

REPORT AND INDEX OF  
UNDERWAY MARINE GEOPHYSICAL DATA

AVON EXPEDITION

LEG 10

(AVON10MV)

R/V Melville

(Issued October 1999)

**Ports:**

Eureka, California (5 August 1999)

to

San Francisco, California (14 August 1999)

**Chief Scientist:**

Peter Worcester - Scripps Institution of Oceanography  
pworcester@ucsd.edu

Computer Technicians - Ron Moe, John Chatwood  
Resident Marine Tech - Tammy Koonce

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.

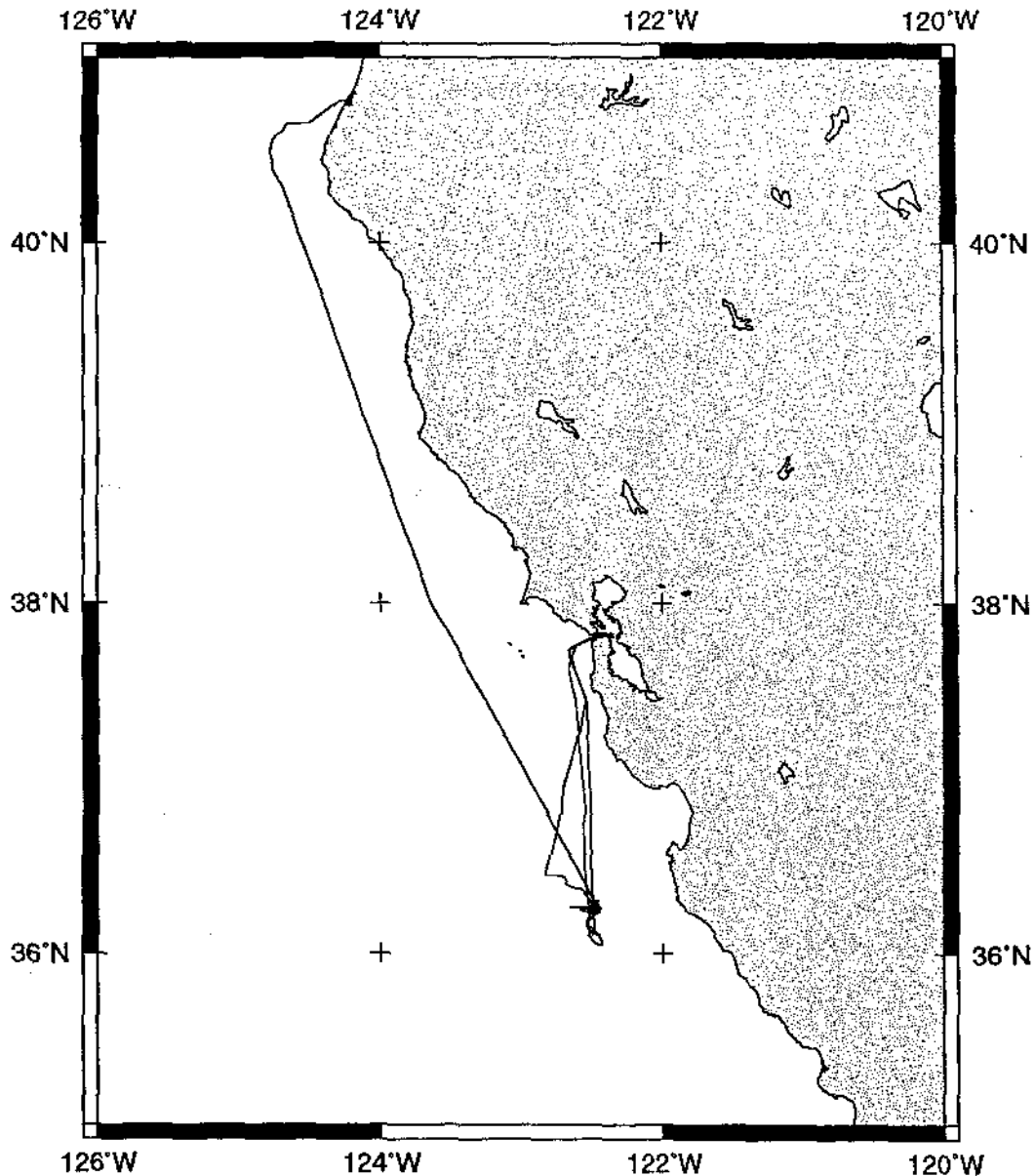
**Track Charts** - annotated with dates and hour ticks.

