

INFORMAL REPORT AND INDEX OF
NAVIGATION, DEPTH, MAGNETIC AND SUBBOTTOM PROFILER DATA

(Issued May 1988)

HELIOS EXPEDITION

LEG 3

Easter Island (26 November 1987)
to
Easter Island (18 December 1987)

R/V Melville

Co-Chief Scientists - S. Riser (University of Washington)
J. Lupton (U. of Cal. Santa Barbara)

Resident Marine Technician - G. Hargreaves

Post-Cruise Processing and Report Preparation
by Geological Data Center, Scripps Institution of Oceanography

Data Collection and Processing Funded by NSF
Grant Number OCE87-02835

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.

GDC Cruise I.D.# 233

INFORMAL REPORT AND INDEX OF NAVIGATION
AND UNDERWAY GEOPHYSICAL DATA

Processed by the Geological Data Center
Scripps Institution of Oceanography

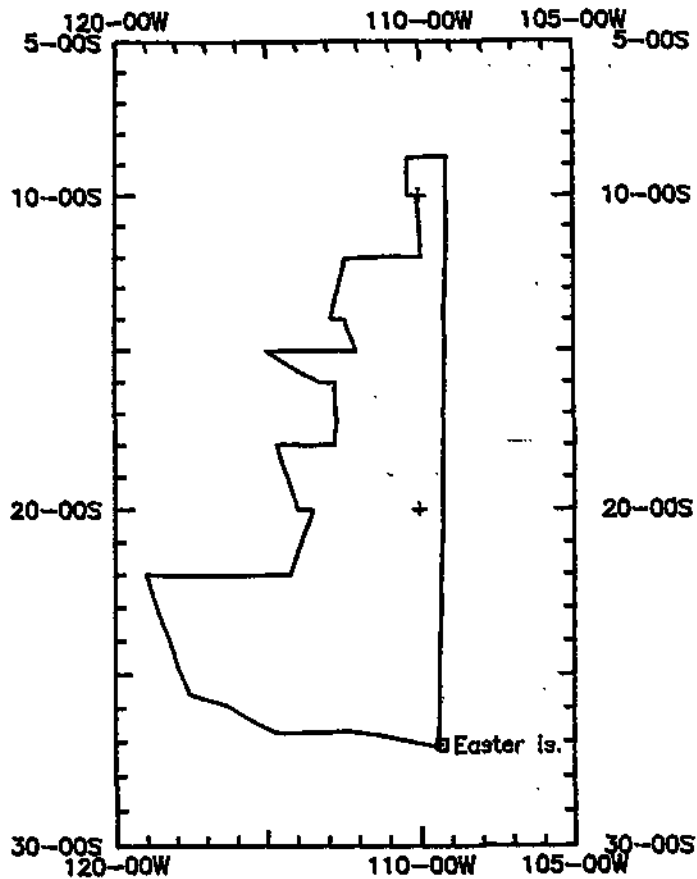
Contents:

- 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 anomaly and gravity free air anomaly vs. distance. Sections of track having subbottom profiles (airgun or watergun) records have a wide black line along the bottom of the profile. Sections having Sea Beam are indicated by a narrow black line.
- Sample Index - list of beginning and end times and positions of all underway records as well as all other samples and measurements (geology, biology, physical oceanography, etc.) collected on the cruise leg.

NOTE: One or more of the underway data types may not be collected on a given cruise 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, CA 92093. Phone (619)534-2752.

1. Navigation listing with times and positions of course and speed changes, fixes and drift velocity.
2. Depth compilation plots - compilation plots at the traditional scale of 4in/degree longitude (1:1,000,000) are no longer produced for Sea Beam cruises. Custom plots may be requested of vertical beam (2 $\frac{2}{3}$ degree beam width) depths retrieved at one minute intervals of ship time.
3. Plots of depths, magnetics or gravity profiles along track - custom plots at various map and profile scales on Mercator projection may be requested.
4. Separate time series files of navigation, depth, gravity and magnetics as well as these data merged in the MGD77 Exchange format on magnetic tape.
5. Microfilm or Xerox copies of:
 - a. Echosounder records - 12 and 3.5 kHz frequency
 - b. Subbottom profiler records
 - c. Magnetometer records
 - d. Gravity records
 - e. Underway data log book



HELIOS LEG 3

Track at .1632in/deg (HELI03)

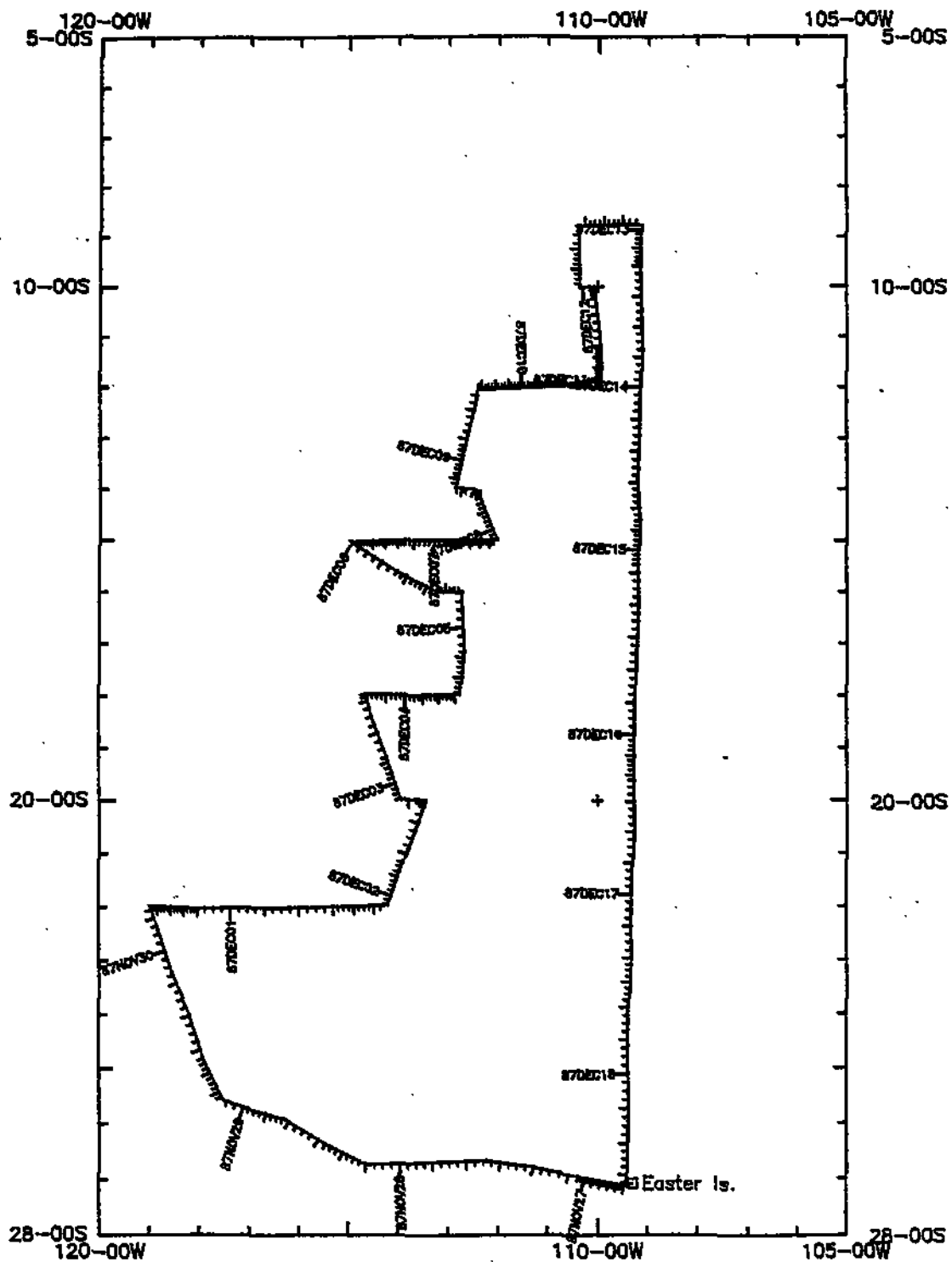
*

HELIOS EXPEDITION LEG 3

CO-CHIEF SCIENTISTS: S. Riser (Univ. of Washnigton)
 J. Lupton (U. of Cal., Santa Barbara)
 PORTS: Easter Island - Easter Island
 DATES: 26 November - 18 December 1987
 SHIP: R/V Melville

