

*REPORT AND INDEX OF
UNDERWAY MARINE GEOPHYSICAL DATA*

AVON EXPEDITION

LEG 3

(AVONO3MV)

RN Melville

(Issued June 1999)

Ports:

Pago Pago, American Samoa (11 March 1999)

to

Apia, Western Samoa (17 March 1999)

Co-Chief Scientists:

Stanley Hart, Woods Hole Oceanographic Institution shart@whoi.edu

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Computer Technician -Ron Moe

Resident Marine Technicians -Gene Pillard

and Ron Comer

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

*REPORT AND INDEX OF NAIVIGATION
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.

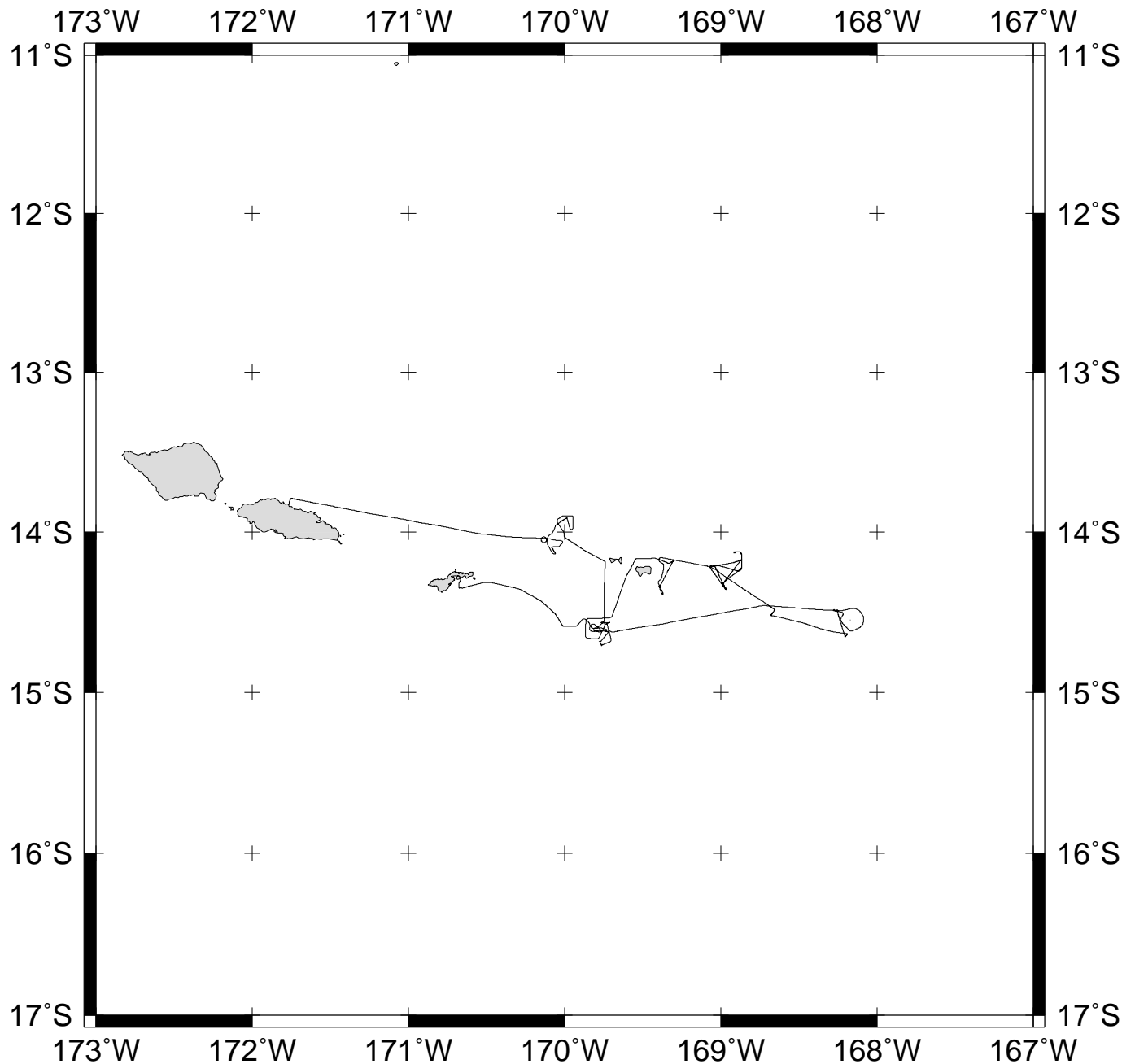
Profiles -depth, magnetic and gravity *free* air anomaly vs. distance. (Sections of track with seismic *reflection* data have a wide black line along the bottom of the profile.)

