REPORT AND INDEX OF UNDERWAY MARINE GEOPHYSICAL DATA

TUNES EXPEDITION (WOOE-P17C P16C)

LEG 2

R/V Thomas Washington

(Issued October 1991)

Papeete, Tahiti (17 July 1991) to Papeete, Tahiti (25 August 1991)

Chief Scientist:

James Swift (Scripps Institution of Oceanography)

Resident Marine Technician - John Boaz

Sea Beam Transit Mode

Post-Cruise Processing and Report Preparation by the Geological Data Center, Scripps Institution of Oceanography La Jolla, California 92093

Data Collection and Processing Funded by: NSF Grant Number OCE89-11587

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.# 254

INFORMAL REPORT AND INDEX OF NAVIGATION AND UNDERWAY GEOPHYSICAL DATA

Processed by the Geological Data Center Scripps Institution of Oceanography

Contents:

Index Chart - gives track of cruise leg, dates, ports, and mileage of each type of data collected.

Track Charts - annotated with dates and hour ticks.

Profiles

- depth, magnetic anomaly and gravity free air anomaly vs. distance. Sections of track having subbottom profile (airgun or watergun) records have a wide black line along the bottom of the profile. Sections having Sea Beam are indicated by a narrow black line.

Sample Index - list of beginning and end times and positions of all underway records as well as all other samples and measurements (geology, biology, physical oceanography, etc.) collected on the cruise leg.

NOTE: One or more of the underway data types may not be collected on a given 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, CA 92093-0223. Phone (619)534-2752. Fax (619)534-5306.

- 1. Navigation listing with times and positions of course and speed changes, fixes and drift velocity.
- 2. Depth compilation plots compilation plots at the traditional scale of 4in/degree longitude (1:1,000,000) are no longer produced for Sea Beam cruises. Custom plots may be requested of vertical beam (2&2/3 degree beam width) depths retrieved at one minute intervals of ship time.
- Plots of depths, magnetics or gravity profiles along track custom plots at various map and profile scales on Mercator projection may be requested.
- Separate time series files of navigation, depth, gravity and magnetics as well as these 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
 - c. Magnetometer records
 - d. Underway data log book

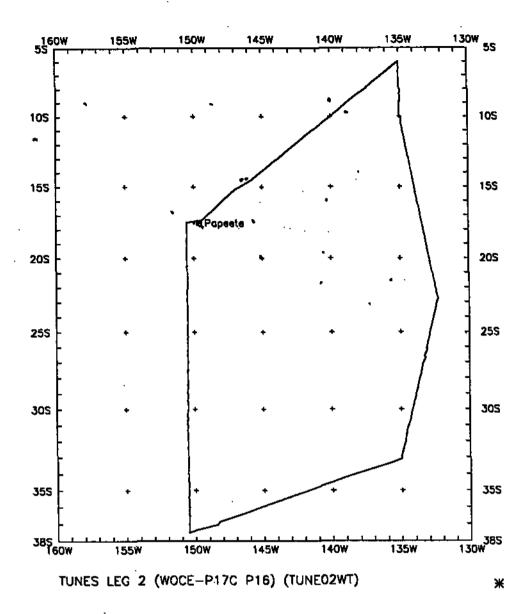
SIO Sea Beam Data Information

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 Sea Beam monitor record and navigation list.
- 3) Sea Beam merged tapes Sea Beam data merged with navigation. (Navigation is edited to the extent that DR courses and speeds are edited and 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) Archive contour plots 16"/degree chart scale, with contour interval nominally 50m, are generated for all transit lines. Some survey areas are plotted at appropriate scales as well. Available for inspection at data center; additional copies may be generated from plot files stored on tape.
- 5) 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).

Revised October 1986

NOTE: Sea Beam data collection and processing were not funded by extramural grants on this leg. Instead, they have been collected and processed in "transit mode" by the SIO Shipboard Technical Support group as part of an experimental program to optimize ship usage and to increase the amount of available Sea Beam data. At this time, policies for processing these data are under review. For more information, contact the Geological Data Center curator.



