

**Report and Index of
Underway Marine Geophysical Data**

Seaweed Expedition

Leg 4

(SEAW04RR)

R/V Revelle

(Issued September 2001)

Ports:

Honolulu, Hawaii (28 March 2001)

to

Honolulu, Hawaii (11 April 2001)

Chief Scientist: Peter Worcester
Scripps Institution of Oceanography
pworcester@ucsd.edu

Computer Tech – John Chatwood
Resident Marine Tech – Ron Comer

Post-Cruise processing and report preparation by the
Shipboard Technical Support Group,
Scripps Institution of Oceanography
La Jolla, CA 92093-0223

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 Shipboard Technical Support, Scripps Institution of Oceanography, La Jolla, California 92093-0223.*

STS Cruise ID# 296

**Report and Index of Navigation
and Underway Geophysical Data**

Processed by the Shipboard Technical Support Group
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

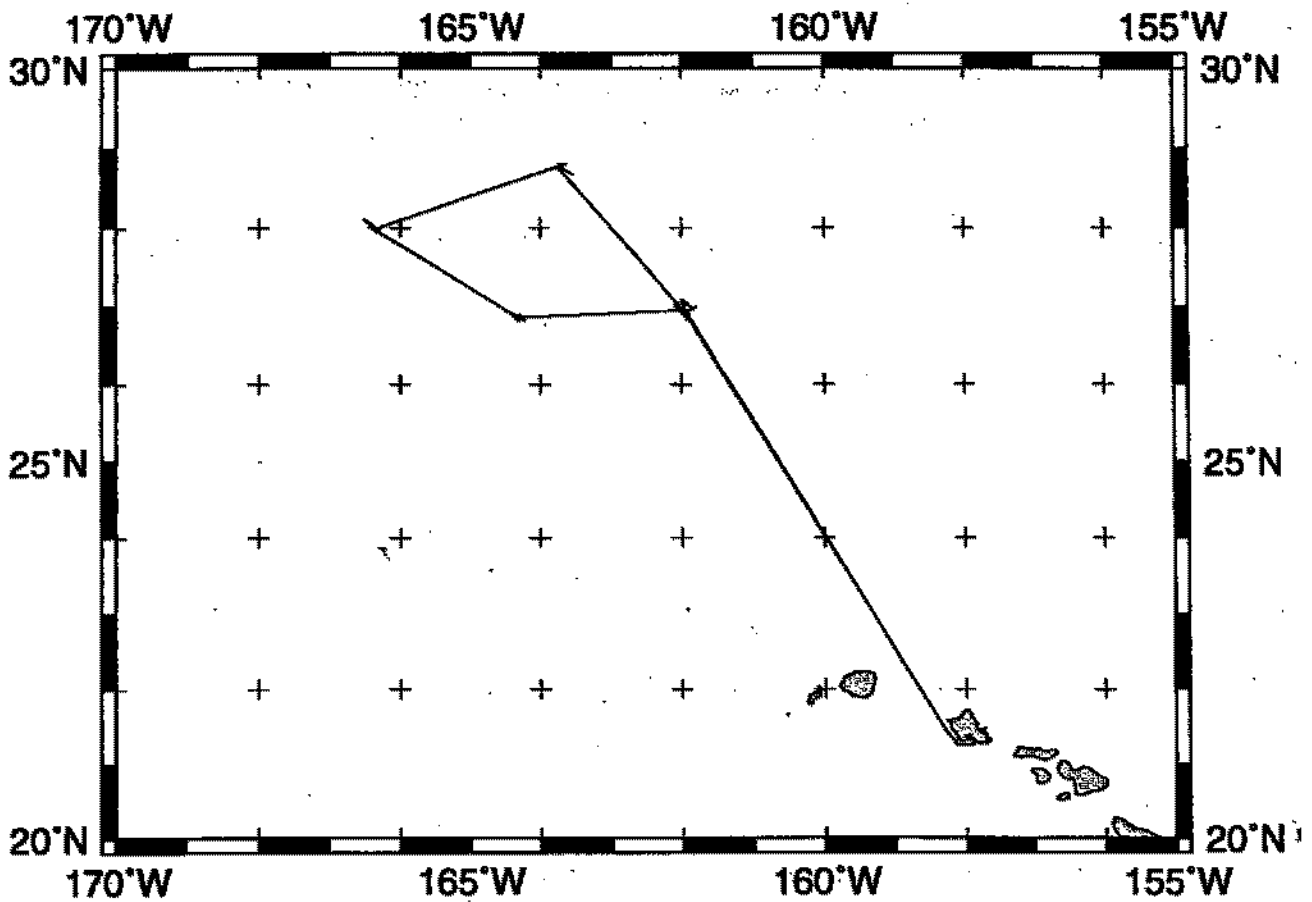
Profiles – depth, magnetic and gravity free air anomaly vs. distance. (Sections of track with seismic reflection data have a wide black line along the bottom of the profile.)

