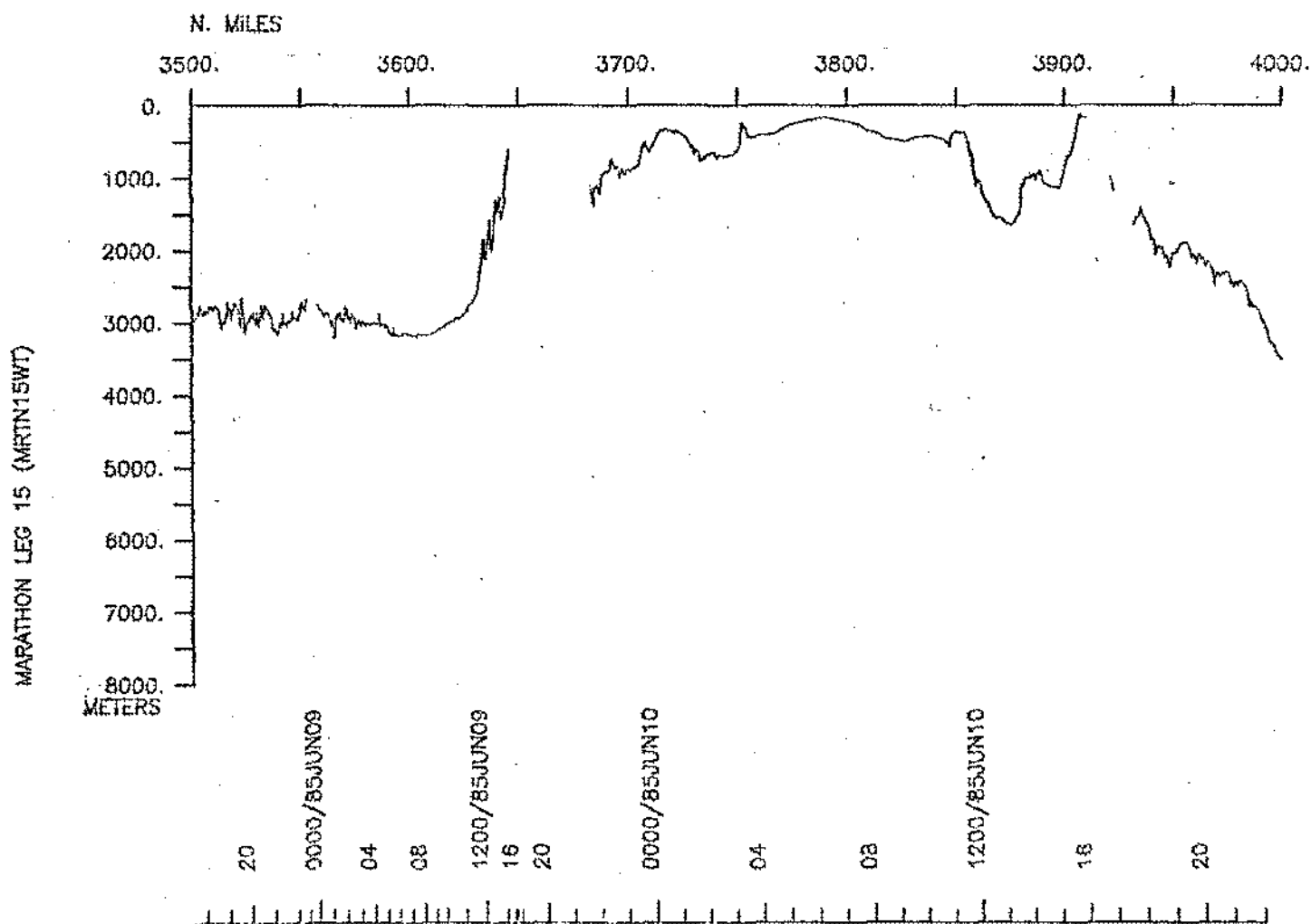
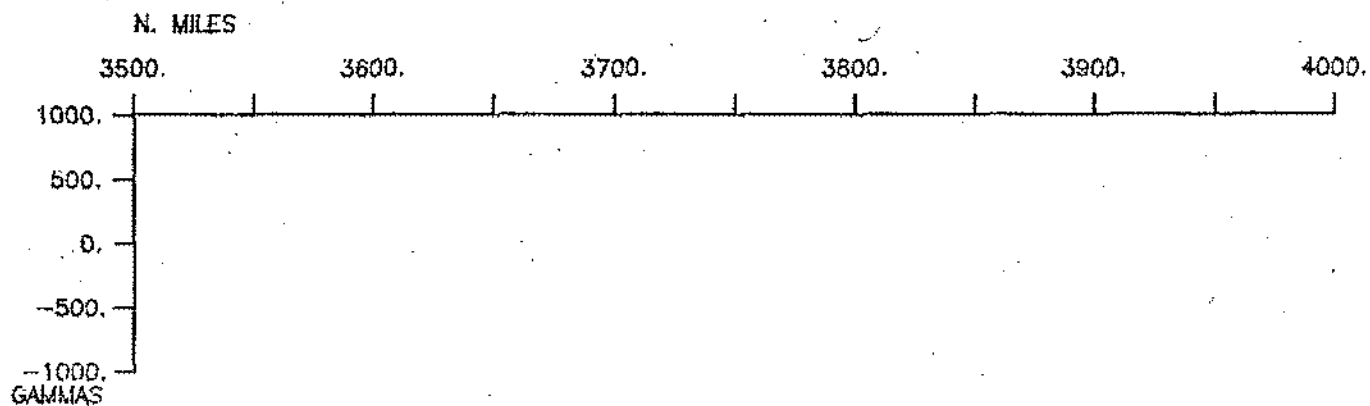


