REPORT AND INDEX OF UNDERWAY MARINE GEOPHYSICAL DATA

AVON EXPEDITION

LEG 2

(AVON02MV)

R/V Melville

(Issued June 1999)

Ports:

Majuro, Marshall Islands (23 January 1999) to Pago Pago, American Samoa (9 March 1999)

Chief Scientist:

Hubert Staudigal, Scripps Institution email:hstaudigal@ucsd.edu

Computer Technician - Jim Charters

Resident Marine Technician - Gene Pillard

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.

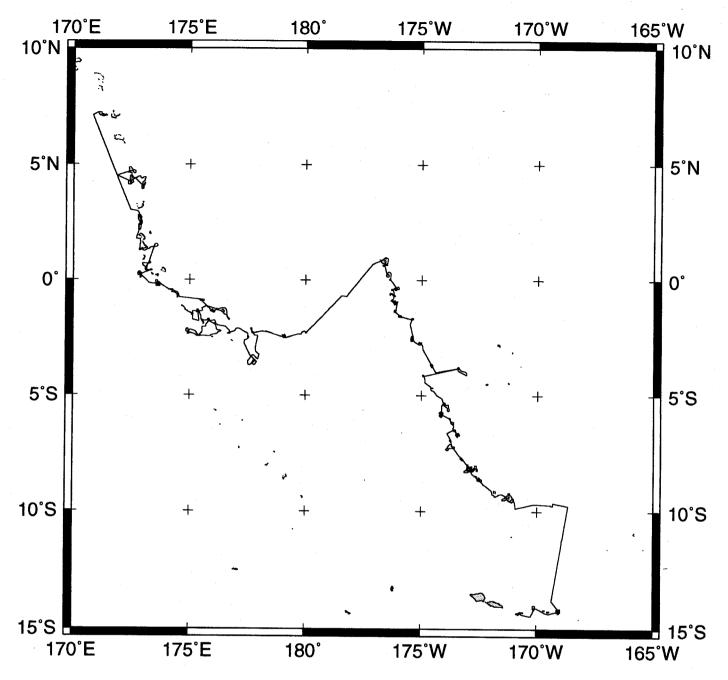
Profiles - depth, magnetic and gravity free air anomaly vs. distance. (Sections of track with seismic reflection data have a wide black line along the bottom of the profile.)

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.

rev 4/98



AVON EXPEDITION LEG 2 (AVON02MV)