Sample Index – list of begin/end times and positions of all underway records as well as samples and measurements from other disciplines collected on the leg.

NOTE:

For information on the availability of this current digital data as well as archived digital data contact Stephen P. Miller, Geological Data Center, Scripps Institution of Oceanography, La Jolla, California 92093-0220 Phone: (858)534-1898, internet email: spmiller@ucsd.edu; or his Website: <http://SIOExplorer@ucsd.edu>

Rev 6/2001



SEAWO4RR EXPEDITION LEG 4 (SEA W04RR)

CHIEF SCIENTIST: Peter Worcester, Scripps Institution

PORTS: Honolulu - Honolulu, Hawaii

DATES: 28 March - 11 April 2001

SHIP: R/V Revelle

TOTAL MILEAGE OF UNDERWAY DATA COLLECTED

Cruise-1550 miles

Magnetics-none collected

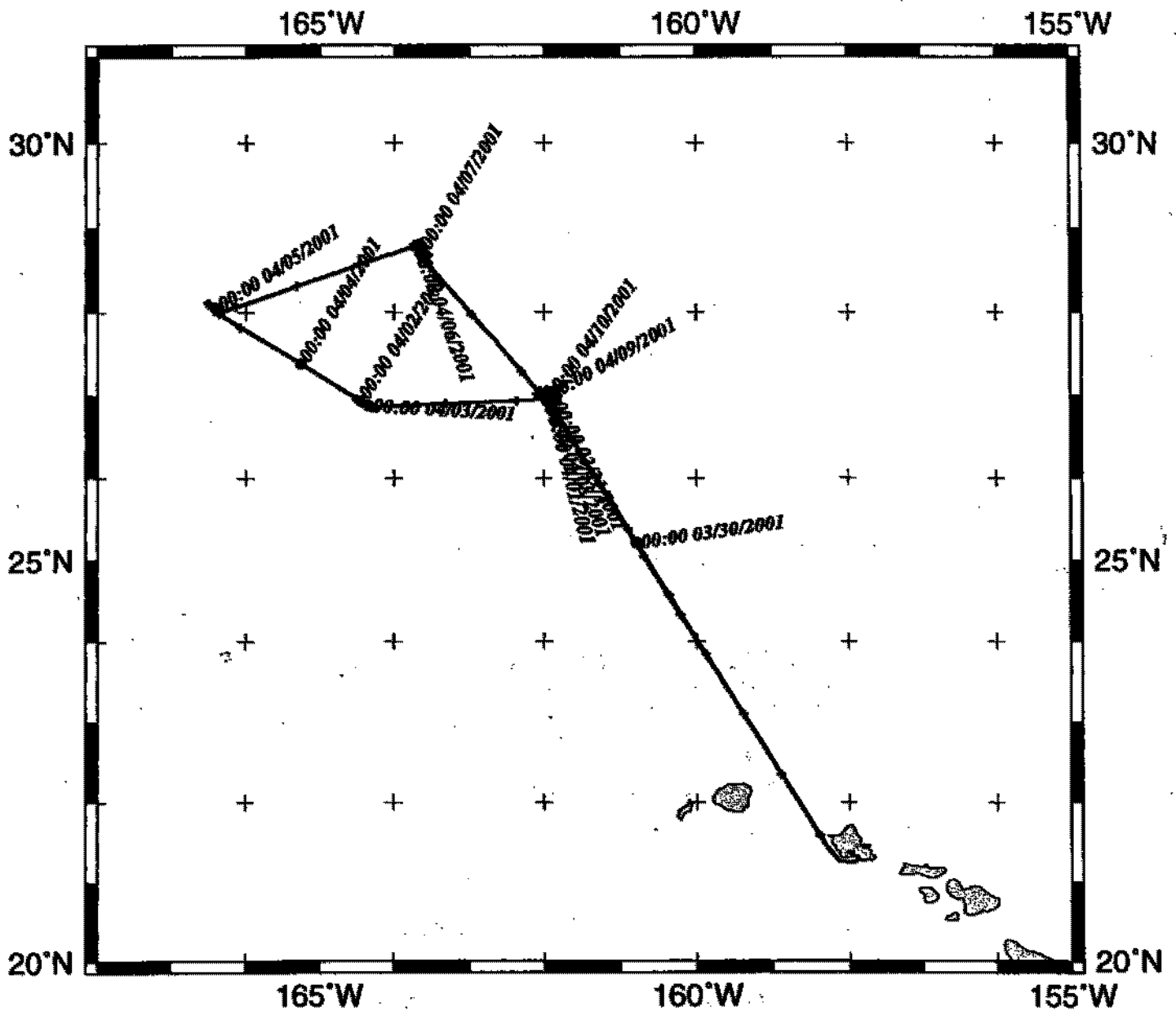
Bathymetry-1415 miles

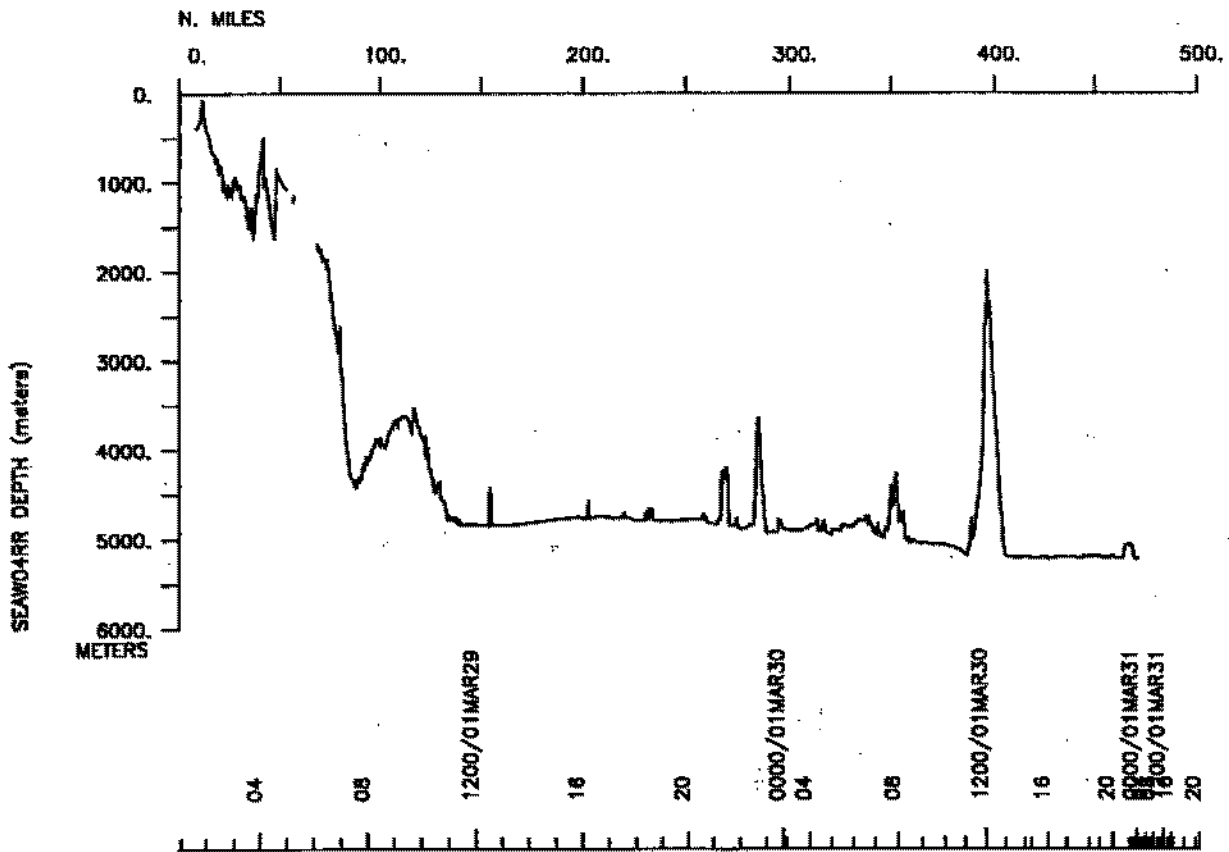
Seismic Reflection-none collected

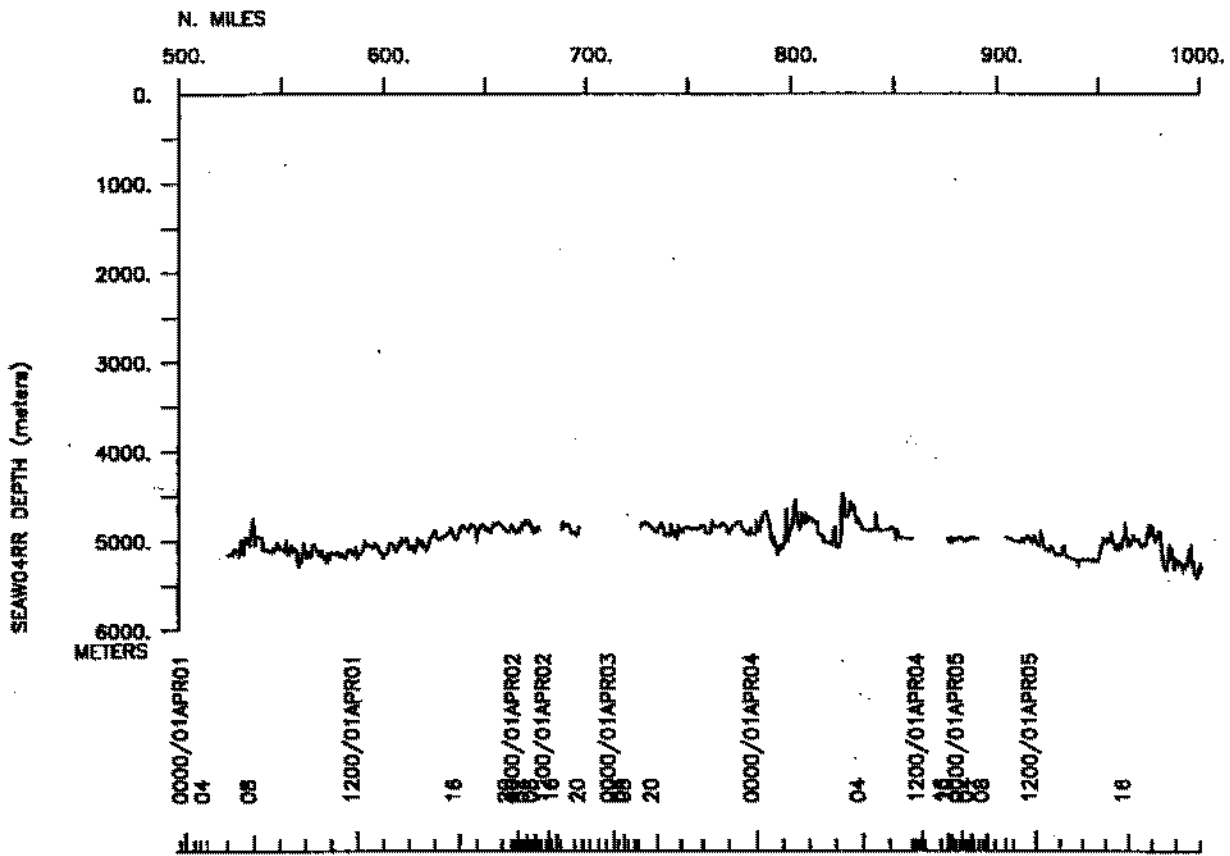
Sea Beam-1415 miles

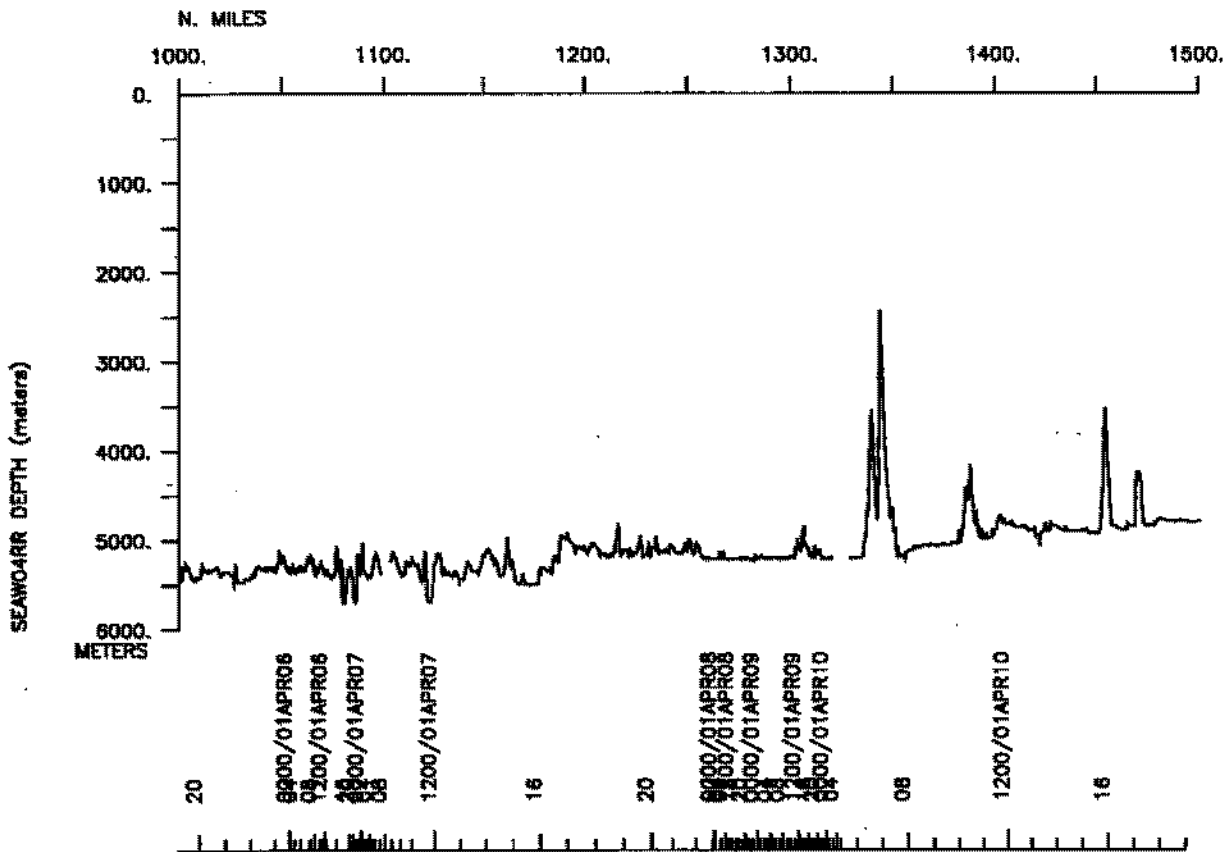
Gravity-none collected

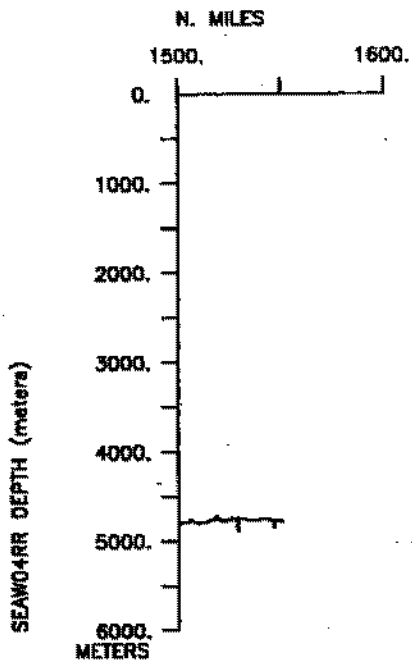
SEAWEED-RR leg 4 Track











S.I.O. Sample Index

Seaweed Expedition

Leg 4

(SEAW04RR)

R/V Revelle

(Issued September 2001)

PORTS:

Honolulu, Hawaii (28 March 2001)

to

Honolulu, Hawaii (11 April 2001)

Chief Scientist: Peter Worcester
