

*Report and Index of  
Underway Marine Geophysical Data*

**BOOMERANG EXPEDITION**

**LEG 9**

**(BMRG09MV)**

**R/V MELVILLE**

**(Issued August 1996)**

**Ports:**

Pago Pago, Samoa (11 June 1996)

to

San Diego, California (29 June 1996)

**Chief Scientist:**

Peter Lonsdale - Scripps Institution of Oceanography

Resident Marine Technician - John Boaz

Computer Technician - Todd Porteous

No SeaBeam/UW Processor on board

Post-Cruise Processing and Report Preparation by the  
Geological Data Center, Scripps Institution of Oceanography  
La Jolla, California 92093-0223

Data Collection and Processing Funded by  
NSF OCE94-00707

**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 92093-0223*

GDC CRUISE I.D.# 267

**REPORT AND INDEX OF NAVIGATION  
AND UNDERWAY GEOPHYSICAL DATA**

Processed by the Geological Data Center  
Scripps Institution of Oceanography

**Contents:**

**Index Chart** - gives track of cruise leg, dates, ports, and mileage of each type of data collected.

**Track Charts** - annotated with dates and hour ticks.

**Profiles** - depth, magnetic and gravity free air anomaly vs. distance. (Sections of track with seismic reflection data have a wide black line along the bottom of the profile.)

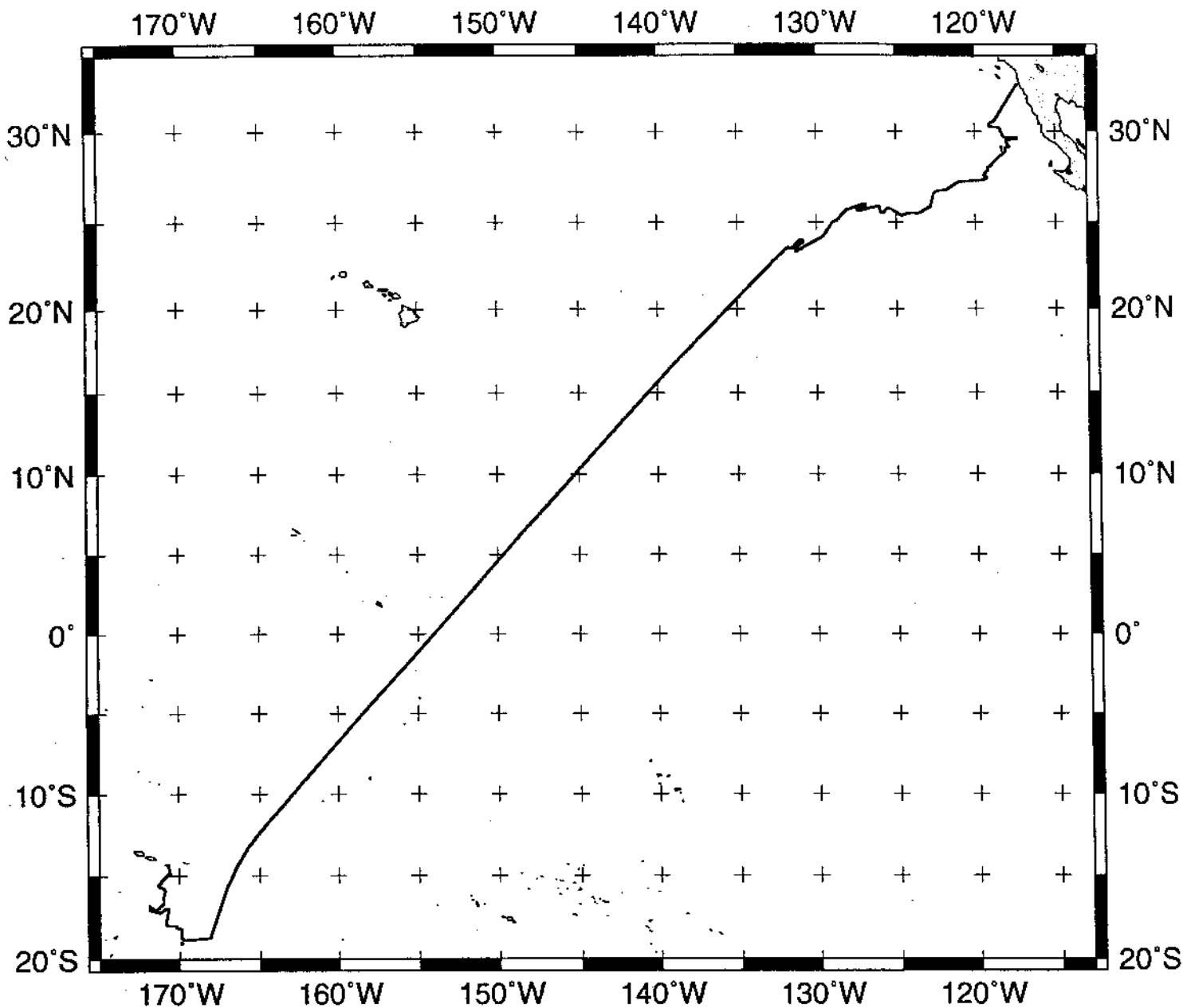
**Sample Index** - list of begin/end times and positions of all underway records as well as samples and measurements from other disciplines if collected on the cruise leg.

**NOTE:** One or more of the underway data types may not be collected on a given 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 92093-0223.

Phone: (619)534-2752, FAX: (619)534-6500, Internet email: ssmith@ucsd.edu

1. Files on Exabyte or DAT:
  - a) Separate time series ASCII files of navigation, single beam depth, gravity and magnetics.
  - b) These same data in a merged ASCII file in the MGD77 Exchange Format.
  - c) SeaBeam depth data (binary, Sun byte order) in SIO Swath Bathymetry Format.
  - d) SeaBeam Sidescan data.
2. Microfilm (35 mm flowfilm) or hard copies of:
  - a) Underway watch log book
  - b) SeaBeam vertical beam profile/Sidescan records.
  - c) Echosounder records - 3.5 kHz frequency.
  - d) Magnetometer records.
  - e) Seismic reflection profiler records.
3. Navigation listing with times and positions of fixes and course and speed changes.
4. Plots:
  - a) Copies of archived track plots.
  - b) Copies of archived SeaBeam contour plots.
  - c) Custom plots in Mercator projection:
    - 1) Track plots.
    - 2) SeaBeam depth contour plots.
    - 3) Depth, magnetic or gravity values printed or profiled along track.

rev8/96



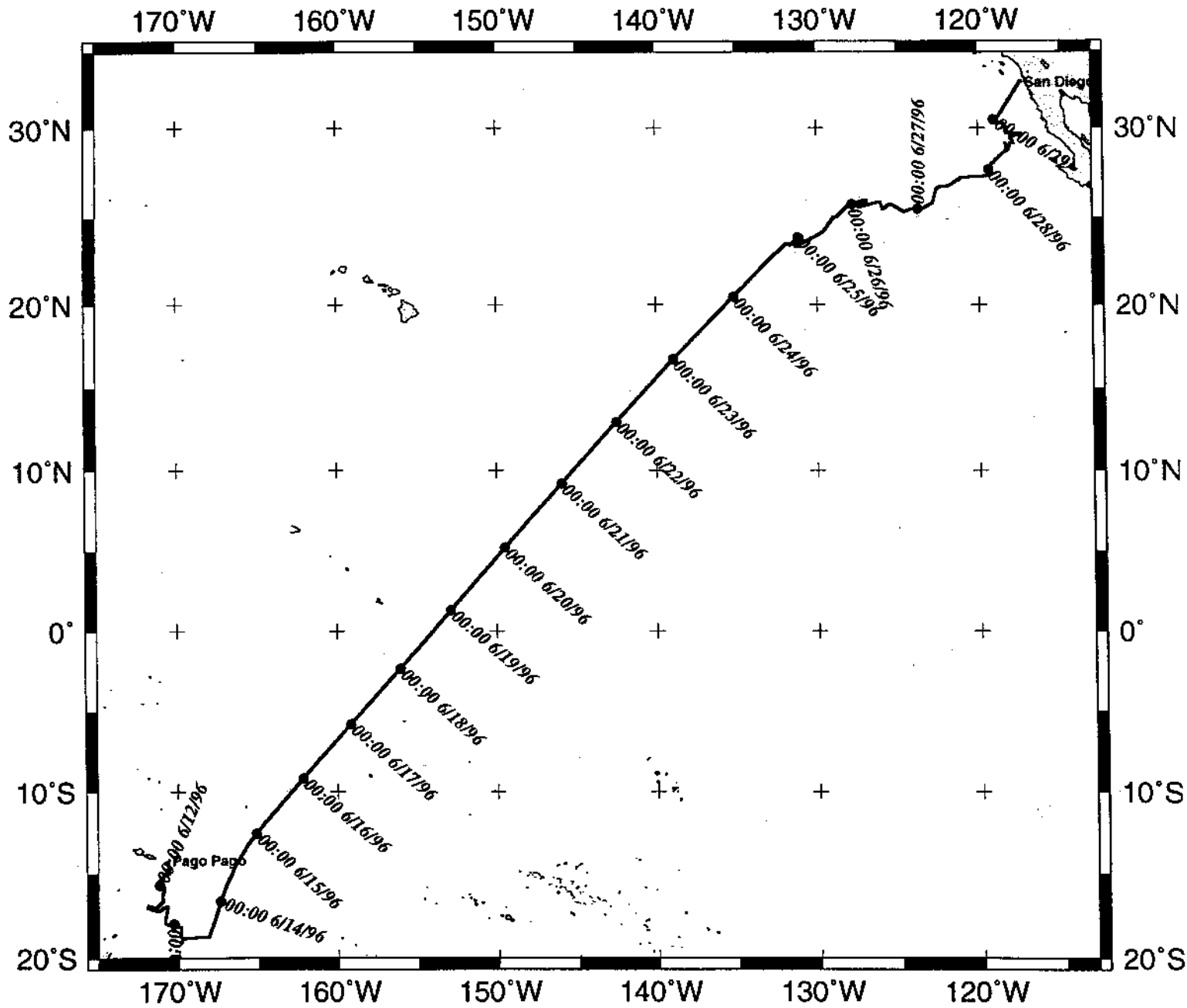
**BOOMERANG EXPEDITION LEG 9**

**CHIEF SCIENTIST: Peter Lonsdale**  
**Scripps Institution of Oceanography**  
**PORTS: Pago Pago, Samoa - San Diego, California**  
**DATES: 11 - 29 June 1996**  
**SHIP: R/V Melville**

