UNIVERSITY OF CALIFORNIA SCRIPPS INSTITUTION OF OCEANOGRAPHY

data report

PHYSICAL AND CHEMICAL DATA

GULF CRUISE 7404
8 April – 5 May 1974

GULF CRUISE 7410
2 October – 3 November 1974

SIO Reference 88-6
15 March 1988

GULF CRUISES 7404 & 7410

SIO Ref. 88-6

UNIVERSITY OF CALIFORNIA

SCRIPPS INSTITUTION OF OCEANOGRAPHY

PHYSICAL AND CHEMICAL DATA

GULF CRUISE 7404
8 April – 5 May 1974

and

GULF CRUISE 7410
2 October – 3 November 1974

Sponsored by

Marine Research Committee

SIO Reference 88-6
15 March 1988

Approved for distribution:

Edward A. Frieman, Director

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INTRODUCTION

The data in this report were collected during Cruises 7404* and 7410 in the Gulf of California by the RV *Alexander Agassiz*, of the Scripps Institution of Oceanography, University of California, San Diego. These cruises were a continuation of the cooperative investigation of the biological, chemical, physical and bathymetric parameters in the Gulf of California by the Instituto de Investigaciones Oceanologicas and the Escuela Superior de Ciencias Marinas of the Universidad Autonoma de Baja California (Mexico)**; the Instituto Nacional de Pesca (Mexico); and the Scripps Institution of Oceanography, University of California, San Diego (United States).

These data were collected and processed by personnel of the Data Collection and Processing Group (DCPG***, MLRG), Scripps Institution of Oceanography, the Escuela Superior de Ciencias Marinas and Instituto National de Investigaciones Oceanologicos, Universidad Autonoma de Baja California and the Instituto Nacional de Pesca (Mazatlan).

STANDARD PROCEDURES

The hydrographic casts consisted of 20 or fewer Nansen bottles lowered to varying sampling levels determined mainly by the bottom depths. Multiple lowerings of more than 20 bottles were made on several stations. Temperature, salinity, oxygen and nutrients were determined for all depths sampled.

Paired protected reversing thermometers were used to determine temperatures which are recorded to hundredths of a degree Celsius. Sampling bottles used below a depth of 100 meters were equipped with unprotected thermometers for determination of the depth of sampling. On Cruise 7404 the STD was lowered to 1500 meters, depth permitting, on approximately half the stations. The STD was also used on a few stations on Cruise 7410, but after several malfunctions, its use was discontinued.

Salinity samples from the hydrographic casts were analyzed at sea using inductive-type salinometers. The salinity values are reported to three decimal places. The salinity values tabulated for the STD data for Cruise 7404 are reported in hundredths.

Dissolved oxygen was determined by the Winkler method as modified by Carpenter (1965), using the equipment and procedure outlined by Anderson (1971).

Silicate, phosphate, nitrate and nitrite were determined using a standard Beckman Model DU spectrophotometer . Reactive phosphate was analyzed using the method of Murphy and Riley (1962) with the specific procedure outlined by Anderson (1971), reactive silicate by the method of Strickland and Parsons (1968), nitrate by the method of Wood *et al.* (1967), and nitrite by the method of Bendschneider and Robinson (1952). Nutrient samples for several stations from 7404 were frozen and sent to the Escuela de Ciencias Marinas, Universidad Autonoma de Baja California for analysis.

The observed data have been evaluated using the methodology described by Klein (1973). This involves consideration of their variation as functions of density or depth and their relations to each other, and comparison with adjacent observations.

The STD used on Cruise 7404 operated well. The temperature compared to the hydrographic data required no correction and the salinity values were in good agreement after an offset correction of 0.23‰.

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* The first two digits represent the year and the second two digits the month of the cruise.

** Now the Facultad de Ciencias Marinas.

*** Now the Oceanographic Data Facility (ODF).

TABULATED DATA

The time reported is Greenwich Mean Time. For STD lowerings it is the "start down" time and for bottle casts it is the time of messenger release. When more than one cast was lowered on a station, the messenger times for the first and last casts are given. Multiple casts, excluding the surface cast, are indicated by a footnote letter following the observed depth.

Bottom depths, determined acoustically, have been corrected using Matthews (1939) tables and are reported in meters. The weather and dominant waves have been coded using the National Oceanographic Data Center (NODC) method.

Data for all cruises presented in this report were obtained by bottle casts and by the STD, and appear in two forms:

1) Data from the sample bottles appears with the observed levels of depth on the left of a page. Temperature, salinity and oxygen are interpolated from the observations at standard levels of depth on the right of the page. Computed values of thermosteric anomaly (DT) are included with the observed levels and computed values of sigma-t (SIGT), thermosteric anomaly (DT) and geopotential anomaly (DD) are included with the interpolated levels.

2) Data at standard levels of depth from the STD lowerings appear on the right of a page with computed values of sigma-t, thermosteric anomaly and geopotential anomaly included.

The parameters tabulated in this report are the same as those tabulated in CalCOFI reports. The column headings are to be interpreted as follows:

Z	Depth	Meters
T	Temperature	°C
S	Salinity	‰
O2	Dissolved Oxygen	ml/L
PO4	"Reactive" inorganic phosphate-phosphorous	µg at/L
SiO3	"Reactive" inorganic silicate-silicon	µg at/L
NO2	"Reactive" nitrite-nitrogen	µg at/L
NO3	"Reactive" nitrate-nitrogen	µg at/L
DT	δ_T Thermosteric anomaly	cl/ton
SIGT	$\sigma_t = (\rho_{s,t,0} - 1)\ 10^3$ where $\rho_{s,t,0}$ is the density the parcel of sea water would have if moved isothermally to the sea surface.	g/L
DD	Geopotential anomaly, referred to the sea surface.	dyn. meters

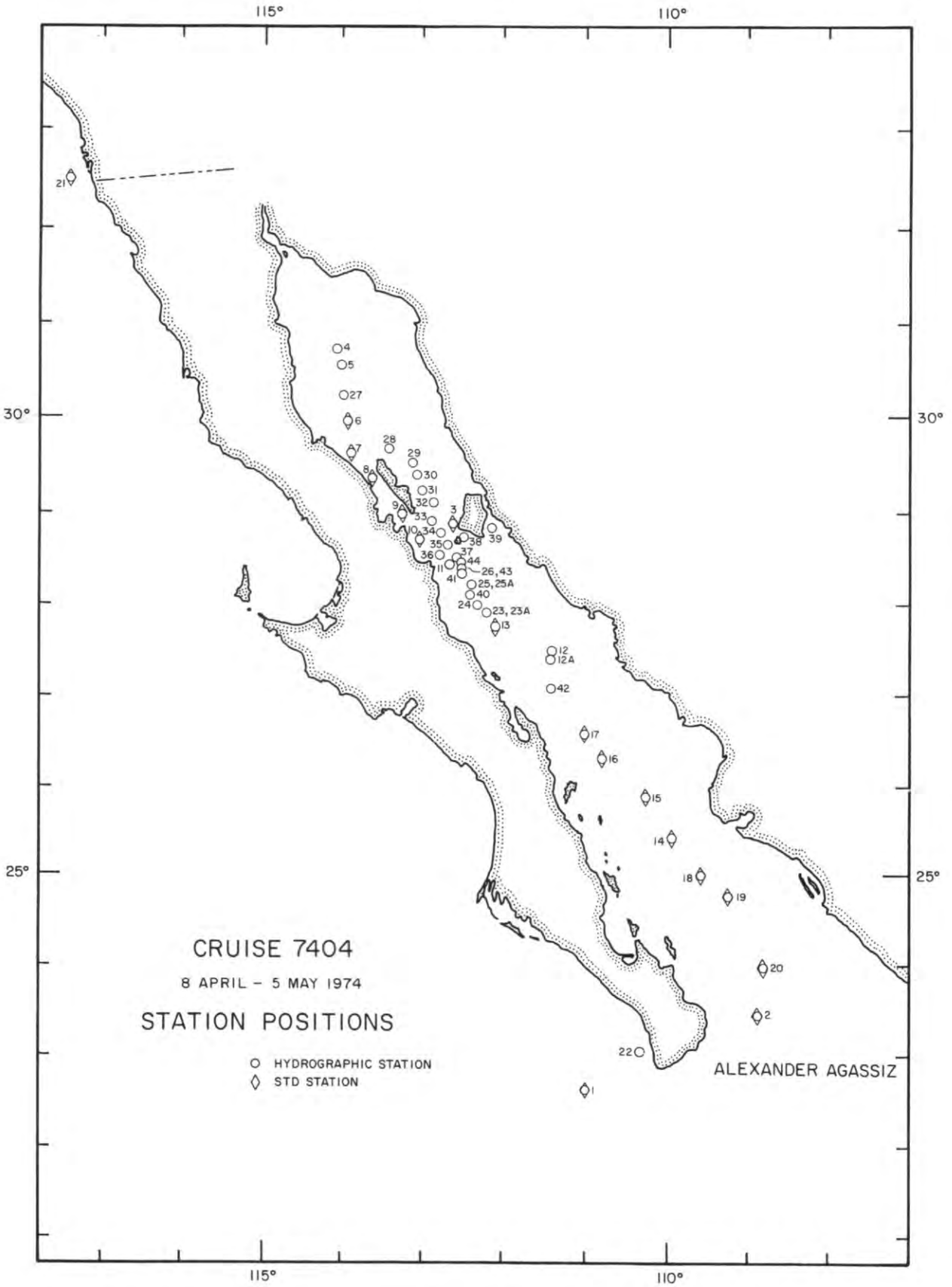
FOOTNOTES

In addition to footnotes, special notations are used without footnotes because the meaning is always the same.

P: After depth value indicates the Nansen bottles posttripped.

U: Uncertain value. Values which are not used in interpolation because they seeem to be in error without apparent reason.

V: Because of time differences, overlapping casts show some differences. Values not used in interpolation.


115°
110°
30°
25°
CRUISE 7404
8 APRIL – 5 MAY 1974
STATION POSITIONS
HYDROGRAPHIC STATION
STD STATION
ALEXANDER AGASSIZ

PERSONNEL

GULF CRUISE 7404

Schwartzlose, Richard A. (Chief Scientist)	Academic Administrator	SIO
Alvarez, Manuel	Oceanographer	INP
Ballesteros, Guadalupe	Oceanographer	IIO, UABC
Ballesteros, Guillermo	Oceanographer	UCM, UABC
Ballesteros, Jorge	Oceanographer	UCM, UABC
Baumgartner, Tim R.	Professor, Marine Geology	UCM, UABC
Brown, Daniel M.	Development Engineer	SIO
Burgener, Bruce C.	Staff Research Associate	SIO
Costello, James P.	Staff Research Associate	SIO
Down, Carl	Student	SIO
Estrada, Jorge	Student	UCM, UABC
Farfan, Blanca C.	Student	UCM, UABC
Galindo, Manuel S.	Student	UCM, UABC
Garcia, Gilberto	Student	IIO, UABC
Gaxiola, Gilberto	Student	UCM, UABC
Graham, Jery B.	Electronics Technician	SIO
Hernandez, José L.	Student	UCM, UABC
Hunt, John P.	Research Associate	SIO
Isaacs, Caroline	Graduate Student	SU
Lawver, Lawrence A.	Research Associate	SIO
Lara, Talpa D.	Student	UCM, UABC
Mead, Richard V.	Marine Technician	SIO
Miranda, Marcos A.	Oceanographer	UCM, UABC
Moussalli, E. J.	Graduate Student	SIO
Pamplona, Myra H.	Student	UCM, UABC
Paniagua, Michel M.	Student	UCM, UABC
Perez, Roberto H.	Oceanographer	UCM, UABC
Rivera, Jorge A.	Oceanographer	UCM, UABC
Taylor, Elliott	Student	UCM, UABC
Vacquier, Victor	Professor, Geophysics	SIO
Wick, Gerald L.	Research Physicist	SIO
Zertuche, José G.	Student	UCM, UABC

ABBREVIATIONS USED:

IIO	Instituto de Investigaciones Oceanologicos, Ensenada, Baja California, Mexico
INP	Instituto Nacional de Pesca, Mexico DF, Mexico
SIO	Scripps Institution of Oceanography, La Jolla, California, USA
SU	Stanford University, Stanford, California, USA
UABC	Universidad Autonoma de Baja California,
UCM	Unidad de Ciencias Marinas, Ensenada, Baja California, Mexico

RV ALEXANDER AGASSIZ — GULF CRUISE 7404

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
32 30.5 N	117 22.0 W	04/08/74	2035 GMT	741 M	220	07 KT	1	270 04 09

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0A	17.06	33.527	5.97					354.6
10	14.15	33.519	6.69					293.5
30	11.40	33.546	4.88					240.2
45	10.24	33.663	4.07					212.1
55	9.83	33.744	3.95					199.5
70	9.61	33.846	3.48					188.5
85	9.33	33.990	2.87					173.5
105	9.18	34.062	2.62					165.8
130	8.89	34.088	2.75					159.5
149	8.73	34.112	2.51					155.3
178	8.35	34.068	2.80					153.1
201	8.54	34.172	2.05					148.1

Z	T	S	O2	SIGT	DT	DD
0	17.06	33.527	5.97	24.392	354.6	0.000
10	14.15	33.519	6.69	25.033	293.5	0.032
20	12.43	33.528	6.00	25.385	260.0	0.060
30	11.40	33.546	4.88	25.593	240.2	0.085
50	10.00	33.704	4.00	25.961	205.2	0.130
75	9.51	33.896	3.26	26.193	183.3	0.179
100	9.21	34.053	2.64	26.364	167.0	0.223
125	8.95	34.085	2.72	26.431	160.6	0.264
150	8.71	34.110	2.52	26.488	155.3	0.305
200	8.53	34.168	2.08	26.561	148.3	0.382

RV ALEXANDER AGASSIZ — GULF CRUISE 7404

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
23 7.0 N	110 29.0 W	04/11/74	1847 GMT	929 M	240	20 KT		

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0A	17.12	34.334	5.60					297.2
10	17.12	34.332	5.57					297.3
30	14.99	34.094	4.08					268.5
55	13.56	34.368	1.54					219.7
70	13.06	34.400	0.93					207.7
85	12.93	34.511						197.1
99	12.84	34.579	0.64					190.4
124	12.43	34.743	0.48					170.7
148	12.09	34.723	0.32					165.9
172	11.70	34.750	0.43					156.9
206	11.38	34.708	0.34					154.3
269	10.61	34.662	0.36					144.5
341	10.02	34.628	0.34					137.2
388	9.56	34.602	0.36					131.8
435	9.29	34.587	0.12U					128.7
483	8.86	34.566	0.21					123.6
531	8.15	34.538	0.30					115.3
580	7.49	34.525	0.36					107.0
679		34.510	0.35					85.2
775	5.66	34.506	0.35					

Z	T	S	O2	SIGT	DT	DD
0	17.12	34.334	5.60	24.995	297.2	0.000
10	17.12	34.332	5.57	24.993	297.3	0.030
20	16.18	34.202	4.97	25.113	285.9	0.059
30	14.99	34.094	4.08	25.296	268.5	0.087
50	13.76	34.301	2.00	25.716	228.6	0.137
75	12.99	34.435	0.88	25.976	203.9	0.191
100	12.83	34.588	0.63	26.127	189.5	0.241
125	12.42	34.744	0.47	26.329	170.4	0.287
150	12.06	34.725	0.33	26.384	165.1	0.329
200	11.43	34.719	0.36	26.497	154.4	0.412
250	10.84	34.673	0.35	26.568	147.6	0.490
300	10.35	34.647	0.35	26.636	141.2	0.565
400	9.49	34.599	0.34	26.744	130.9	0.709
500	8.62	34.555	0.24	26.850	120.9	0.843
600	7.30	34.521	0.36	27.020	104.8	0.966
700	6.36	34.508	0.35	27.138	93.6	1.074

RV ALEXANDER AGASSIZ — GULF CRUISE 7404

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
23 58.5 N	108 49.5 W	04/12/74	0833 1145 GMT	3680 M	340	15 KT	0	340 04 04

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	22.44	35.059	5.34	0.57	1.	0.00	1.0	376.8
10	22.43	35.047	5.35	0.58	1.	0.02	0.8	377.4
29	18.31	34.896	3.96	1.41	13.	0.60	10.4	283.9
54	14.88	34.671	0.47	2.48	26.	0.05	28.0	224.1
69	14.59	34.679	0.51	2.55	27.	0.04		217.5
84	13.81	34.715	0.15	2.57	28.	0.03		199.2
98	13.38	34.699	0.26	2.54	30.	0.02	26.0	191.9
128	12.41	34.685	0.38	2.59	34.	0.03	27.4	174.6
152	12.02	34.713	0.22	2.71	36.	0.02	26.1	165.3
177	11.84	34.747	0.10	2.60	34.	0.67	25.8	159.6
211	11.42	34.732	0.12	2.73	37.	0.61	25.9	153.2
275	10.52	34.670	0.13	2.87	43.	0.33	24.8	142.3
373	9.42	34.618	0.20	2.98	49.	0.22	27.0	128.4
471	8.04	34.54	0.12	3.11	62.	0.01	31.9	113.5
516	7.59	34.52	0.29	3.15	67.	0.00	35.6	108.7
756	5.75	34.51	0.15	3.37	91.	0.00	44.8	85.9
902	5.04	34.524	0.24	3.39	102.	0.00	49.1U	76.8
1085B	4.37	34.534	0.64U	3.32	114.	0.01	50.5U	68.9
1107	4.294	34.543	0.40	3.40	115.	0.02	49.6U	67.4
1271	3.792	34.568	0.57	3.40	132.	0.01	49.7U	60.6
1332B	3.61	34.570	0.63	3.33	138.	0.00	50.5U	58.7
1579B	2.98	34.600	1.10	3.19	142.	0.00	48.9U	50.8
1826B	2.49	34.621	1.55	3.05	151.	0.03	45.9	45.1
2073B	2.07	34.645	2.09	2.94	160.	0.05		40.0
2319B	1.89	34.659	2.23	2.84	168.	0.03		37.6
2563B	1.87	34.661	2.32	2.82	167.	0.02	37.4	37.3
2806B	1.88	34.659	2.35	2.84	167.	0.02	36.9	37.5
3047B	1.89	34.658	2.32	2.81	167.	0.04	35.2	37.7
3286B	1.90	34.659	2.42	2.75	167.	0.05	38.3	37.7
3521B	1.935	34.657	2.41	2.80	166.	0.06	37.8	38.1
3620B	1.934	34.658	2.37	2.81	167.	0.05	44.3U	38.0
3668B	1.938	34.659	2.40	2.75	167.	0.05	37.4	38.0

Z	T	S	O2	SIGT	DT	DD
0	22.44	35.059	5.34	24.159	376.8	0.000
10	22.43	35.047	5.35	24.152	377.4	0.038
20	20.52	34.962	4.80	24.615	333.3	0.073
30	18.12	34.883	3.80	25.173	280.2	0.104
50	15.23	34.701	0.94	25.710	229.2	0.155
75	14.29	34.695	0.36	25.909	210.2	0.211
100	13.31	34.697	0.27	26.115	190.7	0.261
125	12.50	34.685	0.37	26.267	176.2	0.308
150	12.04	34.710	0.24	26.375	166.0	0.352
200	11.57	34.742	0.11	26.489	155.2	0.434
250	10.87	34.695	0.13	26.581	146.4	0.512
300	10.24	34.657	0.15	26.663	138.7	0.586
400	9.03	34.595	0.18	26.817	124.0	0.725
500	7.74	34.526	0.23	26.961	110.4	0.851
600	6.84	34.504	0.24	27.071	99.9	0.965
700	6.10	34.503	0.18	27.169	90.6	1.069
800	5.51	34.514	0.17	27.251	82.9	1.166
1000	4.66	34.522	0.31	27.357	72.8	1.342
1200	4.00	34.564	0.49	27.461	62.9	1.499
1500	3.16	34.590	0.93	27.564	53.2	1.706
2000	2.18	34.639	1.95	27.690	41.3	1.994
2250	1.92	34.657	2.21	27.725	38.0	2.117
2500	1.88	34.661	2.30	27.731	37.4	2.236
2750	1.88	34.660	2.34	27.731	37.5	2.356
3000	1.89	34.658	2.32	27.728	37.7	2.479
3250	1.90	34.659	2.40	27.728	37.7	2.605
3500	1.93	34.658	2.41	27.724	38.1	2.734

A) A SHAKEDOWN STATION.
B) CAST I.