**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](mailto: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 10 (AVON10MV)**

**CHIEF SCIENTIST: Peter Worcester, Scripps Institution**

**PORTS: Eureka - San Francisco, California**

**DATES: 5 - 14 August 1999**

**SHIP: R/V Melville**

**TOTAL MILEAGE OF UNDERWAY DATA COLLECTED**

**Cruise - 810 miles**

**Magnetics - none collected**

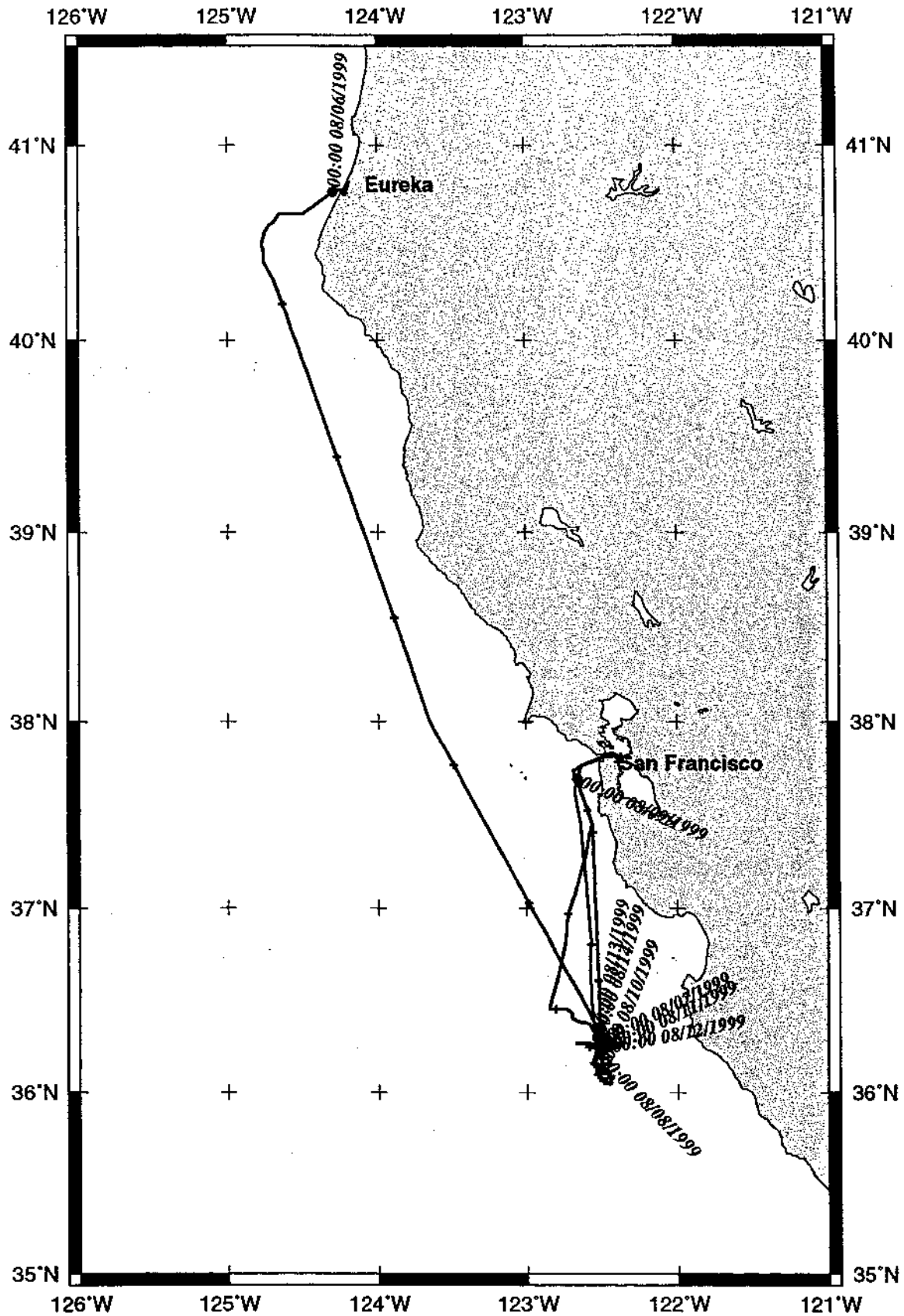
**Bathymetry - 465 miles**

**Seismic Reflection - none collected**

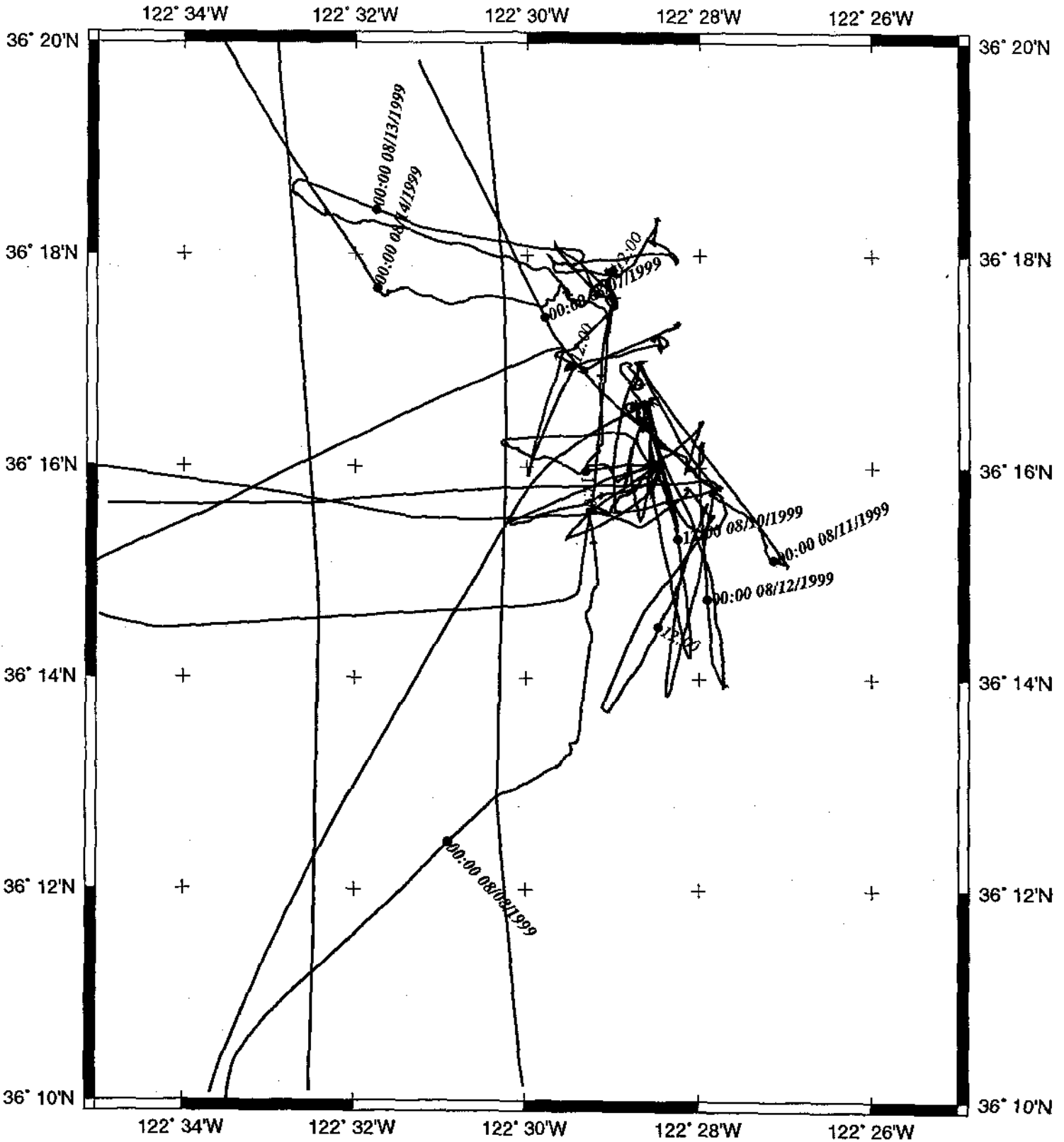