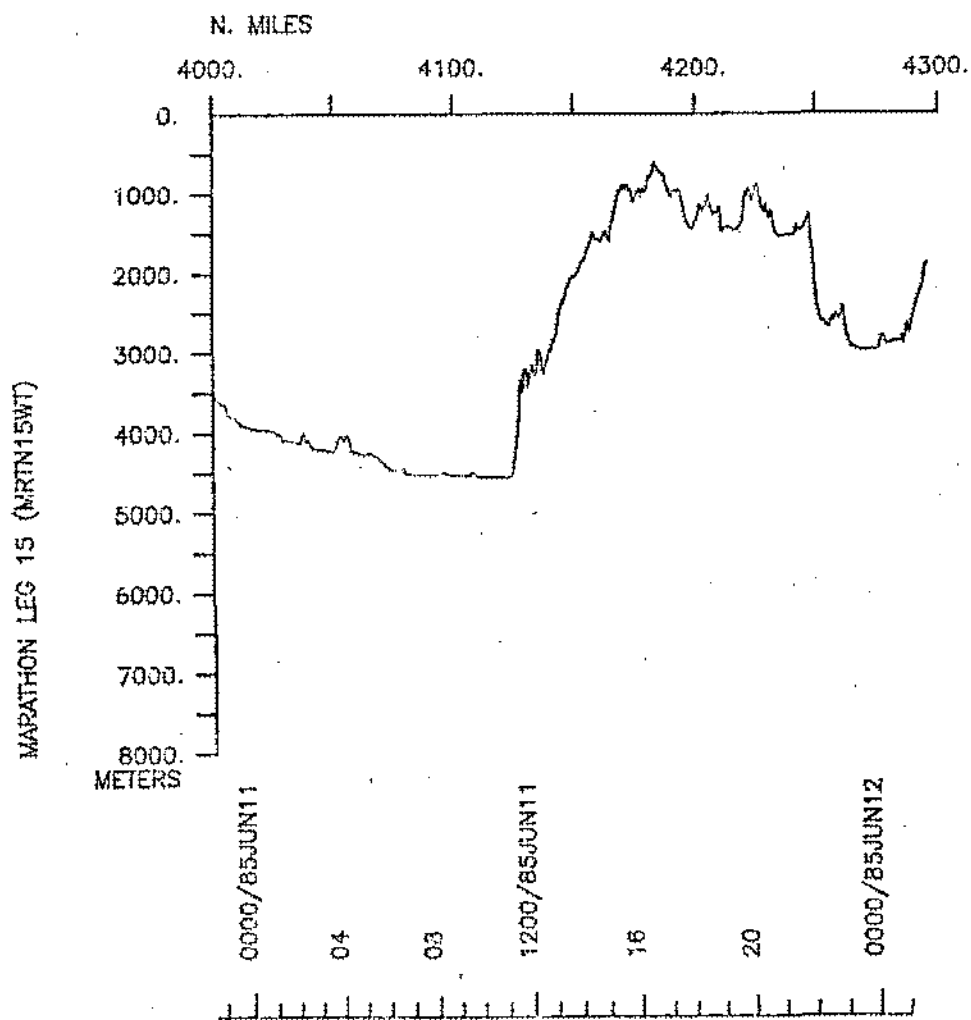
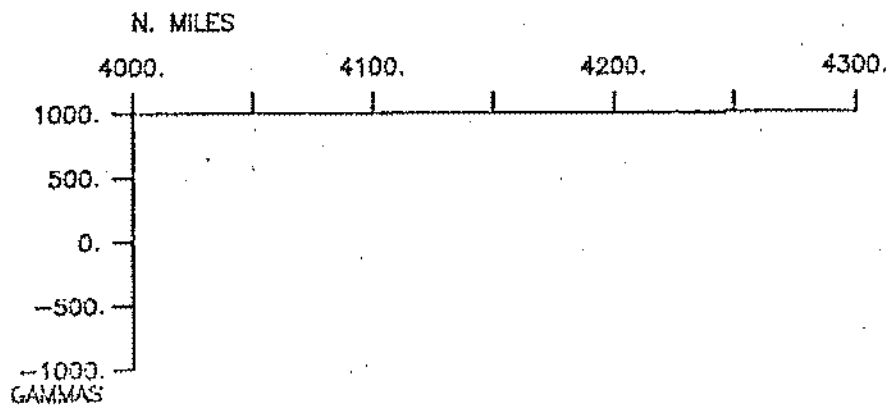
MARATHON LEG 15 (MRTN15WT)











