

INFORMAL REPORT AND INDEX OF
NAVIGATION, DEPTH AND MAGNETIC DATA

(Issued October 3, 1977)

FDRAKE 77 EXPEDITION

LEG 7

Acapulco, Mexico (30 June 1977)
to
San Diego, California (9 July 1977)
R/V Melville

Chief Scientist - K. Mac Donald (SIO)

Resident Marine Tech - R. Lingley

Post-Cruise Processing and Report Preparation
by S.I.O. Geological Data Center - S.M. Smith,
U. Albright, G. Psaropoulos, G. Papadopoulos

Data Collection Funded by NSF
Grant Number OCE76-22040
Data Processing Funded by SIA, ONR and NSF

NOTE: This is an index of underway geophysical data edited and processed shortly 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 Geological Data Center, Scripps Institution of Oceanography, La Jolla, California 92093.

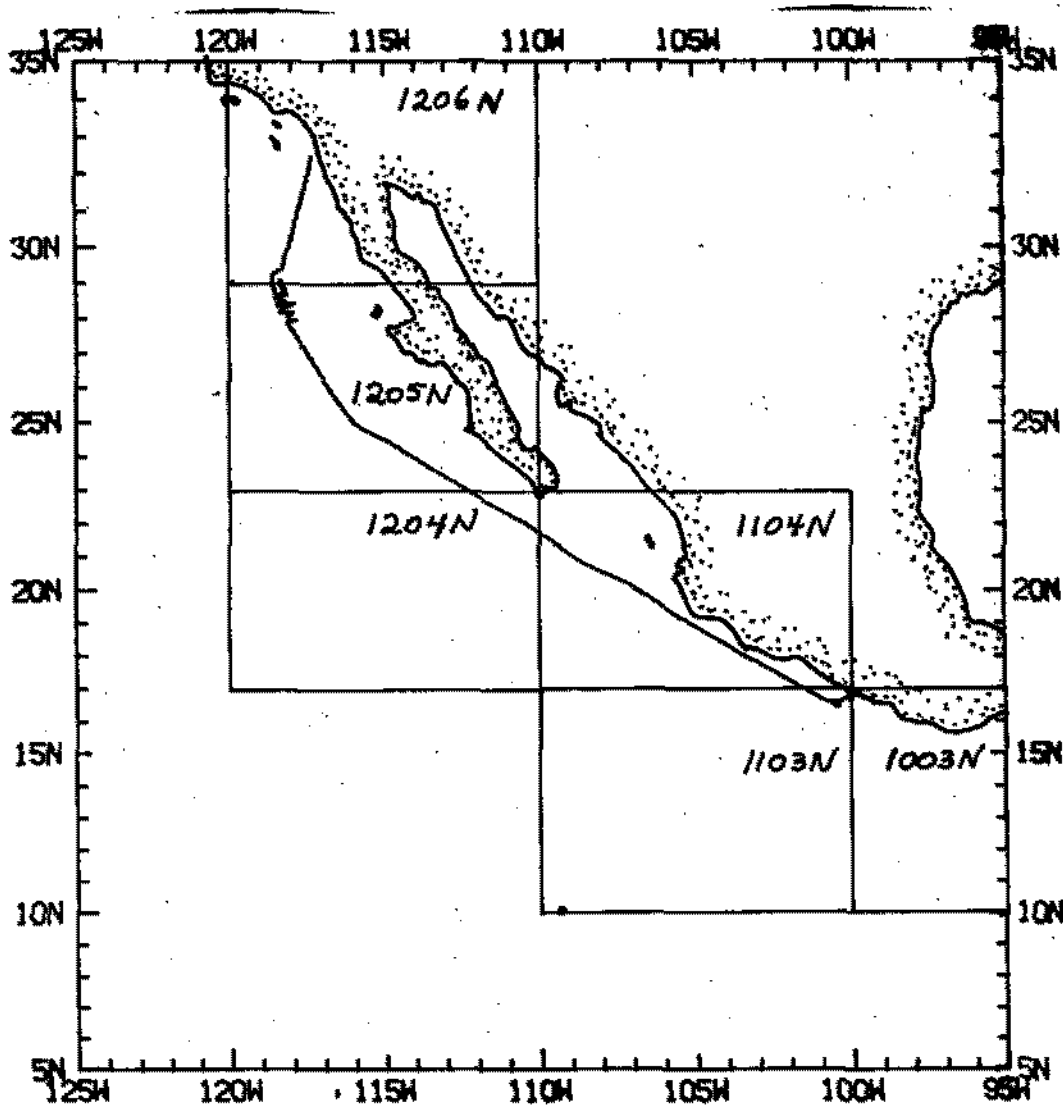
Informal Report and Index of Navigation, Depth, Magnetic and Subbottom Profiler Data*

Contents:

- Index Chart** - gives track of cruise leg and boundaries of depth compilation plots (see below).
- Track Charts** - annotated with dates (day/month) and hour ticks. The scale is .3"/deg. long.
- 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 solid black line along the bottom of the profile.

