INFORMAL REPORT AND INDEX OF

NAVIGATION AND DEPTH DATA

(Issued November 1, 1977)

F. DRAKE 77 EXPEDITION

LEG 4A

(CUEA Leg 1)

San Martin, Peru (5 March 1977)
to
Callao, Peru (9 March 1977)

R/V MELVILLE

Chief Scientist - R. Smith (Oregon State University)

Resident Marine Tech - D. Mcus

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

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

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

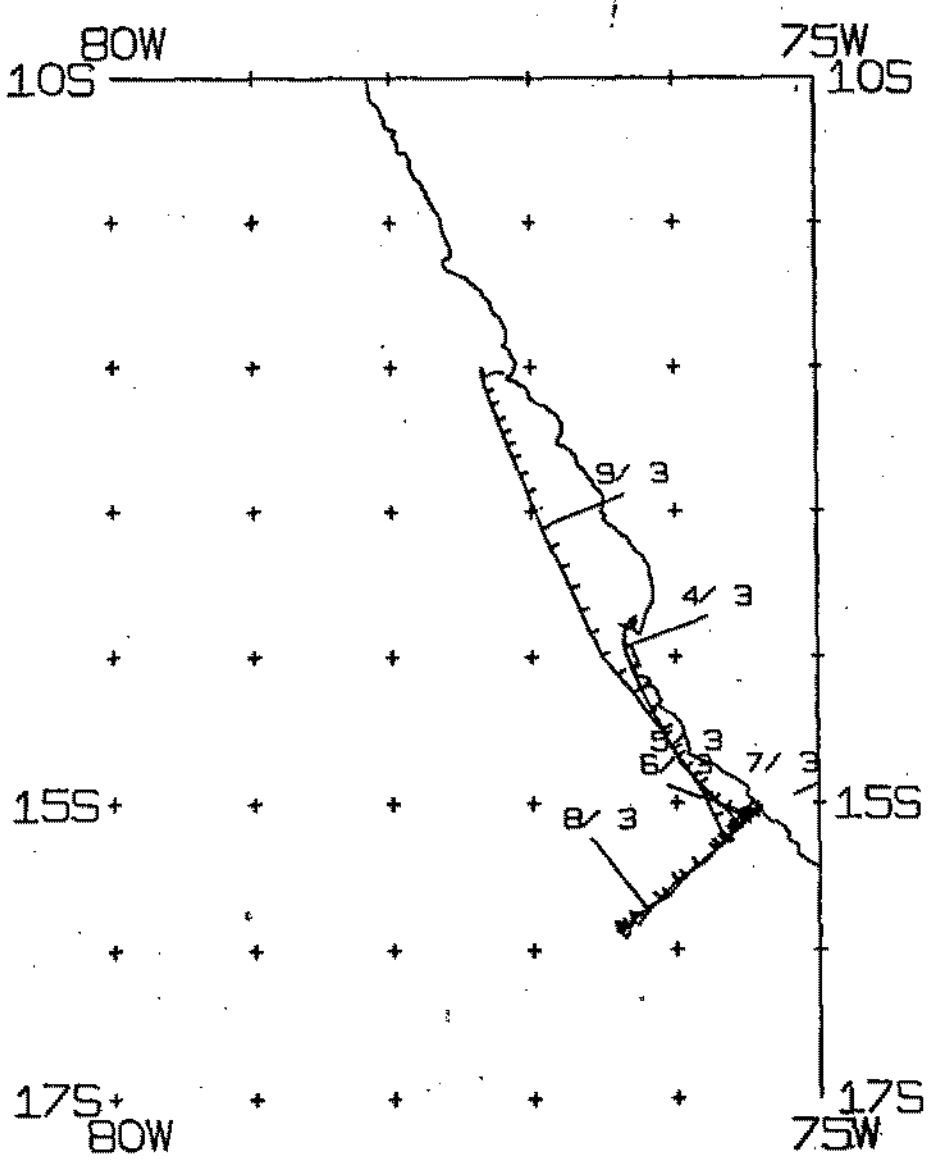
** d. Underway Data Log

---

* No subbottom profiler data collected

** Only these types and formats of data are available from the Geological Data Center for this specific cruise leg.

FD774AMV TRACK PLOT (1 OF 1)



On March 8, 1977 Bathymetry was collected from 0850 to 1145. These data were not digitized but are archived at the Data Center.

