

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

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Sponsored by
Marine Research Committee

SIO Reference 84-13
15 June 1984

Approved for distribution:


W. A. Nierenberg, Director

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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

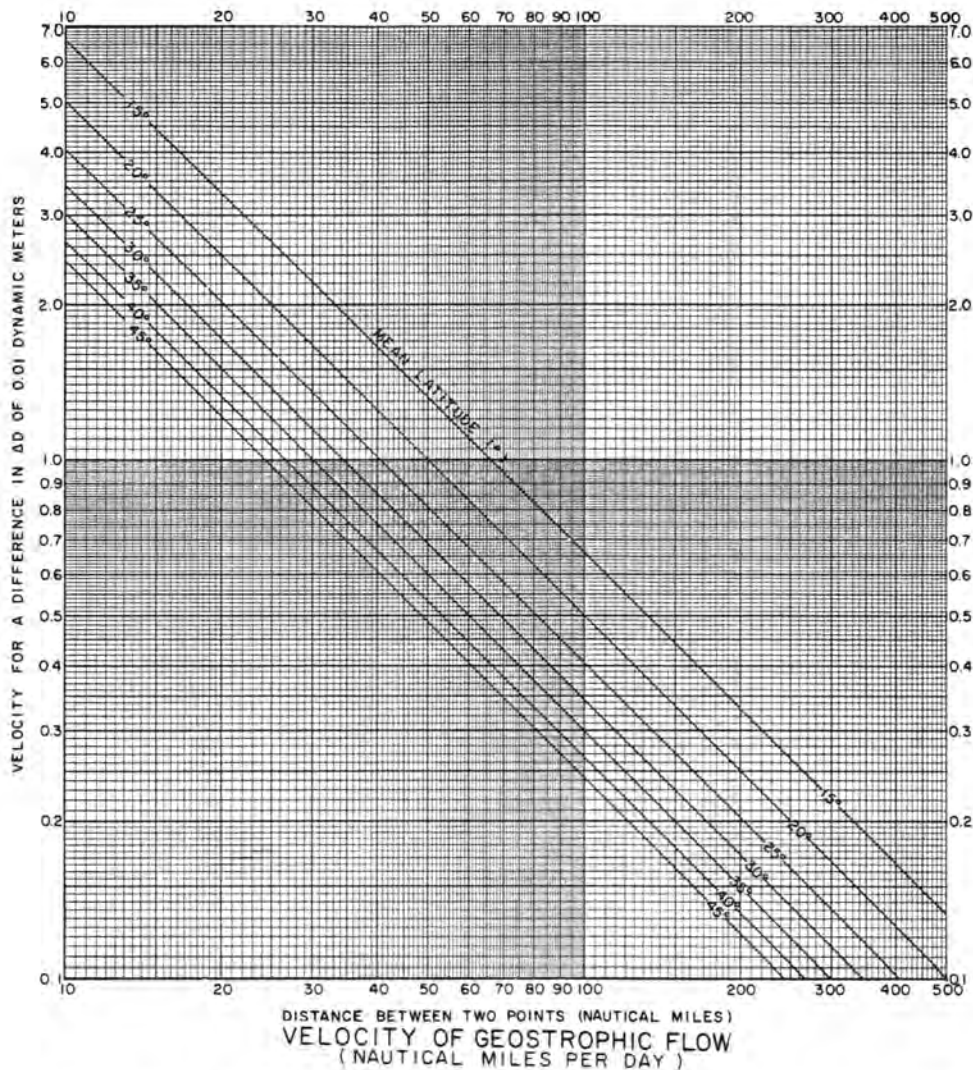
In addition to explicit footnotes, the following notations have been used.

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

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

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

FIGURES

Cruise 7509

1. CalCOFI Cruise 7509, station positions.
2. Horizontal distribution of dynamic height anomaly (0 over 300 d-bar).
3. Horizontal distribution of temperature at 10 meters.
4. Horizontal distribution of salinity at 10 meters.
5. Horizontal distribution of thermosteric anomaly at 10 meters.
6. Horizontal distribution of thermosteric anomaly at 200 meters.
7. Horizontal distribution of temperature at 200 meters.
8. Horizontal distribution of salinity at 200 meters.