GULF CRUISE 7404

RV ALEXANDER AGASSIZ

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
25 0.0 N	109 34.0 W	04/12/74	2043 2232 GMT	1868 M	330	09 KT	0	330 02 04

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	21.10	35.182	5.58	0.91	6.	0.13	1.9	332.5
10	20.47	35.194	5.62	0.96	6.	0.13	3.5	315.4
29	18.51	35.236	5.88	1.35	4.	0.21	7.2	264.0
54	16.13	35.034	3.20	2.15	25.	0.44	19.5	224.2
69	14.65	34.932	1.94	2.47	35.	0.11	24.4	200.2
84	14.25	34.908	1.36	2.61	39.	0.06	25.8	193.8
98	13.98	34.934	1.52	2.63	43.	0.04	24.1	186.5
128	13.49	34.906	1.25	2.67	46.	0.02	27.8	178.9
153	12.63	34.783		2.78	42.	0.03	25.0	171.4
177	11.94	34.720	0.26	2.76	39.	0.02	24.0	163.4
212	11.48	34.709	0.19	2.77	40.	0.02	27.7	156.0
276	10.74	34.672	0.15	2.86	44.	0.02	27.7	145.9
376	9.19	34.586	0.15	2.99	54.	0.01	29.4	127.2
475	8.01	34.536	0.15	3.08	65.	0.01	34.6	113.4
519	7.66	34.528	0.16	3.15	69.	0.03	36.5	109.1
760	5.83	34.511	0.14	3.32	93.	0.01	44.3	86.8
905	5.12	34.521	0.20	3.36	105.	0.01	44.2	77.9
1077A	4.54	34.542	0.32	3.41	117.	0.02	39.8	70.1
1108	4.33	34.546	0.35	3.38	122.	0.00	44.3	67.6
1322A	3.60	34.578	0.61	3.38	138.	0.05	39.6	58.0
1566A	3.04	34.603	1.01	3.27	151.	0.02	39.6	51.1
1810A	2.50	34.625	1.52	3.04	157.	0.01		44.9
1859A	2.36	34.632	1.66	3.00	159.	0.02		43.2

Z	T	S	O2	SIGT	DT	DD
0	21.10	35.182	5.58	24.624	332.5	0.000
10	20.47	35.194	5.62	24.804	315.4	0.032
20	19.49	35.223	5.76	25.084	288.7	0.063
30	18.41	35.230	5.80	25.364	262.1	0.090
50	16.51	35.075	3.72	25.706	229.5	0.140
75	14.42	34.914	1.62	26.051	196.7	0.193
100	13.95	34.936	1.50	26.166	185.8	0.242
125	13.55	34.914	1.28	26.233	179.4	0.288
150	12.74	34.798	0.78	26.307	172.4	0.333
200	11.60	34.708	0.21	26.457	158.1	0.418
250	11.04	34.690	0.16	26.545	149.8	0.498
300	10.37	34.651	0.15	26.634	141.4	0.574
400	8.86	34.571	0.15	26.824	123.4	0.713
500	7.80	34.531	0.16	26.955	110.9	0.839
600	6.99	34.516	0.15	27.060	101.0	0.954
700	6.24	34.511	0.14	27.157	91.8	1.059
800	5.61	34.513	0.15	27.238	84.1	1.157
1000	4.84	34.533	0.26	27.345	74.0	1.337
1200	3.93	34.560	0.45	27.466	62.5	1.495
1500	3.18	34.598	0.89	27.570	52.7	1.700

GULF CRUISE 7404

RV ALEXANDER AGASSIZ

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
27 54.5 N	112 14.0 W	04/14/74	0924 GMT	443 M	310	10 KT	0	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	18.22	35.255	5.73	1.37U	25.U		7.1	255.7
24	17.58	35.225	5.31	0.89	11.	0.36	11.6	242.9
49	16.82	35.192	4.65	1.43	17.	0.35	16.2	228.0
73	15.80	35.135	4.11	1.96	26.	0.24	18.2	209.7
97	14.32	35.007	3.25	1.68U	29.		15.4U	188.0
121	13.48	34.945	1.77	1.14U	25.U	0.10U	13.2U	175.8
145	13.20	34.958U	1.53	1.55U	28.U	0.07U	15.4U	
169	13.05	34.910	1.46	3.14U	57.U	0.05U	32.3U	170.1
193	12.60	34.874	1.24	2.70	50.	0.07	27.7	164.2
242	11.42	34.782	0.75	2.72	50.	0.11	27.2	149.5
291	10.76	34.725	0.39	2.90	55.	0.07	29.7	142.3
415	8.91	34.612	0.13	3.02	66.	0.06	32.8	121.0

Z	T	S	O2	SIGT	DT	DD
0	18.22	35.255	5.73	25.431	255.7	0.000
10	17.95	35.242	5.55	25.487	250.4	0.025
20	17.69	35.229	5.38	25.543	245.0	0.050
30	17.42	35.218	5.16	25.600	239.6	0.074
50	16.78	35.190	4.63	25.729	227.3	0.121
75	15.67	35.124	4.06	25.935	207.7	0.176
100	14.18	34.995	3.05	26.163	186.1	0.226
125	13.41	34.937	1.73	26.280	175.0	0.272
150	13.18	34.925	1.51	26.318	171.3	0.316
200	12.43	34.859	1.17	26.417	162.0	0.402
250	11.30	34.771	0.68	26.563	148.1	0.482
300	10.63	34.716	0.37	26.640	140.8	0.558
400	9.13	34.624	0.16	26.822	123.6	0.697

GULF CRUISE 7404

RV ALEXANDER AGASSIZ

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 3.0 N	112 20.0 W	04/14/74	1055 GMT	227 M	320	12 KT	0	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	18.73	35.273	5.61	0.69	3.	0.13	6.6	266.5
25	17.53	35.227	5.30	1.04	7.	0.25	7.8	241.6
49	17.32	35.217	5.10	1.69	13.	0.44	11.3	237.5
74	14.34	35.022	3.36	2.40U	41.	0.69	21.0	187.3
98	13.92	34.999	3.17	2.33	42.	0.43	20.0	180.6
128	13.63	34.975	2.86					176.6
163	13.01	34.922	2.10					168.4
184	12.39	34.863	1.39	2.79	49.	0.01	27.6	161.1
222	11.55	34.772	0.53	2.81	49.	0.00	28.0	152.6

Z	T	S	O2	SIGT	DT	DD
0	18.73	35.273	5.61	25.317	266.5	0.000
10	18.25	35.252	5.49	25.421	256.6	0.026
20	17.77	35.235	5.36	25.526	246.6	0.051
30	17.49	35.225	5.26	25.588	240.7	0.076
50	17.20	35.207	5.03	25.643	235.5	0.124
75	14.32	35.021	3.35	26.153	187.0	0.177
100	13.90	34.997	3.16	26.224	180.3	0.224
125	13.66	34.978	2.90	26.260	176.9	0.269
150	13.29	34.946	2.44	26.312	172.0	0.314
200	12.04	34.823	1.03	26.464	157.5	0.398

GULF CRUISE 7404

RV ALEXANDER AGASSIZ

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 12.0 N	112 26.0 W	04/14/74	1223 GMT	602 M	320	15 KT	0	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	16.19	35.071	5.58	1.62	16.	0.25	11.8	222.8
25	14.84	35.023	4.20	1.95	30.	0.29	16.7	197.5
50	14.24	34.999	3.55	2.32	38.	0.34	21.2	187.0
75	13.71	34.970	2.79	2.48	43.	0.39	21.0	178.5
99	13.22	34.924	2.00	2.60	45.	0.16	23.6	172.3
124	13.07	34.926	2.16	2.50	46.	0.18	22.8	169.3
149	12.75	34.893	1.72					165.6
173	12.28	34.848	1.32	2.77	49.	0.04	24.1	160.2
198	12.07	34.827	1.06					157.9
247	10.72	34.730U	0.82	2.60U	48.U	0.12U		
296	10.71	34.729	0.51	2.60U	45.U	0.01U	24.6U	141.2
394	9.87	34.696						129.8
492	8.55	34.625	0.33	2.37U	53.U	0.00U	24.2U	114.6

Z	T	S	O2	SIGT	DT	DD
0	16.19	35.071	5.58	25.776	222.8	0.000
10	15.65	35.049	5.03	25.883	212.7	0.022
20	15.11	35.031	4.48	25.990	202.6	0.043
30	14.69	35.018	4.05	26.072	194.7	0.063
50	14.24	34.999	3.55	26.154	187.0	0.101
75	13.71	34.970	2.79	26.243	178.5	0.147
100	13.21	34.923	2.00	26.309	172.2	0.192
125	13.06	34.924	2.15	26.341	169.2	0.235
150	12.73	34.890	1.70	26.381	165.4	0.278
200	12.00	34.817	1.05	26.466	157.4	0.361
250	10.72	34.690	0.80	26.604	144.3	0.439
300	10.69	34.730	0.51	26.640	140.8	0.513
400	9.79	34.692	0.41	26.767	128.7	0.656
500	8.47	34.620	0.32	26.924	113.8	0.786

A) CAST I.

RV ALEXANDER AGASSIZ GULF CRUISE 7404 26

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 21.0 N	112 32.5 W	04/14/74	1400 GMT	840 M	320	18 KT	0	320 03 03

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	17.10	35.192	5.31	1.70	16.	0.33	11.4	234.3	0	17.10	35.192	5.31	25.656	234.3	0.000
25	16.36	35.156	4.75	1.77	20.	0.45	14.3	220.3	10	16.80	35.177	5.09	25.714	228.7	0.023
49	14.83	35.053	3.32					195.1	20	16.51	35.162	4.86	25.773	223.1	0.046
74	14.71	35.038	3.05		33.		17.7	193.7	30	16.02	35.132	4.44	25.863	214.6	0.068
99	14.18	35.007	2.90	2.12	35.	0.18	20.5	185.2	50	14.83	35.052	3.31	26.069	195.1	0.109
123	13.48	34.969	2.66	2.49	47.	0.19	23.8	174.1	75	14.69	35.037	3.04	26.085	193.5	0.158
148	13.06	34.941	2.52	2.59	50.	0.16	25.0	168.0	100	14.15	35.005	2.89	26.178	184.7	0.206
173	12.86	34.933	2.47	2.57	51.	0.17	25.8	164.8	125	13.44	34.966	2.65	26.296	173.4	0.251
197	12.69	34.919	2.37	2.40U	50.U	0.16U	27.4U	162.6	150	13.04	34.940	2.52	26.357	167.7	0.295
246	11.81	34.828	1.27					153.1	200	12.64	34.913	2.31	26.416	162.1	0.380
295	11.16	34.757	0.67	2.84U	53.U	0.08U	29.3U	146.9	250	11.75	34.821	1.21	26.516	152.6	0.461
394	9.60	34.652	0.23					128.7	300	11.08	34.750	0.63	26.586	146.0	0.539
493	8.48	34.599	0.17	2.38U	54.U	0.05U	26.3U	115.5	400	9.52	34.654	0.22	26.783	127.3	0.684
									500	8.42	34.580	0.16	26.901	116.1	0.814

RV ALEXANDER AGASSIZ GULF CRUISE 7404 11

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 27.0 N	112 41.0 W	04/14/74	1553 GMT	362 M	330	23 KT	0	[illegible]

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0A	16.91	35.184	5.29	1.68	17.	0.32	11.8	230.6	0	16.91	35.184	5.29	25.695	230.6	0.000
5	16.76	35.172	5.12	1.73	18.	0.33	12.5	228.1	10	16.37	35.144	4.53	25.792	221.4	0.023
15	15.89	35.112	3.82	2.08	27.	0.35	17.7	213.3	20	15.43	35.076	3.30	25.954	205.9	0.044
30	14.71	35.022	2.59	2.40	37.	0.09	23.2	194.9	30	14.71	35.022	2.59	26.070	194.9	0.064
45	14.63	35.013	2.53	2.41	38.	0.12	23.9	193.9	50	14.45	35.007	2.53	26.115	190.7	0.103
60	14.05	34.996	2.54	2.49	41.	0.15	23.8	183.4	75	13.70	34.975	2.29	26.248	178.0	0.149
85	13.56	34.963	2.14	2.58	45.	0.08	25.4	176.1	100	13.42	34.957	2.21	26.293	173.8	0.194
105	13.39	34.956	2.26	2.58	47.	0.11	25.4	173.3	125	13.30	34.954	2.40	26.315	171.6	0.238
135	13.27	34.956	2.46	2.58	49.	0.16	24.9	171.0	150	13.23	34.963	2.48	26.337	169.6	0.282
164	13.17	34.969	2.49	2.58	51.	0.14	24.9	168.1	200	12.84	34.954	2.37	26.408	162.8	0.367
198	12.86	34.956		2.60	54.	0.09	24.7	163.1	250	12.32	34.906	2.15	26.474	156.5	0.450
252	12.30	34.905	2.14	2.69	56.	0.11	25.6	156.4	300	12.18	34.897	2.10	26.493	154.7	0.531
307	12.18	34.898	2.10	2.73	57.	0.09	26.2	154.7							
368	12.00	34.878	1.99	2.71	56.	0.13	26.7	152.9							

RV ALEXANDER AGASSIZ GULF CRUISE 7404 3

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 50.0 N	112 38.0 W	04/14/74	2035 GMT	639 M	010	18 KT	0	360 04 05

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	17.5	35.16 B	5.83	2.24	41.	0.50	19.5	245.8	0	17.50	35.160	5.83	25.535	245.8	0.000
36	14.58	35.055	3.75	2.25	42.	0.45	20.2	189.8	10	16.69	35.121	5.25	25.698	230.2	0.024
43	14.49	35.034	3.66	2.31	43.	0.46	20.6	189.5	20	15.88	35.089	4.67	25.862	214.7	0.046
53	14.38	35.032	3.54	2.42	40.	0.25	22.0	187.4	30	15.07	35.065	4.10	26.026	199.1	0.067
82	14.00	35.030	3.16	2.57	45.	0.07	24.5	179.9	50	14.41	35.031	3.58	26.141	188.1	0.106
121	13.26	34.995	2.67	2.57	53.	0.09	24.5	167.9	75	14.10	35.031	3.25	26.207	181.9	0.153
131	13.17	34.991	2.63	2.57	54.	0.10	24.5	166.5	100	13.64	35.013	2.90	26.292	173.9	0.198
145	13.06	34.979	2.61	2.61	54.	0.09	25.4	165.2	125	13.22	34.993	2.65	26.361	167.2	0.241
160	12.77	34.950	2.48	2.63	56.	0.14	25.8	161.8	150	12.97	34.970	2.57	26.395	164.0	0.283
174	12.63	34.918	2.35	2.67	56.	0.11	26.7	161.5	200	12.36	34.898	2.24	26.460	157.9	0.366
198	12.39	34.901	2.26	2.71	58.	0.09	28.3	158.3	250	11.80	34.862	1.91	26.540	150.3	0.446
218	12.09	34.883	2.07	2.76	59.	0.09	27.0	154.1	300	11.36	34.831	1.72	26.598	144.8	0.523
246	11.84	34.866	1.93	2.81	61.	0.08	26.4	150.8	400	10.92	34.807	1.59	26.659	139.1	0.673
275	11.55	34.845	1.80	2.82	61.	0.06	29.2	147.2	500	10.30	34.771	1.33	26.741	131.2	0.819
304	11.33	34.830	1.71	2.84	64.	0.06	29.5	144.4							
351	11.00	34.814	1.64	2.82	63.	0.08	28.6	139.9							
404	10.92	34.807	1.58	2.90	67.	0.07	26.8	139.0							
484	10.42	34.774	1.35	2.94	68.	0.07	31.7	133.0							
563		34.762	1.23	2.94	68.	0.08	32.0								

RV ALEXANDER AGASSIZ GULF CRUISE 7404 4

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
30 43.5 N	114 7.5 W	04/16/74	0310 GMT	194 M	220	10 KT	0	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	18.66	35.416	6.71	0.76	10.	0.01	0.2	254.5	0	18.66	35.416	6.71	25.443	254.5	0.000
9	17.17	35.343	7.49	0.92	12.	0.02	0.2	224.9	10	17.07	35.340	7.41	25.776	222.8	0.024
28	15.91	35.322	5.00	1.85	33.	0.90	12.1	198.4	20	16.27	35.323	6.28	25.952	206.1	0.045
43	15.10	35.299	4.34	2.05	41.	0.08	16.8	182.8	30	15.78	35.318	4.87	26.060	195.9	0.066
53	14.88	35.297	4.04	2.18	44.	0.07	17.8	178.3	50	14.93	35.296	4.12	26.234	179.3	0.103
67	14.78	35.302	3.87	2.22	46.	0.04	18.2	175.9	75	14.48	35.266	3.35	26.308	172.3	0.148
82	14.19	35.230	2.85	2.42	59.	0.03	21.4	169.1	100	13.87	35.185	2.32	26.376	165.8	0.191
102	13.85	35.183	2.30	2.54	67.	0.01	22.7	165.7	125	13.80	35.181	2.30	26.386	164.9	0.233
127	13.80	35.180	2.30	2.52	66.	0.01	22.7	164.9	150	13.88	35.224	2.54	26.404	163.2	0.275
146	13.81	35.198	2.41	2.52	65.	0.04		163.8	200	14.53	35.480	3.41	26.462	157.7	0.358
174	14.33	35.403	3.34	2.22	54.	0.07	18.2	159.3							
200	14.53	35.480	3.41	2.23	57.	0.11	17.4	157.7							

A) SHOALING AT MESSENGER TIME ON THIS CAST CAUSES DIFFICULTY IN DETERMINING BOTTOM DEPTH.

