

UNIVERSITY OF CALIFORNIA SCRIPPS INSTITUTION OF OCEANOGRAPHY

data report

PHYSICAL, CHEMICAL AND BIOLOGICAL DATA

CalCOFI Cruise 8105
18 May - 12 June 1981

CalCOFI Cruise 8107
26 June - 7 August 1981

SIO Reference 85-12
31 July 1985

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Approved for distribution:


W. A. Nierenberg, Director

CONTENTS

Introduction	3
Literature Cited	6
Cruise 8105	
List of Figures	8
Personnel	19
Tabulated Rosette and Hydrographic Cast Data	20
Tabulated CTD Cast Data	65
Tabulated 10 Meter Data	87
Tabulated Primary Productivity Cast Data	89
Tabulated Special Chlorophyll Cast Data	101
Chlorophyll Filter Comparison Table	106
Tabulated Macrozooplankton Data	108
Cruise 8107	
List of Figures	113
Personnel	123
Tabulated CTD Cast Data	124
Tabulated 10 Meter Data	141
Distribution List	148

INTRODUCTION

The data in this report were collected during Cruises 8105*, and 8107 of the California Cooperative Oceanic Fisheries Investigations (CalCOFI) program aboard the RV *David Starr Jordan* of the National Marine Fisheries Service and the RV *New Horizon* of the Scripps Institution of Oceanography. On Cruise 8105, four stations were occupied for 48 hours each to make repeated casts and net tows in order to assess within-station hydrographic, chemical and biological variability. Primary productivity casts were taken daily near local noontime on Cruise 8105.

The data were collected and processed by personnel of the Marine Life Research Group (MLRG), the Southwest Fisheries Center, National Marine Fisheries Service (NMFS), and the Physical and Chemical Oceanographic Data Facility (PACODF).

STANDARD PROCEDURES

In-situ Conductivity/Temperature/Depth Recorder (CTD) Data

CTD lowerings were made at most stations on Cruise 8105 and on cardinal CalCOFI line stations on Cruise 8107. Temperature and salinity corrections were applied to the CTD data, based upon comparisons with shallow and deep rosette cast data.

Rosette or Hydrographic Cast Data

A rosette frame holding 12 1.7-liter Niskin bottles was lowered with the CTD probe, the bottles were closed during the up cast by the CTD operator. On Cruise 8105, samples were taken from each rosette bottle for oxygen and nutrients. Chlorophyll-*a* and phaeopigments were usually determined from the top 10 depths. Two or three salinity samples were taken from each cast for calibration of the CTD. On stations where the CTD-rosette system failed, 12-bottle hydrographic casts were done. The maximum sampling depth was 500 meters, bottom depth permitting.

Two or three racks of paired protected thermometers were used on each rosette cast for calibration of the CTD. The temperature data is reported to the nearest hundredths of a degree Celsius. Wire casts had paired protected thermometers on each bottle and unprotected thermometers on bottles used below a depth of 100 meters for determining the depth of sampling.

Salinity samples were analyzed at sea on inductive-type salinometers standardized with Wormley Standard Seawater.

Dissolved oxygen was determined by the Winkler method as modified by Carpenter (1965), using the equipment and procedure outlined by Anderson (1971). Percent oxygen saturation was calculated from the equations of Weiss (1970).

Silicate, phosphate, nitrate and nitrite nutrients were determined at sea using an automated analyzer. The procedures used are similar to those described in Atlas *et al.* (1971).

Chlorophyll was measured with a fluorometric technique (Yentsch and Menzel, 1963; Holm-Hansen *et al.*, 1965). Samples (65 or 140 ml) were drawn from the Niskin bottles and filtered onto GF/C filters. The filters were placed in scintillation vials containing 10 ml of 90% acetone and the pigments were extracted in the dark in a refrigerator for a period between 12 and 14 hours. The samples were then brought to room temperature and the fluorescence of the sample was determined before and after acidification with a Turner 111 fluorometer.

At selected stations on Cruise 8105, the retention efficiency of the standard GF/C filter was checked by drawing replicate sea water samples from the Niskin bottles and filtering one of each pair through a GF/C filter (manufacturer's specified retention size: 1.2μ), the other through a GF/F filter (retention size: 0.7μ). Chlorophyll and phaeophytin results from both filter sizes have been tabulated in a separate table. Potential biases of the chlorophyll extraction method and of the effect of filter size

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

are discussed in Venrick and Hayward (1984).

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.

Primary Productivity Casts

Primary production was estimated from ^{14}C uptake using a simulated *in situ* technique. Light penetration was estimated from the Secchi depth (assuming that the 1% light level is three times the Secchi depth). On 8105 *New Horizon*, seven depths (corresponding to predetermined levels of light penetration) were sampled on a single cast at each productivity station. On 8105 *Jordan*, six depths were sampled on each of two replicate casts at each productivity station. The water samples were collected with 5-liter Niskin bottles on both cruises. Triplicate subsamples (two light and one dark control) were drawn from each water sample into 250 ml glass incubation bottles which were innoculated with $10 \mu\text{ci}$ of ^{14}C as NaHCO_3 . These were incubated approximately from local apparent noon to civil twilight in sea water-cooled incubators with neutral-density screens which simulate the *in situ* light levels. At the end of the incubation, the samples were filtered onto HA milipore filters and placed in scintillation vials. One-half ml of 10% HCl was added to each sample. The sample was then allowed to sit without a cap, at room temperature for 12 hours (after Lean and Burnison, 1979). Following this, 10 ml of scintillation fluor were added to each sample and the samples were returned to S.I.O. where the radioactivity was determined with a scintillation counter.

Macrozooplankton Net Tows

Macrozooplankton was sampled with a 71 cm mouth diameter paired net (bongo net) equipped with 0.505 mm plankton mesh. Bottom depth permitting, the nets were towed obliquely from ~ 210 m to the surface. The tow time for a standard tow was 21.5 minutes. Volumes filtered were determined from flowmeter readings and the mouth area of the net. Only one sample of each pair was retained and preserved. The biomass, as wet displacement volume, after removal of large (> 5 ml) organisms, was determined in the laboratory ashore. These procedures are summarized in greater detail in Kramer *et al.* (1972).

TABULATED DATA

The time reported is Greenwich Mean Time (GMT). For CTD lowerings it is the "start down" time; for wire casts it is the time of messenger release; and for rosette casts it is the "start up" time.