**Sea Beam - 465 miles**

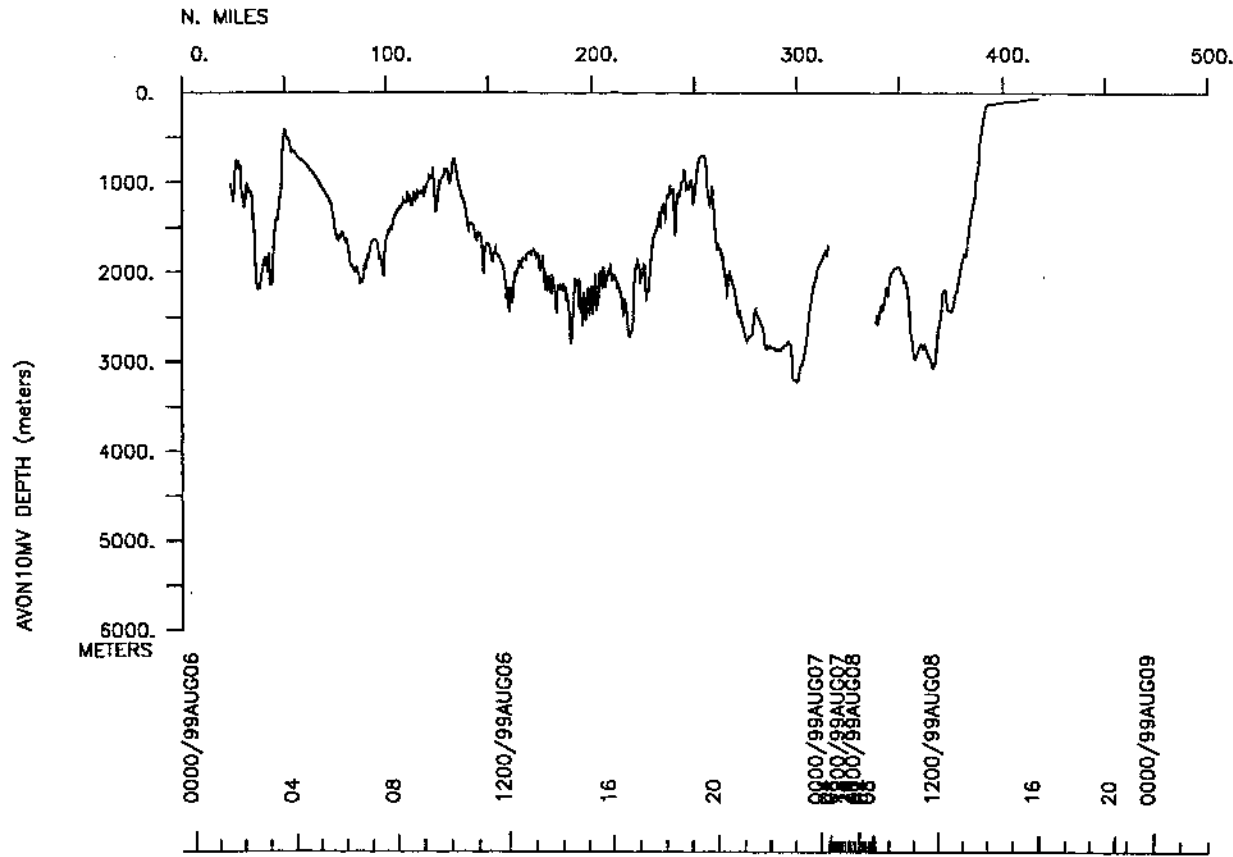
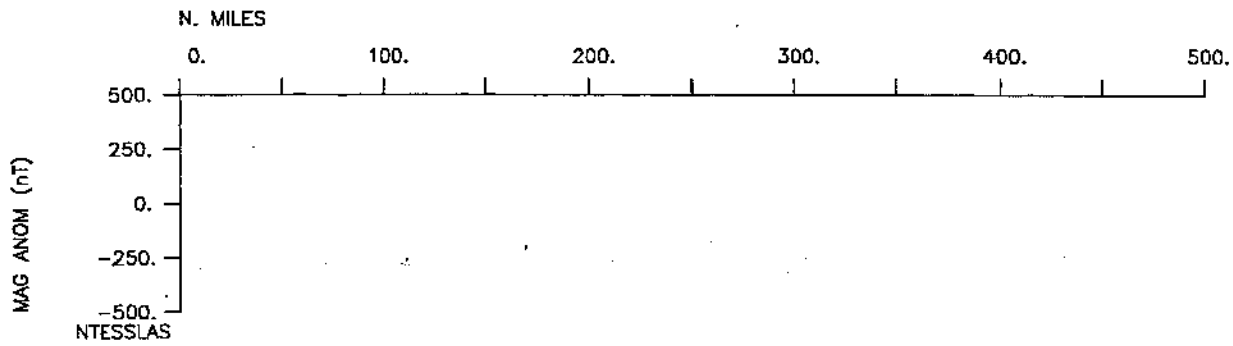
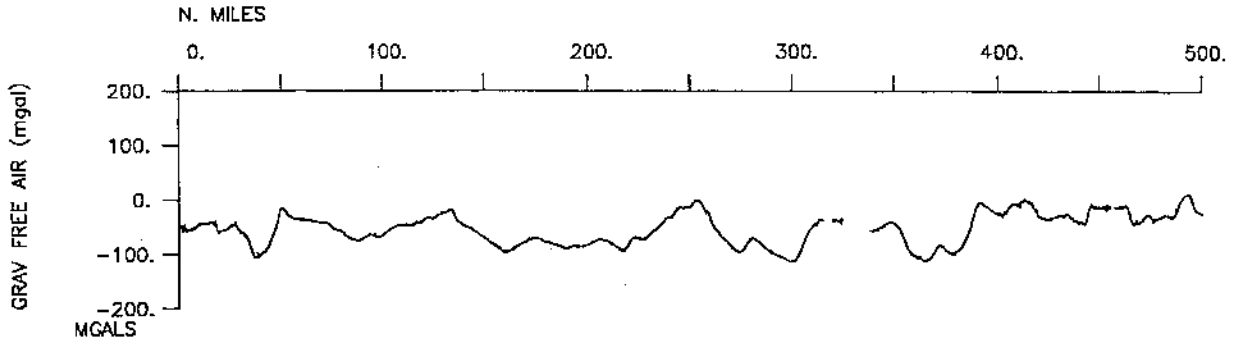
**Gravity - 765 miles**

