

INFORMAL REPORT AND INDEX OF
NAVIGATION, DEPTH AND MAGNETIC DATA

(Issued November 1, 1977)

F. DRAKE 77 EXPEDITION

LEG 4C

(CUEA Leg 3)

Callao, Peru (4 April 1977)
to
Callao, Peru (25 April 1977)

R/V MELVILLE

Co-Chief Scientists - J. Kelley (San Francisco State University)
and J. Walsh (Brookhaven National Labs., New York)

Resident Marine Tech - W. Keith

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 OCE76-00135
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)

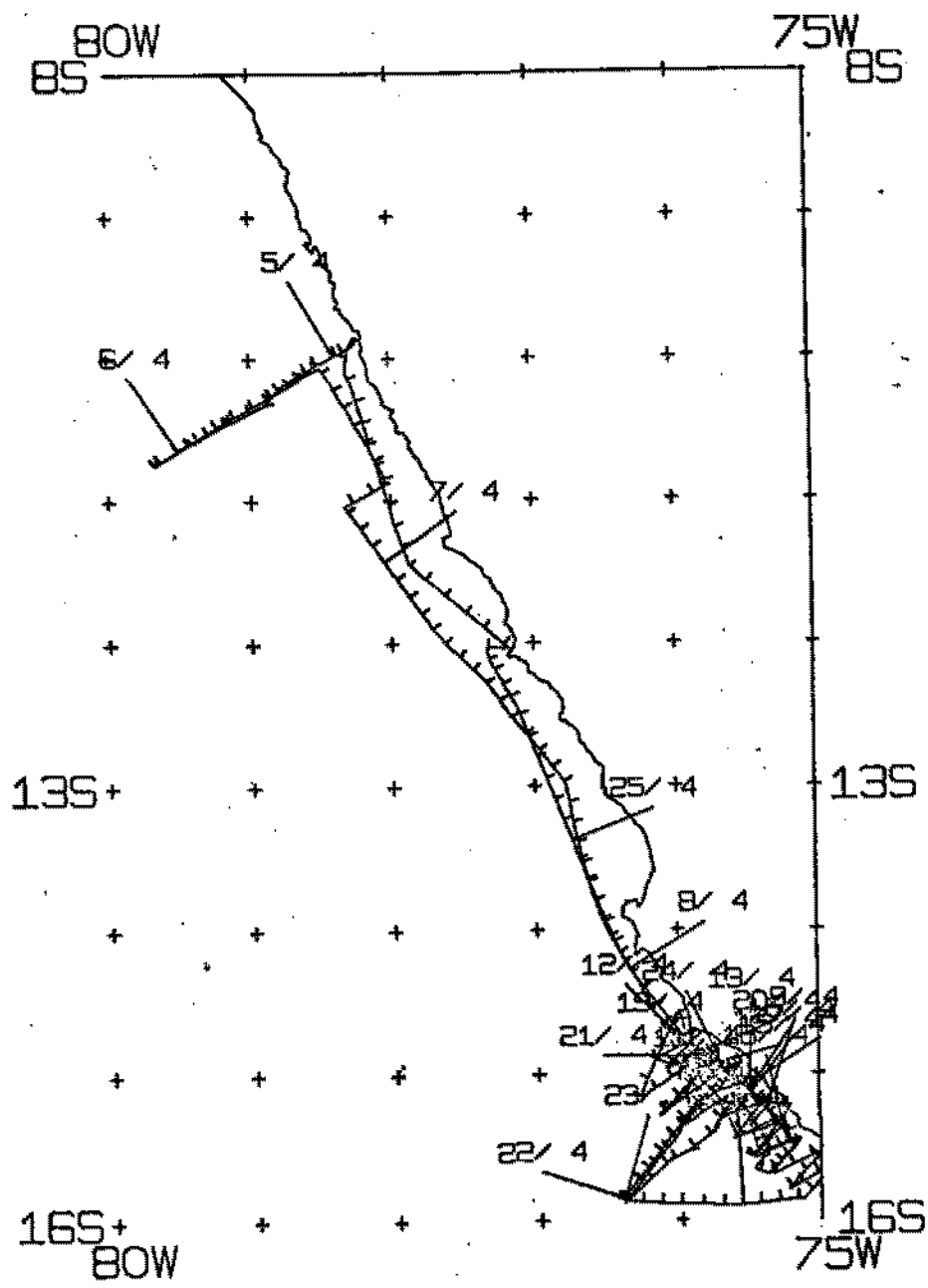
** c. Magnetometer records

** d. Underway Data Log

* No subbottom profiler data collected

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

D774CMV TRACK PLOT (1 OF 1)



On April 6, 1977 Bathymetry was collected from 0400 to 0845.
 On April 9, 1977 Magnetics were collected from 2154 to 2255.
 These data have not been digitized but are archived at the
 Data Center.