TUNES EXPEDITION LEG 2 (WOCE-P17C P16)

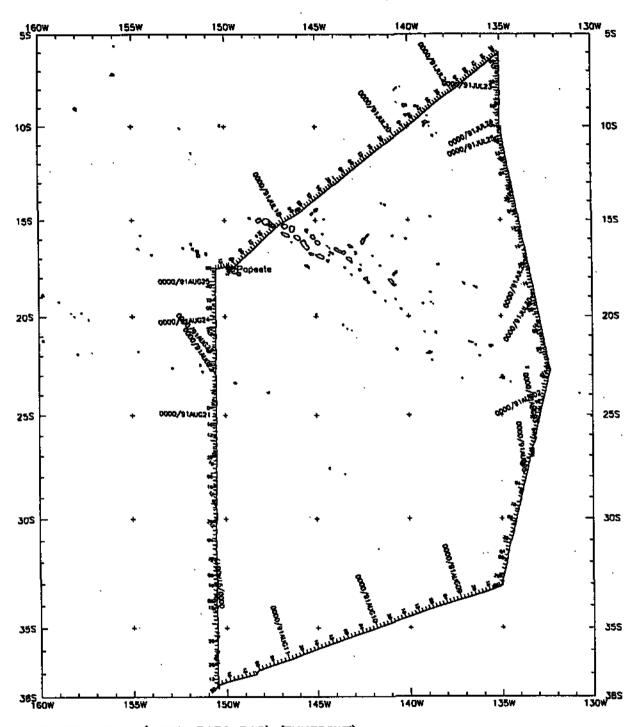
CHIEF SCIENTIST: James Swift Scripps Institution of Oceanography PORTS: Papeete - Papeete, Tahiti DATES: 17 July - 25 August 1991

SHIP: R/V T. Washington

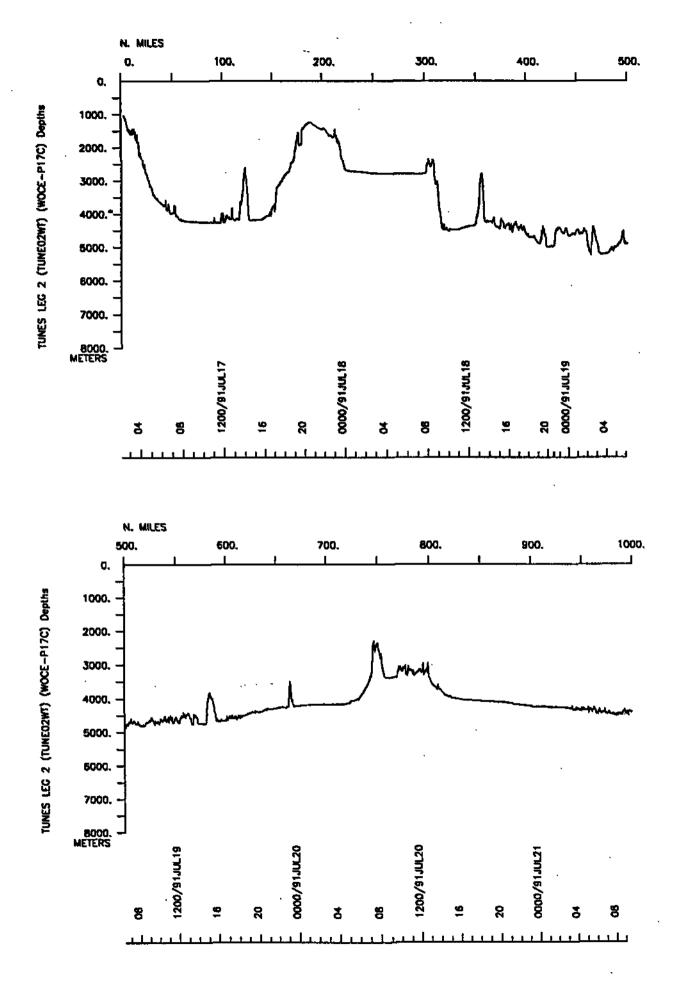
TOTAL MILEAGE OF UNDERWAY DATA COLLECTED

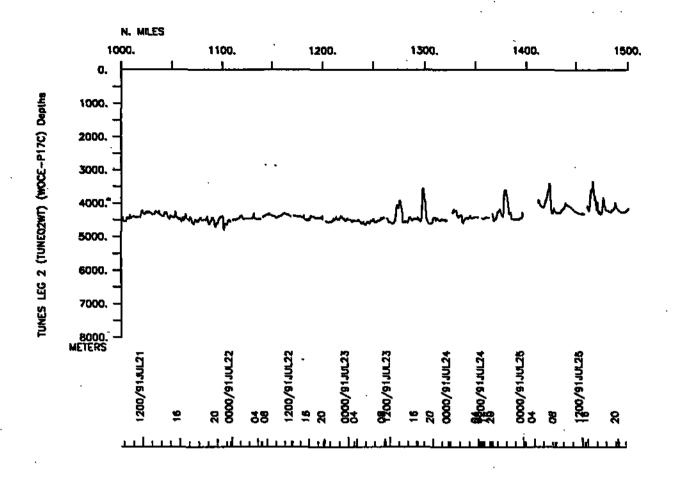
Cruise - 5138 miles
Bathymetry - 4883 miles
Sea Beam - 4883 miles

