

INFORMAL REPORT AND INDEX OF  
NAVIGATION, DEPTH, MAGNETIC AND SUBBOTTOM PROFILER DATA  
(Issued August 1983)

SEAMOUNT EXPEDITION

LEG 1

San Diego, Calif. (17 June 1983)  
to  
San Diego, Calif. (28 June 1983)  
R/V T. Washington

Chief Scientist - P. Lonsdale

Resident Marine Tech - R. Comer

Post-Cruise Processing and Report Preparation  
by S.I.O. Geological Data Center

Data Collection Funded by ONR  
Grant Number ONR-0440 and ONR-0472  
Data Processing funded by SIA, ONR and NSF

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.# - 208

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

Contents:

- Index Chart - gives track of cruise leg, dates, ports, and mileage of each type of data collected.
- Track Charts - annotated with dates (day/month) and hour ticks. The scale is .312 in/degree longitude.
- Profiles - depth and magnetic anomaly vs. distance. Dates (day/month) and positions of major course changes (greater than 30 degrees) are annotated. Sections of track having subbottom profiler (airgun) records have a wide black line along the bottom of the profile. Sections having Sea Beam are indicated by a narrow line.
- Sample Index - list of beginning and end times and positions of all underway records as well as all other samples (geology, biology, physical oceanography, etc.) collected on the 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, California 92093. Phone (714) 452-2752.

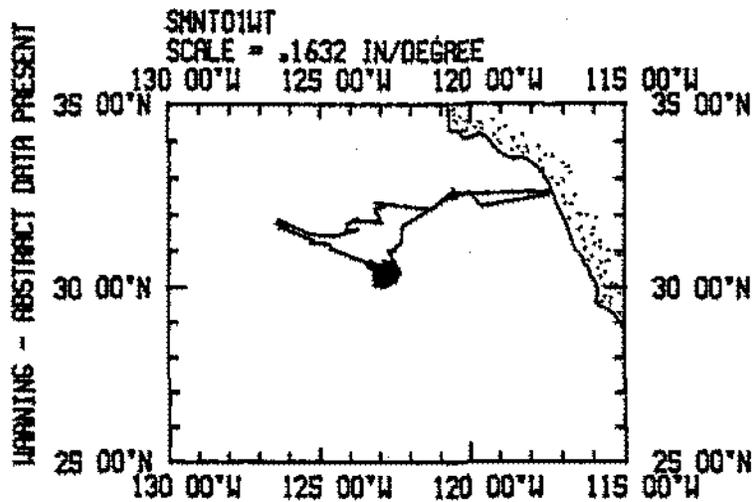
1. Navigation listing of times and positions of course and speed changes, fixes and drift velocity.
2. Depth Compilation Plots - Compilation plots at the traditional scale of 4"/degree longitude (1:1,000,000) are no longer produced for Sea Beam cruises. Custom plots may be requested of vertical beam (2 $\frac{2}{3}$  degree beam width) depths retrieved at one minute intervals of ship time.
3. Plots of magnetic anomaly profiles along track - map scale = 1.2inch/degree, anomaly scale between 15N and 15 S latitude = 500 gamma/inch, anomaly scale north of 15N and south of 15S = 1000 gamma/inch, from values retrieved at approximately 1 mile spacing and regional field removed using the 1980 IGRF.
4. Separate time series files of navigation, depth and magnetics of 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 (airgun)
  - c. Magnetometer records
  - d. Underway data log

### S.I.O. Sea Beam Data

As of June 1982 the institution's procedures for handling Sea Beam data are still evolving. The following forms are available, subject to approval of the cruise leg chief scientist.

- 1) Archive copy of contour swath books generated in real time on board ship available for inspection at the data center.
- 2) Microfilm (35mm flowfilm) containing swath books plus, for some cruises, the UGR monitor record and navigation listings.
- 3) Sea Beam merged tapes - Sea Beam data merged with navigation (navigation is edited to the extent that poor fixes are removed after inspection of drift vectors between fix pairs. No editing is done on the basis of adjusting to overlapping Sea Beam swaths.)
- 4) Custom generated plots of Sea Beam swaths on Mercator projection in four colors at variable plot scales and contour intervals. There are provisions to adjust positions of individual track lines and to edit out beams (bad data or overlapping data on inside of turns).

