

PHYSICAL AND CHEMICAL DATA REPORT

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
W. A. Nierenberg, Director

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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 Thermosteric anomaly	cl/ton
SIGT	$\sigma_t = (\rho_{s,t,0} - 1) 10^3$ where $\rho_{s,t,0}$ is the	g/L
or	density the parcel of sea water would have	
SIGMA T	if moved isothermally to the sea surface.	
DD	Geopotential anomaly, referred to the sea surface.	dynamic meters

FOOTNOTES

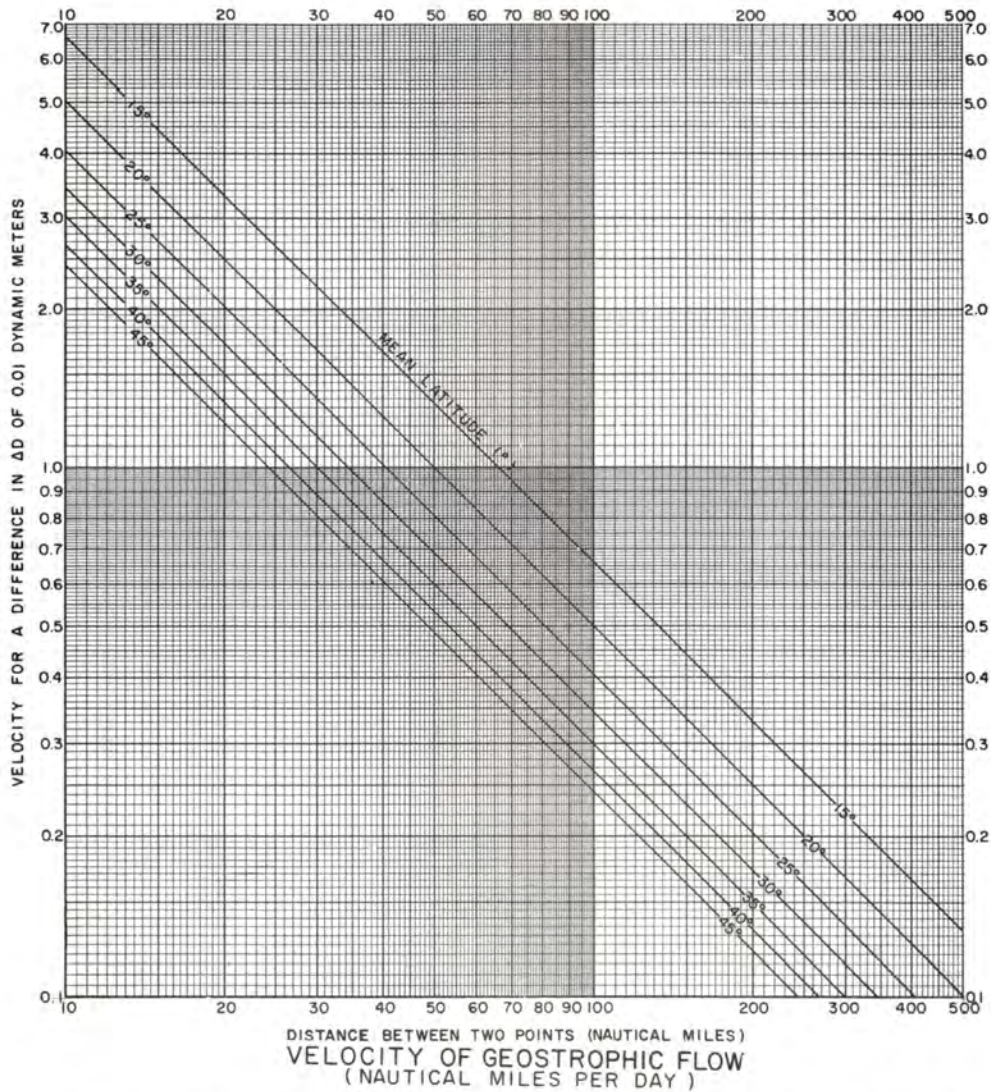
In addition to footnotes, special notations are used without footnotes because the meaning is always the same.

P: After depth values indicates the Nansen bottle posttripped.

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 echosounding 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	<i>KNOTS</i> 0.02 <i>NM/DAY</i>	0.02	0.04	0.06	0.08	0.10	0.12	0.14	0.16	0.17
10	0.19	0.21	0.23	0.25	0.27	0.29	0.31	0.33	0.35	0.37
20	0.39	0.41	0.43	0.45	0.47	0.49	0.51	0.52	0.54	0.56
30	0.58	0.60	0.62	0.64	0.66	0.68	0.70	0.72	0.74	0.76
40	0.78	0.80	0.82	0.84	0.85	0.87	0.89	0.91	0.93	0.95
50	0.97	0.99	1.01	1.03	1.05	1.07	1.09	1.11	1.13	1.15
60	1.17	1.18	1.20	1.22	1.24	1.26	1.28	1.30	1.32	1.34
70	1.36	1.38	1.40	1.42	1.44	1.46	1.48	1.50	1.52	1.53
80	1.55	1.57	1.59	1.61	1.63	1.65	1.67	1.69	1.71	1.73
90	1.75	1.77	1.79	1.81	1.83	1.85	1.86	1.88	1.90	1.92
100	1.94	1.96	1.98	2.00	2.02	2.04	2.06	2.08	2.10	2.12

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

1 cm/sec = 0.019 kts = 0.466 NAUTICAL MILES / DAY
 1 kt = 24 NAUTICAL MILES / DAY = 51.48 cm/sec
 1 NAUTICAL MILE / DAY = 0.042 kts = 2.14 cm/sec