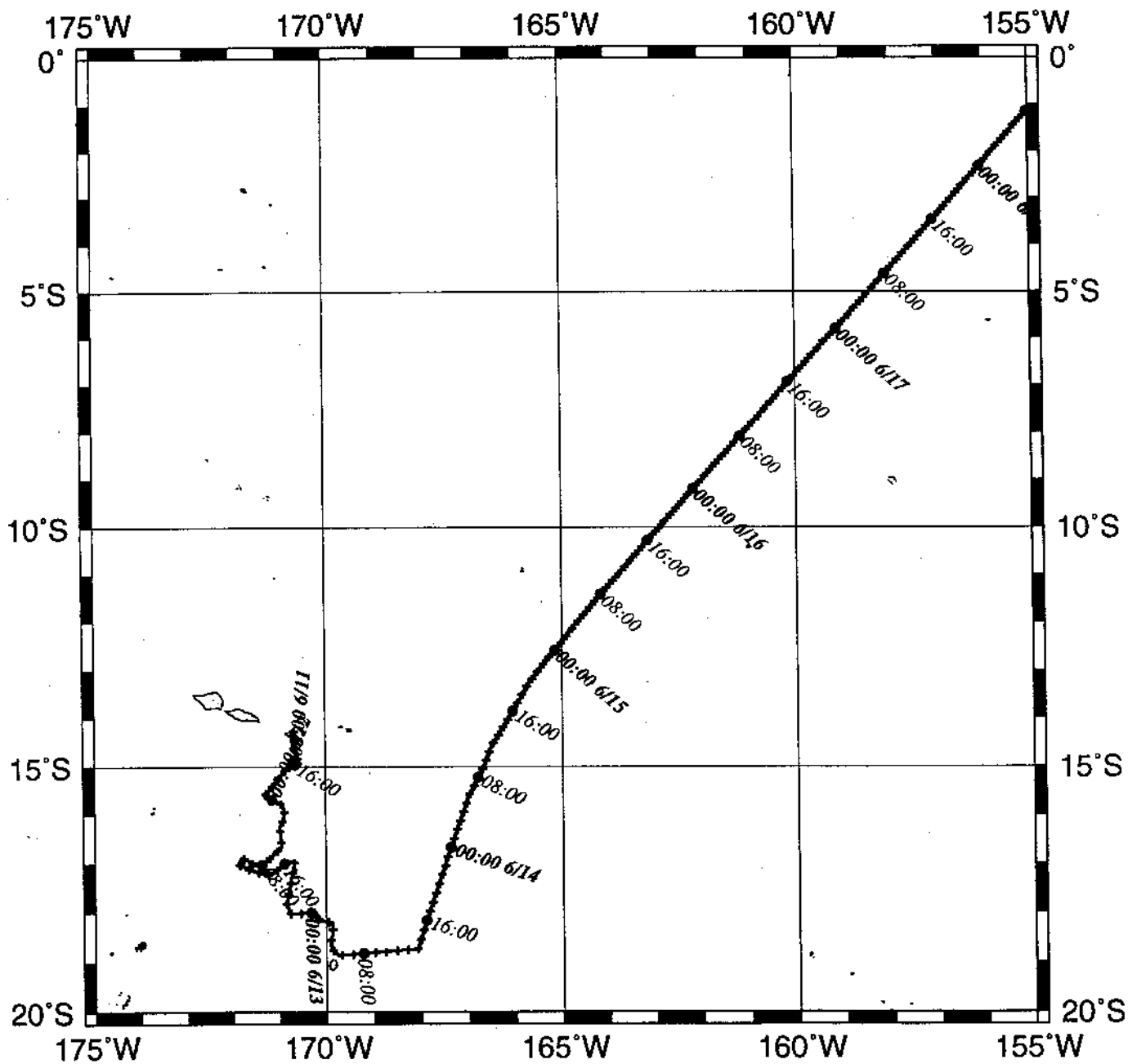
**TOTAL MILEAGE OF UNDERWAY DATA COLLECTED**

<b>Cruise - 5477 miles</b>	<b>Magnetics - 5249 miles</b>
<b>Bathymetry - 5445 miles</b>	<b>Seismic Reflection - none collected</b>
<b>Sea Beam - 5445 miles</b>	<b>Gravity - 5422 miles</b>