CRUISE - 2519 MILES

S.I.O. SAMPLE INDEX

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LEG 4C

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Callao, Peru (4 April 1977)
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Index Encoding Funded by NSF
Grant Number OCE76-00135
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	
	AC	CS	DP	HC	LB	ON	PE	PP	TD			
CAN	I						2				I	2
GDC	I		1		1						I	2
NUC	I	1					1				I	2
PRU	I						2				I	2
SIO	I						2				I	2
SIX	I	5		39		55	20	33	40		I	192
UWA	I	1					4				I	5
TOTAL	I	1	6	1	39	1	55	31	33	40	I	207

SAMPLE 'TYPE' CODES USED ABOVE

AC = ACOUSTICAL STUDIES
 CS = CONTINUOUS SURFACE WATER SAMPLE
 DP = DEPTH
 HC = HYDROGRAPHIC CAST
 LB = LOG BOOKS
 ON = OPEN NET
 PE = PERSONNEL IN SCIENTIFIC PARTY
 PP = PLANKTON PUMP
 TD = SALINITY/TEMPERATURE/DEPTH (STD)

SAMPLE 'DISP' CODES USED ABOVE

CAN = CANADA
 GDC = GEOLOGICAL DATA CENTER -- S. SMITH (EXT. 2752)
 NUC = NAVAL UNDERSEA CENTER, PT. LOMA, S.D.
 PRU = PERU
 SIO = SCRIPPS INSTITUTION OF OCEANOGRAPHY, LA JOLLA, CAL. 92093
 SIX = SCRIPPS INSTITUTION NON-EMPLOYEE -- (CONTACT DORCAS UTTER EXT. 2356)
 UWA = UNIV. OF WASHINGTON, SEATTLE

FDRAKE 77 EXPEDITION LEG 4C SAMPLE INDEX

FD774CMV

*** PORTS ***

100 4 477
1300 25 477

LGPT B CALLAO, PERU
LGPT E CALLAO, PERU

12 3S 76 100W F FD774CMV
12 3S 76 100W F FD774CMV

PERSONNEL

PECS	KELLEY, J.	SIX	FD774CMV
PECS	WALSH, J.	SIX	FD774CMV
PEKT	KEITH, W.	SIX	FD774CMV
PECT	OTT, J.	SIX	FD774CMV
PEXN	BOYD, C.	CAN	FD774CMV
PE	BRUNE, F.	UWA	FD774CMV
PE	CASCOS, P.	SIX	FD774CMV
PE	CONWAY, H.	SIX	FD774CMV
PE	COWLES, T.	SIX	FD774CMV
PEXN	DAGG, M.	CAN	FD774CMV
PE	ESAIAS, W.	SIX	FD774CMV
PE	FELDMAN, D.	SIX	FD774CMV
PEXN	GOMEZ, O.	PRU	FD774CMV
PE	GRILL, D.	SIX	FD774CMV
PE	HARRIOTT, A.	SIX	FD774CMV
PE	HAUTSCH, R.	SIX	FD774CMV
PE	HOWE, S.	SIX	FD774CMV
PE	JUDKINS, D.	SIX	FD774CMV
PE	OWENS, T.	UWA	FD774CMV
PE	PATTON, C.	SIX	FD774CMV
PE	PEDERSEN, W.	SIX	FD774CMV
PE	RIX, J.	SIX	FD774CMV
PEXN	SANOUVAL, D.	PRU	FD774CMV
PE	SELIGMAN, P.	NUC	FD774CMV
PE	SICK, R.	SIX	FD774CMV
PE	SMITH, S.	SIX	FD774CMV
PE	THORNE, R.	UWA	FD774CMV
PE	WESTHAGEN, A.	UWA	FD774CMV
PE	WHITLEDGE, T.	SIX	FD774CMV
PE	WIRICK, C.	SIX	FD774CMV
PE	WOLD, E.	SIX	FD774CMV

MTG

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

*** NOTE *** AN 'X' IN THE (B)EGIN/(E)ND COLUMN FOLLOWING THE SAMPLE
CODE INDICATES NO SAMPLE OR DATA RECOVERED

05OCT77 PAGE 1
 CRUISE
 LEG-SHIP

TIME	DATE	TIME	TZ	SAMP	DISP				
GMT	D.M.Y.	LOC	LOC	CODE	CODE	LAT.	LONG.		