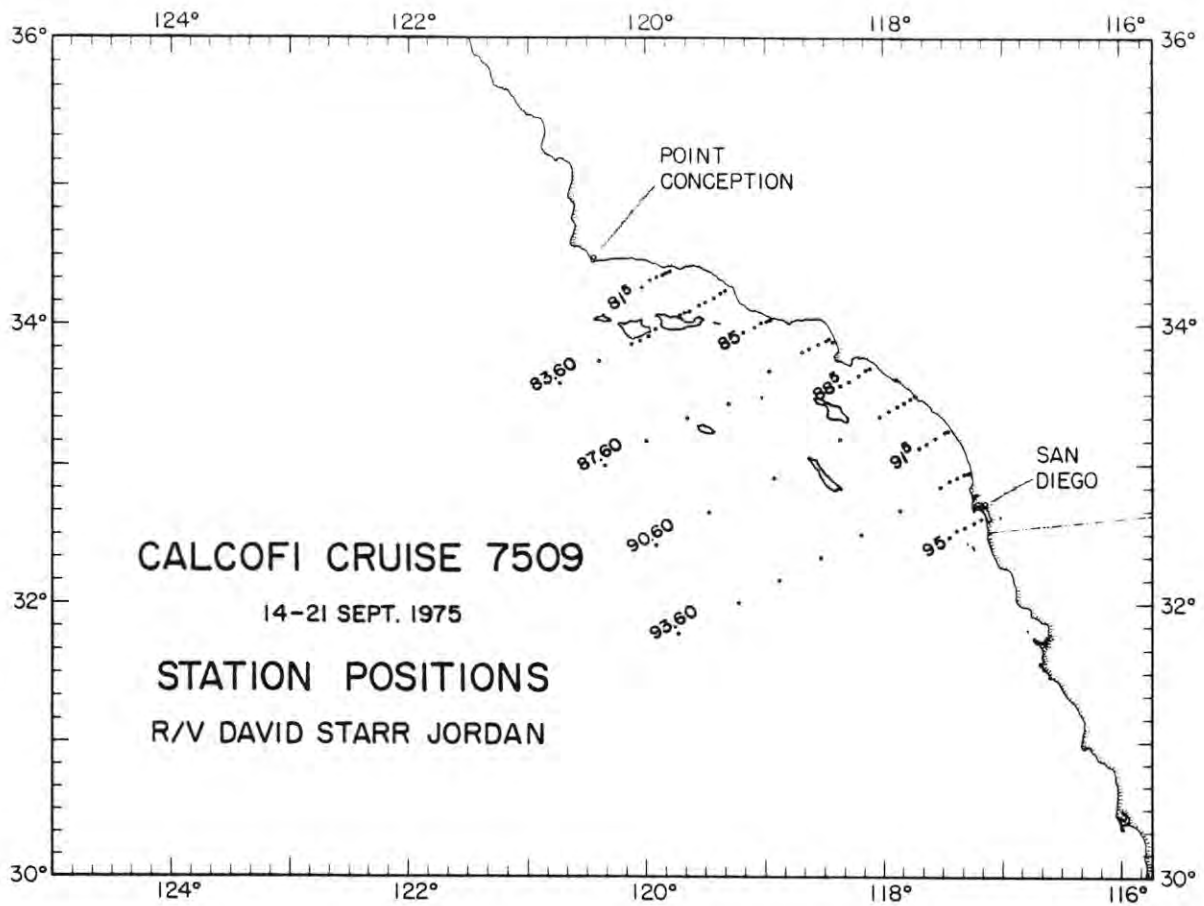


FIGURE 1

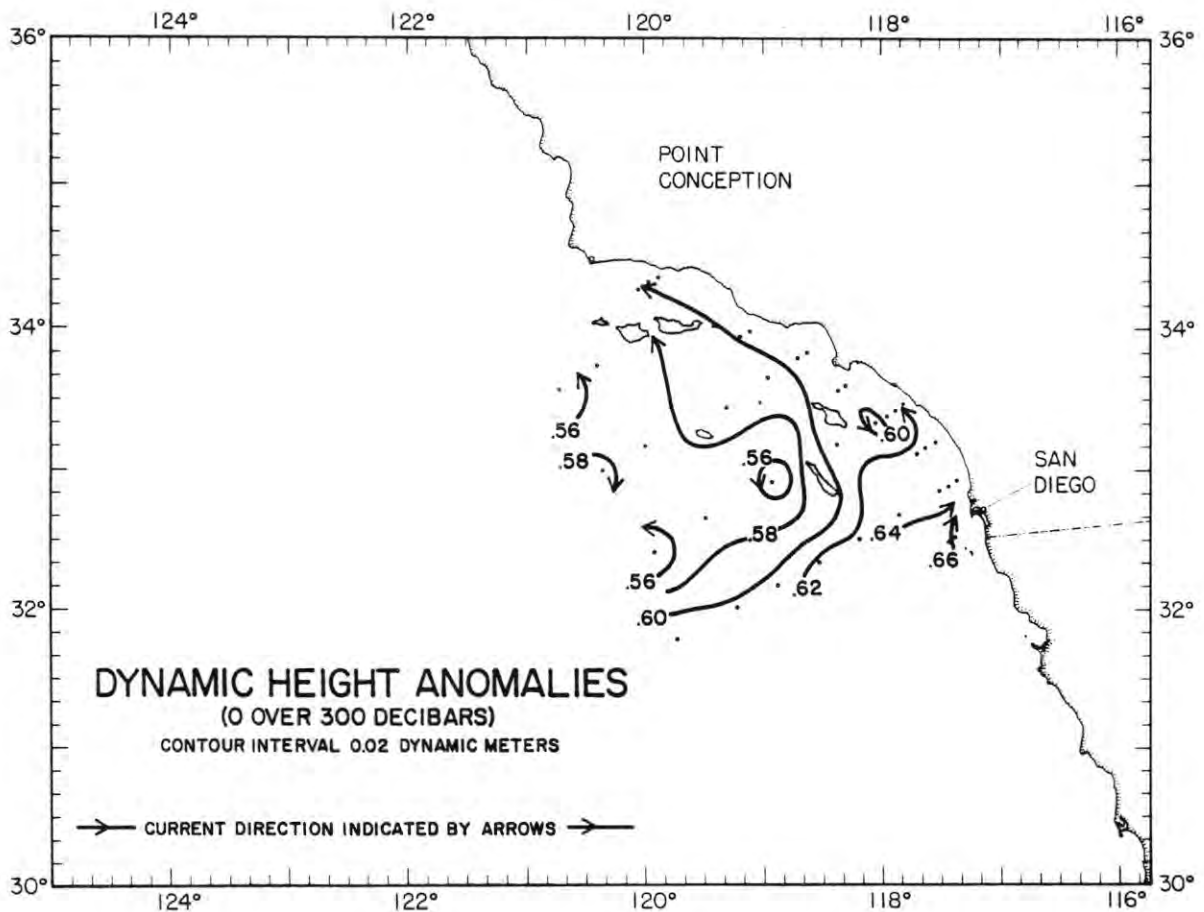


FIGURE 2

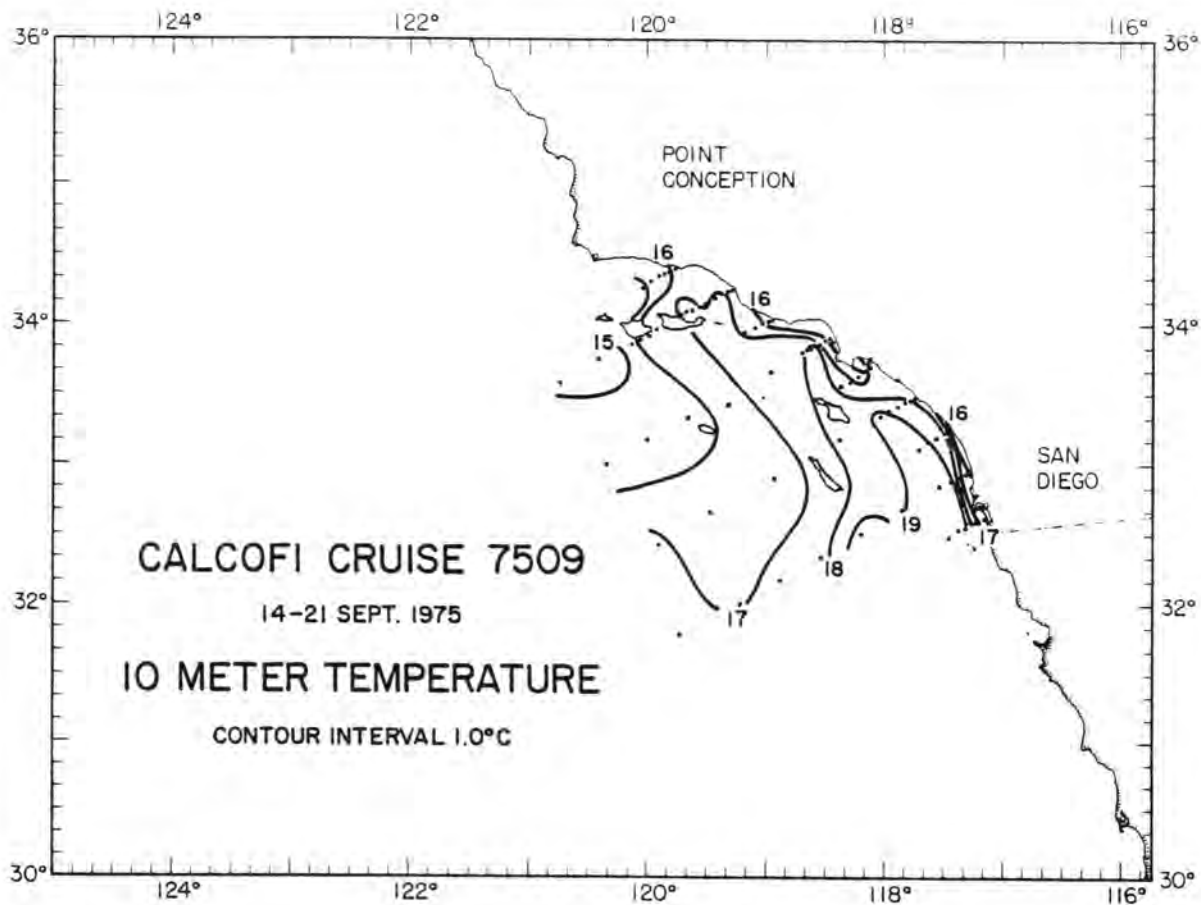


FIGURE 3

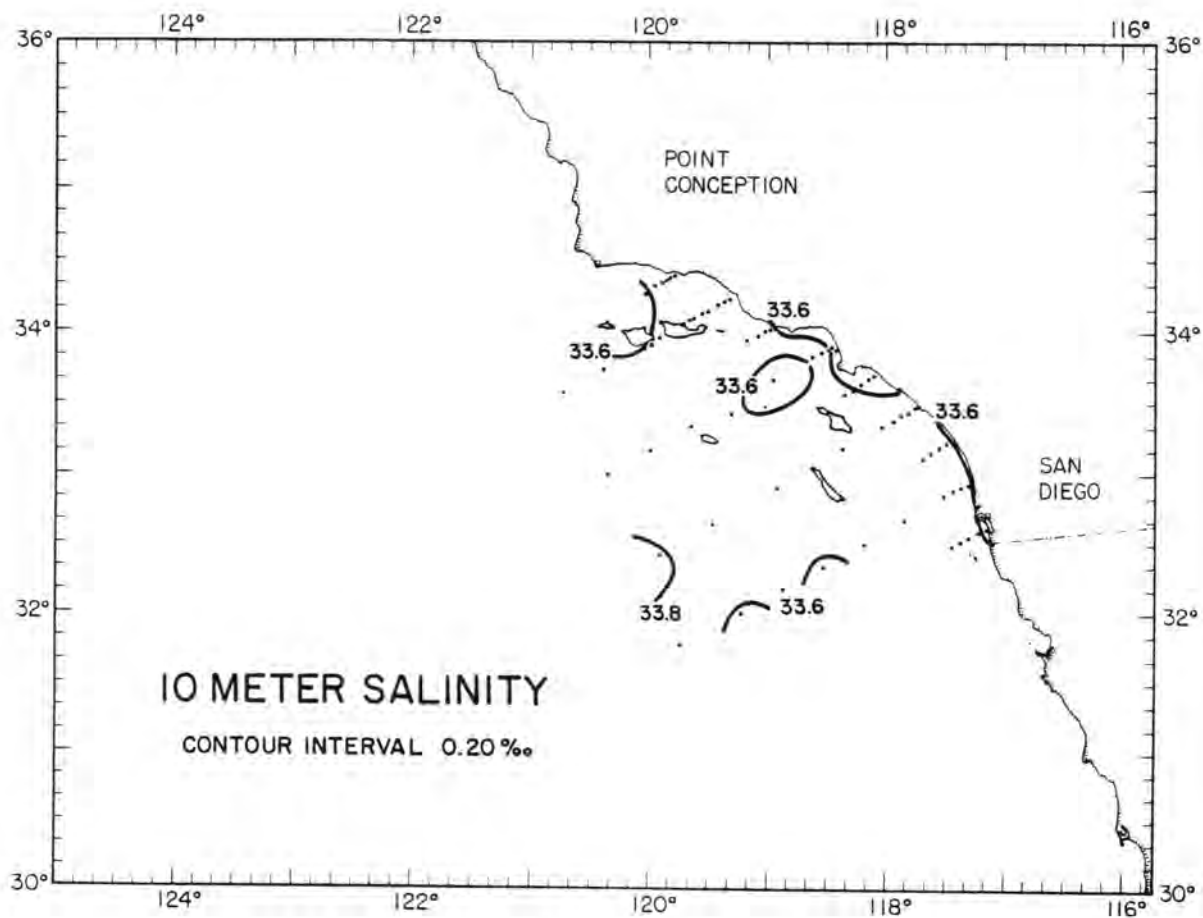


FIGURE 4

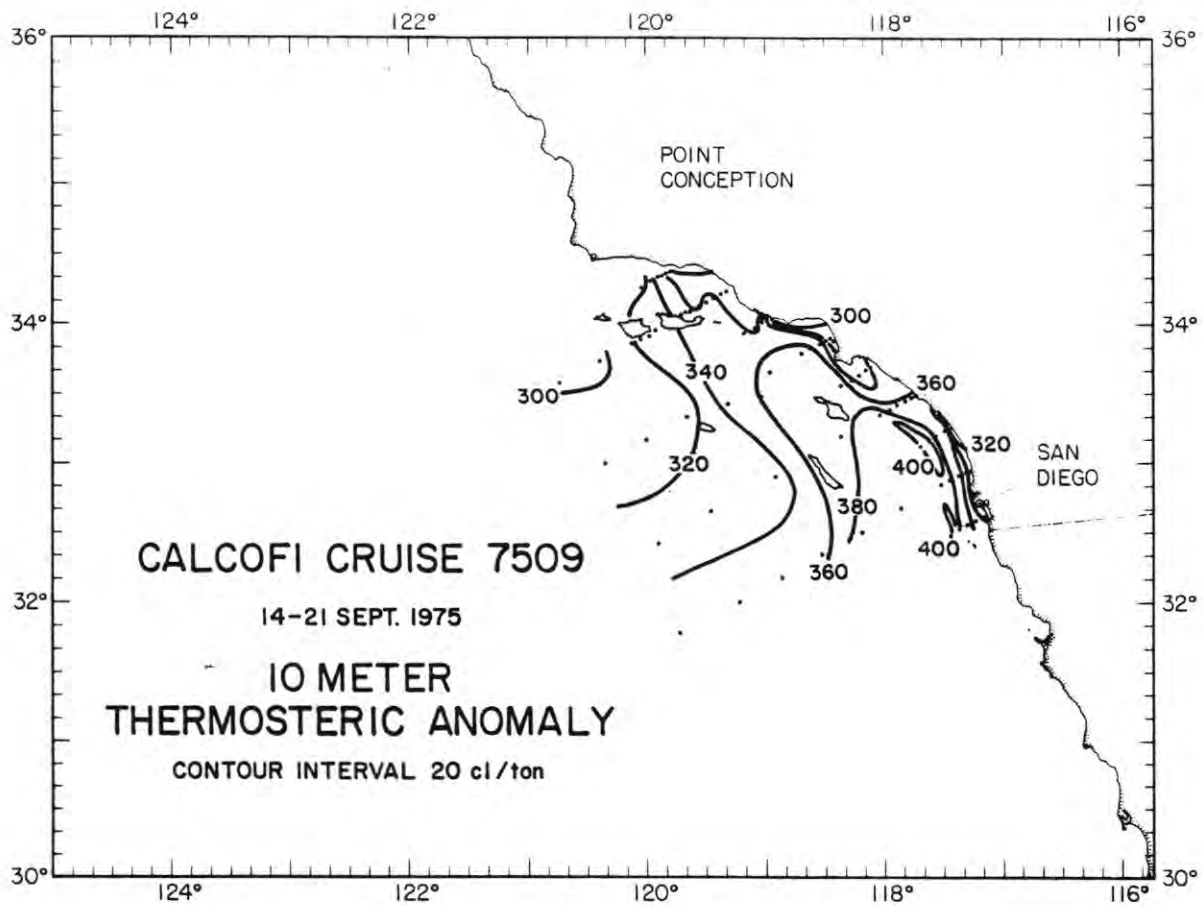


FIGURE 5

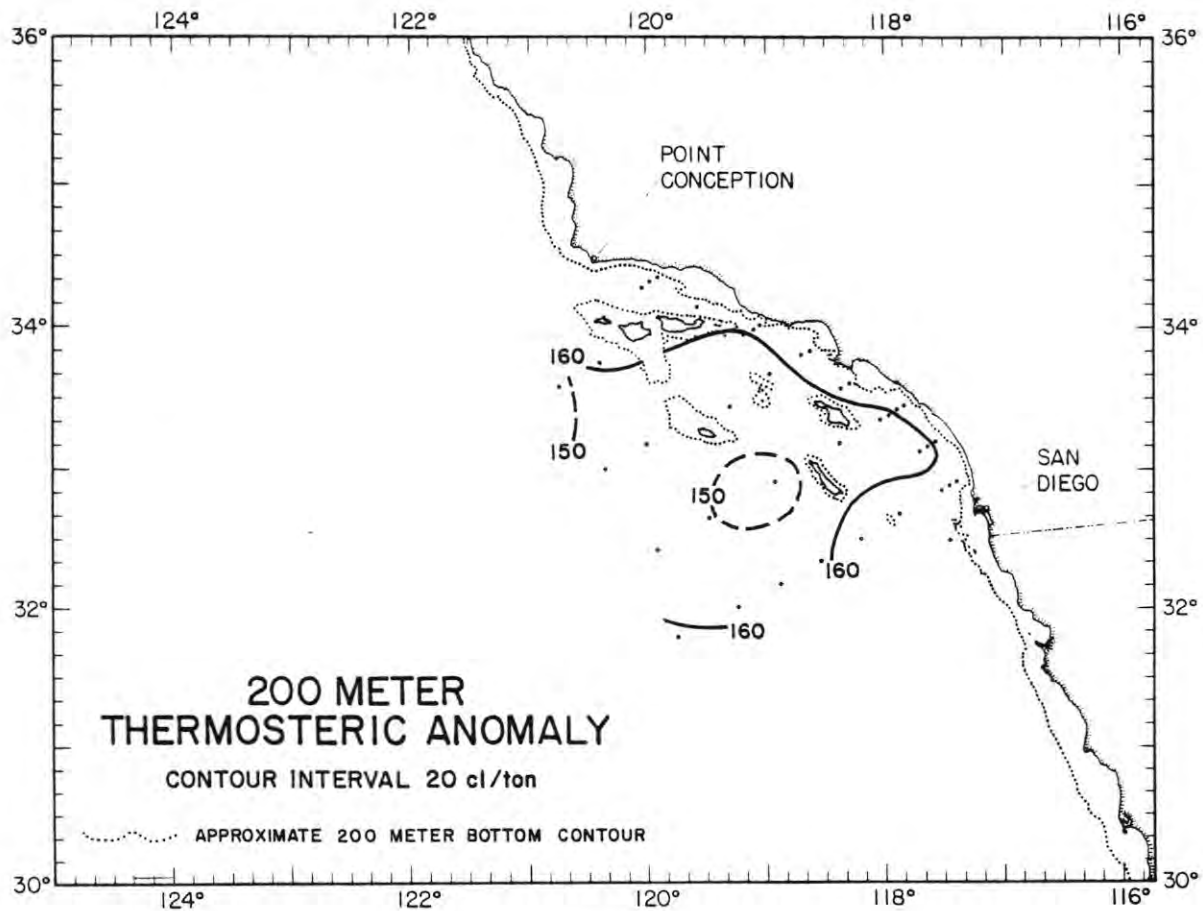


FIGURE 6

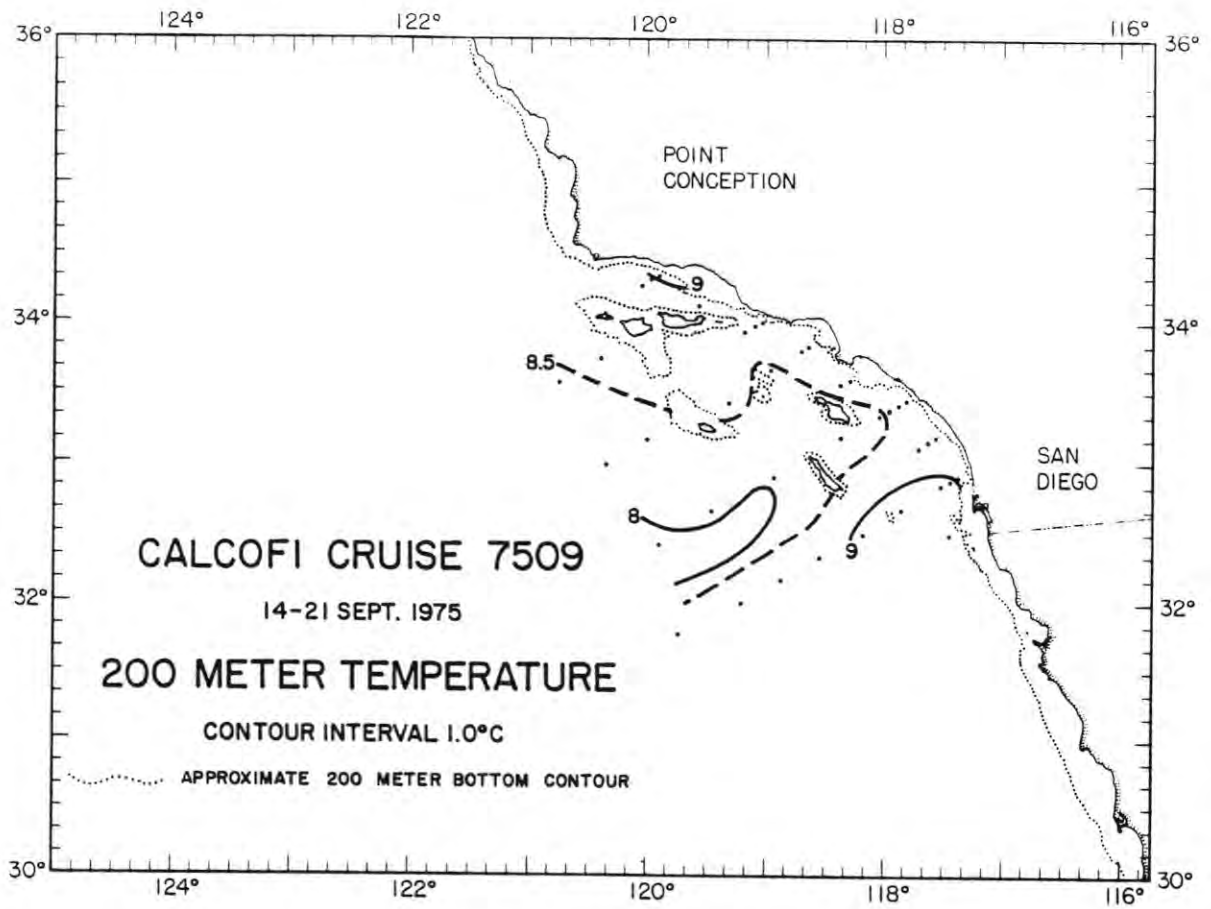


FIGURE 7

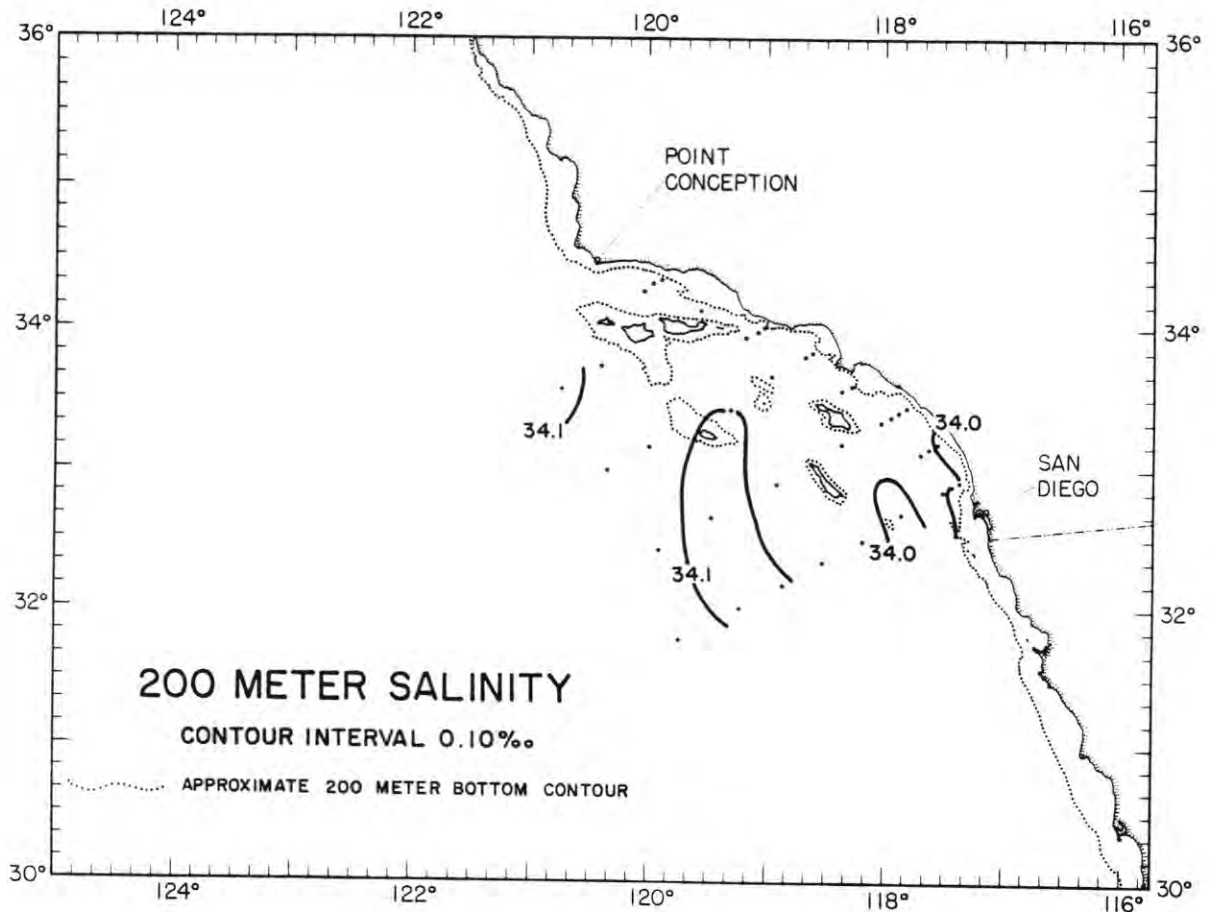


FIGURE 8

PERSONNEL

Cruise 7509

SHIP'S CAPTAIN

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

PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

RV David Starr Jordan

Counts, Robert C. (in charge)	Fishery Biologist, NMFS
Anderson, D.	Biological Technician, NMFS
Hendrix, Sharon	Junior Fellow, NOAA
Metoyer, Jack D.	Biological Technician, NMFS
Quock, E.	Student, SDSU
Thraikill, James R.	Fishery Biologist, NMFS

81043 RV DAVID STARR JORDAN
 CALCOFI CRUISE 7509
 LATITUDE 34 24.1N LONGITUDE 119 47.8W MO/DAY/YR 09/15/75 START TIME 0213 GMT
 BOTTOM 18M WIND SPEED WEATHER DOMINANT WAVES
 Z T S SIGMA T DT DD
 0 17.29 33.69 24.462 347.9 0.000
 5 16.98 33.66 24.512 343.1 0.017
 10 15.74 33.62 24.766 318.9 0.033
 14 15.17 33.63 24.900 306.2 0.046

81044 CALCOFI CRUISE 7509
 LATITUDE 34 23.1N LONGITUDE 119 49.9W MO/DAY/YR 09/15/75 START TIME 0100 GMT
 BOTTOM 60M WIND SPEED WEATHER DOMINANT WAVES
 Z T S SIGMA T DT DD
 0 17.54 33.70 24.409 352.9 0.000