FIGURES

Cruise 7501

1. CalCOFI Cruise 7501, 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

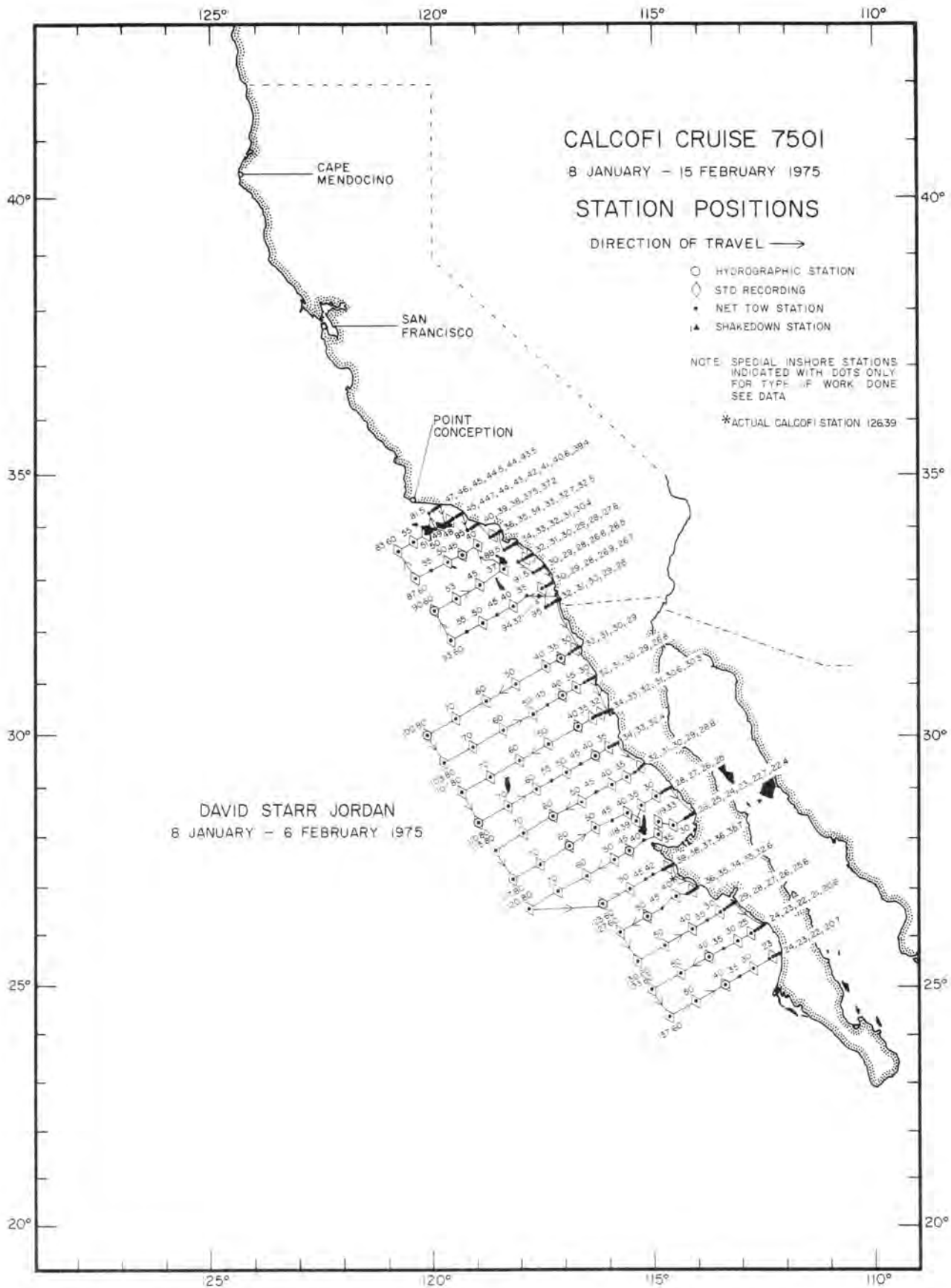


FIGURE 1

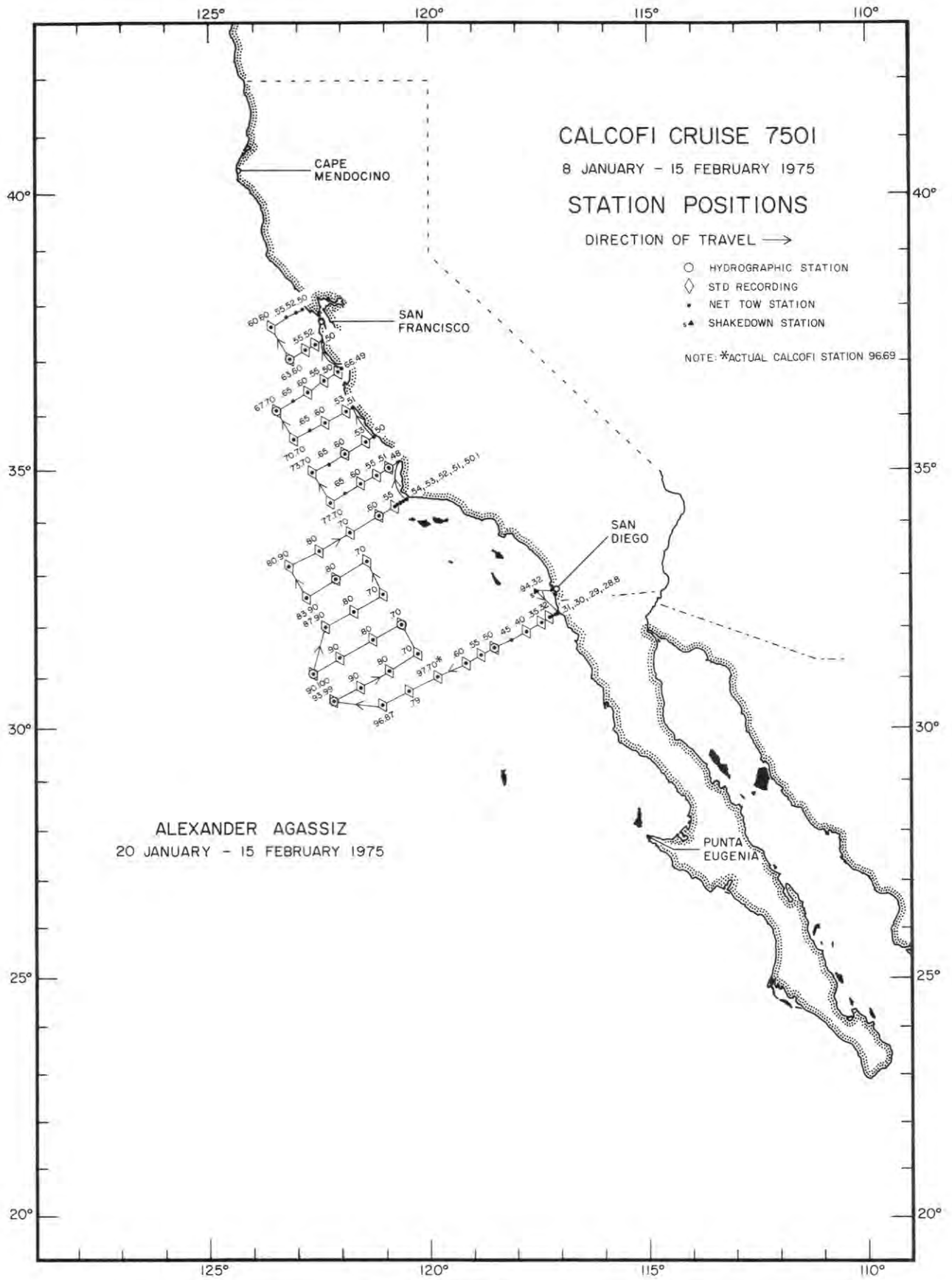


FIGURE 1A

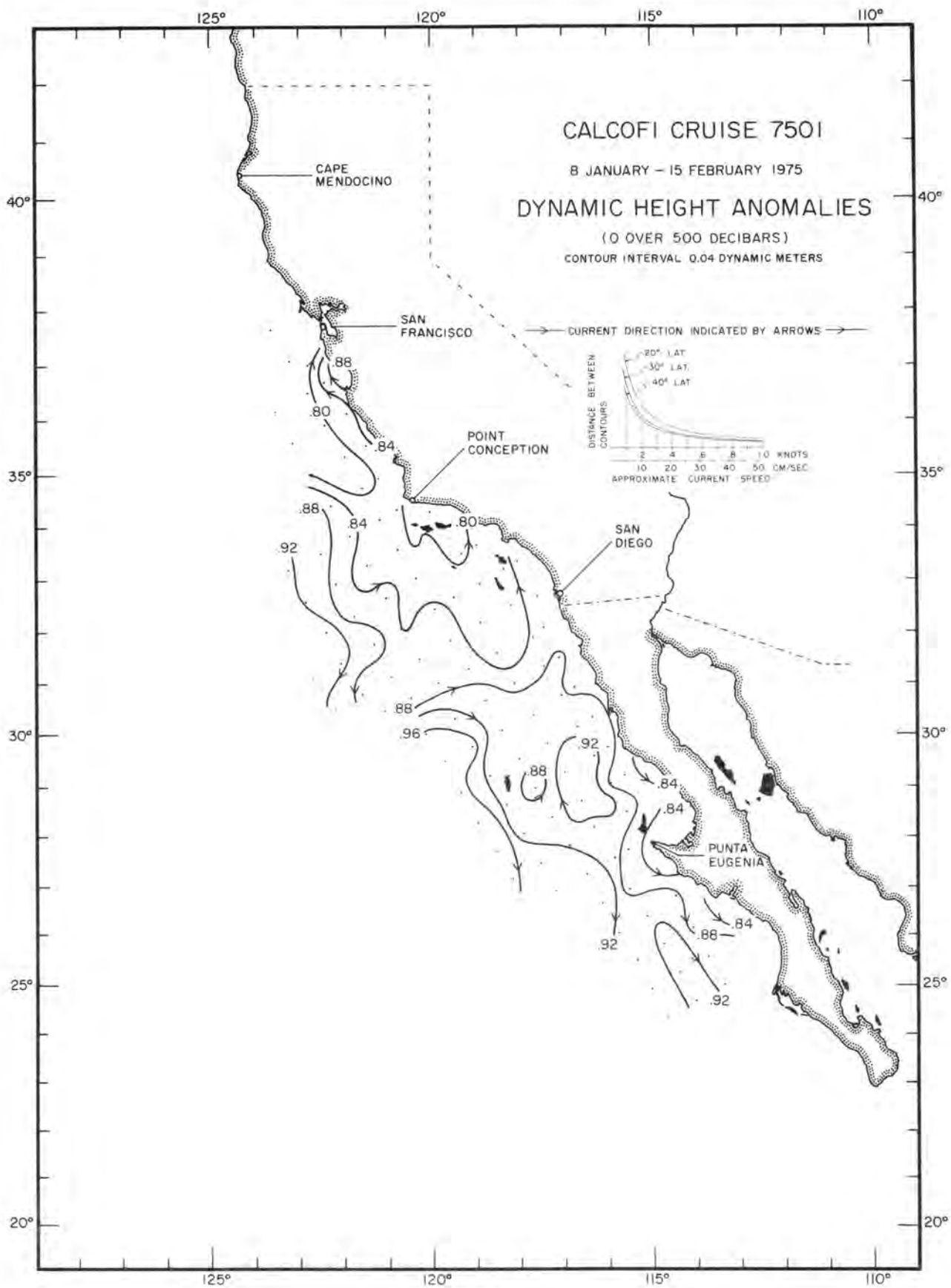


FIGURE 2

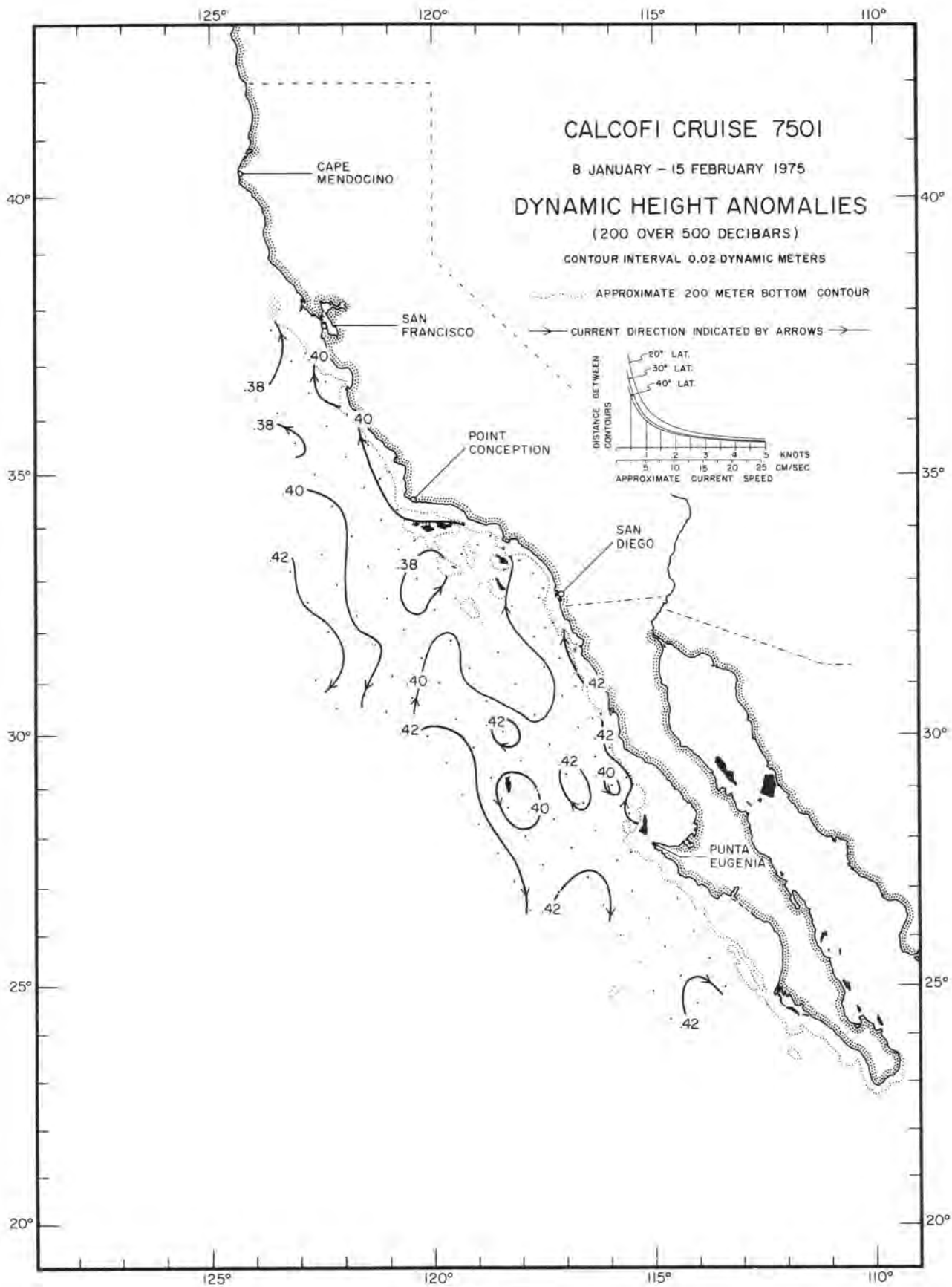


FIGURE 3

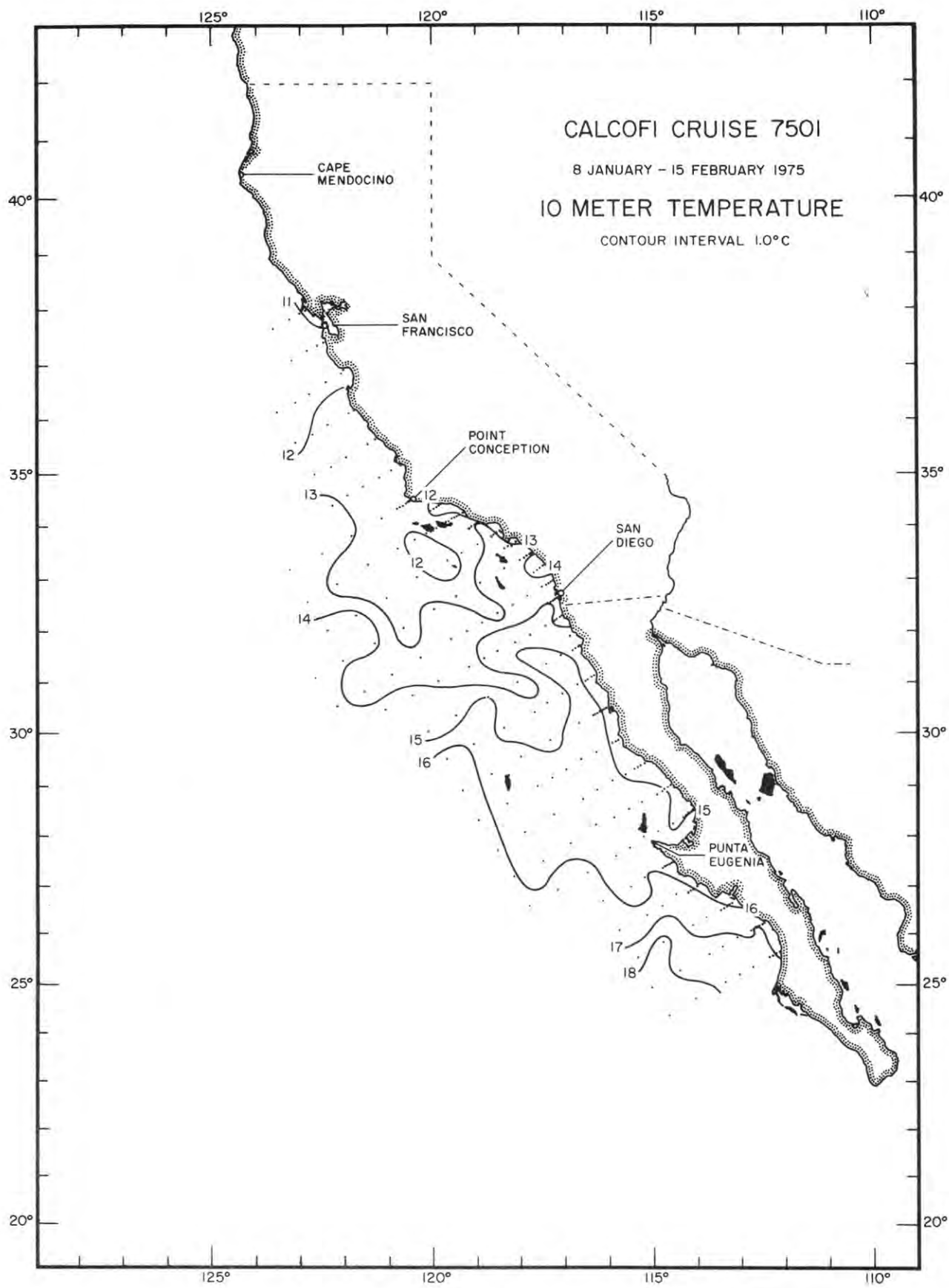


FIGURE 4

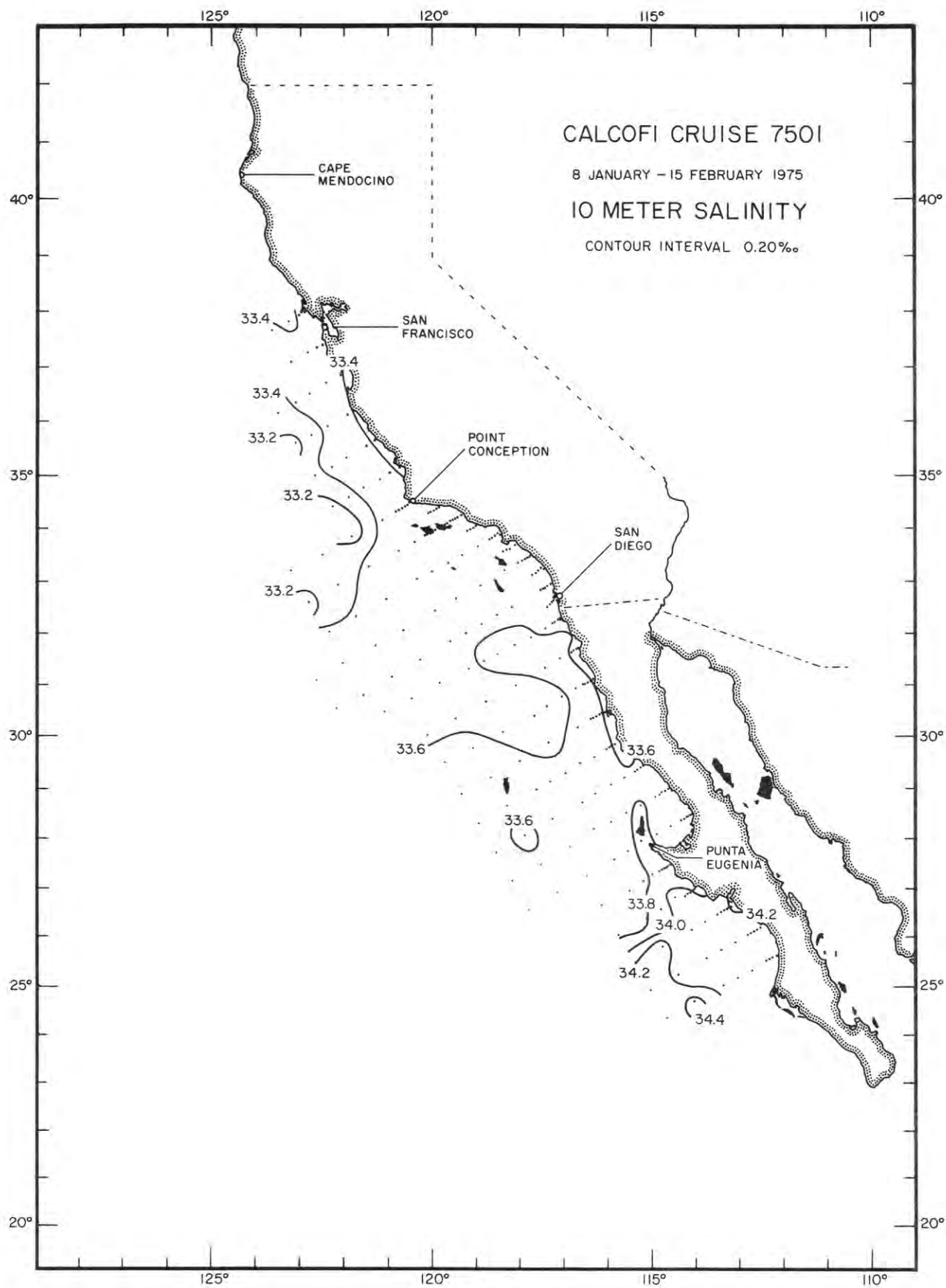


FIGURE 5

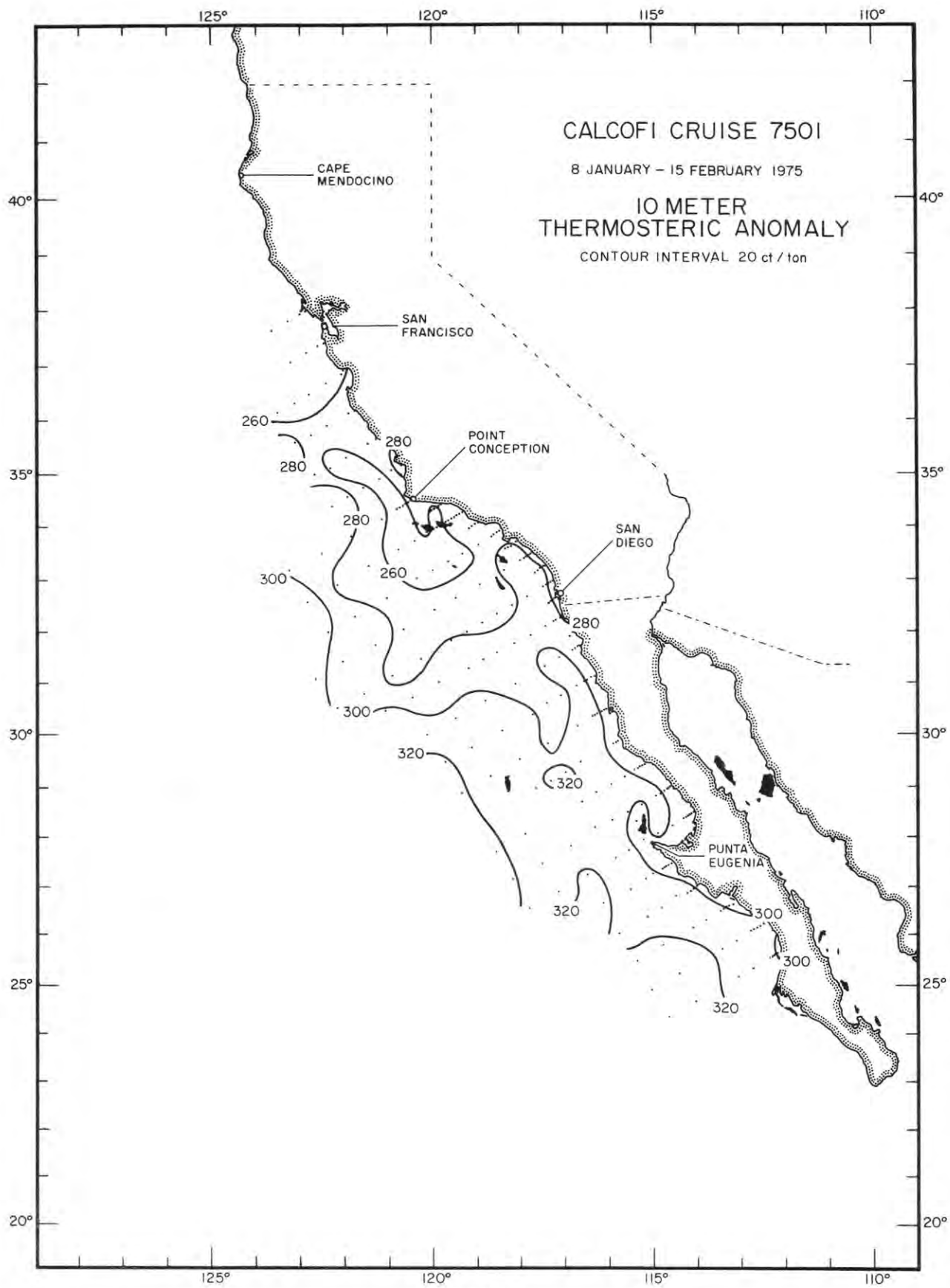


FIGURE 6

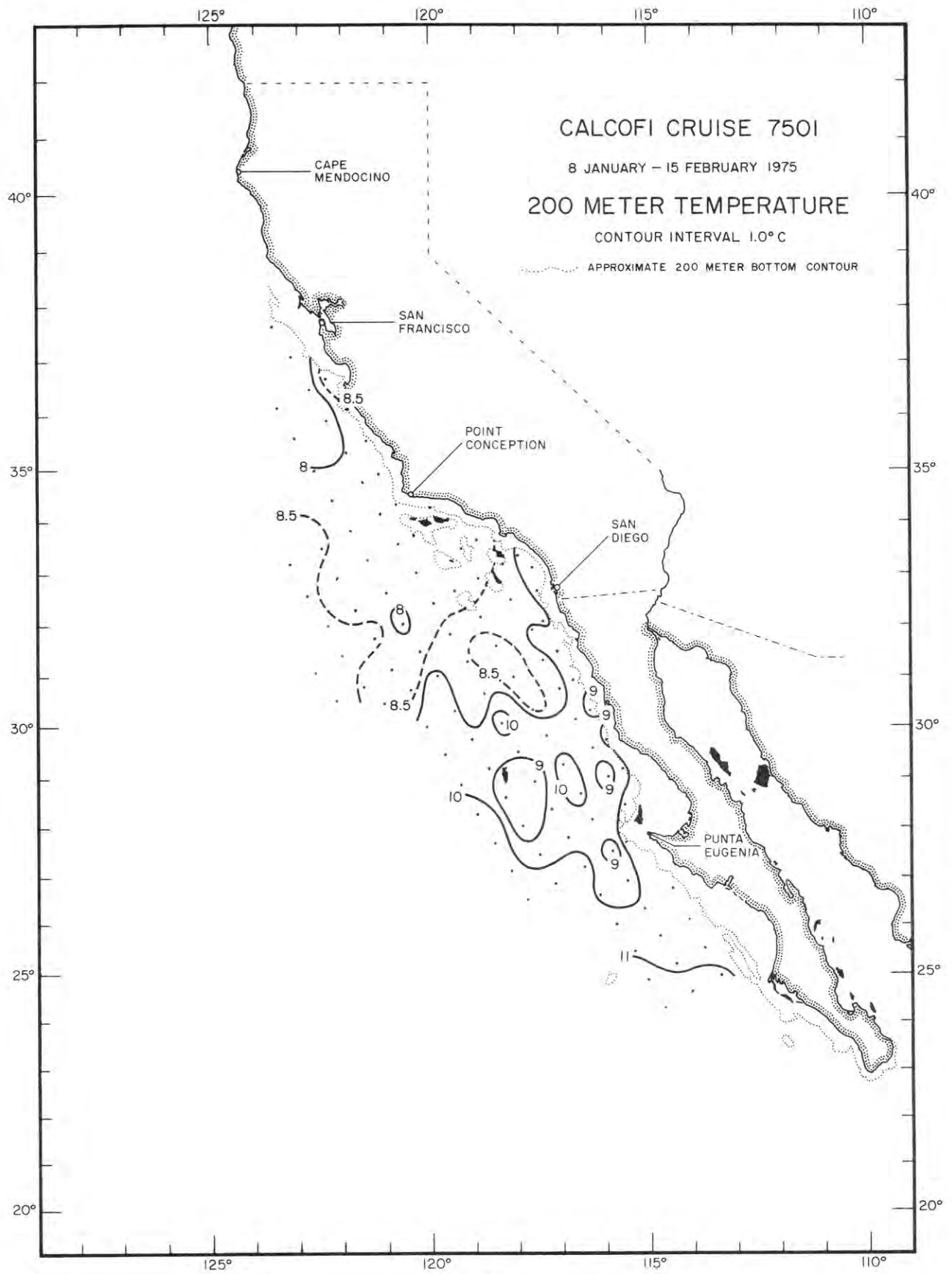


FIGURE 7

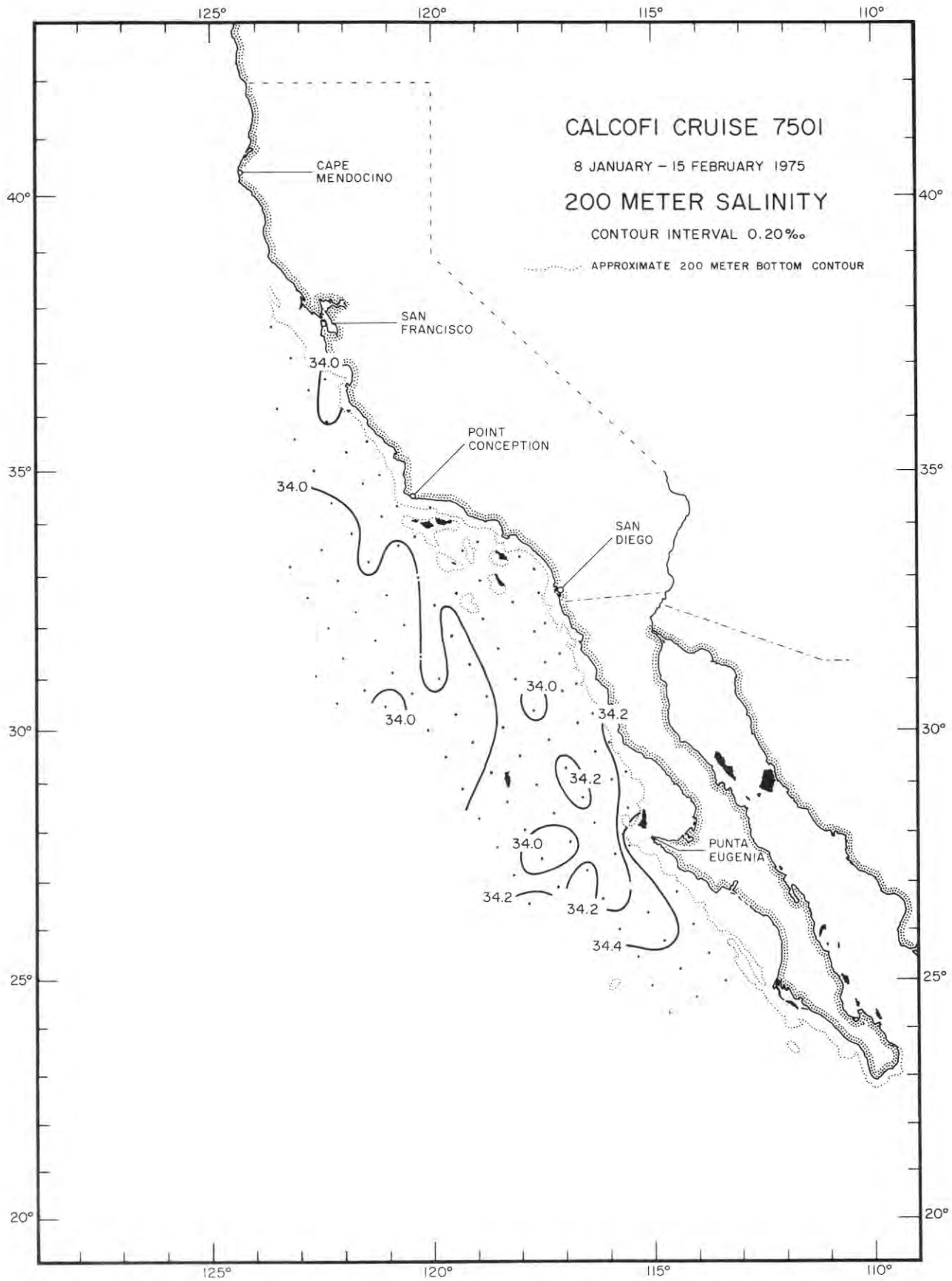


FIGURE 8

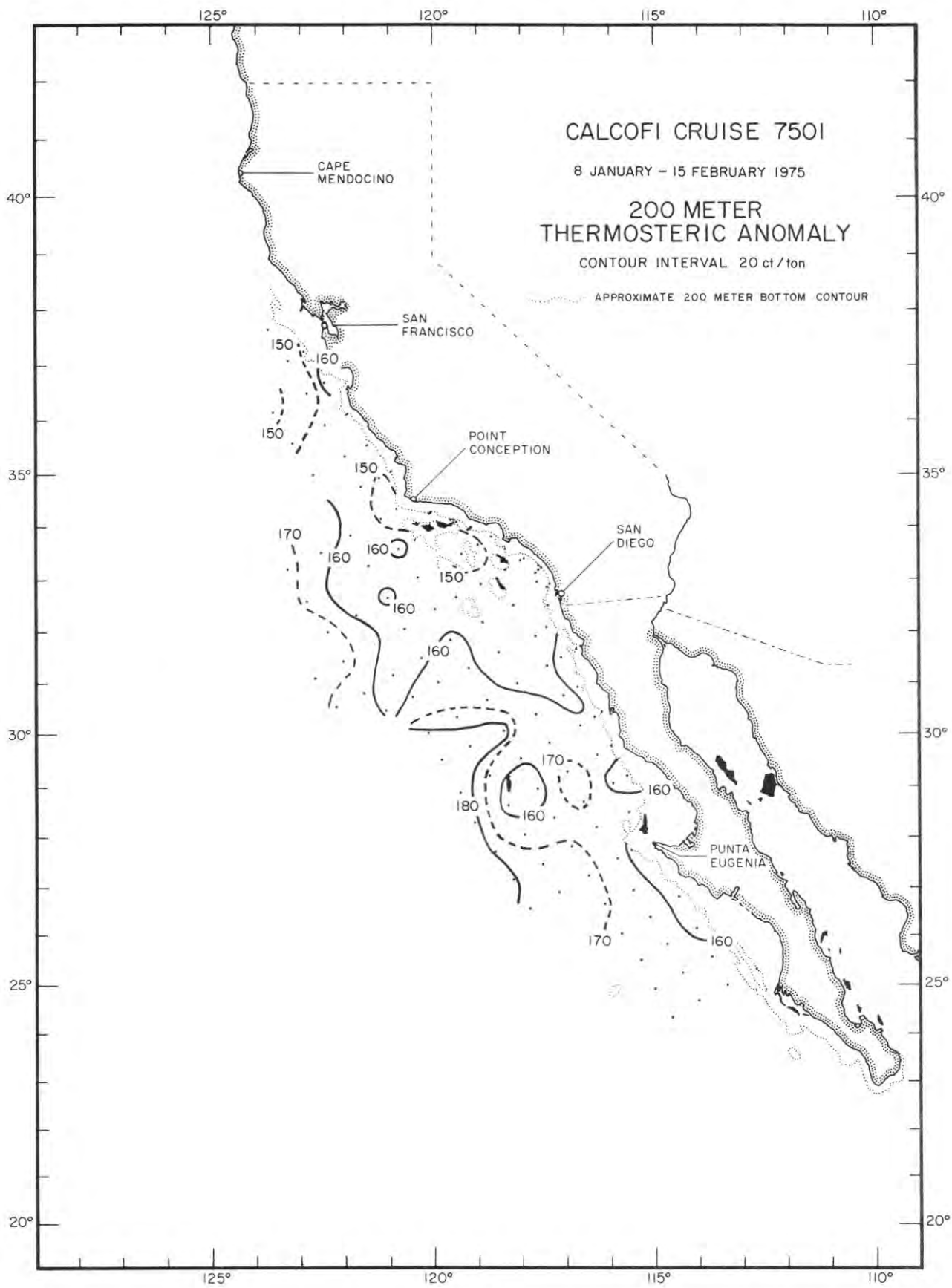


FIGURE 9

PERSONNEL

Cruise 7501

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

Thomas, James E. (in charge)	Marine Technician, SIO
Conway, Carol B.	Engineering Aide, SIO
Mead, Richard V.	Marine Technician, SIO
Patla, Susan M.	Marine Technician, SIO
Singleton, James R.	Electronics Technician, SIO
Yates, Robert E.	Marine Technician, SIO

RV David Starr Jordan

Counts, Robert C. (in charge)	Fishery Biologist, NMFS
Bliss, Kenneth A.	Oceanographer, NMFS
Brown, Jack C.	Electronics Technician, NMFS
Casian, Jorge A. R.	Student, ECM
Kellogg, Durrant	Marine Technician, SIO
Metoyer, Jack D.	Biological Technician, NMFS
Millan, Roberto	Student, ECM
Price, William H.	Biological Technician, NMFS
Stevens, Elizabeth	Biological Technician, NMFS

A0060		RV ALEXANDER AGASSIZ			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
37 37.0N	123 37.0W	02/15/75	2312 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
3163M	340	17KT	1	310 20 7	
Z	T	S	SIGMA T	DT	DD
0	11.28	33.51	25.587	240.8	0.000
10	11.29	33.51	25.585	241.0	0.024
20	11.29	33.51	25.585	241.0	0.048
30	11.29	33.51	25.585	241.0	0.072
40	11.27	33.51	25.589	240.7	0.096
50	10.71	33.58	25.743	226.0	0.120
75	10.15	33.70	25.933	207.9	0.174
100	9.00	33.83	26.223	180.3	0.223
125	8.60	33.94	26.372	166.2	0.267
150	8.39	33.99	26.444	159.4	0.308
175	8.04	34.03	26.527	151.4	0.348
200	7.66	34.04	26.591	145.4	0.386
225	7.43	34.05	26.632	141.5	0.422
250	7.10	34.05	26.678	137.1	0.458
275	6.73	34.07	26.745	130.8	0.493
300	6.60	34.10	26.786	126.9	0.526
350	6.50	34.19	26.870	119.0	0.590
400	5.84	34.15	26.923	113.9	0.651
450	5.75	34.20	26.974	109.1	0.709
500	5.64	34.27	27.042	102.6	0.765
550	5.35	34.28	27.085	98.5	0.819
600	5.19	34.37	27.136	93.7	0.870
700	4.80	34.34	27.197	88.0	0.968
800	4.56	34.38	27.255	82.4	1.061
900	4.22	34.41	27.316	76.7	1.149
1000	3.86	34.44	27.377	70.9	1.232

CALCIFI CRUISE 7501		63052			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
37 19.5N	122 36.0W	02/15/75	1107 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
78M	360	19KT	1	310 20 7	
Z	T	S	SIGMA T	DT	DD
0	11.42	33.53	25.577	241.8	0.000
10	11.41	33.53	25.579	241.8	0.024
20	11.42	33.53	25.577	241.8	0.048
30	11.43	33.53	25.575	242.0	0.072
40	11.43	33.53	25.575	242.0	0.096
50	11.43	33.52	25.567	242.7	0.121
58	11.43	33.53	25.579	241.8	0.140

63055		RV ALEXANDER AGASSIZ			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
37 13.0N	122 50.0W	02/15/75	1319 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
272M	320	21KT	1	310 20 7	
Z	T	S	SIGMA T	DT	DD
0	11.37	33.55	25.601	239.5	0.000
10	11.38	33.55	25.600	239.6	0.023
20	11.38	33.55	25.600	239.6	0.047
30	11.38	33.55	25.600	239.6	0.071
40	11.37	33.55	25.601	239.5	0.096
50	11.05	33.60	25.698	230.3	0.119
75	9.83	33.77	26.042	197.6	0.173
100	9.28	33.89	26.225	180.1	0.221
125	8.82	33.95	26.345	168.7	0.265
150	8.37	34.02	26.470	156.9	0.306
175	8.27	34.04	26.501	154.0	0.346
200	8.11	34.05	26.533	150.9	0.385
225	8.08	34.06	26.545	149.8	0.423
250	8.06	34.07	26.556	148.7	0.462

CALCIFI CRUISE 7501		63060			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
37 03.5N	123 11.5W	02/15/75	1607 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
2410M	340	19KT	1	310 20 7	
Z	T	S	SIGMA T	DT	DD
0	11.44	33.49	25.562	245.1	0.000
10	11.44	33.50	25.550	244.4	0.024
20	11.44	33.50	25.550	244.4	0.048
30	11.44	33.50	25.550	244.4	0.073
40	11.42	33.49	25.546	244.7	0.098
50	11.37	33.48	25.547	244.8	0.122
75	9.46	33.73	26.071	194.8	0.177
100	8.96	33.83	26.230	179.7	0.225
125	8.64	33.93	26.358	167.5	0.269
150	8.41	34.00	26.448	159.0	0.310
175	8.13	34.03	26.514	152.7	0.350
200	7.75	34.05	26.586	145.9	0.388
225	7.47	34.09	26.658	139.1	0.424
250	7.28	34.10	26.692	135.8	0.460
275	7.13	34.12	26.729	132.3	0.494
300	6.90	34.12	26.761	129.3	0.528
350	6.50	34.16	26.846	121.2	0.593
400	6.25	34.18	26.895	116.6	0.655
450	6.06	34.23	26.959	110.6	0.715
500	5.84	34.26	27.022	104.5	0.772
550	5.53	34.29	27.072	99.8	0.826
600	5.39	34.31	27.104	96.7	0.879
700	4.93	34.37	27.206	87.1	0.978
800	4.58	34.40	27.269	81.1	1.070
900	4.21	34.43	27.333	75.1	1.157
1000	3.88	34.46	27.391	69.6	1.238

RV ALEXANDER AGASSIZ							CALCIFI CRUISE 7501							63060					
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME			BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES		
37 03.5N		123 11.5W		2/15/75		1712			2410M		340		19KT		1		310 20 7		
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	SIGT	DT	DD				
0	11.45	33.483	6.25					245.8	0	11.45	33.483	6.25	25.535	245.8	0.000				
10	11.46	33.484	6.22					245.9	10	11.46	33.484	6.22	25.534	245.9	0.024				
30	11.44	33.482	6.28					245.7	20	11.45	33.484	6.24	25.535	245.8	0.049				
60	11.28	33.477	6.19					243.3	30	11.44	33.482	6.28	25.536	245.7	0.073				
80	9.61	33.664	3.89					202.0	50	11.33	33.480	6.22	25.553	244.1	0.123				
95	9.17	33.767	3.33					187.6	75	10.02	33.611	4.46	25.884	212.6	0.180				
110	8.90	33.832	3.27					178.7	100	9.06	33.792	3.31	26.183	184.2	0.230				
139	8.60	33.927	2.82					167.2	125	8.72	33.886	3.05	26.309	172.2	0.275				
164	8.31	33.993	2.59					158.0	150	8.47	33.960	2.70	26.407	162.9	0.318				
194	7.97	34.022	2.52					151.1	200	7.87	34.030	2.42	26.551	149.2	0.397				
228	7.47	34.066	1.91					140.9	250	7.28	34.085	1.67	26.680	137.0	0.471				
301	6.98	34.113	1.34					130.9	300	6.98	34.113	1.34	26.744	130.9	0.540				
404	6.21	34.174	0.80					116.6	400	6.23	34.172	0.81	26.889	117.1	0.669				
510	5.66	34.257	0.42					103.8	500	5.70	34.250	0.44	27.018	104.9	0.786				
616	5.22	34.310	0.34					94.8	600	5.28	34.303	0.35	27.112	96.0	0.893				
751	4.69	34.374	0.35					84.2	700	4.88	34.351	0.34	27.196	88.0	0.992				
905	4.19	34.423	0.40					75.4	800	4.52	34.392	0.35	27.268	81.2	1.085				
1070	3.68	34.466	0.53					67.2	1000	3.89	34.449	0.46	27.381	70.5	1.254				

80070

RV ALEXANDER AGASSIZ

CALCIFI CRUISE 7501

80080

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
33 49.0N	121 50.0W	01/26/75	1203 GMT	3549M	350	17KT	0		
Z	T	S	SIGMA T	DT	DD				
0	13.06	33.18	24.993	297.3	0.000				
10	13.07	33.19	24.999	296.7	0.029				
20	13.07	33.18	24.992	297.5	0.059				
30	12.77	33.24	25.097	287.4	0.088				
40	12.40	33.29	25.207	276.9	0.117				
50	12.12	33.30	25.268	271.1	0.144				
75	11.87	33.36	25.362	262.2	0.211				
100	11.91	33.47	25.440	254.9	0.276				
125	9.42	33.72	26.070	194.9	0.333				
150	8.95	33.87	26.263	176.6	0.380				
175	8.58	33.92	26.360	167.4	0.424				
200	8.21	33.98	26.463	157.6	0.465				
225	7.75	33.99	26.539	150.4	0.505				
250	7.28	33.99	26.606	144.0	0.543				
275	7.08	33.98	26.626	142.1	0.579				
300	6.71	34.00	26.692	135.8	0.615				
350	6.57	34.08	26.774	128.1	0.684				
400	5.73	34.08	26.881	117.9	0.748				
450	5.29	34.12	26.966	109.8	0.807				
500	5.02	34.17	27.037	103.1	0.863				
550	4.89	34.23	27.099	97.2	0.916				
600	4.67	34.26	27.148	92.6	0.967				
700	4.40	34.34	27.241	83.8	1.061				
800	4.12	34.40	27.318	76.4	1.149				
900	3.95	34.45	27.376	71.0	1.230				
1000	3.72	34.48	27.423	66.5	1.307				