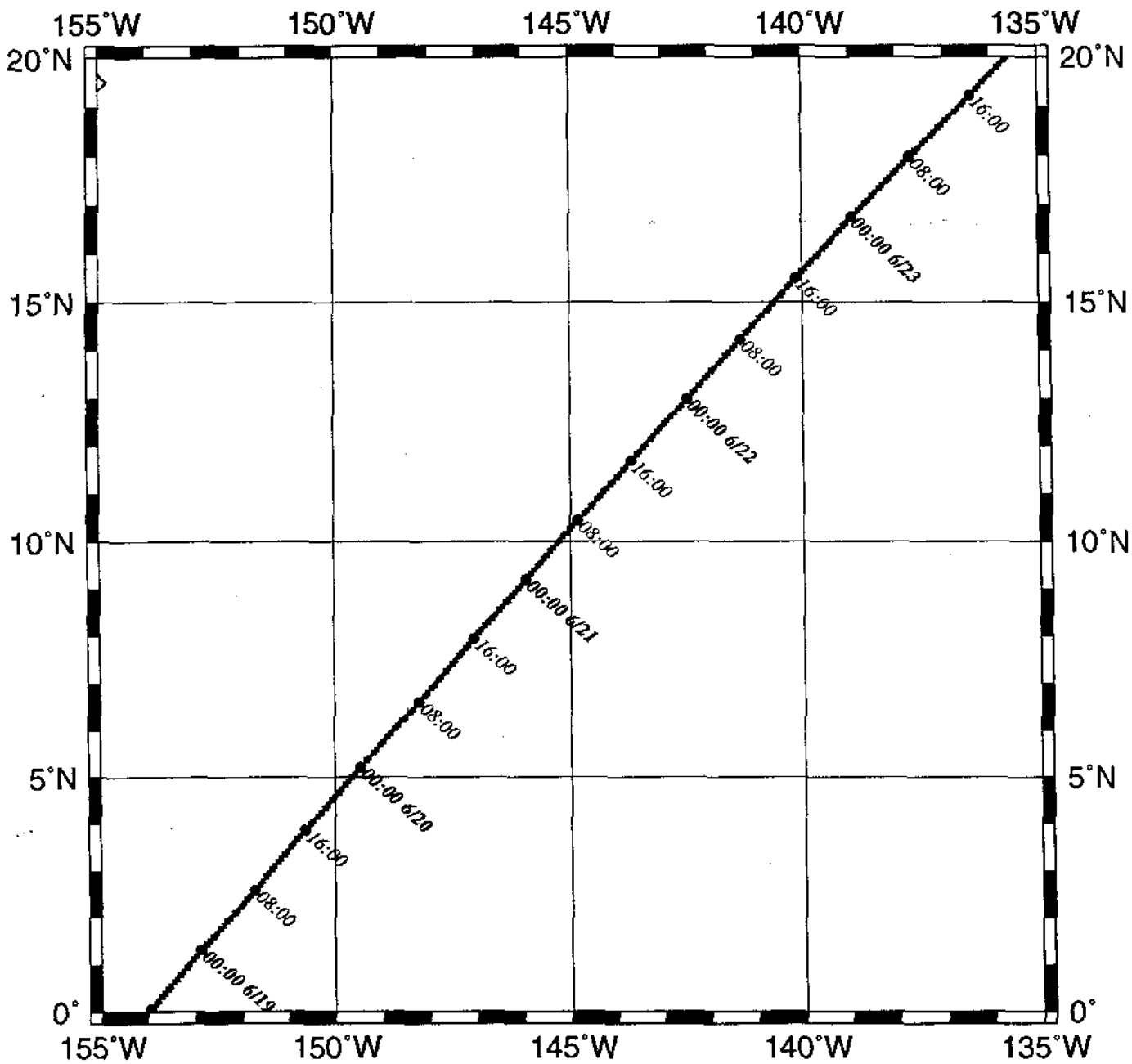
# BMRG09MV Track



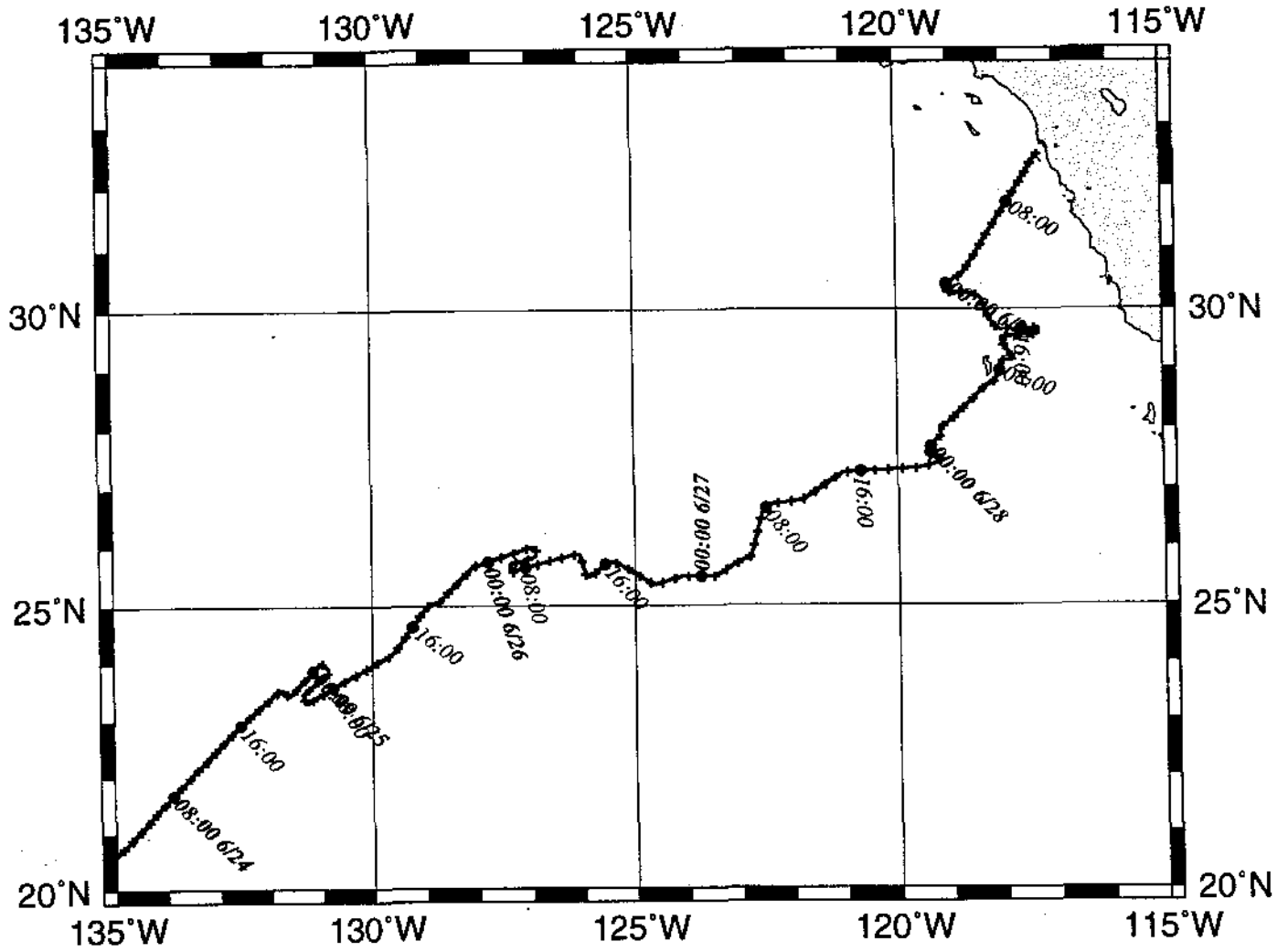
# BMRG09MV\_track\_plot\_01



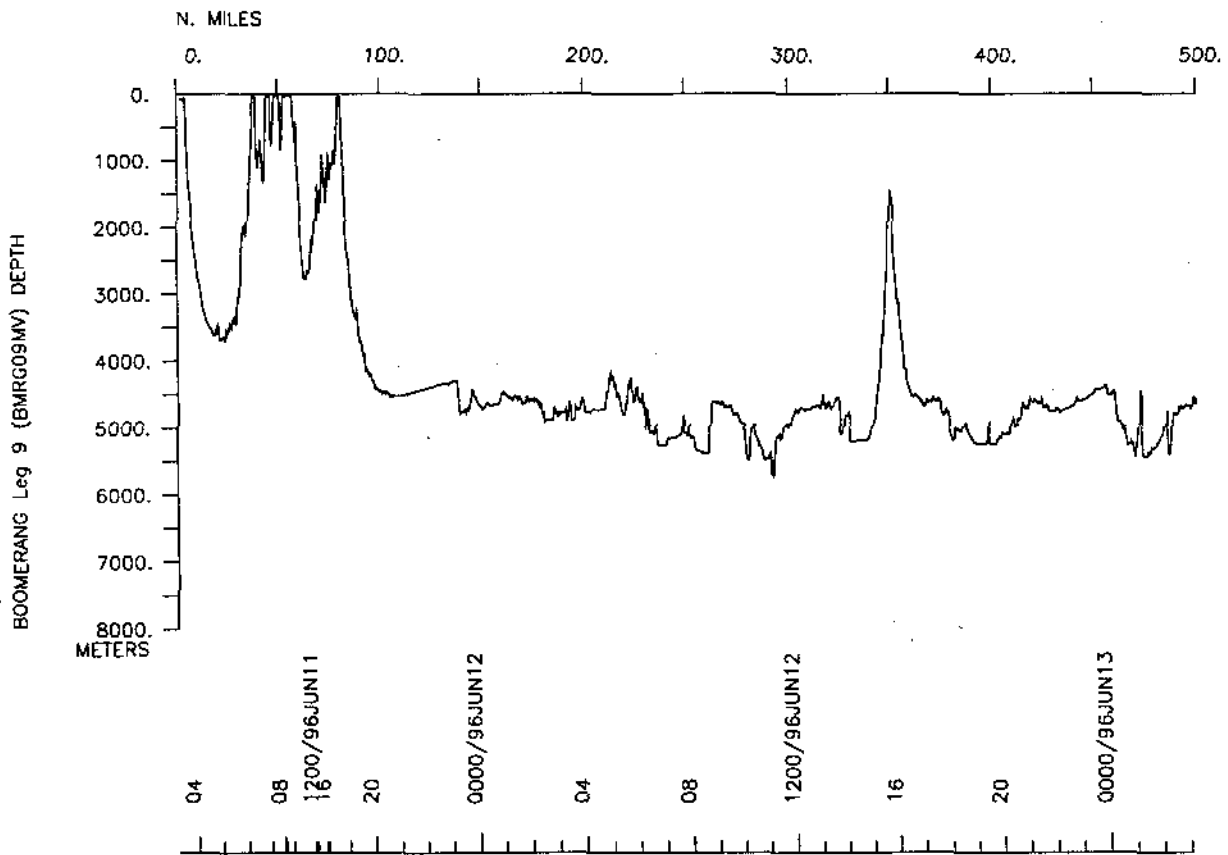
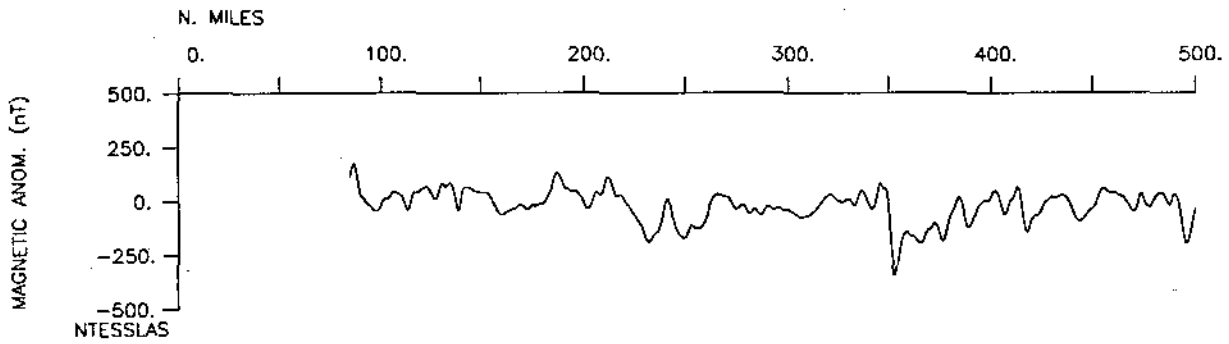
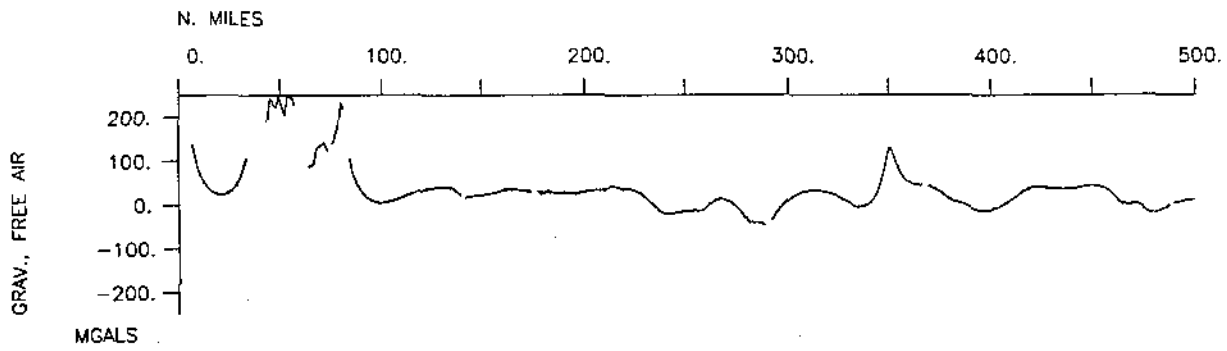
# BMRG09MV\_track\_plot\_02



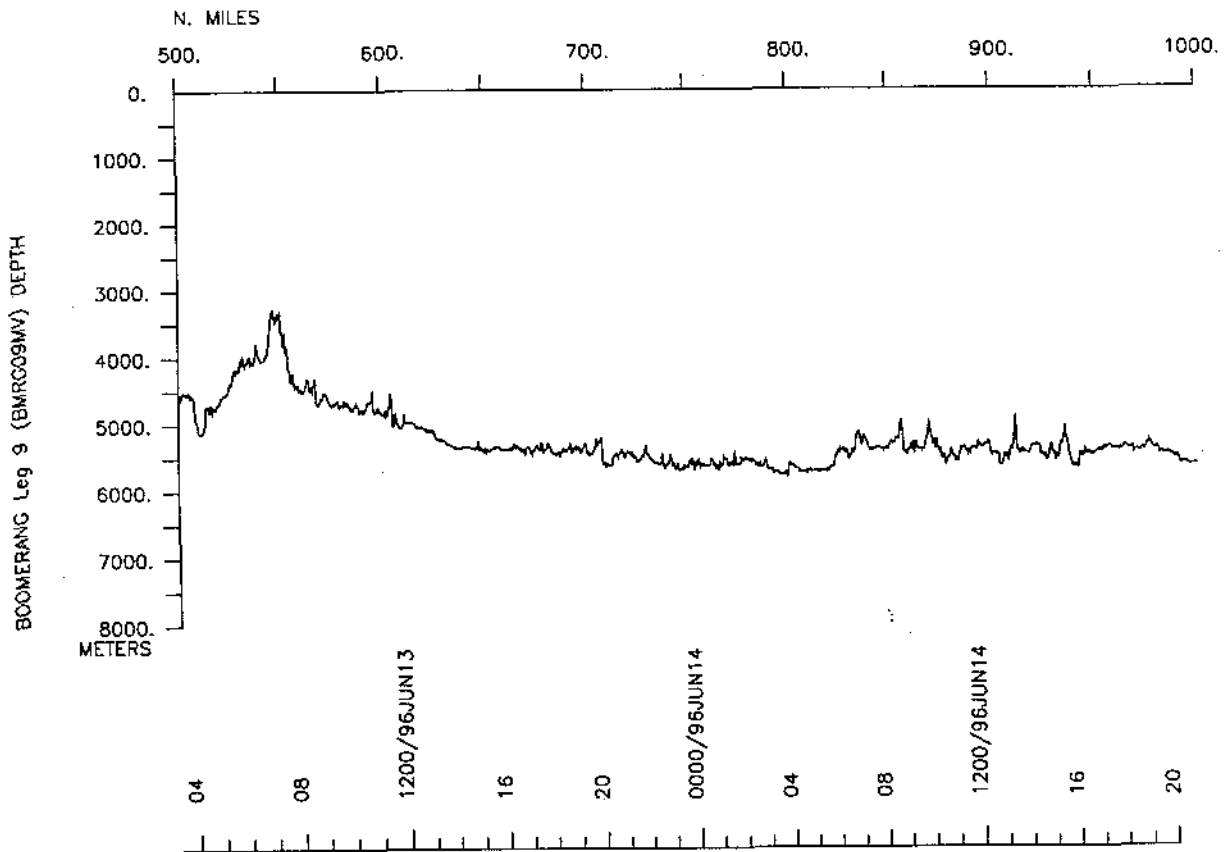
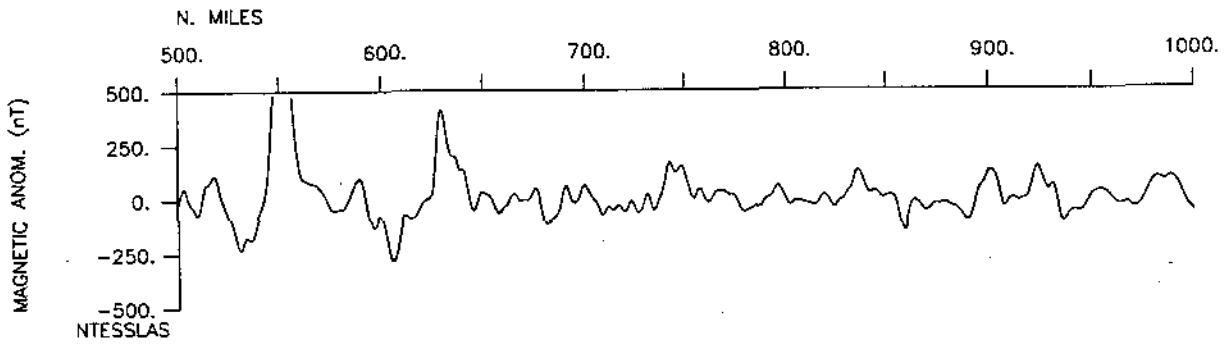
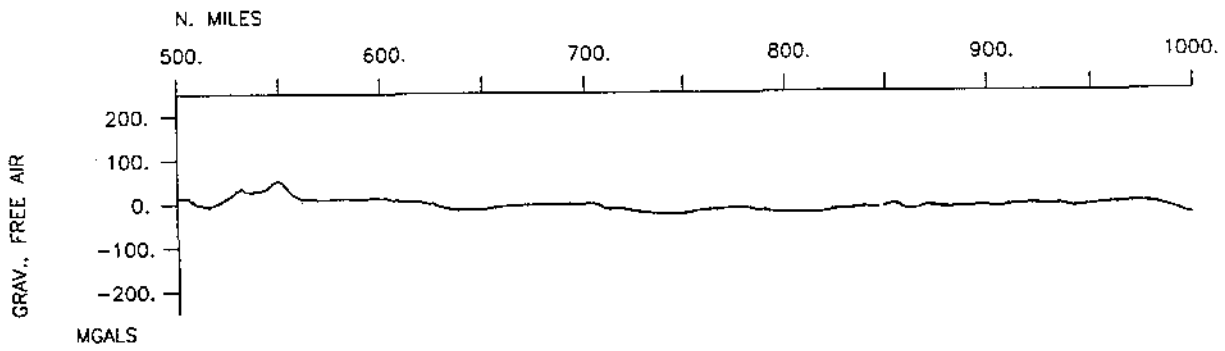
# BMRG09MV\_track\_plot\_03