Bottom depths, determined acoustically, have been corrected using Matthews (1939) tables and are reported in meters. Weather conditions have been coded using WMO code 4051.

Data in this report were obtained by CTD lowerings, rosette samples, or wire casts and appear in seven forms:

1. Observed and interpolated standard depth data from rosette or hydrographic casts have been interspersed and are presented together sequentially by depth. Interpolated or extrapolated standard level data are noted by the footnote "ISL" printed after the depth. Density-related parameters have been calculated from the International Equation of State of Seawater 1980 (EOS80, UNESCO, 1981). Some of the differences between EOS80 and the older equations-of-state are discussed in the introduction to SIO Ref. 84-18. Computed values of potential temperature, sigma-theta, specific volume anomaly (SVA), dynamic height or geopotential anomaly, and pressure are included with both observed and interpolated standard depth levels. For rosette casts, depth, temperature and salinity data were usually obtained from the CTD sensors. Data obtained from hydrographic measurements are indicated with the footnote letter "H".

2. Data from CTD 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.

The computed values are the same as for the bottle data.

3. Ten-meter temperature and salinity data from net tow station 10-meter bottles and CTD 10-meter check bottles appear as separate sections.

4. The tabulated data from primary productivity casts include sample depths, the light levels at which the samples were incubated, the uptake from each of the replicate light bottles (uptake 1 and uptake 2) which have been corrected for dark uptake by subtracting the dark value, the mean of the two uptake values, the dark uptake, nutrients (when measured), chlorophyll and phaeophytin. The uptake values shown are the total for the incubation period. The times of local apparent noon (LAN), civil twilight, and the vertically integrated value of the mean uptake from the surface to the deepest sample depth (assuming that the shallowest measured value extends to the surface and that negative values are zero) are also shown for each experiment. The uptake data have been presented to two significant digits (values < 1.00) or one decimal (values > 1.00). The higher production values may not warrant all of the significant digits presented. Incubation time, LAN, and civil twilight are given in local Pacific Standard Time (PST); to convert to GMT, add eight hours to the PST time.

5. Special wire casts for chlorophyll, phaeopigments and nutrients appear after the primary productivity cast tabulations.

6. A table of chlorophyll filter comparisons appears after the special chlorophyll cast tabulations. Chlorophyll-*a* and phaeopigment data from the 1.2μ GF/C and from the 0.7μ GF/F filters are shown tabulated by depth. The GF/C data are from the hydrographic or special chlorophyll casts and are repeated for comparison.

7. Macrozooplankton biomass volumes are tabulated as total biomass volume ($\text{cm}^3/1000 \text{ m}^3$ strained) and as the total volume minus the volume of larger organisms under the heading "Small".

FOOTNOTES

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

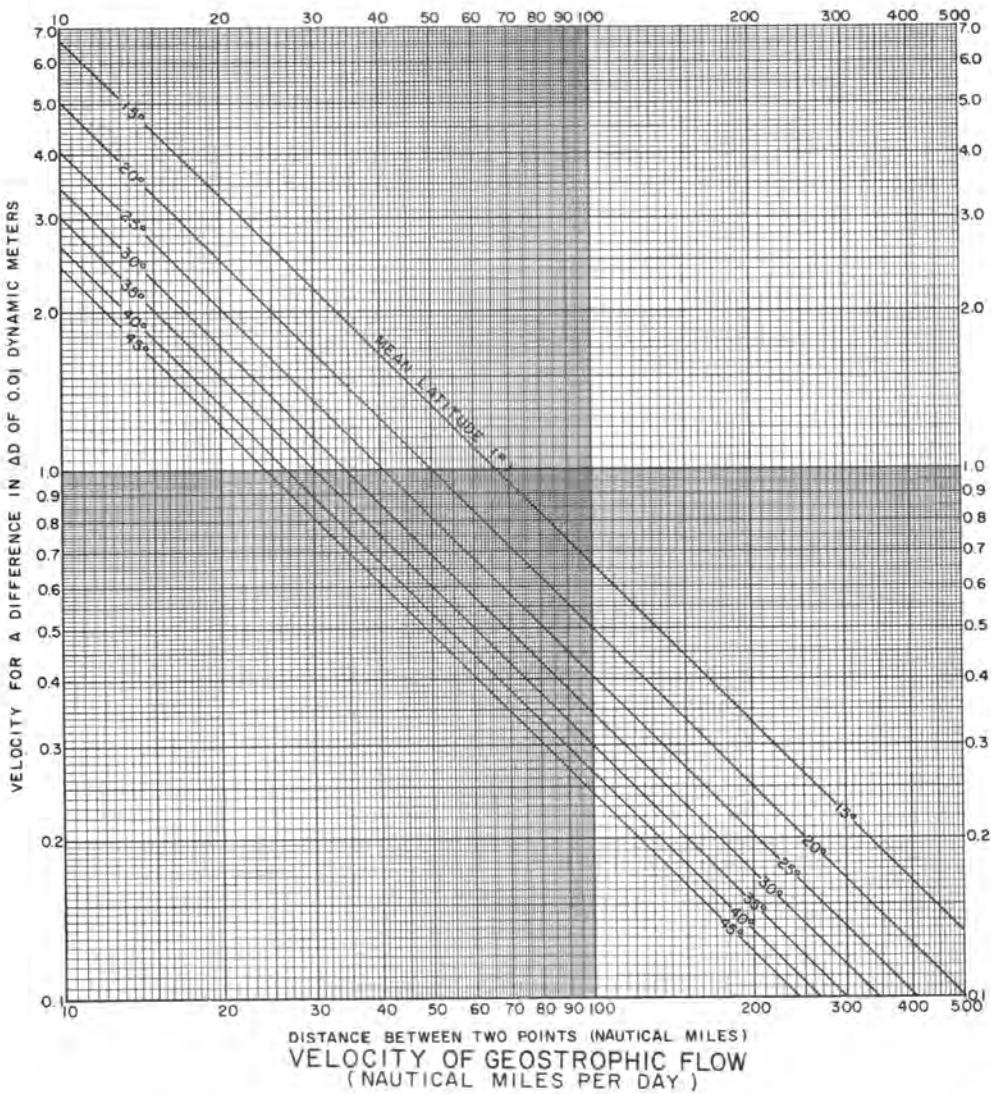
H: Ship-board hydrographic measurement listed in place of *in-situ* CTD values.