TOTAL MILEAGE OF UNDERWAY DATA COLLECTED

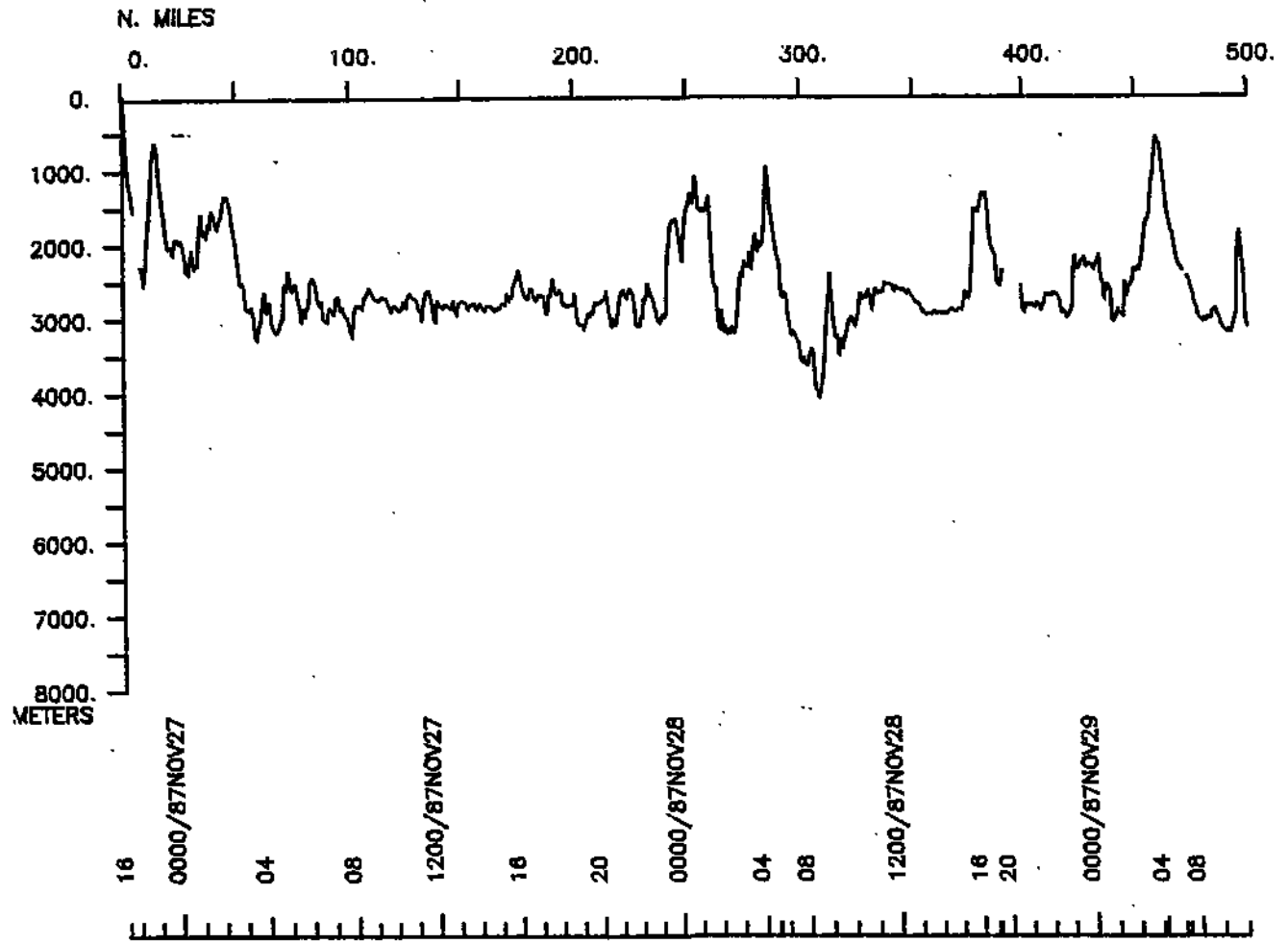
- 1) Cruise - 3666 miles
- 2) Bathymetry - 3586 miles
- 3) Magnetics - none collected
- 4) Seismic Reflection - none collected
- 5) Gravity - none collected



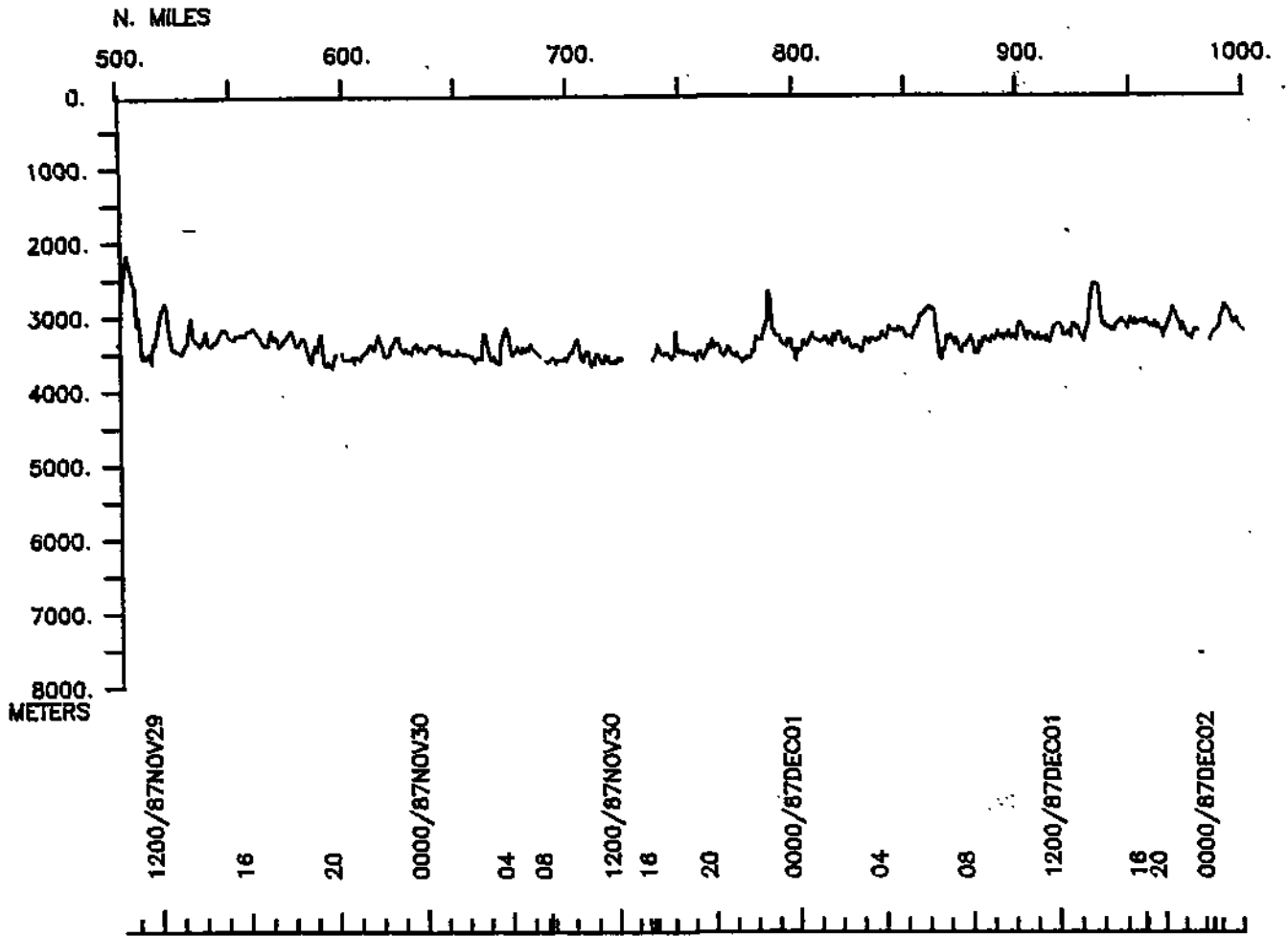
HELIOS LEG 3 (HELI03MV) Track at .312in/deg