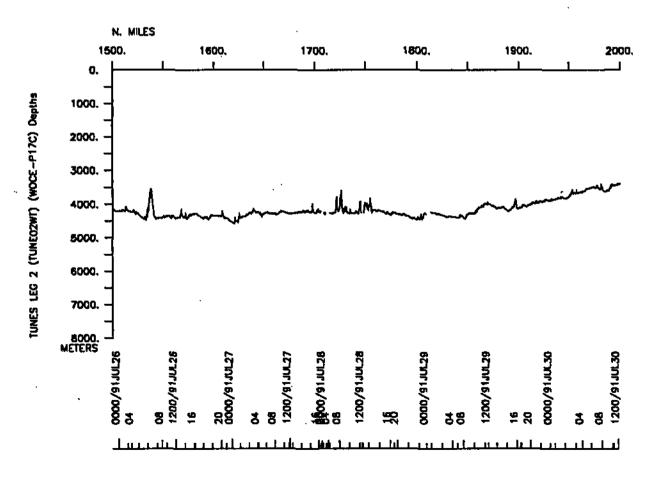
Magnetics - none collected
Seismic Reflection - none collected
Gravity - collected but not processed

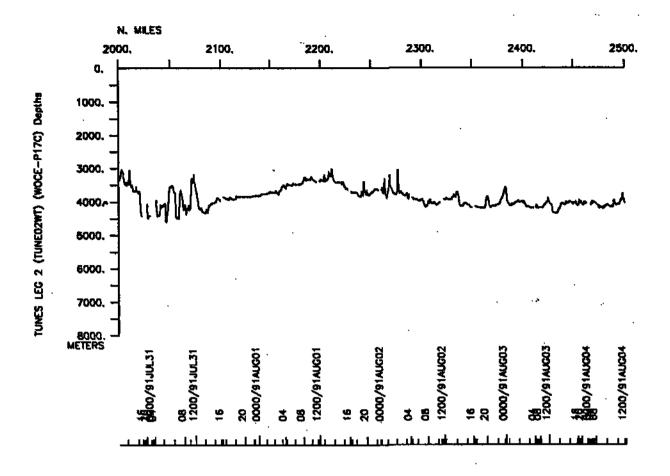


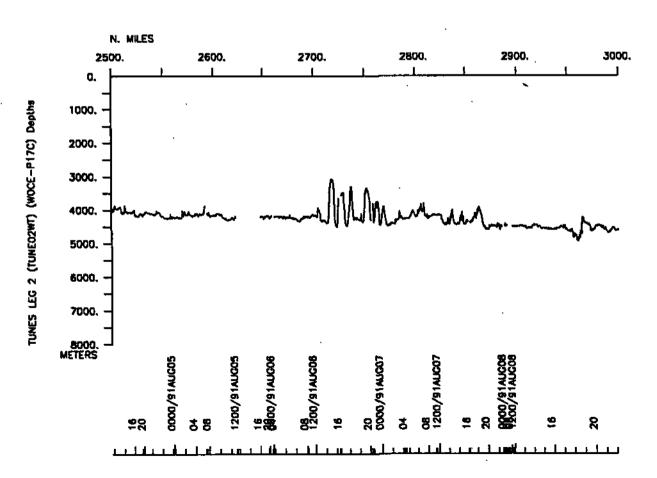
TUNES LEG 2 (WOCE-P17C P16) (TUNEO2WT)