ISL: After depth values indicates interpolated or extrapolated standard level.

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

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

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

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

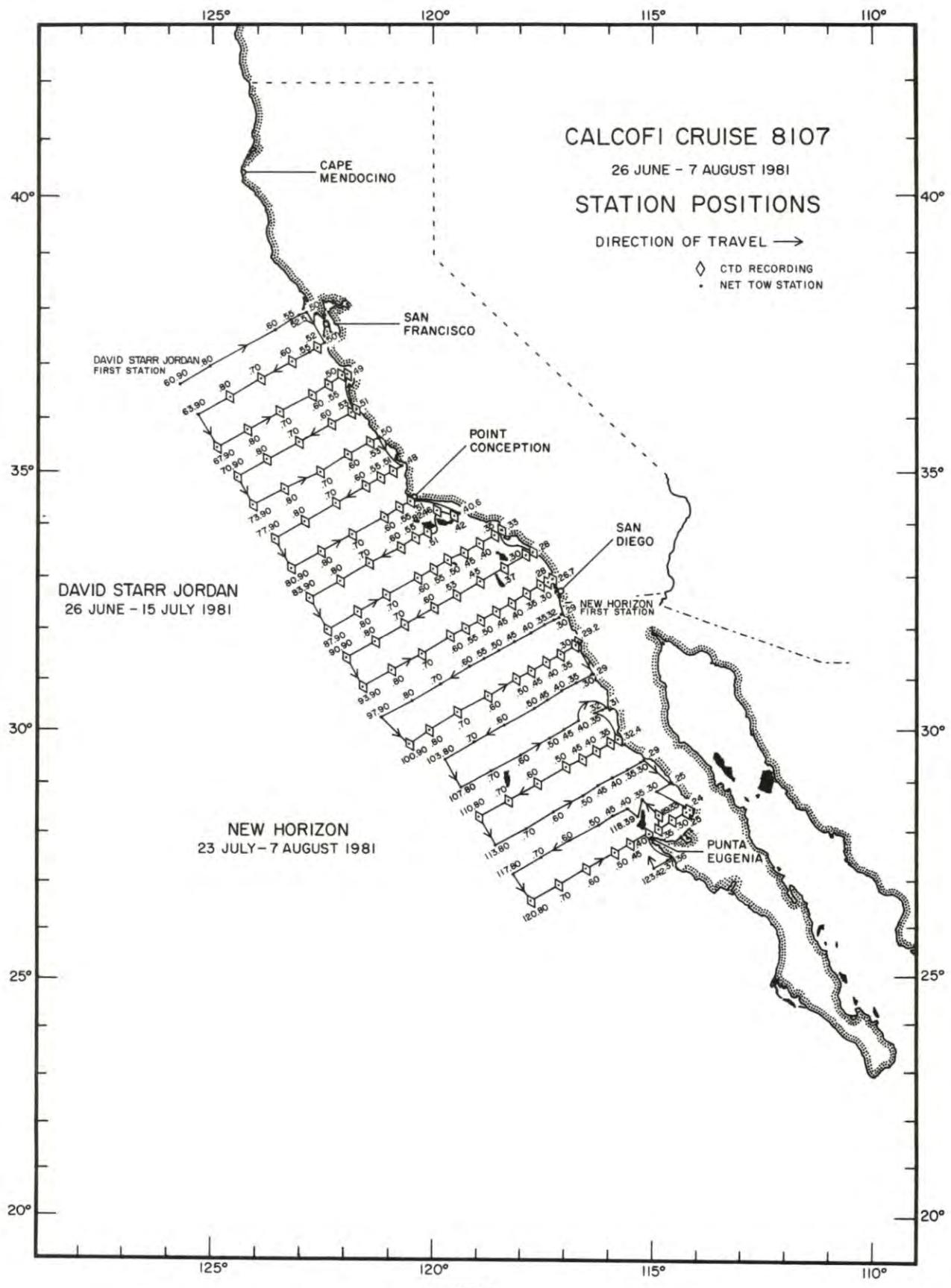
1 kts = 24 NAUTICAL MILES / DAY = 51.48 cm/sec

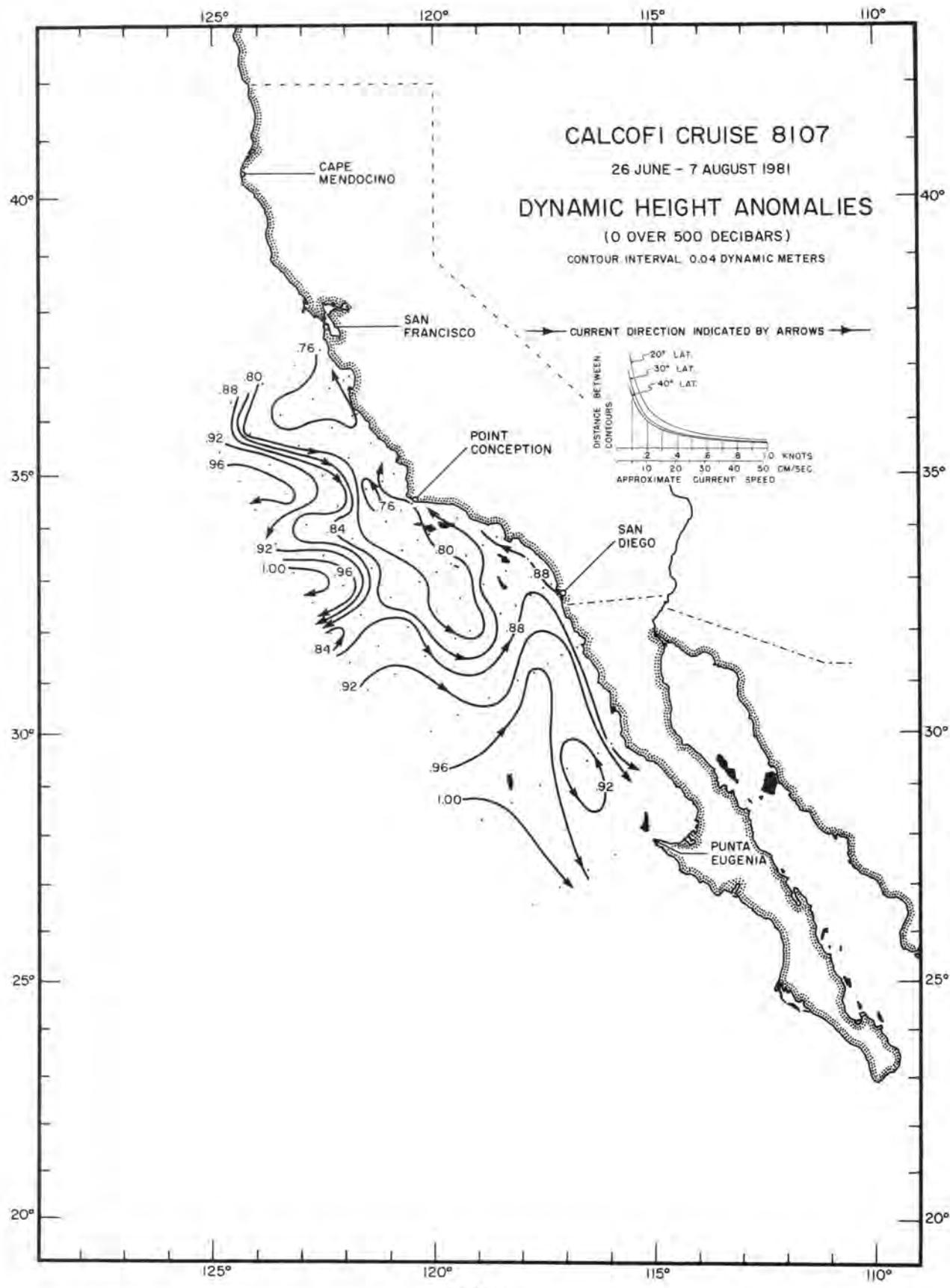
1 NAUTICAL MILE / DAY = 0.042 kts = 2.14 cm/sec