S.I.O. SAMPLE INDEX

(Issued September 1985)

MARATHON EXPEDITION

Leg 15

Balboa, Panama (22 May 1985)
to
San Diego, Calif. (12 June 1985)

R/V T. Washington

Chief Scientist - J. Orcutt

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

Index Encoding Funded by ONR
Grant Number ONR-0440
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. #215

****PORTS****

0030 220585	LGPT B BALBOA, PANAMA C.Z.	8-57 N 79-32 W	FMRTN15WT
1500 120685	LGPT E SAN DIEGO,CAL.	32-43 N 117-11 W	FMRTN15WT
1300 090685	LGSS B CABO SAN LUCAS, MEXICO	22-52 N 109-53 W	FMRTN15WT
1900 090685	LGSS E CABO SAN LUCAS, MEXICO	20-52 N 109-53 W	FMRTN15WT

****PERSONNEL****

PECS IGP	ORCUTT, J.A.	CHIEF SCIENTIST	SCRIPPS INSTITUTION	MRTN15WT
PEST SIX	ASHABRANNER, D.	GRAD STUDENT	UNIV. OF TEXAS, HOUSTON	MRTN15WT
PESP WHO	BROCHER, T.M.	ASSIST, SCIENTIST	WOODS HOLE	MRTN15WT
PESP LDO	BUHL, P.	STAFF ASSOCIATE	LAMONT-DOHERTY	MRTN15WT
PESP IGP	BURNETT, M.S.	RESEARCH ASSIST.	SCRIPPS INSTITUTION	MRTN15WT
PEAT MTG	CRAMPTON, P.	AIRGUN TECHNICIAN	SCRIPPS INSTITUTION	MRTN15WT
PESP IGP	HARDING, A.J.	POST DOCTORIAL	SCRIPPS INSTITUTION	MRTN15WT
PESP IGP	HENKART, P.C.	GEOPHYS. ANALYST	SCRIPPS INSTITUTION	MRTN15WT
PEBE MTG	HYLAS, T.	SEABEAM ENGINEER	SCRIPPS INSTITUTION	MRTN15WT
PESP IGP	KIM, I.I.	RESEARCH ASSIST.	SCRIPPS INSTITUTION	MRTN15WT
PECT MTG	MOE, R.L.	COMPUTER TECH.	SCRIPPS INSTITUTION	MRTN15WT
PERT MTG	PILLARD, E.G.	RESIDENT TECH	SCRIPPS INSTITUTION	MRTN15WT
PEBO MTG	SMITH, W.	SEABEAM OPERATOR	SCRIPPS INSTITUTION	MRTN15WT
PEOB SIX	ANTHONY, S.	REPRESENTATIVE	GENERAL INSTRUMENTS	MRTN15WT
PEOB SIX	BROADUS, M.	FUNDING REP	NAT. OCEAN. & ATMOS. ADM	MRTN15WT
PEOB SIX	COBIS, F.	REPRESENTATIVE	GENERAL INSTRUMENTS	MRTN15WT
PEST MPL	DE MOUSTIER, C.	GRAD STUDENT	SCRIPPS INSTITUTION	MRTN15WT
PESP MPL	PAVLICEK, V.	DEVL. ENGINEER	SCRIPPS INSTITUTION	MRTN15WT
PEBE MTG	PHILLIPS, J.	SEABEAM ENGINEER	SCRIPPS INSTITUTION	MRTN15WT

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.