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
33 29.0N	122 30.5W	01/26/75	0633 GMT	3952M	350	19KT	1		
Z	T	S	SIGMA T	DT	DD				
0	13.31	33.25	24.998	296.9	0.000				
10	13.32	33.25	24.996	297.1	0.029				
20	13.31	33.25	24.998	296.9	0.059				
30	13.18	33.25	25.024	294.4	0.089				
40	12.91	33.28	25.100	287.1	0.118				
50	12.84	33.34	25.160	281.4	0.146				
75	12.27	33.32	25.255	272.4	0.216				
100	11.70	33.40	25.424	256.3	0.283				
125	10.46	33.50	25.724	227.8	0.344				
150	9.52	33.67	26.015	200.1	0.398				
175	9.04	33.83	26.217	180.9	0.446				
200	8.53	33.94	26.383	165.2	0.490				
225	8.14	33.98	26.474	156.6	0.532				
250	8.04	34.04	26.535	150.7	0.571				
275	7.80	34.09	26.610	143.6	0.609				
300	7.40	34.10	26.675	137.4	0.645				
350	6.87	34.10	26.749	130.4	0.715				
400	6.41	34.13	26.834	122.3	0.781				
450	5.99	34.16	26.912	115.0	0.843				
500	5.60	34.19	26.984	108.1	0.902				
550	5.25	34.20	27.034	103.4	0.958				
600	5.16	34.27	27.100	97.2	1.011				
700	4.73	34.33	27.197	88.0	1.111				
800	4.42	34.37	27.262	81.7	1.204				
900	4.16	34.42	27.330	75.3	1.290				
1000	3.86	34.44	27.377	70.9	1.372				

80090

RV ALEXANDER AGASSIZ

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
33 10.5N	123 13.0W	01/26/75	0108 GMT	4116M	010	15KT	4	330 3 10	
Z	T	S	SIGMA T	DT	DD				
0	12.43	33.27	24.989	297.7	0.000				
10	13.43	33.27	24.989	297.7	0.029				
20	13.38	33.26	24.991	297.5	0.059				
30	13.32	33.27	25.011	295.6	0.089				
40	12.83	33.28	25.116	285.6	0.118				
50	12.59	33.28	25.163	281.2	0.146				
75	12.21	33.31	25.259	272.0	0.216				
100	11.93	33.36	25.351	263.3	0.283				
125	11.08	33.42	25.553	244.1	0.347				
150	9.84	33.60	25.908	210.4	0.405				
175	9.11	33.76	26.152	187.2	0.456				
200	8.76	33.90	26.316	171.5	0.501				
225	8.35	33.95	26.418	161.8	0.544				
250	8.03	34.00	26.505	153.6	0.584				
275	7.80	34.02	26.555	148.8	0.623				
300	7.38	34.01	26.608	143.8	0.661				
350	6.98	34.09	26.727	132.6	0.733				
400	6.53	34.12	26.811	124.6	0.800				
450	6.17	34.16	26.889	117.1	0.863				
500	5.66	34.19	26.977	108.8	0.923				
550	5.47	34.25	27.047	102.1	0.979				
600	5.26	34.28	27.096	97.5	1.032				
700	4.83	34.35	27.201	87.5	1.132				
800	4.49	34.40	27.279	80.2	1.224				
900	4.19	34.44	27.343	74.1	1.309				
1000	3.86	34.46	27.393	69.4	1.390				

81043

RV DAVID STARR JORDAN

CALCIFI CRUISE 7501

81044

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
34 24.0N	119 48.0W	01/15/75	0215 GMT	22M		0KT	0	270 2 3	
Z	T	S	SIGMA T	DT	DD				
0	12.15	33.52	25.238	274.0	0.000				
5	12.93	33.52	25.282	269.9	0.013				
10	12.68	33.53	25.339	264.5	0.026				
15	12.63	33.55	25.364	262.0	0.040				

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
34 23.0N	119 50.0W	01/15/75	0045 GMT	58M		0KT	0	270 2 3	
Z	T	S	SIGMA T	DT	DD				
0	13.00	33.53	25.275	270.4	0.000				
10	12.47	33.51	25.364	262.0	0.026				
20	12.33	33.52	25.399	258.7	0.052				
30	12.05	33.55	25.475	251.5	0.078				
40	11.33	33.61	25.655	234.3	0.102				

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81044

RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
34 22.0N	119 52.0W	01/14/75	2318 GMT		
BOTTOM	WIND	SPEED	WEATHR	DOMINANT WAVES	
75M	030	5KT		270 2 4	
Z	T	S	SIGMA T	DT	DD
0	12.71	33.51	25.317	266.5	0.000
10	12.59	33.51	25.341	264.2	0.026
20	12.04	33.54	25.469	252.0	0.052
30	11.70	33.57	25.556	243.7	0.077
40	11.50	33.59	25.609	238.8	0.101
50	11.40	33.60	25.635	236.3	0.125
67	10.70	33.69	25.830	217.7	0.164

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81045

CALCOFI CRUISE 7501

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
34 21.0N	119 54.0W	01/14/75	2120 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
390M		0KT	0	270 2 4	
Z	T	S	SIGMA T	DT	DD
0	12.18	33.57	25.466	252.3	0.000
10	12.22	33.57	25.458	253.1	0.025
20	11.76	33.57	25.545	244.8	0.050
30	11.46	33.60	25.624	237.3	0.074
40	11.24	33.62	25.679	232.1	0.097
50	11.11	33.62	25.703	229.8	0.121
75	10.38	33.71	25.901	210.9	0.176
100	9.82	33.85	26.105	191.5	0.227
125	9.41	33.94	26.243	178.4	0.274
150	9.00	34.03	26.380	165.5	0.317
175	8.91	34.04	26.402	163.4	0.359
200	8.73	34.06	26.446	159.2	0.400

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81046

RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
34 19.0N	119 58.0W	01/14/75	1913 GMT		
BOTTOM	WIND	SPEED	WEATHR	DOMINANT WAVES	
473M	030	5KT	0	270 2 4	
Z	T	S	SIGMA T	DT	DD
0	11.89	33.57	25.521	247.1	0.000
10	11.65	33.59	25.581	241.4	0.024
20	11.39	33.61	25.644	235.4	0.048
30	11.20	33.62	25.687	231.3	0.071
40	11.11	33.63	25.710	229.1	0.094
50	10.55	33.70	25.864	214.5	0.117
75	9.88	33.81	26.064	195.4	0.168
100	9.33	33.97	26.280	175.0	0.215
125	8.93	34.05	26.406	162.9	0.258
150	8.88	34.06	26.422	161.4	0.299
175	8.75	34.08	26.458	158.0	0.340
200	8.58	34.09	26.492	154.8	0.380

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81047

CALCOFI CRUISE 7501

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
34 17.0N	120 02.5W	01/14/75	1530 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
593M		0KT	0		
Z	T	S	SIGMA T	DT	DD
0	11.76	33.58	25.553	244.1	0.000
10	11.62	33.58	25.579	241.6	0.024
20	11.48	33.58	25.605	239.1	0.048
30	11.22	33.60	25.667	233.2	0.072
40	10.83	33.66	25.784	222.1	0.094
50	10.39	33.71	25.899	211.1	0.116
75	9.55	33.86	26.158	186.5	0.166
100	9.21	33.94	26.276	175.3	0.212
125	8.90	33.98	26.357	167.7	0.255
150	8.74	34.03	26.421	161.6	0.297
175	8.56	34.06	26.472	156.7	0.338
200	8.47	34.08	26.502	153.9	0.377
225	8.30	34.11	26.551	149.2	0.416
250	8.10	34.13	26.597	144.9	0.454
275	7.80	34.15	26.657	139.2	0.491
300	7.65	34.17	26.695	135.6	0.526
350	7.17	34.20	26.786	126.9	0.594
400	6.89	34.22	26.841	121.7	0.660
450	6.54	34.24	26.904	115.7	0.722
500	6.38	34.25	26.933	113.0	0.783

RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME					
34 17.0N	120 02.5W	1/14/75	1620 GMT					
Z	T	S	O2	PO4	SI03	NO2	NO3	DT
0	11.66	33.586	6.11					241.9
10	11.59	33.588	5.80					240.5
20	11.06	33.626	5.02					228.5
29	9.83	33.799	3.55					195.5
77	9.47	33.882	3.23					183.7
91	9.30	33.930	3.06					177.5
106	9.13	33.939	2.89					174.2
135	8.84	34.001	2.56					165.2
159	8.73	34.032	2.39					161.3
187	8.55	34.068	2.10					156.0
221	8.24	34.103	1.80					150.3
292	7.69	34.162						136.7
392	6.94	34.215	0.59					122.7
479	6.46	34.242	0.70					114.6

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81047

CALCOFI CRUISE 7501

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
593M		0KT	0	0		
Z	T	S	O2	SIGT	DT	DD
0	11.66	33.586	6.11	25.576	241.9	0.000
10	11.59	33.588	5.80	25.590	240.5	0.024
20	11.35	33.603	5.41	25.644	235.4	0.047
30	11.01	33.632	4.96	25.728	227.4	0.071
50	10.15	33.747	3.91	25.968	204.6	0.114
75	9.49	33.875	3.24	26.178	184.6	0.163
100	9.19	33.938	2.95	26.276	175.4	0.208
125	8.92	33.978	2.66	26.350	168.3	0.252
150	8.76	34.022	2.45	26.410	162.6	0.294
200	8.47	34.083	1.98	26.503	153.8	0.375
250	8.08	34.130	1.55	26.598	144.7	0.451
300	7.62	34.167	1.17	26.696	135.4	0.524
400	6.88	34.219	0.54	26.840	121.8	0.658

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83039

RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
34 14.5N	119 19.5W	01/15/75	1734 GMT		
BOTTOM	WIND	SPEED	WEATHR	DOMINANT WAVES	
15M	320	6KT	0	320 1 2	
Z	T	S	SIGMA T	DT	DD
0	11.79	33.58	25.547	244.6	0.000
10	11.79	33.58	25.547	244.6	0.024

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83040

CALCOFI CRUISE 7501

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
34 12.5N	119 24.0W	01/15/75	1600 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
35M		0KT	0	260 1 3	
Z	T	S	SIGMA T	DT	DD
0	12.39	33.53	25.395	259.1	0.000
10	12.25	33.54	25.429	255.8	0.025
20	11.92	33.56	25.507	248.4	0.051

85037² RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
34 02.5N	118 58.5W	01/16/75	0330 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
30M	300	8KT	1	290 2 2	
Z	T	S	SIGMA T	DT	DD
0	12.97	33.50	25.258	272.1	0.000
10	12.95	33.49	25.255	272.4	0.027
20	12.86	33.49	25.272	270.8	0.054

CALCOFI CRUISE 7501 85037⁵

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
34 02.0N	118 59.5W	01/16/75	0220 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
56M	300	12KT	1	290 2 2	
Z	T	S	SIGMA T	DT	DD
0	13.18	33.49	25.209	276.8	0.000
10	13.17	33.49	25.211	276.6	0.027
20	12.91	33.49	25.262	271.7	0.055
30	12.67	33.49	25.310	267.2	0.082
38	12.47	33.53	25.379	260.6	0.103

85038 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
34 01.0N	119 02.5W	01/16/75	0045 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
227M	310	10KT	1	290 2 2	
Z	T	S	SIGMA T	DT	DD
0	12.95	33.52	25.278	270.2	0.000
10	12.92	33.52	25.284	269.7	0.027
20	12.81	33.52	25.305	267.6	0.053
30	12.18	33.53	25.435	255.3	0.080
40	11.95	33.56	25.502	248.9	0.105
50	11.94	33.56	25.503	248.8	0.130
75	11.01	33.67	25.760	224.4	0.189
100	10.69	33.74	25.871	213.9	0.245
125	10.47	33.77	25.932	208.0	0.298
150	9.46	33.94	26.235	179.2	0.347
175	9.05	34.01	26.356	167.7	0.391
200	8.76	34.07	26.449	158.9	0.433

CALCOFI CRUISE 7501 85039

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
33 59.0N	119 06.5W	01/15/75	2251 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
593M	320	3KT	0	300 2 3	
Z	T	S	SIGMA T	DT	DD
0	13.31	33.50	25.190	278.5	0.000
10	13.05	33.50	25.242	273.6	0.027
20	12.72	33.50	25.307	267.4	0.054
30	12.57	33.51	25.344	263.9	0.081
40	12.49	33.51	25.360	262.4	0.107
50	12.20	33.53	25.431	255.7	0.133
75	10.53	33.57	25.766	223.8	0.194
100	10.15	33.74	25.964	205.0	0.248
125	9.66	33.89	26.163	186.0	0.297
150	9.33	34.01	26.311	172.0	0.343
175	8.88	34.07	26.430	160.7	0.385
200	8.56	34.10	26.503	153.7	0.425

85040 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
33 57.0N	119 10.5W	01/15/75	2021 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
731M	240	3KT	0	220 2 3	
Z	T	S	SIGMA T	DT	DD
0	13.07	33.48	25.223	275.4	0.000
10	12.95	33.50	25.262	271.7	0.027
20	12.87	33.50	25.278	270.2	0.054
30	12.73	33.49	25.298	268.3	0.081
40	12.46	33.49	25.350	263.3	0.108
50	11.66	33.48	25.494	249.7	0.133
75	10.73	33.61	25.763	224.1	0.193
100	9.89	33.74	26.008	200.8	0.247
125	9.59	33.86	26.152	187.2	0.296
150	9.16	33.93	26.276	175.3	0.342
175	8.90	33.99	26.364	166.9	0.385
200	8.56	34.03	26.449	158.9	0.427

CALCOFI CRUISE 7501 87032⁵

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
33 53.5N	118 26.5W	01/16/75	1500 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
17M		0KT	1	300 1 3	
Z	T	S	SIGMA T	DT	DD
0	13.82	33.49	25.079	289.2	0.000
10	13.09	33.50	25.234	274.3	0.028
13	12.90	33.51	25.280	270.0	0.036

87032⁷ RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
33 54.5N	118 28.0W	01/16/75	1400 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
24M		0KT	1		
Z	T	S	SIGMA T	DT	DD
0	13.14	33.50	25.224	275.3	0.000
10	12.81	33.51	25.298	268.3	0.027
20	12.41	33.52	25.383	260.2	0.053

CALCOFI CRUISE 7501 87033

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
33 54.0N	118 29.0W	01/16/75	1250 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
50M		0KT	1		
Z	T	S	SIGMA T	DT	DD
0	13.24	33.52	25.220	275.7	0.000
10	13.10	33.52	25.248	273.1	0.027
20	12.79	33.52	25.309	267.2	0.054
30	12.40	33.51	25.377	260.8	0.080
40	11.95	33.53	25.478	251.1	0.106

R7034		RV DAVID STARR JORDAN			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
33 52.0N	118 33.0W	01/16/75	1117 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
69M	060	2KT			
Z	T	S	SIGMA T	DT	DD
0	13.24	33.46	25.174	280.1	0.000
10	13.02	33.49	25.241	273.7	0.027
20	12.97	33.50	25.258	272.1	0.055
30	12.73	33.50	25.306	267.6	0.082
40	12.24	33.52	25.416	257.1	0.108
50	11.69	33.57	25.558	243.6	0.133
63	11.35	33.60	25.644	235.4	0.164

CALCOFI CRUISE 7501		R7035			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
33 50.0N	118 37.5W	01/16/75	0900 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
602M	260	2KT			
Z	T	S	SIGMA T	DT	DD
0	13.02	33.49	25.241	273.7	0.000
10	13.01	33.49	25.243	273.6	0.027
20	12.99	33.49	25.247	273.2	0.054
30	12.80	33.50	25.292	268.9	0.081
40	12.14	33.50	25.419	256.8	0.108
50	11.42	33.58	25.616	238.1	0.133
75	10.64	33.69	25.805	220.1	0.190
100	10.25	33.81	26.002	201.4	0.243
125	9.70	33.96	26.211	181.5	0.292
150	9.30	34.05	26.347	168.6	0.336
175	8.99	34.11	26.444	159.4	0.378
200	8.82	34.13	26.486	155.4	0.418
225	8.45	34.13	26.544	149.9	0.458
250	8.31	34.15	26.581	146.4	0.496
275	8.09	34.17	26.630	141.7	0.533
300	7.91	34.19	26.672	137.7	0.569
350	7.41	34.21	26.760	129.3	0.639
400	7.23	34.25	26.817	123.9	0.705

R7036		RV DAVID STARR JORDAN			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
33 48.0N	118 40.5W	01/16/75	0629 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
870M	190	5KT			
Z	T	S	SIGMA T	DT	DD
0	13.33	33.47	25.163	281.1	0.000
10	13.15	33.49	25.215	276.2	0.027
20	12.99	33.49	25.247	273.7	0.055
30	12.90	33.49	25.264	271.5	0.082
40	12.88	33.49	25.268	271.1	0.109
50	12.85	33.50	25.282	269.8	0.137
75	11.01	33.67	25.760	224.4	0.199
100	9.97	33.79	26.033	198.4	0.252
125	9.87	33.96	26.183	184.2	0.300
150	9.63	34.02	26.270	176.0	0.346
175	9.34	34.07	26.356	167.7	0.390
200	8.83	34.05	26.422	161.4	0.432

CALCOFI CRUISE 7501		R7040			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
33 39.5N	118 58.0W	01/13/75	0657 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
741M	010	11KT			
Z	T	S	SIGMA T	DT	DD
0	12.84	33.50	25.284	269.6	0.000
10	12.78	33.49	25.288	269.3	0.026
20	12.61	33.48	25.313	266.8	0.053
30	12.60	33.50	25.331	265.2	0.080
40	12.41	33.49	25.360	262.4	0.106
50	12.10	33.47	25.404	258.3	0.132
75	10.39	33.56	25.783	222.2	0.193
100	9.57	33.85	26.147	187.6	0.245
125	9.34	33.92	26.239	178.8	0.291
150	9.02	34.04	26.384	165.0	0.335
175	8.72	34.11	26.486	155.4	0.376
200	8.24	34.11	26.560	148.3	0.414
225	8.04	34.13	26.606	144.0	0.452
250	7.89	34.15	26.644	140.4	0.488
275	7.63	34.16	26.690	136.1	0.524
300	7.47	34.19	26.736	131.7	0.559
350	7.15	34.21	26.797	125.9	0.626
400	6.76	34.25	26.882	117.8	0.690
450	6.38	34.29	26.964	110.0	0.750
500	6.03	34.31	27.025	104.2	0.806
550	5.84	34.33	27.065	100.4	0.861
600	5.65	34.35	27.104	96.7	0.914
650	5.44	34.37	27.146	92.8	0.965

RV DAVID STARR JORDAN		CALCOFI CRUISE 7501													
LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME												
33 29.0N	119 19.0W	1/13/75	1202 GMT												
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES											
1572M	350	10KT	0												
Z	T	S	U2	P04	SIG3	M02	M03	DT	Z	T	S	U2	SIGT	DT	DD
1	12.13	33.541	6.08					253.6	0	12.13	33.541	6.08	25.453	253.6	0.000
11	12.04	33.547	6.01					251.5	10	12.05	33.548	6.01	25.472	251.8	0.025
30	11.69	33.553	5.88					244.8	20	11.90	33.549	5.94	25.501	249.0	0.050
58	10.81	33.643	4.58					223.0	30	11.69	33.553	5.88	25.545	244.8	0.075
77	9.59	33.790	3.54					192.3	50	11.13	33.606	5.03	25.686	231.4	0.122
92	9.42	33.831	3.38					186.7	75	9.70	33.776	3.63	26.066	195.3	0.176
106	9.15	33.897	3.14					177.6	100	9.27	33.869	3.24	26.210	181.6	0.224
135	8.67	33.997	2.73					163.0	125	8.81	33.967	2.86	26.358	167.5	0.268
159	8.40	34.067	2.41					153.8	150	8.48	34.044	2.52	26.470	156.9	0.309
188	8.20	34.116	2.07					147.3	200	8.10	34.129	1.96	26.596	145.0	0.386
220	7.93	34.145	1.81					141.4	250	7.70	34.163	1.60	26.680	137.0	0.459
293	7.41	34.182	1.35					131.4	300	7.35	34.187	1.30	26.750	130.4	0.528
394	6.69	34.247	0.74					117.1	400	6.66	34.250	0.72	26.895	116.6	0.657
499	6.23	34.289	0.53					108.2	500	6.22	34.290	0.52	26.984	108.1	0.775
605	5.64	34.343	0.43					97.1	600	5.66	34.340	0.43	27.094	97.7	0.886
740	4.83	34.413	0.37					82.8	700	5.07	34.392	0.37	27.206	87.1	0.986

R7045

87045		RV DAVID STARR JORDAN			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
33 29.0N	119 19.0W	01/13/75	1055 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
1572M	350	10KT	0		
Z	T	S	SIGMA T	DT	DD
0	12.18	33.54	25.443	254.5	0.000
10	12.04	33.55	25.477	251.3	0.025
20	11.77	33.55	25.528	246.5	0.050
30	11.70	33.56	25.548	244.5	0.074
40	11.65	33.56	25.558	243.6	0.099
50	11.61	33.56	25.565	242.9	0.123
75	9.78	33.76	26.042	197.6	0.179
100	9.32	33.88	26.211	181.5	0.227
125	8.87	33.97	26.353	168.0	0.271
150	8.56	34.03	26.449	158.9	0.312
175	8.30	34.09	26.535	150.7	0.352
200	8.18	34.13	26.585	146.0	0.390
225	8.02	34.15	26.624	142.2	0.427
250	7.83	34.18	26.676	137.4	0.463
275	7.57	34.19	26.722	133.0	0.497
300	7.42	34.19	26.743	131.0	0.532
350	6.98	34.23	26.836	122.1	0.598
400	6.63	34.26	26.907	115.4	0.660
450	6.40	34.29	26.962	110.3	0.719
500	6.03	34.31	27.025	104.2	0.776
550	5.94	34.33	27.052	101.6	0.831
600	5.72	34.35	27.096	97.5	0.885
700	5.24	34.39	27.186	89.0	0.986
800	4.64	34.44	27.294	78.8	1.078
900	4.32	34.47	27.353	73.2	1.163
1000	4.23	34.48	27.370	71.5	1.244

CALCOFI CRUISE 7501		87050			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
33 20.0N	119 39.5W	01/13/75	1425 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
93M	030	7KT	0	320 2 3	
Z	T	S	SIGMA T	DT	DD
0	11.82	33.55	25.518	247.4	0.000
10	11.81	33.55	25.520	247.2	0.024
20	11.79	33.55	25.524	246.8	0.049
30	11.66	33.55	25.548	244.5	0.074
40	11.24	33.58	25.648	235.0	0.098
50	10.93	33.62	25.735	226.8	0.121

87060		RV DAVID STARR JORDAN			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
33 01.0N	120 21.0W	01/13/75	2101 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
585M			0	330 2 6	
Z	T	S	SIGMA T	DT	DD
0	12.43	33.49	25.356	262.8	0.000
10	12.34	33.49	25.373	261.1	0.026
20	12.15	33.49	25.409	257.7	0.052
30	12.14	33.49	25.411	257.5	0.078
40	12.11	33.49	25.417	257.0	0.103
50	12.10	33.49	25.419	256.8	0.129
75	11.77	33.50	25.489	250.1	0.193
100	9.72	33.64	25.959	205.5	0.250
125	8.99	33.82	26.217	180.9	0.299
150	8.76	33.89	26.308	172.3	0.344
175	8.38	33.97	26.430	160.8	0.386
200	8.07	34.00	26.500	154.1	0.427
225	7.61	34.05	26.606	144.0	0.465
250	7.20	34.09	26.696	135.5	0.501
275	6.95	34.11	26.746	130.7	0.535
300	6.70	34.14	26.804	125.2	0.568
350	6.28	34.18	26.891	117.0	0.631
400	6.12	34.24	26.959	110.6	0.690
450	5.93	34.27	27.006	106.0	0.747
500	5.70	34.29	27.051	101.8	0.802
550	5.46	34.33	27.112	96.0	0.855

87070		RV ALFAXANDER AGASSIZ			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
32 38.5N	121 02.0W	01/25/75	0214 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
3737M	330	12KT	1		
Z	T	S	SIGMA T	DT	DD
0	12.73	33.43	25.251	272.7	0.000
10	12.74	33.43	25.250	272.9	0.027
20	12.73	33.43	25.251	272.7	0.054
30	12.61	33.45	25.290	269.0	0.081
40	12.55	33.45	25.302	267.9	0.108
50	12.48	33.47	25.331	265.2	0.135
75	12.37	33.48	25.360	262.4	0.201
100	11.83	33.46	25.447	254.2	0.266
125	10.55	33.52	25.724	227.8	0.327
150	9.36	33.73	26.088	193.2	0.381
175	8.91	33.84	26.246	178.2	0.428
200	8.43	33.94	26.398	163.7	0.471
225	7.97	34.00	26.515	152.7	0.512
250	7.74	34.04	26.580	146.5	0.550
275	7.45	34.05	26.629	141.8	0.587
300	7.11	34.08	26.700	135.0	0.623
350	6.41	34.11	26.818	123.8	0.690
400	6.10	34.15	26.890	117.0	0.753
450	5.80	34.21	26.975	108.9	0.812
500	5.33	34.24	27.056	101.3	0.868
550	5.08	34.25	27.093	97.8	0.921
600	4.93	34.28	27.134	93.9	0.972
700	4.76	34.37	27.225	85.3	1.069
800	4.43	34.41	27.293	78.8	1.158
900	4.16	34.45	27.354	73.1	1.243
1000	3.88	34.47	27.399	68.8	1.322