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 Steve Miller, Curator, Geological Data Center, Scripps Institution of

Oceanography, La Jolla, California 92093-0223. Phone: (858)534-1898,,
Internet email: spmiller@ucsd.edu

1. Files via *ftp* or on 8mm (Exabyte)
 - 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 3 (AVON03MV)

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CHIEF SCIENTIST: Stanley Hart, Woods Hole

PORTS: Pago Pago, Amer. Samoa - Apia, Western Samoa

DATES: 10 - 17 March 1999

SHIP: R/V Melville

TOTAL MILEAGE OF UNDERWAY DATA COLLECTED

Cruise - 735 miles

Magnetics - 445 miles

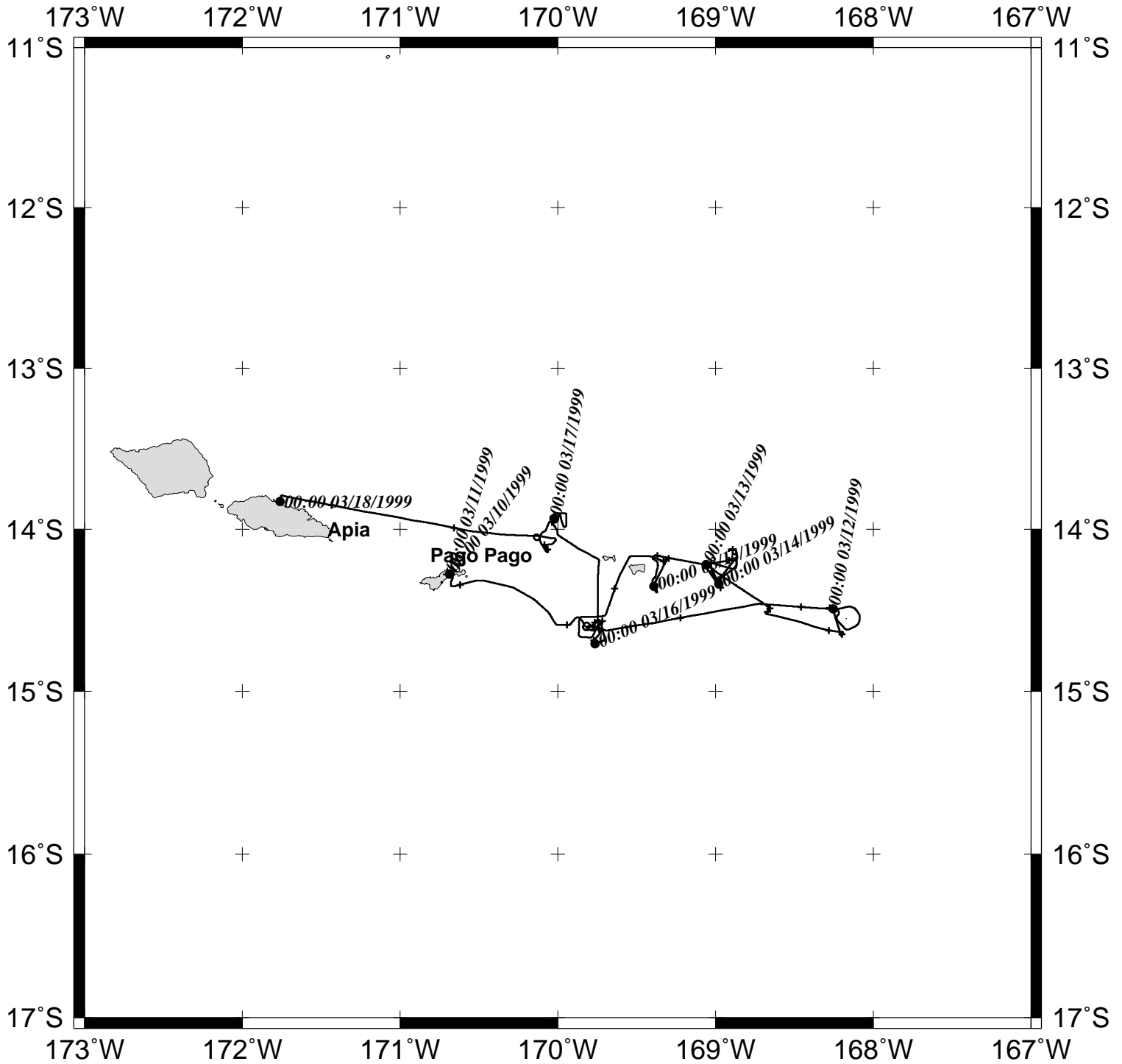