CRUISE - 632 MILES

S.I.O. SAMPLE INDEX

(Issued November 1, 1977)

F. DRAKE 77 EXPEDITION

LEG 4A

(CUEA Leg 1)

San Martin, Peru (3 March 1977)
to
Callao, Peru (9 March 1977)

R/V MELVILLE

Chief Scientist - R. Smith (Oregon State University)

Resident Marine Tech - D. Muus

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

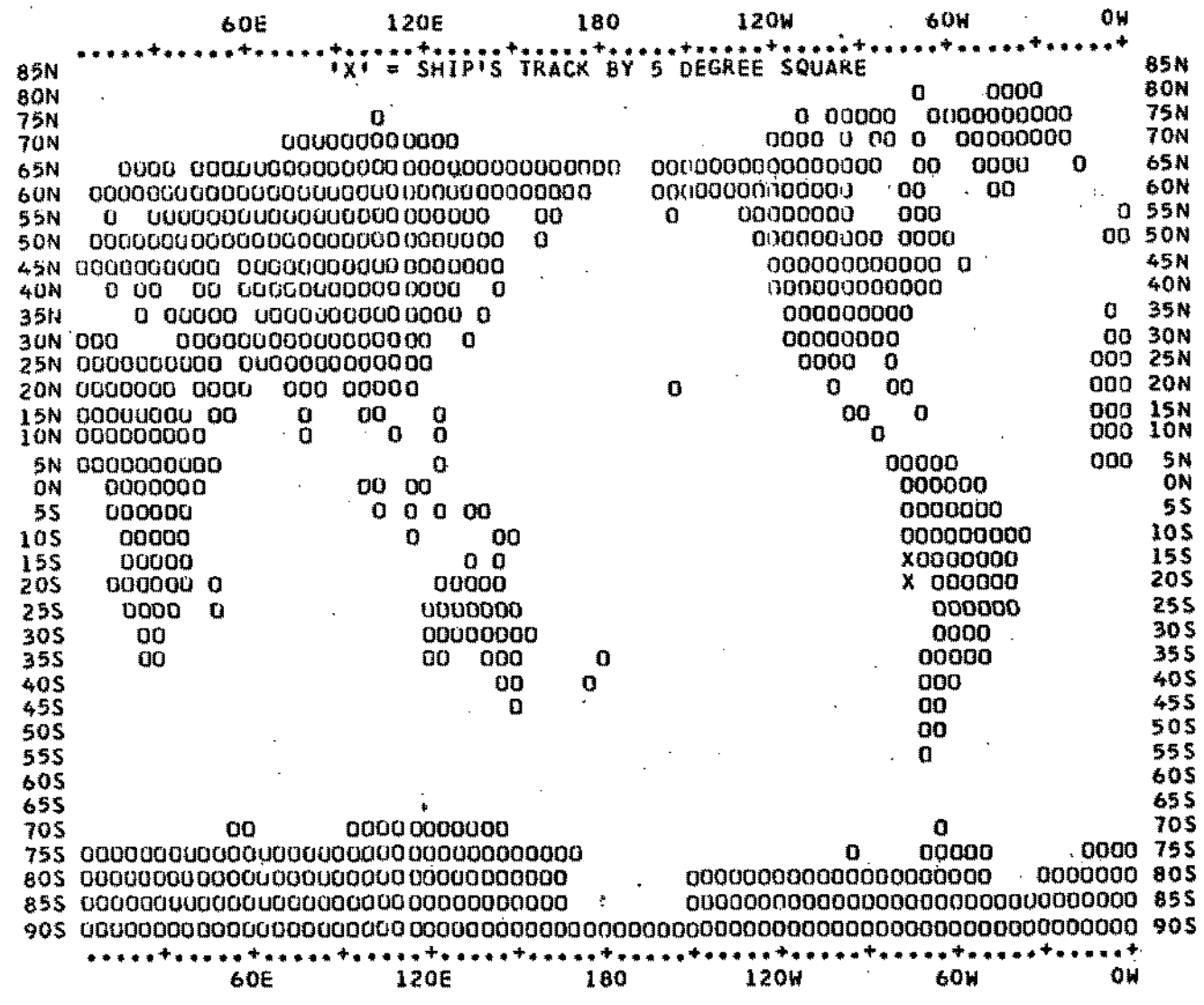
Index Encoding Funded by NSF
Grant Number OCE76-00131
Index Processing and Report Preparation
Funded in Part by SIA

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.)

