UNIVERSITY OF CALIFORNIA SCRIPPS INSTITUTION OF OCEANOGRAPHY

data report

PHYSICAL AND CHEMICAL DATA

CalCOFI Cruise 7505
7 May - 6 June 1975

CalCOFI Cruise 7506
8 June - 12 June 1975

CalCOFI Cruise 7507
23 June - 18 July 1975

CalCOFI Cruise 7509
13 September - 22 September 1975

CalCOFI Cruise 7510
2 October - 16 November 1975

CalCOFI Cruise 7512
8 December - 14 December 1975

SIO Reference 84-13
15 June 1984

INTRODUCTION

The data in this report were collected during Cruises 7505*, 7506, 7507, 7509, 7510, and 7512 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. Cruises 7505, 7507, and 7510 extended over large parts of the CalCOFI grid, while Cruises 7506, 7509, and 7512 concentrated on the Los Angeles Bight area. The report preceding this one in the series was SIO Ref. 84-10 which included data for 1974 and 1975.

The 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 the few stations where the STD failed.

Hydrographic Cast Data

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

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 degree Celsius. Sampling bottles used below a depth of 100 meters were equipped with unprotected thermometers for determination of the depth of sampling.

Salinity samples were analyzed at sea using inductive-type salinometers. The salinity values 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 two decimal places.

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 methodology 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 (GMT). 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. Weather and dominant waves are coded by the National Oceanographic Data Center (NODC) method.

Data for all the cruises included in this report were obtained by Nansen bottle and STD casts and are presented 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 explicit footnotes, the following notations have been used.

P: Nansen bottle posttripped.

U: Uncertain value - not used in interpolation.

LITERATURE CITED

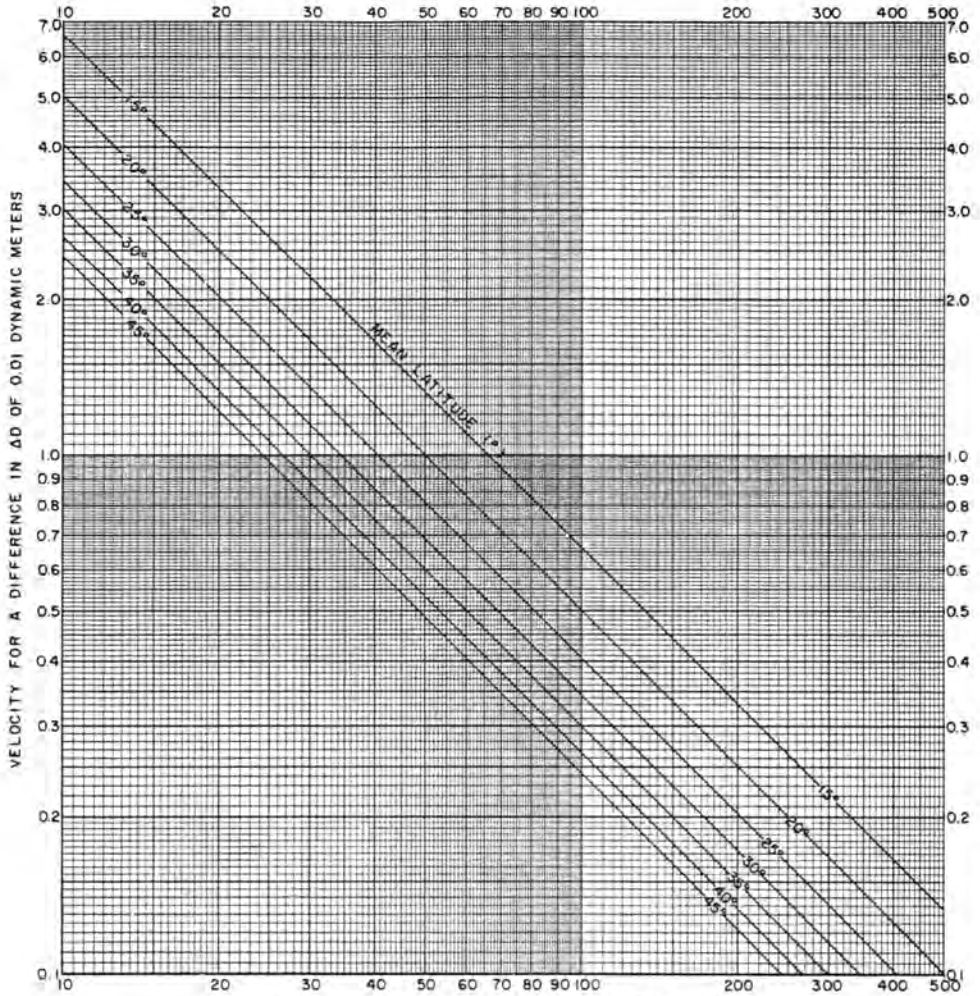
Anderson, G. C., compiler, 1971. "Oxygen Analysis," Marine Technician's Handbook, SIO Ref. No. 71-8, Sea Grant Pub. No. 9.

Carpenter, J. H., 1965. The Chesapeake Bay Institute technique for the Winkler dissolved oxygen method. *Limnol. Oceanogr., 10*: 141-143.

Klein, Hans T., 1973. A new technique for processing physical oceanographic data. SIO Ref. No. 73-14.

Matthews, D. J., 1939. Tables of the velocity of sound in pure water and seawater for use in echo-sounding and sound-ranging. Second Edition. Hydrographic Department, Admiralty, H. D. 282, 52 pp.

Plessey Environmental Systems, 1974. Instruction Manual, *In situ* Salinity/Temperature/Depth Monitoring and Recording System, Model 9040.



VELOCITY OF GEOSTROPHIC FLOW
(NAUTICAL MILES PER DAY)