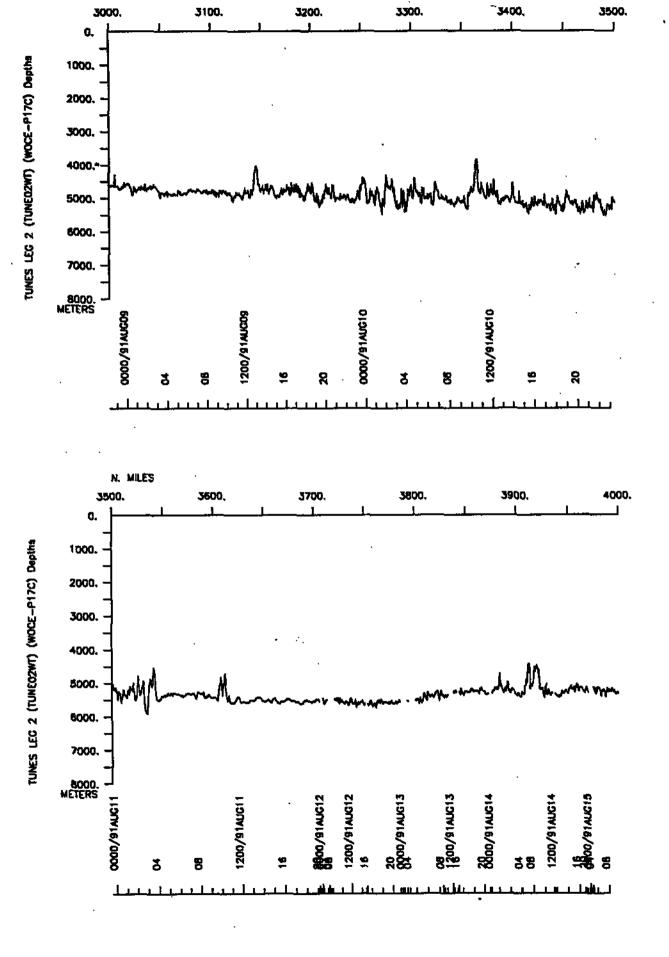




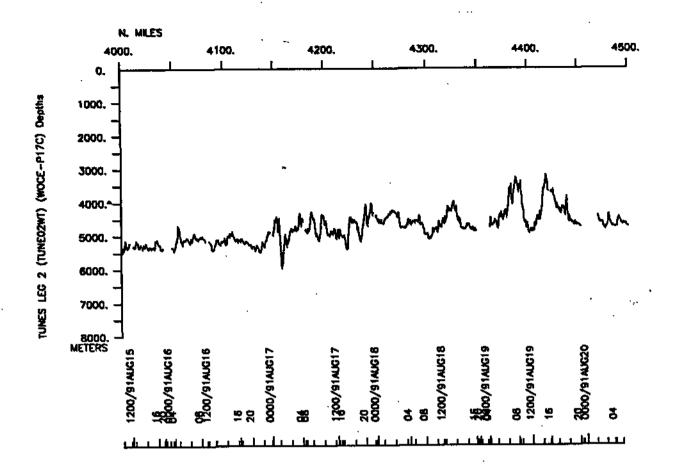


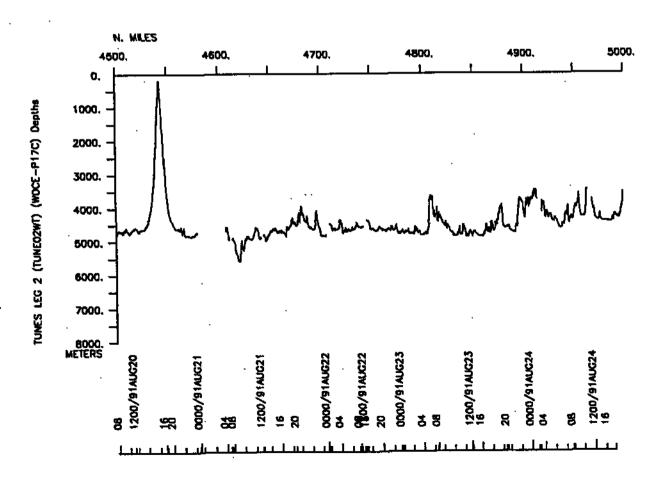


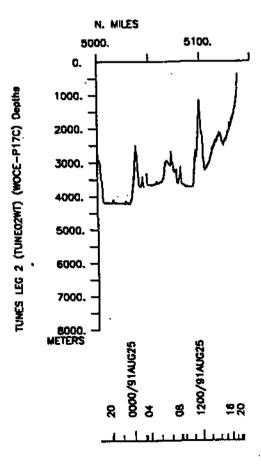




N. MILES







S.I.O. SAMPLE INDEX

(Issued October 1991)

TUNES EXPEDITION

(WOCE-P17C P16C)

Leg 2

R/V T. Washington

Papeete, Tahiti (17 July 1991) to Papeete, Tahiti (25 August 1991)

Chief Scientist:

James Swift (Scripps Institution of Oceanography)

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 marine 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 lines. Disposition and sample type are represented by three and four character codes to permit further computer searches on these parameters. (Listings defining these codes are available from the Geological Data Center.)