 10 16.47 33.64 24.615 333.3 0.034
 20 14.02 33.52 25.061 290.9 0.065
 30 12.45 33.50 25.360 262.4 0.093
 40 11.50 33.54 25.570 242.5 0.118
 50 11.33 33.59 25.640 235.8 0.142

81044 RV DAVID STARR JORDAN
 CALCOFI CRUISE 7509
 LATITUDE 34 22.1N LONGITUDE 119 52.0W MO/DAY/YR 09/14/75 START TIME 2346 GMT
 BOTTOM 82M WIND SPEED WEATHER DOMINANT WAVES
 Z T S SIGMA T DT DD
 0 17.26 33.68 24.461 348.0 0.000
 10 16.90 33.61 24.492 345.0 0.034
 20 15.97 33.53 24.645 330.4 0.068
 30 13.18 33.48 25.201 277.5 0.098
 40 12.05 33.48 25.421 256.6 0.125
 50 11.38 33.48 25.545 244.8 0.150
 57 10.64 33.48 25.677 232.2 0.167

81045 CALCOFI CRUISE 7509
 LATITUDE 34 21.1N LONGITUDE 119 54.0W MO/DAY/YR 09/14/75 START TIME 2210 GMT
 BOTTOM 388M WIND SPEED WEATHER DOMINANT WAVES
 Z T S SIGMA T DT DD
 0 16.94 33.67 24.529 341.5 0.000
 10 16.60 33.67 24.608 333.9 0.033
 20 16.17 33.64 24.684 326.7 0.066
 30 14.14 33.53 25.043 292.5 0.097
 40 12.44 33.50 25.362 262.2 0.125
 50 11.42 33.53 25.577 241.8 0.151
 75 10.46 33.68 25.864 214.5 0.208
 100 10.21 33.74 25.954 205.9 0.261
 125 10.03 33.78 26.016 200.1 0.312
 150 9.54 33.89 26.183 184.2 0.361
 175 9.14 33.99 26.326 170.6 0.406
 200 9.06 34.02 26.362 167.1 0.449
 225 8.89 34.04 26.405 163.1 0.492
 250 8.58 34.07 26.477 156.3 0.533
 275 8.42 34.10 26.525 151.7 0.572
 300 8.12 34.13 26.594 145.1 0.611