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

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

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

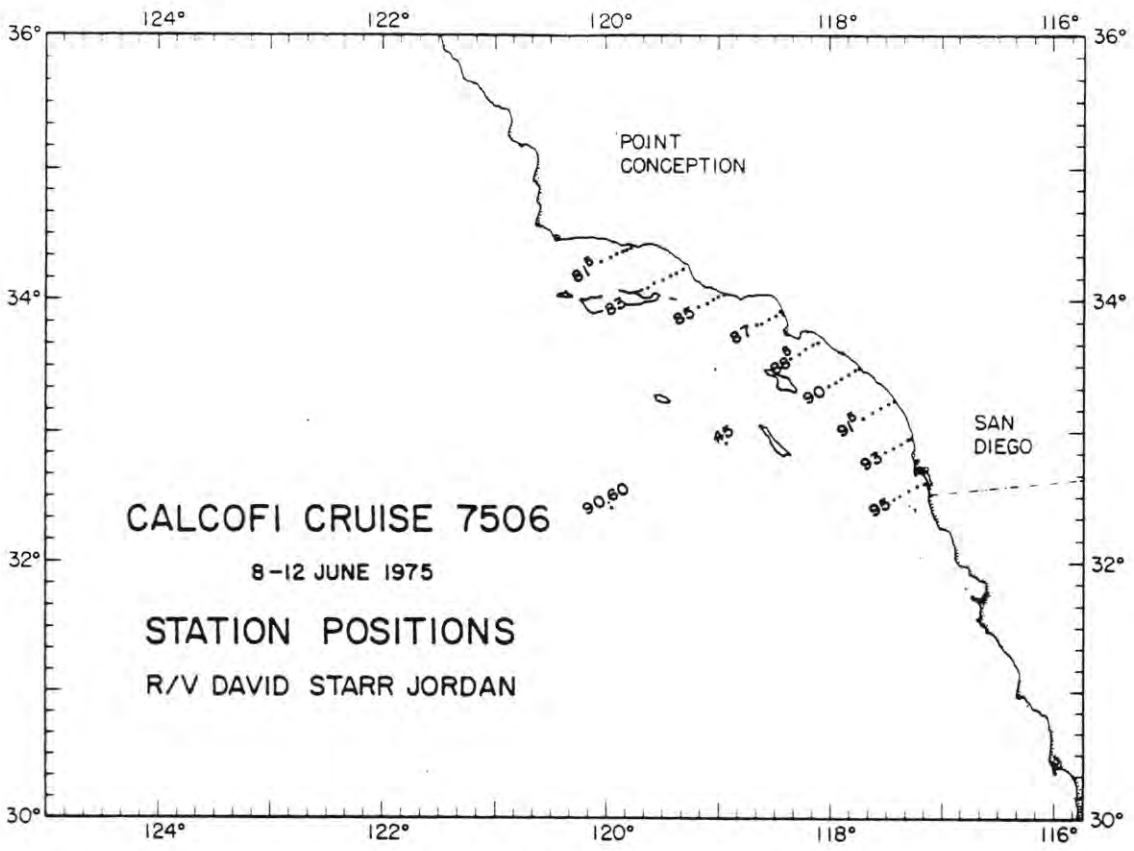

124°
122°
120°
118°
116°
36°
34°
32°
30°
POINT
CONCEPTION
SAN
DIEGO
81.5
83
85
87
88.8
90
91.5
93
95
90.60
45
CALCOFI CRUISE 7506
8-12 JUNE 1975
STATION POSITIONS
R/V DAVID STARR JORDAN

FIGURE 1

PERSONNEL

Cruise 7506

SHIP'S CAPTAIN

Forster, Charles W., RV *David Starr Jordan*

PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

RV *David Starr Jordan*

Counts, Robert C. (in charge)	Fishery Biologist, NMFS
Ahern, Stephen	Biological Technician, NMFS
Brennen, Robert	Marine Technician, SIO
Heifetz, Robert	Associate Professor, UCSD
Metoyer, Jack	Biological Technician, NMFS
Patla, Susan M.	Marine Technician, SIO
Theilacker, Gail H.	Fishery Biologist, NMFS

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81043

RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 24.0N	119 47.5W	06/11/75	0745 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
34M	360	3KT		49

Z	T	S	SIGMA T	DT	DD
0	14.10	33.85	25.298	268.3	0.000
5	13.59	33.83	25.388	259.7	0.013
10	13.49	33.82	25.401	258.5	0.026
15	12.55	33.81	25.580	241.5	0.038
20	12.36	33.81	25.617	238.0	0.050
25	12.12	33.82	25.671	232.8	0.062

CALCOFI CRUISE 7506

5
81044

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 23.5N	119 50.0W	06/11/75	0834 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
62M	360	3KT		49

Z	T	S	SIGMA T	DT	DD
0	14.92	33.78	25.069	290.0	0.000
10	13.77	33.77	25.305	267.6	0.027
20	12.45	33.76	25.561	243.3	0.053
30	11.86	33.74	25.658	234.1	0.077
40	11.23	33.75	25.782	222.3	0.100
50	10.68	33.78	25.904	210.7	0.122

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81044

RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 22.0N	119 52.0W	06/11/75	0926 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
84M	210	6KT		49

Z	T	S	SIGMA T	DT	DD
0	14.91	33.78	25.072	289.8	0.000
10	14.58	33.78	25.143	283.1	0.028
20	13.45	33.77	25.370	261.4	0.055
30	12.86	33.76	25.481	250.9	0.081
40	11.23	33.71	25.751	225.2	0.105
50	10.58	33.70	25.859	215.0	0.127
70	10.01	33.75	25.996	202.0	0.169

CALCOFI CRUISE 7506

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81045

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 21.0N	119 54.0W	06/11/75	1017 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
371M	140	5KT		49

Z	T	S	SIGMA T	DT	DD
0	15.04	33.78	25.043	292.5	0.000
10	14.03	33.78	25.259	272.0	0.028
20	13.33	33.80	25.418	256.9	0.054
30	12.94	33.79	25.488	250.2	0.080
40	12.32	33.74	25.570	242.4	0.104
50	10.80	33.65	25.781	222.3	0.128
75	10.08	33.74	25.976	203.8	0.181
100	9.34	33.95	26.263	176.6	0.229
125	8.86	34.02	26.394	164.1	0.272
150	8.59	34.07	26.475	156.4	0.313
175	8.51	34.11	26.519	152.3	0.353
200	8.49	34.17	26.569	147.5	0.391

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81046

RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 19.0N	119 58.0W	06/11/75	1135 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
528M	170	3KT		49

Z	T	S	SIGMA T	DT	DD
0	14.33	33.78	25.196	278.0	0.000
10	13.91	33.76	25.268	271.1	0.027
20	13.19	33.75	25.407	257.9	0.053
30	12.90	33.76	25.473	251.7	0.079
40	12.19	33.77	25.619	237.8	0.104
50	11.63	33.79	25.739	226.3	0.127
75	10.47	33.78	25.940	207.2	0.181
100	9.51	33.94	26.227	180.0	0.230
125	8.96	34.05	26.402	163.4	0.274
150	8.68	34.11	26.493	154.8	0.314
175	8.38	34.17	26.586	145.9	0.353
200	8.20	34.18	26.621	142.6	0.389

CALCOFI CRUISE 7506

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81047

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 17.0N	120 02.5W	06/11/75	1230 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
593M	190	3KT	2	49

Z	T	S	SIGMA T	DT	DD
0	15.21	33.80	25.022	294.6	0.000
10	15.00	33.77	25.044	292.4	0.029
20	12.57	33.76	25.538	245.5	0.056
30	11.77	33.77	25.698	230.3	0.080
40	11.36	33.80	25.797	220.8	0.102
50	10.65	33.85	25.963	205.0	0.124
75	9.87	33.91	26.144	187.9	0.173
100	9.00	34.03	26.380	165.5	0.218
125	8.71	34.11	26.488	155.2	0.258
150	8.56	34.15	26.542	150.0	0.297
175	8.45	34.16	26.567	147.7	0.335
200	8.22	34.19	26.626	142.1	0.372

