REPORT AND INDEX OF

UNDERWAY MARINE GEOPHYSICAL DATA

AVON EXPEDITION

LEG 9

(AVON09MV)

R/V Melville

(Issued October 1999)

Ports:

Astoria, Oregon (7 July 1999)

to

Eureka, California (2 August 1999)

Chief Scientist:

Chris Goldfinger - Oregon State University
gold@oce.orst.edu

Computer Technician - Ron Moe
Resident Marine Tech - Robert Wilson

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

GDC Cruise I.D.# 284

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 collected on the leg.

NOTE: One or more of the underway data types may not be collected on a given 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

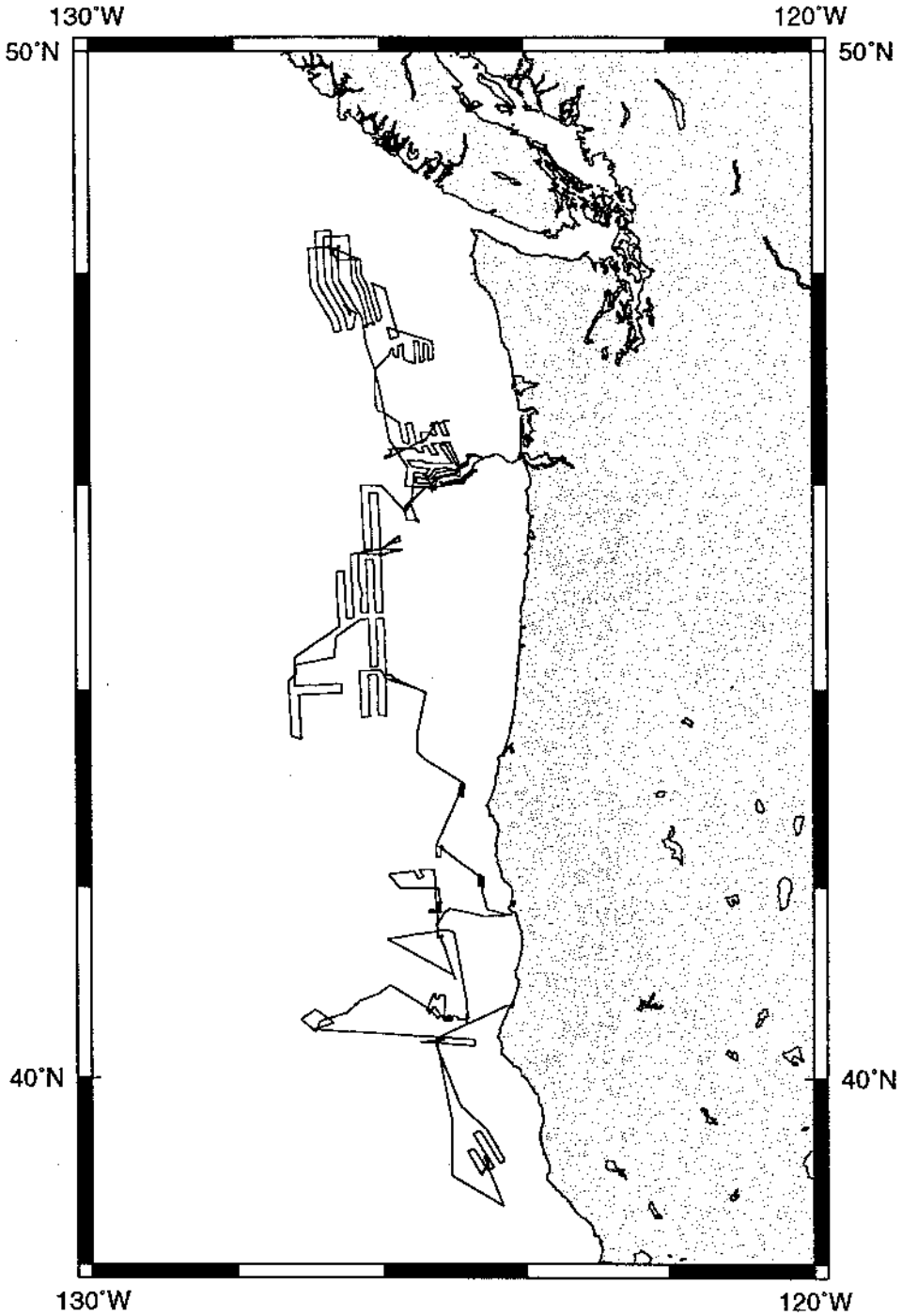
1. Files via ftp or on 8mm (Exabyte) and 4mm (DAT) magnetic tape:
   a) Separate time series ASCII files of navigation, single beam depth, gravity and magnetics.
   b) Above data in a single merged ASCII file in the MGD77 Exchange Format.
   c) SeaBeam depth data (binary, Sun byte order)
   d) SeaBeam Sidescan data.

2. Microfilm (35 mm flowfilm) or hard copies of:
   a) Underway watch log book.
   b) SeaBeam vertical beam profile/Sidescan records.
   c) 3.5 kHz and 12 kHz echosounder records.
   d) Seismic reflection profiler records.

3. Navigation listing with times and positions of fixes and course and speed changes.

4. Custom plots in Mercator projection:
   a) Track plots.
   b) SeaBeam depth contour plots.
   c) Depth, magnetic or gravity values printed or profiled along track.

rev 4/98



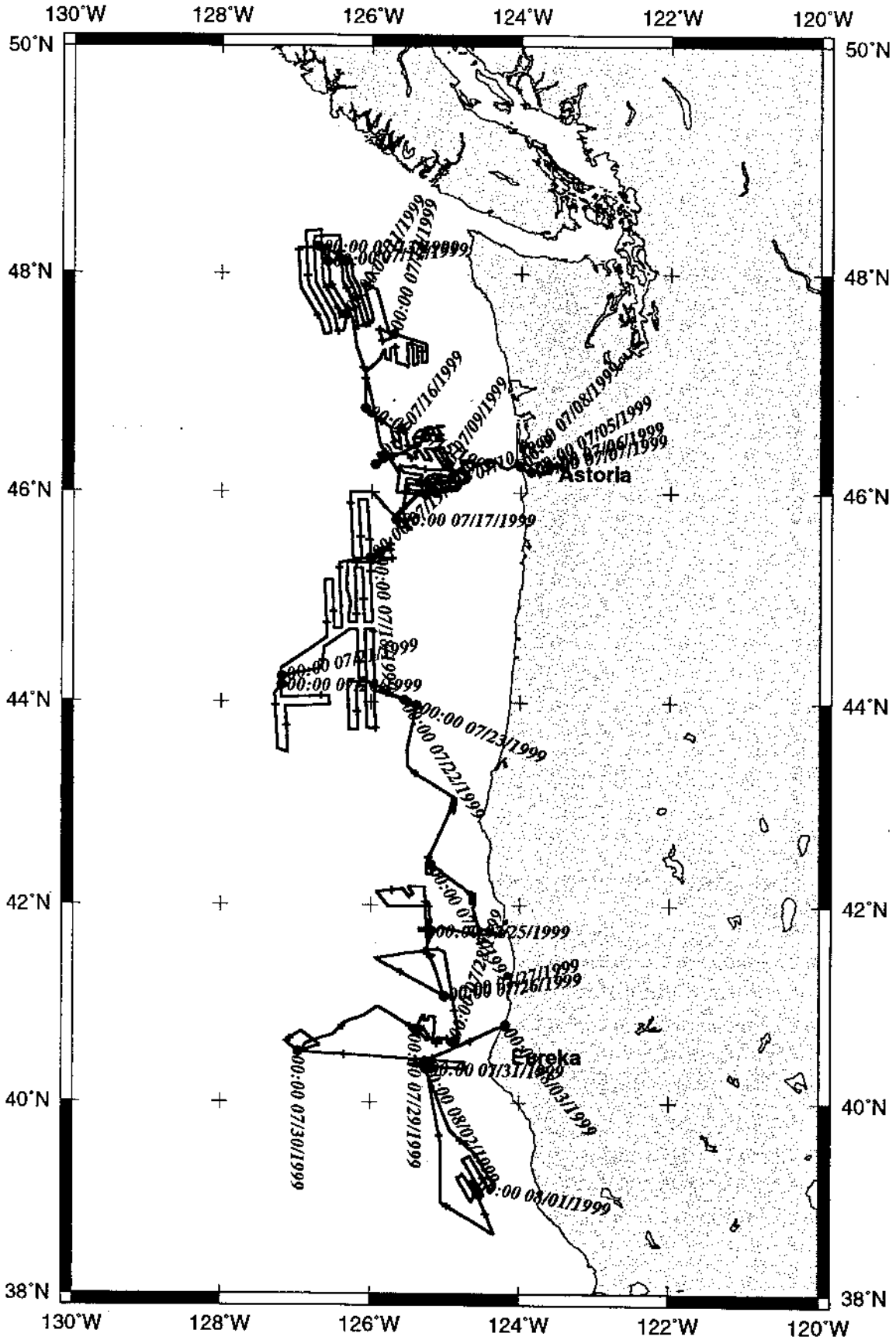
AVON EXPEDITION LEG 9 (AVON09MV)

CHIEF SCIENTIST: Chris Goldfinger, Oregon State Univ.
PORTS: Astoria, Oregon - Eureka, California
DATES: 7 July - 2 August 1999
SHIP: R/V Melville

TOTAL MILEAGE OF UNDERWAY DATA COLLECTED

Cruise - 4121 miles	**Magnetics - none collected**
Bathymetry - 4071 miles	**Seismic Reflection - none collected**
Sea Beam - 4071 miles	**Gravity - 4121 miles**