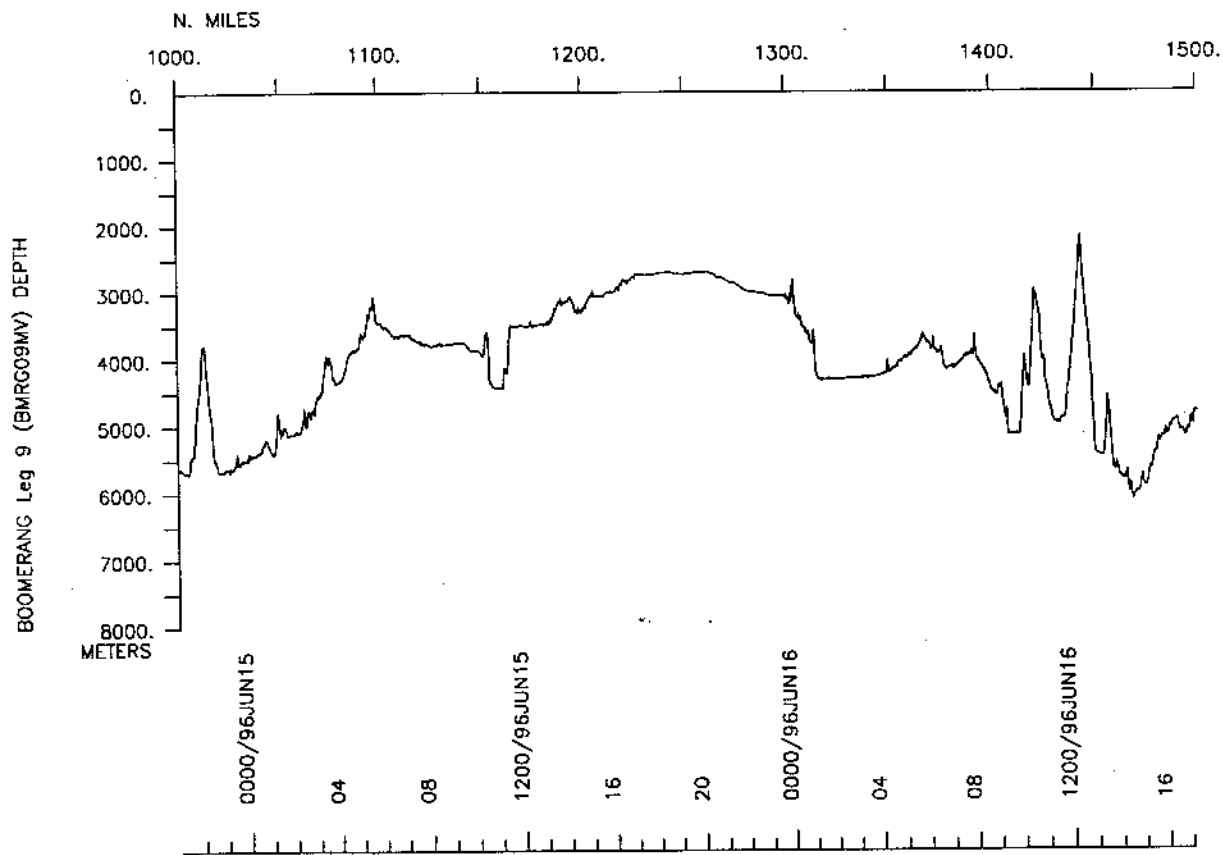
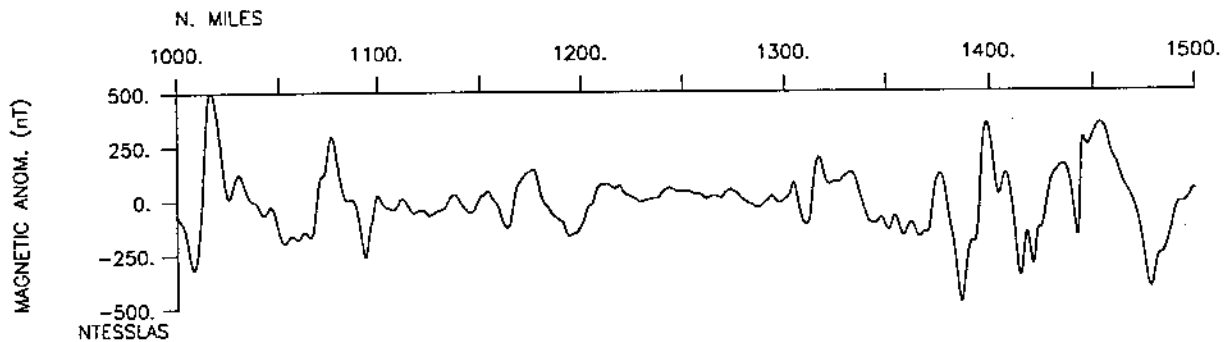


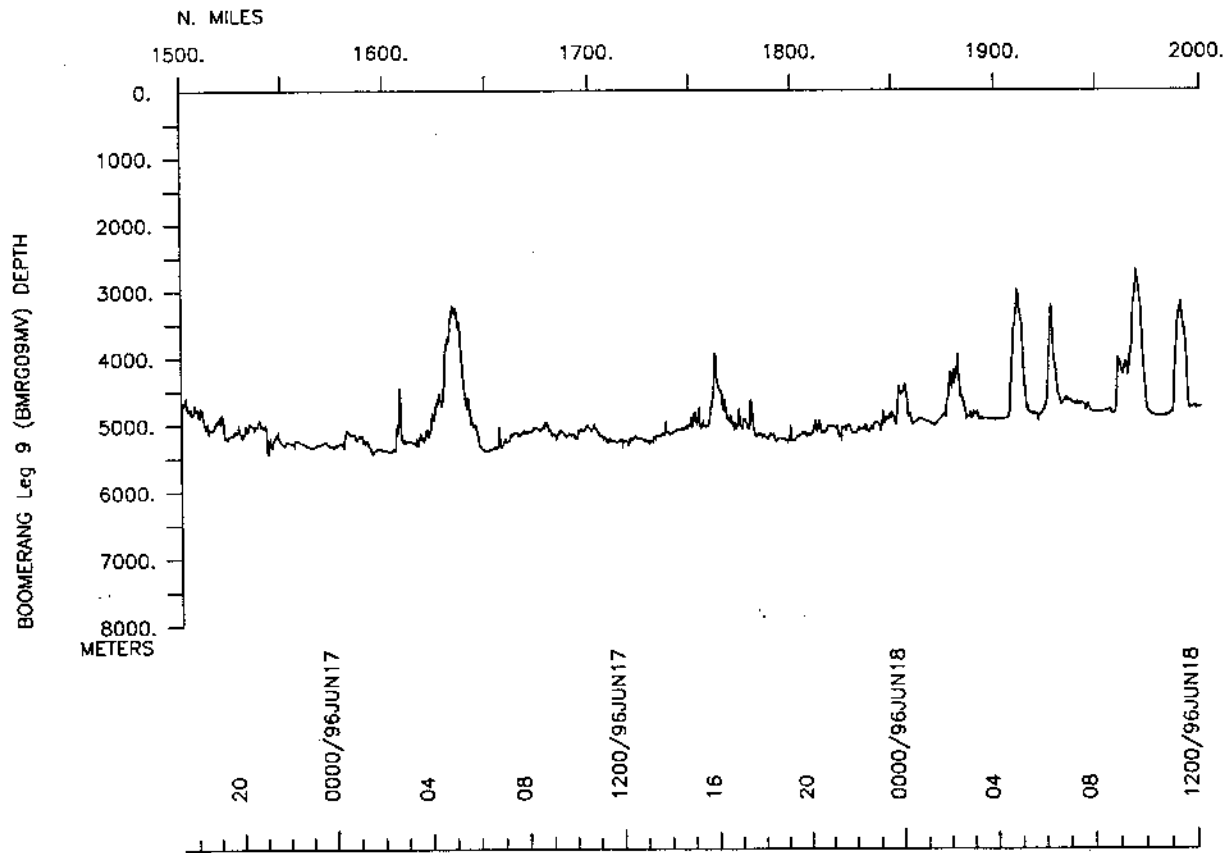
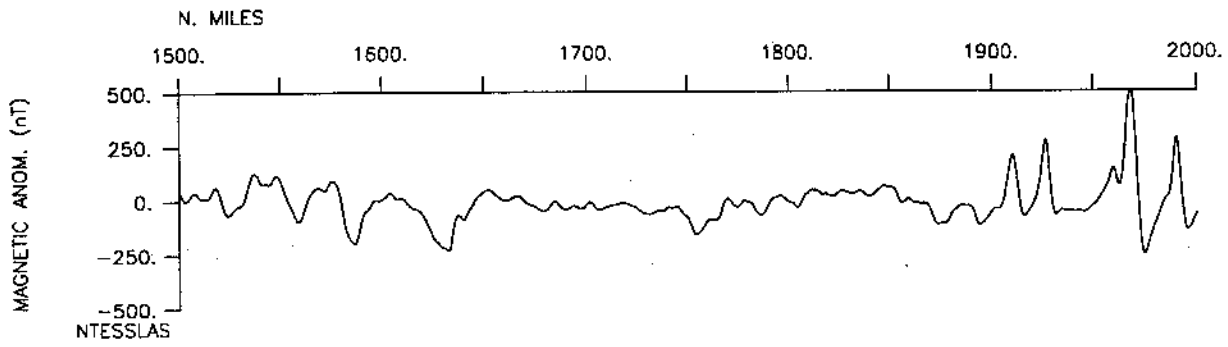
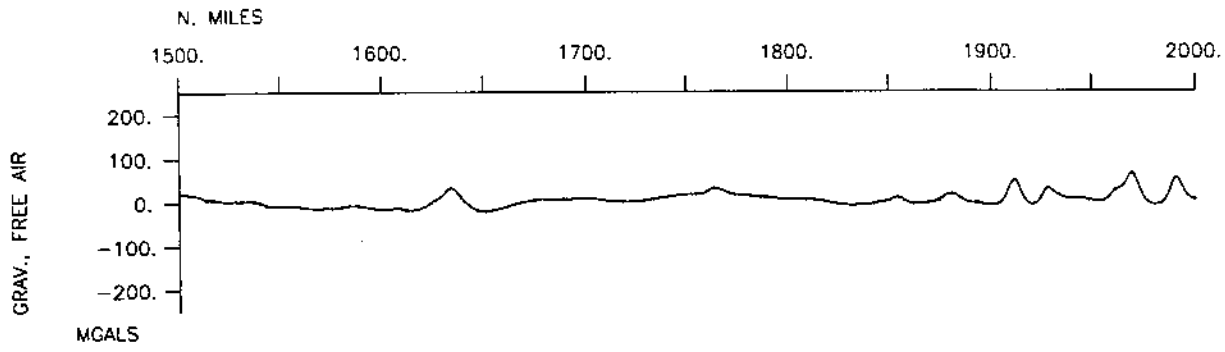
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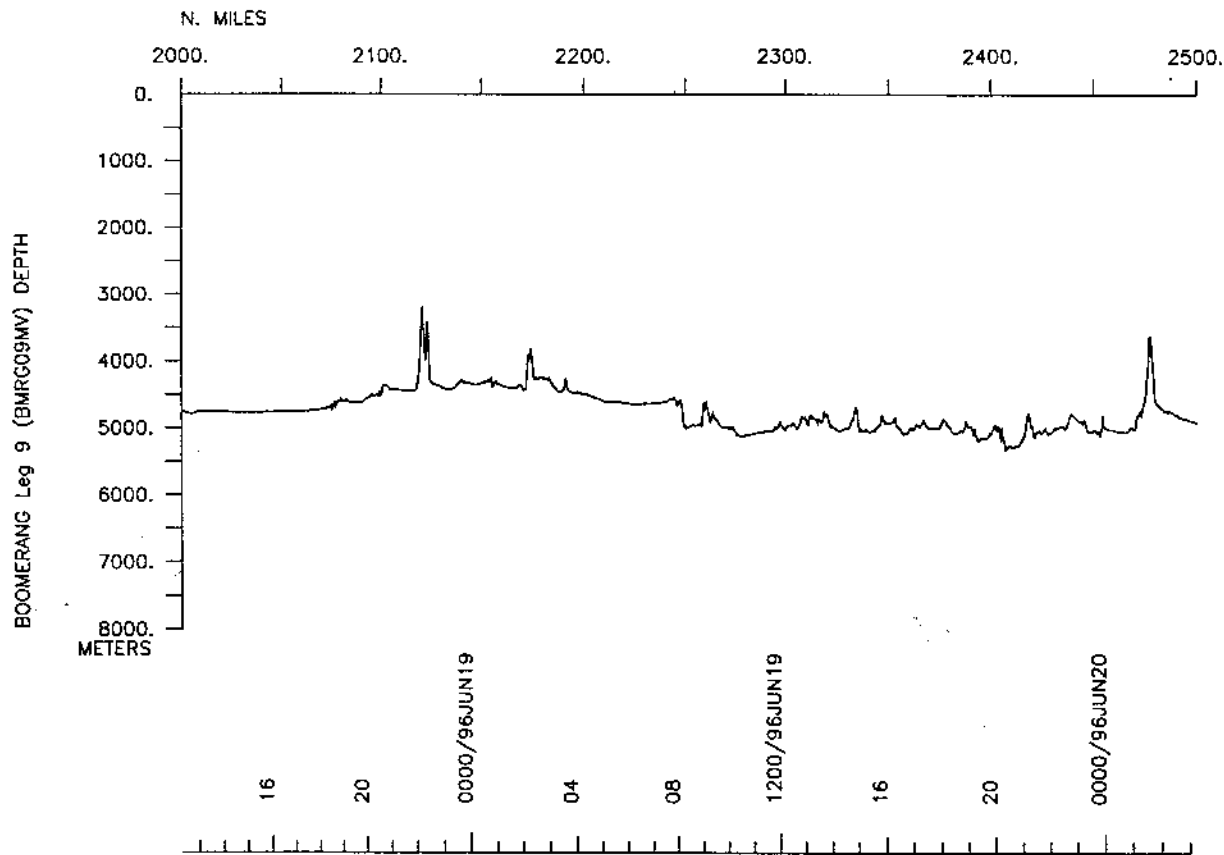
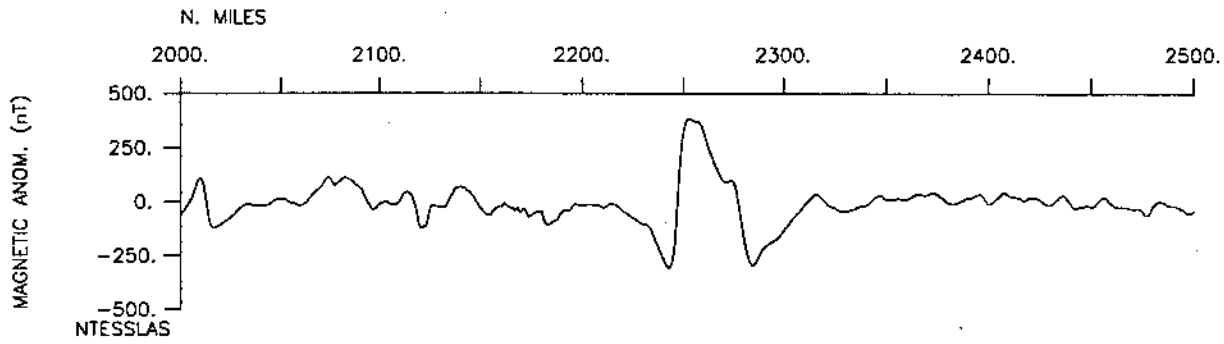
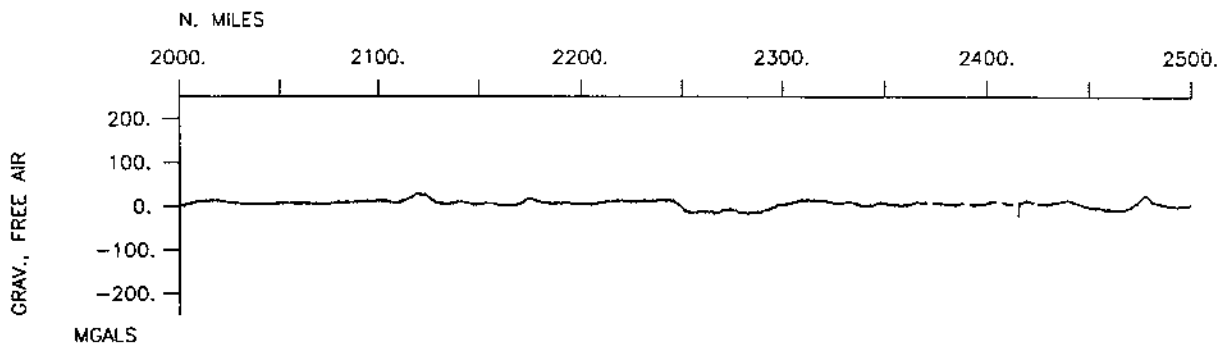


