

REPORT AND INDEX OF  
UNDERWAY MARINE GEOPHYSICAL DATA

AVON EXPEDITION

LEG 6

(AVON06MV)

R/V Melville

(Issued August 1999)

**Ports:**

Honolulu, Hawaii (27 April 1999)

to

Honolulu, Hawaii (19 May 1999)

**Chief Scientist:**

Devorah Joseph, NAVO  
josephd@navo.navy.mil  
Principal Investigator-Paul Taylor, NAVO  
taylorp@navo.navy.mil

Computer Technicians - Jim Charters, John Chatwood  
Resident Marine Tech - Shad Biaz  
SeaBeam Operator - Stuart M. Smith

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

**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.# 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.

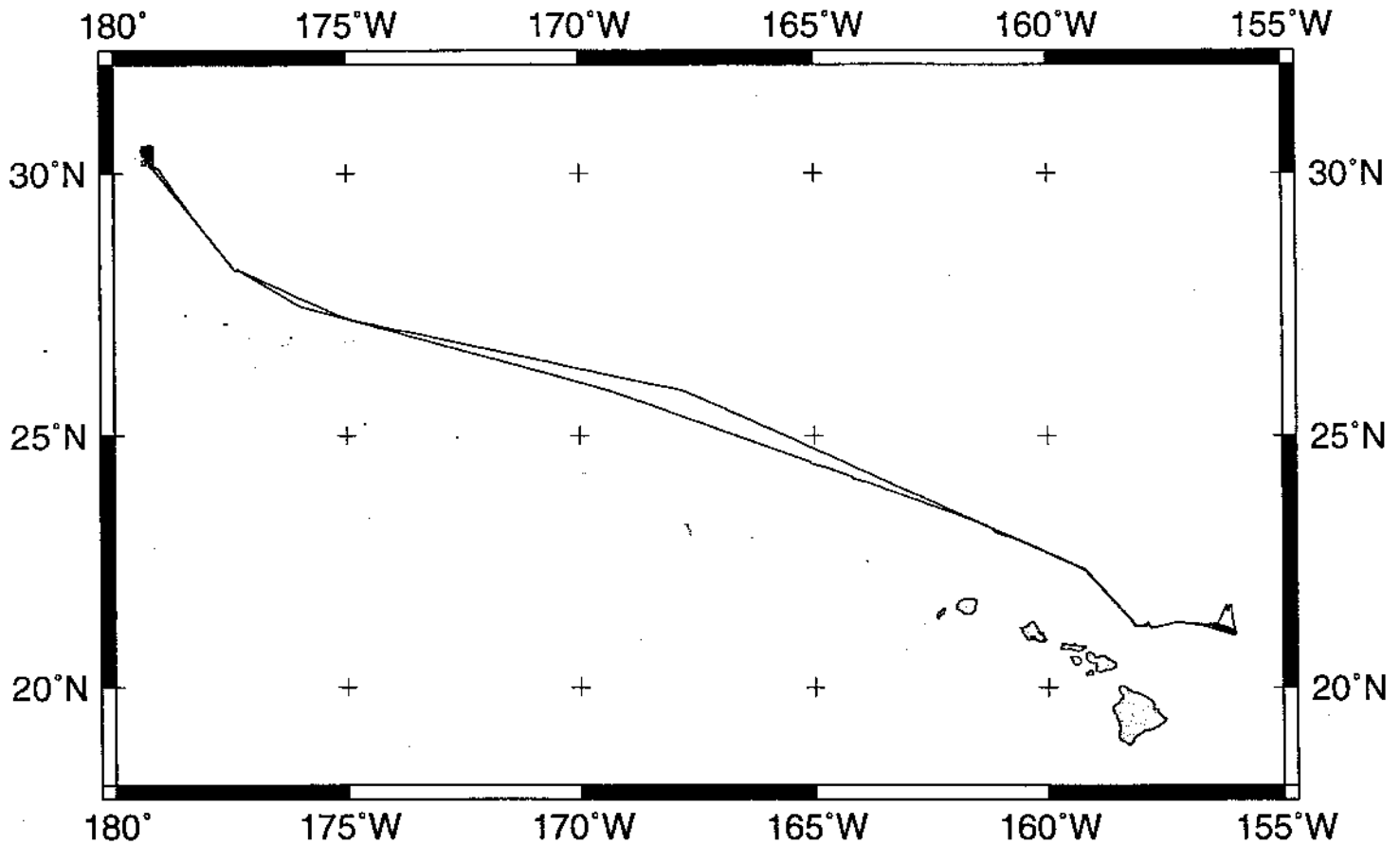
**Track Charts** - annotated with dates and hour ticks.

