

INFORMAL REPORT AND INDEX OF
NAVIGATION, DEPTH AND MAGNETIC DATA

(Issued June 30, 1977)

F. DRAKE 77 EXPEDITION

LEG 3

Punta Arenas, Chile (16 February 1977)
to
San Martin, Peru (28 February 1977)

R/V MELVILLE

Chief Scientist - E. Seifert (OSU)

Resident Marine Tech - D. Muus

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

Data Collection Funded by NSF
Contract Number OCE76-00131
Data Processing Funded by SIA and ONR

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).

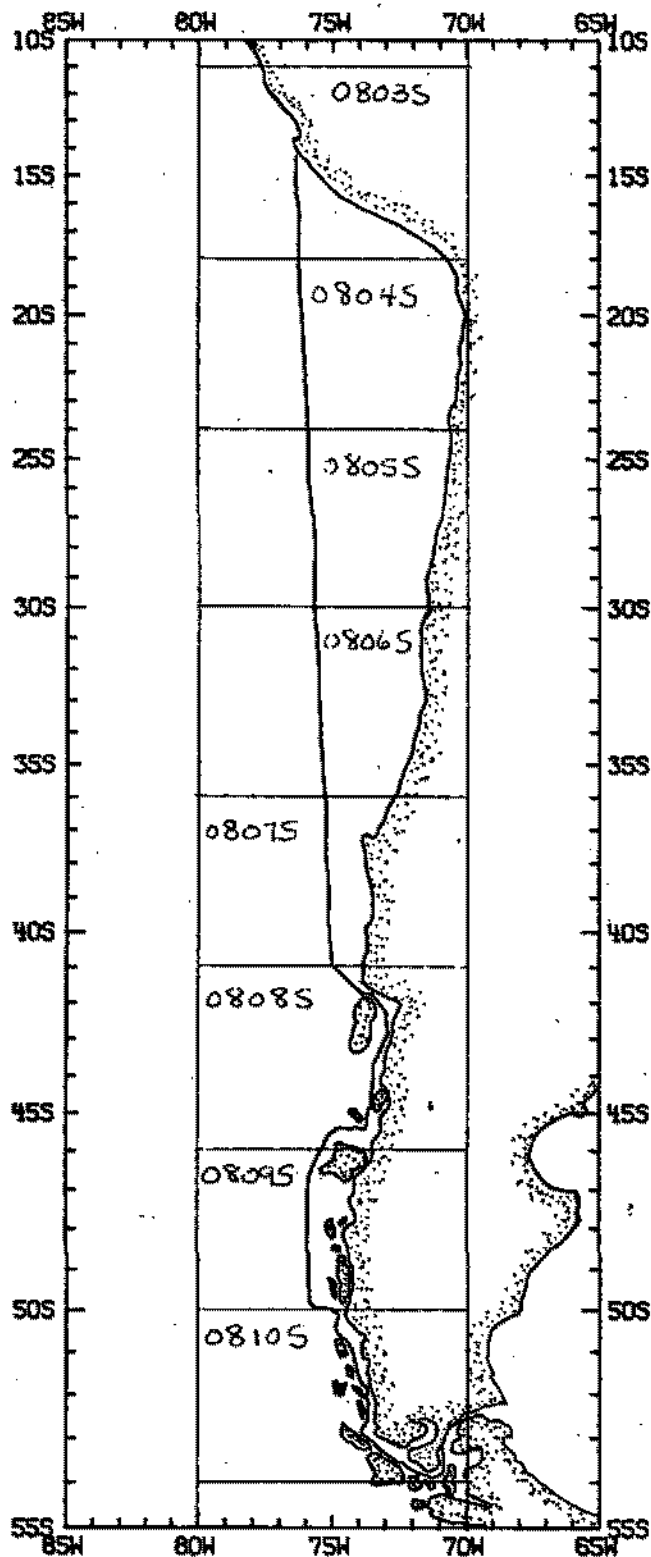
Track Charts - annotated with dates (day/month) and hour ticks. The scale (.3"/deg. long) is the same as the index charts of previous SIO cruises published as Report IMR TR-25.

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 gamma/inch; anomaly scale north of 15°N and south of 15°S = 1000 gamma/inch from values retrieved at approximately 1 mile spacing and regional field removed using the 1965 IGRF.
4. Card Decks of navigation, depth and magnetics (for specific formats, contact S. M. Smith, Geological Data Center). Phone: (714) 452-2752
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