81046 RV DAVID STARR JORDAN
 CALCOFI CRUISE 7509
 LATITUDE 34 19.2N LONGITUDE 119 58.2W MO/DAY/YR 09/14/75 START TIME 2025 GMT
 BOTTOM 527M WIND SPEED WEATHER DOMINANT WAVES
 Z T S SIGMA T DT DD
 0 17.06 33.69 24.516 342.7 0.000
 10 16.81 33.66 24.552 339.3 0.034
 20 15.62 33.63 24.800 315.6 0.066
 30 14.00 33.59 25.119 285.4 0.097
 40 12.32 33.55 25.424 256.4 0.124
 50 11.51 33.54 25.568 242.6 0.149
 75 10.43 33.68 25.869 214.0 0.206
 100 10.00 33.78 26.021 199.6 0.258
 125 9.95 33.81 26.052 196.5 0.308
 150 9.45 33.89 26.198 182.8 0.357
 175 9.14 33.99 26.326 170.6 0.402
 200 8.88 34.01 26.383 165.2 0.444
 225 8.69 34.06 26.452 158.6 0.486
 250 8.43 34.08 26.508 153.3 0.526
 275 8.18 34.12 26.577 146.7 0.565
 294 8.01 34.13 26.610 143.6 0.593

81047 CALCOFI CRUISE 7509
 LATITUDE 34 17.1N LONGITUDE 120 02.5W MO/DAY/YR 09/14/75 START TIME 1707 GMT
 BOTTOM 602M WIND SPEED WEATHER DOMINANT WAVES
 Z T S SIGMA T DT DD
 0 16.50 33.67 24.631 331.7 0.000
 10 14.99 33.59 24.908 305.4 0.031
 20 13.53 33.58 25.208 276.9 0.061
 30 12.67 33.62 25.410 257.6 0.087
 40 11.40 33.67 25.689 231.1 0.112
 50 10.49 33.69 25.867 214.2 0.134
 75 10.25 33.74 25.947 206.6 0.187
 100 9.97 33.77 26.018 199.8 0.238
 125 9.61 33.84 26.133 188.9 0.288
 150 9.36 33.90 26.220 180.6 0.335
 175 9.19 33.94 26.279 175.0 0.380
 200 8.84 34.02 26.397 163.8 0.423
 225 8.76 34.04 26.425 161.1 0.465
 250 8.68 34.06 26.453 158.5 0.506
 275 8.54 34.08 26.491 154.9 0.546
 300 8.16 34.12 26.580 146.5 0.585
 319 7.97 34.14 26.624 142.3 0.614

83039 RV DAVID STARR JORDAN
 CALCOFI CRUISE 7509
 LATITUDE 34 14.7N LONGITUDE 119 19.4W MO/DAY/YR 09/15/75 START TIME 0522 GMT
 BOTTOM 18M WIND SPEED WEATHER DOMINANT WAVES
 Z T S SIGMA T DT DD
 0 16.57 33.65 24.600 334.7 0.000
 5 16.58 33.65 24.597 335.0 0.016
 10 16.27 33.63 24.654 329.6 0.033
 15 14.65 33.62 25.005 296.2 0.049

83040 CALCOFI CRUISE 7509
 LATITUDE 34 14.0N LONGITUDE 119 22.0W MO/DAY/YR 09/15/75 START TIME 0619 GMT
 BOTTOM 33M WIND SPEED WEATHER DOMINANT WAVES
 Z T S SIGMA T DT DD
 0 16.75 33.64 24.550 339.5 0.000
 5 16.75 33.64 24.550 339.5 0.016
 10 16.38 33.61 24.613 333.5 0.033
 15 15.01 33.57 24.889 307.3 0.049
 20 14.37 33.54 25.003 296.4 0.064

83041 RV DAVID STARR JORDAN
 LATITUDE LONGITUDE MO/DAY/YR START TIME
 34 11.5N 119 26.0W 09/15/75 0729 GMT
 BOTTOM WIND SPEED WEATHER DOMINANT WAVES
 55M

Z	T	S	SIGMA T	DT	DD
0	17.14	33.66	24.474	346.7	0.000
10	17.12	33.66	24.479	346.3	0.034
20	14.29	33.55	25.027	294.1	0.066
30	12.88	33.52	25.292	268.9	0.094
40	12.02	33.55	25.481	250.9	0.121
50	11.87	33.57	25.524	246.8	0.146

CALCOFI CRUISE 7509 83041
 LATITUDE LONGITUDE MO/DAY/YR START TIME
 34 11.5N 119 26.0W 09/16/75 1049 GMT
 BOTTOM WIND SPEED WEATHER DOMINANT WAVES
 69M

Z	T	S	SIGMA T	DT	DD
0	17.51	33.69	24.409	352.9	0.000
10	17.31	33.68	24.449	349.1	0.035
20	15.77	33.60	24.744	321.0	0.068
30	12.27	33.53	25.418	256.9	0.097
40	11.80	33.53	25.507	248.5	0.123
50	11.49	33.55	25.579	241.6	0.147
60	11.15	33.61	25.688	231.2	0.171

83042 RV DAVID STARR JORDAN
 LATITUDE LONGITUDE MO/DAY/YR START TIME
 34 09.6N 119 30.0W 09/16/75 1209 GMT
 BOTTOM WIND SPEED WEATHER DOMINANT WAVES
 214M

Z	T	S	SIGMA T	DT	DD
0	17.28	33.68	24.456	348.4	0.000
10	17.23	33.68	24.468	347.3	0.034
20	16.38	33.65	24.644	330.6	0.068
30	13.97	33.58	25.117	285.5	0.099
40	11.95	33.54	25.486	250.4	0.126
50	11.21	33.55	25.630	236.7	0.150
75	10.13	33.75	25.975	203.9	0.206
100	10.02	33.79	26.025	199.2	0.257
125	9.83	33.83	26.088	193.2	0.306
150	9.51	33.92	26.211	181.5	0.354
175	9.31	33.99	26.299	173.2	0.399

CALCOFI CRUISE 7509 83043
 LATITUDE LONGITUDE MO/DAY/YR START TIME
 34 08.0N 119 34.0W 09/16/75 1344 GMT
 BOTTOM WIND SPEED WEATHER DOMINANT WAVES
 241M

Z	T	S	SIGMA T	DT	DD
0	16.73	33.66	24.570	337.6	0.000
10	16.68	33.66	24.582	336.4	0.033
20	16.67	33.66	24.584	336.2	0.067
30	15.14	33.54	24.837	312.1	0.099
40	13.42	33.52	25.184	279.2	0.129
50	12.14	33.56	25.466	252.3	0.156
75	10.26	33.71	25.922	209.0	0.214
100	9.84	33.83	26.087	193.3	0.265
125	9.62	33.90	26.178	184.7	0.312
150	9.28	33.97	26.288	174.2	0.358
175	9.06	33.98	26.331	170.1	0.402
200	8.90	34.04	26.403	163.2	0.444
225	8.71	34.07	26.457	158.2	0.485

83044 RV DAVID STARR JORDAN
 LATITUDE LONGITUDE MO/DAY/YR START TIME
 34 05.6N 119 38.2W 09/16/75 1518 GMT
 BOTTOM WIND SPEED WEATHER DOMINANT WAVES
 183M

Z	T	S	SIGMA T	DT	DD
0	17.05	33.70	24.526	341.8	0.000
10	17.05	33.70	24.526	341.8	0.034
20	17.05	33.70	24.526	341.8	0.068
30	13.73	33.53	25.128	284.5	0.099
40	12.69	33.52	25.329	265.4	0.127
50	12.05	33.54	25.467	252.2	0.153
75	10.49	33.71	25.882	212.8	0.211
100	9.90	33.80	26.053	196.5	0.263
125	9.52	33.87	26.171	185.3	0.311
150	9.26	34.00	26.315	171.7	0.357

CALCOFI CRUISE 7509 83044¹⁷
 LATITUDE LONGITUDE MO/DAY/YR START TIME
 34 04.2N 119 41.2W 09/16/75 1642 GMT
 BOTTOM WIND SPEED WEATHER DOMINANT WAVES
 88M

Z	T	S	SIGMA T	DT	DD
0	17.28	33.70	24.472	347.0	0.000
10	17.26	33.70	24.476	346.5	0.034
20	16.82	33.67	24.557	338.8	0.069
30	14.74	33.53	24.916	304.6	0.101
40	13.14	33.53	25.248	273.1	0.130
50	12.54	33.57	25.397	258.9	0.156
75	10.81	33.69	25.811	219.5	0.217

83045 RV DAVID STARR JORDAN
 LATITUDE LONGITUDE MO/DAY/YR START TIME
 34 03.6N 119 42.5W 09/16/75 1810 GMT
 BOTTOM WIND SPEED WEATHER DOMINANT WAVES
 84M

Z	T	S	SIGMA T	DT	DD
0	17.43	33.69	24.428	351.1	0.000
10	17.21	33.68	24.473	346.8	0.034
20	15.25	33.64	24.890	307.1	0.067
30	14.66	33.63	25.010	295.7	0.097
40	13.80	33.62	25.183	279.2	0.126
50	12.79	33.62	25.386	259.9	0.153
75	11.10	33.66	25.735	226.7	0.214

CALCOFI CRUISE 7509 83048
 LATITUDE LONGITUDE MO/DAY/YR START TIME
 33 58.0N 119 55.0W 09/16/75 2048 GMT
 BOTTOM WIND SPEED WEATHER DOMINANT WAVES
 203M

Z	T	S	SIGMA T	DT	DD
0	16.89	33.68	24.548	339.7	0.000
10	16.68	33.66	24.582	336.4	0.033
20	14.77	33.64	24.994	297.2	0.065
30	14.13	33.62	25.115	285.7	0.094
40	13.20	33.56	25.259	272.0	0.122
50	11.65	33.56	25.558	247.6	0.148
75	10.55	33.69	25.856	215.2	0.206
100	10.07	33.77	26.001	201.4	0.258
125	9.79	33.83	26.095	192.5	0.308
150	9.36	33.91	26.228	179.9	0.356
175	8.94	33.99	26.358	167.6	0.400

83049 RV DAVID STARR JORDAN
 LATITUDE 33 55.6N LONGITUDE 119 59.1W MO/DAY/YR 09/16/75 START TIME 2210 GMT
 BOTTOM 24M WIND SPEED WEATHER DOMINANT WAVES
 Z T S SIGMA T DT DD
 0 18.37 33.71 24.215 371.5 0.000
 5 16.54 33.66 24.614 333.4 0.017
 10 16.27 33.63 24.654 329.6 0.034
 15 15.87 33.64 24.752 320.3 0.050
 20 14.63 33.66 25.040 292.9 0.065

CALCOFI CRUISE 7509 83050
 LATITUDE 33 53.6N LONGITUDE 120 03.4W MO/DAY/YR 09/16/75 START TIME 2326 GMT
 BOTTOM 27M WIND SPEED WEATHER DOMINANT WAVES
 Z T S SIGMA T DT DD
 0 17.95 33.71 24.318 361.6 0.000
 5 16.70 33.65 24.570 337.6 0.017
 10 16.07 33.62 24.692 326.0 0.034
 15 14.81 33.62 24.970 299.5 0.049
 20 12.45 33.63 25.460 252.8 0.063
 25 12.09 33.65 25.545 244.8 0.076

83051 RV DAVID STARR JORDAN
 LATITUDE 33 52.0N LONGITUDE 120 08.5W MO/DAY/YR 09/17/75 START TIME 0034 GMT
 BOTTOM 172M WIND SPEED WEATHER DOMINANT WAVES
 Z T S SIGMA T DT DD
 0 16.13 33.65 24.701 325.1 0.000
 10 15.20 33.60 24.870 309.0 0.031
 20 17.89 33.49 25.266 271.3 0.060
 30 11.49 33.52 25.556 243.7 0.086
 40 11.24 33.55 25.625 237.2 0.110
 50 11.02 33.57 25.680 232.0 0.134
 75 10.75 33.64 25.782 222.2 0.191
 100 10.01 33.76 26.003 201.2 0.244
 125 9.71 33.85 26.124 189.8 0.294
 150 9.64 33.87 26.151 187.2 0.342