UNDERWAY DATA CURATOR - STUART SMITH (EXT.2752)

*** LOG BOOKS ***

400	6	477		LBUW B UNDERWAY LDG	GDC 10	389S	79 315W	S	FD774CMV
845	6	477		LBUW E UNDERWAY LDG	GDC 10	172S	78 535W	S	FD774CMV

*** FATHOGRAMS ***

356	6	477		DPR3 B GDR 3.5KHZ R-01	GDC 10	392S	79 320W	S	FD774CMV
850	6	477		DPR3 E GDR 3.5KHZ R-01	GDC 10	169S	78 529W	S	FD774CMV

CONTINUOUS SURFACE WATER SAMPLE

232	6	477		CSXX B NUTS,CHLORO,TEMP	SIX 10	445S	79 408W	S	FD774CMV
2200	7	477		CSXX E NUTS,CHLORO,TEMP	SIX 14	27S	76 291W	S	FD774CMV
430	10	477		CSXX B NUTS,CHLORO,TEMP	SIX 15	446S	75 13W	S	FD774CMV
301	12	477		CSXX E NUTS,CHLORO,TEMP	SIX 14	537S	76 106W	S	FD774CMV
2000	17	477		CSXX B NUTS,CHLORO,TEMP	SIX 15	385S	75 203W	S	FD774CMV
937	20	477		CSXX E NUTS,CHLORO,TEMP	SIX 15	276S	75 141W	S	FD774CMV
100	21	477		CSXX B NUTS,CHLORO,TEMP	SIX 14	565S	75 560W	S	FD774CMV
845	21	477		CSXX E NUTS,CHLORO,TEMP	SIX 14	579S	75 451W	S	FD774CMV
1900	23	477		CSXX B NUTS,CHLORO,TEMP	SIX 15	202S	75 598W	S	FD774CMV
1200	24	477		CSXX E NUTS,CHLORO,TEMP	SIX 14	532S	75 517W	S	FD774CMV
1700	4	477		CSXX B TRACE METAL,PH,CHLOR	NUC 9	592S	78 178W	S	FD774CMV
100	25	477		CSXX E TRACE METAL,PH,CHLOR	NUC 13	142S	76 490W	S	FD774CMV

ACOUSTIC SURVEY

1400	4	477		ACXX B ACOUSTIC SURVEY FOR	UWA 10	267S	78 122W	S	FD774CMV
1800	24	477		ACXX E FISH-TOWED VEHICLE	UWA 14	129S	76 243W	S	FD774CMV