S. M. Smith June 1982

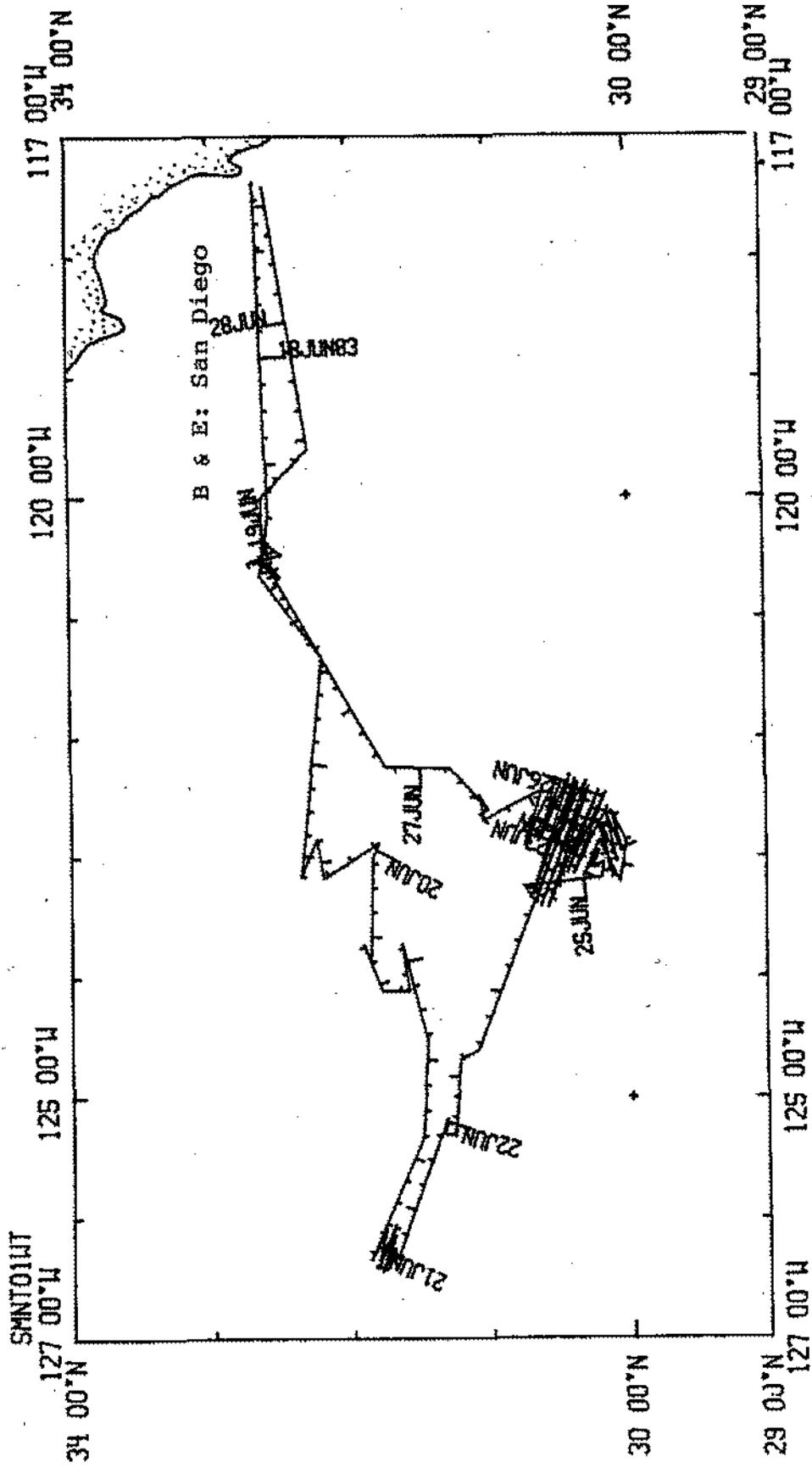


SEAMOUNT EXPEDITION  
LEG 1

CHIEF SCIENTIST- P. Lonsdale  
Ports: San Diego - San Diego, Calif.  
Dates: 17 -28 June 1983  
Ship: R/V T. Washington