87080		RV ALEXANDER AGASSIZ				CALCIFI CRUISE 7501					87090	
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME			LATITUDE	LONGITUDE	MO/DAY/YR	START TIME			
32 18.0N	121 44.0W	01/24/75	2055 GMT			32 00.0N	122 22.0W	01/24/75	1443 GMT			
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
3545M	340	15KT	1	340 4 3			4177M	340	20KT	1	340 2 2	
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD	
0	14.12	33.44	24.978	298.7	0.000	0	14.35	33.46	24.945	301.9	0.000	
10	14.06	33.43	24.983	298.3	0.029	10	14.36	33.45	24.935	302.8	0.030	
20	13.94	33.43	25.008	295.9	0.059	20	14.35	33.45	24.938	302.6	0.060	
30	13.21	33.32	25.072	289.8	0.088	30	14.03	33.42	24.982	298.4	0.090	
40	12.84	33.27	25.106	286.5	0.117	40	13.98	33.44	25.007	296.0	0.120	
50	12.73	33.32	25.167	280.8	0.146	50	13.98	33.44	25.007	296.0	0.150	
75	11.69	33.41	25.434	255.4	0.213	75	13.75	33.43	25.047	292.2	0.224	
100	10.87	33.48	25.637	236.1	0.275	100	13.07	33.40	25.161	281.3	0.296	
125	9.80	33.61	25.922	209.0	0.331	125	11.99	33.39	25.363	262.2	0.365	
150	9.10	33.80	26.184	184.1	0.381	150	10.27	33.51	25.765	223.9	0.426	
175	8.58	33.91	26.352	168.1	0.426	175	9.41	33.67	26.033	198.4	0.480	
200	8.27	33.96	26.438	159.9	0.468	200	8.59	33.87	26.319	171.3	0.527	
225	7.94	33.97	26.495	154.5	0.508	225	8.50	33.91	26.364	167.0	0.570	
250	7.46	33.97	26.565	147.9	0.547	250	8.11	33.96	26.462	157.6	0.612	
275	7.08	33.99	26.634	141.3	0.584	275	7.67	33.99	26.551	149.3	0.651	
300	6.80	34.05	26.720	133.2	0.620	300	7.10	34.00	26.639	140.9	0.689	
350	6.59	34.16	26.834	122.4	0.686	350	6.59	34.01	26.716	133.5	0.760	
400	6.30	34.20	26.904	115.7	0.748	400	6.16	34.07	26.820	123.7	0.827	
450	5.89	34.20	26.956	110.8	0.807	450	6.00	34.14	26.895	116.8	0.889	
500	5.57	34.22	27.011	105.5	0.865	500	5.79	34.21	26.977	108.8	0.949	
550	5.28	34.24	27.062	100.7	0.919	550	5.51	34.25	27.042	102.6	1.005	
600	5.14	34.30	27.126	94.7	0.972	600	5.29	34.29	27.100	97.1	1.058	
700	4.77	34.36	27.216	86.1	1.069	700	4.91	34.36	27.200	87.7	1.158	
800	4.47	34.40	27.281	80.0	1.160	800	4.52	34.41	27.283	79.7	1.250	
900	4.04	34.44	27.359	72.6	1.245	900	4.21	34.44	27.341	74.3	1.335	
1000	3.83	34.46	27.396	69.1	1.324	1000	3.90	34.48	27.405	68.2	1.415	

5 4 88030		RV DAVID STARR JORDAN				
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME			
33 41.5N	118 07.0W	01/17/75	0930 GMT			
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
21M	250	3KT	4	250 2 3		
Z	T	S	SIGMA T	DT	DD	
0	13.60	33.43	25.078	289.3	0.000	
5	13.59	33.43	25.080	289.1	0.014	
10	13.07	33.41	25.169	280.6	0.028	
13	12.97	33.43	25.204	277.2	0.037	

5 88031		CALCIFI CRUISE 7501				
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME			
33 40.5N	118 09.5W	01/16/75	2321 GMT			
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
26M	230	2KT	4	270 2 4		
Z	T	S	SIGMA T	DT	DD	
0	13.62	33.43	25.074	289.7	0.000	
10	13.35	33.42	25.121	285.2	0.028	
20	12.63	33.50	25.325	265.7	0.096	

5 88032		RV DAVID STARR JORDAN				
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME			
33 37.5N	118 15.0W	01/16/75	2130 GMT			
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
35M	220	2KT	4	270 2 4		
Z	T	S	SIGMA T	DT	DD	
0	13.45	33.44	25.116	285.6	0.000	
10	13.17	33.44	25.172	280.3	0.028	
20	12.90	33.47	25.249	273.0	0.056	
30	12.43	33.51	25.372	261.3	0.082	
37	12.27	33.53	25.418	256.9	0.100	

5 88033		CALCIFI CRUISE 7501				
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME			
33 36.0N	118 18.0W	01/16/75	1950 GMT			
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
183M	250	3KT	4	270 2 4		
Z	T	S	SIGMA T	DT	DD	
0	13.69	33.51	25.121	285.1	0.000	
10	13.60	33.51	25.139	283.4	0.028	
20	13.41	33.51	25.178	279.7	0.056	
30	13.28	33.51	25.204	277.2	0.084	
40	12.35	33.50	25.379	260.6	0.111	
50	11.67	33.53	25.531	246.2	0.136	
75	10.66	33.67	25.821	218.5	0.195	
100	10.29	33.78	25.971	204.3	0.248	
125	9.51	34.01	26.282	174.8	0.296	
150	9.37	34.04	26.328	170.4	0.340	

5 88034		RV DAVID STARR JORDAN				
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME			
33 34.0N	118 22.0W	01/16/75	1745 GMT			
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
870M	170	2KT	4	280 3 8		
Z	T	S	SIGMA T	DT	DD	
0	13.67	33.48	25.102	287.0	0.000	
10	13.58	33.51	25.143	283.0	0.028	
20	13.45	33.51	25.170	280.5	0.056	
30	13.32	33.52	25.204	277.2	0.084	
40	12.70	33.51	25.319	266.3	0.111	
50	11.99	33.50	25.448	254.1	0.138	
75	10.63	33.65	25.811	219.5	0.197	
100	10.08	33.88	26.085	193.5	0.249	
125	9.62	34.02	26.271	175.8	0.296	
150	9.35	34.07	26.355	167.9	0.340	
175	9.14	34.09	26.404	163.2	0.382	
200	8.89	34.12	26.467	157.1	0.423	

5 90027		CALCIFI CRUISE 7501				
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME			
33 29.5N	117 45.5W	01/17/75	0315 GMT			
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
43M	330	5KT	4	310 2 3		
Z	T	S	SIGMA T	DT	DD	
0	13.40	33.48	25.157	281.7	0.000	
10	13.12	33.48	25.213	276.4	0.027	
20	12.92	33.49	25.261	271.9	0.055	
30	12.02	33.49	25.434	255.3	0.081	
37	11.62	33.53	25.540	245.3	0.099	

90028		RV DAVID STARR JORDAN			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
33 28.5N	117 46.5W	01/17/75	0420 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
445M	320	6KT	4		
Z	T	S	SIGMA T	DT	DD
0	13.39	33.49	25.167	280.8	0.000
10	13.31	33.49	25.183	279.3	0.028
20	13.06	33.48	25.225	275.3	0.055
30	12.84	33.48	25.269	271.1	0.083
40	12.59	33.47	25.310	267.2	0.110
50	11.83	33.52	25.493	249.7	0.136
75	10.84	33.67	25.790	221.5	0.195
100	10.43	33.78	25.947	206.6	0.249
125	10.04	33.92	26.123	189.9	0.299
150	9.55	34.02	26.283	174.7	0.345
175	9.16	34.06	26.378	165.7	0.389
200	8.84	34.12	26.475	156.4	0.430

CALCOFI CRUISE 7501		90029			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
33 27.0N	117 49.5W	01/17/75	0614 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
611M	270	2KT	4		
Z	T	S	SIGMA T	DT	DD
0	13.61	33.50	25.130	284.3	0.000
10	13.34	33.50	25.184	279.1	0.028
20	13.12	33.50	25.229	274.9	0.055
30	12.85	33.50	25.282	269.8	0.083
40	12.61	33.50	25.329	265.4	0.110
50	11.70	33.51	25.510	248.2	0.135
75	10.85	33.68	25.796	221.0	0.194
100	10.36	33.82	25.990	202.5	0.248
125	10.02	33.92	26.126	189.6	0.297
150	9.72	33.97	26.216	181.1	0.344
175	9.39	34.06	26.340	169.2	0.389
200	8.86	34.14	26.488	155.2	0.431

90030		RV DAVID STARR JORDAN			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
33 25.0N	117 53.5W	01/17/75	0807 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
639M	320	0KT	4		
Z	T	S	SIGMA T	DT	DD
0	13.69	33.52	25.129	284.4	0.000
10	13.63	33.52	25.141	283.2	0.028
20	13.53	33.52	25.161	281.3	0.056
30	13.42	33.52	25.184	279.2	0.084
40	12.97	33.49	25.251	272.8	0.112
50	12.38	33.53	25.397	258.9	0.139
75	11.27	33.62	25.674	232.6	0.200
100	10.30	33.85	26.024	199.3	0.255
125	9.90	33.96	26.178	184.7	0.304
150	9.48	34.00	26.279	175.1	0.349
175	9.13	34.08	26.398	163.8	0.392
200	9.00	34.12	26.450	158.8	0.434

CALCOFI CRUISE 7501		90031			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
33 23.0N	117 57.5W	01/17/75	0946 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
310	310	3KT	4		
Z	T	S	SIGMA T	DT	DD
0	13.57	33.52	25.153	282.1	0.000
10	13.56	33.52	25.155	281.9	0.028
20	13.37	33.52	25.194	278.2	0.056
30	13.30	33.52	25.208	276.9	0.084
40	12.81	33.52	25.305	267.6	0.111
50	12.27	33.56	25.441	254.7	0.137
75	11.50	33.60	25.616	238.0	0.199
100	10.66	33.75	25.884	212.6	0.256
125	10.07	33.93	26.126	189.6	0.307
150	9.66	33.98	26.233	179.4	0.354
175	9.29	34.06	26.357	167.7	0.398
200	8.90	34.10	26.450	158.8	0.440

90032		RV DAVID STARR JORDAN			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
33 21.0N	118 02.0W	01/17/75	1200 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
731M	300	5KT	4		
Z	T	S	SIGMA T	DT	DD
0	13.72	33.52	25.123	285.0	0.000
10	13.68	33.52	25.131	284.2	0.028
20	13.43	33.52	25.182	279.4	0.056
30	13.22	33.52	25.224	275.3	0.084
40	13.19	33.52	25.230	274.8	0.112
50	13.00	33.52	25.268	271.2	0.139
75	11.74	33.59	25.564	243.0	0.204
100	10.99	33.67	25.763	224.1	0.263
125	10.30	33.86	26.032	198.5	0.316
150	9.78	34.02	26.244	178.3	0.364
175	9.18	34.09	26.398	163.8	0.407
200	9.00	34.17	26.489	155.1	0.448
225	8.66	34.19	26.558	148.5	0.487
250	8.32	34.20	26.619	142.8	0.525
275	7.96	34.19	26.665	138.4	0.561
300	7.74	34.18	26.689	136.1	0.597
350	7.31	34.21	26.775	128.0	0.665
400	6.78	34.22	26.856	120.3	0.730
450	6.44	34.27	26.941	112.2	0.791
500	6.31	34.30	26.981	108.4	0.850
550	6.01	34.33	27.044	102.5	0.906
600	5.82	34.34	27.075	99.5	0.961
650	5.65	34.35	27.104	96.7	1.014

CALCOFI CRUISE 7501		90037			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
33 11.0N	118 22.5W	01/13/75	0033 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
1202M	250	8KT	0	240	1 3
Z	T	S	SIGMA T	DT	DD
0	13.97	33.51	25.063	290.6	0.000
10	13.77	33.50	25.097	287.4	0.028
20	13.61	33.50	25.130	284.3	0.057
30	13.58	33.50	25.136	283.7	0.086
40	13.55	33.50	25.142	283.1	0.114
50	11.97	33.50	25.451	253.7	0.141
75	10.13	33.68	25.921	209.1	0.199
100	9.71	33.84	26.116	190.5	0.250
125	9.28	33.92	26.249	177.9	0.296
150	9.10	34.01	26.348	168.5	0.340
175	9.02	34.07	26.408	162.8	0.382
200	8.58	34.11	26.508	153.3	0.423
225	8.29	34.14	26.576	146.8	0.461
250	8.09	34.17	26.630	141.7	0.498
275	7.82	34.18	26.678	137.2	0.534
300	7.58	34.20	26.728	132.4	0.569
350	7.08	34.23	26.823	123.4	0.636
400	6.80	34.25	26.877	118.3	0.699
450	6.49	34.28	26.942	112.1	0.760
500	6.14	34.31	27.011	105.6	0.818
550	5.81	34.34	27.076	99.3	0.872
600	5.53	34.35	27.119	95.3	0.925
700	5.24	34.38	27.177	89.8	1.025
800	4.67	34.42	27.275	80.6	1.119
900	4.25	34.46	27.352	73.2	1.204
1000	4.14	34.48	27.380	70.6	1.285

91010 RV ALXANDER AGASSIZ

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
31 05.0N	122 39.5W	01/24/75	0738 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
4002M	360	11KT	1		
Z	T	S	SIGMA T	DT	DD
0	14.89	33.53	24.884	307.7	0.000
10	14.89	33.53	24.884	307.7	0.030
20	14.56	33.46	24.901	306.1	0.061
30	14.14	33.45	24.982	298.4	0.091
40	14.05	33.44	24.993	297.3	0.121
50	13.92	33.44	25.020	294.8	0.151
75	13.56	33.41	25.070	290.0	0.224
100	12.99	33.41	25.185	279.1	0.296
125	11.33	33.42	25.508	248.4	0.363
150	10.09	33.57	25.842	215.6	0.422
175	9.20	33.76	26.137	188.5	0.473
200	8.86	33.86	26.269	176.0	0.520
225	8.57	33.94	26.377	165.8	0.563
250	8.26	34.00	26.471	156.8	0.605
275	8.04	34.02	26.520	152.2	0.644
300	7.66	34.04	26.591	145.4	0.683
350	7.09	34.09	26.711	134.0	0.755
400	6.55	34.14	26.824	123.3	0.822
450	6.22	34.17	26.891	117.0	0.885
500	5.70	34.21	26.988	107.8	0.945
550	5.50	34.27	27.060	101.0	1.000
600	5.33	34.30	27.104	96.8	1.053
700	4.96	34.37	27.202	87.4	1.153
800	4.59	34.41	27.276	80.5	1.245
900	4.30	34.44	27.331	75.2	1.331
1000	3.94	34.47	27.393	64.4	1.412

5
91026 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 14.5N	117 27.5W	01/17/75	2306 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
19M	310	8KT	4		
Z	T	S	SIGMA T	DT	DD
0	13.43	33.52	25.182	279.4	0.000
10	13.36	33.52	25.196	278.0	0.027
16	13.20	33.52	25.228	275.0	0.044

5
91026 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 14.5N	117 29.5W	01/17/75	2146 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
52M	330	10KT	4		
Z	T	S	SIGMA T	DT	DD
0	13.11	33.49	25.223	275.5	0.000
10	13.05	33.49	25.235	274.3	0.027
20	12.60	33.50	25.331	265.2	0.054
30	12.38	33.52	25.389	259.7	0.080
40	12.23	33.56	25.449	254.0	0.106
50	12.07	33.59	25.502	248.9	0.131

5
91028 CALOPEL CRUISE 7501

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 12.0N	117 34.0W	01/17/75	1940 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
556M	320	8KT	4		
Z	T	S	SIGMA T	DT	DD
0	14.30	33.55	25.025	294.3	0.000
10	14.27	33.57	25.047	292.2	0.029
20	14.13	33.57	25.076	289.4	0.058
30	13.75	33.55	25.140	283.4	0.087
40	13.38	33.52	25.192	278.4	0.115
50	12.90	33.51	25.280	270.0	0.142
75	11.18	33.58	25.659	234.0	0.206
100	10.62	33.76	25.899	211.2	0.262
125	9.85	33.89	26.132	189.0	0.313
150	9.51	34.00	26.274	175.5	0.359
175	9.50	34.12	26.369	166.5	0.402
200	9.33	34.17	26.436	160.2	0.444

5
91029 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 10.0N	117 38.0W	01/17/75	1605 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
796M	320	7KT	4	320 2 2	
Z	T	S	SIGMA T	DT	DD
0	14.30	33.58	25.048	292.1	0.000
10	14.25	33.59	25.066	290.3	0.029
20	14.00	33.57	25.103	286.6	0.058
30	13.45	33.53	25.185	279.0	0.086
40	13.22	33.51	25.216	276.1	0.114
50	12.77	33.55	25.336	266.7	0.141
75	11.15	33.70	25.758	224.6	0.202
100	10.27	33.84	26.021	199.5	0.256
125	10.06	34.02	26.197	182.8	0.304
150	9.86	34.07	26.270	175.9	0.350
175	9.71	34.11	26.326	170.5	0.394
200	9.45	34.15	26.401	163.5	0.437

5
91030 CALOPEL CRUISE 7501

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 07.5N	117 42.0W	01/17/75	1617 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
833M	330	6KT	4	290 2 2	
Z	T	S	SIGMA T	DT	DD
0	14.02	33.54	25.076	289.4	0.000
10	13.99	33.55	25.090	288.1	0.028
20	13.88	33.54	25.105	286.7	0.057
30	13.82	33.54	25.117	285.5	0.086
40	12.69	33.56	25.360	262.4	0.113
50	11.96	33.55	25.492	249.8	0.139
75	11.19	33.66	25.719	228.2	0.199
100	10.39	33.77	25.946	206.7	0.254
125	10.15	33.99	26.159	186.5	0.304
150	9.93	34.06	26.250	177.7	0.350
175	9.65	34.11	26.336	169.6	0.394
200	9.37	34.16	26.421	161.5	0.437
225	9.02	34.20	26.509	153.2	0.477
250	8.77	34.22	26.564	147.9	0.516
275	8.38	34.22	26.625	142.2	0.553
300	8.25	34.23	26.653	139.6	0.590
350	7.48	34.24	26.774	128.1	0.660
400	6.70	34.23	26.875	118.5	0.724
450	6.39	34.24	26.924	113.9	0.785
500	6.24	34.30	26.990	107.5	0.844
550	5.79	34.30	27.048	102.1	0.900
600	5.53	34.33	27.103	96.8	0.953
700	5.08	34.39	27.204	87.2	1.053
750	4.88	34.42	27.251	82.8	1.100

93026⁷

RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
32 57.0N	117 17.0W	01/18/75	0200 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
28M	020	6KT	4		
Z	T	S	SIGMA T	DT	DD
0	12.51	33.53	25.173	280.2	0.000
10	13.40	33.53	25.195	278.1	0.027
20	12.97	33.54	25.289	269.1	0.055

CALCOP I CRUISE 7501

93026⁹

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
32 57.0N	117 18.5W	01/18/75	0300 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
65M	020	6KT	4		
Z	T	S	SIGMA T	DT	DD
0	13.52	33.51	25.156	281.8	0.000
10	13.45	33.53	25.185	279.0	0.028
20	13.17	33.52	25.234	274.4	0.055
30	12.79	33.54	25.325	265.8	0.082
40	12.20	33.54	25.439	254.9	0.108
50	11.91	33.56	25.509	248.2	0.134

93028

RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
32 54.5N	117 22.0W	01/18/75	0408 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
574M	170	4KT	4		
Z	T	S	SIGMA T	DT	DD
0	14.02	33.54	25.076	289.4	0.000
10	13.97	33.55	25.094	287.7	0.028
20	13.46	33.54	25.191	278.5	0.057
30	13.18	33.52	25.232	274.6	0.084
40	12.89	33.52	25.290	269.1	0.112
50	12.08	33.56	25.477	251.3	0.138
75	10.91	33.66	25.770	223.5	0.198
100	10.44	33.78	25.945	206.7	0.252
125	9.97	33.90	26.119	190.2	0.302
150	9.66	34.03	26.272	175.7	0.349
175	9.44	34.11	26.371	166.3	0.392
200	8.97	34.11	26.447	159.1	0.434

CALCOP I CRUISE 7501

93029

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
32 52.5N	117 26.5W	01/18/75	0544 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
574M	320	3KT	4		
Z	T	S	SIGMA T	DT	DD
0	13.42	33.54	25.117	285.5	0.000
10	13.62	33.53	25.151	282.3	0.028
20	13.41	33.53	25.194	278.2	0.056
30	13.31	33.53	25.214	276.3	0.084
40	13.02	33.53	25.271	270.8	0.111
50	12.34	33.54	25.412	257.4	0.138
75	11.25	33.64	25.693	230.7	0.199
100	10.42	33.72	25.941	207.2	0.254
125	10.03	33.88	26.094	192.7	0.305
150	9.71	34.03	26.264	176.5	0.352
175	9.34	34.12	26.395	164.0	0.395
200	8.91	34.14	26.480	156.0	0.436

93030

RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
32 50.5N	117 31.0W	01/18/75	0736 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
815M	350	5KT	4		
Z	T	S	SIGMA T	DT	DD
0	12.72	33.52	25.123	285.0	0.000
10	12.74	33.53	25.126	284.6	0.028
20	13.72	33.53	25.130	284.3	0.056
30	13.44	33.53	25.187	278.8	0.085
40	12.01	33.53	25.274	270.6	0.112
50	11.95	33.52	25.470	251.9	0.139
75	10.97	33.65	25.751	225.2	0.199
100	10.23	33.83	26.020	199.6	0.252
125	9.91	33.96	26.176	184.8	0.301
150	9.66	34.06	26.296	173.5	0.346
175	9.32	34.14	26.414	162.2	0.389
200	8.99	34.17	26.491	154.9	0.430

CALCOP I CRUISE 7501

93040

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
32 30.0N	118 11.5W	01/10/75	2310 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
1839M	280	25KT	1	310 6 5	
Z	T	S	SIGMA T	DT	DD
0	13.29	33.50	25.194	278.1	0.000
10	13.29	33.50	25.194	278.1	0.027
20	13.28	33.50	25.197	278.0	0.055
30	13.28	33.50	25.197	278.0	0.083
40	13.26	33.50	25.200	277.6	0.111
50	12.14	33.52	25.435	255.3	0.138
75	10.38	33.61	25.824	218.3	0.197
100	9.97	33.71	25.971	204.3	0.251
125	9.56	33.86	26.156	186.7	0.300
150	9.29	33.95	26.271	175.8	0.346
175	9.04	34.04	26.381	165.4	0.389
200	8.68	34.09	26.477	156.2	0.431
225	8.30	34.12	26.559	148.5	0.470
250	8.11	34.14	26.603	144.3	0.507
275	7.96	34.17	26.649	139.9	0.544
300	7.82	34.19	26.686	136.5	0.580
325	7.38	34.20	26.757	129.7	0.649
400	6.98	34.22	26.829	122.9	0.715
450	6.40	34.23	26.914	114.7	0.778
500	6.01	34.27	26.996	107.0	0.836
550	5.82	34.29	27.036	103.7	0.892
600	5.58	34.31	27.081	98.9	0.946
700	5.12	34.37	27.184	89.2	1.048
800	4.64	34.42	27.278	80.2	1.141
900	4.27	34.45	27.342	74.2	1.227
1000	3.97	34.48	27.397	68.9	1.308

93050		RV DAVID STARR JORDAN				CALCOFI CRUISE 7501				93060			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME			LATITUDE	LONGITUDE	MO/DAY/YR	START TIME				
32 10.0N	118 52.5W	01/11/75	2119 GMT			31 50.0N	119 34.0W	01/12/75	0416 GMT				
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
1433M	350	11KT	1	320 8 6		2321M	340	18KT	1	330 7 6			
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD		
0	13.31	33.51	25.198	277.8	0.000	0	13.46	33.51	25.168	280.7	0.000		
10	13.32	33.51	25.196	278.0	0.027	10	13.46	33.51	25.168	280.7	0.028		
20	13.27	33.51	25.206	277.0	0.055	20	13.47	33.51	25.166	280.9	0.056		
30	13.24	33.51	25.212	276.4	0.083	30	13.47	33.51	25.166	280.9	0.084		
40	13.22	33.51	25.216	276.1	0.111	40	13.44	33.50	25.164	281.0	0.112		
50	12.89	33.50	25.274	270.6	0.138	50	13.40	33.50	25.172	280.3	0.140		
75	10.72	33.60	25.757	224.7	0.200	75	12.58	33.41	25.265	271.4	0.210		
100	10.02	33.78	26.017	199.9	0.254	100	10.28	33.53	25.779	222.6	0.272		
125	9.70	33.94	26.196	183.0	0.302	125	9.49	33.69	26.035	198.2	0.325		
150	9.46	34.02	26.298	173.3	0.348	150	9.12	33.81	26.189	183.6	0.373		
175	9.30	34.04	26.339	169.3	0.391	175	8.82	33.91	26.314	171.7	0.419		
200	8.91	34.12	26.464	157.5	0.433	200	8.62	33.96	26.385	165.0	0.462		
225	8.47	34.12	26.533	150.9	0.472	225	8.28	34.01	26.476	156.4	0.503		
250	8.31	34.18	26.604	144.2	0.510	250	7.77	34.05	26.583	146.2	0.542		
275	7.90	34.17	26.658	139.1	0.547	275	7.47	34.07	26.649	139.9	0.578		
300	7.69	34.20	26.712	133.4	0.582	300	7.20	34.10	26.704	134.7	0.614		
350	6.97	34.19	26.806	125.0	0.650	350	6.85	34.14	26.784	127.1	0.682		
400	6.49	34.23	26.902	115.9	0.713	400	6.48	34.19	26.872	118.7	0.746		
450	6.20	34.27	26.972	109.3	0.772	450	6.04	34.22	26.953	111.1	0.806		
500	5.90	34.28	27.018	104.9	0.829	500	5.76	34.27	27.028	104.0	0.863		
550	5.60	34.30	27.071	99.9	0.883	550	5.49	34.30	27.084	98.6	0.917		
600	5.37	34.33	27.122	95.0	0.936	600	5.28	34.32	27.125	94.7	0.969		
700	4.99	34.38	27.207	87.0	1.034	700	4.81	34.38	27.227	85.1	1.066		
800	4.67	34.42	27.275	80.6	1.126	800	4.48	34.42	27.296	78.6	1.156		
900	4.30	34.45	27.339	74.5	1.212	900	4.20	34.46	27.358	72.7	1.240		
1000	3.90	34.48	27.405	68.2	1.293	1000	3.90	34.48	27.405	68.2	1.319		