AVON Leg 9 Track



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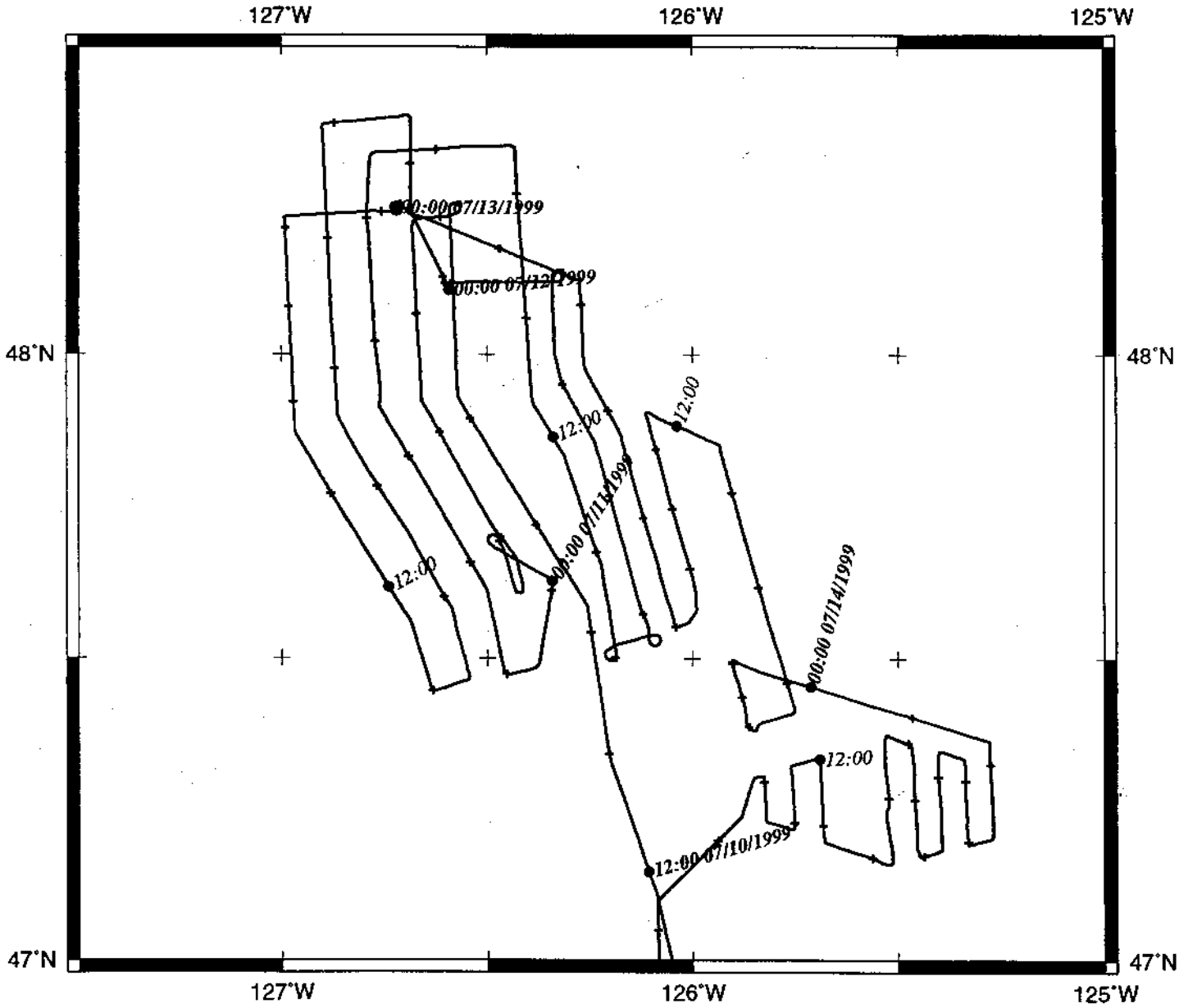

Oct 4 15:03 :Astoria, Oregon to Eureka, California 7 July - 2 August 1999:

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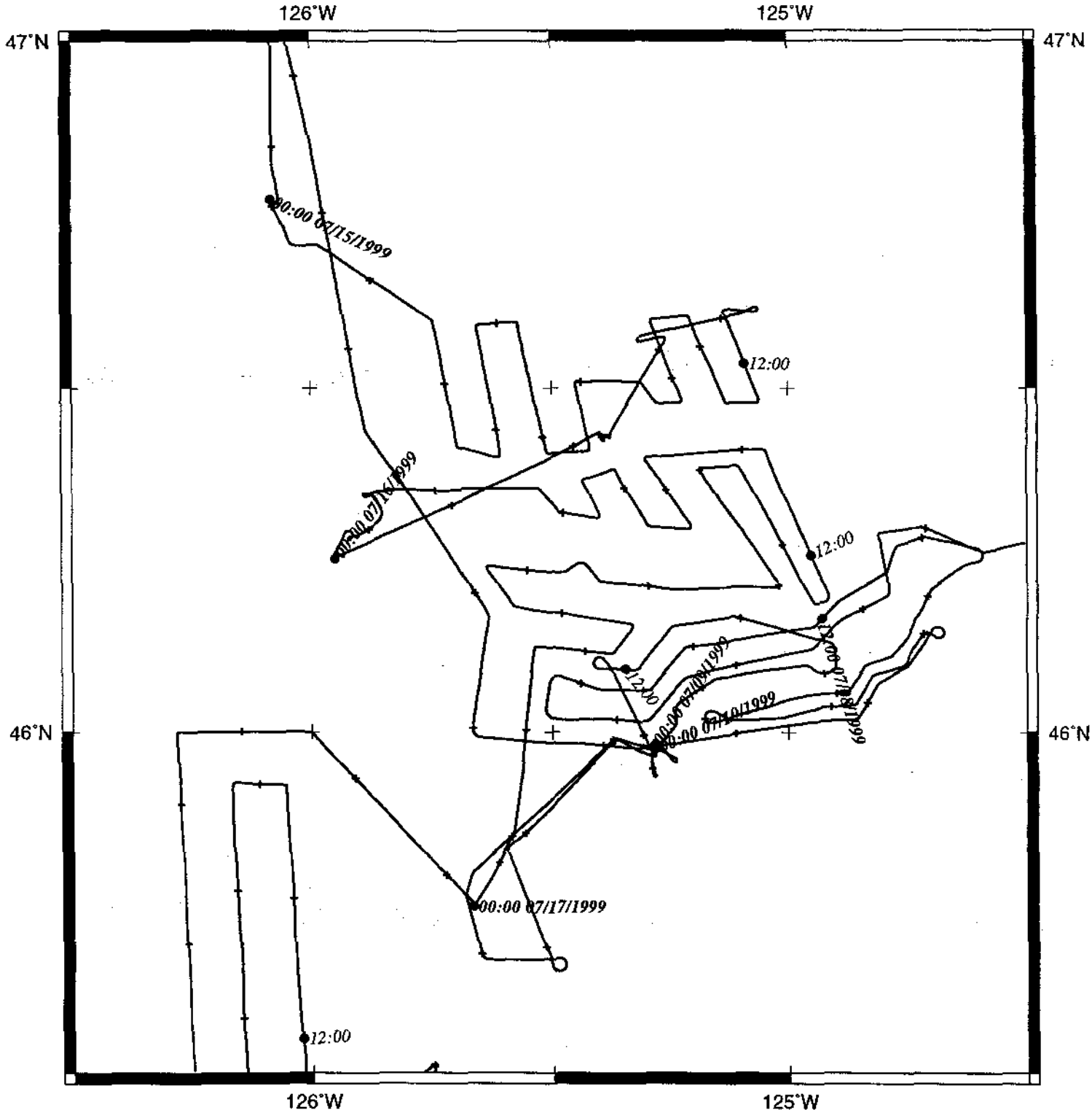

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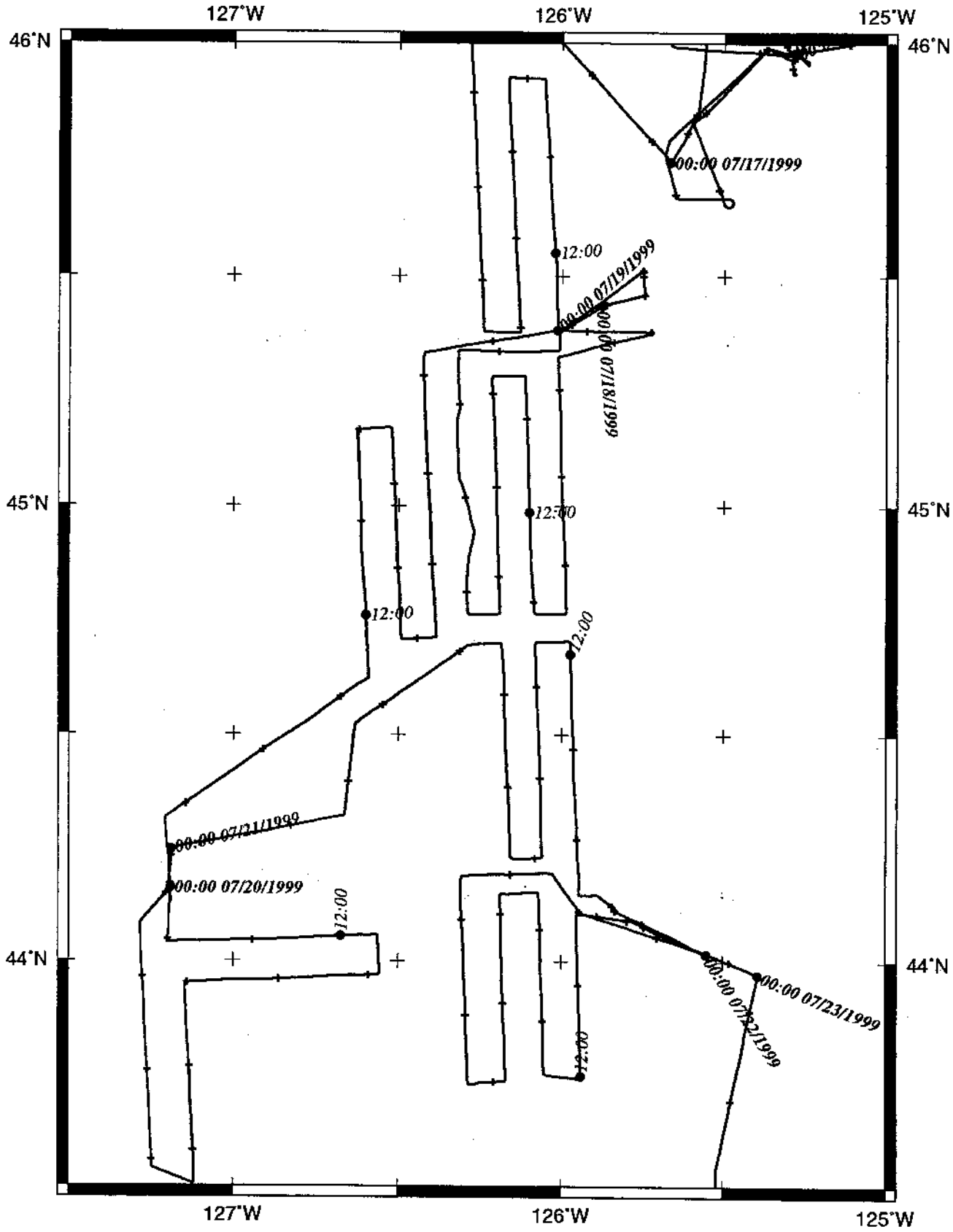

