

UNIVERSITY OF CALIFORNIA SCRIPPS INSTITUTION OF OCEANOGRAPHY

data report

PHYSICAL AND CHEMICAL DATA

CalCOFI Cruise 7412
25 November - 18 December 1974

CalCOFI Cruise 7501
8 January - 15 February 1975

and

CalCOFI Cruise 7503
24 February - 28 March 1975

SIO Reference 84-10
12 March 1984

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Sponsored by
Marine Research Committee

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Approved for distribution:


W. A. Nierenberg, Director

CONTENTS

Introduction	3
Literature Cited	5
Cruise 7412	
List of Figures	7
Personnel	18
Tabulated Data	19
10 Meter Data	64
Cruise 7501	
List of Figures	75
Personnel	86
Tabulated Data	87
10 Meter Data	127
Cruise 7503	
List of Figures	137
Personnel	148
Tabulated Data	149
10 Meter Data	185
Distribution List	193

INTRODUCTION

The data in this report were collected during Cruises 7412*, 7501, and 7503 of the California Cooperative Oceanic Fisheries Investigations (CalCOFI) program aboard the RV *David Starr Jordan* of the National Marine Fisheries Service and the RV *Alexander Agassiz* of the Scripps Institution of Oceanography. The report preceding this one in the series was SIO Ref. 82-21 which included data for 1978.

These data were collected and processed by personnel of the Data Collection and Processing Group (DCPG**), Marine Life Research Group (MLRG), and the Southwest Fisheries Center, National Marine Fisheries Service (NMFS).

STANDARD PROCEDURES

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

Plessey Environmental Systems Model 9040 STDs were used for most stations by both the *Jordan* and the *Agassiz*. Temperature and salinity offset corrections were applied to the STD data based upon Nansen bottle data comparisons. At most stations, the maximum sampling depth was 1000 meters, bottom depth permitting. An 18-bottle Nansen cast replaced the STD cast on a few stations where the STD failed.

Hydrographic Cast Data

The hydrographic casts consisted of 18 or fewer Nansen bottles cast to a maximum sampling depth of 1000 meters, bottom depth permitting. There was usually only one Nansen cast per CalCOFI line. Temperature, salinity, and oxygen were determined for all depths.

On STD lowerings, a Nansen bottle was usually placed on the wire a few meters above the STD and another bottle was lowered to a depth of 10 meters. Temperature and salinity were determined from both bottles on most stations; dissolved oxygen was occasionally determined from the 10-meter bottle. A 10-meter bottle was also taken on most net tow stations.

Paired protected reversing thermometers were used to determine temperatures which are recorded to hundredths of a Celsius degree. Sample bottles used below 100 meters were equipped with unprotected thermometers for determination of the depth of sampling.

All salinity samples were analyzed at sea using inductive type salinometers. The salinity values were recorded and are reported to three decimal places, provided accepted standards were met. If there was doubt concerning the accuracy of the analytical results, the salinities are reported to two decimal points. 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).

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

TABULATED DATA

The time reported is Greenwich Mean Time. For STD lowerings it is the "start down" time and for Nansen bottle casts it is the time of messenger release.

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

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

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 three forms:

1) Data from the sample bottle casts are tabulated with the observed levels of depth on the left of a page, and standard depth values of temperature, salinity and oxygen interpolated from those observations are on the right of a page. Additional computed values are also presented.

2) Data from the STD lowerings are presented with two stations printed side by side. Temperature and salinity are tabulated at closer standard intervals than the interpolated standard depth bottle data. Additional computed values are also presented.

3) Ten-meter temperature, salinity and occasionally oxygen data from net tow 10-meter bottles and STD 10-meter check bottles appear as separate sections.

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 93.30 appears in the tabulated data as 93030. The CalCOFI station designations have been in use for over thirty 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. On some closely-spaced special inshore stations, an additional superscript number may appear after the line number or station number to indicate a finer resolution of the non-standard station location.

The column headings are to be interpreted as follows:

Z	Depth	Meters
T	Temperature	°C
S	Salinity	‰
O2	Dissolved Oxygen	ml/L
DT	δ_T Thermometric 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
or		
SIGMA T		
DD	Geopotential anomaly, referred to the sea surface.	dynamic meters

FOOTNOTES

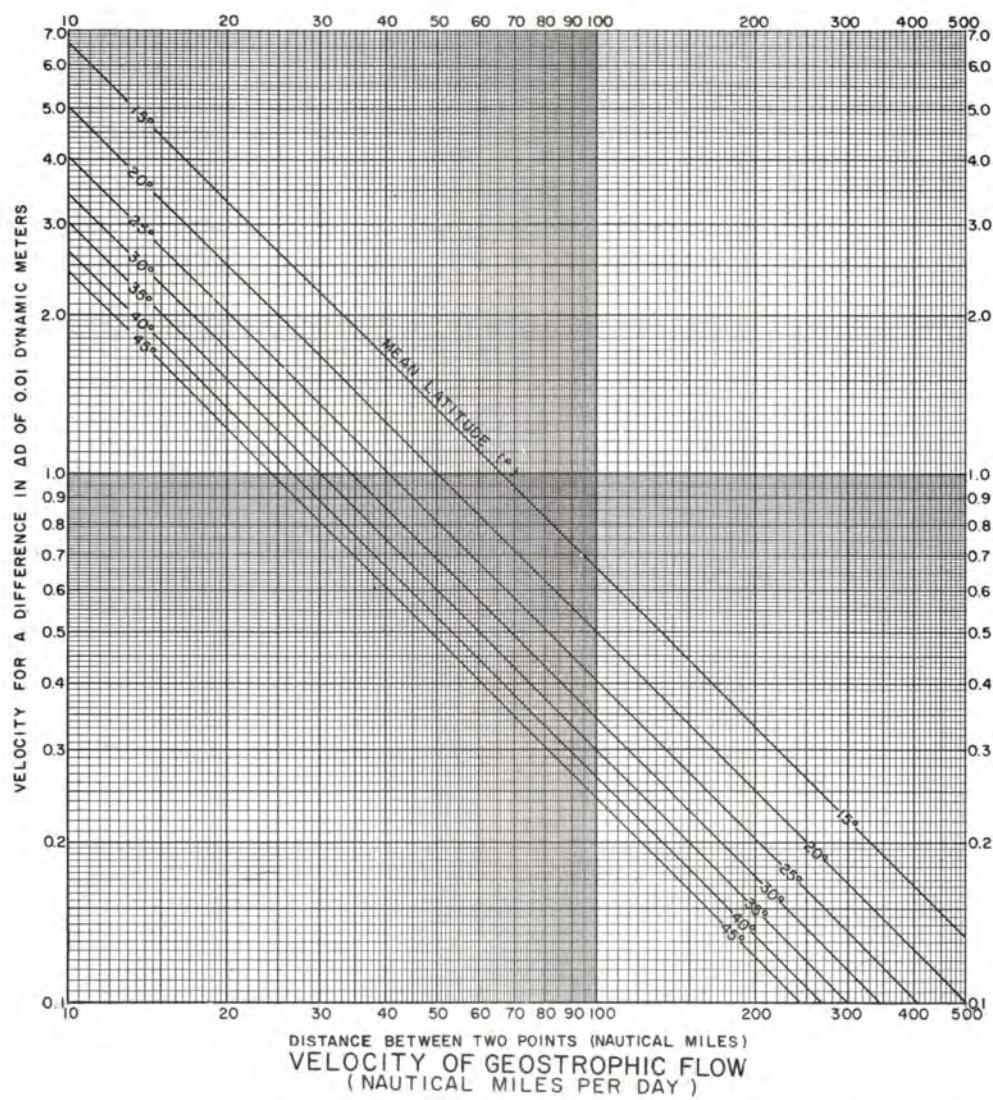
In addition to footnotes, special notations are used without footnotes because the meaning is always the same.

P: After depth values indicates the Nansen bottle poststripped.

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

LITERATURE CITED

- Anderson, G. C., compiler, 1971. "Oxygen Analysis," Marine Technician's Handbook, SIO Ref. No. 71-8, Sea Grant Pub. No. 9.
- Carpenter, J. H., 1965. The Chesapeake Bay Institute technique for the Winkler dissolved oxygen method. *Limnol. Oceanogr.*, 10: 141-143.
- Klein, Hans T., 1973. A new technique for processing physical oceanographic data. SIO Ref. No. 73-14.
- Matthews, D. J., 1939. Tables of the velocity of sound in pure water and seawater for use in echo-sounding and sound-ranging. Second Edition. Hydrographic Department, Admiralty, H. D. 282, 52 pp.
- Plessey Environmental Systems, 1974. Instruction Manual, *In situ* Salinity/Temperature/Depth Monitoring and Recording System, Model 9040.



cm/sec	0	1	2	3	4	5	6	7	8	9
0	KNOTS NM/DAY	0.02 0.47	0.04 0.93	0.06 1.40	0.08 1.86	0.10 2.33	0.12 2.80	0.14 3.26	0.16 3.73	0.17 4.20
10	0.19 4.66	0.21 5.13	0.23 5.59	0.25 6.06	0.27 6.53	0.29 6.99	0.31 7.46	0.33 7.93	0.35 8.39	0.37 8.86
20	0.39 9.32	0.41 9.79	0.43 10.26	0.45 10.72	0.47 11.19	0.49 11.66	0.51 12.12	0.52 12.59	0.54 13.05	0.56 13.52
30	0.58 13.99	0.60 14.45	0.62 14.92	0.64 15.38	0.66 15.85	0.68 16.32	0.70 16.78	0.72 17.25	0.74 17.72	0.76 18.18
40	0.78 18.65	0.80 19.11	0.82 19.58	0.84 20.05	0.85 20.51	0.87 20.98	0.89 21.45	0.91 21.91	0.93 22.38	0.95 22.84
50	0.97 23.31	0.99 23.78	1.01 24.24	1.03 24.71	1.05 25.17	1.07 25.64	1.09 26.11	1.11 26.57	1.13 27.04	1.15 27.51
60	1.17 27.98	1.18 28.44	1.20 28.90	1.22 29.37	1.24 29.84	1.26 30.30	1.28 30.77	1.30 31.24	1.32 31.70	1.34 32.17
70	1.36 32.63	1.38 33.10	1.40 33.57	1.42 34.03	1.44 34.50	1.46 34.96	1.48 35.43	1.50 35.90	1.52 36.36	1.53 36.83
80	1.55 37.30	1.57 37.76	1.59 38.23	1.61 38.69	1.63 39.16	1.65 39.63	1.67 40.09	1.69 40.56	1.71 41.03	1.73 41.49
90	1.75 41.96	1.77 42.42	1.79 42.89	1.81 43.36	1.83 43.82	1.85 44.29	1.86 44.76	1.88 45.22	1.90 45.69	1.92 46.15
100	1.94 46.62	1.96 47.09	1.98 47.55	2.00 48.02	2.02 48.48	2.04 48.95	2.06 49.42	2.08 49.88	2.10 50.35	2.12 50.82

CONVERSION TABLE
(CENTIMETERS / SECOND - KNOTS - NAUTICAL MILES / DAY)

1 cm/sec = 0.019 kts = 0.466 NAUTICAL MILES / DAY

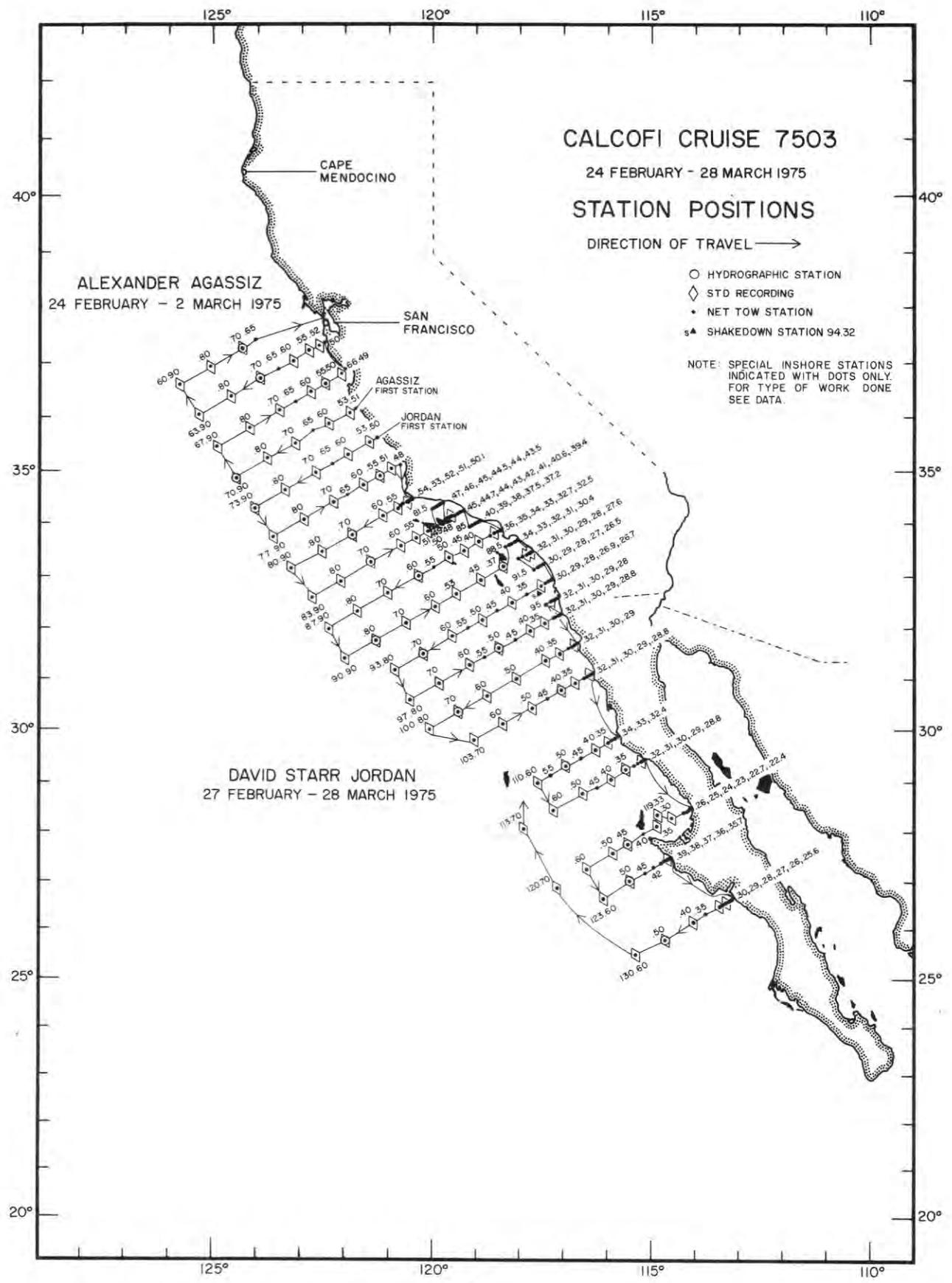
1 kts = 24 NAUTICAL MILES / DAY = 51.48 cm/sec

1 NAUTICAL MILE / DAY = 0.042 kts = 2.14 cm/sec

FIGURES

Cruise 7503

1. CalCOFI Cruise 7503, station positions
2. Horizontal distribution of dynamic height anomaly (0 over 500 d-bar)
3. Horizontal distribution of dynamic height anomaly (200 over 500 d-bar)
4. Horizontal distribution of temperature at 10 meters
5. Horizontal distribution of salinity at 10 meters
6. Horizontal distribution of thermosteric anomaly at 10 meters
7. Horizontal distribution of temperature at 200 meters
8. Horizontal distribution of salinity at 200 meters
9. Horizontal distribution of thermosteric anomaly at 200 meters



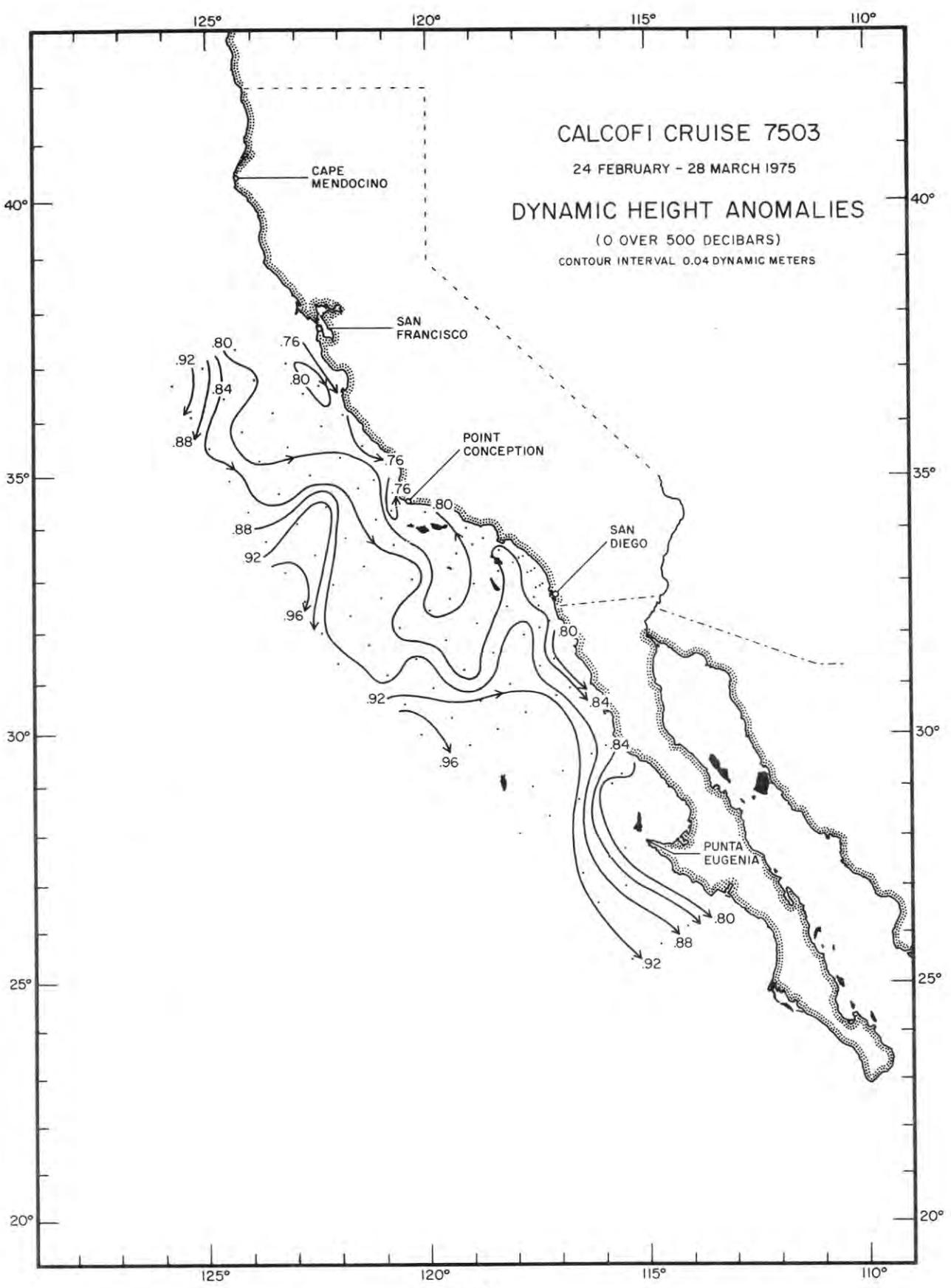
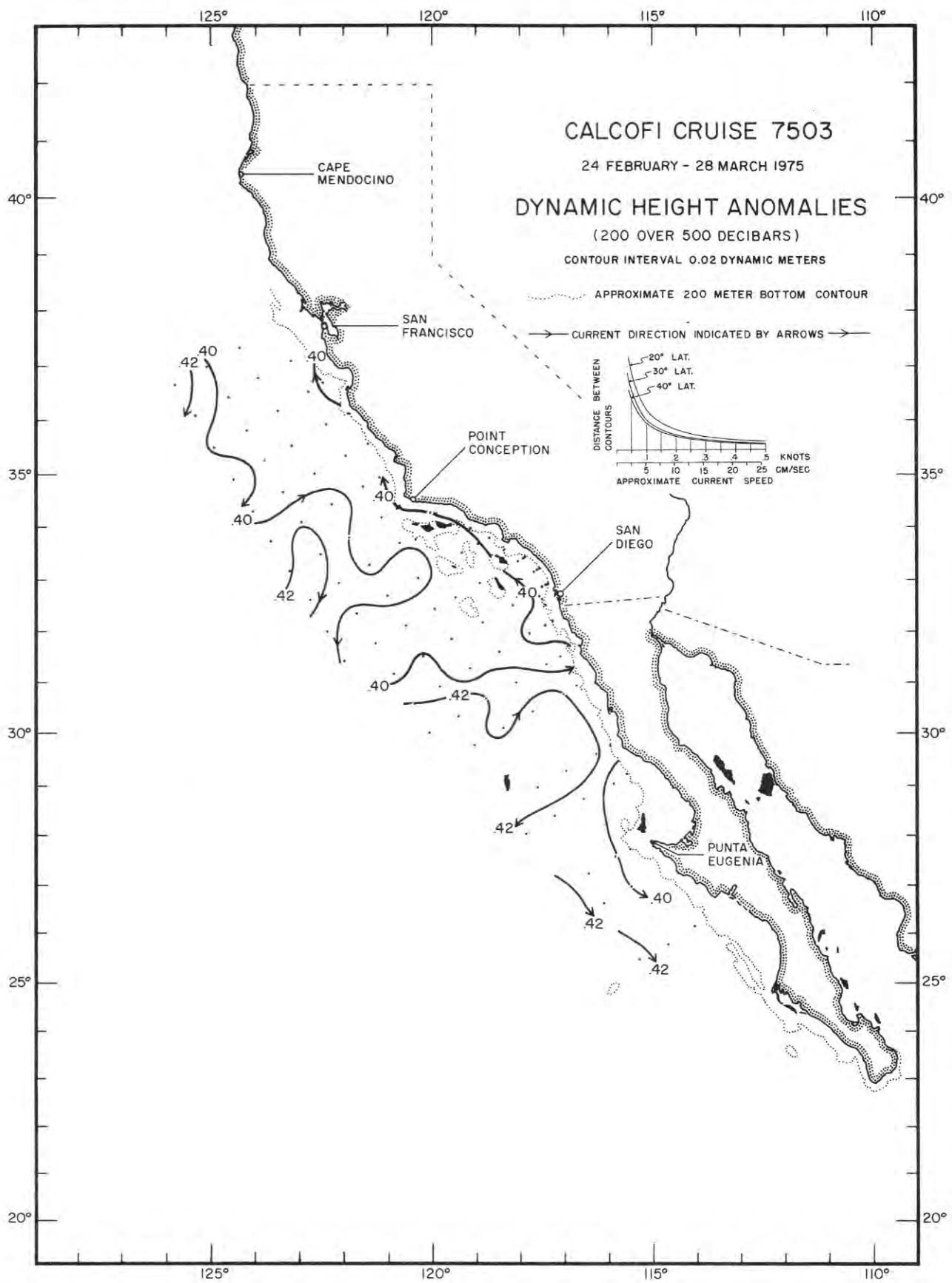


FIGURE 2



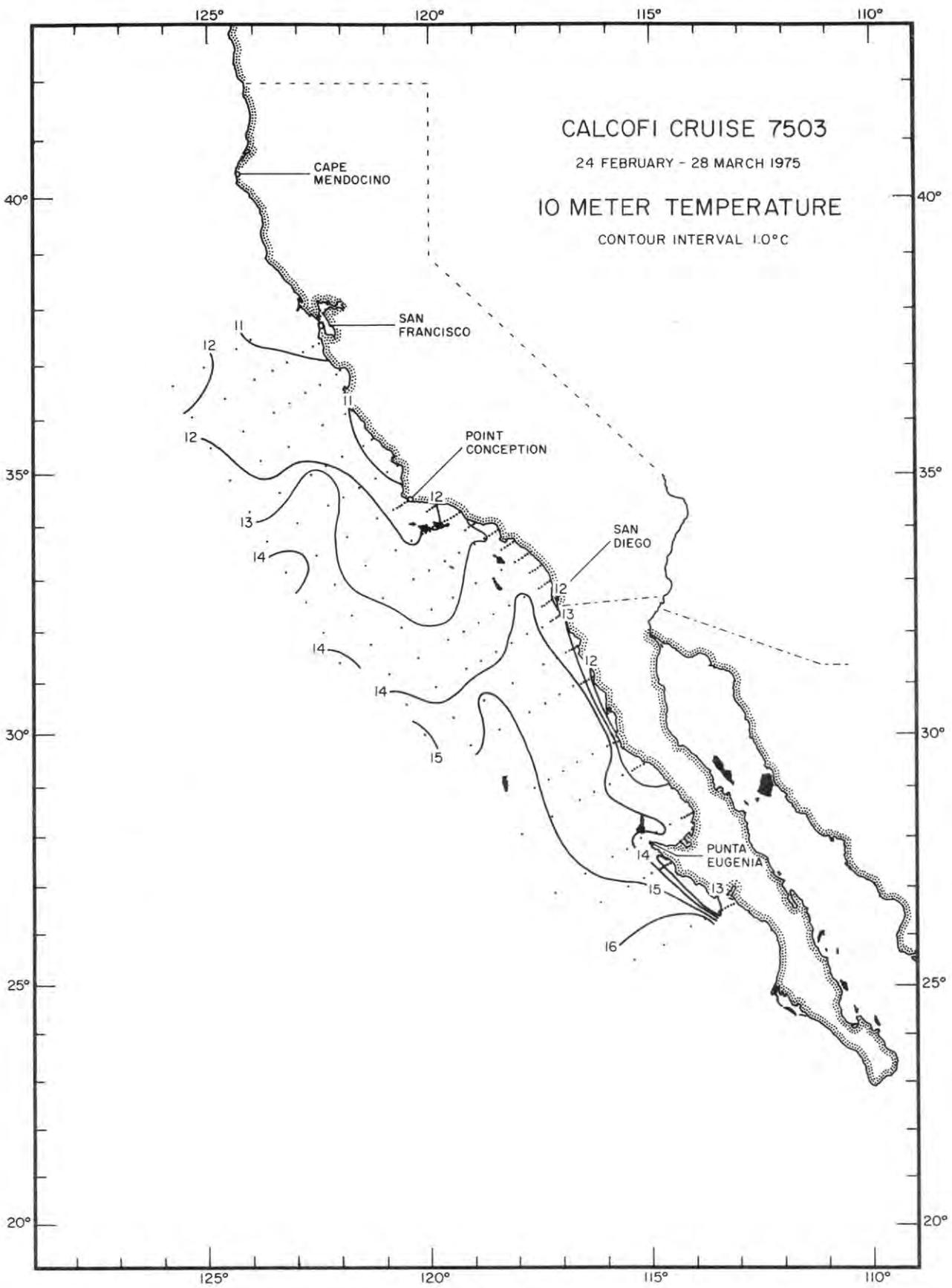


FIGURE 4

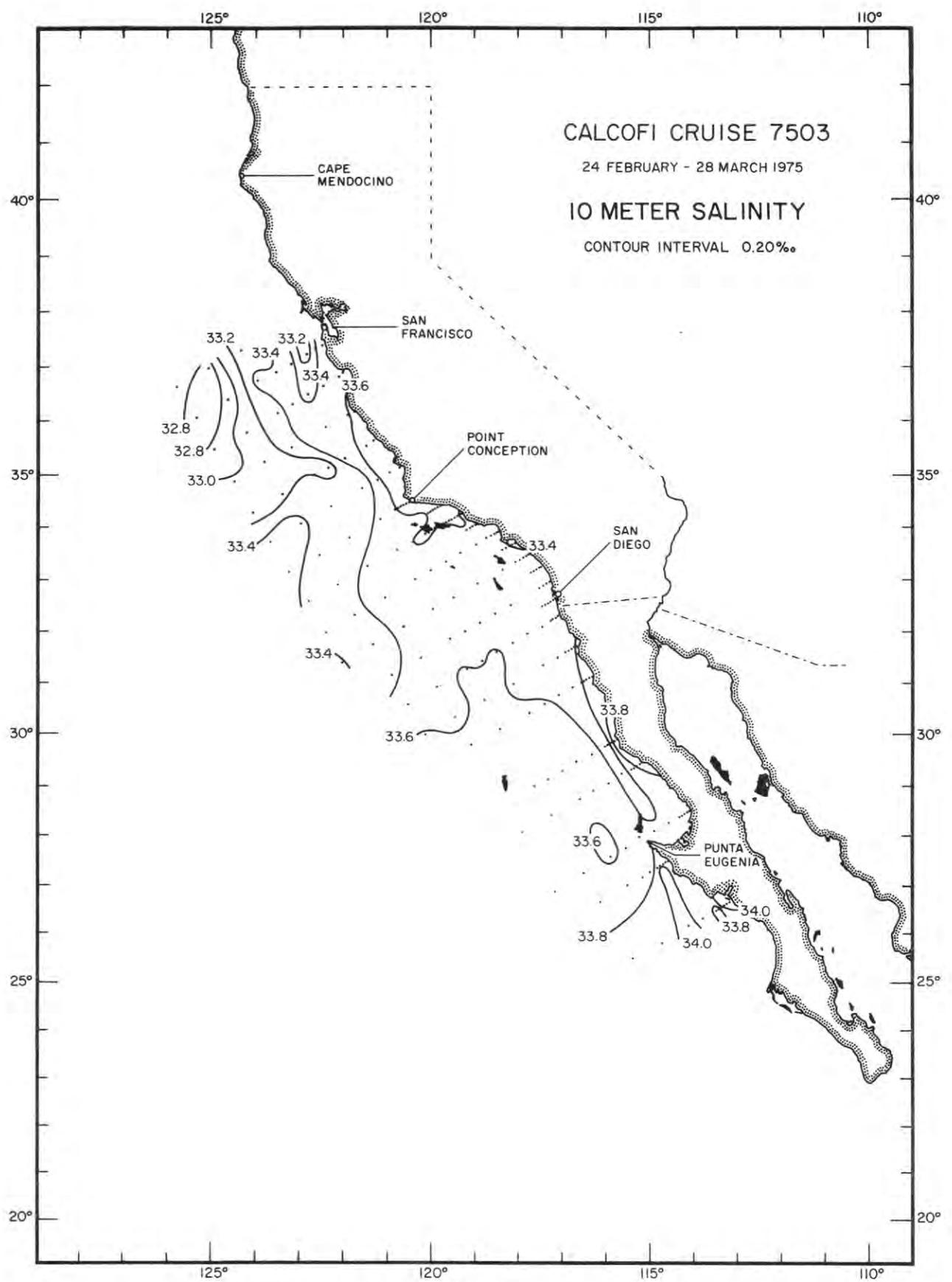


FIGURE 5

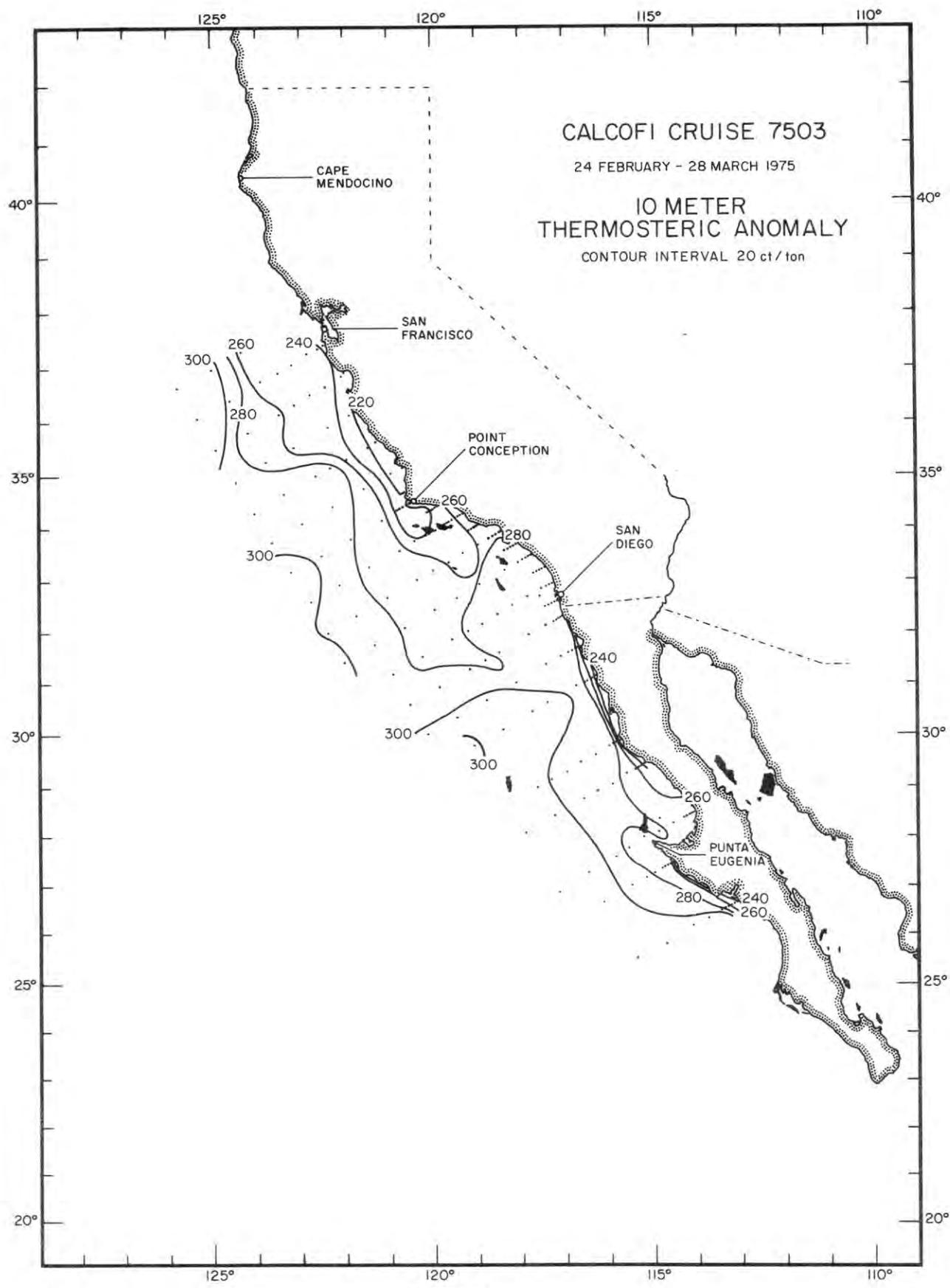


FIGURE 6

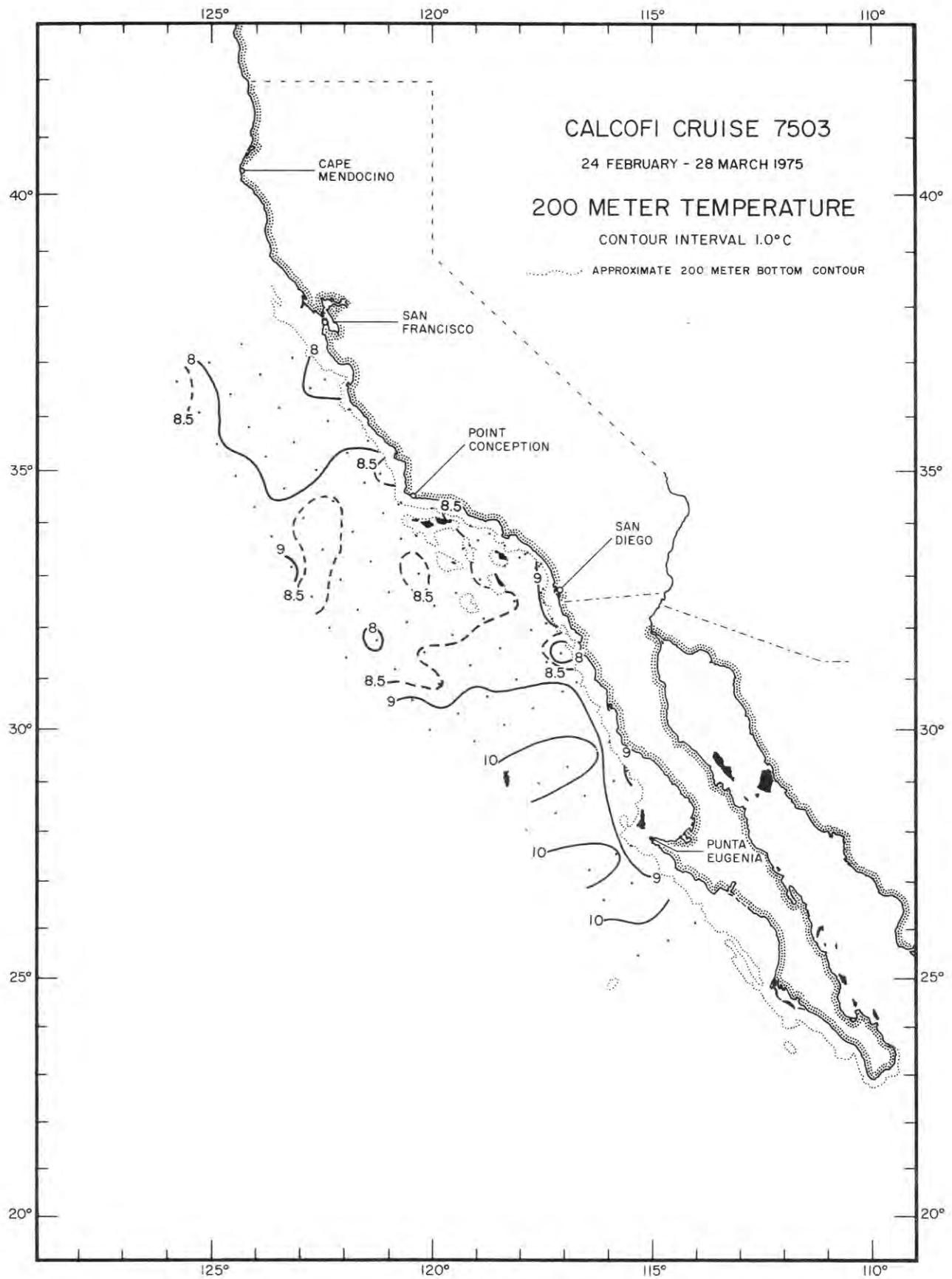


FIGURE 7

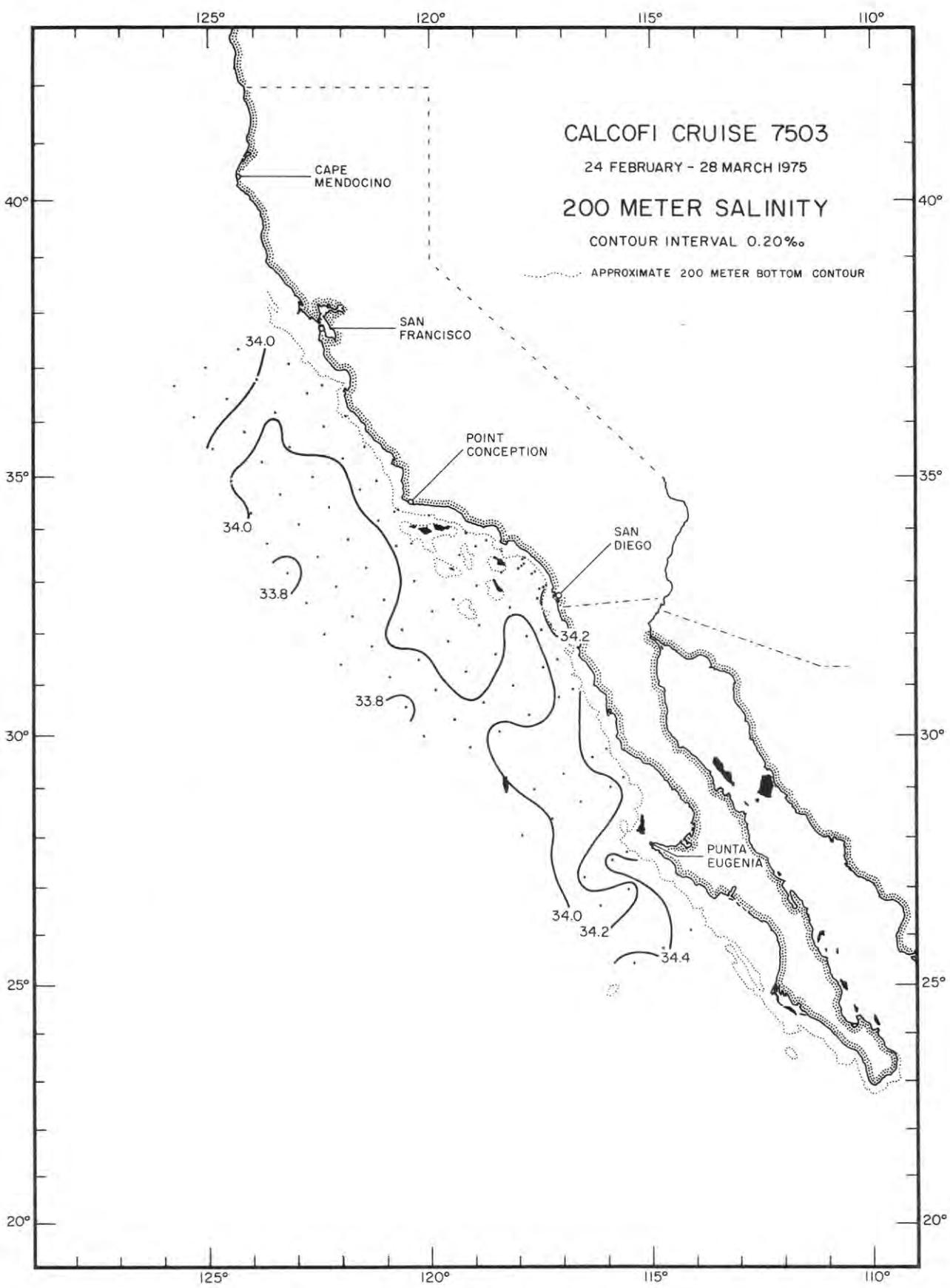


FIGURE 8

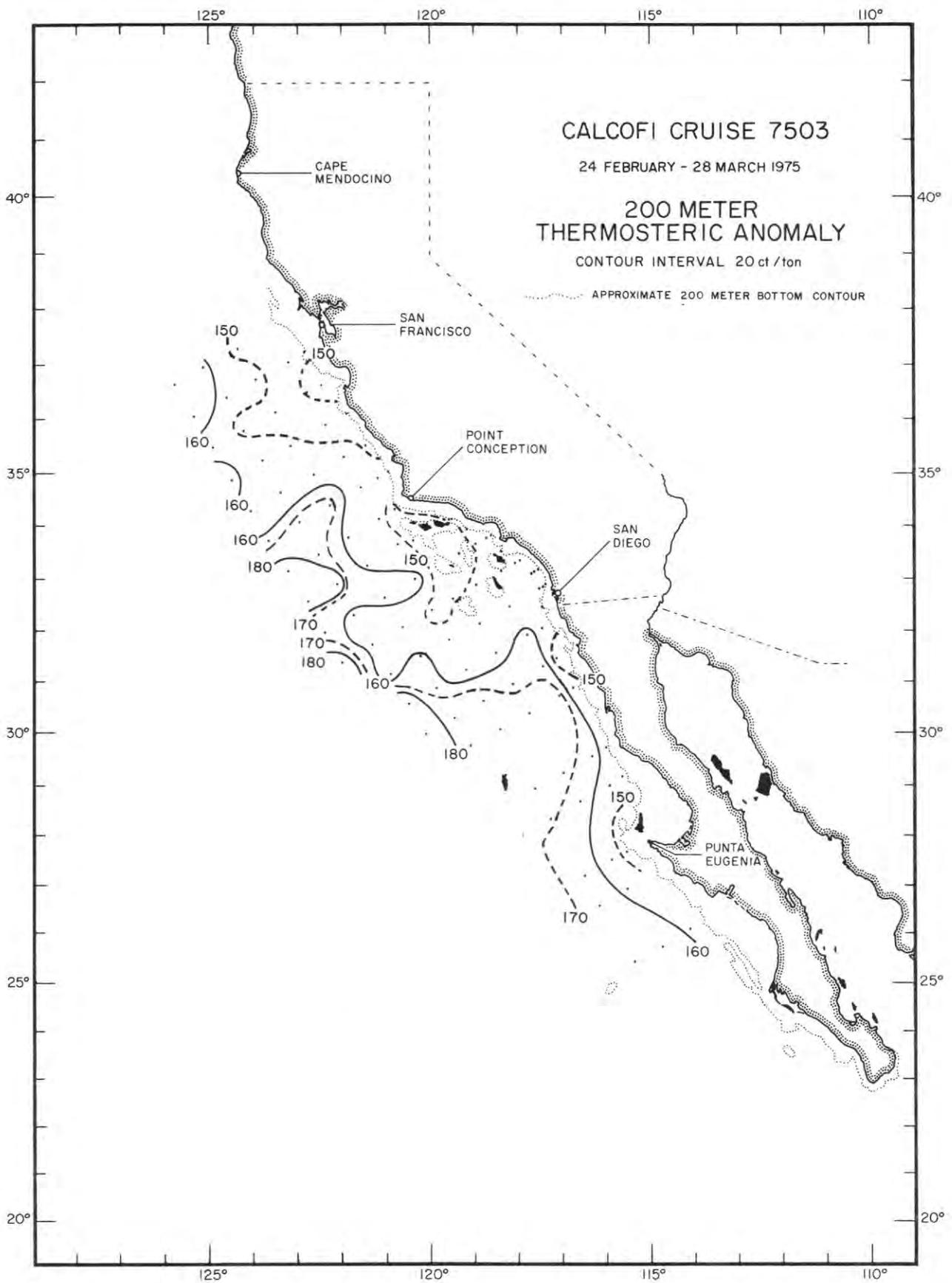


FIGURE 9

PERSONNEL

Cruise 7503

SHIPS' CAPTAINS

Davis, Laurence E., RV *Alexander Agassiz*
Forster, Charles W., RV *David Starr Jordan*

PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

RV *Alexander Agassiz*

Mead, Richard V. (in charge)	Marine Technician, SIO
Andrews, J.	Sea Grant Student, SDSU
Austin, R.	Sea Grant Student, SDSU
Beaupré, Marie-Claude	Sea Grant Student, SDSU
Greenbaum, Richard	Staff Research Associate, SIO
Kellogg, Durrant	Marine Technician, SIO
Kimura, Makoto	Fishery Biologist, NMFS
Patla, Susan M.	Marine Technician, SIO
Patrick, Ronald G.	Sea Grant Student, SDSU
Scheidt, V.	Sea Grant Student, SDSU
Singleton, James R.	Electronics Technician, SIO

RV *David Starr Jordan*

Metoyer, Jack (in charge)	Biological Technician, NMFS
Aguilera Alfaro, Roberto	Student, ECM
Davies, Edward	NUC
Endo Meguro, Roberto	Student, ECM
Fematt Hernandez, Hector	Student, ECM
Gruber, Dennis W.	Staff Research Associate, SIO
Martinez Henriguez, Xavier	Student, ECM
Patla, Susan M.	Marine Technician, SIO
Ramirez Aguilar, Isabella	Student, ECM
Snyder, Joseph	NMFS
Tsuchiya, Mizuki	Associate Research Oceanographer, SIO
Vargas Robles, Lucia	Student, ECM

RV ALEXANDER AGASSIZ						CALCOF I CRUISE			7503					
LATITUDE	LONGITUDE	MO/DAY/YR	MESSANGER	TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT	WAVES				
37 17.0N	124 20.0W	03/27/75	1335	GMT	3824M	230	11Kt	I	230	5	8			
0	11.05	33.278	6.57		254.0	0	11.05	33.278	6.57	25.448	254.0	0.000		
10	11.05	33.280	6.55		253.9	10	11.05	33.280	6.55	25.450	253.9	0.025		
30	10.98	33.288	6.58		252.1	20	11.03	33.289	6.56	25.459	253.0	0.050		
50	10.56	33.384	6.21		238.0	30	10.98	33.288	6.58	25.468	252.1	0.076		
70	9.85	33.588	4.74		211.4	50	10.74	33.338	6.32	25.547	244.7	0.125		
90	9.24	33.742	3.57		190.5	75	10.01	33.543	5.08	25.833	217.4	0.184		
108	8.94	33.836	3.07		179.0	100	9.07	33.793	3.27	26.183	184.2	0.234		
137	8.56	33.932	2.87		166.2	125	8.72	33.906	2.95	26.325	170.7	0.279		
162	7.88	33.935	3.11		156.3	150	8.20	33.937	2.98	26.429	160.8	0.321		
192	7.47	33.957	3.08		149.0	200	7.37	33.957	3.07	26.567	147.8	0.400		
225	7.10	33.953	3.05		144.4	250	6.86	33.971	2.70	26.649	140.0	0.473		
298	6.46	34.023	1.85		130.9	300	6.44	34.026	1.82	26.748	130.6	0.543		
400	5.77	34.142	0.84		113.7	400	5.77	34.142	0.84	26.925	113.7	0.670		
507	4.91	34.176	0.61		101.5	500	4.95	34.174	0.61	27.047	102.2	0.783		
612	4.90	34.315	0.27		90.9	600	4.90	34.301	0.30	27.154	92.0	0.886		
747	4.46	34.387	0.34		80.9	700	4.63	34.370	0.31	27.239	84.0	0.981		
903	3.98	34.437	0.40		72.3	800	4.29	34.406	0.35	27.305	77.7	1.070		
1064	3.51	34.483	0.59		64.3	1000	3.69	34.465	0.49	27.414	67.4	1.231		

60070

RV ALEXANDER AGASSIZ

CALCOF I CRUISE

7503

60080

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME						
37 17.0N	124 20.0W	03/27/75	1241 GMT	36 57.0N	125 04.0W	03/02/75	0735 GMT						
BOTTOM	WIND	SPEED	WEATHER	DIMINANT	WAVES								
3824M	230	11Kt	I	230	5	8							
0	11.05	33.28	25.450	253.9	0.000	0	12.05	32.78	24.879	308.2	0.000		
10	11.06	33.28	25.448	254.1	0.025	10	12.05	32.78	24.879	308.2	0.030		
20	11.06	33.28	25.448	254.1	0.050	20	12.01	32.80	24.902	306.0	0.061		
30	10.85	33.28	25.485	250.5	0.076	30	11.93	32.81	24.925	303.8	0.092		
40	10.69	33.34	25.560	243.4	0.100	40	12.03	32.86	24.945	301.9	0.122		
50	10.61	33.37	25.597	239.8	0.125	50	11.95	32.86	24.960	300.5	0.152		
75	10.24	33.51	25.710	223.4	0.183	75	11.76	33.07	25.160	281.5	0.225		
100	9.18	33.77	26.148	187.5	0.235	100	10.06	33.21	25.567	242.7	0.291		
125	8.79	33.92	26.321	170.5	0.280	125	10.15	33.48	25.762	224.2	0.350		
150	8.07	33.95	26.460	157.8	0.322	150	8.95	33.65	26.091	192.9	0.403		
175	7.80	33.98	26.524	151.8	0.361	175	8.29	33.75	26.271	175.8	0.450		
200	7.28	33.96	26.583	146.2	0.399	200	7.95	33.84	26.392	164.3	0.493		
225	7.00	33.96	26.622	142.5	0.436	225	7.69	33.93	26.501	154.0	0.534		
250	6.68	33.96	26.665	138.4	0.472	250	7.31	33.95	26.571	147.4	0.573		
275	6.46	34.03	26.749	130.4	0.507	275	6.94	33.96	26.630	141.8	0.610		
300	6.45	34.06	26.774	128.1	0.540	300	6.58	33.97	26.686	136.4	0.646		
350	5.80	34.05	26.849	120.9	0.604	350	6.12	34.01	26.777	127.7	0.714		
400	5.63	34.10	26.910	115.2	0.666	400	5.38	34.02	26.876	118.3	0.778		
450	5.30	34.14	26.981	108.5	0.724	450	5.40	34.12	26.953	111.1	0.838		
500	5.00	34.17	27.040	102.9	0.780	500	5.17	34.16	27.012	105.5	0.895		
550	4.79	34.22	27.103	96.9	1.033	550	4.92	34.20	27.072	99.8	0.949		
600	5.00	34.31	27.150	92.4	1.083	600	4.58	34.20	27.110	96.2	1.001		
700	4.63	34.37	27.240	83.4	1.078	700	4.52	34.29	27.188	88.8	1.100		
800	4.32	34.41	27.305	77.7	1.067	800	4.03	34.34	27.280	80.1	1.191		
900	4.03	34.43	27.352	73.3	1.050	900	3.77	34.38	27.339	74.5	1.276		
1000	3.75	34.45	27.396	69.1	1.230	1000	3.68	34.45	27.403	68.4	1.356		

60090

RV ALEXANDER AGASSIZ

CALCOF I CRUISE

7503

63052

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME						
36 37.0N	125 47.0W	03/27/75	0156 GMT	37 19.0N	122 36.0W	02/28/75	2220 GMT						
BOTTOM	WIND	SPEED	WEATHER	DIMINANT	WAVES								
4474M	340	18KT	I	350	14	10							
0	12.59	32.95	24.908	305.4	0.000	0	11.02	32.72	25.021	294.7	0.000		
10	12.58	32.95	24.910	305.3	0.030	10	10.41	33.24	25.531	246.2	0.027		
20	12.62	32.97	24.918	304.5	0.061	20	10.13	33.35	25.664	233.5	0.051		
30	12.74	33.05	24.956	300.9	0.091	30	9.82	33.48	25.817	218.9	0.073		
40	12.66	33.06	24.974	298.6	0.121	40	9.83	33.58	25.894	211.7	0.095		
50	12.63	33.06	24.985	298.1	0.151	50	9.62	33.63	25.934	207.8	0.116		
75	12.53	33.04	24.989	291.7	0.226	75	8.98	33.84	26.234	179.3	0.165		
100	11.67	33.20	25.275	270.5	0.297								
125	10.71	33.31	25.533	246.0	0.363								
150	9.83	33.56	25.878	213.2	0.421								
175	9.28	33.78	26.140	188.3	0.472								
200	8.87	33.86	26.268	176.1	0.518								
225	8.57	33.94	26.377	165.8	0.562								
250	8.28	33.97	26.444	159.3	0.604								
275	7.90	34.01	26.533	151.0	0.643								
300	7.65	34.03	26.585	146.0	0.682								
350	7.04	34.07	26.702	134.9	0.755								
400	6.81	34.12	26.773	128.1	0.823								
450	6.34	34.13	26.844	121.5	0.889								
500	6.00	34.18	26.927	113.6	0.951								
550	5.51	34.15	26.964	110.1	1.010								
600	5.19	34.19	27.033	103.5	1.067								
700	4.75	34.26	27.139	93.4	1.172								
800	4.52	34.34	27.228	85.0	1.269								
900	4.26	34.40	27.304	77.8	1.359								
1000	3.82	34.41	27.351	72.8	1.443								

63055				RV ALFAXANDER AGASSIZ				CALCOFI CRUISE 7503				63060			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME								
37 13.0N	122 50.0W	03/01/75	0000 GMT	37 02.5N	123 11.0W	03/01/75	0253 GMT								
BOTTOM	WIND	SPEED	WEATHER	Dominant Waves	BOTTOM	WIND	SPEED	WEATHER	Dominant Waves	BOTTOM	WIND	SPEED	WEATHER	Dominant Waves	
285M	280	3KT	4	240 2 11	2595M	160	11KT	4	250 6 10	2595M	160	11KT	4	250 6 10	
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD	Z	T	S	DD
0	11.00	33.04	25.272	270.8	0.000	0	11.52	33.44	25.489	250.2	0.000	0	11.52	33.44	25.489
10	10.70	33.08	25.356	262.8	0.026	10	11.39	33.46	25.528	246.5	0.024	10	11.39	33.46	25.528
20	10.85	33.36	25.547	244.6	0.052	20	11.33	33.46	25.539	245.4	0.049	20	11.33	33.46	25.539
30	10.86	33.44	25.608	238.9	0.076	30	11.32	33.46	25.541	245.2	0.074	30	11.32	33.46	25.541
40	10.41	33.42	25.671	232.9	0.099	40	11.24	33.44	25.540	245.3	0.098	40	11.24	33.44	25.540
50	10.32	33.42	25.686	231.4	0.123	50	11.14	33.45	25.565	242.9	0.123	50	11.14	33.45	25.565
75	9.52	33.73	26.045	197.3	0.177	75	11.12	33.47	25.584	241.1	0.184	75	11.12	33.47	25.584
100	9.21	33.80	26.166	185.7	0.225	100	9.38	33.65	26.022	199.5	0.239	100	9.38	33.65	26.022
125	8.84	33.91	26.311	172.0	0.270	125	8.90	33.81	26.224	180.3	0.287	125	8.90	33.81	26.224
150	8.46	33.97	26.417	161.9	0.313	150	8.44	33.93	26.389	164.6	0.331	150	8.44	33.93	26.389
175	8.15	34.02	26.503	153.8	0.353	175	8.12	33.99	26.484	155.6	0.372	175	8.12	33.99	26.484
200	7.86	34.03	26.554	148.9	0.392	200	7.99	34.05	26.551	149.2	0.411	200	7.99	34.05	26.551
225	7.59	34.07	26.625	142.2	0.429	225	7.75	34.08	26.610	143.7	0.448	225	7.75	34.08	26.610
250	7.37	34.13	26.703	134.8	0.464	250	7.53	34.09	26.649	139.9	0.484	250	7.53	34.09	26.649
270	7.20	34.13	26.727	132.5	0.492	275	7.28	34.11	26.700	135.0	0.520	275	7.28	34.11	26.700
						300	7.07	34.13	26.745	130.8	0.554	300	7.07	34.13	26.745
						350	6.55	34.15	26.832	122.6	0.620	350	6.55	34.15	26.832
						400	6.15	34.17	26.900	116.1	0.682	400	6.15	34.17	26.900
						450	5.92	34.22	26.968	109.6	0.742	450	5.92	34.22	26.968
						500	5.66	34.25	27.024	104.3	0.798	500	5.66	34.25	27.024
						550	5.46	34.29	27.080	99.0	0.852	550	5.46	34.29	27.080
						600	5.29	34.31	27.116	95.6	0.904	600	5.29	34.31	27.116
						700	4.84	34.35	27.200	87.6	1.003	700	4.84	34.35	27.200
						800	4.50	34.39	27.270	81.0	1.096	800	4.50	34.39	27.270
						900	4.14	34.42	27.332	75.1	1.182	900	4.14	34.42	27.332
						1000	3.81	34.46	27.398	68.9	1.263	1000	3.81	34.46	27.398

RV ALEXANDER AGASSIZ				CALCOFI CRUISE 7503				63070								
LATITUDE	LONGITUDE	MO/DAY/YR	MESSENDER TIME	BOTTOM	WIND	SPEED	WEATHER	Dominant Waves	BOTTOM	WIND	SPEED	WEATHER	Dominant Waves	BOTTOM	WIND	SPEED
36 44.0N	123 55.0W	3/ 1/75	0956	3824M	360	18KT	1	DT	3824M	360	18KT	1	DT	3824M	360	18KT
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	SIGT	DT	DD	
0	11.55	33.453	6.51		249.7	0	11.55	33.453	6.51	25.493	249.7	0.000	0	11.55	33.453	6.51
10	11.54	33.452	6.51		249.6	10	11.54	33.452	6.51	25.494	249.6	0.024	10	11.54	33.452	6.51
29	11.36	33.455	6.47		246.3	20	11.45	33.455	6.49	25.511	248.0	0.049	29	11.36	33.455	6.47
59	11.25	33.452	6.26		244.6	30	11.35	33.456	6.46	25.530	246.2	0.074	59	11.25	33.452	6.26
78	11.22	33.456	6.23		243.8	50	11.26	33.454	6.32	25.544	244.9	0.124	78	11.22	33.456	6.23
93	11.08	33.483	5.99		239.4	75	11.22	33.457	6.23	25.554	243.9	0.185	93	11.08	33.483	5.99
108	9.78	33.655	4.04		205.3	100	10.50	33.557	5.12	25.759	224.4	0.244	108	9.78	33.655	4.04
137	9.06	33.824	3.18		181.7	125	9.19	33.772	3.53	26.146	187.7	0.296	137	9.06	33.824	3.18
162	8.66	33.947	2.64		166.6	150	8.83	33.895	2.85	26.299	173.2	0.342	162	8.66	33.947	2.64
191	8.19	34.000	2.70		155.8	200	8.08	34.008	2.63	26.503	153.8	0.425	191	8.19	34.000	2.70
225	7.82	34.019	2.37		149.2	250	7.48	34.044	2.06	26.617	143.0	0.501	225	7.82	34.019	2.37
298	6.88	34.088	1.50		131.4	300	6.86	34.090	1.48	26.742	131.1	0.572	298	6.88	34.088	1.50
400	6.25	34.152	0.93		118.7	400	6.25	34.152	0.93	26.872	118.7	0.702	400	6.25	34.152	0.93
504	5.59	34.220	0.51		105.8	500	5.61	34.217	0.52	27.004	106.2	0.820	504	5.59	34.220	0.51
615	5.09	34.309	0.33		93.4	600	5.15	34.298	0.34	27.123	95.0	0.928	615	5.09	34.309	0.33
750	4.51	34.379	0.34		82.0	700	4.71	34.357	0.33	27.220	85.8	1.025	750	4.51	34.379	0.34
904	4.04	34.433	0.41		73.2	800	4.34	34.399	0.35	27.294	78.8	1.115	904	4.04	34.433	0.41
1069	3.57	34.476	0.60		65.4	1000	3.76	34.460	0.50	27.403	68.4	1.279	1069	3.57	34.476	0.60

63070				RV ALFAXANDER AGASSIZ				CALCOFI CRUISE 7503				63080				
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	BOTTOM	WIND	SPEED	WEATHER	Dominant Waves	BOTTOM	WIND	SPEED	
36 44.0N	123 55.0W	03/01/75	0842 GMT	36 23.0N	124 36.0W	03/01/75	1502 GMT	3824M	4110M	180	22KT	WEATHER	2	270	10	8
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD	Z	T	S	DD	
0	11.55	33.453	25.491	250.0	0.000	0	11.76	32.76	24.918	304.5	0.000	0	11.76	32.76	24.918	304.5
10	11.54	33.452	25.492	249.0	0.024	10	11.74	32.76	24.921	304.2	0.030	10	11.74	32.76	24.921	304.2
20	11.42	33.43	25.499	249.2	0.049	20	11.49	32.81	25.006	296.1	0.060	20	11.49	32.81	25.006	296.1
30	11.32	33.44	25.525	246.7	0.074	30	11.33	32.84	25.058	291.2	0.089	30	11.33	32.84	25.058	291.2
40	11.30	33.45	25.537	245.6	0.099	40	11.18	32.89	25.124	284.9	0.118	40	11.18	32.89	25.124	284.9
50	11.29	33.45	25.538	245.4	0.124	50	11.12	33.01	25.228	275.0	0.146	50	11.12	33.01	25.228	275.0
75	11.05	33.57	25.675	232.5	0.184	75	9.75	33.19	25.603	239.3	0.211	75	9.75	33.19	25.603	239.3
100	9.62	33.7														

63090				RV ALEXANDER AGASSIZ				CALCOFI CRUISE 7503				67050			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME								
36 03.0N	125 20.0W	03/11/75	2050 GMT	36 49.0N	122 04.5W	02/28/75	1612 GMT								
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
44.98M	180	20Kt	I	200 13 12	9.9M	360	16Kt	I	360 3 6	9.9M	360	16Kt	I	360 3 6	
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD	Z	T	S	DD
6	11.93	32.75	24.879	308.3	0.000	0	11.28	33.47	25.556	243.8	0.000	0	11.28	33.47	0.000
10	11.89	32.75	24.886	307.8	0.030	10	10.77	33.50	25.670	232.9	0.023	10	10.77	33.50	0.023
20	11.77	32.74	24.900	306.2	0.061	20	10.08	33.74	25.976	203.8	0.045	20	10.08	33.74	0.045
30	11.62	32.74	24.928	303.5	0.092	30	9.52	33.78	26.101	192.0	0.065	30	9.52	33.78	0.065
40	11.53	32.76	24.960	300.5	0.122	40	9.13	33.87	26.234	179.3	0.084	40	9.13	33.87	0.084
50	11.38	32.74	24.972	299.4	0.152	50	9.02	33.89	26.267	176.2	0.102	50	9.02	33.89	0.102
75	11.48	32.94	25.109	286.4	0.226	61	8.93	33.91	26.297	173.3	0.121	61	8.93	33.91	0.121
100	10.06	33.08	25.466	252.4	0.293										
125	9.82	33.39	25.747	225.6	0.356										
150	9.07	33.61	26.041	197.7	0.407										
175	8.69	33.83	26.272	179.7	0.455										
200	8.42	33.92	26.384	165.1	0.498										
225	7.94	33.94	26.472	156.7	0.539										
250	7.67	33.96	26.527	151.5	0.579										
275	7.57	34.00	26.573	145.1	0.617										
300	6.81	33.96	26.647	140.1	0.654										
350	6.34	33.98	26.726	132.7	0.725										
400	5.88	34.03	26.824	123.4	0.791										
450	5.94	34.17	26.926	113.6	0.853										
500	5.36	34.17	26.997	106.9	0.911										
550	5.12	34.18	27.034	103.5	0.967										
600	4.74	34.23	27.111	96.1	1.020										
700	4.67	34.33	27.203	81.3	1.119										
800	4.32	34.37	27.273	80.7	1.210										
900	4.05	34.42	27.342	74.2	1.296										
1000	3.80	34.45	27.391	69.5	1.376										

RV ALEXANDER AGASSIZ				CALCOFI CRUISE 7503				67055							
LATITUDE	LONGITUDE	MO/DAY/YR	MESSANGER TIME	LATITUDE	LONGITUDE	MO/DAY/YR	MESSANGER TIME	BOTTOM	WIND	SPEED	WEATHER	BOTTOM	WIND	SPEED	WEATHER
36 38.0N	122 27.0W	02/28/75	1220 GMT	36 47.0N	122 47.5W	02/28/75	0840 GMT	2447M	350	10Kt	4	2447M	350	10Kt	4
Z	T	S	D2	P04	S103	N02	N13	DT	Z	T	S	D2	SIGT	DT	DD
0	11.42	33.373	6.64					253.4	0	11.42	33.373	6.64	25.455	253.4	0.000
10	11.41	33.491	6.38					245.5	10	11.41	33.491	6.38	25.537	245.5	0.024
30	11.32	33.556	6.24					238.2	20	11.40	33.542	6.27	25.587	240.8	0.049
59	11.31	33.556	6.12					238.0	30	11.32	33.556	6.24	25.615	238.2	0.073
79	11.14	33.581	5.74					233.2	50	11.31	33.558	6.17	25.616	238.0	0.121
94	10.67	33.659	4.73					219.5	75	11.20	33.583	5.86	25.657	234.2	0.180
109	10.02	33.725	3.96					204.0	100	10.41	33.686	4.39	25.876	213.3	0.236
138	9.15	33.887	3.02					178.4	125	9.47	33.817	3.36	26.136	188.7	0.287
163	8.79	33.967	2.64					167.0	150	8.94	33.932	2.80	26.311	172.0	0.333
192	8.53	34.016	2.39					159.5	200	8.48	34.027	2.34	26.458	158.0	0.417
226	8.33	34.057	2.20					153.6	250	8.10	34.076	2.04	26.554	148.9	0.496
299	7.57	34.107	1.71					139.2	300	7.55	34.108	1.70	26.659	139.0	0.570
400	6.65	34.187	0.96					121.1	400	6.65	34.187	0.96	26.847	121.1	0.706
506	5.91	34.234	0.56					108.5	500	5.94	34.232	0.57	26.974	109.1	0.827
612	5.26	34.309	0.33					95.3	600	5.32	34.300	0.34	27.104	96.7	0.937
747	4.71	34.371	0.34					84.7	700	4.87	34.353	0.33	27.199	87.8	1.037
901	4.31	34.420	0.35					76.8	800	4.56	34.390	0.34	27.262	81.8	1.129
1068	3.73	34.469	0.48					67.4	1000	3.98	34.449	0.45	27.372	71.4	1.300

67055				RV ALEXANDER AGASSIZ				CALCOFI CRUISE 7503				67060			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	BOTTOM	WIND	SPEED	WEATHER	BOTTOM	WIND	SPEED	WEATHER
36 38.0N	122 27.0W	02/28/75	1220 GMT	36 29.0N	122 47.5W	02/28/75	0840 GMT	2447M	350	10Kt	4	306.8M	330	15Kt	4
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD	Z	T	S	DD
6	11.43	33.37	25.451	253.8	0.000	0	11.23	33.33	25.456	253.3	0.000	0	11.23	33.33	0.000
10	11.41	33.51	25.552	244.1	0.024	10	11.23	33.33	25.456	253.3	0.028	10	11.23	33.33	0.028
20	11.42	33.52	25.569	242.5	0.049	20	11.36	33.43	25.510	248.1	0.050	20	11.36	33.43	0.050
30	11.31	33.54	25.605	239.1	0.073	30	11.42	33.47	25.530	246.2	0.075	30	11.42	33.47	0.075
40	11.31	33.55	25.612	238.4	0.091	40	11.37	33.54	25.594	240.2	0.099	40	11.37	33.54	0.099
50	11.31	33.55	25.612	238.4	0.121	50	11.31	33.54	25.605	239.1	0.123	50	11.31	33.54	0.123
75	11.11	33.58	25.671	232.8	0.180	75	10.79	33.58	25.729	227.3	0.182	75	10.79	33.58	0.182
100	10.15	33.73	26.456	205.7	0.235	100	9.45	33.73	26.073	194.6	0.235	100	9.45	33.73	0.235
125	9.41	33.83	26.158	188.6	0.285	125	9.14	33.88	26.240	178.7	0.282	125	9.14	33.88	0.282
150	9.08	33.90	26.265	176.3	0.331	150	8.61	33.98	26.402	163.4	0.326	150	8.61	33.98	0.326
175	8.71	33.97	26.369	166.5	0.375	175	8.27	33.99	26.462	157.7	0.367	175	8.27	33.99	0.367
200	8.47	34.02	26.455	158.4	0.416	200	8.01	34.03	26.532	151.0	0.406	200	8.01	34.03	0.406
225	8.34	34.05	26.498	154.2	0.456	225	7.93	34.09	26.591	145.4	0.444	225	7.93	34.09	0.444
250	7.81	34.04	26.569	147.5	0.495	250	7.69	34.12	26.649	139.9	0.481	250	7.69	34.12	0.481
275	7.70	34.09	26.624	142.2	0.532	275	7.48	34.13	26.688	136.2	0.516	275	7.48	34.13	0.516
300	7.49	34.11	26.670	137.9											

67070				RV ALFREDER AGASSIZ				CALCOFI CRUISE 7503				67080			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME								
36 08.0N	123 29.5W	02/27/75	0251 GMT	35 47.5N	124 11.5W	02/27/75	2141 GMT								
BOTTUM	WIND	SPEED	WEATHER	DOMINANT WAVES	BOTTUM	WIND	SPEED	WEATHER	DOMINANT WAVES						
3540M	320	15KT	4		3918M	360	12KT	2							
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD				
0	11.54	33.28	25.361	262.3	0.000	0	11.51	33.09	25.219	275.8	0.000				
10	11.47	33.27	25.366	261.8	0.026	10	11.46	33.09	25.228	275.0	0.027				
20	11.43	33.29	25.389	259.7	0.052	20	11.30	33.09	25.257	272.2	0.054				
30	11.39	33.31	25.412	251.5	0.078	30	11.16	33.23	25.391	259.5	0.081				
40	11.19	33.33	25.463	252.6	0.103	40	11.14	33.25	25.410	257.6	0.107				
50	11.22	33.43	25.535	245.7	0.128	50	10.86	33.40	25.577	241.8	0.132				
75	5.63	33.66	25.989	202.6	0.185	75	9.35	33.68	26.050	196.8	0.187				
100	8.94	33.80	26.210	181.6	0.233	100	9.03	33.82	26.211	181.5	0.235				
125	4.60	33.90	26.341	169.2	0.278	125	8.70	33.90	26.325	170.7	0.280				
150	8.42	33.98	26.431	160.6	0.319	150	8.28	33.95	26.429	160.8	0.322				
175	8.10	33.98	26.479	156.0	0.360	175	7.93	33.98	26.505	153.6	0.362				
200	7.80	34.01	26.547	149.6	0.399	200	7.68	34.06	26.604	144.2	0.400				
225	7.60	34.05	26.608	143.8	0.436	225	7.19	34.01	26.635	141.3	0.436				
250	7.39	34.07	26.653	139.5	0.473	250	6.84	34.02	26.691	136.0	0.472				
275	7.22	34.10	26.701	135.0	0.508	275	6.62	34.03	26.728	132.4	0.506				
300	6.96	34.11	26.745	130.8	0.542	300	6.39	34.06	26.782	127.3	0.540				
350	6.42	34.11	26.817	124.0	0.609	350	6.36	34.12	26.833	122.4	0.605				
400	6.16	34.17	26.898	116.3	0.671	400	6.13	34.19	26.918	114.4	0.666				
450	5.81	34.21	26.974	109.1	0.730	450	5.80	34.20	26.968	109.7	0.725				
500	5.50	34.24	27.036	103.2	0.786	500	5.27	34.20	27.032	103.6	0.781				
550	5.19	34.29	27.112	96.0	0.839	550	5.02	34.24	27.092	97.8	0.835				
600	4.95	34.29	27.140	93.3	0.890	600	4.90	34.31	27.162	91.3	0.885				
700	4.63	34.35	27.224	85.4	0.986	700	4.59	34.37	27.244	83.5	0.980				
800	4.27	34.40	27.302	77.9	1.076	800	4.27	34.40	27.302	77.9	1.068				
900	3.97	34.43	27.358	72.7	1.159	900	4.02	34.43	27.353	73.2	1.151				
1000	3.68	34.46	27.411	67.6	1.237	1000	3.73	34.46	27.406	68.1	1.230				

67090				RV ALFREDER AGASSIZ				CALCOFI CRUISE 7503				70053			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME								
35 28.0N	124 55.5W	02/27/75	1601 GMT	36 06.5N	121 53.5W	02/26/75	1315 GMT								
BOTTUM	WIND	SPEED	WEATHER	DOMINANT WAVES	BOTTUM	WIND	SPEED	WEATHER	DOMINANT WAVES						
4308M	330	10KT	2		1110M	330	28KT	1	310 3 4						
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD				
0	12.02	32.81	24.908	305.4	0.000	0	11.26	33.53	25.606	239.0	0.000				
10	12.01	32.83	24.925	303.8	0.030	10	11.26	33.53	25.606	239.0	0.023				
20	11.76	32.81	24.957	300.8	0.060	20	11.27	33.53	25.604	239.2	0.047				
30	11.42	32.81	25.019	294.9	0.090	30	11.27	33.53	25.604	239.2	0.071				
40	11.05	32.96	25.201	277.5	0.119	40	11.21	33.53	25.615	238.2	0.095				
50	10.60	33.04	25.343	264.1	0.146	50	10.54	33.61	25.796	221.0	0.118				
75	9.75	33.35	25.728	221.5	0.208	75	9.58	33.78	26.091	192.9	0.170				
100	9.33	33.56	25.960	205.4	0.262	100	8.87	33.89	26.291	173.9	0.217				
125	9.03	33.76	26.164	186.0	0.312	125	8.49	33.95	26.397	163.8	0.259				
150	8.65	33.86	26.302	172.9	0.351	150	8.42	34.02	26.462	157.6	0.300				
175	8.10	33.89	26.409	162.7	0.400	175	8.22	34.03	26.500	154.0	0.340				
200	8.06	34.01	26.509	153.2	0.440	200	7.96	34.04	26.547	149.6	0.379				
225	7.76	34.02	26.561	148.3	0.479	225	7.84	34.07	26.589	145.7	0.417				
250	7.44	34.03	26.615	143.2	0.516	250	7.51	34.08	26.644	140.4	0.453				
275	7.24	34.05	26.659	134.0	0.553	275	7.29	34.09	26.683	136.7	0.489				
300	6.95	34.05	26.699	135.2	0.588	300	7.19	34.12	26.721	133.1	0.524				
350	6.35	34.08	26.803	125.3	0.655	350	6.89	34.16	26.794	126.2	0.591				
400	6.09	34.12	26.868	119.1	0.719	400	6.52	34.19	26.867	119.2	0.655				
450	5.62	34.14	26.942	112.1	0.780	450	6.31	34.22	26.918	114.4	0.717				
500	5.40	34.19	27.008	105.8	0.837	500	6.20	34.24	26.948	111.5	0.777				
550	5.18	34.23	27.066	100.4	0.892	550	5.19	34.26	27.016	105.1	0.834				
600	4.60	34.21	27.116	95.6	0.944	600	5.50	34.29	27.075	99.5	0.889				
700	4.41	34.31	27.216	86.1	1.041	700	5.09	34.34	27.164	91.1	0.992				
800	3.96	34.35	27.295	78.6	1.131	800	4.59	34.40	27.268	81.2	1.086				
900	3.76	34.40	27.355	72.9	1.214	900	4.24	34.42	27.322	76.1	1.173				
1000	3.59	34.45	27.412	67.6	1.292	1000	3.92	34.46	27.387	69.9	1.255				

70060

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 7503

70070

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		LATITUDE	LONGITUDE	MO/DAY/YR	START TIME			
BOTTUM	WIND	SPEED	WEATHER	DOMINANT WAVES		BOTTUM	WIND	SPEED	WEATHER	DOMINANT WAVES	
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD
0	11.58	33.52	25.539	245.3	0.000	0	11.64	33.38	25.420	256.7	0.000
10	11.58	33.52	25.539	245.3	0.024	10	11.64	33.38	25.420	256.7	0.025
20	11.58	33.52	25.539	245.3	0.049	20	11.63	33.43	25.461	252.8	0.051
30	11.58	33.52	25.539	245.3	0.073	30	11.66	33.49	25.502	248.9	0.076
40	11.58	33.52	25.539	245.3	0.098	40	11.63	33.50	25.515	247.7	0.101
50	11.58	33.52	25.539	245.3	0.122	50	11.59	33.50	25.522	247.0	0.126
75	10.18	33.61	25.858	215.1	0.180	75	10.32	33.68	25.888	212.2	0.183
100	9.32	33.83	26.172	185.2	0.231	100	9.58	33.81	26.114	190.7	0.234
125	8.48	33.89	26.288	174.2	0.276	125	9.24	33.91	26.248	178.0	0.281
150	8.48	33.95	26.398	163.7	0.319	150	8.75	33.95	26.357	167.7	0.325
175	8.08	34.02	26.514	152.8	0.360	175	8.25	34.01	26.480	155.9	0.366
200	7.87	34.08	26.592	145.3	0.398	200	7.87	34.01	26.537	150.5	0.405
225	7.53	34.07	26.634	141.4	0.434	225	7.60	34.04	26.600	144.6	0.443
250	7.60	34.14	26.678	137.1	0.470	250	7.28	34.05	26.653	139.5	0.479
275	7.39	34.16	26.724	132.8	0.505	275	6.92	34.04	26.695	135.5	0.515
300	7.18	34.18	26.769	128.5	0.539	300	6.69	34.08	26.758	129.6	0.549
350	6.83	34.20	26.833	122.4	0.604	350	6.39	34.16	26.861	119.8	0.614
400	6.56	34.21	26.877	118.2	0.667	400	6.16	34.21	26.930	113.3	0.674
450	6.27	34.21	26.916	114.6	0.728	450	5.76	34.24	27.004	106.2	0.732
500	5.93	34.25	26.991	107.5	0.787	500	5.32	34.26	27.073	99.7	0.787
550	5.62	34.29	27.061	100.8	0.842	550	5.12	34.30	27.128	94.4	0.838
600	5.16	34.31	27.132	94.1	0.895	600	5.02	34.34	27.172	90.3	0.888
700	4.67	34.34	27.211	86.6	0.992	700	4.63	34.40	27.263	81.6	0.981
800	4.44	34.40	27.284	79.7	1.083	800	4.41	34.42	27.303	77.9	1.068
900	4.11	34.44	27.351	73.3	1.168	900	4.16	34.43	27.338	74.6	1.153
1000	3.84	34.46	27.395	69.2	1.248	1000	3.83	34.46	27.396	69.1	1.233

70080

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 7503

70090

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		LATITUDE	LONGITUDE	MO/DAY/YR	START TIME			
BOTTUM	WIND	SPEED	WEATHER	DOMINANT WAVES		BOTTUM	WIND	SPEED	WEATHER	DOMINANT WAVES	
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD
0	11.50	33.07	25.206	277.1	0.000	0	12.49	33.09	25.035	293.3	0.000
10	11.50	33.07	25.206	277.1	0.027	10	12.49	33.09	25.035	293.3	0.029
20	11.24	33.31	25.439	254.9	0.054	20	12.46	33.15	25.088	288.4	0.058
30	11.20	33.32	25.454	253.5	0.079	30	12.32	33.16	25.122	285.1	0.087
40	11.16	33.34	25.477	251.4	0.105	40	12.24	33.18	25.153	282.1	0.115
50	11.20	33.41	25.524	246.9	0.130	50	12.07	33.20	25.200	277.6	0.143
75	10.25	33.55	25.799	220.6	0.188	75	11.07	33.35	25.500	249.0	0.209
100	9.15	33.72	26.114	190.8	0.240	100	9.94	33.57	25.867	214.2	0.268
125	8.73	33.87	26.297	173.3	0.286	125	9.66	33.76	26.062	195.7	0.320
150	8.32	33.92	26.399	163.6	0.329	150	9.17	33.89	26.243	178.4	0.367
175	7.99	33.96	26.480	155.9	0.370	175	8.93	33.96	26.336	169.6	0.411
200	7.79	33.99	26.533	150.9	0.409	200	8.70	34.00	26.404	163.2	0.454
225	7.71	34.05	26.592	145.6	0.447	225	8.42	34.04	26.478	156.1	0.495
250	7.39	34.06	26.646	140.2	0.484	250	8.20	34.07	26.535	150.7	0.534
275	7.12	34.09	26.707	134.4	0.519	275	8.03	34.11	26.592	145.4	0.572
300	6.88	34.11	26.756	129.8	0.553	300	7.84	34.13	26.635	141.2	0.609
350	6.48	34.15	26.841	121.1	0.618	350	7.39	34.15	26.716	133.5	0.681
400	6.08	34.17	26.909	115.3	0.680	400	6.71	34.12	26.787	126.8	0.749
450	5.74	34.19	26.967	109.1	0.739	450	6.30	34.17	26.880	118.0	0.813
500	5.33	34.20	27.025	104.3	0.796	500	6.00	34.20	26.942	112.1	0.874
550	4.87	34.21	27.086	98.5	0.849	550	5.54	34.22	27.015	105.2	0.931
600	4.81	34.27	27.140	93.3	0.900	600	5.29	34.27	27.085	98.6	0.986
700	4.60	34.35	27.235	84.3	0.996	700	4.82	34.33	27.187	88.9	1.087
800	4.31	34.39	27.290	79.1	1.085	800	4.40	34.37	27.265	81.5	1.180
900	4.04	34.43	27.350	73.4	1.170	900	4.15	34.41	27.323	76.0	1.267
1000	3.72	34.46	27.407	68.0	1.249	1000	3.86	34.44	27.377	70.9	1.349

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 7503

70090

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	ROTATION	WIND	SPEED	WEATHER	DOMINANT WAVES
Z	T	S	D2	S03	N02	N03	DT	DD
0	12.43	33.056	6.43		294.7	0	12.43	33.056
10	12.43	33.057	6.42		294.6	10	12.43	33.057
30	12.31	33.173	6.51		283.9	20	12.38	33.111
59	12.01	33.221	6.11		275.0	30	12.31	33.173
79	11.24	33.331	5.70		253.4	50	12.16	33.209
94	10.61	33.465	4.85		232.8	75	11.41	33.305
108	9.95	33.548	4.49		216.0	100	10.31	33.503
138	9.54	33.799	3.06		190.9	125	9.64	33.693
162	9.08	33.914	2.53		175.3	150	9.30	33.865
191	8.84	33.977	2.43		167.0	200	8.74	33.995
226	8.46	34.038	2.19		156.9	250	8.25	34.077
299	7.85	34.135	1.51		141.0	300	7.83	34.135
401	6.67	34.129	1.12		125.7	400	6.68	34.130
507	5.79	34.197	0.61		109.8	500	5.83	34.192
615	5.17	34.280	0.33		96.5	600	5.24	34.269
750	4.53	34.360	0.27		83.6	700	4.74	34.333
908	4.11	34.422	0.34		74.7	800	4.37	34.383
1075	3.67	34.470	0.57		66.8	1000	3.86	34.451

73053				RV DAVID STARR JORDAN				CALCOFI CRUISE 7503				73060			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME								
35 31.5N	121 28.5W	03/01/75	0813 GMT	35 18.0N	121 57.5W	03/ 1/75	1251 GMT								
BOTTUM	WIND	SPEED	WEATHER	DOMINANT WAVES	BOTTUM	WIND	SPEED	WEATHER	DOMINANT WAVES						
741M	180	3KT			241UM	160	5KT		6						
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD				
0	10.89	33.68	25.789	221.7	0.000	0	11.85	33.52	25.489	250.1	0.000				
10	10.84	33.69	25.805	220.1	0.022	10	11.80	33.55	25.522	247.0	0.024				
20	10.84	33.68	25.797	220.8	0.044	20	11.73	33.55	25.535	245.8	0.049				
30	10.82	33.69	25.809	219.7	0.066	30	11.50	33.55	25.578	241.7	0.073				
40	10.41	33.70	25.888	212.2	0.087	40	11.27	33.54	25.612	238.5	0.098				
50	9.86	33.75	26.021	199.6	0.108	50	11.08	33.56	25.662	233.7	0.121				
75	4.08	33.87	26.242	178.5	0.156	75	10.85	33.59	25.726	227.6	0.179				
100	8.77	33.95	26.353	168.0	0.199	100	10.57	33.64	25.814	219.2	0.236				
125	8.46	34.01	26.448	159.0	0.241	125	9.66	33.82	26.109	191.2	0.288				
150	8.21	34.03	26.502	153.9	0.281	150	8.96	33.92	26.300	173.0	0.334				
175	8.16	34.09	26.556	148.7	0.319	175	8.37	33.98	26.439	154.9	0.376				
200	7.88	34.10	26.606	144.0	0.357	200	8.03	34.03	26.529	151.3	0.416				
225	7.59	34.12	26.664	138.5	0.393	225	7.77	34.05	26.583	146.2	0.454				
250	7.36	34.14	26.713	133.9	0.428	250	7.43	34.07	26.648	140.0	0.491				
275	7.20	34.16	26.751	130.2	0.462	275	7.24	34.10	26.698	135.2	0.526				
300	7.04	34.16	26.773	124.1	0.495	300	7.10	34.13	26.741	131.2	0.561				
350	6.67	34.19	26.847	121.1	0.560	350	6.44	34.11	26.815	124.2	0.627				
400	6.33	34.21	26.908	115.4	0.622	400	6.04	34.15	26.898	116.3	0.690				
450	5.98	34.24	26.976	108.9	0.681	450	5.86	34.20	26.960	110.4	0.749				
500	5.78	34.26	27.017	105.0	0.737	500	5.62	34.24	27.021	104.6	0.806				
550	5.42	34.29	27.085	98.6	0.792	550	5.36	34.26	27.068	100.1	0.860				
600	5.24	34.31	27.122	95.0	0.843	600	5.32	34.31	27.113	95.9	0.913				
665	4.99	34.35	27.183	89.3	0.908	700	5.04	34.37	27.193	98.3	1.012				
						800	4.70	34.40	27.256	82.4	1.106				
						900	4.37	34.44	27.324	76.0	1.194				
						1000	4.09	34.46	27.369	71.6	1.277				