*

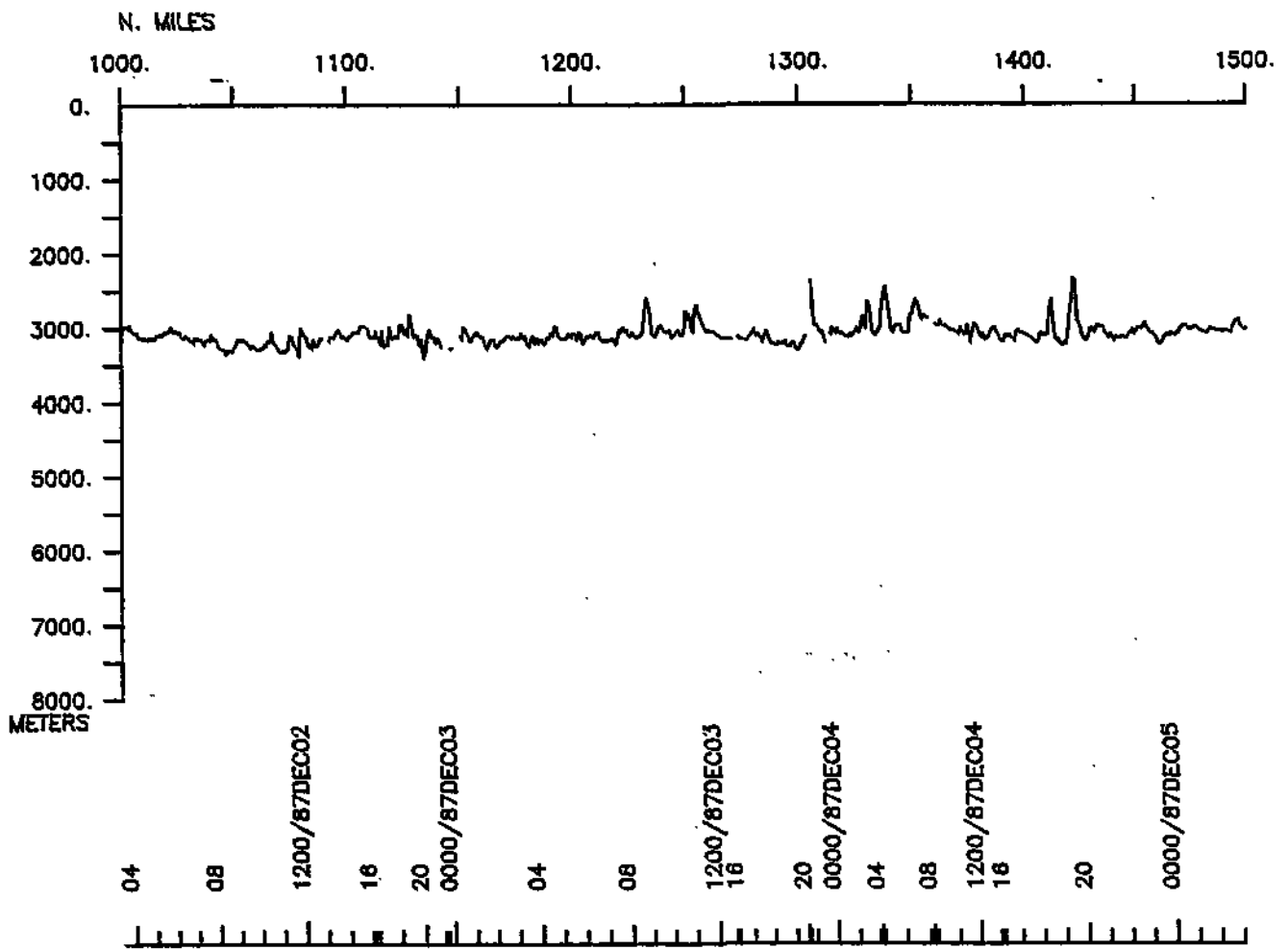
HELIOS LEG 3 (HELIOS3MV)



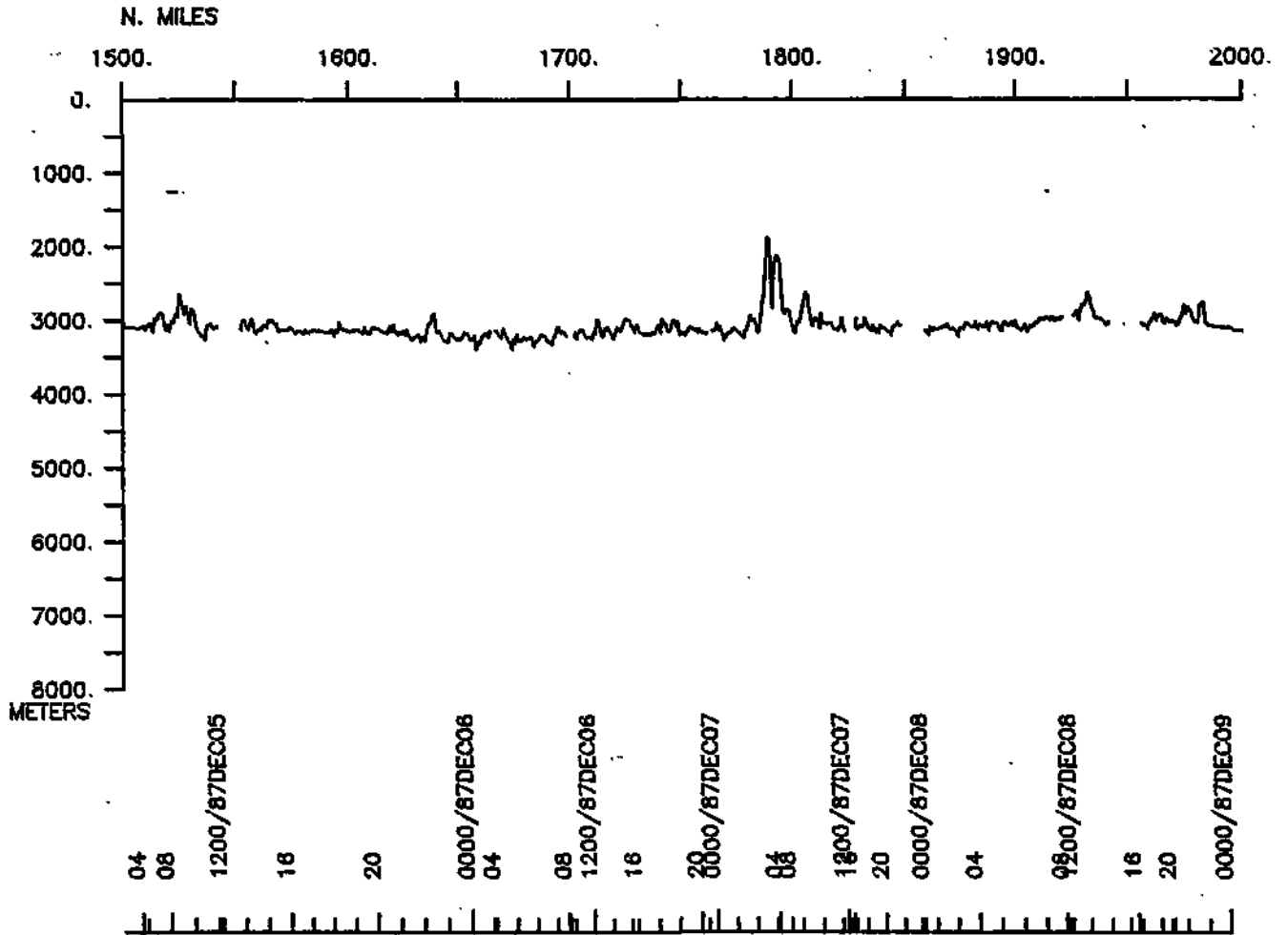
HELIOS LEG 3 (HELIO3NAV)