GDC Cruise I.D.# 254

Nov 15 15:34 1991 TUNES.LEG.2.SAMPLE.INDEX Page 1

#***PORTS***

0130 170791	LGPT B Papeete, Tahiti	17-32 S 149-34 W fTUNE02WT
2330 250891	LGPT E Papeete, Tahiti	17-32 S 149-34 W fTUNE02WT

#***PERSONNEL***								
NAME			***TITI,E***	***AFFILIATION***	**CRID**			
PECS S	eme	Swift, J.	Chief Scientist	Scripps Institution	TUNE02WT			
PESP V		Birdwhistell, S.	Research Assist.	Woods Hole Ocean, Inst.	TUNEO2WT			
					TUNE02WT			
PERT S		Boaz, J.	Resident Tech.	Scripps Institution				
PECT S	STS	Bouchard, G.	Computer Tech.	Scripps Institution	TUNEO2WT			
PECT S	STS	Delahoyde, F.	Computer Tech.	Scripps Institution	TUNE02WT			
PESP I		Goddard, J.	Research Assoc.	Lamont-Doherty G.O.	TUNE 0 2WT			
PEMT :	MAT	Guffy, J.	Marine Tech.	Texas A&M University	TUNEO2WT			
PEST 1	PORD	Lewis, D.	Student	Scripps Institution	TUNE02WT			
PESP U	UMI	Maillet, K.	Research Assoc.	Rosenthiel SM&A Sci.	TUNEO 2WT			
PESP S	STS	Masten, D.	Research Assoc.	Scripps Institution	TUNE02WT			
PESP 1	LDGO	Mathieu, G.	Research Assist.	Lamont-Doherty G.O.	TUNE02WT			
PEST S	MAT	Orsi, A.	Student	Texas A&M University	TUNE02WT			
PESP S	STS	Patrick, R.	Research Assoc.	Scripps Institution	TUNE02WT			
PESP !	PORD	Peterson, R.	Asst. Researcher	Scripps Institution	TUNE02WT			
PESP !		Rotter, R.	Research Staff	Princeton University	TUNE02WT			
PESP 1		Rubin, S.	Lab Tech,	Lamont-Doherty O.I.	TUNE02WT			
PEET :		Schmitt, J.	Electronic Tech.	Scripps Institution	TUNE02WT			
PESP :		Streib, R.	Research Assoc.	Scripps Institution	TUNE02WT			
PESP 1		Tedesco, K.	Research Assist.	UC Santa Barbara	TUNEO 2WT			
PESP		Williams, N.	Research Assoc.	Scripps Institution	TUNE02WT			
PESP		Williams, R.	Research Assoc.	Scripps Institution	TUNE02WT			

#*** NOTES ***

#Ax 'X' in the (B)egin/(E)nd column following the sample code indicates no #samplw or data recovered. A 'C' indicates continuation of data collection #from before the beginning or after the end of a particular 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. Positions are in tenths #of minutes.

	DDMMYY LOC T DATE TIME Z	SAMP CODE	SAMPLE IDENTIFIER	DISP CODE LAT.	CRUISE LONG. LEG-SHIP
#					
#***	Underway Data	Curator	- S. M. Smith ext.427	752	
#***	ECHO SOUNDER R	ECORDS -	- Sea Beam Monitors **	k*	
0245 2053	170791 190791	MBMR B MBMR E	SB Monitor R-01 SB Monitor R-01		149-339W STUNE02WT 141-060W STUNE02WT
	190791 260791				141-032W STUNE02WT 134-298W STUNE02WT
	260791		SB Monitor R-03		134-293W STUNE02WT
	030891		SB Monitor R-03		133-053W STUNE02WT
			SB Monitor R-04 SB Monitor R-04		133-046W STUNE02WT 140-419W STUNE02WT
1826	090891 150891		SB Monitor R-05 SB Monitor R-05		140-437W STUNE02WT 150-300W STUNE02WT
	160891	MBMR B	SB Monitor R-06	GDC 33-003S	150-298W sTUNE02WT
1315	230891		SB Monitor R-06		150-300W STUNEO2WT
1315 1700	230891 250891	MBMR B MBMR E	SB Monitor R-07 SB Monitor R-07	GDC 21-007S GDC 17-284S	150-300W STUNE02WT 149-370W STUNE02WT
2030	180791 250791		12kHz Sta.data R-01 12kHz sta 000 to 136		143-590W sTUNE02WT 134-362W sTUNE02WT
2200	250791	DPRT B	12kHz Sta.data R-02	GDC 11-595S	134-362W STUNE02WT 133-408W STUNE02WT
	050891		12kHz sta 136 to 169	*-*	133-488W STUNE02WT
2300	190891	DPRT E	12kHz Sta.data R-03 12kHz sta 170 to 199	GDC 27-001S	
	190891 250891		12kHz Sta.data R-04 12kHz sta 200 to 220		150-285W STUNE02WT 150-274W STUNE02WT
#***	GRAVITY ***	,			
	170791 250891	GVCR B	Continuous Gravity Continuous Gravity		149-341W STUNE02WT 149-351W STUNE02WT