* No subbottom profiler data collected



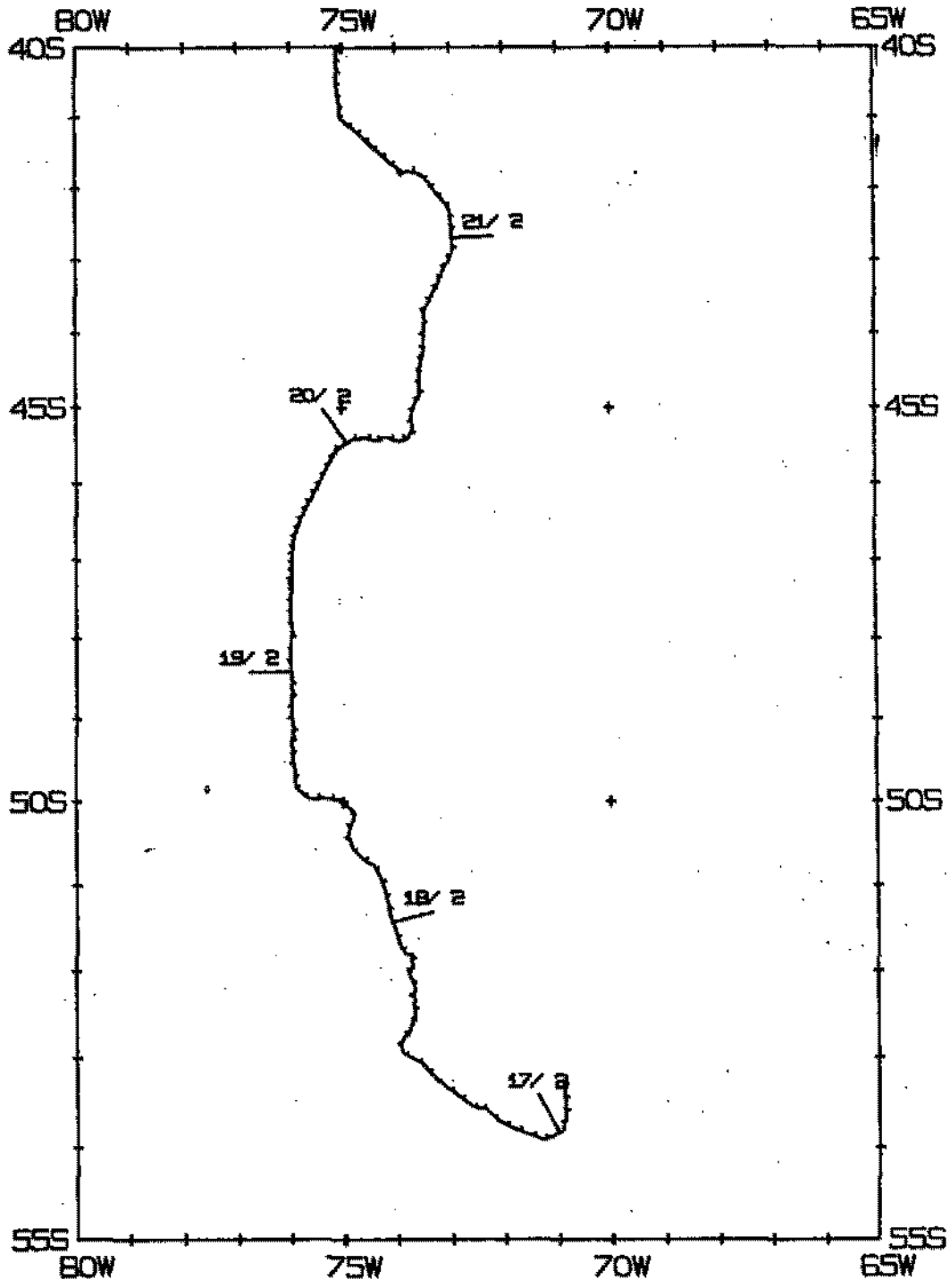
F. DRAKE 77 EXPEDITION
 LEG 3
 R/V Melville
 Chief Scientist - E. Seifert (OSU)
 Ports - Punta Arenas, Chile - San Martin, Peru
 Dates - February 16 - February 28, 1977

TOTAL MILEAGE

- 1) Cruise - 2696 miles
- 2) Bathymetry - 1654 miles
- 3) Magnetics - 1647 miles
- 4) Seismic Reflection - none collected

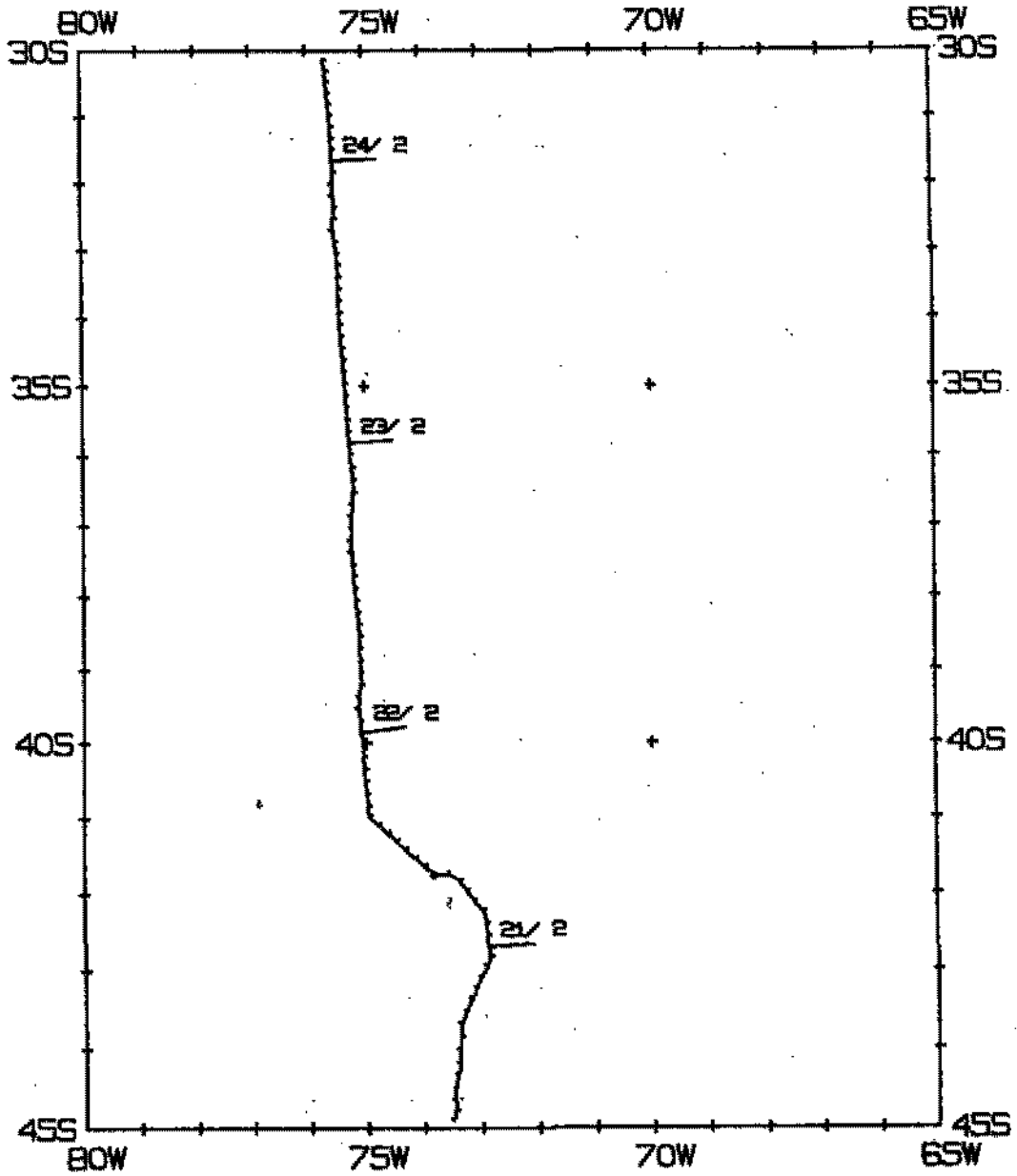
FD7703MV TRACK PLOT (1 OF 3)