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. Shipboard Technical Support 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 future computer searches on these parameters. (Listings defining these codes are available from the Shipboard Technical Support Group.)

STS Cruise ID# 296

**** Ports ***

0049	290301	LGPT B Honolulu, Hawaii	21-18.00N 157-52.00W	f	SEAW04RR
2356	100401	LGPT E Honolulu, Hawaii	21-18.00N 157-52.00W	f	SEAW04RR

**** Personnel ***

#	*****NAME*****	*****TITLE*****	*****AFFILIATION*****	**CRID**
PECS	IGPP Worcester, P.	Chief Scientist	Scripps Institution	SEAW04RR
PESP	UWA Dushaw, B.	Scientist	Scripps Institution	SEAW04RR
PESP	IGPP Day, L.	Technician	Scripps Institution	SEAW04RR
PESP	MPL Green, L.	Technician	Scripps Institution	SEAW04RR
PESP	IGPP Horwitt, D.	Technician	Scripps Institution	SEAW04RR
PESP	WHOI Kemp, J.	Technician	Scripps Institution	SEAW04RR
PESP	IGPP Norenberg, M.	Technician	Scripps Institution	SEAW04RR
PECT	STS John Chatwood	Computer Tech	Scripps Institution	SEAW04RR
PERT	STS Comer, R.	Marine Tech	Scripps Institution	SEAW04RR
PESP	SIO Colgan, C.	Photographer	Scripps Institution	SEAW04RR
PESP	SIO Call, W.	Photographer	Scripps Institution	SEAW04RR

**** NOTES ***

#An 'X' in the (B)egin/(E)nd column following the sample code indicates no #sample 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.

#GMT	DDMMYY	SAMP	B	SAMPLE	DISP		p	CRUISE
#TIME	DATE	TZ	CODE	E IDENTIFIER	CODE	LATITUDE	LONGITUDE	c LEG-SHIP

**** Underway Data Curator - Shipboard TEchnical Support Group ext.41899 ***
 **** Digital Data Curator - Geological Data Center, S.P. Miller, ext.41898 ***

**** Log Books ***

0034	290301	0	LBWU	B Underway log books	STS	21-18.00N	157-52.10W	g	SEAW04RR
1731	110401	0	LBWU	E Underway log books	STS	23-38.98N	159-45.54W	g	SEAW04RR
1625	080401	0	LBSC	B N2 Tidal Flux log	STS	26-55.43N	161-57.03W	g	SEAW04RR
0124	100401	0	LBSC	E N2 Tidal Flux log	STS	26-54.91N	161-56.37W	g	SEAW04RR