TOTAL MILEAGE OF UNDERWAY DATA COLLECTED

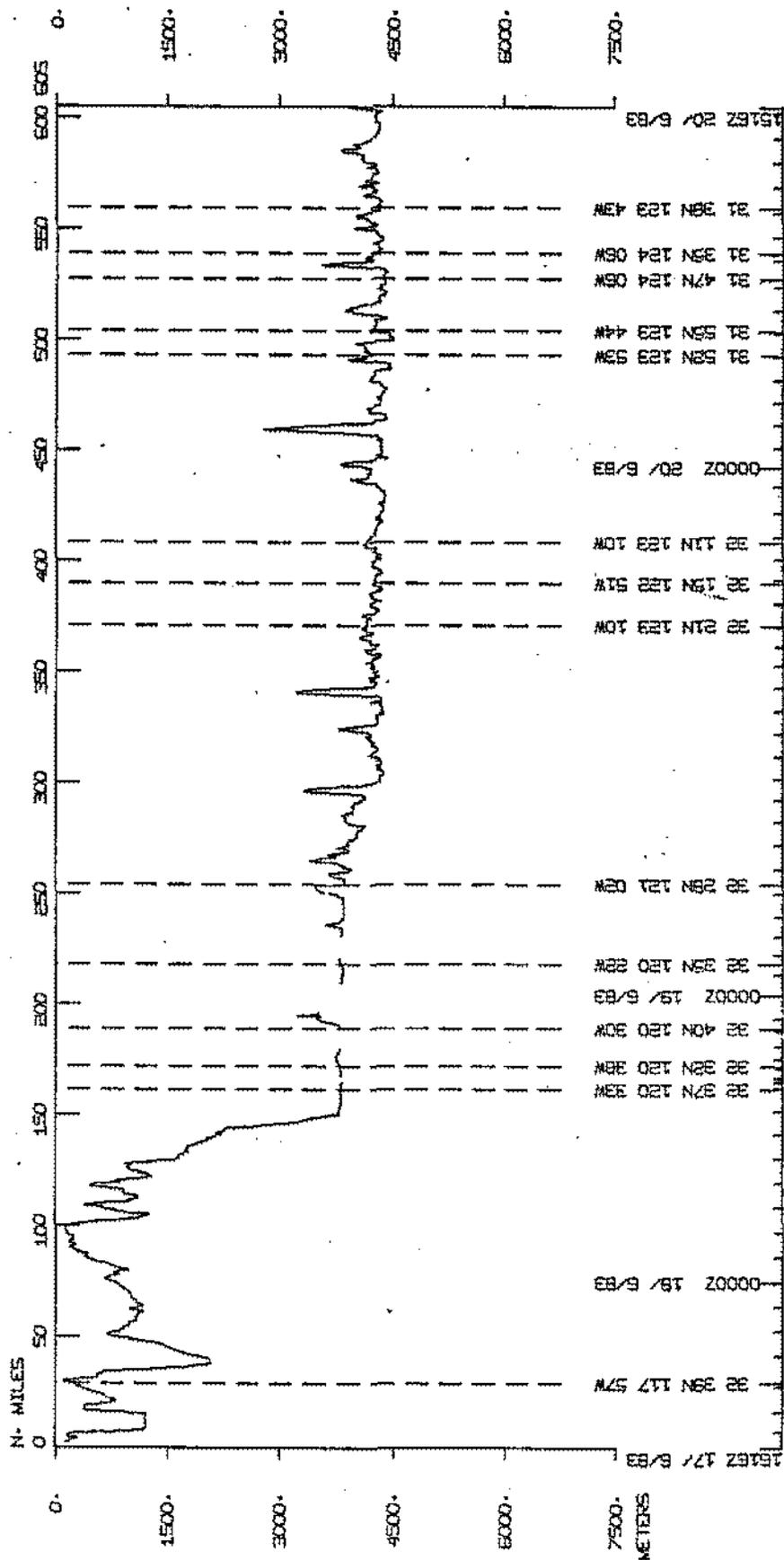
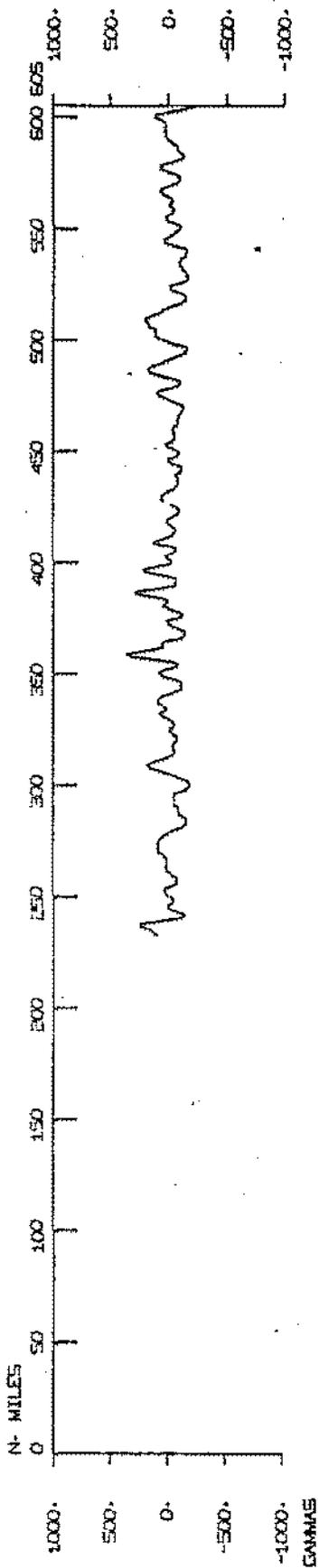
- 1) Cruise - 2563 miles
- 2) Bathymetry - 2528 miles
- 3) Magnetics - 2143 miles
- 4) Seismic Reflection - 1933 miles
- 5) Gravity - 2563 miles
- 6) Seabeam - 2528 miles