CHIEF SCIENTIST: Hubert Staudigal, Scripps Institution

PORTS: Majuro, Marshall Is.-Pago Pago, Amer. Samoa

DATES: 26 January - 9 March 1999

SHIP: R/V Melville

TOTAL MILEAGE OF UNDERWAY DATA COLLECTED

Cruise - 6400 miles

Magnetics - 5775 miles

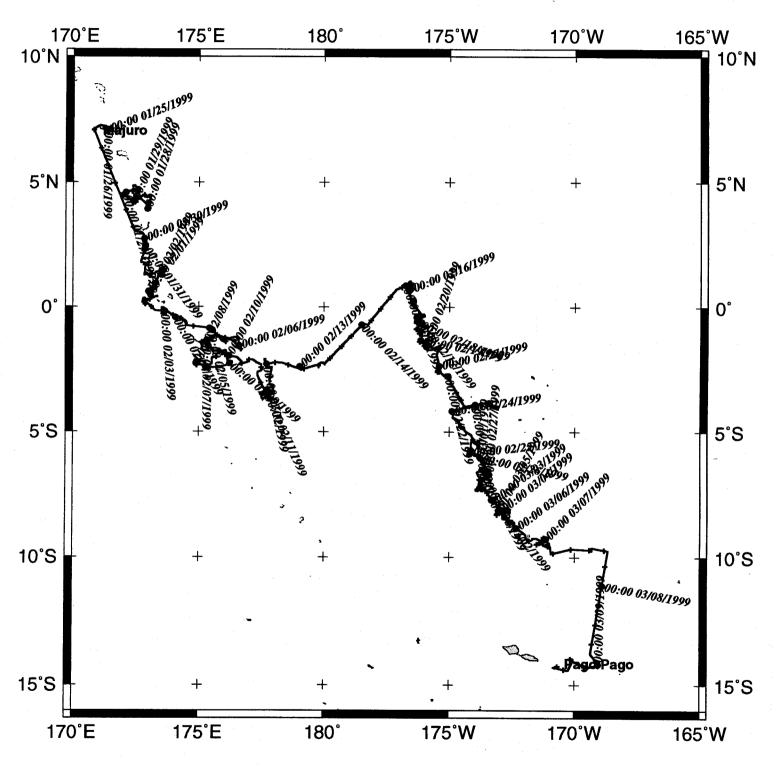
Bathymetry - 6383 miles

Seismic Reflection - none collected