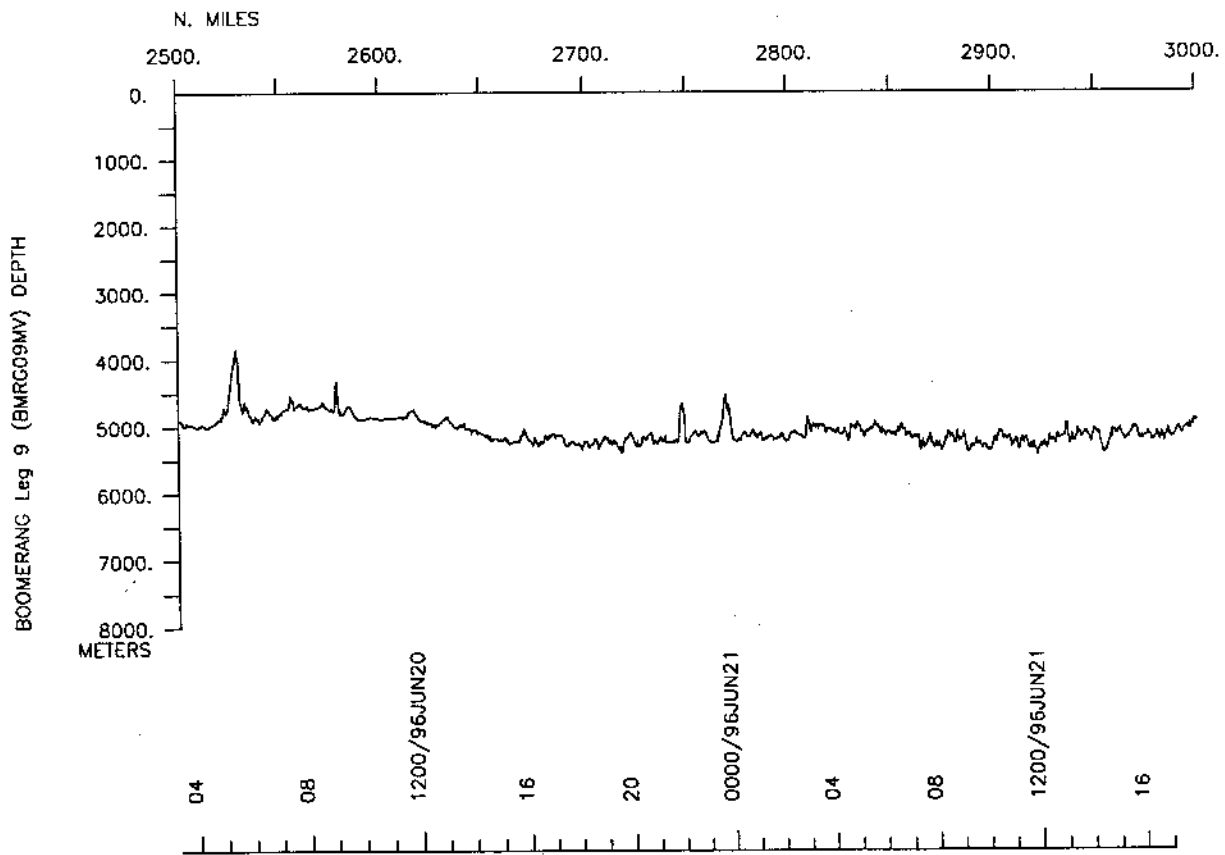
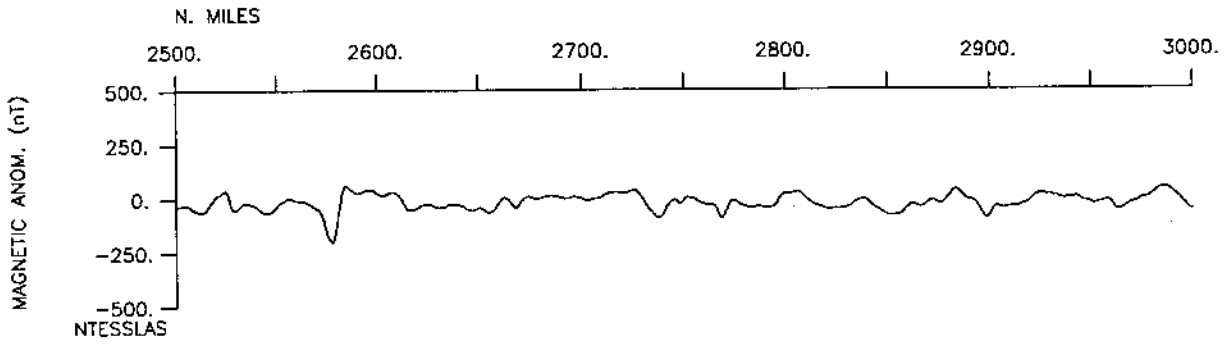
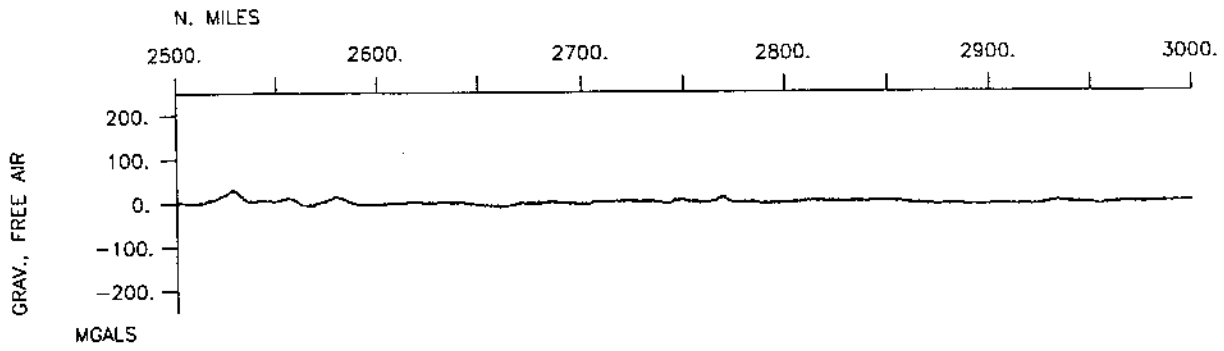