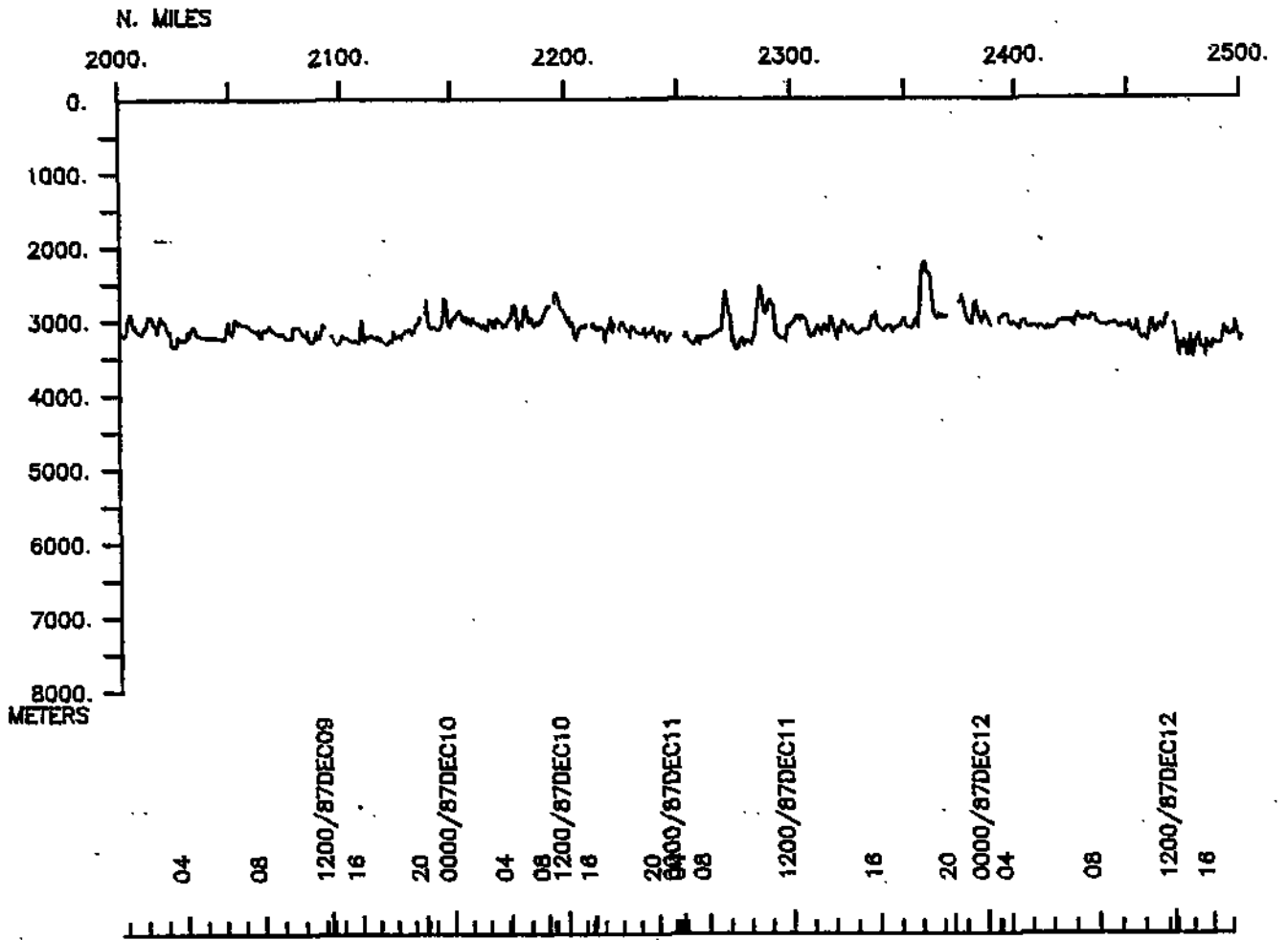
HELIOS LEG 3 (HELI03MM)



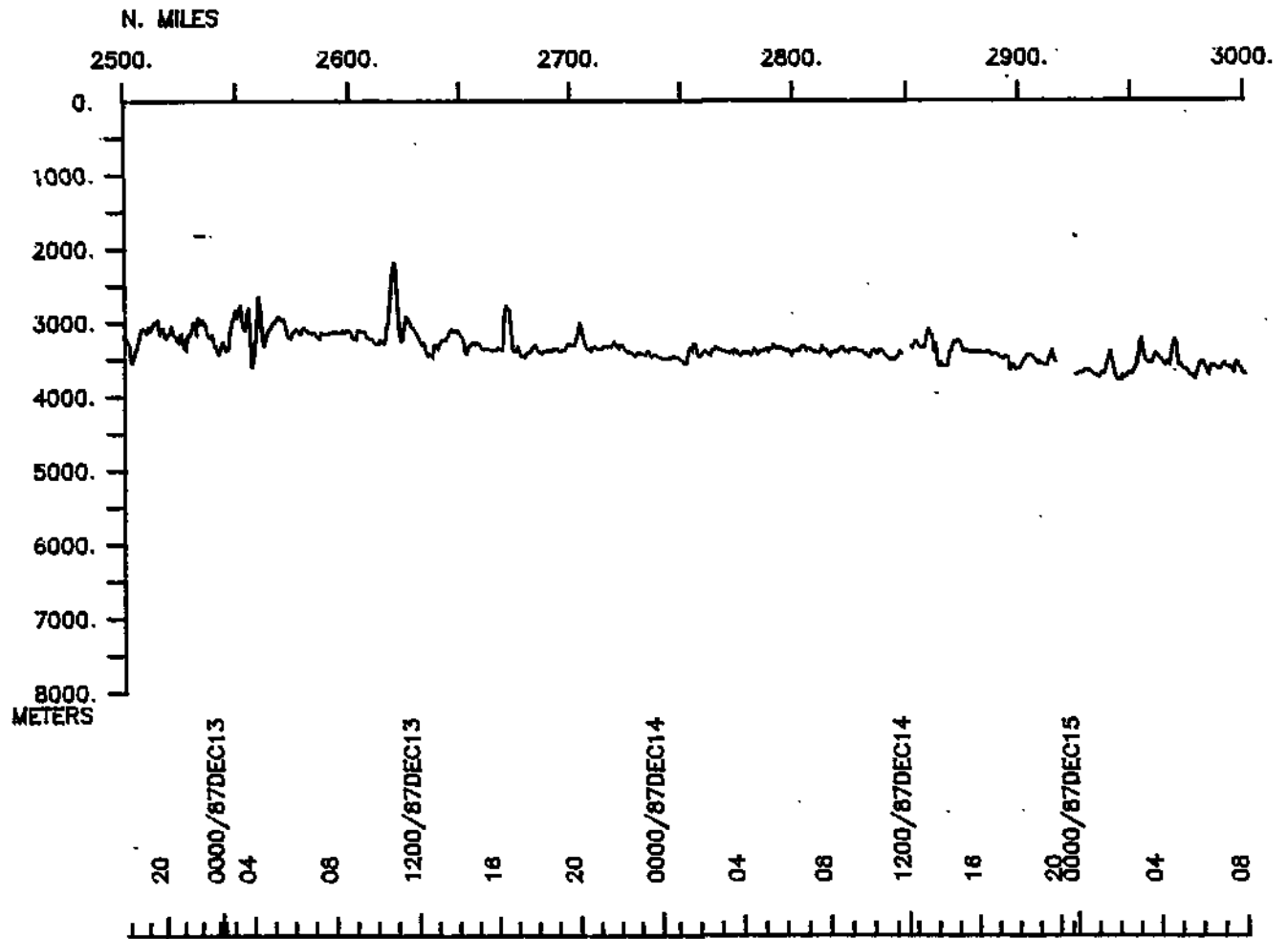
HELIOS LEG 3 (HELIOS3MV)