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83039

RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 14.5N	119 19.5W	06/10/75	2315 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
19M	260	16KT	1	49

Z	T	S	SIGMA T	DT	DD
0	15.36	33.78	24.973	299.2	0.000
5	15.37	33.78	24.971	299.4	0.014
10	14.75	33.78	25.106	286.5	0.029
15	12.74	33.78	25.520	247.2	0.042

CALCOFI CRUISE 7506

6
83040

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 12.5N	119 24.0W	06/11/75	0016 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
39M	270	15KT	1	49

Z	T	S	SIGMA T	DT	DD
0	15.68	33.71	24.848	311.1	0.000
10	15.01	33.71	24.996	297.0	0.030
20	14.26	33.71	25.157	281.7	0.059
30	13.65	33.72	25.291	268.9	0.087
36	13.15	33.73	25.400	258.6	0.102

83041 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 11.5N	119 26.0W	06/11/75	0100 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT	WAVES
69M	270	14KT	1	49	

Z	T	S	SIGMA T	DT	DD
0	15.39	33.70	24.905	305.7	0.000
10	15.11	33.70	24.967	299.8	0.030
20	14.68	33.70	25.060	291.0	0.059
30	13.65	33.70	25.275	270.4	0.088
40	12.66	33.70	25.474	251.6	0.114
50	11.68	33.69	25.653	234.6	0.138
63	10.41	33.68	25.873	213.6	0.167

CALCOFI CRUISE 7506 83042

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 09.5N	119 30.0W	06/11/75	0150 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT	WAVES
207M	290	13KT	1	49	

Z	T	S	SIGMA T	DT	DD
0	16.10	33.69	24.738	321.6	0.000
10	15.20	33.69	24.939	302.4	0.031
20	14.61	33.67	25.052	291.7	0.060
30	13.15	33.67	25.354	263.0	0.088
40	11.91	33.68	25.602	239.4	0.113
50	11.26	33.74	25.769	223.5	0.137
75	9.28	33.87	26.210	181.6	0.188
100	8.99	33.97	26.334	169.8	0.232
125	8.77	34.02	26.408	162.8	0.274
150	8.53	34.10	26.508	153.3	0.314
175	8.45	34.13	26.544	149.9	0.353
186	8.44	34.14	26.553	149.0	0.370

83043 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 08.0N	119 34.0W	06/11/75	0245 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT	WAVES
246M	300	14KT	2	49	

Z	T	S	SIGMA T	DT	DD
0	16.12	33.75	24.780	317.6	0.000
10	15.37	33.72	24.925	303.8	0.031
20	14.35	33.73	25.153	282.1	0.060
30	13.61	33.75	25.322	266.0	0.087
40	13.02	33.79	25.472	251.7	0.113
50	12.47	33.77	25.565	242.9	0.138
75	9.53	33.87	26.169	185.5	0.192
100	8.70	34.01	26.411	162.5	0.236
125	8.38	34.13	26.555	148.9	0.276
150	8.28	34.15	26.585	145.9	0.313
175	8.27	34.17	26.603	144.3	0.350
200	8.18	34.20	26.640	140.8	0.386

CALCOFI CRUISE 7506 83044

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 05.5N	119 38.0W	06/11/75	0347 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT	WAVES
196M	300	12KT		49	

Z	T	S	SIGMA T	DT	DD
0	15.76	33.74	24.853	310.6	0.000
10	15.42	33.73	24.921	304.1	0.030
20	14.98	33.73	25.018	294.9	0.060
30	13.41	33.76	25.371	261.4	0.088
40	12.76	33.78	25.516	247.6	0.114
50	12.15	33.77	25.626	237.1	0.138
75	9.83	33.79	26.057	196.1	0.193
100	8.91	33.96	26.339	169.3	0.239
125	8.49	34.07	26.491	154.9	0.280
150	8.34	34.14	26.568	147.6	0.318
175	8.27	34.16	26.595	145.1	0.355

83044[7] RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 04.0N	119 41.0W	06/11/75	0442 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT	WAVES
91M	290	9KT		49	

Z	T	S	SIGMA T	DT	DD
0	15.65	33.73	24.870	309.0	0.000
10	15.62	33.72	24.869	309.1	0.030
20	14.80	33.71	25.042	292.7	0.061
30	13.71	33.70	25.263	271.6	0.089
40	11.91	33.69	25.610	238.7	0.114
50	10.71	33.69	25.828	217.9	0.137
75	9.40	33.89	26.206	182.0	0.188

CALCOFI CRUISE 7506 83045

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 03.5N	119 42.5W	06/11/75	0525 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT	WAVES
86M	280	7KT		49	

Z	T	S	SIGMA T	DT	DD
0	15.68	33.73	24.864	309.6	0.000
10	15.63	33.73	24.875	308.6	0.030
20	13.93	33.75	25.256	272.2	0.060
30	13.26	33.77	25.409	257.7	0.086
40	12.75	33.76	25.502	248.8	0.112
50	11.39	33.71	25.722	228.0	0.135
75	9.79	33.81	26.079	194.0	0.189
87	9.42	33.93	26.234	179.3	0.211

85037[2] RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 02.5N	118 58.5W	06/10/75	1716 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT	WAVES
34M	170	6KT	4		

Z	T	S	SIGMA T	DT	DD
0	14.68	33.75	25.098	287.3	0.000
10	12.20	33.65	25.524	246.8	0.026
20	11.46	33.67	25.678	232.2	0.050
30	11.34	33.69	25.715	228.6	0.073

CALCOFI CRUISE 7506 85037[5]

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 02.0N	118 59.5W	06/10/75	1759 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT	WAVES
71M	140	6KT	4		

Z	T	S	SIGMA T	DT	DD
0	15.16	33.74	24.987	297.9	0.000
10	14.40	33.71	25.127	284.6	0.029
20	13.29	33.69	25.341	264.2	0.056
30	12.48	33.68	25.493	249.7	0.082
40	11.93	33.68	25.598	239.7	0.106
50	10.65	33.70	25.847	216.1	0.129
59	10.14	33.74	25.966	204.8	0.148

85038 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
34 01.0N	119 02.5W	06/10/75	1850 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
214M	170	6KT	4	

Z	T	S	SIGMA T	DT	DD
0	15.35	33.73	24.937	302.6	0.000
10	14.70	33.73	25.079	289.2	0.029
20	13.02	33.69	25.395	259.1	0.057
30	12.25	33.69	25.545	244.8	0.082
40	11.19	33.70	25.750	225.3	0.105
50	10.16	33.71	25.939	207.3	0.127
75	9.57	33.82	26.124	189.8	0.177
100	9.36	33.87	26.197	182.8	0.224
125	9.15	33.96	26.301	172.9	0.269
150	8.67	34.06	26.455	158.3	0.311
175	8.56	34.12	26.519	152.3	0.351
200	8.22	34.18	26.618	142.9	0.389