FIGURES

Cruise 8107

1. CalCOFI Cruise 8107, station positions.
2. Horizontal distribution of dynamic height anomaly (0 over 500 m).
3. Horizontal distribution of dynamic height anomaly (200 over 500 m).
4. Horizontal distribution of temperature at 10 meters.
5. Horizontal distribution of salinity at 10 meters.
6. Horizontal distribution of sigma-theta at 10 meters.
7. Horizontal distribution of temperature at 200 meters.
8. Horizontal distribution of salinity at 200 meters.
9. Horizontal distribution of sigma-theta at 200 meters.





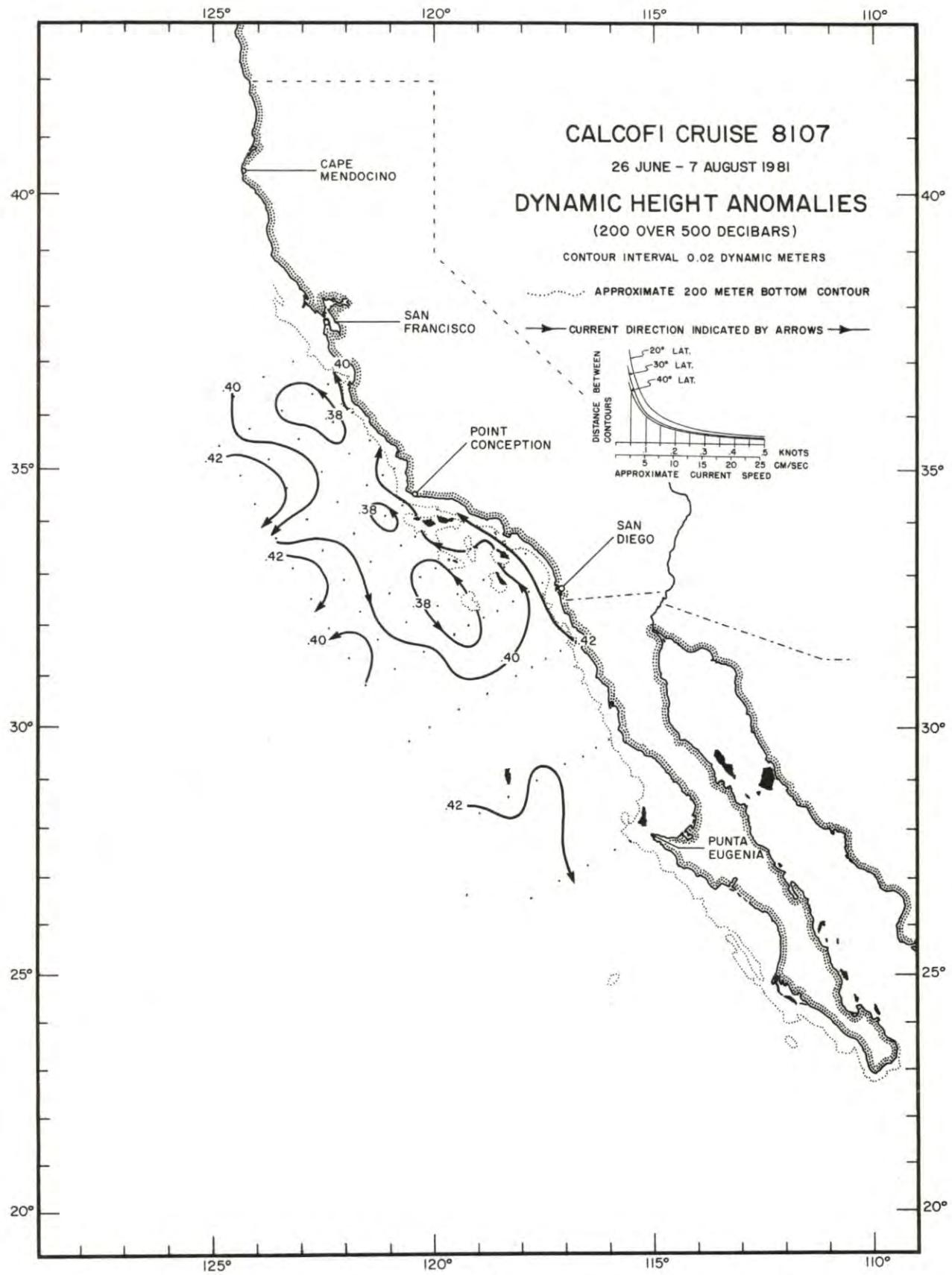


FIGURE 3

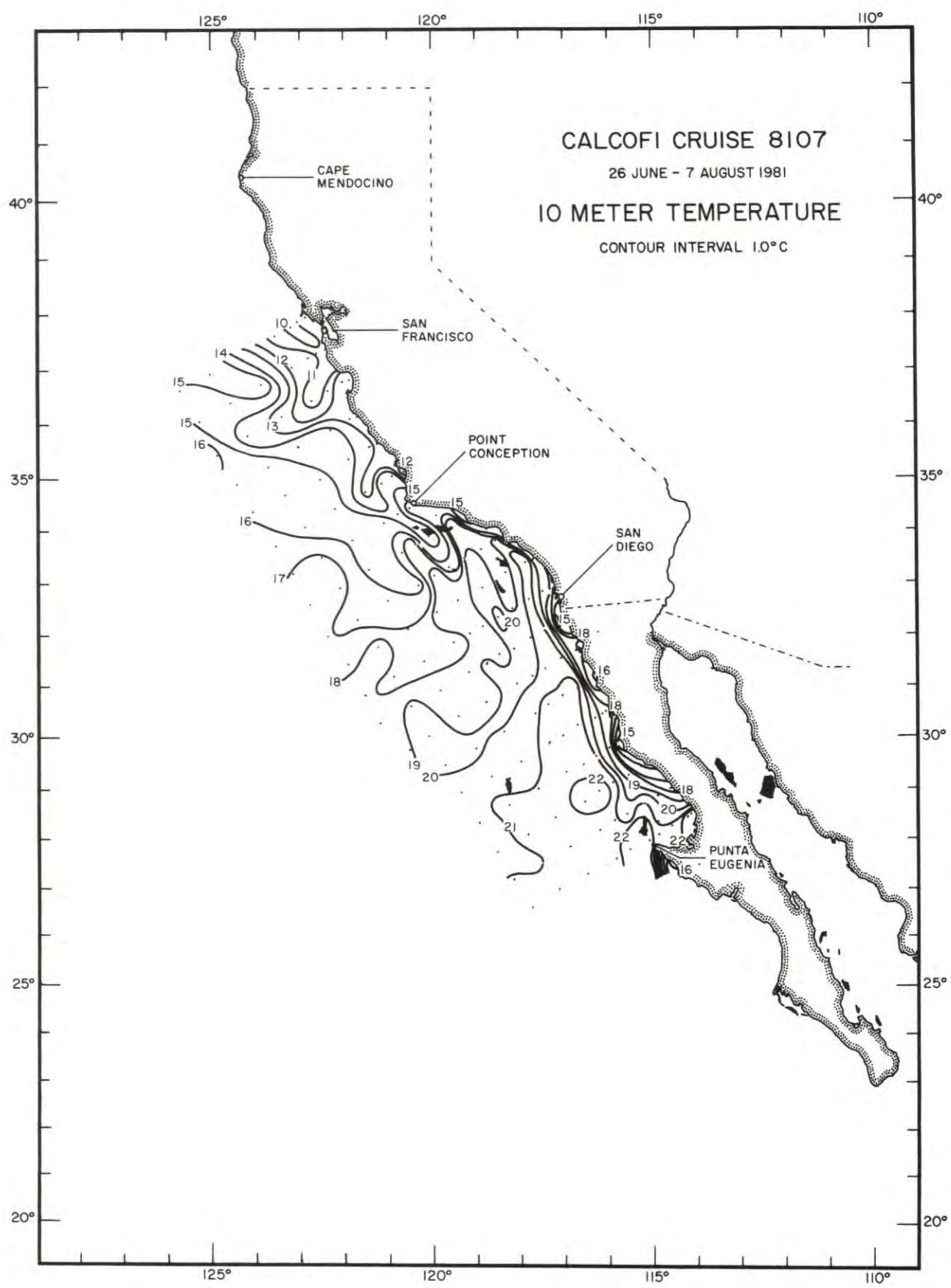


FIGURE 4

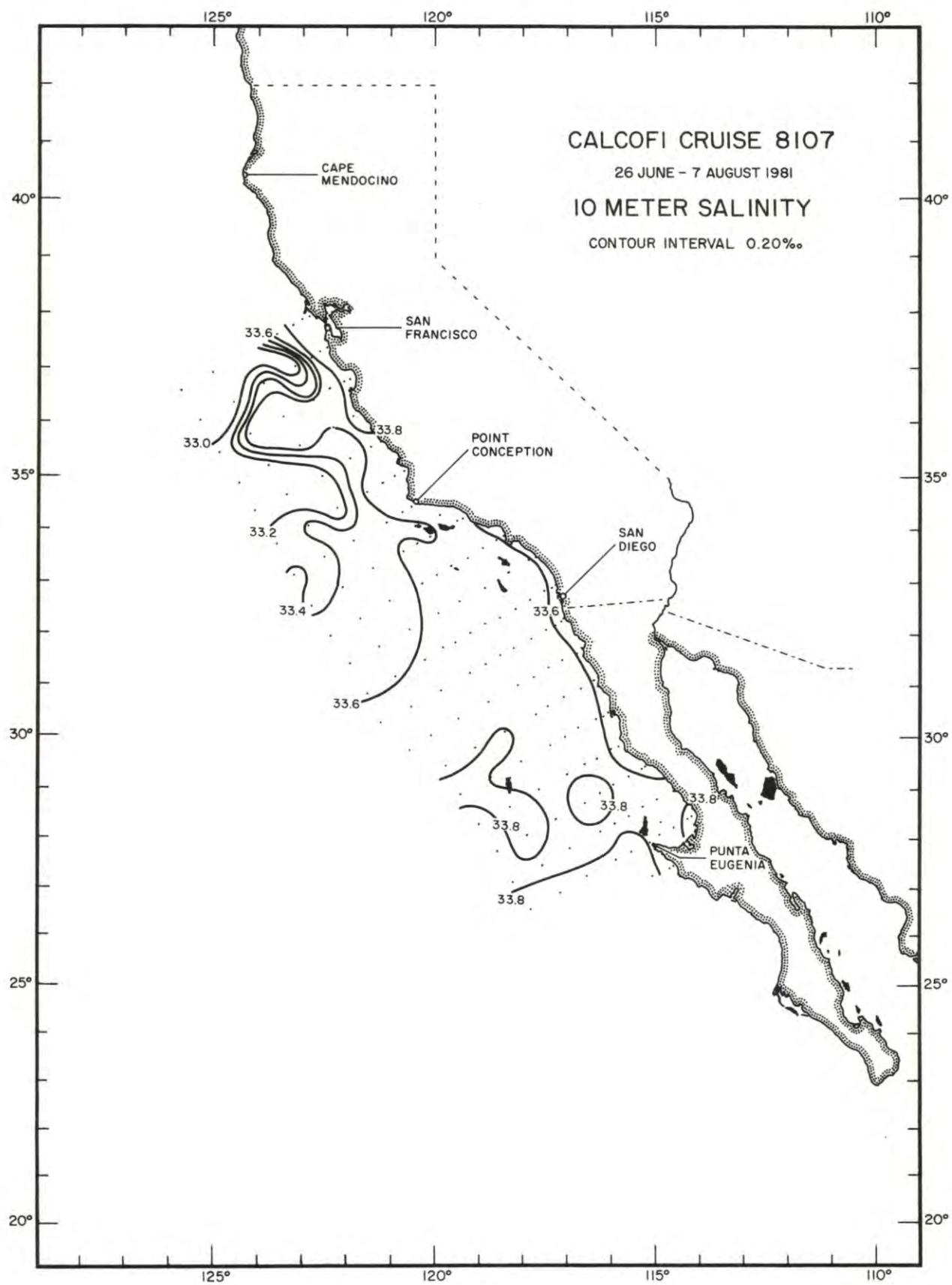


FIGURE 5

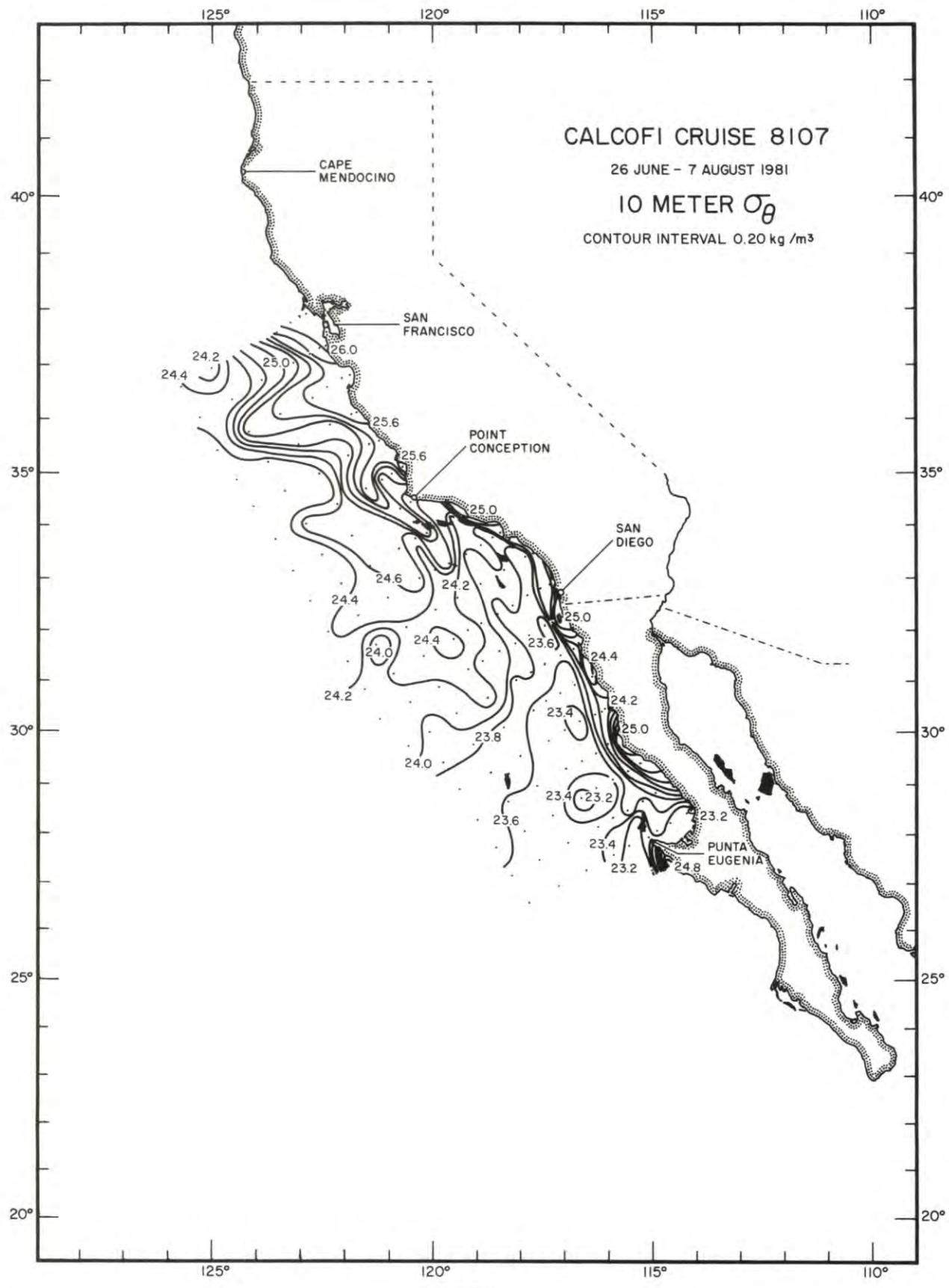


FIGURE 6

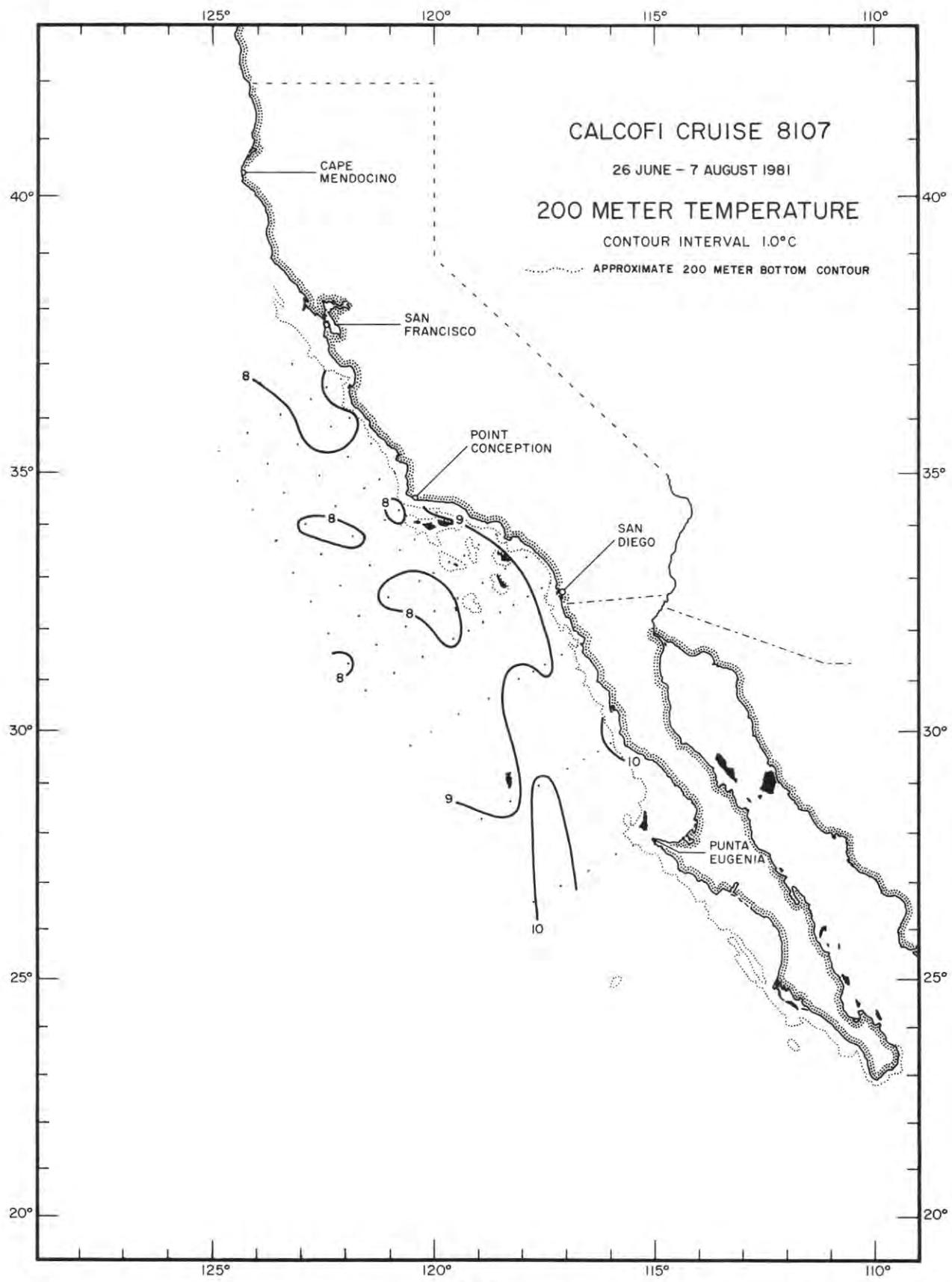


FIGURE 7

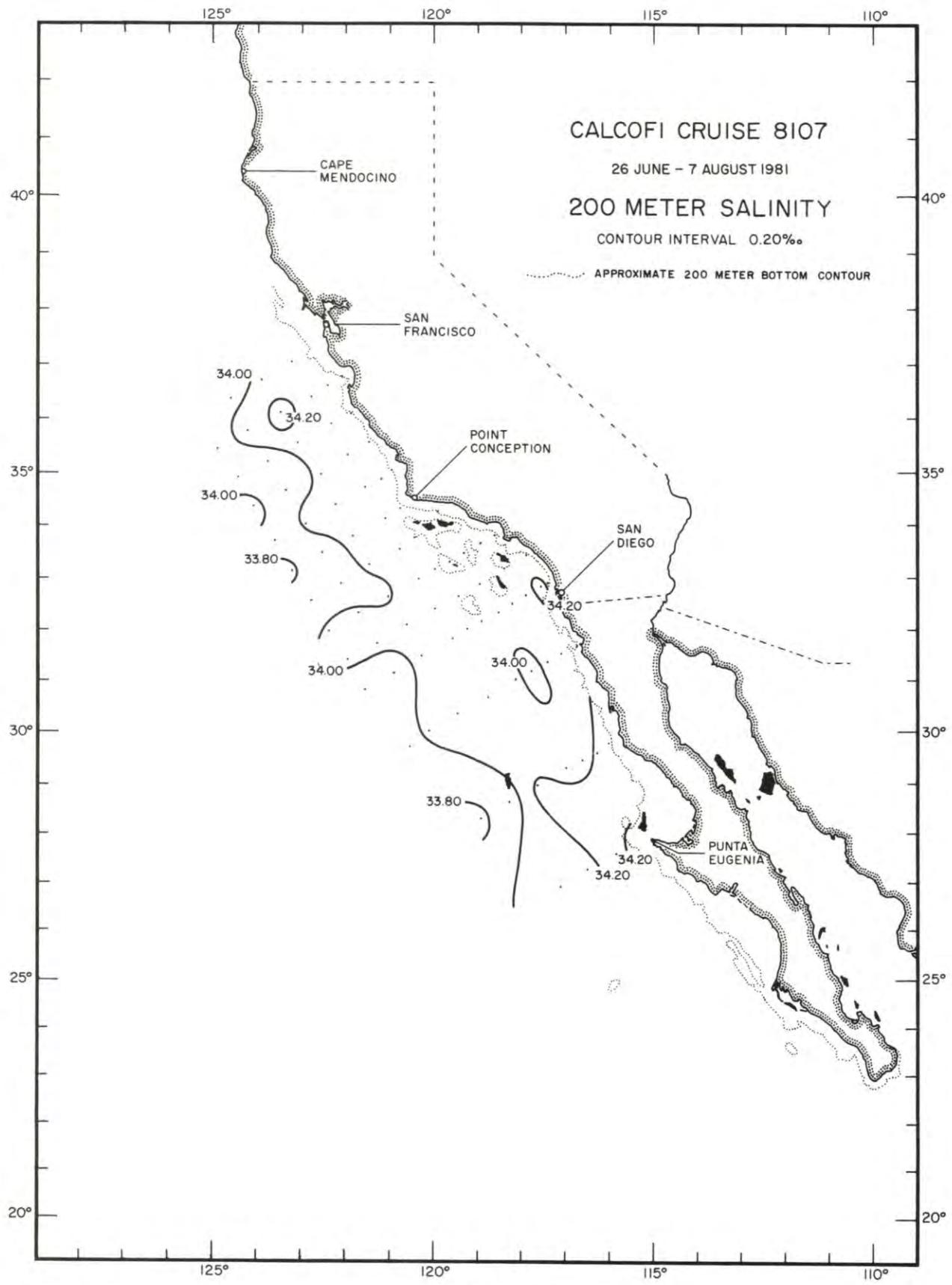


FIGURE 8

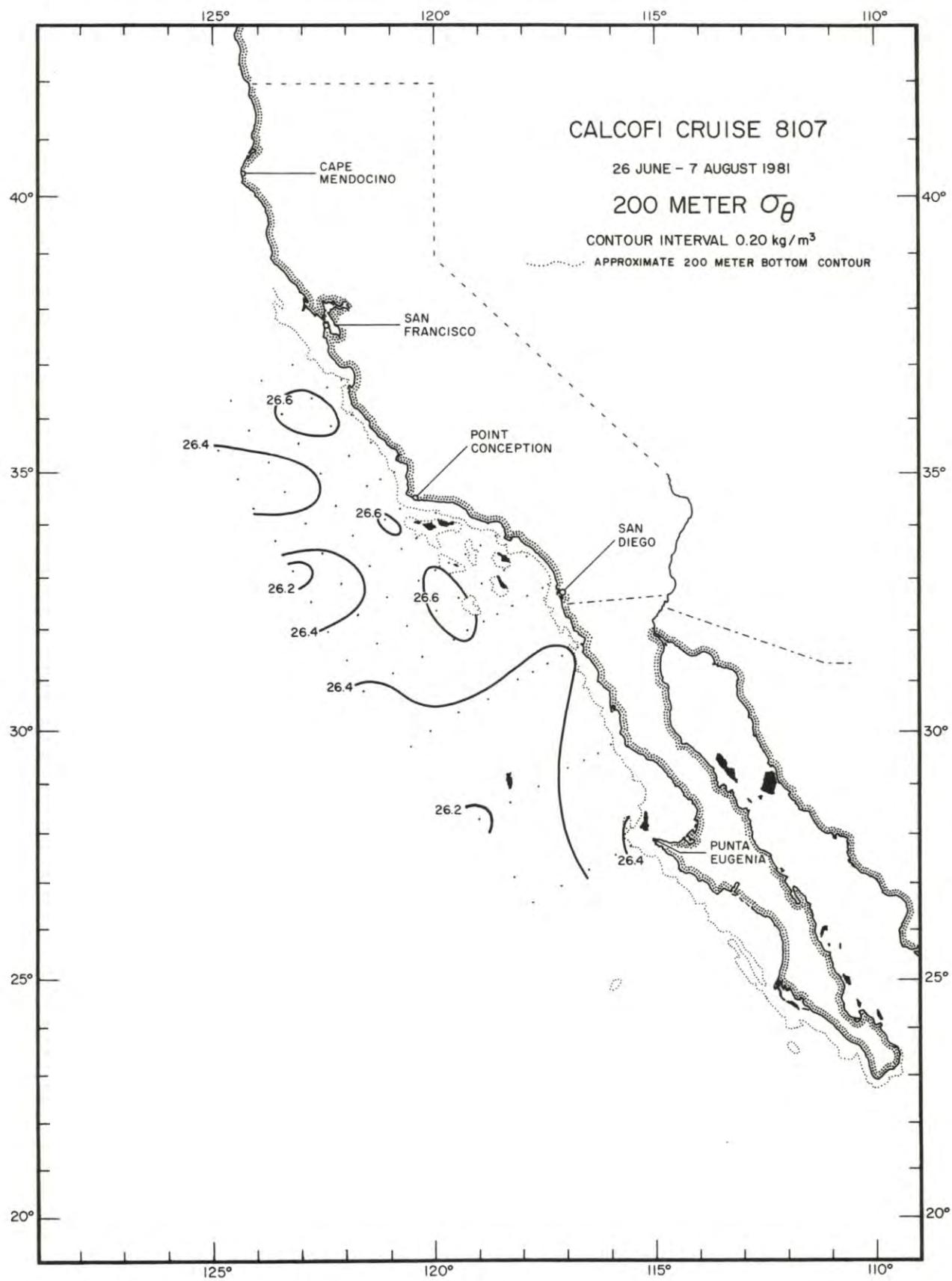


FIGURE 9

PERSONNEL

Cruise 8107

SHIPS' CAPTAINS

Ferreira, Manuel, *RV David Starr Jordan*