73070				RV DAVID STARR JORDAN				CALCOFI CRUISE 7503				73080			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME								
34 58.5N	122 39.5W	03/ 1/75	1912 GMT	34 38.0N	123 22.0W	03/ 2/75	0104 GMT								
BOTTUM	WIND	SPEED	WEATHER	DOMINANT WAVES	BOTTUM	WIND	SPEED	WEATHER	DOMINANT WAVES						
4111M	080	9KT		1 200 6 12	4309M	200	8KT		1 270 8 12						
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD				
0	13.27	33.29	25.037	293.2	0.000	0	12.34	33.14	25.103	286.9	0.000				
10	12.27	33.29	25.031	293.2	0.029	10	12.25	33.13	25.112	286.0	0.028				
20	13.26	33.29	25.039	293.0	0.058	20	12.02	33.14	25.163	281.1	0.057				
30	12.18	33.23	25.203	277.4	0.087	30	11.63	33.45	25.476	251.4	0.083				
40	11.80	33.22	25.266	271.3	0.114	40	11.58	33.49	25.516	247.5	0.108				
50	11.70	33.24	25.301	268.1	0.141	50	11.58	33.50	25.524	246.8	0.133				
75	10.70	33.37	25.581	241.3	0.205	75	11.42	33.51	25.561	243.3	0.195				
100	9.79	33.56	25.885	212.5	0.263	100	9.63	33.66	25.989	212.6	0.251				
125	9.15	33.72	26.114	190.8	0.314	125	8.69	33.82	26.265	176.5	0.299				
150	8.66	33.89	26.324	170.8	0.359	150	8.49	33.92	26.373	166.1	0.342				
175	8.24	33.94	26.427	161.0	0.407	175	8.13	33.95	26.451	158.7	0.384				
200	7.78	33.97	26.519	152.3	0.442	200	7.85	33.98	26.516	152.5	0.423				
225	7.42	33.98	26.578	146.6	0.480	225	7.49	34.00	26.584	146.1	0.462				
250	7.15	34.02	26.648	140.0	0.517	250	7.11	34.01	26.646	140.2	0.498				
275	6.86	34.03	26.696	135.5	0.552	275	6.94	34.03	26.685	136.5	0.534				
300	6.71	34.06	26.740	131.3	0.586	300	6.78	34.04	26.746	130.7	0.568				
350	5.93	34.03	26.817	124.0	0.653	350	6.29	34.08	26.811	124.6	0.635				
400	5.50	34.06	26.894	116.7	0.715	400	5.69	34.08	26.886	117.4	0.698				
450	5.20	34.12	26.971	108.8	0.774	450	5.13	34.11	26.977	108.8	0.757				
500	5.00	34.16	27.031	103.6	0.830	500	4.93	34.18	27.055	101.4	0.812				
550	4.81	34.21	27.093	97.8	0.883	550	4.72	34.21	27.103	96.9	0.864				
600	4.72	34.26	27.142	93.1	0.934	600	4.57	34.25	27.151	92.3	0.914				
700	4.43	34.33	27.230	84.8	1.029	700	4.28	34.32	27.238	84.0	1.009				
800	4.20	34.40	27.310	77.2	1.118	800	4.05	34.38	27.310	77.2	1.097				
900	3.98	34.44	27.365	72.0	1.200	900	3.80	34.44	27.383	70.3	1.178				
1000	3.75	34.48	27.420	66.8	1.278	1000	3.58	34.47	27.429	65.9	1.254				

73090				RV DAVID STARR JORDAN				CALCOFI CRUISE 7503				77051			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME								
34 17.0N	124 03.0W	03/ 2/75	0637 GMT	35 02.0N	120 56.5W	03/ 3/75	1307 GMT								
BOTTOM	WIND	SPEED	WEATHER	Dominant	Waves			BOTTOM	WIND	SPEED	WEATHER	Dominant	Waves		
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD	Z	T	S	DD
0	12.64	33.04	24.968	299.7	0.000	0	10.46	33.72	25.895	211.5	0.000				
10	12.64	33.04	24.968	299.7	0.029	10	10.46	33.72	25.895	211.5	0.021				
20	12.45	33.02	24.989	297.7	0.059	20	10.46	33.72	25.895	211.5	0.042				
30	12.36	33.07	25.045	292.4	0.089	30	10.46	33.72	25.895	211.5	0.063				
40	12.32	33.07	25.053	291.7	0.118	40	10.47	33.72	25.902	210.8	0.084				
50	12.31	33.10	25.078	289.3	0.147	50	10.31	33.74	25.937	207.6	0.105				
75	11.53	33.24	25.332	269.1	0.217	75	10.05	33.77	26.004	201.1	0.157				
100	10.45	33.44	25.679	232.1	0.280	100	9.51	33.88	26.180	184.4	0.205				
125	9.32	33.67	26.047	197.1	0.334	125	9.21	33.95	26.284	174.6	0.251				
150	8.75	33.84	26.271	175.8	0.381	150	9.04	33.98	26.334	169.8	0.295				
175	8.36	33.93	26.401	163.5	0.424	175	8.86	34.00	26.378	165.6	0.337				
200	8.13	34.00	26.491	154.9	0.465	200	8.41	34.08	26.511	153.0	0.378				
225	7.81	34.03	26.562	148.2	0.504	225	8.15	34.10	26.566	147.8	0.416				
250	7.51	34.05	26.621	142.6	0.541	250	7.94	34.13	26.621	142.6	0.454				
275	7.35	34.08	26.667	138.2	0.577	275	7.63	34.15	26.682	136.8	0.490				
300	7.06	34.08	26.707	134.4	0.613	300	7.44	34.16	26.717	133.5	0.525				
350	6.40	34.09	26.804	125.2	0.680										
400	6.05	34.13	26.881	117.9	0.743										
450	6.00	34.22	26.958	110.6	0.803										
500	5.49	34.20	27.005	106.1	0.860										
550	5.27	34.26	27.079	99.1	0.915										
600	5.01	34.27	27.117	95.5	0.967										
700	4.63	34.33	27.208	86.9	1.065										
800	4.37	34.38	27.216	80.5	1.156										
900	3.99	34.43	27.356	72.9	1.241										
1000	3.68	34.46	27.411	67.6	1.319										

RV DAVID STARR JORDAN				CALCOFI CRUISE 7503				77055							
LATITUDE	LONGITUDE	MO/DAY/YR	MESSANGER TIME	BOTTOM	WIND	SPEED	WEATHER	Dominant	Waves						
34 54.0N	121 12.5W	3/ 3/75	1013	574M	360	14KT									
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD
3	11.66	33.553	5.94					244.3	0	11.66	33.553	5.94	25.550	244.3	0.000
11	11.66	33.551	5.84					244.4	10	11.66	33.552	5.84	25.549	244.4	0.024
30	11.57	33.557	5.83					242.4	20	11.63	33.554	5.83	25.556	243.8	0.048
46	11.43	33.560	5.60					239.8	30	11.57	33.557	5.83	25.570	242.4	0.073
53	11.36	33.563	5.59					238.3	50	11.39	33.562	5.59	25.605	239.1	0.121
68	10.98	33.611	4.87					227.9	75	10.39	33.692	4.21	25.884	212.6	0.178
82	9.86	33.776	3.59					197.6	100	9.63	33.842	3.14	26.178	189.3	0.229
97	9.66	33.835	3.18					190.1	125	9.36	33.901	2.93	26.219	180.7	0.275
121	9.45	33.883	3.00					183.3	150	8.97	33.991	2.55	26.353	168.0	0.320
139	9.08	33.964	2.69					171.6	200	8.34	34.094	1.97	26.531	151.1	0.401
168	8.83	34.021	2.36					163.6	250	7.87	34.133	1.65	26.632	141.5	0.476
197	8.38	34.089	2.00					151.9	300	7.49	34.162	1.38	26.711	134.1	0.547
226	8.09	34.117	1.79					145.7	400	6.80	34.212	0.86	26.847	121.2	0.681
263	7.77	34.140	1.59					139.5							
321	7.34	34.173	1.26					131.2							
375	6.94	34.207	0.95					123.3							
432	6.6	34.217	0.77					118.2							
489	5.99	34.246	0.54					108.5							

RV DAVID STARR JORDAN				CALCOFI CRUISE 7503				77060							
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME								
34 54.0N	121 12.5W	03/ 3/75	0916	34 44.0N	121 34.0W	03/ 3/75	0535								
BOTTOM	WIND	SPEED	WEATHER	Dominant	Waves			BOTTOM	WIND	SPEED	WEATHER	Dominant	Waves		
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD	Z	T	S	DD
0	11.66	33.55	25.548	244.5	0.000	0	12.12	33.30	25.268	271.1	0.000				
10	11.67	33.55	25.546	244.7	0.024	10	12.12	33.30	25.268	271.1	0.027				
20	11.64	33.55	25.552	244.2	0.048	20	12.05	33.33	25.305	267.7	0.054				
30	11.57	33.55	25.565	242.9	0.073	30	12.03	33.43	25.386	259.9	0.080				
40	11.51	33.55	25.576	241.9	0.097	40	11.89	33.47	25.443	254.5	0.106				
50	11.47	33.54	25.591	240.5	0.121	50	11.87	33.50	25.470	251.9	0.131				
75	10.84	33.52	25.751	225.2	0.180	75	10.70	33.49	25.675	232.5	0.192				
100	9.74	33.58	26.080	194.0	0.233	100	9.46	33.67	26.025	199.2	0.247				
125	9.41	33.90	26.212	181.4	0.280	125	8.90	33.87	26.271	175.8	0.294				
150	8.94	34.01	26.374	166.1	0.324	150	8.69	33.94	26.358	167.5	0.338				
175	8.82	34.03	26.408	162.8	0.366	175	8.28	34.02	26.484	155.6	0.379				
200	8.52	34.07	26.486	155.4	0.407	200	8.05	34.03	26.526	151.6	0.418				
225	8.15	34.12	26.582	146.3	0.446	225	7.69	34.02	26.571	147.3	0.456				
250	7.94	34.13	26.621	142.6	0.483	250	7.57	34.07	26.628	141.9	0.493				
275	7.63	34.15	26.682	136.8	0.519	275	7.44	34.08	26.654	139.4	0.530				
300	7.43	34.16	26.718	133.3	0.554	300	7.19	34.12	26.721	133.1	0.565				
350	7.10	34.20	26.796	126.0	0.621	350	6.44	34.11	26.815	124.2	0.632				
400	6.73	34.22	26.863	119.6	0.686	400	6.29	34.17	26.881	117.9	0.695				
450	6.37	34.22	26.911	115.1	0.747	450	6.11	34.26	26.976	108.9	0.754				
500	5.89	34.27	27.011	105.5	0.806	500	5.92	34.28	27.015	105.2	0.811				
						550	5.67	34.29	27.055	101.4	0.866				
						600	5.42	34.32	27.109	96.3	0.919				
						700	4.99	34.37	27.199	87.8	1.019				
						800	4.62	34.41	27.272	80.8	1.111				
						874	4.19	34.44	27.343	74.1	1.175				

77070				RV DAVID STARR JORDAN				CALCULEI CRUISE 7503				77080					
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
41°15'N	122°16'W	03/ 2/75	2331 GMT	34°04'N	122°57'W	03/ 2/75	1810 GMT	41°15'N	122°12'W	03/ 2/75	1810 GMT	34°04'N	122°57'W	03/ 2/75	1810 GMT		
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD
6	12°89	33°37	24.972	299.3	0.000	0	13°88	33°38	24.982	298.4	0.0000	6	12°82	33°37	24.987	298.4	0.0000
10	12°82	33°37	24.987	298.0	0.029	10	13°76	33°39	25.014	295.3	0.029	10	12°82	33°37	24.987	298.4	0.0000
20	12°68	33°36	25.007	295.9	0.059	20	13°82	33°45	25.048	292.1	0.059	20	12°68	33°36	25.007	292.1	0.059
30	12°60	33°36	25.024	294.4	0.089	30	13°82	33°45	25.048	292.1	0.088	30	12°60	33°45	25.052	291.7	0.117
40	12°55	33°35	25.026	294.2	0.118	40	13°80	33°45	25.052	291.7	0.117	40	12°55	33°35	25.054	291.5	0.146
50	12°53	33°36	25.038	293.0	0.148	50	13°79	33°45	25.054	291.5	0.146	50	12°53	33°36	25.086	285.5	0.219
75	12°30	33°32	25.054	291.6	0.221	75	13°37	33°38	25.086	285.5	0.219	75	12°30	33°32	25.054	291.5	0.146
100	12°39	33°32	25.022	274.6	0.293	100	11°95	33°36	25.347	263.7	0.289	100	12°39	33°32	25.022	274.6	0.293
125	11°33	33°34	25.446	254.2	1.359	125	10°59	33°38	25.556	243.8	0.353	125	11°33	33°34	25.446	254.2	1.359
150	10°39	33°59	25.606	220.0	0.419	150	9°47	33°58	25.870	213.9	0.411	150	10°39	33°59	25.606	220.0	0.419
175	9°47	33°70	26.047	197.1	0.412	175	9°32	33°76	26.118	190.4	0.467	175	9°47	33°70	26.047	197.1	0.412
200	8°58	33°83	26.289	134.1	0.520	200	8°74	33.89	26.311	172.0	0.508	200	8°58	33°83	26.289	134.1	0.520
225	8°37	33°94	26.408	162.8	0.563	225	8°23	33.96	26.444	159.4	0.551	225	8°37	33°94	26.408	162.8	0.563
250	7°93	33°98	26.505	153.6	0.603	250	7°98	34.00	26.513	152.8	0.591	250	7°93	33°98	26.505	153.6	0.603
275	7°50	34.00	26.583	146.2	1.642	275	7°58	34.00	26.571	147.3	0.630	275	7°50	34.00	26.583	146.2	1.642
300	7°22	34.03	26.646	140.7	0.619	300	7°28	34.02	26.630	141.8	0.667	300	7°22	34.03	26.646	140.7	0.619
350	6°45	34.04	26.758	129.5	0.749	350	6°51	34.02	26.721	133.0	0.738	350	6°45	34.04	26.758	129.5	0.749
400	6°10	34.10	26.851	120.8	0.814	400	6°12	34.04	26.814	124.3	0.805	400	6°10	34.10	26.851	120.8	0.814
500	5°26	34.14	26.938	112.6	0.875	500	5°38	34.07	26.892	116.9	0.868	500	5°26	34.14	26.938	112.6	0.875
600	5°46	34.20	27.009	105.8	0.932	600	5°18	34.11	26.971	109.3	0.927	600	5°46	34.20	27.009	105.8	0.932
650	5°30	34.25	27.068	160.2	0.987	650	4°47	34.15	27.027	104.1	0.984	650	5°30	34.25	27.068	160.2	0.987
700	5°08	34.29	27.125	94.8	1.039	700	4°52	34.21	27.103	96.9	1.037	700	5°08	34.29	27.125	94.8	1.039
750	4°45	34.35	27.121	85.6	1.136	750	4°53	34.31	27.203	87.4	1.136	750	4°45	34.35	27.121	85.6	1.136
800	4°36	34.39	27.285	79.6	1.227	800	4°24	34.37	27.282	79.9	1.227	800	4°36	34.39	27.285	79.6	1.227
900	4°01	34.42	27.346	73.8	1.311	900	3°54	34.41	27.345	73.9	1.311	900	4°01	34.42	27.346	73.8	1.311
1000	3°58	34.46	27.401	68.6	1.391	1000	3°55	34.44	27.408	67.9	1.390	1000	3°58	34.46	27.401	68.6	1.391

77090				RV DAVID STARR JORDAN				RV ALFRED XANDER AGASSIZ				80051					
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
33°43'N	123°39'W	03/ 2/75	1312 GMT	34°25'N	120°34'W	02/25/75	2314 GMT	34°25'N	120°34'W	02/25/75	2314 GMT	34°25'N	120°34'W	02/25/75	2314 GMT		
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD
6	12°80	33°40	25.014	295.4	0.000	0	11°65	33.62	25.604	239.2	0.000	6	12°80	33°40	25.014	295.4	0.000
10	12°80	33°40	25.014	295.4	0.029	10	11°58	33.63	25.625	237.2	0.023	10	12°80	33°40	25.014	295.4	0.000
20	12°80	33°40	25.014	295.4	0.059	20	11°16	33.65	25.717	228.5	0.047	20	12°80	33°40	25.014	295.4	0.000
30	12°75	33°42	25.039	292.9	0.088	30	10°67	33.72	25.858	215.0	0.069	30	12°75	33°42	25.039	292.9	0.088
40	12°75	33°43	25.047	292.7	0.117	40	10°32	33.76	25.950	206.3	0.090	40	12°75	33°43	25.047	292.7	0.117
50	12°74	33°43	25.049	292.0	0.147	50	10°21	33.79	25.993	202.2	0.111	50	12°74	33°43	25.049	292.0	0.147
75	12°27	33°41	25.129	284.4	0.219	75	9°55	33.85	26.100	192.0	0.160	75	12°27	33°41	25.129	284.4	0.219
100	11°98	33°42	25.388	259.8	0.288	100	9°74	33.87	26.134	188.8	0.208	100	11°98	33°42	25.388	259.8	0.288
125	10°14	33°58	25.841	216.6	0.348	125	9°64	33.89	26.166	185.7	0.229	125	10°14	33°58	25.841	216.6	0.348
150	9°39	33°56	26.106	191.5	0.400	150	8°46	33.92	26.205	182.0	0.263	150	9°39	33°56	26.106	191.5	0.400
175	8°74	33°88	26.304	172.7	0.446	175	7°58	33.92	26.317	171.5	0.308	175	8°74	33°88	26.304	172.7	0.446
200	8°27	33°93	26.615	162.1	0.489	200	7°56	33.96	26.374	166.1	0.351	200	8°27	33°93	26.615	162.1	0.489
225	7°78	33°94	26.695	154.5	0.529	225	7°56	33.98	26.500	154.0	0.392	225	7°78	33°94	26.695	154.5	0.529
250	7°42	33°97	26.571	147.4	0.568	250	7°23	33.98	26.552	156.6	0.367	250	7°42	33°97	26.571	147.4	0.568
275	7°21	34.01	26.623	142.4	0.605	275	7°00	33.92	26.652	151.6	0.337	275	7°21	34.01	26.623	142.4	0.605
300	7°10	34.02	26.655	139.4	0.642	300	6°51	33.92	26.682	150.6	0.308	300	7°10	34.02	26.655	139.4	0.642
350	6°33	34.03	26.766	128.8	0.711	350	6°11	33.96	26.774	149.6	0.271	350	6°33	34.03	26.766	128.8	0.711
400	5°92	34.04	26.876	123.1	0.776	400	5°20	33.97	26.911	210.0	0.114	400	5°92	34.04	26.876	123.1	0.776
450	5°43	34.10	26.934	112.9	0.858	450	4°59	33.94	26.941	206.5	0.167	450	5°43	34.10	26.934	112.9	0.858
500	5°04	34.13	27.003	106.3	0.896	500	4°51	33.91	26.982	196.6	0.167	500	5°04	34.13	27.003	106.3	0.896
550	4°87	34.16	27.047	102.2	0.951	550	4°46	33.84	27.025	182.0	0.263	550	4°87	34.16	27.047	102.2	0.951
600	4°78	34.23	27.112	96.0	1.003	600	4°29	33.86	27.052	182.0	0.263	600	4°78	34.23	27.112	96.0	1.003
700	4°45	34.29	27.196	88.8	1.102	700	4°17	33.84	27.176	171.5	0.308	700	4°45	34.29	27.196	88.8	1.102
800	4°18	34.38	27.296	78.5	1.143	800	3°54	33.84	27.205	171.5	0.308	800	4°18	34.38	27.296	78.5	1.143
900	3°92	34.43	27.363	72.2	1.216	900	3°26	33.84	27.317								

80052 ¹		RV ALFRED XANDER AGASSIZ					CALCOFI CRUISE 7503					80052 ⁴				
LATITUDE	LONGITUDE	MO/DY/YR		START TIME		LATITUDE	LONGITUDE	MO/DY/YR		START TIME						
34 24.4N	120 36.1W	02/25/75		2200 GMT		34 23.8N	120 36.8W	02/25/75		2200 GMT						
BOTTUM	WIND SPEED	WEATHER	DOMINANT	WAVES	Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD
229M	320 22Kt	2	320	6 8							316M	320	20Kt	1	320	5 7
0 11.39	33.66	25.683	231.7	0.000	0	11.54	33.65	25.648	235.0	0.000	10 11.41	33.66	25.679	232.9	0.023	
10 10.78	33.69	25.816	219.0	0.045	20	10.45	33.68	25.866	214.3	0.045	30 10.38	33.73	25.917	209.5	0.067	
40 10.19	33.77	25.980	203.4	0.088	40	10.03	33.81	26.039	197.8	0.086	50 10.13	33.78	25.999	201.7	0.108	
75 9.87	33.84	26.089	193.1	0.158	50	9.96	33.83	26.066	195.2	0.106	75 9.87	33.84	26.089	193.1	0.155	
100 9.53	33.92	26.208	181.8	0.205	100	9.59	33.90	26.183	184.2	0.202	100 9.53	33.92	26.208	181.8	0.205	
125 9.09	34.00	26.342	169.1	0.249	125	9.27	33.96	26.282	174.8	0.248	150 8.97	34.02	26.377	165.8	0.292	
175 8.70	34.07	26.458	158.0	0.333	175	8.95	34.02	26.380	165.5	0.334	200 8.51	34.08	26.495	154.5	0.373	
200					200	8.67	34.07	26.463	157.6	0.375	225	8.34	34.10	26.537	150.5	0.415
					250	8.11	34.12	26.588	145.7	0.453	275	7.98	34.13	26.615	143.2	0.490
					300	7.78	34.16	26.668	138.1	0.527						

80052 ⁷		RV ALEXANDER AGASSIZ					CALCOFI CRUISE 7503					80053 ⁴				
LATITUDE	LONGITUDE	MO/DY/YR		START TIME		LATITUDE	LONGITUDE	MO/DY/YR		START TIME						
34 23.5N	120 39.1W	02/25/75		2107 GMT		34 22.4N	120 42.0W	02/25/75		2008 GMT						
BOTTUM	WIND SPEED	WEATHER	DOMINANT	WAVES	Z	T	S	SIGMA T	DT	DD	BOTTUM	WIND SPEED	WEATHER	DOMINANT WAVES		
430M	330 14Kt	2	320	5 8							532M	320	12Kt	1	310	5 7
0 11.14	33.60	25.682	231.8	0.000	0	11.20	33.60	25.671	232.8	0.000	10 11.02	33.63	25.727	232.3	0.023	
20 10.66	33.64	25.798	220.7	0.045	20	11.07	33.60	25.694	230.6	0.046	30 9.41	33.76	26.020	199.6	0.066	
40 10.05	33.82	26.043	197.4	0.086	40	10.11	33.78	26.002	201.4	0.089	50 10.00	33.82	26.052	196.6	0.106	
75 9.97	33.82	26.057	196.1	0.155	50	10.05	33.80	26.028	198.9	0.109	100 9.64	33.90	26.174	185.0	0.203	
100					100	9.76	33.86	26.123	189.8	0.207	125 9.29	33.96	26.279	175.1	0.249	
125 9.12	33.99	26.329	170.3	0.293	125	9.33	33.95	26.264	176.5	0.254	150 9.06	34.01	26.355	167.9	0.336	
175 9.06	34.01	26.355	167.9	0.336	150	9.06	33.99	26.339	169.4	0.298	200 8.58	34.08	26.485	155.5	0.377	
200 8.45	34.09	26.512	152.9	0.417	200	8.33	34.10	26.539	150.4	0.379	225 8.45	34.11	26.556	148.8	0.455	
250 8.27	34.11	26.556	148.8	0.455	225	8.18	34.12	26.577	146.7	0.417	275 7.88	34.14	26.637	141.0	0.493	
300 7.14	34.15	26.666	138.3	0.529	300	7.57	34.18	26.714	133.8	0.526	350 7.30	34.18	26.753	130.1	0.594	
350 7.30	34.18	26.753	130.1	0.599	350	7.11	34.18	26.779	127.6	0.594	400 6.83	34.21	26.841	121.7	0.659	
400					400	6.72	34.20	26.848	121.0	0.659	450	6.41	34.22	26.905	115.6	
					450	6.04	34.25	26.977	108.8	0.721	500	6.04	34.25	26.977	108.8	

80055		RV DAVID STARR JORDAN					CALCOFI CRUISE 7503					80060				
LATITUDE	LONGITUDE	MO/DY/YR		START TIME		LATITUDE	LONGITUDE	MO/DY/YR		START TIME						
34 19.0N	120 48.0W	03/ 4/75		0309 GMT		34 09.0N	121 09.0W	03/ 4/75		0630 GMT						
BOTTUM	WIND SPEED	WEATHER	DOMINANT	WAVES	Z	T	S	SIGMA T	DT	DD	BOTTUM	WIND SPEED	WEATHER	DOMINANT WAVES		
768M	330 7KT	2	300	5KT							2222M	300	5KT	1	310	5 7
0 11.56	33.55	25.566	242.8	0.000	0	12.49	33.42	25.290	269.0	0.000	10 11.42	33.59	25.623	237.4	0.024	
20 11.27	33.66	25.705	229.6	0.047	20	12.23	33.42	25.340	264.3	0.053	30 10.54	33.69	25.898	215.1	0.069	
40 10.09	33.80	26.021	199.6	0.090	40	11.80	33.48	25.468	252.2	0.105	50 9.84	33.84	26.094	192.6	0.110	
75 9.36	33.95	26.259	176.9	0.156	50	11.69	33.49	25.496	249.5	0.130	100 9.07	34.00	26.345	168.8	0.200	
100					100	10.18	33.69	25.920	209.2	0.249	125 8.83	34.05	26.422	161.4	0.242	
125 8.60	34.05	26.422	161.4	0.242	125	9.63	33.87	26.153	187.0	0.299	150 8.60	34.08	26.482	155.8	0.282	
175 8.36	34.11	26.542	150.1	0.321	175	8.68	33.98	26.391	164.4	0.388	200 8.05	34.15	26.620	142.7	0.358	
200					200	8.40	34.01	26.458	158.1	0.429	225 7.90	34.16	26.650	139.8	0.395	
250 7.83	34.16	26.661	138.8	0.431	250	7.90	34.04	26.556	148.7	0.508	275 7.68	34.17	26.690	136.0	0.466	
275 7.68	34.17	26.690	136.0	0.466	275	7.66	34.09	26.630	141.7	0.545	300 7.54	34.18	26.718	133.3	0.501	
300					300	7.48	34.11	26.672	137.7	0.581	350 7.14	34.20	26.791	126.5	0.568	
350					350	6.86	34.17	26.806	125.0	0.649	400 6.91	34.22	26.838	122.0	0.633	
400					400	6.42	34.22	26.904	115.7	0.712	450 6.60	34.22	26.880	118.0	0.697	
500 6.10	34.25	26.959	109.6	0.757	500	6.05	34.27	26.991	107.5	0.830	550 5.91	34.26	27.001	106.5	0.814	
550					550	5.70	34.29	27.051	101.8	0.886	600 5.65	34.30	27.065	100.5	0.870	
600					600	5.49	34.31	27.092	97.9	0.939	700 5.14	34.36	27.174	90.2	0.973	
700					700	5.03	34.37	27.194	88.2	1.040	800 4.62	34.41	27.272	80.8	1.132	
					800	4.29	34.45	27.340	74.4	1.219	900 4.04	34.47	27.382	70.4	1.300	
					1000											

RV DAVID STARR JORDAN

CALCOFF CRUISE 7503

80070

LATITUDE	LONGITUDE	MO/DAY/YR	MESSANGER	TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES						
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	SIGT	DT	DD
33 48.0N	121 51.0W	03/ 4/75	1257	GMT	3738M	020	7KT								
3	12.30	33.210	6.32		281.0	0	12.30	33.210	6.32	25.165	281.0	0.000			
12	12.32	33.205	6.43		281.8	10	12.31	33.208	6.41	25.159	281.6	0.028			
30	11.91	33.269	6.32		269.7	20	12.16	33.230	6.38	25.205	277.2	0.056			
58	11.63	33.323	6.00		260.7	30	11.91	33.269	6.32	25.284	269.7	0.083			
76	11.32	33.377	5.74		251.4	50	11.70	33.310	6.10	25.354	263.0	0.137			
90	10.81	33.406	5.42		240.5	75	11.34	33.375	5.75	25.470	252.0	0.201			
103	10.16	33.497	4.83		223.1	100	10.31	33.474	4.97	25.729	227.4	0.262			
132	9.29	33.738	3.53		191.6	125	9.45	33.685	3.76	26.037	198.0	0.315			
154	8.81	33.829	3.63		177.6	150	8.88	33.817	3.61	26.230	179.7	0.363			
182	8.36	33.940	3.84		162.7	200	8.13	33.968	3.50	26.464	157.5	0.449			
215	7.97	33.978	3.11		154.3	250	7.51	34.016	2.44	26.592	145.3	0.527			
283	7.11	34.047	1.93		137.5	300	6.94	34.063	1.72	26.710	134.2	0.599			
381	6.27	34.120	1.08		121.3	400	6.09	34.124	0.99	26.871	118.9	0.730			
484	5.42	34.153	0.72		108.8	500	5.36	34.172	0.65	26.998	106.8	0.849			
586	5.15	34.280	0.35		96.3	600	5.08	34.291	0.34	27.125	96.7	0.956			
717	4.51	34.361	A 0.34		83.3	700	4.59	34.353	0.34	27.230	84.8	1.053			
868	4.20	34.448	0.53		73.6	800	4.31	34.413	0.43	27.307	77.5	1.141			
1032	3.72	34.484	0.64		66.2	1000	3.82	34.482	0.62	27.414	67.4	1.303			

A) AN ERROR OF +0.01 IN THE CONDUCTIVITY RATIO HAS BEEN ASSUMED FOR THIS VALUE. THE LISTED OBSERVED AND INTERPOLATED VALUES INCORPORATE THE CORRECTION.

80070

RV DAVID STARR JORDAN

CALCOFF CRUISE 7503

80080

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		LATITUDE	LONGITUDE	MO/DAY/YR	START TIME			
Z	T	S	SIGMA T	DT	Z	T	S	SIGMA T	DT	DD	
33 48.0N	121 51.0W	03/ 4/75	1151 GMT		33 28.0N	122 32.0W	03/ 4/75	1807 GMT			
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
3738M	020	7KT			3738M	040	3KT				
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD
0	12.34	33.26	25.196	278.1	0.000	0	13.80	33.36	24.983	298.3	0.000
10	12.33	33.25	25.190	278.6	0.027	10	13.80	33.36	24.983	298.3	0.029
20	12.33	33.25	25.190	278.6	0.055	20	13.80	33.36	24.983	298.3	0.059
30	12.15	33.29	25.255	272.4	0.083	30	13.80	33.36	24.983	298.3	0.089
40	11.85	33.29	25.311	267.0	0.110	40	13.76	33.35	24.983	298.3	0.119
50	11.73	33.33	25.365	262.0	0.136	50	13.56	33.33	25.009	295.8	0.149
75	11.77	33.45	25.450	252.8	0.201	75	13.58	33.35	25.020	294.7	0.223
100	10.65	33.42	25.529	236.8	0.263	100	12.52	33.37	25.246	273.2	0.295
125	6.44	33.71	26.059	195.9	0.318	125	11.35	33.41	25.496	249.4	0.361
150	8.88	33.82	26.235	179.3	0.365	150	9.98	33.49	25.798	220.7	0.420
175	8.46	33.93	26.386	164.9	0.409	175	9.36	33.66	26.033	198.4	0.473
200	8.11	33.96	26.462	157.6	0.450	200	8.76	33.82	26.253	177.5	0.521
225	7.77	34.01	26.552	149.2	0.490	225	8.59	33.93	26.366	166.8	0.565
250	7.47	34.04	26.619	142.8	0.527	250	8.18	33.96	26.452	158.6	0.607
275	7.24	34.06	26.660	138.9	0.563	275	7.84	33.99	26.526	151.6	0.647
300	7.00	34.05	26.692	135.8	0.599	300	7.49	34.00	26.584	146.1	0.685
350	6.60	34.10	26.786	126.4	0.667	350	6.72	34.01	26.699	135.2	0.758
400	6.19	34.14	26.871	116.9	0.731	400	6.11	34.05	26.810	124.6	0.826
450	5.89	34.16	26.925	113.8	0.792	450	5.51	34.07	26.900	118.1	0.889
500	5.38	34.18	27.003	105.3	0.850	500	5.22	34.12	26.975	109.1	0.948
550	5.28	34.23	27.054	101.5	0.905	550	5.04	34.16	27.027	104.1	1.004
600	5.08	34.29	27.125	94.8	0.957	600	4.91	34.22	27.089	98.1	1.058
700	4.56	34.34	27.224	85.4	1.055	700	4.62	34.30	27.185	89.1	1.158
800	4.34	34.42	27.311	77.1	1.143	800	4.27	34.36	27.271	80.9	1.251
900	4.15	34.45	27.355	73.0	1.227	900	3.91	34.40	27.340	74.4	1.336
980	3.93	34.47	27.394	69.3	1.291	1000	3.67	34.45	27.404	68.3	1.416

80090

RV DAVID STARR JORDAN

CALCOFF CRUISE 7503

81043

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		LATITUDE	LONGITUDE	MO/DAY/YR	START TIME			
Z	T	S	SIGMA T	DT	Z	T	S	SIGMA T	DT	DD	
33 09.0N	123 13.0W	03/ 4/75	2255 GMT		34 24.0N	119 47.5W	03/ 6/75	2009 GMT			
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
4305M	170	11KT	Z	130 4 10	32M	140	11KT	6	170 3 11		
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD
0	14.89	33.54	24.892	307.0	0.000	0	12.84	33.57	25.338	264.5	0.000
10	14.89	33.54	24.892	307.0	0.030	10	12.75	33.56	25.348	263.5	0.026
20	14.76	33.54	24.920	304.3	0.061	20	12.34	33.59	25.451	253.8	0.052
30	14.74	33.54	24.924	303.9	0.091	25	12.21	33.62	25.499	249.2	0.064
40	14.74	33.56	24.939	302.4	0.122						
50	14.78	33.58	24.946	301.8	0.152						
75	14.34	33.50	24.978	298.7	0.228						
100	13.86	33.45	25.040	292.9	0.302						
125	12.18	33.45	25.373	261.2	0.372						
150	11.15	33.56	25.649	234.9	0.435						
175	9.97	33.60	25.886	212.4	0.492						
200	9.12	33.78	26.165	185.8	0.542						
225	8.58	33.92	26.360	167.6	0.588						
250	8.10	33.98	26.479	156.0	0.629						
275	7.66	34.00	26.560	148.4	0.668						
300	7.22	34.01	26.630	141.7	0.706						
350	6.43	34.03	26.753	130.0	0.716						
400	6.17	34.11	26.850	120.9	0.841						
450	5.88	34.17	26.934	112.9	0.903						
500	5.69	34.21	26.989	107.7	0.961						
550	5.48	34.24	27.038	103.0	1.017						
600	5.24	34.29	27.106	96.5	1.070						
700	4.80	34.34	27.197	88.0	1.110						
800	4.50	34.39	27.270	81.0	1.262						
900	4.18	34.43	27.336	74.8	1.348						
1000	3.86	34.46	27.393	69.4	1.429						

5 81044			RV DAVID STARR JORDAN			CALCULI CRUISE 7503			5 81044		
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME			LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
34 23.0N	119 50.0W	03/ 6/75	2142 GMT			34 22.0N	119 52.0W	03/ 7/75	0048 GMT		
BUTTON	WIND	SPEED	WEATHER	DOMINANT WAVES		BUTTON	WIND	SPEED	WEATHER	DOMINANT WAVES	
58M	120	9KT	2	160 4 13		58M	130	14KT	6	130 3 12	
Z	T	S	SIGMA T	DT	NN	Z	T	S	SIGMA T	DT	NN
6	13.08	33.54	25.267	271.2	0.000	0	12.19	33.58	25.472	251.8	0.000
10	13.06	33.53	25.264	271.6	0.027	10	12.18	33.58	25.474	251.6	0.025
20	12.57	33.58	25.399	258.7	0.053	20	12.10	33.60	25.504	248.7	0.050
30	12.17	33.59	25.483	250.7	0.079	30	11.87	33.63	25.571	242.4	0.074
40	11.92	33.62	25.554	244.0	0.104	40	11.31	33.67	25.705	229.6	0.098
						50	10.62	33.74	25.883	212.7	0.120

5 81045			RV DAVID STARR JORDAN			CALCULI CRUISE 7503			5 81046		
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME			LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
34 21.0N	119 54.0W	03/ 7/75	0219 GMT			34 19.0N	119 58.0W	03/ 7/75	0411 GMT		
BUTTON	WIND	SPEED	WEATHER	DOMINANT WAVES		BUTTON	WIND	SPEED	WEATHER	DOMINANT WAVES	
37IM	120	14KT	2	300 4 10		510M	130	15KT	6		
Z	T	S	SIGMA T	DT	NN	Z	T	S	SIGMA T	DT	NN
0	12.14	33.64	25.528	246.5	0.000	0	12.23	33.59	25.472	251.8	0.000
10	12.13	33.63	25.522	247.0	0.024	10	12.23	33.59	25.472	251.8	0.025
20	11.76	33.65	25.607	238.9	0.049	20	11.60	33.62	25.613	238.3	0.049
30	11.32	33.67	25.703	229.7	0.072	30	11.11	33.66	25.734	226.9	0.073
40	10.88	33.69	25.798	220.7	0.095	40	10.62	33.73	25.875	213.4	0.095
50	10.62	33.74	25.883	212.7	0.116	50	10.17	33.80	26.007	200.9	0.115
75	10.03	33.85	26.070	194.9	0.168	75	9.80	33.91	26.156	186.8	0.164
100	9.79	33.92	26.165	185.9	0.216	100	9.58	33.98	26.247	178.1	0.210
125	9.49	33.99	26.269	176.0	0.262	125	9.30	34.04	26.339	169.3	0.254
150	9.24	34.09	26.388	164.7	0.305	150	8.99	34.11	26.444	159.4	0.296
175	9.00	34.12	26.450	158.8	0.346	175	8.85	34.14	26.489	155.1	0.336
200	8.76	34.15	26.511	153.0	0.386	200	8.62	34.16	26.541	150.2	0.375
214	8.69	34.15	26.522	151.9	0.408	225	8.51	34.18	26.574	147.1	0.413
						250	8.17	34.13	26.586	145.9	0.451
						215	7.90	34.15	26.642	140.6	0.418
						300	7.66	34.17	26.693	135.7	0.524
						350	7.27	34.20	26.772	128.2	0.592
						400	6.83	34.23	26.857	120.2	0.557
						450	6.48	34.25	26.920	114.2	0.714
						487	6.42	34.26	26.935	112.7	0.764

5 81047			RV DAVID STARR JORDAN			CALCULI CRUISE 7503			83039 ⁴		
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME			LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
34 19.0N	120 02.5W	03/ 7/75	0005 GMT			34 14.5N	119 19.5W	03/ 7/75	1735 GMT		
BUTTON	WIND	SPEED	WEATHER	DOMINANT WAVES		BUTTON	WIND	SPEED	WEATHER	DOMINANT WAVES	
58M	120	13KT	2	150 5 5		510M	140	16KT	2	150 5 5	
Z	T	S	SIGMA T	DT	NN	Z	T	S	SIGMA T	DT	NN
0	11.97	33.64	25.560	243.4	0.000	0	13.34	33.56	25.231	274.7	0.000
10	11.95	33.64	25.564	243.1	0.024	10	13.34	33.55	25.223	275.4	0.027
20	11.85	33.64	25.582	241.3	0.048	20	13.32	33.56	25.235	274.3	0.055
30	11.49	33.67	25.612	232.7	0.072						
40	11.12	33.70	25.721	221.7	0.095						
50	10.79	33.72	25.837	217.0	0.117						
75	9.86	33.81	26.068	195.1	0.169						
100	9.39	33.92	26.231	179.8	0.216						
125	8.19	33.98	26.310	172.1	0.261						
150	8.82	34.04	26.416	162.0	0.303						
175	8.56	34.09	26.495	158.5	0.344						
200	8.37	34.11	26.540	150.2	0.383						
225	8.18	34.13	26.585	146.0	0.421						
250	7.99	34.15	26.629	141.8	0.458						
275	7.79	34.17	26.674	131.5	0.494						
300	7.62	34.18	26.707	134.4	0.529						
350	7.16	34.21	26.796	126.0	0.591						
400	6.81	34.23	26.860	119.9	0.661						
450	6.48	34.25	26.920	114.2	0.723						
500	6.40	34.26	26.938	112.5	0.783						

83040 ⁶			RV DAVID STARR JORDAN			CALCULI CRUISE 7503			83041		
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME			LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
34 12.5N	119 24.0W	03/ 7/75	1630 GMT			34 11.5N	119 26.0W	03/07/75	1534 GMT		
BUTTON	WIND	SPEED	WEATHER	DOMINANT WAVES		BUTTON	WIND	SPEED	WEATHER	DOMINANT WAVES	
58M	120	17KT	2	110 6 6		510M	120	14KT	1	120 6 4	
Z	T	S	SIGMA T	DT	NN	Z	T	S	SIGMA T	DT	NN
0	12.01	33.58	25.312	266.9	0.000	0	12.76	33.56	25.346	263.7	0.000
10	12.99	33.58	25.316	266.6	0.026	10	12.74	33.56	25.350	263.4	0.026
20	12.91	33.58	25.332	265.1	0.053	20	12.67	33.56	25.363	262.0	0.052
30	12.80	33.58	25.353	263.0	0.079	30	12.27	33.56	25.441	254.7	0.078
						40	11.61	33.57	25.573	242.2	0.103
						50	11.15	33.62	25.695	230.5	0.127
						57	10.59	33.71	25.865	214.4	0.162

83042				RV DAVID STARR JORDAN				CALCOFI CRUISE 7503				83043			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME								
34 09.5N	119 30.0W	03/ 7/75	1414 GMT	34 08.0N	119 34.0W	03/ 7/75	1241 GMT								
BOTTOM	WIND	SPEED	WEATHER	Dominant Waves	BOTTOM	WIND	SPEED	WEATHER	Dominant Waves	BOTTOM	WIND	SPEED	WEATHER	Dominant Waves	
242M	140	15Kt	1	140 6 5	251M	140	18Kt								
Z	T	S	SIGMA T	DT	Z	T	S	SIGMA T	DT	Z	T	S	SIGMA T	DT	DD
0	12.42	33.61	25.451	253.8	0.000	0	12.17	33.63	25.514	247.7	0.000				
10	12.41	33.61	25.453	253.6	0.025	10	12.17	33.63	25.514	247.7	0.024				
20	12.29	33.62	25.483	250.7	0.050	20	12.16	33.63	25.516	247.6	0.049				
30	12.25	33.62	25.491	249.9	0.075	30	12.14	33.63	25.520	247.2	0.074				
40	12.10	33.62	25.520	247.2	0.100	40	12.02	33.65	25.558	243.6	0.099				
50	11.27	33.67	25.712	228.9	0.124	50	11.15	33.66	25.616	238.0	0.123				
75	10.23	33.78	25.981	203.3	0.178	75	10.26	33.76	25.926	208.6	0.179				
100	9.84	33.94	26.172	185.2	0.227	100	9.89	33.90	26.133	188.9	0.229				
125	9.42	34.08	26.351	168.2	0.272	125	9.48	34.05	26.318	171.4	0.275				
150	9.12	34.12	26.431	160.6	0.314	150	8.90	34.11	26.458	158.0	0.317				
175	8.87	34.17	26.510	153.1	0.354	175	8.86	34.15	26.524	151.8	0.356				
200	8.78	34.18	26.531	151.1	0.393	200	8.56	34.16	26.550	149.3	0.395				
214	8.74	34.18	26.538	150.5	0.415	213	8.48	34.17	26.570	147.4	0.414				