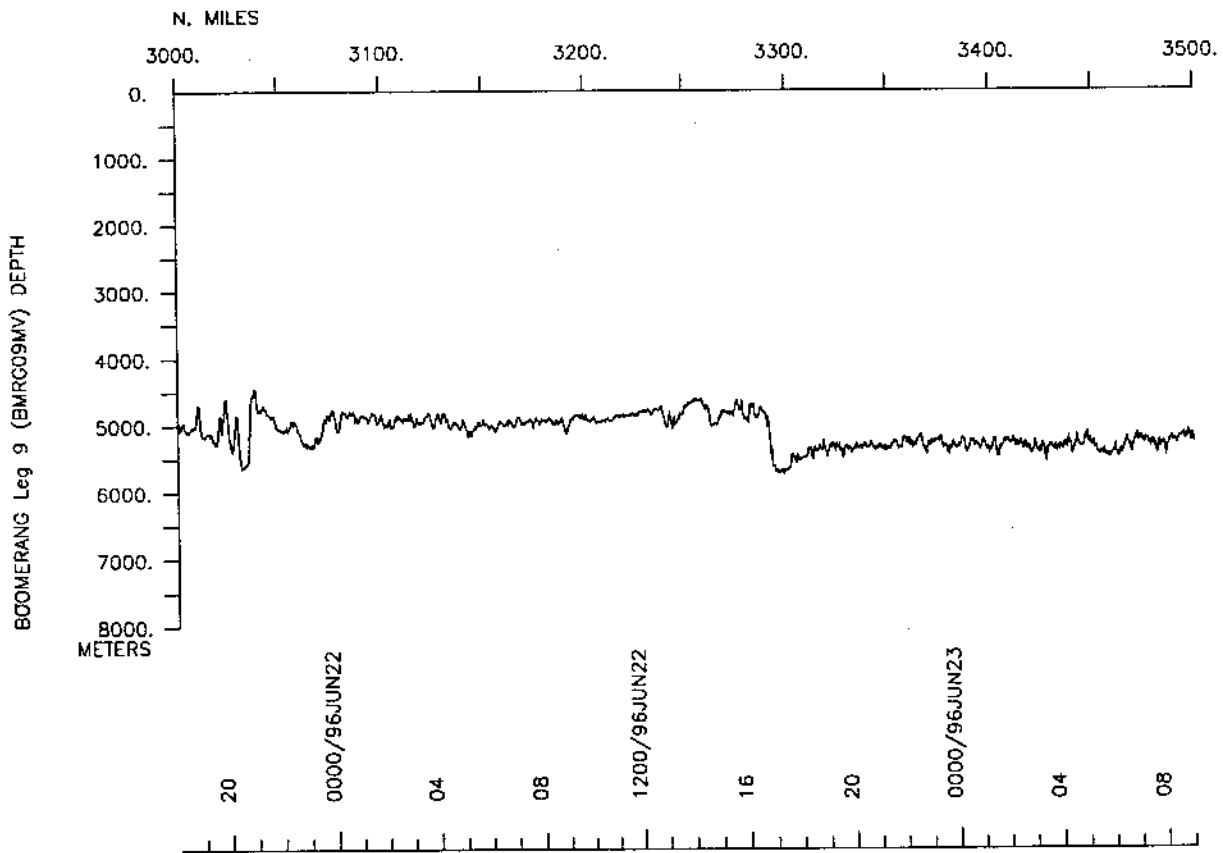
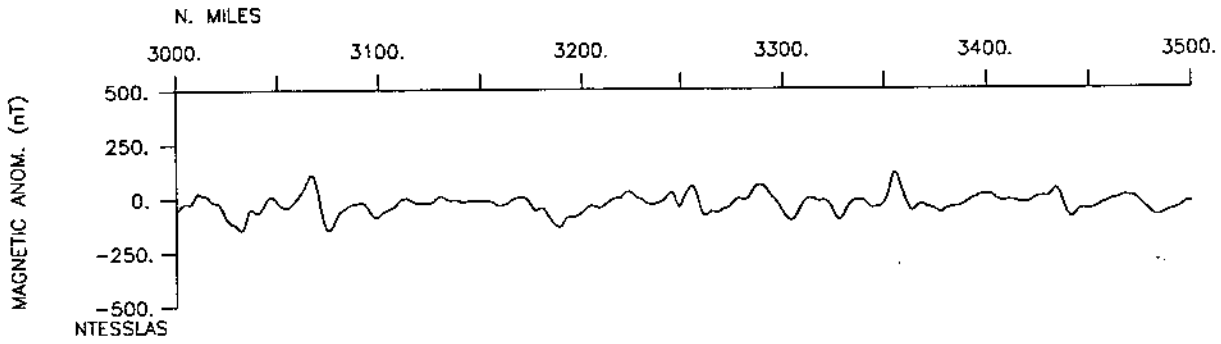
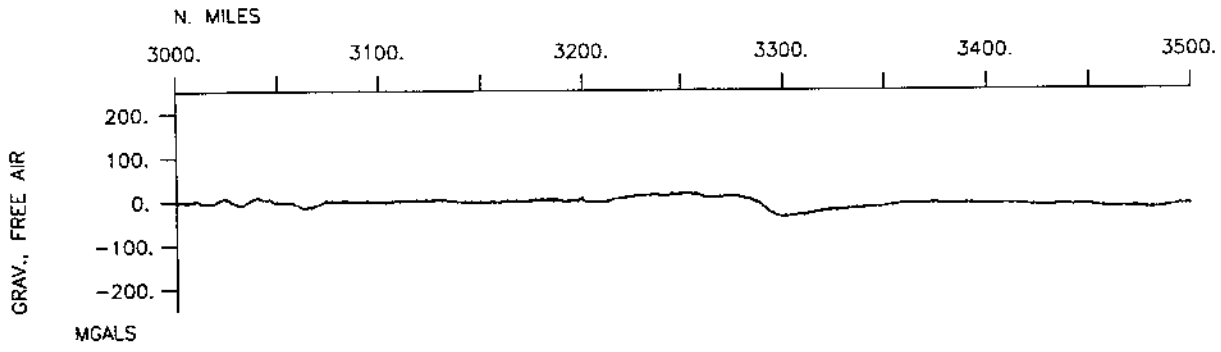


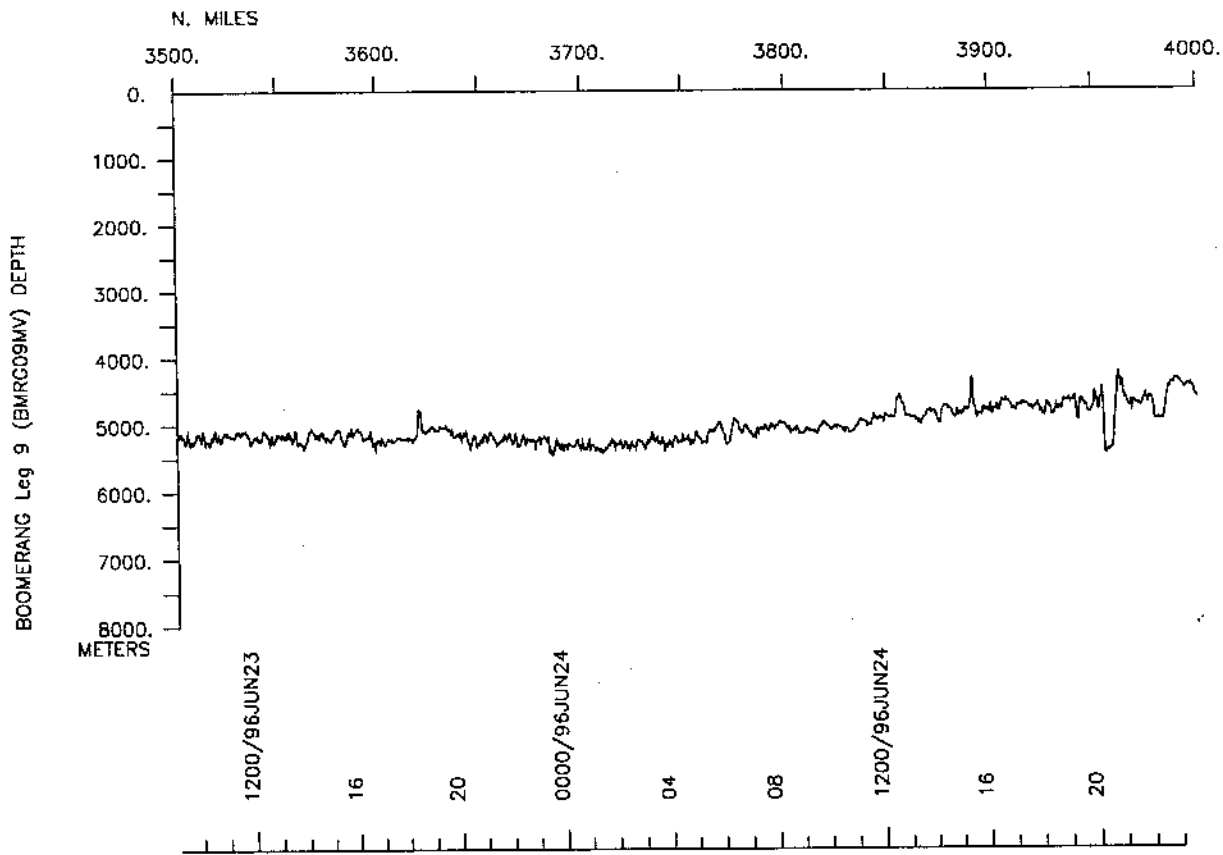
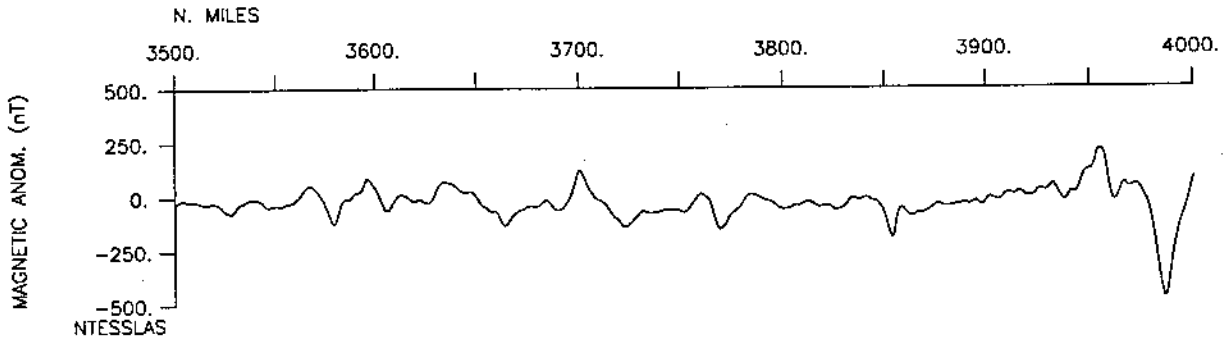
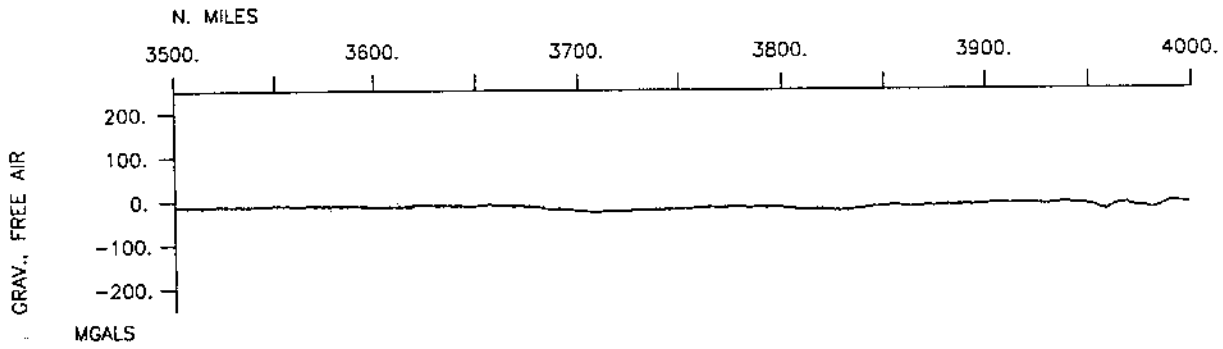