**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.



**AVON EXPEDITION LEG 6 (AVON06MV)**

**CHIEF SCIENTIST: Devorah Joseph, NAVO**

**PORTS: Honolulu - Honolulu, Hawaii**

**DATES: 27 April - 19 May 1999**

**SHIP: R/V Melville**

**TOTAL MILEAGE OF UNDERWAY DATA COLLECTED**

**Cruise - 3552 miles**

**Magnetics - 1881 miles**

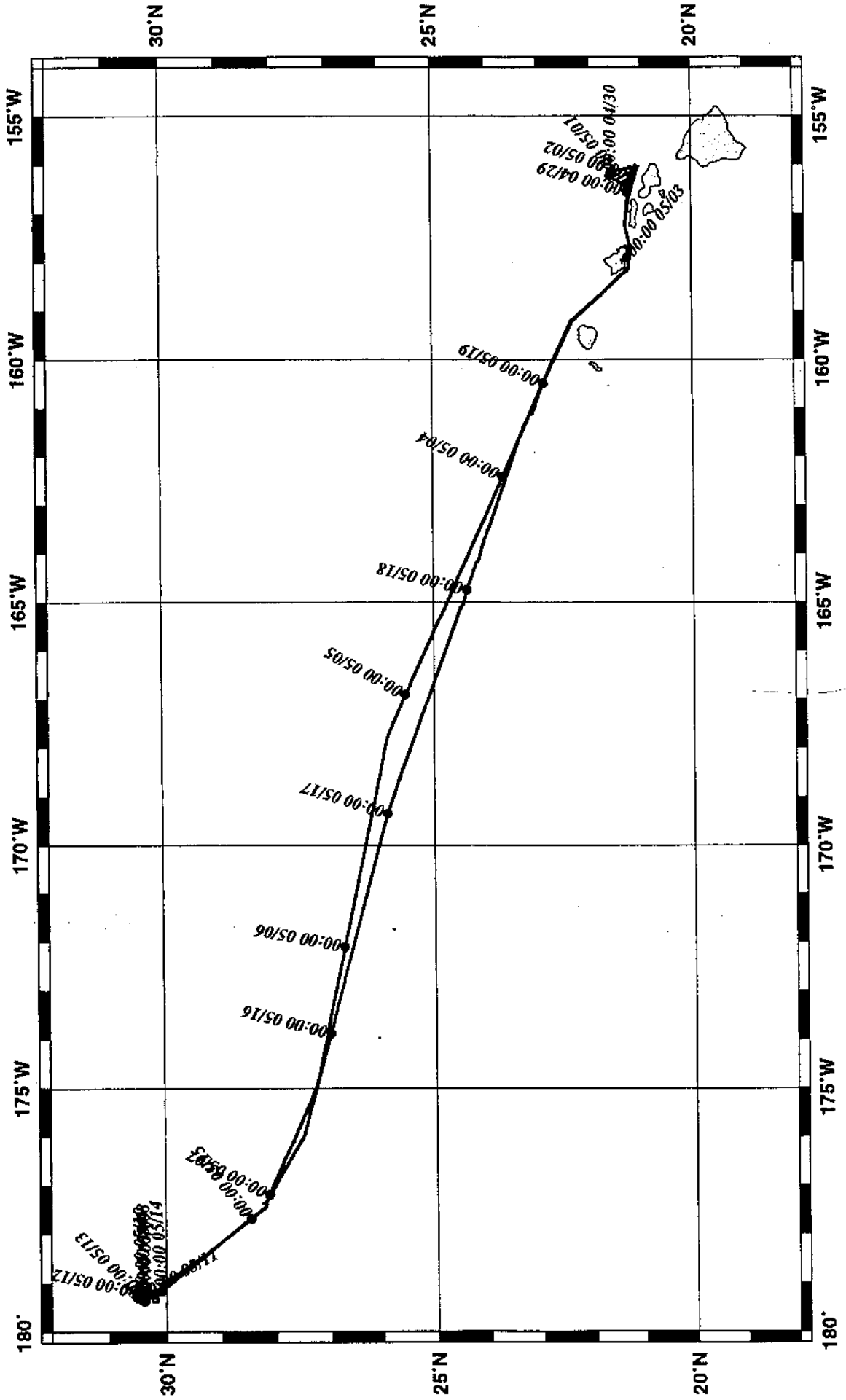