CALCOFI CRUISE 7509 83055
 LATITUDE 33 44.0N LONGITUDE 120 24.5W MO/DAY/YR 09/17/75 START TIME 0257 GMT
 BOTTOM 1110M WIND SPEED WEATHER DOMINANT WAVES
 Z T S SIGMA T DT DD
 0 14.86 33.65 24.982 298.3 0.000
 10 14.84 33.65 24.987 297.9 0.029
 20 14.82 33.65 24.991 297.5 0.059
 30 14.44 33.63 25.057 291.2 0.089
 40 13.54 33.63 25.244 273.4 0.117
 50 11.03 33.64 25.733 227.0 0.142
 75 9.59 33.82 26.120 190.1 0.195
 100 9.09 33.93 26.287 174.3 0.241
 125 8.96 33.97 26.339 169.3 0.284
 150 8.80 33.99 26.380 165.4 0.327
 175 8.78 34.01 26.399 163.7 0.368
 200 8.79 34.05 26.429 160.9 0.410
 225 8.62 34.10 26.494 154.6 0.450
 250 8.57 34.12 26.517 152.4 0.490
 275 8.37 34.13 26.556 148.7 0.529
 300 8.23 34.15 26.593 145.2 0.567

83060 RV DAVID STARR JORDAN
 LATITUDE 33 34.0N LONGITUDE 120 45.0W MO/DAY/YR 09/17/75 START TIME 0543 GMT
 BOTTOM 1479M WIND SPEED WEATHER DOMINANT WAVES
 Z T S SIGMA T DT DD
 0 14.98 33.66 24.964 300.0 0.000
 10 14.96 33.66 24.969 299.6 0.030
 20 14.83 33.65 24.989 297.7 0.059
 30 13.72 33.60 25.184 279.1 0.088
 40 12.33 33.59 25.453 253.6 0.115
 50 10.93 33.60 25.719 228.2 0.139
 75 9.92 33.75 26.011 200.5 0.193
 100 9.29 33.89 26.224 180.3 0.241
 125 9.07 33.97 26.322 171.0 0.286
 150 8.76 34.06 26.441 159.7 0.328
 175 8.50 34.13 26.536 150.6 0.367
 200 8.38 34.15 26.570 147.4 0.405
 225 8.10 34.12 26.589 145.6 0.443
 250 7.88 34.12 26.622 142.5 0.480
 275 7.77 34.15 26.661 138.7 0.516
 300 7.57 34.17 26.706 134.5 0.552

CALCOFI CRUISE 7509 85037²
 LATITUDE 34 02.6N LONGITUDE 118 58.6W MO/DAY/YR 09/16/75 START TIME 0237 GMT
 BOTTOM 31M WIND SPEED WEATHER DOMINANT WAVES
 Z T S SIGMA T DT DD
 0 17.14 33.65 24.467 347.5 0.000
 5 17.00 33.65 24.499 344.3 0.017
 10 14.17 33.60 25.091 288.0 0.033
 15 13.14 33.57 25.279 270.1 0.047
 20 11.99 33.56 25.494 249.6 0.060
 25 11.89 33.55 25.505 248.6 0.072

85037⁵ RV DAVID STARR JORDAN
 LATITUDE 34 02.1N LONGITUDE 118 59.7W MO/DAY/YR 09/16/75 START TIME 0338 GMT
 BOTTOM 55M WIND SPEED WEATHER DOMINANT WAVES
 Z T S SIGMA T DT DD
 0 17.14 33.66 24.474 346.7 0.000
 10 15.62 33.62 24.793 316.4 0.033
 20 12.21 33.49 25.398 258.8 0.061
 30 11.76 33.51 25.498 249.2 0.087
 40 11.14 33.58 25.666 233.3 0.111
 50 10.85 33.60 25.734 226.9 0.134

CALCOFI CRUISE 7509 85038
 LATITUDE 34 01.0N LONGITUDE 119 02.5W MO/DAY/YR 09/16/75 START TIME 0437 GMT
 BOTTOM 231M WIND SPEED WEATHER DOMINANT WAVES
 Z T S SIGMA T DT DD
 0 17.13 33.65 24.469 347.2 0.000
 10 16.98 33.64 24.497 344.6 0.034
 20 14.39 33.50 24.968 299.7 0.066
 30 12.61 33.48 25.313 266.8 0.095
 40 11.80 33.51 25.491 249.9 0.121
 50 11.29 33.54 25.608 238.8 0.145
 75 10.76 33.59 25.742 226.1 0.204
 100 10.50 33.68 25.857 215.1 0.259
 125 10.04 33.78 26.014 200.2 0.312
 150 9.47 33.94 26.233 179.4 0.360
 175 9.12 34.01 26.345 168.8 0.404
 200 8.93 34.05 26.406 162.9 0.447

85039 RV DAVID STARR JORDAN
 LATITUDE 33 59.0N LONGITUDE 119 06.3W MO/DAY/YR 09/16/75 START TIME 0611 GMT
 BOTTOM 704M WIND SPEED WEATHER DOMINANT WAVES

Z	T	S	SIGMA T	DT	DD
0	17.53	33.67	24.389	354.9	0.000
10	16.41	33.65	24.637	331.2	0.034
20	15.18	33.56	24.844	311.5	0.066
30	13.04	33.48	25.229	274.9	0.095
40	12.51	33.47	25.325	265.7	0.123
50	11.84	33.48	25.460	252.9	0.149
75	10.58	33.60	25.781	222.4	0.208
100	10.27	33.71	25.920	209.1	0.263
125	9.85	33.82	26.077	194.2	0.314
150	9.40	33.96	26.261	176.8	0.361
175	9.15	34.01	26.340	169.3	0.405
200	8.90	34.05	26.411	162.5	0.447
225	8.68	34.09	26.477	156.2	0.488
250	8.57	34.13	26.525	151.6	0.528
275	8.29	34.15	26.584	146.1	0.566
300	8.03	34.19	26.654	139.4	0.603

CALCOFI CRUISE 7509 85040
 LATITUDE 33 57.0N LONGITUDE 119 10.5W MO/DAY/YR 09/16/75 START TIME 0736 GMT
 BOTTOM 684M WIND SPEED WEATHER DOMINANT WAVES

Z	T	S	SIGMA T	DT	DD
0	16.76	33.63	24.540	340.4	0.000
10	16.75	33.63	24.543	340.2	0.034
20	16.27	33.61	24.638	331.1	0.067
30	14.92	33.55	24.893	306.9	0.099
40	12.55	33.51	25.348	263.5	0.128
50	11.96	33.50	25.453	253.5	0.154
75	10.62	33.58	25.759	224.5	0.214
100	10.07	33.69	25.939	207.4	0.268
125	9.51	33.81	26.126	189.6	0.318
150	9.21	33.96	26.291	173.9	0.365
175	8.90	34.01	26.380	165.5	0.408
200	8.61	34.06	26.464	157.4	0.449
225	8.49	34.13	26.538	150.5	0.489
250	8.45	34.15	26.559	148.4	0.527
275	8.19	34.16	26.607	143.9	0.565
300	8.02	34.18	26.648	140.0	0.601

87032⁵ RV DAVID STARR JORDAN
 LATITUDE 33 53.5N LONGITUDE 118 26.4W MO/DAY/YR 09/18/75 START TIME 0756 GMT
 BOTTOM 20M WIND SPEED WEATHER DOMINANT WAVES

Z	T	S	SIGMA T	DT	DD
0	18.87	33.56	23.976	394.2	0.000
5	16.67	33.55	24.500	344.3	0.018
10	15.17	33.54	24.831	312.8	0.034
15	14.82	33.54	24.907	305.5	0.050
19	13.90	33.55	25.109	286.3	0.062

CALCOFI CRUISE 7509 87032⁷
 LATITUDE 33 54.5N LONGITUDE 118 28.0W MO/DAY/YR 09/18/75 START TIME 0655 GMT
 BOTTOM 31M WIND SPEED WEATHER DOMINANT WAVES

Z	T	S	SIGMA T	DT	DD
0	17.94	33.59	24.229	370.1	0.000
5	16.67	33.57	24.515	342.8	0.017
10	15.27	33.54	24.809	314.8	0.034
15	14.23	33.54	25.032	293.6	0.049
20	13.85	33.54	25.111	286.1	0.064
25	13.55	33.55	25.180	279.5	0.078

87033 RV DAVID STARR JORDAN
 LATITUDE 33 53.9N LONGITUDE 118 29.0W MO/DAY/YR 09/18/75 START TIME 0555 GMT
 BOTTOM 53M WIND SPEED WEATHER DOMINANT WAVES

Z	T	S	SIGMA T	DT	DD
0	17.79	33.64	24.303	363.0	0.000
10	17.21	33.62	24.427	351.2	0.035
20	14.35	33.44	24.930	303.3	0.068
30	13.22	33.45	25.170	280.5	0.097
40	12.61	33.49	25.321	266.1	0.125
50	12.33	33.52	25.399	258.7	0.151

CALCOFI CRUISE 7509 87034
 LATITUDE 33 52.0N LONGITUDE 118 33.2W MO/DAY/YR 09/18/75 START TIME 0443 GMT
 BOTTOM 73M WIND SPEED WEATHER DOMINANT WAVES

Z	T	S	SIGMA T	DT	DD
0	17.65	33.65	24.345	359.1	0.000
10	17.54	33.64	24.364	357.3	0.035
20	15.62	33.60	24.777	317.8	0.069
30	12.55	33.51	25.348	263.5	0.098
40	12.28	33.51	25.400	258.6	0.124
50	11.82	33.53	25.503	248.8	0.150
65	11.19	33.59	25.665	233.4	0.186

87035 RV DAVID STARR JORDAN
 LATITUDE 33 50.0N LONGITUDE 118 37.5W MO/DAY/YR 09/18/75 START TIME 0314 GMT
 BOTTOM 556M WIND SPEED WEATHER DOMINANT WAVES

Z	T	S	SIGMA T	DT	DD
0	18.25	33.66	24.206	372.3	0.000
10	18.11	33.66	24.241	369.0	0.037
20	14.97	33.52	24.859	310.1	0.071
30	12.57	33.50	25.337	264.6	0.099
40	11.90	33.51	25.472	251.7	0.125
50	11.34	33.59	25.638	236.0	0.150
75	11.12	33.60	25.685	231.5	0.209
100	10.40	33.70	25.890	212.0	0.265
125	9.81	33.82	26.084	193.6	0.316
150	9.62	33.89	26.170	185.4	0.364
175	9.19	34.01	26.334	169.9	0.409
200	8.99	34.05	26.397	163.8	0.452
225	8.78	34.08	26.453	158.5	0.493
250	8.57	34.12	26.517	152.4	0.533
275	8.31	34.14	26.573	147.1	0.572
300	8.00	34.17	26.643	140.5	0.609

CALCOFI CRUISE 7509 87036
 LATITUDE 33 48.0N LONGITUDE 118 40.7W MO/DAY/YR 09/18/75 START TIME 0150 GMT
 BOTTOM 887M WIND SPEED WEATHER DOMINANT WAVES

Z	T	S	SIGMA T	DT	DD
0	18.53	33.67	24.144	378.2	0.000
10	17.77	33.60	24.277	365.5	0.037
20	14.52	33.48	24.925	303.8	0.070
30	13.02	33.46	25.218	276.0	0.099
40	12.11	33.48	25.409	257.7	0.126
50	11.75	33.52	25.508	248.3	0.151
75	10.97	33.62	25.728	227.4	0.211
100	10.73	33.64	25.786	221.9	0.268
125	9.84	33.77	26.040	197.8	0.321
150	9.53	33.92	26.208	181.8	0.369
175	9.11	33.97	26.315	171.6	0.414
200	8.87	34.03	26.400	163.5	0.457
225	8.80	34.09	26.458	158.0	0.498
250	8.70	34.11	26.490	155.1	0.538
275	8.24	34.15	26.592	145.4	0.577
300	8.03	34.18	26.646	140.2	0.614

87040 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 40.0N	118 58.0W	09/17/75	2306 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
916M				