RV ALEXANDER AGASSIZ GULF CRUISE 7404 5

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
30 31.5 N	113 3.5 W	04/16/74	0465 GMT	149 M	230	11 KT	0	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	17.77	35.385	6.89	0.97	18.	0.07	0.5	235.7	0	17.77	35.385	6.89	25.641	235.7	0.000
10	16.61	35.425	5.39	1.49	28.	1.22	7.8	206.3	10	16.61	35.425	5.39	25.950	206.3	0.022
30	15.93	35.377	4.75	1.84	29.	0.75	13.4	194.8	20	16.15	35.362	4.93	26.010	200.6	0.043
39	15.56	35.368	4.18	1.99	38.	0.15	15.4	187.5	30	15.93	35.377	4.75	26.071	194.8	0.062
55	15.16	35.334	4.18	2.06	39.	0.16	16.6	181.5	50	15.26	35.342	4.18	26.196	182.9	0.100
68	14.95	35.350	4.05	2.11	35.	0.10	17.4	175.9	75	14.57	35.301	3.63	26.315	171.7	0.145
82	14.22	35.257	3.23	2.36	53.	0.03	21.2	167.7	100	14.37	35.351	3.43	26.397	163.9	0.188
101	14.38	35.355	3.44	2.25	51.	0.03	19.4	163.8	125	14.58	35.436	3.61	26.418	161.9	0.229
127	14.59	35.440	3.61	2.21	50.	0.03	17.9	161.9	150	14.49	35.419	3.40	26.424	161.4	0.271
153	14.48	35.417	3.37	2.26	52.	0.05	18.6	161.3							

RV ALEXANDER AGASSIZ GULF CRUISE 7404 27

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
30 14.0 N	114 1.0 W	04/17/74	0830 GMT	279 M	200	08 KT	0	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	19.98	35.429	6.14					286.0	0	19.98	35.429	6.14	25.112	286.0	0.000
10	17.34	35.417	6.57					223.4	10	17.34	35.417	6.57	25.770	223.4	0.025
30	15.90	35.387	4.56					193.5	20	16.62	35.399	5.67	25.928	208.4	0.047
44	15.68	35.370	4.46					189.9	30	15.90	35.387	4.56	26.085	193.5	0.067
54	15.18	35.316	4.24					183.2	50	15.38	35.337	4.34	26.164	186.0	0.105
69	14.81	35.309	3.71					176.0	75	14.60	35.271	3.55	26.286	174.4	0.151
84	14.29	35.209	3.35					172.6	100	13.97	35.158	3.01	26.333	170.0	0.195
103	13.93	35.152	2.95					169.6	125	13.65	35.112	2.60	26.365	166.9	0.238
128	13.62	35.109	2.56					166.6	150	13.46	35.100	2.37	26.395	164.0	0.280
148	13.48	35.103	2.39					164.3	200	12.89	35.024	1.79	26.452	158.7	0.363
182	13.09	35.052	1.98					160.4	250	12.67	34.996	1.66	26.474	156.5	0.445
212	12.78	35.009	1.70					157.7							
253	12.66	34.995	1.66					156.5							

RV ALEXANDER AGASSIZ GULF CRUISE 7404 6

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
29 57.0 N	113 58.0 W	04/17/74	1754 GMT	459 M	170	14 KT	0	170 02 02

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	19.46	35.408	6.59	1.11	16.	0.11	0.8	274.6	0	19.46	35.408	6.59	25.232	274.6	0.000
16	17.51	35.368	6.15	1.45	19.	0.34	5.0	230.9	10	18.24	35.378	6.31	25.519	247.3	0.026
26	16.72	35.341	5.45	1.69	29.	0.95	9.4	214.9	20	17.17	35.357	5.88	25.766	223.8	0.050
46	15.50	35.283	4.57	1.94	36.	0.23	15.7	192.4	30	16.45	35.329	5.24	25.915	209.6	0.071
61	14.76	35.244	3.97	2.19	43.	0.04	19.1	179.7	50	15.26	35.270	4.38	26.140	188.3	0.112
71	14.64	35.237	3.84	2.26	44.	0.02	19.2	177.7	75	14.52	35.226	3.73	26.268	176.1	0.158
86	14.18	35.193	3.39	2.33	49.	0.00	21.8	171.6	100	13.95	35.162	3.11	26.340	169.3	0.201
101	13.94	35.160	3.09	2.38	52.	0.00	22.7	169.2	125	13.48	35.085	2.54	26.380	165.5	0.244
115	13.69	35.123	2.70	2.51	55.	0.00	24.0	166.9	150	13.05	35.010	2.17	26.409	162.8	0.286
150	13.05	35.010	2.17	2.68	62.	0.00	21.8U	162.8	200	12.72	34.968	1.77	26.443	159.5	0.369
160	12.98	35.000	1.95	2.72	66.	0.00	26.0	162.1	250	12.51	34.953	1.54	26.472	156.7	0.451
189	12.83	34.983	1.79	2.73	67.	0.00	25.9	160.5	300	12.18	34.914	1.39	26.508	153.4	0.532
219	12.55	34.947	1.74	2.73	66.	0.00	26.6	157.9	400	11.88	34.876	1.24	26.534	150.8	0.693
248	12.52	34.954	1.55	2.73	66.	0.00	27.2	156.9							
287	12.25	34.924	1.43	2.80	68.	0.00	27.5	154.1							
345	12.00	34.893	1.27	2.81	70.	0.00	28.3	151.8							
397	11.89	34.878	1.25	2.87	71.	0.00	27.7	150.9							
455		34.856	1.07	2.92	75.	0.03	28.4								

RV ALEXANDER AGASSIZ GULF CRUISE 7404 7

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
29 38.0 N	113 55.0 W	04/17/74	2030 GMT	938 M	120	08 KT	0	120 02 02

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
2	18.77	35.414	7.41	0.90	5.	0.03	0.7	257.3	0	19.60	35.440	7.41	25.220	275.7	0.000
28	16.33	35.334	5.14	1.82	32.	1.31	11.7	206.7	10	18.02	35.382	6.86	25.577	241.7	0.026
38	15.75	35.288	4.65	2.02	35.	0.49	15.5	197.4	20	17.08	35.351	5.99	25.782	222.3	0.049
58	14.91	35.273	4.04	2.20	41.	0.04	18.8	180.7	30	16.20	35.324	5.03	25.968	204.6	0.071
82	14.45	35.252	3.63	2.30	47.	0.01	20.7	172.7	50	15.20	35.273	4.24	26.157	186.7	0.110
97	13.82	35.154	2.93	2.47	53.	0.00	23.2	167.2	75	14.59	35.267	3.78	26.286	174.4	0.156
112	13.49	35.095	2.53	2.55	57.	0.00	22.8	165.0	100	13.73	35.138	2.83	26.369	166.6	0.199
126	13.43	35.085	2.43	2.56	57.	0.00	23.6	164.6	125	13.43	35.085	2.43	26.389	164.6	0.241
156	13.27	35.075	2.15	2.74	62.	0.03	24.6	162.2	150	13.30	35.076	2.20	26.409	162.8	0.283
180	13.15	35.071	2.03	2.65	64.	0.00	24.5	160.2	200	13.02	35.058	1.93	26.453	158.6	0.366
205	12.98	35.054	1.90	2.65	66.	0.01	24.6	158.2	250	12.63	35.001	1.65	26.486	155.4	0.447
239	12.72	35.018	1.70	2.78	66.	0.02	25.2	155.9	300	12.27	34.929	1.45	26.501	154.0	0.528
303	12.25	34.925	1.44	2.82	68.	0.01	27.6	154.0	400	11.98	34.888	1.28	26.525	151.7	0.690
401	11.98	34.889	1.28	2.82	70.	0.01	27.5	151.7	500	11.77	34.871	1.20	26.552	149.2	0.851
498	11.78	34.873	1.20	2.87	72.	0.00	28.4	149.3	600	11.59	34.852	1.11	26.570	147.5	1.013
541	11.62	34.855	1.13	2.89	72.	0.00	27.7	147.7	700	11.55	34.847	1.10	26.574	147.1	1.175
776	11.52	34.844	1.09	2.91	76.	0.01	28.4	146.7	800	11.50	34.843	1.06	26.580	146.5	1.340
938		34.838	0.91	2.96	83.	0.12	28.1								

RV ALEXANDER AGASSIZ GULF CRUISE 7404 29

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
29 32.0 N	113 10.5 W	04/18/74	0321 GMT	427 M	200	12 KT	0	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	19.38	35.379	6.95	1.12	18.	0.06	3.3	274.7
10	18.43	35.376	7.21	1.12	19.	0.06	3.7	251.9
29	15.44	35.174	4.64	2.04	38.	0.63	17.8	199.1
44	14.72	35.159	3.96	2.16	43.	0.55	20.9	185.1
53	14.53	35.152	3.78	2.35	45.	0.46	22.0	181.7
68	14.68	35.216	3.85	2.19U	42.	0.16	21.0U	180.1
83	14.58	35.246	3.73	2.12U	42.	0.05	17.4U	175.8
98	14.23	35.199	3.37	2.05U	42.	0.06	16.5U	172.2
122	14.06	35.182	3.23	2.39	50.	0.08	21.1	170.0
142	13.70	35.143	2.88	2.43	53.	0.04	21.6	165.7
172	13.25	35.085	2.48	2.60	58.	0.04	24.3	161.1
202	12.89	35.022	2.20	2.60	58.	0.05	24.5	158.8
235	12.48	34.951	1.88	2.76	64.	0.03	27.2	156.3
286	11.82	34.874	1.62	2.84	64.	0.04	27.4	149.9
340	11.16	34.818	1.36	2.95	75.	0.04	29.1	142.3
400	10.99	34.803	1.06	2.95	74.	0.08	28.4	140.5

Z	T	S	O2	SIGT	DT	DD
0	19.38	35.379	6.95	25.231	274.7	0.000
10	18.43	35.376	7.21	25.471	251.9	0.026
20	16.81	35.264	5.99	25.780	222.4	0.050
30	15.36	35.171	4.57	26.042	197.6	0.071
50	14.57	35.152	3.82	26.201	182.5	0.109
75	14.63	35.228	3.82	26.246	178.2	0.155
100	14.21	35.197	3.35	26.312	171.9	0.199
125	14.01	35.177	3.18	26.339	169.4	0.243
150	13.57	35.127	2.76	26.393	164.2	0.286
200	12.91	35.026	2.22	26.449	158.9	0.369
250	12.29	34.924	1.79	26.495	154.6	0.450
300	11.62	34.855	1.55	26.567	147.7	0.529
400	10.99	34.803	1.06	26.643	140.5	0.682

RV ALEXANDER AGASSIZ GULF CRUISE 7404 28

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
29 41.0 N	113 29.0 W	04/18/74	0507 GMT	290 M	260	05 KT	0	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	18.15	35.207	5.80	1.45	11.	0.17	10.9	257.5
10	16.29	35.122	5.30	1.89	15.	0.28	15.7	221.3
29	14.37	35.078	3.75	2.14	13.	0.60	21.2	183.8
44	14.32	35.079	3.73		16.	0.76	27.7U	182.7
54	14.26	35.079	3.66	2.30	25.U	0.54	22.8	181.5
69	14.09	35.079	3.41	2.11U	18.	0.54	11.6U	178.1
85	13.95	35.073	3.47	1.93U	20.	0.41	20.1U	175.7
105	13.73	35.061	3.29	1.38U	23.	0.24	20.3U	172.2
130	13.61	35.047	2.97					170.9
150	13.43	35.042	2.80	1.91U	33.	0.21	18.8U	167.7
185	13.35	35.048	2.64	2.44	53.U	0.16	23.4	165.7
214	13.19	35.038	2.48	2.16U	47.	0.08	20.2U	163.4
252	13.20	35.072	2.31	2.55	50.	0.05	21.2	161.1

Z	T	S	O2	SIGT	DT	DD
0	18.15	35.207	5.80	25.411	257.5	0.000
10	16.29	35.122	5.30	25.792	221.3	0.024
20	15.02	35.087	4.43	26.053	196.5	0.045
30	14.37	35.078	3.75	26.188	183.8	0.064
50	14.29	35.079	3.70	26.205	182.1	0.101
75	14.04	35.077	3.42	26.257	177.2	0.146
100	13.78	35.064	3.35	26.300	173.0	0.191
125	13.63	35.049	3.03	26.320	171.2	0.234
150	13.43	35.042	2.80	26.356	167.7	0.278
200	13.26	35.041	2.56	26.390	164.5	0.363
250	13.20	35.070	2.32	26.425	161.2	0.448

RV ALEXANDER AGASSIZ GULF CRUISE 7404 8

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
29 20.0 N	113 39.5 W	04/18/74	0840 GMT	595 M	160	11 KT	0	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	15.75	35.181	4.78	1.95	36.	0.31	13.1	205.2
10	15.34	35.137	4.40	2.09	38.	0.29	15.3	199.7
29	14.06	35.041	3.42	2.36	44.	0.28	20.0	180.3
39	13.50	35.012	2.90	2.49	49.	0.22	20.4	171.3
49	13.35	35.009	2.80	2.54	50.	0.21	21.3	168.6
64	13.16	35.000	2.62	2.54	52.	0.18	21.3	165.6
78	13.09	35.000	2.57	2.50	52.	0.15	23.1	164.3
98	12.98	34.996	2.45	2.54	55.	0.06	23.4	162.4
123	12.92	34.989	2.46	2.63	55.	0.05	23.3	161.8
142	12.64	34.959	2.14	2.68	56.	0.04	23.7	158.7
172	12.63	34.959	2.10	2.69	58.	0.04	25.1	158.5
202	12.52	34.945	2.02	2.71	58.	0.04	25.1	157.5
232	12.37	34.933	1.85	2.62	58.	0.03	24.6	155.6
271	12.31	34.928	1.71	2.76	62.	0.03	26.0	154.9
331	12.32	34.943	1.58	2.77	64.	0.01	25.8	153.9
405	12.02	34.905	1.39	2.82	66.	0.00	25.6	151.2
478	11.90	34.884	1.33	2.86	67.	0.01	27.1	150.6
555	11.81	34.875	1.02	2.82	68.	0.02	27.0	149.6

Z	T	S	O2	SIGT	DT	DD
0	15.75	35.181	4.78	25.961	205.2	0.000
10	15.34	35.137	4.40	26.020	199.7	0.020
20	14.69	35.083	3.91	26.122	190.0	0.040
30	13.99	35.037	3.36	26.235	179.2	0.058
50	13.33	35.008	2.79	26.350	168.4	0.093
75	13.10	35.000	2.58	26.391	164.5	0.135
100	12.98	34.995	2.45	26.412	162.4	0.177
125	12.89	34.986	2.43	26.422	161.5	0.218
150	12.64	34.959	2.13	26.452	158.7	0.259
200	12.53	34.946	2.03	26.463	157.6	0.340
250	12.33	34.928	1.78	26.489	155.1	0.421
300	12.31	34.934	1.64	26.496	154.5	0.502
400	12.04	34.907	1.40	26.528	151.4	0.664
500	11.87	34.881	1.24	26.540	150.3	0.826

RV ALEXANDER AGASSIZ GULF CRUISE 7404 9

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 58.5 N	113 16.0 W	04/18/74	2314 GMT	1210 M	150	08 KT	0	150

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	17.37	35.173	5.46	1.76	30.	0.26	11.4	241.9
34	14.44	35.047	3.78	2.22	42.	0.54	19.5	187.5
49	14.07	35.039	3.30	2.41	46.	0.51	21.7	180.6
69	13.67	35.017	2.96	2.44	48.	0.20	22.9	174.3
94	13.46	35.001	2.85	2.49	49.	0.10	23.8	171.3
124	13.29	34.994	2.75	2.53	50.	0.05	24.6	168.5
143	13.18	34.985	2.60	2.55	51.	0.02	24.7	167.1
168	13.01	34.980	2.49	2.57	53.	0.00	25.4	164.2
213	12.79	34.965	2.32	2.61	55.	0.00	25.6	161.1
292	12.60	34.961	2.11	2.66	57.	0.00	25.2	157.8
400	12.26	34.926	1.82	2.70	60.	0.00	26.0	154.1
522	11.81	34.875	1.44	2.75	61.	0.00	27.6	149.6
561	11.73	34.862	1.36	2.76	62.	0.00	28.3	149.2
819	11.33	34.820	1.15	2.82	63.	0.00	29.0	145.2
993	11.23	34.805	1.00	2.91	66.	0.00	29.0	144.5
1216	11.20	34.800	0.89	2.96	76.	0.17	27.7U	144.4

Z	T	S	O2	SIGT	DT	DD
0	17.37	35.173	5.46	25.576	241.9	0.000
10	16.51	35.125	4.97	25.744	225.9	0.023
20	15.65	35.086	4.47	25.912	209.9	0.045
30	14.78	35.056	3.98	26.081	193.9	0.065
50	14.05	35.038	3.28	26.225	180.2	0.103
75	13.60	35.012	2.92	26.298	173.3	0.148
100	13.42	34.999	2.84	26.325	170.7	0.191
125	13.28	34.993	2.74	26.349	168.5	0.235
150	13.13	34.983	2.56	26.372	166.3	0.277
200	12.84	34.969	2.37	26.419	161.8	0.362
250	12.69	34.962	2.21	26.444	159.4	0.445
300	12.58	34.959	2.09	26.464	157.5	0.528
400	12.26	34.926	1.82	26.500	154.1	0.693
500	11.88	34.883	1.50	26.540	150.3	0.856
600	11.65	34.852	1.31	26.559	148.5	1.019
700	11.48	34.832	1.21	26.576	146.9	1.182
800	11.35	34.821	1.16	26.591	145.4	1.346
1000	11.23	34.804	1.00	26.601	144.5	1.679
1200	11.20	34.800	0.90	26.602	144.4	2.018

RV ALEXANDER AGASSIZ GULF CRUISE 7404 30

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER
29 23.5 N	113 7.5 W	04/19/74	0337 GMT	423 M	270	22 KT	0

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	18.74	35.262	6.77	1.19	21.	0.11	6.4	267.6
10	18.28	35.267	6.42	1.28	21.	0.23	5.4	256.2
30	15.84	35.299	4.72	1.96	35.	0.69	18.3	198.6
45	15.01	35.241	4.17	2.16	42.	0.22	20.0	185.1
55	14.85	35.213	4.04	2.17	43.	0.22	21.2	183.8
70	14.69	35.246	3.98	2.23	44.	0.09	16.9U	178.1
85	14.17	35.194	3.59	2.57U	54.U	0.05	16.4U	171.3
99	13.54	35.091	2.93	2.98U	64.U	0.08	14.2U	166.3
124	13.20	35.029	2.67	2.53	57.	0.08	23.3	164.2
144	13.07	35.022	2.63	2.58	58.	0.07	23.0	162.3
174	12.94	35.008	2.48	2.53	58.	0.08	23.7	160.8
203	12.80	35.007	2.36	2.53	69.	0.07	20.0U	158.2
238	12.43	34.950	1.95	2.81	68.	0.04	20.2U	155.5
292	11.91	34.881	1.64	2.99	79.	0.04	18.3U	151.0
348	11.37	34.846	1.55	2.71	83.	0.11	15.2U	144.0
408	10.85	34.807	1.59U	1.94U	68.U	0.12	16.0U	137.8