	DDMMYY LOC T E DATE TIME Z	SAMP CODE	SAMPLE IDENTIFIER			DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
•	CONDUCTIVITY,	TEMPERA:	TURE, DEPTH	***		·			
2030	180791	TDCT	998-1	20	1000m	ODF	13-061S	143-590W	sTUNE02WT
2322	210791	TDCT	124-1	36	4477m	ODF	6-013S	135-009W	STUNE02WT
0550	220791	TDCT	125-1	36	4441m	ODF	6-306\$	135-006W	stune02WT
1227	220791	TDCT	126-1	36	4304m	ODF			stune02WT
1929	220791	TDCT	127-1	36	4385m	ODF			stune02wt
0207	230791	TDCT	128-1	36	4440m	ODF			stune02WT
	230791	TDCT X		abo		ODF			stune02WT
	230791	TDCT	129-2	36	4440m	ODF			sTUNE02WT
	230791	TDCT	130-1	36	4482m	ODF			stune02wt
2312	230791	TDCT	131-1	36	4490m	ODF			stune02wt
0952	240791	TDCT	132-2	36	4400m	ODF			stune02WT
	250791	TDCT	133-1	36	4270m			134-536W	
	250791	TDCT	134-1	36	4175m				sTUNE02WT
	250791	TDCT	135~1	36	4275m			134-419W	
2042		TDCT	136-1	36	4140m				sTUNE02WT
	260791	TDCT	137~1	36	4223m				STUNE02WT
	260791	TDCT	138-1	36	4396m				STUNE02WT
	260791	TDCT	139-1	36	4253m				stune02wt
	260791	TDCT	140-1	36	4399m				sTUNE02WT
	270791	TDCT	141-1	36	4217m				STUNE02WT
	270791	TDCT	142-1	36	4238m			133-584W	
	280791	TDCT	143-3	36	4200m			133-536W	
	280791	TDCT	144~1	36	4218m			133-476W	
	280791	TDCT	145~1	36	4243m			133-392W	
	290791	TDCT	146-1	36	4244m			133-339W	
0556		TOCT	147-1	36	4382m				STUNE02WT
	290791	TDCT	148-1	36	3961m				STUNE02WT
	290791	TDCT	149-1	36	4093m			133-146W	
	290791	TDCT	150-1	36	3860m			133-089W	
	300791	TDCT	151-1	36	3609m				sTUNE02WT
	300791	TDCT	152-1	36	3445m				STUNE02WT
2220		TDCT	153-2	36	4345m			132-496W	
	310791	TDCT	154-1	36	4280m				sTUNE02WT
	310791	TDCT	155-1	36	3857m			132-379W	
	310791	TDCT	156-1	36	3820m				stune02WT
0433		TDCT	157-1	36	3500m				STUNE02WT
	010891	TDCT	158-1	36	3393m				STUNE02WT
1653	010891	TDCT	159-1	36	3602m	ODF	23-1518	132-266W	stune02WT