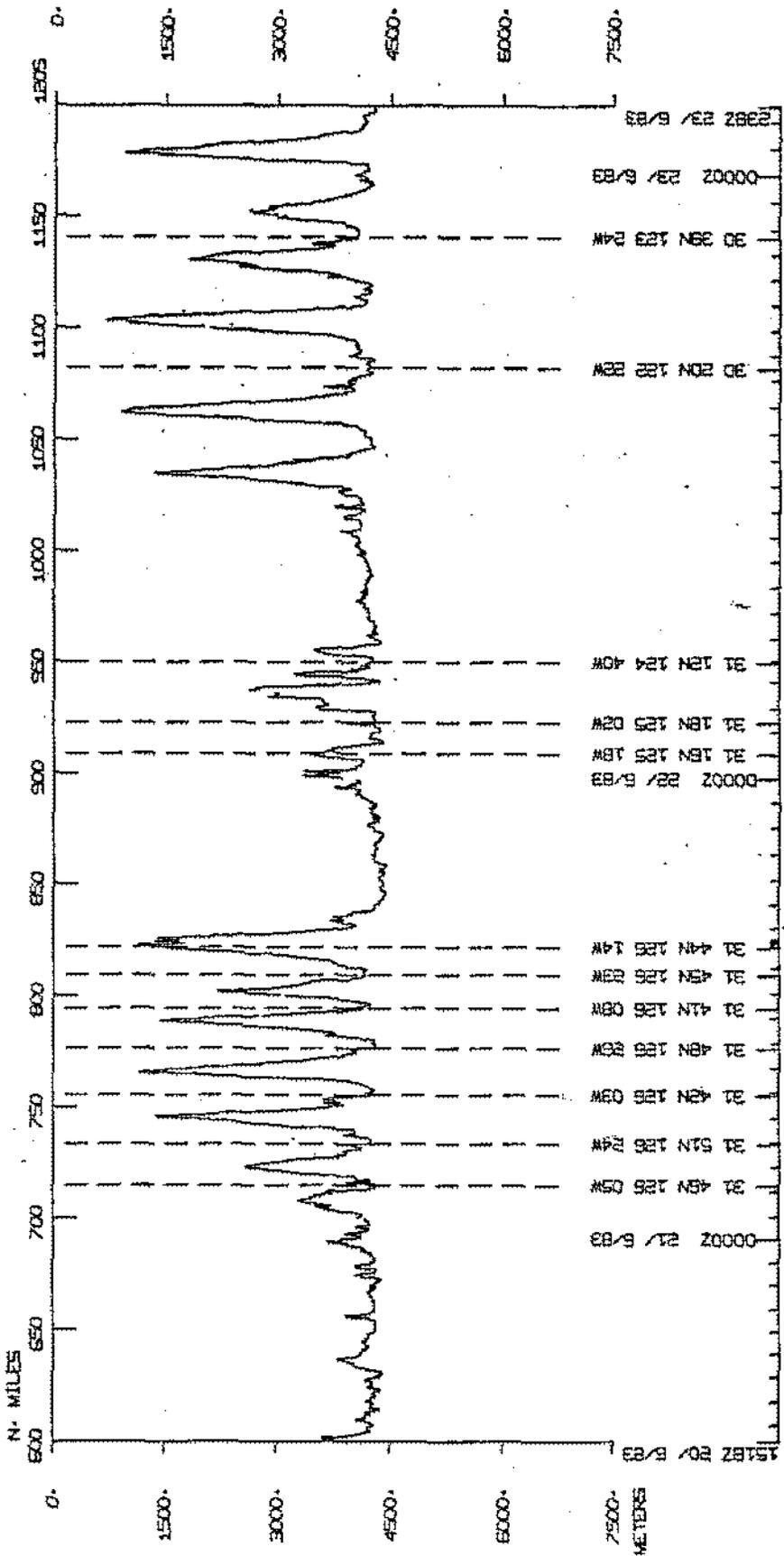
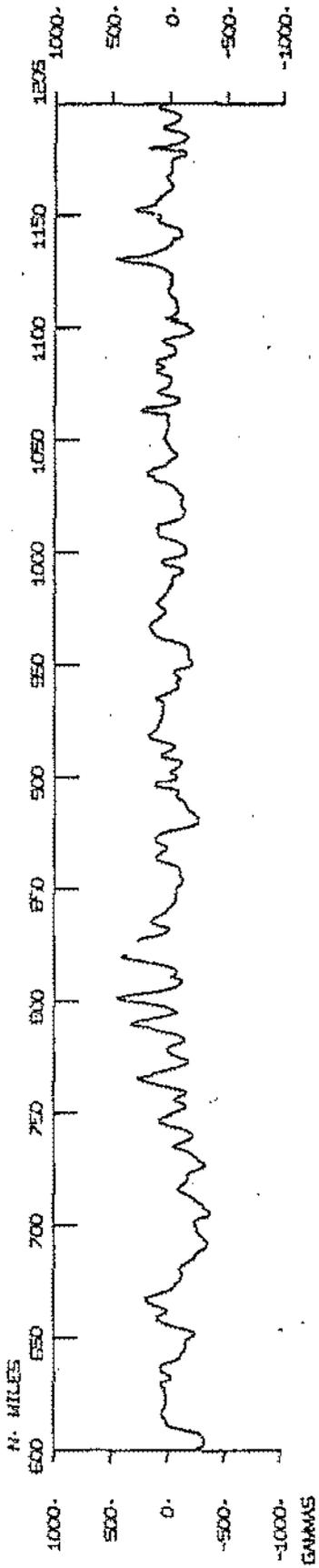
WARNING - ABSOLUTE DATA PRESENT ON THIS PLOT

