

UNIVERSITY OF CALIFORNIA
SCRIPPS INSTITUTION OF OCEANOGRAPHY

PHYSICAL AND CHEMICAL DATA

Cruise 7006
14-15 June 1970

CalCOFI Cruise 7008
17 August-2 October 1970

CalCOFI Cruise 7102
8 February-5 April 1971

Sponsored by
Marine Research Committee

and

Special Basin Cruises
1969-1971

Sponsored by
University of California

SIO Reference 79-30

Approved for distribution:

W. A. Nierenberg
W. A. Nierenberg, Director

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INTRODUCTION

The data in this report were collected during cruises 7008* and 7102 of the California Cooperative Fisheries Investigations (CalCOFI) program aboard the RV Alexander Agassiz, of the Scripps Institution of Oceanography. Both cruises were a continuation of the testing of zooplankton sampling gear begun on CalCOFI Cruise 6912 and consisted of opening-closing nets being deployed at selected stations both in daylight and at night to sample eight separate depth-ranges between 500m and the sea surface. Included also are two deep stations occupied in the Gulf of California in June 1970 during a special biological survey on the Agassiz. The report preceding this one in the series was SIO Ref. 79-29, which included the data for October and December 1969.

These data were collected in part and processed completely by personnel of the Data Collection and Processing Group (DCPG, MLR)**, Scripps Institution of Oceanography.

STANDARD PROCEDURES

Hydrographic Cast Data

Typical hydrographic casts consisted of 18 bottles. At most stations the maximum sampling depth was 1000 meters, bottom depth permitting. On cruise 7008 bottom casts were lowered on three stations. Salinity samples were drawn and run from all levels of the deep casts on these stations. Temperatures, oxygen, and nutrients were determined for all depths on each station, but usually samples from only four to eight selected depths were used to determine salinity for comparison with the STD.

In general, paired protected reversing thermometers were used to determine temperatures which were recorded in hundredths of a Celsius degree. Temperatures determined using unprotected (pressure) thermometers or surface "bucket" thermometers were recorded to tenths of a degree. Sample bottles used below 100 meters were equipped with unprotected thermometers.

A Washington conductive bridge was used to analyze all salinity samples collected on cruises 7008 and 7102. A Hytech (now Grundy Environmental Systems, Inc.) was used on cruise 7006. All samples were analyzed at sea.

The salinity values were recorded and are reported to three decimal places, provided accepted standards were met. If only one determination per sample was obtained, or there was doubt concerning the accuracy of the analytical results, the salinities are reported to two decimal places. All STD salinities are tabulated to hundredths.

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

On cruises 7008 and 7102, phosphate, silicate, nitrite, and nitrate were determined using a first generation Technicon^R AutoAnalyzer^R and methodologies developed at the National Marine Fisheries Service based on the methods of Strickland (1968). On cruise 7006, phosphates only were determined, using a Beckman spectrophotometer.

The observed data could not be evaluated using standard DCPG techniques (Klein, 1973) due to the sparsity of salinity data. Temperatures and salinities were compared with the STD values while oxygen and nutrient values were plotted against depth.

Chlorophyll and phaeophytin were determined fluorometrically according to the procedure of Yentch and Menzel (1963) as modified by Holm-Hansen et al. (1965).

*The first two digits represent the year and the second two digits the month of the cruise. The CalCOFI station designations have been in use for over twenty years. The first part specifies a line normal to the general trend of the coast line (CalCOFI line). The second part specifies a station position relative to the coast on the CalCOFI line.

**Now the Physical and Chemical Oceanographic Data Facility (PACODF).

In Situ Salinity/Temperature/Depth Recorder (STD) Data

A digital data logger Model 8114 was used for recording the data from the STD on both 7008 and 7102. After a few lowerings on 7008, the digitizer malfunctioned and all data were digitized from the analog recordings. Comparison with Nansen bottle data indicated a salinity correction of -0.12% for all but a few lowerings for which the correction was less. The temperature comparison was quite erratic and resulted in various corrections, the largest being -0.20° . The digitizer worked well on 7102 requiring no correction to the temperature. The salinity correction was minor until the second leg of the cruise when there was a large off-set on the first two lowerings. After repair the last few stations were again in close agreement with the Nansen bottle data.

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 are 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 casts are tabulated with the observed levels of depth on the left of a page. When salinity samples were collected and analyzed for all observed levels, interpolated and computed values at standard levels of depth appear on the right of the page.
2. For each STD lowering, temperature and salinity values are tabulated only at standard levels of depth and appear with computed values of DT and DD on the right of the page. Corrections have been applied to the temperature and salinity values as discussed previously in this report.

The same parameters have been tabulated in this report as in previous reports. The decimal has been omitted from the CalCOFI station number so station 90.65 appears in the tabulated data as 90065. The column headings are to be interpreted as follows:

Z	Depth	Meters
T	Temperature	$^\circ\text{C}$
S	Salinity	‰
O2	Dissolved oxygen	ml/L
P04	"Reactive" inorganic phosphate-phosphorous	$\mu\text{g at/L}$
Si03	"Reactive" inorganic silicate-silicon	$\mu\text{g at/L}$
N02	"Reactive" nitrite-nitrogen	$\mu\text{g at/L}$
N03	"Reactive" nitrate-nitrogen	$\mu\text{g at/L}$
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 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, several special notations are used without footnotes because the meaning is always the same.

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

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

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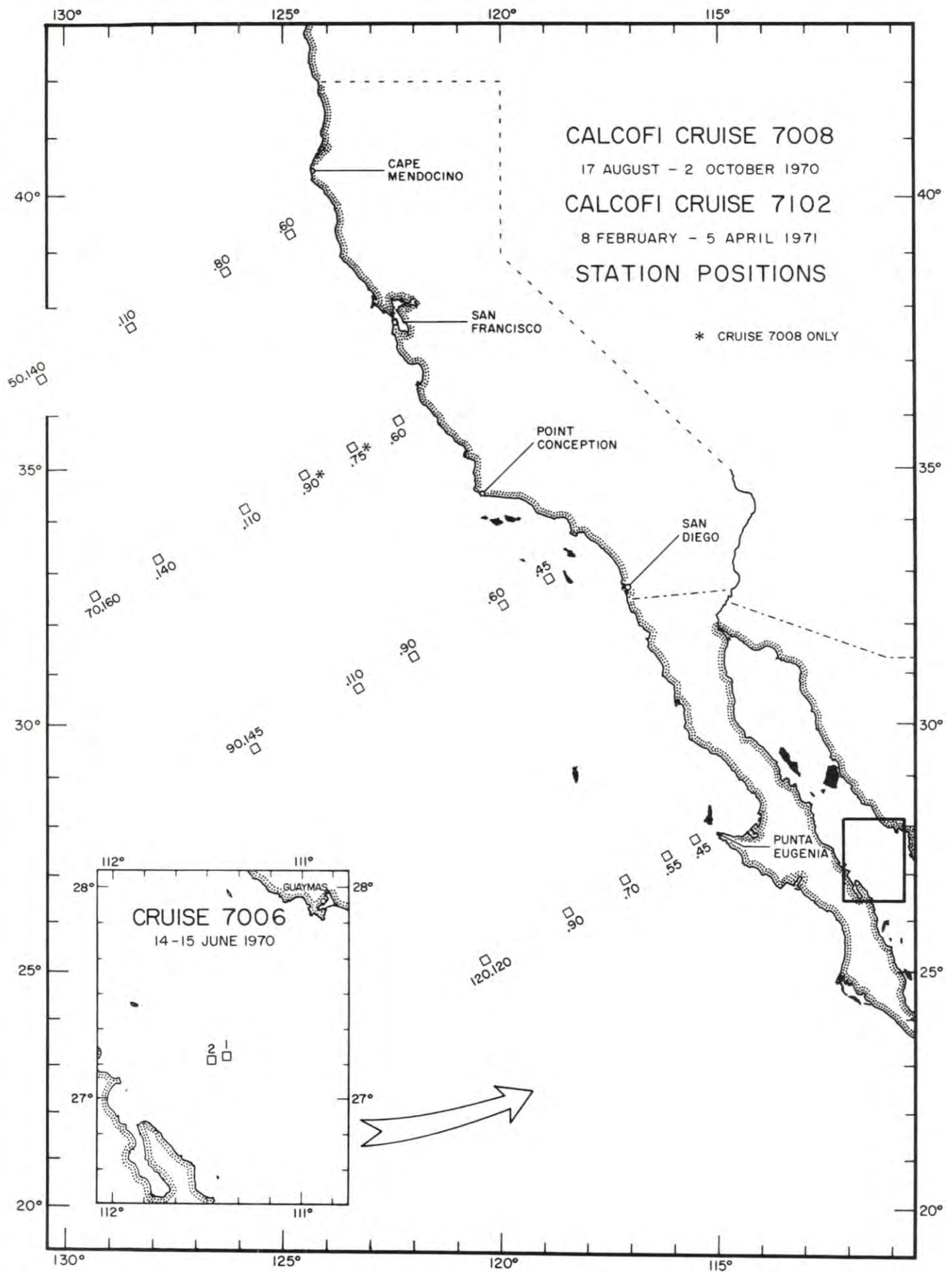


FIGURE 1

PERSONNEL

Cruise 7008

SHIP'S CAPTAIN

Davis, Laurence E., RV Alexander Agassiz

PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

RV Alexander Agassiz:

Mead, Richard V.	Marine Technician, (in charge Leg 1)
Bryan, Walter R.	Marine Technician, (in charge Leg 2)
Ballard, Edward N.	Marine Technician
Bradley, Douglas C.	Electronics Technician
Barnett, Michael	Graduate Student
Carlson, Charles W.	Laboratory Helper
Costello, James P., Jr.	Laboratory Technician
Hardy, John A.	Marine Technician
Hemingway, George T.	Laboratory Technician
Huang, Dr. Joseph	Postgraduate Research
Kellogg, Durrant	Marine Technician
Mairot, Maurice F.	Engineering Aide
Palmer, Don H.	Marine Technician
Robertson, Scott B.	Marine Technician
Sigrist, Peter H.	Marine Technician
Thomas, James E.	Marine Technician
Thompson, Wayne	Marine Technician
Whitlock, Edith M.	Laboratory Helper
Withington, Paul	Laboratory Helper
Wooster, Daniel	Assistant II

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 7008

50060

LATITUDE			LONGITUDE			MO/DAY/YR			MESSENGER TIME			BOTTOM			WIND			SPEED			WEATHER			DOMINANT WAVES		
39 20.0N			124 51.5W			8/22/70			1615 GMT			2860M			330			3KT			2			330 6 6		
Z	T	S	O2	P04	SI03	NO2	NO3	DT	Z	T	S	O2	SI6T	DT	DD											
									0	12.81	32.89		24.820	314.0	0.000											
									10	12.81	32.90		24.827	313.2	0.031											
									20	12.81	32.90		24.827	313.2	0.063											
									30	12.75	32.88		24.824	313.6	0.094											
									50	10.46	32.78		25.165	281.1	0.154											
									75	9.44	33.23		25.686	231.6	0.218											
									100	8.15	33.41		26.027	199.2	0.272											
									125	8.02	33.62		26.210	181.7	0.320											
									150	7.55	33.76		26.388	164.8	0.364											
									200	7.05	33.87		26.547	149.7	0.444											
									250	6.39	33.91		26.665	138.6	0.518											
									300	6.15	33.97		26.743	131.1	0.587											
									400	5.63	34.08		26.894	116.8	0.716											
									500	5.11	34.18		27.035	103.4	0.831											
									600	4.72	34.23		27.119	95.4	0.936											
									700	4.33	34.29		27.210	86.9	1.034											
									800	4.03	34.34		27.281	80.1	1.124											
									1000	3.56	34.40		27.376	71.1	1.291											

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 7008

50060

LATITUDE			LONGITUDE			MO/DAY/YR			MESSENGER TIME			BOTTOM			WIND			SPEED			WEATHER			DOMINANT WAVES		
39 20.0N			124 51.5W			8/22/70			1719 GMT			2860M			330			3KT			2			330 6 6		
Z	T	S	O2	P04	SI03	NO2	NO3	DT	Z	T	S	O2	SI6T	DT	DD											
2	12.65	32.896	6.38	0.63	1.	0.09	2.2	310.6																		
12	12.64																									
31	12.80	U																								
62	9.29		6.33	0.66	1.	0.08	2.2																			
83	8.33		5.55	1.26	12.	0.44	9.5																			
97	8.18		4.85	1.54	18.	0.05	13.5																			
112	8.09	33.57	4.50	1.74	23.	0.01	15.5																			
143	7.83		4.33	1.86	25.	0.03	16.8	186.4																		
167	7.39		3.83	2.02	29.	0.00	18.7																			
197	7.05		3.70	2.06	33.	0.01	20.6																			
232	6.64		3.34	2.24	38.	0.01	24.0																			
301	6.15	34.029	2.83	2.52	46.	0.02	27.5																			
411	5.64		1.83	2.90	57.	0.02	32.2	126.7																		
520	5.15		0.90	3.25	71.	0.01	37.4																			
660	4.52	34.298	0.53	3.46	84.	0.03	38.9																			
821	3.99	34.370	0.31	3.60	99.	0.02	41.1	88.2																		
990	3.60	34.455	0.37	3.61	113.	0.02	42.8	77.5																		
1201	3.18	34.495	0.43	3.61	123.	0.02	43.7	67.3																		
			0.69	3.56	134.	0.02	46.8	60.5																		

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 7008

50060

LATITUDE			LONGITUDE			MO/DAY/YR			MESSENGER TIME			BOTTOM			WIND			SPEED			WEATHER			DOMINANT WAVES		
38 40.0N			126 21.0W			8/20/70			2255 GMT			5032M			360			8KT			2			360 9 6		
Z	T	S	O2	P04	SI03	NO2	NO3	DT	Z	T	S	O2	SI6T	DT	DD											
									0	13.00	32.92		24.805	315.3	0.000											
									10	12.43	32.95		24.939	302.6	0.031											
									20	11.75	33.02		25.122	285.2	0.060											
									30	10.10	33.06		25.444	254.5	0.087											
									50	9.45	33.15		25.622	237.7	0.137											
									75	8.95	33.46		25.943	207.1	0.193											
									100	8.70	33.70		26.170	185.5	0.242											
									125	8.38	33.84		26.328	170.5	0.287											
									150	8.09	33.91		26.427	161.1	0.329											
									200	7.47	33.91		26.517	152.6	0.409											
									250	6.69	33.97		26.672	137.9	0.483											
									300	6.44	34.04		26.760	129.5	0.552											
									400	5.83	34.06		26.854	120.6	0.682											
									500	5.27	34.12		26.969	109.7	0.802											
									600	4.67	34.19		27.093	97.9	0.912											
									700	4.43	34.28		27.191	88.6	1.012											
									800	4.13	34.33		27.262	81.8	1.104											
									1000	3.72	34.43		27.384	70.3	1.272											

RV ALEXANDER AGASSIZ						CALCOFI CRUISE 7008										
LATITUDE		LONGITUDE	MO/DAY/YR			MESSENGER		TIME	ROTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
38 40.0N		126 21.0W	8/21/70			0001	GMT		5032M	360	BKT	2	360	9	6	
Z	T	S	O2	P04	SI03	NO2	NO3	DT	Z	T	S	O2	SI6T	DT	DD	
0	12.90	32.902	6.50	0.55	2.	0.09	2.9	314.8	0	12.90	32.902	6.50	24.811	314.8	0.000	
9	12.88	32.953	6.47	0.56	2.	0.12	3.0	310.6	10	12.85	32.964	6.47	24.867	309.5	0.031	
28	11.88	33.119	6.45	0.70	3.	0.18	5.2	280.2	20	12.41	33.048	6.46	25.016	295.2	0.061	
55	9.49	33.321	5.26	1.34	18.	0.11	13.6	225.6	30	11.69	33.135	6.38	25.220	275.9	0.090	
73	8.93	33.463	4.69	1.54	21.	0.00	15.8	206.6	50	9.91	33.284	5.52	25.649	235.0	0.141	
87	8.83	33.624	4.38	1.69	24.	0.10	17.5	193.1	75	8.91	33.489	4.64	25.971	204.4	0.197	
101	8.69	33.698	4.06	1.69	24.	0.02	17.5	185.5	100	8.70	33.696	4.08	26.165	186.0	0.246	
128	8.34	33.855	3.64	1.86	30.	0.00	20.9	168.8	125	8.38	33.841	3.68	26.328	170.5	0.291	
150	8.09	33.909	3.43	1.91	31.	0.00	21.2	161.2	150	8.09	33.909	3.43	26.426	161.2	0.333	
177	7.77	33.946	3.23	1.97	35.	0.00	21.8	154.0	200	7.41	33.966	2.85	26.568	147.7	0.412	
207	7.30	33.969	2.72	2.25	45.	0.00	24.9	145.9	250	6.87	33.998	2.26	26.668	138.2	0.485	
270	6.73	34.009	2.09	2.57	51.	0.06	28.4	135.4	300	6.51	34.037	1.77	26.747	130.7	0.554	
365	6.07	34.091	1.16	2.97	66.	0.00	31.6	121.1	400	5.80	34.112	0.95	26.897	116.5	0.682	
460	5.37	34.14	0.70	3.20	77.	0.00	33.3	109.3	500	5.13	34.164	0.58	27.019	104.9	0.798	
582	4.75	34.21	0.43	3.28	92.	0.05	34.8	97.2	600					0.40		
724	4.38		0.27	3.41	104.	0.23	37.0		700	4.43				0.28		
881	3.97		0.32	3.38	114.	0.06	38.4		800	4.18				0.29		
1089	3.49		0.56	3.41	125.	0.00	42.9		1000	3.69				0.43		

RV ALEXANDER AGASSIZ						CALCOFI CRUISE 7008										
LATITUDE		LONGITUDE	MO/DAY/YR			MESSENGER		TIME	ROTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
37 40.0N		128 33.0W	8/19/70			0015	GMT		4767M	010	15KT	2	010	8	6	
Z	T	S	O2	P04	SI03	NO2	NO3	DT	Z	T	S	O2	SI6T	DT	DD	
									0	17.69	32.52		23.474	442.3	0.000	
									10	17.67	32.52		23.478	441.9	0.044	
									20	17.63	32.52		23.488	441.0	0.088	
									30	17.62	32.52		23.490	440.7	0.133	
									50	14.40	32.54		24.228	370.3	0.214	
									75	11.63	32.56		24.787	317.0	0.300	
									100	10.64	32.81		25.158	281.8	0.376	
									125	9.98	32.96		25.387	260.0	0.444	
									150	9.92	33.33		25.685	231.7	0.506	
									200	8.95	33.61		26.060	195.9	0.614	
									250	7.92	33.86		26.413	162.5	0.706	
									300	7.19	33.94		26.580	146.6	0.786	
									400	6.54	34.02		26.731	132.2	0.930	
									500	6.00	34.08		26.848	121.1	1.063	
									600	5.35	34.14		26.975	109.1	1.185	
									700	4.84	34.26		27.130	94.4	1.294	
									800	4.47	34.32		27.218	86.0	1.392	
									1000	3.91	34.43		27.365	72.2	1.567	