S.I.O. SAMPLE INDEX GENERATED 030CT77

*** FDRAKE 77 EXPEDITION LEG 4A SAMPLE INDEX (FD774ANV) ***



03MAR77 - SAN MARTIN,PERU

TO

09MAR77 - CALLAO,PERU

CHIEF SCIENTIST - SMITH, R. OSU

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
	BU	CM	DP	HC	LB	PE	TD	
DCP						1		1
GDC			1		1			2
NOA	1	2				3		6
OSU		6				11	23	40
PRU						3		3
SCG						1		1
SIX						1		1
UWA				14		5		19
TOTAL	1	8	1	14	1	25	23	73

SAMPLE 'TYPE' CODES USED ABOVE

BU = BUOY (OCEANOGRAPHIC) REPLACED TYPE RB MAR. 74
CM = CURRENT MEASUREMENT
DP = DEPTH
HC = HYDROGRAPHIC CAST
LB = LOG BOOKS
PE = PERSONNEL IN SCIENTIFIC PARTY
TD = SALINITY/TEMPERATURE/DEPTH (STD)

SAMPLE 'DISP' CODES USED ABOVE

DCP = DATA COLLECTION, PROCESSING GROUP -- F. WILKES (EXT. 3668)
GDC = GEOLOGICAL DATA CENTER -- S. SMITH (EXT. 2752)
NOA = NATIONAL OCEANOG. + ATMOSPH. ADMINISTRATION
OSU = OREGON STATE UNIVERSITY
PRU = PERU
SCG = SHIPBOARD COMPUTER GROUP (EXT. 4195)
SIX = SCRIPPS INSTITUTION NON-EMPLOYEE -(CONTACT DORCAS UTTER EXT. 2356)
UWA = UNIV. OF WASHINGTON, SEATTLE

FORAKE 77 EXPEDITION LEG 4A SAMPLE INDEX

*** PORTS ***

210	3 377	LGPT B SAN MARTIN,PERU	13	483S	76	174W	S	FD774AMV
1345	9 377	LGPT E CALLAO,PERU	12	03S	76	10 W	F	FD774AMV

PERSONNEL

PECS	SMITH, R.	OSU	FD774AMV
PERT	MUUS, D.	DCP	FD774AMV
PECT	OTT, J.	SCG	FD774AMV
PE	ALLEN, J.	OSU	FD774AMV
PEXN	ANAZCO, J.	PRU	FD774AMV
PE	BARSTOW, D.	OSU	FD774AMV
PE	CODISPOTI, L.	UWA	FD774AMV
PE	FENTON, D.	UWA	FD774AMV
PEXN	FLORES, R.	PRU	FD774AMV
PE	FREITAG, H.	NOA	FD774AMV
PEXN	FRIEDERICH, G.	UWA	FD774AMV
PEXN	HALPERN, D.	NOA	FD774AMV
PE	LEWIS, L.	OSU	FD774AMV
PEXN	MORON, O.	PRU	FD774AMV
PE	MOORE, B.	OSU	FD774AMV
PE	PEFFLEY, M.	SIX	FD774AMV
PE	ROOT, D.	OSU	FD774AMV
PE	SCHRAMM, R.	OSU	FD774AMV
PE	SEIFERT, E.	OSU	FD774AMV
PE	SEIFERT, J.	OSU	FD774AMV
PE	SHEPARD, A.	NOA	FD774AMV
PE	SHUMAN, F.	UWA	FD774AMV
PE	SIMPKINS, J.	OSU	FD774AMV
PE	STILL, R.	OSU	FD774AMV
PE	WISEGARVER, D.	UWA	FD774AMV