**Bathymetry - 2987 miles**

**Seismic Reflection - none collected**

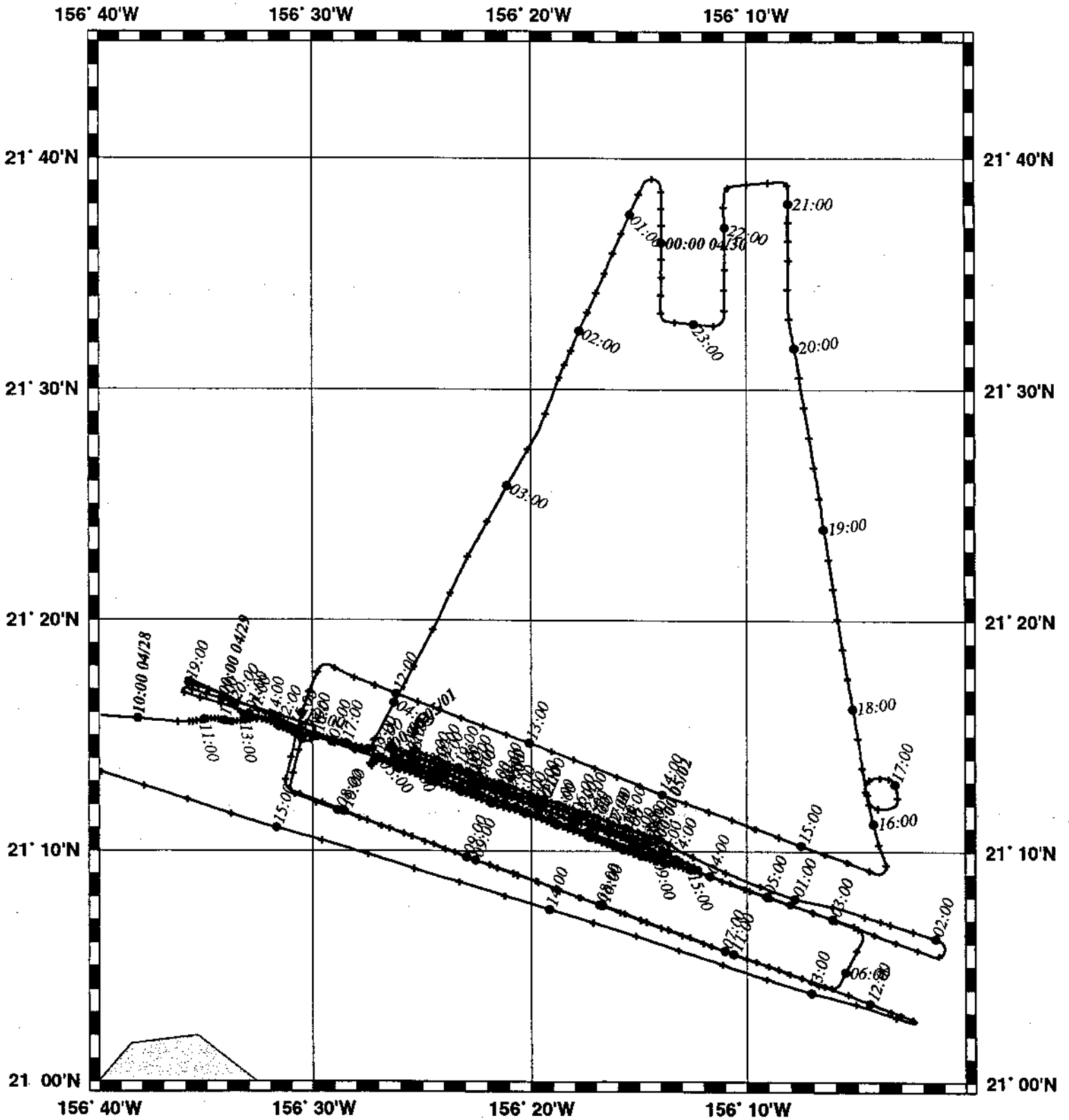
**Sea Beam - 2987 miles**

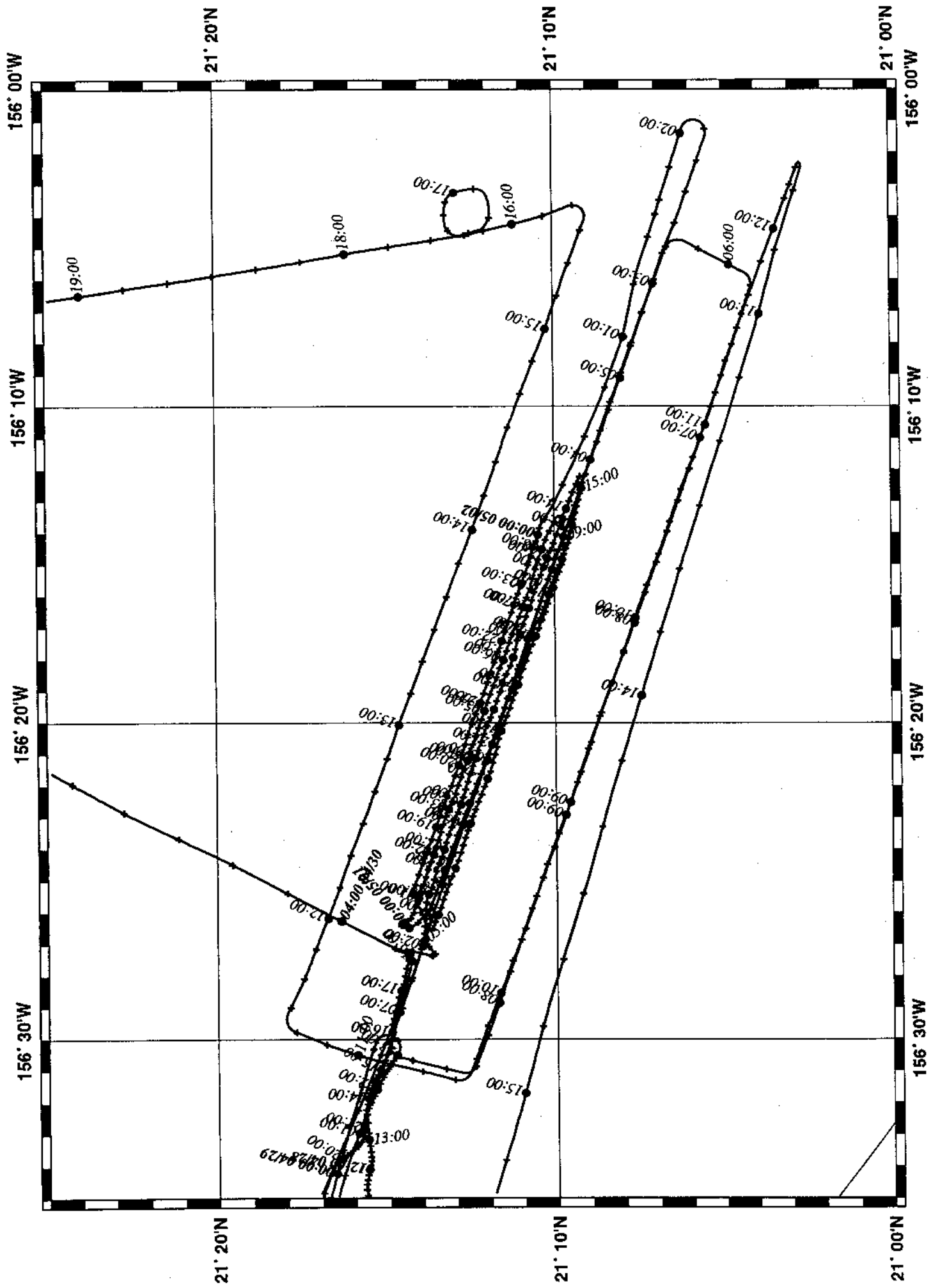
**Gravity - 3422 miles**

# AVON06MV\_track\_plot

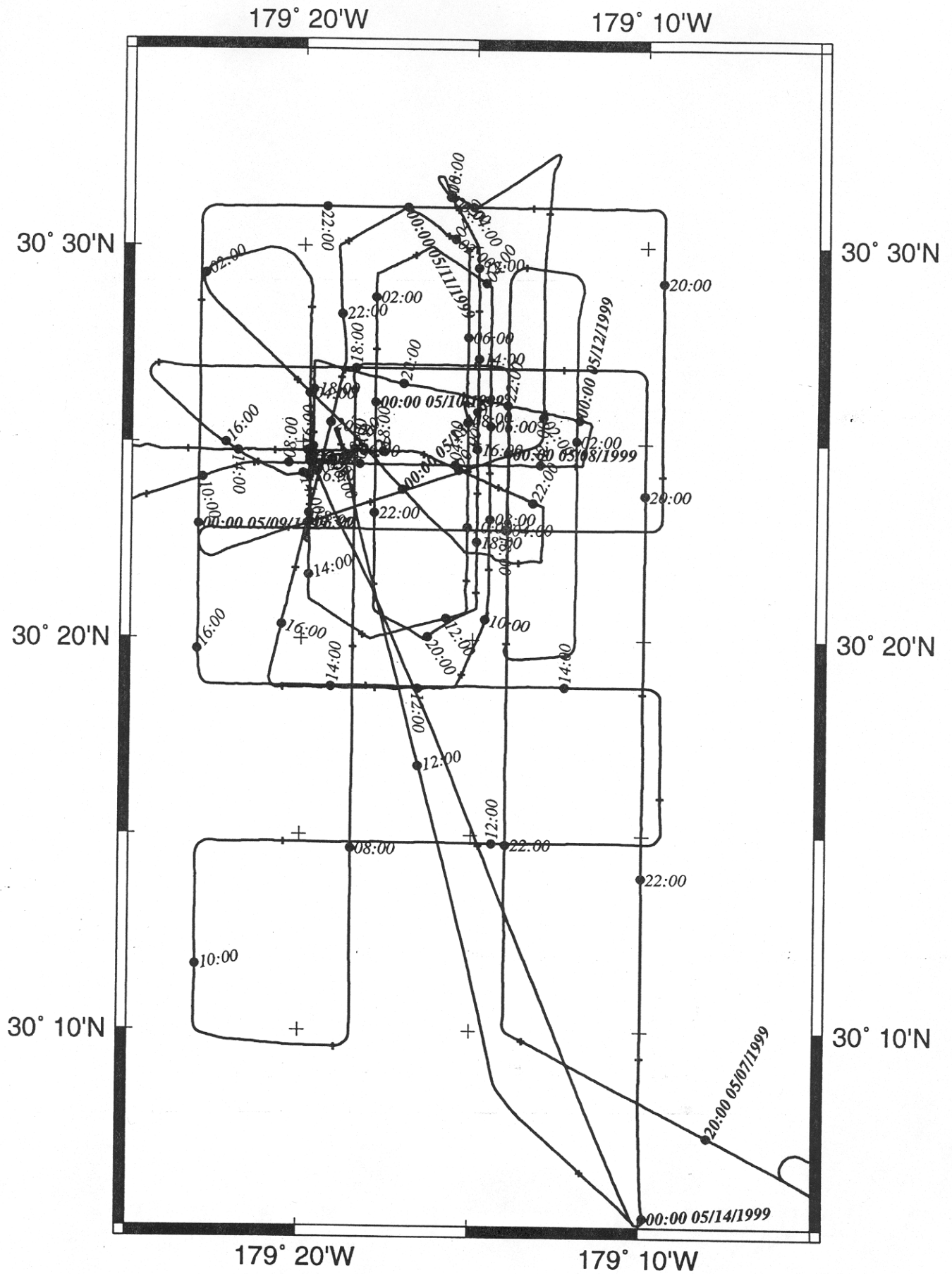


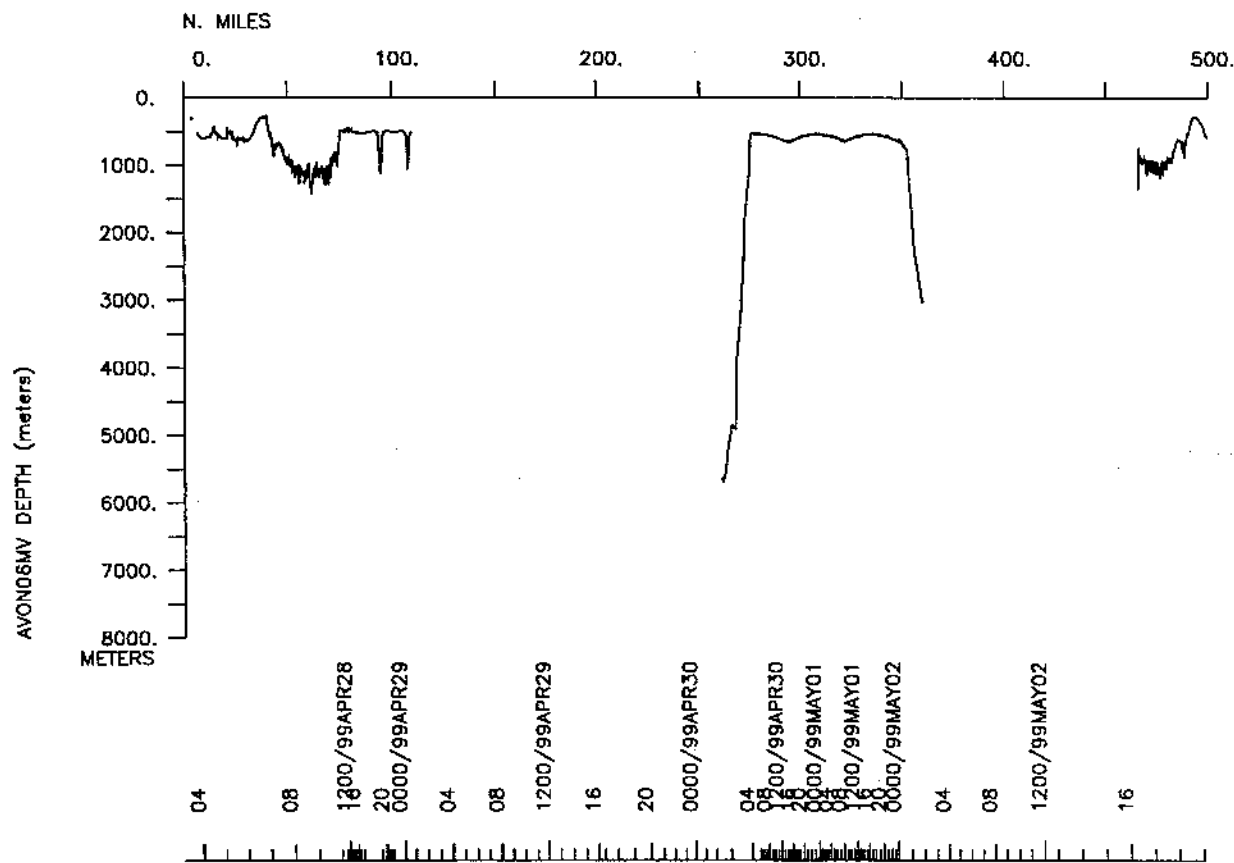
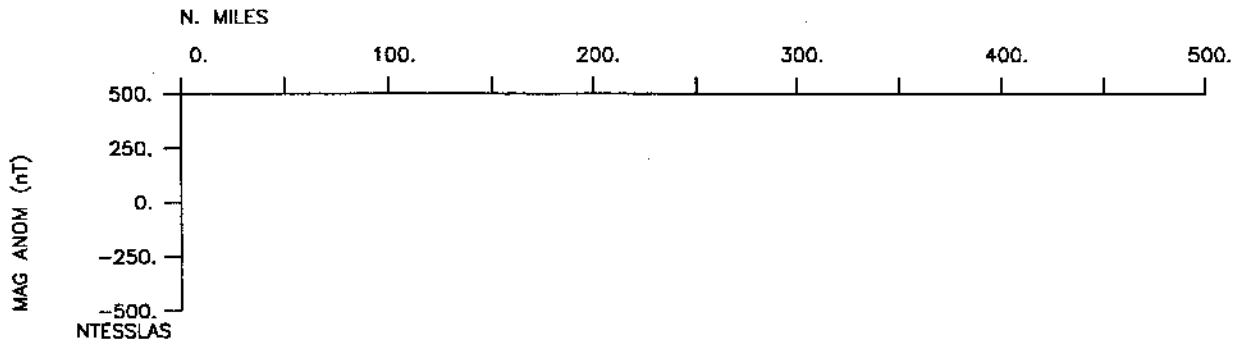
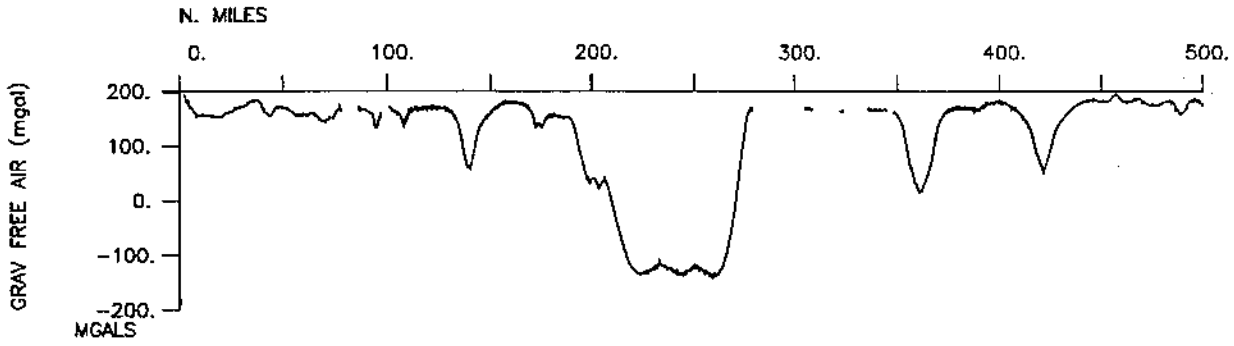
# N\_MAUI\_track\_plot