RV ALEXANDER AGASSIZ						CALCOFI CRUISE 7008										
LATITUDE		LONGITUDE	MO/DAY/YR			MESSENGER		TIME	ROTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
37 40.0N		128 33.0W	8/19/70			0116	GMT		4767M	010	15KT	2	010	8	6	
Z	T	S	O2	P04	SI03	NO2	NO3	DT	Z	T	S	O2	SI6T	DT	DD	
0	17.71		5.75	0.35	2.	0.00	0.0									
10	17.69		5.69	0.35	2.	0.00	0.0									
30	17.60		5.72	0.33	1.	0.00	0.0									
59	14.44		6.26	0.36	2.	0.00	0.0									
79	12.02		6.76	0.41	2.	0.00	0.0									
94	11.21		6.43	0.55	3.	0.16	0.5									
109	10.64		5.98	0.86	7.	0.00	7.0									
139	9.86		5.48	1.23	13.	0.00	12.3									
165	9.94		5.64	1.44	17.	0.00	15.9									
194	9.26		5.01	1.66	21.	0.00	19.9									
229	8.38		3.66	1.99	30.	0.00	26.3									
299	7.25		2.13	2.57	45.	0.00	32.7									
406	6.48		1.57	2.88	57.	0.00	36.0									
515	5.81		1.04	3.12	68.	0.00	38.0									
653	5.02	34.208	0.45	3.46	86.	0.00	40.5	100.3								
811	4.38	34.314	0.26	3.51	101.	0.00	40.4	85.6								
981	3.97	34.420	0.40	3.56	112.	0.00	41.4	73.5								
1191	3.28	34.468	0.52	3.58	125.	0.00	41.2	63.4								

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 7008

50140

LATITUDE			LONGITUDE			MO/DAY/YR			MESSENGER TIME			BOTTOM			WIND			SPEED			WEATHER			DOMINANT WAVES		
36 38.0N			130 41.0W			8/17/70			2345 GMT			4997M			010			16KT			1			010 12 6		
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	SIGT	DT	DD											
0									0	18.79	32.85		23.456	444.0	0.000											
10									10	18.79	32.85		23.456	444.0	0.044											
20									20	18.74	32.85		23.473	442.3	0.089											
30									30	17.50	32.85		23.771	414.0	0.132											
50									50	15.07	32.88		24.346	359.0	0.209											
75									75	13.01	32.88		24.773	318.5	0.294											
100									100	12.90	33.10		24.964	300.2	0.372											
125									125	11.49	32.99		25.146	282.9	0.446											
150									150	10.30	33.00		25.364	262.2	0.515											
200									200	8.75	33.46		25.978	203.8	0.633											
250									250	8.13	33.86		26.382	165.4	0.727											
300									300	7.22	33.91		26.552	149.2	0.808											
400									400	5.79	33.94		26.764	129.1	0.952											
500									500	5.22	34.07		26.936	112.9	1.078											
600									600	4.62	34.15		27.067	100.4	1.191											
700									700	4.32	34.23		27.163	91.3	1.293											
800									800	4.06	34.31		27.254	82.7	1.387											
1000									1000	3.57	34.42		27.391	69.7	1.554											

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 7008

50140

LATITUDE			LONGITUDE			MO/DAY/YR			MESSENGER TIME			BOTTOM			WIND			SPEED			WEATHER			DOMINANT WAVES		
36 38.0N			130 41.0W			8/18/70			0102 1345 GMT			4997M			010			16KT			1			010 12 6		
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	SIGT	DT	DD											
0	14.68			0.35	2.	0.00	0.1																			
10	10.68			5.67	0.35	2.	0.00	0.0																		
20	14.40			5.98	0.33	2.	0.00	0.0																		
50	13.74			6.34	0.30	2.	0.00	0.0																		
70	12.96			6.60	0.30	2.	0.00	0.0																		
95	13.07			6.03	0.25	2.	0.00	0.0																		
100	12.35			6.23	0.25	2.	0.00	0.0																		
137	10.54			6.24	0.53	4.	0.15	1.2																		
161	9.52			5.45	0.89	10.	0.00	7.8																		
192	8.94			1.23	17.	0.00	13.2																			
225	8.54			4.49	1.47	24.	0.00	17.3																		
294	7.27			3.73	1.94	41.	0.00	24.2																		
402	5.70			2.28	2.68	67.	0.00	32.2																		
509	5.08			1.06	3.18	86.	0.00	36.7																		
647	4.47	34.194		0.49	3.43	108.	0.03	38.2	95.5																	
802	4.05	34.32		0.26	3.55	124.		38.3	81.8	700	4.29	34.240	0.36	27.173	90.3											
897A	3.94	34.387		0.32	3.35	124.	0.00	39.1	75.7	800	4.05	34.319	0.26	27.261	82.0											
972	3.72	34.42		0.36	3.55	133.	0.02	39.8	71.1	1000	3.66	34.431	0.38	27.391	69.6											
1138A	3.31	34.473		0.52	3.36	139.	0.00	39.1	63.3	1200	3.12	34.484	0.59	27.484	60.8											
1182	3.16	34.48		0.57	3.51	146.	0.00	40.6	61.4	1500	2.62	34.541	0.92	27.575	52.3											
1379A	2.86	34.520		0.82	3.28	148.		39.2	55.8	1750	2.22	34.579	1.21	27.637	46.3											
1617A	2.40	34.559		1.02	3.22	163.		38.4	49.1	2000	1.97	34.605	1.63	27.679	42.4											
1856A	2.11	34.590		1.39	2.75	152.		34.4	44.5	2250	1.80	34.635	1.92	27.716	38.9											
2048A	1.95	34.609		1.70	2.77	162.		33.8	41.7	2500	1.71	34.640	2.22	27.727	37.9											
2239A	1.81	34.633		1.90	3.12	184.		36.3	39.0	2750	1.64	34.653	2.41	27.743	36.3											
2431A	1.73	34.636		2.19	2.72	184.		35.4	38.2	3000	1.59	34.664	2.62	27.755	35.1											
2622A	1.67	34.644		2.27	2.68	183.		36.2	37.2	3250	1.55	34.667	2.76	27.760	34.7											
2814A	1.62	34.656		2.48	2.80	173.		35.9	35.9	3500	1.51	34.682	2.97	27.775	33.2											
3057A	1.58	34.665		2.65	2.70	169.		34.5	35.0	3750	1.50	34.680	3.14	27.775	33.3											
3301A	1.54	34.666		2.79	2.70	181.		33.8	34.6	4000	1.49	34.683	3.25	27.778	33.0											
3495A	1.51	34.681		2.97	2.82	178.		35.8	33.2	4250	1.51	34.691	3.37	27.783	32.5											
3690A	1.50	34.680		3.11	2.45	170.		33.2	33.3	4500	1.54	34.690	3.45	27.780	32.8											
3934A	1.49	34.679		3.21	2.80	170.		36.3	33.3	4750	1.56	34.692	3.48	27.780	32.8											
4177A	1.50	34.691		3.34	2.82	170.		31.5	32.4																	
4421A	1.53	34.689		3.43	2.78	167.		32.4	32.8																	
4663A	1.55	34.689		2.83	2.83	167.		32.3	32.9																	
4751A	1.56	34.692		3.48	3.22	165.		32.4	32.8																	

A) CAST II.

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 7008

70040

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME			BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES		
35 53.0N		122 22.5W		8/26/70		2204 GMT			2074M		320		14KT		0		320 4 4		
Z	T	S	O2	P04	SI03	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD				
0									0	14.02	33.52		25.061	290.9	0.000				
10									10	14.02	33.52		25.061	290.9	0.029				
20									20	13.85	33.52		25.096	287.6	0.058				
30									30	13.25	33.58		25.265	271.6	0.086				
50									50	10.60	33.60		25.778	222.7	0.136				
75									75	9.14	33.82		26.194	183.2	0.187				
100									100	8.92	33.98		26.354	168.0	0.231				
125									125	8.87	34.05		26.416	162.1	0.273				
150									150	8.72	34.07		26.456	158.4	0.314				
200									200	8.34	34.13		26.561	148.4	0.392				
250									250	7.87	34.17		26.663	138.7	0.466				
300									300	7.13	34.16		26.761	129.4	0.535				
400									400	6.19	34.18		26.903	115.9	0.663				
500									500	5.65	34.24		27.018	105.0	0.779				
600									600	5.27	34.31		27.119	95.4	0.886				
700									700	4.76	34.37		27.226	85.3	0.983				
800									800	4.51	34.39		27.269	81.2	1.074				
1000									1000	3.79	34.45		27.393	69.5	1.242				

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 7008

70040

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME			BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES		
35 53.0N		122 22.5W		8/26/70		2306 GMT			2074M		320		14KT		0		320 4 4		
Z	T	S	O2	P04	SI03	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD				
0	14.00		6.27	0.60	1.	0.19	3.7												
10	13.97		6.28	0.58	0.	0.21	3.7												
29	13.48		6.28	0.63	1.	0.29	4.7												
59	10.27		4.22	1.47	17.	0.30	17.4												
78	9.47		3.38	1.81	25.	0.06	22.1												
94	9.00		3.16	1.86	29.	0.04	23.9												
109	8.96		2.76	2.06	32.	0.04	25.5												
137	8.85		2.11	2.34	36.	0.03	27.5												
163	8.64		1.96	2.35	39.	0.03	28.3												
193	8.39		1.70	2.42	43.	0.01	29.5												
228	8.17		1.52	2.50	45.	0.02	30.5												
297	7.19		1.45	2.67	54.	0.14	32.7												
408	6.13		1.11	3.02	68.	0.01	37.1												
515	5.64		0.50	3.23	79.	0.02	38.9												
654	5.13	34.348	0.34	3.36	92.	0.05	40.2	91.0											
812	4.52	34.408	0.37	3.15U	103.	0.03	40.6	80.0											