PLANKTON PUMP

8	477	1112	50	PP	B	N	G	A	L194	SIX 15	58S	75 305W	S	FD774CMV
8	477	1329	50	PP	E	N	G	A	L194	SIX 15	67S	75 306W	S	FD774CMV

TIME GMT	DATE D.M.Y.	TIME LOC	TZ LOC	SAMP CODE		SAMPLE IDENT.	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
12	477	1225	50	PP	B	N	G	A	L204	SIX 15 52S 75 308W S FD774CMV
12	477	1344	50	PP	E	N	G	A	L204	SIX 15 54S 75 304W S FD774CMV
12	477	1635	50	PP	B	N	G	A	L205	SIX 15 55S 75 308W S FD774CMV
12	477	1814	50	PP	E	N	G	A	L205	SIX 15 56S 75 307W S FD774CMV
12	477	2005	50	PP	B	N	G	A	L206	SIX 15 51S 75 310W S FD774CMV
12	477	2133	50	PP	E	N	G	A	L206	SIX 15 45S 75 315W S FD774CMV
13	477	0	50	PP	B	N	G	A	L207	SIX 15 53S 75 310W S FD774CMV
13	477	125	50	PP	E	N	G	A	L207	SIX 15 54S 75 312W S FD774CMV
13	477	405	50	PP	B	N	G	A	L208	SIX 15 56S 75 313W S FD774CMV
13	477	534	50	PP	E	N	G	A	L208	SIX 15 54S 75 314W S FD774CMV
13	477	803	50	PP	B	N	G	A	L209	SIX 15 55S 75 311W S FD774CMV
13	477	932	50	PP	E	N	G	A	L209	SIX 15 53S 75 311W S FD774CMV
13	477	1200	50	PP	B	N	G	A	L210	SIX 15 52S 75 306W S FD774CMV
13	477	1327	50	PP	E	N	G	A	L210	SIX 15 53S 75 300W S FD774CMV
13	477	1604	50	PP	B	N	G	A	L211	SIX 15 58S 75 306W S FD774CMV
13	477	1733	50	PP	E	N	G	A	L211	SIX 15 53S 75 311W S FD774CMV
13	477	2025	50	PP	B	N	G	A	L212	SIX 15 52S 75 315W S FD774CMV
13	477	2157	50	PP	E	N	G	A	L212	SIX 15 53S 75 318W S FD774CMV
14	477	0	50	PP	B	N	G	A	L213	SIX 15 51S 75 323W S FD774CMV
14	477	125	50	PP	E	N	G	A	L213	SIX 15 52S 75 323W S FD774CMV
14	477	402	50	PP	B	N	G	A	L214	SIX 15 57S 75 306W S FD774CMV
14	477	502	50	PP	E	N	G	A	L214	SIX 15 55S 75 306W S FD774CMV
15	477	1211	50	PP	B	N	G	A	L218	SIX 15 110S 75 353W S FD774CMV
15	477	1330	50	PP	E	N	G	A	L218	SIX 15 109S 75 353W S FD774CMV
15	477	1643	50	PP	B	N	G	A	L219	SIX 15 108S 75 353W S FD774CMV
15	477	1808	50	PP	E	N	G	A	L219	SIX 15 107S 75 354W S FD774CMV
15	477	2000	50	PP	B	N	G	A	L220	SIX 15 104S 75 358W S FD774CMV
15	477	2131	50	PP	E	N	G	A	L220	SIX 15 104S 75 360W S FD774CMV
16	477	7	50	PP	B	N	G	A	L221	SIX 15 107S 75 360W S FD774CMV
16	477	122	50	PP	E	N	G	A	L221	SIX 15 106S 75 359W S FD774CMV
16	477	404	50	PP	B	N	G	A	L222	SIX 15 107S 75 358W S FD774CMV
16	477	529	50	PP	E	N	G	A	L222	SIX 15 106S 75 363W S FD774CMV
16	477	804	50	PP	B	N	G	A	L223	SIX 15 110S 75 357W S FD774CMV
16	477	933	50	PP	E	N	G	A	L223	SIX 15 111S 75 365W S FD774CMV