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 - in fathoms (assumed sound velocity of 800 fm./sec.) at approximately 1 mile spacing, plotted at 4"/degree with standard U. S. Navy Oceanographic Office BC series boundaries (see index chart).
3. Plots of magnetic anomaly profiles along track - map scale = 1.2"/degree; anomaly scale between 15°N and 15°S latitude = 500 gamm/inch; anomaly scale north of 15°N and south of 15°S = 1000 gamm/inch; from values retrieved at approximately 1 mile spacing and regional field removed using the 1975 IGRF.
4. Card decks of navigation, depth and magnetics (for specific formats, contact S. M. Smith, Geological Data Center).
5. S. I. O. 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.
6. 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



FDRAKE 77 EXPEDITION

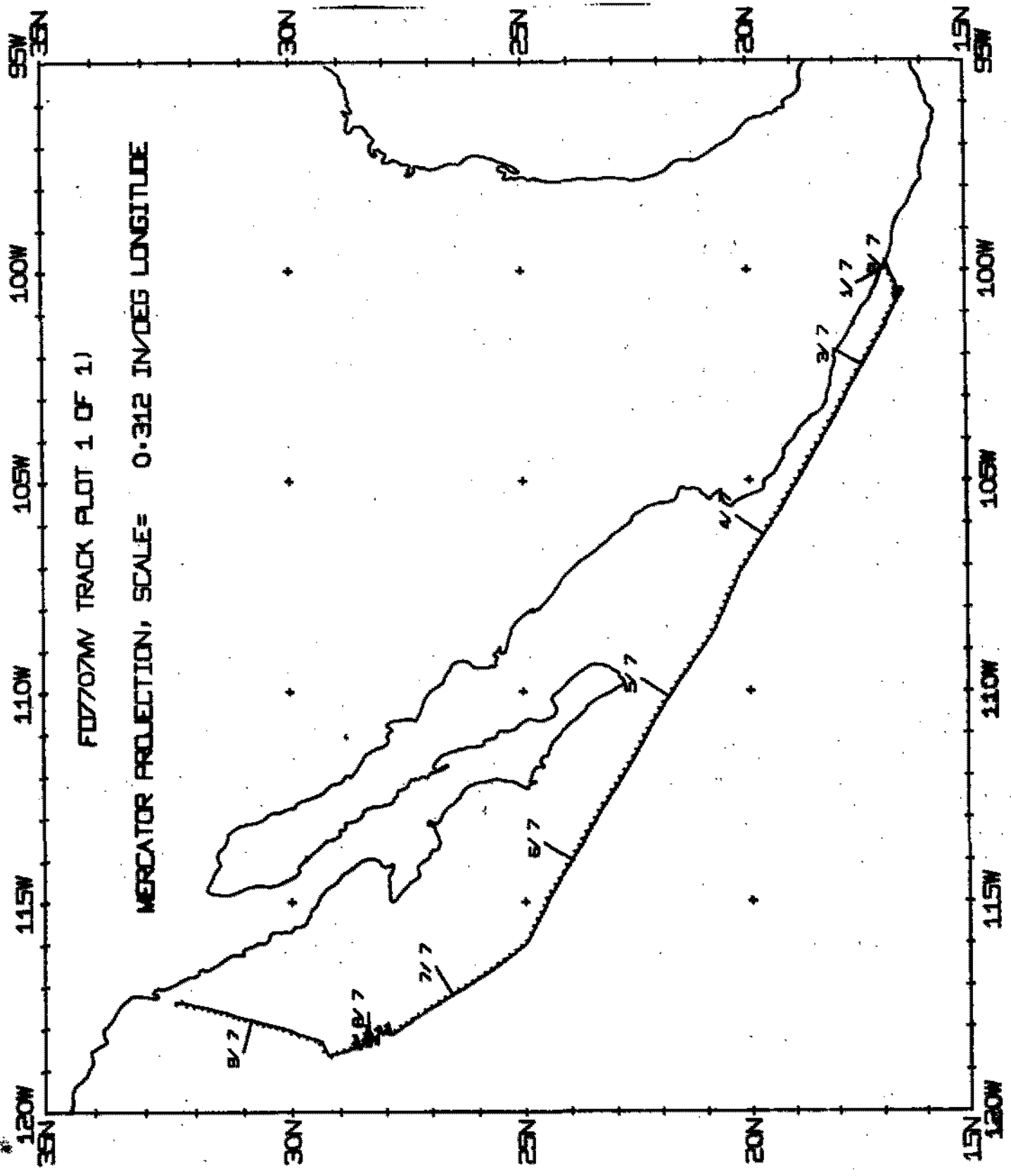
LEG 7

R/V MELVILLE

Chief Scientist - K. Mac Donald (SIO)
 Ports - Acapulco, Mexico - San Diego, Calif.
 Dates - 30 June - 9 July 1977