**** MultiBeam Digital Date ***

0133	290301	0	MBSI	B SIMRAD multibeam	STS	21-14.95N	157-59.53W	g	SEAW04RR
2345	100401	0	MBSI	E SIMRAD multibeam	STS	23-40.84N	159-46.68W	g	SEAW04RR

#GMT	DDMMYY	SAMP	B	SAMPLE	DISP				p	CRUISE
#TIME	DATE	TZ	CODE	E IDENTIFIER	CODE	LATITUDE	LONGITUDE		c	LEG-SHIP
#										
**** Anchored Buoys ****										
0804	300301	0	BUAB	N2 tidal flux 5242M	IGPP	26-00.71N	161-19.78W	g		SEAW04RR
0810	020401	0	BUAB	N3 tidal flux 4845M	IGPP	26-51.42N	164-18.68W	g		SEAW04RR
0504	050401	0	BUAB	N4 tidal flux 4995M	IGPP	27-58.65N	166-20.47W	g		SEAW04RR
0608	070401	0	BUAB	N1 tidal flux 5206M	IGPP	28-46.73N	163-45.15W	g		SEAW04RR
**** Acoustic Doppler Current Profiler ****										
0024	290301	0	ADCP B	SIMRAD multibeam	STS	21-18.00N	157-52.10W	g		SEAW04RR
1730	110401	0	ADCP E	SIMRAD multibeam	STS	23-38.98N	159-45.54W	g		SEAW04RR
**** Integrated Meteorological Data System ****										
0024	290301	0	IMET B	Weather measurements	STS	21-18.00N	157-52.10W	g		SEAW04RR
1730	110401	0	IMET E	Weather measurements	STS	23-38.98N	159-45.54W	g		SEAW04RR
**** Conductivity, Temperature, Depth with Sound Velocity Sensor ****										
0500	010401	0	TDVC	N2Dat Seabird 2000M	STS	26-56.94N	161-57.62W	g		SEAW04RR
0614	030401	0	TDVC	N3Dat Seabird 4520M	STS	26-52.02N	164-22.16W	g		SEAW04RR
0709	040401	0	TDVC	N4Dat Seabird 2000M	STS	28-00.55N	166-25.19W	g		SEAW04RR
0241	060401	0	TDVC	N1Dat Seabird 5000M	STS	28-48.64N	163-38.36W	g		SEAW04RR
0227	080401	0	TDVC	N2aDat Seabird 4500M	STS	26-57.68N	161-58.63W	g		SEAW04RR
0535	080401	0	TDVC	N2bDat Seabird 4500M	STS	26-57.68N	161-58.63W	g		SEAW04RR
**** Expendable Bathythermographs ****										
0400	290301	0	BTXP	MK12 # 2 Fast_Deep	GDC	21-34.58N	158-23.34W	g		SEAW04RR
0257	300301	0	BTXP	MK12 # 3 Fast_Deep	GDC	25-13.13N	160-47.75W	g		SEAW04RR
1517	300301	0	BTXP	MK12 # 4 Fast_Deep	GDC	26-55.45N	161-56.72W	g		SEAW04RR
1755	010401	0	BTXP	MK12 # 5 Fast_Deep	GDC	26-55.03N	164-25.30W	g		SEAW04RR
0511	030401	0	BTXP	MK12 # 8 Fast_Deep	GDC	26-52.01N	164-22.16W	g		SEAW04RR
1855	030401	0	BTXP	MK12 # 7 Fast_Deep	GDC	26-52.20N	164-20.30W	g		SEAW04RR
2305	030401	0	BTXP	MK12 # 9 Fast_Deep	GDC	27-16.18N	165-03.83W	g		SEAW04RR
0626	070401	0	BTXP	MK12 # 10 Fast_Deep	GDC	28-46.54N	163-43.85W	g		SEAW04RR
1844	070401	0	BTXP	MK12 # 11 Fast_Deep	GDC	27-30.24N	162-31.54W	g		SEAW04RR
0523	100401	0	BTXP	MK12 # 12 Fast_Deep	GDC	26-54.24N	161-54.99W	g		SEAW04RR
****				End Sample Index						SEAW04RR

```

# MGD77 header file description and data (Type 4 header; Y2K compliant)
# (lines beginning with # are comments only and do not appear in the header
# record. smsmith, gdcultura 22sep2000
#
# column,1      2      3      4      5      6      7      8
#234567890123456789012345678901234567890123456789012345678901234567890
#|-cruise identifier
#|
#| -format acronym("MGD77")