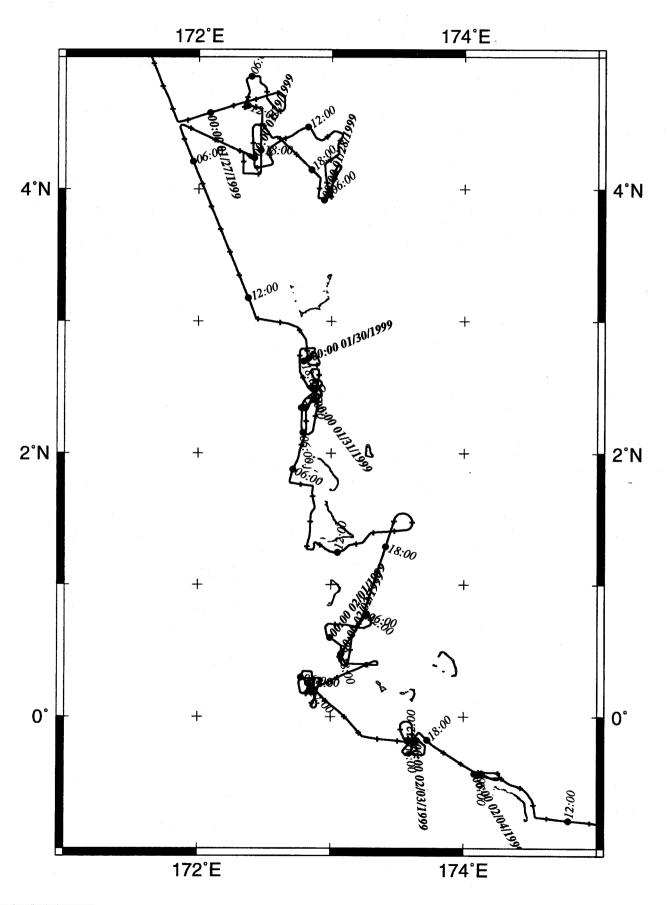
Sea Beam - 6383 miles

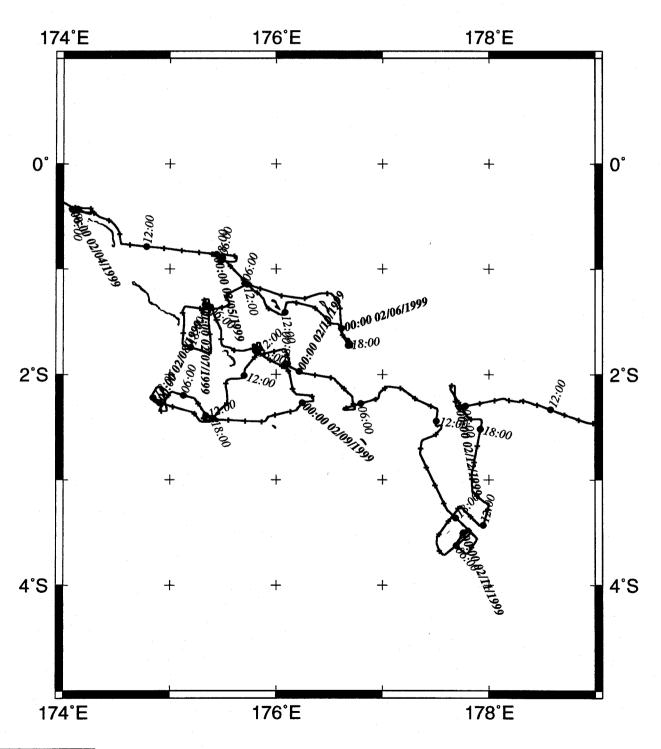
Gravity - 6200 collected

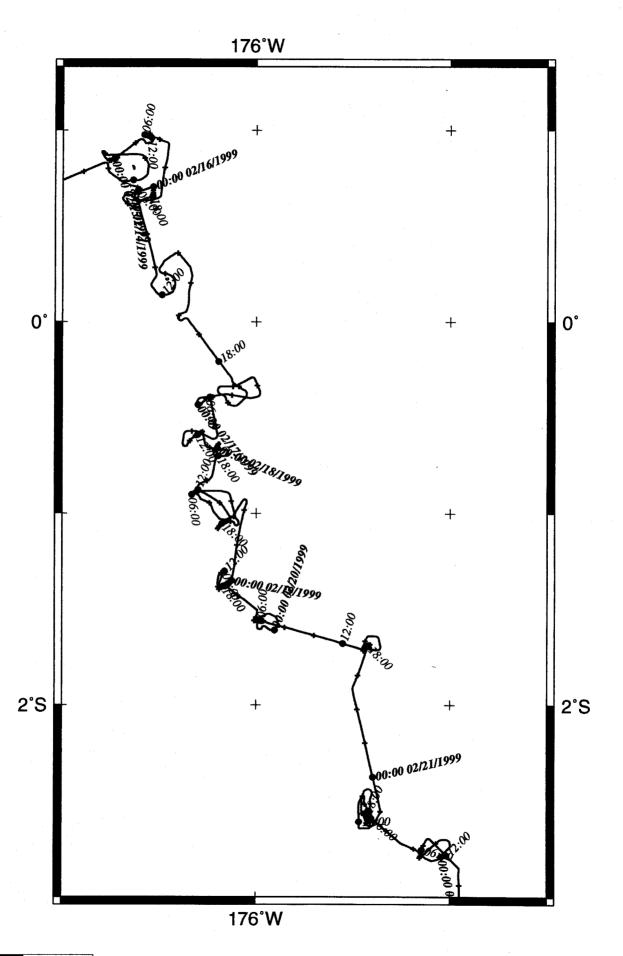
AVON02MV Track

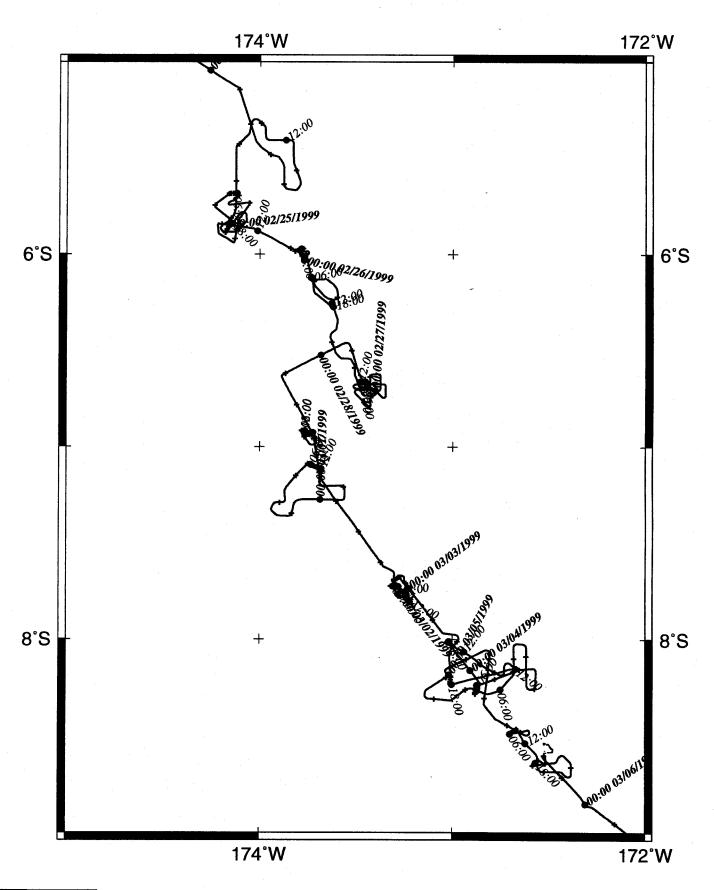


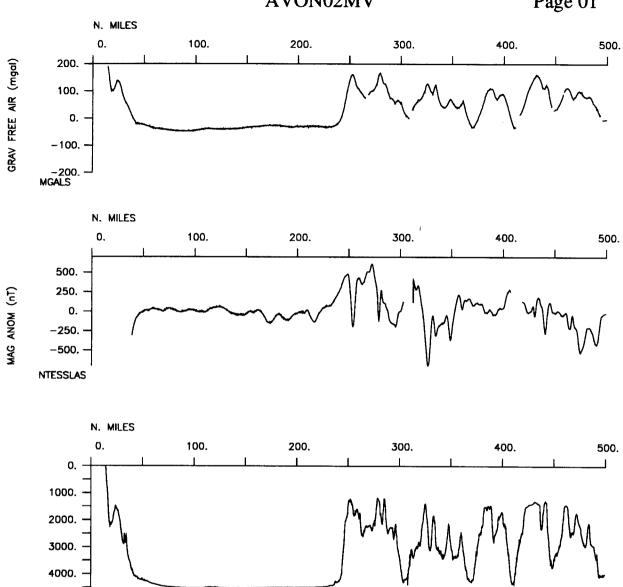
GMT Jun 28 15:21 :Majuro, Marshall Is. - Pago Pago, American Samoa 26 January-09 March 1999:

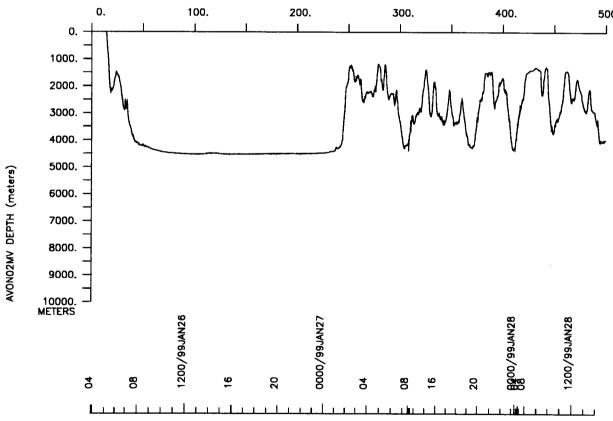


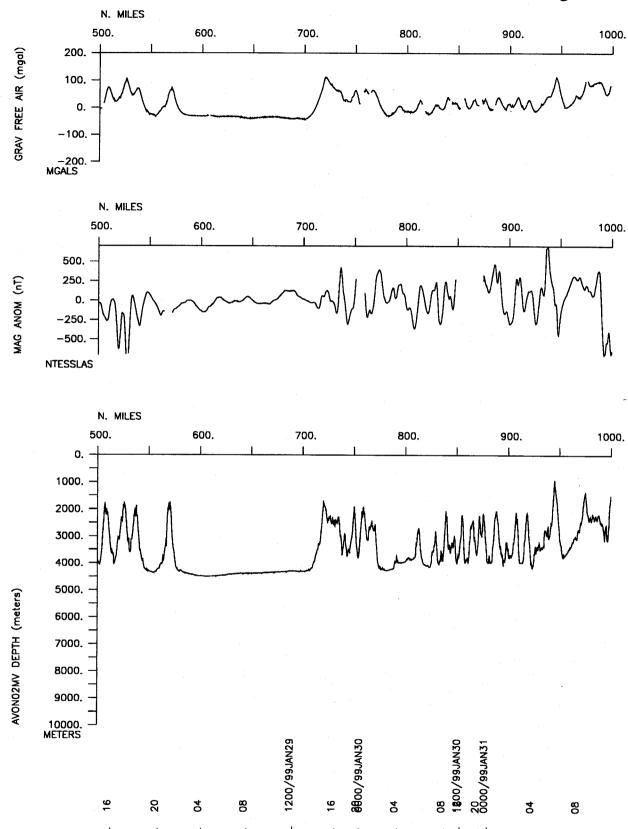


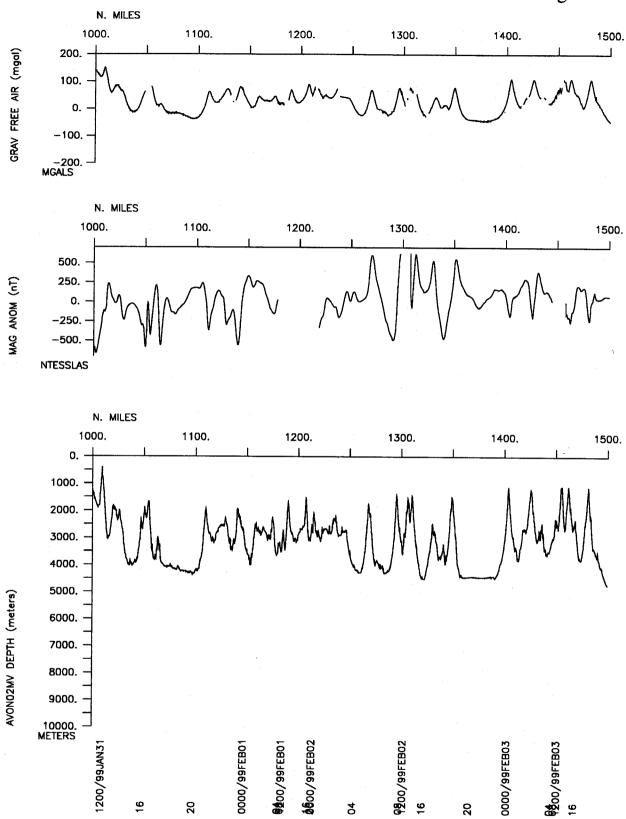


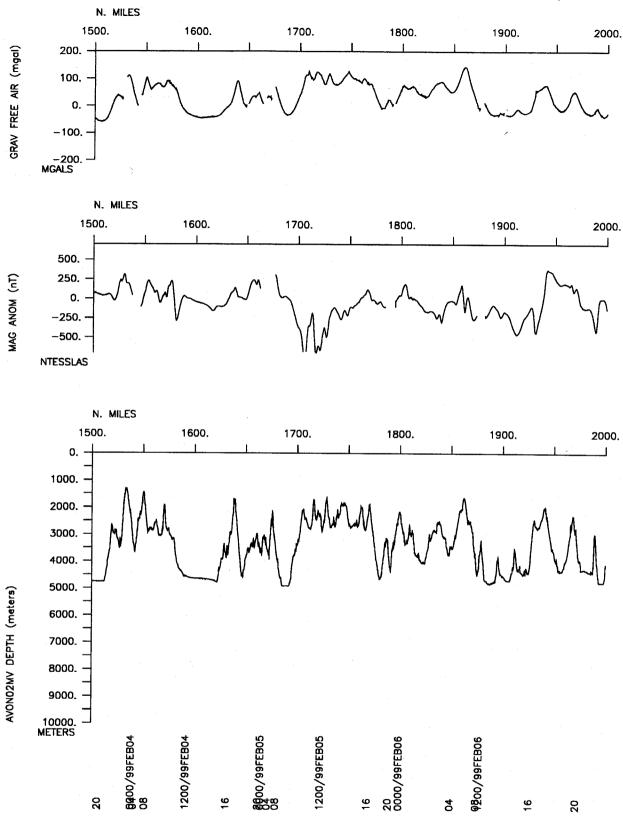


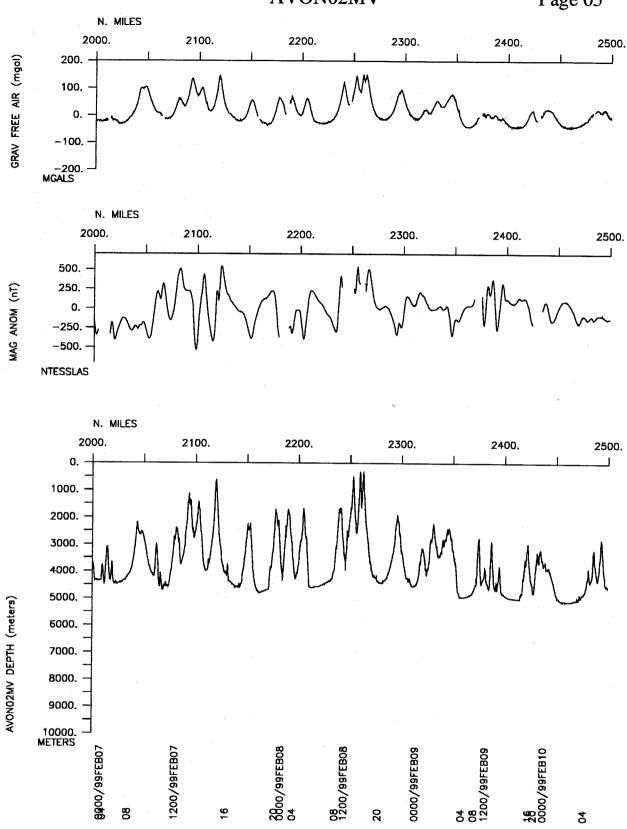


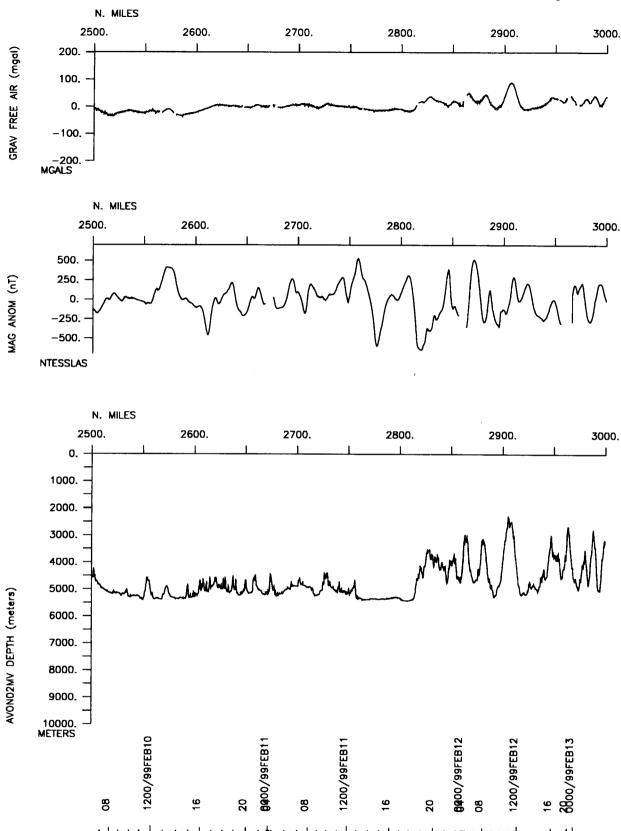


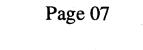


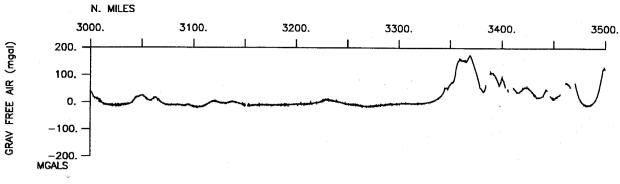