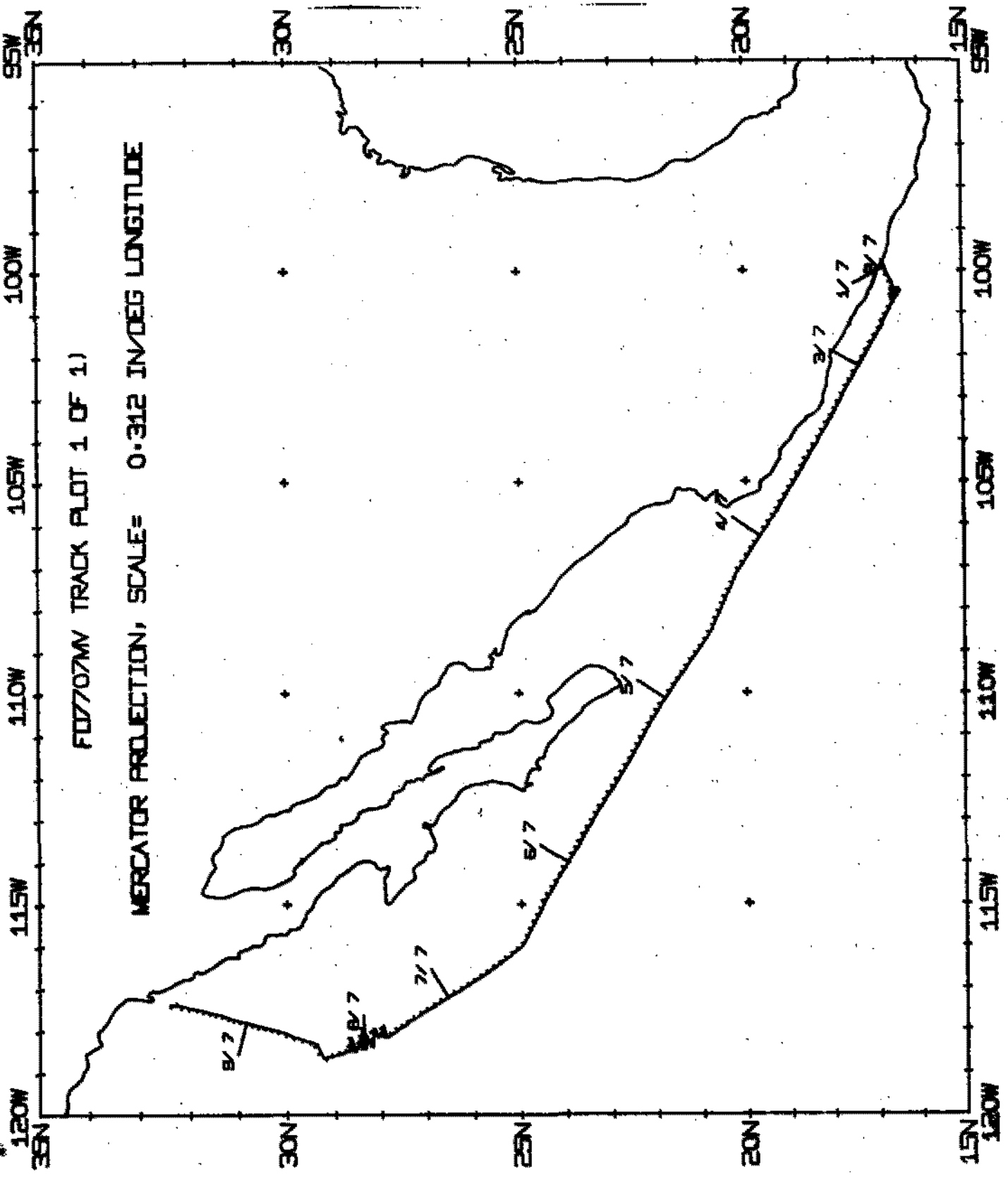
TOTAL MILEAGE

- 1) Cruise - 1835 miles
- 2) Bathymetry - 1655 miles
- 3) Magnetics 1655 miles
- 4) Seismic Reflection - none collected