SEA BEAM

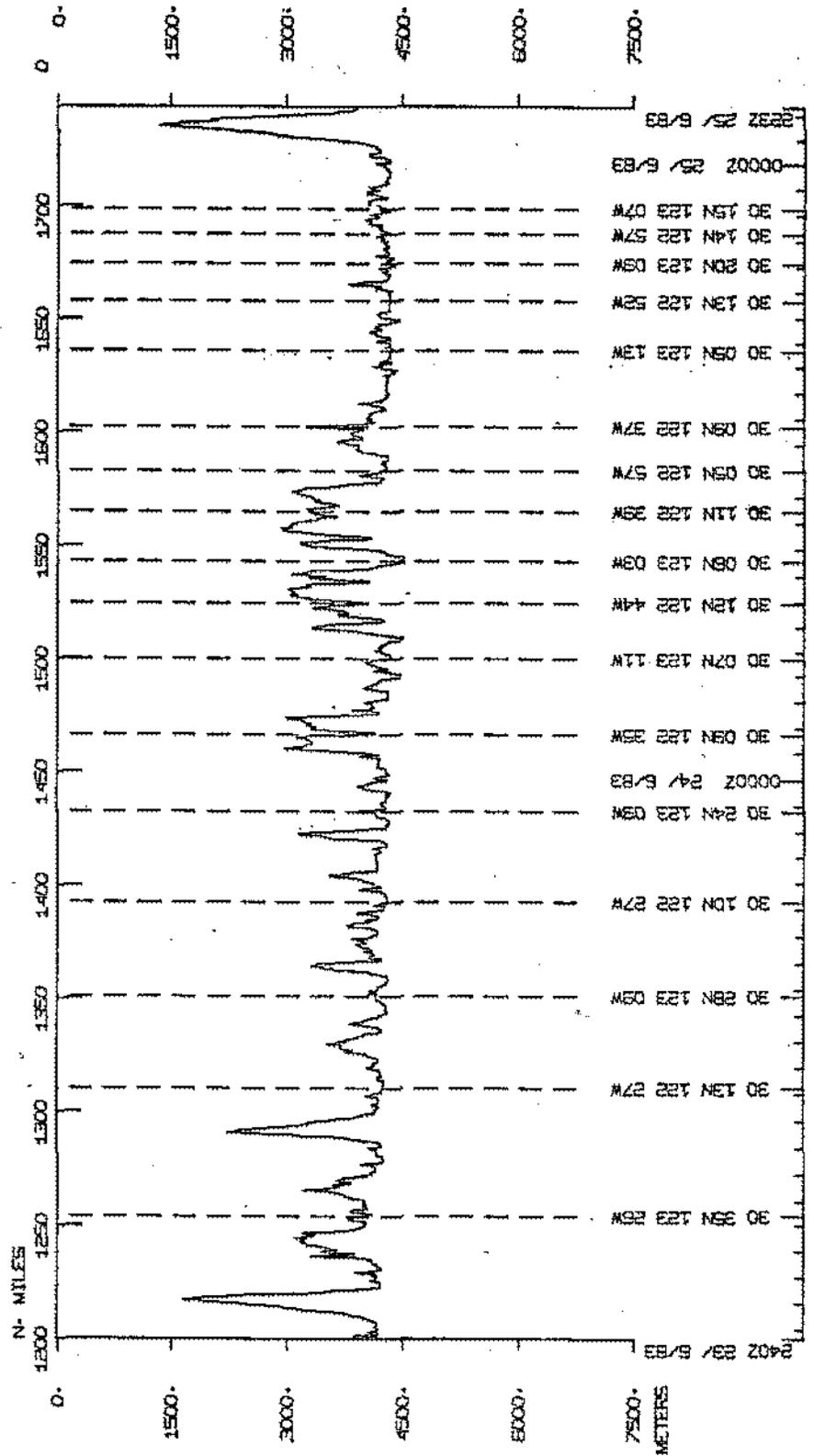
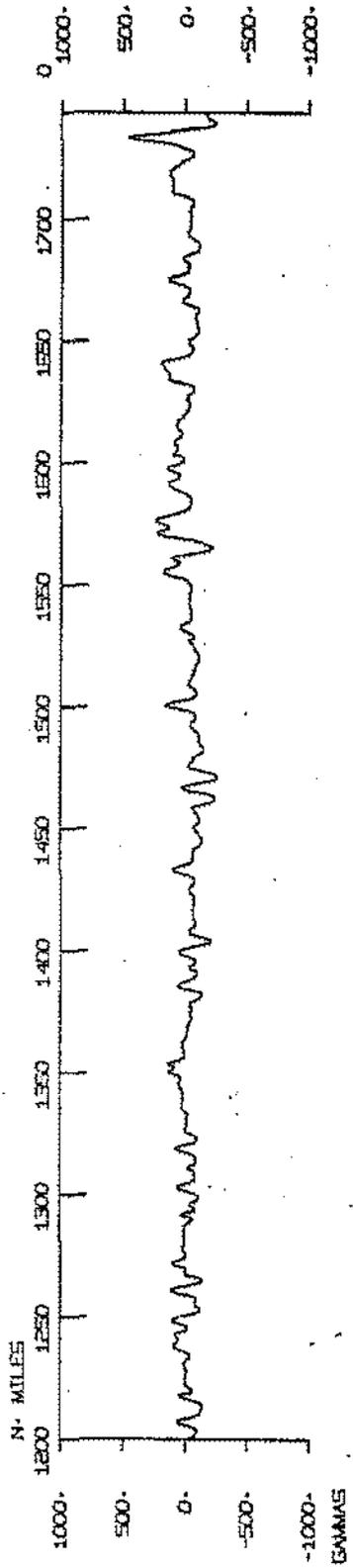
SMNT1AWT