MERCATOR PROJECTION, SCALE= 0.312 IN/DEG LONGITUDE

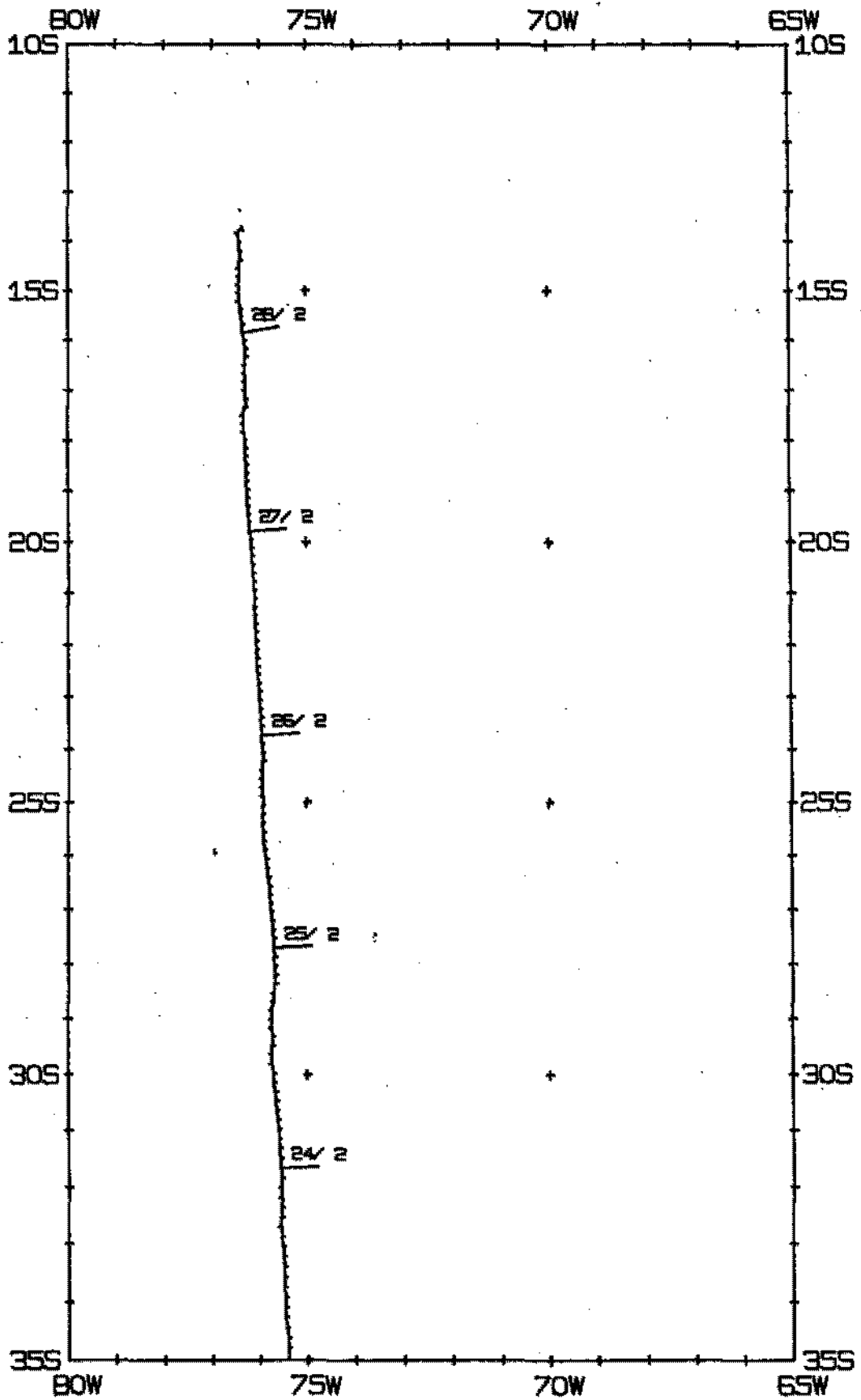


F07703MV TRACK PLOT (2 OF 3)