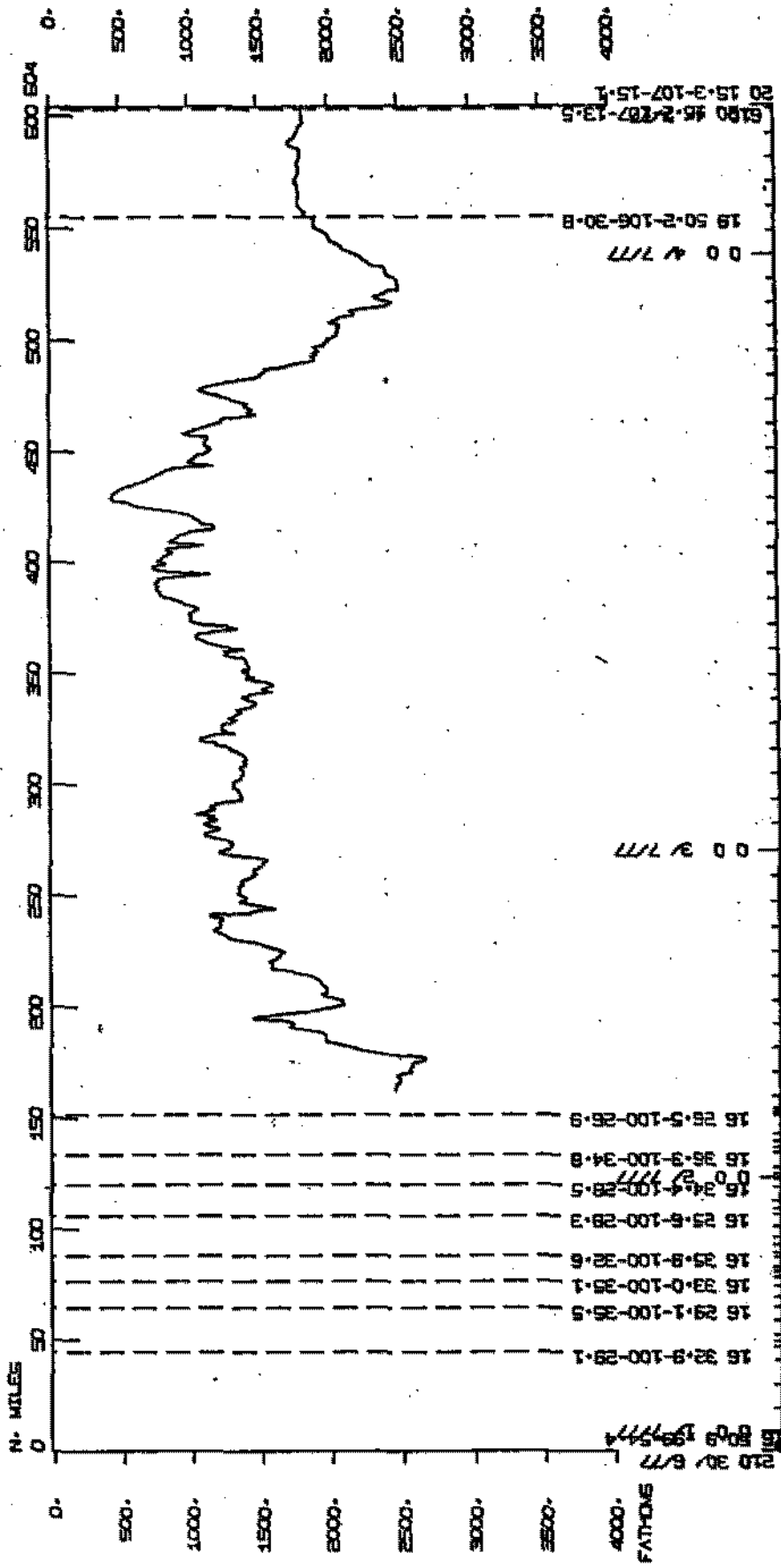
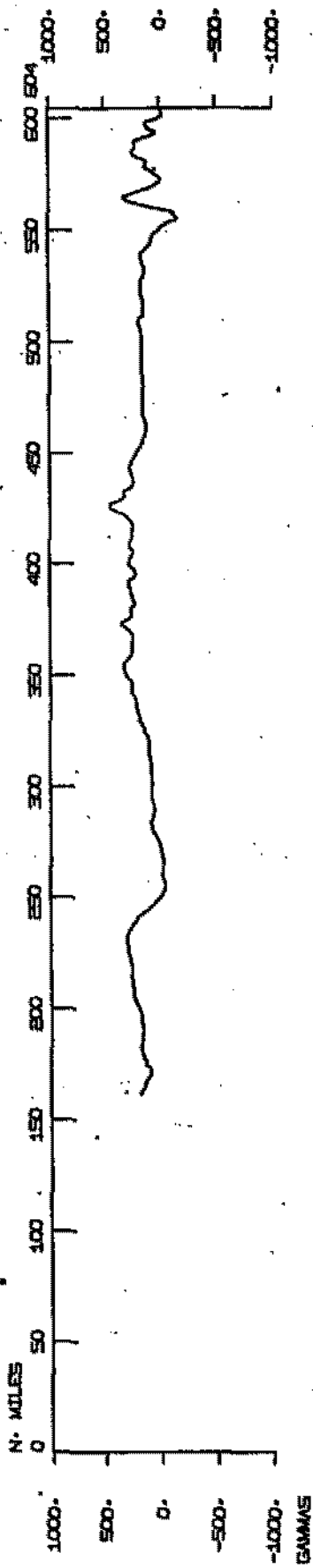