Z	T	S	O2	SIGT	DT	DD
0	18.74	35.262	6.77	25.306	267.6	0.000
10	18.28	35.267	6.42	25.425	256.2	0.026
20	17.09	35.283	5.58	25.727	227.5	0.050
30	15.84	35.299	4.72	26.032	198.6	0.072
50	14.91	35.224	4.09	26.183	184.2	0.110
75	14.55	35.236	3.89	26.271	175.8	0.156
100	13.51	35.085	2.92	26.372	166.2	0.199
125	13.19	35.028	2.67	26.394	164.1	0.241
150	13.04	35.019	2.60	26.417	161.9	0.283
200	12.82	35.008	2.38	26.454	158.5	0.365
250	12.31	34.932	1.85	26.495	154.6	0.447
300	11.83	34.874	1.63	26.543	150.0	0.526
400	10.92	34.811		26.663	138.6	0.679

RV ALEXANDER AGASSIZ GULF CRUISE 7404 31

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER
29 13.5 N	113 1.0 W	04/19/74	0512 GMT	427 M	260	16 KT	0

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	18.87	35.321	6.89					266.4
10	18.75	35.321	6.89					263.5
30	16.00	35.253	4.95					205.4
45	15.29	35.258	4.23					189.8
55	14.82	35.230	3.85					182.0
70	14.49	35.206	3.56					176.9
84	14.18	35.183	3.23					172.3
99	13.93	35.157	2.97					169.2
124	13.61	35.107	2.73					166.5
144	13.08	35.032	2.43					161.7
173	12.86	35.017	2.14					158.6
204	12.68	34.992	1.90					157.1
237	12.23	34.927	1.78					153.5
291	11.61	34.866	1.75					146.7
347	11.20	34.835	1.53					141.8
407	10.87	34.811	1.36					137.9

Z	T	S	O2	SIGT	DT	DD
0	18.87	35.321	6.89	25.318	266.4	0.000
10	18.75	35.321	6.89	25.348	263.5	0.027
20	17.46	35.278	6.01	25.636	236.2	0.052
30	16.00	35.253	4.95	25.960	205.4	0.074
50	15.04	35.244	4.03	26.169	185.5	0.113
75	14.38	35.197	3.44	26.278	175.2	0.159
100	13.92	35.155	2.96	26.342	169.1	0.202
125	13.58	35.103	2.72	26.372	166.3	0.245
150	13.01	35.025	2.36	26.429	160.8	0.287
200	12.71	34.996	1.93	26.467	157.3	0.369
250	12.06	34.907	1.77	26.524	151.8	0.449
300	11.53	34.859	1.72	26.587	145.8	0.527
400	10.91	34.813	1.38	26.666	138.3	0.677

RV ALEXANDER AGASSIZ GULF CRUISE 7404 32

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER
29 4.5 N	112 53.5 W	04/19/74	0718 GMT	416 M	260	06 KT	0

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	18.77	35.215	6.62					271.7
8	18.17	35.221	6.35					257.0
26	16.53	35.269	5.18					215.9
40	15.96	35.268	4.73					203.4
49	15.45	35.254	4.44					193.5
63	14.91	35.233	4.05					183.6
77	14.82	35.229	3.92					182.0
91	14.54	35.204	3.64					178.1
115	14.13	35.162	3.24					172.8
134	14.00	35.152	3.21					171.0
162	13.43	35.049	2.76					167.2
191	13.21	35.052	2.46					162.7
224	12.96	35.022	2.15					160.2
278	12.33	34.939	1.85					154.4
332	11.62	34.876	1.68					146.2
392	10.27	34.773	1.27					130.6

Z	T	S	O2	SIGT	DT	DD
0	18.77	35.215	6.62	25.262	271.7	0.000
10	17.97	35.225	6.22	25.470	252.0	0.026
20	17.04	35.252	5.58	25.715	228.6	0.050
30	16.35	35.272	5.03	25.894	211.6	0.072
50	15.40	35.252	4.41	26.095	192.5	0.113
75	14.82	35.229	3.94	26.205	182.1	0.160
100	14.36	35.186	3.46	26.271	175.8	0.206
125	14.06	35.158	3.22	26.314	171.8	0.250
150	13.68	35.093	2.97	26.344	168.9	0.294
200	13.15	35.046	2.37	26.417	161.9	0.379
250	12.68	34.983	1.98	26.462	157.7	0.462
300	12.07	34.913	1.78	26.527	151.5	0.542
400	10.20	34.760	1.25	26.750	130.4	0.692

RV ALEXANDER AGASSIZ GULF CRUISE 7404 33

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER
28 53.0 N	112 52.5 W	04/19/74	0849 GMT	390 M	290	16 KT	0

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	16.75	35.106	6.00					232.7
10	15.61	35.086	4.61					209.2
30	14.32	35.048	3.41					185.0
45	14.23	35.054	3.34					182.7
59	14.05	35.090	3.24					176.5
74	13.66	35.062	2.98					170.8
89	13.41	35.038	2.79					167.6
109	13.18	35.025	2.64					164.1
133	13.06	35.014	2.50					162.6
163	12.98	35.008	2.41					161.6
197	12.88	34.996	2.31					160.5
231	12.76	34.982	2.17					159.3
270	12.16	34.913	1.97					153.2
314	11.54	34.858	1.68					146.1
353	10.52	34.778	1.23					134.4

Z	T	S	O2	SIGT	DT	DD
0	16.75	35.106	6.00	25.673	232.7	0.000
10	15.61	35.086	4.61	25.920	209.2	0.022
20	14.80	35.064	3.80	26.083	193.7	0.042
30	14.32	35.048	3.41	26.174	185.0	0.061
50	14.18	35.068	3.31	26.220	180.7	0.098
75	13.64	35.060	2.97	26.327	170.5	0.142
100	13.27	35.029	2.70	26.379	165.5	0.185
125	13.09	35.017	2.54	26.407	163.0	0.227
150	13.01	35.010	2.44	26.417	162.0	0.268
200	12.88	34.995	2.30	26.432	160.5	0.351
250	12.50	34.950	2.08	26.473	156.7	0.434
300	11.76	34.876	1.79	26.557	148.7	0.513

RV ALEXANDER AGASSIZ — GULF CRUISE 7404 — 34

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 45.0 N	112 48.0 W	04/19/74	1021 GMT	437 M	310	13 KT	0	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	18.63	35.252	6.84					265.7	0	18.63	35.252	6.84	25.326	265.7	0.000
10	16.13	35.119	5.66					218.0	10	16.13	35.119	5.66	25.827	218.0	0.024
29	15.74	35.076	5.31					212.7	20	15.92	35.096	5.48	25.857	215.2	0.046
43	15.33	35.062	4.38					204.9	30	15.71	35.075	5.25	25.888	212.2	0.067
52	15.05	35.049	3.99					200.0	50	15.11	35.051	4.06	26.006	201.0	0.109
67	14.81	35.045	3.74					195.3	75	14.67	35.041	3.64	26.095	192.6	0.159
81	14.55	35.039	3.57					190.4	100	14.18	35.034	3.24	26.193	183.2	0.206
96	14.23	35.037	3.29					184.0	125	13.86	35.014	2.95	26.245	178.3	0.252
120	13.96	35.018	3.02					180.0	150	13.48	35.011	2.74	26.322	171.0	0.297
139	13.59	35.006	2.78					173.5	200	13.15	35.017	2.50	26.395	164.0	0.383
169	13.36	35.023	2.71					167.8	250	12.42	34.919	2.22	26.464	157.6	0.466
198	13.17	35.021	2.51					164.3	300	11.78	34.862	1.91	26.543	150.0	0.547
232	12.69	34.950	2.33					160.3	400	10.20	34.750	1.03	26.742	131.1	0.695
286	11.92	34.873	1.98					151.8							
339	11.34	34.832	1.67					144.5							
397	10.21	34.750	1.04					131.3							

RV ALEXANDER AGASSIZ — GULF CRUISE 7404 — 35

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 39.0 N	112 41.5 W	04/19/74	1151 GMT	520 M	220	04 KT	0	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	18.23	35.243	6.47					256.8	0	18.23	35.243	6.47	25.419	256.8	0.000
9	16.64	35.167	5.43					225.8	10	16.54	35.161	5.36	25.764	224.0	0.024
28	15.84	35.114	4.75					212.0	20	15.98	35.120	4.92	25.862	214.7	0.046
42	15.05	35.069	4.16					198.5	30	15.72	35.107	4.66	25.912	210.0	0.067
51	15.04	35.066	4.15					198.5	50	15.04	35.066	4.15	26.032	198.5	0.108
65	14.84	35.057	4.01					195.0	75	14.78	35.055	3.94	26.081	193.9	0.158
79	14.76	35.055	3.91					193.5	100	14.40	35.053	3.76	26.161	186.3	0.206
93	14.64	35.051	3.83					191.3	125	13.61	35.063	3.15	26.335	169.8	0.251
116	13.80	35.062	3.46					173.6	150	13.30	35.017	2.66	26.365	166.9	0.294
134	13.48	35.059	2.85					167.5	200	12.78	34.957	2.40	26.422	161.5	0.379
161	13.20	34.997	2.62					166.6	250	12.11	34.900	1.98	26.509	153.2	0.461
188	12.97	34.973	2.48					163.9	300	11.60	34.849	1.72	26.567	147.8	0.539
215	12.53	34.936	2.29					158.3	400	9.50	34.702	0.81	26.822	123.5	0.683
250	12.11	34.900	1.98					153.2							
302	11.57	34.847	1.71					147.4							
349	10.02	34.734	1.02					129.4							
403	9.49	34.701	0.80					123.4							
457	8.75	34.646	0.45					116.1							

RV ALEXANDER AGASSIZ — GULF CRUISE 7404 — 10

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 43.5 N	113 3.5 W	04/19/74	1549 1652 GMT	1535 M	330	16 KT	0	330 02 02

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	16.43	35.110	4.98	1.83	24.	0.30	13.9	225.3	0	16.43	35.110	4.98	25.751	225.3	0.000
10	16.40	35.109	4.99	1.79	24.	0.30	13.6	224.6	10	16.40	35.109	4.99	25.757	224.6	0.023
29	15.33	35.067	3.89	2.13	33.	0.35	17.8	204.6	20	15.90	35.088	4.47	25.857	215.2	0.045
54	14.42	35.023	3.22	2.31	40.	0.32	21.9	188.9	30	15.28	35.064	3.85	25.977	203.7	0.066
69	14.16	35.010	3.08	2.41	43.	0.29	22.3	184.6	50	14.53	35.029	3.28	26.115	190.6	0.105
84	13.99	35.007	2.99	2.44	44.	0.21	23.2	181.4	75	14.09	35.008	3.04	26.192	183.3	0.152
98	13.72	35.001	2.87	2.46	47.	0.14	24.0	176.4	100	13.69	35.000	2.86	26.271	175.8	0.198
128	13.35	34.997	2.72	2.49	52.	0.05	24.4	169.5	125	13.38	34.997	2.73	26.333	170.0	0.242
153	13.22	35.000	2.66	2.54	54.	0.02	24.9	166.7	150	13.23	35.000	2.67	26.365	167.0	0.285
177	13.08	34.979	2.57	2.58	54.	0.04	25.2	165.6	200	12.99	34.976	2.50	26.395	164.1	0.370
211	12.95	34.977	2.47	2.60	55.	0.01	25.5	163.3	250	12.73	34.960	2.27	26.435	160.3	0.454
275	12.58	34.947	2.13	2.67	60.	0.00	26.8	158.5	300	12.47	34.937	2.03	26.467	157.2	0.537
374	12.21	34.911	1.83	2.72	60.	0.01	27.0	154.3	400	12.10	34.899	1.80	26.510	153.1	0.701
471	11.85	34.875	1.75	2.75	60.	0.01	28.0	150.4	500	11.79	34.870	1.71	26.547	149.6	0.864
515	11.77	34.870	1.69	2.76	61.	0.00	28.3	149.3	600	11.67	34.860	1.62	26.562	148.2	1.026
752	11.57	34.848	1.56	2.81	62.	0.01	27.7	147.3	700	11.59	34.851	1.57	26.570	147.5	1.190
897	11.48	34.841	1.53	2.81	62.	0.00	28.5	146.3	800	11.54	34.846	1.55	26.576	146.9	1.355
973A	11.43	34.827	1.43	2.82	63.	0.00	29.2	146.4	1000	11.41	34.823	1.40	26.583	146.3	1.691
1099	11.33	34.814	1.27	2.84	65.	0.00	28.8	145.6	1200	11.25	34.800	1.12	26.593	145.3	2.034
1217A	11.24	34.798	1.10	2.87	68.	0.00	29.5	145.2	1500	11.22	34.791	1.32	26.592	145.4	2.563
1453A	11.22	34.790	1.01	2.91	70.	0.01	29.6	145.4							
1501A	11.22	34.791	1.33	2.92	72.	0.00	29.3	145.4							

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RV ALEXANDER AGASSIZ GULF CRUISE 7404 36

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 33.5 N	112 50.0 W	04/19/74	1951 GMT	805 M	310	14 KT	1	310 03 03

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	16.59	35.140	4.97					226.6	0	16.59	35.140	4.97	25.736	226.6	0.000
10	16.16	35.117	4.82					218.8	10	16.16	35.117	4.82	25.819	218.8	0.022
29	15.71	35.089	4.65					211.1	20	15.90	35.101	4.76	25.866	214.3	0.044
44	15.26	35.063	4.10					203.4	30	15.68	35.087	4.61	25.906	210.5	0.065
53	15.14	35.055	4.08					201.4	50	15.19	35.058	4.09	25.994	202.2	0.107
68	14.41	35.013	3.34					189.4	75	14.02	34.993	3.02	26.196	183.0	0.155
82	13.71	34.979	2.78					177.9	100	13.60	34.973	2.70	26.268	176.1	0.201
96	13.65	34.976	2.75					176.9	125	13.29	34.955	2.42	26.317	171.5	0.245
120	13.33	34.956	2.45					172.1	150	13.23	34.953	2.36	26.330	170.3	0.289
138	13.23	34.954	2.38					170.3	200	13.17	34.951	2.32	26.339	169.4	0.376
166	13.22	34.953	2.35					170.2	250	12.91	34.938	2.23	26.381	165.4	0.463
193	13.19	34.952	2.33					169.7	300	12.68	34.929	2.12	26.420	161.7	0.548
221	13.08	34.946	2.27					168.0	400	12.43	34.929	2.02	26.469	157.0	0.717
257	12.87	34.936	2.22					164.7	500	11.92	34.890	1.81	26.538	150.5	0.882
312	12.64	34.928	2.10					161.0							
363	12.54	34.936	2.11					158.5							
420	12.36	34.923	1.96					156.2							
478	12.08	34.898	1.83					152.9							

RV ALEXANDER AGASSIZ GULF CRUISE 7404 37

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 30.0 N	112 32.5 W	04/19/74	2220 GMT	750 M	310	16 KT	1	310 03 03

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	15.30	35.077	4.17	2.18	40.	0.36	17.9	203.2	0	15.30	35.077	4.17	25.983	203.2	0.000
10	14.95	35.058	4.03	2.24	41.	0.35	18.4	197.2	10	14.95	35.058	4.03	26.046	197.2	0.020
29	13.78	34.994	3.21	2.45	47.	0.34	22.4	178.1	20	14.32	35.023	3.61	26.154	186.9	0.039
44	13.44	34.971	2.97	2.49	48.	0.32	23.3	173.2	30	13.74	34.992	3.18	26.252	177.6	0.058
54	13.38	34.968	2.95	2.49	49.	0.33	23.2	172.2	50	13.40	34.968	2.95	26.307	172.5	0.093
69	13.30	34.963	2.85	2.50	48.	0.29	23.3	171.0	75	13.28	34.961	2.84	26.325	170.7	0.136
83	13.23	34.957	2.81	2.50	50.	0.28	24.8	170.1	100	13.01	34.942	2.63	26.365	166.9	0.179
98	13.04	34.945	2.65	2.58	50.	0.19	25.1	167.3	125	12.67	34.919	2.39	26.416	162.1	0.221
123	12.68	34.921	2.40	2.64	53.	0.12	26.4	162.3	150	12.52	34.912	2.33	26.439	159.9	0.262
142	12.58	34.916	2.35	2.63	53.	0.06	26.6	160.7	200	12.29	34.897	2.18	26.472	156.7	0.343
172	12.38	34.905	2.27	2.24U	47.U	0.05U	23.2U	157.8	250	11.88	34.869	1.96	26.531	151.2	0.423
201	12.29	34.898	2.18	2.59	54.	0.04	25.9	156.7	300	11.43	34.839	1.72	26.590	145.5	0.501
231	12.12	34.886	2.08	2.67	56.	0.06	26.9	154.5	400	10.47	34.762	1.18	26.704	134.7	0.649
269	11.62	34.854	1.83	2.47U	54.U	0.06U	25.9U	147.8	500	9.21	34.660	0.39	26.838	122.0	0.787
328	11.31	34.829	1.64	2.78	61.	0.04	28.9	144.2							
378	10.90	34.799	1.44	2.81	61.	0.06	29.0	139.3							
433	9.82	34.710	0.76					127.9							
489	9.28	34.663	0.40	2.91		0.03	30.7	122.9							

RV ALEXANDER AGASSIZ GULF CRUISE 7404 38

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 44.0 N	112 28.5 W	04/20/74	0043 GMT	502 M	310	16 KT	1	300 03 03

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	16.06	35.097	4.79	1.96	29.	0.34	14.6	218.1	0	16.06	35.097	4.79	25.826	218.1	0.000
10	15.85	35.088	4.64	1.89	30.	0.34	14.6	214.2	10	15.85	35.088	4.64	25.868	214.2	0.022
30	15.27	35.036	3.75	2.24	39.	0.44	19.8	205.6	20	15.64	35.064	4.23	25.898	211.3	0.043
44	14.27	35.013	3.28	1.44U	37.U	0.25U	26.3U	186.6	30	15.27	35.036	3.75	25.958	205.6	0.064
54	13.65	34.986	2.92	2.44	47.	0.32	23.5	176.2	50	13.87	34.996	3.05	26.230	179.8	0.103
70	13.44	34.971	2.82	2.64	49.	0.37	31.1U	173.2	75	13.41	34.968	2.79	26.304	172.7	0.147
84	13.36	34.965	2.75	2.41U	47.U	0.33U	23.4U	172.0	100	13.21	34.956	2.69	26.335	169.8	0.191
99	13.22	34.957	2.70	2.54U	50.	0.35	24.4	169.9	125	12.97	34.940	2.55	26.371	166.4	0.233
124	12.98	34.941	2.55	2.40U	57.	0.23	28.2	166.5	150	12.84	34.931	2.49	26.391	164.5	0.276
144	12.86	34.933	2.49	2.58U	53.U	0.26U	25.9U	164.8	200	11.96	34.873	2.07	26.517	152.5	0.357
174	12.62	34.915	2.41	1.58	56.	0.00	30.1	161.6	250	11.34	34.833	1.88	26.602	144.4	0.434
204	11.86	34.868	2.02					151.1	300	10.71	34.790	1.65	26.683	136.7	0.508
233	11.56	34.848	1.88	2.27U	52.U	0.08	30.6	147.2	400	10.38	34.756	1.31	26.716	133.6	0.651
273	11.04	34.813	1.89	2.63	59.	0.06	31.1	140.6							
331	10.45	34.772	1.35	2.91	65.	0.06	31.1	133.7							
384	10.45	34.769	1.32	2.94	66.	0.08	30.6	133.9							
439	10.22	34.756U	1.39U	2.96	66.	0.07	30.6								
493	10.29	34.759	1.28	2.94	66.	0.07	30.4	132.0							