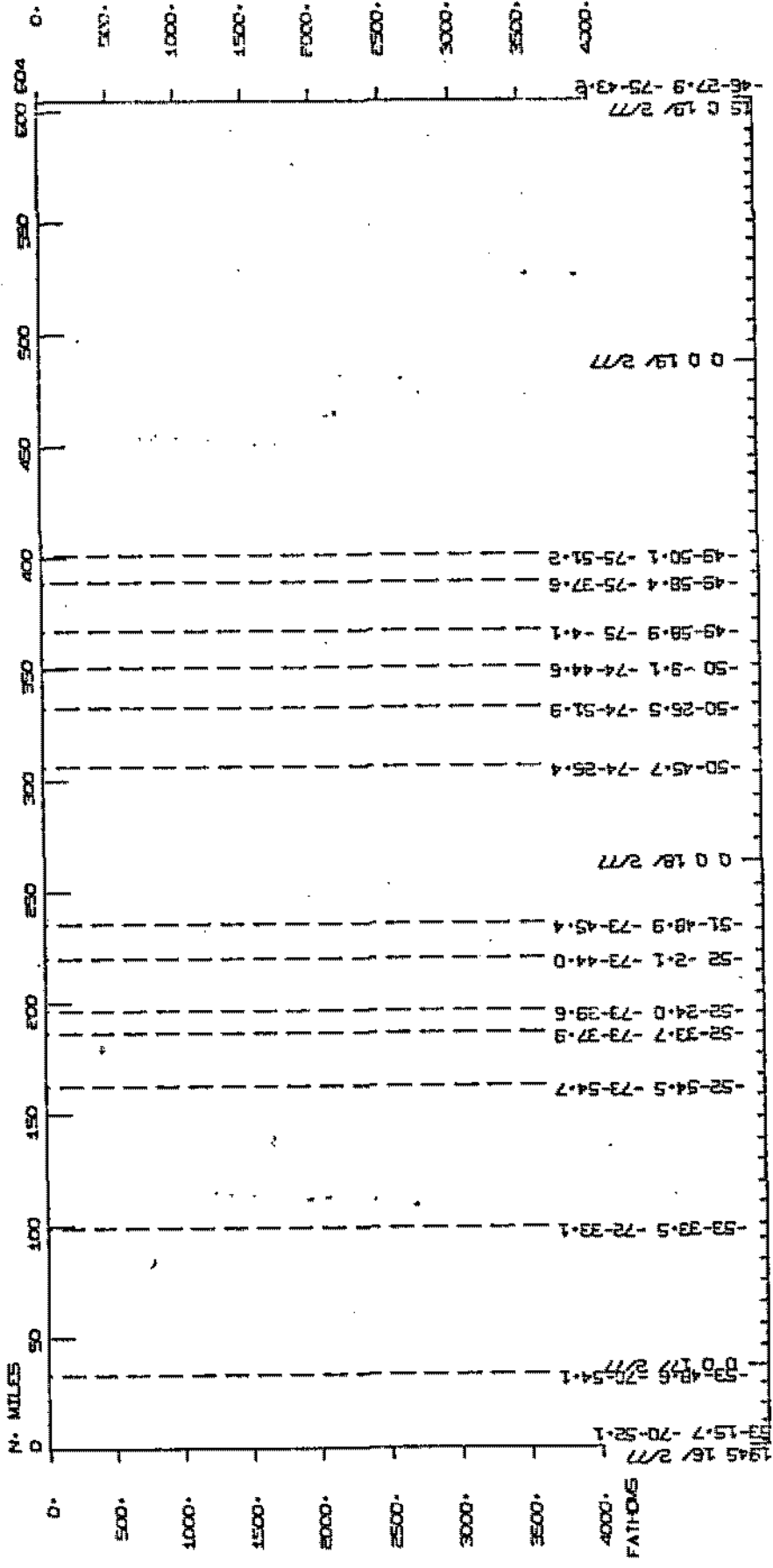
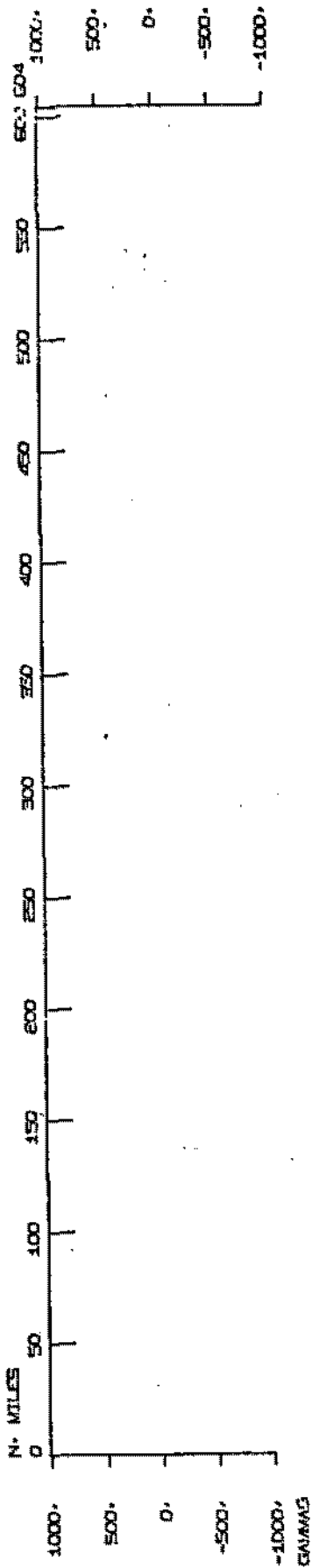
MERCATOR PROJECTION, SCALE= 0.312 IN/DEG LONGITUDE