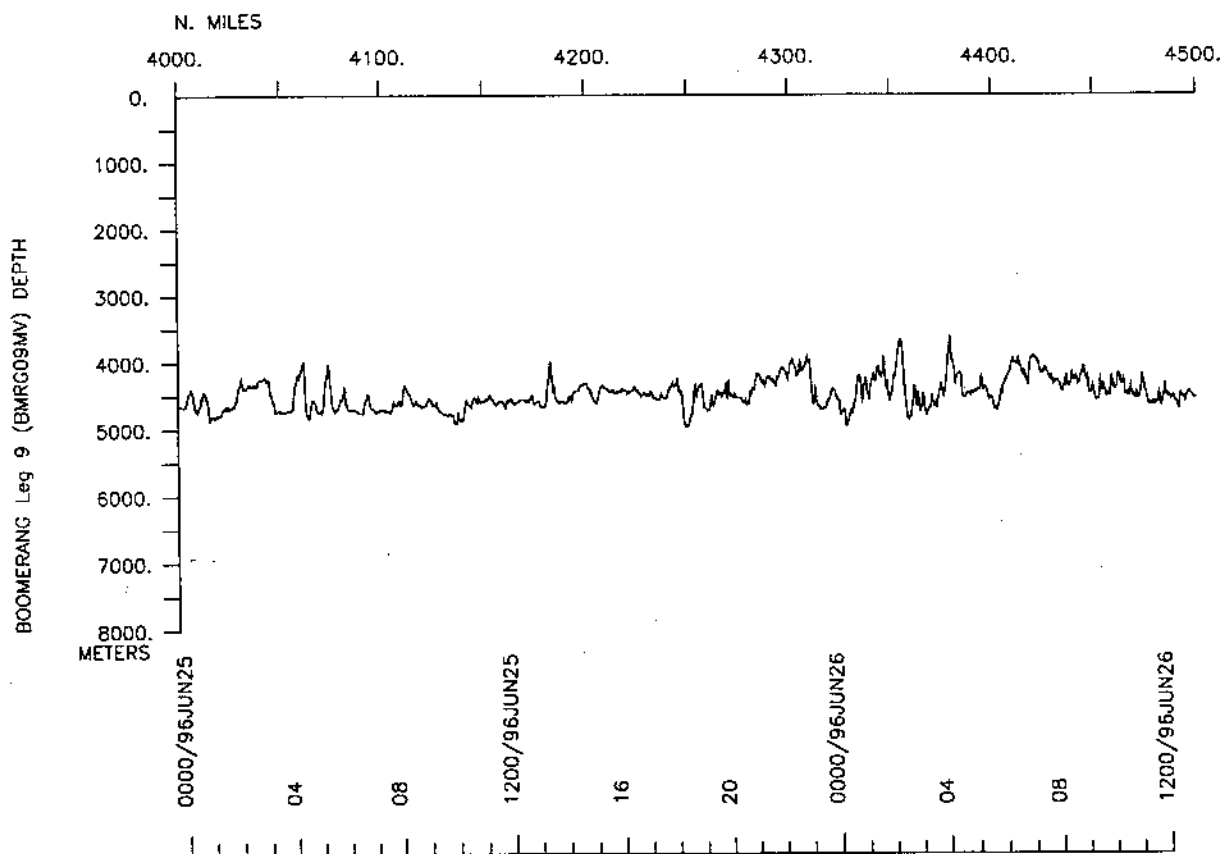
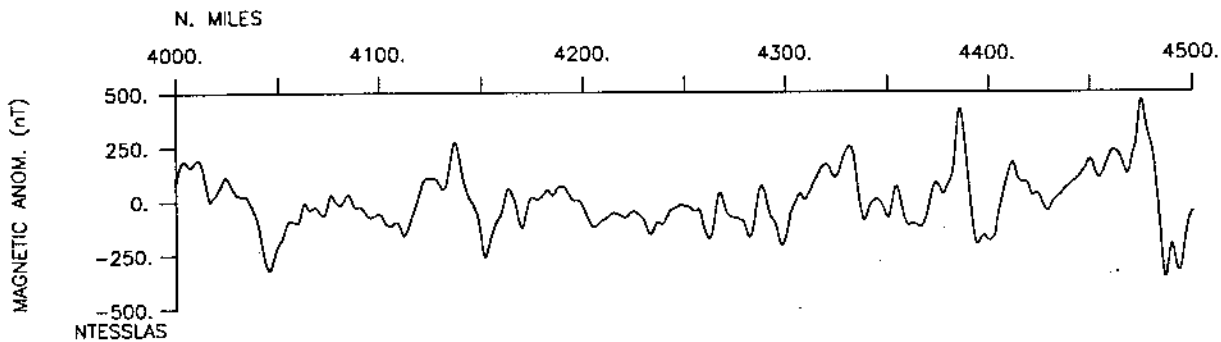
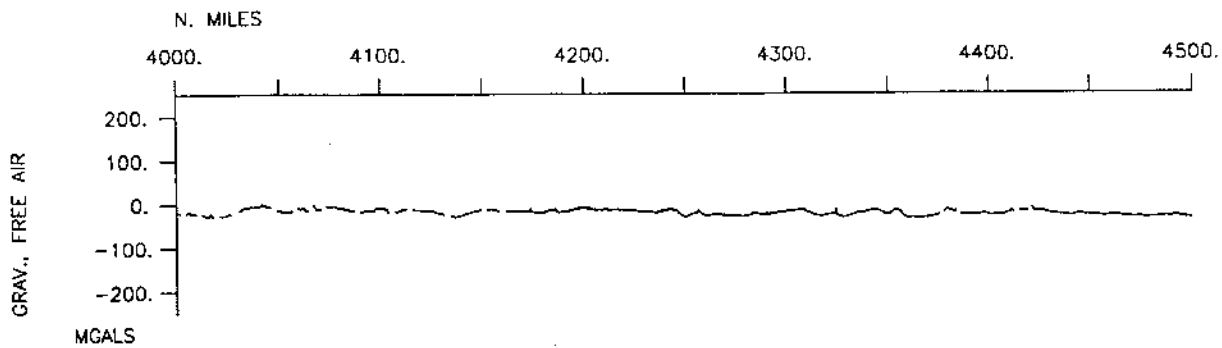




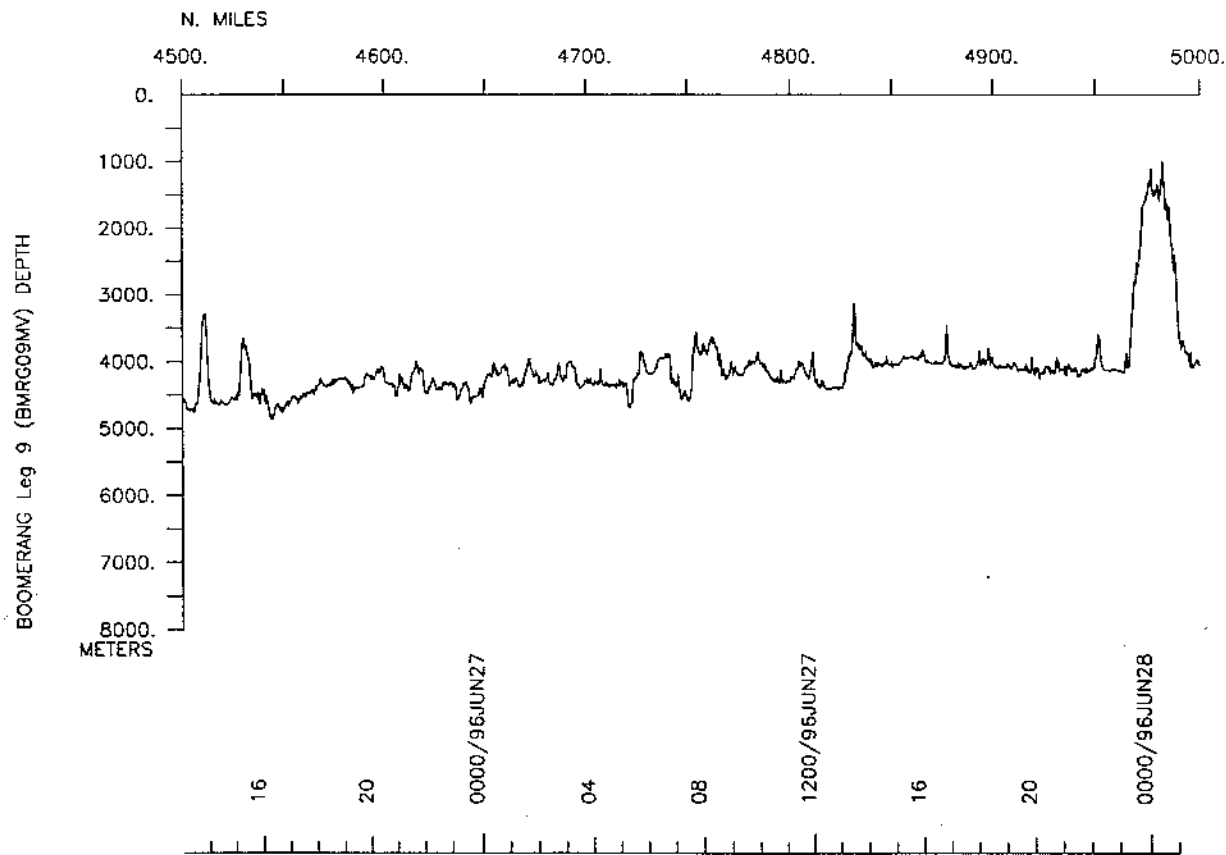
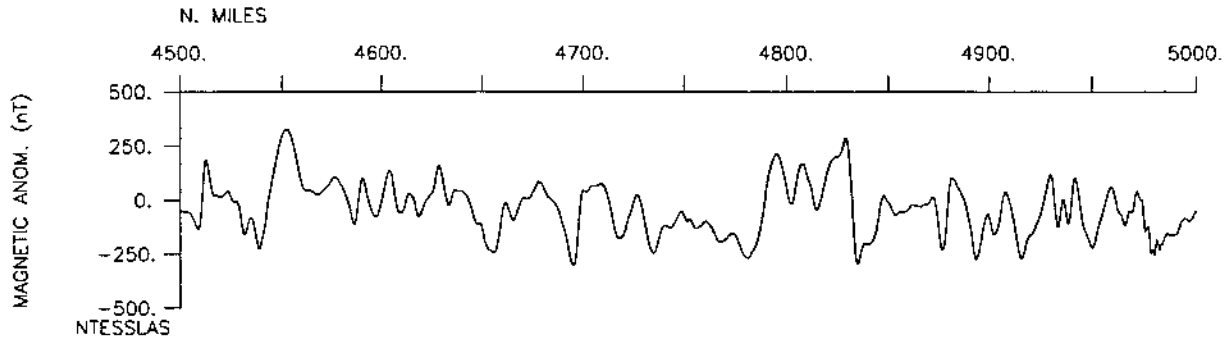
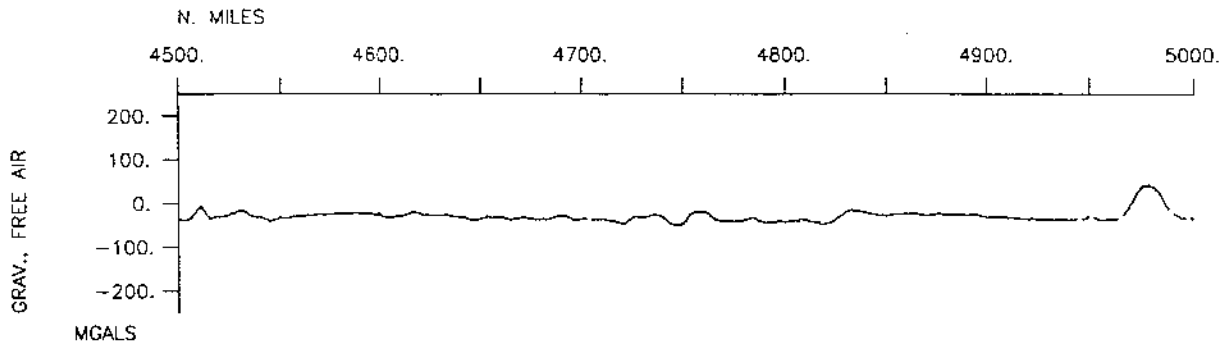