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 7008

70075

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME			BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES		
35 23.0N		123 27.0W		8/28/70		0243 GMT			3918M		320		15KT		2		320 6 6		
Z	T	S	O2	P04	SI03	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD				
0	14.55		33.55						0	14.55	33.55		24.973	299.4	0.000				
10	14.55		33.55						10	14.55	33.55		24.973	299.4	0.030				
20	14.52		33.54						20	14.52	33.54		24.972	299.5	0.060				
30	13.45		33.42						30	13.45	33.42		25.101	287.1	0.089				
50	10.52		33.42						50	10.52	33.42		25.652	234.7	0.142				
75	9.74		33.59						75	9.74	33.59		25.917	209.6	0.198				
100	9.14		33.75						100	9.14	33.75		26.139	188.4	0.248				
125	8.88		33.86						125	8.88	33.86		26.267	176.3	0.294				
150	8.46		33.95						150	8.46	33.95		26.402	163.5	0.337				
200	7.87		33.99						200	7.87	33.99		26.522	152.1	0.417				
250	7.32		34.02						250	7.32	34.02		26.625	142.3	0.493				
300	6.61		34.03						300	6.61	34.03		26.730	132.4	0.564				
400	5.95		34.12						400	5.95	34.12		26.886	117.5	0.693				
500	5.31		34.20						500	5.31	34.20		27.028	104.1	0.810				
600	5.03		34.31						600	5.03	34.31		27.147	92.8	0.914				
700	4.75		34.38						700	4.75	34.38		27.235	84.5	1.010				
800	4.38		34.41						800	4.38	34.41		27.299	78.4	1.099				
1000	3.72		34.47						1000	3.72	34.47		27.416	67.3	1.261				

RV ALEXANDER AGASSIZ										CALCOFI CRUISE 7008					70075		
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOT TOM		WIND		SPEED		WEATHER		DOMINANT WAVES	
35 23.0N		123 27.0W		8/28/70		0353 GMT		3918M		320		15KT		2		320 6 6	
Z	T	S	O2	P04	S103	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD		
2	14.56		6.37	0.31	0.	0.01	0.2										
12	14.54		6.33	0.31	0.	0.02	0.1										
32	14.50		6.32	0.33	0.	0.01	0.0										
60	11.16		5.58	0.94	8.	0.22	8.5										
80	9.56		4.85	1.28	15.	0.16	14.4										
94	9.36		4.22	1.54	19.	0.00	18.7										
109	9.16		3.71	1.66	22.	0.00	21.1										
139	8.82		3.22	1.86	26.	0.00	23.1										
162	8.39		2.96	1.96	31.	0.00	24.8										
192	8.00		2.86	2.07	34.	0.00	26.0										
225	7.61		2.43	2.27	40.	0.00	28.6										
293	6.72		1.99	2.52	51.	0.00	31.9										
401	5.83		1.03	2.97	68.	0.00	37.8										
506	5.26		0.51	3.23	80.	0.00	40.5										
641	4.92	34.354	0.29	3.33	91.	0.05	41.4	88.3									
796	4.39	34.401	0.31	3.31	102.	0.00	42.0	79.1									
961	3.87	34.461	0.48	3.30	112.	0.00	42.3	69.4									
1168	3.37	34.517	0.76	3.38	123.	0.00	42.7	60.5									

RV ALEXANDER AGASSIZ										CALCOFI CRUISE 7008					70090		
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOT TOM		WIND		SPEED		WEATHER		DOMINANT WAVES	
34 53.0N		124 30.0W		8/29/70		1431 GMT		4231M		330		5KT		4		330 3 4	
Z	T	S	O2	P04	S103	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD		
									0	15.15	33.19		24.567	338.0	0.000		
									10	14.70	33.26		24.718	323.6	0.033		
									20	14.82	33.33		24.746	321.0	0.065		
									30	14.65	33.45		24.875	308.7	0.097		
									50	11.15	33.08		25.277	270.4	0.155		
									75	9.70	33.13		25.565	243.0	0.220		
									100	9.39	33.43		25.850	216.0	0.277		
									125	8.79	33.66		26.124	189.9	0.329		
									150	8.72	33.83		26.268	176.2	0.375		
									200	8.45	34.02		26.458	158.1	0.460		
									250	7.68	34.01		26.565	148.0	0.539		
									300	6.82	34.04		26.710	134.3	0.611		
									400	5.80	34.12		26.905	115.7	0.741		
									500	5.20	34.22		27.056	101.4	0.855		
									600	4.85	34.30		27.160	91.6	0.958		
									700	4.58	34.36		27.238	84.2	1.052		
									800	4.28	34.40		27.302	78.1	1.141		
									1000	3.73	34.47		27.415	67.4	1.303		

RV ALEXANDER AGASSIZ										CALCOFI CRUISE 7008					70090		
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOT TOM		WIND		SPEED		WEATHER		DOMINANT WAVES	
34 53.0N		124 30.0W		8/29/70		1646 GMT		4231M		330		5KT		4		330 3 4	
Z	T	S	O2	P04	S103	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD		
0	15.16		6.15	0.25	0.	0.02	0.3										
9	14.92																
28	14.63		6.18	0.36	0.	0.06	0.9										
55	10.90		6.02	0.75	8.	0.25	6.5										
73	10.73		5.83	0.91	10.	0.34	9.0										
88	9.41		5.09	1.04	12.	0.04	11.7										
102	9.36		4.79	1.23	15.	0.02	14.3										
129	8.93		4.29	1.62	24.	0.02	20.4										
152	8.71		3.65	1.61	26.	0.02	21.4										
179	8.60		2.58	2.02	34.	0.00	26.0										
211	8.10		2.42	2.15	37.	0.05	27.2										
275	7.28		2.00	2.45	49.	0.04	30.7										
374	6.13		1.13	2.83	67.	0.02	36.5										
473	5.32		0.59	3.08	83.	0.02	39.7										
599	4.89	34.282	0.30	3.22	96.	0.05	41.1	93.3									
745	4.35	34.364	0.28	3.28	109.	0.03	42.0	81.5									
903	3.90	34.435	0.43	3.25	119.	0.02	41.8	71.7									
1103	3.37	34.492	0.73	3.26	129.	0.02	42.1	62.4									

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 7008

70110

LATITUDE 34 13.0N		LONGITUDE 125 54.0W		MO/DAY/YR 8/30/70		MESSENGER 2323 0222		TIME GMT	POTOM 4124M	WIND 300	SPEED 3KT	WEATHER 02	DOMINANT WAVES 300 3 4			DD
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	SIGT	DT	DD	
0	18.23		5.62	0.22	2.	0.00	0.0									
9	17.67		5.63	0.22	2.	0.00	0.0									
29A	17.02		5.75	0.20	2.	0.00	0.0									
57	15.77		6.38	0.23	1.	0.00	0.0									
77	12.78		6.33	0.23	1.	0.00	0.0									
91	11.87		6.20	0.38	2.	0.06	0.1									
106	11.15		5.85	0.38	5.	0.10	0.3									
135	9.78		5.46	0.80	10.	0.01	7.1									
15R	9.72		4.77	1.28	14.	0.00	12.0									
186	9.22		4.15	1.51	19.	0.00	16.0									
219	8.79		3.49	1.71	25.	0.00	19.0									
285	7.85		2.76	2.02	45.	0.01	20.5									
38P	6.51		1.50	2.62	61.	0.00	26.5									
489	5.69		0.96	2.92	64.	0.01	32.6									
620	5.02	34.258	0.35	3.12	106.	0.00	42.7	96.5								
771	4.47	34.374	0.27	3.20		0.02		82.0	700	4.71	34.333	0.31	27.202	87.6		
863R	4.18	34.39	0.32	3.22	131.	0.05	41.3	77.8	800	4.37	34.360	0.28	27.276	80.6		
934	4.00	34.427	0.38	3.25	119.	0.02	39.8	73.3	1000	3.78	34.439	0.42	27.384	70.3		
1057R	3.59	34.448	0.47	3.18	144.	0.05	42.5	67.8	1200	3.25	34.498	0.67	27.482	61.0		
1143	3.37	34.490	0.61	3.26	149.	0.03	43.4	62.6	1500	2.71	34.548	1.12	27.572	52.5		
1252R	3.16	34.499	0.73	3.18	156.	0.05	43.0	60.0	1750	2.32	34.577	1.41	27.629	47.1		
1495R	2.72	34.547	1.11	3.13	169.	0.12	42.3	52.6	2000	2.03	34.603	1.80	27.672	43.0		
1740R	2.33	34.575	1.39	3.10	175.	0.06	41.3	47.3	2250	1.90	34.623	2.05	27.699	40.5		
1986R	2.04	34.600	1.78	2.98	185.	0.06	40.3	43.2	2500	1.75	34.632	2.24	27.718	38.7		
2231R	1.91	34.621	2.03	2.88	186.	0.05	40.2	40.7	2750	1.64	34.648	2.46	27.738	36.7		
2477R	1.76	34.630	2.22	2.83	185.	0.05	38.5	38.9	3000	1.59	34.656	2.63	27.748	35.9		
2724R	1.65	34.646	2.44	2.77	186.	0.04	38.0	36.9	3250	1.54	34.663	2.81	27.758	34.9		
2922R	1.61	34.655	2.60	2.77	184.	0.05	37.8	35.9	3500	1.48	34.671	3.09	27.769	33.8		
3122R	1.57	34.654	2.68	2.70	183.	0.04	36.9	35.7	3750	1.49	34.674	3.19	27.771	33.7		
3322R	1.52	34.667	2.88	2.65	182.	0.04	36.4	34.4	4000	1.49	34.679	3.22	27.774	33.3		
3322R	1.52	34.667	2.88	2.65	182.	0.04	36.4	34.4								
3471R	1.48	34.671	3.07	2.60	181.	0.03	36.8	33.8								
3622R	1.49	34.669	3.15	2.55	181.	0.00	36.2	34.0								
3772R	1.49	34.674	3.19	2.55	180.	0.04	36.0	33.6								
3924R	1.49	34.679	3.18	2.40	178.	0.00	35.4	33.3								
4125R	1.48	34.676	3.37	2.47	179.	0.00	35.9	33.4								