TIME	DATE	TIME	TZ	SAMP	SAMPLE IDENT.			DISP	LAT.	LONG.	CRUISE	LEG-SHIP
GMT	D.M.Y.	LOC	LOC	CODE			CODE					
16	4771304	50	PP	B	N	G A L224	SIX 15	112S	75 357W	S	FD774CMV	
16	4771423	50	PP	E	N	G A L224	SIX 15	110S	75 355W	S	FD774CMV	
16	4771608	50	PP	B	N	G A L225	SIX 15	109S	75 348W	S	FD774CMV	
16	4771742	50	PP	E	N	G A L225	SIX 15	106S	75 354W	S	FD774CMV	
16	4772000	50	PP	B	N	G A L226	SIX 15	108S	75 352W	S	FD774CMV	
16	4772134	50	PP	E	N	G A L226	SIX 15	111S	75 359W	S	FD774CMV	
17	477 11	50	PP	B	N	G A L227	SIX 15	110S	75 353W	S	FD774CMV	
17	477 127	50	PP	E	N	G A L227	SIX 15	108S	75 355W	S	FD774CMV	
17	477 403	50	PP	B	N	G A L228	SIX 15	107S	75 354W	S	FD774CMV	
17	477 539	50	PP	E	N	G A L228	SIX 15	107S	75 358W	S	FD774CMV	
20	4772130	50	PP	B	N	G A LMAP	SIX 14	583S	75 541W	S	FD774CMV	
21	477 351	50	PP	E	N	G A LMAP	SIX 14	582S	75 447W	S	FD774CMV	
21	4772005	50	PP	B	N	G A L237	SIX 15	513S	76 244W	S	FD774CMV	
21	4772134	50	PP	E	N	G A L237	SIX 15	511S	76 241W	S	FD774CMV	
22	477 0	50	PP	B	N	G A L238	SIX 15	516S	76 248W	S	FD774CMV	
22	477 121	50	PP	E	N	G A L238	SIX 15	514S	76 249W	S	FD774CMV	
22	477 404	50	PP	B	N	G A L239	SIX 15	513S	76 251W	S	FD774CMV	
22	477 530	50	PP	E	N	G A L239	SIX 15	512S	76 251W	S	FD774CMV	
22	477 820	50	PP	B	N	G A L241	SIX 15	515S	76 252W	S	FD774CMV	
22	477 920	50	PP	E	N	G A L241	SIX 15	516S	76 251W	S	FD774CMV	
22	4771215	50	PP	B	N	G A L242	SIX 15	516S	76 252W	S	FD774CMV	
22	4771335	50	PP	E	N	G A L242	SIX 15	514S	76 251W	S	FD774CMV	
22	4771604	50	PP	B	N	G A L243	SIX 15	517S	76 252W	S	FD774CMV	
22	4771730	50	PP	E	N	G A L243	SIX 15	517S	76 254W	S	FD774CMV	
22	4772005	50	PP	B	N	G A L244	SIX 15	518S	76 254W	S	FD774CMV	
22	4772139	50	PP	E	N	G A L244	SIX 15	516S	76 256W	S	FD774CMV	
23	477 11	50	PP	B	N	G A L245	SIX 15	513S	76 251W	S	FD774CMV	
23	477 131	50	PP	E	N	G A L245	SIX 15	514S	76 250W	S	FD774CMV	
23	477 405	50	PP	B	N	G A L246	SIX 15	513S	76 251W	S	FD774CMV	
23	477 531	50	PP	E	N	G A L246	SIX 15	514S	76 252W	S	FD774CMV	

HYDROGRAPHIC CAST

4	4771253	50	HCNI		N	G A 182	SIX 9	543S	78 166W	S	FD774CMV
4	4771645	50	HCNI		N	G A 183	SIX 9	582S	78 221W	S	FD774CMV
4	4772033	50	HCNI		N	G A 184	SIX 10	21S	78 299W	S	FD774CMV

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 CRUISE
 LEG-SHIP

TIME GNT	DATE D.M.Y.	TIME LOC	TZ LOC	SAMP CODE	SAMPLE IDENT.			DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