FOI707M TRACK PLOT 1 OF 1

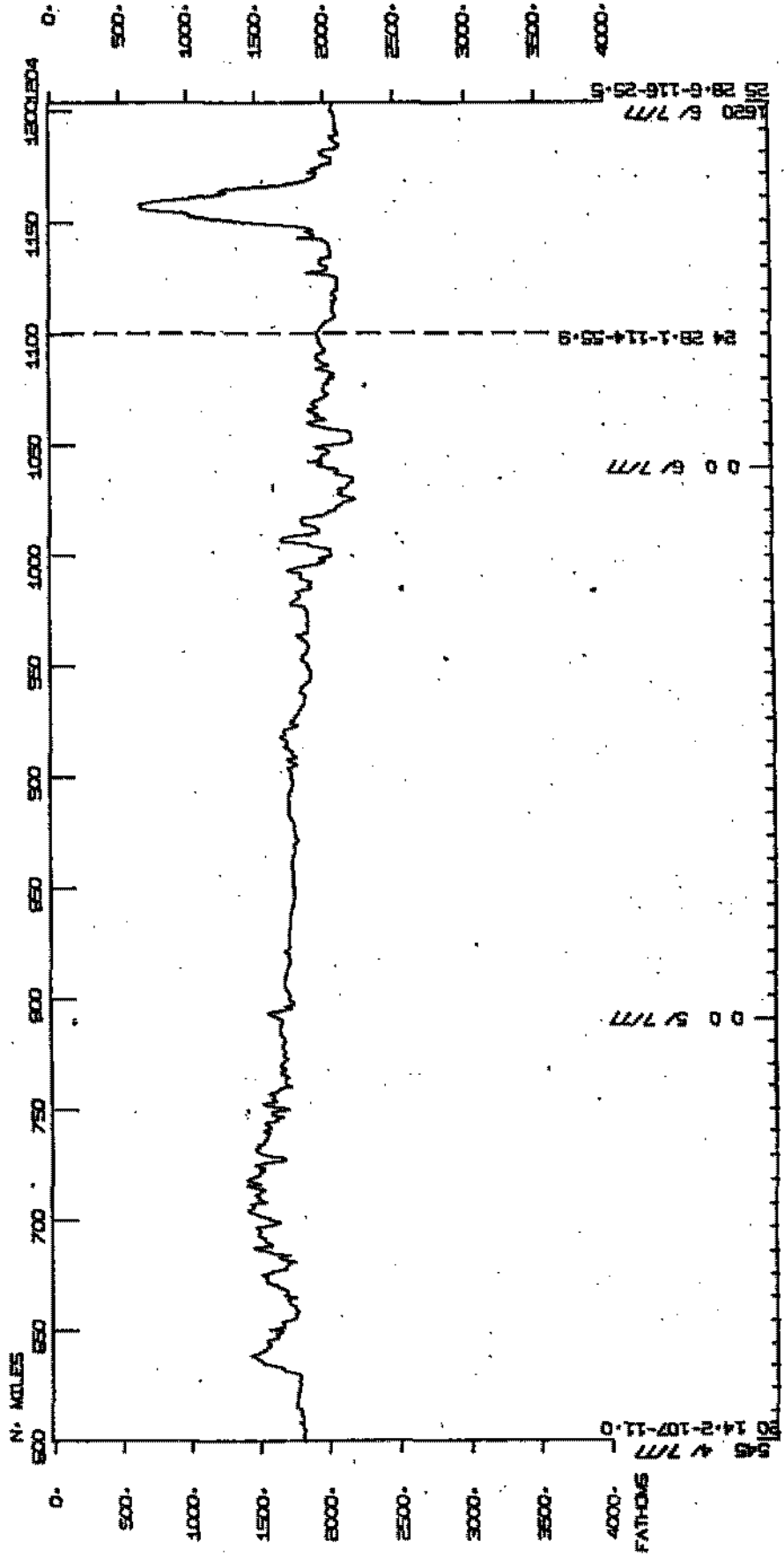
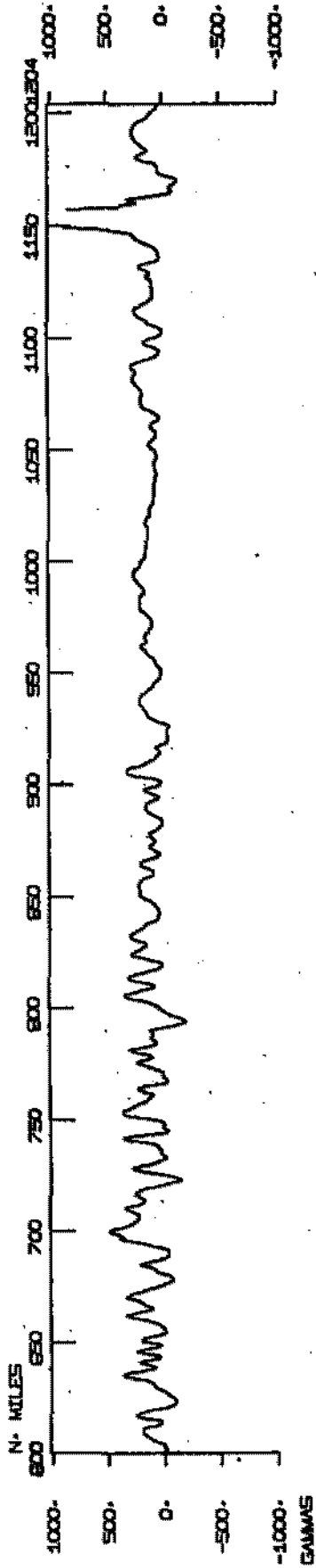
MERCATOR PROJECTION, SCALE= 0.312 IN/DEG LONGITUDE