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 7008

70110

LATITUDE 34 14.0N		LONGITUDE 125 54.0W		MO/DAY/YR 8/31/70		MESSENGER 0334 GMT		TIME GMT	POTOM 4124M	WIND 300	SPEED 3KT	WEATHER 02	DOMINANT WAVES 300 3 4			DD
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	SIGT	DT	DD	
									0	18.14	32.86		23.624	428.0	0.000	
									10	17.62	32.86		23.750	416.0	0.042	
									20	17.37	32.85		23.802	411.0	0.084	
									30	17.04	32.84		23.872	404.3	0.124	
									50	14.67	32.78		24.356	358.2	0.201	
									75	13.10	32.77		24.670	328.2	0.287	
									100	11.68	32.79		24.956	301.0	0.366	
									125	10.47	32.95		25.296	268.7	0.438	
									150	9.85	33.31		25.681	232.0	0.501	
									200	9.07	33.71		26.119	190.3	0.609	
									250	8.29	33.95		26.428	161.0	0.698	
									300	7.52	34.03		26.604	144.3	0.777	
									400	6.40	34.11		26.821	123.8	0.916	
									500	5.57	34.18		26.981	108.6	1.038	
									600	5.05	34.24		27.090	98.2	1.148	
									700	4.80	34.33		27.189	88.8	1.249	
									800	4.35	34.40		27.295	78.8	1.340	
									1000	3.73	34.47		27.415	67.4	1.503	
									1200	3.27	34.53		27.507	58.6	1.646	
									1500	2.66	34.58		27.603	49.6	1.835	

A) THE WATER SAMPLE FROM THIS NANSEN BOTTLE WAS LOST. THE BOTTLE WAS RE-LOWERED ALONE ON THE WIRE FOR THE LISTED VALUES.
B) CAST 1.

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 7008

70140

Z	LATITUDE		LONGITUDE			MO/DAY/YR			MESSENGER		TIME	ROTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
	33	14.0N	127	57.0W	9/	1/70	1406	1711	GMT	4494M	350	9KT	2	350	3	3		
T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD				
0	18.24		5.59	0.22	3.	0.00	0.0											
10	18.21		5.59	0.20	3.	0.00	0.0											
30	17.08		5.83	0.17	3.	0.00	0.0											
56	14.21		6.28	0.20	3.	0.00	0.0											
70	12.78		6.29	0.23	4.	0.00	0.0											
86	11.50		5.94	0.43	7.	0.11	2.4											
101	10.65		5.55	0.63	10.	0.04	6.6											
131	9.31		5.02	1.01	19.	0.03	13.7											
156	9.20		4.18	1.36	25.	0.01	19.4											
182	8.84		3.77	1.47	30.	0.01	21.3											
216	8.51		3.17	1.64	37.	0.02	24.7											
283	7.53		2.53	2.06	51.	0.06	29.5											
382	6.54		1.45	2.52	71.	0.03	35.2											
482	5.85		0.80	2.78	75.	0.04	39.0											
616	4.83	34.224	0.45	3.02	110.	0.05	42.2	97.0										
770	4.24	34.350	0.30	3.12	129.	0.06	43.9	81.4	700	4.45	34.295	0.33	27.199	87.8				
919	3.91	34.435	0.42	3.10	138.	0.06	43.9	71.8	800	4.17	34.371	0.31	27.290	79.2				
1130	3.35		0.68	3.07	150.	0.11	43.9		1000	3.70	34.466	0.51	27.413	67.5				
1205A	3.15	34.510	0.80	2.93	149.	0.19	44.7	59.1	1200	3.16	34.510	0.79	27.501	59.2				
1402A	2.79	34.544	1.08	2.78	156.	0.04	44.1	53.4	1500	2.66	34.561	1.20	27.587	51.1				
1599A	2.54	34.576	1.32	2.87	162.	0.05	44.2	48.9	1750	2.33	34.595	1.47	27.641	45.9				
1846A	2.21	34.602	1.57	2.85	172.	0.04	43.0	44.3	2000	2.06	34.610	1.76	27.676	42.6				
2093A	1.99	34.615	1.88	2.75	176.	0.03	42.2	41.7	2250	1.89	34.630	2.06	27.706	39.8				
2341A	1.84	34.639	2.16	2.72	177.	0.11	41.5	38.8	2500	1.79	34.647	2.32	27.727	37.7				
2590A	1.76	34.650	2.40	2.68	179.	0.12	40.9	37.4	2750	1.69	34.650	2.50	27.736	37.0				
2839A	1.65	34.648	2.56	2.60	180.	0.08	40.6	36.7	3000	1.60	34.663	2.73	27.753	35.3				
3087A	1.58	34.670	2.81	2.52	180.	0.06	39.8	34.6	3250	1.55	34.671	2.85	27.764	34.3				
3286A	1.54	34.670	2.86	2.49	180.	0.05	40.3	34.3	3500	1.50	34.672	3.02	27.768	33.9				
3487A	1.50	34.670	3.01	2.55	179.	0.07	39.0	34.0	3750	1.49	34.690	3.16	27.783	32.7				
3688A	1.49	34.687	3.14	2.45	177.	0.10	39.2	32.7	4000	1.49	34.681	3.27	27.776	33.2				
3837A	1.49	34.682	3.19	2.44	178.	0.10	39.0	33.0	4250	1.52	34.689	3.29	27.781	32.7				
3986A	1.49	34.679	3.26	2.42	178.	0.05	39.1	33.3	4500	1.53	34.678	3.25	27.771	33.6				
4137A	1.51	34.690	3.32	2.34	177.	0.28	39.1	32.6										
4286A	1.52	34.688	3.28	2.29	178.	0.03	39.5	32.8										
4484A	1.53	34.678	3.25	2.35	178.	0.12	39.4	33.6										

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 7008

70140

Z	LATITUDE		LONGITUDE			MO/DAY/YR			MESSENGER		TIME	ROTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
	33	14.0N	127	57.0W	9/	1/70	1606	GMT	4494M	350	9KT	2	350	3	3			
T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD				
0	18.40		32.95										23.629	427.5	0.000			
10	18.24		32.95										23.668	423.7	0.043			
20	17.07		32.94										23.941	397.7	0.084			
30	16.05		32.86										24.115	381.1	0.123			
50	14.20		32.92										24.562	338.5	0.195			
75	12.00		32.97										25.036	293.4	0.274			
100	10.25		33.09										25.442	254.7	0.343			
125	9.36		33.28										25.738	226.6	0.404			
150	9.40		33.60										25.980	203.5	0.458			
200	8.76		33.92										26.332	170.1	0.553			
250	8.02		33.99										26.500	154.2	0.636			
300	7.33		34.03										26.631	141.7	0.713			
400	6.46		34.13										26.828	123.0	0.850			
500	5.79		34.20										26.969	109.6	0.973			
600	4.85		34.23										27.105	96.8	1.062			
700	4.48		34.31										27.209	86.9	1.181			
800	4.18		34.38										27.297	78.6	1.271			
1000	3.73		34.48										27.423	66.7	1.432			

A) CAST I.

RV ALEXANDER AGASSIZ CALCOFI CRUISE 7008 70140

LATITUDE			LONGITUDE			MO/DAY/YR			MESSENGER TIME			ROTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
32 32.0N			129 21.0W			9/ 2/70			2350 GMT			4403M	020	9KT	1	020 5 3		
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	S16T	DT	DD			
0									0	20.49	33.56		23.558	434.2	0.000			
10									10	20.48	33.56		23.560	434.0	0.043			
20									20	20.42	33.56		23.576	432.5	0.087			
30									30	20.07	33.66		23.744	416.4	0.129			
50									50	17.20	33.68		24.476	346.7	0.206			
75									75	16.12	33.73		24.765	319.1	0.290			
100									100	15.70	33.86		24.960	300.6	0.368			
125									125	14.75	33.84		25.153	282.2	0.441			
150									150	13.70	33.85		25.382	260.4	0.510			
200									200	10.75	33.76		25.876	213.4	0.631			
250									250	9.39	33.93		26.239	178.9	0.731			
300									300	8.30	33.96		26.434	160.4	0.818			
400									400	6.72	33.99		26.684	136.7	0.973			
500									500	5.69	34.06		26.871	118.9	1.106			
600									600	4.91	34.16		27.043	102.7	1.224			
700									700	4.55	34.33		27.217	86.1	1.325			
800									800	4.33	34.38		27.281	80.1	1.415			
1000									1000	3.83	34.45		27.389	69.9	1.582			