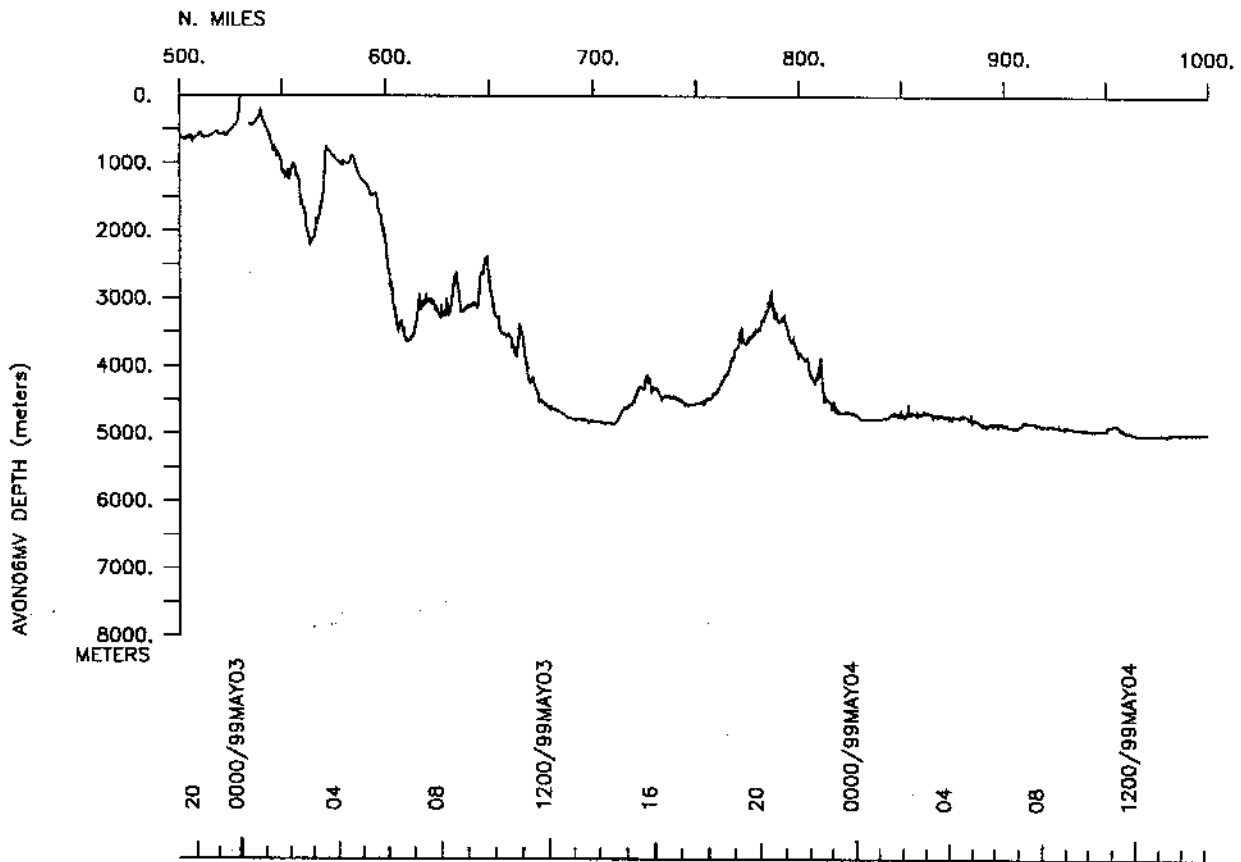
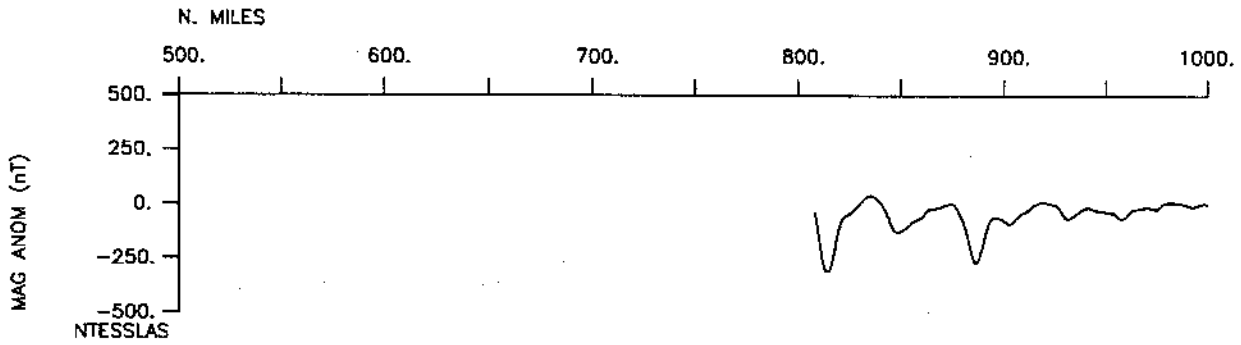
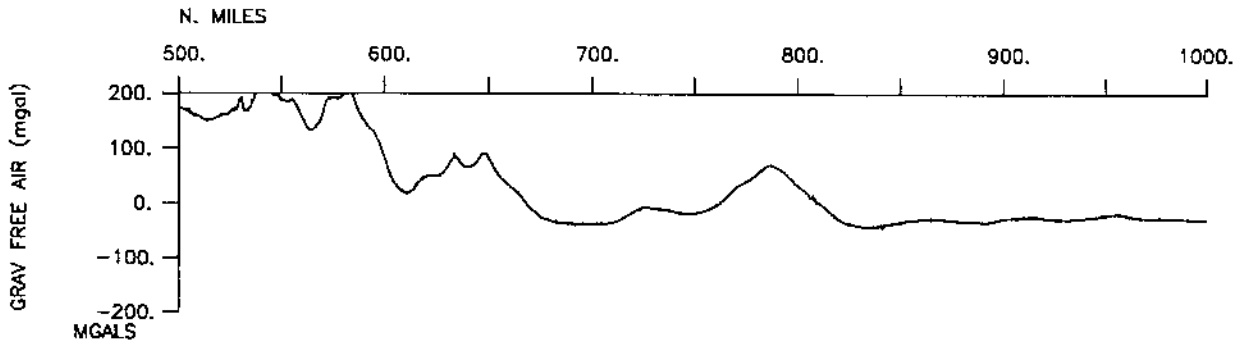


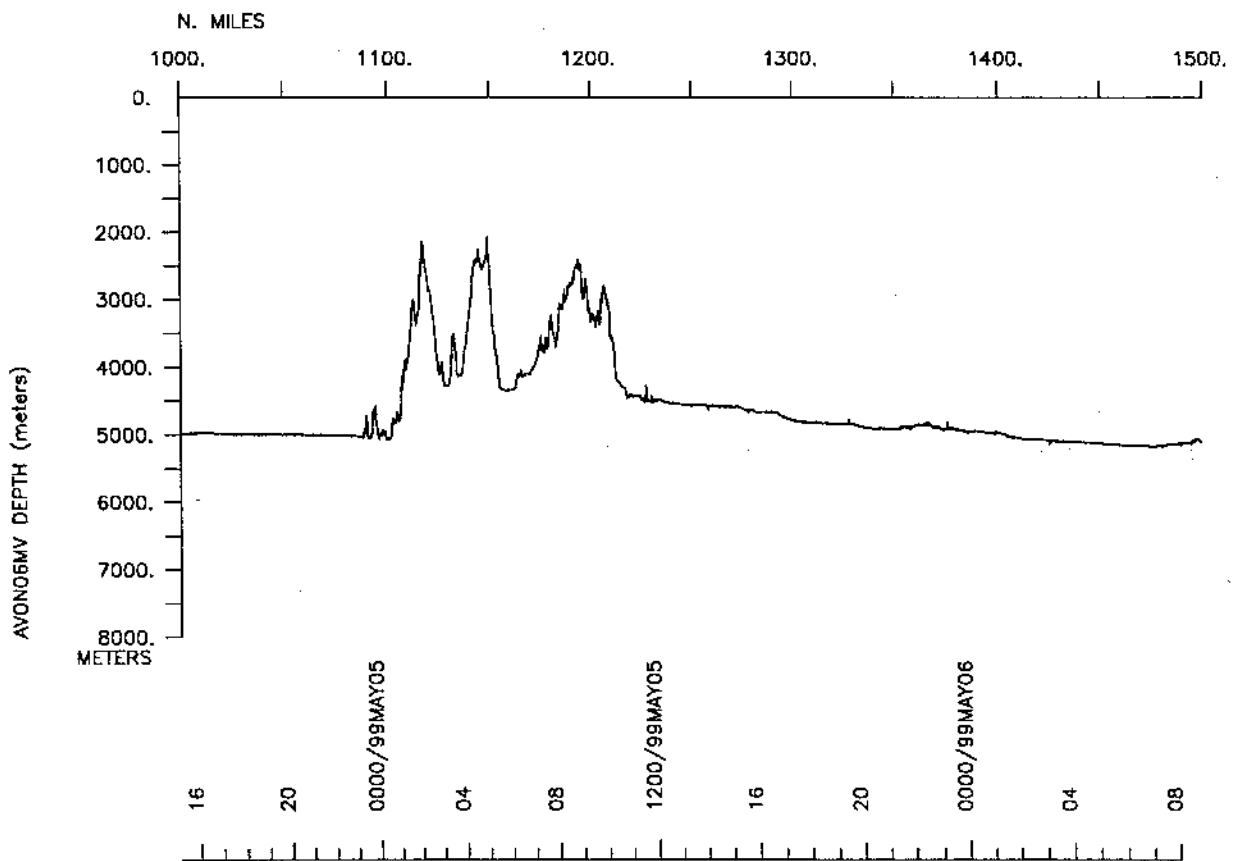
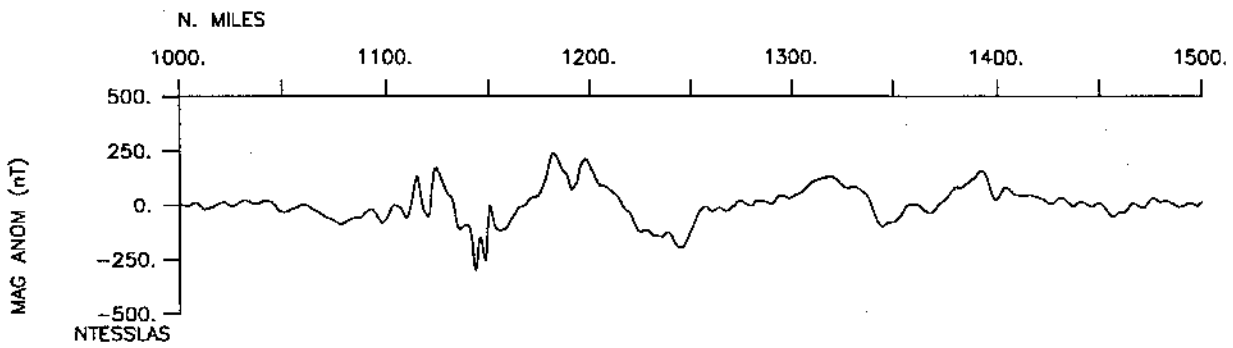
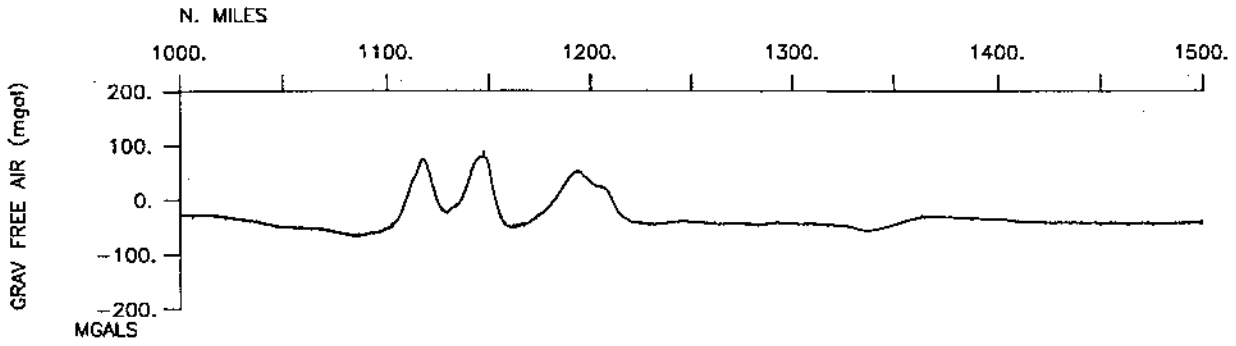
# North Survey