Bathymetry - 715 miles

Seismic Reflection - none collected

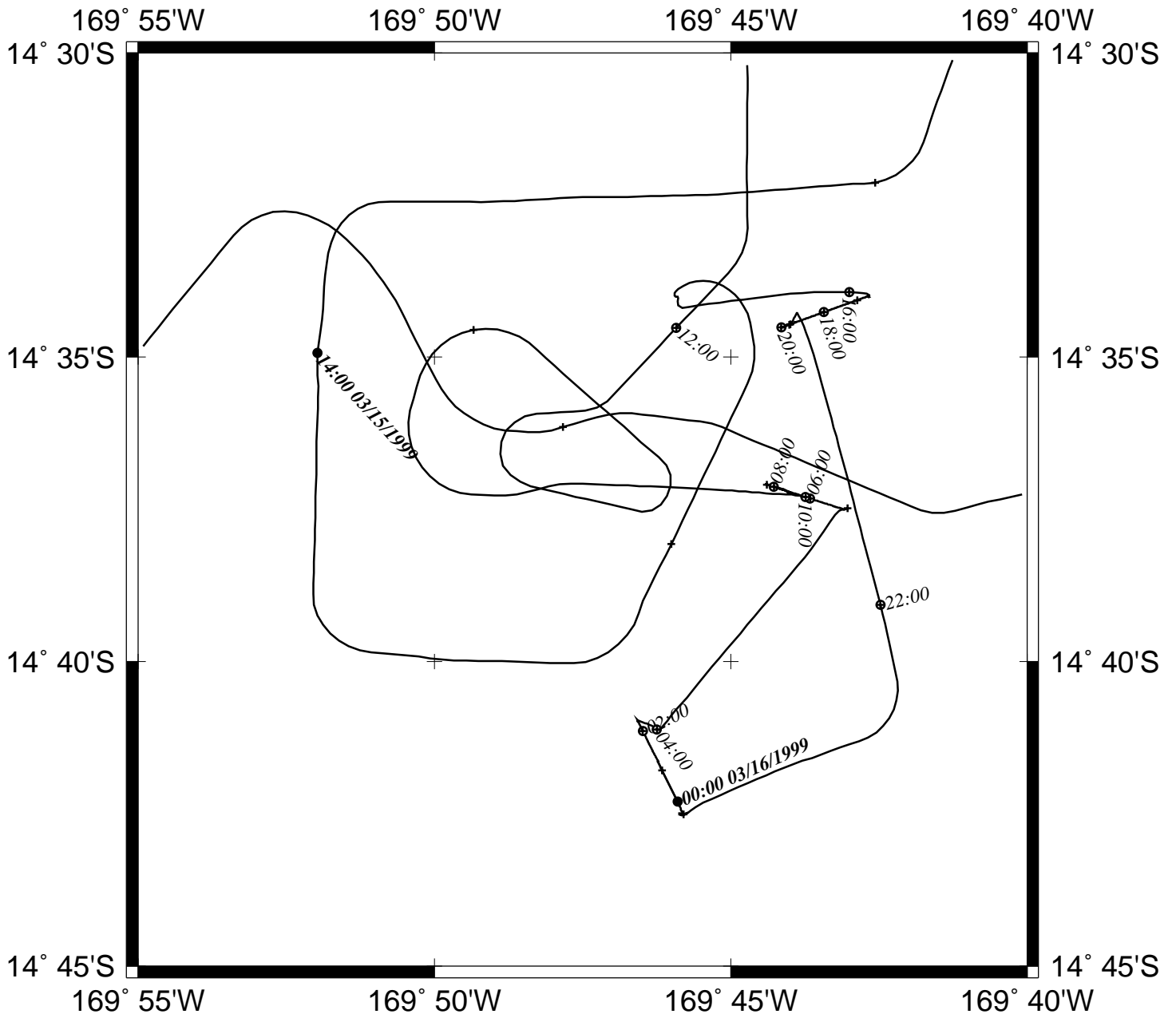
Sea Beam - 715 miles

Gravity - 710 collected

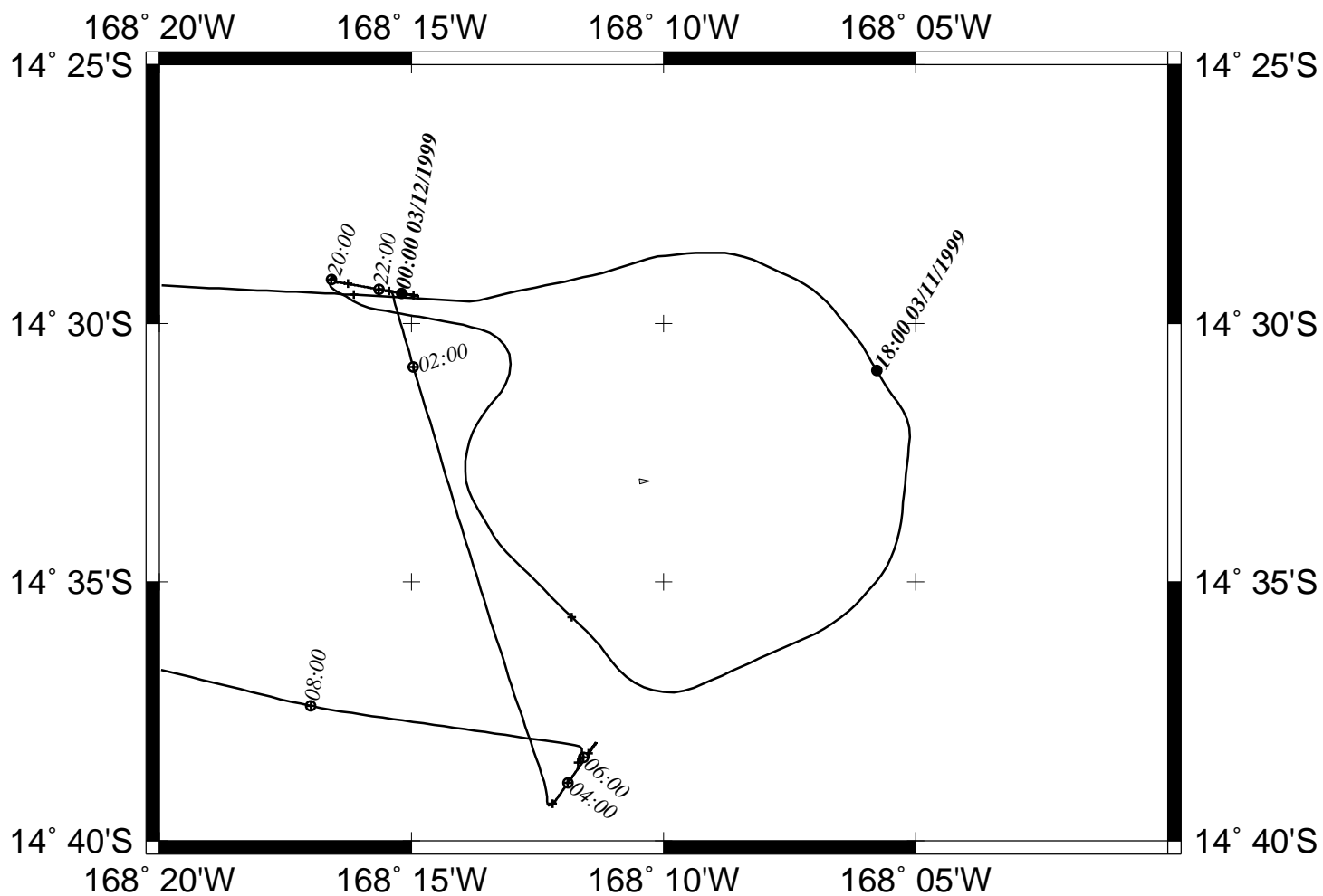
AVON03MV Track



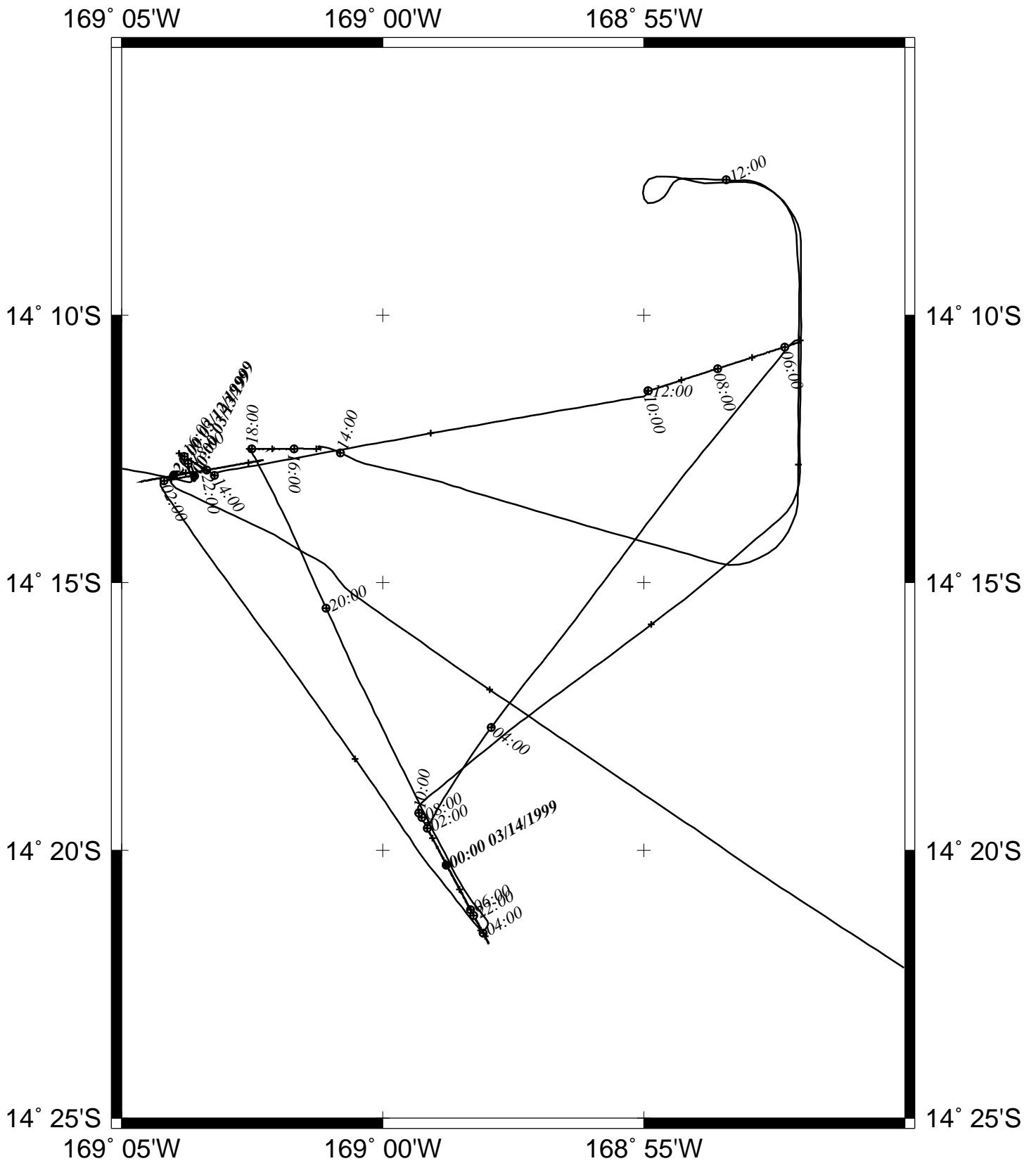