RV ALEXANDER AGASSIZ CALCOFI CRUISE 7008 70140

LATITUDE			LONGITUDE			MO/DAY/YR			MESSENGER TIME			ROTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
32 32.0N			129 21.0W			9/ 3/70			0051 GMT			4403M	020	9KT	1	020 5 3		
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	S16T	DT	DD			
0	20.43			5.27	0.03	2.		0.0										
10	20.40			5.26	0.03	2.		0.0										
31	20.05			5.59	0.03	2.		0.0										
55	16.99			5.26U	0.00	3.		0.0										
70	16.10			5.94	0.02	3.		0.0										
84	16.19			5.85	0.00	3.		0.0										
99	15.60			5.82	0.00	3.		0.0										
129	14.52			5.59	0.07	4.		0.3										
153	13.62			5.38	0.08	5.		1.1										
178	12.58			5.26	0.25	6.		3.6										
213	10.14			4.94	0.78	13.		11.2										
277	8.61			3.97	1.41	30.		21.2										
378	6.96			3.09	1.99	50.		29.4										
477	5.78			1.67	2.47	71.		37.4										
611	5.10	34.216		0.30	3.02	94.		43.1	100.6									
767	4.41	34.33		0.28	3.12	112.		45.3	84.7									
918	4.03	34.419		0.33	3.13	121.		46.0	74.2									
1127	3.45	34.487		0.64	3.08	133.		45.8	63.5									

RV ALEXANDER AGASSIZ CALCOFI CRUISE 7008 90045

LATITUDE			LONGITUDE			MO/DAY/YR			MESSENGER TIME			ROTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
32 54.5N			118 55.5W			9/12/70			1612 GMT			1350M	230	3KT	2	270 2 3		
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	S16T	DT	DD			
0									0	17.68	33.55		24.262	367.1	0.000			
10									10	16.45	33.55		24.552	339.4	0.035			
20									20	15.40	33.55		24.788	316.9	0.068			
30									30	14.35	33.53		25.000	296.8	0.099			
50									50	11.17	33.50		25.599	239.8	0.153			
75									75	10.03	33.64		25.907	210.5	0.209			
100									100	9.41	33.79		26.127	189.6	0.260			
125									125	9.15	33.88		26.242	178.6	0.306			
150									150	8.82	33.97		26.362	167.3	0.350			
200									200	8.34	34.08		26.522	152.1	0.432			
250									250	8.22	34.17		26.611	143.6	0.508			
300									300	7.66	34.17		26.694	135.8	0.580			
400									400	7.20	34.26		26.830	122.8	0.715			
500									500	6.38	34.29		26.965	110.1	0.838			
600									600	5.75	34.33		27.077	99.4	0.950			
700									700	5.29	34.37		27.164	91.1	1.053			
800									800	4.94	34.38		27.213	86.5	1.151			
1000									1000	4.25	34.45		27.345	74.0	1.330			

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 7008

90045

Z	LATITUDE		LONGITUDE			MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES		
	T	S	O2	P04	SI03	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD					
0	32 54.5N	118 55.5W	9/12/70	1721	GMT	1350M	230	3KT	2	270	2	3								
10	17.69		5.62	0.08	5.		0.0													
10	17.45		5.71	0.10	4.		0.0													
30	14.85		5.49	0.33	7.		2.7													
55	10.76		4.26	1.09	17.		15.4													
70	10.12		3.82	1.26	21.		17.6													
85	9.86		3.60	1.38	23.		19.6													
100	9.47		3.18	1.59	28.		22.4													
129	8.95		2.76	1.79	33.		25.2													
155	8.74		2.60	1.57	35.		25.2													
179	8.48		2.44	2.19	38.		28.4													
214	8.31		2.11	3.08U	41.		29.7													
278	7.82		1.20	2.75	51.		33.7													
377	7.20		0.78	2.87	60.		35.4													
474	6.75		0.51	3.28	68.		37.4													
607	5.69	34.346	0.26	3.35	84.		41.4	97.5												
761	5.07	34.391	0.25	3.17	94.		43.0	87.1												
910	4.49	34.437	0.39	3.17	108.		44.5	77.5												
1120	3.96	34.481	0.44	3.31	119.		44.2	68.8												

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 7008

90060

Z	LATITUDE		LONGITUDE			MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES		
	T	S	O2	P04	SI03	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD					
	32 25.0N	119 57.5W	9/10/70	1610	GMT	851M	320	10KT	2	320	3	5								
0							15.42	33.54					24.776	318.1	0.000					
10							15.42	33.54					24.776	318.1	0.032					
20							14.08	33.52					25.049	292.1	0.062					
30							12.50	33.38					25.258	272.2	0.091					
50							11.55	33.34					25.406	258.1	0.144					
75							10.02	33.45					25.761	224.4	0.205					
100							9.43	33.71					26.061	195.8	0.257					
125							9.34	33.77					26.123	190.0	0.306					
150							8.90	33.86					26.263	176.6	0.353					
200							8.10	34.01					26.504	153.8	0.437					
250							7.65	34.06					26.609	143.8	0.513					
300							7.40	34.15					26.715	133.7	0.585					
400							6.75	34.24					26.876	118.5	0.716					
500							5.98	34.29					27.016	105.2	0.834					
600							5.46	34.35					27.128	94.6	0.941					
700							4.96	34.40					27.227	85.2	1.039					

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 7008

90060

Z	LATITUDE		LONGITUDE			MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES		
	T	S	O2	P04	SI03	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD					
	32 25.0N	119 57.5W	9/10/70	1709	GMT	851M	320	10KT	2	320	3	5								
0							6.06	0.25	5.	0.08	2.0									
10							6.04	0.27	5.	0.14	2.2									
30							5.90	0.38	5.	0.16	3.2									
55							5.47	0.71	8.	0.48	7.7									
70							5.05	0.94	12.	0.25	11.7									
85							4.54	1.18	16.	0.12	16.0									
100							4.15	1.33	20.	0.08	18.5									
130							3.72	1.52	26.	0.05	22.1									
155							3.40	1.41	29.	0.20	23.3									
181							2.83	1.84	35.	0.04	27.0									
215							2.47	2.06	41.	0.05	29.7									
281							1.53	2.49	51.	0.04	33.6									
380							0.72	2.87	66.	0.06	37.3									
478							0.45	3.05	77.	0.07	39.5									
513		34.323	0.37	3.07	82.		0.04	40.6	101.1											
567		34.330	0.34	3.15	87.		0.05	40.8	97.7											
616		34.349	0.30	3.22	91.		0.07	42.1	93.7											
724		34.410	0.37	3.28	101.		0.00	43.1	83.4											

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 7008

90090

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES	
31 24.0N		122 01.0W		9/ 8/70		1455 GMT		3926M		270		7KT		2		290 4 11	
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD		
0	16.27		5.87	0.15	2.	0.04	0.0										
10	15.97		5.93	0.13	2.	0.03	0.0										
29	15.34		5.90	0.17	2.	0.05	0.0										
54	12.84		5.88	0.48	4.	0.30	3.2										
68	11.84		5.73	0.51	5.	0.23	4.4										
84	10.62		5.33	0.71	9.	0.07	8.9										
98	10.27		4.59	1.01	13.	0.05	13.9										
127	9.71		4.00	1.36	19.	0.02	18.2										
152	9.24		3.27	1.47	26.	0.04	22.6										
177	8.72		2.81	1.79	32.	0.01	26.6										
210	8.25		2.25	2.06	38.	0.00	28.5										
273	7.29		1.75	2.39	50.	0.03	33.2										
370	6.61		0.90	2.78	63.	0.02	37.0										
467	5.86		0.54	2.97	76.	0.02	39.8										
597	5.26	34.312	0.36	3.17	89.	0.05	42.0	95.2									
747	4.56	34.386	0.29	3.18	102.	0.02	44.1	82.0									
891	4.07	34.457	0.46	3.17	111.	0.03	44.6	71.7									
1099	3.54	34.504	0.70	3.25	121.	0.07	44.4	63.1									

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 7008

90090

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES	
31 24.0N		122 01.0W		9/ 8/70		1610 GMT		3926M		270		7KT		2		290 4 11	
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD		
0	16.11		33.29										24.430	351.0	0.000		
10	15.67		33.27										24.514	343.1	0.035		
20	15.55		33.27										24.541	340.5	0.069		
30	14.00		33.23										24.842	311.8	0.102		
50	12.60		33.24										25.131	284.3	0.161		
75	11.03		33.22										25.407	258.0	0.230		
100	10.10		33.42										25.724	227.9	0.291		
125	9.67		33.76										26.061	195.9	0.344		
150	9.20		33.85										26.208	181.9	0.392		
200	8.47		34.04										26.471	156.9	0.479		
250	7.53		34.09										26.650	140.0	0.555		
300	7.10		34.14										26.750	130.5	0.624		
400	6.55		34.21										26.879	118.2	0.754		
500	5.61		34.26										27.039	103.0	0.871		
600	5.15		34.34										27.157	91.8	0.975		
700	4.69		34.39										27.249	83.1	1.069		
800	4.39		34.43										27.314	77.0	1.157		
1000	3.85		34.49										27.418	67.1	1.318		