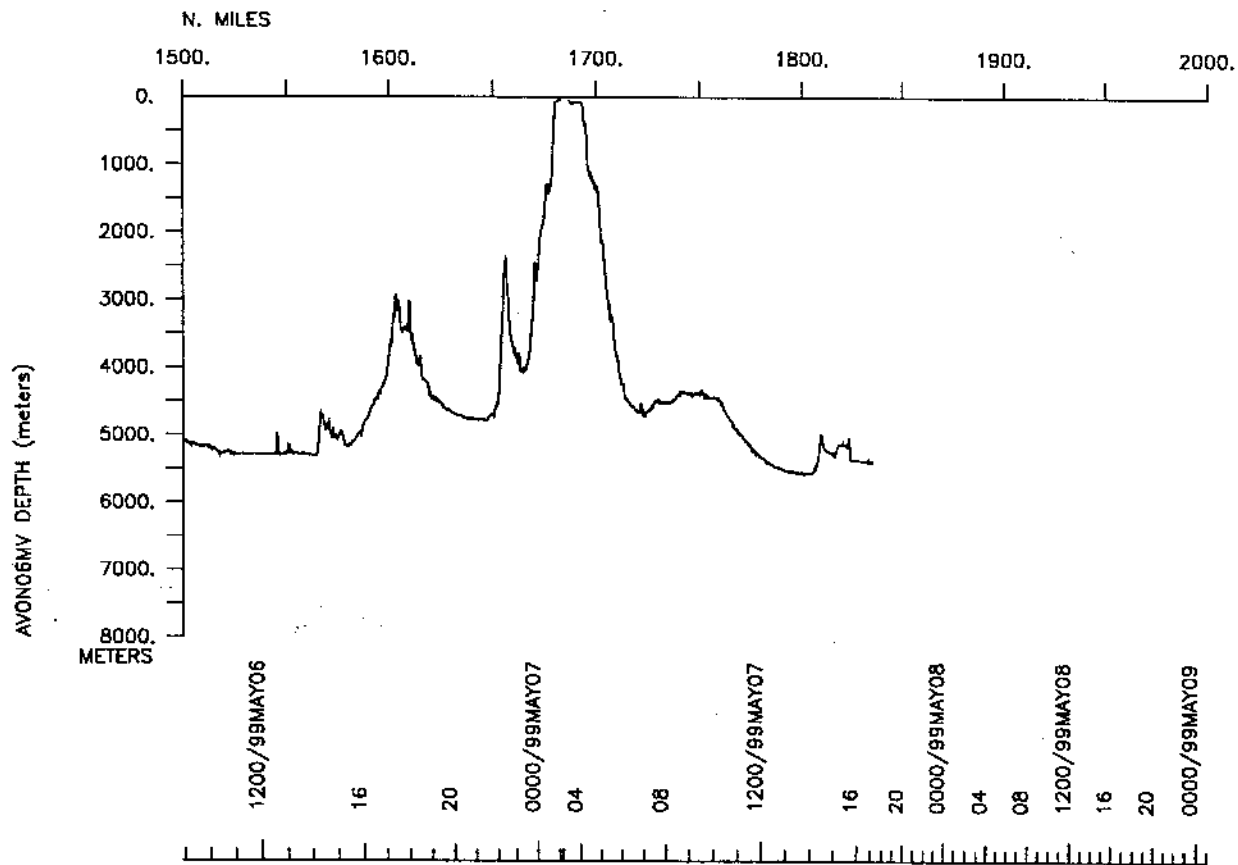
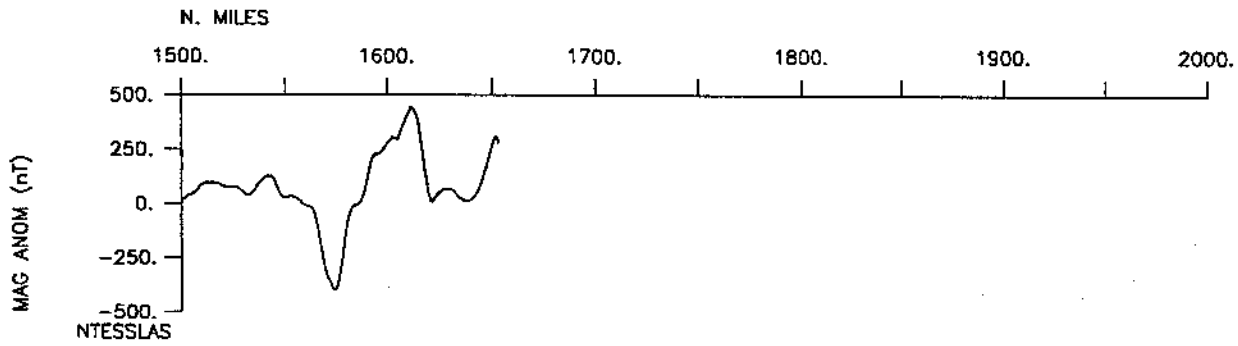
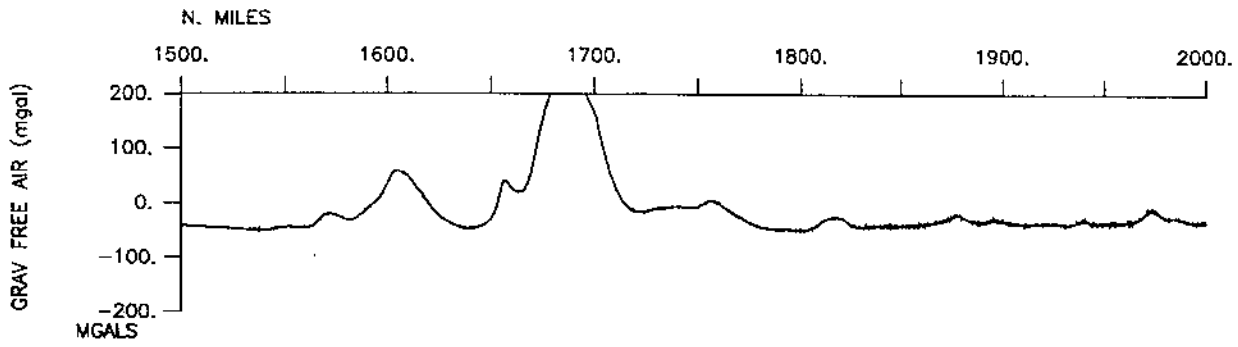