CALCOFI CRUISE 7506 85039

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 59.0N	119 06.5W	06/10/75	1950 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
704M	180	4KT	4	

Z	T	S	SIGMA T	DT	DD
0	15.58	33.73	24.886	307.5	0.000
10	14.98	33.70	24.995	297.1	0.030
20	13.61	33.68	25.268	271.1	0.058
30	12.66	33.66	25.443	254.5	0.085
40	11.30	33.66	25.699	230.1	0.109
50	10.86	33.68	25.794	221.1	0.132
75	9.72	33.81	26.091	192.9	0.184
100	9.30	33.90	26.230	179.7	0.231
125	9.09	33.96	26.311	172.0	0.275
150	8.86	34.02	26.394	164.1	0.318
175	8.50	34.09	26.505	153.6	0.358
200	8.48	34.19	26.586	145.9	0.397

85040 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 57.0N	119 10.5W	06/10/75	2053 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
778M	260	6KT	1	

Z	T	S	SIGMA T	DT	DD
0	16.10	33.71	24.754	320.1	0.000
10	14.86	33.69	25.013	295.4	0.030
20	14.81	33.69	25.024	294.3	0.060
30	14.68	33.69	25.052	291.7	0.089
40	13.69	33.68	25.252	272.7	0.118
50	12.55	33.66	25.464	252.5	0.144
75	10.49	33.71	25.882	212.8	0.202
100	9.62	33.82	26.115	190.6	0.253
125	9.21	33.92	26.260	176.8	0.300
150	8.93	34.02	26.383	165.2	0.343
175	8.64	34.07	26.468	157.1	0.384
200	8.27	34.09	26.540	150.3	0.424

CALCOFI CRUISE 7506 87032[5]

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 53.5N	118 26.5W	06/10/75	1020 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
19M	300	4KT		

Z	T	S	SIGMA T	DT	DD
0	16.84	33.71	24.583	336.3	0.000
5	16.00	33.70	24.769	318.7	0.016
10	13.20	33.69	25.359	262.5	0.030
15	12.02	33.67	25.574	242.1	0.043

87032[7] RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 54.5N	118 28.0W	06/10/75	1115 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
29M	220	4KT		

Z	T	S	SIGMA T	DT	DD
0	14.69	33.72	25.073	289.7	0.000
5	14.68	33.72	25.075	289.5	0.014
10	13.93	33.71	25.226	275.2	0.028
15	13.36	33.70	25.335	264.8	0.042
20	13.24	33.69	25.351	263.2	0.055
25	12.99	33.68	25.393	259.2	0.068

CALCOFI CRUISE 7506 87033

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 54.0N	118 29.0W	06/10/75	1200 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
48M	170	8KT		

Z	T	S	SIGMA T	DT	DD
0	15.18	33.72	24.967	299.8	0.000
10	14.40	33.67	25.096	287.5	0.029
20	11.92	33.64	25.569	242.5	0.055
30	11.78	33.63	25.588	240.8	0.080
40	11.20	33.65	25.710	229.2	0.103

87034 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 52.0N	118 33.0W	06/10/75	1308 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
73M	170	3KT	4	230 1 6

Z	T	S	SIGMA T	DT	DD
0	15.22	33.73	24.966	299.9	0.000
10	14.88	33.71	25.024	294.3	0.029
20	12.95	33.65	25.378	260.7	0.057
30	11.84	33.61	25.561	243.3	0.082
40	10.83	33.66	25.784	222.1	0.106
50	10.63	33.69	25.842	216.5	0.128
66	10.06	33.77	26.003	201.3	0.161

CALCOFI CRUISE 7506 87035

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 50.0N	118 37.5W	06/10/75	1400 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
556M	170	4KT	4	270 2 7

Z	T	S	SIGMA T	DT	DD
0	15.52	33.70	24.876	308.4	0.000
10	15.44	33.69	24.886	307.5	0.030
20	14.80	33.64	24.988	297.8	0.061
30	11.90	33.59	25.534	245.8	0.088
40	10.99	33.60	25.709	229.2	0.112
50	10.48	33.64	25.830	217.8	0.134
75	9.73	33.78	26.066	195.3	0.186
100	9.51	33.85	26.157	186.7	0.234
125	8.95	33.99	26.356	167.7	0.279
150	8.74	34.04	26.429	160.9	0.321
175	8.46	34.09	26.511	153.0	0.361
200	8.28	34.13	26.570	147.4	0.399

87036 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 49.0N	118 40.0W	06/10/75	1450 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
888M	230	2KT	4	

Z	T	S	SIGMA T	DT	DD
0	15.90	33.70	24.791	316.5	0.000
10	15.87	33.70	24.798	315.9	0.031
20	14.60	33.62	25.015	295.2	0.062
30	12.42	33.57	25.420	256.7	0.089
40	11.12	33.59	25.677	232.2	0.114
50	10.82	33.73	25.840	216.8	0.136
75	9.47	33.85	26.163	186.0	0.187
100	9.11	33.95	26.300	173.1	0.232
125	8.81	34.03	26.410	162.6	0.275
150	8.66	34.09	26.480	155.9	0.315
175	8.44	34.12	26.537	150.5	0.355
200	8.57	34.21	26.588	145.7	0.392

CALCOFI CRUISE 7506 5 88030

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 41.5N	118 07.0W	06/10/75	0402 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
19M	270	13KT		

Z	T	S	SIGMA T	DT	DD
0	16.06	33.67	24.732	322.2	0.000
5	16.00	33.67	24.746	320.9	0.016
10	12.53	33.67	25.476	251.4	0.030
15	12.09	33.67	25.560	243.3	0.042

5 88031 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 40.5N	118 09.5W	06/10/75	0450 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
26M	270	12KT		

Z	T	S	SIGMA T	DT	DD
0	15.22	33.69	24.935	302.8	0.000
5	15.21	33.69	24.937	302.6	0.015
10	13.61	33.67	25.261	271.8	0.029
15	11.84	33.64	25.584	241.1	0.042
20	11.51	33.61	25.622	237.5	0.054

CALCOFI CRUISE 7506 5 88032

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 38.0N	118 14.0W	06/10/75	0540 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
43M	270	8KT		

Z	T	S	SIGMA T	DT	DD
0	15.79	33.72	24.831	312.7	0.000
10	14.90	33.63	24.959	300.6	0.030
20	12.32	33.60	25.462	252.7	0.058
30	11.67	33.62	25.600	239.5	0.083
35	11.49	33.65	25.657	234.2	0.094

5 88033 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 36.0N	118 17.5W	06/10/75	0639 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
316M	270	6KT		

Z	T	S	SIGMA T	DT	DD
0	15.86	33.67	24.777	317.8	0.000
10	15.38	33.64	24.861	309.8	0.031
20	13.28	33.60	25.274	270.6	0.060
30	12.39	33.59	25.441	254.7	0.086
40	11.20	33.59	25.663	233.6	0.111
50	10.38	33.63	25.839	216.9	0.133
75	9.55	33.85	26.150	187.3	0.184
100	9.13	33.95	26.296	173.4	0.230
125	8.88	34.06	26.422	161.4	0.272
150	8.63	34.13	26.516	152.5	0.312
175	8.50	34.18	26.575	146.9	0.350
200	8.37	34.22	26.626	142.0	0.387