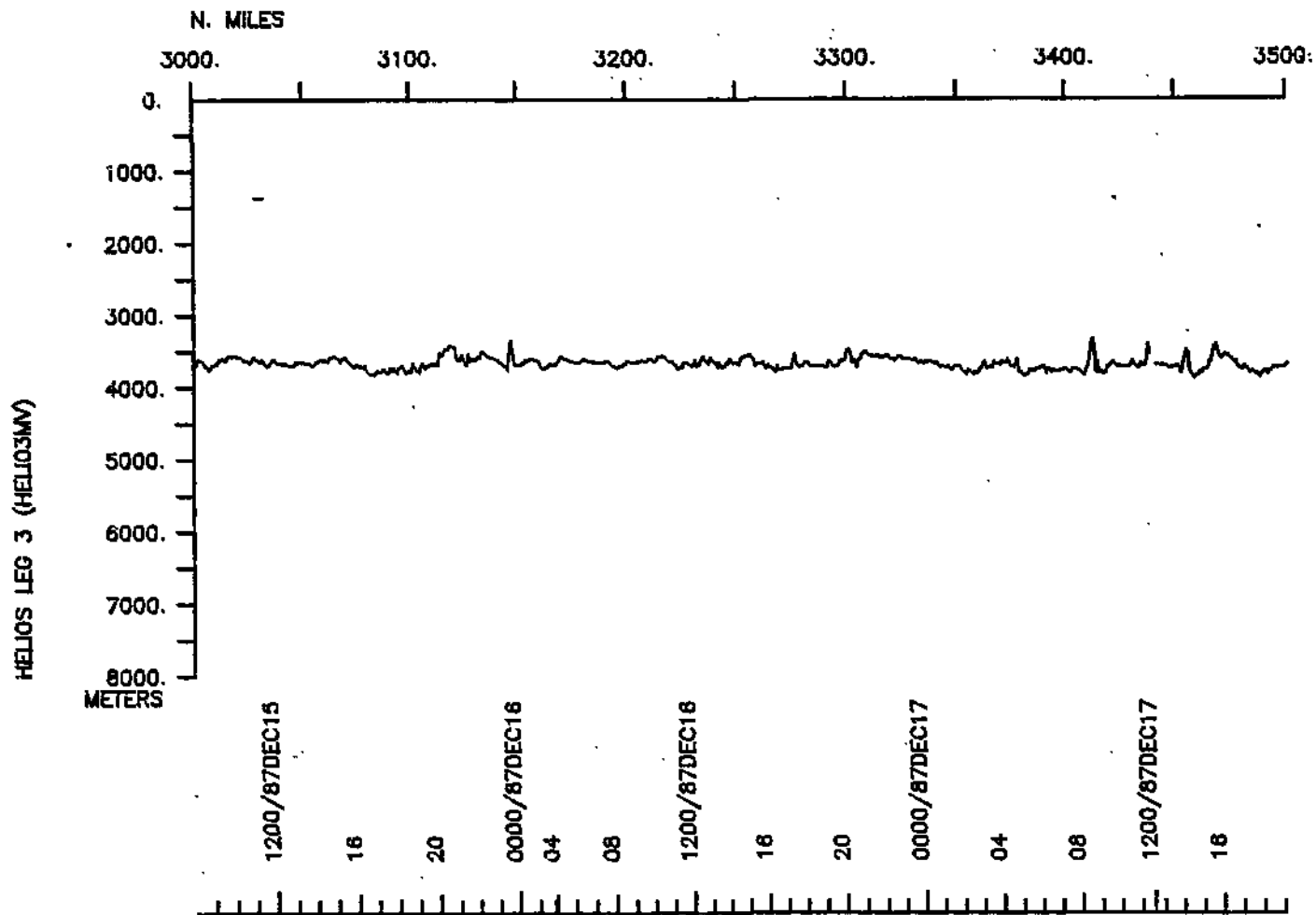


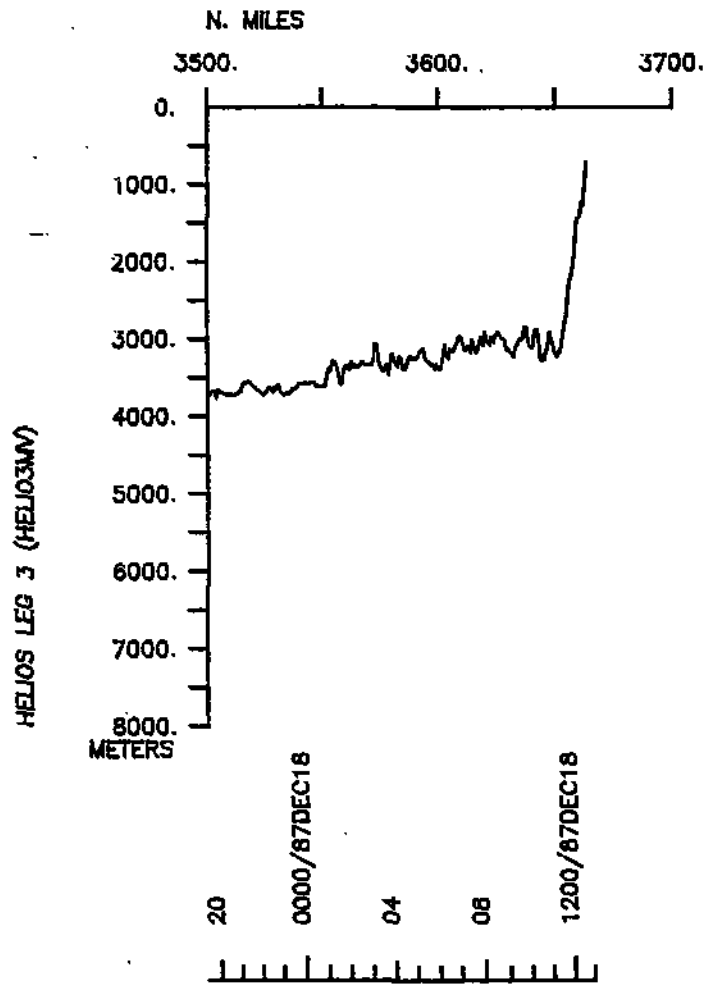
HELIOS LEG 3 (HELJ03MV)



HELIOS LEG 3 (HELIOS3AV)







S.I.O. SAMPLE INDEX

(Issued May 1988)

HELIOS EXPEDITION

Leg 3

Easter Island (26 November 1987)
to
Easter Island (18 December 1987)

R/V Melville

Co-Chief Scientists - S. Riser (Univ. of Washington)
J. Lupton (U. of Cal. Santa Barbara)

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 further computer searches on these parameters. (Listings defining these codes are available from the Geological Data Center.)