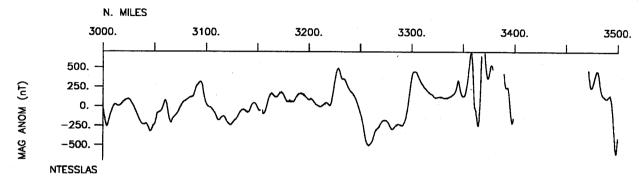


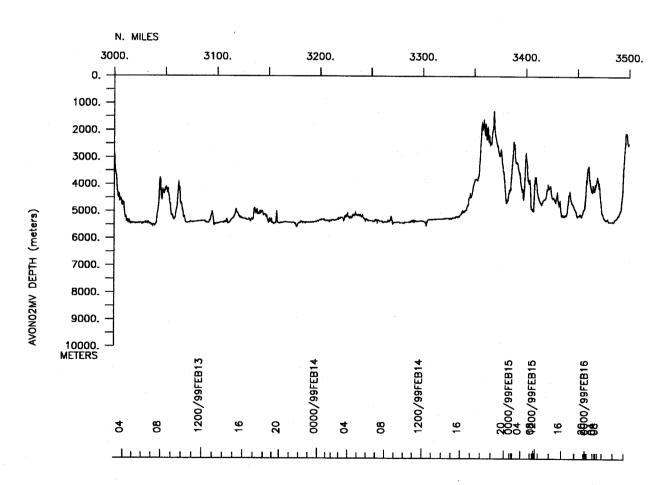


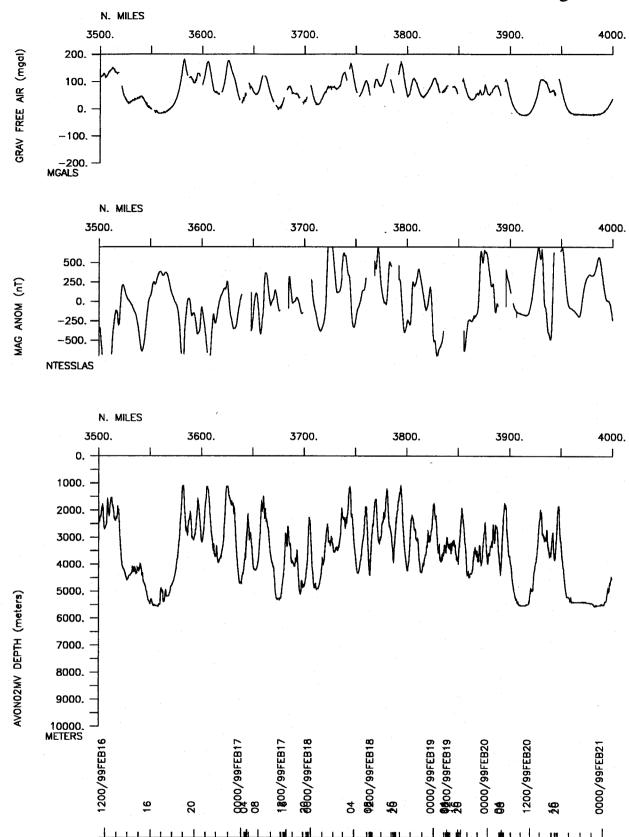


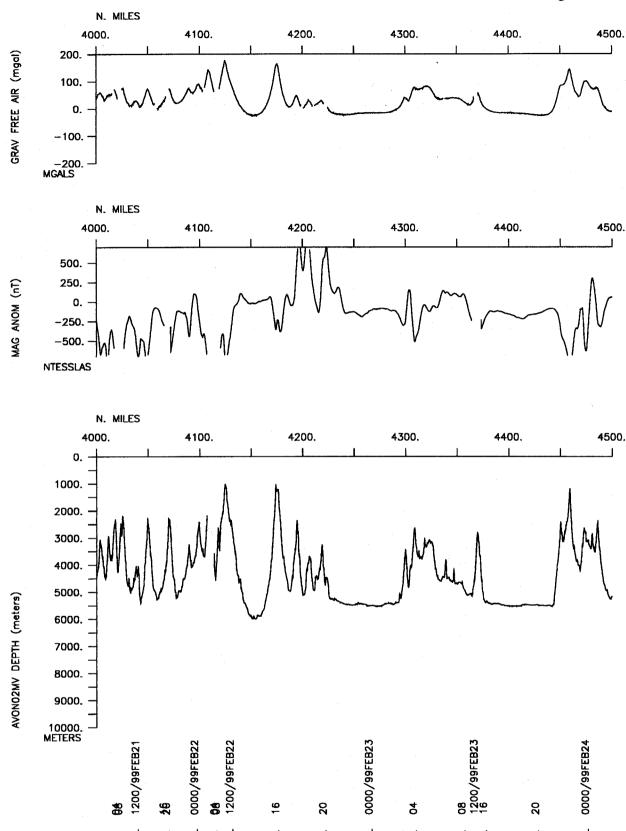


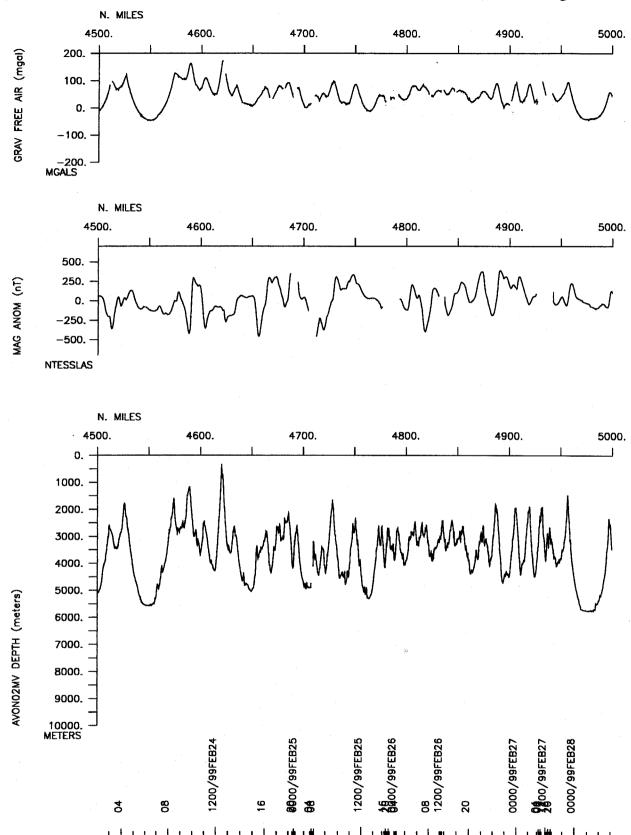






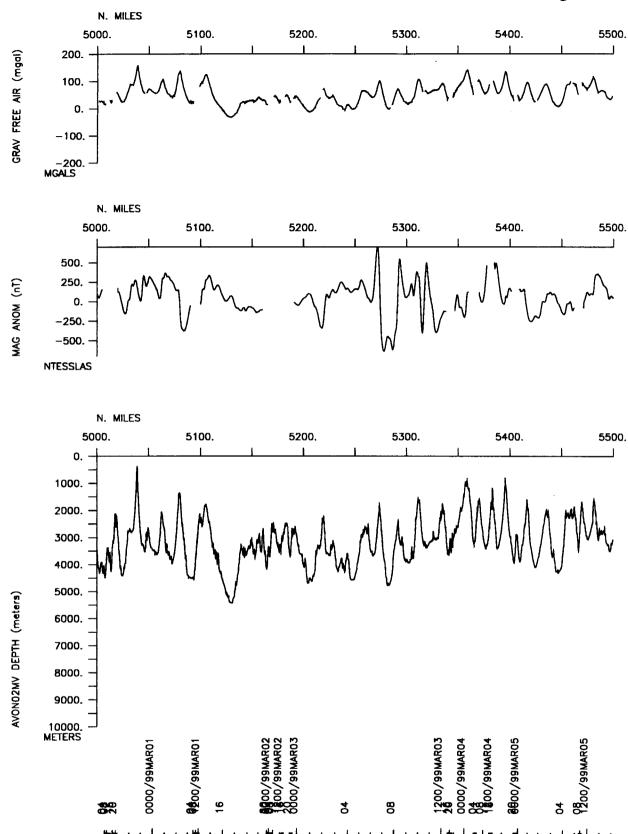


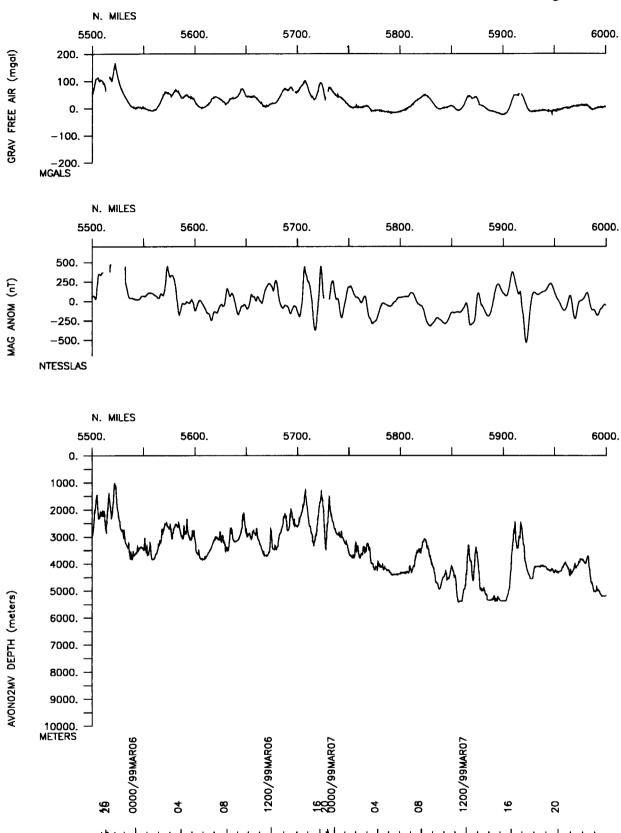