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 7008

90110

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES	
30 45.0N		123 19.0W		9/ 6/70		2250 GMT		4021M		350		6KT		2		350 8	
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD		
0	17.80		33.05										23.851	406.3	0.000		
10	17.63		33.05										23.892	402.3	0.040		
20	17.57		33.05										23.907	401.0	0.081		
30	17.55		33.05										23.911	400.5	0.121		
50	16.10		33.00										24.211	372.0	0.198		
75	14.19		33.01										24.633	331.7	0.287		
100	13.05		33.05										24.896	306.7	0.367		
125	12.08		33.35										25.315	266.8	0.439		
150	10.65		33.46										25.661	233.9	0.503		
200	9.22		33.80										26.166	185.9	0.609		
250	8.48		33.93										26.383	165.2	0.699		
300	7.75		33.97										26.524	151.9	0.781		
400	6.26		34.07										26.807	125.0	0.925		
500	5.52		34.16										26.971	109.5	1.048		
600	4.93		34.24										27.104	96.9	1.157		
700	4.63		34.35										27.224	85.5	1.255		
800	4.36		34.42										27.309	77.4	1.344		
1000	3.81		34.49										27.422	66.7	1.505		

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 7008

90110

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER		TIME	ROTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
30 45.0N		123 19.0W		9/ 6/70		2333		GMT	4021M	350	6KT	2	350	8	
Z	T	S	O2	P04	SI03	NO2	NO3	DT	Z	T	S	O2	SI6T	DT	DD
0	17.56		5.63	0.13	2.	0.00	0.0								
10	17.56	33,068	5.69	0.10	2.	0.00	0.0	399.4							
30	17.41		5.68	0.13	2.	0.00	0.0								
55	16.10		6.04	0.13	2.	0.00	0.0								
70	14.62		6.22	0.10	2.	0.00	0.0								
85	13.83		6.18	0.05	2.	0.00	0.0								
101	13.20		6.09	0.07	3.	0.00	0.0								
131	11.66		5.40	0.45	6.	0.00	4.6								
155	10.27		4.60	0.73	14.	0.19	12.0								
180	9.57		4.24	1.11	19.	0.03	17.3								
215	9.03		4.03	1.34	25.	0.04	20.5								
280	7.81		3.04	1.82	40.	0.04	27.9								
380	6.38		1.60	2.49	63.	0.05	36.0								
479	5.57	34,145	0.87	2.72	79.	0.05	40.1	111.2							
613	4.88	34,251	0.49	2.95	96.	0.08	42.5	95.6							
767	4.47	34,388	0.47	3.03	105.	0.07	42.9	80.9							
916	4.08	34,460	0.60	2.98	113.	0.06	43.4	71.6							
1125	3.52	34,503	0.91	3.05	126.	0.13	43.7	63.0							

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 7008

90145

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER		TIME	ROTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
29 34.5N		125 40.0W		9/ 4/70		2352		GMT	4365M	360	14KT	1	360	8 5	
Z	T	S	O2	P04	SI03	NO2	NO3	DT	Z	T	S	O2	SI6T	DT	DD
0	19.75												23.774	413.6	0.000
10	19.63												23.805	410.6	0.041
20	19.62												23.808	410.4	0.082
30	19.15												23.921	399.6	0.123
50	17.75												24.176	375.2	0.201
75	16.13												24.564	338.3	0.290
100	15.44												24.810	314.8	0.373
125	13.55												25.173	280.3	0.448
150	12.00												25.446	254.3	0.515
200	9.58												26.029	198.9	0.631
250	8.64												26.390	164.6	0.724
300	7.77												26.544	150.0	0.805
400	6.63												26.774	128.1	0.949
500	5.73												26.961	110.4	1.074
600	5.23												27.077	99.5	1.166
700	4.86												27.183	89.4	1.288
800	4.51												27.277	80.4	1.380
1000	3.93												27.394	69.3	1.547

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 7008

90145

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER		TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
29 34.5N		125 40.0W		9/ 5/70		0053		GMT	4365M	360	14KT	1	360	8 5	
Z	T	S	O2	P04	SI03	NO2	NO3	DT	Z	T	S	O2	SI6T	DT	DD
0	19.58		5.41	0.10	2.	0.03	0.0								
10	19.57		5.39	0.07	2.	0.01	0.0								
29	19.45		5.38	0.08	2.	0.02	0.0								
55	17.74		5.72	0.08	2.	0.01	0.0								
70	16.57		5.82	0.07	2.	0.01	0.0								
84	16.04		5.81	0.08	2.	0.00	0.0								
99	15.66		5.73	0.07	2.	0.01	0.0								
128	13.42		5.38	0.27	4.	0.05	2.1								
154	12.18		5.14	0.43	6.	0.03	5.3								
178	10.48		4.65	0.85	13.	0.02	12.3								
212	9.24		3.90	1.28	21.	0.00	18.5								
276	8.23		3.09	1.76	36.	0.00	26.9								
373	6.85		1.76	2.44	56.	0.00	34.8								
471	5.93		0.95	2.78	71.	0.00	39.4								
603	5.22	34,252	0.48	3.05	86.	0.01	42.8	99.2							
754	4.68	34,383	0.61	3.17	98.	0.00	44.4	83.5							
903	4.26	34,457	0.52	3.12	107.	0.00	45.3	73.6							
1109	3.64	34,462	0.73	3.10	118.	0.02	45.7	67.2							

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 7008

120045

LATITUDE			LONGITUDE			MO/DAY/YR			MESSENGER TIME			ROTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
27 43.0N			115 33.0W			10/ 1/70			2319 GMT			1875M	300	13KT	0	300 3 6		
Z	T	S	O2	P04	SI03	NO2	NO3	DT	Z	T	S	O2	SI6T	DT	DD			
0										21.58	33.46		23.188	469.6	0.000			
10										20.50	33.36		23.403	449.0	0.046			
20										18.20	33.14		23.823	409.0	0.089			
30										16.88	33.17		24.161	376.7	0.128			
50										15.20	33.28		24.625	332.5	0.199			
75										12.75	33.27		25.125	284.9	0.277			
100										11.05	33.48		25.605	239.2	0.343			
125										10.44	33.67		25.860	214.9	0.400			
150										10.02	33.87		26.088	193.3	0.452			
200										9.19	34.07		26.381	165.5	0.544			
250										9.32	34.34		26.571	147.5	0.624			
300										9.31	34.45		26.658	139.1	0.698			
400										7.56	34.35		26.849	121.0	0.835			
500										6.84	34.38		26.974	109.2	0.957			
600										6.01	34.40		27.099	97.3	1.068			
700										5.33	34.43		27.207	87.1	1.169			
800										4.86	34.46		27.286	79.7	1.261			
1000										4.14	34.50		27.396	69.2	1.428			

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 7008

120045

LATITUDE			LONGITUDE			MO/DAY/YR			MESSENGER TIME			ROTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
27 43.0N			115 33.0W			10/ 2/70			0023 GMT			1875M	300	13KT	0	300 3 6		
Z	T	S	O2	P04	SI03	NO2	NO3	DT	Z	T	S	O2	SI6T	DT	DD			
0	21.37	33.490	5.28	0.27	2.	0.00	0.0	461.9										
10	21.08	33.500	5.19	0.23	2.	0.00	0.0	453.7										
30	17.71	33.235	5.84	0.30	2.	0.00	0.0	390.7										
55	15.32		5.94	0.27	2.	0.00	0.0											
70	13.82		5.94	0.31	3.	0.00	0.0											
85	12.46		5.41	0.58	5.	0.27	3.8											
101	11.40		4.88	0.71	9.	0.32	7.6											
131	10.22		4.15	1.18	17.	0.23	15.0											
156	9.94		3.50	1.43	23.	1.53	17.0											
181	9.67		2.71	1.81	31.	0.15	23.4											
216	9.13		2.31	2.07	37.	0.26	26.6											
281	9.31		0.94	2.54	46.	0.32	28.9											
381	7.64		0.75	2.67	60.	0.37	33.3											
480	6.98		0.26	3.02	72.	0.03	37.8											
614	5.90		0.21	3.25	90.	0.03	41.4											
768	4.97	34.441	0.28	3.15	106.	0.04	44.0	82.3										
917	4.38	34.486	0.43	3.26	115.	0.03	45.0	72.6										
1126	3.74		0.66	3.30	130.	0.01	45.4											

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 7008

120045

LATITUDE			LONGITUDE			MO/DAY/YR			MESSENGER TIME			ROTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
27 23.0N			116 12.0W			9/29/70			2233 GMT			3737M						
Z	T	S	O2	P04	SI03	NO2	NO3	DT	Z	T	S	O2	SI6T	DT	DD			
0	22.23	33.681	5.29	0.23	2.	0.00	0.0	470.8										
10	21.22		5.26	0.18	2.	0.00	0.0											
29	18.49	33.451	5.59	0.25	2.	0.00	0.0	393.2										
53	13.43		4.97	0.65	6.	0.38	4.1											
67	11.87		4.18	1.03	12.	0.07	12.0											
83	11.11			1.34	17.	0.11	16.3											
97	10.47		3.30	1.61	24.	0.09	20.9											
126	9.92		2.65	1.92	31.	0.07	25.6											
150	9.68		2.15	2.04	35.	0.22	27.3											
174	9.14		2.05	2.09	40.	0.06	29.2											
209	8.57		2.00	2.30	45.	0.06	30.7											
271	8.09		2.44U	2.60	52.	0.04	33.6											
366	7.56		0.42	2.97	64.	0.04	37.0											
462	6.69		0.22	3.13	76.	0.04	40.4											
591	5.88		0.17	3.28	89.	0.03	43.6											
740	5.06		0.22	3.31	103.	0.03	45.8											
883	4.43	34.440	0.40	3.35	116.	0.02	46.9	76.6										
1089	3.77	34.463	0.70	3.50	130.	0.01	47.9	68.3										