F - DRAKE77 LEG 7

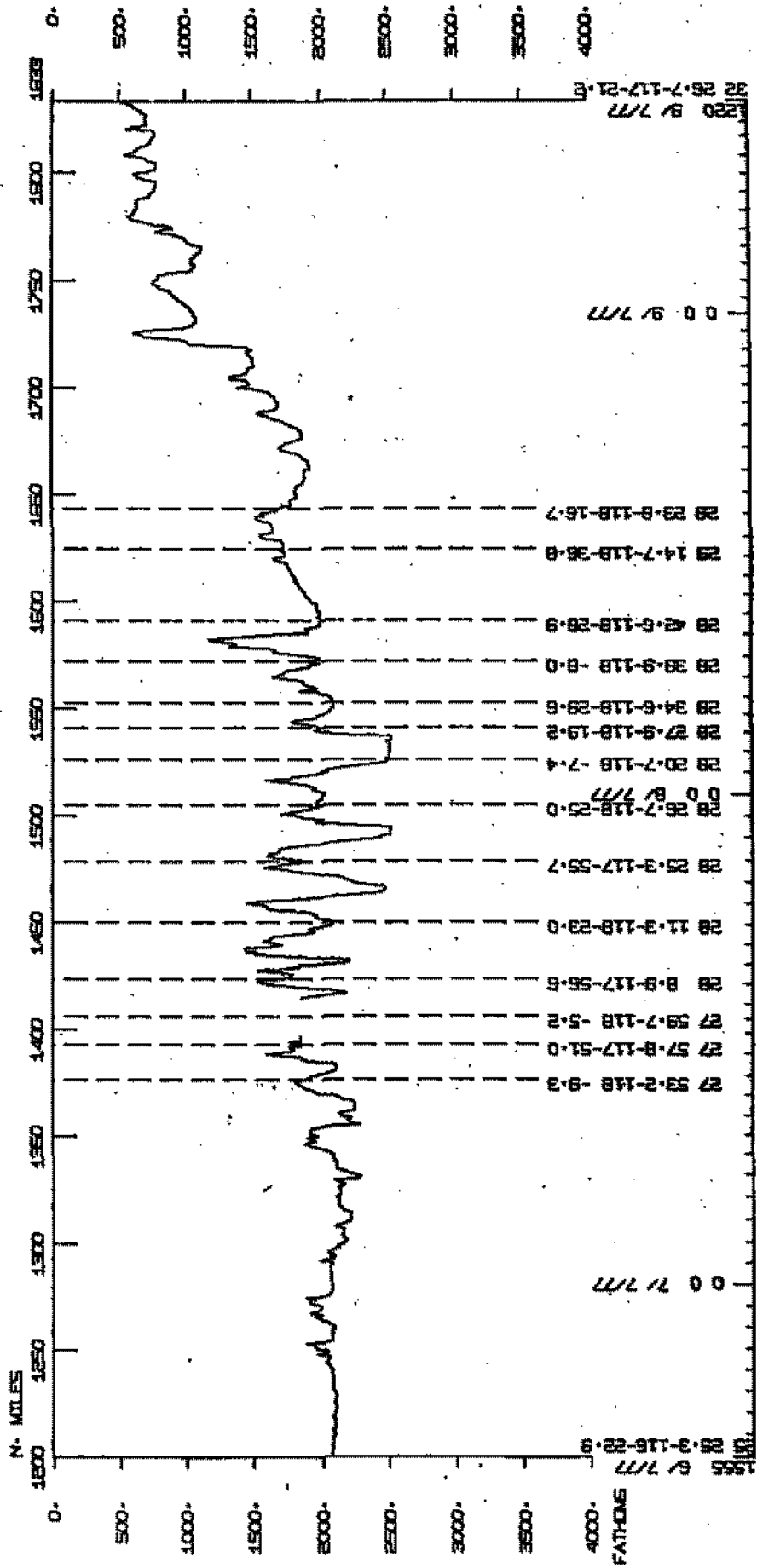
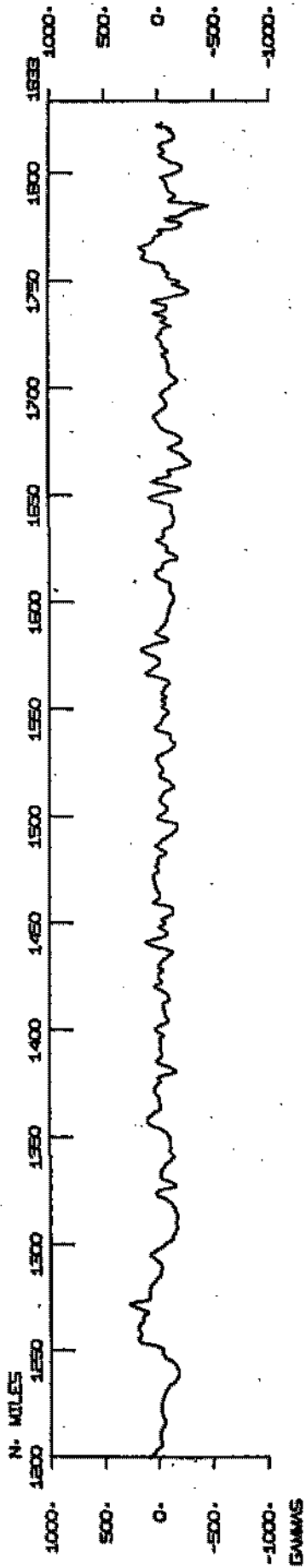