CALCOFI CRUISE 7506 5 88034

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 34.5N	118 22.0W	06/10/75	0747 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
879M	280	4KT		

Z	T	S	SIGMA T	DT	DD
0	15.93	33.68	24.769	318.6	0.000
10	15.51	33.62	24.817	314.1	0.031
20	14.93	33.60	24.929	303.4	0.062
30	12.93	33.62	25.359	262.5	0.090
40	11.79	33.64	25.594	240.2	0.116
50	11.19	33.65	25.712	229.0	0.139
75	9.85	33.79	26.054	196.4	0.193
100	9.16	33.96	26.300	173.1	0.239
125	8.69	33.99	26.397	163.8	0.282
150	8.46	34.04	26.472	156.7	0.323
175	8.10	34.06	26.542	150.1	0.362
200	7.85	34.11	26.618	142.8	0.399

6 90027 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 29.5N	117 45.5W	06/10/75	0045 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
47M	260	8KT	4	230 2 6

Z	T	S	SIGMA T	DT	DD
0	16.52	33.67	24.627	332.2	0.000
10	15.41	33.66	24.870	309.0	0.032
20	13.63	33.64	25.233	274.4	0.061
30	11.96	33.63	25.554	244.0	0.087
40	10.16	33.68	25.916	209.6	0.110
46	10.06	33.74	25.979	203.5	0.122

CALCOFI CRUISE 7506 90028

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 28.5N	117 47.0W	06/09/75	2350 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
371M	250	9KT	0	230 2 6

Z	T	S	SIGMA T	DT	DD
0	16.36	33.67	24.664	328.7	0.000
10	15.44	33.63	24.840	311.8	0.032
20	13.53	33.55	25.184	279.1	0.061
30	12.29	33.52	25.406	258.0	0.088
40	10.84	33.60	25.735	226.7	0.112
50	10.39	33.65	25.853	215.5	0.135
75	9.29	33.89	26.224	180.3	0.184
100	9.12	33.96	26.306	172.5	0.229
125	8.94	34.00	26.366	166.8	0.272
150	8.74	34.05	26.436	160.1	0.313
175	8.62	34.12	26.510	153.1	0.353
200	8.46	34.15	26.558	148.6	0.392

90029 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 27.0N	117 49.5W	06/09/75	2251 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT	WAVES
658M	230	9KT	0	290	2 6

Z	T	S	SIGMA T	DT	DD
0	16.23	33.70	24.716	323.7	0.000
10	15.56	33.68	24.852	310.7	0.031
20	14.34	33.62	25.070	289.9	0.061
30	12.83	33.57	25.340	264.3	0.089
40	11.71	33.56	25.546	244.7	0.115
50	10.72	33.57	25.733	226.9	0.138
75	9.43	33.83	26.154	186.9	0.190
100	9.24	33.95	26.279	175.1	0.236
125	9.13	34.03	26.359	167.5	0.279
150	8.91	34.05	26.410	162.6	0.321
175	8.71	34.15	26.519	152.2	0.362
200	8.59	34.19	26.569	147.5	0.400

CALCOFI CRUISE 7506 90030

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 25.0N	117 53.5W	06/09/75	2147 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT	WAVES
648M	240	10KT	0	290	2 7

Z	T	S	SIGMA T	DT	DD
0	15.92	33.63	24.733	322.1	0.000
10	15.34	33.61	24.847	311.2	0.031
20	14.03	33.60	25.120	285.2	0.061
30	12.88	33.60	25.353	263.0	0.089
40	12.17	33.60	25.491	249.9	0.114
50	11.14	33.61	25.689	231.1	0.138
75	9.90	33.75	26.014	200.2	0.193
100	9.41	33.86	26.181	184.4	0.241
125	8.82	33.95	26.345	168.7	0.286
150	8.54	34.01	26.436	160.1	0.328
175	8.57	34.08	26.486	155.4	0.368
200	8.32	34.10	26.540	150.2	0.407

90031 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 23.0N	117 57.5W	06/09/75	2045 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT	WAVES
390M	220	7KT	0	290	1 6

Z	T	S	SIGMA T	DT	DD
0	15.96	33.65	24.739	321.5	0.000
10	15.33	33.63	24.865	309.5	0.031
20	13.76	33.60	25.176	279.9	0.061
30	12.77	33.60	25.375	261.0	0.088
40	11.71	33.60	25.577	241.7	0.113
50	11.16	33.65	25.717	228.5	0.137
75	10.11	33.74	25.971	204.3	0.191
100	9.63	33.85	26.137	188.5	0.241
125	9.18	33.95	26.288	174.1	0.286
150	8.84	33.97	26.358	167.5	0.330
175	8.52	34.02	26.447	159.1	0.371
200	8.16	34.11	26.572	147.2	0.411

CALCOFI CRUISE 7506 90032

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 21.0N	118 01.5W	06/09/75	1935 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT	WAVES
741M	030	5KT	2	290	1

Z	T	S	SIGMA T	DT	DD
0	16.15	33.67	24.712	324.1	0.000
10	15.89	33.66	24.763	319.2	0.032
20	14.58	33.60	25.004	296.3	0.063
30	13.37	33.61	25.263	271.6	0.091
40	12.19	33.64	25.518	247.4	0.117
50	11.85	33.66	25.598	239.8	0.141
75	10.29	33.73	25.932	208.0	0.198
100	9.53	33.87	26.169	185.5	0.247
125	9.13	33.98	26.320	171.2	0.293
150	8.83	34.03	26.407	162.9	0.335
175	8.51	34.08	26.495	154.5	0.375
200	8.14	34.09	26.560	148.4	0.414

90060 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
32 25.0N	119 57.0W	06/12/75	0426 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT	WAVES
1021M	300	16KT			

Z	T	S	SIGMA T	DT	DD
0	14.29	33.54	25.019	294.8	0.000
10	13.75	33.55	25.140	283.4	0.028
20	13.32	33.64	25.297	268.4	0.056
30	12.34	33.60	25.458	253.0	0.082
40	11.73	33.60	25.574	242.1	0.107
50	11.22	33.67	25.722	228.0	0.131
75	9.97	33.68	25.948	206.5	0.185
100	9.48	33.81	26.130	189.1	0.235
125	8.89	33.91	26.303	172.7	0.281
150	8.58	33.99	26.414	162.2	0.324
175	8.27	34.03	26.493	154.7	0.364
200	7.92	34.05	26.561	148.3	0.403
225	7.57	34.05	26.612	143.4	0.440
250	7.34	34.11	26.692	135.9	0.476
275	6.98	34.12	26.750	130.3	0.510
300	7.07	34.22	26.816	124.0	0.543