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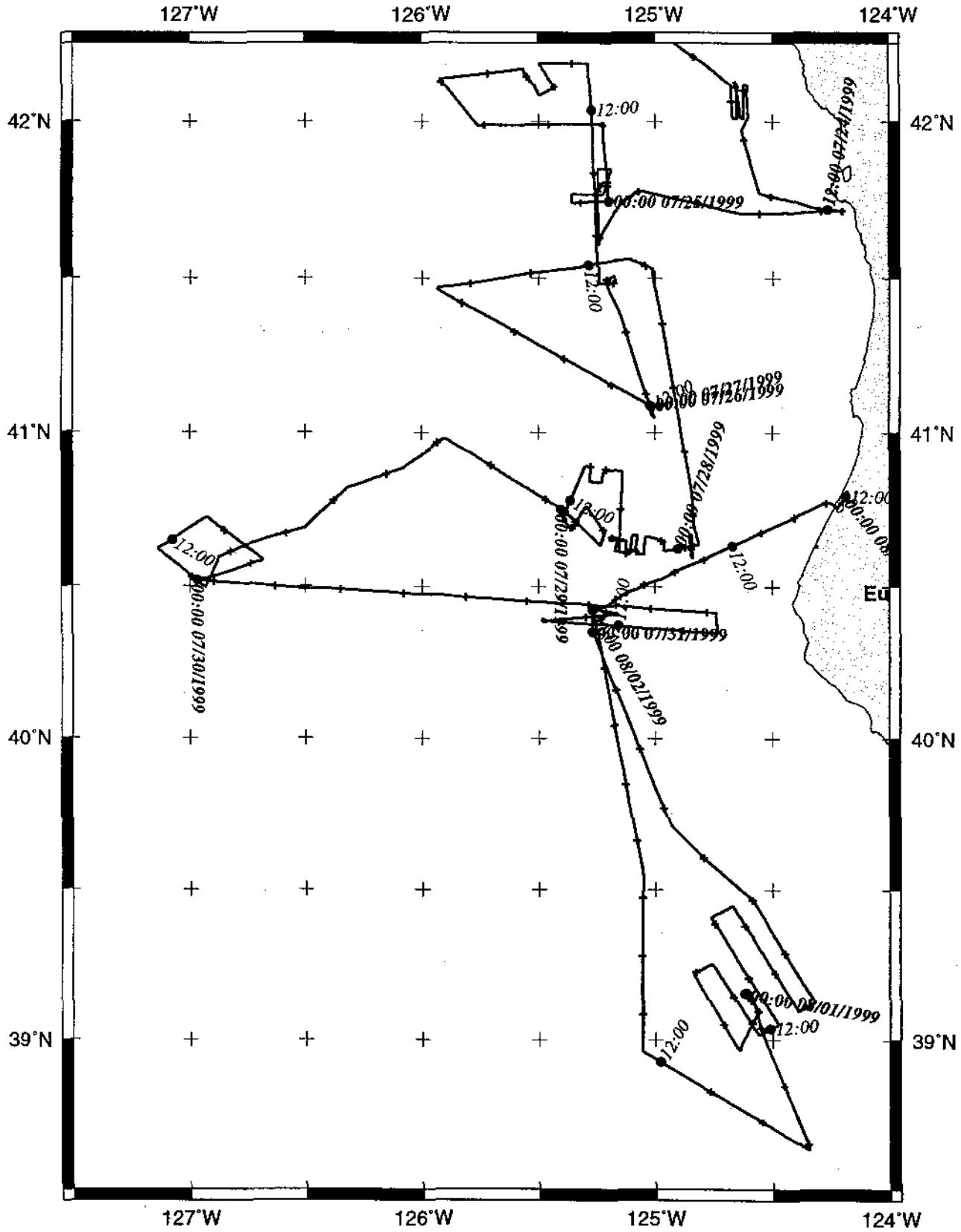