AVON03MV Survey 1



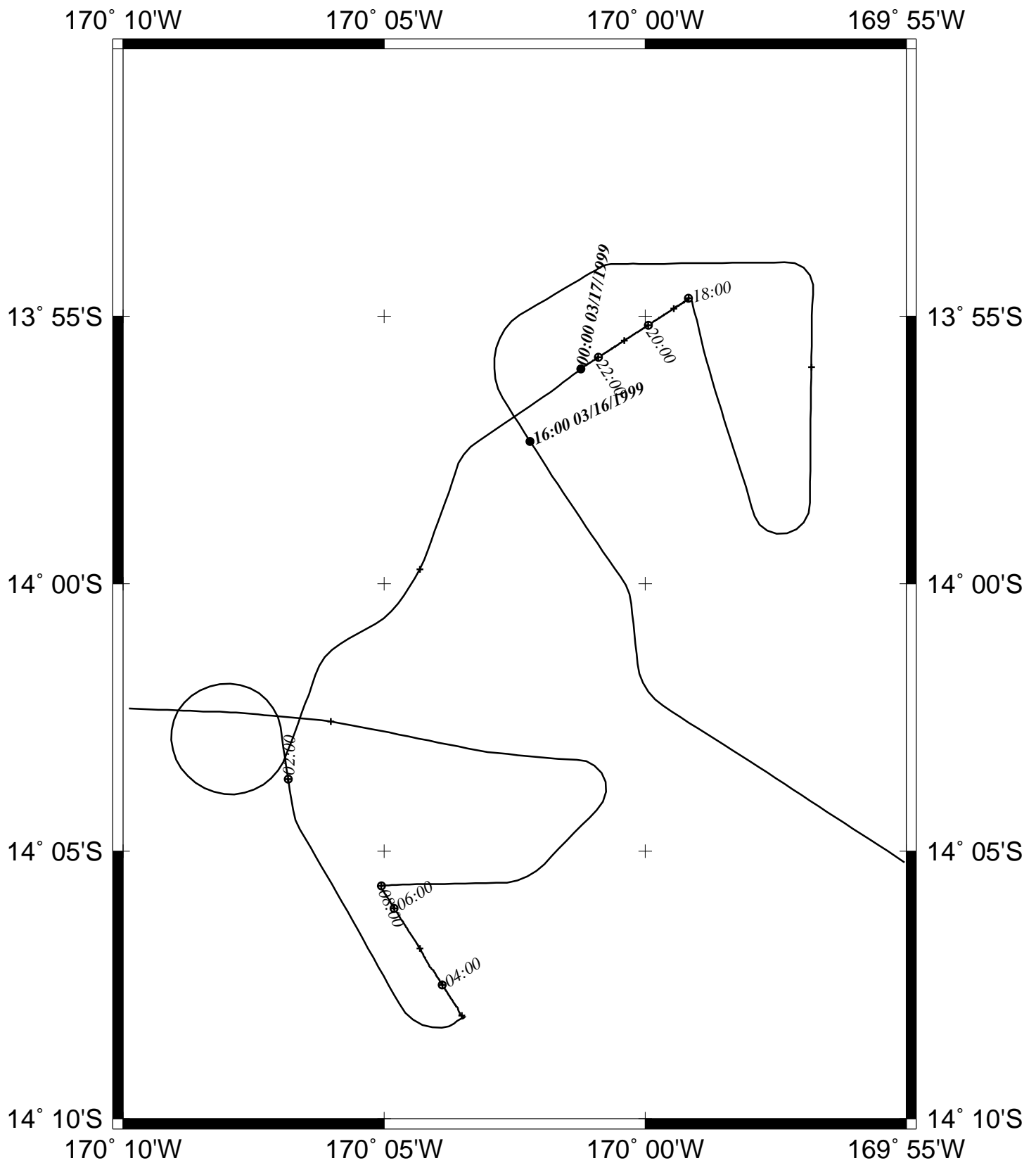
AVON03MV Survey 2

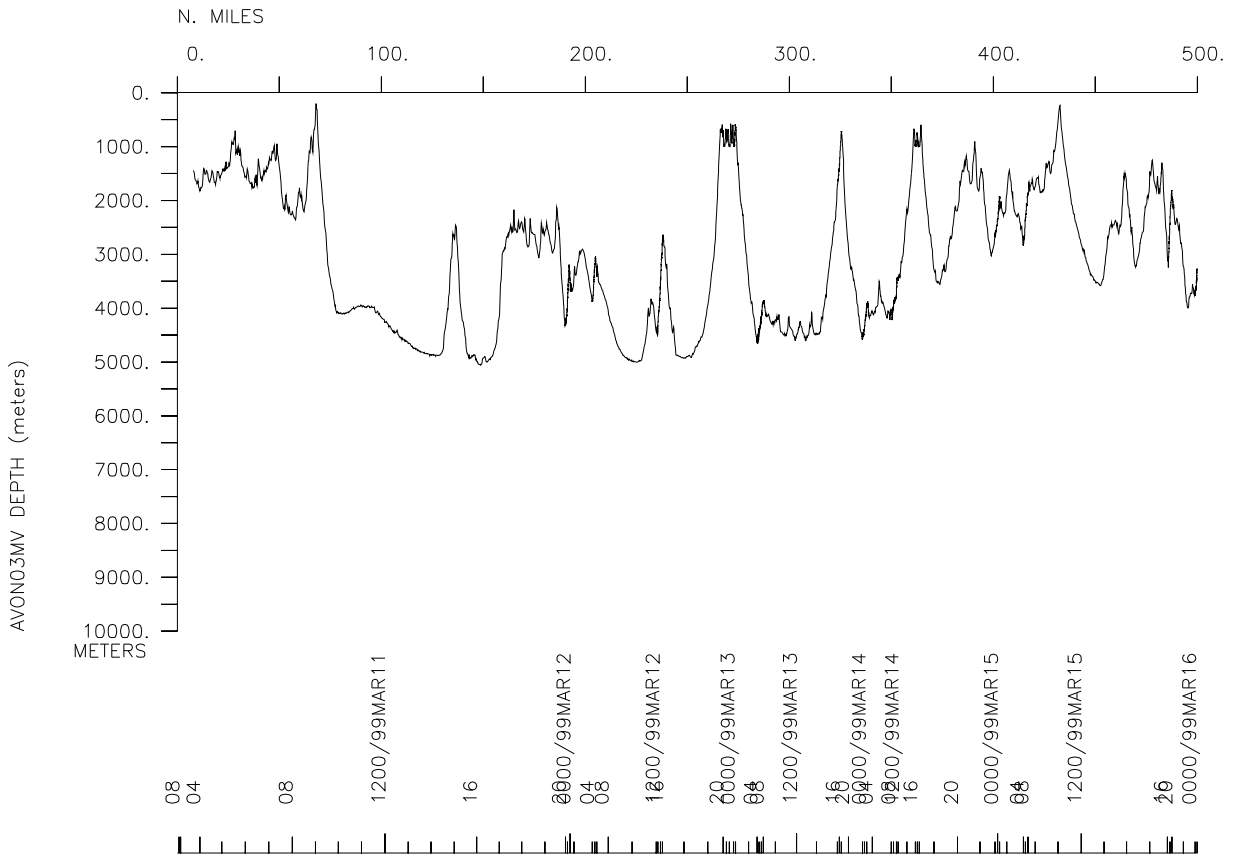
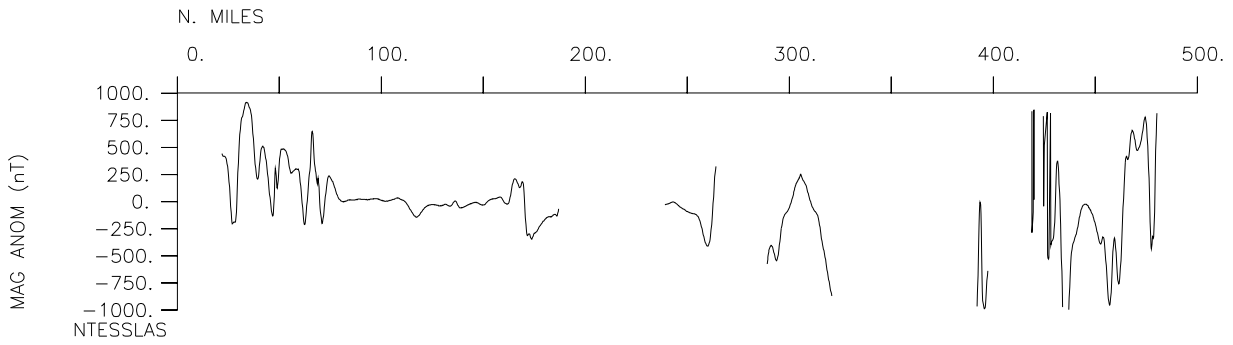
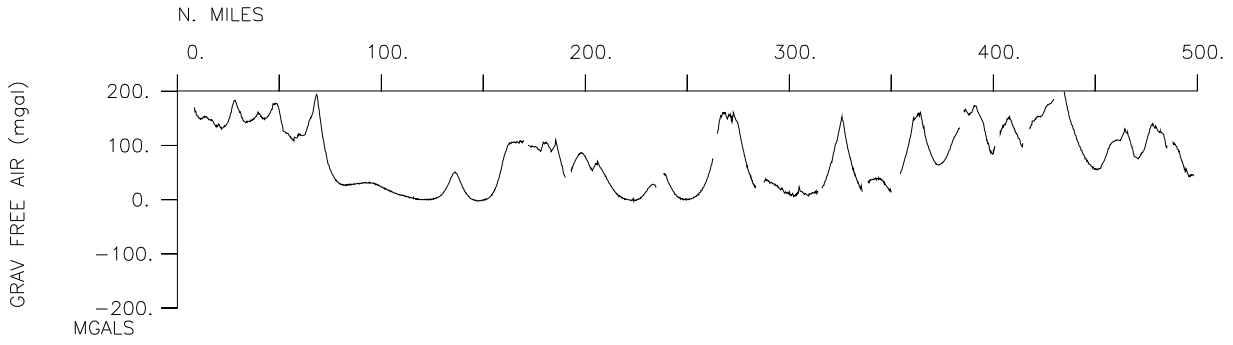