GMT TIME	DDMMYY DATE	SAMP CODE	SAMPLE IDENTIFIER	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
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***UNDERWAY DATA CURATOR - S. M. SMITH EXT.2752

****UNDERWAY WATCH LOG BOOKS****

1740	220585	LBUW B	UNDERWAY WATCH LOG	GDC	8-572N	79-345W	sMRTN15WT
1310	090685	LBUW E	UNDERWAY WATCH LOG	GDC	20-032N	108-187W	sMRTN15WT

****SEA BEAM MONITOR RECORDS****

1725	220585	MBMR B	SB UGR MONITOR R-01	GDC	8-572N	79-345W	sMRTN15WT
1315	250585	MBMR E	SB UGR MONITOR R-01	GDC	7-443N	89-367W	sMRTN15WT
1330	250585	MBMR B	SB UGR MONITOR R-02	GDC	7-446N	89-391W	sMRTN15WT
1410	300585	MBMR E	SB UGR MONITOR R-02	GDC	9-346N	104-183W	sMRTN15WT
1430	300585	MBMR B	SB UGR MONITOR R-03	GDC	9-325N	104-187W	sMRTN15WT
1817	040685	MBMR E	SB UGR MONITOR R-03	GDC	13-203N	104-084W	sMRTN15WT
1832	040685	MBMR B	SB UGR MONITOR R-04	GDC	13-205N	104-070W	sMRTN15WT
2015	080685	MBMR E	SB UGR MONITOR R-04	GDC	17-097N	106-376W	sMRTN15WT
2050	080685	MBMR B	SB UGR MONITOR R-05	GDC	17-168N	106-396W	sMRTN15WT
1310	120685	MBMR E	SB UGR MONITOR R-05	GDC	28-261N	115-519W	sMRTN15WT

****MAGNETICS****

1738	220585	MGRA B	MAGNETICS R-01	GDC	8-572N	79-345W	sMRTN15WT
1842	270585	MGRA E	MAGNETICS R-01	GDC	8-580N	100-372W	sMRTN15WT

****SEA BEAM SWATH BOOKS****

1733	220585	MBSB B	SB SWATH BOOK-01	GDC	8-572N	79-345W	sMRTN15WT
0350	240585	MBSB E	SB AR.SWATH BK-01	GDC	7-142N	84-197W	sMRTN15WT
0350	240585	MBSB B	SB SWATH BOOK-02	GDC	7-142N	84-197W	sMRTN15WT
2330	250585	MBSB E	SB AR.SWATH BK-02	GDC	7-528N	91-229W	sMRTN15WT
2330	250585	MBSB B	SB SWATH BOOK-03	GDC	7-528N	91-229W	sMRTN15WT
1119	270585	MBSB E	SB AR.SWATH BK-03	GDC	8-450N	99-010W	sMRTN15WT
1119	270585	MBSB B	SB SWATH BOOK-04	GDC	8-450N	99-010W	sMRTN15WT
0154	300585	MBSB E	SB AR.SWATH BK-04	GDC	9-280N	104-207W	sMRTN15WT
0154	300585	MBSB B	SB SWATH BOOK-05	GDC	9-280N	104-207W	sMRTN15WT
0626	020685	MBSB E	SB AR.SWATH BK-05	GDC	11-320N	103-408W	sMRTN15WT
0626	020685	MBSB B	SB SWATH BOOK-06	GDC	11-320N	103-408W	sMRTN15WT
0013	050685	MBSB E	SB AR.SWATH BK-06	GDC	12-575N	103-581W	sMRTN15WT
0013	050685	MBSB B	SB SWATH BOOK-07	GDC	12-575N	103-581W	sMRTN15WT
0918	070685	MBSB E	SB AR.SWATH BK-07	GDC	13-119N	104-028W	sMRTN15WT
0918	070685	MBSB B	SB SWATH BOOK-08	GDC	13-119N	104-028W	sMRTN15WT
1542	080685	MBSB E	SB AR.SWATH BK-08	GDC	16-195N	106-076W	sMRTN15WT
1542	080685	MBSB B	SB SWATH .SWATH9	GDC	16-195N	106-076W	sMRTN15WT
1415	110685	MBSB E	SB AR.SWATH BK-09	GDC	25-174N	113-071W	sMRTN15WT
1415	110685	MBSB B	SB SWATH BOOK-10	GDC	25-174N	113-071W	sMRTN15WT
0158	120685	MBSB E	SB AR.SWATH BK-10	GDC	27-019N	115-008W	sMRTN15WT