CALCOFI CRUISE 7506 $^{5}_{91026}$ ^{5}

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 14.5N	117 27.5W	06/09/75	1120 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT	WAVES
21M	090	5KT			

Z	T	S	SIGMA T	DT	DD
0	16.27	33.73	24.730	322.3	0.000
5	12.75	33.70	25.456	253.2	0.014
10	11.95	33.67	25.587	240.8	0.026
16	11.56	33.64	25.636	236.1	0.041

$^{5}_{91026}$ ^{8} RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 14.0N	117 29.0W	06/09/75	1200 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT	WAVES
65M	090	4KT			

Z	T	S	SIGMA T	DT	DD
0	16.26	33.71	24.717	323.6	0.000
10	11.65	33.65	25.627	237.0	0.028
20	10.81	33.63	25.764	224.0	0.051
30	10.48	33.66	25.845	216.3	0.073
40	10.15	33.73	25.956	205.7	0.094
50	9.91	33.76	26.020	199.6	0.114
56	9.78	33.81	26.081	193.9	0.126

CALCOFI CRUISE 7506 $^{5}_{91028}$

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 11.5N	117 34.0W	06/09/75	1300 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT	WAVES
658M	100	5KT	2	320	3 6

Z	T	S	SIGMA T	DT	DD
0	15.48	33.63	24.832	312.7	0.000
10	15.08	33.62	24.912	305.0	0.030
20	12.90	33.60	25.349	263.4	0.059
30	11.53	33.61	25.618	237.8	0.084
40	11.00	33.63	25.730	227.2	0.107
50	10.25	33.66	25.885	212.5	0.129
75	9.73	33.78	26.066	195.3	0.181
100	9.20	33.91	26.254	177.4	0.228
125	8.96	34.03	26.386	164.9	0.271
150	8.72	34.06	26.447	159.1	0.312
175	8.46	34.11	26.527	151.5	0.352
200	8.31	34.18	26.604	144.2	0.390

5

91029 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 09.5N	117 38.0W	06/09/75	1400 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
824M	330	6KT	2	290 3 6

Z	T	S	SIGMA T	DT	DD
0	15.58	33.64	24.817	314.1	0.000
10	15.30	33.63	24.871	308.9	0.031
20	12.93	33.57	25.320	266.2	0.059
30	12.23	33.55	25.441	254.7	0.086
40	12.17	33.64	25.522	247.0	0.111
50	10.88	33.61	25.736	226.6	0.135
75	9.66	33.81	26.101	192.0	0.187
100	9.23	33.95	26.280	174.9	0.234
125	9.21	34.07	26.377	165.7	0.277
150	8.94	34.07	26.420	161.6	0.318
175	8.61	34.12	26.511	153.0	0.358
200	8.46	34.17	26.573	147.1	0.397

CALCOFI CRUISE 7506

51

91030

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 07.0N	117 42.0W	06/09/75	1655 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
833M	050	5KT	2	290 2 7

Z	T	S	SIGMA T	DT	DD
0	16.51	33.73	24.675	327.6	0.000
10	15.84	33.68	24.789	316.7	0.032
20	13.80	33.66	25.214	276.3	0.061
30	13.03	33.65	25.362	262.2	0.088
40	12.14	33.63	25.520	247.2	0.114
50	11.06	33.62	25.712	229.0	0.138
75	9.82	33.79	26.059	196.0	0.191
100	9.05	33.99	26.340	169.2	0.237
125	9.07	34.13	26.447	159.1	0.279
150	9.02	34.17	26.486	155.4	0.319
175	8.92	34.21	26.533	150.9	0.358
200	8.76	34.24	26.582	146.3	0.396

7

93026 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
32 57.0N	117 17.5W	06/09/75	0905 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
37M	080	5KT		

Z	T	S	SIGMA T	DT	DD
0	16.32	33.72	24.711	324.2	0.000
10	14.00	33.63	25.149	282.4	0.030
20	11.73	33.63	25.597	239.9	0.056
28	10.68	33.66	25.810	219.6	0.074

CALCOFI CRUISE 7506

9

93026

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
32 57.0N	117 18.5W	06/09/75	0817 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
84M	080	5KT		

Z	T	S	SIGMA T	DT	DD
0	16.89	33.72	24.579	336.7	0.000
10	13.11	33.67	25.362	262.2	0.029
20	11.42	33.66	25.677	232.2	0.054
30	10.64	33.70	25.848	216.0	0.077
40	10.25	33.71	25.924	208.8	0.098
50	9.99	33.77	26.015	200.2	0.119

93028 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
32 54.5N	117 22.0W	06/09/75	0655 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
611M	090	5KT	1	

Z	T	S	SIGMA T	DT	DD
0	16.92	33.73	24.580	336.7	0.000
10	16.60	33.67	24.608	333.9	0.033
20	13.22	33.60	25.286	269.5	0.063
30	10.92	33.64	25.752	225.1	0.088
40	10.32	33.70	25.904	210.7	0.110
50	10.13	33.73	25.960	205.4	0.131
75	9.56	33.83	26.133	188.9	0.180
100	9.15	33.95	26.293	173.7	0.226
125	8.93	34.03	26.391	164.4	0.269
150	8.62	34.11	26.502	153.9	0.309
175	8.54	34.14	26.538	150.5	0.348
200	8.40	34.17	26.583	146.2	0.386

CALCOFI CRUISE 7506

93029

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
32 52.5N	117 26.5W	06/09/75	0533 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
611M	060	2KT	1	

Z	T	S	SIGMA T	DT	DD
0	17.10	33.74	24.545	340.0	0.000
10	13.60	33.64	25.240	273.8	0.030
20	11.34	33.57	25.622	237.5	0.056
30	10.40	33.62	25.828	217.9	0.079
40	10.16	33.66	25.900	211.0	0.100
50	9.99	33.71	25.968	204.6	0.121
75	9.43	33.86	26.178	184.7	0.170
100	9.18	33.95	26.288	174.1	0.215
125	8.97	34.00	26.361	167.3	0.259
150	8.79	34.06	26.436	160.1	0.300
175	8.64	34.09	26.483	155.6	0.340
200	8.53	34.15	26.547	149.6	0.379

93030 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
32 50.5N	117 31.0W	06/09/75	0425 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
833M	250	5KT	1	

Z	T	S	SIGMA T	DT	DD
0	16.88	33.74	24.596	335.1	0.000
10	16.11	33.65	24.705	324.7	0.033
20	12.25	33.63	25.499	249.2	0.061
30	10.60	33.65	25.816	219.0	0.085
40	10.15	33.70	25.933	207.9	0.106
50	9.93	33.75	26.009	200.7	0.127
75	9.61	33.83	26.125	189.7	0.176
100	9.27	33.91	26.243	178.5	0.222
125	8.94	34.01	26.374	166.1	0.266
150	8.80	34.06	26.435	160.2	0.307
175	8.68	34.11	26.493	154.8	0.347
200	8.53	34.17	26.563	148.1	0.386