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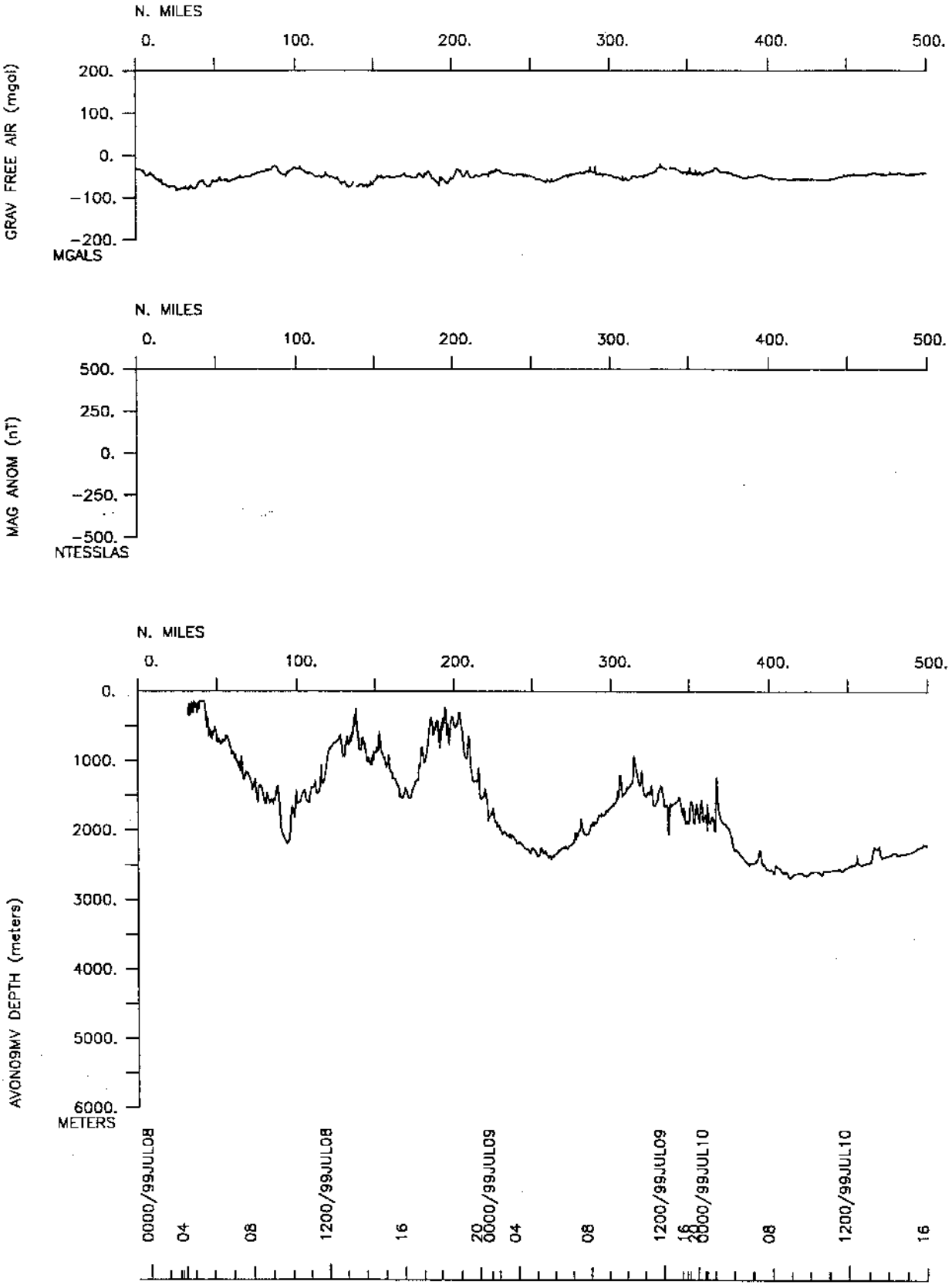
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-200.
MGALS
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200.
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500.
MAG ANOM (nT)
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0.
-250.
-500.
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0.
100.
200.
300.
400.
500.
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2000.
3000.
4000.
5000.
6000.
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04
08
1200/99JUL08
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08
1200/99JUL10
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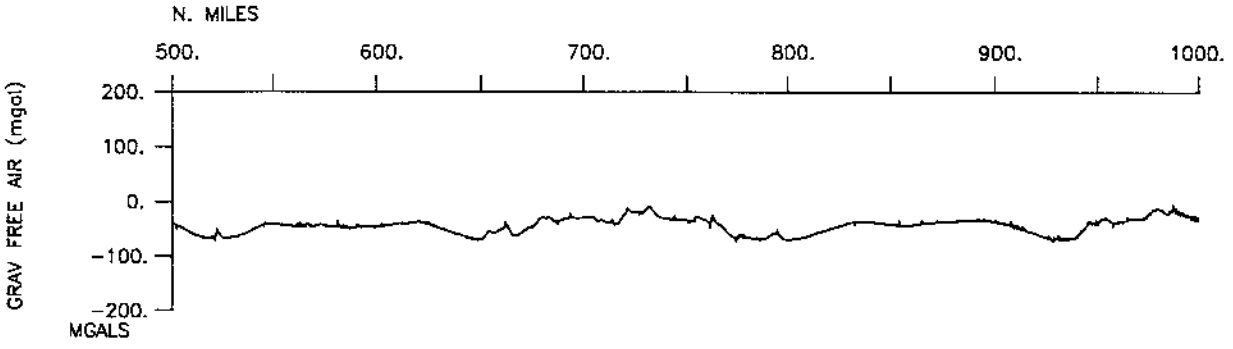
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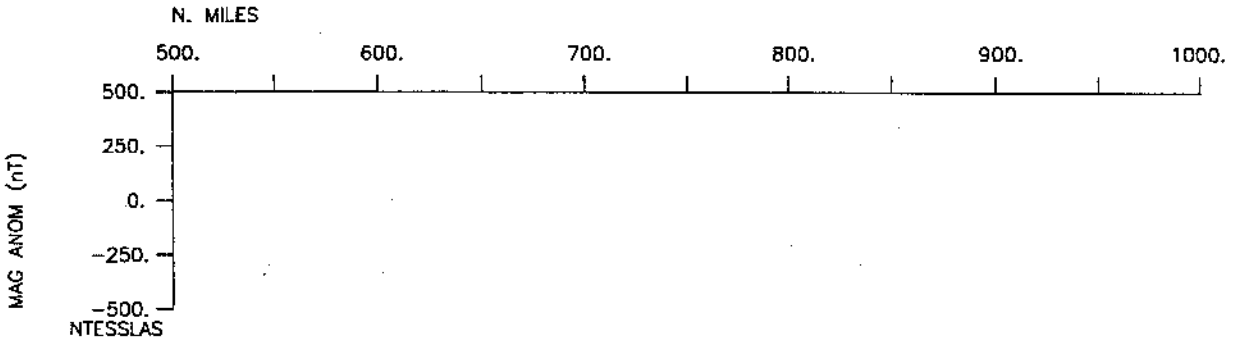
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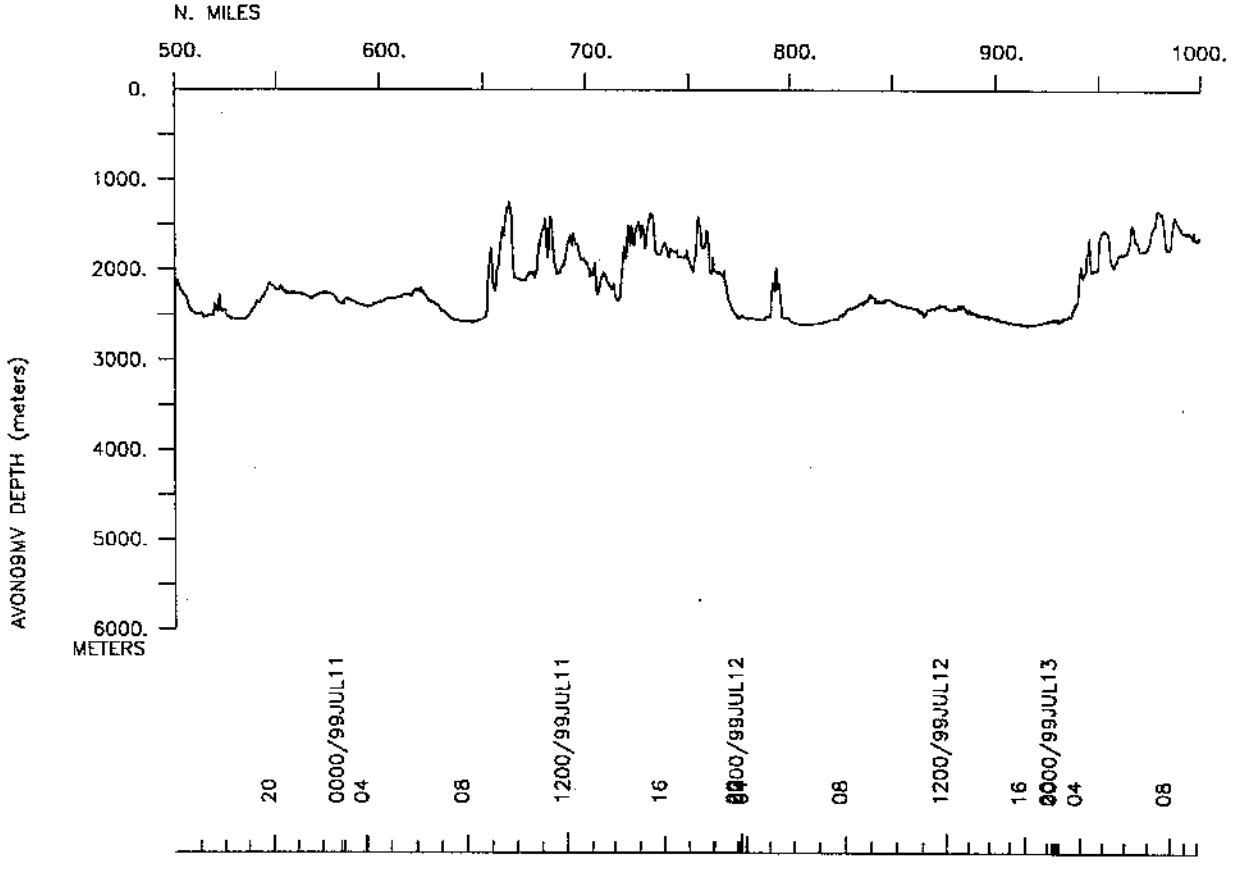