# SMNT 1AWT



SMNT1AWT

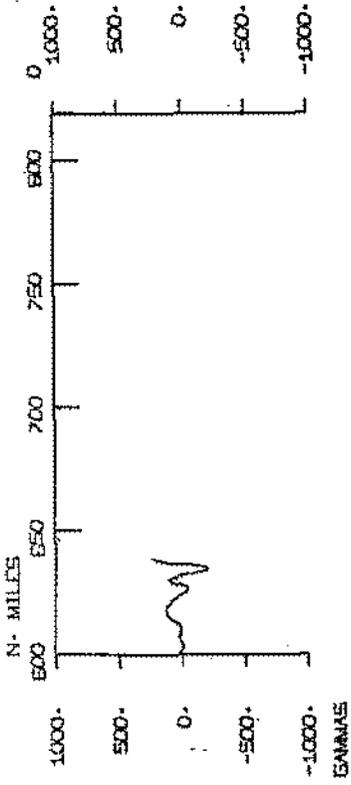


2402 83/ 8/83  
 30 92 123 83W  
 30 15N 123 87W  
 30 89N 123 89W  
 30 10N 123 87W  
 30 24N 123 89W  
 0000Z 24/ 6/83  
 30 09N 123 89W  
 30 07N 123 11W  
 30 19N 123 4N  
 30 08N 123 89W  
 30 11N 123 89W  
 30 09N 123 87W  
 30 09N 123 19W  
 30 19N 123 89W  
 30 89N 123 89W  
 30 14N 123 87W  
 0000Z 28/ 6/83  
 2892 28/ 8/83

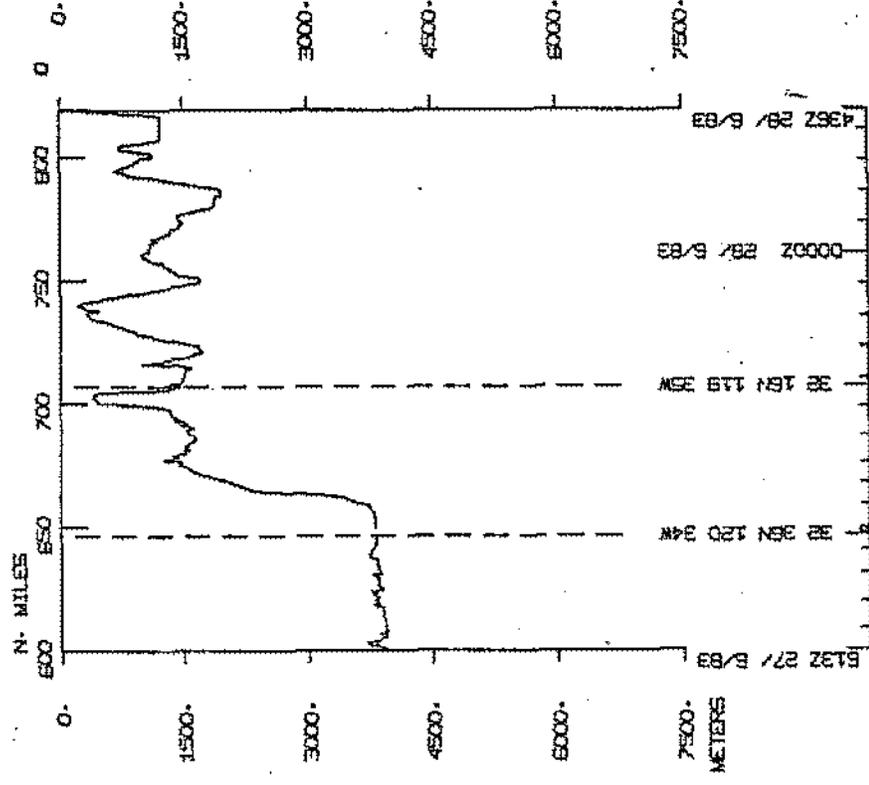




Add 11 miles to mileage shown



SMNT1BWT



S.I.O. Sample Index

(Issued August 1983)

**SEAMOUNT**

~~SEABEAM~~ EXPEDITION

Leg 1

San Diego, Calif. (17 June 1983)  
to  
San Diego, Calif. (28 June 1983)

R/V Melville

Chief Scientist - P. Lonsdale

Resident Marine Tech - R. Comer

Post-Cruise Processing and Report Preparation  
by S.I.O. Geological Data Center

Index Encoding Funded by NSF  
Grant Number OCE80-22996  
Index Processing and Report Preparation  
funded in part by SIA

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 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 cards. 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.)



NUMBER OF SAMPLES OF CLASS 'TYPE' GOING TO DESTINATION 'DISP'

DISP	TYPE											TOTAL	
	BT	DP	DR	GV	LB	MB	MG	PE	SB	SP	TG		
FNC	1							2				1	2
GCR	1		3									1	3
GDC	1	2			2	13	1			5	1	1	24
GRD	1							11		1		1	12
LMD	1	1		1					7			1	9
MPL	1							1				1	1
MTG	1							1				1	1
SCG	1							2				1	2
SGG	1							1				1	1
SIX	1							3				1	3
TOTAL	1	1	2	3	1	2	13	1	21	7	6	1	58

SAMPLE 'TYPE' CODES USED ABOVE

BT = BATHYTHERMOGRAM  
 DP = DEPTH  
 DR = DREDGE  
 GV = GRAVITY  
 LB = LOG BOOKS  
 MB = MULTI-BEAM (SEABEAM) ECHOSOUNDER  
 MG = MAGNETICS (TOWED VEHICLE, SURFACE, TOTAL FIELD)  
 PE = PERSONNEL IN SCIENTIFIC PARTY  
 SB = SEISMIC BUOY  
 SP = SEISMIC REFLECTION PROFILE AIRGUN  
 TG = THERMOGRAPH