93070		RV AL-KANIFER AGASSIZ				CALCOFI CRUISE 7501				93080			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME			LATITUDE	LONGITUDE	MO/DAY/YR	START TIME				
31 29.5N	120 16.0W	01/23/75	1036 GMT			31 09.5N	120 55.5W	01/23/75	0530 GMT				
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
3866M	040	10KT	4			3832M	010	4KT	1				
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD		
0	13.10	33.48	25.217	276.0	0.000	0	13.35	33.50	25.182	279.3	0.000		
10	13.08	33.48	25.221	275.6	0.027	10	13.35	33.50	25.182	279.3	0.027		
20	13.06	33.49	25.233	274.5	0.055	20	13.29	33.50	25.194	278.1	0.055		
30	13.05	33.49	25.235	274.3	0.082	30	13.26	33.50	25.200	277.6	0.083		
40	13.03	33.49	25.239	273.9	0.110	40	12.95	33.48	25.247	273.2	0.111		
50	12.87	33.47	25.255	272.4	0.137	50	12.82	33.48	25.272	270.7	0.138		
75	11.64	33.46	25.482	250.8	0.203	75	12.52	33.46	25.316	266.7	0.206		
100	10.29	33.54	25.784	222.0	0.262	100	10.14	33.55	25.818	218.9	0.267		
125	9.52	33.67	26.015	200.1	0.316	125	9.44	33.71	26.059	195.9	0.319		
150	9.08	33.80	26.187	183.8	0.364	150	8.97	33.83	26.228	179.9	0.367		
175	8.76	33.90	26.316	171.5	0.410	175	8.50	33.93	26.380	165.5	0.411		
200	8.30	34.00	26.465	157.4	0.452	200	8.36	33.99	26.448	159.0	0.452		
225	7.84	34.04	26.565	147.9	0.491	225	7.96	34.01	26.524	151.8	0.492		
250	7.70	34.08	26.617	143.0	0.528	250	7.56	34.05	26.614	143.3	0.530		
275	7.39	34.10	26.677	137.3	0.564	275	7.17	34.07	26.684	136.6	0.566		
300	7.23	34.15	26.739	131.4	0.599	300	6.77	34.09	26.755	129.9	0.600		
350	6.86	34.17	26.806	125.0	0.666	350	6.07	34.07	26.831	122.7	0.666		
400	6.48	34.22	26.896	116.5	0.729	400	5.85	34.12	26.898	116.3	0.728		
450	5.90	34.24	26.986	107.9	0.788	450	5.73	34.21	26.984	108.1	0.787		
500	5.70	34.26	27.027	104.0	0.844	500	5.61	34.27	27.046	102.2	0.843		
550	5.44	34.30	27.090	98.0	0.898	550	5.35	34.30	27.101	97.0	0.896		
600	5.29	34.35	27.148	92.6	0.949	600	5.29	34.36	27.156	91.8	0.946		
700	4.96	34.39	27.218	85.9	1.046	700	4.80	34.40	27.244	83.5	1.041		
800	4.53	34.43	27.298	78.4	1.136	800	4.44	34.43	27.308	77.4	1.130		
900	4.22	34.45	27.347	73.7	1.220	900	4.14	34.46	27.364	72.1	1.213		
1000	3.88	34.48	27.407	68.0	1.300	1000	3.85	34.48	27.410	67.8	1.291		

94032 RV ALXANDER AGASSIZ

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
32 40.5N	117 35.0W	01/20/75	1914 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
1100M	180	BKT	1	270 4 5	
Z	T	S	SIGMA T	DT	DD
0	14.35	33.58	25.038	293.1	0.000
10	14.23	33.58	25.063	290.7	0.029
20	14.14	33.56	25.066	290.3	0.058
30	14.00	33.56	25.096	287.6	0.087
40	13.91	33.56	25.114	285.8	0.116
50	13.82	33.55	25.227	275.0	0.144
75	11.25	33.62	25.677	232.2	0.207
100	10.56	33.75	25.901	210.9	0.263
125	9.80	33.89	26.140	188.2	0.314
150	9.42	33.97	26.265	176.4	0.360
175	9.08	34.05	26.383	165.2	0.404
200	9.04	34.14	26.459	157.9	0.445
225	8.78	34.17	26.524	151.8	0.485
250	8.64	34.19	26.561	148.2	0.523
275	8.43	34.22	26.617	142.9	0.561
300	8.17	34.21	26.649	134.9	0.599
350	7.66	34.22	26.732	132.0	0.668
400	7.07	34.23	26.824	123.3	0.735
450	6.66	34.24	26.888	117.3	0.799
500	6.27	34.26	26.955	110.9	0.859
550	5.92	34.29	27.023	104.4	0.916
600	5.62	34.31	27.076	99.4	0.971
700	5.12	34.37	27.184	89.2	1.073
800	4.83	34.41	27.249	83.0	1.168
900	4.47	34.44	27.313	77.0	1.257
1000	4.15	34.47	27.371	71.5	1.340

94032 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
32 40.0N	117 35.0W	01/09/75	0214 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
1100M	270	27Kt	1	270 4 5	
Z	T	S	SIGMA T	DT	DD
0	14.30	33.56	25.033	293.5	0.000
10	14.30	33.57	25.040	292.8	0.029
20	14.27	33.56	25.039	292.9	0.058
30	14.02	33.55	25.084	288.7	0.087
40	13.47	33.51	25.166	280.9	0.116
50	12.39	33.50	25.372	261.3	0.143
75	11.03	33.65	25.740	226.2	0.204
100	10.51	33.82	25.964	204.9	0.259
125	10.21	33.96	26.125	189.7	0.309
150	10.01	34.02	26.206	182.0	0.356
175	9.78	34.08	26.291	173.9	0.401
200	9.52	34.13	26.373	166.1	0.445
225	9.10	34.19	26.489	155.1	0.486
250	8.76	34.19	26.542	150.0	0.525
275	8.37	34.20	26.611	143.5	0.563
300	7.83	34.18	26.676	137.4	0.600
350	7.25	34.19	26.767	128.7	0.669
400	6.73	34.20	26.847	121.1	0.734
450	6.41	34.25	26.929	113.4	0.796
500	6.16	34.27	26.977	108.8	0.855
550	5.92	34.29	27.023	104.4	0.911
600	5.64	34.32	27.082	98.8	0.966
700	5.06	34.38	27.199	87.8	1.067
800	4.65	34.42	27.277	80.4	1.159
900	4.43	34.44	27.317	76.6	1.247
1000	4.09	34.47	27.377	70.9	1.330

RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	
32 40.0N	117 35.0W	1/ 9/75	0342 GMT	
Z	T	S	DT	DD
1	14.23	33.564	6.24	292.0
10	14.24	33.564	6.24	290.9
28	14.16	33.558	6.29	256.0
56	12.23	33.532	4.87	233.1
76	11.27	33.613	4.38	220.8
89	10.92	33.698	4.07	204.0
103	10.47	33.824	3.55	186.9
132	10.16	33.987	2.86	181.9
155	10.02	34.023	2.74	171.4
183	9.70	34.096	2.50	161.9
216	9.23	34.125	2.36	139.9
286	8.15	34.207	1.55	123.4
384	6.95	34.208	1.06	110.6
486	6.26	34.262	0.61	100.2
589	5.70	34.311	0.38	87.1
721	5.03	34.385	0.38	77.1
870	4.49	34.441	0.44	68.6
1038	3.97	34.485	0.63	

CALCOFI CRUISE 7501 94032

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
1100M	270	27Kt	1	270 4 5		
Z	T	S	DT	DD		
0	14.23	33.564	6.24	25.051	291.8	0.000
10	14.24	33.564	6.24	25.049	292.0	0.029
20	14.19	33.562	6.26	25.055	291.4	0.058
30	14.04	33.554	6.20	25.080	289.0	0.087
40	12.70	33.530	5.21	25.332	265.1	0.143
75	11.30	33.609	4.39	25.657	234.1	0.205
100	10.56	33.798	3.66	25.937	207.5	0.261
125	10.18	33.961	2.97	26.128	189.3	0.311
150	10.05	34.018	2.75	26.197	182.8	0.359
200	9.46	34.115	2.42	26.370	166.4	0.448
250	8.70	34.167	1.98	26.534	150.8	0.529
300	7.95	34.210	1.45	26.681	136.9	0.604
400	6.81	34.215	0.98	26.847	121.2	0.738
500	6.17	34.269	0.56	26.973	109.1	0.860
600	5.63	34.317	0.38	27.080	99.0	0.971
700	5.12	34.373	0.38	27.185	89.0	1.073
800	4.72	34.418	0.40	27.267	81.3	1.167
1000	4.07	34.477	0.57	27.384	70.2	1.336

95028 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
32 37.0N	117 10.5W	01/18/75	1615 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
15M	210	7Kt	4	290 2 4	
Z	T	S	SIGMA T	DT	DD
0	13.12	33.55	25.267	271.2	0.000
5	13.11	33.55	25.269	271.1	0.013
10	13.06	33.55	25.279	270.1	0.027

CALCOFI CRUISE 7501 95029

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
32 35.5N	117 14.5W	01/18/75	1645 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
41M	170	6Kt	4	150 2 3	
Z	T	S	SIGMA T	DT	DD
0	13.66	33.53	25.143	283.1	0.000
10	13.66	33.53	25.143	283.1	0.028
20	13.41	33.53	25.194	278.2	0.056
28	13.14	33.53	25.248	273.1	0.078

95030 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
32 33.0N	117 18.5W	01/18/75	1510 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
116M	160	6KT	4	100 1 2	
Z	T	S	SIGMA T	DT	DD

CALCULI CRUISE 7501 95031

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
32 31.0N	117 22.5W	01/18/75	1325 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
408M	140	9KT	4	090 2 2	
Z	T	S	SIGMA T	DT	DD

95032 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
32 29.0N	117 27.0W	01/18/75	1145 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
870M			1		
Z	T	S	SIGMA T	DT	DD

CALCULI CRUISE 7501 97032

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
32 12.0N	117 15.0W	01/21/75	0345 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
1383M	010	8KT	1		
Z	T	S	SIGMA T	DT	DD

97035 RV ALXANDER AGASSIZ

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
32 05.5N	117 27.5W	01/17/75	1835 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
1272M	300	9KT	1		
Z	T	S	SIGMA T	DT	DD

CALCULI CRUISE 7501 97040

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
31 55.5N	117 47.5W	01/21/75	0952 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
1455M	300	17KT			
Z	T	S	SIGMA T	DT	DD

103030 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
31 06.0N	116 24.5W	01/23/75	1759 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
67M	250	6KT	1	300 2 4	
Z	T	S	SIGMA T	DT	DD

CALCOFI CRUISE 7501 103035

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
30 56.0N	116 45.0W	01/23/75	1255 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
1849M	090	6KT	0		
Z	T	S	SIGMA T	DT	DD

RV DAVID STARR JORDAN

CALCOFI CRUISE 7501

103040

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES							
30 46.0N	117 04.5W	1/23/75	1011	1856M	310	8KT	0								
Z	T	S	02	04	103	NO2	NO3	DT	Z	T	S	02	SIG T	DT	DD
1	14.27	33.504	6.03					297.0	0	14.27	33.504	6.03	24.996	297.0	0.000
11	14.19	33.496	6.03					296.0	10	14.19	33.498	6.03	25.006	296.1	0.029
29	14.10	33.495	6.12					294.3	20	14.14	33.496	6.07	25.015	295.2	0.059
57	13.88	33.485	5.92					290.7	30	14.09	33.496	6.11	25.026	294.2	0.088
75	13.04	33.443	5.67					277.6	50	13.93	33.489	6.00	25.053	291.6	0.147
90	11.53	33.413	5.16					252.3	75	13.04	33.443	5.67	25.200	277.6	0.219
103	10.51	33.490	4.81					229.3	100	10.71	33.468	4.88	25.653	234.5	0.283
132	9.44	33.743	3.87					193.5	125	9.58	33.683	4.07	26.014	200.3	0.338
156	9.16	33.887	3.64					178.5	150	9.20	33.856	3.68	26.211	181.5	0.387
184	8.88	34.023	3.09					164.2	200	8.75	34.067	2.79	26.446	159.2	0.473
217	8.64	34.099	2.51					155.0	250	8.36	34.155	2.02	26.576	146.9	0.552
287	8.01	34.194	1.60					138.8	300	7.84	34.198	1.49	26.688	136.2	0.625
386	6.80	34.204	1.01					121.7	400	6.68	34.209	0.94	26.860	119.9	0.759
489	6.09	34.248	0.59					109.6	500	6.02	34.256	0.55	26.983	108.2	0.879
593	5.52	34.320	0.39					97.5	600	5.48	34.324	0.38	27.104	96.7	0.989
724	4.84	34.386	0.37					84.9	700	4.95	34.375	0.37	27.207	87.0	1.088
875	4.35	34.441	0.49					75.7	800	4.57	34.416	0.41	27.282	79.8	1.180
1037	3.86	34.489	0.70					67.2	1000	3.96	34.479	0.64	27.397	69.0	1.346

103040

RV DAVID STARR JORDAN

CALCOFI CRUISE 7501

103050

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
30 46.0N	117 04.5W	01/23/75	0906 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
1856M	310	8KT	0		
Z	T	S	SIGMA T	DT	DD

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
30 24.0N	117 42.5W	01/23/75	0255 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
2696M	280	8KT	0		
Z	T	S	SIGMA T	DT	DD

103060 RV DAV ID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
30 05.5N	118 24.0W	01/22/75	0245 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
3357M	320	10KT			
Z	T	S	SIGMA T	DT	DD
0	14.67	33.54	24.939	302.5	0.000
10	14.60	33.54	24.954	301.0	0.030
20	14.60	33.54	24.954	301.0	0.060
30	14.28	33.53	25.014	295.3	0.090
40	14.20	33.52	25.023	294.5	0.119
50	14.09	33.52	25.046	292.3	0.149
75	11.74	33.67	25.626	237.1	0.215
100	11.12	33.83	25.864	214.5	0.272
125	10.89	33.93	25.983	203.2	0.325
150	10.77	33.99	26.051	196.7	0.376
175	10.66	34.05	26.117	190.5	0.425
200	10.49	34.13	26.209	181.7	0.473
225	10.18	34.20	26.317	171.4	0.518
250	9.76	34.24	26.419	161.7	0.561
275	9.51	34.30	26.508	153.3	0.602
300	9.18	34.31	26.569	147.5	0.641
350	8.41	34.30	26.683	136.7	0.715
400	7.28	34.20	26.771	128.4	0.784
450	6.79	34.22	26.855	120.4	0.850
500	6.59	34.25	26.913	114.9	0.912
550	5.91	34.27	27.009	105.8	0.971
600	5.67	34.30	27.063	100.7	1.026
700	5.12	34.36	27.176	89.9	1.129
800	4.67	34.41	27.261	81.3	1.223
900	4.29	34.45	27.340	74.4	1.310
1000	3.98	34.48	27.396	69.0	1.391

CALCOFI CRUISE 7501 103070

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
29 46.0N	119 05.0W	01/21/75	2137 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
3545M	310	12KT	2	340 4 6	
Z	T	S	SIGMA T	DT	DD
0	15.92	33.69	24.779	317.7	0.000
10	15.42	33.69	24.779	317.7	0.031
20	15.41	33.69	24.781	317.5	0.063
30	15.90	33.69	24.784	317.2	0.095
40	15.92	33.70	24.787	316.9	0.127
50	15.93	33.70	24.785	317.2	0.159
75	15.84	33.69	24.797	316.0	0.238
100	13.65	33.53	25.145	282.9	0.314
125	12.85	33.57	25.336	264.7	0.383
150	11.40	33.56	25.604	239.2	0.447
175	9.89	33.66	25.946	206.7	0.503
200	9.06	33.83	26.214	181.2	0.553
225	8.58	33.94	26.375	165.9	0.597
250	8.26	33.99	26.463	157.6	0.639
275	8.05	34.05	26.542	150.1	0.678
300	7.73	34.08	26.612	143.4	0.716
350	6.92	34.08	26.727	132.5	0.788
400	6.38	34.15	26.854	120.5	0.854
450	5.89	34.17	26.933	113.0	0.915
500	5.66	34.22	27.001	106.6	0.973
550	5.58	34.30	27.073	99.7	1.028
600	5.32	34.33	27.129	94.4	1.080
700	5.03	34.40	27.218	86.0	1.178
800	4.62	34.43	27.288	79.3	1.268
900	4.30	34.47	27.355	73.0	1.353
1000	3.98	34.49	27.404	68.3	1.433

103080 RV DAV ID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
29 29.0N	119 42.0W	01/21/75	1630 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
3737M	310	14KT	1	310 3 6	
Z	T	S	SIGMA T	DT	DD
0	16.12	33.70	24.741	321.3	0.000
10	16.13	33.70	24.739	321.5	0.032
20	16.13	33.71	24.747	320.8	0.064
30	16.13	33.71	24.747	320.8	0.096
40	16.13	33.71	24.747	320.8	0.128
50	16.13	33.71	24.747	320.8	0.160
75	16.12	33.71	24.749	320.5	0.241
100	14.22	33.65	25.119	285.3	0.317
125	13.04	33.57	25.298	268.3	0.387
150	11.12	33.52	25.623	237.4	0.451
175	5.76	33.65	25.960	205.4	0.508
200	9.03	33.81	26.203	182.2	0.557
225	6.75	33.91	26.325	170.7	0.602
250	6.31	34.00	26.464	157.5	0.644
275	7.85	34.03	26.556	148.8	0.684
300	7.42	34.04	26.626	142.1	0.721
350	6.73	34.07	26.745	130.8	0.792
400	6.27	34.11	26.837	122.1	0.858
450	6.04	34.18	26.922	114.1	0.920
500	5.59	34.21	27.001	106.5	0.978
550	5.26	34.26	27.080	99.0	1.032
600	4.99	34.30	27.144	93.0	1.084
700	4.67	34.38	27.243	83.6	1.179
800	4.41	34.43	27.311	77.1	1.267
900	4.17	34.47	27.369	71.7	1.350
1000	3.91	34.50	27.420	66.9	1.428

CALCOFI CRUISE 7501 107032

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
30 26.0N	116 11.0W	01/24/75	0230 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
399M	030	8KT	1	340 2 2	
Z	T	S	SIGMA T	DT	DD
0	15.37	33.64	24.863	309.6	0.000
10	15.38	33.65	24.869	309.1	0.030
20	15.23	33.65	24.902	306.0	0.061
30	15.11	33.64	24.920	304.2	0.092
40	14.78	33.61	24.969	299.6	0.122
50	13.95	33.56	25.106	286.6	0.152
75	12.09	33.58	25.491	250.0	0.219
100	10.89	33.74	25.835	217.2	0.278
125	10.33	33.94	26.089	193.1	0.330
150	10.11	34.03	26.197	182.9	0.378
175	10.04	34.07	26.240	178.8	0.424
200	9.82	34.23	26.401	163.4	0.467
225	9.61	34.29	26.483	155.6	0.508
250	9.36	34.31	26.540	150.2	0.548
275	9.11	34.32	26.589	145.6	0.586
300	8.94	34.33	26.620	142.6	0.624
350	8.08	34.33	26.757	129.7	0.695

113030 RV DAVID STARR JORDAN
 LATITUDE 29 22.0N LONGITUDE 115 18.0W
 MO/DAY/YR 01/27/75 START TIME 0020 GMT
 BOTTOM 58M WIND 290 SPEED 3KT WEATHER 1 DOMINANT WAVES 260 1 4

CALCOFI CRUISE 7501 113035
 LATITUDE 29 11.0N LONGITUDE 115 38.0W
 MO/DAY/YR 01/27/75 START TIME 0414 GMT
 BOTTOM 1391M WIND 330 SPEED 12KT WEATHER 2 DOMINANT WAVES 260 1 4

113040 RV DAVID STARR JORDAN
 LATITUDE 29 02.0N LONGITUDE 115 57.5W
 MO/DAY/YR 01/27/75 START TIME 0730 GMT
 BOTTOM 1856M WIND 300 SPEED 8KT WEATHER 1 DOMINANT WAVES 260 1 4

CALCOFI CRUISE 7501 113050
 LATITUDE 28 41.0N LONGITUDE 116 36.5W
 MO/DAY/YR 01/27/75 START TIME 1302 GMT
 BOTTOM 3545M WIND 260 SPEED 10KT WEATHER 2 DOMINANT WAVES 260 1 4

RV DAVID STARR JORDAN
 LATITUDE 28 22.0N LONGITUDE 117 16.0W
 MO/DAY/YR 1/27/75 MESSENGER TIME 1931 GMT

CALCOFI CRUISE 7501 113060
 BOTTOM 3641M WIND 290 SPEED 13KT WEATHER 2 DOMINANT WAVES 290 3 4

113060 RV DAV ID STARR JORDAN

LATITUDE	LONGITUDE	MO/D/Y/YR	START TIME		
28 22.0N	117 16.0W	01/27/75	1830 GMT		
BOTTOM	WIND	SPEED	WEATHR	DOMINANT WAVES	
3641M	290	13KT	2	290 3 4	
Z	T	S	SIGMA T	DT	DD
0	15.91	33.68	24.774	318.2	0.000
10	15.88	33.67	24.773	318.3	0.031
20	15.29	33.57	24.828	313.1	0.063
30	14.85	33.55	24.908	305.4	0.094
40	14.61	33.53	24.944	302.0	0.124
50	14.43	33.54	24.990	297.6	0.155
75	13.07	33.62	25.331	265.2	0.225
100	11.48	33.55	25.581	241.4	0.289
125	10.33	33.68	25.887	212.3	0.346
150	9.75	33.92	26.172	185.2	0.397
175	9.47	34.04	26.311	171.9	0.442
200	9.19	34.10	26.404	163.2	0.485
225	8.65	34.14	26.521	152.1	0.526
250	8.47	34.17	26.572	147.2	0.564
275	8.56	34.26	26.628	141.8	0.602
300	8.23	34.28	26.695	135.6	0.638
350	7.46	34.26	26.793	126.3	0.706
400	7.03	34.27	26.861	119.8	0.770
450	6.67	34.31	26.942	112.2	0.832
500	6.22	34.32	27.009	105.8	0.889
550	5.80	34.31	27.054	101.5	0.945
600	5.52	34.33	27.104	96.7	0.998
700	5.10	34.38	27.194	88.2	1.098
800	4.62	34.41	27.272	80.8	1.191
900	4.28	34.45	27.341	74.3	1.277
1000	3.98	34.48	27.396	69.0	1.358

CALCOFI CRUISE 7501 113070

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
28 02.0N	117 55.0W	01/28/75	0001 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
3451M	330	13KT	5	340 4 5	
Z	T	S	SIGMA T	DT	DD
0	15.30	33.61	24.856	310.4	0.000
10	15.30	33.61	24.856	310.4	0.031
20	15.27	33.60	24.855	310.5	0.062
30	15.24	33.60	24.861	309.8	0.093
40	14.90	33.60	24.935	302.8	0.123
50	14.64	33.58	24.976	298.9	0.154
75	13.03	33.49	25.239	273.9	0.226
100	11.56	33.51	25.535	245.7	0.291
125	10.33	33.71	25.910	210.1	0.349
150	9.65	33.85	26.134	188.9	0.399
175	9.16	33.99	26.323	170.9	0.445
200	8.83	34.02	26.399	163.7	0.488
225	8.44	34.04	26.475	156.4	0.529
250	8.00	34.05	26.549	149.4	0.568
275	7.64	34.08	26.625	142.1	0.606
300	7.28	34.12	26.708	134.3	0.641
350	7.00	34.19	26.802	125.4	0.709
400	6.73	34.25	26.886	117.4	0.772
450	6.55	34.29	26.942	112.1	0.833
500	6.28	34.31	26.993	107.3	0.891
550	5.94	34.32	27.045	102.4	0.947
600	5.63	34.37	27.122	95.0	1.000
700	5.11	34.39	27.201	87.6	1.100
800	4.69	34.42	27.273	80.8	1.192
900	4.35	34.46	27.341	74.2	1.278
1000	3.83	34.49	27.420	66.8	1.358

113080 RV DAV ID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
27 41.0N	118 33.0W	01/28/75	0529 GMT		
BOTTOM	WIND	SPEED	WEATHR	DOMINANT WAVES	
3737M	320	12KT			
Z	T	S	SIGMA T	DT	DD
0	16.13	33.70	24.739	321.5	0.000
10	16.14	33.70	24.737	321.7	0.032
20	16.14	33.70	24.737	321.7	0.064
30	16.14	33.70	24.737	321.7	0.096
40	16.14	33.70	24.737	321.7	0.128
50	16.14	33.70	24.737	321.7	0.161
75	16.14	33.70	24.737	321.7	0.242
100	14.14	33.57	25.074	289.6	0.319
125	12.43	33.67	25.495	249.5	0.387
150	11.30	33.81	25.816	219.1	0.446
175	10.56	33.96	26.064	195.4	0.499
200	10.20	34.09	26.228	179.9	0.547
225	9.90	34.14	26.318	171.4	0.592
250	9.74	34.27	26.446	159.2	0.634
275	9.37	34.31	26.538	150.4	0.674
300	9.25	34.35	26.589	145.6	0.713
350	8.58	34.37	26.711	134.0	0.786
400	8.17	34.40	26.798	125.8	0.854
450	7.52	34.38	26.878	118.2	0.919
500	7.04	34.37	26.938	112.5	0.981
550	6.38	34.34	27.004	106.3	1.039
600	5.95	34.35	27.067	100.3	1.095
700	5.41	34.40	27.173	90.2	1.198
800	4.80	34.43	27.268	81.2	1.293
900	4.36	34.46	27.340	74.3	1.379
1000	4.03	34.48	27.391	69.5	1.460

CALCOFI CRUISE 7501 117025

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
28 58.0N	114 37.0W	01/29/75	2120 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
52M	280	10KT	1	280 2 5	
Z	T	S	SIGMA T	DT	DD
0	14.70	33.71	25.063	290.6	0.000
10	14.69	33.71	25.065	290.4	0.029
20	14.46	33.72	25.122	285.0	0.057
30	14.04	33.71	25.203	277.4	0.086
40	13.83	33.71	25.246	273.2	0.113
50	13.73	33.71	25.267	271.3	0.141