GDC Cruise I.D.# 233

****PORTS****

2118 261187	LGPT B EASTER ISLAND	27-090S 109-270W fHELIO3MV
1300 181287	LGPT E EASTER ISLAND	27-090S 109-270W fHELIO3MV

****PERSONNEL****

	NAME	***TITLE***	***AFFILIATION***	**CRID**
PECS UWA	RISER, S.	CO-CHIEF SCIENTIST	UNIV. OF WASHINGTON	HELIO3MV
PEST UWA	HAUTALA, S.	GRAD STUDENT	UNIV. OF WASHINGTON	HELIO3MV
PEST UWA	LOZIER, S.	GRAD STUDENT	UNIV. OF WASHINGTON	HELIO3MV
PECT STS	CHARTERS, J	COMPUTER TECH	SCRIPPS INSTITUTION	HELIO3MV
PESP SIX	BONNER, C.	CHILIAN OBSERVER	CHILI	HELIO3MV
PESP SIX	GALLEGO, A.	CHILIAN OBSERVER	CHILI	HELIO3MV
PERT STS	HARGREAVES, G.	RESIDENT TECH	SCRIPPS INSTITUTION	HELIO3MV
PECS UCS	LUPTON, J.	CO-CHIEF SCIENTIST	U.OF CAL.SANTA BARBARA	HELIO3MV
PEMT UWA	CITTEMAN, R.	NUTRIENT ANALYST	UNIV. OF WASHINGTON	HELIO3MV
PEST UWA	HOLMES, J.	GRAD STUDENT	UNIV. OF WASHINGTON	HELIO3MV
PEMT URI	LILLIBRIDGE, J.	MARINE TECH	UNIV. OF RHODE ISLAND	HELIO3MV
PEMT UWA	JOHNSON, J.	MOORING TECH	UNIV. OF WASHINGTON	HELIO3MV
PEMT URI	MORTLOCK, R.	CHEM TECH	UNIV. OF RHODE ISLAND	HELIO3MV
PEMT URI	LEWKOWITZ, J.	CTD TECH	UNIV. OF RHODE ISLAND	HELIO3MV
PEMT URI	COVINGTON, L	CTD TECH	UNIV. OF RHODE ISLAND	HELIO3MV

****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. POSITIONS ARE IN TENTHS
 #OF MINUTES.

#GMT	DDMMYY	LOC	T	SAMP	SAMPLE	DISP			CRUISE
#TIME	DATE	TIME	Z	CODE	IDENTIFIER	CODE	LAT.	LONG.	LEG-SHIP

****UNDERWAY DATA CURATOR - S. M. SMITH EXT. 42752

****LOG BOOKS****

2120	261187			LBUW	B UNDERWAY WATCH LOG	GDC	27-084S	109-262W	sHELIO3MV
1250	181287			LBUW	E UNDERWAY WATCH LOG	GDC	27-084S	109-265W	sHELIO3MV

**** ECHOSOUNDERS ***

2120	261187			DPRT	B 12KHZ PDR ROLL 01	GDC	27-084S	109-262W	sHELIO3MV
1258	051287			DPRT	E 12KHZ PDR ROLL 01	GDC	15-599S	113-159W	sHELIO3MV
1312	051287			DPRT	B 12KHZ PDR ROLL 02	GDC	15-592S	113-173W	sHELIO3MV
1250	181287			DPRT	E 12KHZ PDR ROLL 02	GDC	27-084S	109-265W	sHELIO3M

* ** TEMPERATURE, SALINITY, DEPTH WITH OXYGEN SENSOR ***

0433	281187			TDOT	B CTD #35	UWA	26-447S	114-430W	sHELIO3MV
0524	281187			TDOT	CTD #35 BOTTOM 1678M	UWA	26-443S	114-436W	sHELIO3MV
0626	281187			TDOT	E CTD #35	UWA	26-437S	114-445W	sHELIO3MV
1716	281187			TDOT	B CTD #36	UWA	25-552S	116-180W	sHELIO3MV
1808	281187			TDOT	CTD #36 BOTTOM 2165M	UWA	25-552S	116-185W	sHELIO3MV
1914	281187			TDOT	E CTD #36	UWA	25-551S	116-193W	sHELIO3MV
0310	291187			TDOT	B CTD #37	UWA	25-335S	117-360W	sHELIO3MV
0329	291187			TDOT	CTD #37 BOTTOM 628M	UWA	25-332S	117-361W	sHELIO3MV
0355	291187			TDOT	E CTD #37	UWA	25-330S	117-364W	sHELIO3MV
0513	291187			TDOT	B CTD #38	UWA	25-236S	117-404W	sHELIO3MV
0614	291187			TDOT	CTD #38 BOTTOM 2295M	UWA	25-232S	117-408W	sHELIO3MV
0723	291187			TDOT	E CTD #38	UWA	25-225S	117-416W	sHELIO3MV
0539	301187			TDOT	B CTD #39	UWA	22-001S	118-585W	sHELIO3MV
0709	301187			TDOT	CTD #39 BOTTOM 3540M	UWA	21-596S	118-579W	sHELIO3MV
0833	301187			TDOT	E CTD #39	UWA	21-588S	118-584W	sHELIO3MV
1558	011287			TDOT	B CTD #40	UWA	21-597S	114-377W	sHELIO3MV
1718	011287			TDOT	CTD #40 BOTTOM 3035M	UWA	21-593S	114-379W	sHELIO3MV
1845	011287			TDOT	E CTD #40	UWA	21-592S	114-380W	sHELIO3MV

#GMT	DDMMYY	LOC T	SAMP	SAMPLE	DISP			CRUISE
#TIME	DATE	TIME Z	CODE	IDENTIFIER	CODE	LAT.	LONG.	LEG-SHIP
2229	011287		TDOT	B CTD #41		UWA 22-003S	114-073W	sHELIO3MV
2356	011287		TDOT	CTD #41 BOTTOM	3306M	UWA 22-002S	114-080W	sHELIO3MV
0128	021287		TDOT	E CTD #41		UWA 21-596S	114-082W	sHELIO3MV
1504	021287		TDOT	B CTD #42		UWA 19-596S	113-242W	sHELIO3MV
1614	021287		TDOT	CTD #42 BOTTOM	3152M	UWA 19-590S	113-241W	sHELIO3MV
1736	021287		TDOT	E CTD #42		UWA 19-584S	113-241W	sHELIO3MV
2058	021287		TDOT	B CTD #43		UWA 20-001S	113-557W	sHELIO3MV
2218	021287		TDOT	CTD #43 BOTTOM	3206M	UWA 19-599S	113-557W	sHELIO3MV
2343	021287		TDOT	E CTD #43		UWA 19-594S	113-564W	sHELIO3MV
1253	031287		TDOT	B CTD #44		UWA 17-599S	114-384W	sHELIO3MV
1407	031287		TDOT	CTD #44 BOTTOM	3090M	UWA 17-595S	114-385W	sHELIO3MV
1532	031287		TDOT	E CTD #44		UWA 17-588S	114-382W	sHELIO3MV
1937	031287		TDOT	B CTD #45		UWA 17-597S	114-072W	sHELIO3MV
2102	031287		TDOT	CTD #45 BOTTOM	2906M	UWA 17-591S	114-074W	sHELIO3MV
2226	031287		TDOT	E CTD #45		UWA 17-585S	114-072W	sHELIO3MV
0205	041287		TDOT	CTD #46		UWA 17-599S	113-353W	sHELIO3MV
0315	041287		TDOT	CTD #46 BOTTOM	2976M	UWA 17-596S	113-350W	sHELIO3MV
0436	041287		TDOT	E CTD #46		UWA 17-593S	113-344W	sHELIO3MV
0713	041287		TDOT	B CTD #47		UWA 17-594S	113-116W	sHELIO3MV
0822	041287		TDOT	CTD #47 BOTTOM	2961M	UWA 17-589S	113-117W	sHELIO3MV
1324	041287		TDOT	B CTD #48		UWA 17-597S	112-403W	sHELIO3MV
1433	041287		TDOT	CTD #48 BOTTOM	3112M	UWA 17-595S	112-404W	sHELIO3MV
1556	041287		TDOT	E CTD #48		UWA 17-592S	112-404W	sHELIO3MV
0419	051287		TDOT	B CTD #49		UWA 16-000S	112-419W	sHELIO3MV
0522	051287		TDOT	CTD #49 BOTTOM	3112M	UWA 15-598S	112-420W	sHELIO3MV
0645	051287		TDOT	E CTD #49		UWA 15-599S	112-420W	sHELIO3MV
1015	051287		TDOT	B CTD #50		UWA 16-001S	113-150W	sHELIO3MV
1130	051287		TDOT	CTD #50 BOTTOM	2995M	UWA 15-599S	113-155W	sHELIO3MV
1250	051287		TDOT	E CTD #50		UWA 15-599S	113-158W	sHELIO3MV
0057	061287		TDOT	B CTD #51		UWA 14-592S	115-036W	sHELIO3MV
0213	061287		TDOT	CTD #51 BOTTOM	3100M	UWA 14-589S	115-043W	sHELIO3MV
0340	061287		TDOT	E CTD #51		UWA 14-587S	115-045W	sHELIO3MV
0740	061287		TDOT	B CTD #52		UWA 14-596S	114-314W	sHELIO3MV
0912	061287		TDOT	CTD #52 BOTTOM	3119M	UWA 14-588S	114-315W	sHELIO3MV
1037	061287		TDOT	E CTD #52		UWA 14-582S	114-310W	sHELIO3MV
1426	061287		TDOT	B CTD #53		UWA 15-001S	114-010W	sHELIO3MV
1524	061287		TDOT	CTD #53 BOTTOM	3066M	UWA 15-001S	114-015W	sHELIO3MV
1643	061287		TDOT	E CTD #53		UWA 15-003S	114-017W	sHELIO3MV
2031	061287		TDOT	B CTD #54		UWA 15-001S	113-300W	sHELIO3MV
2200	061287		TDOT	CTD #54 BOTTOM	3130M	UWA 14-597S	113-300W	sHELIO3MV
2336	061287		TDOT	E CTD #54		UWA 14-592S	113-294W	sHELIO3MV
0310	071287		TDOT	B CTD #55		UWA 15-000S	112-583W	sHELIO3MV
0357	071287		TDOT	CTD #55 BOTTOM	2207M	UWA 14-597S	112-580W	sHELIO3MV
0439	071287		TDOT	E CTD #55		UWA 14-594S	112-578W	sHELIO3MV