*** 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
					UNDERWAY DATA CURATOR - STUART SMITH (EXT.2752)				
*** LOG BOOKS ***									
850	8 377			LBUW B	UNDERWAY WATCH LOG	GDC	15 153S	75 395W S	FD774AMV
1145	8 377			LBUW E	UNDERWAY WATCH LOG	GDC	14 511S	75 522W S	FD774AMV
*** FATHOGRAMS ***									
1145	8 377			DPRT B	GDR 12 KHZ R-01	GDC	14 511S	75 522W S	FD774AMV
840	8 377			DPRT E	GDR 12 KHZ R-01	GDC	15 154S	75 395W S	FD774AMV
HYDROGRAPHIC CAST									
2304	5 377			HCNI	TSON	14 UWA	15 34S	75 268W S	FD774AMV
129	6 377			HCNI	TSON	17 UWA	15 50S	75 286W S	FD774AMV
344	6 377			HCNI	N	19 UWA	15 76S	75 307W S	FD774AMV
630	6 377			HCNI	TSON	21 UWA	15 95S	75 331W S	FD774AMV
816	6 377			HCNI	TSON	22 UWA	15 116S	75 352W S	FD774AMV
2308	6 377			HCNI	TS N	26 UWA	15 54S	75 298W S	FD774AMV
207	7 377			HCNI	TS N	28 UWA	15 107S	75 348W S	FD774AMV
330	7 377			HCNI	TS N	30 UWA	15 113S	75 350W S	FD774AMV
604	7 377			HCNI	TSON	32 UWA	15 163S	75 400W S	FD774AMV
2137	7 377			HCNI	TSON	33 UWA	15 523S	76 232W S	FD774AMV
130	8 377			HCNI	TSON	34 UWA	15 385S	76 41W S	FD774AMV
443	8 377			HCNI	TSON	35 UWA	15 250S	75 488W S	FD774AMV
658	8 377			HCNI	TS N	36 UWA	15 180S	75 420W S	FD774AMV
830	8 377			HCNI	TSON	37 UWA	15 155S	75 396W S	FD774AMV
*** BOUY ***									
1603	7 377			BUAB	PD	NOA	15 515S	76 244W S	FD774AMV
CURRENT MEASUREMENT									
1305	4 377			CMAB	MILA 4	OSU	15 55S	75 301W S	FD774AMV
1705	4 377			CMAB	PSS	NOA	15 40S	75 274W S	FD774AMV
1910	4 377			CMAB	AGAVE 77	OSU	15 44S	75 275W S	FD774AMV
1515	5 377			CMAB	PS	NOA	15 66S	75 297W S	FD774AMV
1829	5 377			CMAB	MILA 5	OSU	15 53S	75 308W S	FD774AMV
1744	6 377			CMAB	LAGARTA-MET	OSU	15 109S	75 355W S	FD774AMV
1851	7 377			CMAB	SAN PEDRO	OSU	15 526S	76 241W S	FD774AMV

TIME GMT	DATE D.M.Y.	TIME LOC	TZ LOC	SAMP CODE	SAMPLE IDENT.	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
1144	9 377			CMAB	YUCCA TOO	OSU 12	47S	77 203W	S FD774AMV
CONDUCTIVITY, TEMPERATURE, DEPTH									
1803	4 377			TDCT	1 70M S01	OSU 15	40S	75 275W	S FD774AMV
1921	4 377			TDCT	2 70M S01	OSU 15	44S	75 275W	S FD774AMV
2130	4 377			TDCT	3 50M S01	OSU 15	35S	75 266W	S FD774AMV
2225	4 377			TDCT	4 90M S01	OSU 15	55S	75 287W	S FD774AMV
2314	4 377			TDCT	5 125M S01	OSU 15	74S	75 312W	S FD774AMV
4	5 377			TDCT	6 175M S01	OSU 15	94S	75 334W	S FD774AMV
104	5 377			TDCT	7 510M S01	OSU 15	111S	75 352W	S FD774AMV
216	5 377			TDCT	8 950M S01	OSU 15	134S	75 376W	S FD774AMV
405	5 377			TDCT	10 1000M S01	OSU 15	160S	75 397W	S FD774AMV
509	5 377			TDCT	12 1000M S01	OSU 15	180S	75 417W	S FD774AMV
7	6 377			TDCT	16 89M S01	OSU 15	51S	75 286W	S FD774AMV
237	6 377			TDCT	18 111M S01	OSU 15	70S	75 310W	S FD774AMV
857	6 377			TDCT	23 513M S01	OSU 15	117S	75 349W	S FD774AMV
2040	6 377			TDCT	24 94M S01	OSU 15	40S	75 275W	S FD774AMV
2232	6 377			TDCT	25 94M S01	OSU 15	53S	75 293W	S FD774AMV
28	7 377			TDCT	27 122M S01	OSU 15	68S	75 319W	S FD774AMV
209	7 377			TDCT	29 456M S01	OSU 15	107S	75 348W	S FD774AMV
455	7 377			TDCT	31 511M S01	OSU 15	162S	75 394W	S FD774AMV
2100	7 377			TDCT	33 500M S01	OSU 15	524S	76 230W	S FD774AMV
107	8 377			TDCT	34 500M S10	OSU 15	388S	76 41W	S FD774AMV
404	8 377			TDCT	35 500M S10	OSU 15	248S	75 492W	S FD774AMV
618	8 377			TDCT	36 500M S10	OSU 15	182S	75 420W	S FD774AMV
757	8 377			TDCT	37 500M S10	OSU 15	157S	75 396W	S FD774AMV
9900					END SAMPLE INDEX				FD774AMV