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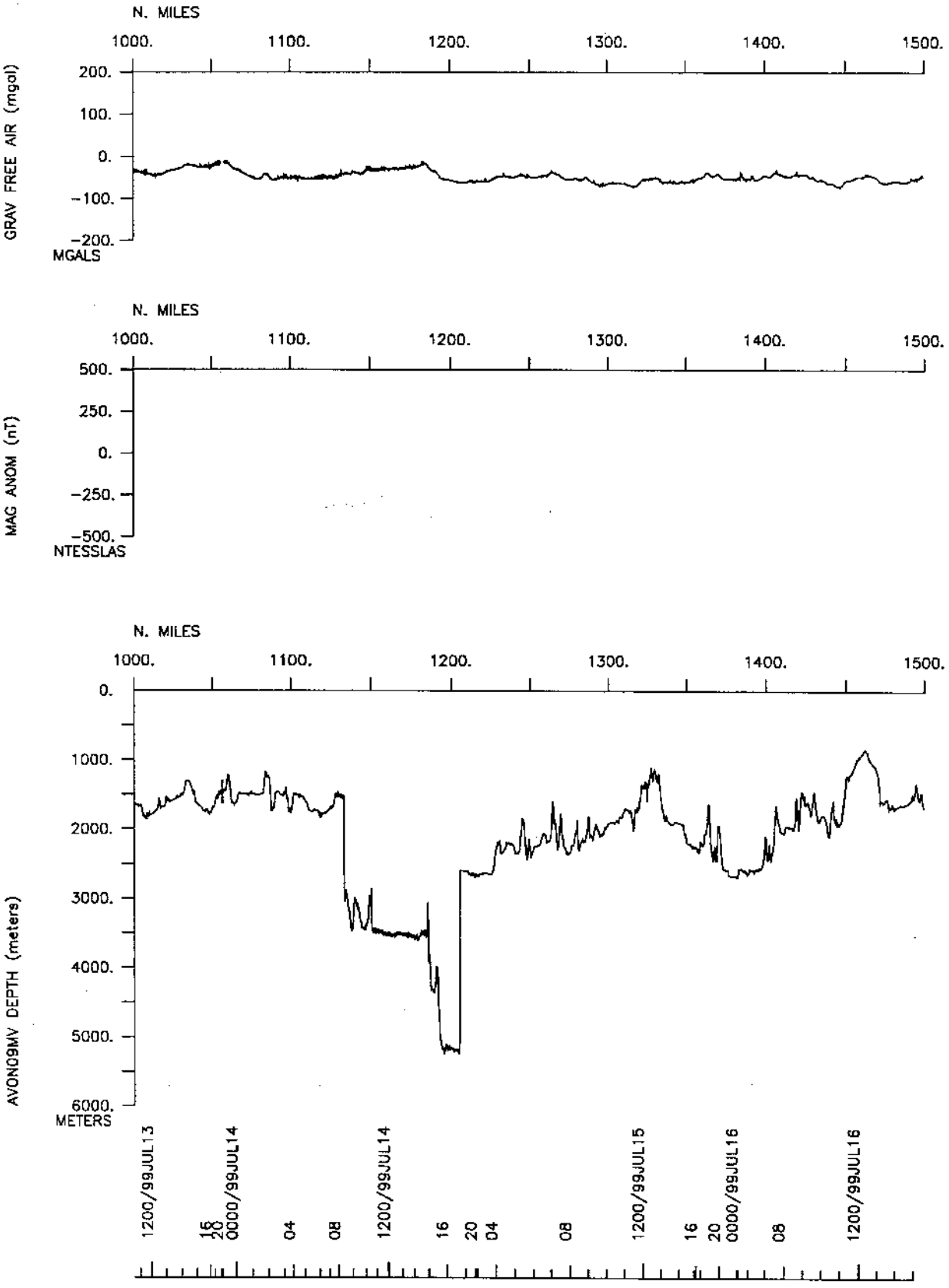
0000/99JUL13
04
08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MGALS
N. MILES
1000.
1100.
1200.
1300.
1400.
1500.
MAG ANOM (nT)
500.
250.
0.
-250.
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NTESSLAS
N. MILES
1000.
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AVON09MV DEPTH (meters)
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1000.
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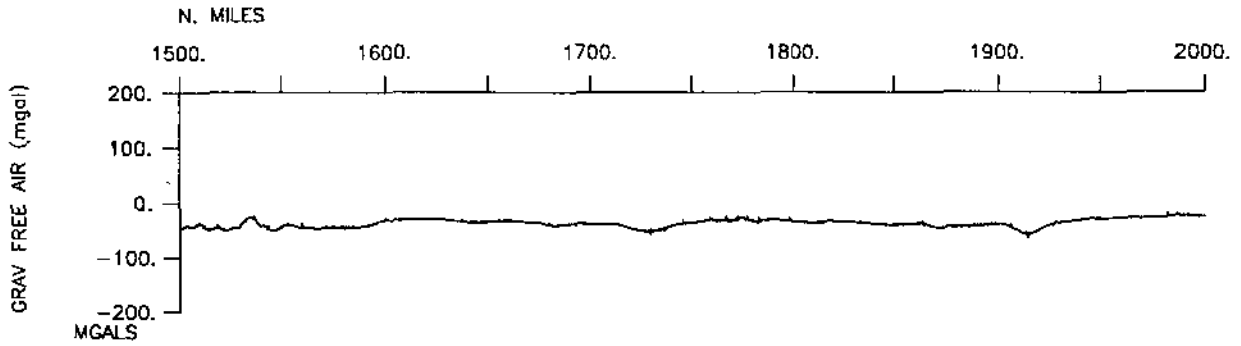
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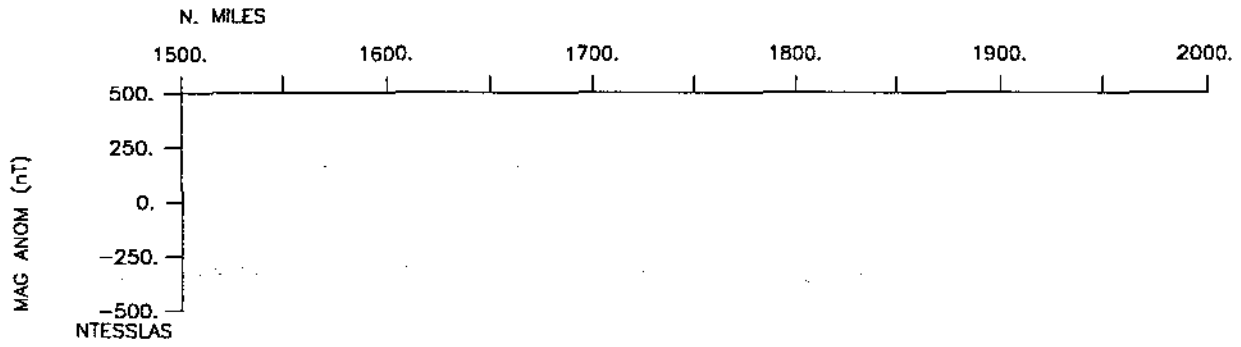
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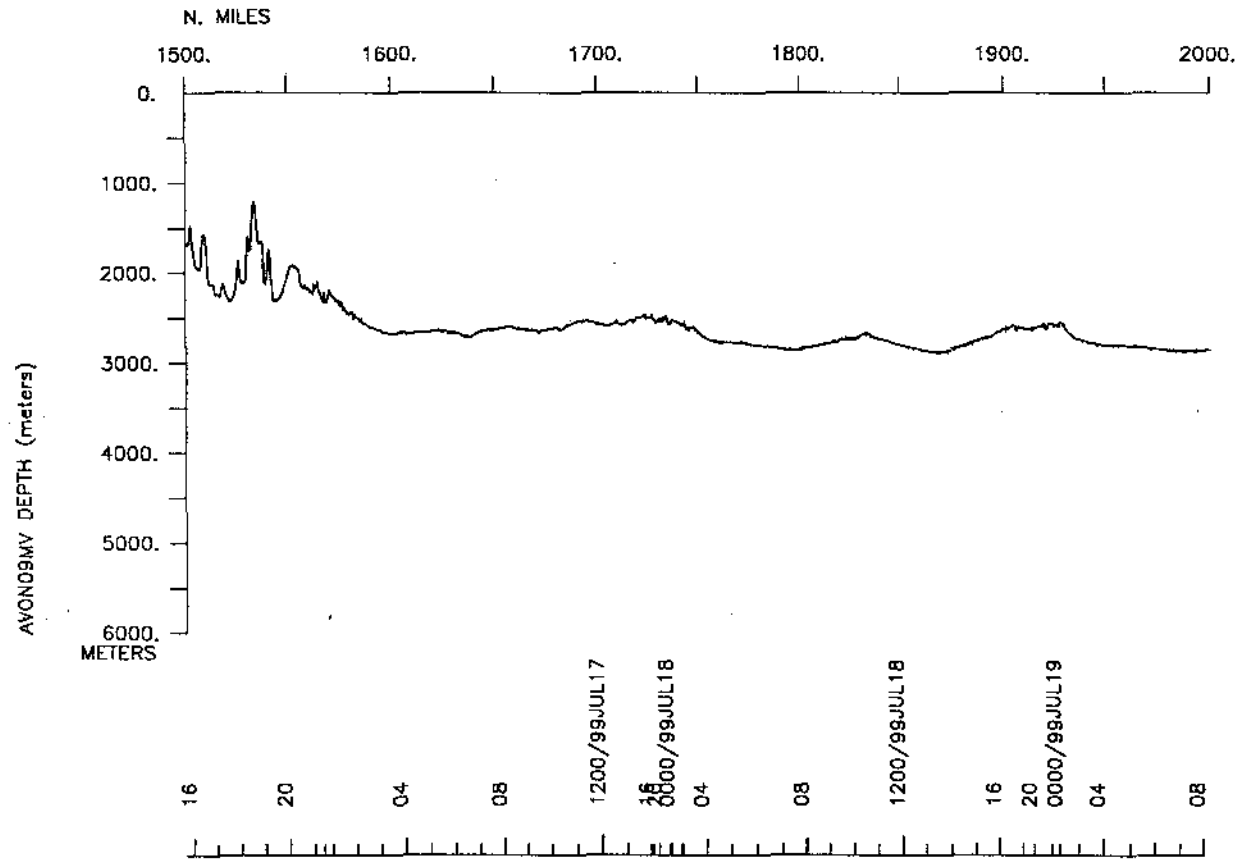
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3000.
4000.
5000.
6000.
METERS
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20
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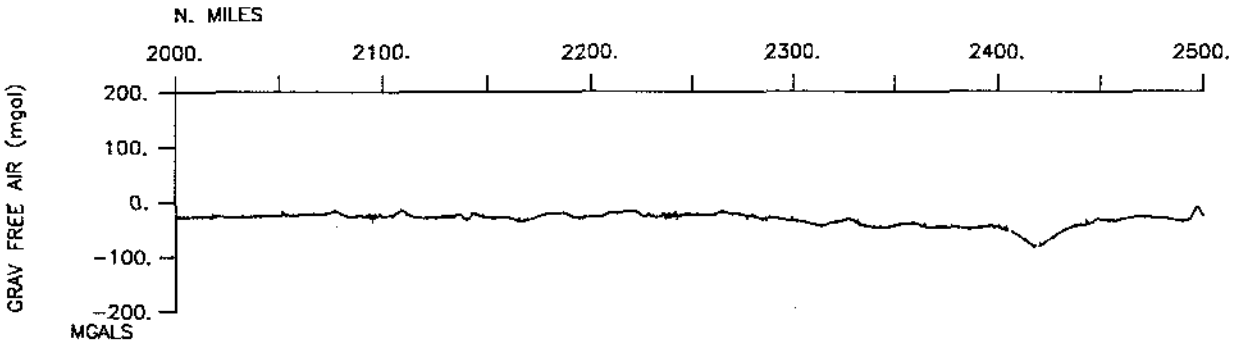