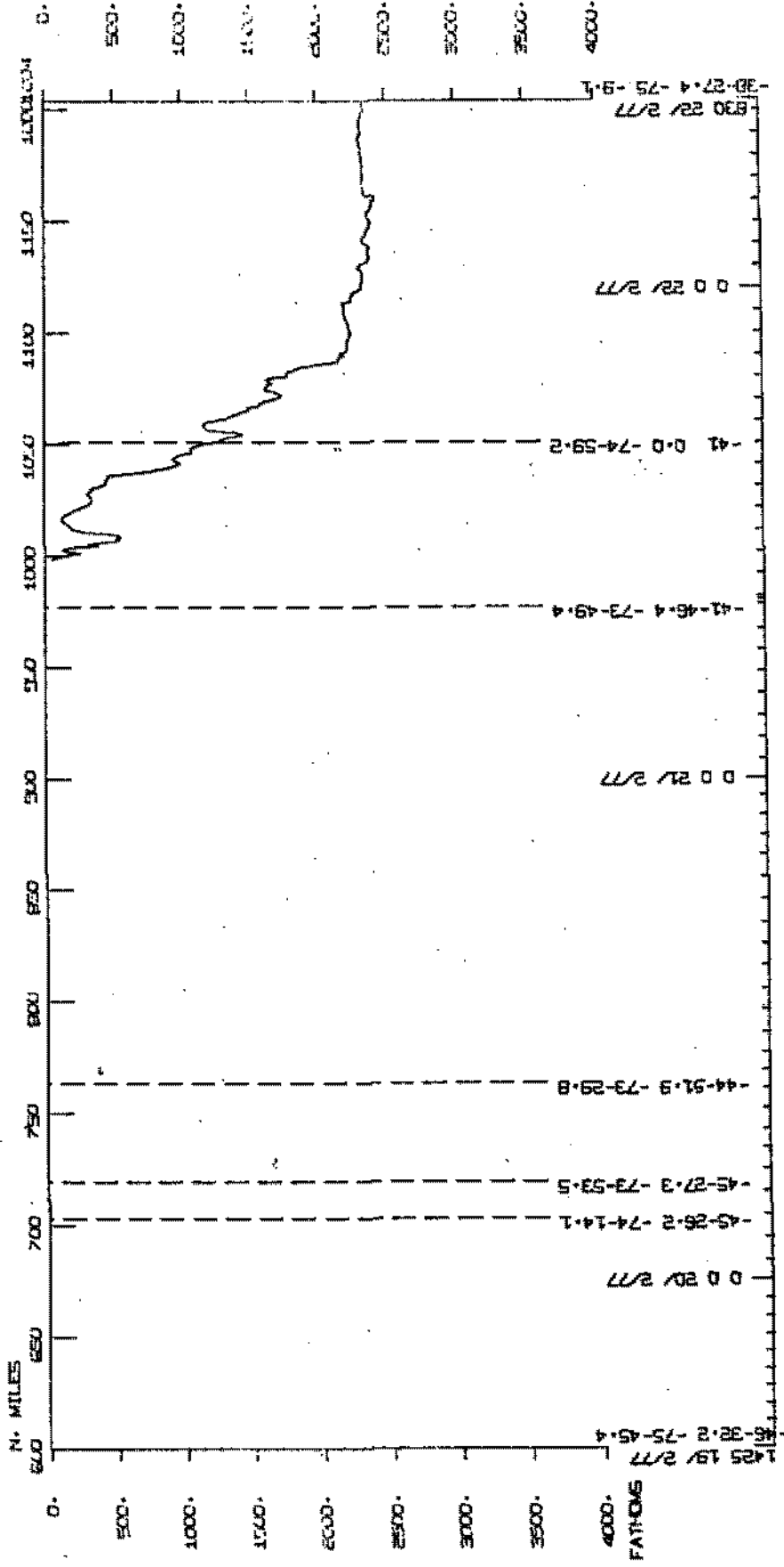
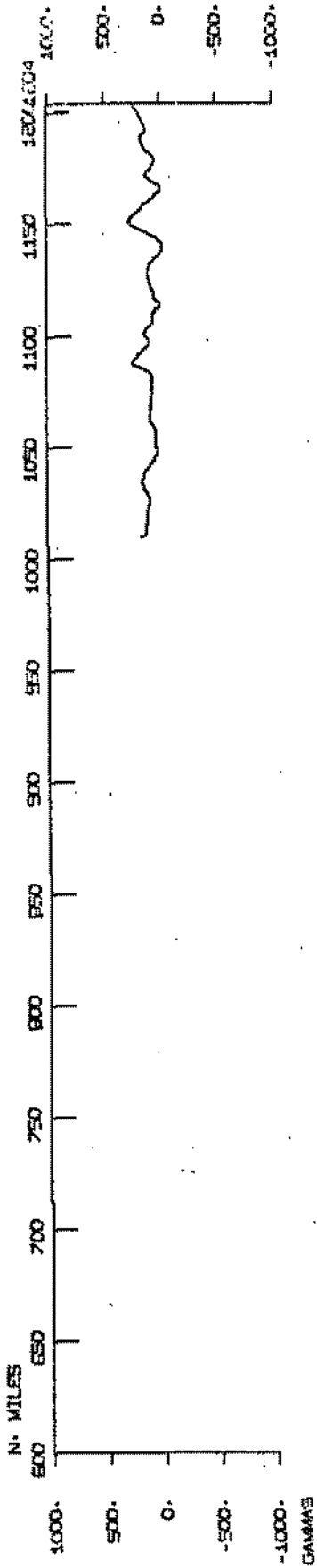
MERCATOR PROJECTION, SCALE= 0.312 IN/DEG LONGITUDE



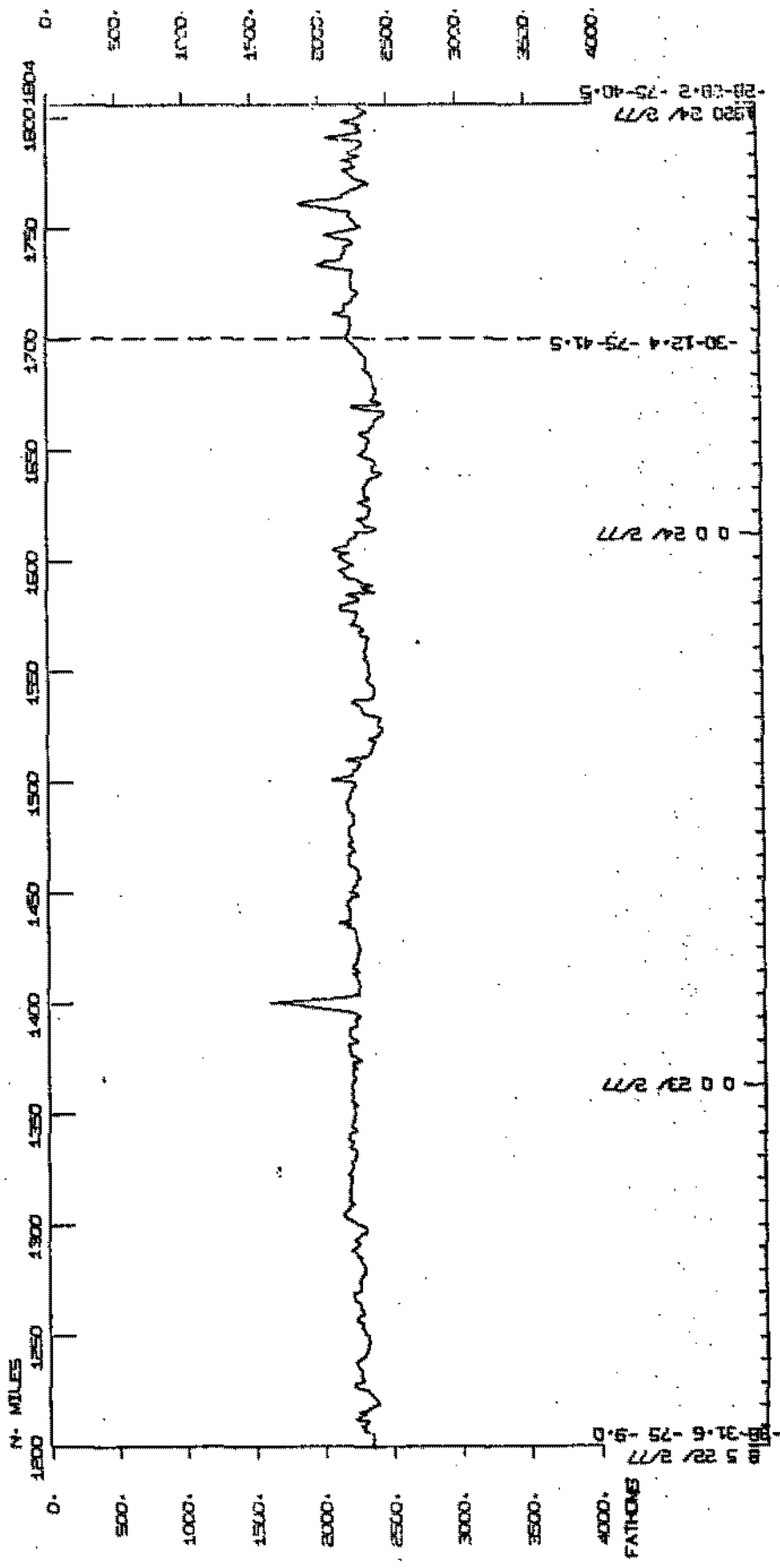
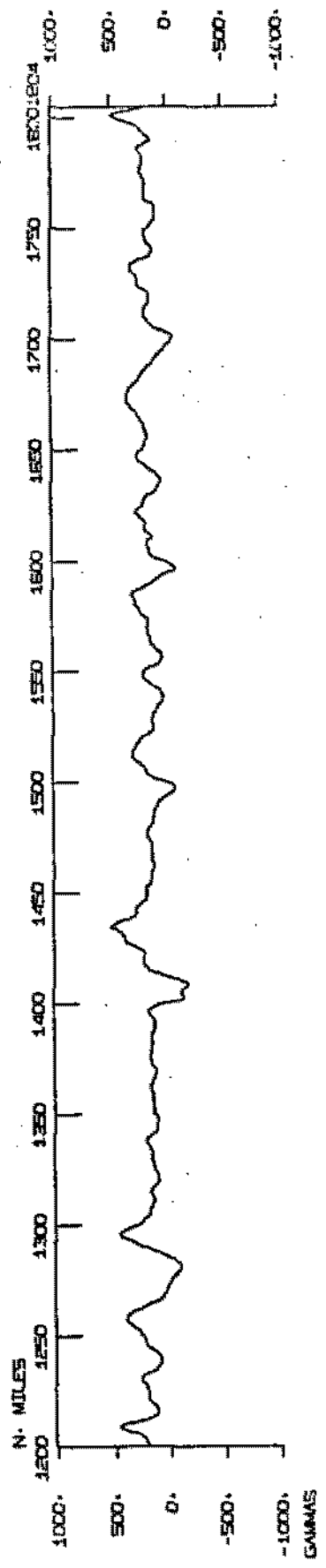
F. DRAKE77 LEG 3