F. DRAKE 77 LEG 7



14-R-107-11.0
14-R-111-18.9
14-R-116-25.9
14-R-117-30.9
14-R-118-35.9
14-R-119-40.9
14-R-120-45.9
14-R-121-50.9
14-R-122-55.9
14-R-123-60.9
14-R-124-65.9
14-R-125-70.9
14-R-126-75.9
14-R-127-80.9
14-R-128-85.9
14-R-129-90.9
14-R-130-95.9
14-R-131-100.9
14-R-132-105.9
14-R-133-110.9
14-R-134-115.9
14-R-135-120.9

F. DRAKE 77 LEG 7



28 28-7-117-21.6
28 28-7-117-21.6

0 0 9/77

0 0 7/77

28 28-7-118-93.0
28 28-7-118-93.0

S.I.O. SAMPLE INDEX

(Issued October 3, 1977)

F. DRAKE 77 EXPEDITION

LEG 7

Acapulco, Mexico (30 June 1977)
to
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R/V Melville

Chief Scientist - K. Mac Donald (SIO)

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Post-Cruise Processing and Report Preparation
by S.I.O. Geological Data Center - S. Smith,
U. Albright, G. Psaropoulos, G. Papadopoulos

Index Encoding Funded by NSF
Grant Number OCE76-80618
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 onshore 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.)

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

DISP	TYPE							TOTAL
	CU	DP	LB	MG	PE	SQ		
GCR	I	1					I	1
GDC	I		5	1	2	1	I	9
GRD	I					4	I	4
IGP	I				1		4 I	5
LMD	I						4 I	4
MPL	I				1		I	1
SCG	I					1	I	1
SIO	I					6	I	6
SIX	I					1	I	1
TOTAL	I	1	5	1	2	15	4 I	28

SAMPLE 'TYPE' CODES USED ABOVE

CU = CORE (SEE ALSO TYPE DH**)
 DP = DEPTH
 LB = LOG BOOKS
 MG = MAGNETICS (TOWED VEHICLE, SURFACE, TOTAL FIELD)
 PE = PERSONNEL IN SCIENTIFIC PARTY
 SQ = SEA QUAKE RECORDING

SAMPLE 'DISP' CODES USED ABOVE

GCR = GEOLOGICAL CURATING FACILITY -- W. RIEDEL, (EXT. 4386)
 GDC = GEOLOGICAL DATA CENTER -- S. SMITH (EXT. 2752)
 GRD = GEOLOGICAL RESEARCH DIVISION (EXT. 3360)
 IGP = INSTITUTE GEOPHYSICS AND PLANETARY PHYSICS, LA JOLLA
 LMD = LEROY M. DURMAN (EXT. 2406)
 MPL = MARINE PHYSICAL LAB. (EXT 2305)
 SCG = SHIPBOARD COMPUTER GROUP (EXT. 4195)
 SIO = SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA, CAL. 92093
 SIX = SCRIPPS INSTITUTION NON-EMPLOYEE -(CONTACT DORCAS UTTER EXT. 2356)

F. DRAKE 77 EXPEDITION LEG 7

FD7707MV

*** PORTS ***

2325 30 677	LGPT B-ACAPULCO, MEXICO	16 509N 99 551W S	FD7707MV
1405 9 777	LGPT E SAN DIEGO, CALIF	32 168N 117 231W S	FD7707MV