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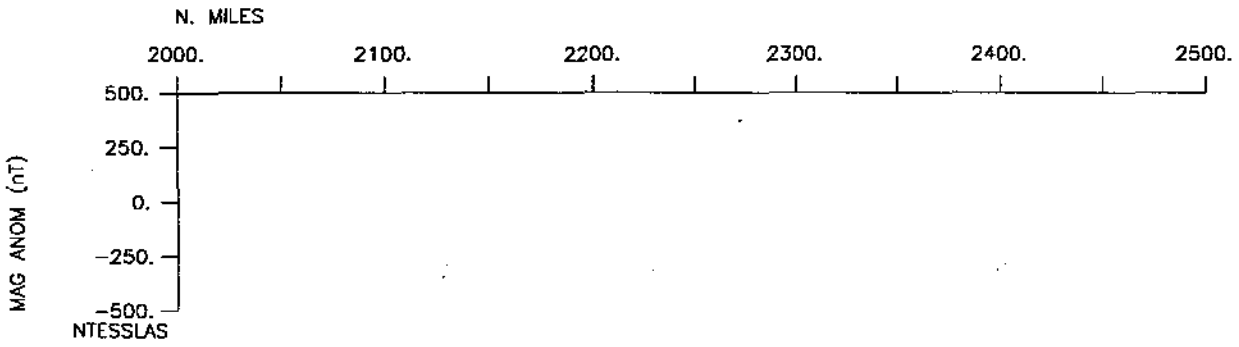
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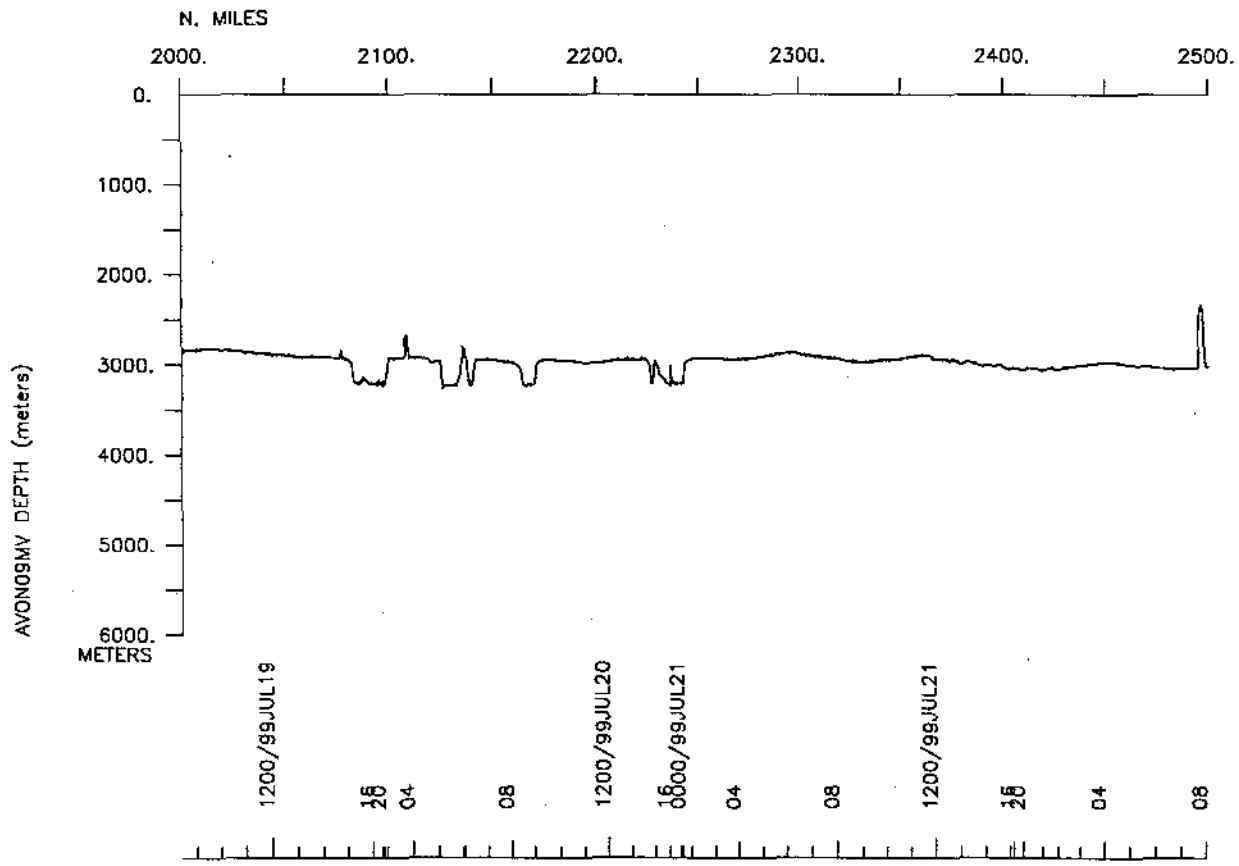
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2400.
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2000.
3000.
4000.
5000.
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METERS
1200/99JUL19
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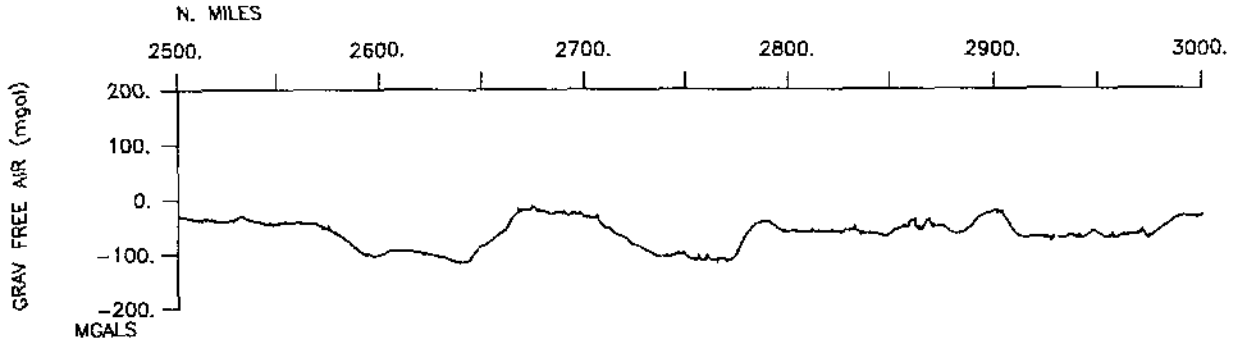
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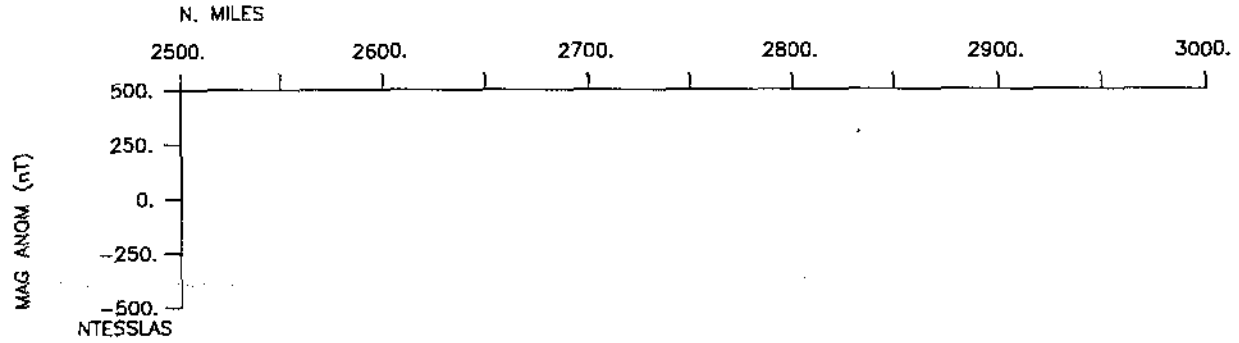
-200.
MGALS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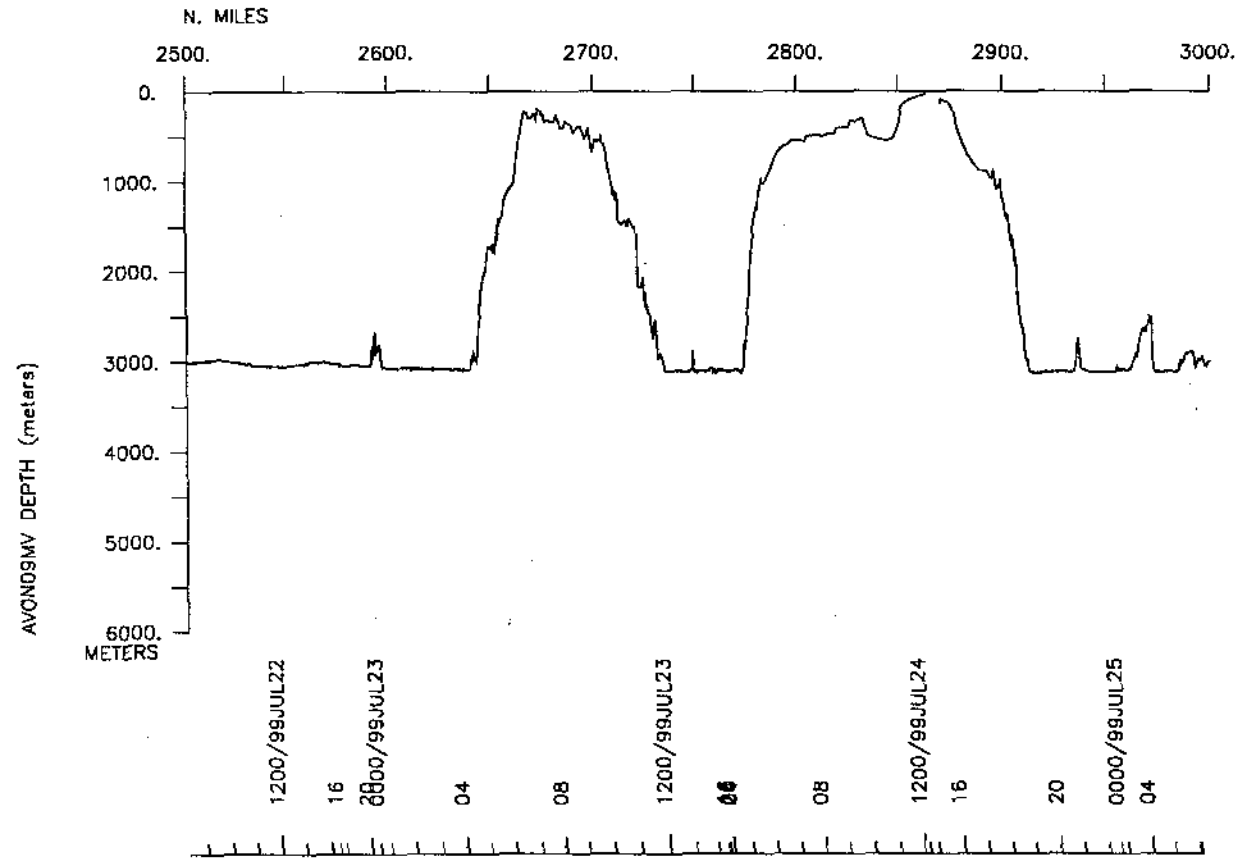
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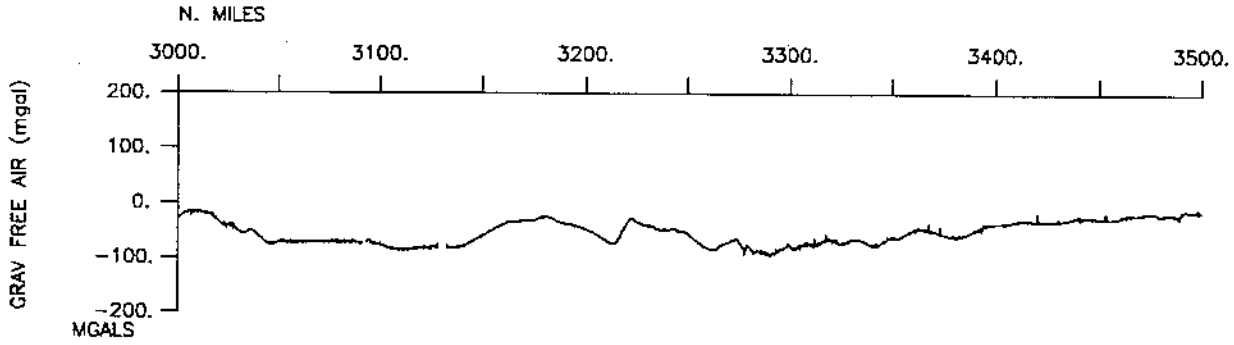
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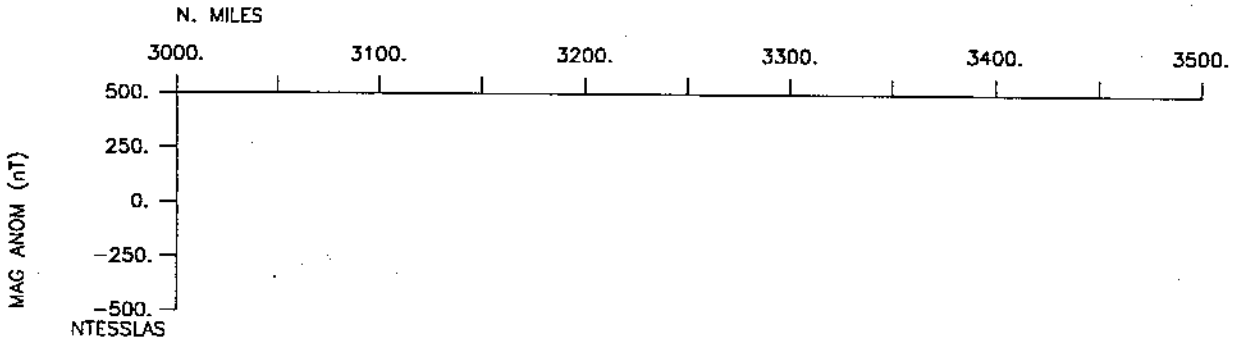
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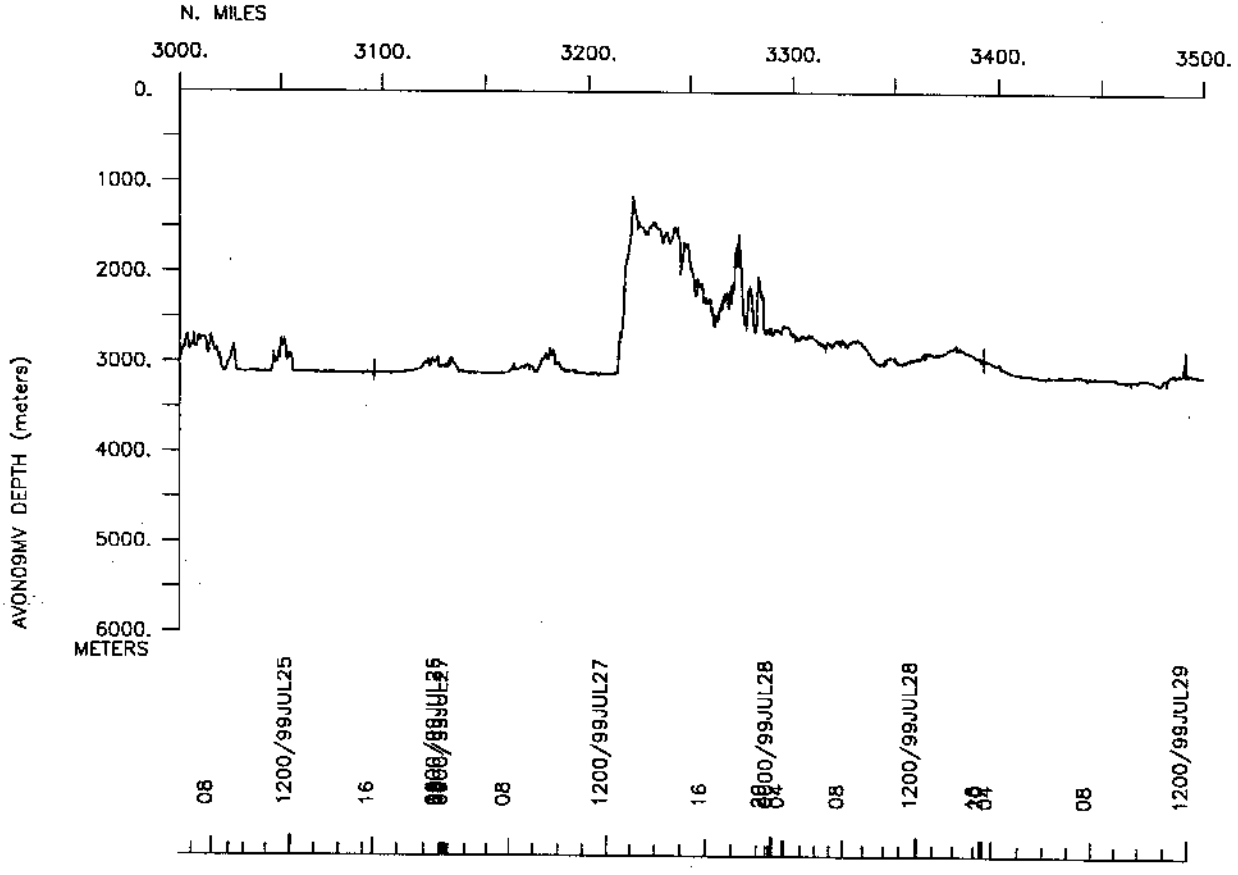