117030 RV DAV ID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
28 48.0N	114 56.5W	01/29/75	1644 GMT		
BOTTOM	WIND	SPEED	WEATHR	DOMINANT WAVES	
101M	260	8KT	2	330 2 6	
Z	T	S	SIGMA T	DT	DD
0	15.25	33.73	24.959	300.5	0.000
10	15.25	33.73	24.959	300.5	0.030
20	15.25	33.73	24.959	300.5	0.060
30	15.24	33.73	24.961	300.3	0.090
40	15.20	33.72	24.962	300.2	0.120
50	14.91	33.69	25.002	296.4	0.150
75	13.53	33.72	25.316	266.6	0.221
88	12.50	33.79	25.575	242.0	0.254

CALCOFI CRUISE 7501 117035

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
28 38.0N	115 16.0W	01/29/75	1352 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
205M	270	10KT			
Z	T	S	SIGMA T	DT	DD
0	15.30	33.81	25.009	295.7	0.000
10	15.26	33.81	25.018	294.9	0.029
20	15.23	33.82	25.033	293.5	0.059
30	14.86	33.82	25.113	285.9	0.088
40	14.46	33.82	25.199	277.7	0.116
50	13.51	33.78	25.366	261.8	0.143
75	12.14	33.84	25.682	231.7	0.205
100	11.08	33.97	25.980	203.5	0.260
125	10.91	34.18	26.173	185.1	0.309
150	10.66	34.22	26.249	177.9	0.355
175	10.41	34.26	26.324	170.8	0.400
195	10.20	34.31	26.399	163.6	0.434

117080 RV DAV ID STARR JORDAN

LATITUDE	LONGITUDE	MO/D/Y/HR	START TIME		
27 08.0N	118 10.5W	01/28/75	0955 GMT		
BOTTOM	WIND	SPEED	WEATHR	DOMINANT WAVES	
4116M	330	16KT	2		
Z	T	S	SIGMA T	DT	DD
0	16.11	33.71	24.751	320.3	0.000
10	16.11	33.71	24.751	320.3	0.032
20	16.12	33.71	24.749	320.5	0.064
30	16.08	33.71	24.758	319.7	0.096
40	15.59	33.64	24.815	314.3	0.128
50	15.31	33.59	24.838	312.0	0.159
75	14.85	33.56	24.915	304.7	0.237
100	14.25	33.54	25.028	294.0	0.312
125	13.03	33.66	25.370	261.5	0.382
150	11.44	33.72	25.720	228.1	0.444
175	10.91	33.95	25.995	202.1	0.499
200	10.12	34.03	26.195	183.0	0.548
225	9.55	34.08	26.330	170.3	0.593
250	8.96	34.10	26.441	159.7	0.636
275	8.71	34.17	26.535	150.7	0.676
300	8.40	34.20	26.606	144.0	0.714
350	8.04	34.26	26.708	134.3	0.786
400	7.48	34.27	26.798	125.8	0.855
450	6.91	34.30	26.901	116.0	0.918
500	6.35	34.29	26.968	109.6	0.978
550	6.06	34.33	27.037	103.1	1.035
600	5.91	34.37	27.088	98.3	1.089
700	5.26	34.41	27.199	87.8	1.191
800	4.82	34.43	27.266	81.4	1.284
900	4.34	34.45	27.335	74.9	1.371
1000	4.04	34.49	27.398	68.9	1.452

CALCOFI CRUISE 7501 118039

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
28 18.5N	115 23.5W	01/29/75	1057 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
242M	320	8KT			
Z	T	S	SIGMA T	DT	DD
0	15.50	33.92	25.049	291.9	0.000
10	15.51	33.92	25.047	292.1	0.029
20	15.52	33.92	25.045	292.3	0.058
30	15.52	33.92	25.045	292.3	0.087
40	15.48	33.92	25.054	291.5	0.117
50	13.94	33.73	25.239	273.9	0.145
75	13.05	33.92	25.567	242.7	0.210
100	11.49	34.04	25.959	205.4	0.267
125	11.12	34.21	26.159	186.5	0.316
150	10.87	34.22	26.212	181.5	0.363
171	10.84	34.29	26.271	175.8	0.401

119033 RV DAV ID STARR JORDAN

LATITUDE	LONGITUDE	MO/D/Y/HR	START TIME		
28 18.5N	114 54.0W	01/30/75	0945 GMT		
BOTTOM	WIND	SPEED	WEATHR	DOMINANT WAVES	
112M	230	7KT	2		
Z	T	S	SIGMA T	DT	DD
0	15.46	33.72	24.905	305.7	0.000
10	15.45	33.73	24.915	304.7	0.030
20	15.45	33.73	24.915	304.7	0.061
30	15.40	33.73	24.926	303.7	0.091
40	15.07	33.72	24.991	297.5	0.121
50	14.70	33.72	25.071	289.9	0.151
75	12.88	33.72	25.446	254.2	0.219
100	12.00	33.83	25.701	230.0	0.280

CALCOFI CRUISE 7501 120030

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
28 13.0N	114 34.0W	01/30/75	0723 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
93M	300	4KT			
Z	T	S	SIGMA T	DT	DD
0	15.49	33.73	24.906	305.6	0.000
10	15.49	33.74	24.914	304.9	0.030
20	15.49	33.74	24.914	304.9	0.061
30	15.44	33.73	24.917	304.5	0.091
40	15.15	33.70	24.958	300.7	0.121
50	14.82	33.69	25.022	294.6	0.151
75	12.60	33.69	25.478	251.2	0.220

120035 RV DAV ID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
28 03.0N	114 54.0W	01/30/75	1200 GMT		
BOTTOM	WIND	SPEED	WEATHR	DOMINANT WAVES	
82M	220	7KT	2		
Z	T	S	SIGMA T	DT	DD
0	15.29	33.73	24.950	301.4	0.000
10	15.29	33.73	24.950	301.4	0.030
20	15.30	33.73	24.948	301.6	0.060
30	14.97	33.71	25.005	296.2	0.090
40	14.60	33.68	25.061	290.8	0.119
50	14.14	33.66	25.143	283.0	0.148
75	12.20	33.78	25.624	237.2	0.214

CALCOFI CRUISE 7501 120045

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
27 43.0N	115 33.0W	01/30/75	1714 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
2135M	280	10KT	1	290 2 3	
Z	T	S	SIGMA T	DT	DD
0	15.66	33.68	24.830	312.9	0.000
10	15.66	33.68	24.830	312.9	0.031
20	15.65	33.68	24.832	312.6	0.062
30	15.62	33.68	24.839	312.0	0.093
40	14.60	33.54	24.954	301.0	0.124
50	13.87	33.56	25.122	285.0	0.154
75	12.40	33.75	25.563	243.1	0.220
100	11.46	33.92	25.872	213.8	0.278
125	11.76	34.33	26.134	188.8	0.329
150	11.32	34.41	26.277	175.2	0.375
175	11.07	34.48	26.377	165.7	0.419
200	10.65	34.48	26.453	158.5	0.460
225	10.05	34.46	26.542	150.1	0.500
250	9.88	34.51	26.610	143.7	0.538
275	9.57	34.50	26.654	139.4	0.575
300	9.20	34.48	26.699	135.2	0.611
350	8.64	34.47	26.780	127.4	0.679
400	8.03	34.46	26.866	119.3	0.744
450	7.52	34.45	26.933	113.0	0.806
500	6.93	34.44	27.008	105.8	0.865
550	6.59	34.44	27.055	101.4	0.921
600	6.26	34.45	27.106	96.6	0.974
700	5.62	34.44	27.179	89.6	1.076
800	5.01	34.44	27.252	82.7	1.171
900	4.54	34.47	27.329	75.5	1.259
1000	4.11	34.49	27.391	69.6	1.341

130030		RV DAVID STARR JORDAN			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
26 29.0N	113 29.0W	02/03/75	0826 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
80M	060	11KT			
Z	T	S	SIGMA T	DT	DD
0	16.80	34.10	24.891	307.0	0.000
10	16.74	34.10	24.905	305.7	0.030
20	16.75	34.10	24.902	305.9	0.061
30	16.74	34.10	24.905	305.7	0.091
40	16.21	34.03	24.974	299.1	0.122
50	14.65	33.87	25.197	277.9	0.151
75	13.25	34.15	25.704	229.7	0.215

CALCULI CRUISE 7501		130040			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
26 09.0N	114 06.5W	02/03/75	0218 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
222M	310	12KT			
Z	T	S	SIGMA T	DT	DD
0	16.59	34.02	24.878	308.2	0.000
10	16.60	34.03	24.884	307.7	0.030
20	16.63	34.10	24.930	303.2	0.061
30	16.62	34.12	24.948	301.6	0.091
40	16.52	34.11	24.963	300.1	0.121
50	15.12	33.90	25.118	285.4	0.151
75	13.33	33.96	25.541	245.1	0.218
100	12.08	34.09	25.887	212.2	0.275
125	11.29	34.17	26.097	192.3	0.327
150	11.21	34.37	26.266	176.2	0.373
175	10.59	34.37	26.378	165.7	0.417
200	10.39	34.43	26.460	157.9	0.459
225	10.25	34.48	26.523	151.9	0.499
250	10.08	34.48	26.552	149.1	0.537
275	9.90	34.49	26.590	145.4	0.576
300	9.39	34.47	26.660	138.9	0.613
350	8.66	34.47	26.777	127.7	0.683
400	8.20	34.46	26.840	121.8	0.748
450	7.64	34.45	26.916	114.6	0.811
500	7.20	34.44	26.971	109.4	0.871
550	6.75	34.43	27.025	104.2	0.929
600	6.26	34.44	27.098	97.3	0.983
700	5.68	34.45	27.179	89.6	1.085
800	5.08	34.46	27.260	82.0	1.180
900	4.63	34.47	27.319	76.4	1.269
1000	4.29	34.51	27.388	69.9	1.357

130050		RV DAVID STARR JORDAN			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
25 49.0N	114 46.0W	02/02/75	2125 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
3737M	340	9KT	2	340 3 3	
Z	T	S	SIGMA T	DT	DD
0	18.16	34.37	24.732	322.2	0.000
10	18.16	34.37	24.732	322.2	0.032
20	18.12	34.31	24.734	321.9	0.064
30	18.10	34.31	24.739	321.5	0.094
40	18.11	34.31	24.736	321.7	0.129
50	18.11	34.31	24.736	321.7	0.161
75	16.63	34.04	24.884	307.6	0.240
100	13.25	33.85	25.472	251.7	0.311
125	12.54	34.18	25.868	214.1	0.370
150	11.44	34.24	26.123	189.8	0.421
175	11.13	34.31	26.234	179.3	0.468
200	10.55	34.35	26.369	166.4	0.512
225	10.46	34.40	26.424	161.3	0.554
250	10.52	34.55	26.530	151.2	0.595
275	9.87	34.49	26.595	145.0	0.633
300	9.40	34.47	26.658	139.0	0.670
350	8.58	34.41	26.743	131.0	0.741
400	8.14	34.44	26.834	122.4	0.808
450	7.60	34.44	26.913	114.8	0.871
500	7.17	34.45	26.983	108.3	0.930
550	6.79	34.45	27.035	103.2	0.987
600	6.27	34.44	27.097	97.4	1.042
700	5.68	34.45	27.179	89.6	1.144
800	5.06	34.46	27.262	81.8	1.239
900	4.58	34.48	27.332	75.1	1.327
1000	4.27	34.52	27.398	68.9	1.408

CALCULI CRUISE 7501		130060			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
25 30.0N	115 21.0W	02/02/75	1632 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
3545M	350	5KT	2	340 3 4	
Z	T	S	SIGMA T	DT	DD
0	17.96	34.20	24.689	326.2	0.000
10	17.94	34.21	24.702	325.0	0.032
20	17.95	34.21	24.699	325.2	0.065
30	17.94	34.21	24.702	325.0	0.097
40	17.94	34.21	24.702	325.0	0.130
50	17.93	34.21	24.704	324.8	0.163
75	15.55	33.95	25.061	290.8	0.240
100	13.01	34.07	25.690	230.9	0.306
125	12.13	34.18	25.947	206.5	0.361
150	11.40	34.32	26.193	183.2	0.411
175	10.98	34.38	26.316	171.5	0.456
200	10.81	34.49	26.432	160.5	0.499
225	10.38	34.50	26.516	152.5	0.539
250	10.09	34.52	26.581	146.3	0.578
275	9.81	34.53	26.637	141.1	0.615
300	9.58	34.54	26.683	136.6	0.651
350	9.03	34.52	26.758	129.6	0.721
400	8.33	34.51	26.860	119.9	0.787
450	7.91	34.51	26.923	113.9	0.849
500	7.35	34.49	26.989	107.7	0.909
550	6.86	34.45	27.026	104.2	0.966
600	6.33	34.45	27.097	97.4	1.020
700	5.58	34.46	27.200	87.7	1.122
800	5.03	34.48	27.281	80.0	1.215
900	4.63	34.49	27.334	74.9	1.301
1000	4.26	34.51	27.391	69.6	1.383

133025		RV DAVID STARR JORDAN			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
26 04.5N	112 48.0W	02/03/75	2134 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
82M	320	14KT	1	290 4 6	
Z	T	S	SIGMA T	DT	DD
0	16.89	34.17	24.885	307.6	0.000
10	16.89	34.12	24.885	307.6	0.030
20	16.88	34.11	24.880	308.1	0.061
30	16.83	34.11	24.891	307.0	0.092
40	16.73	34.08	24.892	306.9	0.123
50	15.38	33.89	25.053	291.6	0.153
75	13.52	34.04	25.564	242.9	0.220

CALCULI CRUISE 7501		133030			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
25 54.5N	113 07.5W	02/03/75	2356 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
205M	320	14KT	0	340 4 7	
Z	T	S	SIGMA T	DT	DD
0	17.29	34.13	24.798	315.9	0.000
10	17.29	34.13	24.798	315.9	0.031
20	17.28	34.13	24.800	315.7	0.063
30	17.18	34.12	24.816	314.1	0.094
40	17.13	34.12	24.828	313.0	0.126
50	16.25	34.01	24.949	301.5	0.157
75	13.36	33.89	25.481	250.8	0.226
100	12.12	34.04	25.841	216.6	0.285
125	11.54	34.24	26.105	191.6	0.337
150	11.42	34.31	26.181	184.3	0.385
175	11.06	34.49	26.387	164.8	0.429

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES							
25 34.5N	113 45.5W	2/ 4/75	0619 GMT	2602M	330	18KT		O2	SIGT	DT	DD				
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD
1	17.59	34.130	5.53					322.7	0	17.59	34.130	5.53	24.726	322.7	0.000
11	17.61	34.128						323.3	10	17.60	34.129	5.55	24.720	323.3	0.032
30	17.61	34.128	5.60					323.3	20	17.61	34.128	5.57	24.719	323.3	0.064
58	14.83	33.730	4.88					291.8	30	17.61	34.128	5.60	24.719	323.3	0.097
77	13.45	33.813	3.96					258.2	50	15.74	33.830	5.16	24.924	303.8	0.160
91	13.01	34.000	2.80					236.1	75	13.56	33.794	4.08	25.365	261.9	0.231
106	11.66	33.978	2.91					213.0	100	12.21	33.994	2.86	25.787	221.8	0.292
134	10.86	34.132	2.34					187.8	125	10.96	34.073	2.57	26.079	194.0	0.344
157	10.60	34.238	1.91					175.6	150	10.65	34.209	2.03	26.240	178.7	0.392
187	10.36	34.323	1.57					165.3	200	10.60	34.418	1.16	26.412	162.4	0.479
220	11.02	34.565	0.54					158.5	250	10.78	34.605	0.46	26.524	151.7	0.560
292	9.96	34.550	0.36					142.0	300	9.82	34.545	0.34	26.646	140.2	0.636
392	8.41	34.503	0.21					121.6	400	8.31	34.502	0.20	26.855	120.3	0.773
498	7.38	34.499	0.16					107.4	500	7.36	34.499	0.16	26.994	107.2	0.895
603	6.47	34.489	0.16					96.3	600	6.49	34.489	0.16	27.106	96.5	1.005
738	5.65	34.487	0.20					86.5	700	5.85	34.487	0.18	27.187	88.9	1.107
888	4.89	34.492	0.28					77.5	800	5.32	34.487	0.22	27.253	82.6	1.202
1051	4.18	34.519	0.46					68.1	1000	4.38	34.508	0.39	27.375	71.0	1.376

133040

RV DAVID STARR JORDAN

CALCOFI CRUISE 7501

133050

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME				
25 34.5N	113 45.5W	02/04/75	0508 GMT	25 34.5N	114 24.0W	02/04/75	1103 GMT				
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
2602M	330	18KT			3832M	360	18KT				
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD
0	17.63	34.14	24.724	322.9	0.000	0	17.77	34.17	24.713	324.0	0.000
10	17.60	34.13	24.723	323.0	0.032	10	17.77	34.17	24.713	324.0	0.032
20	17.60	34.13	24.723	323.0	0.064	20	17.77	34.17	24.713	324.0	0.064
30	17.61	34.13	24.721	323.2	0.097	30	17.77	34.17	24.713	324.0	0.097
40	17.61	34.13	24.721	323.2	0.129	40	17.77	34.17	24.713	324.0	0.129
50	17.59	34.13	24.726	322.7	0.161	50	17.77	34.17	24.713	324.0	0.162
75	13.67	33.79	25.341	264.2	0.235	75	17.14	34.06	24.780	317.6	0.243
100	12.47	33.94	25.696	230.4	0.298	100	14.09	33.82	25.277	270.3	0.317
125	11.12	34.06	26.042	197.5	0.352	125	12.88	33.96	25.631	236.6	0.381
150	10.93	34.24	26.216	181.0	0.400	150	12.06	34.29	26.046	197.2	0.436
175	10.44	34.28	26.334	169.8	0.445	175	11.38	34.38	26.243	178.4	0.484
200	10.60	34.43	26.423	161.4	0.487	200	10.94	34.47	26.393	164.2	0.528
225	10.96	34.59	26.483	155.7	0.528	225	10.73	34.53	26.477	156.2	0.569
250	10.59	34.59	26.549	149.4	0.568	250	10.58	34.56	26.527	151.4	0.609
275	10.31	34.58	26.590	145.5	0.606	275	10.42	34.58	26.571	147.3	0.648
300	10.00	34.57	26.636	141.2	0.643	300	10.01	34.55	26.619	142.8	0.686
350	9.14	34.54	26.755	129.8	0.714	350	9.23	34.53	26.733	131.9	0.758
400	8.37	34.51	26.853	120.5	0.781	400	8.29	34.49	26.850	120.8	0.824
450	7.77	34.50	26.936	112.7	0.843	450	7.15	34.49	26.931	113.2	0.887
500	7.42	34.50	26.987	107.9	0.902	500	7.29	34.47	26.982	108.4	0.946
550	6.98	34.50	27.049	102.0	0.959	550	6.96	34.47	27.028	104.0	1.003
600	6.58	34.49	27.095	97.6	1.013	600	6.53	34.47	27.086	98.4	1.058
700	5.86	34.49	27.189	88.7	1.115	700	5.72	34.46	27.182	89.3	1.161
800	5.28	34.50	27.268	81.2	1.209	800	5.14	34.48	27.268	81.2	1.256
900	4.78	34.49	27.318	76.5	1.298	900	4.63	34.48	27.327	75.6	1.343
1000	4.37	34.51	27.379	70.7	1.382	1000	4.30	34.51	27.386	70.0	1.426

133060

RV DAVID STARR JORDAN

CALCOFI CRUISE 7501

137023

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME				
24 54.5N	115 02.0W	02/06/75	1625 GMT	25 34.0N	112 19.0W	02/06/75	1512 GMT				
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
3926M	010	14KT	1	360 4 5	75M	340	4KT	1	340 5 7		
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD
0	18.40	34.35	24.695	325.6	0.000	0	17.02	34.12	24.854	310.5	0.000
10	18.40	34.35	24.695	325.6	0.032	10	17.02	34.12	24.854	310.5	0.031
20	18.40	34.35	24.695	325.6	0.065	20	17.02	34.12	24.854	310.5	0.062
30	18.40	34.35	24.695	325.6	0.097	30	17.02	34.12	24.854	310.5	0.093
40	18.40	34.35	24.695	325.6	0.130	40	16.99	34.12	24.861	309.8	0.124
50	18.40	34.35	24.695	325.6	0.163	50	16.05	34.00	24.987	297.8	0.154
75	14.58	33.88	25.219	275.8	0.238	67	13.71	33.94	25.448	254.0	0.202
100	12.70	33.97	25.674	232.5	0.303						
125	11.68	34.15	26.009	200.7	0.357						
150	11.17	34.24	26.173	185.1	0.406						
175	11.54	34.46	26.275	175.3	0.452						
200	11.42	34.56	26.375	165.9	0.496						
225	11.00	34.57	26.460	157.8	0.538						
250	10.54	34.58	26.550	149.3	0.578						
275	10.18	34.57	26.605	144.1	0.616						
300	9.75	34.54	26.655	139.3	0.653						
350	9.16	34.52	26.737	131.6	0.724						
400	8.39	34.49	26.835	122.3	0.791						
450	7.89	34.48	26.902	115.9	0.854						
500	7.47	34.49	26.972	109.3	0.915						
550	6.93	34.48	27.040	102.8	0.977						
600	6.35	34.44	27.086	98.4	1.027						
700	5.77	34.45	27.168	90.6	1.130						
800	5.20	34.48	27.261	81.8	1.225						
900	4.66	34.49	27.331	75.2	1.313						
1000	4.25	34.52	27.400	68.7	1.395						

137030				RV DAVID STARR JORDAN				CALCOFI CRUISE 7501				137040					
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		
25 20.0N	112 45.5W	02/06/75	1059 GMT	25 00.0N	113 23.5W	02/06/75	0350 GMT										
BOTTOM	WIND	SPEED	WEATHR	DOMINANT WAVES	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	BOTTOM		
334M	330	14KT			3169M	340	14KT	1									
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD
0	17.06	34.12	24.845	311.4	0.000	0	17.45	34.15	24.775	318.1	0.000	0	17.45	34.15	24.775	318.1	0.000
10	17.07	34.12	24.842	311.6	0.031	10	17.45	34.15	24.775	318.1	0.031	10	17.45	34.15	24.775	318.1	0.031
20	17.07	34.12	24.842	311.6	0.062	20	17.46	34.15	24.772	318.3	0.063	20	17.46	34.15	24.772	318.3	0.063
30	17.07	34.12	24.842	311.6	0.093	30	17.46	34.16	24.780	317.6	0.095	30	17.46	34.16	24.780	317.6	0.095
40	17.07	34.12	24.842	311.6	0.124	40	17.45	34.17	24.790	316.6	0.127	40	17.45	34.17	24.790	316.6	0.127
50	17.07	34.12	24.842	311.6	0.156	50	17.28	34.14	24.808	314.9	0.159	50	17.28	34.14	24.808	314.9	0.159
75	14.67	33.89	25.208	276.9	0.230	75	14.19	33.88	25.302	267.9	0.232	75	14.19	33.88	25.302	267.9	0.232
100	13.06	34.13	25.727	227.5	0.293	100	13.22	33.99	25.587	240.8	0.296	100	13.22	33.99	25.587	240.8	0.296
125	12.37	34.29	25.986	202.8	0.348	125	12.61	34.22	25.885	212.4	0.354	125	12.61	34.22	25.885	212.4	0.354
150	11.75	34.48	26.252	177.6	0.396	150	11.35	34.32	26.202	182.3	0.404	150	11.35	34.32	26.202	182.3	0.404
175	11.37	34.54	26.369	166.5	0.440	175	11.44	34.51	26.333	169.9	0.449	175	11.44	34.51	26.333	169.9	0.449
200	11.30	34.59	26.421	161.6	0.482	200	11.16	34.57	26.431	160.6	0.491	200	11.16	34.57	26.431	160.6	0.491
225	11.00	34.61	26.491	154.9	0.523	225	10.86	34.58	26.493	154.7	0.532	225	10.86	34.58	26.493	154.7	0.532
250	10.80	34.61	26.527	151.5	0.563	250	10.54	34.57	26.542	150.0	0.571	250	10.54	34.57	26.542	150.0	0.571
275	10.57	34.60	26.560	148.3	0.602	275	10.25	34.56	26.585	146.0	0.610	275	10.25	34.56	26.585	146.0	0.610
300	10.51	34.61	26.578	146.6	0.640	300	9.86	34.54	26.636	141.1	0.647	300	9.86	34.54	26.636	141.1	0.647
						350	8.99	34.48	26.733	132.0	0.719	350	8.99	34.48	26.733	132.0	0.719
						400	8.20	34.45	26.832	122.5	0.786	400	8.20	34.45	26.832	122.5	0.786
						450	7.56	34.44	26.919	114.3	0.849	450	7.56	34.44	26.919	114.3	0.849
						500	7.09	34.44	26.986	107.9	0.908	500	7.09	34.44	26.986	107.9	0.908
						550	6.64	34.43	27.040	102.8	0.965	550	6.64	34.43	27.040	102.8	0.965
						600	6.35	34.45	27.094	97.7	1.019	600	6.35	34.45	27.094	97.7	1.019
						700	5.57	34.46	27.201	87.5	1.121	700	5.57	34.46	27.201	87.5	1.121
						800	5.04	34.48	27.280	80.1	1.213	800	5.04	34.48	27.280	80.1	1.213
						900	4.57	34.50	27.349	73.5	1.300	900	4.57	34.50	27.349	73.5	1.300
						1000	4.26	34.52	27.399	68.8	1.380	1000	4.26	34.52	27.399	68.8	1.380