SAMPLE 'DISP' CODES USED ABOVE

FNC = FRANCE  
 GCR = GEOLOGICAL CURATING FACILITY -- W. RIEDEL, (EXT. 4386)  
 GDC = GEOLOGICAL DATA CENTER -- S. SMITH (EXT. 2752)  
 GRD = GEOLOGICAL RESEARCH DIVISION (EXT. 3360)  
 LMD = LEROY M. DORMAN (EXT. 2406)  
 MPL = MARINE PHYSICAL LAB. (EXT. 2305)  
 MTG = MARINE TECHNOLOGY GROUP (EXT. 4194)  
 SCG = SHIPBOARD COMPUTER GROUP (EXT. 4195)  
 SGG = SHIPBOARD GEOPHYSICAL GROUP -- P. CRAMPTON (EXT. 2075)  
 SIX = SCRIPPS INSTITUTION NON-EMPLOYEE - CONTACT D. UTTER (EXT. 3675)

GMT D / M / Y	LOC	LOC	CODE	SAMPLE IDENT.	CODE	LAT.	LONG.	LEG-SHIP
TIME DATE	TIME TZ	SAMP	DISP					CRUISE
SEAMOUNT LEG 1 SAMPLE INDEX								SMNT01WT

## \*\*\* PORTS \*\*\*

1505 17/ 6/83			LGPT B	SAN DIEGO,CAL		32 43. N	117 11. W	F SMNT01WT
0650 28/ 6/83			LGPT E	SAN DIEGO,CAL		32 43. N	117 11. W	F SMNT01WT

## \*\*\*PERSONNEL\*\*\*

*** NAME ***	*** TITLE ***	*** AFFILIATION ***
1 LONSDALE,P.	CHIEF SCIENTIST	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
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9 WILLOUGHBY,D.	ELECT. ENG.	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
10 WEEKS,D.	ELECT. TECH	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
11 SAUTER,A.	STUDENT	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
12 TANZER,M.	STUDENT	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
13 BENGTSON,M.	STUDENT	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
14 RENSBERG,A.	STUDENT	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
15 STURTZ,A.	STUDENT	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
16 SMITH,D.	STUDENT	SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA CAL. 92093
17 HALL,R.	VOLUNTEER	SCRIPPS INSTITUTION NON-EMPLOYEE - CONTACT D. UTTER (EXT.3675)
18 FORTI,S.	STUDENT	FRANCE
19 WYATT,A.	OBSERVER	SCRIPPS INSTITUTION NON-EMPLOYEE - CONTACT D. UTTER (EXT.3675)
20 BATTERSON,B.	VOLUNTEER	SCRIPPS INSTITUTION NON-EMPLOYEE - CONTACT D. UTTER (EXT.3675)
21 FLOC,H.	TECHNICIAN	FRANCE

\*\*\*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 THIS 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 D /M /Y TIME DATE	LOC LOC TIME TZ	CODE SAMP	SAMPLE IDENT.	CODE DISP	LAT. LONG.	LEG-SHIP CRUISE
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\*\*\*\* UNDERWAY DATA CURATOR - STUART M. SMITH EXT. 2752 \*\*\*\*

\*\*\* LOG BOOKS \*\*\*

1505 17/ 6/83		LBUW B	UNDERWAY WATCH LOG	GDC 32	40.0N 117 14.4W	S SMNT01WT
0451 28/ 6/83		LBUW E	UNDERWAY WATCH LOG	GDC 32	35.5N 117 23.0W	S SMNT01WT
1505 17/ 6/83		LBSC B	SEABEAM LOG BOOK	GDC 32	40.0N 117 14.4W	S SMNT01WT
0500 28/ 6/83		LBSC E	SEABEAM LOG BOOK	GDC 32	35.5N 117 23.0W	S SMNT01WT

\*\*\* FATHOGRAMS \*\*\*

1834 18/ 6/83		DPR3 B	3.5 KHZ EPC R-01	GDC 32	34.9N 120 33.2W	S SMNT01WT
0447 19/ 6/83		DPR3 E	3.5 KHZ EPC R-01	GDC 32	31.5N 120 56.8W	S SMNT01WT
0454 19/ 6/83		DPR3 B	3.5 KHZ EPC R-02	GDC 32	31.0N 120 57.1W	S SMNT01WT
0908 26/ 6/83		DPR3 E	3.5 KHZ EPC R-02	GDC 30	36.4N 122 33.4W	S SMNT01WT

\*\*\* MAGNETOMETER \*\*\*

1900 18/ 6/83		MGRA B	MAGNETICS R-01	GDC 32	32.8N 120 36.7W	S SMNT01WT
0945 27/ 6/83		MGRA E	MAGNETICS R-01	GDC 32	31.6N 120 41.0W	S SMNT01WT

\*\*\*GRAVIMETRIC RECORDS\*\*\*

1955 17/ 6/83		GVRA B	GRAVIMETER	LMD 32	39.4N 117 57.0W	S SMNT01WT
0600 28/ 6/83		GVRA E	GRAVIMETER	LMD 32	35.5N 117 23.0W	S SMNT01WT

\*\*\*SEABEAM MONITOR RECORD - VERTICAL BEAM\*\*\*

1530 17/ 6/83		MBMR B	SB MONITOR EPC R-01	GDC 32	40.0N 117 14.4W	S SMNT01WT
0750 22/ 6/83		MBMR E	SB MONITOR EPC R-01	GDC 30	57.0N 124 10.6W	S SMNT01WT
0757 22/ 6/83		MBMR B	SB MONITOR EPC R-02	GDC 30	56.5N 124 09.1W	S SMNT01WT
0440 28/ 6/83		MBMR E	SB MONITOR EPC R-02	GDC 32	35.6N 117 23.9W	S SMNT01WT