#GMT DDMMYY LOC T #TIME DATE TIME Z	SAMP CODE	SAMPLE IDENTIFIER			DISP	LAT.	LONG.	CRUISE LEG-SHIP
2246 010891 ~ 0459 020891	TDCT TDCT	160-1 161-1	36 36	3655m 3790m	ODF	24-1275	132-404W	STUNEO2WT STUNEO2WT
1106 020891 1708 020891 2308 020891	TDCT TDCT TDCT	162-1 163-1 164-1	36 36 36	3972m 4156m 3685m	ODF	25-123\$	132-555W	STUNEO 2WT STUNEO 2WT STUNEO 2WT
0935 030891 2217 030891 1203 040891	TDCT TDCT TDCT	165-2 166-2 167-1	36 36 36	4163m 4035m 3898m	ODF	26-386S	133-177W	STUNEO2WT STUNEO2WT STUNEO2WT
1839 040891 0030 050891	TDCT TDCT	168-1 169-1	36 36	4140m 4190m	ODF ODF	27-376S 28-061S	133-317W 133-408W	sTUNE02WT sTUNE02WT
0632 050891 1201 050891 2332 050891	TDCT TDCT	170-1 171-1 172-2	36 36 36	3945m 4220m 4175m	ODF ODF	29-046S 29-336S	133-554W 134-038W	stune02wt stune02wt stune02wt
0935 060891 1544 060891 2135 060891	TDCT TDCT	173-1 174-1 175-1	36 36 36	4188m 3652m 4215m	ODF	30-320S	134-194W	STUNEO 2WT STUNEO 2WT STUNEO 2WT
0339 070891 1010 070891 1630 070891	TDCT TDCT TDCT	176-1 177-1 178-1	36 36 36	4272m 4151m 4302m	QDF	32-002S	134-426W	STUNEO2WT STUNEO2WT STUNEO2WT
0430 080891 0333 120891	TDCT TDCT	179-2 180-2	36 36	4466m 5602m	ODF ODF	33-008S 37-308S	135-017W 150-310W	STUNEO2WT STUNEO2WT
1528 120891 2200 120891 0324 130891	TDCT TDCT TDCT	181-1 182-1 182-2	36 abo 24	2000m	ODF ODF	36-303S 36-304S	150-292W 150-297W	STUNEO2WT STUNEO2WT STUNEO2WT
1534 130891 2216 130891 0456 140891	TDCT TDCT TDCT	183-1 184-1 185-1	36 36 36	5262m 5270m 5408m	ODF	35-290S	150-305W	STUNEO2WT STUNEO2WT STUNEO2WT
1146 140891 0025 140891 1135 150891	TDCT TDCT TDCT	186-1 187-2 188-1	36 36 36	5310m 5205m 5182m	ODF	35-279\$	150-315W	stuneo2WT stuneo2WT stuneo2WT
0331 160891 1025 160891	TDCT TDCT	189-1 190-1	36 36	537 <i>2</i> m 5131m	ODF ODF	33-000S 32-299S	150-298W 150-300W	STUNEO2WT STUNEO2WT STUNEO2WT
1659 160891 2325 160891 0634 170891	TDCT TDCT	191-1 192-1 193-1		5137m 4918m 4825m	ODF ODF	31-303S 30-595S	150-310W 150-317W	STUNEO2WT STUNEO2WT
1555 170891 2224 170891 0449 180891	TDCT TDCT	194-1 195-1 196-1	36 36 36	5015m 4188m 4594m	ODF	30-007S	150-292W	STUNEO2WT STUNEO2WT STUNEO2WT
1111 180891 2320 180891 0916 190891	TDCT TDCT TDCT	197-1 198-2 199-1	36 36 36	4657m 4745m 3430m	ODF	28-2975	150-298W	sTUNEO2WT sTUNEO2WT sTUNEO2WT
1545 190891 2157 190891	TDCT TDCT	200-1 201-1	36 36	3420m 4700m 4737m	ODF ODF	27-301S 27-002S	150-291W 150-289W	STUNEO2WT STUNEO2WT
0418 200891 1101 200891	TDCT	202-1 203-1	36 36	4/3/m 4590m				STUNEO 2WT STUNEO 2WT