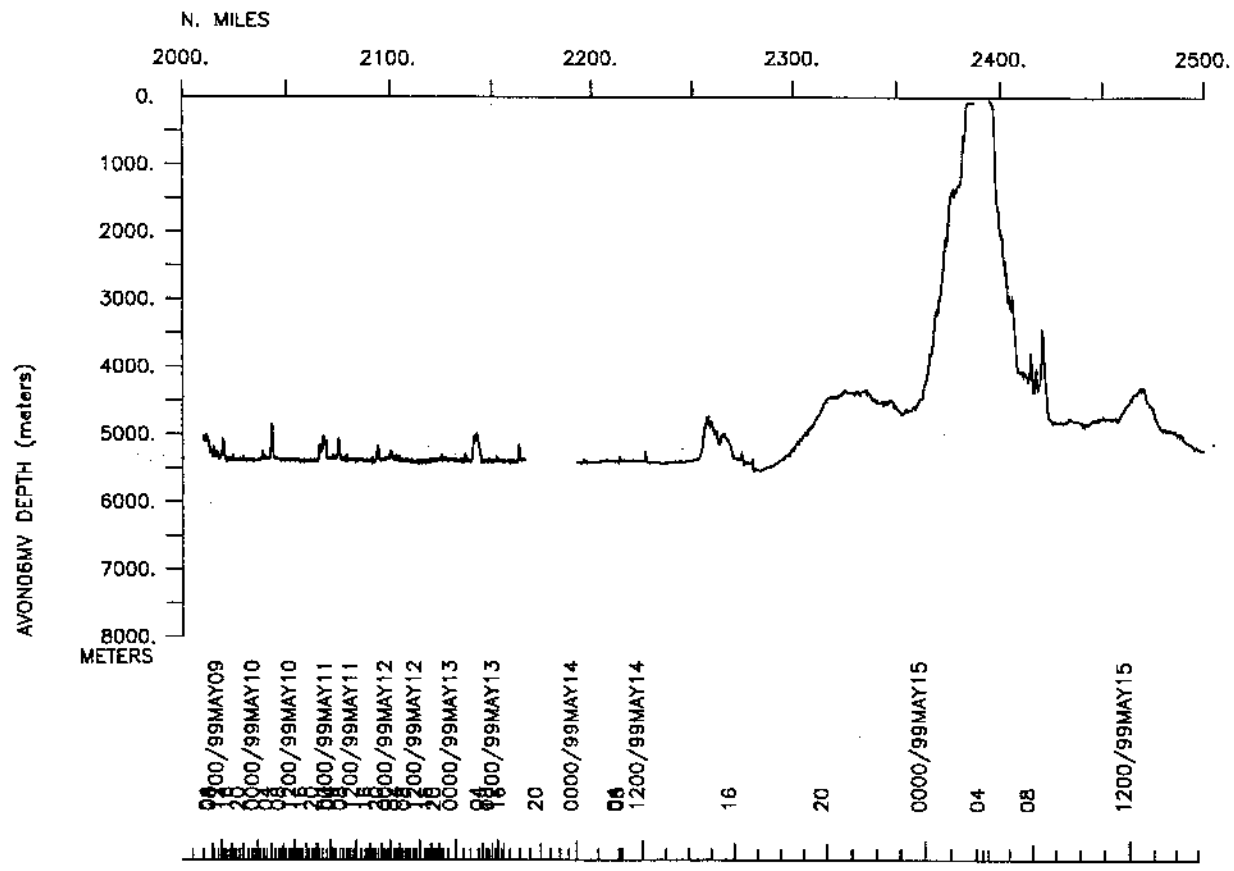
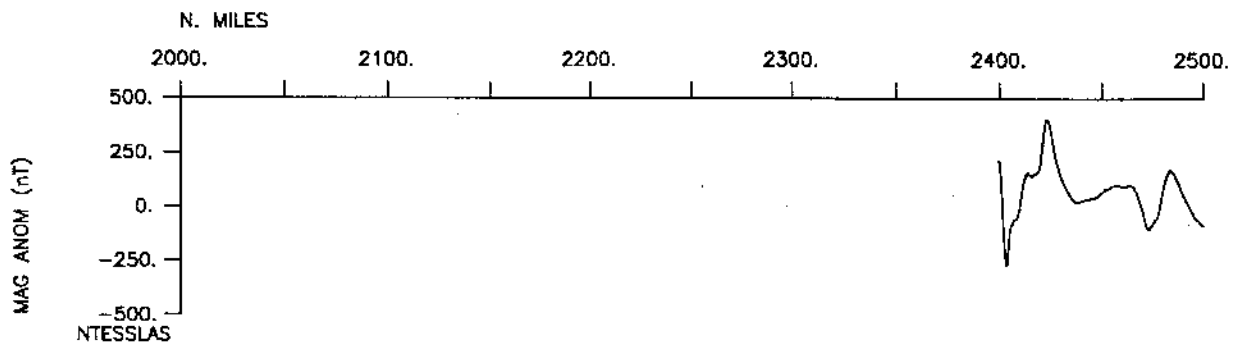
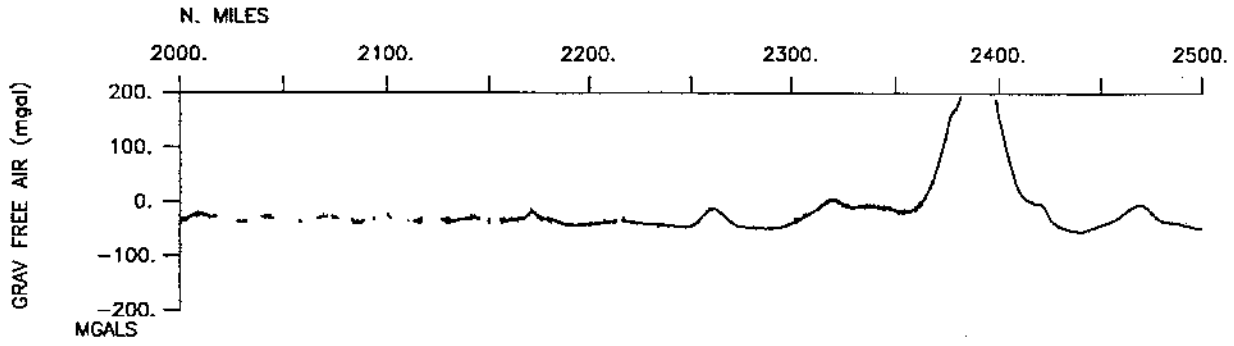


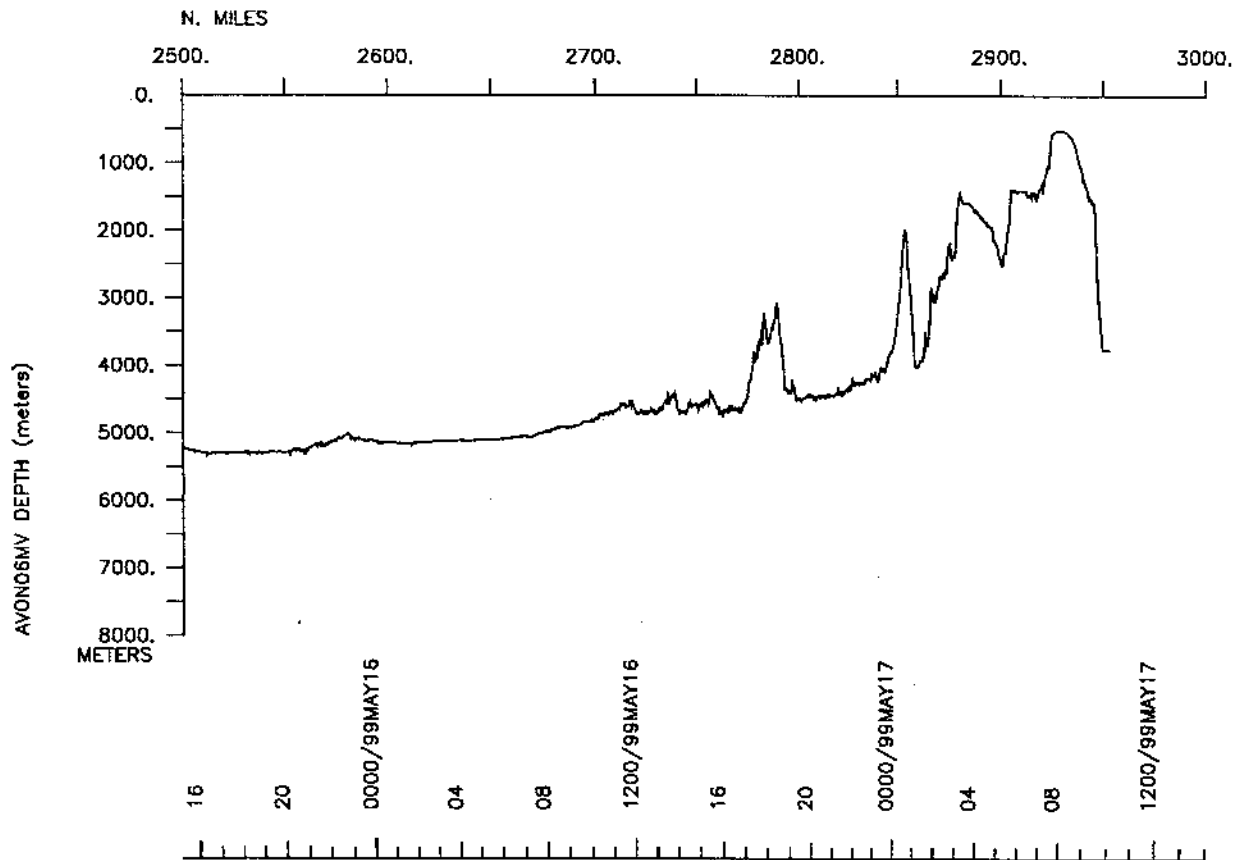
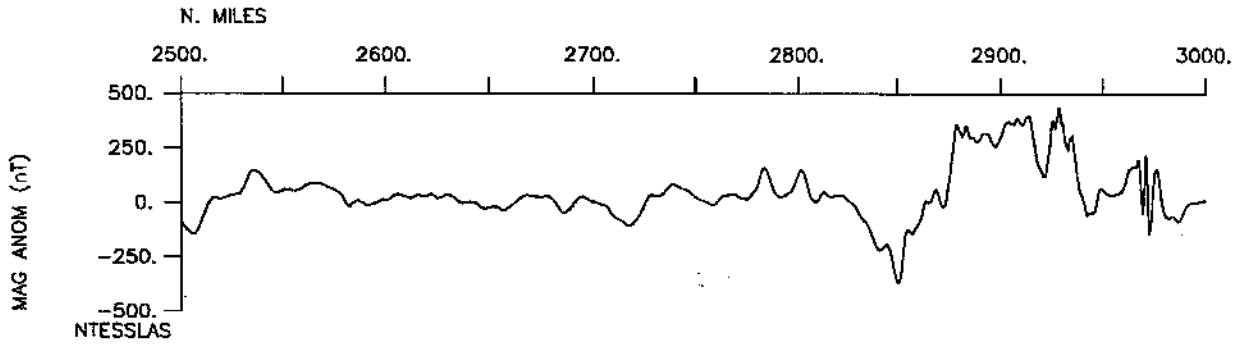
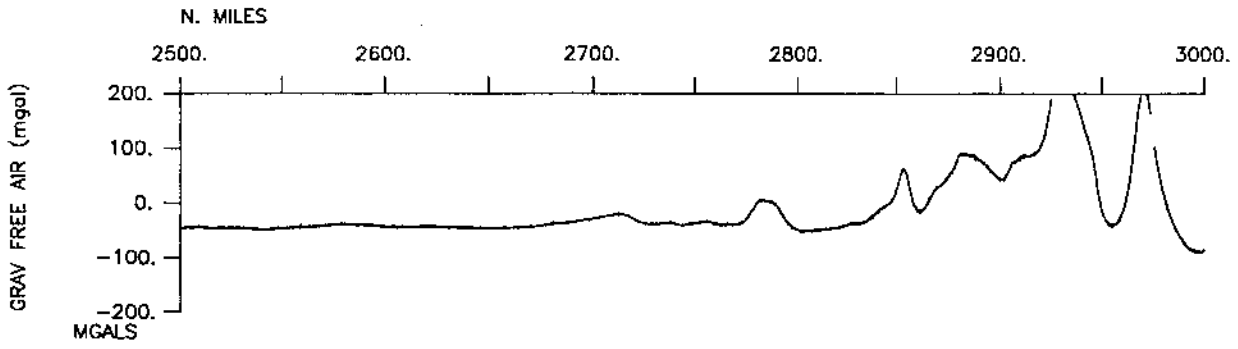