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5	477	553	50	HCNI	N	G	A	187	SIX 10	157S	78 512W	S FD774CMV
5	477	800	50	HCNI	N	G	A	188	SIX 10	192S	78 538W	S FD774CMV
5	477	1132	50	HCNI	N	G	A	189	SIX 10	273S	79 100W	S FD774CMV
5	477	1241	50	HCNI	N	G	A	185	SIX 10	272S	79 104W	S FD774CMV
5	477	1540	50	HCNI	N	G	A	190	SIX 10	353S	79 256W	S FD774CMV
5	477	2043	50	HCNI	N	G	A	191	SIX 10	449S	79 413W	S FD774CMV
8	477	415	50	HCNI	UN C	G	A	192	SIX 15	16S	75 275W	S FD774CMV
8	477	637	50	HCNI	UN C	G	A	193	SIX 15	33S	75 282W	S FD774CMV
8	477	844	50	HCNI	UN C	G	A	194	SIX 15	56S	75 301W	S FD774CMV
8	477	2046	50	HCNI	ON C	G	A	195	SIX 15	89S	75 338W	S FD774CMV
8	477	2234	50	HCNI	UN C	G	A	196	SIX 15	110S	75 364W	S FD774CMV
9	477	20	50	HCNI	N C	G	A	197	SIX 15	132S	75 386W	S FD774CMV
9	477	315	50	HCNI	N C	G	A	198	SIX 15	239S	75 467W	S FD774CMV
9	477	530	50	HCNI	N C	G	A	199	SIX 15	311S	75 566W	S FD774CMV
9	477	743	50	HCNI	N C	G	A	200	SIX 15	362S	76 63W	S FD774CMV
9	477	1205	50	HCNI	N C	G	A	201	SIX 15	519S	76 241W	S FD774CMV
12	477	838	50	HCNI	ON C	G	A	203	SIX 15	59S	75 309W	S FD774CMV
12	477	1209	50	HCNI	ON C	G	A	204	SIX 15	53S	75 307W	S FD774CMV
13	477	30	50	HCNI	ON C	G	A	207	SIX 15	53S	75 311W	S FD774CMV
13	477	1237	50	HCNI	ON C	G	A	210	SIX 15	52S	75 303W	S FD774CMV
14	477	20	50	HCNI	ON C	G	A	213	SIX 15	51S	75 324W	S FD774CMV
14	477	818	50	HCNI	UN C	G	A	215	SIX 15	50S	75 306W	S FD774CMV
14	477	1238	50	HCNI	N C	G	A	216	SIX 14	552S	75 498W	S FD774CMV
15	477	822	50	HCNI	N C	G	A	217	SIX 15	109S	75 354W	S FD774CMV
15	477	1320	50	HCNI	UN C	G	A	218	SIX 15	109S	75 352W	S FD774CMV
16	477	30	50	HCNI	ON C	G	A	221	SIX 15	107S	75 361W	S FD774CMV
16	477	1347	50	HCNI	UN C	G	A	224	SIX 15	109S	75 357W	S FD774CMV
17	477	100	50	HCNI	ON C	G	A	227	SIX 15	109S	75 354W	S FD774CMV
17	477	837	50	HCNI	UN C	G	A	229	SIX 15	114S	75 354W	S FD774CMV
21	477	1637	50	HCNI	N C	G	A	236	SIX 15	515S	76 261W	S FD774CMV
21	477	2000	50	HCNI	N C	G	A	237	SIX 15	513S	76 244W	S FD774CMV
22	477	7	50	HCNI	UN C	G	A	238	SIX 15	516S	76 248W	S FD774CMV
22	477	600	50	HCNI	N C	G	A	240	SIX 15	512S	76 250W	S FD774CMV
22	477	1237	50	HCNI	ON C	G	A	242	SIX 15	515S	76 252W	S FD774CMV
23	477	19	50	HCNI	UN C	G	A	245	SIX 15	514S	76 251W	S FD774CMV
23	477	828	50	HCNI	UN C	G	A	247	SIX 15	515S	76 246W	S FD774CMV