RV ALEXANDER AGASSIZ GULF CRUISE 7404 39

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 50.5 N	112 10.0 W	04/20/74	1517 GMT	19 M			0	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	18.83	35.209	8.15					273.6							
9	17.04	35.161	8.23					235.2							
17	15.09	35.062	3.54					199.9							

RV ALEXANDER AGASSIZ GULF CRUISE 7404 12

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
27 24.5 N	111 22.0 W	04/21/74	0320 0528 GMT	2017 M	230	04 KT	0	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	20.38	35.304	5.79	1.01	0.	0.09	1.8	305.1	0	20.38	35.304	5.79	24.911	305.1	0.000
10	19.41	35.274	6.09	0.99	0.	0.09	1.8	283.0	10	19.41	35.274	6.09	25.143	283.0	0.029
29	16.44	35.146	3.92	1.98	21.	0.31	22.9	222.9	20	17.80	35.198	5.07	25.491	250.0	0.056
54	15.84	35.095	3.56	2.08	25.	0.10		213.4	30	16.42	35.143	3.91	25.780	222.5	0.080
69	15.58	35.080	3.34	2.16	27.	0.07		209.0	50	15.94	35.103	3.62	25.859	214.9	0.124
84	15.20	35.039	2.84	2.27	30.	0.05		203.9	75	15.43	35.064	3.15	25.945	206.8	0.177
98	14.94	35.006	2.42	2.40	34.	0.06	22.6	200.8	100	14.91	35.002	2.38	26.012	200.4	0.229
128	14.29	34.955	1.88	2.44	37.	0.04	24.1	191.2	125	14.37	34.960	1.93	26.096	192.5	0.279
152	13.37	34.893	1.15	2.68	42.	0.02	27.0	177.5	150	13.45	34.897	1.21	26.241	178.6	0.326
177	12.66	34.835	0.75	2.71	43.	0.04	27.7	168.2	200	12.21	34.777	0.38	26.395	164.1	0.414
211	12.03	34.752	0.23	2.75	39.U	0.03	27.8	162.7	250	11.44	34.717	0.18	26.493	154.7	0.496
275	11.12	34.710	0.15	2.81	43.	0.02	27.8	149.6	300	10.85	34.698	0.15	26.587	145.9	0.575
372	10.08	34.659	0.14	2.91	50.	0.02	29.3	135.9	400	9.67	34.637	0.14	26.744	131.0	0.721
470	8.72	34.593	0.13	3.02	61.	0.01	32.6	119.5	500	8.45	34.586	0.13	26.900	116.2	0.853
515	8.33	34.582	0.13	3.07	65.	0.01	38.8U	114.6	600	7.61	34.567	0.13	27.011	105.6	0.974
753	6.41	34.552	0.13	3.23	89.	0.01	32.6	90.8	700	6.81	34.556	0.13	27.116	95.7	1.085
898	5.38	34.545	0.14	3.31	104.	0.01	42.3	79.0	800	6.05	34.549	0.13	27.212	86.6	1.187
1003A	4.91	34.545	0.15	3.31	115.	0.02	42.3	73.8	1000	4.92	34.545	0.15	27.345	73.9	1.369
1102	4.34	34.561	0.30	3.34	130.	0.01	42.3	66.6	1200	3.99	34.572	0.34	27.468	62.3	1.528
1248A	3.86	34.575	0.35	3.37	142.	0.00	42.3	60.7	1500	3.15	34.607	0.59	27.579	51.8	1.732
1493A	3.16	34.606	0.58	3.30	167.	0.01	42.3	51.9	2000	2.89	34.618	0.79	27.612	48.7	2.042
1733A	2.94	34.619	0.72	3.23	168.	0.01	39.4U	49.0							
1967A	2.90	34.618	0.78	3.25	177.	0.03	42.0	48.7							
2009A	2.89	34.617	0.79	3.91U	175.	0.21	41.8	48.7							

RV ALEXANDER AGASSIZ GULF CRUISE 7404 12 A

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
27 29.0 N	111 22.5 W	04/21/74	2140 0048 GMT	2028 M				

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
18	18.94		6.09			0.15	2.2		20	18.80		5.98			
63	15.83		3.60			0.09	18.2		30	18.11		5.43			
109	15.22		2.96			0.12	20.3		50	16.73		4.32			
199	12.08		0.46			0.05	26.0		75	15.58		3.36			
290	10.96		0.45			0.11	24.6		100	15.26		3.03			
382	9.75		0.54			0.04	27.7		125	14.68		2.49			
474	8.64		0.26			0.03	25.5		150	13.82		1.77			
566	7.63		0.12			0.04	28.5		200	12.06		0.46			
659	7.01		0.17			0.04	29.6		250	11.33		0.45			
752	6.48		0.18			0.04	30.6		300	10.83		0.47			
846	5.79		0.15			0.03	30.3		400	9.52		0.49			
940	5.26		0.16			0.04	32.6		500	8.33		0.20			
1177	4.06		0.43			0.02	42.0U		600	7.37		0.13			
1416	3.29		1.73U			0.03	40.5		700	6.78		0.17			
1659	2.98		0.77			0.04	40.5		800	6.13		0.16			
1854	2.90		0.77			0.03	44.0U		1000	4.93		0.21			
1893	2.895		0.82			0.03	38.2U		1200	3.97		0.45			
1904	2.893		0.78			0.01	41.3		1500	3.14		0.70			
1929B	2.91		0.78			0.03	42.1		2000	2.90					
2015B	2.898					0.40	41.7								
2025B	2.905		0.91U			0.37	41.7								

RV ALEXANDER AGASSIZ GULF CRUISE 7404 13

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
27 45.0 N	112 6.0 W	04/22/74	1745 1927 GMT	1446 M	310	11 KT	1	300 01 03

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	20.08	35.311	5.79	1.10	0.	0.09	1.6	297.0	0	20.08	35.311	5.79	24.996	297.0	0.000
10	19.63	35.296	5.91	1.06	1.	0.11	1.9	286.9	10	19.63	35.296	5.91	25.103	286.9	0.029
34	18.99	35.277	5.77	1.22	1.	0.18	3.2	272.5	20	19.42	35.296	5.85	25.158	281.6	0.058
69	15.36	35.070	3.02	2.35	29.	0.05	20.2	205.0	30	19.13	35.284	5.79	25.224	275.3	0.086
84	14.45	34.966	1.85	2.59	35.	0.05	21.7	193.7	50	17.40	35.186	4.70	25.580	241.5	0.138
104	13.38	34.867	0.91	2.77	41.	0.02	24.5	179.6	75	14.97	35.028	2.53	26.019	199.8	0.193
128	12.77	34.810	0.50	2.70	41.	0.07	23.4	172.1	100	13.57	34.882	1.05	26.205	182.1	0.242
158	12.42	34.826	0.58	2.82	45.	0.02	27.1	164.4	125	12.82	34.813	0.52	26.304	172.7	0.287
178	12.04	34.782	0.42	2.84	44.	0.01	26.8	160.6	150	12.50	34.821	0.55	26.372	166.2	0.330
203	11.82	34.794	0.63	2.90	48.	0.01	27.3	155.8	200	11.84	34.791	0.60	26.476	156.4	0.413
247	11.15	34.737	0.32	2.95	48.	0.02	27.6	148.1	250	11.11	34.735	0.32	26.568	147.7	0.492
326	10.23	34.686	0.21	3.00	53.	0.01	27.2	136.4	300	10.51	34.700	0.25	26.648	140.1	0.567
434	8.95	34.616	0.15	3.06	62.	0.01	30.6	121.3	400	9.34	34.636	0.16	26.798	125.8	0.707
558	7.83	34.581	0.14	3.18	72.	0.01	33.8	107.5	500	8.30	34.596	0.14	26.932	113.1	0.835
596	7.60	34.568	0.13	3.18	74.	0.02	33.2	105.3	600	7.57	34.567	0.13	27.017	105.0	0.954
856	5.79	34.537	0.14	3.37	100.	0.00	36.9	84.4	700	6.88	34.545	0.13	27.098	97.4	1.065
1029	4.78	34.547	0.22	3.40	119.	0.00	38.3	72.2	800	6.18	34.536	0.14	27.184	89.2	1.170
1207A	3.98	34.568	0.35	3.34	138.	0.00	38.1	62.4	1000	4.94	34.544	0.20	27.343	74.1	1.355
1253	3.71	34.573	0.45	3.36	149.	0.02	37.0	59.4	1200	4.01	34.567	0.34	27.463	62.8	1.514
1392A	3.28	34.596	0.58	3.48	170.	0.20	41.6	53.7							
1438A	3.20	34.606	0.58	3.37	168.	0.04	43.4	52.3							

A) CAST I.
B) CAST II. THE LAST TWO BOTTLES WERE ON THE BOTTOM AND CONTAINED SUSPENDED MATERIAL.

RV ALEXANDER AGASSIZ GULF CRUISE 7404 40

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 7.0 N	112 22.5 W	04/22/74	2252 GMT	715 M	020	11 KT	1	310 01 03

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	16.39	35.073	4.62		25.	0.36	14.6	227.0
9	15.84	35.061	4.32	1.93	27.	0.39	15.8	215.9
28	15.48	35.042	4.03	2.04	29.	0.41	17.2	209.6
43	15.27	35.031	3.90	2.16	31.	0.42	18.6	205.9
52	15.19	35.026	3.96	2.17	31.	0.43	18.3	204.6
67	14.92	35.014	3.73	2.23	33.	0.43	19.3	199.8
81	14.56	34.991	3.44	2.33	36.	0.12	21.6	194.1
96	13.75	34.964	2.66					179.7
121	13.39	34.939	2.15	2.63	44.	0.27	24.9	174.5
140	13.28	34.933	2.08	2.43U	43.	0.10	24.0U	172.8
170	12.66	34.885	1.47	2.73	48.	0.08	26.6	164.5
199	11.96	34.820	0.89	2.82	49.	0.03	27.8	156.4
229	11.34	34.777	0.63	2.84	49.	0.03	28.2	148.5
268	11.00	34.789	0.64					141.7
327	10.26	34.713	0.42	2.90	59.	0.04	31.4	134.9
380	9.48	34.662	0.28	3.04	61.	0.00	32.0	126.1
437	8.77	34.626	0.20	3.10	66.	0.01	33.1	117.8
494	8.42	34.626	0.27	3.12	72.	0.10	34.0	112.7

Z	T	S	O2	SIGT	DT	DD
0	16.39	35.073	4.62	25.732	227.0	0.000
10	15.81	35.060	4.30	25.856	215.3	0.022
20	15.56	35.049	4.12	25.904	210.7	0.044
30	15.45	35.040	4.00	25.922	209.0	0.065
50	15.21	35.027	3.95	25.965	204.9	0.106
75	14.74	35.002	3.59	26.047	197.1	0.157
100	13.69	34.960	2.53	26.239	178.9	0.205
125	13.37	34.938	2.13	26.288	174.2	0.250
150	13.11	34.919	1.91	26.328	170.4	0.294
200	11.94	34.817	0.88	26.479	156.1	0.378
250	11.13	34.782	0.64	26.601	144.5	0.455
300	10.62	34.753	0.53	26.670	137.9	0.529
400	9.20	34.647	0.24	26.829	122.9	0.667
500	8.41	34.620	0.27	26.934	113.0	0.794

RV ALEXANDER AGASSIZ GULF CRUISE 7404 41

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 14.5 N	112 30.0 W	04/23/74	0034 GMT	602 M	310	04 KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	18.77	35.253	5.51	1.44	12.	0.32	9.0	268.9
9	16.57	35.138	4.87	1.76	20.	0.40	14.1	226.3
29	15.51	35.080	3.94	2.13	30.	0.43	18.3	207.5
45	14.84	35.045	3.21	2.31	35.	0.40	20.0	195.9
55	14.34	35.018	3.01	2.40	40.	0.37	22.9	187.6
70	13.67	34.982	2.56	2.50	45.	0.20	24.6	176.8
85	13.52	34.959	2.30	2.56	46.	0.14	24.5	175.6
100	13.44	34.952	2.17	2.58	45.		23.7	174.5
125	12.65	34.888	1.35	2.90U	48.	0.09	27.9	164.1
144	12.33	34.863	1.08	2.77	49.	0.09	28.4	160.0
173	12.06	34.833	0.88	2.88	49.	0.10	28.5	157.3
203	11.41	34.800	0.89	2.88	52.	0.10	28.5	148.1
231	11.02	34.761	0.72	2.87	53.	0.09	30.0	144.1
270	10.65	34.723	0.38	2.93	53.	0.08	30.0	140.6
327	9.98	34.684	0.26	3.02	57.	0.05	31.2	132.4
379	9.38	34.670	0.31	3.04	64.	0.06	32.9	123.9
436	8.21	34.614	0.25	3.01	75.		33.8	110.5
494	7.69	34.593	0.21	3.17	79.	0.04	36.0	104.7

Z	T	S	O2	SIGT	DT	DD
0	18.77	35.253	5.51	25.291	268.9	0.000
10	16.52	35.134	4.82	25.749	225.4	0.025
20	15.99	35.104	4.32	25.849	216.0	0.047
30	15.47	35.077	3.89	25.946	206.7	0.068
50	14.59	35.031	3.10	26.103	191.8	0.108
75	13.59	34.965	2.46	26.265	176.4	0.155
100	13.44	34.952	2.17	26.285	174.5	0.199
125	12.65	34.888	1.35	26.394	164.1	0.242
150	12.28	34.856	1.02	26.443	159.5	0.284
200	11.48	34.803	0.89	26.554	149.0	0.363
250	10.83	34.741	0.55	26.623	142.4	0.438
300	10.31	34.700	0.32	26.684	136.6	0.511
400	8.94	34.649	0.29	26.872	118.8	0.646
500	7.67	34.590	0.21	27.022	104.6	0.766

RV ALEXANDER AGASSIZ GULF CRUISE 7404 42

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
27 3.0 N	111 25.0 W	04/23/74	0838 1005 GMT	1962 M	340	12 KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	21.23	35.325	5.61					325.5
10	20.89	35.312	5.69					317.6
34	17.87	35.215	4.66					250.4
68	16.34	35.150	3.55					220.3
83	15.58	35.059	2.83					210.5
102	15.02	35.020	2.65					201.5
127	13.55	34.878	1.30					182.1
156	13.03	34.863	1.27					173.2
175	12.19	34.765	0.30					164.6
199	11.84	34.747	0.16					159.6
243	11.67	34.803	0.56					152.4
320	10.44	34.668	0.13					141.2
426	8.97	34.614	0.16					121.7
546	7.62	34.559	0.12					106.2
585	7.35	34.567	0.13					102.0
840	5.47	34.577	0.18					77.7
1239A	3.83	34.577	0.42					60.3
1476A	3.22	34.601	0.66					52.8
1719A	2.92	34.615	0.65					49.1
1915A	2.919	34.617	0.63					49.0
1962A	2.909	34.622	0.66					48.5

Z	T	S	O2	SIGT	DT	DD
0	21.23	35.325	5.61	24.697	325.5	0.000
10	20.89	35.312	5.69	24.780	317.6	0.032
20	19.72	35.265	5.35	25.055	291.4	0.063
30	18.43	35.227	4.88	25.358	262.6	0.090
50	16.97	35.198	4.16	25.692	230.8	0.140
75	15.97	35.106	3.19	25.854	215.5	0.196
100	15.08	35.024	2.67	25.991	202.4	0.249
125	13.67	34.887	1.41	26.189	183.6	0.298
150	13.12	34.867	1.28	26.284	174.6	0.344
200	11.83	34.748	0.17	26.444	159.4	0.430
250	11.58	34.794	0.54	26.528	151.4	0.510
300	10.81	34.712	0.29	26.605	144.1	0.587
400	9.31	34.621	0.15	26.791	126.5	0.730
500	8.07	34.574	0.13	26.948	111.6	0.858
600	7.23	34.569	0.13	27.067	100.3	0.973
700	6.47	34.575	0.15	27.176	90.0	1.078
800	5.75	34.578	0.17	27.272	80.9	1.174
1000	4.67	34.578	0.25	27.399	68.8	1.345
1200	3.94	34.578	0.39	27.479	61.3	1.496
1500	3.18	34.604	0.66	27.574	52.3	1.699

A) CAST I.