83044				RV DAVID STARR JORDAN				CALCOFI CRUISE 7503				83044			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME								
34 05.5N	119 38.0W	03/ 7/75	1130 GMT	34 04.0N	119 41.0W	03/ 7/75	1030 GMT								
BOTTOM	WIND	SPEED	WEATHER	Dominant Waves	BOTTOM	WIND	SPEED	WEATHER	Dominant Waves	BOTTOM	WIND	SPEED	WEATHER	Dominant Waves	
155M	140	15Kt			88M	150	16Kt								
Z	T	S	SIGMA T	DT	Z	T	S	SIGMA T	DT	Z	T	S	SIGMA T	DT	DD
0	12.03	33.64	25.548	244.5	0.000	0	11.65	33.68	25.651	234.8	0.000				
10	12.03	33.64	25.548	244.5	0.024	10	11.61	33.68	25.658	234.1	0.023				
20	12.02	33.64	25.550	244.3	0.048	20	11.60	33.68	25.660	233.9	0.046				
30	11.86	33.64	25.580	241.4	0.073	30	11.52	33.68	25.675	232.5	0.070				
40	11.64	33.67	25.645	235.3	0.097	40	11.31	33.69	25.721	228.1	0.093				
50	11.45	33.68	25.688	231.3	0.120	50	11.22	33.70	25.745	225.8	0.116				
75	10.50	32.77	25.921	208.5	0.175	75	10.62	33.75	25.855	215.3	0.171				
100	9.59	33.92	26.198	182.7	0.225										
125	8.17	34.03	26.352	168.1	0.269										
139	9.04	34.04	26.381	165.4	0.293										

83045				RV DAVID STARR JORDAN				CALCOFI CRUISE 7503				83051			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME								
34 03.5N	119 42.5W	03/ 7/75	0926 GMT	33 52.0N	120 08.5W	03/ 6/75	0220 GMT								
BOTTOM	WIND	SPEED	WEATHER	Dominant Waves	BOTTOM	WIND	SPEED	WEATHER	Dominant Waves	BOTTOM	WIND	SPEED	WEATHER	Dominant Waves	
64M	150	16Kt			116M	160	11Kt								
Z	T	S	SIGMA T	DT	Z	T	S	SIGMA T	DT	Z	T	S	SIGMA T	DT	DD
0	11.62	33.68	25.656	234.2	0.000	0	12.03	33.64	25.548	244.5	0.000				
10	11.62	33.68	25.656	234.2	0.023	10	12.02	33.64	25.550	244.3	0.024				
20	11.62	33.68	25.656	234.2	0.046	20	12.02	33.64	25.550	244.3	0.048				
30	11.54	33.67	25.663	233.6	0.070	30	12.00	33.63	25.566	244.7	0.073				
40	11.33	33.69	25.717	228.4	0.093	40	11.42	33.63	25.561	243.3	0.097				
50	11.24	33.70	25.741	226.1	0.116	50	11.41	33.65	25.671	232.8	0.121				
72	10.99	33.73	25.810	219.7	0.165	75	10.18	33.79	25.998	201.8	0.176				
					88	9.44	33.91	26.215	181.1	0.201					

83055				RV DAVID STARR JORDAN				CALCOFI CRUISE 7503				83060			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME								
33 44.0N	120 24.0W	03/ 5/75	2322 GMT	33 34.0N	120 45.0W	03/ 5/75	2000 GMT								
BOTTOM	WIND	SPEED	WEATHER	Dominant Waves	BOTTOM	WIND	SPEED	WEATHER	Dominant Waves	BOTTOM	WIND	SPEED	WEATHER	Dominant Waves	
425M	160	15Kt	1	140 6 12	1110M	170	13Kt	1	130 6 13						
Z	T	S	SIGMA T	DT	Z	T	S	SIGMA T	DT	Z	T	S	SIGMA T	DT	DD
0	12.17	33.49	25.406	258.1	0.000	0	12.55	33.48	25.325	265.7	0.000				
10	12.04	33.51	25.446	254.2	0.025	10	12.54	33.49	25.335	264.8	0.026				
20	11.79	33.57	25.539	245.3	0.050	20	12.50	33.48	25.335	264.8	0.053				
30	11.60	33.60	25.598	239.8	0.074	30	12.42	33.49	25.358	262.5	0.079				
40	11.54	33.60	25.609	238.7	0.098	40	12.05	33.46	25.405	258.1	0.105				
50	11.24	33.60	25.664	233.5	0.122	50	11.81	33.52	25.497	249.4	0.131				
75	10.73	33.64	25.786	221.9	0.179	75	11.40	33.56	25.604	239.2	0.192				
100	9.92	33.66	25.941	207.2	0.234	100	10.26	33.56	25.805	220.1	0.250				
125	9.43	33.95	26.248	178.0	0.282	125	9.41	33.73	26.080	194.0	0.302				
150	8.55	33.99	26.419	161.8	0.325	150	8.99	33.86	26.249	177.4	0.349				
175	8.29	34.03	26.490	155.0	0.366	175	8.52	33.98	26.416	162.1	0.393				
200	8.12	34.11	26.578	146.6	0.404	200	8.27	34.01	26.477	156.2	0.433				
225	8.05	34.14	26.612	143.4	0.442	225	7.91	34.04	26.555	148.9	0.472				
250	7.82	34.16	26.662	138.7	0.478	250	7.63	34.05	26.603	144.3	0.510				
275	7.67	34.17	26.692	135.9	0.513	275	7.21	34.07	26.679	137.1	0.546				
300	7.44	34.19	26.740	131.2	0.548	300	6.96	34.08	26.721	133.0	0.581				
350	6.96	34.22	26.831	122.6	0.614	350	6.58	34.12	26.804	125.2	0.648				
400	6.72	34.24	26.880	118.0	0.677	400	6.21	34.14	26.868	119.1	0.712				
450	6.38	34.25	26.933	113.0	0.738	450	5.91	34.17	26.930	113.3	0.773				
500	6.10	34.27	26.985	108.1	0.796	500	5.57	34.21	27.004	106.3	0.831				
550	5.88	34.28	27												

RV DAVID STARR JORDAN				CALCOF 1 CRUISE				7503							
LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES							
33 15.0N	121 26.0W	03/5/75	1526 GMT	3926M	160	10KT	6	240 4 6							
Z	T	S	02	P04	S103	N02	N13	DT	Z	T	S	02	SIGT	DT	DD
1	12.69	33.333	6.34					279.1	0	12.69	33.333	6.34	25.184	279.1	0.000
11	12.67	33.420	6.44					272.3	10	12.67	33.414	6.43	25.249	272.9	0.027
29	12.35	33.444	6.31					264.7	20	12.52	33.445	6.39	25.302	267.9	0.054
57	12.17	33.439	6.16					261.8	30	12.34	33.447	6.30	25.337	264.6	0.081
76	11.48	33.367	5.77					254.9	50	12.24	33.450	6.21	25.360	262.4	0.134
90	10.55	33.359	5.32					239.7	75	11.53	33.372	5.79	25.433	255.5	0.199
104	10.38	33.401	5.13					233.8	100	10.42	33.393	5.18	25.466	235.2	0.261
133	9.87	33.669	3.97					205.7	125	10.05	33.590	4.29	25.863	214.6	0.318
156	9.03	33.800	3.67					183.0	150	9.24	33.772	3.71	26.139	188.4	0.369
184	8.65	33.892	3.49					170.5	200	8.47	33.931	3.29	26.384	165.1	0.459
216	8.30	33.960	3.08					160.4	250	7.78	34.000	2.61	26.541	150.2	0.539
286	7.26	34.031	2.12					140.7	300	7.15	34.052	1.92	26.672	137.7	0.614
384	6.70	34.167	0.98					123.2	400	6.59	34.180	0.87	26.850	120.9	0.748
486	5.96	34.233	0.55					109.1	500	5.83	34.241	0.54	26.995	107.1	0.868
589	5.15	34.293	0.51					95.3	600	5.11	34.301	0.49	27.130	94.3	0.976
719	4.92	34.381	0.31					86.2	700	4.93	34.369	0.33	27.205	87.2	1.074
868	4.38	34.438	0.40					76.2	800	4.63	34.416	0.35	27.275	80.5	1.166
1033	3.95	34.473	0.59					69.3	1000	4.02	34.469	0.54	27.383	70.3	1.334

83070				RV DAVID STARR JORDAN				CALCOF 1 CRUISE				7503				83080			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME				
33 15.0N	121 26.0W	03/5/75	1418 GMT	33 04.0N	122 07.0W	03/5/75	0910 GMT	33 04.0N	122 07.0W	03/5/75	0910 GMT	33 04.0N	122 07.0W	03/5/75	0910 GMT				
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES				BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES							
3926M	160	10KT	6	240	4	6		4304M	150	9KT	6	240	4	6					
Z	T	S	SIGMA T	DT	BB			Z	T	S	SIGMA T	DT	BB						
6	12.69	33.26	25.128	284.5	0.000			0	13.26	33.22	24.985	248.1	0.000						
10	12.69	33.39	25.228	274.9	0.027			10	13.21	33.23	25.002	246.5	0.029						
20	12.66	33.43	25.265	271.4	0.055			20	12.65	33.22	25.105	286.7	0.058						
30	12.62	33.43	25.273	270.7	0.087			30	12.54	33.30	25.184	278.2	0.087						
40	12.53	33.44	25.336	264.6	0.109			40	12.31	33.34	25.263	271.4	0.114						
50	12.27	33.45	25.356	262.8	0.135			50	12.12	33.33	25.292	268.9	0.142						
75	12.02	33.43	25.388	259.8	0.201			75	11.47	33.31	25.397	258.4	0.208						
100	10.70	33.32	25.543	245.0	0.265			100	10.71	33.41	25.611	238.6	0.271						
125	9.97	33.60	25.886	212.4	0.322			125	9.69	33.56	25.901	211.0	0.327						
150	9.11	33.78	26.167	185.7	0.353			150	9.43	33.71	26.011	195.8	0.374						
175	8.63	33.91	26.344	168.9	0.418			175	8.81	33.87	26.215	174.5	0.426						
200	8.29	33.97	26.443	159.5	0.460			200	8.32	33.95	26.423	161.4	0.469						
225	7.91	33.99	26.518	152.6	0.500			225	7.98	33.98	26.497	154.3	0.509						
250	7.60	34.03	26.592	145.3	0.558			250	7.70	34.00	26.554	148.9	0.548						
275	7.23	34.05	26.660	138.8	0.575			275	7.45	34.02	26.606	144.0	0.588						
300	7.02	34.09	26.721	133.1	0.610			300	6.94	34.00	26.660	138.9	0.622						
350	6.87	34.17	26.804	125.2	0.671			350	6.58	34.06	26.757	129.7	0.592						
400	6.56	34.21	26.877	118.2	0.740			400	6.07	34.10	26.855	120.4	0.757						
450	6.13	34.23	26.949	111.4	0.801			450	5.80	34.16	26.936	112.7	0.818						
500	5.84	34.25	27.002	106.4	0.858			500	5.49	34.19	26.998	106.8	0.876						
550	5.60	34.27	27.047	102.1	0.914			550	5.25	34.22	27.040	101.9	0.931						
600	5.34	34.30	27.103	96.9	0.967			600	4.97	34.27	27.122	95.0	0.984						
700	4.95	34.38	27.211	86.6	1.068			700	4.68	34.35	27.218	85.4	1.081						
800	4.60	34.42	27.282	79.8	1.158			800	4.33	34.40	27.292	79.0	1.171						
900	4.25	34.45	27.346	74.0	1.243			900	4.12	34.44	27.350	73.4	1.256						
1000	3.97	34.48	27.391	68.9	1.324			1000	3.89	34.45	27.382	70.4	1.336						

83070				RV DAVID STARR JORDAN				CALCOF 1 CRUISE				7503				83071			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME				
33 04.0N	122 07.0W	03/5/75	0910 GMT	33 04.0N	122 07.0W	03/5/75	0910 GMT	33 04.0N	122 07.0W	03/5/75	0910 GMT	33 04.0N	122 07.0W	03/5/75	0910 GMT				
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES				BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES							
3926M	150	10KT	5	240	4	4		3926M	150	10KT	5	240	4	4					
Z	T	S	SIGMA T	DT	BB			Z	T	S	SIGMA T	DT	BB						
6	12.97	33.37	26.956	300.9	0.000			0	13.60	33.51	25.160	281.4	0.000						
10	12.96	33.37	26.958	300.7	0.030			10	13.60	33.51	25.160	281.4	0.028						
20	12.93	33.37	26.956	300.9	0.060			20	13.50	33.53	25.175	280.0	0.056						
30	12.95	33.37	26.960	300.5	0.090			30	13.50	33.53	25.175	280.0	0.070						
40	12.81	33.36	26.981	294.5	0.120			40	13.16	33.56	25.210	281.4	0.120						
50	12.70	33.37	26.911	295.6	0.150			50	13.11	33.56	25.210	281.4	0.128						
75	12.30	33.31	26.946	292.4	0.224			75	12.24	33.56	25.215	280.0	0.156						
100	12.44	33.39	26.922	285.1	0.246			100	12.34	33.56	25.215	280.0	0.156						
125	11.16	33.26	26.805	267.7	0.366			125	11.11	33.56	25.215	280.0	0.156						
150	10.51	33.42	26.653	234.5	0.450			150	10.51	33.56	25.215	280.0	0.156						
175	9.86																		

85037						RV DAVID STARR JORDAN						CALCOH CRUISE 7503						85038	
LATITUDE		LONGITUDE		MO/DAY/YR		START TIME		LATITUDE		LONGITUDE		MO/DAY/YR		START TIME					
34° 02.0N		118° 59.5W		03/ 8/75		0052 GMT		34° 01.0N		119° 02.5W		03/ 7/75		2331 GMT					
BOTTOM	WIND	SPEED	WEATHER	DOMINANT	WAVES			BOTTOM	WIND	SPEED	WEATHER	DOMINANT	WAVES						
52M	120	12KT	5	49				22'M	120	14KT	6	130	12	16					
Z	T	S	SIGMA T	HT	DD			Z	T	S	SIGMA T	HT	DD						
0	13.49	33.53	25.177	279.8	0.000			0	13.34	33.54	25.215	276.2	0.000						
10	13.49	33.53	25.177	279.8	0.027			10	13.34	33.56	25.231	274.7	0.027						
20	13.49	33.54	25.185	279.1	0.055			20	13.32	33.57	25.242	273.6	0.055						
30	13.48	33.54	25.181	278.9	0.083			30	13.28	33.57	25.251	272.8	0.082						
								40	12.63	33.60	25.402	258.4	0.104						
								50	12.26	33.63	25.499	249.2	0.134						
								75	10.84	33.73	25.836	217.1	0.193						
								100	10.28	33.82	26.004	201.2	0.245						
								125	9.90	33.91	26.139	188.4	0.295						
								150	9.33	34.05	26.342	169.0	0.340						
								175	9.18	34.11	26.413	162.3	0.382						
85039						RV DAVID STARR JORDAN						CALCOH CRUISE 7503						85040	
LATITUDE		LONGITUDE		MO/DAY/YR		START TIME		LATITUDE		LONGITUDE		MO/DAY/YR		START TIME					
33° 59.0N		119° 06.5W		03/ 7/75		2132 GMT		33° 57.0N		119° 10.5W		03/ 7/75		2002 GMT					
BOTTOM	WIND	SPEED	WEATHER	DOMINANT	WAVES			BOTTOM	WIND	SPEED	WEATHER	DOMINANT	WAVES						
667M	130	15KT	6	230	8	K		741M	130	14KT	2	240	6	10					
Z	T	S	SIGMA T	HT	DD			Z	T	S	SIGMA T	HT	DD						
0	13.29	33.58	25.256	272.3	0.000			0	13.02	33.61	25.333	264.9	0.000						
10	13.30	33.58	25.254	272.5	0.027			10	13.01	33.61	25.335	264.7	0.026						
20	13.24	33.58	25.266	271.3	0.054			20	12.98	33.61	25.341	264.2	0.052						
30	13.06	33.57	25.295	268.6	0.081			30	12.52	33.54	25.377	260.8	0.079						
40	12.67	33.58	25.379	260.6	0.108			40	11.56	33.61	25.613	238.3	0.104						
50	11.21	33.62	25.685	231.5	0.132			50	11.34	33.64	25.676	232.3	0.127						
75	10.54	33.74	25.897	211.3	0.188			75	10.53	33.74	25.899	211.2	0.183						
100	9.95	33.89	26.115	190.6	0.239			100	9.90	33.92	26.146	187.6	0.234						
125	9.55	34.01	26.275	175.4	0.285			125	9.61	34.02	26.273	175.6	0.280						
150	9.37	34.06	26.343	168.9	0.329			150	9.08	34.06	26.390	164.5	0.323						
175	9.26	34.11	26.400	163.5	0.371			175	8.94	34.12	26.460	157.9	0.362						
200	8.94	34.16	26.491	154.9	0.412			200	8.64	34.16	26.538	150.5	0.403						
225	8.72	34.19	26.549	149.4	0.451			225	8.55	34.17	26.560	148.4	0.423						
250	8.42	34.21	26.611	143.5	0.489														
275	8.20	34.21	26.645	140.3	0.525														
300	8.04	34.22	26.676	137.3	0.561														
350	7.72	34.25	26.747	130.6	0.631														
400	7.14	34.24	26.822	123.5	0.698														
450	6.78	34.26	26.887	117.3	0.761														
500	6.45	34.28	26.947	111.6	0.822														
550	6.20	34.28	26.980	108.5	0.881														
600	5.82	34.32	27.060	101.0	0.937														
87032						RV DAVID STARR JORDAN						CALCOH CRUISE 7503						87032	
LATITUDE		LONGITUDE		MO/DAY/YR		START TIME		LATITUDE		LONGITUDE		MO/DAY/YR		START TIME					
33° 55.5N		118° 26.5W		03/ 8/75		0814 GMT		33° 54.5N		118° 28.0W		03/ 8/75		0832 GMT					
BOTTOM	WIND	SPEED	WEATHER	DOMINANT	WAVES			BOTTOM	WIND	SPEED	WEATHER	DOMINANT	WAVES						
19M	100	7KT	6	8	8	K		19M	110	8KT	6	8	8	K					
Z	T	S	SIGMA T	HT	DD			Z	T	S	SIGMA T	HT	DD						
0	13.68	33.42	25.054	291.5	0.000			0	13.72	33.51	25.115	285.7	0.000						
10	13.69	33.55	25.152	282.2	0.028			10	13.70	33.53	25.134	283.9	0.028						
16	12.65	33.55	25.160	281.4	0.045			20	13.58	33.55	25.174	280.1	0.056						
								25	13.54	33.56	25.190	278.6	0.070						
87033						RV DAVID STARR JORDAN						CALCOH CRUISE 7503						87034	
LATITUDE		LONGITUDE		MO/DAY/YR		START TIME		LATITUDE		LONGITUDE		MO/DAY/YR		START TIME					
33° 54.0N		118° 29.0W		03/ 8/75		0817 GMT		33° 52.0N		118° 33.5W		03/ 8/75		1002 GMT					
BOTTOM	WIND	SPEED	WEATHER	DOMINANT	WAVES			BOTTOM	WIND	SPEED	WEATHER	DOMINANT	WAVES						
47M	160	4KT	6	8	8	K		47M	210	6KT	6	8	8	K					
Z	T	S	SIGMA T	HT	DD			Z	T	S	SIGMA T	HT	DD						
0	13.70	33.50	25.111	286.1	0.000			0	13.51	33.52	25.165	280.9	0.000						
10	13.69	33.50	25.113	285.9	0.028			10	13.51	33.52	25.165	280.9	0.028						
20	13.64	33.55	25.162	281.2	0.057			20	13.39	33.55	25.213	276.4	0.056						
30	13.14	33.55	25.263	271.6	0.084			30	12.91	33.51	25.278	270.2	0.083						
40	12.98	33.54	25.287	269.3	0.111			40	12.13	33.56	25.466	252.2	0.109						
								50	11.45	33.60	25.625	237.2	0.134						
								60	10.77	33.69	25.818	218.9	0.166						

87035				RV DAVID STARR JORDAN				CATCHER CRUISE 7503				87036				
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	
33 50.0N	118 37.5W	03/18/75	1135 GMT	33 47.0N	118 43.5W	03/18/75	1353 (MT)	33 47.0N	118 43.5W	03/18/75	1353 (MT)	33 47.0N	118 43.5W	03/18/75	1353 (MT)	
BOTTUM	WIND	SPEED	WEATHER	DOMINANT WAVES	BOTTUM	WIND	SPEED	WEATHER	DOMINANT WAVES	BOTTUM	WIND	SPEED	WEATHER	DOMINANT WAVES	BOTTUM	
462M	200	8KT	2	2	425m	200	8KT	2	2	425m	200	8KT	2	2	425m	
Z	T	S	SIGMA T	DT	Z	T	S	SIGMA T	DT	Z	T	S	SIGMA T	DT	Z	
4	17.87	33.54	25.309	267.3	0	13.37	33.48	25.163	281.1	0	13.29	33.54	25.225	275.2	0	13.27
10	17.87	33.55	25.317	266.5	0	13.26	33.54	25.225	275.2	0	12.85	33.55	25.321	266.2	0	0.054
20	11.96	33.57	25.507	248.4	0	0.052				30	12.69	33.56	25.360	262.4	0	0.081
30	11.46	33.60	25.624	237.3	0	0.076				40	12.39	33.56	25.418	256.9	0	0.107
40	10.99	33.62	25.724	227.8	0	0.100				50	11.97	33.57	25.506	248.6	0	0.132
50	10.72	33.67	25.811	219.5	0	0.122				75	10.69	33.67	25.816	219.0	0	0.191
75	10.26	33.78	25.976	203.8	0	0.175				100	10.15	33.78	25.995	202.0	0	0.244
100	9.81	33.87	26.123	189.9	0	0.225				125	9.41	33.91	26.212	181.4	0	0.293
125	9.41	33.97	26.267	176.2	0	0.271				150	9.26	34.01	26.326	170.6	0	0.338
150	9.18	34.05	26.366	166.7	0	0.315				175	8.91	34.08	26.423	161.3	0	0.380
175	8.96	34.10	26.441	159.7	0	0.357				200	8.72	34.11	26.486	155.4	0	0.420
200	8.75	34.15	26.513	152.8	0	0.397				225	8.56	34.16	26.550	149.3	0	0.459
225	8.70	34.18	26.544	149.9	0	0.435				250	8.52	34.15	26.579	146.5	0	0.497
250	8.41	34.18	26.589	145.6	0	0.473				275	8.06	34.17	26.634	141.3	0	0.535
275	8.12	34.20	26.649	139.9	0	0.510				300	7.40	34.20	26.662	136.8	0	0.571
300	7.82	34.21	26.701	135.0	0	0.546				350	7.36	34.22	26.775	127.9	0	0.639
350	7.45	34.22	26.763	129.1	0	0.615				400	6.84	34.23	26.855	120.3	0	0.704
400	7.09	34.23	26.821	123.6	0	0.681				450	6.47	34.25	26.921	114.1	0	0.766
450	6.99	34.24	26.843	121.5	0	0.720				500	6.23	34.26	26.960	110.4	0	0.826
										550	5.97	34.29	27.017	105.0	0	0.883
										600	5.76	34.32	27.067	100.7	0	0.938
										700	5.29	34.36	27.156	91.8	1	0.942
										800	5.12	34.38	27.192	88.5	1	1.141
										900	5.01	34.40	27.220	85.7	1	1.238
87040				RV DAVID STARR JORDAN				CATCHER CRUISE 7503				87045				
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	
33 40.0N	118 58.0W	03/08/75	1718 GMT	33 30.0N	119 19.0W	03/08/75	2122 GMT	33 30.0N	119 19.0W	03/08/75	2122 GMT	33 30.0N	119 19.0W	03/08/75	2122 GMT	
BOTTUM	WIND	SPEED	WEATHER	DOMINANT WAVES	BOTTUM	WIND	SPEED	WEATHER	DOMINANT WAVES	BOTTUM	WIND	SPEED	WEATHER	DOMINANT WAVES	BOTTUM	
870M	210	8KT	6	220 10 12	1664M	290	12KT	6	290 8 10	1664M	210	8KT	6	290 8 10	1664M	
Z	T	S	SIGMA T	DT	Z	T	S	SIGMA T	DT	Z	T	S	SIGMA T	DT	Z	
0	13.54	33.55	25.182	279.3	0	0.000				0	12.50	33.58	25.412	257.4	0	0.000
10	13.53	33.55	25.184	279.1	0	0.027				10	12.46	33.58	25.420	256.7	0	0.025
20	13.36	33.55	25.219	275.8	0	0.059				20	12.40	33.59	25.439	254.9	0	0.051
30	12.92	33.55	25.307	267.5	0	0.082				30	12.38	33.59	25.463	254.5	0	0.076
40	12.12	33.58	25.485	250.5	0	0.108				40	11.18	33.63	25.698	230.3	0	0.101
50	11.58	33.60	25.601	239.4	0	0.133				50	10.54	33.68	25.850	215.8	0	0.123
75	10.81	33.67	25.795	221.0	0	0.191				75	9.49	33.81	26.129	189.3	0	0.174
100	9.97	33.78	26.026	199.1	0	0.244				100	9.19	33.94	26.279	175.0	0	0.220
125	9.37	33.90	26.219	180.8	0	0.292				125	8.44	14.03	26.397	163.8	0	0.263
150	9.02	34.02	26.369	166.9	0	0.336				150	8.04	34.09	26.483	155.6	0	0.304
175	8.88	34.06	26.422	161.4	0	0.378				175	8.46	34.10	26.519	152.3	0	0.343
200	8.61	34.10	26.496	154.5	0	0.418				200	8.13	34.11	26.577	146.8	0	0.381
225	8.21	34.14	26.588	145.7	0	0.457				225	7.94	34.14	26.671	142.5	0	0.418
250	8.04	34.16	26.629	141.8	0	0.494				250	7.61	34.14	26.662	138.7	0	0.454
275	7.80	34.18	26.681	136.9	0	0.530				275	7.57	34.16	26.698	135.2	0	0.490
300	7.45	34.19	26.710	134.1	0	0.565				300	7.41	34.18	26.737	131.6	0	0.524
350	7.18	34.21	26.793	126.3	0	0.633				350	7.03	34.22	26.822	123.5	0	0.591
400	6.89	34.23	26.861	119.8	0	0.697				400	6.73	34.25	26.886	117.4	0	0.654
450	6.53	34.26	26.921	114.1	0	0.759				450	6.41	34.27	26.931	113.1	0	0.714
500	6.25	34.28	26.973	109.1	0	0.818				500	6.12	34.29	26.998	106.8	0	0.773
550	5.97	34.31	27.033	103.5	0	0.875				550	5.87	34.32	27.053	101.6	0	0.828
600	5.64	34.34	27.098	97.4	0	0.928				600	5.58	34.35	27.113	95.9	0	0.881
700	5.29	34.38	27.172	90.3	1	0.930				700	5.33	34.37	27.159	91.5	0	0.983
800	5.09	34.39	27.203	87.4	1	1.028				800	4.79	34.41	27.253	82.6	1	1.079
										900	4.42	34.44	27.318	76.4	1	1.167
										1000	4.26	34.46	27.351	73.3	1	1.251

87050				RV DAVID STARR JORDAN				CALCOF 1 CRUISE 7503				87060			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME								
BOTTOM	WIND	SPEED	WEATHER	DOMINANT	WAVES	BOTTOM	WIND	SPEED	WEATHER	DOMINANT	WAVES				
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD				
0	12.54	33.58	25.404	258.2	0.000	0	12.86	33.49	25.272	270.8	0.000				
10	12.54	33.58	25.404	258.2	0.025	10	12.86	33.49	25.272	270.8	0.025				
20	12.53	33.58	25.406	258.0	0.051	20	12.86	33.49	25.272	270.8	0.051				
30	11.78	33.59	25.557	243.7	0.076	30	12.86	33.50	25.319	266.3	0.081				
40	10.79	33.61	25.752	275.1	0.100	40	12.83	33.51	25.448	254.0	0.107				
50	10.18	33.65	25.889	212.1	0.122	50	11.92	33.54	25.492	249.4	0.132				
61	9.84	33.77	26.040	197.8	0.144	75	11.71	33.55	25.539	245.4	0.174				
						100	11.27	33.60	25.658	234.1	0.259				
						125	10.90	33.70	25.958	205.5	0.310				
						150	9.54	33.86	26.160	185.4	0.360				
						175	9.21	33.98	26.307	172.4	0.437				
						200	8.85	34.05	26.419	161.7	0.448				
						225	8.61	34.10	26.496	154.5	0.500				
						250	8.26	34.13	26.573	147.1	0.528				
						275	7.90	34.15	26.642	140.6	0.565				
						300	7.71	34.17	26.686	136.4	0.601				
						350	7.11	34.21	26.803	125.3	0.674				
						400	6.75	34.22	26.160	114.9	0.733				
						450	6.43	34.25	26.926	113.6	0.796				
						500	6.01	34.28	27.004	106.2	0.863				
						550	5.72	34.30	27.056	101.3	0.904				
						600	5.54	34.31	27.086	98.4	0.961				
						700	5.08	34.37	27.188	86.8	1.068				
						800	4.71	34.40	27.254	82.5	1.157				
						850	4.50	34.43	27.301	78.0	1.201				

RV DAVID STARR JORDAN				CALCOF 1 CRUISE 7503				87060							
LATITUDE	LONGITUDE	MO/DAY/YR	MESSANGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES							
			3/9/75	929M	330	14KT		Z	T	S	02	SIGT	DT	DD	
2	12.81	33.500	6.29	269.1	0	12.81	33.500	6.29	25.290	269.1	0.000				
12	12.81	33.498	6.20	269.2	10	12.81	33.500	6.21	25.289	269.2	0.026				
31	12.77	33.508	6.25	267.7	20	12.79	33.503	6.22	25.295	268.6	0.053				
55	11.95	33.552	5.84	249.5	30	12.77	33.509	6.24	25.303	267.8	0.080				
69	11.81	33.546	5.78	247.5	50	12.12	33.545	5.93	25.456	253.3	0.133				
84	11.69	33.596	5.86	241.7	75	11.77	33.566	5.81	25.538	245.5	0.195				
98	11.21	33.610	5.42	234.0	100	11.20	33.519	5.29	25.683	231.6	0.255				
127	9.89	33.779	3.63	197.9	125	9.98	33.765	3.75	26.011	200.5	0.310				
151	9.48	33.916	3.20	181.3	150	9.48	33.912	3.20	26.208	181.8	0.359				
175	9.14	34.025	2.80	168.0	200	8.82	34.071	2.55	26.439	159.9	0.446				
208	8.73	34.077	2.49	158.0	250	8.33	34.133	2.01	26.563	148.0	0.525				
271	8.15	34.155	1.77	143.7	300	7.80	34.179	1.48	26.679	137.1	0.598				
365	7.07	34.218	0.97	124.2	400	6.82	34.234	0.81	26.861	119.8	0.733				
460	6.46	34.256	0.63	113.5	500	6.14	34.275	0.50	26.983	108.2	0.853				
559	5.70	34.305	0.38	100.7	600	5.50	34.326	0.41	27.103	96.8	0.963				
682	5.19	34.364	0.48	90.4	700	5.11	34.372	0.49	27.185	89.1	1.063				
830	4.64	34.417	0.60	80.5	800	4.74	34.408	0.57	27.257	82.3	1.157				

RV DAVID STARR JORDAN				CALCOF 1 CRUISE 7503				87060							
LATITUDE	LONGITUDE	MO/DY/YR	START TIME	LATITUDE	LONGITUDE	MO/DY/YR	START TIME	DOMINANT WAVES							
			03/19/75	32.19.0N	121.44.0W	03/19/75	1843 (HST)	Z	T	S	02	SIGT	DT	DD	
1	12.95	33.50	25.262	271.7	0.000	0	13.67	33.34	24.994	297.2	0.000				
10	12.95	33.50	25.262	271.7	0.027	10	13.67	33.34	24.994	297.2	0.029				
20	12.95	33.50	25.262	271.7	0.054	20	13.65	33.34	24.998	296.8	0.059				
30	12.83	33.50	25.288	268.4	0.081	30	13.68	33.39	25.013	295.5	0.109				
40	12.51	33.51	25.356	266.8	0.108	40	12.97	33.35	25.143	283.1	0.178				
50	12.26	33.51	25.404	256.2	0.134	50	12.53	33.40	25.267	271.2	0.166				
75	11.31	33.51	25.581	241.4	0.197	75	11.98	33.44	25.403	256.3	0.212				
100	9.81	33.51	25.882	216.7	0.254	100	10.55	33.49	25.701	230.0	0.274				
125	8.80	33.80	26.050	194.9	0.306	125	9.40	33.63	26.003	201.2	0.328				
150	9.52	33.88	26.211	181.5	0.354	150	9.85	33.61	26.232	179.5	0.376				
175	9.29	33.98	27.278	179.1	0.400	175	8.47	33.41	26.369	166.5	0.420				
200	8.40	33.94	26.403	163.3	0.463	200	8.19	33.47	26.455	158.3	0.482				
225	8.11	34.02	26.504	153.2	0.493	225	7.69	33.48	26.546	149.7	0.501				
250	7.73	34.04	26.581	146.4	0.522	250	7.31	34.00	26.610	143.6	0.539				
275	7.53	34.05	26.618	142.9	0.554	275	7.00	34.02	26.669	138.1	0.575				
300	7.29	34.09	26.683	136.7	0.595	300	6.78	34.05	26.726	132.6	0.610				
350	6.87	34.15	26.788	126.7	0.663	350	6.44	34.08	26.791	126.4	0.677				
400	6.36	34.17	26.872	114.7	0.727	400	6.19	34.15	26.879	118.1	0.741				
450	6.01	34.21	26.949	111.5	0.788	450	5.86	34.19	26.952	111.2	0.801				
500	5.81	34.24	26.998	106.8	0.866	500	5.55	34.22	27.014	105.3	0.888				
550	5.58	34.28	27.058	101.1	0.901	550	5.39	34.25	27.057	101.2	0.913				
600	5.30	34.31	27.115	95.7	0.954	600	5.17	34.29	27.115	95.7	0.966				
700	4.88	34.33	27.210	86.7	1.052	700	4.76	34.37	27.225	95.3	1.063				
800	4.52	34.41	27.283	79.7	1.144	800	4.31	34.41	27.284	74.6	1.154				
900	4.18	34.44	27.344	74.0	1.229	900	4.10	34.45	27.360	72.5	1.238				
1000	3.93	34.47	27.394	69.3	1.309	1000	3.83	34.48	27.412	67.6	1.317				

87090				RV DAVID STARR JORDAN				CATOUEI CRUISE 7503				5 4	
LATITUDE	LONGITUDE	MO/DY/YR	START TIME	LATITUDE	LONGITUDE	MO/DY/YR	START TIME					88030	
31 59.06	122 23.5W	03/19/75	2351 GMT	33 41.5N	118 07.0W	03/12/75	2135 GMT						
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
62128	320	16KT	1	310	8	6	19K	160	8KT	1	140	2	6
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD		
0	13.67	33.32	24.979	298.7	0.000	0	14.00	33.12	24.757	319.8	0.000		
10	13.66	33.32	24.981	298.5	0.029	5	13.98	33.12	24.761	319.4	0.015		
20	13.67	33.31	25.012	295.6	0.059	10	13.69	33.33	24.982	298.3	0.031		
30	13.68	33.29	25.031	293.8	0.089	13	13.55	33.51	25.150	282.4	0.040		
40	13.78	33.27	25.118	285.4	0.118								
50	13.63	33.28	25.155	281.9	0.146								
75	13.10	33.46	25.388	254.7	0.214								
100	10.82	33.48	25.646	235.2	0.277								
125	9.81	33.60	25.912	209.4	0.333								
150	9.19	33.75	26.131	189.1	0.383								
175	8.71	33.85	26.285	174.5	0.430								
200	8.28	33.92	26.405	163.1	0.473								
225	7.90	33.97	26.501	153.0	0.513								
250	7.57	33.97	26.549	149.4	0.552								
275	7.24	33.98	26.604	144.2	0.590								
300	6.97	34.02	26.673	137.7	0.626								
325	6.62	34.09	26.775	128.0	0.695								
400	6.33	34.13	26.865	121.3	0.760								
450	6.96	34.15	26.998	115.3	0.822								
500	6.61	34.19	26.993	108.2	0.881								
550	6.28	34.24	27.062	100.7	0.936								
600	6.02	34.27	27.116	95.6	0.989								
700	4.71	34.34	27.207	87.0	1.087								
800	4.43	34.39	27.277	80.3	1.179								
900	4.04	34.43	27.350	73.4	1.264								
1000	3.80	34.47	27.407	68.0	1.343								

88031				RV DAVID STARR JORDAN				CATOUEI CRUISE 7503				5 4	
LATITUDE	LONGITUDE	MO/DY/YR	START TIME	LATITUDE	LONGITUDE	MO/DY/YR	START TIME					88032	
33 40.56	118 09.5W	03/12/75	2050 GMT	33 58.5N	118 13.5W	03/11/75	1910 GMT						
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
298	150	8KT	1	140	8	6	390	160	8KT	2	280	4	13
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD		
0	13.90	33.12	24.765	311.1	0.000	0	13.53	33.51	25.154	282.0	0.000		
10	13.68	33.31	24.969	294.6	0.030	10	13.28	33.52	25.212	276.5	0.027		
20	13.17	33.54	25.249	252.9	0.059	20	12.73	33.55	25.344	263.9	0.055		
25	12.60	33.54	25.349	252.9	0.059	25	12.60	33.55	25.369	261.5	0.068		

88033				RV DAVID STARR JORDAN				CATOUEI CRUISE 7503				5 4	
LATITUDE	LONGITUDE	MO/DY/YR	START TIME	LATITUDE	LONGITUDE	MO/DY/YR	START TIME					88034	
33 56.06	118 17.5W	03/11/75	1520 GMT	33 54.0N	118 22.0W	03/11/75	1525 GMT						
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
262	030	8KT	1	270	4	13	310	8KT	1	270	0	24	
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD		
0	13.48	33.91	25.164	281.1	0.000	0	13.59	33.53	25.157	281.7	0.000		
10	13.46	33.91	25.164	281.1	0.028	10	13.46	33.53	25.159	281.5	0.028		
20	13.46	33.91	25.164	280.7	0.056	20	13.49	33.54	25.165	281.0	0.054		
30	13.29	33.93	25.211	270.0	0.084	30	13.59	33.51	25.187	281.2	0.086		
40	13.03	33.97	25.340	264.3	0.111	40	13.22	33.53	25.171	280.4	0.112		
50	12.02	33.50	25.692	264.8	0.137	50	12.52	33.53	25.291	268.9	0.140		
75	11.03	33.81	26.509	224.2	0.197	75	11.01	33.85	25.744	225.9	0.202		
100	10.25	34.70	28.978	205.6	0.251	100	10.29	33.81	26.098	202.1	0.256		
125	9.84	33.91	26.166	197.4	0.301	125	9.76	33.93	26.178	194.7	0.305		
150	9.54	34.01	26.277	175.3	0.347	150	9.53	34.04	26.302	172.5	0.350		
175	9.19	34.04	26.606	163.2	0.390	175	9.21	34.13	26.424	161.3	0.393		
200	8.93	34.15	26.669	151.0	0.451	200	8.96	34.15	26.481	155.8	0.434		
210	8.87	34.15	26.696	146.6	0.459	210	8.88	34.17	26.539	150.3	0.473		
220	8.87	34.15	26.696	146.6	0.459	220	8.86	34.20	26.594	145.1	0.511		
230	8.87	34.15	26.696	146.6	0.459	230	8.87	34.22	26.646	140.2	0.546		
240	8.87	34.15	26.696	146.6	0.459	240	8.87	34.22	26.682	136.8	0.586		
250	8.87	34.15	26.696	146.6	0.459	250	8.87	34.23	26.755	129.6	0.653		
260	8.87	34.15	26.696	146.6	0.459	260	8.87	34.23	26.821	123.6	0.714		
270	8.87	34.15	26.696	146.6	0.459	270	8.87	34.24	26.877	118.3	0.783		
280	8.87	34.15	26.696	146.6	0.459	280	8.87	34.25	26.952	111.1	0.844		

90027						RV DAVID STARR JORDAN						CALCOFF CRUISE 7503						90028					
LATITUDE		LONGITUDE		MO/DAY/YR		START TIME		LATITUDE		LONGITUDE		MO/DAY/YR		START TIME									
33° 29.5N		117° 45.5W		03/13/75		0030 GMT		33° 28.5N		117° 46.5W		03/13/75		0330 GMT									
BOTTUM	WIND	SPEED	WEATHER	DIMINANT	WAVES	BTM	WIND	SPEED	WEATHER	DIMINANT	WAVES	BTM	WIND	SPEED	WEATHER	DIMINANT	WAVES	BTM	WIND	SPEED	WEATHER		
39M	240	5KT	1	250	2 11	371M	220	3KT	1	250	2 11	60	12.1	33.53	1	250	2 11	60	12.1	33.53	1	250	
Z	T	S	SIGMA T	BT	DD	Z	T	S	SIGMA T	BT	DD	Z	T	S	SIGMA T	BT	DD	Z	T	S	SIGMA T		
0	14.00	33.40	24.972	299.3	0.000	0	13.85	33.49	25.073	289.7	0.000	0	13.85	33.50	25.081	289.0	0.028	0	13.74	33.51	25.111	288.1	0.028
10	13.93	33.41	24.995	297.2	0.029	10	13.74	33.51	25.111	288.1	0.029	10	13.67	33.51	25.125	284.8	0.057	10	13.61	33.54	25.251	272.7	0.085
20	13.75	33.45	25.063	290.7	0.059	20	13.67	33.51	25.251	272.7	0.085	20	13.56	33.54	25.332	265.0	0.112	20	13.51	33.55	25.565	247.4	0.137
25	12.54	33.51	25.152	282.2	0.079	25	11.94	33.68	25.762	224.2	0.196	25	11.94	33.68	25.983	203.1	0.250	25	11.94	33.68	26.161	186.3	0.299
30						35	9.56	33.93	26.161	186.3	0.299	35	9.56	34.06	26.311	172.0	0.368	35	9.25	34.10	26.394	164.1	0.368
40						40	8.91	34.13	26.472	156.7	0.429	40	8.76	34.16	26.519	152.2	0.448	40	8.76	34.18	26.577	146.8	0.507
50						50	8.20	34.20	26.634	141.4	0.564	50	8.07	34.21	26.664	139.5	0.564	50	7.97	34.21	26.679	137.1	0.615
60						60	7.97	34.21	26.679	137.1	0.615	60	7.97	34.21	26.679	137.1	0.615	60	7.97	34.21	26.679	137.1	0.615
70						70						70						70					
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750																							

RV DAVID STARR JORDAN

CALCOFI CRUISE 7503

90037

LATITUDE	LONGITUDE	MO/DAY/YR	MESSANGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES							
Z	T	S	U2	P04	S103	N02	N03	DT	Z	T	S	U2	SIGT	DT	DD
33 11.0N	118 22.5W	03/11/75	1155	GMT	1202M	290	14KT								
1	13.74	33.546	6.13					283.5	0	13.74	33.546	6.13	25.138	283.5	0.000
11	13.75	33.551	5.99					283.3	10	13.74	33.551	6.00	25.140	283.3	0.028
30	13.70	33.554	5.95					282.1	20	13.72	33.554	5.97	25.146	282.7	0.056
59	10.97	33.601	4.13					228.4	30	13.70	33.554	5.95	25.153	282.1	0.085
77	10.44	33.675	3.83					214.5	50	11.86	33.576	4.72	25.529	246.3	0.138
92	10.11	33.728	3.63					205.2	75	10.47	33.668	3.84	25.852	215.6	0.196
106	9.79	33.810	3.43					194.0	100	9.92	33.775	3.51	26.029	198.8	0.248
135	9.47	33.929	3.04					180.2	125	9.54	33.892	3.16	26.182	184.2	0.296
158	9.27	34.035	2.78					169.2	150	9.33	34.001	2.87	26.302	172.9	0.342
188	8.97	34.108	2.37					159.2	200	8.86	34.128	2.21	26.477	156.2	0.426
221	8.68	34.154	1.95					151.5	250	8.39	34.194	1.60	26.602	144.3	0.503
292	7.95	34.237	1.19					134.8	300	7.86	34.239	1.14	26.717	133.5	0.575
393	6.89	34.232	0.85					120.8	400	6.82	34.234	0.81	26.861	119.8	0.707
497	6.07	34.277	0.44					107.2	500	6.05	34.278	0.43	26.997	106.9	0.827
602	5.54	34.319	0.29					97.8	600	5.54	34.318	0.29	27.092	97.9	0.936
734	5.02	34.379	0.26					87.4	700	5.14	34.364	0.26	27.176	89.9	1.038
886	4.51	34.435	0.33					77.8	800	4.78	34.406	0.28	27.251	82.8	1.133
1050	4.15	34.465	0.37					71.8	1000	4.23	34.460	0.36	27.353	73.2	1.307