#GMT #TIME #	DDMMYY DATE	LOC TIME	T Z	SAMP CODE	SAMPLE IDENTIFIER	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
0545	071287			TDOT B	CTD #56	UWA	14-593S	112-528W	sHELIO3MV
0654	071287			TDOT	CTD #56 BOTTOM	2792M UWA	14-592S	112-529W	sHELIO3MV
0813	071287			TDOT E	CTD #56	UWA	14-591S	112-523W	sHELIO3MV
1130	071287			TDOT B	CTD #57	UWA	14-596S	112-277W	sHELIO3MV
1249	071287			TDOT	CTD #57 BOTTOM	3141M UWA	14-589S	112-275W	sHELIO3MV
1415	071287			TDOT E	CTD #57	UWA	14-586S	112-273W	sHELIO3MV
1638	071287			TDOT B	CTD #58	UWA	14-594S	112-280W	sHELIO3MV
1724	071287			TDOT	CTD #58 BOTTOM	1955M UWA	14-591S	112-280W	sHELIO3MV
1812	071287			TDOT E	CTD #58	UWA	14-588S	112-280W	sHELIO3MV
2212	071287			TDOT B	CTD #59	UWA	15-004S	111-574W	sHELIO3MV
2344	071287			TDOT	CTD #59 BOTTOM	3126M UWA	15-002S	111-573W	sHELIO3MV
0110	081287			TDOT E	CTD #59	UWA	14-598S	111-572W	sHELIO3MV
0813	081287			TDOT B	CTD #60	UWA	14-017S	112-220W	sHELIO3MV
0929	081287			TDOT	CTD #60 BOTTOM	3010M UWA	14-008S	112-219W	sHELIO3MV
1118	081287			TDOT E	CTD #60	UWA	14-000S	112-216W	sHELIO3MV
1832	081287			TDOT B	CTD #61	UWA	13-599S	112-547W	sHELIO3MV
1951	081287			TDOT	CTD #61 BOTTOM	2948M UWA	13-598S	112-544W	sHELIO3MV
11	081287			TDOT E	CTD #61	UWA	13-597S	112-537W	sHELIO3MV
1118	091287			TDOT B	CTD #62	UWA	11-596S	112-228W	sHELIO3MV
1253	091287			TDOT	CTD #62 BOTTOM	3114M UWA	11-595S	112-238W	sHELIO3MV
1418	091287			TDOT E	CTD #62	UWA	11-586S	112-238W	sHELIO3MV
1943	091287			TDOT B	CTD #63	UWA	12-004S	111-422W	sHELIO3MV
2058	091287			TDOT	CTD #63 BOTTOM	2896M UWA	12-000S	111-419W	sHELIO3MV
2221	091287			TDOT E	CTD #63	UWA	11-598S	111-416W	sHELIO3MV
0311	101287			TDOT B	CTD #64	UWA	11-598S	111-047W	sHELIO3MV
0424	101287			TDOT	CTD #64 BOTTOM	2940M UWA	11-595S	111-045W	sHELIO3MV
0836	101287			TDOT B	CTD #65	UWA	11-594S	110-465W	sHELIO3MV
0946	101287			TDOT	CTD #65 BOTTOM	2835M UWA	11-589S	110-461W	sHELIO3MV
1111	101287			TDOT E	CTD #65	UWA	11-582S	110-458W	sHELIO3MV
1326	101287			TDOT B	CTD #66	UWA	11-593S	110-301W	sHELIO3MV
1449	101287			TDOT	CTD #66 BOTTOM	3003M UWA	11-589S	110-308W	sHELIO3MV
1613	101287			TDOT E	CTD #66	UWA	11-586S	110-313W	sHELIO3MV
1620	101287			TDOT X	CTD #67	UWA	11-586S	110-312W	sHELIO3MV
2057	101287			TDOT X	CTD #67 BOTTOM	3154M UWA	12-000S	109-552W	sHELIO3MV
2358	101287			TDOT X	CTD #67 NOT TRIPPED	UWA	11-592S	109-550W	sHELIO3MV
0417	111287			TDOT B	CTD #68	UWA	11-578S	109-557W	sHELIO3MV
0531	111287			TDOT	CTD #68 BOTTOM	3154M UWA	11-574S	109-550W	sHELIO3MV
0651	111287			TDOT E	CTD #68	UWA	11-569S	109-547W	sHELIO3MV
1934	111287			TDOT B	CTD #69	UWA	10-000S	110-050W	sHELIO3MV
2046	111287			TDOT	CTD #69 BOTTOM	2843M UWA	9-595S	110-049W	sHELIO3MV
2210	111287			TDOT E	CTD #69	UWA	9-592S	110-047W	sHELIO3MV
0030	121287			TDOT B	CTD #70	UWA	10-011S	110-229W	sHELIO3MV
0152	121287			TDOT	CTD #70 BOTTOM	3045M UWA	10-008S	110-230W	sHELIO3MV
22	121287			TDOT E	CTD #70	UWA	10-003S	110-223W	sHELIO3MV

#GMT #TIME	DDMMYY DATE	LOC TIME	T Z	SAMP CODE	SAMPLE IDENTIFIER	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
1121	121287			TDOT B	CTD #71	UWA	8-449S	110-208W	sHELIO3MV
1236	121287			TDOT	CTD #71 BOTTOM	2862M UWA	8-445S	110-204W	sHELIO3MV
1400	121287			TDOT E	CTD #71	UWA	8-442S	110-198W	sHELIO3MV
2313	121287			TDOT B	CTD #72	UWA	8-454S	109-058W	sHELIO3MV
0036	131287			TDOT	CTD #72 BOTTOM	3344M UWA	8-452S	109-062W	sHELIO3MV
0213	131287			TDOT E	CTD #72	UWA	8-454S	109-064W	sHELIO3MV
2039	141287			TDOT B	CTD #73	UWA	15-001S	109-115W	sHELIO3MV
2203	141287			TDOT	CTD #73 BOTTOM	3642M UWA	15-000S	109-118W	sHELIO3MV
2339	141287			TDOT E	CTD #73	UWA	14-599S	109-118W	sHELIO3MV
0145	161287			TDOT B	CTD #74	UWA	19-005S	109-169W	sHELIO3MV
0315	161287			TDOT	CTD #74 BOTTOM	3655M UWA	19-002S	109-173W	sHELIO3MV
0446	161287			TDOT E	CTD #74	UWA	19-000S	109-175W	sHELIO3MV