Z	T	S	SIGMA T	DT	DD
0	19.55	33.73	23.932	398.4	0.000
10	17.71	33.57	24.269	366.3	0.038
20	15.42	33.49	24.737	321.7	0.072
30	12.87	33.49	25.270	270.9	0.102
40	11.78	33.51	25.495	249.6	0.128
50	11.01	33.55	25.666	233.3	0.152
75	10.26	33.67	25.891	211.9	0.208
100	9.60	33.79	26.095	192.5	0.259
125	9.23	33.87	26.218	180.8	0.307
150	8.99	33.98	26.342	169.0	0.351
175	8.80	34.04	26.419	161.7	0.393
200	8.23	34.06	26.522	151.9	0.433
225	8.38	34.18	26.594	145.2	0.471
250	8.10	34.14	26.605	144.1	0.508
275	7.84	34.16	26.659	139.0	0.545
300	7.72	34.18	26.692	135.8	0.581

CALCOFI CRUISE 7509 87045

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 24.9N	119 18.7W	09/17/75	1945 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
1479M				

Z	T	S	SIGMA T	DT	DD
0	17.26	33.63	24.423	351.6	0.000
10	16.87	33.61	24.499	344.3	0.034
20	16.05	33.60	24.681	327.0	0.068
30	14.42	33.53	24.984	298.1	0.099
40	12.86	33.49	25.272	270.8	0.128
50	11.91	33.49	25.455	253.4	0.154
75	10.91	33.65	25.762	224.2	0.214
100	9.92	33.77	26.026	199.0	0.268
125	9.04	33.92	26.287	174.3	0.315
150	8.83	33.95	26.344	168.9	0.358
175	8.72	34.03	26.424	161.3	0.400
200	8.62	34.10	26.494	154.6	0.441
225	8.34	34.14	26.568	147.6	0.480
250	7.92	34.10	26.600	144.5	0.517
275	7.87	34.16	26.654	139.4	0.554
300	7.83	34.18	26.676	137.4	0.590

87050 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 20.0N	119 39.5W	09/17/75	1639 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
73M				

Z	T	S	SIGMA T	DT	DD
0	15.72	33.66	24.801	315.6	0.000
10	15.47	33.65	24.849	311.0	0.031
20	13.75	33.58	25.163	281.2	0.061
30	11.86	33.56	25.519	247.3	0.087
40	11.72	33.57	25.552	244.1	0.112
50	10.57	33.63	25.806	220.0	0.135
65	10.08	33.71	25.953	206.1	0.167

CALCOFI CRUISE 7509 87055

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 10.0N	120 00.0W	09/17/75	1340 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
1221M				

Z	T	S	SIGMA T	DT	DD
0	15.55	33.65	24.831	312.7	0.000
10	15.55	33.65	24.831	312.7	0.031
20	15.54	33.65	24.833	312.5	0.062
30	13.02	33.55	25.287	269.4	0.091
40	11.80	33.52	25.499	249.2	0.117
50	11.42	33.54	25.584	241.1	0.142
75	10.17	33.68	25.914	209.7	0.199
100	9.74	33.77	26.057	196.2	0.250
125	9.10	33.93	26.286	174.4	0.297
150	8.77	34.00	26.392	164.3	0.340
175	8.64	34.04	26.444	159.4	0.381
200	8.31	34.07	26.518	152.3	0.421
225	8.22	34.07	26.532	151.0	0.460
250	8.00	34.09	26.580	146.4	0.498
275	7.77	34.12	26.638	141.0	0.535
300	7.60	34.16	26.694	135.6	0.571

87060 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 00.0N	120 21.5W	09/17/75	1032 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
795M				

Z	T	S	SIGMA T	DT	DD
0	15.47	33.68	24.872	308.8	0.000
10	15.47	33.68	24.872	308.8	0.030
20	14.76	33.62	24.981	298.5	0.061
30	13.97	33.55	25.094	287.7	0.090
40	12.86	33.53	25.303	267.8	0.118
50	11.98	33.54	25.481	250.9	0.144
75	10.34	33.60	25.823	218.4	0.203
100	9.52	33.71	26.046	197.2	0.256
125	9.29	33.82	26.169	185.5	0.304
150	8.89	33.89	26.288	174.2	0.350
175	8.47	33.98	26.423	161.3	0.392
200	8.20	34.00	26.480	155.9	0.433
225	8.04	34.05	26.543	150.0	0.472
250	7.70	34.07	26.609	143.7	0.510
275	7.23	34.06	26.668	138.1	0.546
300	7.05	34.14	26.756	129.8	0.581

CALCOFI CRUISE 7509 88030

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 41.4N	118 07.1W	09/18/75	1635 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
18M				

Z	T	S	SIGMA T	DT	DD
0	17.53	33.59	24.328	360.7	0.000
5	17.52	33.59	24.330	360.5	0.018
10	17.06	33.56	24.417	352.2	0.035
15	15.04	33.53	24.851	310.8	0.052

88031 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 40.3N	118 09.4W	09/18/75	1518 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
24M				

Z	T	S	SIGMA T	DT	DD
0	17.13	33.60	24.431	350.9	0.000
5	17.00	33.57	24.438	350.1	0.017
10	15.91	33.55	24.674	327.7	0.034
15	14.90	33.56	24.905	305.7	0.050
20	14.29	33.57	25.043	292.6	0.065

CALCOFI CRUISE 7509 88032

LATITUDE	LONGITUDE	MO/DAY/YR	START TIME
33 38.3N	118 13.5W	09/18/75	1403 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
38M				

Z	T	S	SIGMA T	DT	DD
0	16.58	33.60	24.559	338.6	0.000
10	16.56	33.60	24.564	338.2	0.033
20	16.29	33.59	24.618	333.0	0.067
30	13.71	33.55	25.148	282.6	0.098

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88033 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DA/YR	START TIME
33 36.3N	118 17.6W	09/18/75	1223 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
322M				

Z	T	S	SIGMA T	DT	DD
0	17.33	33.63	24.406	353.2	0.000
10	17.02	33.60	24.457	348.4	0.035
20	13.87	33.52	25.092	287.9	0.066
30	13.12	33.52	25.244	273.4	0.095
40	12.34	33.53	25.404	258.2	0.121
50	11.87	33.55	25.509	248.2	0.147
75	10.99	33.64	25.740	226.3	0.206
100	10.24	33.71	25.925	208.6	0.261
125	9.81	33.78	26.052	196.5	0.312
150	9.44	33.89	26.199	182.6	0.361
175	9.20	34.00	26.324	170.7	0.406
200	8.93	34.03	26.391	164.4	0.448
225	8.68	34.06	26.453	158.5	0.490
250	8.36	34.12	26.550	149.3	0.529
275	8.20	34.17	26.613	143.3	0.567
300	8.00	34.20	26.667	138.2	0.604

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CALCOFI CRUISE 7509 88034

LATITUDE	LONGITUDE	MO/DA/YR	START TIME
33 34.3N	118 21.8W	09/18/75	1038 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
907M				

Z	T	S	SIGMA T	DT	DD
0	18.36	33.64	24.164	376.3	0.000
10	17.66	33.61	24.312	362.2	0.036
20	15.47	33.54	24.765	319.0	0.071
30	12.61	33.52	25.344	263.9	0.100
40	11.88	33.54	25.499	249.2	0.126
50	11.58	33.56	25.570	242.4	0.150
75	10.76	33.63	25.773	223.1	0.209
100	10.40	33.72	25.906	210.5	0.263
125	9.81	33.80	26.068	195.1	0.315
150	9.50	33.92	26.213	181.3	0.362
175	9.28	33.99	26.304	172.7	0.408
200	8.77	34.04	26.424	161.3	0.450
225	8.65	34.13	26.513	152.8	0.490
250	8.28	34.14	26.577	146.7	0.529
275	8.14	34.17	26.622	142.5	0.566
300	7.90	34.18	26.666	138.3	0.603

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90027 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DA/YR	START TIME
33 29.2N	117 45.3W	09/18/75	1913 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
44M				

Z	T	S	SIGMA T	DT	DD
0	19.47	33.64	23.884	403.0	0.000
10	17.84	33.62	24.276	365.6	0.038
20	15.22	33.47	24.766	318.9	0.072
30	13.21	33.47	25.187	278.8	0.102
40	12.46	33.53	25.381	260.4	0.129

CALCOFI CRUISE 7509 90028

LATITUDE	LONGITUDE	MO/DA/YR	START TIME
33 28.5N	117 46.7W	09/18/75	2017 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
185M				

Z	T	S	SIGMA T	DT	DD
0	19.50	33.74	23.952	396.5	0.000
10	18.27	33.64	24.186	374.2	0.038
20	15.35	33.45	24.722	323.1	0.073
30	13.33	33.44	25.140	283.3	0.103
40	12.28	33.47	25.369	261.5	0.131
50	11.98	33.48	25.434	255.4	0.157
75	10.80	33.60	25.742	226.0	0.217
100	10.30	33.66	25.876	213.3	0.273
125	9.74	33.85	26.119	190.3	0.324
150	9.60	33.91	26.189	183.6	0.371

90029 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DA/YR	START TIME
33 27.0N	117 49.5W	09/18/75	2125 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
647M				

Z	T	S	SIGMA T	DT	DD
0	19.72	33.71	23.873	404.1	0.000
10	18.34	33.62	24.154	377.3	0.039
20	16.37	33.48	24.516	342.7	0.075
30	14.69	33.45	24.865	309.5	0.107
40	13.37	33.46	25.148	282.6	0.137
50	12.25	33.47	25.375	261.0	0.164
75	11.04	33.56	25.669	233.1	0.226
100	9.96	33.71	25.973	204.1	0.282
125	9.47	33.83	26.148	187.5	0.331
150	9.37	33.95	26.258	177.1	0.377
175	9.19	33.99	26.318	171.3	0.422
200	8.94	34.03	26.389	164.6	0.465
225	8.48	34.06	26.485	155.5	0.506
250	8.34	34.10	26.537	150.5	0.545
275	8.09	34.15	26.614	143.2	0.583
300	8.04	34.17	26.637	141.0	0.620

CALCOFI CRUISE 7509 90030

LATITUDE	LONGITUDE	MO/DA/YR	START TIME
33 25.0N	117 53.5W	09/18/75	2248 GMT

BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
647M				

Z	T	S	SIGMA T	DT	DD
0	20.24	33.77	23.783	412.7	0.000
10	18.50	33.67	24.152	377.4	0.039
20	16.52	33.57	24.550	339.5	0.075
30	14.43	33.54	24.990	297.6	0.107
40	13.74	33.50	25.103	286.8	0.136
50	12.44	33.49	25.354	262.9	0.164
75	10.65	33.63	25.792	221.3	0.225
100	9.97	33.77	26.018	199.8	0.278
125	9.56	33.85	26.149	187.4	0.327
150	9.41	33.96	26.259	177.0	0.373
175	9.12	33.99	26.329	170.3	0.417
200	8.82	34.02	26.400	163.5	0.460
225	8.48	34.05	26.477	156.3	0.501
250	8.25	34.09	26.543	150.0	0.540
275	8.20	34.12	26.574	147.0	0.578
300	8.02	34.16	26.632	141.5	0.616

90031 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DA/YR	START TIME
33 23.0N	117 57.7W	09/19/75	0021 GMT

BOTTOM 442M

Z	T	S	SIGMA T	DT	DD
0	20.72	33.70	23.602	429.9	0.000
10	18.54	33.68	24.149	377.7	0.040
20	15.87	33.62	24.737	321.7	0.075
30	14.64	33.55	24.953	301.1	0.106
40	12.46	33.50	25.358	262.6	0.134
50	11.76	33.52	25.506	248.5	0.160
75	10.61	33.63	25.799	220.6	0.219
100	9.98	33.71	25.970	204.4	0.273
125	9.45	33.83	26.151	187.2	0.322
150	8.82	33.95	26.345	168.7	0.367
175	8.55	33.99	26.419	161.8	0.409
200	8.55	34.06	26.474	156.6	0.450
225	8.29	34.09	26.537	150.6	0.489
250	8.13	34.11	26.577	146.8	0.528
275	8.05	34.15	26.620	142.7	0.565
300	7.80	34.17	26.673	137.7	0.601