90037

RV DAVID STARR JORDAN

CALCOFI CRUISE 7503

90045

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME				
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD
33 11.0N	118 22.5W	03/11/75	1037 GMT	32 55.0N	118 56.0W	03/11/75	0600 GMT				
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES							
1202M	290	14KT									
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD
0	13.73	33.54	25.136	283.7	0.000	0	13.67	33.56	25.164	281.1	0.000
10	13.73	33.54	25.136	283.7	0.028	10	13.67	33.56	25.164	281.1	0.028
20	13.74	33.54	25.134	283.9	0.056	20	13.57	33.55	25.176	279.9	0.056
30	13.69	33.52	25.129	284.4	0.065	30	13.22	33.55	25.247	273.1	0.083
40	12.22	33.51	25.412	257.5	0.112	40	12.52	33.55	25.385	260.0	0.110
50	11.16	33.54	25.632	234.6	0.137	50	11.70	33.53	25.518	247.4	0.136
75	10.48	33.64	25.830	217.8	0.194	75	10.50	33.67	25.849	215.9	0.194
100	9.92	33.76	26.019	199.8	0.247	100	10.00	33.77	26.013	200.3	0.246
125	9.57	33.88	26.170	185.4	0.295	125	9.50	33.94	26.229	179.8	0.295
150	9.38	34.01	26.303	172.8	0.341	150	9.09	34.00	26.342	169.1	0.339
175	9.07	34.09	26.415	162.1	0.383	175	8.88	34.06	26.422	161.4	0.381
200	8.80	34.14	26.491	154.3	0.424	200	8.56	34.08	26.488	155.2	0.421
225	8.41	34.16	26.564	146.0	0.463	225	8.30	34.13	26.567	147.7	0.460
250	8.24	34.18	26.615	143.1	0.500	250	8.10	34.14	26.605	144.1	0.498
275	8.20	34.23	26.660	138.9	0.537	275	7.64	34.16	26.688	136.2	0.534
300	7.94	34.24	26.703	134.4	0.572	300	7.43	34.17	26.726	132.6	0.569
350	7.48	34.24	26.774	126.1	0.600	350	6.94	34.19	26.810	124.6	0.636
400	6.77	34.24	26.873	118.7	0.705	400	6.58	34.23	26.891	117.0	0.699
450	6.39	34.26	26.938	112.6	0.766	450	6.29	34.26	26.952	111.1	0.759
500	5.97	34.28	27.009	105.7	0.824	500	5.99	34.29	27.014	105.2	0.816
550	5.68	34.30	27.061	100.8	0.879	550	5.69	34.31	27.068	100.2	0.871
600	5.49	34.32	27.100	97.1	0.932	600	5.46	34.34	27.120	95.3	0.923
700	5.11	34.37	27.185	84.1	1.033	700	5.03	34.38	27.202	87.4	1.023
800	4.79	34.40	27.245	83.3	1.127	800	4.68	34.42	27.273	80.7	1.115
900	4.41	34.44	27.319	76.4	1.216	900	4.44	34.44	27.316	76.7	1.202
1000	4.22	34.48	27.355	72.9	1.300	1000	4.16	34.47	27.370	71.6	1.286

90053

RV DAVID STARR JORDAN

CALCOFI CRUISE 7503

90060

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME				
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD
32 39.0N	119 28.5W	03/11/75	0150 GMT	32 25.0N	119 57.5W	03/10/75	2101 GMT				
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES							
1245M	290	14KT									
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD
0	12.58	33.55	25.313	261.1	0.000	0	12.72	33.52	25.323	265.9	0.000
10	12.58	33.55	25.313	261.1	0.026	10	12.72	33.52	25.323	265.9	0.026
20	12.41	33.55	25.406	258.0	0.052	20	12.67	33.53	25.340	264.3	0.053
30	11.86	33.53	25.495	249.5	0.077	30	12.43	33.54	25.395	259.1	0.079
40	11.55	33.54	25.561	243.3	0.102	40	11.61	33.56	25.565	242.9	0.104
50	11.34	33.56	25.615	238.2	0.126	50	11.27	33.59	25.651	234.8	0.128
75	9.76	33.63	25.944	206.9	0.182	75	10.12	33.65	25.899	211.1	0.184
100	9.06	33.89	26.261	163.8	0.230	100	9.59	33.79	26.097	192.3	0.235
125	8.71	34.00	26.402	163.4	0.273	125	9.07	33.91	26.275	175.4	0.282
150	8.53	34.08	26.492	154.8	0.314	150	8.98	34.00	26.359	167.4	0.325
175	8.26	34.13	26.573	147.1	0.352	175	8.72	34.09	26.471	156.9	0.366
200	8.21	34.17	26.612	143.5	0.389	200	8.39	34.12	26.545	149.8	0.406
225	8.01	34.18	26.649	139.0	0.426	225	8.12	34.17	26.625	142.2	0.443
250	7.75	34.17	26.680	137.0	0.461	250	7.89	34.17	26.660	138.9	0.479
275	7.47	34.17	26.721	133.1	0.496	275	7.62	34.19	26.715	133.7	0.514
300	7.29	34.19	26.762	129.2	0.530	300	7.54	34.21	26.742	131.1	0.549
350	6.86	34.21	26.837	122.1	0.596	350	7.13	34.19	26.784	127.1	0.616
400	6.50	34.23	26.901	116.0	0.658	400	6.66	34.23	26.880	118.0	0.680
450	6.28	34.26	26.954	111.0	0.718	450	6.45	34.26	26.932	113.1	0.741
500	6.00	34.28	27.005	106.1	0.775	500	6.03	34.28	27.002	106.5	0.799
550	5.78	34.31	27.057	101.2	0.830	550	5.85	34.30	27.040	102.8	0.855
600	5.49	34.33	27.108	96.4	0.884	600	5.57	34.33	27.098	97.3	0.904
700	5.07	34.38	27.197	87.9	0.983	700	5.27	34.36	27.158	91.6	1.011
800	4.71	34.41	27.262	81.8	1.076	800	4.73	34.40	27.252	82.7	1.107
900	4.43	34.43	27.309	77.3	1.165						
1000	4.11	34.48	27.367	71.8	1.249						

90070				RV DAVID STARR JORDAN				CALCOFI CRUISE 7503				90080			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME								
32 05.0N	120 38.5W	03/10/75	1601 GMT	31 45.0N	121 19.5W	03/10/75	1010 GMT								
BOTTOM	WIND SPEED	WEATHER	DOMINANT WAVES	BOTTOM	WIND SPEED	WEATHER	DOMINANT WAVES								
3926M	270	BKT	2 240 8 10	3642M	250	10KT	WEATHER								
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T
0	12.15	33.47	25.199	277.7	0.000	0	13.39	33.29	25.013	295.5	0.000	0	13.39	33.29	25.013
10	12.15	33.47	25.199	277.7	0.021	10	13.39	33.29	25.013	295.5	0.029	10	13.39	33.29	25.013
20	13.15	33.47	25.199	277.7	0.055	20	13.39	33.29	25.013	295.5	0.059	20	13.39	33.29	25.013
30	12.15	33.47	25.199	277.7	0.083	30	13.39	33.29	25.013	295.5	0.088	30	13.39	33.29	25.013
40	12.97	33.47	25.235	274.3	0.111	40	13.21	33.29	25.049	292.1	0.118	40	13.21	33.29	25.049
50	12.50	33.49	25.331	265.2	0.138	50	12.48	33.30	25.199	277.7	0.146	50	12.48	33.30	25.199
75	12.16	33.52	25.631	255.7	0.203	75	11.94	33.40	25.380	260.6	0.214	75	11.94	33.40	25.380
100	10.23	33.52	25.679	222.5	0.263	100	10.77	33.45	25.631	236.6	0.277	100	10.77	33.45	25.631
125	9.30	33.67	26.051	196.7	0.316	125	9.48	33.63	25.990	202.5	0.332	125	9.48	33.63	25.990
150	8.97	33.86	26.252	177.6	0.364	150	8.83	33.83	26.250	177.8	0.380	150	8.83	33.83	26.250
175	8.76	34.04	26.425	161.1	0.407	175	8.46	33.92	26.378	165.7	0.424	175	8.46	33.92	26.378
200	8.36	34.06	26.503	153.8	0.447	200	7.93	33.96	26.489	155.1	0.465	200	7.93	33.96	26.489
225	7.95	34.08	26.580	146.5	0.486	225	7.65	34.01	26.569	147.5	0.504	225	7.65	34.01	26.569
250	7.41	34.09	26.623	142.4	0.523	250	7.15	33.97	26.609	143.8	0.541	250	7.15	33.97	26.609
275	7.27	34.11	26.702	134.9	0.559	275	6.94	34.02	26.677	137.3	0.577	275	6.94	34.02	26.677
300	7.06	34.12	26.739	131.4	0.593	300	6.86	34.08	26.735	131.4	0.612	300	6.86	34.08	26.735
350	6.65	34.15	26.818	123.8	0.659	350	6.44	34.11	26.815	124.2	0.678	350	6.44	34.11	26.815
400	6.22	34.20	26.914	114.8	0.722	400	6.03	34.15	26.899	116.2	0.741	400	6.03	34.15	26.899
450	5.96	34.23	26.971	109.3	0.780	450	5.58	34.18	26.979	108.6	0.800	450	5.58	34.18	26.979
500	5.69	34.27	27.036	103.2	0.837	500	5.50	34.24	27.036	103.2	0.856	500	5.50	34.24	27.036
550	5.42	34.30	27.093	97.8	0.890	550	5.36	34.29	27.092	97.9	0.909	550	5.36	34.29	27.092
600	5.21	34.33	27.162	93.2	0.941	600	5.22	34.32	27.133	94.1	0.961	600	5.22	34.32	27.133
700	4.87	34.39	27.228	85.0	1.038	700	4.79	34.38	27.230	84.9	1.057	700	4.79	34.38	27.230
800	4.58	34.41	27.277	80.4	1.129	800	4.44	34.42	27.300	78.7	1.147	800	4.44	34.42	27.300
900	4.26	34.45	27.343	76.1	1.214	900	4.16	34.45	27.354	73.1	1.231	900	4.16	34.45	27.354
1000	4.01	34.47	27.386	70.1	1.295	1000	3.90	34.48	27.405	68.2	1.310	1000	3.90	34.48	27.405

RV DAVID STARR JORDAN				CALCOFI CRUISE 7503				90080							
LATITUDE	LONGITUDE	MO/DAY/YR	MESSANGER TIME	BOTTOM	WIND	SPEED	WEATHER	Dominant Waves							
31 45.0N	121 19.5W	3/10/75	1114	3642M	250	10KT	WEATHER	Dominant Waves							
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD
0	13.52	33.298	6.24					297.4	0	13.52	33.298	6.24	24.992	297.4	0.000
10	13.40	33.295	6.10					295.3	10	13.40	33.295	6.10	25.014	295.3	0.029
29	13.41	33.299	6.21					295.2	20	13.40	33.299	6.13	25.015	295.3	0.059
59	12.28	33.339	5.97					271.2	30	13.37	33.300	6.20	25.021	294.6	0.088
77	11.92	33.444	5.72					256.9	50	12.65	33.316	6.08	25.176	279.9	0.146
91	11.28	33.464	5.34					244.2	75	11.96	33.434	5.75	25.400	258.6	0.214
106	10.40	33.523	4.61					225.1	100	10.75	33.496	4.91	25.669	233.0	0.276
135	9.29	33.733	3.71					191.9	125	9.60	33.657	3.96	25.991	202.4	0.331
158	8.76	33.872	3.20					173.6	150	8.92	33.829	3.34	26.235	179.2	0.379
188	8.24	33.962	3.05					159.3	200	8.09	33.979	2.94	26.479	156.0	0.464
221	7.87	33.997	2.74					151.5	250	7.47	34.028	2.39	26.607	143.9	0.541
293	6.91	34.071	1.87					133.1	300	6.83	34.078	1.79	26.736	131.6	0.612
393	6.06	34.157	1.04					116.0	400	6.01	34.163	0.99	26.911	115.1	0.741
498	5.53	34.239	0.58					103.6	500	5.52	34.241	0.58	27.034	103.4	0.856
602	5.15	34.316	0.68					93.6	600	5.15	34.315	0.67	27.136	93.8	0.961
735	4.69	34.400	0.50					82.3	700	4.80	34.381	0.54	27.228	85.0	1.057
886	4.22	34.451	0.73					73.6	800	4.48	34.426	0.58	27.300	78.1	1.147
1049	3.78	34.487	0.80					66.6	1000	3.90	34.479	0.77	27.403	68.4	1.310

90090				RV DAVID STARR JORDAN				CALCOFI CRUISE 7503				91026			
LATITUDE	LONGITUDE	MO/DAY/YR	STAR TIME	LATITUDE	LONGITUDE	MO/DAY/YR	STAR TIME								
31 24.0N	122 01.0W	03/10/75	0500 GMT	31 14.5N	117 27.5W	03/13/75	2145 GMT								
BOTTOM	WIND SPEED	WEATHER	DOMINANT WAVES	BOTTOM	WIND	SPEED	WEATHER	Dominant Waves	Dominant Waves	Dominant Waves	Dominant Waves	Dominant Waves	Dominant Waves	Dominant Waves	Dominant Waves
3926M	210	BKT	2 270 8 5	3642M	270	6KT	WEATHER	Dominant Waves	Dominant Waves	Dominant Waves	Dominant Waves	Dominant Waves	Dominant Waves	Dominant Waves	Dominant Waves
0	14.21	33.42	24.944	302.0	0.000			0	13.93	33.40	24.987	297.4	0.000		
10	14.22	33.42	24.942	302.2	0.030			5	13.05	33.40	25.003	296.3	0.014		
20	14.23	33.42	24.940	302.4	0.060			10	13.80	33.40	25.014	295.4	0.029		
30	14.24	33.43	24.946	301.9	0.090			15	13.54	33.43	25.090	288.1	0.044		
40	14.25	33.44	24.941	301.3	0.121			18	12.84	33.48	25.385	260.0	0.052		
50	15.98	33.43	25.000	296.7	0.151										
75	13.13	32.36	25.118	285.4	0.224										
100	12.01	32.46	25.413	257.4	0.292										
125	10.88	33.48	25.639	236.2	0.354										
150	9.61	33.62	25.961	205.3											

5 91027				RV DAVID STARR JORDAN				5 91028			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME				
33° 14.0N	117° 30.5W	03/13/75	2041 GMT	33° 12.0N	117° 34.0W	03/13/75	1858 GMT				
BUTTON	WIND	SPEED	WEATHER	DOMINANT	WAVES						
56M	240	4KT	1	270	Z S						
Z	T	S	SIGMA T	DT	DD	Z	T				
0	13.88	33.44	25.028	294.0	0.000	0	13.84	33.47	25.059	291.0	0.000
10	13.83	33.44	25.038	293.0	0.029	10	13.78	33.47	25.072	289.8	0.029
20	13.60	33.44	25.086	288.5	0.058	20	13.61	33.47	25.106	286.5	0.057
30	13.25	33.53	25.226	275.2	0.086	30	12.66	33.50	25.319	266.3	0.086
40	12.86	33.54	25.350	263.3	0.113	40	11.82	33.54	25.511	248.1	0.111
42	12.44	33.54	25.399	258.7	0.121	50	11.25	33.63	25.685	231.5	0.135
						75	10.57	33.72	25.876	213.3	0.141
						100	10.22	33.81	26.007	200.9	0.143
						125	9.82	33.92	26.160	186.3	0.292
						150	9.57	34.00	26.264	176.5	0.338
						175	9.18	34.12	26.421	161.6	0.381
						200	8.97	34.15	26.478	155.1	0.422
						225	8.61	34.17	26.550	149.3	0.461
						250	8.48	34.20	26.594	145.1	0.499
						275	8.26	34.22	26.643	140.5	0.536
						300	8.01	34.22	26.681	136.9	0.572
						350	7.61	34.24	26.755	129.5	0.641
						400	7.22	34.25	26.819	123.8	0.708
						450	6.76	34.26	26.890	117.0	0.771
						500	6.39	34.27	26.947	111.6	0.832

5 91029				RV DAVID STARR JORDAN				5 91030			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME				
33° 10.0N	117° 38.0W	03/13/75	1912 GMT	33° 08.0N	117° 42.0W	03/13/75	1515 GMT				
BUTTON	WIND	SPEED	WEATHER	DOMINANT	WAVES						
756M	220	5KT	2	270	Z S						
Z	T	S	SIGMA T	DT	DD	Z	T				
0	13.88	33.52	25.090	288.1	0.000	0	13.89	33.54	25.103	286.9	0.000
10	13.80	33.51	25.098	287.3	0.028	10	13.89	33.54	25.103	286.9	0.028
20	13.64	33.51	25.131	284.2	0.057	20	13.21	33.54	25.241	273.7	0.056
30	13.01	33.53	25.274	270.6	0.085	30	12.79	33.54	25.325	265.8	0.083
40	12.09	33.54	25.460	252.9	0.111	40	12.40	33.55	25.408	257.8	0.110
50	11.46	33.58	25.608	238.8	0.136	50	11.90	33.56	25.511	246.0	0.135
75	10.37	33.73	25.918	204.3	0.142	75	10.64	33.69	25.641	216.7	0.143
100	10.09	33.84	26.052	196.6	0.243	100	9.93	33.81	26.056	196.2	0.246
125	9.77	33.92	26.168	185.5	0.292	125	9.58	33.95	26.223	180.3	0.293
150	9.43	34.04	26.318	171.3	0.337	150	9.08	34.04	26.310	172.1	0.338
175	9.27	34.12	26.407	162.9	0.380	175	9.23	34.12	26.413	162.3	0.381
200	8.91	34.15	26.488	155.2	0.420	200	8.95	34.16	26.484	155.1	0.421
225	8.55	34.19	26.528	151.3	0.460	225	8.61	34.17	26.550	149.3	0.460
250	8.55	34.19	26.575	146.9	0.498	250	8.34	34.18	26.600	144.8	0.498
275	8.29	34.21	26.631	141.6	0.535	275	8.06	34.18	26.642	140.6	0.535
300	8.11	34.24	26.682	136.8	0.571	300	8.01	34.24	26.696	135.4	0.571
350	7.57	34.25	26.769	128.5	0.640	350	7.55	34.26	26.780	127.5	0.635
400	7.14	34.26	26.838	122.0	0.706	400	6.98	34.24	26.844	121.6	0.706
450	6.74	34.28	26.908	115.3	0.769	450	6.59	34.27	26.921	114.1	0.766
500	6.33	34.27	26.955	110.9	0.829	500	6.16	34.28	26.985	108.0	0.825
550	6.92	34.29	27.023	104.4	0.886	550	5.92	34.31	27.039	102.9	0.882
600	5.62	34.31	27.076	99.4	0.941	600	5.67	34.32	27.078	99.2	0.936
700	5.19	34.36	27.168	90.7	1.044	700	5.16	34.36	27.171	90.4	1.039

7 93026				RV DAVID STARR JORDAN				7 93026			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME				
32° 57.0N	117° 17.5W	03/14/75	0017 GMT	32° 57.0N	117° 18.5W	03/14/75	0148 GMT				
BUTTON	WIND	SPEED	WEATHER	DOMINANT	WAVES						
34M	270	7KT	1	250	Z S						
Z	T	S	SIGMA T	DT	DD	Z	T				
0	14.08	33.48	25.017	295.0	0.000	0	14.22	33.53	25.027	294.1	0.000
10	13.94	33.47	25.039	293.0	0.029	10	13.87	33.52	25.092	287.9	0.029
20	13.59	33.41	25.064	290.5	0.058	20	13.51	33.51	25.158	281.6	0.057
28	13.03	33.48	25.231	274.7	0.081	30	12.64	33.55	25.362	262.2	0.084
						40	12.35	33.60	25.456	253.7	0.110
						50	11.53	33.63	25.634	236.3	0.135
						59	11.38	33.68	25.700	230.0	0.158

93028				RV DAVID STARR JORDAN				CALCOF1 CRUISE 7503				93029					
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
32 55.0N	117 22.0W	03/14/75	0804 GMT	32 53.0N	117 26.5W	03/14/75	0800 GMT	32 53.0N	117 26.5W	03/14/75	0800 GMT	32 53.0N	117 26.5W	03/14/75	0800 GMT		
BOTTUM	WIND	SPEED	WEATHER	DIMINANT WAVES	BOTTUM	WIND	SPEED	WEATHER	DIMINANT WAVES	BOTTUM	WIND	SPEED	WEATHER	DIMINANT WAVES	BOTTUM		
553M	250	6KT	-	-	593M	250	6KT	-	-	593M	250	6KT	-	-	593M		
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD
0	14.08	33.53	25.056	291.3	0.000	0	14.01	33.53	25.070	290.0	0.000	0	14.09	33.52	25.129	284.4	0.028
10	14.05	33.53	25.062	290.7	0.029	10	13.99	33.52	25.129	284.4	0.028	10	14.07	33.51	25.180	279.5	0.046
20	13.90	33.53	25.093	287.8	0.058	20	13.40	33.51	25.180	279.5	0.046	20	13.21	33.53	25.379	260.6	0.084
30	13.21	33.53	25.234	274.4	0.086	30	12.47	33.53	25.379	260.6	0.084	30	12.27	33.53	25.505	248.6	0.104
40	12.27	33.53	25.418	256.9	0.112	40	11.69	33.55	25.505	248.6	0.104	40	11.30	33.58	25.597	239.8	0.136
50	11.30	33.58	25.637	236.0	0.137	50	11.56	33.59	25.597	239.8	0.136	50	10.52	33.70	25.869	214.0	0.179
60	10.52	33.70	25.869	214.0	0.194	60	10.26	33.81	26.000	201.6	0.199	60	9.73	33.94	26.191	183.4	0.294
70	9.73	33.94	26.191	183.4	0.294	70	9.90	33.90	26.131	189.1	0.234	70	9.45	34.07	26.323	170.8	0.339
80	9.45	34.07	26.323	170.8	0.339	80	9.37	34.09	26.367	166.7	0.324	80	8.22	34.25	26.673	137.7	0.512
90	8.22	34.25	26.673	137.7	0.512	90	8.16	34.12	26.424	161.2	0.371	90	7.16	34.26	26.749	130.4	0.642
100	7.16	34.26	26.749	130.4	0.642	100	7.35	34.27	26.816	124.0	0.699	100	6.70	34.26	26.898	116.3	0.762
110	6.70	34.26	26.898	116.3	0.762	110	6.50	34.28	26.893	116.7	0.762	110	6.22	34.28	26.977	108.8	0.830
120	6.22	34.28	26.977	108.8	0.830	120	6.50	34.28	26.941	112.2	0.823	120	5.95	34.31	26.977	101.4	0.830
130	5.95	34.31	26.977	101.4	0.830	130	5.95	34.31	26.977	101.4	0.830	130	5.67	34.31	26.977	101.4	0.830
140	5.67	34.31	26.977	101.4	0.830	140	5.67	34.31	26.977	101.4	0.830	140	5.39	34.31	26.977	101.4	0.830
150	5.39	34.31	26.977	101.4	0.830	150	5.39	34.31	26.977	101.4	0.830	150	5.11	34.31	26.977	101.4	0.830
160	5.11	34.31	26.977	101.4	0.830	160	5.11	34.31	26.977	101.4	0.830	160	4.83	34.31	26.977	101.4	0.830
170	4.83	34.31	26.977	101.4	0.830	170	4.83	34.31	26.977	101.4	0.830	170	4.55	34.31	26.977	101.4	0.830
180	4.55	34.31	26.977	101.4	0.830	180	4.55	34.31	26.977	101.4	0.830	180	4.27	34.31	26.977	101.4	0.830
190	4.27	34.31	26.977	101.4	0.830	190	4.27	34.31	26.977	101.4	0.830	190	3.99	34.31	26.977	101.4	0.830
200	3.99	34.31	26.977	101.4	0.830	200	3.99	34.31	26.977	101.4	0.830	200	3.71	34.31	26.977	101.4	0.830
210	3.71	34.31	26.977	101.4	0.830	210	3.71	34.31	26.977	101.4	0.830	210	3.43	34.31	26.977	101.4	0.830
220	3.43	34.31	26.977	101.4	0.830	220	3.43	34.31	26.977	101.4	0.830	220	3.15	34.31	26.977	101.4	0.830
230	3.15	34.31	26.977	101.4	0.830	230	3.15	34.31	26.977	101.4	0.830	230	2.87	34.31	26.977	101.4	0.830
240	2.87	34.31	26.977	101.4	0.830	240	2.87	34.31	26.977	101.4	0.830	240	2.59	34.31	26.977	101.4	0.830
250	2.59	34.31	26.977	101.4	0.830	250	2.59	34.31	26.977	101.4	0.830	250	2.31	34.31	26.977	101.4	0.830
260	2.31	34.31	26.977	101.4	0.830	260	2.31	34.31	26.977	101.4	0.830	260	2.03	34.31	26.977	101.4	0.830
270	2.03	34.31	26.977	101.4	0.830	270	2.03	34.31	26.977	101.4	0.830	270	1.75	34.31	26.977	101.4	0.830
280	1.75	34.31	26.977	101.4	0.830	280	1.75	34.31	26.977	101.4	0.830	280	1.47	34.31	26.977	101.4	0.830
290	1.47	34.31	26.977	101.4	0.830	290	1.47	34.31	26.977	101.4	0.830	290	1.19	34.31	26.977	101.4	0.830
300	1.19	34.31	26.977	101.4	0.830	300	1.19	34.31	26.977	101.4	0.830	300	8.71	34.26	26.749	130.4	0.642
310	8.71	34.26	26.749	130.4	0.642	310	8.71	34.26	26.749	130.4	0.642	310	8.43	34.26	26.749	130.4	0.642
320	8.43	34.26	26.749	130.4	0.642	320	8.43	34.26	26.749	130.4	0.642	320	8.15	34.28	26.986	107.9	0.841
330	8.15	34.28	26.986	107.9	0.841	330	8.15	34.28	26.986	107.9	0.841	330	7.87	34.31	27.076	99.4	0.947
340	7.87	34.31	27.076	99.4	0.947	340	7.87	34.31	27.076	99.4	0.947	340	7.59	34.31	27.076	99.4	0.947
350	7.59	34.31	27.076	99.4	0.947	350	7.59	34.31	27.076	99.4	0.947	350	7.31	34.31	27.076	99.4	0.947
360	7.31	34.31	27.076	99.4	0.947	360	7.31	34.31	27.076	99.4	0.947	360	7.03	34.31	27.076	99.4	0.947
370	7.03	34.31	27.076	99.4	0.947	370	7.03	34.31	27.076	99.4	0.947	370	6.75	34.31	27.076	99.4	0.947
380	6.75	34.31	27.076	99.4	0.947	380	6.75	34.31	27.076	99.4	0.947	380	6.47	34.41	27.273	80.7	1.143
390	6.47	34.41	27.273	80.7	1.143	390	6.47	34.41	27.273	80.7	1.143	390	6.19	34.45	27.347	73.7	1.224
400	6.19	34.45	27.347	73.7	1.224	400	6.19	34.45	27.347	73.7	1.224	400	5.91	34.47	27.381	70.5	1.310

93050

RV DAVID STARR JORDAN

CALIFORNIA CRUISE 7503

93060

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
32° 10.0N	118° 52.5W	03/14/75	1916 GMT

BOTTUM	WIND	SPEED	WEATHER	DIMINANT WAVES
14758	300	16KT	1	300 15 10

Z	T	S	SIGMA T	HT	DD
0	12.68	33.55	25.154	282.0	0.000
10	12.68	33.55	25.154	282.0	0.028
20	12.68	33.55	25.154	282.0	0.056
30	12.68	33.55	25.154	282.0	0.084
40	12.68	33.55	25.154	282.0	0.113
50	12.28	33.55	25.235	274.3	0.140
75	10.70	33.49	25.675	232.5	0.204
100	9.71	33.72	26.022	199.4	0.259
125	9.34	33.77	26.122	189.9	0.308
150	8.95	33.91	26.294	173.6	0.354
175	8.71	34.00	26.402	163.4	0.397
200	8.49	34.08	26.499	154.2	0.437
225	8.31	34.15	26.581	146.4	0.476
250	8.07	34.17	26.633	141.5	0.513
275	7.78	34.22	26.715	133.7	0.549
300	7.40	34.20	26.754	129.9	0.583
350	6.90	34.21	26.832	122.6	0.648
400	6.61	34.25	26.902	115.9	0.711
450	6.30	34.30	26.975	109.0	0.770
500	6.07	34.30	27.012	105.4	0.827
550	5.78	34.31	27.057	101.2	0.882
600	5.55	34.33	27.101	97.1	0.935
700	5.02	34.37	27.195	88.1	1.036
800	4.65	34.40	27.261	81.9	1.129
900	4.31	34.44	27.330	75.3	1.216
1000	4.06	34.47	27.380	70.6	1.298

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
31° 51.0N	119° 34.0W	03/15/75	0105 GMT

BOTTUM	WIND	SPEED	WEATHER	DIMINANT WAVES
2225M	330	12KT	1	320 16 13

Z	T	S	SIGMA T	HT	DD
0	13.26	33.53	25.224	275.4	0.000
10	13.26	33.53	25.224	275.4	0.027
20	13.26	33.53	25.224	275.4	0.055
30	13.26	33.53	25.224	275.4	0.082
40	13.23	33.53	25.230	274.8	0.110
50	12.61	33.49	25.321	266.1	0.157
75	11.03	33.58	25.686	231.4	0.200
100	10.21	33.73	25.946	206.7	0.255
125	9.89	33.81	26.069	195.0	0.306
150	9.01	33.92	26.292	173.8	0.352
175	8.80	34.02	26.404	163.2	0.395
200	8.43	34.10	26.523	151.8	0.436
225	8.22	34.14	26.587	145.8	0.474
250	8.05	34.15	26.620	142.7	0.511
275	7.86	34.17	26.693	135.7	0.547
300	7.45	34.19	26.739	131.4	0.581
350	7.09	34.22	26.813	124.3	0.648
400	6.74	34.24	26.877	118.3	0.711
450	6.20	34.25	26.956	110.8	0.772
500	5.89	34.29	27.027	104.0	0.829
550	5.60	34.31	27.079	99.1	0.883
600	5.28	34.32	27.125	94.7	0.935
700	4.87	34.38	27.220	85.7	1.032
800	4.56	34.41	27.274	80.2	1.128
900	4.27	34.45	27.342	74.2	1.208
1000	3.96	34.48	27.399	68.8	1.294

RV DAVID STARR JORDAN

CALIFORNIA CRUISE 7503

93070

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENDER TIME
31° 30.0N	120° 14.0W	3/15/75	0719 0757 GMT

BOTTUM	WIND	SPEED	WEATHER	DIMINANT WAVES
4117M	320	11KT	1	320 11 11

Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD	
2	13.16	33.498	6.11						275.8	0	13.16	33.498	6.11	25.219	275.8	0.000
13	13.16	33.494	6.14						276.1	10	13.16	33.496	6.13	25.217	276.0	0.027
30	13.17	33.492	6.20						276.4	20	13.16	33.494	6.16	25.214	276.3	0.055
58	13.18	33.493	6.22						276.6	30	13.17	33.492	6.20	25.212	276.4	0.082
76	12.11	33.479	5.82						257.8	50	13.17	33.494	6.21	25.212	276.5	0.138
90	11.54	33.475	5.50						247.9	75	12.17	33.481	5.84	25.397	258.9	0.205
105	10.24	33.552	4.79						220.3	100	10.68	33.520	5.04	25.700	230.1	0.267
132	9.27	33.731	3.78						191.8	125	9.39	33.686	4.00	26.047	197.1	0.321
156	9.16	33.868	3.22						179.9	150	9.16	33.838	3.33	26.203	182.3	0.369
184	8.68	33.965	2.96						165.5	200	8.53	34.016	2.74	26.442	159.6	0.456
217	8.39	34.059	2.50						154.3	250	7.87	34.088	2.05	26.598	144.8	0.534
288	7.24	34.095	1.61						135.6	300	7.10	34.103	1.49	26.719	133.3	0.606
387	6.39	34.165	0.86						119.5	400	6.30	34.177	0.79	26.884	117.6	0.737
490	5.83	34.251	0.46						106.2	500	5.78	34.258	0.44	27.015	105.2	0.854
590	5.28	34.314	0.32						96.3	600	5.33	34.320	0.33	27.119	95.3	0.961
717	4.79	34.384	0.60						84.6	700	4.86	34.376	0.55	27.217	86.0	1.059
853	4.26	34.436	0.67						75.1	800	4.45	34.418	0.65	27.297	78.5	1.149
986	3.82	34.471	0.72						68.2	1000	3.87	34.480	0.72	27.408	68.0	1.313

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
31° 30.0N	120° 14.0W	(3/15/75)	1235 GMT

BOTTUM	WIND	SPEED	WEATHER	DIMINANT WAVES
6021P	340	11KT	1	340 11 11

Z	T	S	SIGMA T	HT	DD
0	13.23	33.38	25.114	285.8	0.000
10	13.23	33.38	25.114	285.8	0.028
20	13.23	33.38	25.114	285.8	0.057
30	13.23	33.38	25.114	285.8	0.085
40	13.24	33.38	25.112	286.0	0.114
50	13.24	33.38	25.112	286.0	0.143
75	12.79	33.37	25.195	271.1	0.214
100	10.93	33.39	25.556	243.7	0.279
125	9.56	33.50	25.876	213.4	0.337
150	9.17	33.74	26.136	186.7	0.386
175	8.89	33.94	26.319	171.3	0.434
200	8.55	33.99	26.445	159.3	0.476
225	8.40	34.06	26.535	150.7	0.516
250	7.88	34.06	26.607	143.9	0.553
275	7.42	34.08	26.653	139.5	0.590
300	7.21	34.10	26.716	133.6	0.625
350	6.66	34.13	26.782	127.3	0.693
400	6.40	34.18	26.910	115.2	0.756
450	6.14	34.22	26.992	107.3	0.814
500	5.89	34.24	27.046	102.2	0.870
550	5.61	34.27	27.091	98.0	0.923
600	5.38	34.32	27.139	93.5	0.974
700	4.90	34.38	27.234	84.4	1.070
800	4.46	34.41	27.298	78.4	1.160
900	4.15	34.45	27.354	73.1	1.244
1000	3.86	34.48	27.408	68.0	1.323

LATITUDE 32 40.0N	LONGITUDE 117 34.0W	MO/DAY/YR 2/24/75	MESSENGER 2312	TIME GMT	BOTTOM 1165M	WIND 300	SPEED 9Kt	WEATHER L	DOMINANT WAVES			
									02	SIGT	DT	00
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02
0A	14.31	33.61	6.38					290.1	0	14.31	33.61	6.38
10	13.84	33.60	6.43					281.5	10	13.84	33.60	6.43
29	13.68	33.60	6.28					278.3	20	13.75	33.60	6.35
58	11.62	33.53	4.70					245.3	30	13.62	33.59	6.23
77	10.74	33.72	3.84					216.2	50	12.25	33.52	5.20
91	10.28	33.82	3.56					201.2	75	10.81	33.69	3.91
106	10.12	33.90	3.25					192.6	100	10.16	33.87	3.36
134	9.87	33.97	2.93					183.4	125	9.95	33.95	3.01
158	9.50	34.06	2.66					170.9	150	9.62	34.03	2.74
187	9.26	34.11	2.41					163.5	200	9.19	34.14	2.20
220	9.08	34.20	1.88					154.1	250	8.76	34.23	1.58
291	8.26	34.25	1.32					138.2	300	8.16	34.25	1.26
391	7.28	34.28	0.78					122.4	400	7.19	34.28	0.74
495	6.37	34.30	0.43					109.1	500	6.33	34.30	0.41
600	5.81	34.35	0.28					98.6	600	5.81	34.35	0.28
733	5.01	34.39	0.25					86.5	700	5.19	34.38	0.25
888	4.49	34.45	0.37					76.4	800	4.75	34.41	0.28
1054	3.94	34.49	0.56					67.9	1000	4.11	34.48	0.49

94032

RV AL-XANIER AGASSIZ

RV DAVID STARR JORDAN

94032

LATITUDE 32 40.0N	LONGITUDE 117 34.0W	MO/DAY/YR 02/24/75	MESSENGER 2146	TIME 2146 GMT	LATITUDE 32 40.0N	LONGITUDE 117 35.0W	MO/DAY/YR 02/28/75	TIME 0200 LT	DOMINANT WAVES			
									WIND 300	SPEED 9KT	WEATHER 1	
Z	T	S	02	SIGT	DT	00	Z	T	S	SIGHT	DT	00
0A	14.31	33.56	24.031	293.7	0.000		0A	14.16	33.49	24.482	298.4	0.000
10	12.76	33.56	25.145	282.8	6.028		10	14.19	33.56	25.186	291.3	0.029
20	12.71	33.56	25.155	281.8	0.057		20	13.10	33.48	25.173	280.2	0.080
30	12.66	33.56	25.166	280.9	0.085		30	13.14	33.48	25.165	279.0	0.088
40	12.45	33.47	25.337	264.6	0.112		40	13.11	33.57	25.204	277.2	0.114
50	11.93	33.49	25.451	253.7	0.138		50	11.82	33.55	25.503	245.8	0.160
75	10.65	33.72	26.862	214.7	0.197		75	10.67	33.87	25.820	218.7	0.199
100	10.11	33.88	26.080	194.0	0.249		100	10.26	33.86	26.027	194.1	0.261
125	9.85	33.96	26.186	183.9	0.297		125	9.85	33.95	26.178	184.6	0.300
150	9.53	34.03	26.294	173.6	0.342		150	9.47	34.06	26.327	170.4	0.345
175	9.28	34.10	26.389	164.6	0.385		175	9.28	34.14	26.474	161.3	0.387
200	9.05	34.14	26.458	158.1	0.426		200	8.98	34.17	26.507	153.6	0.428
225	8.74	34.19	26.546	149.7	0.466		225	8.60	34.24	26.559	148.6	0.466
250	8.52	34.23	26.611	143.5	0.504		250	8.38	34.30	26.597	144.0	0.504
275	8.27	34.23	26.649	139.9	0.540		275	8.13	34.20	26.617	148.0	0.541
300	8.12	34.24	26.680	137.0	0.576		300	8.15	34.25	26.683	136.6	0.578
350	7.57	34.25	26.769	128.5	0.645		350	7.13	34.25	26.748	130.5	0.647
400	7.08	34.26	26.846	121.2	0.711		400	7.21	34.26	26.820	125.7	0.714
450	6.67	34.28	26.918	114.4	0.773		450	6.78	34.26	26.887	117.3	0.777
500	6.30	34.29	26.975	109.0	0.832		500	6.30	34.26	26.951	111.3	0.838
550	6.00	34.33	27.037	105.1	0.889		550	6.42	34.27	27.008	105.9	0.896
600	5.77	34.34	27.082	98.9	0.943		600	5.89	34.24	27.052	101.7	0.951
700	5.18	34.36	27.169	90.6	1.046		700	5.10	34.36	27.168	90.7	1.056
800	4.71	34.40	27.254	82.5	1.141		800	4.79	34.40	27.244	83.3	1.151
900	4.38	34.43	27.316	76.8	1.229		900	4.41	34.43	27.311	77.1	1.240
1000	4.11	34.46	27.367	71.8	1.312		1000	4.11	34.46	27.367	71.8	1.324

RV DAVID STARR JORDAN

CALCOFI CRUISE 7503

94032

LATITUDE 32 40.0N	LONGITUDE 117 35.0W	MO/DAY/YR 2/28/75	MESSENGER 0443	TIME GMT	BOTTOM 1165M	WIND 240	SPEED 3KT	WEATHER	DOMINANT WAVES			
									02	SIGT	DT	00
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02
0A	14.49	33.597	6.83					254.6	0	14.49	33.597	6.83
10	14.18	33.589	6.47					289.0	10	14.18	33.589	6.47
29	13.64	33.579	6.23					279.1	20	13.94	33.586	6.35
51	11.51	33.542	4.50					239.0	30	13.55	33.576	6.17
77	10.67	33.555	3.97					219.8	50	11.89	33.558	4.95
91	10.43	33.775	3.63					217.0	75	10.70	33.641	4.00
105	10.22	33.857	3.32					197.4	100	10.29	33.832	3.42
134	9.67	33.979	2.97					179.6	125	9.84	33.945	3.06
157	9.23	34.077	2.56					167.0	150	9.42	34.049	2.68
186	9.11	34.149	2.11					158.3	200	8.81	34.131	2.16
219	8.59	34.097	2.30					151.5	250	8.31	34.162	1.96
290	8.21	34.235	1.33					136.6	300	8.13	34.243	1.24
391	7.32	34.260	0.77					129.4	400	7.23	34.262	0.73
494	6.38	34.276	0.52					111.1	500	6.33	34.277	0.51
598	5.69	34.292	0.38					101.5	600	5.67	34.293	0.37
729	5.08	34.373	0.24					88.5	700	5.19	34.354	0.25
881	4.48	34.429	0.42					77.9	800	4.78	34.402	0.30
1043	4.04	34.477	0.54					69.9	1000	4.13	34.466	0.51

A) A SHAKEDOWN STATION.