*** EXPENDABLE SOUND SOURCE MOORINGS FOR RAFOS CURRENT METER ***

1450	301187			CMSS	SOUND SRC MOOR.#4	URI	22-029S	118-307W	sHELIO3MV
1651	081287			CMSS	SOUND SRC MOOR.#5	URI	13-584S	112-431W	sHELIO3MV
1227	141287			CMSS	SOUND SRC MOOR.#6	URI	13-487S	109-132W	sHELIO3MV
1230	171287			CMSS	SOUND SRC MOOR.#7	URI	23-354S	109-227W	sHELIO3MV

*** EXPENDABLE REMOTE TRACKED DRIFTER CURRENT METER ***

*** (RAFOS ARE SMART SWALLOW FLOATS TO COLLECT PRESSURE AND POSITION DATA)

0839	301187			CMRT	RAFOS #80	2500M	URI	21-587S	118-584W	sHELIO3MV
1852	011287			CMRT	RAFOS #95	2500M	URI	21-592S	114-380W	sHELIO3MV
1858	011287			CMRT	RAFOS #84	2500M	URI	21-592S	114-380W	sHELIO3MV
1743	021287			CMRT	RAFOS #96	2500M	URI	19-583S	113-241W	sHELIO3MV
1609	031287			CMRT	RAFOS #76	2500M	URI	17-588S	114-383W	sHELIO3MV
2232	031287			CMRT	RAFOS #104	2500M	URI	17-585S	114-071W	sHELIO3MV
0443	041287			CMRT	RAFOS #114	2500M	URI	17-593S	113-344W	sHELIO3MV
1603	041287			CMRT	RAFOS #115	2500M	URI	17-592S	112-404W	sHELIO3MV
0651	051287			CMRT	RAFOS #101	2500M	URI	15-599S	112-420W	sHELIO3MV
0346	061287			CMRT	RAFOS #90	2500M	URI	14-587S	115-045W	sHELIO3MV
1648	061287			CMRT	RAFOS #109	2500M	URI	15-003S	114-017W	sHELIO3MV
1653	061287			CMRT	RAFOS #74	2500M	URI	15-003S	114-018W	sHELIO3MV
0820	071287			CMRT	RAFOS #72	2500M	URI	14-591S	112-523W	sHELIO3MV
1818	071287			CMRT	RAFOS #94	2500M	URI	14-587S	112-279W	sHELIO3MV
2228	091287			CMRT	RAFOS #82	2500M	URI	11-597S	111-416W	sHELIO3MV
1618	101287			CMRT	RAFOS #91	2500M	URI	11-586S	110-313W	sHELIO3MV
2217	111287			CMRT	RAFOS #93	2500M	URI	9-592S	110-047W	sHELIO3MV
0219	131287			CMRT	RAFOS #97	2500M	URI	8-455S	109-064W	sHELIO3MV
0223	131287			CMRT	RAFOS #92	2500M	URI	8-455S	109-063W	sHELIO3MV
0016	141287			CMRT	RAFOS #118	2500M	URI	12-037S	109-095W	sHELIO3MV
2344	141287			CMRT	RAFOS #108	2500M	URI	14-599S	109-114W	sHELIO3MV
0448	161287			CMRT	RAFOS #110	2500M	URI	19-000S	109-175W	sHELIO3MV

#GMT	DDMMYY	LOC T	SAMP	SAMPLE	DISP	LAT.	LONG.	CRUISE
#TIME	DATE	TIME Z	CODE	IDENTIFIER	CODE			LEG-SHIP

**** SEA SURFACE SALINITY ****

2350	261187		SSSA	XBT 0099	SURF SALT	UWA 27-042S	109-495W	sHELIO3MV
0138	271187		SSSA	XBT 0100	SURF SALT	UWA 27-011S	110-089W	sHELIO3MV
0515	271187		SSSA	XBT 0101	SURF SALT	UWA 26-530S	110-466W	sHELIO3MV
1111	271187		SSSA	XBT 0102	SURF SALT	UWA 26-425S	111-476W	sHELIO3MV
1704	271187		SSSA	XBT 0103	SURF SALT	UWA 26-420S	112-483W	sHELIO3MV
1712	271187		SSSA	XBT 0104	SURF SALT	UWA 26-421S	112-496W	sHELIO3MV
2308	271187		SSSA	XBT 0105	SURF SALT	UWA 26-444S	113-490W	sHELIO3MV
1101	281187		SSSA	XBT 0106	SURF SALT	UWA 26-235S	115-272W	sHELIO3MV
2300	281187		SSSA	XBT 0107	SURF SALT	UWA 25-467S	116-551W	sHELIO3MV
1157	291187		SSSA	XBT 0108	SURF SALT	UWA 24-415S	117-574W	sHELIO3MV
1757	291187		SSSA	XBT 0109	SURF SALT	UWA 23-455S	118-182W	sHELIO3MV
0002	301187		SSSA	XBT 0110	SURF SALT	UWA 22-506S	118-422W	sHELIO3MV
0002	011287		SSSA	XBT 0111	SURF SALT	UWA 22-016S	117-221W	sHELIO3MV
0558	011287		SSSA	XBT 0112	SURF SALT	UWA 22-027S	116-205W	sHELIO3MV
1237	011287		SSSA	XBT 0113	SURF SALT	UWA 22-011S	115-106W	sHELIO3MV
06	021287		SSSA	XBT 0114	SURF SALT	UWA 21-198S	113-555W	sHELIO3MV
0004	021287		SSSA	XBT 0115	SURF SALT	UWA 20-259S	113-346W	sHELIO3MV
0004	031287		SSSA	XBT 0116	SURF SALT	UWA 19-577S	113-582W	sHELIO3MV
0604	031287		SSSA	XBT 0117	SURF SALT	UWA 19-019S	114-169W	sHELIO3MV
1203	031287		SSSA	XBT 0118	SURF SALT	UWA 18-064S	114-358W	sHELIO3MV
0004	041287		SSSA	XBT 0119	SURF SALT	UWA 17-595S	113-539W	sHELIO3MV
1204	041287		SSSA	XBT 0120	SURF SALT	UWA 17-593S	112-506W	sHELIO3MV
0001	051287		SSSA	XBT 0121	SURF SALT	UWA 16-420S	112-412W	sHELIO3MV
2358	051287		SSSA	XBT 0122	SURF SALT	UWA 15-039S	114-547W	sHELIO3MV
0605	061287		SSSA	XBT 0123	SURF SALT	UWA 14-594S	114-449W	sHELIO3MV
1200	061287		SSSA	XBT 0124	SURF SALT	UWA 14-588S	114-203W	sHELIO3MV
1209	061287		SSSA	XBT 0125	SURF SALT	UWA 14-589S	114-190W	sHELIO3MV
2358	081287		SSSA	XBT 0126	SURF SALT	UWA 13-367S	112-470W	sHELIO3MV
1805	091287		SSSA	XBT 0127	SURF SALT	UWA 12-003S	111-546W	sHELIO3MV
2359	091287		SSSA	XBT 0128	SURF SALT	UWA 12-002S	111-301W	sHELIO3MV
1203	111287		SSSA	XBT 0129	SURF SALT	UWA 11-098S	109-579W	sHELIO3MV
1848	111287		SSSA	XBT 0130	SURF SALT	UWA 10-063S	110-044W	sHELIO3MV
1807	121287		SSSA	XBT 0132	SURF SALT	UWA 8-444S	109-456W	sHELIO3MV
0633	131287		SSSA	XBT 0133	SURF SALT	UWA 9-211S	109-083W	sHELIO3MV
1203	131287		SSSA	XBT 0134	SURF SALT	UWA 10-114S	109-085W	sHELIO3MV
1742	151287		SSSA	XBT 0135	SURF SALT	UWA 17-464S	109-169W	sHELIO3MV
2358	151287		SSSA	XBT 0136	SURF SALT	UWA 18-446S	109-174W	sHELIO3MV
1204	161287		SSSA	XBT 0137	SURF SALT	UWA 20-028S	109-177W	sHELIO3MV
1742	161287		SSSA	XBT 0138	SURF SALT	UWA 20-506S	109-183W	sHELIO3MV

END SAMPLE INDEX