#

THERMOGRAPHS

0007 220585	TGRA B THERMOGRAPHS 1-15	GDC 8-572N	79-345W	sMRTN15WT
1500 120585	TGRA E THERMOGRAPHS 1-15	GDC 8-572N	79-345W	sMRTN15WT

SOUND VELOCITY PROFILES

1628 260585	MBVP B VELOCITY PROFILE-01	GDC 8-189N	95-010W	sMRTN15WT
1506 270585	MBVP B VELOCITY PROFILE-02	GDC 8-496N	99-500W	sMRTN15WT
1532 110685	MBVP B VELOCITY PROFILE-03	GDC 25-304N	113-183W	sMRTN15WT

EXPANDING SPREADING SOUND VELOCITY PROFILES

2300 270585	SPSV B EXPANDING SPREADING	LDO 9-073N	101-245W	sMRTN15WT
0612 280585	SPSV E PROFILE -01	IGP 9-114N	102-596W	sMRTN15WT
0820 280585	SPSV B EXPANDING SPREADING	LDO 9-113N	103-285W	sMRTN15WT
1324 280585	SPSV E PROFILE (ESP)-02	IGP 9-379N	104-098W	sMRTN15WT
1454 280585	SPSV B ESP -03	LDO 9-460N	104-184W	sMRTN15WT
1948 280585	SPSV E ESP -03	IGP 9-387N	104-212W	sMRTN15WT
2216 280585	SPSV B ESP -04	LDO 9-314N	104-144W	sMRTN15WT
0330 290585	SPSV E ESP -04	IGP 9-328N	104-089W	sMRTN15WT
0433 290585	SPSV B ESP -05	LDO 9-377N	104-101W	sMRTN15WT
1042 290585	SPSV E ESP -05	IGP 9-356N	104-159W	sMRTN15WT
1200 290585	SPSV B ESP -06	LDO 9-287N	104-156W	sMRTN15WT
1530 290585	SPSV E ESP -06	IGP 9-236N	104-118W	sMRTN15WT
1648 290585	SPSV B ESP -07	LDO 9-319N	104-122W	sMRTN15WT
1908 290585	SPSV E ESP -07	IGP 9-461N	104-157W	sMRTN15WT
2027 290585	SPSV B ESP -08	LDO 9-495N	104-200W	sMRTN15WT
2230 290585	SPSV E ESP -08	IGP 9-469N	104-221W	sMRTN15WT
1800 020685	SPSV B ESP -09	LDO 12-001N	104-012W	sMRTN15WT
2312 020685	SPSV E ESP -09	IGP 12-164N	104-125W	sMRTN15WT
0015 030685	SPSV B ESP -10	LDO 12-190N	104-082W	sMRTN15WT
0524 030685	SPSV E ESP -10	IGP 12-351N	103-486W	sMRTN15WT
0712 030685	SPSV B ESP -15	LDO 12-412N	103-420W	sMRTN15WT
1218 030685	SPSV E ESP -11	IGP 12-542N	103-538W	sMRTN15WT
1400 030685	SPSV B ESP -12	LDO 12-578N	104-021W	sMRTN15WT
1740 030685	SPSV E ESP -12	IGP 13-273N	104-065W	sMRTN15WT
1940 030685	SPSV B ESP -13	LDO 13-176N	104-045W	sMRTN15WT
2346 030685	SPSV E ESP -13	IGP 12-568N	103-592W	sMRTN15WT
0059 040685	SPSV B ESP -14	LDO 13-025N	104-022W	sMRTN15WT
0431 040685	SPSV E ESP -14	IGP 13-212N	104-061W	sMRTN15WT
0738 040685	SPSV B ESP -15	LDO 13-227N	104-066W	sMRTN15WT
0949 040685	SPSV E ESP -15	IGP 13-130N	104-039W	sMRTN15WT
1136 060685	SPSV B ESP -16	LDO 12-584N	104-002W	sMRTN15WT
1340 060685	SPSV E ESP -16	IGP 13-078N	104-029W	sMRTN15WT

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WIDE APERATURE SOUND VELOCITY PROFILES