UPEN NET

4	477	1320	50	UNBG	102V	60	0	182	SIX 9	543S	78 161W	S FD774CMV
4	477	1655	50	UNBG	102V	90	0	183	SIX 9	582S	78 222W	S FD774CMV
4	477	2155	50	UNBG	102V	100	0	184	SIX 10	22S	78 303W	S FD774CMV
5	477	115	50	UNBG	102V	100	0	185	SIX 10	67S	78 371W	S FD774CMV
5	477	340	50	UNBG	102V	100	0	186	SIX 10	100S	78 448W	S FD774CMV
5	477	612	50	UNBG	102V	100	0	187	SIX 10	157S	78 511W	S FD774CMV
5	477	810	50	UNBG	102V	100	0	188	SIX 10	193S	78 537W	S FD774CMV
5	477	1157	50	UNBG	102V	100	0	189	SIX 10	273S	79 101W	S FD774CMV
5	477	1630	50	UNBG	102V	100	0	190	SIX 10	351S	79 254W	S FD774CMV
5	477	2102	50	UNBG	102V	100	0	191	SIX 10	447S	79 412W	S FD774CMV
8	477	450	50	UNBG	102V	35	0	192	SIX 15	14S	75 277W	S FD774CMV

TIME		DATE	TIME	TZ	SAMP	DISP			05OCT77		PAGE	5
GMT	U.M.Y.	LUC	LUC	CODE	SAMPLE	IDENT.	CODE	LAT.	LONG.	CRUISE	LEG-SHIP	
8	477	705	50	UNBG	102V	60 0 193	SIX 15	32S	75 283W	S	FD774CMV	
8	477	910	50	UNBG	102V	100 0 194	SIX 15	56S	75 301W	S	FD774CMV	
8	477	2120	50	UNBG	102V	100 0 195	SIX 15	89S	75 342W	S	FD774CMV	
8	477	2300	50	UNBG	102V	100 0 196	SIX 15	110S	75 367W	S	FD774CMV	
9	477	30	50	UNBG	102V	100 0 197	SIX 15	132S	75 388W	S	FD774CMV	
9	477	320	50	UNBG	102V	100 0 198	SIX 15	240S	75 468W	S	FD774CMV	
9	477	550	50	UNBG	102V	100 0 199	SIX 15	312S	75 568W	S	FD774CMV	
9	477	820	50	UNBG	102V	100 0 200	SIX 15	364S	76 66W	S	FD774CMV	
9	477	1230	50	UNBG	102V	100 0 201	SIX 15	520S	76 242W	S	FD774CMV	
12	477	905	50	UNBG	102V	100 0 203	SIX 15	59S	75 308W	S	FD774CMV	
12	477	1140	50	UNBG	102V	100 0 204	SIX 15	55S	75 306W	S	FD774CMV	
12	477	1413	50	UNBG	102V	100 0 204	SIX 15	54S	75 305W	S	FD774CMV	
12	477	2355	50	UNBG	102V	100 0 207	SIX 15	53S	75 310W	S	FD774CMV	
13	477	200	50	UNBG	102V	100 0 207	SIX 15	52S	75 315W	S	FD774CMV	
13	477	1156	50	UNBG	102V	84 0 210	SIX 15	52S	75 307W	S	FD774CMV	
13	477	1330	50	UNBG	102V	84 0 210	SIX 15	53S	75 300W	S	FD774CMV	
13	477	1830	50	UNBG	102V	84 0 211	SIX 15	51S	75 316W	S	FD774CMV	
14	477	0	50	UNBG	102V	84 0 213	SIX 15	51S	75 323W	S	FD774CMV	
14	477	150	50	UNBG	102V	84 0 214	SIX 15	52S	75 322W	S	FD774CMV	
14	477	610	50	UNBG	102V	84 0 214	SIX 15	53S	75 306W	S	FD774CMV	
15	477	1250	50	UNBG	102V	85 0 218	SIX 15	110S	75 352W	S	FD774CMV	
15	477	1400	50	UNBG	102V	84 0 218	SIX 15	109S	75 353W	S	FD774CMV	
16	477	5	50	UNBG	102V	84 0 221	SIX 15	107S	75 360W	S	FD774CMV	
16	477	220	50	UNBG	102V	84 0 221	SIX 15	106S	75 356W	S	FD774CMV	
16	477	1322	50	UNBG	102V	85 0 224	SIX 15	111S	75 356W	S	FD774CMV	
16	477	1430	50	UNBG	102V	85 0 224	SIX 15	110S	75 355W	S	FD774CMV	
17	477	30	50	UNBG	102V	84 0 227	SIX 15	109S	75 353W	S	FD774CMV	
17	477	200	50	UNBG	102V	84 0 227	SIX 15	107S	75 355W	S	FD774CMV	
17	477	930	50	UNBG	102V	99 0 229	SIX 15	120S	75 353W	S	FD774CMV	
19	477	1915	50	UNBG	102V	100 0 230	SIX 14	529S	75 530W	S	FD774CMV	
19	477	2200	50	UNBG	102V	100 0 231	SIX 15	21S	75 411W	S	FD774CMV	
19	477	2345	50	UNBG	102V	100 0 232	SIX 15	81S	75 323W	S	FD774CMV	
20	477	140	50	UNBG	102V	100 0 233	SIX 15	140S	75 245W	S	FD774CMV	
20	477	315	50	UNBG	102V	100 0 234	SIX 15	197S	75 166W	S	FD774CMV	
20	477	510	50	UNBG	102V	100 0 235	SIX 15	278S	75 142W	S	FD774CMV	
21	477	1650	50	UNBG	102V	85 0 236	SIX 15	515S	76 259W	S	FD774CMV	
22	477	30	50	UNBG	102V	85 0 238	SIX 15	515S	76 248W	S	FD774CMV	
22	477	215	50	UNBG	102V	84 0 238	SIX 15	517S	76 251W	S	FD774CMV	
22	477	1215	50	UNBG	102V	84 0 242	SIX 15	516S	76 252W	S	FD774CMV	
22	477	1330	50	UNBG	102V	84 0 242	SIX 15	514S	76 251W	S	FD774CMV	
23	477	0	50	UNBG	102V	85 0 245	SIX 15	513S	76 252W	S	FD774CMV	
23	477	155	50	UNBG	102V	84 0 245	SIX 15	514S	76 250W	S	FD774CMV	
23	477	620	50	UNBG	102V	500 0 246	SIX 15	514S	76 251W	S	FD774CMV	
23	477	730	50	UNBG	102V	85 0 247	SIX 15	514S	76 250W	S	FD774CMV	