PERSONNEL

PES	MACDONALD, K.	IGP	FD7707MV
PECT	BUKKHALTER, A.	SCG	FD7707MV
PEKT	LINGLEY, R.	GDC	FD7707MV
PES	CRANE, K.	SIO	FD7707MV
PE	ELDER, D.	SIX	FD7707MV
PES	HARVIE, W.	SIO	FD7707MV
PES	HENRY, M.	SIO	FD7707MV
PE	HOLLINSHEAD, C.	GRD	FD7707MV
PE	JORDAN, T.	GRD	FD7707MV
PES	LEGG, M.	SIO	FD7707MV
PE	MENARD, W.	GRD	FD7707MV
PE	POOLE, K.	MPL	FD7707MV
PES	SHIH, J.	SIO	FD7707MV
PES	SILVER, P.	SIO	FD7707MV
PE	WILLOUGHBY, D.	GRD	FD7707MV

*** NOTE *** TIME ZONES AND MINUTES OF LATITUDE AND LONGITUDE ARE LISTED IN TENTHS (E.G. 10.6 IS LISTED AS 106)

TIME GMT	DATE D.M.Y.	TIME LOC	TZ LOC	SAMP CODE	SAMPLE IDENT.	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
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UNDERWAY DATA CURATOR - STUART SMITH (EXT.2752)

*** LOG BOOKS ***

220	1	777		L8UW B	GEOPHYSICAL LOG BOOK	GDC 16	368N	100 182W	S FD7707MV
1245	9	777		L8UW E	GEOPHYSICAL LOG BOOK	GDC 32	168N	117 231W	S FD7707MV

*** FATHOGRAMS ***

1422	2	777		DPR3 B	GDR 3.5KHZ ROLL-01	GDC 16	305N	100 369W	S FD7707MV
1240	3	777		DPR3 E	GDR 3.5KHZ ROLL-01	GDC 18	336N	104 247W	S FD7707MV
1246	3	777		DPR3 B	GDR 3.5KHZ ROLL-02	GDC 18	342N	104 258W	S FD7707MV
1310	5	777		DPR3 E	GDR 3.5KHZ ROLL-02	GDC 22	579N	112 148W	S FD7707MV
1315	5	777		DPR3 B	GDR 3.5KHZ ROLL-03	GDC 22	584N	112 156W	S FD7707MV
1137	7	777		DPR3 E	GDR 3.5KHZ ROLL-03	GDC 27	582N	117 526W	S FD7707MV
1205	7	777		DPR3 B	GDR 3.5KHZ ROLL-04	GDC 27	585N	117 576W	S FD7707MV
1245	9	777		DPR3 E	GDR 3.5KHZ ROLL-04	GDC 32	168N	117 231W	S FD7707MV
243	3	777		DPRT B	GDR 12KHZ ROLL-01	GDC 17	375N	102 428W	S FD7707MV
540	4	777		DPRT E	GDR 12KHZ ROLL-01	GDC 20	138N	107 101W	S FD7707MV

*** MAGNETOMETER ***

1420	2	777		MGR B	MAGNETICS ROLL-01	GDC 16	303N	100 366W	S FD7707MV
521	4	777		MGR E	MAGNETICS ROLL-01	GDC 20	121N	107 70W	S FD7707MV
524	4	777		MGR B	MAGNETICS ROLL-02	GDC 20	124N	107 75W	S FD7707MV
1100	9	777		MGR E	MAGNETICS ROLL-02	GDC 32	168N	117 231W	S FD7707MV

*** CORES ***

1040	2	777		COG	FD77-G003	GCR 16	264N	100 275W	S FD7707MV
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SEA QUAKE BOTTOM SEISMUMETER

1047	1	777		SQBS E	RCVR OBS 'GWEN'	LMD 16	340N	100 349W	S FD7707MV
143	2	777		SQBS E	RCVR OBS 'DENI'	LMD 16	338N	100 272W	S FD7707MV
741	2	777		SQBS E	RCVR OBS 'DOE'	LMD 16	358N	100 326W	S FD7707MV

TIME GMT	DATE D.M.Y.	TIME LOC	TZ LOC	SAMP CODE	SAMPLE IDENT.	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
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1320	2	777		SQBS	E RCVR OBS 'INEZ'	LMD	16 265N	100 282W	S FD7707MV
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SEA QUAKE SURVEY

1312	1	777		SQS	SONOBUOY-26	IGP	16 357N	100 368W	S FD7707MV
1728	1	777		SQS	SONOBUOY-27	IGP	16 346N	100 256W	S FD7707MV
2105	1	777		SQS	SONOBUOY-28	IGP	16 283N	100 292W	S FD7707MV
349	2	777		SQS	X SONOBUOY-29	IGP	16 360N	100 343W	S FD7707MV
650	2	777		SQS	SONOBUOY-30	IGP	16 361N	100 327W	S FD7707MV

9900

END SAMPLE INDEX

FD7707MV