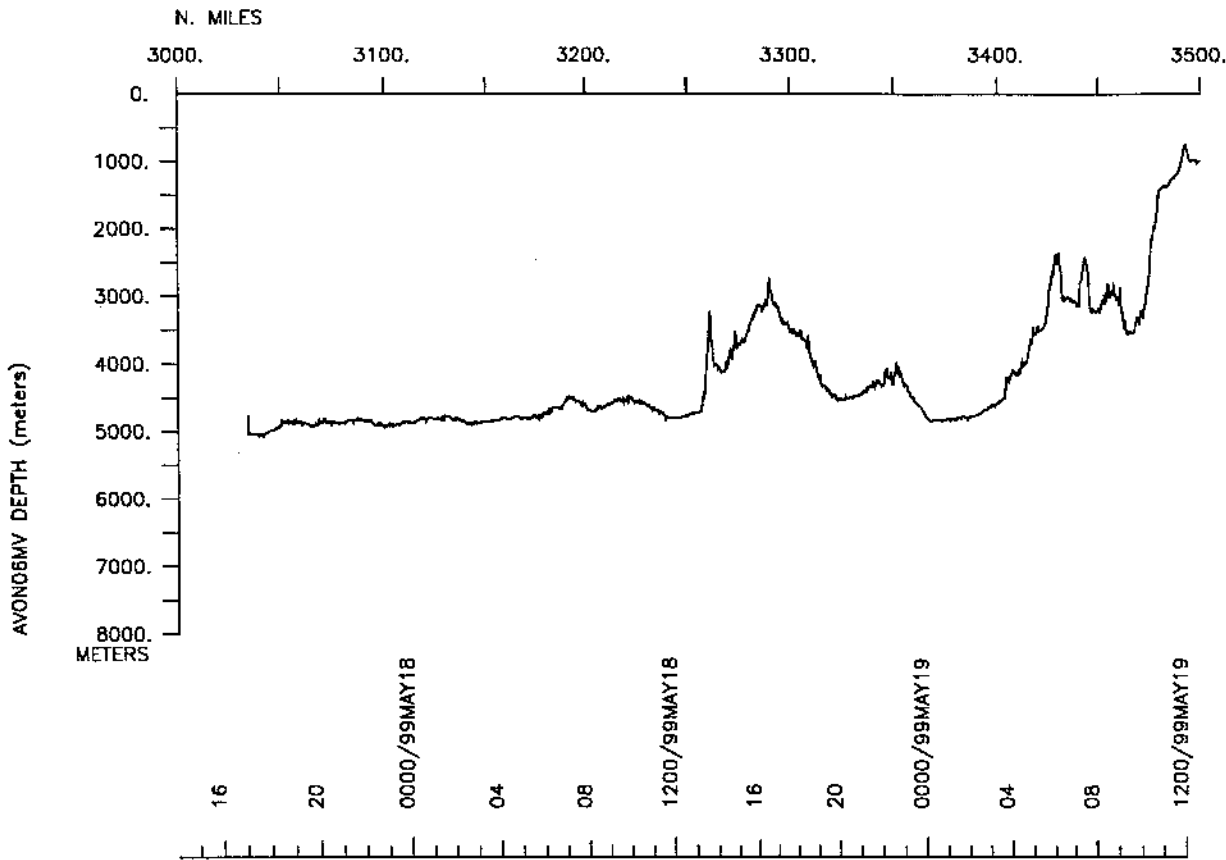
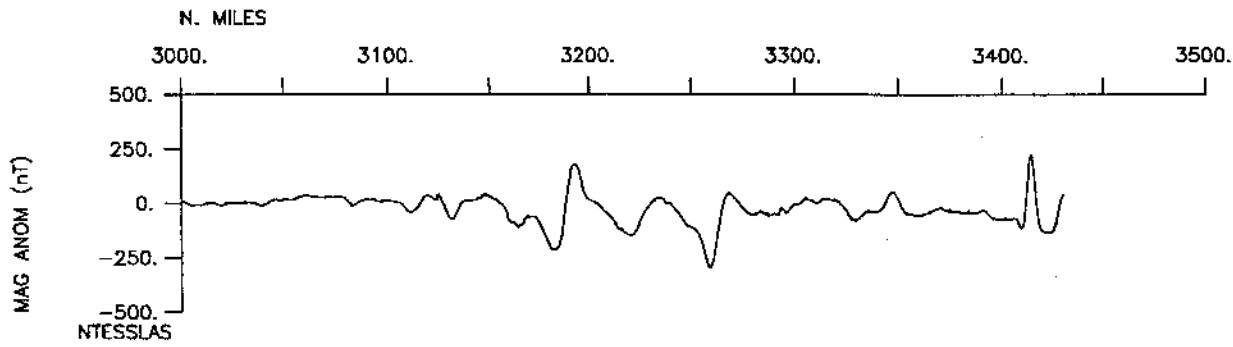
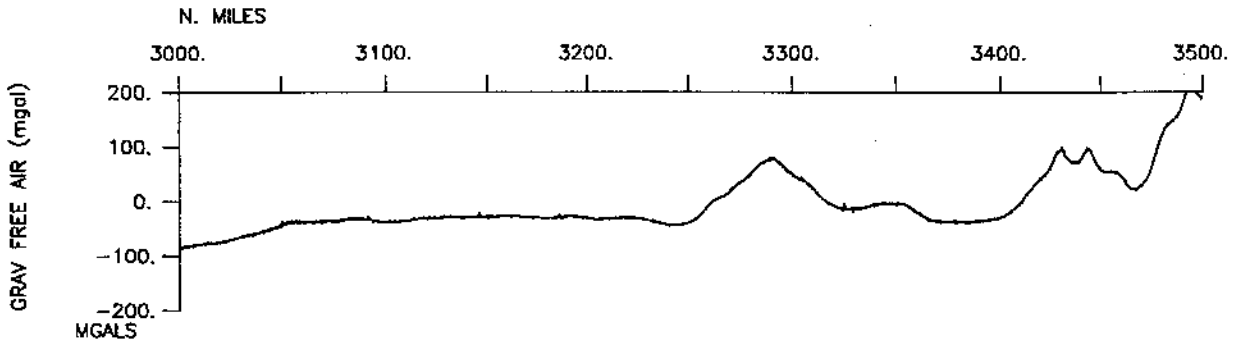