SALINITY, TEMPERATURE, DEPTH

8	477	1030	50	TDXX	194	15M	SIX 15	57S	75 304W	S	FD774CMV
12	477	1230	50	TDXX	204	50M	SIX 15	52S	75 307W	S	FD774CMV
12	477	1638	50	TDXX	205	50M	SIX 15	55S	75 308W	S	FD774CMV

TIME GMT	DATE D.M.Y.	TIME LUC	TZ LUC	SAMP CODE	SAMPLE IDENT.	DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
12	4772016	50	TDXX	206	50M	SIX 15	51S	75 310W	S FD774CMV
13	477 46	50	TDXX	207	50M	SIX 15	54S	75 311W	S FD774CMV
13	477 420	50	TDXX	208	50M	SIX 15	56S	75 314W	S FD774CMV
13	477 822	50	TDXX	209	50M	SIX 15	55S	75 311W	S FD774CMV
13	4771310	50	TDXX	210	50M	SIX 15	53S	75 300W	S FD774CMV
13	4771440	50	TDXX	210	45M	SIX 15	57S	75 302W	S FD774CMV
13	4771730	50	TDXX	211	50M	SIX 15	53S	75 311W	S FD774CMV
13	4772000	50	TDXX	212	50M	SIX 15	52S	75 315W	S FD774CMV
13	4772230	50	TDXX	213	50M	SIX 15	52S	75 319W	S FD774CMV
14	477 35	50	TDXX	214	50M	SIX 15	51S	75 324W	S FD774CMV
14	477 400	50	TDXX	215	50M	SIX 15	57S	75 306W	S FD774CMV
15	4771340	50	TDXX	218	50M	SIX 15	109S	75 353W	S FD774CMV
15	4771618	50	TDXX	219	50M	SIX 15	108S	75 352W	S FD774CMV
15	4772026	50	TDXX	220	50M	SIX 15	104S	75 358W	S FD774CMV
15	4772250	50	TDXX	221	50M	SIX 15	106S	75 360W	S FD774CMV
16	477 415	50	TDXX	222	50M	SIX 15	107S	75 358W	S FD774CMV
16	477 824	50	TDXX	223	50M	SIX 15	110S	75 357W	S FD774CMV
16	4771022	50	TDXX	223	50M	SIX 15	113S	75 367W	S FD774CMV
17	477 120	50	TDXX	227	50M	SIX 15	108S	75 354W	S FD774CMV
17	477 415	50	TDXX	228	50M	SIX 15	108S	75 354W	S FD774CMV
17	4771510	50	TDXX B	229	4.2M	SIX 15	376S	75 193W	S FD774CMV
17	4771540	50	TDXX E	229	4.2M	SIX 15	347S	75 164W	S FD774CMV
19	4771915	50	TDXX	230	50M	SIX 15	529S	75 530W	S FD774CMV
19	4772145	50	TDXX	231	50M	SIX 15	19S	75 413W	S FD774CMV
19	4772345	50	TDXX	232	50M	SIX 15	81S	75 323W	S FD774CMV
20	477 126	50	TDXX	233	50M	SIX 15	137S	75 247W	S FD774CMV
20	477 317	50	TDXX	234	50M	SIX 15	197S	75 166W	S FD774CMV
20	477 457	50	TDXX	235	50M	SIX 15	278S	75 141W	S FD774CMV
20	4772115	50	TDXX B	236	4.2M	SIX 14	578S	75 548W	S FD774CMV
21	477 315	50	TDXX E	236	4.2M	SIX 14	566S	75 469W	S FD774CMV
21	4772030	50	TDXX	237	50M	SIX 15	512S	76 243W	S FD774CMV
22	477 15	50	TDXX	238	50M	SIX 15	516S	76 248W	S FD774CMV
22	477 430	50	TDXX	239	50M	SIX 15	513S	76 253W	S FD774CMV
22	477 900	50	TDXX	241	50M	SIX 15	515S	76 251W	S FD774CMV
22	4771230	50	TDXX	242	50M	SIX 15	516S	76 252W	S FD774CMV
22	4771645	50	TDXX	243	50M	SIX 15	517S	76 253W	S FD774CMV
22	4772100	50	TDXX	244	50M	SIX 15	517S	76 255W	S FD774CMV
23	477 30	50	TDXX	245	50M	SIX 15	514S	76 251W	S FD774CMV
23	477 420	50	TDXX	246	50M	SIX 15	513S	76 250W	S FD774CMV

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END SAMPLE INDEX

FD774CMV