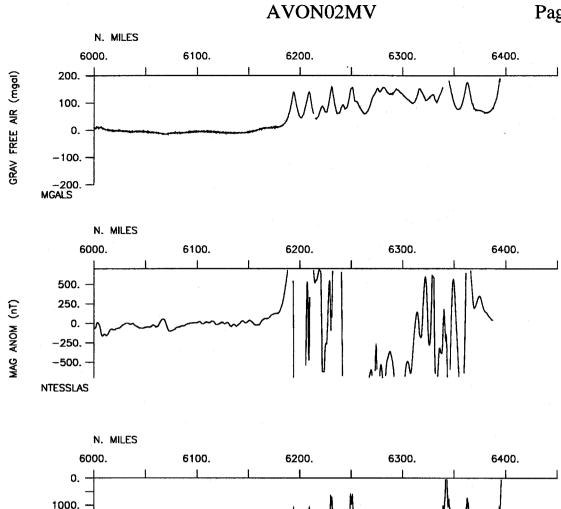


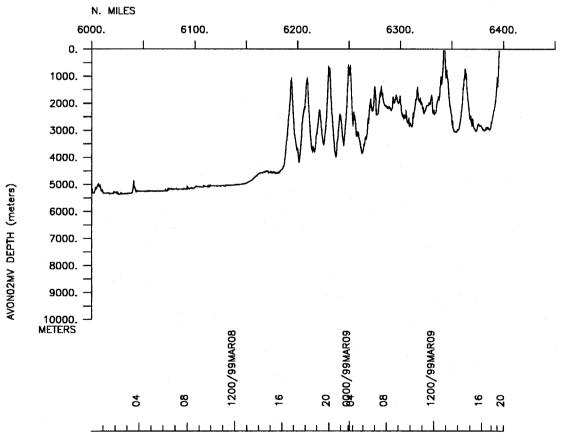


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S.I.O. SAMPLE INDEX

AVON EXPEDITION

LEG 2

(AVON02MV)

R/V Melville

(Issued June 1999)

Ports:

Majuro, Marshall Islands (26 January 1999) to Pago Pago, American Samoa (9 March 1999)

Chief Scientist:

Hubert Staudigal, Scripps Institution

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 ***
0354 260199 LGPT B Majuro, Marshall Is. 07-06.00N 171-15.00E f AVON02MV 1900 090399 LGPT E Pago Pago, Amer. Samoa 14-17.00S 170-40.00W f AVON02MV
#*** Personnel ***
       ********NAME****** *****TITLE***** ****AFFILIATION*** **CRID**
           PECS IGPP Staudigal, H. Chief Scientist Scripps Institution AVON02MV PEVL SIX Arbesman, K. Volunteer Non-Scripps Employee AVON02MV PECT STS Charters, J Computer tech Scripps Institution AVON02MV PEVL SIX Dodds, J. Volunteer Non-Scripps Employee AVON02MV PEVL SIX Herman, S. Volunteer Non-Scripps Employee AVON02MV PEXN SIX Konter, J. Volunteer Non-Scripps Employee AVON02MV PESP IGPP Koppers, A. Scientist Scripps Institution AVON02MV PEST IGPP Lyons, S. Grad Student Scripps Institution AVON02MV PEST TAMU O'Donnell, G. Grad Student Texas A&M AVON02MV PESP TAMU O'Donnell, G. Resident tech Scripps Institution AVON02MV PESP TAMU Sager, W. Scientist Scripps Institution AVON02MV PESP TAMU Sager, W. Scientist Texas A&M AVON02MV PEVL SIX Taylor, R. Volunteer Non-Scripps Employee AVON02MV PEXN SIX Kantu, K. Observer Kiribati AVON02MV AVON02MV
#*** 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
                                                                                                        p CRUISE
 #*** Underway Data Curator - S. M. Smith/Geological Data Center ext. 42752 ***
#*** Log Books ***
0400 260199 0 LBSC B Scientific Log Book IGPP 7-05.34N 171-21.85E g AVON02MV
 1900 090399 0 LBSC E Scientific Log Book IGPP 14-16.56N 170-40.94E g AVON02MV
 #*** Sea Beam Records (vertical beam and side scan) ***
0531 260199 0 MBSR B v.beam&sidescan r-01 GDC 7-13.63N 171-10.06E g AVON02MV 1500 280199 0 MBSR E v.beam&sidescan r-01 GDC 4-09.62N 172-26.17E g AVON02MV
 1505 280199 0 MBSR B v.beam&sidescan r-02 GDC 4-10.06N 172-25.28E g AVON02MV
 1815 090399 0 MBSR E v.beam&sidescan r-02 GDC 14-19.71S 170-40.71W g AVON02MV
 #*** Digital Magnetics (Earth Total Field) ***
0648 260199 0 MGDR B Magnetics data GDC 7-12.46N 170-58.21E g AVON02MV 1654 090399 0 MGDR E Magnetics data GDC 14-22.78S 170-34.18W g AVON02MV
 #*** Digital Gravity ***
0531 260199 0 GVDR B Gravity data GDC 7-13.63N 171-10.06E g AVON02MV 1900 090399 0 GVDR E Gravity data GDC 14-16.56S 170-40.94W g AVON02MV
```

#TIM	DDMMYY E DATE		CODE	E	SAMPLE IDENTI		R 	DISP CODE	LATITUDE	LONGITUDE	p c	CRUISE LEG-SHIP
#*** Dredges ***												
	270199 270199				Dredge Dredge		3861-3521 3861-3521	IGPP IGPP	4-37.29N 4-37.80N	172-21.09E 172-22.20E	g	AVON02MV AVON02MV
	280199 280199				Dredge Dredge		3963-2894 3963-2894	IGPP IGPP	3-55.54N 3-58.23N	172-57.10E 172-58.89E	g	AVON02MV AVON02MV
	280199 290199				Dredge Dredge		2209-2000 2209-2000	IGPP IGPP	4-14.82N 4-14.11N	172-23.51E 172-25.02E	g	AVON02MV AVON02MV
	290199 290199				Dredge Dredge		3564-2260 3564-2260	IGPP IGPP	2-41.86N 2-43.09N	172-48.21E 172-49.87E	g g	AVON02MV AVON02MV
	300199 300199				Dredge Dredge		3727-2205 3727-2205	IGPP IGPP	2-29.32N 2-29.69N	172-51.69E 172-53.86E	g	AVON02MV AVON02MV
	300199 300199				Dredge Dredge		3637-2875 3637-2875	IGPP IGPP	2-20.72N 2-21.19N	172-47.66E 172-47.76E	g g	AVON02MV AVON02MV
	010299 010299				Dredge Dredge		3381-3289 3381-3289	IGPP IGPP	0-46.78N 0-46.72N	173-16.08E 173-16.37E	g	AVON02MV AVON02MV
1551	010299	0	DRRO	X	Dredge	8		IGPP	0-27.67N	173-04.49E	g	AVON02MV
	020299 020299				Dredge Dredge		2893-1982 2893-1982	IGPP IGPP	0-11.30N 0-12.84N	172-49.63E 172-50.99E	g	AVON02MV AVON02MV
	030299 030299						2616-2631 2616-2631	IGPP IGPP	0-11.19S 0-11.38S	173-34.79E 173-34.67E	g	AVON02MV AVON02MV
	030299 030299						1848-1268 1848-1268	IGPP IGPP	0-11.28S 0-11.28S	173-36.13E 173-36.84E	g	AVON02MV AVON02MV
	040299 040299						3466-2468 3466-2468	IGPP IGPP	0-25.97s 0-25.95s	174-05.47E 174-08.09E	g	AVON02MV AVON02MV
	040299 040299						3499-3106 3499-3106	IGPP IGPP	0-51.71s 0-51.89s	175-24.84E 175-26.47E	g	AVON02MV AVON02MV
	050299 050299						3040-2230 3040-2230	IGPP IGPP	0-54.98S 0-53.74S	175-28.99E 175-29.89E	g	AVON02MV AVON02MV
	050299 050299						3877-3535 3877-3535	IGPP IGPP	1-42.78S 1-42.07S	176-41.18E 176-41.51E	g g	AVON02MV AVON02MV
	060299 060299						3901-3280 3901-3280	IGPP IGPP	1-08.45S 1-08.61S	175-43.75E 175-44.97E	g	AVON02MV AVON02MV