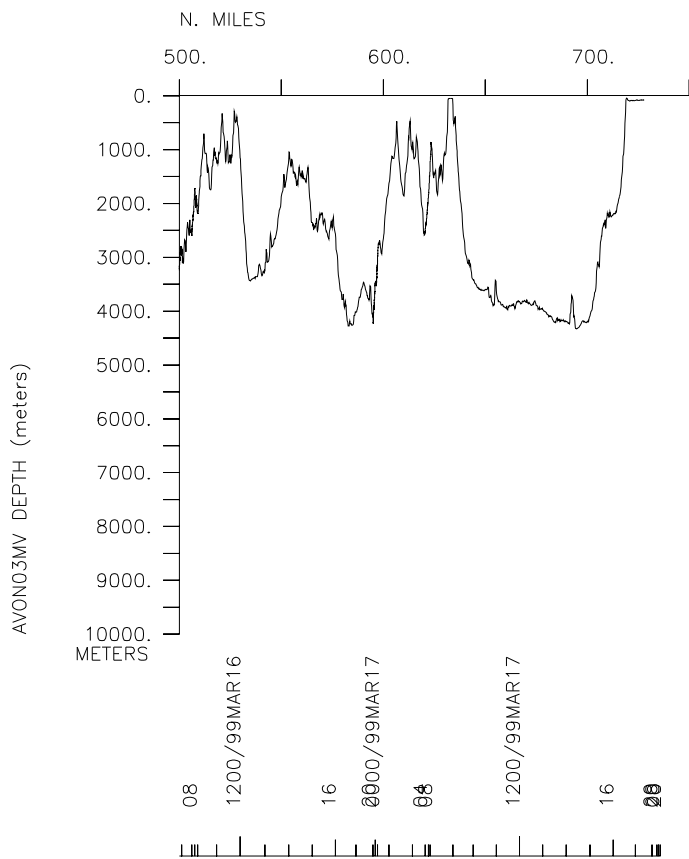
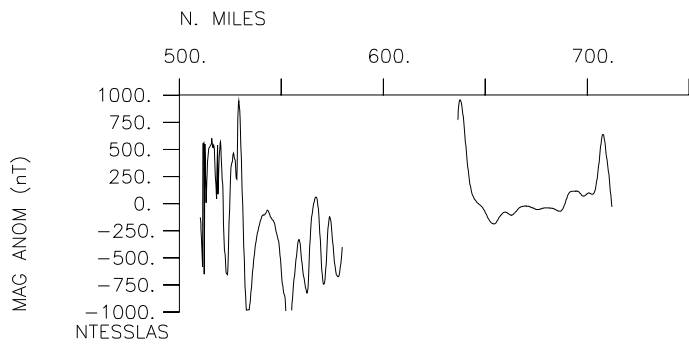
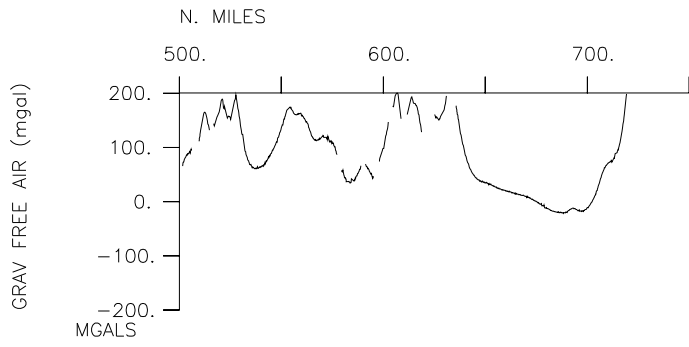
AVON03MV Survey 3



AVON03MV Survey 4







S.I.O. SAMPLE INDEX

AVON EXPEDITION

LEG 3

(A VONO3MV)

R/V Melville

(Issued June 1999)

Ports:

Pago Pago, American Samoa (11 March 1999)

to

Apia, Western Samoa (17 March 1999)

Chief Scientist:

Stanley Hart, Woods Hole

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 1.0.# 284

**** Ports ****

0300 110399 LGPT B Pago Pago, American Samoa 14-17.00S 170-40.00W f AVON03MV
 1900 170399 LGPT E Apia, Western Samoa 13-49.00S 171-46.00W f AVON03MV

**** Personnel ****

#	*****NAME*****	*****TITLE*****	*****AFFILIATION*****	**CRID**
PECS	WHOI Hart, S.	Chief Scientist	Woods Hole	AVON03MV
PESP	IGPP Staudigal, H.	Co-Chief Scient.	Scripps Institution	AVON03MV
PEVL	SIX Arbesman, K.	Volunteer	Non-Scripps Employee	AVON03MV
PERT	STS Comer, R.	Resident Tech	Scripps Institution	AVON03MV
PEVL	SIX Dodds, J.	Volunteer	Non-Scripps Employee	AVON03MV
PEVL	SIX Herman, S.	Volunteer	Non-Scripps Employee	AVON03MV
PEXN	SIX Knoter, J.	Volunteer	Netherlands	AVON03MV
PESP	IGPP Koppers, A.	Scientist	Scripps Institution	AVON03MV
PESP	WHOI Kurz M.	Scientist	Woods Hole	AVON03MV
PEVL	UCLA Lassak, L.M.	Volunteer	U.C. Los Angeles	AVON03MV
PEST	IGPP Lyons, S.	Grad. Student	Scripps Institution	AVON03MV
PESP	SIX McFadden, E.	Observer	U.S. Coast Guard	AVON03MV
PECT	STS Moe, R.	Computer Tech	Scripps Institution	AVON03MV
PERT	STS Pillard, E.	Resident Tech	Scripps Institution	AVON03MV
PESP	WHOI Saal, A.	Scientist	Woods Hole	AVON03MV
PEVL	SIX Taylor, R.	Volunteer	Non-Scripps Employee	AVON03MV

**** 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 - Stuart M. Smith/Geological Data Center - x42752 ****

**** Log Books ****

0334	110399	0	LBUW	B	Underway Watch log	GDC	14-19.67S	170-40.64W	g	AVON03MV
1630	170399	0	LBUW	E	Underway Watch log	GDC	13-50.01S	171-31.05W	g	AVON03MV
0300	110399	0	LBSC	B	Scientific log book	IGPP	14-16.52S	170-41.17W	g	AVON03MV
1900	170399	0	LBSC	E	Scientific log book	IGPP	13-49.64S	171-45.67W	g	AVON03MV