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
26 34.0 N	110 57.0 W	04/24/74	2245 0017 GMT	1568 M	030	03 KT	6	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	21.61	35.268	5.66	1.10	3.	0.11	3.1	339.6	0	21.61	35.268	5.66	24.549	339.6	0.000
10	20.36	35.254	5.83	1.04	3.	0.13	3.0	308.2	10	20.36	35.254	5.83	24.879	308.2	0.032
29	18.50	35.218	5.83	1.25	6.	0.26	4.7	265.0	20	19.35	35.242	5.83	25.134	283.9	0.062
58	15.28	35.005	2.63	2.29	27.	0.06	20.7	208.0	30	18.38	35.210	5.74	25.358	262.6	0.089
73	14.42	34.944	1.72	2.52	35.	0.07	21.9	194.7	50	16.09	35.063	3.61	25.794	221.2	0.138
88	13.91	34.920	1.46	2.64	38.	0.04	24.0	186.1	75	14.34	34.938	1.69	26.087	193.3	0.190
107	13.58	34.954	2.21	2.61	45.	0.05	23.8	177.1	100	13.69	34.941	1.93	26.225	180.2	0.238
131	13.02	34.904	1.47	2.69	47.	0.03	25.7	170.0	125	13.17	34.921	1.74	26.317	171.5	0.282
160	12.32	34.816	0.55	2.83	46.	0.02	26.8	163.3	150	12.54	34.844	0.82	26.381	165.4	0.325
185	11.97	34.790	0.46	2.85	46.	0.01	27.6	158.8	200	11.80	34.793	0.42	26.485	155.5	0.408
224	11.53	34.799	0.91U	2.77U	51.U	0.02U	26.1U	150.3	250	11.13	34.761	0.31	26.587	145.9	0.486
287	10.52	34.697	0.26	2.89	51.	0.02	27.9	140.4	300	10.34	34.684	0.26	26.667	138.3	0.560
398	9.11	34.624	0.24	3.05	60.	0.01	30.1	123.2	400	9.09	34.624	0.24	26.830	122.8	0.698
495	8.03	34.595	0.18	3.15	73.	0.01	34.6	109.3	500	7.98	34.594	0.18	26.978	108.8	0.822
548	7.54	34.574	0.14	3.18	78.	0.01	34.6	104.0	600	7.09	34.559	0.14	27.080	99.1	0.935
793	5.64	34.538	0.16	3.35	101.	0.04	40.6	82.6	700	6.29	34.541	0.15	27.174	90.1	1.040
951	4.73	34.554	0.26	3.39	124.	0.01	42.1	71.2	800	5.59	34.538	0.16	27.261	82.0	1.136
1069A	4.36	34.557	0.29	3.33	126.	0.01	40.4U	67.1	1000	4.57	34.555	0.27	27.393	69.4	1.308
1160	4.02	34.576	0.46	3.38	137.	0.01	42.1	62.2	1200	3.89	34.580	0.49	27.485	60.7	1.459
1317A	3.53	34.584	0.55	3.37	151.	0.00	41.9	56.9	1500	3.02	34.619	0.66	27.601	49.8	1.656
1512A	2.991	34.620	0.67	3.21	155.	0.02	38.9U	49.4							
1565A	2.863	34.616	0.93	3.21	166.	0.00	40.9	48.6							

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
25 24.5 N	109 54.0 W	04/28/74	0724 0942 GMT	3259 M	290	07 KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	22.55	35.326	5.76	0.81	1.	0.01	0.1	360.5	0	22.55	35.326	5.76	24.329	360.5	0.000
9	22.53	35.320	5.77	0.80	1.	0.02	0.4	360.4	10	22.41	35.317	5.78	24.362	357.4	0.036
29	19.21	35.246	5.93	1.26	8.	0.19	5.6	280.2	20	20.96	35.281	5.86	24.738	321.6	0.070
58	15.18	34.982	2.50	2.26	28.	0.07	21.7	207.6	30	19.05	35.240	5.84	25.209	276.8	0.100
73	13.56	34.751	1.17	2.49	31.	0.06	24.2	191.6	50	16.19	35.077	3.61	25.782	222.3	0.150
88	13.14	34.696	0.84	2.59	32.	0.05	25.8	187.5	75	13.50	34.747	1.09	26.113	190.8	0.202
107	13.37	34.892	1.49U	2.61	40.U	0.03	24.4U	177.6	100	13.28	34.816	0.71	26.213	181.3	0.249
132	12.53	34.785	0.51	2.69	38.	0.02	26.1	169.4	125	12.81	34.831	0.53	26.318	171.4	0.294
161	11.95	34.747	0.25	2.80	38.	0.01	25.6	161.6	150	12.13	34.754	0.34	26.393	164.3	0.337
185	11.68	34.736	0.15	2.79	37.	0.02	26.2	157.5	200	11.68	34.764	0.16	26.486	155.5	0.419
225	11.68	34.810	0.86U	2.81	50.	0.04	26.9	152.1	250	11.38	34.794	0.19	26.564	148.0	0.498
288	10.78	34.740	0.53U	2.95	53.	0.02	28.4	141.6	300	10.63	34.730	0.21	26.652	139.7	0.573
400	9.44	34.662	0.27	3.07	61.	0.01	30.7	125.5	400	9.44	34.662	0.27	26.802	125.5	0.713
497	8.27	34.596	0.12	3.17	68.	0.01	33.7	112.7	500	8.24	34.596	0.12	26.940	112.4	0.841
551	7.84	34.584	0.13	3.21	74.	0.00	34.1	107.5	600	7.39	34.568	0.13	27.044	102.5	0.957
797	5.78	34.528	0.14	3.35	92.	0.00	40.6	84.9	700	6.54	34.543	0.14	27.143	93.1	1.065
955	5.01	34.540	0.20	2.94U	107.	0.01	41.5	75.3	800	5.76	34.528	0.14	27.231	84.7	1.165
1108A	4.42	34.556	0.32	3.33	121.	0.04	43.6U	67.8	1000	4.84	34.545	0.23	27.354	73.1	1.344
1164	4.13	34.563	0.38	3.39	128.	0.00	41.5	64.3	1200	3.99	34.566	0.42	27.464	62.7	1.502
1304A	3.67	34.575	0.54	3.41	141.	0.01	43.6U	58.9	1500	3.09	34.600	0.87	27.579	51.8	1.706
1549A	2.96	34.605	0.96	3.20	158.	0.04	41.9	50.2	2000	2.33	34.631	1.64	27.671	43.1	1.995
1792A	2.52	34.622	1.40	3.07	160.	0.02	41.9	45.3	2250	2.29	34.641	1.71	27.682	42.1	2.129
2036A	2.31	34.632	1.67	3.01	163.	0.01	41.9	42.8	2500	2.29	34.641	1.75	27.682	42.1	2.264
2278A	2.29	34.640	1.71	2.90	164.	0.04	41.5	42.1	2750	2.30	34.639	1.74	27.679	42.3	2.402
2522A	2.29	34.640	1.75	2.93	162.	0.00	41.6	42.1	3000	2.32	34.640	1.76	27.679	42.3	2.544
2765A	2.30	34.638	1.74	2.94	161.	0.00	42.9	42.3	3250	2.34	34.639	1.74	27.677	42.5	2.689
3007A	2.32	34.640	1.76	2.99	164.	0.01	42.6	42.3							
3200A	2.334	34.642	1.53U	2.95U	150.U	0.06U	39.6U	42.3							
3249A	2.340	34.639	1.74	3.03	166.	0.01	41.9	42.5							

A) CAST I.

RV ALEXANDER AGASSIZ — GULF CRUISE 7404 — 15

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
25 51.5 N	110 11.5 W	04/29/74	0750 0946 GMT	2028 M	050	03 KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	22.62	35.352	5.53	1.01	6.	0.09	1.9	360.6	0	22.62	35.352	5.53	24.329	360.6	0.000
10	22.16	35.335	5.64	0.94	5.	0.09	1.2	349.4	10	22.16	35.335	5.64	24.447	349.4	0.036
29	19.87	35.170	5.04	1.66	17.	0.62	10.7	302.0	20	21.11	35.255	5.43	24.677	327.4	0.069
59	14.92	35.044	2.71	2.35	34.	0.06	20.7	197.6	30	19.68	35.160	4.97	24.988	297.8	0.101
73	14.39	35.004	1.93	2.55	41.	0.06	22.2	189.7	50	16.22	35.055	3.45	25.758	224.6	0.153
88	13.99	34.968	2.02	2.63	42.	0.03	21.7	184.2	75	14.33	34.998	1.94	26.134	188.8	0.205
107	13.54	34.944	1.76	2.63	44.	0.03	25.3	177.1	100	13.70	34.951	1.87	26.231	179.6	0.252
132	13.13	34.924	1.68	2.68	46.	0.03	26.7	170.6	125	13.23	34.929	1.69	26.309	172.2	0.297
161	12.69	34.906	1.60	2.75	50.	0.03	26.8	163.6	150	12.84	34.912	1.63	26.375	165.9	0.340
186	12.47	34.886	1.46	2.74	49.	0.02	27.2	160.9	200	12.36	34.880	1.48	26.445	159.3	0.424
225	12.18	34.874	1.52	2.69	51.	0.06	27.0	156.4	250	11.98	34.856	1.39	26.501	154.0	0.505
290	11.60	34.819	1.09	2.86	52.	0.01	28.3	150.0	300	11.49	34.808	1.02	26.555	148.9	0.584
403	10.15	34.690	0.36	2.98	55.	0.02	29.5	134.8	400	10.19	34.694	0.38	26.699	135.2	0.734
502	8.59	34.603	0.11	3.10	65.	0.01	32.5	116.9	500	8.62	34.605	0.11	26.889	117.2	0.869
556	7.92	34.566	0.10	3.18	70.	0.01	34.3	109.9	600	7.46	34.550	0.11	27.021	104.7	0.990
805	5.84	34.535	0.17	3.33	95.	0.00	40.8	85.1	700	6.56	34.532	0.13	27.132	94.2	1.100
967	4.99	34.539	0.19	3.37	109.	0.00	43.4	75.1	800	5.87	34.535	0.17	27.223	85.5	1.200
1042A	4.57	34.553	0.25	3.28U		0.02U	42.2U	69.6	1000	4.81	34.545	0.21	27.359	72.7	1.380
1169	3.90	34.570	0.40	3.37	134.	0.01	43.4	61.5	1200	3.82	34.574	0.44	27.487	60.5	1.534
1284A	3.64	34.578	0.54	3.33	140.	0.00	43.2	58.4	1500	3.03	34.602	0.82	27.586	51.2	1.733
1527A	2.96	34.604	0.86	3.20		0.03	42.4	50.3	2000	2.47	34.627	1.45	27.656	44.5	2.025
1770A	2.63	34.619	1.27	3.14	156.	0.02	42.2	46.4							
1963A	2.494	34.628	1.40	3.07	156.	0.01	42.2	44.6							
2012A	2.460	34.626	1.47	3.04	158.	0.04	41.9	44.5							

RV ALEXANDER AGASSIZ — GULF CRUISE 7404 — 44

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 23.5 N	112 32.5 W	05/02/74	0152 GMT	670 M	150	10 KT	0	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	16.14	35.056	3.98	2.13	36.	0.32	15.7	222.8	0	16.14	35.056	3.98	25.776	222.8	0.000
10	15.32	35.053	3.87	2.14	38.	0.30	16.7	205.4	10	15.32	35.053	3.87	25.960	205.4	0.021
30	14.29	35.017	3.30	2.33	42.	0.29	18.9	186.7	20	14.71	35.037	3.60	26.081	193.9	0.041
44	13.95	34.999	3.04	2.38	45.	0.25	19.3	181.2	30	14.29	35.017	3.30	26.157	186.7	0.061
54	13.76	34.990	2.92	2.48	47.	0.24	19.0	178.0	50	13.83	34.993	2.97	26.235	179.3	0.097
69	13.45	34.973	2.73	2.50	49.	0.20	20.2	173.2	75	13.35	34.968	2.66	26.316	171.5	0.142
84	13.22	34.962	2.59	2.52	50.	0.18	23.6	169.5	100	13.09	34.955	2.56	26.358	167.5	0.185
98	13.11	34.956	2.58	2.54	51.	0.16	24.2	167.9	125	12.84	34.942	2.36	26.400	163.6	0.227
123	12.85	34.943	2.37	2.64	53.	0.11	25.8	163.8	150	12.67	34.932	2.30	26.425	161.2	0.268
142	12.72	34.937	2.33	2.64	53.	0.10	25.5	161.8	200	12.17	34.895	2.02	26.495	154.5	0.349
171	12.50	34.917	2.21	2.68	56.	0.10	25.3	159.2	250	11.28	34.811	1.31	26.596	145.0	0.427
201	12.15	34.895	2.01	2.73	57.	0.07	26.1	154.3	300	10.73	34.768	1.03	26.663	138.6	0.501
230	11.48	34.828	1.45	2.84	57.	0.03	27.5	147.2	400	9.94	34.702	0.67	26.749	130.5	0.644
269	11.16	34.802	1.25	2.88	59.	0.03	28.4	143.5	500	9.31	34.660	0.33	26.822	123.6	0.780
327	10.37	34.741	0.87	2.96	62.	0.03	29.8	134.6							
380	10.12	34.720	0.80	2.98	62.	0.01	29.4	132.0							
437	9.61	34.670	0.43	3.05	63.	0.01	30.4	127.5							
495	9.33	34.659	0.35	3.06	65.	0.02	29.8	123.9							

RV ALEXANDER AGASSIZ — GULF CRUISE 7404 — 43

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 21.0 N	112 30.0 W	05/02/74	0355 GMT	867 M	150	10 KT	0	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	15.09	35.036	3.92	2.47U	38.	0.35	19.0	201.8	0	15.09	35.036	3.92	25.998	201.8	0.000
4	14.58	35.020	3.54	2.26	40.	0.34	20.5	192.4	10	14.54	35.018	3.47	26.105	191.6	0.020
14	14.51	35.017	3.42	2.31	42.	0.36	20.7	191.2	20	14.47	35.015	3.39	26.117	190.5	0.039
39	14.27	35.005	3.29	2.36	41.	0.32	21.2	187.1	30	14.38	35.010	3.34	26.133	188.9	0.058
53	14.01	34.992	3.09	2.44	44.	0.31	21.9	182.9	50	14.07	34.995	3.14	26.186	183.9	0.095
69	13.61	34.975	2.88	2.48	46.	0.27	22.7	176.2	75	13.54	34.971	2.85	26.280	175.0	0.141
83	13.46	34.967	2.81	2.51	48.	0.22	24.2	173.8	100	13.23	34.957	2.67	26.331	170.1	0.184
107	13.15	34.954	2.61	2.61	50.	0.17	24.7	168.8	125	13.07	34.945	2.53	26.355	167.9	0.227
132	13.06	34.947	2.51	2.59	50.	0.16	24.5	167.6	150	13.04	34.944	2.52	26.361	167.3	0.270
156	13.03	34.944	2.52	2.60	50.	0.17	24.1	167.2	200	12.84	34.930	2.40	26.389	164.6	0.356
190	12.93	34.936	2.46	2.54	51.	0.15	25.0	165.9	250	12.15	34.877	1.97	26.484	155.6	0.439
254	12.08	34.873	1.92	2.76	54.	0.03	26.8	154.7	300	11.14	34.789	1.27	26.606	144.0	0.517
347	10.14	34.709	0.64	2.99	61.	0.01	31.0	133.2	400	9.32	34.653	0.41	26.815	124.2	0.659
444	8.75	34.620	0.21	3.15	67.	0.00	32.5	118.0	500	8.10	34.593	0.27	26.959	110.6	0.785
483	8.29	34.599	0.28	3.16	71.	0.00	33.7	112.7	600	7.21	34.564	0.21	27.067	100.3	0.899
667	6.82	34.556	0.17	3.31	86.	0.00	37.2	95.7	700	6.74	34.551	0.16	27.121	95.2	1.007
813	6.62	34.556	0.13	3.34	90.	0.00	37.8	93.2	800	6.62	34.553	0.13	27.140	93.4	1.113
861	6.52	34.546	0.15	3.38	92.	0.02	35.7	92.7							

A) CAST I.

RV ALEXANDER AGASSIZ — GULF CRUISE 7404 — 25 A

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 12.0 N	112 26.0 W	05/02/74	0725 GMT	528 M	280	15 KT	0	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	20.11	35.316	5.50	1.16	5.	0.11	3.6	297.4	0	20.11	35.316	5.50	24.992	297.4	0.000
10	20.14	35.310	5.51	1.17	4.	0.12	3.7	298.6	10	20.14	35.310	5.51	24.980	298.6	0.030
30	17.18	35.148	4.58	1.82	19.	0.43	14.5	239.3	20	18.90	35.233	5.20	25.243	273.6	0.058
46	14.92	35.042	2.92	2.39	33.	0.16	22.8	197.8	30	17.18	35.148	4.58	25.603	239.3	0.084
56	14.28	34.991	2.29	2.54	37.	0.06	24.4	188.4	50	14.62	35.021	2.64	26.089	193.1	0.128
71	13.58	34.937	1.73	2.70	43.	0.04	26.1	178.4	75	13.47	34.932	1.76	26.265	176.4	0.174
86	13.26	34.930	1.84	2.68	47.	0.03	26.6	172.7	100	13.17	34.929	1.94	26.323	170.9	0.218
101	13.16	34.929	1.94	2.66	47.	0.04	26.6	170.8	125	12.59	34.877	1.39	26.398	163.8	0.261
130	12.46	34.866	1.25	2.81	49.	0.07	28.3	162.2	150	12.28	34.855	1.25	26.441	159.7	0.302
179	12.11	34.850	1.25	2.77	51.	0.07	28.3	156.9	200	11.80	34.830	1.14	26.514	152.8	0.383
228	11.31	34.796	0.91	2.90	54.	0.04	29.2	146.6	250	10.88	34.756	0.66	26.628	142.0	0.459
276	10.38	34.713	0.39	2.94	54.	0.01	29.2	136.9	300	10.00	34.689	0.33	26.728	132.4	0.531
329	9.64	34.671	0.26	3.05	60.	0.00	32.0	127.9	400	8.80	34.633	0.20	26.882	117.8	0.663
378	9.27	34.653	0.28	3.11	63.	0.00	32.5	123.5	500	7.32	34.576	0.14	27.060	101.0	0.780
402	8.76	34.631	0.19	3.11	69.	0.00	33.5	117.3							
427	8.49	34.619	0.21	3.17	71.	0.00	34.1	114.2							
452	8.09	34.605	0.18	3.18	74.	0.00	34.7	109.4							
502	7.29	34.574	0.14	3.23	80.	0.00	35.4	100.6							

RV ALEXANDER AGASSIZ — GULF CRUISE 7404 — 23 A

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
27 54.5 N	112 13.0 W	05/02/74	0956 GMT	1171 M	180	10 KT	0	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	21.75	35.374	5.97	0.76	0.	0.02		335.6	0	21.75	35.374	5.97	24.591	335.6	0.000
10	21.18	35.370	5.77	0.89	2.	0.00	0.0	320.9	10	21.18	35.370	5.77	24.745	320.9	0.033
30	16.74	35.167	4.25	1.89	20.	0.52	14.5	228.0	20	19.01	35.253	5.04	25.230	274.8	0.063
45	15.76	35.109	3.78	2.08	27.	0.53	16.8	210.7	30	16.74	35.167	4.25	25.722	228.0	0.088
55	15.25	35.071	3.69	2.19	33.	0.60	17.0	202.6	50	15.49	35.089	3.73	25.950	206.3	0.132
71	14.79	35.040	3.44	2.27	37.	0.52	18.7	195.2	75	14.67	35.033	3.38	26.087	193.3	0.182
86	14.38	35.018	3.22	2.35	41.	0.55	20.5	188.4	100	14.16	35.011	3.00	26.180	184.5	0.230
101	14.15	35.011	2.98	2.41	41.	0.35	21.9	184.3	125	13.77	34.990	2.78	26.246	178.2	0.276
130	13.69	34.985	2.75	2.47	46.	0.29	22.7	177.0	150	13.34	34.961	2.49	26.312	172.0	0.321
180	12.84	34.924	2.06	2.64	51.	0.04	25.5	165.1	200	12.58	34.903	1.82	26.420	161.7	0.406
229	12.21	34.871	1.47	2.76	53.	0.03	27.0	157.2	250	11.88	34.840	1.19	26.507	153.4	0.488
277	11.40	34.798	0.86	2.90	53.	0.02	28.4	148.0	300	10.89	34.760	0.68	26.628	142.0	0.565
330	10.25	34.716	0.49	2.98	59.	0.00	29.9	134.5	400	9.29	34.643	0.18	26.812	124.5	0.706
379	9.56	34.656	0.21	3.04	60.	0.00	31.0	127.8	500	8.02	34.590	0.16	26.970	109.5	0.832
402	9.27	34.642	0.18	3.08	62.	0.00	32.4	124.3							
425	9.25	34.642	0.19	3.06	61.	0.00	31.0	124.0							
450	8.91	34.624	0.17	3.11	64.	0.00	32.7	120.1							
498	8.07	34.595	0.16	3.16	73.	0.00	33.0	109.9							