95028			RV DAVID STARR JORDAN			CALCOFI CRUISE 7503			95029		
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME			LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
52 37.0N	117 10.5W	03/17/75	1015 GMT			52 35.0N	117 14.5W	03/17/75	0900 GMT		
BOTTOM 19M	WIND 100	SPEED SKT	WEATHER	Dominant Waves		BOTTOM 47M	WIND 090	SPEED SKT	WEATHER	Dominant Waves	
Z	T	S	SIGMA T	BT	DD	Z	T	S	SIGMA T	BT	DD
0	12.26	33.51	25.208	276.8	0.000	0	13.43	33.52	25.182	279.4	0.000
5	12.15	33.51	25.230	274.8	0.013	10	13.41	33.53	25.194	278.2	0.027
10	11.87	33.54	25.501	249.0	0.026	20	11.72	33.56	25.545	244.8	0.054
15	11.41	33.62	25.648	235.0	0.039	30	11.21	33.64	25.700	230.1	0.077
						34	11.00	33.67	25.761	224.2	0.087
95030			RV DAVID STARR JORDAN			CALCOFI CRUISE 7503			95031		
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME			LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
52 35.0N	117 18.5W	03/17/75	0730 GMT			52 31.5N	117 22.5W	03/17/75	0609 GMT		
BOTTOM 103M	WIND 320	SPEED 10KT	WEATHER	Dominant Waves		BOTTOM 417M	WIND 330	SPEED 10KT	WEATHER	Dominant Waves	
Z	T	S	SIGMA T	BT	DD	Z	T	S	SIGMA T	BT	DD
0	12.63	33.54	25.157	281.8	0.000	0	13.89	33.56	25.118	285.4	0.000
10	12.62	33.54	25.158	281.6	0.028	10	13.89	33.56	25.118	285.4	0.028
20	12.61	33.54	25.161	281.4	0.056	20	13.84	33.55	25.121	285.1	0.057
30	12.15	33.56	25.464	252.5	0.083	30	12.61	33.51	25.336	264.6	0.084
40	11.67	33.65	25.624	237.3	0.107	40	12.16	33.55	25.454	253.4	0.110
50	10.98	33.73	25.815	219.1	0.130	50	11.02	33.60	25.594	240.1	0.135
75	10.58	33.77	25.913	209.8	0.184	75	10.58	33.78	25.921	209.1	0.191
92	10.03	33.91	26.117	190.4	0.218	100	10.05	33.83	26.051	196.7	0.243
						125	9.52	34.01	26.280	175.0	0.290
						150	9.36	34.10	26.373	166.1	0.333
						175	9.11	34.18	26.479	156.0	0.374
						200	8.98	34.23	26.539	150.4	0.413
						225	8.71	34.24	26.589	145.6	0.451
						250	8.59	34.26	26.624	142.3	0.488
						275	8.42	34.27	26.658	139.1	0.525
						300	8.26	34.27	26.682	136.7	0.561
						315	8.20	34.27	26.691	135.9	0.582
95032			RV DAVID STARR JORDAN			CALCOFI CRUISE 7503			95032		
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME			LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
52 29.0N	117 29.0W	03/17/75	0430 GMT			52 12.0N	117 15.5W	03/16/75	2142 GMT		
BOTTOM 1092M	WIND 310	SPEED 12KT	WEATHER	Dominant Waves		BOTTOM 138M	WIND 310	SPEED 12KT	WEATHER	Dominant Waves	
Z	T	S	SIGMA T	BT	DD	Z	T	S	SIGMA T	BT	DD
0	12.92	33.57	25.112	286.0	0.000	0	13.97	33.57	25.110	286.2	0.000
10	12.92	33.56	25.112	286.0	0.028	10	13.94	33.57	25.116	285.6	0.028
20	12.92	33.56	25.112	286.0	0.057	20	13.88	33.57	25.128	284.5	0.057
30	12.92	33.56	25.112	286.0	0.085	30	13.86	33.57	25.132	284.1	0.085
40	12.93	33.56	25.265	269.5	0.113	40	12.98	33.55	25.295	268.6	0.113
50	11.88	33.53	25.492	249.9	0.139	50	12.20	33.56	25.454	253.4	0.139
75	10.65	33.65	25.808	219.8	0.198	75	11.17	33.57	25.653	234.5	0.200
100	10.01	33.84	26.097	192.3	0.239	100	9.71	33.68	25.991	202.4	0.254
125	9.54	33.90	26.191	183.4	0.298	125	9.56	33.92	26.203	182.2	0.304
150	9.40	34.08	26.344	169.8	0.343	150	9.52	34.05	26.311	172.0	0.349
175	9.23	34.12	26.413	162.3	0.385	175	9.34	34.16	26.426	161.0	0.392
200	9.01	34.20	26.511	153.0	0.425	200	9.27	34.22	26.485	155.5	0.432
225	8.91	34.22	26.542	150.0	0.464	225	9.06	34.25	26.542	150.1	0.471
250	8.79	34.24	26.577	146.8	0.502	250	8.84	34.26	26.585	146.0	0.510
275	8.67	34.25	26.635	141.3	0.540	275	8.79	34.26	26.593	145.3	0.547
300	8.15	34.27	26.699	135.2	0.576	300	8.52	34.27	26.643	140.5	0.584
350	7.75	34.27	26.758	129.5	0.645	350	7.68	34.30	26.763	129.1	0.655
400	7.32	34.27	26.820	123.7	0.711	400	7.27	34.30	26.851	120.7	0.720
450	6.88	34.29	26.891	116.4	0.774	450	6.74	34.30	26.924	113.8	0.782
500	6.51	34.30	26.955	110.9	0.835	500	6.41	34.31	26.976	108.9	0.841
550	6.12	34.33	27.030	103.8	0.892	550	6.11	34.32	27.023	104.4	0.898
600	5.70	34.34	27.090	98.0	0.946	600	5.72	34.34	27.088	98.3	0.953
700	5.17	34.38	27.186	89.0	1.048	700	5.24	34.38	27.175	90.0	1.055
800	4.80	34.39	27.236	84.2	1.143	800	4.60	34.40	27.244	83.5	1.150
900	4.47	34.43	27.305	77.7	1.233	900	4.37	34.43	27.316	76.7	1.239
						1000	4.04	34.47	27.382	70.4	1.322

57035				RV DAVID STARR JORDAN				CALCOFI CRUISE 7503				97040			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME								
BOTTOM	WIND	SPEED	WEATHER	DIMINANT WAVES	BOTTOM	WIND	SPEED	WEATHER	DIMINANT WAVES	BOTTOM	WIND	SPEED	WEATHER	DIMINANT WAVES	
Z	T	S	SIGMA T	HT	Z	T	S	SIGMA T	HT	Z	T	S	SIGMA T	HT	DD
3	14.03	33.60	25.120	285.2	0.000	0	14.27	33.58	25.054	291.4	0.000	0	291.4	0.000	
10	13.96	33.60	25.135	285.8	0.028	10	14.26	33.58	25.057	291.3	0.028				
20	13.94	33.60	25.139	283.4	0.056	20	14.26	33.58	25.057	291.3	0.056				
30	13.93	33.60	25.141	283.2	0.085	30	14.26	33.58	25.057	291.3	0.085				
40	13.91	33.59	25.138	283.6	0.113	40	14.26	33.58	25.057	291.3	0.113				
50	13.31	33.58	25.252	272.7	0.141	50	14.15	33.47	25.072	289.6	0.141				
60	13.11	33.43	25.311	261.4	0.188	75	12.33	33.38	25.368	261.7	0.215				
100	10.48	33.51	25.729	227.4	0.270	100	11.36	33.49	25.557	263.7	0.270				
150	8.64	33.69	26.011	200.5	0.324	125	10.57	33.65	26.804	220.2	0.337				
200	6.26	33.90	26.237	170.1	0.372	150	9.59	33.70	26.627	199.1	0.390				
250	4.29	33.05	26.352	168.1	0.416	175	9.06	33.86	26.237	174.0	0.436				
300	2.85	34.00	26.450	149.8	0.458	200	8.07	33.94	26.361	167.2	0.462				
350	1.76	34.18	26.555	130.8	0.498	225	8.30	34.00	26.465	157.4	0.524				
400	1.50	34.20	26.591	145.4	0.534	250	8.09	34.01	26.536	150.7	0.564				
450	1.48	34.25	26.633	141.4	0.573	275	7.99	34.12	26.605	144.0	0.601				
500	1.30	34.26	26.684	136.6	0.604	300	7.91	34.20	26.680	137.0	0.636				
550	1.15	34.28	26.752	130.2	0.679	350	7.22	34.22	26.795	126.0	0.706				
600	1.02	34.28	26.856	120.3	0.744	400	6.97	34.29	26.885	117.5	0.770				
650	0.91	34.28	26.913	114.9	0.806	450	6.23	34.31	27.000	106.7	0.829				
700	0.84	34.27	26.954	111.0	0.866	500	5.97	34.30	27.025	104.2	0.885				
750	0.78	34.32	27.027	106.1	0.924	550	5.67	34.31	27.076	99.4	0.960				
800	0.78	34.33	27.072	99.8	0.978	600	5.51	34.36	27.129	94.4	0.992				
850	0.74	34.36	27.174	90.2	1.081	700	5.08	34.38	27.196	88.0	1.091				
900	0.66	34.41	27.268	81.2	1.175	800	4.66	34.40	27.260	82.0	1.184				
950	0.53	34.44	27.328	75.6	1.262	900	4.32	34.44	27.329	75.4	1.271				
1000	0.49	34.47	27.387	69.9	1.344	1000	4.12	34.46	27.366	71.9	1.354				

RV DAVID STARR JORDAN				CALCOFI CRUISE 7503				97050							
LATITUDE	LONGITUDE	MO/DAY/YR	MESSANGER TIME	BOTTOM	WIND	SPEED	WEATHER	BOTTOM	WIND	SPEED	WEATHER	BOTTOM	WIND	SPEED	WEATHER
31 36.0N	118 30.5W	3/16/75	1040	2509M	340	9KT		2509M	340	9KT		2509M	340	9KT	
Z	T	S	02	P04	S03	N02	N03	DT	Z	T	S	02	SIGT	DT	DD
2	13.87	33.610	6.04					281.3	0	13.87	33.610	6.04	25.161	281.3	0.000
12	13.94	33.609	5.95					282.8	10	13.93	33.610	5.95	25.148	282.6	0.028
31	13.91	33.607	5.97					282.3	20	13.92	33.609	5.95	25.148	282.6	0.056
59	12.06	33.540	4.95					252.4	30	13.91	33.608	5.96	25.150	282.3	0.084
77	10.65	33.611	4.46					222.7	50	12.79	33.553	5.32	25.333	265.0	0.139
93	10.48	33.710	3.88					212.6	75	10.77	33.600	4.51	25.746	225.7	0.201
107	10.31	33.715	3.79					209.4	100	10.40	33.716	3.81	25.901	210.9	0.256
136	9.76	33.856	3.45					190.1	125	9.98	33.793	3.59	26.032	198.5	0.308
159	9.28	33.965	3.15					174.6	150	9.66	33.924	3.27	26.222	180.5	0.356
188	8.78	34.071	2.67					159.1	200	8.44	34.060	2.67	26.490	155.0	0.441
221	7.86	34.025	2.67					149.3	250	7.67	34.090	2.23	26.628	142.0	0.518
293	7.40	34.161	1.45					132.8	300	7.34	34.168	1.38	26.736	131.7	0.588
394	6.59	34.216	0.84					118.2	400	6.54	34.220	0.81	26.887	117.3	0.718
499	5.79	34.277	0.47					103.8	500	5.78	34.278	0.46	27.031	103.7	0.835
604	5.20	34.339	0.38					92.4	600	5.21	34.337	0.38	27.146	92.8	0.940
737	4.68	34.402	0.42					82.0	700	4.80	34.387	0.40	27.233	84.5	1.036
887	4.28	34.442	0.56					74.9	800	4.50	34.421	0.47	27.294	78.7	1.125
1049	3.84	34.487	0.72					67.1	1000	3.97	34.473	0.67	27.392	69.5	1.291

RV DAVID STARR JORDAN				CALCOFI CRUISE 7503				97060							
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME								
BOTTOM	WIND	SPEED	WEATHER	DIMINANT WAVES	BOTTOM	WIND	SPEED	WEATHER	DIMINANT WAVES	BOTTOM	WIND	SPEED	WEATHER		
Z	T	S	SIGMA T	HT	Z	T	S	SIGMA T	HT	Z	T	S	SIGMA T	HT	
1	13.93	33.61	25.164	282.5	0.000	0	13.90	33.61	25.155	281.4	0.000				
10	13.93	33.61	25.149	282.5	0.028	10	13.89	33.61	25.155	281.7	0.028				
20	13.93	33.61	25.149	282.5	0.056	20	13.89	33.61	25.157	281.7	0.056				
30	13.93	33.61	25.149	282.5	0.084	30	13.89	33.61	25.155	281.9	0.084				
40	13.94	33.61	25.141	282.7	0.113	40	13.88	33.61	25.159	281.5	0.112				
50	13.92	33.61	25.151	282.3	0.141	50	13.86	33.61	25.163	281.1	0.141				
55	11.43	33.53	25.275	242.0	0.207	75	10.60	33.53	25.723	227.9	0.205				
100	10.48	33.61	25.801	214.8	0.265	100	10.34	33.75	25.939	207.3	0.260				
125	10.01	33.78	26.019	194.7	0.317	125	9.88	33.82	26.072	194.7	0.310				
150	9.54	33.88	26.175	186.9	0.366	150	9.17	33.96	26.298	173.3	0.357				
175	8.18	34.02	26.343	169.0	0.411	175	8.00	34.07	26.411	162.5	0.400				
200	7.72	34.08	26.483	157.6	0.453	200	7.73	34.10	26.477	156.2	0.441				
225	7.30	34.02	26.546	149.7	0.492	225	8.44	34.14	26.553	149.0	0.490				
250	7.63	34.03	26.577	149.7	0.530	250	8.00	34.15	26.628	142.0	0.517				
275	5.48	34.12	26.600	137.0	0.566	275	7.51	34.16	26.678	137.2	0.553				
300	7.24	34.15	26.730	132.2	0.601	300	7.58	34.19	26.720	133.1	0.588				
350	6.90	34.19	26.816	124.1	0.668	350	7.03	34.20	26.806	125.0	0.655				
400	6.51	34.22	26.892	116.9	0.731	400	6.42	34.22	26.904	115.7	0.718				
450	6.08														

97070						RV DAVID STARR JORDAN						CALCOFF CRUISE 7503						97080											
LATITUDE	LONGITUDE	MZ/DAY/YR	START TIME	LATITUDE	LONGITUDE	MZ/DAY/YR	START TIME	LATITUDE	LONGITUDE	MZ/DAY/YR	START TIME	LATITUDE	LONGITUDE	MZ/DAY/YR	START TIME	LATITUDE	LONGITUDE	MZ/DAY/YR	START TIME										
30 55.5N	119 51.0W	03/15/75	224± GMT	30 35.0N	120 31.0W	03/15/75	1735 GMT	30 35.0N	120 31.0W	03/15/75	1735 GMT	30 35.0N	120 31.0W	03/15/75	1735 GMT	30 35.0N	120 31.0W	03/15/75	1735 GMT										
BUTTON	WIND	SPEED	WEATHER	DIMINANT WAVES	BUTTON	WIND	SPEED	WEATHER	DIMINANT WAVES	BUTTON	WIND	SPEED	WEATHER	DIMINANT WAVES	BUTTON	WIND	SPEED	WEATHER	DIMINANT WAVES										
3822M	310	9KT	4	330 6 10	4116M	340	8KT	7	340 15 10	4116M	340	8KT	7	340 15 10	4116M	340	8KT	7	340 15 10										
Z	J	S	SIGMA T	DT	DD	Z	J	S	SIGMA T	DT	DD	Z	J	S	SIGMA T	DT	DD	Z	J	S	SIGMA T	DT	DD						
0	13.60	33.49	25.124	284.8	0.000	0	14.18	33.51	25.019	294.8	0.000	0	14.18	33.51	25.019	294.8	0.029	0	14.18	33.51	25.019	294.8	0.059	0	14.18	33.51	25.019	294.8	0.088
10	13.58	33.49	25.128	284.5	0.028	10	14.18	33.51	25.019	294.8	0.029	20	14.18	33.51	25.019	294.8	0.059	30	14.18	33.51	25.019	294.8	0.118	40	14.18	33.51	25.019	294.8	0.147
20	13.55	33.49	25.134	283.9	0.056	50	13.60	33.49	25.050	291.9	0.147	50	13.60	33.49	25.050	291.9	0.220	75	13.61	33.44	25.083	288.7	0.220	100	12.28	33.54	25.124	284.8	0.242
30	13.55	33.49	25.134	283.9	0.085	125	12.13	33.41	25.352	263.2	0.360	150	11.33	33.45	25.531	246.1	0.425	175	10.00	33.49	25.795	221.0	0.464	200	9.05	33.76	26.161	186.3	0.536
40	13.55	33.50	25.142	283.1	0.113	225	8.06	33.87	26.308	172.3	0.582	250	8.24	33.98	26.459	158.0	0.624	275	7.18	34.00	26.542	150.0	0.666	300	7.21	34.07	26.632	141.5	0.701
50	13.46	33.50	25.160	281.9	0.142	300	7.32	34.03	26.632	141.5	0.701	350	6.70	34.09	26.764	129.0	0.771	375	6.07	34.14	26.854	120.5	0.837	400	6.37	34.17	26.871	118.1	0.898
60	13.46	33.54	25.230	274.8	0.212	400	6.32	34.14	26.926	113.7	0.898	450	6.07	34.19	26.996	107.0	0.956	500	5.65	34.24	27.018	104.9	0.988	550	5.40	34.28	27.074	99.1	1.011
60	13.46	34.07	26.679	137.1	0.638	550	5.54	34.28	27.063	100.7	1.011	600	5.08	34.30	27.117	95.5	1.064	700	4.76	34.38	27.207	87.0	1.163	800	4.46	34.41	27.290	79.1	1.256
700	4.13	34.45	27.357	72.8	1.264	800	4.52	34.42	27.291	79.0	1.256	900	4.13	34.45	27.356	72.9	1.338	1000	3.91	34.47	27.398	69.1	1.417	1000	3.87	34.48	27.408	68.0	1.417

100030						RV DAVID STARR JORDAN						CALCOFF CRUISE 7503						100035																																																					
LATITUDE	LONGITUDE	MZ/DAY/YR	START TIME	LATITUDE	LONGITUDE	MZ/DAY/YR	START TIME	LATITUDE	LONGITUDE	MZ/DAY/YR	START TIME	LATITUDE	LONGITUDE	MZ/DAY/YR	START TIME	LATITUDE	LONGITUDE	MZ/DAY/YR	START TIME																																																				
31 40.5N	116 46.5W	03/19/75	0118 GMT	31 30.5N	117 07.0W	03/19/75	0520 GMT	31 30.5N	117 07.0W	03/19/75	0520 GMT	31 30.5N	117 07.0W	03/19/75	0520 GMT	31 30.5N	117 07.0W	03/19/75	0520 GMT																																																				
BUTTON	WIND	SPEED	WEATHER	DIMINANT WAVES	BUTTON	WIND	SPEED	WEATHER	DIMINANT WAVES	BUTTON	WIND	SPEED	WEATHER	DIMINANT WAVES	BUTTON	WIND	SPEED	WEATHER	DIMINANT WAVES																																																				
4360M	320	10KT	1	280 5 5	4116M	340	10KT	1	280 5 5	4116M	340	10KT	1	280 5 5	4116M	340	10KT	1	280 5 5																																																				
Z	J	S	SIGMA T	DT	DD	Z	J	S	SIGMA T	DT	DD	Z	J	S	SIGMA T	DT	DD	Z	J	S	SIGMA T	DT	DD																																																
0	13.91	33.56	25.114	285.8	0.000	0	13.81	33.59	25.158	281.6	0.000	10	13.60	33.59	25.160	281.4	0.028	20	13.79	33.59	25.162	281.2	0.056	30	13.58	33.58	25.264	271.5	0.084																																										
10	13.73	33.55	25.144	283.0	0.028	40	11.98	33.58	25.517	247.5	0.110	50	11.98	33.58	25.517	247.5	0.110	75	10.40	33.72	25.906	210.5	0.189	100	9.83	33.88	26.127	189.5	0.240																																										
20	13.25	33.52	25.414	287.3	0.055	100	9.83	33.88	26.127	189.5	0.240	125	9.67	34.00	26.247	178.1	0.286	150	9.13	34.24	26.303	151.9	0.300	175	8.99	34.26	26.33	148.0	0.330																																										
30	11.05	33.58	25.683	281.7	0.080	175	8.33	34.01	26.468	157.1	0.371	300	8.04	34.29	26.731	132.1	0.553	350	7.45	34.29	26.818	123.9	0.620	400	6.91	34.31	26.919	115.2	0.682																																										
40	10.63	33.67	25.825	281.0	0.102	400	6.91	34.31	26.919	115.2	0.682	450	6.72	34.33	26.950	111.3	0.742	500	6.33	34.34	27.010	105.6	0.800	550	6.01	34.35	27.059	101.0	0.855																																										
50	10.38	33.79	25.964	285.0	0.123	550	6.01	34.35	27.059	101.0	0.855	600	6.74	34.37	27.109	96.3	0.908	700	5.18	34.40	27.200	87.6	1.008	800	4.76	34.42	27.265	81.5	1.101	900	4.44	34.45	27.324	75.9	1.189	1000	4.07	34.48	27.387	69.9	1.271																														
75	9.93	33.91	26.134	188.9	0.173	1000	4.07	34.48	27.387	69.9	1.271	125	9.67	34.00	26.247	178.1	0.286	150	9.13	34.24	26.303	151.9	0.300	175	8.99	34.26	26.33	148.0	0.330																																										
100	9.60	34.06	26.306	172.5	0.219	200	7.94	34.04	26.550	149.3	0.410	225	8.24	34.19	26.623	142.4	0.447	250	7.98	34.20	26.670	138.0	0.483	275	8.14	34.29	26.716	133.5	0.518	300	7.19	34.19	26.731	132.1	0.553	350	7.59	34.29	26.818	123.9	0.620	400	7.23	34.31	26.919	115.2	0.682																								
125	6.27	34.19	26.481	157.7	0.260	400	6.91	34.31	26.919	115.2	0.682	450	6.72	34.33	26.950	111.3	0.742	500	6.33	34.34	27.010	105.6	0.800	550	6.01	34.35	27.059	101.0	0.855	600	6.74	34.37	27.109	96.3	0.908	700	5.18	34.40	27.200	87.6	1.008	800	4.76	34.42	27.265	81.5	1.101	900	4.44	34.45	27.324	75.9	1.189	1000	4.07	34.48	27.387	69.9	1.271												
150	9.13	34.24	26.523	151.9	0.300	1000	4.07	34.48	27.387	69.9	1.271	125	9.67	34.00	26.247	178.1	0.286	150	9.13	34.24	26.303	151.9	0.300	175	8.99	34.26	26.33	148.0	0.330	200	7.94	34.04	26.550	149.3	0.410	225	8.24	34.19	26.623	142.4	0.447	250	7.98	34.20	26.670	138.0	0.483	275	8.14	34.29	26.716	133.5	0.518	300	7.19	34.19	26.731	132.1	0.553	350	7.59	34.29	26.818	123.9	0.620	400	7.23	34.31	26.919	115.2	0.682
175	8.71	34.28	26.621	142.6	0.412	400	6.91	34.31	26.919	115.2	0.682	450	6.72	34.33	26.950	111.3	0.742	500	6.33	34.34	27.010	105.6	0.800	550	6.01	34.35	27.059	101.0	0.855	600	6.74	34.37	27.109	96.3	0.908	700	5.18	34.40	27.200	87.6	1.008	800	4.76	34.42	27.265	81.5	1.101	900	4.44	34.45	27.324	75.9	1.189	1000	4.07	34.48	27.387	69.9	1.271												
200	8.77	34.28	26.611	143.5	0.416	1000	4.07	34.48	27.387	69.9	1.271	125	9.67	34.00	26.247	178.1	0.286	150	9.13	34.24	26.303	151.9	0.300	175	8.99	34.26	26.33	148.0	0.330	200	7.94	34.04	26.550	149.3	0.410	225	8.24	34.19	26.623	142.4	0.447	250	7.98	34.20	26.670	138.0	0.483	275	8.14	34.29	26.716	133.5	0.518	300	7.19	34.19	26.731	132.1	0.553	350	7.59	34.29									

100040				RV DAVID STARR JORDAN				CALCOFI CRUISE 7503				100050			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME								
31 21.5N	117 26.5W	03/19/75	0858 GMT	31 00.0N	118 07.0W	03/19/75	1400 GMT								
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	1	110	1	110	5	11
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD				
0	14.06	33.57	25.091	288.0	0.000	0	14.36	33.57	25.028	294.0	0.000				
10	14.06	33.57	25.091	288.0	0.028	10	14.36	33.57	25.028	294.0	0.029				
20	14.07	33.57	25.089	288.2	0.057	20	14.35	33.57	25.030	293.8	0.058				
30	14.07	33.57	25.089	288.2	0.086	30	14.34	33.57	25.032	293.6	0.088				
40	12.88	33.52	25.090	288.1	0.115	40	14.35	33.57	25.030	293.8	0.117				
50	13.56	33.54	25.171	288.4	0.144	50	14.35	33.57	25.030	293.8	0.147				
75	11.64	33.44	25.666	288.3	0.211	75	13.16	33.45	25.182	279.4	0.219				
100	10.36	33.61	25.827	218.0	0.270	100	11.90	33.45	25.426	256.2	0.286				
125	9.89	33.83	26.078	194.1	0.322	125	10.51	33.50	25.716	228.6	0.348				
150	9.55	33.92	26.205	182.1	0.370	150	10.00	33.71	25.966	204.8	0.402				
175	9.36	34.05	26.337	169.5	0.414	175	9.34	33.82	26.161	186.3	0.452				
200	8.58	34.96	26.591	149.4	0.497	200	8.75	33.93	26.341	169.2	0.497				
225	8.01	34.03	26.532	151.0	0.497	225	8.39	33.96	26.420	161.6	0.540				
250	7.67	34.03	26.582	146.3	0.536	250	7.91	34.00	26.523	151.8	0.580				
275	7.30	34.07	26.666	138.3	0.572	275	7.71	34.04	26.584	146.1	0.618				
300	6.95	34.09	26.731	132.2	0.607	300	7.38	34.07	26.655	139.4	0.655				
350	6.17	34.15	26.802	125.4	0.674	350	6.93	34.12	26.757	129.7	0.725				
400	6.72	34.24	26.880	118.0	0.738	400	6.49	34.13	26.874	123.3	0.791				
450	6.36	34.28	26.956	110.8	0.798	450	6.07	34.17	26.910	115.2	0.856				
500	6.99	34.32	27.038	103.0	0.859	500	5.77	34.21	26.979	108.6	0.913				
550	5.73	34.34	27.087	98.4	0.908	550	5.44	34.23	27.035	103.3	0.969				
600	5.28	34.37	27.129	96.4	0.960	600	5.22	34.28	27.101	97.1	1.022				
700	5.11	34.41	27.216	88.1	1.098	700	4.72	34.36	27.221	85.6	1.121				
800	4.68	34.43	27.282	79.9	1.150	800	4.50	34.42	27.293	78.6	1.211				
900	4.32	34.45	27.337	74.7	1.236	900	4.16	34.46	27.363	72.2	1.294				
1000	4.02	34.48	27.392	69.4	1.311	1000	3.89	34.48	27.406	68.2	1.374				

110060				RV DAVID STARR JORDAN				CALCOFI CRUISE 7503				110070			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME								
30 40.5N	118 27.5W	03/19/75	1932 GMT	30 20.5N	119 27.5W	03/22/75	0045 GMT								
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	1	300	6	12		
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD				
0	15.01	33.67	24.965	209.4	0.000	0	14.29	33.43	24.935	302.9	0.000				
10	15.01	33.67	24.965	209.4	0.030	10	14.29	33.43	24.935	302.9	0.030				
20	14.99	33.67	24.970	209.5	0.060	20	14.30	33.44	24.940	302.3	0.060				
30	14.99	33.67	24.970	209.5	0.090	30	14.28	33.44	24.945	301.9	0.090				
40	14.97	33.67	24.974	209.1	0.120	40	14.03	33.41	24.974	299.1	0.121				
50	14.96	33.67	24.976	208.9	0.150	50	13.72	33.42	25.046	292.3	0.150				
75	14.90	33.66	24.982	208.4	0.225	75	13.02	33.40	25.171	280.4	0.222				
100	12.77	33.50	25.248	208.3	0.296	100	12.12	33.43	25.369	261.6	0.291				
125	11.39	33.57	25.613	208.3	0.360	125	11.17	33.44	25.552	244.1	0.354				
150	10.54	33.72	25.881	212.8	0.417	150	10.25	33.62	25.854	215.5	0.413				
175	9.45	33.77	26.104	191.6	0.469	175	9.65	33.79	26.087	193.3	0.465				
200	9.22	33.95	26.282	174.7	0.515	200	9.32	33.92	26.242	178.5	0.512				
225	8.84	34.06	26.429	160.9	0.558	225	8.93	33.99	26.360	167.4	0.556				
250	8.55	34.09	26.482	155.8	0.599	250	8.48	34.01	26.445	159.2	0.598				
275	8.30	34.14	26.575	147.0	0.638	275	7.98	34.03	26.537	150.8	0.638				
300	7.91	34.12	26.617	142.9	0.676	300	7.58	34.06	26.619	142.8	0.676				
350	6.92	34.10	26.738	131.4	0.767	350	7.03	34.10	26.728	132.5	0.747				
400	6.58	34.14	26.820	125.7	0.813	400	6.55	34.15	26.832	122.6	0.814				
450	6.08	34.18	26.901	116.0	0.876	450	5.91	34.16	26.922	114.0	0.876				
500	5.71	34.19	26.971	109.4	0.936	500	5.56	34.20	26.997	106.9	0.934				
550	5.40	34.24	27.048	102.1	0.992	550	5.33	34.23	27.048	102.0	0.990				
600	5.19	34.27	27.091	97.5	1.045	600	5.08	34.28	27.117	95.5	1.042				
700	4.77	34.36	27.216	86.1	1.154	700	4.72	34.36	27.221	85.6	1.140				
800	4.46	34.43	27.306	77.6	1.234	800	4.41	34.41	27.295	78.6	1.230				
900	4.17	34.45	27.353	73.2	1.318	900	4.21	34.46	27.356	72.8	1.314				
1000	3.93	34.48	27.402	67.5	1.397	1000	3.91	34.48	27.404	68.3	1.393				

RV DAVID STARR JORDAN				CALCOFI CRUISE 7503				100070								
LATITUDE	LONGITUDE	MO/DAY/YR	MESSENDER TIME	ROTTUM	WIND	SPEED	WEATHER	DOMINANT WAVES	1	300	6	12				
30 20.5N	119 27.5W	3/20/75	0225 GMT	3926M	340	14KT										
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	BOTTUM	WIND	SPEED	WEATHER	DOMINANT WAVES	1	DT	DD				
Z	T	S	02	PD4	S103	N02	N03	DT	Z	T	S	02	SIGT	DT	DD	
3	14.19	33.426	6.06						301.2	0	14.19	33.426	6.06	24.953	301.2	0.000
11	14.19	33.425	6.05						301.2	10	14.19	33.426	6.05	24.952	301.2	0.030
30	14.20	33.429	6.05						301.1	20	14.19	33.428	6.05	24.952	301.2	0.060
59	13.64	33.434	6.02						289.7	30	14.20	33.429	6.05	24.953	301.1	0.090
78	13.02	33.439	5.98						277.5	50	13.87	33.433	6.03	25.023	294.5	0.150
92	12.54	33.438	5.90						268.6	75	13.12	33.440	5.98	2		

100000		RV DAVID STARR JORDAN				CALCOFI CRUISE 7503						103030																	
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	BOTTOM		WIND	SPEED	WEATHER	DIMINANT WAVES	BOTTOM		WIND	SPEED	WEATHER	DIMINANT WAVES										
41°00'N	120°07.0W	03/20/75	0721 GMT	31°06'N	116°24.5W	03/21/75	1605 GMT	50M	330	8KT	1	320	5	9	50M	330	8KT	1	320	5	9								
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD						
6	15.01	33.64	24.942	302.1	0.000	0	12.29	33.63	25.491	249.9	0.000	10	15.01	33.64	24.942	249.9	0.025	10	15.01	33.64	24.942	249.9	0.049	10	15.01	33.64	24.942	249.9	0.071
10	15.01	33.64	24.942	302.1	0.030	20	11.25	33.55	25.623	237.4	0.049	30	10.51	33.72	25.887	212.3	0.071	40	10.46	33.78	25.942	207.1	0.093	50	10.38	33.83	25.945	202.1	0.113
15	14.62	33.56	24.965	300.0	0.227	50	10.38	33.83	25.945	202.1	0.113	60	14.62	33.56	24.965	202.1	0.133	70	14.62	33.56	24.965	202.1	0.153	80	14.62	33.56	24.965	202.1	0.173
100	13.78	33.45	25.056	291.3	0.301	100	12.29	33.63	25.491	249.9	0.025	125	12.73	33.47	25.282	264.8	0.312	150	11.31	33.52	25.589	240.6	0.437	175	10.25	33.62	25.854	215.5	0.495
200	9.66	33.81	26.101	192.0	0.566	200	9.66	33.81	26.101	192.0	0.566	225	8.98	33.97	26.336	164.6	0.593	250	8.77	34.00	26.392	164.3	0.636	275	8.36	34.04	26.485	155.3	0.677
300	7.97	34.07	26.569	147.5	0.716	300	7.23	34.09	26.692	135.9	0.789	400	6.57	34.14	26.821	123.6	0.857	450	6.21	34.17	26.892	116.9	0.920	500	5.74	34.19	26.967	109.7	0.980
500	5.47	34.24	27.039	102.9	1.036	550	5.47	34.24	27.039	102.9	1.036	600	5.23	34.28	27.100	97.2	1.090	700	4.75	34.34	27.202	87.4	1.189	800	4.44	34.40	27.284	79.7	1.281
900	4.11	34.46	27.367	71.8	1.365	1000	3.84	34.48	27.411	67.7	1.443	1000	3.84	34.48	27.411	67.7	1.443	1000	3.84	34.48	27.411	67.7	1.443	1000	3.84	34.48	27.411	67.7	1.443

103035		RV DAVID STARR JORDAN				CALCOFI CRUISE 7503						103040																		
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	BOTTOM	WIND	SPEED	WEATHER	DIMINANT WAVES	BOTTOM	WIND	SPEED	WEATHER	DIMINANT WAVES													
30°56'N	116°45.0W	03/17/75	1100 GMT	30°46'N	117°04.5W	03/21/75	0619 GMT	1856M	330	10KT	Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD								
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD							
6	14.40	33.59	25.035	293.3	0.000	10	14.58	33.60	25.004	296.3	0.000	20	14.58	33.60	25.004	296.3	0.029	30	14.40	33.59	25.035	293.3	0.054	40	14.39	33.58	25.026	293.0	0.089	
40	14.39	33.58	25.026	293.0	0.117	50	14.58	33.60	25.004	296.3	0.118	50	13.55	33.48	25.126	286.6	0.148	55	13.55	33.48	25.126	286.6	0.148	70	10.94	33.57	25.694	239.1	0.221	
100	10.25	33.68	25.900	211.0	0.267	100	10.25	33.68	25.900	211.0	0.267	125	10.51	33.71	25.879	213.1	0.347	150	9.21	33.93	26.268	171.1	0.439	175	8.01	34.10	26.433	161.0	0.448	
200	8.98	34.18	26.503	153.8	0.446	200	8.98	34.18	26.503	153.8	0.446	225	8.75	34.23	26.575	146.9	0.485	250	8.43	34.33	26.625	142.2	0.522	275	8.71	34.32	26.652	139.6	0.577	
300	8.46	34.33	26.699	135.2	0.594	300	8.46	34.33	26.699	135.2	0.594	300	8.21	34.21	26.423	26.659	139.0	0.653	350	8.20	34.38	26.718	127.1	0.724	400	7.91	34.38	26.821	123.6	0.791
450	7.70	34.35	26.900	116.1	0.793	450	7.70	34.35	26.900	116.1	0.793	500	6.66	34.35	26.974	109.1	0.852	550	6.14	34.34	27.035	105.3	0.909	600	6.91	34.36	27.080	99.0	0.964	
600	6.91	34.36	27.080	99.0	0.964	600	6.91	34.36	27.080	99.0	0.964	700	5.31	34.39	27.170	90.5	1.067	700	5.25	34.39	27.184	89.1	1.125	800	4.86	34.42	27.253	82.6	1.162	
900	4.45	34.45	27.323	76.0	1.250	900	4.45	34.45	27.323	76.0	1.250	1000	4.13	34.47	27.373	71.3	1.333	1000	4.07	34.47	27.379	70.7	1.385	1000	4.07	34.47	27.379	70.7	1.385	

103040		RV DAVID STARR JORDAN				CALCOFI CRUISE 7503						103040				
LATITUDE	LONGITUDE	MO/DAY/YR	MESSNGER	TIME	BOTTUM	WIND	SPEED	WEATHER	DIMINANT WAVES	BOTTUM	WIND	SPEED	WEATHER	DIMINANT WAVES		
30°46'N	117°04.5W	3/21/75	0801	GMT	1856M	330	10KT	Z	T	S	02	SIGT	DT	DD		
Z	T	S	02	P04	S103	M02	N03	DT	Z	T	S	02	SIGT	DT	DD	
3	14.56	33.600	5.91			246.9	0	14.56	33.600	5.91	25.008	295.9	0.000			
12	14.56	33.598	5.88			246.0	10	14.56	33.599	5.88	25.007	296.0	0.029			
30	14.56	33.597	5.88			246.1	20	14.56	33.599	5.88	25.007	296.0	0.059			
58	14.49	33.587	5.97			245.4	30	14.56	33.597	5.88	25.006	296.1	0.088			
77	13.51	33.500	5.82			242.4	50	14.51	33.591	5.95	25.011	295.6	0.148			
91	12.15	33.501	5.25			246.9	75	13.65	33.509	5.83	25.127	284.6	0.221			
104	11.53	33.519	4.92			244.5	100	11.68	33.511	5.01	25.512	248.0	0.288			
132	10.26	33.801	3.69			203.9	125	10.60	33.721	3.99	25.870	213.9	0.346			
155	10.00	33.948	3.17			187.2	150	10.05	33.921	3.26	26.121	190.1	0.397			
183	9.61	34.105	2.37			169.3	200	9.10	34.073	2.64	26.395	164.0	0.488			
215	8.66	34.025	2.99			160.8	250	8.46	34.111	2.55	26.527	151.5	0.569			
284	8.27	34.187	1.77			143.0	300	8.06	34.199	1.59	26.655	139.3	0.644			
381	7.00	34.214	1.04			123.6	400	6.83	34.219	0.94	26.848	121.1	0.780			
483	6.21	34.252	0.62			112.0	500	6.25	34.269	0.56	26.963	110.1	0.902			
585	6.00	34.352	0.39			100.7	600	5.89	34.358	0.38	27.081	98.9	1.014			
715	5.01	34.389	0.32			86.6	700	5.12	34.386	0.32	27.195	88.1	1.115			
865	4.42	34.437	0.42			76.7	800	4.62	34.417	0.35	27.277	80.3	1.208			
1026	4.01	34.479	0.62			69.4	1000	4.06	34.473	0.58	27.383	70.3	1.376			

103050

RV DAVID STARR JORDAN

CALCUTTA CRUISE 7503

103060

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
30 26.0N	117 45.0W	03/17/75	0021 GMT		
BOTTOM	WIND	SPEED	WEATHER	DIMINANT WAVES	
2042M	330	12KT	2	320 10 5	
Z	T	S	SIGMA T	HT	HD
0	14.77	33.59	24.956	300.9	0.000
10	14.76	33.59	24.958	300.7	0.030
20	14.69	33.57	24.958	300.7	0.060
30	14.59	33.55	24.964	300.1	0.090
40	14.50	33.53	24.967	299.7	0.120
50	14.25	33.49	24.989	297.7	0.150
60	14.16	33.53	25.039	292.9	0.224
70	12.74	33.45	25.265	271.4	0.294
80	11.66	33.53	25.533	266.0	0.361
90	10.91	33.64	26.154	274.9	0.470
100	6.89	33.79	26.193	197.1	0.474
110	4.47	33.95	26.241	178.6	0.522
120	4.99	34.01	26.366	166.8	0.566
130	8.65	34.05	26.450	158.8	0.608
140	5.53	34.14	26.539	160.3	0.648
150	8.31	34.20	26.620	162.7	0.686
160	5.86	34.26	26.734	131.8	1.157
170	7.09	34.23	26.821	123.6	0.824
180	6.10	34.17	26.906	115.5	0.887
190	5.87	34.23	26.982	108.3	0.946
200	5.63	34.29	27.059	101.0	1.002
210	6.32	34.33	27.129	96.4	1.054
220	6.00	34.39	27.123	86.4	1.152
230	4.67	34.43	27.282	79.8	1.243
240	4.34	34.47	27.350	73.4	1.329
250	4.07	34.48	27.387	69.9	1.409

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
30 06.0N	118 25.0W	03/20/75	1900 GMT		
BOTTOM	WIND	SPEED	WEATHER	DIMINANT WAVES	
3737M	330	10KT	2	330 6 11	
Z	T	S	SIGMA T	HT	HD
0	15.18	33.67	24.528	303.5	0.000
10	15.16	33.67	24.933	303.0	0.030
20	15.15	33.67	24.935	302.8	0.060
30	15.15	33.67	24.935	302.8	0.081
40	15.14	33.67	24.937	302.6	0.121
50	15.14	33.68	24.945	301.9	0.151
60	14.78	33.64	24.992	297.4	0.227
70	12.35	33.54	25.410	257.6	0.291
80	10.93	33.72	25.812	219.4	0.357
90	10.50	33.75	25.946	206.7	0.411
100	10.55	34.09	26.167	185.7	0.441
110	9.46	34.04	26.321	171.1	0.496
120	8.58	34.05	26.430	160.7	0.544
130	8.51	34.13	26.517	152.4	0.589
140	8.39	34.16	26.577	145.8	0.628
150	8.20	34.21	26.645	140.3	0.665
160	7.72	34.25	26.747	130.6	0.736
170	7.12	34.25	26.848	121.0	0.801
180	6.77	34.30	26.920	114.2	0.864
190	6.55	34.33	26.973	109.1	0.923
200	6.39	34.39	27.042	102.7	0.980
210	6.17	34.43	27.102	97.0	1.034
220	5.55	34.43	27.180	89.6	1.135
230	4.82	34.42	27.258	82.2	1.230
240	4.46	34.45	27.322	76.1	1.318
250	4.09	34.48	27.385	70.1	1.401

103070

RV DAVID STARR JORDAN

CALCUTTA CRUISE 7503

110035

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
29 47.0N	119 04.0W	03/20/75	1955 GMT		
BOTTOM	WIND	SPEED	WEATHER	DIMINANT WAVES	
3735M	010	11KT	2	350 10 7	
Z	T	S	SIGMA T	HT	HD
0	14.95	33.66	24.971	299.4	0.000
10	14.95	33.66	24.971	299.4	0.029
20	14.95	33.66	24.971	299.4	0.159
30	14.95	33.67	24.978	298.7	0.189
40	14.95	33.67	24.978	298.7	0.219
50	14.94	33.67	24.981	298.5	0.144
60	14.84	33.65	24.987	297.4	0.224
70	17.36	33.50	25.313	261.1	0.295
80	11.37	33.61	25.648	235.0	0.358
90	11.40	33.67	25.921	209.0	0.414
100	10.19	33.92	26.097	192.3	0.465
110	6.48	33.97	26.258	177.0	0.512
120	6.90	34.01	26.380	165.5	0.556
130	6.57	34.06	26.470	156.9	0.597
140	6.24	34.11	26.560	148.3	0.637
150	6.00	34.13	26.612	143.4	0.674
160	7.52	34.18	26.721	133.1	0.746
170	6.98	34.23	26.836	122.1	0.813
180	6.51	34.28	26.939	112.4	0.875
190	6.26	34.31	26.996	107.0	1.033
200	5.95	34.34	27.058	101.1	0.989
210	5.70	34.36	27.106	96.6	1.042
220	5.18	34.39	27.192	80.4	1.142
230	4.70	34.44	27.287	79.4	1.235
240	4.35	34.46	27.341	74.2	1.320
250	2.99	34.48	27.395	69.1	1.401

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
29 46.0N	116 00.0W	03/22/75	0442 GMT		
BOTTOM	WIND	SPEED	WEATHER	DIMINANT WAVES	
1290M	340	11KT	2	350 10 7	
Z	T	S	SIGMA T	HT	HD
0	14.32	33.58	25.044	292.5	0.000
10	14.33	33.58	25.042	292.7	0.029
20	14.33	33.58	25.042	292.7	0.058
30	14.32	33.58	25.044	292.5	0.087
40	14.17	33.56	25.060	290.9	0.117
50	13.71	33.53	25.133	284.0	0.146
60	11.41	33.49	25.548	244.6	0.212
70	10.37	33.62	25.833	217.4	0.270
80	9.82	33.77	26.043	197.5	0.323
90	9.23	33.94	26.273	175.7	0.370
100	9.03	34.05	26.391	164.5	0.413
110	8.76	34.30	26.468	157.1	0.454
120	9.62	34.35	26.528	151.3	0.494
130	9.18	34.33	26.585	146.0	0.533
140	8.67	34.26	26.611	143.5	0.570
150	8.51	34.37	26.663	136.7	0.608
160	8.18	34.39	27.075	127.9	0.676
170	7.83	34.41	26.841	121.7	0.741
180	7.19	34.37	26.917	114.5	0.804
190	6.79	34.38	26.980	108.5	0.863
200	6.51	34.38	27.018	104.9	0.921
210	6.18	34.39	27.064	100.1	0.976
220	5.48	34.41	27.172	90.3	1.080
230	4.94	34.43	27.252	82.7	1.175
240	4.50	34.45	27.317	76.5	1.264
250	4.12	34.48	27.382	70.4	1.346