CALCOFI CRUISE 7506

95028

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
32 37.0N	117 10.5W	06/08/75	2143 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
19M	220	8KT	0	270 2 10

Z	T	S	SIGMA T	DT	DD
0	15.49	33.72	24.898	306.3	0.000
5	13.75	33.70	25.255	272.4	0.014
10	10.89	33.67	25.781	222.4	0.026
15	10.57	33.66	25.829	217.8	0.037

95029 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
32 35.0N	117 14.5W	06/08/75	2250 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
71M				

Z	T	S	SIGMA T	DT	DD
0	17.18	33.77	24.549	339.6	0.000
10	14.65	33.73	25.089	288.2	0.031
20	11.48	33.65	25.659	234.0	0.057
30	10.64	33.64	25.802	220.4	0.080
37	10.36	33.67	25.874	213.6	0.095

CALCOFI CRUISE 7506 95030

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
32 33.0N	117 18.5W	06/08/75	2350 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
138M	230	5KT	1	240 2 10

Z	T	S	SIGMA T	DT	DD
0	16.83	33.75	24.616	333.2	0.000
10	16.60	33.75	24.669	328.1	0.033
20	14.40	33.66	25.089	288.2	0.063
30	12.07	33.59	25.502	248.9	0.090
40	10.69	33.62	25.777	222.7	0.114
50	10.39	33.66	25.861	214.8	0.136
75	9.61	33.85	26.140	188.2	0.187
100	9.38	33.93	26.240	178.7	0.233
118	9.29	33.96	26.279	175.1	0.265

95031 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
32 31.0N	117 22.5W	06/09/75	0050 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
537M				

Z	T	S	SIGMA T	DT	DD
0	16.70	33.72	24.623	332.5	0.000
10	15.22	33.70	24.943	302.1	0.031
20	13.33	33.56	25.233	274.5	0.060
30	11.69	33.59	25.573	242.1	0.086
40	10.85	33.67	25.788	221.7	0.109
50	10.08	33.72	25.961	205.3	0.131
75	9.75	33.84	26.109	191.2	0.181
100	9.39	33.93	26.239	178.9	0.227
125	9.18	33.99	26.319	171.2	0.272
150	8.91	34.05	26.410	162.6	0.314
175	8.78	34.17	26.524	151.8	0.354
200	8.62	34.19	26.564	147.9	0.392

CALCOFI CRUISE 7506 95032

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
32 29.0N	117 27.0W	06/09/75	0156 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
1202M	250	6KT	1	250 3 5

Z	T	S	SIGMA T	DT	DD
0	16.34	33.71	24.699	325.3	0.000
10	15.69	33.62	24.777	317.9	0.032
20	13.65	33.59	25.191	278.5	0.062
30	12.28	33.58	25.454	253.4	0.088
40	11.68	33.60	25.583	241.2	0.113
50	10.89	33.63	25.750	225.4	0.136
75	9.84	33.81	26.071	194.8	0.189
100	9.46	33.91	26.212	181.4	0.237
125	9.13	34.01	26.343	168.9	0.281
150	8.74	34.07	26.452	158.6	0.323
175	8.63	34.13	26.516	152.5	0.362
200	8.56	34.19	26.574	147.1	0.401

		Z	T	10 METER DATA S	O2	DT
81.043	06/11/75 0802GMT 34 24.0N 119 47.5W BOTTOM 34M WIND 360 3KT WEATHER DOMINANT WAVES 49	10	13.10	33.803		252.3
81.044	06/11/75 0849GMT 34 23.5N 119 50.0W BOTTOM 62M WIND 360 3KT WEATHER DOMINANT WAVES 49	10	13.84	33.755		270.1
81.0441	06/11/75 0942GMT 34 22.0N 119 52.0W BOTTOM 84M WIND 210 6KT WEATHER DOMINANT WAVES 49	10	14.68	33.758		286.7
81.045	06/11/75 1035GMT 34 21.0N 119 54.0W BOTTOM 371M WIND 140 5KT WEATHER DOMINANT WAVES 49	10	13.72	33.781		265.8
81.046	06/11/75 1152GMT 34 19.0N 119 58.0W BOTTOM 528M WIND 170 3KT WEATHER DOMINANT WAVES 49	10	14.22	33.766		276.8
81.047	06/11/75 1250GMT 34 17.0N 120 02.5W BOTTOM 593M WIND 190 3KT WEATHER 2 DOMINANT WAVES 490	10	15.18	33.768		296.3
83.039	06/10/75 2330GMT 34 14.5N 119 19.5W BOTTOM 19M WIND 260 14KT WEATHER 1 DOMINANT WAVES 49	10	13.64	33.757		266.0
83.040	06/11/75 0029GMT 34 12.5N 119 24.0W BOTTOM 39M WIND 270 14KT WEATHER 1 DOMINANT WAVES 49	10	15.42	33.726		304.4
83.041	06/11/75 0114GMT 34 11.5N 119 26.0W BOTTOM 69M WIND 270 14KT WEATHER 1 DOMINANT WAVES 49	10	14.97	33.686		297.9
83.042	06/11/75 0208GMT 34 09.5N 119 30.0W BOTTOM 207M WIND 290 13KT WEATHER 1 DOMINANT WAVES 49	10	15.08	33.685		300.3
83.043	06/11/75 0303GMT 34 08.0N 119 34.0W BOTTOM 246M WIND 300 14KT WEATHER 2 DOMINANT WAVES 49	10	15.55	33.726		307.2
83.044	06/11/75 0403GMT 34 05.5N 119 38.0W BOTTOM 196M WIND 300 12KT WEATHER DOMINANT WAVES 49	10	15.62	33.716		309.4
83.0447	06/11/75 0456GMT 34 04.0N 119 41.0W BOTTOM 91M WIND 290 9KT WEATHER DOMINANT WAVES 49	10	15.60	33.708		309.5
83.045	06/11/75 0541GMT 34 03.5N 119 42.5W BOTTOM 86M WIND 280 7KT WEATHER DOMINANT WAVES 49	10	15.70	33.713		311.3
85.037	06/10/75 1729GMT 34 02.5N 118 58.5W BOTTOM 34M WIND 170 8KT WEATHER 4 DOMINANT WAVES	10	12.40	33.687		247.7
85.037	06/10/75 1813GMT 34 02.0N 118 59.5W BOTTOM 71M WIND 140 6KT WEATHER 4 DOMINANT WAVES	10	14.40	33.729		283.2
85.038	06/10/75 1907GMT 34 01.0N 119 02.5W BOTTOM 214M WIND 170 6KT WEATHER 4 DOMINANT WAVES	10	14.82	33.703		293.6
85.039	06/10/75 2008GMT 33 59.0N 119 06.5W BOTTOM 704M WIND 180 4KT WEATHER 4 DOMINANT WAVES	10	14.98	33.702		297.0
85.040	06/10/75 2111GMT 33 57.0N 119 10.5W BOTTOM 778M WIND 260 4KT WEATHER 1 DOMINANT WAVES	10	14.96	33.682		298.0
87.032	06/10/75 1038GMT 33 53.5N 118 26.5W BOTTOM 19M WIND 300 4KT WEATHER DOMINANT WAVES	10	12.26	33.647		248.1
87.0327	06/10/75 1131GMT 33 54.5N 118 28.0W BOTTOM 29M WIND 220 4KT WEATHER DOMINANT WAVES	10	13.76	33.673		274.5
87.033	06/10/75 1207GMT 33 54.0N 118 29.0W BOTTOM 48M WIND 170 8KT WEATHER DOMINANT WAVES	10	13.10	33.672		261.9
87.034	06/10/75 1323GMT 33 52.0N 118 33.0W BOTTOM 73M WIND 170 3KT WEATHER 4 DOMINANT WAVES 230 1 6	10	14.80	33.707		292.9
87.035	06/10/75 1418GMT 33 50.0N 118 37.5W BOTTOM 556M WIND 170 4KT WEATHER 4 DOMINANT WAVES 270 2 7	10	15.40	33.682		307.2
87.036	06/10/75 1506GMT 33 49.0N 118 40.0W BOTTOM 888M WIND 230 2KT WEATHER 4 DOMINANT WAVES	10	15.75	33.687		314.3
88.030	06/10/75 0414GMT 33 41.5N 118 07.0W BOTTOM 19M WIND 270 13KT WEATHER DOMINANT WAVES	10	14.81	33.650		297.3