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

0343	110399	0	MBSR	B	v.beam&sidescan r-01	GDC	14-21.04S	170-40.32W	g	AVON03MV
1632	170399	0	MBSR	E	v.beam&sidescan r-01	GDC	13-49.94S	171-31.45W	g	AVON03MV

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

0458	110399	0	MGDR	B	Magnetics data	GDC	14-19.36S	170-26.46W	g	AVON03MV
1557	170399	0	MGDR	E	Magnetics data	GDC	13-51.07S	171-25.56W	g	AVON03MV

**** Digital Gravity ****

0300	110399	0	GVDR	B	Gravity data	GDC	14-16.52S	170-41.17W	g	AVON03MV
1900	170399	0	GVDR	E	Gravity data	GDC	13-49.64S	171-45.67W	g	AVON03MV

#GMT	DDMMYY	SAMP	B	SAMPLE	DISP				p	CRUISE
#TIME	DATE	TZ	CODE	E IDENTIFIER	CODE	LATITUDE	LONGITUDE		c	LEG-SHIP
#-----	---	---	-----	-----	-----	-----	-----	-----	-	-----
#*** Dredges (All Dredges were shared between IGPP and Woods Hole) ***										
2140	110399	0	DRRO	B Dredge	65	4088-3662	WHOI	14-29.30S	168-15.87W	g AVON03MV
0025	120399	0	DRRO	E depth	65	4088-3662	WHOI	14-29.38S	168-15.41W	g AVON03MV
0415	120399	0	DRRO	B Dredge	66	3443-3284	WHOI	14-38.73S	168-11.79W	g AVON03MV
0610	120399	0	DRRO	E depth	66	3443-3284	WHOI	14-38.48S	168-11.69W	g AVON03MV
1143	120399	0	DRRO	B Dredge	67	4055-2712	WHOI	14-30.65S	168-40.31W	g AVON03MV
1555	120399	0	DRRO	E depth	67	4055-2712	WHOI	14-29.20S	168-39.26W	g AVON03MV
0000	130399	0	DRRO	B Dredge	68	0975-0643	WHOI	14-13.00S	169-03.61W	g AVON03MV
0155	130399	0	DRRO	E depth	68	0975-0643	WHOI	14-13.10S	169-04.19W	g AVON03MV
0525	130399	0	DRRO	B Dredge	69	4540-3884	WHOI	14-21.39S	168-58.16W	g AVON03MV
0859	130399	0	DRRO	E depth	69	4540-3884	WHOI	14-19.30S	168-59.31W	g AVON03MV
1501	130399	0	DRRO	B Dredge	70	1535-0724	WHOI	14-12.50S	169-01.28W	g AVON03MV
1852	130399	0	DRRO	E depth	70	1535-0724	WHOI	14-12.50S	169-02.55W	g AVON03MV
2241	130399	0	DRRO	B Dredge	71	4421-3945	WHOI	14-20.89S	168-58.45W	g AVON03MV
0200	140399	0	DRRO	E depth	71	4421-3945	WHOI	14-19.59S	168-59.15W	g AVON03MV
0635	140399	0	DRRO	B Dredge	72	4000-3469	WHOI	14-10.71S	168-52.66W	g AVON03MV
1109	140399	0	DRRO	E depth	72	4000-3469	WHOI	14-11.42S	168-54.92W	g AVON03MV
1438	140399	0	DRRO	B Dredge	73	0996-0779	IGPP	14-12.98S	169-03.26W	g AVON03MV
1651	140399	0	DRRO	E depth	73	0996-0779	IGPP	14-12.58S	169-03.90W	g AVON03MV
2300	140399	0	DRRO	B Dredge	74	2544-1934	IGPP	14-21.74S	169-23.18W	g AVON03MV
0151	150399	0	DRRO	E depth	74	2544-1934	IGPP	14-20.39S	169-23.74W	g AVON03MV
0500	150399	0	DRRO	B Dredge	75	2675-1885	IGPP	14-10.88S	169-18.24W	g AVON03MV
0821	150399	0	DRRO	E depth	75	2675-1885	IGPP	14-11.75S	169-19.85W	g AVON03MV
1722	150399	0	DRRO	B Dredge	76	2785-2005	IGPP	14-34.14S	169-43.08W	g AVON03MV
2025	150399	0	DRRO	E depth	76	2785-2005	IGPP	14-34.47S	169-44.02W	g AVON03MV
0024	160399	0	DRRO	B Dredge	77	3605-2869	IGPP	14-42.09S	169-46.01W	g AVON03MV
0305	160399	0	DRRO	E depth	77	3605-2869	IGPP	14-41.12S	169-46.25W	g AVON03MV
0551	160399	0	DRRO	B Dredge	78	2264-2187	IGPP	14-37.36S	169-43.55W	g AVON03MV
0905	160399	0	DRRO	E depth	78	2264-2187	IGPP	14-37.30S	169-43.74W	g AVON03MV
1914	160399	0	DRRO	B Dredge	79	4224-2758	IGPP	13-54.93S	169-59.57W	g AVON03MV
2330	160399	0	DRRO	E depth	79	4224-2758	IGPP	13-55.99S	170-01.24W	g AVON03MV
0334	170399	0	DRRO	B Dredge	80	2368-0903	IGPP	14-07.74S	170-03.73W	g AVON03MV
0721	170399	0	DRRO	E depth	80	2368-0903	IGPP	14-05.66S	170-05.07W	g AVON03MV
#				End Sample Index						AVON03MV