	070299 070299						4179-3188 4179-3188	IGPP IGPP	1-20.81s 1-22.15s	175-20.60E 175-21.52E	g	AVON02MV AVON02MV

#TIME DATE TZ (SAMP B SAMPLE CODE E IDENTIF	'IER 	DISP CODE LATITUDE	LONGITUDE C	
" 2158 070299 0 I	DRRO B Dredge DRRO E Dredge			174-52.93E g	
	DRRO B Dredge DRRO E Dredge			175-19.89E g	
	DRRO B Dredge DRRO E Dredge			175-24.01E g	
	DRRO B Dredge DRRO E Dredge			175-48.46E g 175-48.92E g	
	DRRO B Dredge DRRO E Dredge			176-05.40E g 176-06.20E g	
	DRRO B Dredge DRRO E Dredge			177-46.39E g	
	DRRO B Dredge DRRO E Dredge			177-43.81E g 177-45.64E g	
	DRRO B Dredge DRRO E Dredge			179-05.31E g	
	DRRO B Dredge DRRO E Dredge			176-45.08W g 176-43.30W g	
	DRRO B Dredge DRRO E Dredge			176-34.31W g 176-32.65W g	
	DRRO B Dredge DRRO E Dredge			176-32.11W g 176-32.04W g	
	DRRO B Dredge DRRO E Dredge			176-37.50W g 176-36.43W g	
	DRRO B Dredge DRRO E Dredge			176-14.67W c 176-14.23W c	
1204 170299 0 I 1447 170299 0 I	DRRO B Dredge DRRO E Dredge	31 3590-3041 31 3590-3041	IGPP 0-35.36S IGPP 0-34.78S	176-18.10W g 176-17.17W g	
	DRRO B Dredge DRRO E Dredge			176-12.49W g 176-11.65W g	
	DRRO B Dredge DRRO E Dredge			176-19.36W g	
	DRRO B Dredge DRRO E Dredge			176-11.51W g	

#GMT DDMMYY #TIME DATE TZ #	Z CODE E IDENTIFIER	DISP CODE LATITUDE	p CRUISE LONGITUDE c LEG-SHIP
0228 190299 0 1310 190299 0	0 DRRO B Dredge 35 3329-3427 0 DRRO E Dredge 35 3329-3427	IGPP 1-18.10S IGPP 1-18.09S	176-09.69W g AVON02MV 176-09.95W g AVON02MV
	D DRRO B Dredge 36 3417-2238 D DRRO E Dredge 36 3417-2238	IGPP 1-23.36s IGPP 1-21.87s	176-10.87W g AVON02MV 176-09.14W g AVON02MV
	D DRRO B Dredge 37 2556-1986 D DRRO E Dredge 37 2556-1986		176-00.07W g AVON02MV 175-57.63W g AVON02MV
			175-26.25W g AVON02MV 175-24.87W g AVON02MV
	D DRRO B Dredge 39 3681-2860 D DRRO E Dredge 39 3681-2860	IGPP 2-36.25s IGPP 2-35.37s	175-24.98W g AVON02MV 175-24.39W g AVON02MV
		IGPP 2-34.02S IGPP 2-34.88S	175-26.52W g AVON02MV 175-24.69W g AVON02MV
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		IGPP 3-50.51S IGPP 3-49.42S	173-24.71W g AVON02MV 173-23.80W g AVON02MV
		IGPP 5-52.30s IGPP 5-51.01s	174-10.17W g AVON02MV 174-09.36W g AVON02MV
		IGPP 5-41.07S IGPP 5-41.02S	174-08.49W g AVON02MV 174-07.00W g AVON02MV
			173-47.82W g AVON02MV 173-47.34W g AVON02MV
			173-46.09W g AVON02MV 173-45.69W g AVON02MV
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			173-28.09W g AVON02MV 173-27.79W g AVON02MV
			173-46.40W g AVON02MV 173-45.86W g AVON02MV
			173-44.91W g AVON02MV 173-43.64W g AVON02MV

						₹		LATITUDE	LONGITUDE		CRUISE LEG-SHIP
#										_	
0527 010399 1228 010399						4265-2482 4265-2482	IGPP IGPP		173-44.38W 173-40.83W		
1228 010399	U	DKKO	ь	Dreage	22	4203-2402	IGFF	7-00.005	1/3-40.03W	y	AVONUZMV
2136 010399	0	DRRO	X	Dredge	53		IGPP	7-43.43S	173-18.48W	g	AVON02MV
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1648 020399	0	DRRO	Ε	Dredge	54	3099-2874	IGPP	7-45.988	173-14.19W	g	AVON02MV
2047 020399	0	DRRO	В	Dredge	55	2973-2639	IGPP		173-17.34W		
2219 020399	0	DRRO	E	Dredge	55	2973-2639	IGPP	7- 4 0.69s	173-16.54W	g	AVON02MV
1440 030399						3615-3234	IGPP		173-01.63W		
2137 030399	0	DRRO	E	Dredge	56	3615-3234	IGPP	8-00.63S	173-01.05W	g	AVON02MV
0231 040399						3152-2036	IGPP		172-52.76W		
0618 040399	0	DRRO	E	Dredge	57	3152-2036	IGPP	8-14.21S	172-52.32W	g	AVON02MV
1004 040399						2358-1650	IGPP	8-10.02S	172-40.95W	g	AVON02MV
1525 040399	0	DRRO	E	Dredge	58	2358-1650	IGPP	8-09.13S	172-40.32W	g	AVON02MV
1937 040399						3709-2941	IGPP		173-00.55W		
2226 040399	0	DRRO	E	Dredge	59	3709-2941	IGPP	8-11.39S	173-00.37W	g	AVON02MV
0642 050399						3111-1706	IGPP		172-41.70W		
1028 050399	0	DRRO	E	Dredge	60	3111-1706	IGPP	8-27.72S	172-40.03W	g	AVON02MV
1638 050399						2593-1533	IGPP	8-38.92S	172-34.72W	g	AVON02MV
1933 050399	0	DRRO	E	Dredge	61	2593-1533	IGPP	8-37. 4 9S	172-33.27W	g	AVON02MV
1812 060399						2593-1522	IGPP		171-14.25W		
2216 060399	0	DRRO	E	Dredge	62	2593-1522	IGPP	9-13.04S	171-12.90W	g	AVON02MV
2300 080399						0955-0892			169-03.57W		
0025 090399	0	DRRO	E	Dredge	63	0955-0892	IGPP	14-13.06S	169-03.13W	g	AVON02MV
0255 090399	0	DRRO	В	Dredge	64	2721-2528			169-03.78W		
0400 090399	0	DRRO	E	Dredge	64	2721-2528	IGPP	14-15.43S	169-03.69W	g	AVON02MV
# End Sample Index								AVON02MV			