F. DRAKE 77 LEG 3



F. DRAKE 77 LEG B



00 24 277

00 24 277

00 22 000

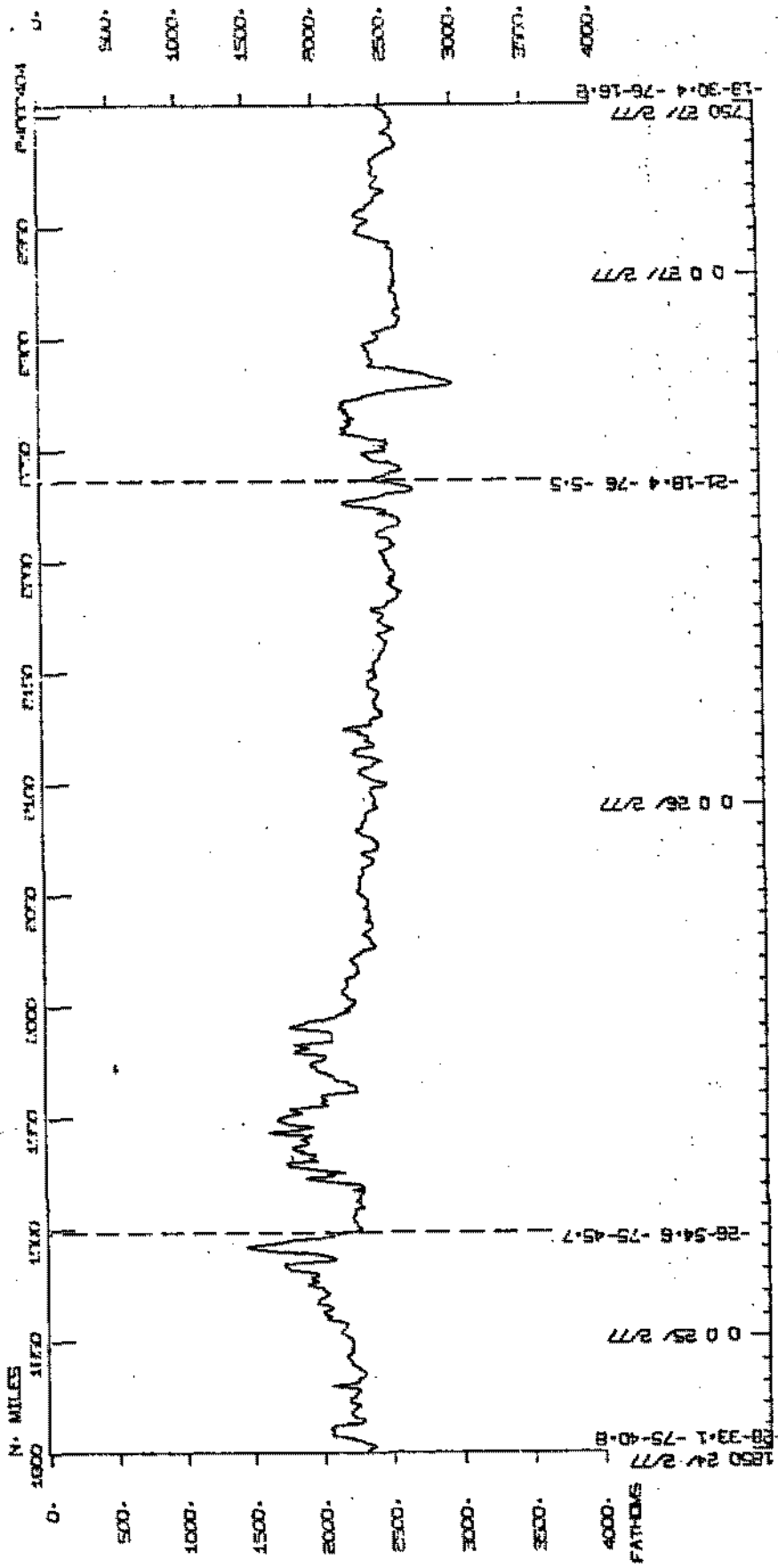
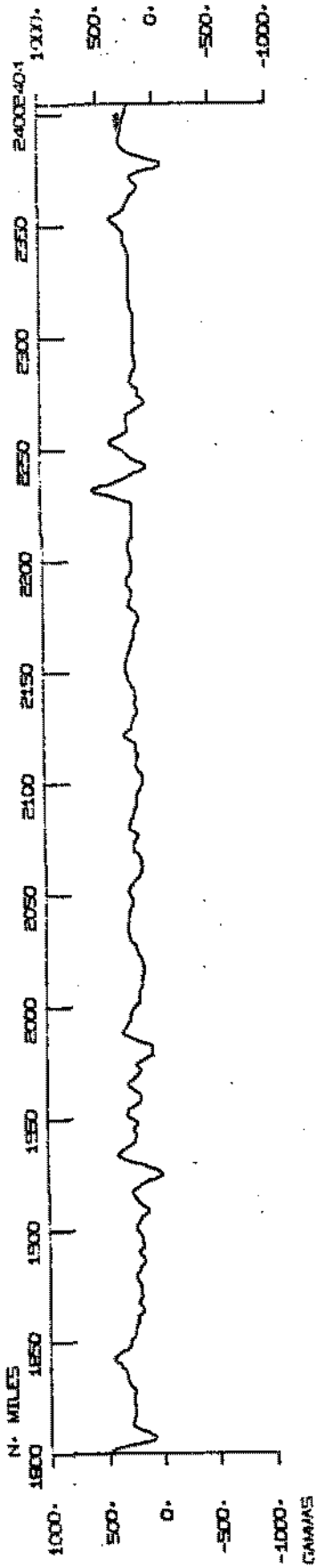
00 22 277