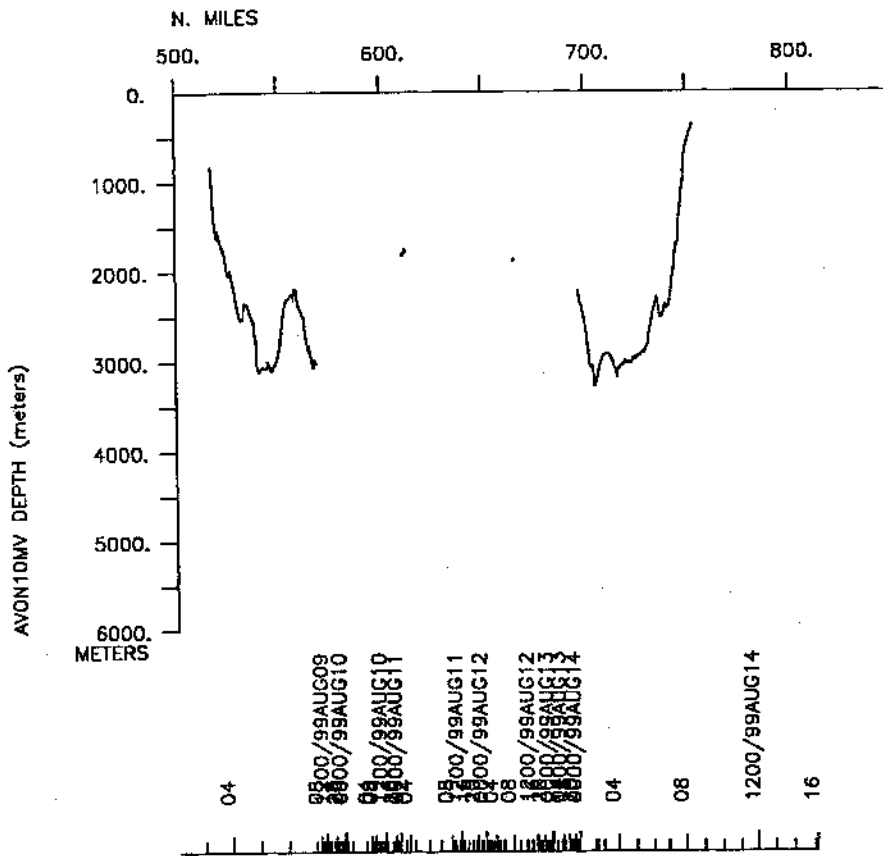
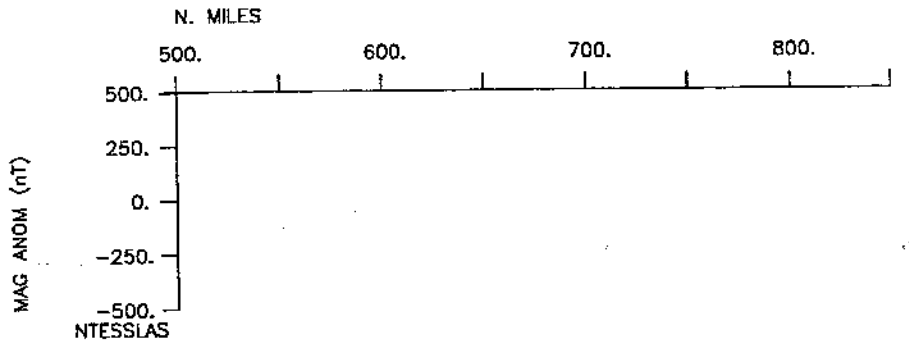
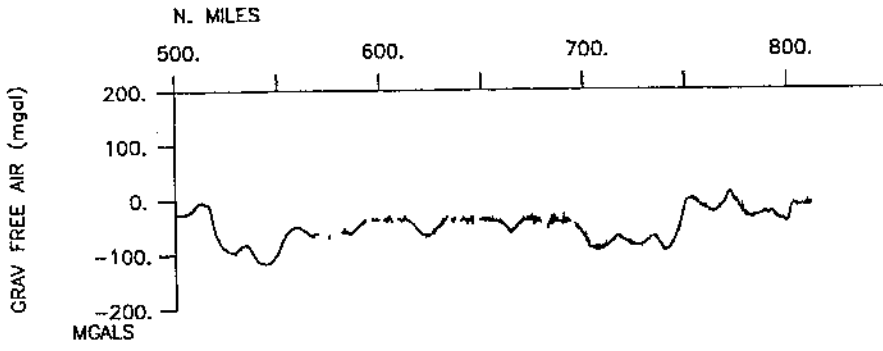
# AVON Leg 10 Track