110040				RV DAV ID STARR JORDAN				CALCOF CRUISE 7503				110050											
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	BOTTOM	WIND	SPEED	WEATHER	BOTTOM	WIND	SPEED	WEATHER	BOTTOM	WIND	SPEED	WEATHER
29 36.5N	116 19.5W	03/22/75	0750 GMT	29 16.5N	116 59.0W	03/22/75	1336 GMT	29 16.5N	116 59.0W	03/22/75	1336 GMT	3738m	320	11Kt	WEATHER	3738m	320	11Kt	WEATHER	3738m	320	11Kt	WEATHER
0	14.89	33.64	24.968	299.7	0.000	0	14.80	33.63	24.980	298.5	0.000	0	14.89	33.64	24.980	298.5	0.024	0	14.80	33.63	24.980	298.5	0.024
10	14.89	33.64	24.968	299.7	0.029	10	14.80	33.63	24.980	298.5	0.029	10	14.81	33.63	24.978	298.7	0.059	10	14.82	33.63	24.976	298.0	0.089
20	14.90	33.64	24.968	299.9	0.060	20	14.81	33.63	24.978	298.7	0.059	20	14.82	33.63	24.976	298.0	0.119	20	14.82	33.63	24.976	299.0	0.119
30	14.88	33.63	24.963	300.2	0.090	30	14.82	33.63	24.976	299.0	0.089	30	14.82	33.63	24.976	299.0	0.144	30	14.82	33.63	24.976	299.0	0.144
40	14.73	33.62	24.987	297.8	0.120	40	14.82	33.63	24.976	299.0	0.119	40	14.82	33.63	24.976	299.0	0.144	40	14.82	33.63	24.976	299.0	0.144
50	14.20	33.55	25.046	292.3	0.149	50	14.82	33.63	24.976	299.0	0.144	50	14.82	33.63	24.976	299.0	0.144	50	14.82	33.63	24.976	299.0	0.144
75	17.90	33.43	25.218	275.9	0.221	75	14.51	33.55	25.285	264.5	0.295	75	14.51	33.55	25.285	264.5	0.295	75	14.51	33.55	25.285	264.5	0.295
100	11.15	33.58	25.664	233.5	0.285	100	13.03	33.55	25.285	264.5	0.295	100	13.03	33.55	25.285	264.5	0.295	100	13.03	33.55	25.285	264.5	0.295
125	10.20	33.78	25.987	202.8	0.340	125	11.59	33.72	25.693	230.8	0.358	125	11.59	33.72	25.693	230.8	0.358	125	11.59	33.72	25.693	230.8	0.358
150	10.30	34.04	26.172	185.2	0.389	150	11.17	33.91	25.917	209.4	0.414	150	11.17	33.91	25.917	209.4	0.414	150	11.17	33.91	25.917	209.4	0.414
175	10.15	34.13	26.268	176.1	0.435	175	10.50	34.09	26.176	184.8	0.464	175	10.50	34.09	26.176	184.8	0.464	175	10.50	34.09	26.176	184.8	0.464
200	10.04	34.26	26.387	164.7	0.479	200	10.36	34.16	26.255	177.3	0.511	200	10.36	34.16	26.255	177.3	0.511	200	10.36	34.16	26.255	177.3	0.511
225	9.71	34.29	26.467	157.2	0.520	225	10.04	34.25	26.280	165.5	0.555	225	10.04	34.25	26.280	165.5	0.555	225	10.04	34.25	26.280	165.5	0.555
250	9.59	34.34	26.526	151.6	0.560	250	9.61	34.28	26.475	156.4	0.586	250	9.61	34.28	26.475	156.4	0.586	250	9.61	34.28	26.475	156.4	0.586
275	9.54	34.36	26.549	149.3	0.599	275	9.62	34.35	26.562	148.2	0.636	275	9.62	34.35	26.562	148.2	0.636	275	9.62	34.35	26.562	148.2	0.636
300	9.56	34.42	26.576	146.8	0.638	300	9.44	34.44	26.628	141.8	0.673	300	9.44	34.44	26.628	141.8	0.673	300	9.44	34.44	26.628	141.8	0.673
350	9.10	34.42	26.668	138.1	0.712	350	8.04	34.29	26.731	132.1	0.745	350	8.04	34.29	26.731	132.1	0.745	350	8.04	34.29	26.731	132.1	0.745
400	8.46	34.39	26.746	130.7	0.783	400	7.33	34.29	26.835	122.3	0.812	400	7.33	34.29	26.835	122.3	0.812	400	7.33	34.29	26.835	122.3	0.812
450	8.01	34.42	26.837	122.0	0.850	450	7.06	34.34	26.912	115.0	0.874	450	7.06	34.34	26.912	115.0	0.874	450	7.06	34.34	26.912	115.0	0.874
500	7.21	34.36	26.906	117.5	0.913	500	6.79	34.37	26.972	109.2	0.934	500	6.79	34.37	26.972	109.2	0.934	500	6.79	34.37	26.972	109.2	0.934
550	6.31	34.33	27.005	106.1	0.973	550	6.52	34.40	27.032	103.5	0.991	550	6.52	34.40	27.032	103.5	0.991	550	6.52	34.40	27.032	103.5	0.991
600	5.99	34.36	27.070	100.0	1.028	600	6.16	34.41	27.088	98.3	1.046	600	6.16	34.41	27.088	98.3	1.046	600	6.16	34.41	27.088	98.3	1.046
700	5.34	34.40	27.175	90.0	1.131	700	5.45	34.42	27.184	89.2	1.146	700	5.45	34.42	27.184	89.2	1.146	700	5.45	34.42	27.184	89.2	1.146
800	4.85	34.42	27.254	82.8	1.226	800	4.92	34.43	27.254	82.5	1.243	800	4.92	34.43	27.254	82.5	1.243	800	4.92	34.43	27.254	82.5	1.243
900	4.39	34.45	27.329	75.4	1.314	900	4.41	34.46	27.335	74.8	1.330	900	4.41	34.46	27.335	74.8	1.330	900	4.41	34.46	27.335	74.8	1.330
1000	4.02	34.48	27.392	69.4	1.396	1000	4.14	34.48	27.380	70.6	1.412	1000	4.14	34.48	27.380	70.6	1.412	1000	4.14	34.48	27.380	70.6	1.412

RV DAVID STARR JORDAN				CALCOF CRUISE 7503				110050																	
LATITUDE	LONGITUDE	MO/DAY/YR	MESSENDER TIME	ROTTUM	WIND	SPEED	WEATHER	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	BOTTOM	320	11Kt	WEATHER	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	BOTTOM	320	11Kt	WEATHER		
29 16.5N	116 59.0W	3/22/75	1452 GMT	3738m				29 16.5N	116 59.0W	3/22/75	2140 GMT	3738m				29 16.5N	116 59.0W	3/22/75	2140 GMT	3738m					
3	14.82	33.631	5.91	24.987	0	14.82	33.631	5.91	24.977	298.9	0.000	3	14.82	33.631	5.91	24.977	298.9	0.000	3	14.82	33.631	5.91	24.977	298.9	0.000
11	14.80	33.628	5.91	24.987	10	14.80	33.629	5.91	24.979	298.7	0.029	11	14.80	33.628	5.91	24.979	298.7	0.029	11	14.80	33.628	5.91	24.979	298.7	0.029
30	14.82	33.631	5.95	24.987	20	14.81	33.630	5.92	24.978	298.8	0.059	30	14.82	33.631	5.95	24.977	298.9	0.089	30	14.82	33.631	5.95	24.977	298.9	0.089
58	14.66	33.612	5.93	24.987	30	14.82	33.631	5.93	24.977	297.5	0.149	58	14.66	33.612	5.93	24.977	297.5	0.149	58	14.66	33.612	5.93	24.977	297.5	0.149
77	14.13	33.563	2.54	24.987	50	14.70	33.563	5.93	24.977	297.5	0.355	77	14.13	33.563	2.54	24.977	297.5	0.355	77	14.13	33.563	2.54	24.977	297.5	0.355
90	13.71	33.488	5.58	24.987	75	14.21	33.572	5.74	25.059	291.1	0.223	90	13.71	33.488	5.58	24.987	291.1	0.223	90	13.71	33.488	5.58	24.987	291.1	0.223
103	12.46	33.581	4.69	24.987	100	12.61	33.553	4.90	25.368	261.7	0.293	103	12.46	33.581	4.69	24.987	261.7	0.293	103	12.46	33.581	4.69	24.987	261.7	0.293
135	11.35	33.815	2.54	24.987	125	11.61	33.553	3.80	25.705	229.6	0.355	135	11.35	33.815	2.54	24.987	229.6	0.355	135	11.35	33.815	2.54	24.987	229.6	0.355
158	10.83	33.918	2.91	24.987	150	10.98	33.924	3.11	25.960	205.3	0.410	158	10.83	33.918	2.91	24.987	205.3	0.410	158	10.83	33.918	2.91	24.987	205.3	0.410
186	10.41	34.126	2.33	24.987	180.7	10.20	34.175	2.13	26.293	173.7	0.507	186	10.41	34.126	2.33	24.987	173.7	0.507	186	10.41	34.126	2.33	24.987	173.7	0.507
219	9.93	34.223	1.92	24.987	185.7	9.54	34.291	1.50	26.491	154.9	0.591	219	9.93												

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES							
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	SIGT	DT	00
1	13.52	33.598	6.05		275.4	0	13.52	33.598	6.05	25.224	275.4	0.000			
10	13.50	33.597	5.99		275.1	10	13.50	33.597	5.99	25.227	275.1	0.027			
27	13.46	33.598	6.00		274.2	20	13.47	33.599	5.99	25.232	274.6	0.055			
56	11.15	33.633	4.40		229.5	30	13.73	33.598	5.85	25.281	269.9	0.082			
76	10.92	33.670	4.08		222.9	50	11.64	33.619	4.75	25.603	239.3	0.133			
88	10.61	33.727	3.87		213.5	75	10.89	33.674	4.06	25.782	222.3	0.191			
102	10.30	33.800	3.66		203.0	100	10.34	33.789	3.69	25.969	204.5	0.245			
131	9.82	34.016	3.01		179.2	125	9.91	33.974	3.14	26.186	183.9	0.294			
154	9.34	34.082	2.72		166.8	150	9.42	34.075	2.76	26.346	168.6	0.339			
183	8.96	34.139	2.36		156.8	200	9.06	34.210	1.95	26.509	153.2	0.421			
216	8.21	34.278	1.55		150.3	250	8.95	34.341	1.07	26.630	141.7	0.497			
292A	8.40	34.366	0.76		131.7	300	8.33	34.370	0.72	26.748	130.5	0.568			
391A	7.68	34.381	0.50		120.3	400	7.59	34.381	0.48	26.849	119.1	0.698			
498A	6.66	34.380	0.37		106.8	500	6.64	34.380	0.36	27.000	106.6	0.818			
601A	6.05	34.382	0.35		59.1	600	6.05	34.382	0.35	27.079	99.1	0.929			
735A	5.18	34.410	0.37		86.9	700	5.39	34.400	0.36	27.175	90.0	1.032			
889A	4.55	34.456	0.49		76.6	800	4.88	34.429	0.41	27.258	82.2	1.127			
1047A	3.95	34.491	0.66		67.9	1000	4.12	34.482	0.60	27.383	70.3	1.298			

A) CAST II.

113035

RV DAVID STARR JIRDAN

CALCDEF CRUISE 7503

113040

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME				
Z	T	S	SIGMA T	01	00	Z	T	S	SIGMA T	DT	00
0	13.50	33.60	25.229	279.8	0.000	0	13.09	33.63	25.335	264.8	0.000
10	13.49	33.60	25.231	274.7	0.027	10	13.09	33.63	25.335	264.8	0.027
20	13.49	33.60	25.231	274.7	0.055	20	12.99	33.62	25.347	263.6	0.052
30	13.45	33.59	25.232	274.6	0.082	30	11.86	33.58	25.534	245.9	0.078
40	12.44	33.55	25.400	258.6	0.109	40	11.10	33.57	25.666	233.3	0.102
50	11.46	33.60	25.620	237.7	0.134	50	10.65	33.60	25.764	223.5	0.125
75	10.61	33.73	25.817	213.3	0.190	75	9.82	33.78	26.051	196.7	0.178
100	10.09	33.91	26.107	191.4	0.241	100	9.95	34.06	26.247	178.1	0.225
125	9.55	34.03	26.290	173.4	0.286	125	9.06	34.13	26.350	168.3	0.269
150	9.31	34.09	26.377	167.8	0.331	150	8.45	34.16	26.408	162.8	0.311
175	8.99	34.13	26.459	157.9	0.372	175	9.06	34.13	26.448	159.0	0.352
200	8.07	34.23	26.525	151.1	1.412	200	8.18	34.17	26.524	151.8	0.392
225	9.23	34.38	26.616	143.0	0.450	225	8.10	34.19	26.552	149.1	0.431
250	9.05	34.40	26.681	138.8	0.486	250	8.30	34.23	26.648	140.3	0.468
275	8.60	34.37	26.708	134.3	0.522	275	8.11	34.26	26.697	135.3	0.503
300	8.33	34.37	26.750	130.3	0.556	300	8.10	34.31	26.738	131.5	0.538
350	7.79	34.33	26.800	125.6	0.623	350	7.88	34.37	26.818	123.9	0.605
400	7.66	34.41	26.881	117.9	1.687	400	7.42	34.37	26.885	117.6	0.668
450	7.32	34.41	26.930	113.2	0.748	450	6.92	34.36	26.947	111.7	0.724
500	6.67	34.41	27.020	104.7	0.806	500	6.55	34.36	26.997	106.9	0.787
550	6.48	34.43	27.061	100.8	0.862	550	6.24	34.37	27.046	102.3	0.843
600	6.06	34.40	27.092	97.8	0.915	600	5.87	34.39	27.108	96.3	0.897
700	5.51	34.44	27.192	88.4	1.017	700	5.45	34.45	27.208	86.9	0.997
800	4.91	34.43	27.255	82.4	1.111	800	4.80	34.43	27.268	81.2	1.090
900	4.46	34.46	27.330	75.4	1.199	900	4.47	34.45	27.320	76.2	1.177
1000	4.05	34.48	27.389	69.3	1.281	1000	4.13	34.47	27.373	71.3	1.260

113050

RV DAVID STARR JIRDAN

CALCDEF CRUISE 7503

113060

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME				
Z	T	S	SIGMA T	01	00	Z	T	S	SIGMA T	DT	00
0	14.68	33.61	24.991	297.6	0.000	0	15.01	33.62	24.927	303.6	0.000
10	14.69	33.61	24.988	297.8	0.029	10	15.02	33.62	24.925	303.8	0.030
20	14.68	33.61	24.991	297.6	0.059	20	14.95	33.62	24.940	302.4	0.060
30	14.68	33.61	24.991	297.5	0.099	30	14.90	33.63	24.959	300.6	0.090
40	14.65	33.61	24.997	296.9	0.119	40	14.88	33.63	24.963	300.2	0.121
50	14.64	33.61	24.999	296.7	0.149	50	14.88	33.63	24.963	300.2	0.151
75	14.30	33.54	25.018	295.0	0.223	75	14.10	33.56	25.059	291.0	0.225
100	12.29	33.51	25.398	295.8	0.293	100	12.45	33.57	25.414	257.3	0.294
125	10.90	33.68	25.787	221.8	0.353	125	11.41	33.73	25.734	226.9	0.355
150	10.28	33.79	25.981	203.4	1.407	150	10.57	33.82	25.954	205.9	0.410
175	9.68	33.96	26.214	181.2	0.456	175	9.43	33.90	26.126	189.6	0.461
200	9.17	34.07	26.384	165.1	0.501	200	9.38	34.00	26.295	173.5	0.507
225	8.92	34.12	26.463	157.6	0.542	225	8.92	34.05	26.408	162.8	0.550
250	8.74	34.16	26.522	151.9	0.582	250	8.34	34.07	26.514	152.8	0.591
275	8.55	34.20	26.583	146.2	0.620	275	8.18	34.09	26.568	147.6	0.629
300	8.32	34.23	26.642	140.6	0.657	300	7.85	34.11	26.618	142.8	0.667
350	7.84	34.28	26.753	130.0	0.728	350	7.35	34.19	26.753	130.0	0.738
400	7.38	34.29	26.827	125.0	0.794	400	6.92	34.23	26.845	121.4	0.803
450	7.02	34.30	26.886	117.4	0.858	450	6.51	34.26	26.923	113.9	0.865
500	6.78	34.37	26.974	109.1	0.918	500	6.45	34.35	27.002	106.4	0.924
550	6.21	34.36	27.042	102.7	0.975	550	6.15	34.38	27.065	100.4	0.979
600	5.95	34.37	27.083	98.8	1.029	600	5.85	34.40	27.119	95.3	1.032
700	5.28	34.40	27.189	88.7	1.131	700	5.30	34.41	27.194	88.2	1.132
800	4.79	34.43	27.269	81.1	1.224	800	4.81	34.43	27.267	81.3	1.225
800	4.33	34.46	27.344	74.0	1.311	900	4.63	34.46	27.333	75.1	1.313
1000	4.04	34.49	27.398	68.9	1.391	1000	4.14	34.48	27.380	70.6	1.395

113070

RV DAV ID STARR JORDAN

CALCUTT CRUISE 7503

119033

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME				
28 02.0N	117 55.0W	03/28/75	1020 GMT	28 19.0N	114 53.0W	03/24/75	1439 GMT				
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
335 fm	310	5KT				320 fm	320	8KT		300	4-10'
Z	T	S	SIGMA T	01	012	Z	T	S	SIGMA T	01	012
0	15.39	33.68	24.890	307.1	0.000	0	13.68	33.59	25.185	279.1	0.000
10	15.40	33.68	24.888	307.4	0.030	10	13.66	33.59	25.189	278.7	0.027
20	15.40	33.68	24.888	307.4	0.061	20	13.66	33.59	25.189	278.7	0.056
30	15.40	33.68	24.888	307.4	0.092	30	13.66	33.60	25.197	277.9	0.083
40	15.40	33.68	24.888	307.4	0.123	40	13.66	33.59	25.189	278.7	0.111
50	15.40	33.68	24.895	306.6	0.154	50	13.60	33.59	25.201	277.5	0.134
75	15.90	33.52	25.086	288.5	0.228	75	11.60	33.64	25.592	240.6	0.206
100	18.14	33.57	25.473	251.6	0.296	100	11.39	33.75	25.753	225.1	0.239
125	19.26	33.67	25.714	226.7	0.357						
150	19.33	33.79	25.972	204.2	0.412						
175	19.77	33.95	26.192	183.3	0.461						
200	20.06	33.97	26.323	170.8	0.506						
225	20.79	34.02	26.405	163.1	0.549						
250	21.50	34.07	26.449	155.1	0.590						
275	21.17	34.11	26.571	147.4	0.629						
300	21.05	34.18	26.654	140.4	0.666						
350	21.38	34.20	26.757	129.7	0.737						
400	21.10	34.27	26.851	120.7	0.852						
450	21.63	34.29	26.931	113.2	0.884						
500	21.38	34.33	26.996	101.0	1.922						
550	21.04	34.35	27.056	101.3	0.978						
600	21.71	34.36	27.105	96.7	1.031						
700	21.17	34.39	27.194	88.2	1.132						
800	21.70	34.43	27.279	80.1	1.224						
900	21.21	34.46	27.350	73.4	1.310						
1000	21.92	34.48	27.403	68.5	1.390						

120030

RV DAV ID STARR JORDAN

CALCUTT CRUISE 7503

120035

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME				
28 13.0N	114 34.0W	03/24/75	1210 GMT	28 08.0N	114 54.0W	03/24/75	1641 GMT				
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
95m	320	320	8KT			320 fm	320	8KT		320	6-11
Z	T	S	SIGMA T	01	012	Z	T	S	SIGMA T	01	012
0	13.64	33.67	25.255	232.4	0.000	0	16.41	33.72	25.120	285.2	0.000
10	13.62	33.66	25.251	232.8	0.027	10	16.41	33.71	25.114	285.6	0.028
20	13.60	33.66	25.255	232.4	0.054	20	16.41	33.71	25.124	284.8	0.057
30	13.52	33.66	25.271	231.8	0.081	30	16.41	33.71	25.126	284.8	0.085
40	12.93	33.66	25.394	234.2	0.108	40	16.41	33.72	25.133	284.0	0.114
50	12.69	33.64	25.421	236.5	0.134	50	16.41	33.72	25.133	284.0	0.142
60	11.78	33.71	25.650	234.9	0.176	60	13.21	33.67	25.330	285.3	0.184

RV DAVID ID STARR JORDAN

CALCUTT CRUISE 7503

120045

LATITUDE	LONGITUDE	MO/DAY/YR	MESSANGER TIME	BTM	WIND	SPEED	WEATHER	DOMINANT WAVES
29 43.0N	115 33.0W	3/24/75	2240 GMT	2416M	340	9KT	0	320 10 8
Z	T	S	012	013	012	013	012	SIGT DT DD
2	14.63	33.756	6.19		285.8	0	14.63	33.756 6.19 285.8 0.000
11	14.14	33.763	6.06		276.4	10	14.24	33.762 6.07 25.200 277.6 0.028
31	13.05	33.847	4.39		248.8	20	13.71	33.790 5.42 25.331 265.1 0.055
59	11.26	34.117	7.17		195.7	30	13.14	33.841 4.49 25.485 250.4 0.081
79	10.68	34.284	1.40		173.5	50	11.80	34.022 2.80 25.886 212.3 0.127
92	10.42	34.275	1.46		169.8	75	10.76	34.261 1.48 26.262 176.6 0.176
107	10.40	34.363	1.11		163.0	100	10.40	34.321 1.29 26.371 166.3 0.220
137	10.25	34.444	0.80		154.5	125	10.31	34.419 0.92 26.465 157.3 0.261
160	9.58	34.361	1.17		149.9	150	9.86	34.397 1.01 26.523 151.8 0.300
188	9.49	34.420	0.71		144.1	200	9.46	34.441 0.58 26.625 142.2 0.375
223	9.40	34.471	0.42		138.9	250	9.22	34.483 0.35 26.697 135.3 0.447
293	8.85	34.479	0.26		129.9	300	8.78	34.478 0.25 26.763 129.1 0.516
394	7.91	34.449	0.24		118.4	400	7.84	34.447 0.23 26.883 117.7 0.646
499	6.84	34.423	0.22		105.9	500	6.83	34.423 0.22 27.008 105.8 0.765
604	6.06	34.426	0.23		95.9	600	6.08	34.425 0.22 27.109 96.2 0.874
737	5.29	34.446	0.30		85.4	700	5.48	34.439 0.26 27.195 88.1 0.974
888	4.52	34.472	0.60		75.1	800	4.95	34.457 0.42 27.272 80.8 1.068
1052	3.84	34.499	0.68		66.7	1000	4.06	34.491 0.65 27.396 69.1 1.236

120045

RV DAVID STARR JORDAN

CALCOFI CRUISE 7503

120050

LATITUDE 27° 43.0N
LONGITUDE 115° 33.0W
MO/DAY/YR 03/24/75
START TIME 2130 GMT

BOTTOM 2416M WIND SPEED 340 KNOT WEATHER 0 DOMINANT WAVES 320 10 8

Z	T	S	SIGMA T	DT	DD
0	14.55	33.75	25.126	284.7	0.000
10	14.47	33.75	25.143	283.0	0.028
20	14.06	33.75	25.229	274.8	0.056
30	13.91	33.76	25.268	271.1	0.083
40	13.13	33.79	25.450	253.8	0.110
50	11.66	33.89	25.811	219.5	0.133
75	11.02	34.22	26.185	186.0	0.184
100	10.41	34.28	26.339	169.3	0.229
125	10.39	34.40	26.436	160.1	0.271
150	10.24	34.45	26.501	153.9	0.311
175	9.66	34.36	26.530	151.2	0.350
200	9.37	34.37	26.585	145.9	0.388
225	9.45	34.47	26.650	139.8	0.425
250	9.31	34.47	26.673	137.6	0.460
275	9.14	34.48	26.708	134.3	0.496
300	8.90	34.48	26.747	130.6	0.530
350	8.56	34.47	26.793	128.3	0.598
400	7.98	34.45	26.866	119.6	0.662
450	7.40	34.44	26.942	112.1	0.724
500	6.87	34.42	27.001	106.5	0.782
550	6.49	34.43	27.060	100.9	0.838
600	6.10	34.43	27.111	96.1	0.891
700	5.51	34.44	27.192	88.4	0.992
800	4.99	34.45	27.262	81.8	1.086
900	4.48	34.47	27.331	74.6	1.173
1000	4.10	34.49	27.392	69.5	1.255

LATITUDE 27° 33.0N
LONGITUDE 115° 53.0W
MO/DAY/YR 03/25/75
START TIME 0135 GMT

BOTTOM 4212M WIND SPEED 340 KNOT WEATHER 0 DOMINANT WAVES 360 10 8

Z	T	S	SIGMA T	DT	DD
0	14.53	33.80	25.015	245.2	0.000
10	14.47	33.88	25.012	295.5	0.028
20	14.04	33.58	25.092	287.4	0.058
30	14.04	33.63	25.141	283.2	0.087
40	14.01	33.63	25.148	282.6	0.115
50	13.97	33.61	25.140	283.3	0.144
75	12.32	33.58	25.447	254.2	0.211
100	10.62	33.74	25.922	209.0	0.270
125	10.28	34.04	26.175	184.9	0.320
150	10.06	34.14	26.291	173.9	0.365
175	9.78	34.29	26.424	161.3	0.408
200	10.34	34.43	26.468	157.1	0.449
225	9.65	34.39	26.555	148.9	0.488
250	9.55	34.46	26.626	142.1	0.526
275	9.31	34.44	26.650	139.8	0.562
300	8.63	34.43	26.719	133.2	0.598
350	8.40	34.46	26.809	124.7	0.665
400	7.96	34.45	26.868	119.1	0.730
450	7.46	34.43	26.926	113.6	0.792
500	6.82	34.40	26.992	107.4	0.851
550	6.58	34.44	27.056	101.3	0.907
600	6.19	34.43	27.099	97.2	0.960
700	5.55	34.44	27.188	88.8	1.062
800	5.01	34.46	27.268	81.2	1.156
900	4.61	34.47	27.321	76.7	1.244
1000	4.24	34.49	27.377	70.9	1.327

120060

RV DAVID STARR JORDAN

CALCOFI CRUISE 7503

120070

LATITUDE 27° 13.0N
LONGITUDE 116° 30.5W
MO/DAY/YR 03/25/75
START TIME 0631 GMT

BOTTOM 3737M WIND SPEED 340 KNOT WEATHER 0 DOMINANT WAVES 330 8 4

Z	T	S	SIGMA T	DT	DD
0	15.10	33.63	24.915	304.7	1.000
10	15.10	33.63	24.915	304.7	0.030
20	15.08	33.63	24.920	304.3	0.060
30	15.05	33.63	24.926	303.7	0.091
40	15.03	33.63	24.930	303.3	0.121
50	14.96	33.62	24.938	302.6	0.152
75	13.77	33.56	25.143	285.0	0.225
100	12.42	33.67	25.147	249.3	0.293
125	11.45	33.89	25.480	216.8	0.351
150	10.94	33.96	25.997	201.8	0.404
175	10.81	34.23	26.230	179.7	0.453
200	10.18	34.27	26.371	166.3	0.497
225	9.79	34.30	26.461	157.8	0.539
250	9.64	34.33	26.509	144.1	0.579
275	9.26	34.37	26.603	144.3	0.618
300	9.13	34.39	26.640	140.8	0.655
350	8.76	34.42	26.722	132.9	0.726
400	8.13	34.44	26.835	122.2	0.793
450	7.46	34.43	26.926	113.6	0.856
500	7.13	34.43	26.973	109.2	0.916
550	6.56	34.42	27.043	102.6	0.973
600	6.01	34.42	27.114	95.7	1.026
700	5.31	34.42	27.201	87.6	1.126
800	4.98	34.45	27.263	81.6	1.220
900	4.45	34.46	27.331	75.3	1.307
1000	4.09	34.49	27.393	69.4	1.389

LATITUDE 26° 50.1N
LONGITUDE 117° 10.1W
MO/DAY/YR 03/28/75
START TIME 0002 GMT

BOTTOM 3926M WIND SPEED 320 KNOT WEATHER 2 DOMINANT WAVES 330 8 4

Z	T	S	SIGMA T	DT	DD
0	15.01	33.73	24.834	312.4	0.000
10	15.01	33.73	24.834	312.4	0.031
20	15.00	33.73	24.837	312.2	0.067
30	15.19	33.73	24.839	312.0	0.093
40	15.17	33.73	24.843	311.5	0.125
50	15.17	33.73	24.843	311.5	0.156
75	15.12	33.73	24.855	310.5	0.234
100	13.56	33.95	25.178	279.7	0.308
125	11.95	33.62	25.548	244.5	0.375
150	10.82	33.76	25.863	214.6	0.433
175	10.29	33.96	26.111	191.0	0.484
200	10.35	34.21	26.295	173.5	0.531
225	9.96	34.29	26.424	161.2	0.574
250	9.69	34.33	26.501	153.9	0.615
275	9.43	34.35	26.560	144.4	0.654
300	9.21	34.38	26.619	142.7	0.692
350	8.52	34.37	26.721	133.1	0.764
400	7.18	34.34	26.809	124.7	0.832
450	7.62	34.36	26.877	118.3	0.896
500	6.93	34.36	26.945	111.8	0.957
550	6.40	34.36	27.017	105.0	1.015
600	5.99	34.37	27.078	99.3	1.070
700	5.41	34.41	27.181	89.5	1.173
800	5.00	34.45	27.261	81.9	1.268
900	4.51	34.46	27.324	75.9	1.356
1000	4.16	34.49	27.386	70.1	1.438

123037				RV DAVID STARR JORDAN				CALCOF I CRUISE 7503				123050					
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME										
BOTTUM	WIND	SPEED	WEATHER	DOMINANT WAVES	BOTTUM	WIND	SPEED	WEATHER	DOMINANT WAVES	BOTTUM	WIND	SPEED	WEATHER	DOMINANT WAVES			
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD	Z	T	S	DD		
0	12.82	34.04	25.705	229.6	0.000	0	15.22	33.73	24.966	299.9	0.000	0	15.22	33.73	24.966	299.9	0.030
10	12.81	34.04	25.707	229.4	0.022	10	15.22	33.73	24.966	299.9	0.030	20	15.22	33.73	24.966	299.9	0.060
20	12.74	34.04	25.721	228.1	0.045	30	15.22	33.74	24.973	299.2	0.090	30	15.22	33.74	24.973	299.2	0.120
30	12.24	34.05	25.826	218.1	0.068	40	15.16	33.74	24.987	297.9	0.120	40	15.16	33.74	24.987	297.9	0.149
40	11.72	34.12	25.978	203.6	0.089	50	15.14	33.74	24.991	297.5	0.149	50	15.14	33.74	24.991	297.5	0.219
50	11.43	34.20	26.094	192.6	0.109	75	12.51	33.57	25.391	259.5	0.219	100	11.31	33.84	25.837	217.0	0.280
						100	10.88	34.02	26.054	196.4	0.332	125	10.88	34.02	26.054	196.4	0.332
						150	10.88	34.28	26.260	176.8	0.379	150	10.88	34.28	26.260	176.8	0.379
						175	9.76	34.14	26.341	169.1	0.423	200	9.30	34.18	26.448	159.0	0.465
						225	9.07	34.28	26.564	148.0	0.505	250	9.03	34.33	26.609	143.7	0.542
						275	8.66	34.33	26.668	138.1	0.579	300	8.38	34.33	26.711	134.0	0.614
						350	8.03	34.36	26.788	126.8	0.682	400	7.65	34.38	26.859	120.0	0.747
						450	7.23	34.44	26.966	109.0	0.808	500	6.77	34.44	27.030	103.7	0.865
						550	6.39	34.44	27.081	98.9	0.920	600	6.04	34.44	27.126	94.6	0.972
						700	5.36	34.46	27.227	85.1	1.071	800	4.96	34.48	27.289	79.2	1.162
						900	4.48	34.48	27.343	74.1	1.247	1000	4.16	34.49	27.386	70.1	1.324

RV DAVID STARR JORDAN				CALCOF I CRUISE 7503				123050															
LATITUDE	LONGITUDE	MO/DAY/YR	MESSANGER TIME	LATITUDE	LONGITUDE	MO/DAY/YR	MESSANGER TIME	BOTTUM	WIND	SPEED	WEATHER	DOMINANT WAVES	BOTTUM	WIND	SPEED	WEATHER	DD						
Z	T	S	DT	Z	T	S	DT	3546M	340	10KT	2	320 9 10	Z	T	S	DT	DD						
1	15.24	33.737	5.91	299.8	0	15.24	33.737	5.91	24.967	299.8	0.000	10	15.21	33.744	5.87	24.978	298.7	0.029					
10	15.21	33.744	5.87	298.7	10	15.21	33.744	5.87	24.978	298.7	0.029	28	15.21	33.738	5.82	24.976	298.9	0.059					
28	15.21	33.738	5.82	299.1	20	15.21	33.741	5.84	24.976	298.9	0.059	56	14.23	33.664	5.43	284.5	30	15.17	33.735	5.81	24.977	298.8	0.089
74	12.97	33.638	4.76	261.9	50	14.54	33.682	5.56	25.075	289.5	0.148	87	11.86	33.676	4.19	238.8	75	12.87	33.640	4.71	25.384	260.1	0.218
102	11.40	33.802	3.47	221.4	100	11.43	33.783	3.56	25.770	223.4	0.278	129	11.02	34.068	2.46	195.2	125	11.04	34.027	2.60	26.079	198.8	0.332
151	10.97	34.305	1.46	176.9	150	10.97	34.296	1.48	26.252	177.6	0.380	179	9.43	34.126	2.63	164.9	200	9.25	34.187	2.29	26.461	157.7	0.465
211	9.16	34.213	1.94	154.3	250	8.84	34.292	1.31	26.608	143.8	0.543	280	8.61	34.334	0.96	137.1	300	8.45	34.349	0.81	26.713	133.8	0.615
376	7.85	34.377	0.50	123.0	400	7.61	34.393	0.40	26.875	118.5	0.747	477	6.87	34.439	0.20	105.1	500	6.68	34.442	0.20	27.044	102.4	0.865
579	6.11	34.444	0.22	55.2	600	5.96	34.466	0.22	27.140	93.3	0.971	707	5.34	34.461	0.22	84.8	700	5.37	34.460	0.22	27.224	85.3	1.068
854	4.75	34.494	0.30	75.9	800	4.94	34.483	0.25	27.293	78.8	1.159	1014	4.12	34.502	0.61	68.8	1000	4.17	34.503	0.57	27.394	69.3	1.326

123050				RV DAVID STARR JORDAN				CALCOF I CRUISE 7503				130028										
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	BOTTUM	WIND	SPEED	WEATHER	DOMINANT WAVES	BOTTUM	WIND	SPEED	WEATHER	DD					
Z	T	S	DT	Z	T	S	DT	3546M	340	10KT	2	320 9 10	Z	T	S	DT	DD					
1	15.13	33.66	24.931	303.2	0.000	0	13.75	33.92	25.424	256.2	0.000	10	13.75	33.93	25.432	255.5	0.025					
10	15.12	33.66	24.936	303.0	0.000	10	13.75	33.93	25.432	255.5	0.025	24	15.07	33.965	301.4	20	13.73	33.93	25.436	255.1	0.051	
30	14.95	33.67	24.978	291.7	0.000	30	12.54	33.93	25.665	233.4	0.075	40	14.96	33.68	24.980	120.0	40	11.74	34.02	25.897	211.3	0.097
50	14.96	33.69	24.996	297.0	0.150	50	11.72	34.07	25.940	207.3	0.119	75	14.62	33.676	25.392	122.7	75	14.74	34.04	25.944	206.2	0.119
100	13.09	33.66	25.398	292.7	0.224	125	11.67	33.956	16.356	100.0	0.000	150	10.78	34.02	194.7	0.110	150	10.78	34.02	194.7	0.110	
175	10.57	33.72	25.715	228.7	6.356	200	13.73	33.93	25.436	255.1	0.051	275	8.55	34.24	26.614	145.2	200	13.73	33.93	25.436	255.1	0.051
300	8.06	34.24	26.689	136.1	0.657	300	8.11	34.37	26.183	121.2	0.126	350	8.11	34.37	26.183	121.2	300	8.11	34.37	26.183	121.2	0.126
400	7.71	34.40	26.866	119.3	0.791	400	7.71	34.40	26.866	119.3	0.791	450	7.23	34.39	26.927	113.5	400	7.71	34.40	26.866	119.3	0.791
500	6.76	34.39	26.992	107.3	0.911	500	6.27	34.38	27.050	101.9	0.967	550	6.27	34.38	27.050	101.9	500	6.27	34.38	27.050	101.9	0.967
600	6.04	34.44	27.120	95.2	1.021	600	5.34	34.43	27.205	87.2	1.120	700	5.34	34.43	27.205	87.2	600	5.34	34.43	27.205	87.2	1.120
700	4.73	34.44	27.284	79.7	1.212	800	4.73	34.44	27.355	73.0	1.297	900	4.30	34.47	27.355	73.0	800	4.73	34.44	27.355	73.0	1.297
1000	4.03	34.51	27.415	67.3	1.376																	

120030				RV DAVID STARR JORDAN				CALCOFF CRUISE 7503				130040			
LATITUDE		LONGITUDE		MO/DAY/YR		START TIME		LATITUDE		LONGITUDE		MO/DAY/YR		START TIME	
Z	T	W	N	03/27/75	0000	03/27/75	0601 GMT	Z	T	W	N	03/27/75	0000	03/27/75	0140 GMT
Z	T	S	G	SIGMA T	DT	DD		Z	T	S	G	SIGMA T	DT	DD	
0	13.26	33.78	25.420	256.6	0.000			0	16.79	34.05	24.855	310.5	0.000		
10	13.20	33.78	25.429	255.9	0.025			10	16.78	34.05	24.857	310.2	0.031		
20	12.75	33.82	25.544	244.4	0.050			20	16.70	34.03	24.860	309.9	0.062		
30	12.30	33.87	25.552	225.1	0.074			30	14.45	33.83	24.992	297.4	0.092		
40	11.92	33.91	25.825	216.2	0.096			40	14.39	33.88	25.106	286.5	0.121		
50	11.62	34.06	25.950	206.2	0.117			50	14.01	33.70	25.201	277.5	0.150		
60	11.36	34.28	26.132	189.0	0.161			75	12.52	33.74	25.570	242.4	0.215		
70	11.20	34.28	26.132	189.0	0.161			100	11.87	33.86	25.660	214.9	0.273		
								125	12.21	34.42	26.118	140.3	0.324		
								150	11.67	34.48	26.267	176.2	0.371		
								175	10.87	34.44	26.382	165.2	0.414		
								200	10.68	34.47	26.439	159.8	0.456		
								225	10.31	34.48	26.512	152.9	0.496		
								250	9.88	34.46	26.570	147.4	0.535		
								275	9.45	34.47	26.650	139.8	0.572		
								300	9.03	34.46	26.711	134.0	0.608		
								350	8.44	34.45	26.796	126.0	0.676		
								400	7.99	34.44	26.858	120.3	0.741		
								450	7.41	34.44	26.941	112.2	0.803		
								500	6.94	34.44	27.007	105.9	0.861		
								550	6.64	34.45	27.056	101.3	0.917		
								600	6.26	34.46	27.114	95.8	0.971		
								700	5.65	34.46	27.191	88.5	1.071		
								800	5.03	34.47	27.273	80.7	1.165		
								900	4.72	34.48	27.317	76.6	1.254		
								1000	4.27	34.50	27.382	70.4	1.336		

120050				RV DAVID STARR JORDAN				CALCOFF CRUISE 7503				130050			
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		LATITUDE		LONGITUDE		MO/DAY/YR		DOMINANT WAVES	
Z	T	W	N	3/27/75	0440	GMT	GMT	Z	T	W	N	3/27/75	0440	12KT	12KT
Z	T	S	D2	P04	S103	N02	N03	DT	Z	T	S	D2	SIGT	DT	DD
1	16.27	33.894	5.73					310.3	0	16.27	33.894	5.73	24.856	310.3	0.000
11	16.28	33.899	5.73					310.2	10	16.27	33.899	5.73	24.857	310.2	0.031
29	16.28	33.898	5.84					310.3	20	16.28	33.899	5.78	24.857	310.3	0.062
57	16.15	33.897	5.75					307.5	30	16.27	33.899	5.83	24.858	310.2	0.093
76	13.87	33.654	5.11					278.1	50	16.18	33.898	5.77	24.878	308.2	0.155
90	12.81	33.677	4.46					256.1	75	14.00	33.665	5.15	25.176	279.9	0.229
105	12.04	33.767	3.84					235.3	100	12.25	33.730	4.05	25.575	241.4	0.295
132	11.69	34.116	2.27					203.3	125	11.72	34.022	2.66	25.901	211.0	0.352
155	11.26	34.307	1.56					181.7	150	11.35	34.273	1.68	26.165	185.8	0.402
184	10.55	34.464	0.94					166.3	200	10.76	34.471	0.79	26.426	161.1	0.491
217	10.55	34.481	0.72					156.8	250	10.08	34.489	0.58	26.557	148.6	0.571
288	9.52	34.478	0.49					140.3	300	9.32	34.469	0.46	26.670	137.9	0.645
388	8.02	34.413	0.35					122.7	400	7.88	34.413	0.32	26.851	120.7	0.781
493	6.58	34.431	0.21					107.1	500	6.91	34.431	0.21	27.003	106.3	0.902
597	6.18	34.435	0.26					96.7	600	6.16	34.435	0.25	27.107	96.4	1.012
731	5.40	34.459	0.25					85.7	700	5.56	34.453	0.25	27.196	88.0	1.112
879	4.67	34.478	0.37					76.2	800	5.04	34.468	0.29	27.270	81.0	1.206
1043	4.05	34.507	0.55					67.7	1000	4.19	34.499	0.49	27.389	69.7	1.375

120050				RV DAVID STARR JORDAN				CALCOFF CRUISE 7503				130060			
LATITUDE		LONGITUDE		MO/DAY/YR		START TIME		LATITUDE		LONGITUDE		MO/DAY/YR		START TIME	
Z	T	W	N	3/27/75	0530	0530	GMT	Z	T	W	N	3/27/75	0530	12KT	12KT
Z	T	S	G	SIGMA T	DT	DD		Z	T	S	G	SIGMA T	DT	DD	
0	16.31	33.90	26.851	310.8	0.000			0	16.24	33.92	24.883	307.8	0.030		
10	16.29	33.90	26.850	310.3	0.031			10	16.24	33.92	24.883	307.8	0.061		
20	16.30	33.90	26.853	310.6	0.062			20	16.24	33.92	24.883	307.8	0.092		
30	15.31	33.90	26.851	310.8	0.093			30	16.21	33.94	24.891	307.0	0.092		
40	16.23	33.90	26.859	309.1	0.126			40	16.28	33.94	24.889	307.2	0.123		
50	16.10	33.91	26.889	307.2	0.158			50	16.40	33.98	24.892	306.9	0.154		
55	16.30	33.865	25.102	286.6	0.230			65	16.41	34.00	24.905	305.7	0.231		
100	17.02	33.78	26.859	234.0	0.285			100	13.33	33.86	25.464	252.5	0.301		
129	11.82	34.07	25.971	209.1	0.351			125	12.52	34.02	25.787	221.4	0.361		
196	11.40	34.24	26.131	189.1	0.402			150	11.59	34.24	26.096	192.4	0.414		
215	11.34	34.28	26.105	172.5	0.448			175	11.27	34.36	26.248	178.0	0.461		
296	11.46	34.38	26.405	163.1	0.494			200	10.98	34.47	26.386	164.9	0.505		
229	10.40	34.40	26.486	158.6	0.532			225	10.94	34.54	26.447	159.0	0.547		
251	10.32	34.46	26.530	151.2	0.572			250	10.54	34.53	26.511	153.0	0.587		
255	11.04	34.47	26.573	146.8	0.610			275	10.12	34.54	26.592	145.3	0.626		
300	6.36	34.44	26.657	139.1	0.648			300	9.82	34.53	26.635	141.2	0.643		
350	8.64	34.44	26.757	129.7	0.718			350	4.20	34.52	26.730	132.2	0.735		
400	7.93	34.44	26.841	121.6	0.784			400	8.61	34.50	26.808	124.8	0.803		
450	7.63	34.44	26.904	115.2	0.847			450	7.93	34.47	26.889	117.2	0.867		
500	5.04	34.43	26.985	106.0	0.901			500	7.22	34.45	26.976	108.9	0.928		
550	6.														