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 7008

12005

LATITUDE			LONGITUDE			MO/DAY/YR			MESSENGER TIME			ROTTOM			WIND			SPEED			WEATHER			DOMINANT WAVES		
27 23.0N			116 12.0W			9/29/70			2315 GMT			3737M														
Z	T	S	O2	P04	S103	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD											
									0	22.46	33.67		23.102	477.7	0.000											
									10	21.16	33.62		23.423	447.0	0.046											
									20	18.60	33.53		24.021	390.0	0.088											
									30	16.00	33.46		24.585	336.2	0.125											
									50	13.00	33.46		25.222	275.6	0.186											
									75	11.15	33.76		25.805	220.2	0.248											
									100	10.48	33.88		26.017	200.1	0.301											
									125	9.91	34.02		26.223	180.4	0.349											
									150	9.63	34.15		26.371	166.4	0.394											
									200	8.85	34.20		26.537	150.7	0.475											
									250	8.22	34.23		26.658	139.2	0.549											
									300	7.93	34.28		26.740	131.4	0.619											
									400	7.23	34.34		26.889	117.3	0.749											
									500	6.43	34.37		27.021	104.7	0.867											
									600	5.80	34.40		27.126	94.8	0.974											
									700	5.25	34.42		27.209	87.0	1.073											
									800	4.76	34.44		27.281	80.1	1.165											
									1000	4.05	34.48		27.390	69.8	1.333											

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 7008

120070

LATITUDE			LONGITUDE			MO/DAY/YR			MESSENGER TIME			ROTTOM			WIND			SPEED			WEATHER			DOMINANT WAVES		
26 53.0N			117 10.0W			9/27/70			2237 GMT			3718M			320			14KT			0			320 3 4		
Z	T	S	O2	P04	S103	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD											
									0	21.60	33.66		23.334	455.6	0.000											
									10	21.21	33.62		23.410	448.3	0.045											
									20	21.17	33.63		23.428	446.6	0.090											
									30	21.05	33.63		23.461	443.5	0.135											
									50	13.85	33.45		25.043	292.7	0.208											
									75	11.50	33.62		25.632	236.6	0.275											
									100	10.55	33.79		25.935	207.9	0.331											
									125	9.94	33.99		26.195	183.1	0.381											
									150	9.69	34.11		26.330	170.3	0.425											
									200	9.05	34.22		26.521	152.2	0.508											
									250	9.12	34.36		26.619	142.9	0.584											
									300	8.73	34.42		26.728	132.5	0.655											
									400	7.69	34.41		26.878	118.3	0.787											
									500	6.55	34.40		27.032	103.7	0.905											
									600	5.87	34.42		27.133	94.1	1.011											
									700	5.25	34.43		27.216	86.2	1.110											
									800	4.75	34.46		27.298	78.5	1.201											
									1000	4.00	34.51		27.419	67.0	1.364											

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 7008

120070

LATITUDE			LONGITUDE			MO/DAY/YR			MESSENGER TIME			ROTTOM			WIND			SPEED			WEATHER			DOMINANT WAVES		
26 53.0N			117 10.0W			9/27/70			2335 GMT			3718M			320			14KT			0			320 3 4		
Z	T	S	O2	P04	S103	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD											
									0	21.61	33.686	5.26	0.10	0.	0.00	0.0	454.0									
									10	21.37	33.688	5.20	0.10	0.	0.00	0.0	447.6									
									30	21.13	33.688	5.17	0.08	0.	0.00	0.0	441.3									
									54	12.96		4.65	0.58	6.	0.19	7.0										
									69	11.44		4.23	0.85	10.	0.02	12.3										
									85	11.04		3.81	0.99	14.	0.09	15.1										
									100	10.52		3.34	1.28	18.	0.04	18.8										
									129	9.88		2.79	1.54	27.	0.00	23.9										
									154	9.56		2.41	1.62	31.	0.09	25.2										
									180	9.25		2.07	1.84	35.	0.00	27.5										
									214	9.31		1.24	2.17	41.	0.00	29.5										
									280	8.85		0.55	2.54	49.	0.00	31.4										
									380	7.68		0.28	2.70	60.	0.02	34.6										
									479	6.76		0.19	2.88	71.	0.00	37.7										
									613	5.72		0.17	3.00	84.	0.02	40.5										
									767	4.86		0.26	3.03	98.	0.01	42.5										
									917	4.28	34.459	0.41	3.05	107.	0.01	43.4	73.6									
									1126	3.69	34.489	0.65	3.03	116.	0.01	43.5	65.6									

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 7008

120090

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME			ROTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES					
26 13.0N	118 27.0W	9/25/70	2236	GMT		4116M	340	14KT	1	340	5	5			
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	SIGT	DT	DD
0	20.48	33.46											23.484	441.2	0.000
10	20.39	33.46											23.508	439.0	0.044
20	20.38	33.47											23.518	438.0	0.088
30	20.37	33.47											23.521	437.7	0.132
50	19.05	33.44											23.840	407.4	0.217
75	16.25	33.46											24.529	341.7	0.311
100	14.35	33.58											25.042	292.7	0.391
125	12.35	33.64											25.488	250.3	0.459
150	11.34	33.70											25.724	227.9	0.520
200	9.85	34.01											26.226	180.2	0.624
250	9.14	34.20											26.491	155.1	0.710
300	8.41	34.21											26.613	143.4	0.787
400	7.39	34.31											26.842	121.7	0.925
500	6.56	34.36											26.996	107.1	1.047
600	5.76	34.41											27.139	93.6	1.155
700	5.23	34.43											27.219	86.0	1.252
800	4.84	34.46											27.288	79.4	1.344
1000	4.12	34.51											27.406	68.2	1.509

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 7008

120090

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME			ROTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES					
26 13.0N	118 27.0W	9/25/70	2338	GMT		4116M	340	14KT	1	340	5	5			
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	SIGT	DT	DD
0	20.34	33.49	5.30	0.08	1.	0.00	0.0	435.5							
10	20.31	33.49	5.27	0.10	1.	0.00	0.0	434.8							
30	20.17	33.49	5.29	0.10	1.	0.00	0.0	431.3							
55	17.98		5.84	0.08	1.	0.00	0.0								
71	16.88		5.84	0.07	1.	0.00	0.0								
86	15.68		5.76	0.15	1.	0.00	0.0								
100	14.53		5.48	0.20	2.	0.02	0.1								
130	12.42		4.93	0.50	6.	0.00	6.2								
156	11.18		4.37	0.68	11.	0.18	10.9								
181	10.24		3.34	1.33	21.	0.00	19.9								
215	9.47		2.67	1.72	30.	0.00	24.8								
280	8.81		1.68	2.06	41.	0.01	29.4								
381	7.71		0.72	2.60	55.	0.12	32.8								
480	6.83		0.34	2.80	67.	0.01	36.6								
614	5.65 A		0.32	3.05	82.	0.00	40.1								
768	4.98	34.44	0.38	3.03	91.	0.01	41.8	82.5							
917	4.42	34.48	0.53	3.23	101.	0.00	42.7	73.5							
1127	3.74		0.74	3.10	111.	0.00	42.4								

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 7008

120120

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME			BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES					
25 13.0N	120 22.5W	9/24/70	0018	GMT		4083M	330	12KT	1	330	4	7			
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	SIGT	DT	DD
0	20.65	33.53											23.492	440.5	0.000
10	20.50	33.52											23.525	437.4	0.044
20	21.00	33.85											23.641	426.3	0.087
30	20.95	33.91											23.700	420.6	0.130
50	19.05	33.65											23.999	392.1	0.211
75	17.80	33.83											24.446	349.5	0.304
100	16.60	33.92											24.800	315.8	0.388
125	14.85	33.90											25.177	279.9	0.463
150	12.14	33.70											25.576	241.9	0.530
200	10.15	33.82											26.027	199.1	0.642
250	9.23	34.04											26.351	168.3	0.736
300	9.05	34.29											26.575	147.0	0.817
400	8.04	34.34											26.771	128.4	0.961
500	5.89	34.20											26.957	110.8	1.088
600	5.50	34.31											27.092	98.0	1.199
700	5.08	34.40											27.213	86.6	1.299
800	4.87	34.46											27.284	79.8	1.391
1000	4.05	34.51											27.414	67.5	1.556

A) MEAN VALUE OF 5.68 AND 5.62 DEGREES.

RV ALEXANDER AGASSIZ

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LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND SPEED		WEATHER		DOMINANT WAVES		
25 13.0N		120 22.5W		9/24/70		0118 GMT		4083M		330 12KT		1		330 4 7		
Z	T	S	O2	PO4	SI03	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD	
0	20.42	33.57	5.27	0.02	1.	0.05	0.0	431.8								
10	20.43	33.57	5.28	0.13	1.	0.05	0.0	432.0								
30	20.79	33.95	5.25	0.08	1.	0.04	0.0	413.6								
56	18.43		5.75	0.13	1.	0.04	0.0									
70	17.72		5.84	0.08	1.	0.04	0.0									
85	16.72		5.65	0.07	4.	0.04	0.1									
100	16.28		5.64	0.35	2.	0.03	0.1									
130	14.77		5.18	0.23	3.	0.06	0.5									
155	12.23		4.95	0.03	7.	0.07	0.1									
180	10.90		4.42	0.68	10.	0.09	9.8									
216	9.82		4.06	1.08	19.	0.17	15.6									
279	9.06		2.59													
380	8.28		0.74													
479	6.28		0.87													
613	5.40 A		0.36													
766	4.97		0.36													
914	4.41	34.44	0.42					76.4								
1121	3.72	34.50	0.72					65.1								

A) MEAN VALUE OF 5.37 AND 5.44 DEGREES.

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