RV DAVID STARR JORDAN				CALCOFI CRUISE 7501				137040								
LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME	LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
25 00.0N	113 23.5W	2/ 6/75	0459 GMT	3169M	340	14KT			25 00.0N	113 23.5W	2/ 6/75	0459 GMT	25 00.0N	113 23.5W	2/ 6/75	0459 GMT
Z	T	S	O2	PO4	SI03	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD	Z
1	17.46	34.150	5.47					318.3	0	17.46	34.150	5.47	24.772	318.3	0.000	0
10	17.46	34.150	5.51					318.3	10	17.46	34.150	5.51	24.772	318.3	0.031	10
29	17.46	34.153	5.58					318.1	20	17.46	34.152	5.55	24.773	318.2	0.063	20
58	17.33	34.124	5.40					317.2	30	17.45	34.152	5.57	24.775	318.1	0.095	30
77	14.35	33.877	3.93					271.3	50	17.36	34.132	5.44	24.781	317.5	0.159	50
91	13.83	33.899	3.66					259.3	75	14.65	33.896	4.08	25.215	276.2	0.234	75
105	13.31	33.983	3.12					243.1	100	13.49	33.948	3.33	25.498	249.3	0.300	100
134	12.20	34.267	1.78					201.4	125	12.54	34.184	2.14	25.871	213.8	0.359	125
157	11.39	34.325	1.55					182.7	150	11.59	34.311	1.59	26.151	187.2	0.410	150
186	11.52	34.493	0.86					172.6	200	11.32	34.527	0.71	26.367	166.6	0.500	200
219	10.97	34.549	0.62					158.9	250	10.66	34.579	0.42	26.527	151.5	0.582	250
290	10.20	34.584	0.26					145.0	300	10.13	34.575	0.26	26.616	143.0	0.659	300
390	8.54	34.470	0.30					126.0	400	8.38	34.464	0.29	26.814	124.2	0.800	400
495	7.19	34.438	0.23					109.4	500	7.14	34.439	0.22	26.977	108.7	0.924	500
598	6.40	34.462	0.20					97.4	600	6.38	34.462	0.20	27.099	97.2	1.035	600
731	5.37	34.478	0.28					83.9	700	5.59	34.474	0.25	27.209	86.7	1.136	700
882	4.66	34.498	0.37					74.6	800	4.99	34.487	0.32	27.290	79.1	1.228	800
1044	4.18	34.528	0.47					67.4	1000	4.28	34.519	0.44	27.396	69.1	1.395	1000

137050				RV DAVID STARR JORDAN				CALCOFI CRUISE 7501				137060					
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		
24 40.0N	114 02.5W	02/05/75	0234 GMT	24 20.0N	114 39.5W	02/04/75	2111 GMT										
BOTTOM	WIND	SPEED	WEATHR	DOMINANT WAVES	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	BOTTOM		
3926M	350	18KT			3737M	010	15KT	1		330	7	5					
Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD	Z	T	S	SIGMA T	DT	DD
0	18.90	34.41	24.615	333.2	0.000	0	18.54	34.34	24.653	329.7	0.000	0	18.54	34.34	24.653	329.7	0.000
10	18.88	34.41	24.620	332.7	0.033	10	18.54	34.34	24.653	329.7	0.032	10	18.54	34.34	24.653	329.7	0.032
20	18.76	34.39	24.635	331.3	0.066	20	18.50	34.34	24.663	328.7	0.065	20	18.50	34.34	24.663	328.7	0.065
30	17.92	34.19	24.691	326.0	0.099	30	18.46	34.34	24.673	327.8	0.098	30	18.46	34.34	24.673	327.8	0.098
40	17.76	34.17	24.715	323.7	0.132	40	18.46	34.34	24.673	327.8	0.131	40	18.46	34.34	24.673	327.8	0.131
50	17.71	34.17	24.727	322.6	0.164	50	18.45	34.34	24.675	327.6	0.164	50	18.45	34.34	24.675	327.6	0.164
75	15.02	33.78	25.048	292.1	0.241	75	14.83	33.87	25.158	281.6	0.241	75	14.83	33.87	25.158	281.6	0.241
100	12.81	33.88	25.583	241.1	0.309	100	12.58	33.89	25.636	236.1	0.306	100	12.58	33.89	25.636	236.1	0.306
125	12.03	34.14	25.935	207.7	0.365	125	11.77	34.10	25.954	206.0	0.362	125	11.77	34.10	25.954	206.0	0.362
150	11.55	34.24	26.103	191.7	0.416	150	11.52	34.31	26.163	186.0	0.412	150	11.52	34.31	26.163	186.0	0.412
175	11.58	34.44	26.253	177.5	0.463	175	11.07	34.37	26.292	173.8	0.458	175	11.07	34.37	26.292	173.8	0.458
200	11.51	34.55	26.351	168.2	0.508	200	11.04	34.51	26.406	163.0	0.501	200	11.04	34.51	26.406	1	

						Z	T	10 METER DATA	DT
								S	N2
60.050	02/16/75	0730GMT	37 57.5N	122 53.0W	BOTTOM 41M WIND 330 2'KT WEATHER 1 DOMINANT WAVES	10	10.99		
60.052	02/16/75	0420GMT	37 54.0N	123 01.5W	BOTTOM 71M WIND 330 30KT WEATHER DOMINANT WAVES	10	11.01	33.454	240.4
60.055	02/16/75	0350GMT	37 47.5N	123 15.5W	BOTTOM 134M WIND 340 36KT WEATHER 1 DOMINANT WAVES	10	11.01	33.292	252.3
60.060	02/15/75	2338GMT	37 37.0N	123 37.0W	BOTTOM 3163M WIND 340 17KT WEATHER 1 DOMINANT WAVES 310 20 7	10	11.22	33.499	240.6
63.050	02/15/75	0945GMT	37 22.5N	122 28.5W	BOTTOM 30M WIND 360 14KT WEATHER 1 DOMINANT WAVES	10	11.60	33.473	249.1
63.052	02/15/75	1119GMT	37 19.5N	122 36.0W	BOTTOM 78M WIND 360 14KT WEATHER DOMINANT WAVES	10	11.42	33.520	242.5
63.055	02/15/75	1320GMT	37 13.0N	122 50.0W	BOTTOM 272M WIND 320 21KT WEATHER DOMINANT WAVES	10	11.40	33.535	241.1
66.049	02/15/75	0505GMT	36 53.0N	122 01.5W	BOTTOM 56M WIND 300 14KT WEATHER 1 DOMINANT WAVES 340 4 6	10	11.67	33.332	260.8
67.050	02/15/75	0400GMT	36 49.0N	122 04.5W	BOTTOM 101M WIND 320 14KT WEATHER 1 DOMINANT WAVES 340 6 8	10	11.74	33.400	257.0
67.055	02/15/75	0005GMT	36 40.0N	122 25.5W	BOTTOM 1999M WIND 340 22KT WEATHER 1 DOMINANT WAVES 330 20 7	10	11.58	33.529	244.7
67.060	02/14/75	2026GMT	36 28.0N	122 47.0W	BOTTOM 2924M WIND 350 25KT WEATHER 1 DOMINANT WAVES 350 8 4	10	11.78	33.491	251.0
67.065	02/14/75	1720GMT	36 18.0N	123 06.5W	BOTTOM 3255M WIND 340 24KT WEATHER 1 DOMINANT WAVES 340 6 8	10	11.56	33.407	253.3
70.051	02/13/75	1932GMT	36 11.0N	121 44.0W	BOTTOM 168M WIND 140 12KT WEATHER 6 DOMINANT WAVES 270 3 7	10	12.16	33.388	265.4
70.053	02/13/75	2132GMT	36 06.5N	121 54.0W	BOTTOM 1051M WIND 320 7KT WEATHER 2 DOMINANT WAVES 49	10	12.08	33.421	261.5
70.060	02/14/75	0147GMT	35 53.0N	122 23.0W	BOTTOM 3211M WIND 320 16KT WEATHER 1 DOMINANT WAVES 250 7 7	10	12.26	33.419	264.9
70.065	02/14/75	0502GMT	35 43.5N	122 44.5W	BOTTOM 1332M WIND 340 16KT WEATHER 1 DOMINANT WAVES	10	12.00	33.348	265.5
70.070	02/14/75	0800GMT	35 33.5N	123 06.0W	BOTTOM 3730M WIND 340 17KT WEATHER 1 DOMINANT WAVES	10	11.90	33.115	280.8
73.050	02/13/75	1524GMT	35 37.0N	121 17.0W	BOTTOM 93M WIND 110 7KT WEATHER 6 DOMINANT WAVES 270 5 6	10	12.30	33.359	270.1
73.053	02/13/75	1251GMT	35 31.5N	121 28.5W	BOTTOM 741M WIND 140 13KT WEATHER 6 DOMINANT WAVES	10	12.26	33.455	262.2
73.065	02/12/75	1405GMT	35 06.0N	122 18.5W	BOTTOM 3877M WIND 170 11KT WEATHER 1 DOMINANT WAVES	10	12.14	33.498	256.9
73.070	02/12/75	1111GMT	34 58.0N	122 40.0W	BOTTOM 4057M WIND 170 8KT WEATHER 1 DOMINANT WAVES	10	12.28	33.323	272.3
77.048	02/11/75	1630GMT	35 08.5N	120 43.5W	BOTTOM 22M WIND 130 3KT WEATHER 0 DOMINANT WAVES 280 4 5	10	12.94	33.323	284.5
77.055	02/11/75	2130GMT	34 54.0N	121 12.5W	BOTTOM 556M WIND 300 13KT WEATHER 1 DOMINANT WAVES 280 5 6	10	12.17	33.495	257.7
77.060	02/12/75	0033GMT	34 44.5N	121 34.0W	BOTTOM 824M WIND 310 16KT WEATHER 1 DOMINANT WAVES 320 8 10	10	12.42	33.446	265.8
77.065	02/12/75	0334GMT	34 34.0N	121 55.5W	BOTTOM 3918M WIND 270 8KT WEATHER 1 DOMINANT WAVES 320 8 10	10	12.43	33.250	280.4
77.070	02/12/75	0616GMT	34 23.5N	122 16.0W	BOTTOM 3918M WIND 230 8KT WEATHER 1 DOMINANT WAVES	10	13.06	33.157	299.0

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CALCOPI CRUISE 7501

				10 METER DATA			
Z	T	S	02	DT			
80.050 ¹	01/27/75 0400GMT	34 28.5M	120 29.5W	10	12.64	33.544	262.7
	BOTTOM 37M WIND 330 1KKT WEATHER 1						
	DOMINANT WAVES 330 10 7						
80.051	01/27/75 0312GMT	34 26.0M	120 33.0W	10	12.54	33.544	260.8
	BOTTOM 93M WIND 330 2KKT WEATHER 1						
	DOMINANT WAVES 330 10 7						
80.052	01/27/75 0213GMT	34 25.0M	120 36.0W	10	12.41	33.556	257.6
	BOTTOM 286M WIND 330 2KKT WEATHER 1						
	DOMINANT WAVES 330 10 7						
80.053	01/27/75 0105GMT	34 22.5M	120 40.0W	10	12.51	33.549	259.9
	BOTTOM 464M WIND 330 22KKT WEATHER 1						
	DOMINANT WAVES 330 8 7						
80.054	01/26/75 2343GMT	34 21.0M	120 44.0W	10	12.22	33.562	253.7
	BOTTOM 630M WIND 340 2KKT WEATHER 1						
	DOMINANT WAVES 340 9 7						
80.055	01/26/75 2213GMT	34 19.5M	120 48.0W	10	12.19	33.488	258.6
	BOTTOM 741M WIND 350 2KKT WEATHER 1						
	DOMINANT WAVES 350 7 11						
80.070	01/26/75 1235GMT	33 49.0M	121 50.0W	10	13.08	33.184	297.4
	BOTTOM 3599M WIND 350 1KKT WEATHER 1						
	DOMINANT WAVES						
80.080	01/26/75 0634GMT	33 29.0M	122 30.5W	10	13.33	33.261	296.5
	BOTTOM 3952M WIND 350 1KKT WEATHER 1						
	DOMINANT WAVES						
80.090	01/26/75 0131GMT	33 10.5M	123 13.0W	10	13.42	33.272	297.4
	BOTTOM 4116M WIND 010 1KKT WEATHER 4						
	DOMINANT WAVES 330 3 10						

KV DAVID STARR JORDAN

CALCOPI CRUISE 7501

				10 METER DATA			
Z	T	S	02	DT			
81.043 ⁵	01/15/75 0230GMT	34 24.0M	119 48.0W	10	12.29	33.533	5.95 257.1
	BOTTOM 22M WIND (KKT WEATHER 0						
	DOMINANT WAVES 270 2 3						
81.044 ⁵	01/15/75 0050GMT	34 23.0M	119 50.0W	10	12.54	33.516	6.03 262.9
	BOTTOM 56M WIND (KKT WEATHER 0						
	DOMINANT WAVES 270 2 3						
81.044 ⁵	01/14/75 2335GMT	34 22.0M	119 52.0W	10	12.54	33.513	6.00 263.1
	BOTTOM 75M WIND 030 KKT WEATHER						
	DOMINANT WAVES 270 2 4						
81.045 ⁵	01/14/75 2120GMT	34 21.0M	119 54.0W	10	11.81	33.574	245.4
	BOTTOM 390M WIND (KKT WEATHER 0						
	DOMINANT WAVES 270 2 4						
81.046 ⁵	01/14/75 1906GMT	34 19.0M	119 58.0W	10	11.60	33.590	240.5
	BOTTOM 473M WIND 030 KKT WEATHER 0						
	DOMINANT WAVES 270 2 4						
83.039 ⁴	01/15/75 1745GMT	34 14.5M	119 19.5W	10	11.83	33.577	245.5
	BOTTOM 15M WIND 320 KKT WEATHER 0						
	DOMINANT WAVES 320 1 2						
83.040	01/15/75 1613GMT	34 12.5M	119 24.0W	10	12.23	33.538	5.87 255.6
	BOTTOM 35M WIND (KKT WEATHER 0						
	DOMINANT WAVES 260 1 3						
83.041	01/15/75 1507GMT	34 11.5M	119 26.0W	10	12.20	33.541	5.86 254.8
	BOTTOM 60M WIND (KKT WEATHER 0						
	DOMINANT WAVES 250 1 3						
83.042	01/15/75 1240GMT	34 09.5M	119 30.0W	10	12.24	33.534	5.73 256.1
	BOTTOM 233M WIND 240 KKT WEATHER 0						
	DOMINANT WAVES 270 2 3						
83.043	01/15/75 1025GMT	34 08.0M	119 34.0W	10	12.37	33.539	6.20 258.1
	BOTTOM 251M WIND 280 KKT WEATHER						
	DOMINANT WAVES						
83.044	01/15/75 0830GMT	34 05.5M	119 38.0W	10	12.65	33.510	5.90 265.4
	BOTTOM 149M WIND 300 KKT WEATHER						
	DOMINANT WAVES						
83.044 ⁷	01/15/75 0658GMT	34 04.0M	119 41.0W	10		33.512	
	BOTTOM 84M WIND 300 KKT WEATHER						
	DOMINANT WAVES						
83.045	01/15/75 0530GMT	34 03.5M	119 42.5W	10	12.50	33.524	261.6
	BOTTOM 84M WIND 120 3KKT WEATHER						
	DOMINANT WAVES						
83.048	01/14/75 1306GMT	33 58.0M	119 55.0W	10	12.38	33.531	258.8
	BOTTOM 138M WIND 330 10KKT WEATHER						
	DOMINANT WAVES						
83.049	01/14/75 1220GMT	33 55.5M	119 59.0W	10	12.22	33.537	255.5
	BOTTOM 24M WIND 230 3KKT WEATHER						
	DOMINANT WAVES						
83.050	01/14/75 1120GMT	33 54.0M	120 03.5W	10	12.08	33.551	251.9
	BOTTOM 26M WIND 250 KKT WEATHER						
	DOMINANT WAVES						

RV DAVID STARR JORDAN

83.051 01/14/75 1010GMT 33 52.0° 120 08.5W
 BOTTOM 103M WIND 0 KKT WEATHER
 DOMINANT WAVES

83.055 01/14/75 0717GMT 33 44.0° 120 24.5W
 BOTTOM 879M WIND 320 1 KKT WEATHER
 DOMINANT WAVES

83.060 01/14/75 0300GMT 33 34.0° 120 46.0W
 BOTTOM 1618M WIND 320 1 KKT WEATHER U
 DOMINANT WAVES 320 2 3

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Z	T	10 METER DATA		
		S	02	0T
10	12.44	33.526	6.37	260.3
10	11.93	33.571	6.04	247.8
10	12.12	33.473	6.16	258.4

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CALGUFF CRUISE 7501

83.070 01/25/75 0859GMT 33 15.0° 121 27.0W
 BOTTOM 3768M WIND 360 1 KKT WEATHER 1
 DOMINANT WAVES

83.090 01/25/75 2008GMT 32 34.5° 122 49.5W
 BOTTOM 3737M WIND 360 1 KKT WEATHER 2
 DOMINANT WAVES 330 4 14

Z	T	10 METER DATA		
		S	02	0T
10	12.33	33.479		261.8
10	13.30	33.148		204.2

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CALGUFF CRUISE 7501

85.031² 01/16/75 0345GMT 34 02.5° 118 58.5W
 BOTTOM 30M WIND 300 1 KKT WEATHER 1
 DOMINANT WAVES 290 2 2

85.037⁵ 01/16/75 0239GMT 34 02.0° 118 59.5W
 BOTTOM 56M WIND 300 1 KKT WEATHER 1
 DOMINANT WAVES 290 2 2

85.038 01/16/75 0051GMT 34 01.0° 119 02.5W
 BOTTOM 227M WIND 310 1 KKT WEATHER 1
 DOMINANT WAVES 290 2 2

85.039 01/15/75 2305GMT 33 59.0° 119 06.5W
 BOTTOM 593M WIND 320 1 KKT WEATHER U
 DOMINANT WAVES 300 2 3

85.040 01/15/75 2036GMT 33 57.0° 119 10.5W
 BOTTOM 731M WIND 240 1 KKT WEATHER U
 DOMINANT WAVES 220 2 3

87.032⁵ 01/16/75 1517GMT 33 53.5° 118 26.5W
 BOTTOM 17M WIND 1 KKT WEATHER 1
 DOMINANT WAVES 300 1 3

87.032⁷ 01/16/75 1411GMT 33 54.5° 118 28.0W
 BOTTOM 24M WIND 1 KKT WEATHER 1
 DOMINANT WAVES

87.033 01/16/75 1306GMT 33 54.0° 118 29.0W
 BOTTOM 50M WIND 1 KKT WEATHER 1
 DOMINANT WAVES

87.034 01/16/75 1126GMT 33 52.0° 118 33.0W
 BOTTOM 69M WIND 060 2 KKT WEATHER
 DOMINANT WAVES

87.035 01/16/75 0917GMT 33 50.0° 118 37.5W
 BOTTOM 602M WIND 260 2 KKT WEATHER
 DOMINANT WAVES

87.036 01/16/75 0643GMT 33 48.0° 118 40.5W
 BOTTOM 870M WIND 190 1 KKT WEATHER
 DOMINANT WAVES

87.040 01/17/75 0727GMT 33 39.5° 118 58.0W
 BOTTOM 741M WIND 010 1 KKT WEATHER
 DOMINANT WAVES

87.050 01/13/75 1505GMT 33 20.0° 119 39.5W
 BOTTOM 93M WIND 030 1 KKT WEATHER U
 DOMINANT WAVES 320 2 3

87.055 01/13/75 1824GMT 33 10.0° 120 00.0W
 BOTTOM 1110M WIND 030 1 KKT WEATHER U
 DOMINANT WAVES 090 5 6

87.060 01/13/75 2118GMT 33 01.0° 120 21.0W
 BOTTOM 585M WIND 1 KKT WEATHER U
 DOMINANT WAVES 330 2 6

Z	T	10 METER DATA		
		S	02	0T
10	12.94	33.494	6.36	272.0
10	13.09		6.57	
10	12.92	33.519	6.84	269.7
10	12.78	33.504	6.22	268.2
10	12.93	33.501	6.53	271.3
10	12.75		6.27	
10	12.83	33.514	6.45	268.4
10	12.96	33.515	6.79	270.8
10	13.00	33.498	6.55	272.8
10	13.01	33.494	6.34	273.3
10		33.483		
10	12.68	33.492	6.23	267.2
10	11.83	33.544	6.02	248.0
10	11.93	33.516		251.8
10	12.20	33.493	5.99	258.4

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CALGUFF CRUISE 7501

87.070 01/25/75 0347GMT 32 38.5° 121 02.0W
 BOTTOM 3737M WIND 330 1 KKT WEATHER 1
 DOMINANT WAVES

87.080 01/24/75 2124GMT 32 18.0° 121 44.0W
 BOTTOM 3545M WIND 340 1 KKT WEATHER 1
 DOMINANT WAVES 340 4 3

87.090 01/24/75 1556GMT 32 00.0° 122 22.0W
 BOTTOM 4177M WIND 340 2 KKT WEATHER 1
 DOMINANT WAVES 340 2 2

Z	T	10 METER DATA		
		S	02	0T
10	12.68	33.441		271.0
10	14.06	33.449		296.9
10	14.34	33.465		301.3

RV DAVID STARK JORDAN				CALCOFI CRUISE 7501		Z	T	10 METER S	DATA 02	DT
93.030	01/18/75	0755GMT	32 50.5M 117 31.0W	10	13.75	33.534		284.6		
BOTTOM 815M WIND 350 KKT WEATHER 4 DOMINANT WAVES										
93.035	01/10/75	1930GMT	32 40.5M 117 51.5W	10	13.30	33.497		278.6		
BOTTOM 639M WIND 310 KKT WEATHER 1 DOMINANT WAVES 310 4 5										
93.040	01/10/75	2328GMT	32 30.0M 118 11.5W	10	13.28	33.501	6.09	277.9		
BOTTOM 1839M WIND 280 2 KKT WEATHER 1 DOMINANT WAVES 310 6 5										
93.045	01/11/75	1903GMT	32 20.0M 118 32.0W	10	12.85	33.482		271.1		
BOTTOM 1479M WIND 330 1 KKT WEATHER 1 DOMINANT WAVES 320 10 5										
93.050	01/11/75	2146GMT	32 10.0M 118 52.5W	10	13.27	33.507	5.92	277.2		
BOTTOM 1433M WIND 350 1 KKT WEATHER 1 DOMINANT WAVES 320 8 6										
93.055	01/12/75	0102GMT	32 00.0M 119 13.5W	10	13.10	33.487		275.5		
BOTTOM 1669M WIND 320 13 KKT WEATHER 1 DOMINANT WAVES 310 7 5										
93.060	01/12/75	0351GMT	31 50.0M 119 34.0W	10	13.47	33.506	5.95	281.2		
BOTTOM 2321M WIND 340 1 KKT WEATHER 1 DOMINANT WAVES 330 7 6										

RV ALEXANDER AGASSIZ				CALCOFI CRUISE 7501		Z	T	10 METER S	DATA 02	DT
93.070	01/23/75	1059GMT	31 29.5M 120 16.0W	10	13.08	33.488		275.0		
BOTTOM 3866M WIND 040 10 KKT WEATHER 4 DOMINANT WAVES										
93.080	01/23/75	0554GMT	31 09.5M 120 55.5W	10	13.36	33.503		279.3		
BOTTOM 3832M WIND 010 4 KKT WEATHER 1 DOMINANT WAVES										
93.090	01/23/75	0048GMT	30 48.5M 121 33.0W	10	13.22	33.439		281.3		
BOTTOM 4143M WIND 060 4 KKT WEATHER 2 DOMINANT WAVES 330 3 5										

RV DAVID STARK JORDAN				CALCOFI CRUISE 7501		Z	T	10 METER S	DATA 02	DT
95.028	01/18/75	1830GMT	32 37.0M 117 10.5W	10	12.92	33.549		267.5		
BOTTOM 15M WIND 210 7 KKT WEATHER 4 DOMINANT WAVES 290 2 4										
95.029	01/18/75	1702GMT	32 35.5M 117 14.5W	10	13.60	33.536	6.40	281.5		
BOTTOM 41M WIND 170 4 KKT WEATHER 4 DOMINANT WAVES 150 2 3										
95.030	01/18/75	1522GMT	32 33.0M 117 18.5W	10	14.06	33.576	6.23	287.6		
BOTTOM 116M WIND 160 4 KKT WEATHER 4 DOMINANT WAVES 100 1 2										
95.031	01/18/75	1340GMT	32 31.0M 117 22.5W	10	14.00	33.560	6.33	287.6		
BOTTOM 408M WIND 140 9 KKT WEATHER 4 DOMINANT WAVES 090 2 2										
95.032	01/18/75	1200GMT	32 29.0M 117 27.0W	10	13.94	33.548	6.25	287.2		
BOTTOM 870M WIND 1 KKT WEATHER 1 DOMINANT WAVES										

RV ALEXANDER AGASSIZ				CALCOFI CRUISE 7501		Z	T	10 METER S	DATA 02	DT
96.079	01/22/75	0826GMT	30 44.0M 120 28.5W	10	14.26	33.522		295.5		
BOTTOM 3850M WIND 330 1 KKT WEATHER DOMINANT WAVES										
96.087	01/22/75	1257GMT	30 28.0M 121 04.5W	10	14.59	33.533		301.4		
BOTTOM 3850M WIND 360 4 KKT WEATHER DOMINANT WAVES										
97.028 ^H	01/21/75	0058GMT	32 18.0M 117 04.0W	10	13.40	33.567		275.3		
BOTTOM 41M WIND 1 KKT WEATHER 1 DOMINANT WAVES										
97.029	01/21/75	0121GMT	32 17.5M 117 04.5W	10	13.64	33.564		280.2		
BOTTOM 47M WIND 010 4 KKT WEATHER 1 DOMINANT WAVES										
97.030	01/21/75	0158GMT	32 16.0M 117 07.0W	10	13.70	33.562		281.5		
BOTTOM 47M WIND 010 4 KKT WEATHER 1 DOMINANT WAVES										
97.031	01/21/75	0247GMT	32 13.0M 117 13.0W	10	13.52	33.564		277.9		
BOTTOM 1335M WIND 010 4 KKT WEATHER 1 DOMINANT WAVES										
97.032	01/21/75	0426GMT	32 12.0M 117 15.0W	10	13.57	33.563		278.9		
BOTTOM 1383M WIND 010 4 KKT WEATHER 1 DOMINANT WAVES										

RV ALEXANDER AGASSIZ

TIME	DEPTH	TEMP	SAL	WIND	WAVE	WEATHER
97.035	01/21/75 0701GMT	32.05.5N	117.27.5W	300 WKT	WEATHER 1	DOMINANT WAVES
97.040	01/21/75 1027GMT	31.55.5N	117.47.5W	300 17KT	WEATHER	DOMINANT WAVES
97.045	01/21/75 1338GMT	31.46.0N	118.08.5W	300 13KT	WEATHER	DOMINANT WAVES
97.055	01/21/75 1940GMT	31.28.0N	118.50.5W	310 11KT	WEATHER 2	DOMINANT WAVES 300 2 3
97.060	01/21/75 2126GMT	31.18.5N	119.10.5W	330 11KT	WEATHER 2	DOMINANT WAVES 330 2 3
97.070	01/22/75 0332GMT	31.02.0N	119.51.0W	330 WKT	WEATHER	DOMINANT WAVES