# AVON leg 10 Survey







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

**AVON EXPEDITION**

**LEG 10**

**(AVON10MV)**

**R/V Melville**

**(Issued October 1999)**

**Ports:**

Eureka, California (5 August 1999)

to

San Francisco, California (14 August 1999)

**Chief Scientist:**

Peter Worcester, Scripps Institution

*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 \*\*\*

```

2000 050899 0 LGPT B Eureka, Calif.      GDC 40-47.68N 124-11.27W g AVON10MV
1600 140899 0 LGPT E San Francisco, Ca.   GDC 37-47.18N 122-23.06W g AVON10MV

```

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

```

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

PECS MPL Worcester, P.      Chief Scientist      Scripps Institution AVON10MV
PESP MPL Hardy, K.         Development Tech     Scripps Institution AVON10MV
PESP MPL Norenberg, M.    Development Tech     Scripps Institution AVON10MV
PESP WHOI Kemp, J.        Technician           Woods Hole           AVON10MV
PESP MPL Horwitt, D.      Technician           Scripps Institution AVON10MV
PESP MPL Green, L.        Scientist            Scripps Institution AVON10MV
PESP MPL Rivera, A.       Technician           Scripps Institution AVON10MV
PEVL UCSC Gallgher, J.    Tech Intern         UC Santa Cruz        AVON10MV
PECT SCG Moe, R.          Sr Computer Tech     Scripps Institution AVON10MV
PECT SCG Chatwood, J.    Computer Tech        Scripps Institution AVON10MV
PERT STS Koonce, T.       Resident Tech        Scripps Institution AVON10MV

```

## #\*\*\* 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 - Geological Data Center x42752 \*\*\*

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

```

2300 050899 0 LBUW B partial underway log GDC 40-47.67N 124-11.27W g AVON10MV
0839 120899 0 LBUW E partial underway log GDC 36-15.03N 122-35.20W g AVON10MV

```

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

```

0125 060899 0 MBSR B v.beam&sidescan r-01 GDC 40-38.83N 124-37.03W g AVON10MV
0715 140899 0 MBSR E v.beam&sidescan r-01 GDC 36-51.33N 122-44.12W g AVON10MV

```

#GMT	DDMMYY	SAMP	B	SAMPLE	DISP				p	CRUISE
#TIME	DATE	TZ	CODE	E IDENTIFIER	CODE	LATITUDE	LONGITUDE		c	LEG-SHIP
#-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
*** Acoustic Doppler Current Profiler ***										
2334	050899	0	ADCP	B Accoustic Doppler	GDC	40-45.39N	124-13.38W	g	AVON10MV	
1545	140899	0	ADCP	E Current Profiler	GDC	37-47.17N	122-23.07W	g	AVON10MV	
*** Integrated Meteorological Data Acquisition System ***										
0430	060899	0	IMET	B Underway Weather	GDC	40-05.08N	124-35.28W	g	AVON10MV	
1545	140899	0	IMET	E Data Collection	GDC	37-47.17N	122-23.07W	g	AVON10MV	
*** Anchored Bottom Hydrophone Array ***										
2300	050899	0	BUXX	C Rcvr NPAL98 VLA5	MPL	40-47.68N	124-11.27W	g	AVON10MV	
2351	090899	0	BUXX	E Rcvr NPAL98 VLA5	MPL	36-07.28N	122-30.30W	g	AVON10MV	
2300	050899	0	BUXX	C Rcvr NPAL98 VLA4	MPL	40-47.68N	124-11.27W	g	AVON10MV	
0005	110899	0	BUXX	E Rcvr NPAL98 VLA4	MPL	36-15.11N	122-27.08W	g	AVON10MV	
2300	050899	0	BUXX	C Rcvr NPAL98 VLA3	MPL	40-47.68N	124-11.27W	g	AVON10MV	
2320	110899	0	BUXX	E Rcvr NPAL98 VLA3	MPL	36-14.03N	122-27.72W	g	AVON10MV	
2300	050899	0	BUXX	C Rcvr NPAL98 VLA2	MPL	40-47.68N	124-11.27W	g	AVON10MV	
2322	120899	0	BUXX	E Rcvr NPAL98 VLA2	MPL	36-18.57N	122-32.70W	g	AVON10MV	
2300	050899	0	BUXX	C Rcvr NPAL98 VLA1	MPL	40-47.68N	124-11.27W	g	AVON10MV	
2300	130899	0	BUXX	E Rcvr NPAL98 VLA1	MPL	36-17.64N	122-31.62W	g	AVON10MV	
***				End Sample Index					AVON10MV	