30-12-4-75 A.S

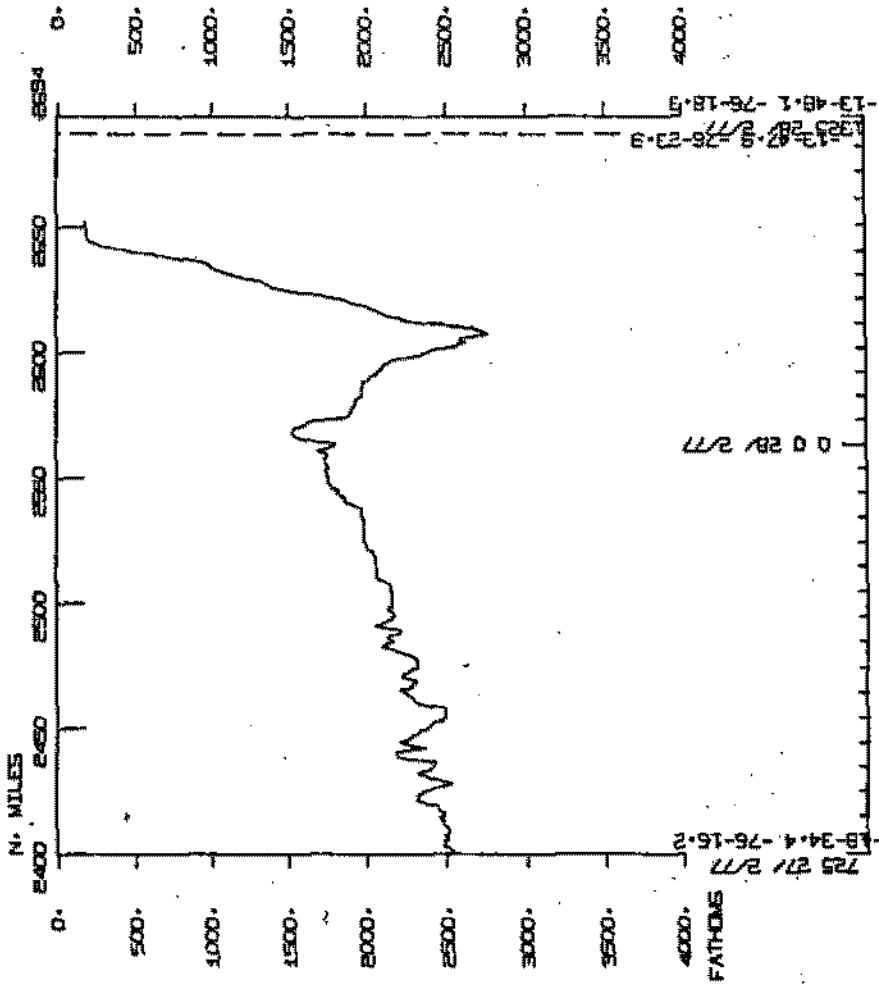
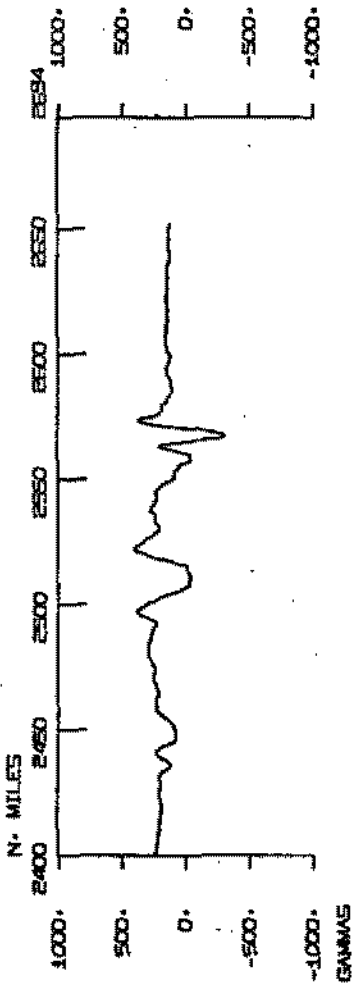
U.S. 22/277
9-6-75-5