CALGUEFI CRUISE 7501

Z	T	10 METER S	DATA 02	0T
10	14.06	33.566		288.3
10	14.74	33.625		297.7
10	14.77	33.634		297.6
10	14.40	33.615		291.5
10	13.88	33.554		285.6
10	13.95	33.485		292.1

RV DAVID STARR JORDAN

TIME	DEPTH	TEMP	SAL	WIND	WAVE	WEATHER
100.029	01/20/75 0300GMT	31.42.0N	116.43.5W	320 WKT	WEATHER	DOMINANT WAVES
100.030	01/20/75 0420GMT	31.40.5N	116.46.5W	140 WKT	WEATHER	DOMINANT WAVES
100.031	01/20/75 0641GMT	31.38.5N	116.50.5W	070 WKT	WEATHER	DOMINANT WAVES
100.032	01/20/75 0743GMT	31.54.0N	116.54.5W	300 11KT	WEATHER	DOMINANT WAVES
100.040	01/20/75 1351GMT	31.20.5N	117.27.0W	280 WKT	WEATHER	DOMINANT WAVES
100.050	01/20/75 1900GMT	31.00.5N	118.07.0W	320 WKT	WEATHER 0	DOMINANT WAVES 270 2 5
100.060	01/21/75 0032GMT	30.40.5N	118.47.5W	310 12KT	WEATHER 1	DOMINANT WAVES 300 3 14
100.070	01/21/75 0549GMT	30.20.0N	119.28.0W	300 12KT	WEATHER	DOMINANT WAVES
103.028 ^B	01/23/75 2010GMT	31.07.5N	116.20.0W	310 WKT	WEATHER 1	DOMINANT WAVES 300 2 4
103.029	01/23/75 1930GMT	31.07.0N	116.21.0W	310 WKT	WEATHER 1	DOMINANT WAVES 300 2 4
103.030	01/23/75 1818GMT	31.06.0N	116.24.5W	250 WKT	WEATHER 1	DOMINANT WAVES 300 2 4
103.031	01/23/75 1705GMT	31.03.0N	116.29.0W	180 WKT	WEATHER 2	DOMINANT WAVES 270 2 6
103.032	01/23/75 1550GMT	31.02.0N	116.32.5W	130 WKT	WEATHER 1	DOMINANT WAVES 160 3 5
103.035	01/23/75 1327GMT	30.56.0N	116.45.0W	090 WKT	WEATHER 0	DOMINANT WAVES
103.045	01/23/75 0648GMT	30.36.0N	117.24.0W	250 WKT	WEATHER 0	DOMINANT WAVES
103.050	01/23/75 0317GMT	30.24.0N	117.42.5W	280 WKT	WEATHER 0	DOMINANT WAVES
103.060	01/22/75 0310GMT	30.05.5N	118.24.0W	320 11KT	WEATHER	DOMINANT WAVES
103.070	01/21/75 2202GMT	29.46.0N	119.05.0W	310 12KT	WEATHER 2	DOMINANT WAVES 340 4 6

CALGUEFI CRUISE 7501

Z	T	10 METER S	DATA 02	0T
10	14.42	33.593	6.34	293.5
10	14.10	33.577	6.76	288.3
10	14.30	33.586	6.38	291.6
10	14.73	33.620	6.06	297.8
10	15.30	33.653	5.81	307.2
10	13.78	33.501	6.05	287.5
10	15.01	33.557	5.88	308.2
10	14.58	33.523	5.92	301.9
10	14.03	33.597		285.4
10	14.10	33.588		287.5
10		33.605	6.07	
10	14.74	33.623	5.96	297.8
10	14.87	33.621		300.6
10	15.12	33.638	5.80	304.6
10	14.14	33.517		293.5
10	14.60	33.534	5.87	301.5
10	14.58	33.535	5.64	301.0
10	15.96	33.691	5.75	318.5

						Z	T	10 METER DATA		DT
								S	02	
103.080	01/21/75	1647GMT	29 29.0N	119 42.0W	10	16.12	33.707	5.69	320.8	
		BOTTOM	3737M	WIND 310 14KT						
		DOMINANT WAVES	310 3 6							
107.030 ³	01/24/75	0029GMT	30 29.5N	116 04.0W	10	14.14	33.581		288.8	
		BOTTOM	19M	WIND 350 4KT						
		DOMINANT WAVES	310 1 5							
107.030 ⁶	01/24/75	0101GMT	30 28.5N	116 05.5W	10	14.27	33.586		291.0	
		BOTTOM	24M	WIND 340 7KT						
		DOMINANT WAVES	340 2 2							
107.031	01/24/75	0135GMT	30 28.0N	116 07.0W	10	14.62	33.603		296.8	
		BOTTOM	43M	WIND 320 5KT						
		DOMINANT WAVES	340 2 2							
107.032	01/24/75	0251GMT	30 26.0N	116 11.0W	10	15.32	33.650	5.90	307.9	
		BOTTOM	399M	WIND 030 4KT						
		DOMINANT WAVES	340 2 2							
107.033	01/24/75	0347GMT	30 24.0N	116 15.0W	10	15.41	33.650		309.7	
		BOTTOM	1479M	WIND 340 14KT						
		DOMINANT WAVES								
107.034	01/24/75	0446GMT	30 22.0N	116 19.0W	10	15.47	33.651		310.9	
		BOTTOM	1664M	WIND 340 4KT						
		DOMINANT WAVES								
107.035	01/24/75	0602GMT	30 21.5N	116 22.5W	10	15.53	33.656	5.78	311.8	
		BOTTOM	1756M	WIND 340 4KT						
		DOMINANT WAVES								
107.050	01/24/75	1534GMT	29 50.0N	117 22.0W	10	14.48	33.529	5.96	299.4	
		BOTTOM	2509M	WIND 330 4KT						
		DOMINANT WAVES	330 2 2							
107.060	01/24/75	2041GMT	29 31.5N	118 01.5W	10	15.51	33.658	5.79	311.3	
		BOTTOM	3545M	WIND 340 7KT						
		DOMINANT WAVES	270 3 4							
107.070	01/25/75	0126GMT	29 11.0N	118 41.0W	10	15.20	33.630	5.87	306.8	
		BOTTOM	3075M	WIND 340 5KT						
		DOMINANT WAVES	330 2 6							
107.080	01/25/75	0625GMT	28 51.0N	119 20.0W	10	16.31	33.757	5.69	321.2	
		BOTTOM	3737M	WIND 050 4KT						
		DOMINANT WAVES	310 3 6							
110.032 ⁴	01/26/75	1825GMT	29 51.0N	115 49.5W	10	14.04	33.580		286.9	
		BOTTOM	37M	WIND 350 4KT						
		DOMINANT WAVES	320 1 6							
110.033	01/26/75	1740GMT	29 50.0N	115 52.0W	10	13.86	33.587		282.8	
		BOTTOM	88M	WIND 320 7KT						
		DOMINANT WAVES	320 1 6							
110.034	01/26/75	1639GMT	29 48.0N	115 56.0W	10	14.54	33.593		295.9	
		BOTTOM	502M	WIND 340 7KT						
		DOMINANT WAVES	310 2 4							
110.035	01/26/75	1458GMT	29 46.0N	116 00.0W	10		33.644	5.86		
		BOTTOM	1298M	WIND 350 12KT						
		DOMINANT WAVES	330 3 5							
110.045	01/26/75	0739GMT	29 28.0N	116 39.0W	10	15.92	33.663		319.6	
		BOTTOM	371M	WIND 350 14KT						
		DOMINANT WAVES								
110.050	01/26/75	0434GMT	29 16.5N	116 59.0W	10	15.98	33.670	5.76	320.4	
		BOTTOM	3169M	WIND 360 14KT						
		DOMINANT WAVES								
110.055	01/26/75	0135GMT	29 06.0N	117 19.0W	10	15.96	33.665		320.4	
		BOTTOM	3641M	WIND 340 12KT						
		DOMINANT WAVES	330 3 5							
110.060	01/25/75	2249GMT	28 56.5N	117 39.0W	10	15.82	33.665	5.84	317.4	
		BOTTOM	3737M	WIND 360 12KT						
		DOMINANT WAVES	340 2 4							
110.070	01/25/75	1752GMT	28 36.0N	118 18.0W	10	14.36	33.622	5.86		
		BOTTOM	3737M	WIND 050 7KT						
		DOMINANT WAVES	320 2 6							
113.028 ⁸	01/26/75	2303GMT	29 25.0N	115 12.5W	10	14.02	33.658		280.8	
		BOTTOM	21M	WIND 210 5KT						
		DOMINANT WAVES	260 1 4							
113.029	01/26/75	2334GMT	29 24.5N	115 13.5W	10	14.12	33.651		283.3	
		BOTTOM	26M	WIND 280 3KT						
		DOMINANT WAVES	260 1 4							
113.030	01/27/75	0035GMT	29 22.0N	115 18.0W	10	14.69	33.643		295.4	
		BOTTOM	58M	WIND 290 3KT						
		DOMINANT WAVES	260 1 4							
113.031	01/27/75	0120GMT	29 20.5N	115 21.5W	10	14.54	33.625		293.6	
		BOTTOM	84M	WIND 300 10KT						
		DOMINANT WAVES	300 1 2							

Z	T	10 METER DATA							
		S	02	01					
113.032	01/27/75	0208GMT	29 18.5M	115 26.0W	10	14.73	33.617		298.0
		BOTTOM	103M	WIND 300 11KT WEATHER 2					
		DOMINANT WAVES							
113.035	01/27/75	0438GMT	29 11.0M	115 38.0W	10	14.97	33.634	5.92	301.8
		BOTTOM	1391M	WIND 330 12KT WEATHER					
		DOMINANT WAVES							
113.040	01/27/75	0756GMT	29 02.0M	115 57.5W	10	15.60	33.649	5.83	313.9
		BOTTOM	1856M	WIND 300 11KT WEATHER					
		DOMINANT WAVES							
113.045	01/27/75	1045GMT	28 52.0M	116 18.0W	10	15.69	33.653		315.5
		BOTTOM	2321M	WIND 260 11KT WEATHER 2					
		DOMINANT WAVES							
113.050	01/27/75	1328GMT	28 41.0M	116 36.5W	10	15.81	33.660	5.78	317.5
		BOTTOM	3545M	WIND 260 11KT WEATHER					
		DOMINANT WAVES							
113.070	01/28/75	0033GMT	28 02.0M	117 55.0W	10	15.31	33.594	5.87	311.7
		BOTTOM	3451M	WIND 330 13KT WEATHER 5					
		DOMINANT WAVES	340	4 5					
113.080	01/28/75	0549GMT	27 41.0M	118 33.0W	10	16.14	33.689	5.73	322.5
		BOTTOM	3737M	WIND 320 12KT WEATHER					
		DOMINANT WAVES							
117.025	01/29/75	2135GMT	28 58.0M	114 37.0W	10	14.69	33.711	6.00	290.4
		BOTTOM	52M	WIND 280 10KT WEATHER 1					
		DOMINANT WAVES	280	2 5					
117.026	01/29/75	2032GMT	28 56.0M	114 41.5W	10	14.64	33.672		292.2
		BOTTOM	75M	WIND 270 10KT WEATHER 2					
		DOMINANT WAVES	280	2 5					
117.027	01/29/75	1942GMT	28 54.0M	114 45.0W	10	14.57	33.629		293.9
		BOTTOM	84M	WIND 280 10KT WEATHER 2					
		DOMINANT WAVES	270	2 5					
117.028	01/29/75	1856GMT	28 52.0M	114 49.0W	10	15.10	33.646		303.6
		BOTTOM	90M	WIND 270 10KT WEATHER 2					
		DOMINANT WAVES	270	2 5					
117.030	01/29/75	1656GMT	28 48.0M	114 56.5W	10	15.25	33.720	5.89	301.3
		BOTTOM	101M	WIND 260 11KT WEATHER 2					
		DOMINANT WAVES	330	2 6					
117.035	01/29/75	1456GMT	28 38.0M	115 16.0W	10	15.18	33.806	5.60	293.5
		BOTTOM	205M	WIND 270 10KT WEATHER					
		DOMINANT WAVES							
117.040	01/29/75	0841GMT	28 28.0M	115 35.5W	10	15.29	33.710	5.86	302.8
		BOTTOM	929M	WIND 320 15KT WEATHER					
		DOMINANT WAVES							
117.045	01/29/75	0535GMT	28 18.0M	115 56.0W	10	15.38	33.642		309.7
		BOTTOM	3169M	WIND 310 11KT WEATHER 1					
		DOMINANT WAVES							
117.050	01/29/75	0229GMT	28 10.0M	116 20.0W	10	15.29	33.653	6.00	307.0
		BOTTOM	4308M	WIND 340 11KT WEATHER 2					
		DOMINANT WAVES							
117.070	01/28/75	1537GMT	27 27.5M	117 32.5W	10	15.86	33.677	5.74	317.3
		BOTTOM	3926M	WIND 360 14KT WEATHER 2					
		DOMINANT WAVES	330	8 7					
117.080	01/28/75	1019GMT	27 08.0M	118 10.5W	10	16.08	33.700	5.89	320.4
		BOTTOM	4116M	WIND 330 11KT WEATHER 2					
		DOMINANT WAVES							
118.039	01/29/75	1110GMT	28 18.5M	115 23.5W	10	15.50	33.910	5.68	292.6
		BOTTOM	242M	WIND 320 11KT WEATHER					
		DOMINANT WAVES							
119.033	01/30/75	1001GMT	28 18.5M	114 54.0W	10	15.44	33.717	5.88	305.5
		BOTTOM	112M	WIND 250 11KT WEATHER 2					
		DOMINANT WAVES							
120.022 ⁴	01/30/75	0201GMT	28 28.0M	114 04.5W	10	15.04	33.796		291.3
		BOTTOM	17M	WIND 280 11KT WEATHER 1					
		DOMINANT WAVES							
120.022 ⁷	01/30/75	0250GMT	28 27.5M	114 05.5W	10	14.94	33.786		290.0
		BOTTOM	19M	WIND 310 11KT WEATHER 1					
		DOMINANT WAVES							
120.023	01/30/75	0325GMT	28 27.0M	114 07.0W	10	14.90	33.770		290.4
		BOTTOM	22M	WIND 300 11KT WEATHER					
		DOMINANT WAVES							
120.024	01/30/75	0410GMT	28 25.0M	114 11.0W	10	15.03	33.711		297.3
		BOTTOM	32M	WIND 290 11KT WEATHER					
		DOMINANT WAVES							
120.025	01/30/75	0455GMT	28 22.5M	114 15.0W	10	15.01	33.713		296.8
		BOTTOM	56M	WIND 250 11KT WEATHER					
		DOMINANT WAVES							
120.026	01/30/75	0535GMT	28 21.0M	114 18.0W	10	14.80	33.744		290.2
		BOTTOM	78M	WIND 260 11KT WEATHER					
		DOMINANT WAVES							

						Z	T	10 METER	DATA	
								S	02	0T
120.030	01/30/75	0735GMT	28 13.0N	114 34.0W		10	15.48	33.731	5.92	305.3
		BOTTOM	93M	WIND 300	4KT WEATHER					
					DOMINANT WAVES					
120.035	01/30/75	1219GMT	28 03.0N	114 54.0W		10	15.30	33.722	5.91	302.2
		BOTTOM	82M	WIND 220	4KT WEATHER 2					
					DOMINANT WAVES					
120.040	01/30/75	1439GMT	27 56.5N	115 14.0W		10	15.02	33.824		288.9
		BOTTOM	37M	WIND 200	4KT WEATHER 2					
					DOMINANT WAVES 270 3 4					
120.050	01/30/75	2139GMT	27 33.0N	115 52.5W		10	15.71	33.685	5.85	313.6
		BOTTOM	4021M	WIND 270	10KT WEATHER 1					
					DOMINANT WAVES 260 3 4					
120.060	01/31/75	0235GMT	27 13.0N	116 30.0W		10	16.24	33.734	5.72	321.4
		BOTTOM	3737M	WIND 310	10KT WEATHER					
					DOMINANT WAVES					
120.070	01/31/75	0727GMT	26 53.0N	117 10.0W		10	16.06	33.718	5.76	318.6
		BOTTOM	3926M	WIND 320	4KT WEATHER 1					
					DOMINANT WAVES					
120.080	01/31/75	1236GMT	26 33.0N	117 49.0W		10	16.06	33.705	5.75	319.6
		BOTTOM	3926M	WIND 070	4KT WEATHER					
					DOMINANT WAVES					
123.035	02/01/75	1400GMT	27 26.5N	114 35.0W		10	15.42	33.959		287.4
		BOTTOM	26M	WIND 340	4KT WEATHER 1					
					DOMINANT WAVES					
123.036	02/01/75	1328GMT	27 26.0N	114 36.0W		10	15.66	33.955		292.8
		BOTTOM	47M	WIND 340	4KT WEATHER 1					
					DOMINANT WAVES					
123.037	02/01/75	1237GMT	27 24.0N	114 40.0W		10	15.92	33.887		303.3
		BOTTOM	69M	WIND 350	4KT WEATHER 1					
					DOMINANT WAVES					
123.038	02/01/75	1125GMT	27 22.0N	114 45.0W		10	15.70	33.948		294.1
		BOTTOM	82M	WIND 340	14KT WEATHER 1					
					DOMINANT WAVES					
123.039	02/01/75	1029GMT	27 20.0N	114 48.5W		10	15.55	33.969		289.4
		BOTTOM	108M	WIND 300	12KT WEATHER 1					
					DOMINANT WAVES					
123.042	02/01/75	0830GMT	27 15.5N	115 01.0W		10	16.31	33.904		310.5
		BOTTOM	1669M	WIND 360	10KT WEATHER 1					
					DOMINANT WAVES					
123.045	02/01/75	0644GMT	27 08.0N	115 11.5W		10	15.68	33.718		310.5
		BOTTOM	4116M	WIND 350	12KT WEATHER 1					
					DOMINANT WAVES					
123.050	02/01/75	0345GMT	26 56.5N	115 31.0W		10	15.82	33.795		307.9
		BOTTOM	3357M	WIND 340	4KT WEATHER 1					
					DOMINANT WAVES					
127.032 ⁶	02/01/75	1821GMT	26 58.0N	114 01.0W		10	15.82	33.996		293.2
		BOTTOM	28M	WIND 010	12KT WEATHER 1					
					DOMINANT WAVES 280 3 5					
127.033	02/01/75	1853GMT	26 57.5N	114 02.0W		10	16.38	34.045		301.8
		BOTTOM	65M	WIND 350	12KT WEATHER 1					
					DOMINANT WAVES 280 3 5					
127.034	02/01/75	1950GMT	26 55.0N	114 06.5W		10	16.43	34.043		303.0
		BOTTOM	82M	WIND 350	14KT WEATHER 1					
					DOMINANT WAVES 340 3 4					
127.035	02/01/75	2049GMT	26 53.0N	114 10.5W		10	16.56	34.051		305.3
		BOTTOM	95M	WIND 010	4KT WEATHER 2					
					DOMINANT WAVES 010 3 3					
127.036	02/01/75	2148GMT	26 51.0N	114 14.5W		10		34.026		
		BOTTOM	1003M	WIND 290	4KT WEATHER 2					
					DOMINANT WAVES 010 3 3					
127.040	02/02/75	0000GMT	26 48.5N	114 29.5W		10	16.54	33.971		310.7
		BOTTOM	2885M	WIND 310	7KT WEATHER 1					
					DOMINANT WAVES 330 3 4					
127.045	02/02/75	0255GMT	26 33.0N	114 48.0W		10	16.78	33.970		316.1
		BOTTOM	3545M	WIND 330	11KT WEATHER					
					DOMINANT WAVES					
127.060	02/02/75	1155GMT	26 03.5N	115 46.5W		10	16.14	33.794		314.8
		BOTTOM	3545M	WIND 030	4KT WEATHER					
					DOMINANT WAVES					
130.025 ^h	02/03/75	1310GMT	26 37.5N	113 12.0W		10	15.98	34.251		278.0
		BOTTOM	19M	WIND 010	14KT WEATHER 1					
					DOMINANT WAVES					
130.026	02/03/75	1235GMT	26 37.0N	113 14.0W		10	16.18	34.148		289.9
		BOTTOM	32M	WIND 360	14KT WEATHER 1					
					DOMINANT WAVES					
130.027	02/03/75	1146GMT	26 35.0N	113 17.0W		10	16.28	34.054		298.9
		BOTTOM	48M	WIND 360	14KT WEATHER 1					
					DOMINANT WAVES					

						2	T	10 METER DATA	NT
								S	02
130.028	02/03/75	1015GMT	26 33.0h	113 21.5W		10	16.48	34.075	301.8
		BOTTOM	58M	WIND 030 1KKT	WEATHER				
					DOMINANT WAVES				
130.029	02/03/75	0925GMT	26 31.0h	113 25.0W		10		34.122	
		BOTTOM	69M	WIND 050 1KKT	WEATHER				
					DOMINANT WAVES				
130.030	02/03/75	0835GMT	26 29.0h	113 29.0W		10	16.75	34.101	305.9
		BOTTOM	80M	WIND 060 1KKT	WEATHER				
					DOMINANT WAVES				
130.035	02/03/75	0608GMT	26 19.0h	113 48.0W		10	16.64	34.122	301.9
		BOTTOM	464M	WIND 350 1KKT	WEATHER				
					DOMINANT WAVES				
130.040	02/03/75	0241GMT	26 09.0h	114 06.5W		10	16.64	34.054	306.8
		BOTTOM	2227M	WIND 310 12KT	WEATHER				
					DOMINANT WAVES				
130.050	02/02/75	2247GMT	25 49.0h	116 46.0W		10	18.16	34.326	321.7
		BOTTOM	3737M	WIND 340 4KT	WEATHER 2				
					DOMINANT WAVES 340 3 3				
130.060	02/02/75	1655GMT	25 30.0h	115 21.0W		10	17.90	34.200	324.8
		BOTTOM	3545M	WIND 350 4KT	WEATHER 2				
					DOMINANT WAVES 340 3 6				
133.020 ⁶	02/03/75	1740GMT	26 13.5h	112 31.0W		10	16.78	34.116	305.0
		BOTTOM	26M	WIND 290 4KT	WEATHER 0				
					DOMINANT WAVES 270 4 5				
133.021	02/03/75	1817GMT	26 12.5h	112 32.5W		10	17.01	34.099	311.8
		BOTTOM	52M	WIND 290 1KKT	WEATHER 0				
					DOMINANT WAVES 270 4 4				
133.022	02/03/75	1905GMT	26 10.5h	112 36.5W		10	17.07	34.107	312.6
		BOTTOM	63M	WIND 310 1KKT	WEATHER 1				
					DOMINANT WAVES 300 5 5				
133.023	02/03/75	2000GMT	26 08.5h	112 40.0W		10	17.04		
		BOTTOM	71M	WIND 320 1KKT	WEATHER 1				
					DOMINANT WAVES 340 5 4				
133.024	02/03/75	2046GMT	26 06.5h	112 44.5W		10	16.95	34.122	308.8
		BOTTOM	80M	WIND 310 1KKT	WEATHER 1				
					DOMINANT WAVES 300 5 5				
133.025	02/03/75	2141GMT	26 04.5h	112 48.0W		10	16.89	34.114	308.0
		BOTTOM	82M	WIND 320 1KKT	WEATHER 1				
					DOMINANT WAVES 290 4 6				
133.030	02/04/75	0013GMT	25 54.5h	113 07.5W		10	17.29	34.138	315.3
		BOTTOM	705M	WIND 320 1KKT	WEATHER 0				
					DOMINANT WAVES 340 4 7				
133.035	02/04/75	0252GMT	25 44.0h	113 26.0W		10	17.11	34.097	314.2
		BOTTOM	1021M	WIND 320 1KKT	WEATHER 0				
					DOMINANT WAVES				
133.050	02/04/75	1126GMT	25 14.5h	114 24.0W		10	17.69	34.160	322.9
		BOTTOM	3832M	WIND 360 1KKT	WEATHER				
					DOMINANT WAVES				
133.060	02/04/75	1646GMT	24 54.5h	115 02.0W		10	18.42	34.353	325.9
		BOTTOM	3926M	WIND 010 1KKT	WEATHER 1				
					DOMINANT WAVES 360 4 5				
137.020 ⁷	02/06/75	1710GMT	25 38.5h	112 10.0W		10	16.20	34.034	298.6
		BOTTOM	19M	WIND 140 4KT	WEATHER 1				
					DOMINANT WAVES 260 3 6				
137.022	02/06/75	1620GMT	25 36.0h	112 15.0W		10	16.78	34.087	307.5
		BOTTOM	50M	WIND 330 4KT	WEATHER 1				
					DOMINANT WAVES 270 3 4				
137.023	02/06/75	1525GMT	25 34.0h	112 19.0W		10	17.03	34.110	311.5
		BOTTOM	75M	WIND 340 4KT	WEATHER 1				
					DOMINANT WAVES 340 5 7				
137.024	02/06/75	1425GMT	25 32.0h	112 23.0W		10	17.16	34.139	312.3
		BOTTOM	80M	WIND 330 4KT	WEATHER 1				
					DOMINANT WAVES 270 4 6				
137.030	02/06/75	1115GMT	25 20.0h	112 45.5W		10	17.07	34.118	311.8
		BOTTOM	334M	WIND 330 1KKT	WEATHER				
					DOMINANT WAVES				
137.035	02/06/75	0824GMT	25 10.0h	113 04.5W		10	17.46	34.194	315.1
		BOTTOM	1298M	WIND 330 1KKT	WEATHER 2				
					DOMINANT WAVES				
137.050	02/05/75	0256GMT	24 40.0h	114 02.5W		10	18.86	34.406	332.6
		BOTTOM	3926M	WIND 350 1KKT	WEATHER				
					DOMINANT WAVES				
137.060	02/04/75	2140GMT	24 20.0h	114 39.5W		10	18.54	34.339	329.8
		BOTTOM	3737M	WIND 010 1KKT	WEATHER 1				
					DOMINANT WAVES 330 7 5				