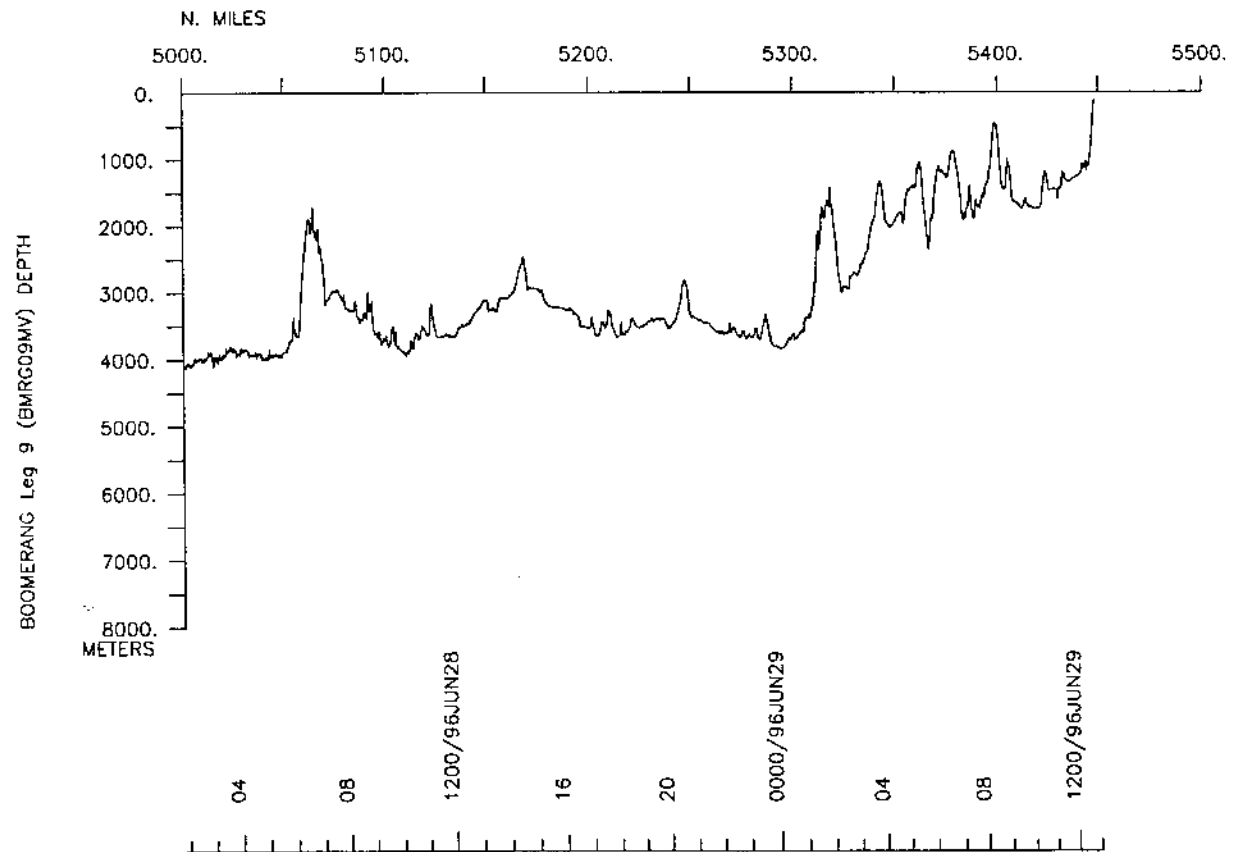
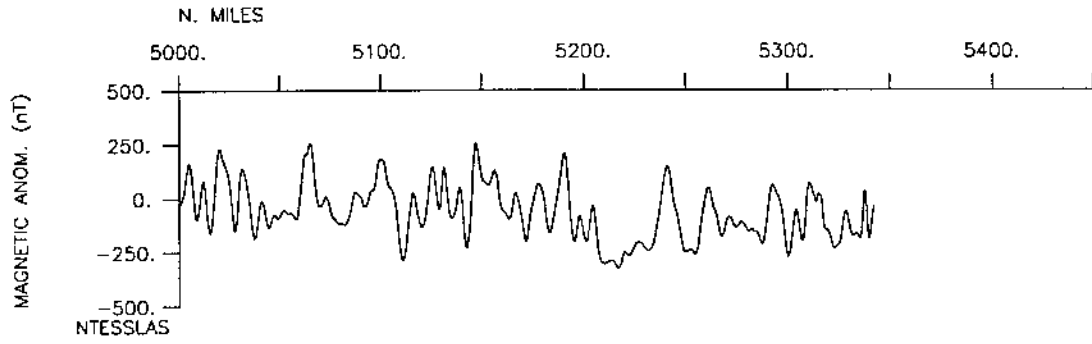
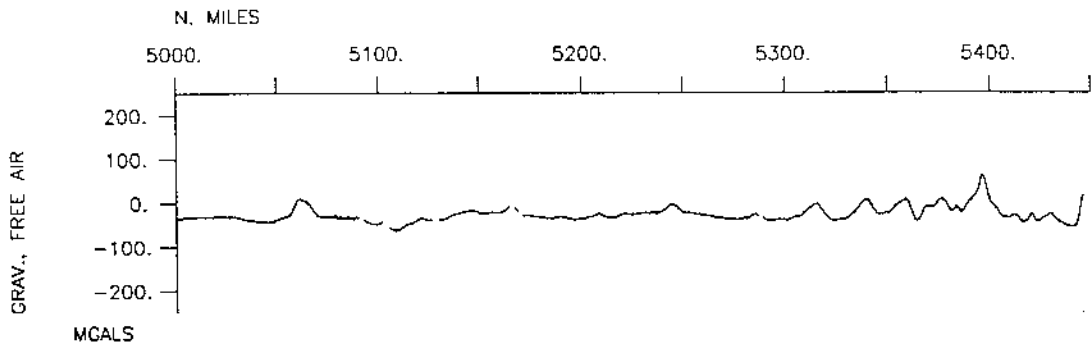












***S.I.O. SAMPLE INDEX***

**BOOMERANG EXPEDITION**

**LEG 9**

**(BMRG09MV)**

R/V Melville

(Issued August 1996)

**PORTS:**

Pago Pago, Samoa (11 June 1996)  
to  
San Diego, California (29 June 1996)

**Chief Scientist:**

Peter Lonsdale, Scripps Institution of Oceanography

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 cods are available from the Geological Data Center.)

GDC CRUISE I.D.# 267

\*\*\*\* Ports \*\*\*

0300	110696	LGPT B Pago Pago, Samoa	GDC	14-17.00S	170-40.00W	f	BMRG09MV
1500	290696	LGPT E San Diego, CA	GDC	32-43.00N	117-11.00W	f	BMRG09MV

\*\*\*\* Personnel \*\*\*

#	*****NAME*****	*****TITLE*****	*****AFFILIATION*****	**CRID**
#	-----	-----	-----	-----
PECS SIO	Lonsdale,P.	Chief Scientist	Scripps Institution	BMRG09MV
PERT STS	Boaz,J.	Resident Tech.	Scripps Institution	BMRG09MV
PECT STS	Porteous,T.	Computer Tech.	Scripps Institution	BMRG09MV
PEST MPL	Williams,K.	Grad. Student	Scripps Institution	BMRG09MV
PEST MPL	Eakins,B.	Grad. Student	Scripps Institution	BMRG09MV
PEST MPL	Zellmer,K.	Grad. Student	Scripps Institution	BMRG09MV

\*\*\*\* 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	DDMMYY	SAMP	B	SAMPLE	DISP				p	CRUISE
#TIME	DATE	TZ	CODE	E IDENTIFIER	CODE	LATITUDE	LONGITUDE		c	LEG-SHIP

\*\*\*\* Underway Data Curator - S. M. Smith ext. 42752 \*\*\*\*

\*\*\*\* Log Books \*\*\*\*

0320	110696	0	LBUW	B Underway Watch Log	GDC	14-17.75S	170-39.96W	g	BMRG09MV
0400	290696	0	LBUW	E Underway Watch Log	GDC	31-02.50N	118-23.90W	g	BMRG09MV

\*\*\*\* Magnetics (Earth Total Field) Records \*\*\*\*

1900	110696	0	MGRA	B Magnetics r-01	GDC	14-55.82S	170-42.72W	g	BMRG09MV
0630	150696	0	MGRA	E Magnetics r-01	GDC	11-38.02S	164-20.42W	g	BMRG09MV
0640	150696	0	MGRA	B Magnetics r-02	GDC	11-36.60S	164-19.16W	g	BMRG09MV
2330	160696	0	MGRA	E Magnetics r-02	GDC	5-51.71S	159-11.97W	g	BMRG09MV
2330	160696	0	MGRA	B Magnetics r-03	GDC	5-51.71S	159-11.97W	g	BMRG09MV
1100	180696	0	MGRA	E Magnetics r-03	GDC	0-42.29S	154-37.41W	g	BMRG09MV
1115	180696	0	MGRA	B Magnetics r-04	GDC	0-39.98S	154-35.32W	g	BMRG09MV
0430	260696	0	MGRA	E Magnetics r-04	GDC	25-49.91N	126-55.54W	g	BMRG09MV
0430	260696	0	MGRA	B Magnetics r-05	GDC	25-49.91N	126-55.54W	g	BMRG09MV
0353	290696	0	MGRA	E Magnetics r-05	GDC	31-01.68N	118-24.44W	g	BMRG09MV

\*\*\*\* Continuous Recorded Gravity \*\*\*\*

0300	110696	0	GVCB	B auto-logged gravity	GDC	14-16.56S	170-40.92W	g	BMRG09MV
1300	290696	0	GVCB	E auto-logged gravity	GDC	32-30.97N	117-19.12W	g	BMRG09MV

\*\*\*\* Sea Beam Records (vertical beam and side scan) \*\*\*\*

0320	110696	0	MBSR	B vbeam&sidescan r-01	GDC	14-17.75S	170-39.96W	g	BMRG09MV
2330	160696	0	MBSR	E vbeam&sidescan r-01	GDC	5-51.71S	159-11.97W	g	BMRG09MV
2330	160696	0	MBSR	B vbeam&sidescan r-02	GDC	5-51.71S	159-11.97W	g	BMRG09MV
1105	180696	0	MBSR	E vbeam&sidescan r-02	GDC	0-41.52S	154-36.71W	g	BMRG09MV
1105	180696	0	MBSR	B vbeam&sidescan r-03	GDC	0-41.52S	154-36.71W	g	BMRG09MV
1300	290696	0	MBSR	E vbeam&sidescan r-03	GDC	32-30.97N	117-19.12W	g	BMRG09MV

\*\*\*\* Echo Sounder Records \*\*\*\* (12 or 3.5 kHz records)

0320	110696	0	DPR3	B 3.5 kHz r-01	GDC	14-17.75S	170-39.96W	g	BMRG09MV
0530	140696	0	DPR3	E 3.5 kHz r-01	GDC	15-39.65S	167-00.57W	g	BMRG09MV

\*\*\*\* Dredges \*\*\*\*

0750	110696	0	DRRO	Rock Dred.	121	35M	SIO	14-52.55S	170-39.43W	g	BMRG09MV
0853	110696	0	DRRO	Rock Dred.	122	33M	SIO	14-52.00S	170-38.29W	g	BMRG09MV
1108	110696	0	DRRO	Rock Dred.	123	1990M	SIO	14-57.74S	170-36.77W	g	BMRG09MV
1516	110696	0	DRRO	Rock Dred.	124	1940M	OSU	14-58.35S	170-39.36W	g	BMRG09MV

#				End Sample Index							BMRG09MV
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