#|
#| -NGDC data center file number(leave blank)
#|
#| parameter codes
#|   ----depths          5 = present in file
#|   ----mags            3 = collected, not in file
#|   ----grav            1 = no collected
#|   ----h.r.seis. (3.5 khz)
#|   ----d.p.seis. (seis. reflection)
#|   ----file creation date (yyyymmdd)
#|   ----contributing institution
4SEAW04RRMGD77      5111120010306SCRIPPS INSTITUTION OF OCEANOGRAPHY      01
#country            |platform name      ||      |chief scientist(s)
USA                 |R/V Revelle      |SHIP  |PETER WORCESTER, SIO      02
#project, cruise & leg
Seaweed Expedition LEG 04      |funding
NSF      03
#begin date (yyyymmdd)      |end date (yyyymmdd)
#      |port(city, country)      |port(city, country)
20010328HONOLULU, HAWAII      |20010411HONOLULU, HAWAII      04
#navigation instrumentation
TRIMBLE TASMAN P(Y) GPS      |position determination method
LINEAR FIT TO 60 SEC FIXES      05
#bathymetry instrumentation
SIMRAD EM120      |additional forms of depth data
DIGITAL MAG. TAPE      06
#magnetics instrumentation
NONE COLLECTED      |additional forms of magnetic data      07
#gravity instrumentation
NONE COLLECTED      |additional forms of gravity data      08
#seismic instrumentation
NONE COLLECTED      |formats of seismic data      09
# data format description (in Fortran) for seq. no. 10-11
A(I1,A8,F5.2,I4,3I2,F5.3,F8.5,F9.5,I1,F6.4,F6.1,I2,I1,3F6.1,I1,F5.1,F6.0,      10
F7.1,F6.1,F5.1,A5,A6,I1)      11
#bathymetry
#digitizing rate(min)
#|-sampling rate
#|
#| -sound velocity(meters/sec)
#|
#| -dep datum code
#|
#| -interpolation scheme
0101PING IN H2O15000 1 MINUTE VALUES EXTRACTED FROM SEABEAM VERTICAL BEAM      12
#magnetics...
#digitizing rate(min)
#|-sampling rate(sec)
#|
#| -sensor tow dist.(meters)
#|
#| -sensor depth (meters)
#|
#| -horizontal sensor separation(meters)
#|
#| -reference field
#|
#| -method of deriving residual field      13
#gravity
#digitizing rate (min)
#|-sampling rate(sec)
#|
#| -code
#| -theoretical grav. formula(in plain language)
#|
#| -code
#| -reference system (in plain language)
#|
#| -corrections applied      14
#gravity continued
#departure base station gravity(mgal)
#|-departure base station description
#|
#|
#| -arrival base station gravity(mgal)
#|
#| -arrival base stat. description

```

10 degree area identifiers 15
#|no. of area identifiers (col 1-2) . col 3 is blank, then starting with
column 4 for the next two lines, there are 4 columns separated by
commas for each area identifiers. 16
#seq. line no's. 18-24 are reserved for additional documentation. 17
PROCESSED BY SHIPBOARD COMPUTER GROUP, SCRIPPS INSTITUTION OF OCEANOGRAPHY 18
DATA. 19
DEPTHS CORRECTED FOR 5 METER SHIP DRAFT. 20
NAVIGATION: DR BETWEEN 1 MINUTE INTERVAL GPS FIXES, GPS PRESENT 24 HRS/DAY 21
22
23
24