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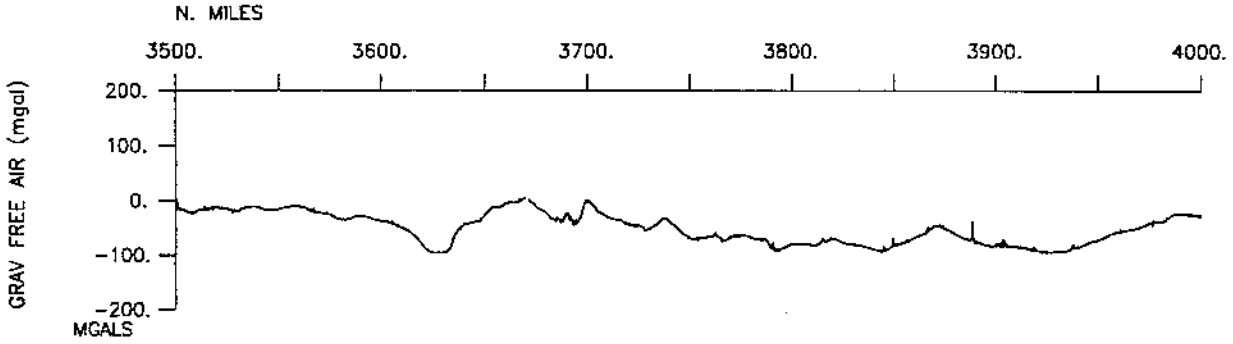
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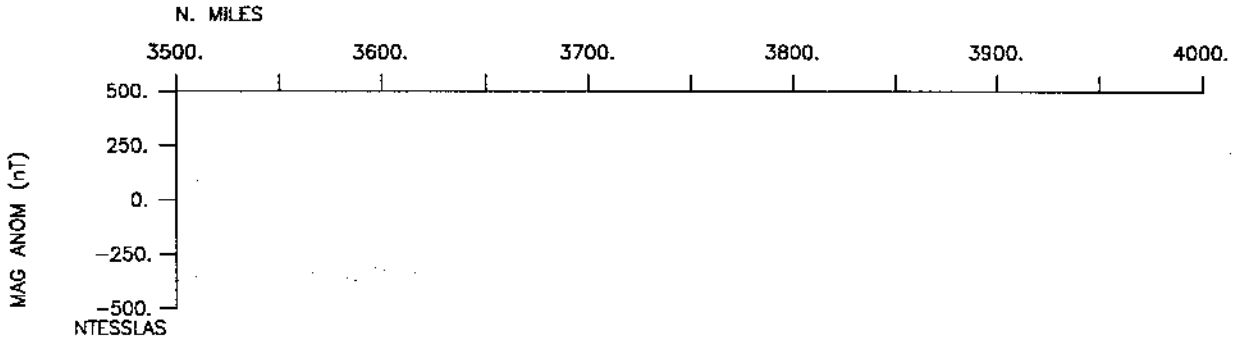
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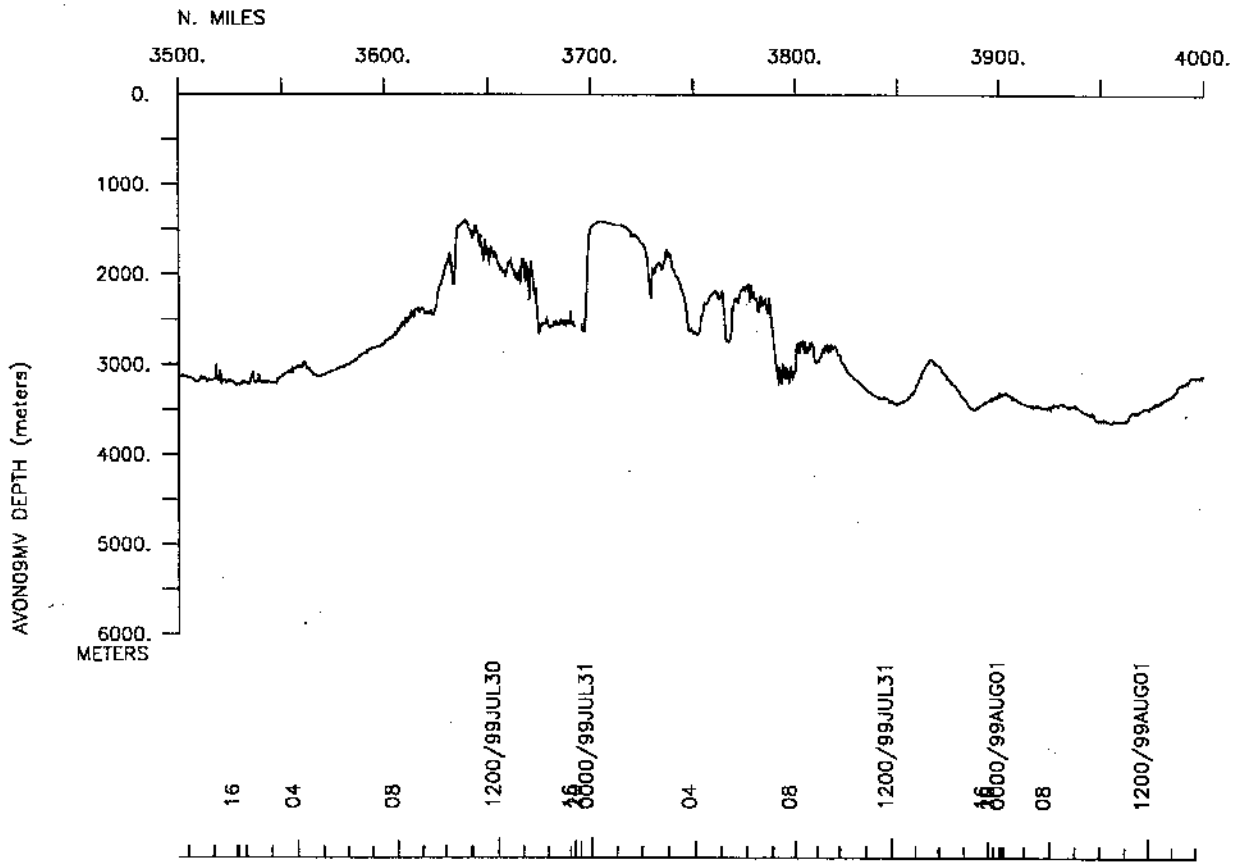
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3000.
4000.
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METERS
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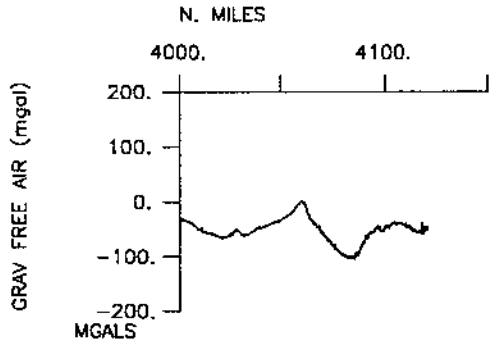
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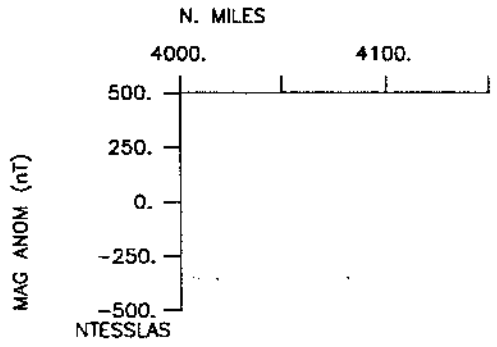
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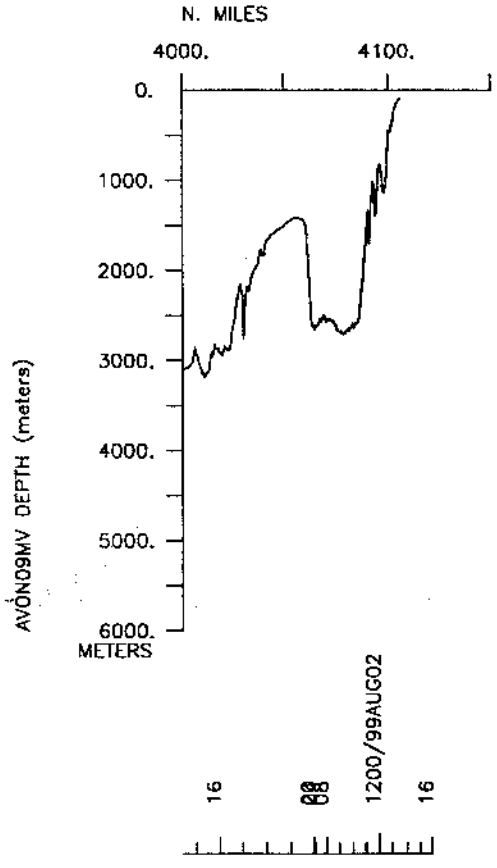
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3000.
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5000.
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METERS
AVON09MV DEPTH (meters)
16
1200/99AUG02
16