88.031	06/10/75 0458GMT 33 40.5N 118 09.5W BOTTOM 26M WIND 270 12KT WEATHER DOMINANT WAVES	10	14.90	33.672	297.5
88.032	06/10/75 0554GMT 33 38.0N 118 14.0W BOTTOM 43M WIND 270 8KT WEATHER DOMINANT WAVES	10	15.32	33.692	304.8
88.033	06/10/75 0653GMT 33 36.0N 118 17.5W BOTTOM 316M WIND 270 8KT WEATHER DOMINANT WAVES	10	15.82	33.658	317.9
88.034	06/10/75 0809GMT 33 34.5N 118 22.0W BOTTOM 879M WIND 280 4KT WEATHER DOMINANT WAVES	10	15.28	33.623	309.0
90.027	06/10/75 0055GMT 33 29.5N 117 45.5W BOTTOM 47M WIND 260 8KT WEATHER 4 DOMINANT WAVES 230 2 6	10	15.44	33.697	306.9
90.028	06/10/75 0006GMT 33 28.5N 117 47.0W BOTTOM 371M WIND 250 9KT WEATHER 0 DOMINANT WAVES 230 2 6	10	15.48	33.625	313.1
90.029	06/09/75 2310GMT 33 27.0N 117 49.5W BOTTOM 658M WIND 230 9KT WEATHER 0 DOMINANT WAVES 290 2 6	10	15.59	33.675	311.7
90.030	06/09/75 2206GMT 33 25.0N 117 53.5W BOTTOM 648M WIND 240 10KT WEATHER 0 DOMINANT WAVES 290 2 7	10		33.604	
90.031	06/09/75 2104GMT 33 23.0N 117 57.5W BOTTOM 390M WIND 220 7KT WEATHER 0 DOMINANT WAVES 290 1 6	10	15.06	33.647	302.7
90.032	06/09/75 1956GMT 33 21.0N 118 01.5W BOTTOM 741M WIND 030 5KT WEATHER 2 DOMINANT WAVES 290 1	10	15.87	33.672	317.9
90.045	06/12/75 1035GMT 32 54.5N 118 55.5W BOTTOM 1756M WIND 290 13KT WEATHER DOMINANT WAVES	10	15.00	33.776	292.0
90.060	06/12/75 0447GMT 32 25.0N 119 57.0W BOTTOM 1021M WIND 300 16KT WEATHER DOMINANT WAVES	10	14.28	33.524	295.8
91.026	06/09/75 1133GMT 33 14.5N 117 27.5W BOTTOM 21M WIND 090 5KT WEATHER DOMINANT WAVES	10	12.37	33.631	251.3
91.026	06/09/75 1217GMT 33 14.0N 117 29.0W BOTTOM 65M WIND 090 4KT WEATHER DOMINANT WAVES	10	12.70	33.644	256.5
91.028	06/09/75 1320GMT 33 11.5N 117 34.0W BOTTOM 658M WIND 100 5KT WEATHER 2 DOMINANT WAVES 320 3 6	10	15.15	33.594	308.4
91.029	06/09/75 1418GMT 33 09.5N 117 38.0W BOTTOM 824M WIND 330 8KT WEATHER 2 DOMINANT WAVES 290 3 6	10	15.30	33.633	308.7
91.030	06/09/75 1716GMT 33 07.0N 117 42.0W BOTTOM 833M WIND 050 5KT WEATHER 2 DOMINANT WAVES 290 2 7	10	15.96	33.681	319.2
93.026	06/09/75 0920GMT 32 57.0N 117 17.5W BOTTOM 37M WIND 080 5KT WEATHER DOMINANT WAVES	10		33.667	
93.026	06/09/75 0835GMT 32 57.0N 117 18.5W BOTTOM 84M WIND 080 5KT WEATHER DOMINANT WAVES	10	13.11	33.678	261.6
93.028	06/09/75 0714GMT 32 54.5N 117 22.0W BOTTOM 611M WIND 090 5KT WEATHER 1 DOMINANT WAVES	10	16.62	33.712	331.3
93.029	06/09/75 0554GMT 32 52.5N 117 26.5W BOTTOM 611M WIND 060 2KT WEATHER 1 DOMINANT WAVES	10	13.58	33.687	270.0
93.030	06/09/75 0445GMT 32 50.5N 117 31.0W BOTTOM 833M WIND 250 5KT WEATHER 1 DOMINANT WAVES	10	16.06	33.701	319.9
95.028	06/08/75 2203GMT 32 37.0N 117 10.5W BOTTOM 19M WIND 220 8KT WEATHER 0 DOMINANT WAVES 270 2 10	10	12.41	33.664	249.6
95.029	06/08/75 2307GMT 32 35.0N 117 14.5W BOTTOM 71M WIND WEATHER DOMINANT WAVES	10	15.53	33.683	309.9
95.030	06/09/75 0006GMT 32 33.0N 117 18.5W BOTTOM 138M WIND 230 5KT WEATHER 1 DOMINANT WAVES 240 2 10	10	16.60	33.723	330.1
95.031	06/09/75 0107GMT 32 31.0N 117 22.5W BOTTOM 537M WIND WEATHER DOMINANT WAVES	10		33.621	
95.032	06/09/75 0213GMT 32 29.0N 117 27.0W BOTTOM 1202M WIND 250 6KT WEATHER 1 DOMINANT WAVES 250 3 5	10	15.22	33.630	307.2