#TIME	DDMMYY DATE T			SAMP CODE	SAMPLE IDENTIF		R		DISP CODE	LAT.	LONG.	CRUISE LEG-SHIP
	200891	-		TDCT	204-1		36	2780m 4732m				STÜNEO2WT STUNEO2WT
	200891 210891			TDCT TDCT	205-1 206-1		36 36	4855m	ODF	24-296S	150-290W	stune02WT
	210891			TDÇT	207-1		36	4770m				sTUNE02WT
	210891			TDCT	208-1		36	4415m				STUNE02WT
0102	220891			TDCT	209-1		36	4872m				sTUNEO2WT sTUNEO2WT
	220891			TDCT TDCT	210-1 211-1		36 36	4405m 4772m				STUNEO2WT
	230891 230891			TDCT	212-1		36	4772m	-			STUNEO2WT
	230891			TDCT	213-1		36	4751m	_			sTUNE02WT
	230891			TDCT	214-1		36	4602m	QDF	20-304S	150-294W	STUNE02WT
	240891			TDCT	215-1		36	3708m				stune02WT
	240891			TDCT	216-1		36	4335m				sTUNE02WT
	240891			TDCT	217-1		36	4408m	-			STUNEO2WT
	240891			TDCT	218-1		36	4191m				STUNEO2WT
	250891			TDCT	219-1		36	3600m 3618m	_			stune02wt stune02wt
1000	250891			TDCT	220-1		36	201000	ODE	17-3123	130 2/44	SIUMBOZNI
#***	GERARD	BAR	RELS	***				•		•		
0647	240791			GCGB	132-1	9	bar	4450m				stune02wt
	240791			GCGB	132-3		bar	4300m				STUNE02WT
	270791			GCGB	143-1		bar	4265m				sTUNE02WT
	270791			GCGB	143-2		bar	4262m				STUNEO2WT
	280791			GCGB	143-4		bar	2217m 4418m				STUNEO 2WT STUNEO 2WT
	300791			GCGB	153-1 153-3		bar bar	2600m				STUNEO2WT
	310791 030891			GCGB GCGB	165-1		bar	1800m				STUNE02WT
	030891			GCGB	166-1		bar	4170m	_			STUNE02WT
	040891			GCGB	166-3		bar	4091m				STUNE02WT
	040891			GCGB	166-4		bar	5m		26-064S	133-060W	STUNE02WT
	050891			GCGB	172-1		bar	4150π				sTUNE02WT
	060891			GCGB	172-3		bar	2760π				STUNE02WT
0445	060891			GCGB	172-4			5π	ODF	29-326S	134-031W	sTUNE02WT
	080891			GCGB	179-1		bar	4400m				sTUNE02WT
	080891			GCGB	179-3		bar	2760m				sTUNEO2WT
	110891			GCGB	180-1		bar	5602m				STUNEO2WT STUNEO2WT
	120891			GCGB GCGB	180-3 187-1		bar bar	3460π 5233π				sTUNEO2WT
	140891 150891			GCGB	187-1		bar	3200n				STUNE02WT
	180891			GCGB	198-1		bar	4950n				STUNE02WT
	190891			GCGB	198-3		bar	3250n				STUNE02WT
	220891			GCGB	210-1		bar	4575n	n ODF			STUNE02WT
	220891			GCGB	210-33			2810n		22-3075	: 150-313W	stune02WT

#GMT DDMMYY LOC T #TIME DATE TIME Z	SAMP SAMPLE CODE IDENTIFIER	DISP CODE LAT.	CRUISE LONG. LEG-SHIP
**** CURRENT METERS	***		
0410 240791 0656 280791 0509 310791 0945 010891 1853 020891 0811 060891 0225 080891 0305 140891 0116 170891 0020 180891 0145 210891 0329 240891	CMDR Drogue Drifter 1	5119 POR 15-223S 5033 POR 20-145S 5112 POR 22-440S 5036 POR 25-139S 5118 POR 30-028S 5024 POR 33-010S 5129 POR 34-599S 5120 POR 31-303S 5032 POR 30-009S 5020 POR 24-577S	135-000W STUNE02WT 133-555W STUNE02WT 132-512W STUNE02WT 132-180W STUNE02WT 132-555W STUNE02WT 134-122W STUNE02WT 135-015W STUNE02WT 150-299W STUNE02WT 150-319W STUNE02WT 150-274W STUNE02WT 150-292W STUNE02WT 150-292W STUNE02WT
0710 230791 0415 260791 0130 290791 1016 310791 0343 030891 0807 060891 0105 120891 0721 130891 0118 170891 0800 190891 1040 210891 0332 240891	CMRT Alace 42 Sat Tracement Alace 50 Sat Tracement Alace 81 Sat tracement Alace 67 sat tracement Alace 77 sat tracement Alace 75 sat tracement Alace 75 sat tracement Alace 78 sat tracement Alace 79 sat tracement Alace 79 sat tracement Alace 57 sat tracement Alace 57 sat tracement Alace 57 sat tracement Alace 57 sat tracement Alace 56 sat trac	ackd POR 8-3008 ackd POR 12-2748 ackd POR 16-5218 ackd POR 20-4748 ackd POR 26-0878 ackd POR 30-0298 ackd POR 37-3078 ackd POR 35-5998 ackd POR 31-3038 ackd POR 27-5978 ackd POR 24-0018	134-597W STUNEO2WT 134-294W STUNEO2WT 133-341W STUNEO2WT 132-441W STUNEO2WT 133-099W STUNEO2WT 134-122W STUNEO2WT 150-252W STUNEO2WT 150-296W STUNEO2WT 150-320W STUNEO2WT 150-398W STUNEO2WT 150-300W STUNEO2WT 150-304W STUNEO2WT
0200 170791 1800 250891	CMXX B continuous ADCP CMXX E 0-500m		149-341W sTUNE02WT 149-351W sTUNE02WT
#*** SURFACE SAMPLE	\S***		
0200 170791 1800 250791	SSXX B continuous surfa SSXX E temperature		3 149-341W STUNE02WT 3 134-378W STUNE02WT
#***	End Sample Index		TUNEO2WT