RV ALEXANDER AGASSIZ							CALCOFI CRUISE 7503						
							L	T	S	10 METER DATA	D2	DT	
60.065	03/02/75	1636GMT	37 27.0°	124 01.5W	BUTTON	3635M WIND 290 1KT WEATHER 1				10	10.98		
			3635M	WIND 290		DOMINANT WAVES 250 9 9							
60.080	03/02/75	0806GMT	36 51.0°	125 04.0W	BUTTON	4264M WIND 220 1/2KT WEATHER 0				10	12.06	32.780	
			4264M	WIND 220		DOMINANT WAVES 250						308.4	
60.090	03/02/75	0226GMT	36 31.0°	125 47.0W	BUTTON	4474M WIND 340 1/2KT WEATHER 1				10	12.59	32.954	
			4474M	WIND 340		DOMINANT WAVES 350 14 10						305.1	
63.050	02/28/75	2121GMT	37 23.5°	122 28.0W	BUTTON	32M WIND 280 3KT WEATHER 4				10	10.60	33.416	
			32M	WIND 280		DOMINANT WAVES 240 1 5						236.3	
63.052	02/28/75	2230GMT	37 19.0°	122 36.0W	BUTTON	88M WIND 220 1/2KT WEATHER 4				10	10.38	33.282	
			88M	WIND 220		DOMINANT WAVES 250 1 5						242.8	
63.055	02/29/75	0014GMT	37 13.0°	122 50.0W	BUTTON	288M WIND 280 3KT WEATHER 4				10	10.74	33.150	
			288M	WIND 280		DOMINANT WAVES 240 2 11						258.3	
63.060	02/29/75	0319GMT	37 02.5°	123 11.0W	BUTTON	2595M WIND 160 1/2KT WEATHER 4				10	11.47	33.486	
			2595M	WIND 160		DOMINANT WAVES 250 6 10						245.9	
63.065	02/01/75	0609GMT	36 53.0°	123 31.0W	BUTTON	3409M WIND 020 1/4KT WEATHER				10	11.38	33.403	
			3409M	WIND 020		DOMINANT WAVES						250.5	
63.080	02/01/75	1529GMT	36 23.0°	124 36.0W	BUTTON	4110M WIND 180 2/2KT WEATHER 2				10	11.61	32.818	
			4110M	WIND 180		DOMINANT WAVES 250 10 8						297.8	
63.090	02/01/75	2107GMT	36 03.0°	125 20.0W	BUTTON	4498M WIND 180 2/2KT WEATHER 1				10	11.92	32.759	
			4498M	WIND 180		DOMINANT WAVES 200 12 12						307.4	
66.049	02/28/75	1720GMT	36 53.0°	122 01.5W	BUTTON	52M WIND 020 1/2KT WEATHER 1				10	11.21	33.508	
			52M	WIND 020		DOMINANT WAVES						239.8	
67.050	02/28/75	1623GMT	36 49.0°	122 04.5W	BUTTON	99M WIND 360 1/2KT WEATHER 1				10	11.18	33.519	
			99M	WIND 360		DOMINANT WAVES 360 2 6						238.5	
67.060	02/28/75	0914GMT	36 29.0°	122 47.5W	BUTTON	3068M WIND 330 1/2KT WEATHER 4				10	11.24	33.317	
			3068M	WIND 330		DOMINANT WAVES						254.4	
67.065	02/28/75	0611GMT	36 18.0°	123 08.5W	BUTTON	3353M WIND 330 1/2KT WEATHER 4				10	11.39	33.418	
			3353M	WIND 330		DOMINANT WAVES						249.5	
67.070	02/28/75	0319GMT	36 08.0°	123 24.5W	BUTTON	3540M WIND 320 1/2KT WEATHER 4				10	11.48	33.290	
			3540M	WIND 320		DOMINANT WAVES						260.6	
67.080	02/27/75	2210GMT	35 47.5°	124 11.0W	BUTTON	3918M WIND 360 1/2KT WEATHER 2				10	11.34	33.144	
			3918M	WIND 360		DOMINANT WAVES						268.9	
67.090	02/27/75	1634GMT	35 28.0°	124 55.5W	BUTTON	4308M WIND 330 1/2KT WEATHER 2				10	12.04	32.814	
			4308M	WIND 330		DOMINANT WAVES						305.5	
70.051	02/26/75	1155GMT	36 11.5°	121 43.5W	BUTTON	84M WIND 320 1/2KT WEATHER 1				10	10.05	33.737	
			84M	WIND 320		DOMINANT WAVES 310 2 4						203.6	
70.053	02/26/75	1349GMT	36 06.5°	121 53.5W	BUTTON	1110M WIND 320 1/2KT WEATHER 1				10	11.26	33.531	
			1110M	WIND 320		DOMINANT WAVES 310 3 4						239.0	
70.060	02/26/75	1735GMT	35 53.0°	122 23.0W	BUTTON	3163M WIND 340 1/2KT WEATHER 1				10	11.58	33.524	
			3163M	WIND 340		DOMINANT WAVES 330 5 5						245.0	
70.070	02/27/75	0009GMT	35 30.0°	123 04.0W	BUTTON	3918M WIND 350 1/2KT WEATHER 1				10	11.65	33.391	
			3918M	WIND 350		DOMINANT WAVES 230 2 6						256.1	
70.080	02/27/75	0506GMT	35 14.0°	123 47.0W	BUTTON	4078M WIND 010 1/2KT WEATHER 1				10	11.54	33.084	
			4078M	WIND 010		DOMINANT WAVES						276.8	
RV D'AZUR STATION 606							CALCOFI CRUISE 7503						
							L	T	S	10 METER DATA	D2	DT	
73.050	02/01/75	0630GMT	39 37.0°	121 17.0W	BUTTON	368M WIND 140 1/2KT WEATHER				10	10.36	33.721	
			368M	WIND 140		DOMINANT WAVES						209.8	
73.053	02/01/75	0827GMT	39 31.5°	121 28.0W	BUTTON	741M WIND 180 1/2KT WEATHER				10	10.84	33.688	
			741M	WIND 180		DOMINANT WAVES						220.2	
73.060	02/01/75	1310GMT	39 18.0°	121 57.5W	BUTTON	2410M WIND 160 1/2KT WEATHER 6				10	11.78	33.542	
			2410M	WIND 160		DOMINANT WAVES						247.2	

RV DAVID STARR JORDAN	CALCOFI CRUISE 7503	Z	T	10 METER S	DATA 02	DT
73.065 03/01/75 1615GMT 35 08.0W 122 19.0W BOTTOM 3919M WIND 150 7KT WEATHER 2 DOMINANT WAVES 49		10	12.00	33.094	284.2	
73.070 03/01/75 1936GMT 34 58.5N 122 39.5W BOTTOM 4111M WIND 080 4KT WEATHER 1 DOMINANT WAVES 280 6 12		10	13.26	33.295	292.6	
73.080 03/02/75 0119GMT 34 38.0N 122 22.0W BOTTOM 4309M WIND 200 5KT WEATHER 1 DOMINANT WAVES 270 8 12		10	12.46	33.122	290.4	
77.048 03/03/75 1551GMT 35 08.5N 120 43.5W BOTTOM 30M WIND 040 7KT WEATHER 1 DOMINANT WAVES 100 2 10		10	10.56	33.762	210.1	
77.051 03/03/75 1317GMT 35 02.0N 120 56.5W BOTTOM 288M WIND 360 4KT WEATHER DOMINANT WAVES		10	10.44	33.718	211.3	
77.060 03/03/75 0554GMT 34 44.0N 121 34.0W BOTTOM 981M WIND 350 1KT WEATHER DOMINANT WAVES		10	12.16	33.301	271.8	
77.065 03/03/75 0250GMT 34 33.5N 121 56.0W BOTTOM 3919M WIND 330 1KT WEATHER DOMINANT WAVES		10	12.86			
77.070 03/02/75 2347GMT 34 24.0N 122 16.0W BOTTOM 4117M WIND 340 12KT WEATHER 1 DOMINANT WAVES 280 6 12		10	13.76	33.371	298.7	
77.080 03/02/75 1832GMT 34 04.0N 122 57.0W BOTTOM 4309M WIND 330 5KT WEATHER 1 DOMINANT WAVES 270 10 10		10	13.80	33.412	294.5	
77.090 03/02/75 1326GMT 35 43.0N 123 39.0W BOTTOM 4117M WIND 320 4KT WEATHER DOMINANT WAVES		10	13.86	33.406	296.1	
80.050 ¹ 03/03/75 2151GMT 34 28.0N 120 29.5W BOTTOM 28M WIND 050 -KT WEATHER 1 DOMINANT WAVES 240 3 10		10	11.63	33.665	235.5	
80.051 03/03/75 2247GMT 34 26.0N 120 37.5W BOTTOM 108M WIND 280 5KT WEATHER 1 DOMINANT WAVES 240 4 12		10	11.74	33.662	237.7	
80.051 ^b 02/25/75 2324GMT 34 25.5N 120 34.0W BOTTOM 127M WIND 320 24KT WEATHER 1 DOMINANT WAVES 320 5 7	RV ALEXANDER AGASSIZ	10	11.59	33.635	237.0	
80.052 03/03/75 2348GMT 34 25.0N 120 36.0W BOTTOM 242M WIND 280 5KT WEATHER 1 DOMINANT WAVES 300 4 12	RV DAVID STARR JORDAN	10	11.92	33.647	242.0	
80.052 ¹ 02/25/75 2250GMT 34 24.5N 120 36.0W BOTTOM 229M WIND 320 24KT WEATHER 2 DOMINANT WAVES 320 6 8	RV ALEXANDER AGASSIZ	10	11.43	33.660	232.4	
80.052 ⁴ 02/25/75 2214GMT 34 24.0N 120 37.0W BOTTOM 318M WIND 320 24KT WEATHER 1 DOMINANT WAVES 320 5 7		10	11.61	33.651	236.2	
80.052 ⁷ 02/25/75 2122GMT 34 23.5N 120 39.0W BOTTOM 430M WIND 330 14KT WEATHER 2 DOMINANT WAVES 320 5 8		10	10.78	33.655	221.6	
80.053 03/04/75 0058GMT 34 22.5N 120 40.0W BOTTOM 464M WIND 310 7KT WEATHER 2 DOMINANT WAVES 280 5 10	RV DAVID STARR JORDAN	10	11.64	33.663	235.8	
80.053 ⁴ 02/25/75 2027GMT 34 22.5N 120 42.0W BOTTOM 532M WIND 320 14KT WEATHER 1 DOMINANT WAVES 310 5 7	RV ALEXANDER AGASSIZ	10	11.22	33.612	232.3	
80.054 03/04/75 0102GMT 34 21.0N 120 44.0W BOTTOM 687M WIND 340 5KT WEATHER 1 DOMINANT WAVES 260 5 10	RV DAVID STARR JORDAN	10	11.34	33.679	229.4	
80.055 03/04/75 0330GMT 34 19.0N 120 48.0W BOTTOM 768M WIND 330 5KT WEATHER DOMINANT WAVES		10	11.46	33.595	237.7	
80.060 02/04/75 0650GMT 34 09.0N 121 09.0W BOTTOM 2222M WIND 300 5KT WEATHER DOMINANT WAVES		10	12.18	33.428	262.8	
80.080 02/04/75 1828GMT 33 28.0N 122 32.0W BOTTOM 4116M WIND 040 3KT WEATHER 6 DOMINANT WAVES 320 3 5		10	13.82	33.364	298.4	
80.090 02/04/75 2309GMT 33 09.0N 123 13.0W BOTTOM 4309M WIND 150 11KT WEATHER 2 DOMINANT WAVES 130 4 10		10	14.88	33.541	306.7	

RV DAVID STARK JORDAN	EGUFI CRUISE	7503	Z	T	10 METER DATA	
				S	02	01
81.043 5 03/06/15 2027GMT 34 24.0° 119 47.5W BOTTOM 32M WIND 140 11KT WEATHER 6 DOMINANT WAVES 170 3 11			10	12.72	33.573	262.0
81.044 5 03/06/15 2158GMT 34 23.0° 119 50.0W BOTTOM 58M WIND 120 14KT WEATHER 2 DOMINANT WAVES 160 4 13			10	12.84	33.544	266.4
81.044 5 03/07/15 0103GMT 34 22.0° 119 52.0W BOTTOM 78M WIND 130 14KT WEATHER 6 DOMINANT WAVES 130 3 12			10	12.15	33.573	251.6
81.045 5 03/07/15 0230GMT 34 21.0° 119 54.0W BOTTOM 371M WIND 120 14KT WEATHER 2 DOMINANT WAVES 300 4 10			10	12.08	33.622	246.7
81.046 5 03/07/15 0451GMT 34 19.0° 119 58.0W BOTTOM 510M WIND 130 15KT WEATHER 6 DOMINANT WAVES			10	12.25	33.578	253.0
81.047 5 03/07/15 0613GMT 34 17.0° 120 02.5W BOTTOM 584M WIND 120 13KT WEATHER 6 DOMINANT WAVES			10	11.76	33.648	239.1
83.059 6 03/07/15 1744GMT 34 14.5° 119 19.5W BOTTOM 17M WIND 140 16KT WEATHER 2 DOMINANT WAVES 150 5 5			10	13.31	33.553	274.6
83.040 6 03/07/15 1837GMT 34 12.5° 119 24.0W BOTTOM 37M WIND 120 17KT WEATHER 2 DOMINANT WAVES 110 6 6			10	12.94	33.587	265.1
83.041 03/07/15 1543GMT 34 11.5° 119 26.0W BOTTOM 55M WIND 120 14KT WEATHER 1 DOMINANT WAVES 120 6 4			10	12.70	33.593	260.2
83.042 03/07/15 1427GMT 34 09.5° 119 30.0W BOTTOM 242M WIND 140 1-KT WEATHER 1 DOMINANT WAVES 140 6 5			10		33.620	
83.043 03/07/15 1254GMT 34 08.0° 119 34.0W BOTTOM 251M WIND 140 1-KT WEATHER DOMINANT WAVES			10	12.18	33.632	247.8
83.044 03/07/15 1141GMT 34 05.5° 119 38.0W BOTTOM 157M WIND 140 1-KT WEATHER DOMINANT WAVES			10	12.04	33.645	244.3
83.044 03/07/15 1042GMT 34 04.0° 119 41.0W BOTTOM 88M WIND 150 1-KT WEATHER DOMINANT WAVES			10	11.56	33.689	232.5
83.045 03/07/15 0936GMT 34 03.0° 119 42.5W BOTTOM 848M WIND 150 1-KT WEATHER DOMINANT WAVES			10	11.62	33.690	233.5
83.048 03/06/15 0545GMT 33 58.0° 119 55.0W BOTTOM 108M WIND 130 1-KT WEATHER DOMINANT WAVES			10	12.26	33.617	250.3
83.049 03/06/15 0445GMT 33 55.5° 119 59.0W BOTTOM 28M WIND 130 1-KT WEATHER DOMINANT WAVES			10	12.48	33.603	255.4
83.050 03/06/15 0326GMT 33 54.0° 120 05.0W BOTTOM 26M WIND 170 1-KT WEATHER DOMINANT WAVES			10	12.44	33.724	245.7
83.051 03/06/15 0232GMT 33 52.0° 120 08.5W BOTTOM 116M WIND 160 1-KT WEATHER 2 DOMINANT WAVES			10	12.01	33.635	244.5
83.055 03/06/15 2235GMT 33 44.0° 120 24.0W BOTTOM 925M WIND 160 1-KT WEATHER 1 DOMINANT WAVES 140 6 12			10	11.64	33.596	240.8
83.060 03/05/15 2016GMT 33 34.0° 120 45.0W BOTTOM 1479M WIND 170 1-KT WEATHER 1 DOMINANT WAVES 130 6 13			10	12.55	33.484	265.4
83.080 03/05/15 0928GMT 32 54.0° 122 07.0W BOTTOM 4309M WIND 150 1-KT WEATHER 6 DOMINANT WAVES			10	13.18	33.247	294.6
83.090 03/05/15 0432GMT 32 35.0° 122 46.0W BOTTOM 3926M WIND 150 1-KT WEATHER 6 DOMINANT WAVES			10	13.96	33.364	301.1
85.037 2 03/08/15 0145GMT 34 02.5° 118 58.5W BOTTOM 32M WIND 100 1-KT WEATHER 5 DOMINANT WAVES 49			10	13.50	33.518	280.9
85.037 5 03/08/15 0105GMT 34 02.0° 118 59.5W BOTTOM 52M WIND 120 1-KT WEATHER 5 DOMINANT WAVES 49			10	13.48	33.535	279.2
85.038 03/07/15 2341GMT 34 01.0° 119 02.5W BOTTOM 227M WIND 120 14KT WEATHER 6 DOMINANT WAVES 130 17 16			10	13.36	33.557	275.3
85.039 03/07/15 2150GMT 33 59.0° 119 05.5W BOTTOM 667M WIND 130 1-KT WEATHER 6 DOMINANT WAVES 230 R 8			10	13.26	33.577	271.9

RV DAVID STARR JORDAN	CALCOFI CRUISE	7503	Z	10 METER DATA		DT
				S	02	
85.040	03/07/75	2017GMT 33 57.0N 119 10.5W BOTTOM 741M WIND 130 14KT WEATHER 2 DOMINANT WAVES 240 6 10	10	12.98	33.605	264.5
87.032 ⁵	03/08/75	0520GMT 33 55.0N 118 26.5W BOTTOM 19M WIND 100 7KT WEATHER 6 DOMINANT WAVES	10	13.65	33.556	281.0
87.033	03/08/75	0829GMT 33 54.0N 118 29.0W BOTTOM 47M WIND 160 9KT WEATHER 6 DOMINANT WAVES	10	13.68	33.527	283.7
87.034	03/08/75	1011GMT 33 52.0N 118 33.5W BOTTOM 73M WIND 210 14KT WEATHER 6 DOMINANT WAVES	10	13.52	33.525	280.7
87.035	03/08/75	1154GMT 33 50.0N 118 37.5W BOTTOM 482M WIND 200 14KT WEATHER 2 DOMINANT WAVES	10	12.87	33.525	268.3
87.036	03/08/75	1406GMT 33 47.0N 118 43.5W BOTTOM 925M WIND 200 14KT WEATHER 2 DOMINANT WAVES	10	13.36	33.472	281.6
87.040	03/08/75	1737GMT 33 40.0N 118 58.0W BOTTOM 870M WIND 210 14KT WEATHER 6 DOMINANT WAVES 220 10 12	10	13.54	33.543	279.8
87.045	03/08/75	2145GMT 33 30.0N 119 19.0W BOTTOM 1664M WIND 290 12KT WEATHER 6 DOMINANT WAVES 290 8 10	10	12.55	33.569	259.2
87.050	03/09/75	0005GMT 33 20.0N 119 39.5W BOTTOM 71M WIND 290 14KT WEATHER 1 DOMINANT WAVES 290 8 11	10	12.58	33.579	254.0
87.055	03/09/75	0418GMT 33 10.0N 120 00.0W BOTTOM 1295M WIND 300 14KT WEATHER 2 DOMINANT WAVES	10	12.60	33.451	268.8
87.070	03/09/75	1329GMT 32 39.5N 121 07.0W BOTTOM 4021M WIND 320 12KT WEATHER DOMINANT WAVES	10	12.96	33.499	272.0
87.080	03/09/75	1901GMT 32 19.0N 121 44.0W BOTTOM 4116M WIND 320 14KT WEATHER 1 DOMINANT WAVES 330 6 10	10	13.70	33.345	297.4
87.090	03/10/75	0018GMT 32 59.0N 122 23.5W BOTTOM 4212M WIND 320 14KT WEATHER 1 DOMINANT WAVES 310 8 7	10	13.68	33.309	299.7
88.030 ^b	03/12/75	2142GMT 33 41.5N 118 07.0W BOTTOM 19M WIND 160 8KT WEATHER 1 DOMINANT WAVES 140 2 6	10	13.72	33.288	302.0
88.031 ⁵	03/12/75	2038GMT 33 40.5N 118 08.5W BOTTOM 24M WIND 150 8KT WEATHER 1 DOMINANT WAVES 140 2 6	10	13.39	33.513	279.1
88.032 ⁵	03/11/75	1920GMT 33 38.5N 118 13.5W BOTTOM 39M WIND 340 14KT WEATHER 2 DOMINANT WAVES 280 4 13	10	13.56	33.503	283.1
88.033 ⁵	03/11/75	1748GMT 33 36.0N 118 17.5W BOTTOM 242M WIND 050 4KT WEATHER 6 DOMINANT WAVES 270 4 13	10	13.50	33.507	281.7
88.034 ⁵	03/11/75	1542GMT 33 34.0N 118 22.0W BOTTOM 507M WIND 210 8KT WEATHER 1 DOMINANT WAVES 270 8 24	10	13.60	33.530	281.9
90.027 ^b	03/13/75	0051GMT 33 29.5N 117 45.5W BOTTOM 39M WIND 240 14KT WEATHER 1 DOMINANT WAVES 250 2 11	10	13.97	33.421	297.2
90.028	03/13/75	0845GMT 33 28.5N 117 46.5W BOTTOM 311M WIND 220 14KT WEATHER DOMINANT WAVES	10	13.72	33.489	287.3
90.029	03/13/75	0604GMT 33 27.0N 117 49.5W BOTTOM 648M WIND 240 14KT WEATHER DOMINANT WAVES	10	13.92	33.478	292.0
90.030	03/13/75	0810GMT 33 25.0N 117 53.5W BOTTOM 648M WIND 200 14KT WEATHER DOMINANT WAVES	10	13.85	33.489	289.8
90.031	03/13/75	1001GMT 33 23.0N 117 57.5W BOTTOM 454M WIND 200 14KT WEATHER DOMINANT WAVES	10	13.80	33.541	285.0
90.032	03/13/75	1156GMT 33 20.0N 118 03.0W BOTTOM 750M WIND 140 8KT WEATHER DOMINANT WAVES	10	13.88	33.562	285.1
90.045	03/11/75	0618GMT 32 55.0N 118 56.0W BOTTOM 1756M WIND 310 14KT WEATHER DOMINANT WAVES	10	13.70	33.550	282.4
90.053	03/11/75	0150GMT 32 39.0N 119 28.5W BOTTOM 1295M WIND 290 14KT WEATHER 1 DOMINANT WAVES 290 8 7	10	12.58	33.542	261.7

RV	DAVID STARR JORDAN	CALCULATED CRUISE	7503	Z	T	10 METER S	DATA D2	DT
90.060	02/10/75 2113GMT 32 25.0W 119 57.5W BOTTOM 892M WIND 290 13KT WEATHER 6 DOMINANT WAVES 290 6 8			10	12.71	33.510		266.5
90.070	02/10/75 1626GMT 32 05.0W 120 38.5W BOTTOM 3926M WIND 270 8KT WEATHER 2 DOMINANT WAVES 270 8 10			10	13.16	33.467		278.1
90.090	02/10/75 0519GMT 31 24.0W 122 01.0W BOTTOM 3926M WIND 310 8KT WEATHER DOMINANT WAVES			10	14.22	33.404		303.4
91.026 ⁵	02/13/75 2148GMT 33 14.5W 117 27.5W BOTTOM 19M WIND 270 6KT WEATHER 1 DOMINANT WAVES 270 2 5			10	13.84	33.398		296.3
91.027 ⁵	02/13/75 2050GMT 33 14.0W 117 30.5W BOTTOM 56M WIND 240 6KT WEATHER 1 DOMINANT WAVES 270 2 5			10	13.73	33.448		290.5
91.028 ⁵	02/13/75 1917GMT 33 12.0W 117 34.0W BOTTOM 565M WIND 250 6KT WEATHER 2 DOMINANT WAVES 240 2 8			10	13.75	33.480		288.5
91.029 ⁵	02/13/75 1724GMT 33 10.0W 117 38.0W BOTTOM 796M WIND 220 6KT WEATHER 2 DOMINANT WAVES 220 2 6			10	13.82	33.523		286.7
91.030 ⁵	02/13/75 1528GMT 33 08.0W 117 42.0W BOTTOM 833M WIND 200 7KT WEATHER 2 DOMINANT WAVES 090 2 7			10	13.88	33.536		287.0
93.026 ⁷	02/14/75 0031GMT 32 57.0W 117 17.5W BOTTOM 34M WIND 270 7KT WEATHER 1 DOMINANT WAVES 250 2 5			10	13.96	33.452		294.7
93.026 ⁹	02/14/75 0150GMT 32 57.0W 117 18.5W BOTTOM 65M WIND 260 7KT WEATHER 1 DOMINANT WAVES 270 2 5			10	13.90	33.520		288.5
93.028	02/14/75 0319GMT 32 55.0W 117 22.0W BOTTOM 593M WIND 250 6KT WEATHER DOMINANT WAVES			10	14.00	33.544		288.7
93.029	02/14/75 0516GMT 32 53.0W 117 26.5W BOTTOM 593M WIND 250 6KT WEATHER DOMINANT WAVES			10	13.75	33.511		286.2
93.030	02/14/75 0710GMT 32 50.0W 117 31.0W BOTTOM 778M WIND 230 11KT WEATHER 6 DOMINANT WAVES			10	13.94			
93.035	02/14/75 1040GMT 32 40.5W 117 51.5W BOTTOM 630M WIND 300 14KT WEATHER DOMINANT WAVES			10	14.02	33.571		287.1
93.040	02/14/75 1330GMT 32 30.0W 118 11.5W BOTTOM 149M WIND 300 14KT WEATHER DOMINANT WAVES			10	13.99	33.579		286.0
93.045	02/14/75 1647GMT 32 20.0W 118 32.0W BOTTOM 1664M WIND 300 15KT WEATHER 1 DOMINANT WAVES 310 10 7			10	13.66	33.541		282.3
93.050	02/14/75 1934GMT 32 10.0W 118 52.5W BOTTOM 1479M WIND 300 14KT WEATHER 1 DOMINANT WAVES 300 15 10			10	13.70	33.547		282.6
93.055	02/14/75 2237GMT 32 00.0W 119 13.5W BOTTOM 1670M WIND 320 13KT WEATHER 2 DOMINANT WAVES 310 16 12			10	13.83	33.560		284.2
93.060	02/15/75 0121GMT 31 51.0W 119 34.0W BOTTOM 2227M WIND 330 12KT WEATHER 1 DOMINANT WAVES 320 16 13			10	13.26	33.530		275.4
93.080	02/15/75 1252GMT 31 10.0W 120 54.5W BOTTOM 4021M WIND 340 11KT WEATHER DOMINANT WAVES			10	13.26	33.385		286.0
95.028	02/17/75 1021GMT 32 37.0W 117 10.5W BOTTOM 19M WIND 100 4KT WEATHER DOMINANT WAVES			10	11.86	33.570		246.6
95.029	02/17/75 0915GMT 32 25.0W 117 14.5W BOTTOM 47M WIND 090 4KT WEATHER DOMINANT WAVES			10	13.43	33.520		279.4
95.030	02/17/75 0743GMT 32 33.0W 117 18.5W BOTTOM 103M WIND 320 11KT WEATHER DOMINANT WAVES			10	13.62	33.539		281.6
95.031	02/17/75 0626GMT 32 31.5W 117 22.5W BOTTOM 417M WIND 330 11KT WEATHER DOMINANT WAVES			10	13.88	33.557		285.4
95.032	02/17/75 0449GMT 32 29.0W 117 27.0W BOTTOM 1092M WIND 310 12KT WEATHER DOMINANT WAVES			10	13.90	33.560		285.6
97.028 ⁸	02/17/75 0138GMT 32 18.0W 117 04.0W BOTTOM 37M WIND 310 10KT WEATHER 1 DOMINANT WAVES 44 2			10	13.49	33.527		280.0

RV DAVID STARR JORDAN	CALCULI CRUISE	7503	Z	T	S	METER DATA	DT
			10	13.66	33.542	282.2	
97.029 03/17/75 0107GMT 32 17.5N 117 06.5W BOTTOM 48M WIND 310 1(KT) WEATHER 1 DOMINANT WAVES 49 2			10	13.66	33.542	282.2	
97.030 03/17/75 0020GMT 32 16.0N 117 07.0W BOTTOM 56M WIND 300 4(KT) WEATHER 1 DOMINANT WAVES 49 2			10	13.50	33.527	281.2	
97.031 03/16/75 2310GMT 32 13.0N 117 13.0W BOTTOM 1202M WIND 310 4(KT) WEATHER 1 DOMINANT WAVES 49 2			10	13.77	33.556	283.3	
97.032 03/16/75 2200GMT 32 12.0N 117 15.5W BOTTOM 1387M WIND 310 6(KT) WEATHER 2 DOMINANT WAVES 49 2			10	13.94	33.576	285.2	
97.035 03/16/75 1939GMT 32 05.5N 117 27.5W BOTTOM 1202M WIND 250 4(KT) WEATHER 2 DOMINANT WAVES 49 2			10	13.97	33.598	284.2	
97.040 03/16/75 1636GMT 31 57.0N 117 48.0W BOTTOM 1572M WIND 250 4(KT) WEATHER 2 DOMINANT WAVES 280 4 8			10	14.28	33.680	291.7	
97.045 03/16/75 1353GMT 31 46.0N 118 08.5W BOTTOM 1757M WIND 310 4(KT) WEATHER 2 DOMINANT WAVES 290 4 6			10	14.04	33.552	288.9	
97.055 03/16/75 0714GMT 31 26.0N 118 50.0W BOTTOM 854M WIND 310 4(KT) WEATHER DOMINANT WAVES			10	13.42	33.559	276.3	
97.060 03/16/75 0411GMT 31 16.0N 119 10.0W BOTTOM 3737M WIND 320 10(KT) WEATHER DOMINANT WAVES			10	13.90	33.613	281.7	
97.070 03/15/75 2301GMT 30 55.5N 119 51.0W BOTTOM 3832M WIND 310 4(KT) WEATHER 1 DOMINANT WAVES 330 8 10			10	13.62	33.495	284.9	
97.080 03/15/75 1757GMT 30 35.0N 120 31.0W BOTTOM 4116M WIND 340 8(KT) WEATHER 2 DOMINANT WAVES 340 15 10			10	14.18	33.518	294.2	
100.029 03/19/75 0042GMT 31 42.0N 116 43.5W BOTTOM 1088M WIND 320 10(KT) WEATHER 1 DOMINANT WAVES 280 5 4			10	12.40	33.602	254.0	
100.030 03/19/75 0140GMT 31 40.5N 116 46.5W BOTTOM 436M WIND 320 10(KT) WEATHER 1 DOMINANT WAVES 280 5 5			10	13.59	33.563	279.3	
100.031 03/19/75 0257GMT 31 38.5N 116 50.5W BOTTOM 93M WIND WEATHER DOMINANT WAVES			10	13.73	33.562	282.1	
100.032 03/19/75 0344GMT 31 36.5N 116 55.0W BOTTOM 1202M WIND 320 4(KT) WEATHER DOMINANT WAVES			10	13.82	33.575	282.9	
100.035 03/19/75 0547GMT 31 30.5N 117 07.0W BOTTOM 1295M WIND 330 1(KT) WEATHER DOMINANT WAVES			10	13.84	33.586	282.5	
100.040 03/19/75 0922GMT 31 21.5N 117 26.5W BOTTOM 2222M WIND 330 1(KT) WEATHER DOMINANT WAVES			10	14.04	33.565	288.0	
100.050 03/19/75 1430GMT 31 00.0N 118 07.0W BOTTOM 1669M WIND 340 10(KT) WEATHER 1 DOMINANT WAVES 110 5 11			10	14.24	33.552	292.9	
100.060 03/19/75 1949GMT 30 40.5N 118 47.5W BOTTOM 2980M WIND 320 10(KT) WEATHER 1 DOMINANT WAVES 330 6 7			10	15.01	33.665	300.3	
100.080 03/20/75 0757GMT 30 00.0N 120 07.0W BOTTOM 4116M WIND 330 1(KT) WEATHER DOMINANT WAVES			10	15.00	33.639	302.0	
103.028 ^B 03/21/75 1840GMT 31 07.5N 116 20.0W BOTTOM 19M WIND 320 4(KT) WEATHER 0 DOMINANT WAVES 300 6 8			10	11.56	33.668	234.1	
103.029 03/21/75 1800GMT 31 07.0N 116 21.0W BOTTOM 32M WIND 320 1(KT) WEATHER 0 DOMINANT WAVES 310 8 7			10	12.08	33.647	244.9	
103.030 03/21/75 1615GMT 31 06.0N 116 24.5W BOTTOM 56M WIND 330 4(KT) WEATHER 1 DOMINANT WAVES 320 5 9			10	12.20	33.636	247.9	
103.031 03/21/75 1507GMT 31 03.0N 116 29.0W BOTTOM 93M WIND 320 1(KT) WEATHER 1 DOMINANT WAVES 310 8 11			10	12.78	33.611	260.4	
103.032 03/21/75 1352GMT 31 01.0N 116 33.0W BOTTOM 537M WIND 310 4(KT) WEATHER 1 DOMINANT WAVES 320 8 10			10	13.49	33.574	276.6	
103.035 03/21/75 1127GMT 30 56.0N 116 45.0W BOTTOM 1756M WIND 330 13(KT) WEATHER DOMINANT WAVES			10	14.40	33.586	293.6	

RV DAVID STARR JORDAN	CALCOFI CRUISE 7503	L	T	10 METER DATA S 02 DT	
103.045 03/21/75 0333GMT 30 36.0N 117 24.0W BOTTOM 2042M WIND 330 10KT WEATHER DOMINANT WAVES 320 12 5		10	14.82	33.607	300.6
103.050 03/21/75 0046GMT 30 26.0N 117 45.0W BOTTOM 2790M WIND 330 1KT WEATHER 2 DOMINANT WAVES 320 10 6		10	14.89	33.622	301.0
103.060 03/20/75 1923GMT 30 06.0N 118 25.0W BOTTOM 3737M WIND 330 1KT WEATHER 2 DOMINANT WAVES 330 6 11		10	15.16	33.675	302.7
103.070 03/20/75 1416GMT 29 47.0N 119 04.0W BOTTOM 3737M WIND 010 1KT WEATHER 2 DOMINANT WAVES 350 10 7		10	14.94	33.663	299.0
110.032 ⁴ 03/22/75 0224GMT 29 51.5N 115 50.0W BOTTOM 41M WIND 320 11KT WEATHER 1 DOMINANT WAVES 330 8 7		10	11.97	33.828	229.6
110.033 03/22/75 0257GMT 29 50.5N 115 51.5W BOTTOM 82M WIND 330 4KT WEATHER 1 DOMINANT WAVES		10	12.78	33.644	257.4
110.034 03/22/75 0343GMT 29 48.0N 115 56.0W BOTTOM 742M WIND 320 11KT WEATHER 1 DOMINANT WAVES		10	13.68	33.577	280.0
110.035 03/22/75 0505GMT 29 46.0N 116 00.0W BOTTOM 1298M WIND 340 10KT WEATHER DOMINANT WAVES		10	14.30	33.580	292.1
110.040 03/22/75 0808GMT 29 36.5N 116 19.5W BOTTOM 2042M WIND 330 13KT WEATHER DOMINANT WAVES		10	14.90	33.642	299.7
110.045 03/22/75 1108GMT 29 27.0N 116 40.0W BOTTOM 1856M WIND 330 14KT WEATHER DOMINANT WAVES		10	14.78	33.616	299.2
110.055 03/22/75 1739GMT 29 06.5N 117 19.0W BOTTOM 3738M WIND 320 10KT WEATHER 2 DOMINANT WAVES 320 4 6		10	14.96	33.656	299.9
110.060 03/22/75 2017GMT 28 57.0N 117 38.5W BOTTOM 3737M WIND 320 4KT WEATHER 2 DOMINANT WAVES 330 6 8		10	15.11	33.667	302.2
113.028 ⁸ 03/23/75 2301GMT 29 25.0N 115 12.5W BOTTOM 19M WIND 290 11KT WEATHER 0 DOMINANT WAVES 300 6 9		10	12.62	33.824	241.7
113.029 03/23/75 2238GMT 29 24.5N 115 13.5W BOTTOM 26M WIND 290 11KT WEATHER 0 DOMINANT WAVES 300 7 11		10	12.28	33.780	238.7
113.030 03/23/75 2155GMT 29 22.0N 115 18.5W BOTTOM 60M WIND 330 12KT WEATHER 0 DOMINANT WAVES 330 8 13		10	12.42	33.644	251.3
113.031 03/23/75 2105GMT 29 20.5N 115 21.5W BOTTOM 82M WIND 330 11KT WEATHER 0 DOMINANT WAVES 320 9 12		10	12.56	33.664	252.4
113.032 03/23/75 2012GMT 29 18.5N 115 25.5W BOTTOM 104M WIND 330 12KT WEATHER 0 DOMINANT WAVES 320 10 11		10	12.88	33.619	261.6
113.040 03/23/75 1258GMT 29 00.0N 115 56.0W BOTTOM 1856M WIND 330 12KT WEATHER DOMINANT WAVES		10	13.04	33.632	263.7
113.045 03/23/75 1007GMT 28 52.0N 116 17.0W BOTTOM 2043M WIND 320 13KT WEATHER DOMINANT WAVES		10	14.86	33.640	299.0
113.050 03/23/75 0659GMT 28 42.0N 116 36.0W BOTTOM 4498M WIND 350 12KT WEATHER DOMINANT WAVES		10	14.63	33.604	297.0
113.060 03/23/75 0142GMT 28 22.0N 115 19.0W BOTTOM 3737M WIND 310 7KT WEATHER 1 DOMINANT WAVES 250 5 10		10	14.99	33.633	302.2
113.070 03/23/75 2043GMT 28 02.0N 117 55.0W BOTTOM 3357M WIND 310 7KT WEATHER DOMINANT WAVES		10	15.40	33.687	306.8
119.033 03/24/75 1454GMT 28 19.0N 114 53.0W BOTTOM 110M WIND 320 4KT WEATHER 0 DOMINANT WAVES 300 4 10		10	13.66	33.591	278.6
120.022 ⁴ 03/24/75 0649GMT 28 28.0N 114 04.5W BOTTOM 17M WIND 170 4KT WEATHER DOMINANT WAVES		10	13.60	33.737	266.1
120.022 ⁷ 03/24/75 0725GMT 28 27.5N 114 05.5W BOTTOM 21M WIND 120 4KT WEATHER DOMINANT WAVES		10	13.53	33.733	265.7
120.023 03/24/75 0758GMT 28 27.0N 114 07.0W BOTTOM 21M WIND 320 4KT WEATHER DOMINANT WAVES		10	13.58	33.739	266.2

RV DAVID STARR JORDAN	CALCULI CRUISE	7503	Z	10 METER		DATA #2	DT
				T	S		
120.024	03/24/75 0842GMT	28 25.5W 114 11.0W		10	13.70	33.723	264.7
	BOTTOM 30M	WIND 350 KKT WEATHER					
DIMINANT WAVES							
120.025	03/24/75 0930GMT	28 22.5W 114 15.0W		10	13.98	33.730	274.7
	BOTTOM 37M	WIND 330 KKT WEATHER					
DIMINANT WAVES							
120.026	03/24/75 1017GMT	28 21.0W 114 18.5W		10	14.20	33.723	279.6
	BOTTOM 39M	WIND 330 KKT WEATHER					
DIMINANT WAVES							
120.030	03/24/75 1223GMT	28 13.0W 114 34.0W		10	13.62	33.666	272.3
	BOTTOM 95M	WIND 320 KKT WEATHER					
DIMINANT WAVES							
120.035	03/24/75 1650GMT	28 03.0W 114 54.0W		10	14.44	33.718	284.8
	BOTTOM 80M	WIND 360 KKT WEATHER					
DIMINANT WAVES 320 6 11							
120.040	03/24/75 1911GMT	27 56.5W 115 14.0W		10	13.53	33.699	268.2
	BOTTOM 43M	WIND 310 KKT WEATHER					
DIMINANT WAVES 320 5 10							
120.050	03/25/75 0151GMT	27 33.0W 115 53.0W		10	14.46	33.589	294.6
	BOTTOM 4212M	WIND 340 KKT WEATHER					
DIMINANT WAVES 360 8 8							
120.060	03/25/75 0656GMT	27 13.0W 116 30.5W		10	15.00	33.631	302.6
	BOTTOM 3737M	WIND 340 KKT WEATHER					
DIMINANT WAVES							
120.070	03/28/75 0021GMT	26 50.0W 117 10.0W		10	15.80	33.736	311.7
	BOTTOM 3926M	WIND 320 KKT WEATHER					
Z							
DIMINANT WAVES 330 8 9							
123.035	03/26/75 0336GMT	27 26.5W 114 35.0W		10	13.00	33.995	236.3
	BOTTOM 26M	WIND 280 KKT WEATHER					
DIMINANT WAVES							
123.036	03/26/75 0310GMT	27 26.0W 114 36.0W		10	12.88	34.005	233.3
	BOTTOM 47M	WIND 290 KKT WEATHER					
DIMINANT WAVES							
123.037	03/26/75 0217GMT	27 24.0W 114 40.0W		10	12.80	34.045	228.8
	BOTTOM 71M	WIND 300 KKT WEATHER					
DIMINANT WAVES 300 2 7							
123.038	03/26/75 0119GMT	27 22.0W 114 45.0W		10	12.46	34.085	219.6
	BOTTOM 82M	WIND 310 KKT WEATHER					
DIMINANT WAVES 310 4 7							
123.039	03/26/75 0026GMT	27 20.0W 114 48.0W		10	13.22	33.805	254.4
	BOTTOM 110M	WIND 300 1/2KT WEATHER					
DIMINANT WAVES 310 6 8							
123.042	03/25/75 2227GMT	27 14.0W 114 59.5W		10	14.27	33.756	278.6
	BOTTOM 2602M	WIND 330 KKT WEATHER					
Z							
DIMINANT WAVES 310 6 H							
123.045	03/25/75 2039GMT	27 08.0W 115 10.5W		10	14.98	33.700	297.1
	BOTTOM 4309M	WIND 320 1/2KT WEATHER					
Z							
DIMINANT WAVES 320 6 10							
123.060	03/25/75 1146GMT	26 38.0W 116 09.0W		10	15.08	33.666	301.7
	BOTTOM 3926M	WIND 350 1/2KT WEATHER					
DIMINANT WAVES							
120.025	02/26/75 1237GMT	26 37.5W 113 11.5W		10	13.99	34.154	243.8
	BOTTOM 21M	WIND 270 KKT WEATHER					
DIMINANT WAVES							
120.026	02/26/75 1310GMT	26 35.0W 113 13.0W		10	13.95	33.994	254.4
	BOTTOM 32M	WIND 260 KKT WEATHER					
DIMINANT WAVES							
120.027	02/26/75 1356GMT	26 35.0W 113 17.0W		10	13.54	33.881	255.0
	BOTTOM 47M	WIND 270 KKT WEATHER					
Z							
DIMINANT WAVES 250 2 10							
120.028	02/26/75 1451GMT	26 33.0W 113 21.0W		10	13.76	33.932	255.5
	BOTTOM 56M	WIND 300 KKT WEATHER					
Z							
DIMINANT WAVES 250 2 8							
120.029	02/26/75 1614GMT	26 30.5W 113 26.0W		10	13.64	33.893	256.1
	BOTTOM 69M	WIND 320 KKT WEATHER					
Z							
DIMINANT WAVES 280 3 4							
120.030	02/26/75 1700GMT	26 29.0W 113 29.0W		10	12.98	33.784	251.4
	BOTTOM 78M	WIND 310 KKT WEATHER					
Z							
DIMINANT WAVES 250 3 10							
120.035	02/26/75 1922GMT	26 18.5W 113 48.5W		10	16.14	33.864	309.7
	BOTTOM 567M	WIND 300 1/2KT WEATHER					
Z							
DIMINANT WAVES 330 2 8							
120.040	02/26/75 2200GMT	26 09.0W 114 07.0W		10	16.78	34.058	309.6
	BOTTOM 2415M	WIND 320 KKT WEATHER					
Z							
DIMINANT WAVES 300 4 8							
120.060	02/27/75 0945GMT	25 29.0W 115 23.5W		10	16.24	33.930	307.1
	BOTTOM 3926M	WIND 300 KKT WEATHER					
Z							
DIMINANT WAVES							

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