S.I.O. SAMPLE INDEX

AVON EXPEDITION

LEG 9

(AVON09MV)

R/V Melville

(Issued October 1999)

Ports:

Astoria, Oregon (7 July 1999)

to

Eureka, California (2 August 1999)

Chief Scientist:

Chris Goldfinger, Oregon State University

The Sample Index is a first level interdisiplinary 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.# 284

```
#*** Ports ***

2300 070799    LGPT B Astoria, Oregon       GDC  46-12.00N 123-50.00W f AVON09MV
1600 020899    LGPT E Eureka, Calif.        GDC  40-48.00N 124-11.00W f AVON09MV

1243 240799    LGSS B Crescent City, Ca.    GDC  41-50.00N 124-22.00W f AVON09MV
1512 240799    LGSS E Crescent City, Ca.    GDC  41-50.00N 124-22.00W f AVON09MV


#*** Personnel ***
#         ********NAME******** ******TITLE******  *****AFFILIATION**** **CRID**
#--- ---- -------------------- -----------------  -------------------- --------

PECS OSU  Goldfinger, C.       Chief Scientist    Oregon State Univ.   AVON09MV
PECT SCG  Moe, R.              Computer Tech      Scripps Institution  AVON09MV
PERT STS  Wilson, R.           Resident Tech      Scripps Institution  AVON09MV
PESP OSU  Kalk, P.             Coring Tech        Oregon State Univ.   AVON09MV
PESP SIX  Lin, C,              Coring Tech        Univ. of Taiwan      AVON09MV
PEST SIX  Van Roois, D.        Student            Univ. of Ghendt      AVON09MV
PEST OSU  Eriksson, D.         Student            Oregon State Univ.   AVON09MV
PESP TAMU Nelson, H.           Scientist          Texas A&M Univ.      AVON09MV
PEST OSU  Johnson, J.          Student            Oregon State Univ.   AVON09MV
PEST SIX  Amy, L.              Student            University of Leeds  AVON09MV
PESP USGS Dunhill. G.          Scientist          U.S.Geological Surv  AVON09MV
PEST OSU  Pourmanoutschehri,M. Student            Oregon State Univ.   AVON09MV
PEST SIX  Gutierrez, J.        Student            Univ. of Granada     AVON09MV
PEST SIX  Plasencia, A.        Student            Univ. of Granada     AVON09MV
PEST OSU  Raab, A.             Student            Oregon State Univ.   AVON09MV
PEST SIX  Morro, C.            Student            Univ.of Southampton  AVON09MV
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PEST OSU  Winkler, M.          Student            Oregon State Univ.   AVON09MV
PESP OSU  Pisias, N.           Scientist          Oregon State Univ.   AVON09MV


#*** 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 ***

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

0430 080799  0 MBSM B v.beam&sidescan r-01 GDC  46-16.52N 124-29.72W g AVON09MV
0002 020899  0 MBSM E v.beam&sidescan r-01 GDC  40-25.32N 125-15.90W g AVON09MV
```

#GMT DDMMYY #TIME DATE	TZ	SAMP CODE	B E	SAMPLE IDENTIFIER	DISP CODE	LATITUDE	LONGITUDE	p c	CRUISE LEG-SHIP
#*** Echo Sounder Records ***									
0910 080799	0	DPR3	B	3.5khz r-01	GDC	46-01.10N	125-24.71W	g	AVON09MV
0849 180799	0	DPR3	E	3.5khz r-01	GDC	45-00.29N	126-12.08W	g	AVON09MV
0850 180799	0	DPR3	B	3.5khz r-02	GDC	45-00.49N	126-12.08W	g	AVON09MV
0152 020899	0	DPR3	E	3.5khz r-02	GDC	40-25.32N	125-15.90W	g	AVON09MV
#*** Digital Gravity ***									
2300 070799	0	GVDR	B	Digital gravity	GDC	46-11.53N	123-50.28W	g	AVON09MV
1600 020899	0	GVDR	E	Digital gravity	GDC	40-47.67N	124-11.27W	g	AVON09MV
#*** Biology Sample ***									
0252 270999	0	BLBX		Bio samp 3054m	MBRD	40-47.67N	124-11.28W	g	AVON09MV
#*** Cores ***									
2236 080799	0	COPG		Piston Core 1 1750M	OSU	45-58.72N	125-16.98W	g	AVON09MV
1631 090799	0	COPG		Piston Core 2 1859M	OSU	45-58.00N	125-17.09W	g	AVON09MV
2205 090799	0	COPG		Piston Core 3 1818M	OSU	45-58.50N	125-16.75W	g	AVON09MV
0259 100799	0	COBX		Box Core 4 1813M	OSU	45-58.50N	125-16.75W	g	AVON09MV
0021 110799	0	COPG		Piston Core 5 2376M	OSU	47-37.65N	126-20.50W	g	AVON09MV
2034 110799	0	COPG		Piston Core 6 2528M	OSU	48-06.96N	126-36.22W	g	AVON09MV
0125 120799	0	COPG		Piston Core 7 2505M	OSU	48-06.27N	126-35.58W	g	AVON09MV
1914 120799	0	COPG		Piston Core 8 2550M	OSU	48-14.10N	126-42.77W	g	AVON09MV
2354 120799	0	COPG		Piston Core 9 2546M	OSU	48-14.39N	126-43.32W	g	AVON09MV
2026 130799	0	COPG		Piston Core 10 1471M	OSU	47-29.59N	125-54.18W	g	AVON09MV
1932 140799	0	COPG		Piston Core 11 2658M	OSU	46-46.37N	126-04.87W	g	AVON09MV
0050 150799	0	COPG		Piston Core 12 2665M	OSU	46-46.37N	126-04.86W	g	AVON09MV
1648 150799	0	COPG		Piston Core 13 2655M	OSU	46-25.98N	125-23.98W	g	AVON09MV
2315 150799	0	COPG		Piston Core 14 2680M	OSU	46-15.13N	125-56.92W	g	AVON09MV
0321 160799	0	COPG		Piston Core 15 2677M	OSU	46-15.13N	125-56.92W	g	AVON09MV
2302 160799	0	COPG		Piston Core 16 2323M	OSU	45-44.66N	125-39.89W	g	AVON09MV
1550 170799	0	COPG		Piston Core 17 2495M	OSU	45-30.69N	125-44.97W	g	AVON09MV
2011 170799	0	COPG		Piston Core 18 2547M	OSU	45-27.51N	125-44.70W	g	AVON09MV
0028 180799	0	COPG		Piston Core 19 2560M	OSU	45-26.10N	125-52.62W	g	AVON09MV
1808 180799	0	COPG		Piston Core 20 2622M	OSU	45-22.78N	125-43.53W	g	AVON09MV
0002 190799	0	COPG		Piston Core 21 2587M	OSU	45-22.92N	126-00.89W	g	AVON09MV
1857 190799	0	COPG		Piston Core 22 3208M	OSU	44-09.60N	127-11.50W	g	AVON09MV
0005 200799	0	COPG		Piston Core 23 3211M	OSU	44-09.60N	127-11.49W	g	AVON09MV

#GMT TIME	DDMMYY DATE	TZ	SAMP CODE	B E	SAMPLE IDENTIFIER		DISP CODE	LATITUDE	LONGITUDE	p c	CRUISE LEG-SHIP
1758	200799	0	COBX		Box Core 24	3210M	OSU	44-09.60N	127-11.49W	g	AVON09MV
2302	200799	0	COPG		Piston Core 25	3204M	OSU	44-14.73N	127-11.41W	g	AVON09MV
1716	210799	0	COPG		Piston Core 26	3036M	OSU	44-06.78N	125-50.13W	g	AVON09MV
2236	210799	0	COPG		Piston Core 27	3044M	OSU	44-00.96N	125-33.03W	g	AVON09MV
1631	220799	0	COPG		Piston Core 28	3026M	OSU	44-05.42N	125-47.77W	g	AVON09MV
2109	220799	0	COPG		Piston Core 29	2828M	OSU	43-58.23N	125-23.57W	g	AVON09MV
1632	230799	0	COPG		Piston Core 30	3130M	OSU	42-25.17N	125-13.11W	g	AVON09MV
2138	230799	0	COPG		Piston Core 31	3107M	OSU	42-24.59N	125-11.99W	g	AVON09MV
0207	240799	0	COBX		Box Core 32	3116M	OSU	42-24.59N	125-11.99W	g	AVON09MV
0016	250799	0	COPG		Piston Core 33	3093M	OSU	41-44.73N	125-11.64W	g	AVON09MV
1729	250799	0	COPG		Piston Core 34	3118M	OSU	41-29.60N	125-12.38W	g	AVON09MV
0027	260799	0	COPG		Piston Core 35	3045M	OSU	41-05.23N	125-01.17W	g	AVON09MV
1641	260799	0	COPG		Piston Core 36	3050M	OSU	41-05.23N	125-01.18W	g	AVON09MV
2156	260799	0	COPG		Piston Core 37	3049M	OSU	41-05.08N	125-00.95W	g	AVON09MV
0252	270799	0	COPG		Piston Core 38	3054M	OSU	41-05.23N	125-01.17W	g	AVON09MV
2034	270799	0	COPG		Piston Core 39	2656M	OSU	40-37.85N	124-50.82W	g	AVON09MV
0056	280799	0	COPG		Piston Core 40	2675M	OSU	40-37.31N	124-54.18W	g	AVON09MV
1652	280799	0	COPG		Piston Core 41	2940M	OSU	40-44.60N	125-23.13W	g	AVON09MV
2124	280799	0	COPG		Piston Core 42	2949M	OSU	40-45.05N	125-24.26W	g	AVON09MV
0133	290799	0	COBX		Box Core 43	2935M	OSU	40-45.04N	125-24.25W	g	AVON09MV
1718	290799	0	COPG		Piston Core 44	3221M	OSU	40-31.04N	126-58.13W	g	AVON09MV
2318	290799	0	COPG		Piston Core 45	3224M	OSU	40-31.04N	126-58.13W	g	AVON09MV
1718	300799	0	COBX		Box Core 46	2585M	OSU	40-24.94N	125-12.49W	g	AVON09MV
2142	300799	0	COPG		Piston Core 47	2620M	OSU	40-25.32N	125-15.90W	g	AVON09MV
1810	310799	0	COPG		Piston Core 48	3373M	OSU	39-05.75N	124-33.67W	g	AVON09MV
2312	310799	0	COPG		Piston Core 49	3332M	OSU	39-09.29N	124-36.81W	g	AVON09MV
0359	010899	0	COBX		Box Core 50	3330M	OSU	39-09.29N	124-36.82W	g	AVON09MV
2139	010899	0	COPG		Piston Core 51	2608M	OSU	40-25.32N	125-15.90W	g	AVON09MV
0142	020899	0	COBX		Box Core 52	2639M	OSU	40-25.32N	125-15.90W	g	AVON09MV
#*** Expendable Bathythermographs ***											
0025	090799	0	BTXP		XBT tf_00020		GDC	45-58.73N	125-16.98W	g	AVON09MV
2319	110799	0	BTXP		XBT tf_00021		GDC	48-06.77N	126-36.16W	g	AVON09MV
2007	150799	0	BTXP		XBT tf_00022		GDC	46-19.26N	125-44.40W	g	AVON09MV
2224	170799	0	BTXP		XBT tf_00023		GDC	45-27.22N	125-46.53W	g	AVON09MV
1952	210799	0	BTXP		XBT tf_00024		GDC	44-05.72N	125-47.05W	g	AVON09MV
0016	270799	0	BTXP		XBT tf_00025		GDC	41-05.24N	125-01.18W	g	AVON09MV
0027	270799	0	BTXP		XBT tf_00026		GDC	41-05.23N	125-01.18W	g	AVON09MV
0331	020899	0	BTXP		XBT tf_00028		GDC	40-25.32N	125-15.90W	g	AVON09MV
#***					End Sample Index						AVON09MV