U.S. 24/277
2-75-40-5

F. DRAKE 77 LEG 3



F - DRAKE77 LEG D



725 21/ 2/77
 13-34.4 -76-15.2
 13-35.2 -76-15.2
 13-36.2 -76-15.2
 13-37.2 -76-15.2
 13-38.2 -76-15.2
 13-39.2 -76-15.2

S.I.O. SAMPLE INDEX

(Issued June 30, 1977)

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Chief Scientist - E. Seifert (OSU)

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

Index Encoding Funded by NSF
Grant Number OCE76-00131
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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S.I.O. SAMPLE INDEX

GENERATED 28JUN77

*** F. DRAKE 77 EXPEDITION LEG 3

(FD7703MV) ***

	60E	120E	180	120W	60W	0W
85N	+.....+.....+.....+.....+.....+.....+.....+.....+.....+.....+.....+.....+					
	X' = SHIP'S TRACK BY 5 DEGREE SQUARE					
80N					0 0000	80N
75N		0		0 00000	0000000000	75N
70N		000000000000		0000 0 00 0	00000000	70N
65N	0000 0000000000000000000000000000		000000000000000000	00	0000 0	65N
60N	0000000000000000000000000000000000		00000000000000	00	00	60N
55N	0 000000000000000000000000000000	00	0	00000000	000	0 55N
50N	0000000000000000000000000000000000	0		0000000000	0000	00 50N
45N	0000000000000000000000000000000000			00000000000000	0	45N
40N	0 00 00 000000000000000000000000			00000000000000		40N
35N	0 00000 000000000000000000000000			0000000000		0 35N
30N	000 0000000000000000000000000000			0000000000		00 30N
25N	00000000000000000000000000000000			0000 0		000 25N
20N	0000000 0000 000 00000		0	0 00		000 20N
15N	00000000 00 0 00 0			00 0		000 15N
10N	000000000 0 0 0 0			0		000 10N
5N	0000000000				00000	000 5N
0N	0000000	00 00			000000	0N
5S	000000	0 0 0 00			0000000	5S
10S	00000	0 00			00000000	10S
15S	00000	0 0			X0000000	15S
20S	000000 0	00000			X 000000	20S
25S	0000 0	0000000			000000	25S
30S	00	00000000			X 0000	30S
35S	00	00 000	0		00000	35S
40S		00	0		000	40S
45S		0			00	45S
50S					00	50S
55S					0	55S
60S						60S
65S						65S
70S	00 0000 00000000				0	70S
75S	00000000000000000000000000000000			0 00000	0000	75S
80S	00000000000000000000000000000000			000000000000000000000000	0000000	80S
85S	00000000000000000000000000000000			00000000000000000000000000000000	00000000	85S
90S	00000000000000000000000000000000			00000000000000000000000000000000	00000000000000000000000000000000	90S
	+.....+.....+.....+.....+.....+.....+.....+.....+.....+.....+.....+.....+					
	60E	120E	180	120W	60W	0W

16FEB77 - PUNTA ALENAS, CHILE
TO
28FEB77 - SAN MARTIN, PERU

CHIEF SCIENTIST - SEIFERT, E. DSU

SHIP - R/V MELVILLE (SIO)

PRODUCED BY GEOLOGICAL DATA CENTER, SCRIPPS INSTITUTION
OF OCEANOGRAPHY, LA JOLLA, CALIFORNIA 92093

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

DISP	TYPE				TOTAL
	UP	LB	MG	PE	
CHL	1			2	1 2
DCP	1			1	1 1
GDC	1	3	1	2	1 6
OSU	1			5	1 5
SCG	1			1	1 1
SIX	1			2	1 2
TOTAL	1	3	1	2	11 17

SAMPLE 'TYPE' CODES USED ABOVE

UP = DEPTH
 LB = LOG BOOKS
 MG = MAGNETICS (TOWED VEHICLE, SURFACE, TOTAL FIELD)
 PE = PERSONNEL IN SCIENTIFIC PARTY

SAMPLE 'DISP' CODES USED ABOVE

CHL = CHILE
 CHL = CHILEAN HYDROGRAPHIC INSTITUTE, (IHA), H. STEVERS, N. ZULETA
 DCP = DATA COLLECTION, PROCESSING GROUP -- F. WILKES (EXT. 3668)
 GDC = GEOLOGICAL DATA CENTER -- S. M. SMITH (EXT. 2182)
 OSU = OREGON STATE UNIVERSITY -- TJEERD VAN ANDEL
 SCG = SHIPBOARD COMPUTER GROUP (EXT. 4195)
 SIX = SCRIPPS INSTITUTION NON-EMPLOYEE -- (CONTACT DORCAS UTTER EXT. 2356)

S.I.O. SAMPLE INDEX

F. DRAKE 77 EXPEDITION LEG 3

FD7703MV

*** PORTS ***

1909 16 277	LGPT B PUNTA ARENAS, CHILE	53 10 S	70 54 W	F	FD7703MV
1350 28 277	LGPT E SAN MARTIN, PERU	13 48 S	76 18 W	S	FD7703MV
830 21 277	LGSS B ANCUD, CHILE	41 52 S	73 49 W	F	FD7703MV
955 21 277	LGSS E ANCUD, CHILE	41 52 S	73 49 W	F	FD7703MV

*** PERSONNEL ***

PECS	SEIFERT, E.	OSU	FD7703MV
PERT	MUUS, D.	DCP	FD7703MV
PECT	HENRY, A.	SCG	FD7703MV
PEXN	ALDUNATE, R.	CHL	FD7703MV
PE	BOCKHOLD, K.	SIX	FD7703MV
PE	HAKNETT, L.	OSU	FD7703MV
PE	REAUME, A.P.	SIX	FD7703MV
PEXN	ROJAS, R.	CHL	FD7703MV
PE	ROOT, D.	OSU	FD7703MV
PE	SEIFERT, J.	OSU	FD7703MV
PE	SIMKINS, J.	OSU	FD7703MV

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