RV ALEXANDER AGASSIZ — GULF CRUISE 7404 — 16

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
26 20.0 N	110 44.0 W	05/03/74	0712 0932 GMT	2605 M	170	10 KT	0	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	22.40	35.320	6.02	0.94	4.	0.05	1.3	356.9	0	22.40	35.320	6.02	24.367	356.9	0.000
9	21.37	35.268	6.39	0.95	5.	0.08	1.7	333.3	10	21.26	35.265	6.36	24.644	330.5	0.034
34	18.46	35.207	5.60	1.49	11.	0.51	7.9	264.9	20	20.12	35.241	6.04	24.933	303.1	0.066
68	13.81	34.971	3.14	2.50	44.	0.04	23.8	180.4	30	18.94	35.216	5.73	25.220	275.8	0.095
83	13.12	34.926	2.36	2.66	47.	0.04	23.6	170.3	50	16.05	35.080	4.48	25.815	219.2	0.145
103	12.55	34.856	1.18	2.78	47.	0.03	24.5	164.6	75	13.42	34.950	2.77	26.287	174.3	0.195
127	12.09	34.828	0.98	2.81	48.	0.02	26.6	158.2	100	12.62	34.865	1.33	26.384	165.1	0.238
157	11.71	34.805	0.90	2.85	50.	0.02	28.3	153.0	125	12.12	34.829	1.00	26.452	158.7	0.279
177	11.59	34.791	0.71	2.87	52.	0.02	29.1	151.9	150	11.78	34.809	0.92	26.502	153.9	0.319
201	11.07	34.743	0.42	2.93	51.	0.02	29.1	146.3	200	11.09	34.746	0.43	26.579	146.6	0.396
245	10.40	34.689	0.26	2.95	52.	0.03	29.4	139.0	250	10.34	34.685	0.25	26.667	138.2	0.470
324	9.52	34.642	0.16	3.06	58.	0.01	30.8	128.2	300	9.76	34.653	0.17	26.741	131.3	0.540
431	8.39	34.586	0.13	3.14	66.	0.00	33.9	115.2	400	8.71	34.601	0.14	26.872	118.8	0.672
555	7.29	34.556	0.11	3.23	80.	0.01	36.4	102.0	500	7.76	34.568	0.12	26.991	107.5	0.793
593	6.98	34.545	0.11	3.20	81.	0.02	36.4	98.7	600	6.92	34.544	0.11	27.091	98.0	0.905
850	5.29	34.533	0.19	3.35	104.	0.01	44.3	78.9	700	6.19	34.531	0.13	27.179	89.7	1.008
1025	4.57	34.546	0.25	3.40	121.	0.01	43.0	70.1	800	5.56	34.530	0.17	27.258	82.2	1.104
1160A	4.06	34.565	0.41	3.42	133.	0.00	43.3	63.4	1000	4.66	34.544	0.24	27.374	71.2	1.279
1251	3.76	34.575	0.45	3.40	143.	0.01	41.5	59.8	1200	3.93	34.571	0.42	27.473	61.8	1.433
1404A	3.20	34.595	0.78	3.31	158.	0.03	42.9	53.1	1500	2.94	34.606	0.98	27.598	50.0	1.632
1648A	2.67	34.616	1.23	3.18	161.	0.01	42.9	46.9	2000	2.52	34.625	1.40	27.650	45.1	1.923
1893A	2.55	34.621	1.37	3.12	162.	0.02	42.9	45.6	2250	2.52	34.628	1.44	27.653	44.8	2.066
2136A	2.51	34.628	1.42	3.08	166.	0.01	42.9	44.7	2500	2.54	34.630	1.38	27.652	44.9	2.211
2377A	2.53	34.627	1.46	3.13	163.	0.01	40.8	45.0							
2570A	2.544	34.630	1.33	3.09	153.U	0.03	40.8	44.9							
2618A	2.545	34.629	1.44	3.09	164.	0.03	42.6	44.9							

A) CAST I.

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
24 42.0 N	109 12.0 W	05/03/74	2210 0005 GMT	2936 M	300	07 KT	1	280 03 05

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	24.58	35.195	5.28	0.56	0.	0.00	0.0	426.7
10	23.62	35.259	5.48	0.63	3.	0.00	0.0	394.8
29	18.91	35.123	5.06	1.26	5.	0.43	5.3	281.8
54	15.94	34.961	2.91U	1.99	22.	0.08	18.7	225.4
69	15.92	35.068	3.25	2.09	25.	0.09	18.7	217.2
84	15.12	35.017	2.61	2.26	30.	0.03	20.8	203.8
99	14.68	34.966	2.10	2.37	33.	0.07	21.5	198.4
128	13.25	34.797	0.65	2.57	36.	0.01	23.6	182.2
153	12.44	34.734	0.17	2.61	33.	0.01	25.4	171.5
178	11.99	34.728	0.13	2.66	34.	0.01	26.2	163.7
212	11.46	34.713	0.15	2.66	36.	0.01	25.2	155.3
277	10.79	34.683	0.08	2.71	38.	0.39U	25.4	145.9
376	9.36	34.593	0.09	2.88	51.	0.02	28.2	129.3
474	8.18	34.532	0.11	2.99	58.	0.04	33.5	116.1
519	7.67	34.521	0.10	3.04	65.	0.01	34.3	109.8
739A	6.10	34.530V	0.10	3.10	86.	0.02	37.8	
757	5.98	34.512	0.11	3.22	87.	0.04	36.9	88.5
902	5.27	34.517	0.16	3.26	98.	0.02	39.0	79.9
985A	4.88	34.534	0.24	3.20	106.	0.00	43.1	74.3
1008	4.74	34.537	0.22	3.27	111.	0.02	44.5	72.6
1230A	3.86	34.570	0.53	3.26	132.	0.01	43.1	61.1
1476A	2.91	34.608	1.12	3.04	147.	0.01	47.5U	49.6
1721A	2.51	34.632	1.52	2.95	156.	0.02	40.2	44.4
1965A	2.16	34.647	1.93	2.81	157.	0.01	40.2	40.5
2209A	1.94	34.660	2.19	2.76	164.	0.02	41.7	37.9
2454A	1.86	34.664	2.32	2.71	166.	0.01	41.7	37.0
2697A	1.87	34.665	2.37	2.69	165.	0.01	41.5	37.0
2892A	1.874	34.665	2.47	2.71	159.	0.00	41.5	37.0
2941A	1.876	34.665	2.37	2.73	162.	0.01	41.3	37.1

Z	T	S	O2	SIGT	DT	DD
0	24.58	35.195	5.28	23.636	426.7	0.000
10	23.62	35.259	5.48	23.969	394.8	0.041
20	21.24	35.187	5.34	24.589	335.8	0.078
30	18.72	35.112	5.02	25.196	278.0	0.108
50	16.17	34.978	4.18	25.710	229.1	0.159
75	15.63	35.056	2.98	25.894	211.6	0.215
100	14.63	34.960	2.05	26.039	197.8	0.267
125	13.40	34.813	0.79	26.186	184.0	0.315
150	12.52	34.739	0.20	26.305	172.6	0.361
200	11.63	34.719	0.14	26.459	158.0	0.446
250	11.05	34.698	0.11	26.550	149.4	0.525
300	10.47	34.663	0.08	26.627	142.1	0.601
400	9.06	34.575	0.10	26.796	126.0	0.743
500	7.88	34.525	0.10	26.939	112.4	0.870
600	6.99	34.517	0.10	27.061	100.9	0.986
700	6.32	34.517	0.10	27.152	92.3	1.092
800	5.74	34.510	0.12	27.219	85.9	1.191
1000	4.79	34.536	0.23	27.354	73.2	1.371
1200	3.95	34.566	0.46	27.468	62.4	1.529
1500	2.86	34.612	1.16	27.610	48.9	1.727
2000	2.12	34.650	1.98	27.703	40.1	1.997
2250	1.92	34.662	2.22	27.729	37.6	2.118
2500	1.86	34.665	2.33	27.735	37.0	2.236
2750	1.87	34.665	2.40	27.735	37.0	2.355

A) CAST I.

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
23 22.0 N	108 53.0 W	05/04/74	0800 1018 GMT	2715 M	140	07 KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT
0	24.86	34.975	5.05	0.77	1.	0.00	0.4	450.5
10	24.55	35.078	5.16	0.97	1.	0.00	0.4	434.2
34	20.14	34.643	5.42	0.99	1.	0.00	0.5	346.9
67	15.92	34.628	1.92	2.13	18.	0.22	19.3	249.2
82	14.99	34.641	0.99	2.34	23.	0.12	23.0	228.5
101	13.31	34.513	1.04	2.46	27.	0.01	23.1	204.2
125	12.98	34.675	0.32	2.56	28.	0.11	23.2	186.0
153	12.58	34.753	0.12U	2.65	30.	0.02	23.0	172.7
172	12.00	34.685	0.31	2.64	32.	0.03	24.1	167.0
196	11.66	34.660	0.31	2.67	34.	0.02	27.0U	162.8
239	11.34	34.669	0.21	2.71	35.	0.03	25.7	156.5
315	10.06	34.707	0.17	2.81	42.	0.03	26.6	132.0
419	8.89	34.590	0.08	2.98	53.	0.07	28.6	122.3
538	7.32	34.584U	0.08	3.12	70.	0.02	33.9	
577	7.05	34.518	0.12	3.06	73.	0.02	34.3	101.6
828	5.30	34.514	0.18	3.31	99.	0.02	40.0U	80.4
1001	4.41	34.533	0.29	3.36	114.	0.01	37.7	69.4
1224	3.67	34.567	0.61	3.27	129.	0.06	39.2	59.5
1241A	3.69	34.569	0.62	3.27	130.	0.05	43.8	59.6
1484A	2.95	34.604	1.17	3.12	144.	0.03	42.5	50.2
1728A	2.53	34.627	1.54	2.98	152.	0.02	41.2	45.0
1971A	2.17	34.640	1.96	2.89	158.	0.02	43.3	41.1
2215A	1.93	34.656	2.23	2.81	163.	0.04	43.0	38.1
2459A	1.82	34.668	2.46	2.74	165.	0.00	42.4	36.4
2654A	1.673	34.672	2.63	2.65	170.	0.01	41.8	35.0
2703A	1.684	34.677	2.63	2.62	170.	0.03	40.6	34.7

Z	T	S	O2	SIGT	DT	DD
0	24.86	34.975	5.05	23.386	450.5	0.000
10	24.55	35.078	5.16	23.557	434.2	0.044
20	22.96	34.917	5.27	23.904	401.1	0.086
30	21.02	34.725	5.38	24.300	363.3	0.124
50	17.77	34.592	3.88	25.034	293.4	0.190
75	15.41	34.643	1.35	25.625	237.2	0.257
100	13.39	34.518	1.04	25.960	205.3	0.313
125	12.98	34.675	0.32	26.164	186.0	0.363
150	12.64	34.752	0.31	26.292	173.8	0.409
200	11.63	34.660	0.30	26.414	162.3	0.495
250	11.17	34.676	0.20	26.511	153.0	0.576
300	10.33	34.702	0.17	26.681	137.0	0.652
400	9.09	34.619	0.09	26.826	123.2	0.789
500	7.77	34.513	0.08	26.946	111.8	0.915
600	6.88	34.520	0.13	27.078	99.2	1.030
700	6.16	34.522	0.16	27.176	89.9	1.134
800	5.48	34.517	0.18	27.257	82.3	1.230
1000	4.41	34.533	0.29	27.393	69.4	1.401
1200	3.69	34.564	0.58	27.492	60.0	1.551
1500	2.92	34.607	1.20	27.600	49.8	1.746
2000	2.13	34.643	2.00	27.696	40.7	2.021
2250	1.91	34.659	2.26	27.727	37.8	2.142
2500	1.78	34.668	2.51	27.745	36.1	2.259

A) CAST I.

RV ALEXANDER AGASSIZ GULF CRUISE 7404 1

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
22 38.0 N	110 52.0 W	05/04/74	2307 0107 GMT	2936 M	320	17 KT	1	320 08 05

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
0	17.44	34.085	5.73		5.			322.6	0	17.44	34.085	5.73	24.728	322.6	0.000
10	17.44	34.086	5.71		5.			322.5	10	17.44	34.086	5.71	24.729	322.5	0.032
34	15.55	34.129	3.92		8.			277.7	20	16.75	34.080	5.11	24.887	307.4	0.064
69	14.68	34.685	1.45		25.			218.9	30	15.92	34.107	4.30	25.099	287.2	0.094
83	13.91	34.661	0.80		30.			205.1	50	15.11	34.406	2.71	25.510	248.2	0.147
103	13.11	34.680	0.42		31.			188.1	75	14.35	34.681	1.14	25.885	212.5	0.205
128	12.44	34.721	0.22		34.			172.5	100	13.21	34.675	0.45	26.118	190.4	0.256
157	12.16	34.738	0.28		38.			166.1	125	12.50	34.716	0.23	26.291	173.9	0.303
177	11.75	34.708	0.25		39.			160.9	150	12.22	34.740	0.26	26.363	167.1	0.346
201	11.56	34.711	0.18		39.			157.2	200	11.57	34.711	0.18	26.466	157.4	0.429
245	11.07	34.688	0.12		39.			150.4	250	11.00	34.685	0.12	26.548	149.5	0.509
324	10.01	34.627	0.14		46.			137.1	300	10.34	34.646	0.13	26.637	141.1	0.585
432	8.73	34.568	0.11		55.			121.5	400	9.09	34.584	0.12	26.797	125.9	0.725
554	7.40	34.515	0.10		68.			106.5	500	7.95	34.534	0.10	26.936	112.7	0.853
593	7.07	34.508	0.10		71.			102.6	600	7.01	34.507	0.10	27.050	101.9	0.970
850	5.22	34.509	0.17		97.			79.9	700	6.22	34.501	0.13	27.152	92.3	1.076
1025	4.41	34.529	0.33		111.			69.7	800	5.53	34.504	0.16	27.242	83.8	1.174
1038A	4.40	34.534	0.36					69.2	1000	4.48	34.523	0.29	27.378	70.8	1.349
1247	3.66	34.570	0.62		128.			59.2	1200	3.84	34.567	0.55	27.481	61.1	1.501
1263A	3.64	34.571	0.67					58.9	1500	3.06	34.596	1.05	27.579	51.8	1.702
1490A	3.08	34.594	1.03					52.1	2000	2.17	34.640	1.95	27.691	41.2	1.985
1720A	2.61	34.615	1.46					46.5	2250	1.92	34.656	2.27	27.723	38.1	2.108
1951A	2.23	34.635	1.87					42.0	2500	1.79	34.663	2.48	27.739	36.6	2.226
2185A	1.97	34.652	2.21					38.7	2750	1.69	34.667	2.68	27.750	35.6	2.341
2421A	1.83	34.661	2.41					37.0							
2655A	1.73	34.665	2.60					36.0							
2851A	1.664	34.670	2.72					35.1							
2900A	1.657	34.673	2.71					34.9							

RV ALEXANDER AGASSIZ GULF CRUISE 7404 21

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
32 30.5 N	117 22.0 W	04/08/74	2152 GMT	741 M	220	07 KT	1	270 04 09

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
									0B	16.72	33.52		24.466	347.5	0.000
									10	14.75	33.52		24.907	305.5	0.033
									20	11.58	33.46		25.493	249.7	0.060
									30	11.03	33.52		25.640	235.8	0.085
									50	9.85	33.67		25.961	205.3	0.129
									75	9.44	33.87		26.184	184.1	0.178
									100	9.17	34.02		26.345	168.8	0.223
									125	8.92	34.05		26.409	162.8	0.265
									150	8.76	34.08		26.457	158 2	0.305
									200	8.51	34.15		26.551	149.3	0.384
									250	8.33	34.21		26.625	142.2	0.459
									300	7.96	34.24		26.704	134.7	0.530
									400	7.36	34.26		26.807	124.9	0.666
									500	6.75	34.28		26.907	115.4	0.793

RV ALEXANDER AGASSIZ GULF CRUISE 7404 20

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
23 58.5 N	108 49.5 W	04/12/74	1035 GMT	3680 M	340	15 KT	0	340 04 04

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
									0	22.47	34.99		24.098	382.6	0.000
									10	22.47	34.99		24.098	382.6	0.038
									20	22.00	35.00		24.238	369.3	0.076
									30	18.25	34.92		25.168	280.7	0.109
									50	15.46	34.70		25.658	234.1	0.160
									75	14.28	34.69		25.907	210.4	0.216
									100	12.92	34.63		26.141	188.2	0.267
									125	12.34	34.68		26.294	173.6	0.313
									150	12.00	34.69		26.367	166.7	0.356
									200	11.50	34.71		26.477	156.3	0.439
									250	10.95	34.70		26.570	147.4	0.518
									300	10.15	34.65		26.673	137.7	0.592
									400	8.93	34.58		26.821	123.7	0.730
									500	7.65	34.52		26.969	109.6	0.855
									600	6.87	34.50		27.064	100.6	0.968
									700	6.09	34.50		27.168	90.8	1.074
									800	5.48	34.50		27.244	83.6	1.170
									1000	4.70	34.52		27.351	73.4	1.348
									1200	4.06	34.54		27.436	65.3	1.508
									1500	3.12	34.59		27.569	52.8	1.718

A) CAST I.
B) SHAKEDOWN STATION.