0244 300585	SPSV B WIDE APERATURE	LDO 9-230N 104-200W	sMRTN15WT
0653 300585	SPSV E PROFILE (WAP)-01	IGP 9-277N 104-136W	sMRTN15WT
0750 300585	SPSV B WAP -02	LDO 9-323N 104-154W	sMRTN15WT
1000 300585	SPSV E WAP -02	IGP 9-448N 104-166W	sMRTN15WT
1124 300585	SPSV B WAP -03	LDO 9-483N 104-159W	sMRTN15WT
2024 300585	SPSV E WAP -03	IGP 9-387N 104-148W	sMRTN15WT
2148 300585	SPSV B WAP -04	LDO 9-323N 104-126W	sMRTN15WT
1207 310585	SPSV E WAP -04	IGP 9-465N 104-164W	sMRTN15WT
1311 310585	SPSV B WAP -05	LDO 9-518N 104-176W	sMRTN15WT
2220 310585	SPSV E WAP -05	IGP 10-315N 104-224W	sMRTN15WT
2347 310585	SPSV B WAP -06	LDO 10-330N 104-152W	sMRTN15WT
0900 010685	SPSV E WAP -06	IGP 10-420N 103-296W	sMRTN15WT
1112 010685	SPSV B WAP -07	LDO 10-438N 103-190W	sMRTN15WT
1924 010685	SPSV E WAP -07	IGP 10-586N 103-480W	sMRTN15WT
2220 010685	SPSV B WAP -08	LDO 11-036N 104-037W	sMRTN15WT
0806 020685	SPSV E WAP -08	IGP 11-380N 103-346W	sMRTN15WT
0845 020685	SPSV B WAP -09	LDO 11-403N 103-322W	sMRTN15WT
1439 020685	SPSV E WAP -09	IGP 11-535N 103-444W	sMRTN15WT
0821 040685	SPSV B WAP -10	LDO 13-196N 104-057W	sMRTN15WT
1443 040685	SPSV E WAP -10	IGP 13-033N 104-071W	sMRTN15WT
1554 040685	SPSV B WAP -11	LDO 13-093N 104-081W	sMRTN15WT
2104 040685	SPSV E WAP -11	IGP 13-121N 104-014W	sMRTN15WT
2233 040685	SPSV B WAP -12	LDO 13-044N 103-596W	sMRTN15WT
0435 050685	SPSV E WAP -12	IGP 13-187N 104-028W	sMRTN15WT
0517 050685	SPSV B WAP -13	LDO 13-150N 104-001W	sMRTN15WT
1045 050685	SPSV E WAP -13	IGP 13-106N 104-029W	sMRTN15WT
1145 050685	SPSV B WAP -14	LDO 13-156N 104-040W	sMRTN15WT
1800 050685	SPSV E WAP -14	IGP 13-174N 104-096W	sMRTN15WT
1845 050685	SPSV B WAP -15	LDO 13-134N 104-088W	sMRTN15WT
2355 050685	SPSV E WAP -15	IGP 13-055N 104-026W	sMRTN15WT
0225 060685	SPSV B WAP -16	LDO 13-176N 104-058W	sMRTN15WT
0514 060685	SPSV E WAP -16	IGP 13-296N 104-056W	sMRTN15WT
1700 060685	SPSV B WAP -17	LDO 13-231N 104-061W	sMRTN15WT
2025 060685	SPSV E WAP -17	IGP 13-194N 104-038W	sMRTN15WT

SEA BEAM TRANSIT LINES

1733 220585	MBTL B SB TRANSIT LINE	GDC 8-572N 79-345W	sMRTN15WT
1110 270585	MBTL E SB TRANSIT LINE	GDC 8-448N 98-591W	sMRTN15WT
1110 270585	MBSV B SB SURVEY 9 NORTH	GDC 8-448N 98-591W	sMRTN15WT
1300 300585	MBSV E SB SURVEY 9 NORTH	GDC 9-418N 104-176W	sMRTN15WT
1301 300585	MBTL B SB TRANSIT LINE	GDC 9-417N 104-176W	sMRTN15WT
1242 020685	MBTL E SB TRANSIT LINE	GDC 11-499N 103-348W	sMRTN15WT
1242 020685	MBSV B SB SURVEY 13 NORTH	GDC 11-499N 103-348W	sMRTN15WT
2200 060685	MBSV E SB SURVEY 13 NORTH	GDC 13-109N 104-018W	sMRTN15WT
2201 060685	MBTL B SB TRANSIT LINE	GDC 13-108N 104-018W	sMRTN15WT
1315 120685	MBTL E SB TRANSIT LINE	GDC 28-269N 115-518W	sMRTN15WT

END SAMPLE INDEX