\*\*\*SEABEAM MAG TAPE - RAW LOGGED DATA\*\*\*

1615 17/ 6/83		MBMT B	SB MAG TAPE 1	GDC 32	39.9N 117 20.1W	S SMNT01WT
2358 20/ 6/83		MRMT E	SB MAG TAPE 1	GDC 31	50.9N 126 14.0W	S SMNT01WT
0000 21/ 6/83		MBMT B	SB MAG TAPE 2	GDC 31	50.9N 126 14.0W	S SMNT01WT
2358 25/ 6/83		MBMT E	SB MAG TAPE 2	GDC 31	50.9N 126 14.0W	S SMNT01WT

GMT D / M / Y TIME DATE	LOC LOC TIME TZ	CODE SAMP	SAMPLE IDENT.	CODE DISP	06SEP83 PAGE 3		LEG-SHIP CRUISE
					LAT.	LONG.	

0000 26/ 6/83		MBMT B	SB MAG TAPE 3	GDC 31	50.9N	126 14.0W	S SMNT01WT
0430 28/ 6/83		MBMT E	SB MAG TAPE 3	GDC 32	35.6N	117 26.4W	S SMNT01WT

\*\*\*SEABEAM SWATH BOOK - REALTIME CONTOUR SWATH\*\*\*

1653 17/06/83		MBSB B	SB SWATH BOOK 1	GDC 32	39.9N	117 20.1W	S SMNT01WT
0140 19/06/83		MBSB E	SB SWATH BOOK 1	GDC 32	35.9N	120 24.1W	S SMNT01WT
0305 19/06/83		MBSB B	SB SWATH BOOK 2	GDC 32	38.4N	120 37.6W	S SMNT01WT
1705 20/06/83		MBSB E	SB SWATH BOOK 2	GDC 31	29.3N	124 54.6W	S SMNT01WT
1705 20/06/83		MBSB B	SB SWATH BOOK 3	GDC 31	29.3N	124 54.6W	S SMNT01WT
0958 22/06/83		MBSB E	SB SWATH BOOK 3	GDC 30	47.4N	123 43.9W	S SMNT01WT
0958 22/06/83		MBSB B	SB SWATH BOOK 4	GDC 30	47.4N	123 43.9W	S SMNT01WT
1544 23/06/83		MBSB E	SB SWATH BOOK 4	GDC 30	28.5N	123 09.1W	S SMNT01WT
1544 23/06/83		MBSB B	SB SWATH BOOK 5	GDC 30	28.5N	123 09.1W	S SMNT01WT
0153 25/06/83		MBSB E	SB SWATH BOOK 5	GDC 20	41.9N	123 14.3W	S SMNT01WT
0153 25/06/83		MBSB B	SB SWATH BOOK 6	GDC 20	41.9N	123 14.3W	S SMNT01WT
0820 26/06/83		MBSB E	SB SWATH BOOK 6	GDC 30	38.9N	122 41.2W	S SMNT01WT
0820 26/06/83		MBSB B	SB SWATH BOOK 7	GDC 30	38.9N	122 41.2W	S SMNT01WT
2318 27/06/83		MBSB E	SB SWATH BOOK 7	GDC 32	25.3N	118 41.6W	S SMNT01WT
2321 27/06/83		MBSB B	SB SWATH BOOK 8	GDC 32	25.6N	118 41.9W	S SMNT01WT
0429 28/06/83		MBSB E	SB SWATH BOOK 8	GDC 32	35.6N	117 27.1W	S SMNT01WT

\*\*\* SEISMIC PROFILER \*\*\*

2030 18/ 6/83		SPRF B	AIRGUN 2.5SEC R-01	GDC 32	30.7N	120 37.3W	S SMNT01WT
0108 25/ 6/83		SPRF E	AIRGUN 2.5SEC R-01	GDC 30	32.6N	123 12.3W	S SMNT01WT
2030 18/ 6/83		SPRS B	AIRGUN 8 SEC R-01	GDC 32	30.7N	120 37.3W	S SMNT01WT
0717 20/ 6/83		SPRS E	AIRGUN 8 SEC R-01	GDC 31	49.7N	123 54.1W	S SMNT01WT
2030 18/ 6/83		SPRS B	AIRGUN 4 SEC R-01	GDC 32	30.7N	120 37.3W	S SMNT01WT
1754 22/ 6/83		SPRS E	AIRGUN 4 SEC R-01	GDC 30	24.7N	122 38.7W	S SMNT01WT
0202 25/ 6/83		SPRF B	WATERGUN R-02	GDC 30	41.9N	123 14.3W	S SMNT01WT
0945 27/ 6/83		SPRF E	WATERGUN R-02	GDC 32	31.6N	120 41.0W	S SMNT01WT
1843 22/ 6/83		SPRS B	WATERGUN 4 SEC R-02	GDC 30	27.7N	122 48.6W	S SMNT01WT
0945 27/ 6/83		SPRS E	WATERGUN 4 SEC R-02	GDC 32	31.6N	120 41.0W	S SMNT01WT