CALCOFI CRUISE 7509 90032

LATITUDE	LONGITUDE	MO/DA/YR	START TIME
33 20.5N	118 03.0W	09/19/75	0152 GMT

BOTTOM 759M

Z	T	S	SIGMA T	DT	DD
0	20.83	33.85	23.686	421.8	0.000
10	19.47	33.71	23.937	397.9	0.041
20	16.17	33.51	24.585	336.2	0.077
30	14.02	33.46	25.014	295.3	0.109
40	12.21	33.49	25.398	258.8	0.137
50	11.31	33.55	25.612	238.4	0.162
75	10.14	33.68	25.919	209.2	0.218
100	9.52	33.79	26.108	191.3	0.269
125	9.03	33.92	26.289	174.1	0.315
150	8.76	33.99	26.386	164.9	0.358
175	8.53	34.02	26.445	159.2	0.399
200	8.20	34.04	26.512	153.0	0.439
225	8.04	34.07	26.559	148.5	0.478
250	7.94	34.10	26.597	144.8	0.515
275	7.89	34.18	26.667	138.2	0.552
300	7.79	34.19	26.690	136.0	0.587

90037 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DA/YR	START TIME
33 11.0N	118 22.5W	09/12/75	0342 GMT

BOTTOM 1185M

Z	T	S	SIGMA T	DT	DD
0	18.10	33.69	24.266	366.6	0.000
10	18.08	33.69	24.271	366.1	0.036
20	16.57	33.59	24.554	339.1	0.071
30	14.60	33.38	24.831	312.8	0.104
40	13.14	33.35	25.109	286.3	0.134
50	12.35	33.38	25.286	269.4	0.162
75	11.12	33.52	25.623	237.4	0.226
100	10.63	33.60	25.772	223.2	0.284
125	10.10	33.72	25.957	205.6	0.338
150	9.06	33.95	26.308	172.3	0.386
175	8.71	34.01	26.410	162.6	0.429
200	8.43	34.07	26.500	154.1	0.469
225	8.20	34.12	26.574	147.0	0.508
250	8.11	34.15	26.611	143.5	0.545
275	7.94	34.15	26.636	141.1	0.582
300	7.85	34.18	26.673	137.6	0.618

CALCOFI CRUISE 7509 90045

LATITUDE	LONGITUDE	MO/DA/YR	START TIME
32 54.5N	118 55.5W	09/21/75	2026 GMT

BOTTOM 1761M

Z	T	S	SIGMA T	DT	DD
0	16.51	33.66	24.621	332.7	0.000
10	16.46	33.66	24.638	331.6	0.033
20	15.52	33.65	24.838	312.1	0.065
30	12.95	33.54	25.293	268.8	0.094
40	11.68	33.53	25.529	246.4	0.120
50	11.22	33.57	25.644	235.4	0.144
75	10.29	33.69	25.901	210.9	0.200
100	9.31	33.85	26.189	183.6	0.250
125	8.88	33.93	26.321	171.1	0.295
150	8.80	34.03	26.411	162.5	0.337
175	8.28	34.02	26.484	155.6	0.378
200	8.01	34.06	26.556	148.8	0.417
225	8.00	34.13	26.612	143.4	0.454
250	7.67	34.13	26.660	138.8	0.490
275	7.24	34.14	26.730	132.3	0.525
300	7.20	34.20	26.782	127.3	0.559

90053 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DA/YR	START TIME
32 39.0N	119 28.5W	09/21/75	1619 GMT

BOTTOM 1295M

Z	T	S	SIGMA T	DT	DD
0	16.32	33.66	24.665	328.5	0.000
10	16.32	33.66	24.665	328.5	0.032
20	16.32	33.66	24.665	328.5	0.065
30	16.26	33.66	24.679	327.2	0.098
40	15.29	33.63	24.874	308.7	0.130
50	12.05	33.58	25.498	249.3	0.158
75	9.84	33.71	25.993	202.2	0.215
100	9.43	33.82	26.146	187.6	0.264
125	8.92	33.93	26.314	171.7	0.309
150	8.75	34.04	26.427	161.0	0.352
175	8.54	34.06	26.475	156.4	0.392
200	8.36	34.11	26.542	150.1	0.431
225	7.93	34.15	26.638	141.0	0.469
250	7.79	34.13	26.643	140.5	0.505
275	7.57	34.15	26.691	136.0	0.541
300	7.33	34.16	26.733	132.0	0.575

CALCOFI CRUISE 7509 90060

LATITUDE	LONGITUDE	MO/DA/YR	START TIME
32 25.0N	119 55.0W	09/21/75	1217 GMT

BOTTOM 1053M

Z	T	S	SIGMA T	DT	DD
0	17.07	33.83	24.621	332.8	0.000
10	17.07	33.83	24.621	332.8	0.033
20	17.07	33.83	24.621	332.8	0.066
30	15.09	33.79	25.040	292.8	0.097
40	11.96	33.74	25.639	235.9	0.124
50	11.25	33.74	25.770	223.4	0.147
75	10.09	33.80	26.021	199.6	0.200
100	9.10	33.90	26.262	176.6	0.248
125	8.52	33.98	26.416	162.1	0.291
150	8.34	34.01	26.467	157.2	0.331
175	8.10	34.04	26.526	151.6	0.371
200	7.79	34.08	26.604	144.2	0.408
225	7.65	34.10	26.640	140.8	0.445
250	7.50	34.10	26.661	138.7	0.481
275	7.31	34.13	26.712	134.0	0.516
300	7.10	34.16	26.765	128.9	0.550

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91026 RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DA/YR	START TIME
33 14.7N	117 27.7W	09/19/75	1045 GMT

BOTTOM 20M

Z	T	S	SIGMA T	DT	DD
0	19.01	33.69	24.039	388.2	0.000
5	17.54	33.65	24.371	356.5	0.018
10	15.29	33.58	24.835	312.3	0.035
15	14.68	33.56	24.952	301.2	0.050
18	14.54	33.57	24.990	297.6	0.059

CALCOFI CRUISE 7509 ^{5 8}91026

LATITUDE	LONGITUDE	MO/DA/YR	START TIME
33 14.0N	117 29.6W	09/19/75	0943 GMT

BOTTOM 60M

Z	T	S	SIGMA T	DT	DD
0	19.80	33.76	23.890	402.4	0.000
10	18.37	33.64	24.161	376.5	0.038
20	15.02	33.49	24.825	313.3	0.073
30	12.92	33.50	25.268	271.1	0.102
40	12.60	33.53	25.354	263.0	0.129
50	12.30	33.54	25.420	256.7	0.155

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91028

RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DA/YR	START TIME		
33 11.7N	117 34.0W	09/19/75	0807 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
631M					
Z	T	S	SIGMA T	DT	DD
0	19.87	33.76	23.872	404.1	0.000
10	18.27	33.71	24.239	369.1	0.038
20	16.18	33.60	24.651	329.8	0.073
30	14.77	33.53	24.910	305.2	0.105
40	12.87	33.49	25.069	290.1	0.135
50	12.47	33.46	25.325	265.7	0.163
75	11.22	33.53	25.613	238.3	0.226
100	10.45	33.63	25.827	218.0	0.284
125	9.86	33.74	26.013	200.3	0.337
150	9.45	33.89	26.198	182.8	0.385
175	9.09	33.96	26.311	172.0	0.430
200	8.78	33.98	26.375	165.9	0.473
225	8.65	34.09	26.482	155.8	0.515
250	8.48	34.13	26.539	150.3	0.554
275	8.26	34.16	26.596	144.9	0.592
300	8.09	34.18	26.638	141.0	0.629

CALCOFI CRUISE 7509

5
91029

LATITUDE	LONGITUDE	MO/DA/YR	START TIME		
33 09.7N	117 38.1W	09/19/75	0617 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
795M					
Z	T	S	SIGMA T	DT	DD
0	19.88	33.74	23.854	405.8	0.000
10	19.87	33.74	23.857	405.6	0.040
20	17.77	33.65	24.316	361.8	0.079
30	14.74	33.55	24.931	303.2	0.112
40	13.25	33.51	25.210	276.7	0.141
50	12.52	33.51	25.354	262.9	0.168
75	11.20	33.57	25.648	235.0	0.231
100	10.39	33.65	25.853	215.5	0.287
125	9.77	33.77	26.052	196.7	0.340
150	9.10	33.91	26.270	175.9	0.387
175	8.81	33.98	26.371	166.3	0.430
200	8.51	34.03	26.456	158.2	0.472
225	8.38	34.09	26.523	151.8	0.512
250	8.32	34.12	26.556	148.7	0.550
275	8.45	34.20	26.598	144.7	0.588
300	7.95	34.16	26.643	140.5	0.625

5
91030

RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DA/YR	START TIME		
33 07.7N	117 42.2W	09/19/75	0458 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
795M					
Z	T	S	SIGMA T	DT	DD
0	19.74	33.74	23.890	402.4	0.000
10	19.42	33.73	23.965	395.2	0.039
20	18.63	33.65	24.104	382.0	0.078
30	15.76	33.52	24.685	326.7	0.114
40	14.02	33.46	25.014	295.3	0.145
50	12.45	33.46	25.329	265.4	0.173
75	11.11	33.56	25.656	234.3	0.236
100	10.28	33.67	25.887	212.2	0.292
125	9.54	33.81	26.121	190.1	0.343
150	9.13	33.92	26.273	175.6	0.390
175	8.78	33.98	26.375	165.9	0.433
200	8.70	34.11	26.490	155.1	0.474
225	8.57	34.15	26.541	150.2	0.513
250	8.42	34.16	26.572	147.2	0.551
275	8.10	34.17	26.628	141.9	0.589
300	7.81	34.17	26.671	137.8	0.625

CALCOFI CRUISE 7509

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93026

LATITUDE	LONGITUDE	MO/DA/YR	START TIME		
32 57.2N	117 17.4W	09/19/75	1314 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
33M					
Z	T	S	SIGMA T	DT	DD
0	19.50	33.67	23.899	401.6	0.000
10	15.92	33.55	24.672	327.9	0.036
20	13.92	33.50	25.066	290.4	0.067
30	13.10	33.52	25.248	273.1	0.095

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93026

RV DAVID STARR JORDAN

LATITUDE	LONGITUDE	MO/DA/YR	START TIME		
32 56.8N	117 18.3W	09/19/75	1419 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
64M					
Z	T	S	SIGMA T	DT	DD
0	19.38	33.68	23.938	397.9	0.000
10	17.07	33.62	24.460	348.1	0.037
20	14.52	33.53	24.963	300.2	0.069
30	13.29	33.49	25.187	278.9	0.098
40	12.71	33.51	25.317	266.5	0.126
50	12.31	33.50	25.387	259.9	0.152

CALCOFI CRUISE 7509

93028

LATITUDE	LONGITUDE	MO/DA/YR	START TIME		
32 54.7N	117 21.8W	09/19/75	1530 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
629M					
Z	T	S	SIGMA T	DT	DD
0	20.18	33.73	23.768	414.1	0.000
10	17.71	33.66	24.338	359.7	0.038
20	15.77	33.55	24.705	324.7	0.072
30	14.06	33.53	25.060	291.0	0.103
40	12.70	33.49	25.304	267.8	0.131
50	11.79	33.49	25.478	251.3	0.157
75	10.95	33.62	25.731	227.1	0.218
100	10.75	33.64	25.782	222.2	0.274
125	9.93	33.75	26.009	200.7	0.328
150	9.75	33.89	26.148	187.5	0.377
175	9.49	33.96	26.246	178.2	0.423
200	8.92	34.00	26.369	166.5	0.467
225	8.54	34.02	26.444	159.4	0.509
250	8.26	34.04	26.502	153.8	0.549
275	8.05	34.07	26.558	148.6	0.588
300	8.21	34.16	26.604	144.2	0.626