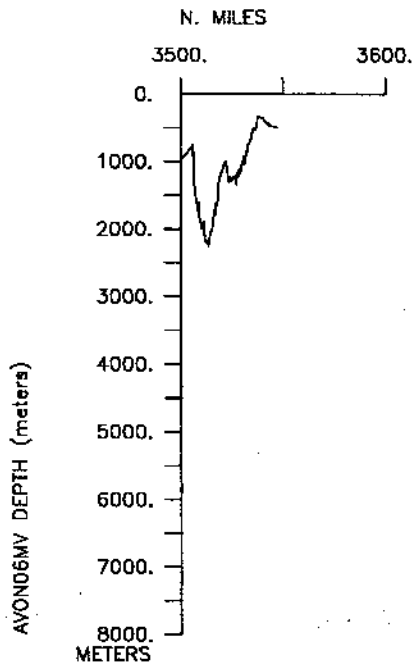
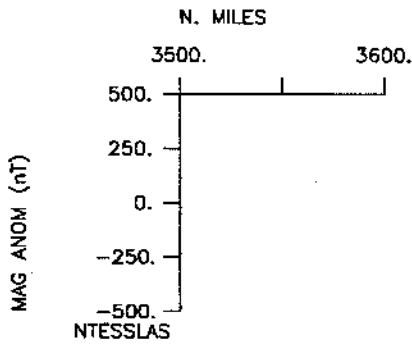
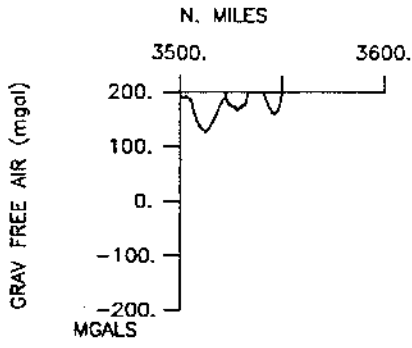




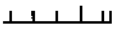








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**S.I.O. SAMPLE INDEX**

**AVON EXPEDITION**

**LEG 6**

**(AVON06MV)**

R/V Melville

(Issued August 1999)

**Ports:**

Honolulu, Hawaii (27 April 1999)

to

Honolulu, Hawaii (19 May 1999)

**Chief Scientist:**

Devorah Joseph, NAVO

*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.# 284*



## \*\*\* Ports \*\*\*

0230	280499	LGPT B Honolulu, Hawaii	21-18.00N 157-52.00W	f	AVON06MV
1810	190599	LGPT E Honolulu, Hawaii	21-18.00N 157-52.00W	f	AVON06MV
0130	070599	LGSS B Midway Island	28-13.00N 177-24.00W	f	AVON06MV
0250	070599	LGSS E Midway Island	28-13.00N 177-24.00W	f	AVON06MV
0235	150599	LGSS B Midway Island	28-13.00N 177-24.00W	f	AVON06MV
0530	150599	LGSS E Midway Island	28-13.00N 177-24.00W	f	AVON06MV

## \*\*\* Personnel \*\*\*

#	*****NAME*****	*****TITLE*****	*****AFFILIATION*****	**CRID**
PECS	NAVO Joseph, Deborah	Chief Scientist	NAVOCEANO	AVON06MV
PESP	NAVO Scherrer, Bragg	Technician	NAVOCEANO	AVON06MV
PESP	NAVO Burke, Roy	Technician	NAVOCEANO	AVON06MV
PESP	NAVO Landrum, Gerald	Engineer	NAVOCEANO	AVON06MV
PESP	NAVO Johnson, Walter	Technician	NAVOCEANO	AVON06MV
PESP	NAVO Orth, Lonny	Engineer	NAVOCEANO	AVON06MV
PESP	UHI Davis, Roger	Technician	Univ. of Hawaii	AVON06MV
PESP	UHI Johnson, Paul	Technician	Univ. of Hawaii	AVON06MV
PESP	SIX Bethge, Thomas	Manager	Nauticos Corp	AVON06MV
PESP	SIX Burns, Jeffrey	Assistant	Nauticos Corp	AVON06MV
PESP	SIX King, Spencer	Assistant	Nauticos Corp	AVON06MV
PESP	SIX Bowling, Carla	Assistant	Nauticos Corp	AVON06MV
PESP	SIX Palshook, Jeffrey	Analyst	Nauticos Corp	AVON06MV
PESP	SIX Bane, Gary	Camera Grippe	Nauticos Corp	AVON06MV
PESP	SIX Horton, Thomas	Producer	Thomas Horton Asso.	AVON06MV
PESP	SIX Ingram, Grant	Assistant	Thomas Horton Asso.	AVON06MV
PESP	SIX Horton, William	Videographer	Thomas Horton Asso.	AVON06MV
PESP	SIX Morris, Jeff	Marine Architect	Thomas Horton Asso.	AVON06MV
PESP	SIX Mayes, Matt	Videographer	Thomas Horton Asso.	AVON06MV
PECT	STS Charters, Jim	Computer Tech.	Scripps Institution	AVON06MV
PEBO	STS Smith, Stuart M.	SeaBeam Operator	Scripps Institution	AVON06MV
PESP	STS Baiz, Shad	Resident Tech.	Scripps Institution	AVON06MV
PESP	STS Chatwood, John	Computer Tech	Scripps Institution	AVON06MV

## \*\*\* 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/Geological Data Center ext. 42752 \*\*\*\*

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

1923	280499	0	LBSC	B Scientific Log Book	NAVO	21-17.06N	156-35.23W	g	AVON06MV
1103	140599	0	LBSC	E Scientific Log Book	NAVO	30-25.01N	179-18.94W	g	AVON06MV

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

0348	280499	0	MBSR	B v.beam&sidescan r-01	GDC	21-13.46N	157-50.14W	g	AVON06MV
1710	080599	0	MBSR	E v.beam&sidescan r-01	GDC	30-22.79N	179-19.32W	g	AVON06MV
0259	090599	0	MBSR	B v.beam&sidescan r-02	GDC	30-30.77N	179-12.89W	g	AVON06MV
1648	190599	0	MBSR	E v.beam&sidescan r-02	GDC	21-14.78N	157-53.87W	g	AVON06MV

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

2212	030599	0	MGDR	B Digital Magnetics	GDC	23-33.22N	162-04.62W	g	AVON06MV
0606	190599	0	MGDR	E Digital Magnetics	GDC	22-26.84N	159-26.22W	g	AVON06MV

\*\*\*\* Digital Gravity \*\*\*\*

0230	280499	0	GVDR	B Digital Gravity	GDC	21-18.88N	157-52.66W	g	AVON06MV
1810	190599	0	GVDR	E Digital Gravity	GDC	21-18.97N	157-53.18W	g	AVON06MV

\*\*\*\* Echo Sounder - 3.5 kHz Knudsen Records \*\*\*\*

0310	280499	0	DPR3	B 3.5kHz record r-01	GDC	21-18.32N	157-52.15W	g	AVON06MV
1830	070599	0	DPR3	E 3.5kHz record r-01	GDC	30-05.00N	179-01.05W	g	AVON06MV
1832	070599	0	DPR3	B 3.5kHz record r-02	GDC	30-04.92N	179-00.88W	g	AVON06MV
1750	190599	0	DPR3	E 3.5kHz record r-02	GDC	21-18.96N	157-53.17W	g	AVON06MV

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

\*\*\* Shallow-Towed Sidescan \*\*\*

1923	280499	0	DPSS	B SEAMAP	shallow	ss	GDC	21-17.06N	156-35.23W	g	AVON06MV
1939	280499	0	DPSS	E SEAMAP	shallow	ss	GDC	21-16.75N	156-34.27W	g	AVON06MV
0040	290499	0	DPSS	B SEAMAP	shallow	ss	GDC	21-16.61N	156-35.28W	g	AVON06MV
1615	290499	0	DPSS	E SEAMAP	shallow	ss	GDC	21-12.31N	156-04.54W	g	AVON06MV
1730	290499	0	DPSS	B SEAMAP	shallow	ss	GDC	21-12.46N	156-04.54W	g	AVON06MV
0223	300499	0	DPSS	E SEAMAP	shallow	ss	GDC	21-30.97N	156-18.47W	g	AVON06MV
0143	020599	0	DPSS	B SEAMAP	shallow	ss	GDC	21-06.74N	156-03.19W	g	AVON06MV
1215	020599	0	DPSS	E SEAMAP	shallow	ss	GDC	21-02.95N	156-03.11W	g	AVON06MV
1645	070599	0	DPSS	B SEAMAP	shallow	ss	GDC	30-04.10N	179-02.28W	g	AVON06MV
0320	090599	0	DPSS	E SEAMAP	shallow	ss	GDC	30-32.06N	179-12.70W	g	AVON06MV
1638	130599	0	DPSS	B SEAMAP	shallow	ss	GDC	30-25.64N	179-23.25W	g	AVON06MV
0000	140599	0	DPSS	E SEAMAP	shallow	ss	GDC	30-05.25N	179-09.87W	g	AVON06MV

\*\*\* Deep-Towed Side Scan \*\*\*

0445	300499	0	DPSS	B EG & G	deep	ss	GDC	21-13.74N	156-27.18W	g	AVON06MV
0010	020599	0	DPSS	E EG & G	deep	ss	GDC	21-10.44N	156-13.85W	g	AVON06MV
1005	090599	0	DPSS	B EG & G	deep	ss	GDC	30-31.30N	179-15.80W	g	AVON06MV
1615	130599	0	DPSS	E EG & G	deep	ss	GDC	30-24.99N	179-22.31W	g	AVON06MV
0218	140599	0	DPSS	B EG & G	deep	ss	GDC	30-24.40N	179-19.65W	g	AVON06MV
1103	140599	0	DPSS	E EG & G	deep	ss	GDC	30-25.01N	179-18.94W	g	AVON06MV

\*\*\*\*\*

End Sample Index

AVON06MV