RV ALEXANDER AGASSIZ GULF CRUISE 7404 18

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
25 0.0 N	109 34.0 W	04/12/74	2125 GMT	1868 M	330	09 KT	0	330 02 04

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
									0	21.22	35.15		24.567	337.9	0.000
									10	20.62	35.19		24.760	319.5	0.033
									20	19.57	35.27		25.099	287.3	0.063
									30	18.43	35.22		25.352	263.2	0.091
									50	16.08	34.98		25.732	227.0	0.140
									75	14.26	34.87		26.050	196.8	0.194
									100	13.93	34.95		26.182	184.3	0.242
									125	13.70	34.94		26.222	180.5	0.288
									150	12.59	34.73		26.284	174.6	0.334
									200	11.58	34.70		26.454	158.4	0.419
									250	11.08	34.69		26.539	150.4	0.499
									300	10.23	34.62		26.636	141.2	0.575
									400	8.83	34.52		26.790	126.6	0.716
									500	7.75	34.50		26.939	112.4	0.844
									600	6.85	34.52		27.083	98.8	0.958
									700	6.24	34.53		27.172	90.3	1.062
									800	5.63	34.51		27.234	84.5	1.160
									1000	4.77	34.52		27.343	74.1	1.339
									1200	4.01	34.55		27.449	64.1	1.499
									1500	3.15	34.57		27.550	54.5	1.710

RV ALEXANDER AGASSIZ GULF CRUISE 7404 3

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 50.0 N	112 38.0 W	04/14/74	1947 GMT	639 M	010	18 KT	0	000 04 05

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
									0	16.93	35.16		25.672	232.8	0.000
									10	15.65	35.03		25.868	214.1	0.022
									20	14.49	35.02		26.116	190.5	0.043
									30	14.42	35.04		26.147	187.6	0.062
									50	14.23	35.03		26.180	184.5	0.099
									75	14.11	35.03		26.205	182.1	0.145
									100	13.76	35.03		26.279	175.1	0.191
									125	13.07	34.94		26.351	168.3	0.234
									150	12.68	34.93		26.421	161.6	0.276
									200	12.29	34.91		26.482	155.8	0.358
									250	11.75	34.86		26.547	149.7	0.437
									300	11.39	34.84		26.599	144.7	0.514
									400	10.88	34.81		26.668	138.1	0.664
									500	10.22	34.76		26.746	130.7	0.808
									600	10.13	34.76		26.762	129.3	0.950

RV ALEXANDER AGASSIZ GULF CRUISE 7404 6

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
29 57.0 N	113 58.0 W	04/17/74	1700 GMT	459 M	170	14 KT	0	170 02 02

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
									0	19.53	35.36		25.178	279.7	0.000
									10	18.15	35.32		25.498	249.3	0.026
									20	16.88	35.33		25.814	219.3	0.050
									30	16.39	35.32		25.921	209.1	0.071
									50	15.51	35.27		26.084	193.6	0.112
									75	14.61	35.25		26.267	176.2	0.159
									100	13.85	35.15		26.353	168.1	0.202
									125	13.42	35.08		26.388	164.8	0.245
									150	13.04	35.01		26.411	162.6	0.287
									200	12.79	34.98		26.438	160.0	0.370
									250	12.51	34.97		26.486	155.5	0.451
									300	12.13	34.92		26.521	152.1	0.532
									400	11.87	34.89		26.547	149.6	0.691

RV ALEXANDER AGASSIZ GULF CRUISE 7404 7

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
29 38.0 N	113 55.0 W	04/17/74	2101 GMT	938 M	120	08 KT	0	120 02 02

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
									0	19.64	35.45		25.218	276.0	0.000
									10	17.28	35.28		25.680	232.0	0.025
									20	16.87	35.26		25.762	224.1	0.048
									30	16.25	35.29		25.931	208.2	0.070
									50	15.27	35.23		26.107	191.4	0.110
									75	14.69	35.24		26.242	178.6	0.157
									100	13.61	35.08		26.348	168.5	0.201
									125	13.47	35.09		26.385	165.0	0.243
									150	13.31	35.09		26.418	161.9	0.285
									200	13.01	35.06		26.455	158.3	0.368
									250	12.69	35.01		26.481	155.9	0.449
									300	12.19	34.91		26.501	154.0	0.530
									400	11.97	34.89		26.528	151.4	0.692
									500	11.70	34.86		26.556	148.8	0.853
									600	11.56	34.85		26.575	147.0	1.014
									700	11.51	34.85		26.584	146.1	1.176
									800	11.48	34.85		26.589	145.6	1.340

RV ALEXANDER AGASSIZ GULF CRUISE 7404 8

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
29 20.0 N	113 39.5 W	04/18/74	0716 GMT	595 M	160	11 KT	0	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT

Z	T	S	O2	SIGT	DT	DD
0	15.51	35.11		25.961	205.3	0.000
10	14.71	35.04		26.084	193.6	0.020
20	14.10	35.02		26.200	182.6	0.039
30	13.75	35.03		26.281	174.9	0.057
50	13.22	34.99		26.359	167.5	0.091
75	13.10	35.00		26.391	164.4	0.133
100	12.93	35.00		26.425	161.2	0.174
125	12.80	34.99		26.444	159.5	0.215
150	12.79	34.99		26.445	159.3	0.256
200	12.46	34.95		26.480	156.0	0.337
250	12.33	34.96		26.513	152.9	0.417
300	12.28	34.95		26.515	152.7	0.497
400	12.03	34.91		26.532	151.0	0.658
500	11.87	34.89		26.547	149.6	0.820

RV ALEXANDER AGASSIZ GULF CRUISE 7404 9

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 58.5 N	113 16.0 W	04/18/74	2210 GMT	1210 M	150	08 KT	0	150

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT

Z	T	S	O2	SIGT	DT	DD
0	16.60	35.16		25.749	225.4	0.000
10	16.39	35.11		25.760	224.4	0.023
20	15.32	34.99		25.912	210.0	0.044
30	14.45	34.99		26.102	191.9	0.064
50	14.05	35.00		26.195	183.1	0.102
75	13.63	34.99		26.275	175.5	0.147
100	13.45	34.98		26.304	172.7	0.192
125	13.19	34.97		26.350	168.4	0.235
150	13.07	34.96		26.366	166.8	0.278
200	12.78	34.95		26.417	162.0	0.362
250	12.66	34.95		26.440	159.8	0.446
300	12.43	34.93		26.470	156.9	0.528
400	12.16	34.90		26.499	154.2	0.693
500	11.82	34.88		26.549	149.5	0.856
600	11.58	34.85		26.571	147.4	1.018
700	11.42	34.83		26.585	146.0	1.180
800	11.36	34.82		26.589	145.7	1.344
1000	11.20	34.80		26.603	144.4	1.676
1200	11.20	34.81		26.610	143.6	2.015

RV ALEXANDER AGASSIZ GULF CRUISE 7404 10

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 43.5 N	113 3.5 W	04/19/74	1427 GMT	1535 M	330	16 KT	0	330 02 02

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT

Z	T	S	O2	SIGT	DT	DD
0	16.44	35.16		25.787	221.8	0.000
10	15.70	35.10		25.911	210.1	0.022
20	14.83	35.07		26.081	193.9	0.042
30	14.62	35.06		26.119	190.3	0.061
50	13.97	35.02		26.227	180.0	0.098
75	13.62	35.02		26.300	173.1	0.143
100	13.19	35.01		26.381	165.4	0.186
125	13.08	35.00		26.395	164.1	0.228
150	12.98	35.00		26.415	162.1	0.270
200	12.81	35.00		26.449	158.9	0.352
250	12.56	34.97		26.475	156.4	0.434
300	12.48	34.96		26.484	155.7	0.516
400	12.02	34.90		26.526	151.6	0.678
500	11.76	34.88		26.560	148.4	0.839
600	11.51	34.85		26.584	146.1	1.000
700	11.38	34.84		26.600	144.6	1.161
800	11.27	34.83		26.613	143.4	1.323
1000	11.18	34.81		26.614	143.3	1.651
1200	11.16	34.80		26.610	143.7	1.989
1500	11.13	34.79		26.608	143.9	2.513

RV ALEXANDER AGASSIZ GULF CRUISE 7404 12

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
27 24.5 N	111 22.0 W	04/21/74	0409 GMT	2017 M	230	04 KT	0	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
									0	20.37	35.28		24.896	306.6	0.000
									10	19.65	35.23		25.047	292.2	0.030
									20	19.06	35.24		25.207	276.9	0.058
									30	16.94	35.07		25.600	239.6	0.084
									50	16.03	35.13		25.858	215.0	0.130
									75	15.61	35.11		25.939	207.4	0.183
									100	14.93	35.03		26.029	198.9	0.235
									125	14.40	34.98		26.105	191.6	0.284
									150	13.59	34.88		26.198	182.7	0.332
									200	12.24	34.80		26.407	163.0	0.421
									250	11.29	34.70		26.508	153.3	0.503
									300	10.82	34.70		26.594	145.2	0.581
									400	9.67	34.62		26.731	132.2	0.727
									500	8.47	34.57		26.885	117.5	0.861
									600	7.25	34.55		27.051	101.9	0.980
									700	6.73	34.54		27.115	95.8	1.089
									800	6.02	34.51		27.184	89.2	1.192
									1000	4.85	34.52		27.334	75.0	1.378
									1200	3.82	34.55		27.469	62.2	1.537
									1500	3.07	34.58		27.565	53.1	1.741

RV ALEXANDER AGASSIZ GULF CRUISE 7404 13

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
27 45.0 N	112 6.0 W	04/22/74	1822 GMT	1446 M	310	11 KT	1	300 01 03

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
									0	19.98	35.40		25.090	288.1	0.000
									10	19.59	35.33		25.139	283.4	0.029
									20	19.56	35.34		25.155	281.9	0.057
									30	19.54	35.34		25.160	281.4	0.085
									50	18.90	35.26		25.264	271.6	0.141
									75	15.27	35.08		25.992	202.4	0.200
									100	13.61	34.91		26.217	180.9	0.249
									125	12.73	34.86		26.357	167.7	0.293
									150	12.21	34.77		26.389	164.6	0.336
									200	11.73	34.82		26.519	152.3	0.417
									250	10.84	34.74		26.621	142.6	0.494
									300	10.37	34.71		26.681	136.9	0.567
									400	9.12	34.63		26.829	122.9	0.704
									500	8.36	34.60		26.926	113.7	0.831
									600	7.69	34.58		27.011	105.7	0.950
									700	7.12	34.55		27.069	100.1	1.064
									800	6.42	34.51		27.133	94.1	1.172
									1000	4.93	34.54		27.341	74.4	1.363
									1200	3.94	34.56		27.465	62.6	1.522

RV ALEXANDER AGASSIZ GULF CRUISE 7404 17

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
26 34.0 N	110 57.0 W	04/24/74	2319 GMT	1568 M	030	03 KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
									0	20.88	35.30		24.774	318.2	0.000
									10	20.33	35.23		24.868	309.2	0.031
									20	19.78	35.18		24.975	299.0	0.062
									30	18.44	35.18		25.319	266.3	0.090
									50	16.46	35.18		25.797	220.8	0.139
									75	14.66	34.95		26.026	199.1	0.192
									100	13.87	34.91		26.163	186.1	0.241
									125	13.37	34.89		26.251	177.7	0.287
									150	12.96	34.86		26.311	172.0	0.332
									200	11.69	34.75		26.473	156.7	0.416
									250	11.00	34.78		26.624	142.4	0.494
									300	10.37	34.74		26.705	134.7	0.566
									400	9.10	34.62		26.825	123.3	0.702
									500	7.94	34.59		26.982	108.4	0.827
									600	7.14	34.57		27.082	98.9	0.940
									700	6.32	34.55		27.177	89.8	1.044
									800	5.57	34.54		27.265	81.6	1.139
									1000	4.55	34.56		27.399	68.8	1.310
									1200	3.83	34.56		27.476	61.6	1.462
									1500	3.02	34.61		27.594	50.4	1.661

RV ALEXANDER AGASSIZ GULF CRUISE 7404 14

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
25 24.5 N	109 54.0 W	04/28/74	0840 GMT	3259 M	290	07 KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
									0	22.51	35.33		24.344	359.2	0.000
									10	21.41	35.25		24.591	335.6	0.035
									20	19.32	35.20		25.110	286.2	0.066
									30	18.34	35.17		25.336	264.7	0.094
									50	15.98	35.06		25.816	219.0	0.142
									75	14.16	34.71		25.948	206.5	0.196
									100	13.35	34.83		26.209	181.7	0.245
									125	12.75	34.80		26.306	172.5	0.290
									150	12.28	34.73		26.345	168.8	0.334
									200	11.57	34.73		26.480	156.0	0.417
									250	11.28	34.77		26.564	148.0	0.496
									300	10.66	34.73		26.646	140.3	0.571
									400	9.41	34.65		26.798	125.9	0.711
									500	8.17	34.57		26.931	113.2	0.840
									600	7.51	34.55		27.013	105.4	0.958
									700	6.40	34.52		27.143	93.1	1.068
									800	5.77	34.52		27.224	85.4	1.167
									1000	4.73	34.53		27.355	73.0	1.347
									1200	3.96	34.55		27.455	63.6	1.505
									1500	3.01	34.61		27.595	50.3	1.707

RV ALEXANDER AGASSIZ GULF CRUISE 7404 15

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
25 51.5 N	110 11.5 W	04/29/74	0845 GMT	2028 M	050	03 KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
									0	22.62	35.34		24.320	361.4	0.000
									10	22.00	35.34		24.495	344.7	0.035
									20	18.75	35.09		25.172	280.3	0.067
									30	17.15	35.09		25.566	242.9	0.093
									50	15.14	35.05		25.998	201.8	0.138
									75	14.34	35.01		26.141	188.2	0.187
									100	13.67	34.98		26.259	177.0	0.233
									125	13.23	34.93		26.310	172.1	0.277
									150	12.89	34.95		26.395	164.1	0.320
									200	12.30	34.90		26.472	156.7	0.403
									250	11.80	34.85		26.529	151.3	0.483
									300	11.34	34.79		26.569	147.6	0.561
									400	10.12	34.71		26.725	132.8	0.709
									500	8.67	34.62		26.893	116.8	0.843
									600	7.27	34.56		27.056	101.4	0.962
									700	6.52	34.57		27.167	90.9	1.068
									800	5.88	34.56		27.242	83.8	1.166
									1000	4.71	34.56		27.382	70.5	1.341
									1200	3.88	34.58		27.487	60.6	1.494
									1500	3.07	34.61		27.590	50.8	1.692

RV ALEXANDER AGASSIZ GULF CRUISE 7404 43

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
28 21.0 N	112 30.0 W	05/02/74	0252 GMT	867 M	150	10 KT	0	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
									0	15.76	35.11		25.905	210.6	0.000
									10	14.53	35.04		26.123	189.9	0.020
									20	14.52	35.05		26.133	188.9	0.039
									30	14.52	35.05		26.133	188.9	0.058
									50	14.46	35.04		26.138	188.5	0.096
									75	13.98	35.01		26.217	181.0	0.143
									100	13.61	35.00		26.287	174.3	0.188
									125	13.33	34.97		26.321	171.1	0.232
									150	13.06	34.96		26.368	166.6	0.275
									200	12.82	34.94		26.401	163.5	0.360
									250	11.89	34.87		26.528	151.4	0.441
									300	10.60	34.70		26.633	141.5	0.518
									400	9.58	34.68		26.793	126.3	0.659
									500	8.11	34.58		26.948	111.6	0.787
									600	7.20	34.57		27.073	99.7	0.902
									700	6.74	34.55		27.121	95.2	1.009
									800	6.60	34.54		27.132	94.1	1.115

RV ALEXANDER AGASSIZ GULF CRUISE 7404 16

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
26 20.0 N	110 44.0 W	05/03/74	0828 GMT	2605 M	170	10 KT	0	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
									0	22.42	35.34		24.377	356.0	0.000
									10	21.20	35.15		24.573	337.4	0.035
									20	20.50	35.15		24.762	319.3	0.068
									30	19.20	35.03		25.012	295.6	0.098
									50	16.90	35.02		25.571	242.3	0.152
									75	13.67	34.86		26.166	185.8	0.206
									100	12.80	34.87		26.351	168.3	0.251
									125	12.20	34.80		26.414	162.2	0.293
									150	12.10	34.84		26.465	157.5	0.334
									200	11.27	34.77		26.566	147.8	0.413
									250	10.66	34.70		26.622	142.5	0.488
									300	9.76	34.62		26.716	133.6	0.560
									400	8.64	34.56		26.851	120.8	0.694
									500	7.54	34.54		27.001	106.6	0.816
									600	6.87	34.52		27.080	99.1	0.927
									700	6.16	34.52		27.175	90.1	1.031
									800	5.46	34.52		27.262	81.8	1.127
									1000	4.57	34.54		27.381	70.5	1.300
									1200	3.91	34.56		27.468	62.4	1.454
									1500	2.78	34.60		27.608	49.1	1.651

RV ALEXANDER AGASSIZ GULF CRUISE 7404 19

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
24 42.0 N	109 12.0 W	05/03/74	2314 GMT	2936 M	300	07 KT	1	280 03 05

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
									0	24.74	35.24		23.622	428.0	0.000
									10	23.57	35.27		23.992	392.7	0.041
									20	21.93	35.07		24.310	362.4	0.079
									30	18.91	35.11		25.147	282.7	0.111
									50	16.47	34.96		25.626	237.1	0.163
									75	15.72	35.08		25.891	211.9	0.220
									100	14.68	34.98		26.044	197.4	0.272
									125	13.46	34.80		26.163	186.1	0.321
									150	12.47	34.73		26.308	172.4	0.366
									200	11.51	34.74		26.499	154.2	0.450
									250	11.13	34.71		26.545	149.8	0.529
									300	10.54	34.68		26.628	141.9	0.605
									400	8.97	34.57		26.807	125.0	0.746
									500	7.75	34.52		26.955	110.9	0.872
									600	6.85	34.52		27.083	98.8	0.986
									700	6.31	34.54		27.171	90.5	1.090
									800	5.70	34.53		27.241	83.8	1.187
									1000	4.79	34.54		27.357	72.9	1.365
									1200	3.89	34.57		27.478	61.4	1.521
									1500	2.81	34.63		27.629	47.1	1.714

RV ALEXANDER AGASSIZ GULF CRUISE 7404 2

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
23 22.0 N	108 53.0 W	05/04/74	0859 GMT	2715 M	140	07 KT	1	

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
									0	24.83	35.00		23.414	447.9	0.000
									10	24.78	35.04		23.459	443.6	0.045
									20	23.83	35.11		23.795	411.5	0.087
									30	20.59	34.76		24.442	349.8	0.126
									50	17.37	34.60		25.138	283.5	0.189
									75	15.16	34.52		25.586	240.9	0.255
									100	13.20	34.52		26.000	201.6	0.311
									125	12.74	34.73		26.254	177.4	0.359
									150	12.72	34.77		26.289	174.1	0.404
									200	11.63	34.68		26.430	160.8	0.490
									250	11.18	34.72		26.544	149.9	0.570
									300	10.26	34.56		26.584	146.2	0.647
									400	8.98	34.57		26.805	125.2	0.790
									500	7.77	34.52		26.952	111.2	0.917
									600	6.69	34.50		27.089	98.3	1.030
									700	5.97	34.50		27.183	89.3	1.133
									800	5.36	34.51		27.266	81.4	1.228
									1000	4.37	34.54		27.403	68.5	1.398
									1200	3.70	34.57		27.497	59.6	1.546
									1500	2.83	34.61		27.611	48.7	1.738

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
22 38.0 N	110 52.0 W	05/05/74	0008 GMT	2936 M	320	17 KT	1	320 08 05

Z	T	S	O2	PO4	SIO3	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD
									0	17.47	34.08		24.717	323.6	0.000
									10	17.47	34.08		24.717	323.6	0.032
									20	17.42	34.08		24.729	322.5	0.065
									30	16.03	34.10		25.069	290.1	0.095
									50	14.47	34.18		25.474	251.6	0.150
									75	14.01	34.55		25.856	215.2	0.209
									100	13.63	34.72		26.067	195.2	0.261
									125	12.80	34.72		26.235	179.3	0.308
									150	12.38	34.77		26.356	167.8	0.352
									200	11.57	34.73		26.480	156.0	0.436
									250	11.12	34.70		26.539	150.4	0.515
									300	10.45	34.68		26.644	140.5	0.591
									400	9.09	34.58		26.795	126.1	0.731
									500	7.84	34.53		26.949	111.5	0.858
									600	6.85	34.51		27.075	99.6	0.973
									700	6.01	34.50		27.178	89.8	1.077
									800	5.40	34.51		27.262	81.9	1.172
									1000	4.41	34.54		27.399	68.9	1.343
									1200	3.81	34.58		27.494	59.9	1.492
									1500	3.03	34.61		27.593	50.5	1.689

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