93029		RV DAVID STARR JORDAN			
LATITUDE	LONGITUDE	MO/DA/YR	START TIME		
32 52.7N	117 26.6W	09/19/75	1719 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
647M					
Z	T	S	SIGMA T	DT	DD
0	20.78	33.75	23.624	427.8	0.000
10	19.48	33.71	23.935	398.1	0.041
20	16.69	33.57	24.511	343.2	0.078
30	15.22	33.52	24.804	315.3	0.111
40	13.40	33.49	25.165	281.0	0.141
50	12.16	33.49	25.408	257.9	0.168
75	11.08	33.56	25.662	233.7	0.230
100	10.55	33.66	25.833	217.4	0.287
125	10.14	33.75	25.974	204.1	0.340
150	9.45	33.83	26.151	187.2	0.390
175	9.48	33.99	26.271	175.8	0.436
200	9.01	33.97	26.331	170.1	0.480
225	8.85	34.08	26.443	159.5	0.522
250	8.54	34.12	26.522	152.0	0.562
275	8.49	34.19	26.585	146.0	0.601
300	8.45	34.21	26.606	144.0	0.638

CALCOFI CRUISE 7509		93030			
LATITUDE	LONGITUDE	MO/DA/YR	START TIME		
32 50.5N	117 31.0W	09/19/75	1856 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
832M					
Z	T	S	SIGMA T	DT	DD
0	20.56	33.74	23.675	422.9	0.000
10	19.01	33.65	24.009	391.1	0.040
20	16.64	33.54	24.499	344.3	0.077
30	14.75	33.52	24.906	305.6	0.110
40	13.29	33.51	25.202	277.4	0.139
50	12.60	33.50	25.331	265.2	0.166
75	10.99	33.55	25.670	232.9	0.229
100	10.17	33.75	25.968	204.5	0.284
125	9.95	33.81	26.052	196.5	0.335
150	9.66	33.91	26.179	184.6	0.383
175	9.39	33.98	26.278	175.2	0.429
200	9.09	34.03	26.365	166.9	0.472
225	8.89	34.08	26.436	160.1	0.514
250	8.53	34.08	26.492	154.8	0.555
275	8.29	34.14	26.576	146.8	0.594
300	8.15	34.18	26.628	141.8	0.631

93035		RV DAVID STARR JORDAN			
LATITUDE	LONGITUDE	MO/DA/YR	START TIME		
32 40.5N	117 51.5W	09/20/75	1635 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
666M					
Z	T	S	SIGMA T	DT	DD
0	18.74	33.66	24.084	383.9	0.000
10	18.72	33.68	24.105	382.0	0.038
20	16.12	33.52	24.604	334.4	0.074
30	13.31	33.35	25.075	289.5	0.105
40	12.54	33.35	25.227	275.1	0.133
50	12.10	33.41	25.357	262.7	0.160
75	11.33	33.49	25.562	243.2	0.224
100	10.54	33.66	25.835	217.3	0.282
125	10.10	33.76	25.988	202.7	0.335
150	9.77	33.83	26.098	192.2	0.385
175	9.50	33.97	26.252	177.6	0.432
200	9.13	33.98	26.320	171.2	0.477
225	9.04	34.06	26.397	163.9	0.520
250	8.49	34.02	26.452	158.7	0.561
275	8.17	34.08	26.547	149.6	0.601
300	8.00	34.09	26.580	146.4	0.639

CALCOFI CRUISE 7509		93040			
LATITUDE	LONGITUDE	MO/DA/YR	START TIME		
32 30.0N	118 11.5W	09/20/75	1939 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
1849M					
Z	T	S	SIGMA T	DT	DD
0	19.20	33.72	24.014	390.6	0.000
10	19.11	33.71	24.029	389.1	0.039
20	15.07	33.58	24.883	307.8	0.073
30	13.45	33.43	25.108	286.4	0.103
40	12.61	33.42	25.267	271.2	0.131
50	12.10	33.45	25.388	259.7	0.158
75	11.20	33.54	25.624	237.3	0.220
100	10.25	33.66	25.885	212.5	0.277
125	9.76	33.83	26.100	192.1	0.328
150	9.64	33.95	26.213	181.3	0.376
175	9.35	33.99	26.292	173.8	0.421
200	9.02	34.03	26.377	165.8	0.464
225	8.57	34.06	26.470	156.9	0.505
250	8.65	34.12	26.505	153.6	0.545
275	8.44	34.17	26.577	146.8	0.584
300	8.22	34.19	26.626	142.1	0.622

93045		RV DAVID STARR JORDAN			
LATITUDE	LONGITUDE	MO/DA/YR	START TIME		
32 20.0N	118 32.0W	09/20/75	2240 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
1479M					
Z	T	S	SIGMA T	DT	DD
0	17.41	33.57	24.341	359.4	0.000
10	17.35	33.57	24.355	358.0	0.035
20	16.71	33.55	24.491	345.1	0.071
30	14.15	33.48	25.003	296.4	0.103
40	13.47	33.47	25.135	283.8	0.132
50	12.38	33.47	25.350	263.3	0.159
75	11.69	33.47	25.481	251.0	0.224
100	10.29	33.66	25.878	213.2	0.283
125	9.86	33.72	25.997	201.8	0.335
150	9.31	33.90	26.228	179.8	0.383
175	9.01	34.01	26.362	167.1	0.428
200	8.79	34.09	26.460	157.9	0.469
225	8.53	34.10	26.508	153.3	0.509
250	8.25	34.09	26.543	150.0	0.548
275	8.00	34.12	26.604	144.2	0.586
300	7.70	34.15	26.672	137.8	0.622

CALCOFI CRUISE 7509		93050			
LATITUDE	LONGITUDE	MO/DA/YR	START TIME		
32 10.0N	118 52.5W	09/21/75	0144 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
1571M					
Z	T	S	SIGMA T	DT	DD
0	17.44	33.63	24.380	355.7	0.000
10	17.44	33.63	24.380	355.7	0.035
20	17.43	33.63	24.382	355.5	0.071
30	14.95	33.50	24.848	311.1	0.104
40	14.20	33.45	24.969	299.6	0.135
50	12.53	33.45	25.306	267.6	0.163
75	11.04	33.52	25.638	236.0	0.227
100	10.05	33.77	26.004	201.1	0.282
125	9.70	33.93	26.188	183.7	0.330
150	9.43	34.03	26.310	172.1	0.376
175	9.18	34.09	26.398	163.8	0.418
200	8.98	34.11	26.445	159.2	0.460
225	8.75	34.15	26.513	152.8	0.500
250	8.59	34.18	26.561	148.2	0.538
275	8.36	34.20	26.612	143.4	0.576
300	8.19	34.21	26.646	140.2	0.613

93055		RV DAVID STARR JORDAN			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
32 00.0N	119 13.5W	09/21/75	0431 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
1479M					
Z	T	S	SIGMA T	DT	DD
0	17.10	33.60	24.438	350.2	0.000
10	16.95	33.59	24.465	347.6	0.034
20	16.15	33.58	24.643	330.7	0.068
30	15.70	33.55	24.721	323.2	0.101
40	13.46	33.53	25.183	279.2	0.131
50	12.24	33.53	25.423	256.4	0.158
75	10.62	33.64	25.805	220.1	0.218
100	10.01	33.77	26.011	200.5	0.271
125	9.68	33.98	26.230	179.7	0.319
150	9.35	34.06	26.347	168.6	0.364
175	9.16	34.09	26.401	163.5	0.406
200	8.95	34.13	26.466	157.3	0.447
225	8.83	34.15	26.500	154.0	0.487
250	8.66	34.17	26.542	150.0	0.526
275	8.55	34.21	26.591	145.4	0.564
300	8.35	34.23	26.637	141.0	0.601

CALCOFI CRUISE 7509		93060			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
31 46.6N	119 44.2W	09/21/75	0717 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
2973M					
Z	T	S	SIGMA T	DT	DD
0	17.26	33.64	24.430	350.9	0.000
10	17.26	33.64	24.430	350.9	0.035
20	16.82	33.60	24.504	343.9	0.069
30	15.54	33.52	24.734	322.0	0.103
40	13.46	33.47	25.137	283.6	0.133
50	12.96	33.45	25.222	275.6	0.161
75	11.58	33.50	25.524	246.8	0.227
100	10.30	33.68	25.892	211.8	0.285
125	9.69	33.85	26.127	189.5	0.335
150	9.32	33.97	26.281	174.8	0.382
175	9.13	34.05	26.374	166.0	0.425
200	8.98	34.08	26.422	161.5	0.467
225	8.59	34.12	26.514	152.7	0.507
250	8.46	34.15	26.558	148.6	0.546
275	8.17	34.16	26.610	143.6	0.584
300	8.22	34.25	26.673	137.7	0.620

95028		RV DAVID STARR JORDAN			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
32 37.2N	117 10.6W	09/20/75	0525 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
18M					
Z	T	S	SIGMA T	DT	DD
0	19.13	33.63	23.963	395.4	0.000
5	17.82	33.61	24.273	365.9	0.019
10	16.32	33.59	24.611	333.6	0.036
15	15.48	33.58	24.793	316.3	0.052

CALCOFI CRUISE 7509		95029			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
32 35.2N	117 14.5W	09/20/75	0629 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
44M					
Z	T	S	SIGMA T	DT	DD
0	19.03	33.65	24.004	391.6	0.000
10	17.50	33.62	24.358	357.8	0.037
20	15.73	33.51	24.684	326.8	0.071
30	13.26	33.49	25.193	278.3	0.102
36	12.91	33.49	25.262	271.7	0.118

95030		RV DAVID STARR JORDAN			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
32 33.2N	117 18.5W	09/20/75	0818 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
150M					
Z	T	S	SIGMA T	DT	DD
0	20.00	33.74	23.823	408.8	0.000
10	19.16	33.73	24.032	388.9	0.039
20	15.40	33.33	24.619	332.9	0.076
30	13.54	33.30	24.990	297.6	0.107
40	12.36	33.31	25.230	274.8	0.136
50	12.11	33.39	25.340	264.3	0.163
75	11.48	33.56	25.589	240.6	0.226
100	10.93	33.63	25.743	226.0	0.285
125	10.53	33.71	25.875	213.4	0.341

CALCOFI CRUISE 7509		95031			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
32 31.2N	117 22.7W	09/20/75	1045 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
46M					
Z	T	S	SIGMA T	DT	DD
0	20.14	33.74	23.786	412.3	0.000
10	19.89	33.73	23.844	406.8	0.040
20	17.86	33.63	24.279	365.4	0.079
30	14.88	33.40	24.786	317.0	0.113
40	12.99	33.29	25.092	287.9	0.144
50	12.45	33.28	25.190	278.6	0.172
75	11.42	33.46	25.523	247.0	0.238
100	10.59	33.55	25.740	226.2	0.298
125	10.18	33.65	25.889	212.1	0.353
150	9.93	33.77	26.025	199.2	0.405
175	9.62	33.91	26.186	183.9	0.454
200	9.45	33.98	26.268	176.1	0.500
225	9.25	34.06	26.363	167.1	0.544
250	8.85	34.09	26.450	158.8	0.586
275	8.50	34.14	26.544	149.9	0.626
300	8.14	34.19	26.638	141.0	0.663

95032		RV DAVID STARR JORDAN			
LATITUDE	LONGITUDE	MO/DAY/YR	START TIME		
32 29.0N	117 26.9W	09/20/75	1320 GMT		
BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES	
1128M					
Z	T	S	SIGMA T	DT	DD
0	19.65	33.73	23.906	400.9	0.000
10	19.60	33.73	23.919	399.6	0.040
20	18.22	33.66	24.214	371.6	0.078
30	15.50	33.45	24.689	326.3	0.113
40	13.72	33.33	24.976	298.9	0.144
50	12.62	33.31	25.180	279.5	0.174
75	11.45	33.41	25.478	251.2	0.240
100	10.64	33.55	25.732	227.0	0.301
125	10.06	33.67	25.925	208.7	0.356
150	9.66	33.78	26.078	194.2	0.407
175	9.33	33.90	26.225	180.2	0.454
200	9.22	34.04	26.352	168.1	0.499
225	8.71	34.06	26.449	158.9	0.541
250	8.38	34.06	26.500	154.1	0.581
275	8.43	34.15	26.563	148.1	0.620
300	8.26	34.18	26.612	143.4	0.658