Johnson, Curtis D., *RV New Horizon*

PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

RV David Starr Jordan

Metoyer, Jack D. (in charge)	Biological Technician, NMFS
Abramenkoff, Dimitry N.	Biological Technician, NMFS
Butler, John L.	Fishery Biologist, NMFS
Cass, R.	Seaworthy Systems
Flerx, William C.	Fishery Biologist, NMFS
Graham, Jerry B.	Electronics Technician, NMFS
MacDonald, J.	Seaworthy Systems

RV New Horizon

Schmitt, James A. (in charge)	Electronics Technician, SIO
Abramenkoff, Dimitry N.	Biological Technician, NMFS
Mauck, William W.	Marine Technician, SIO
Morales, Ruben A.	Student, ESCM/UABC
Rowe, Raymond A.	Marine Technician, SIO
Vega V., Armando	Marine Biologist, INP
Voss, Kenneth J.	Research Assistant, TAMU

STATION 63 52					RV DAVID STARR JORDAN					CALCOFI CRUISE 8107					STATION 63 60										
LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
37 18.6 N	122 37.1 W	28/06/81	2127 GMT	89 M	37 02.6 N	123 11.7 W	29/06/81	0300 GMT	2595 M	160	16 KT	160 04 03	2	1011.9 MB	14.3 C	13.0 C	8/8 ST	180	11 KT	2	1011.9 MB	13.6 C	12.8 C	8/8 ST	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR		
0	11.33	11.33	33.973	25.917	207.6	.000	0	0	12.20	12.20	32.972	24.977	297.0	.000	0	0	11.50	11.50	32.999	25.128	282.8	.029	10		
10	11.01	11.01	34.021	26.012	198.8	.020	10	10	11.50	11.50	32.999	25.128	282.8	.029	10	20	10.98	10.98	33.158	25.346	262.3	.056	20		
20	10.54	10.54	34.070	26.134	187.5	.039	20	20	10.85	10.85	32.999	25.128	262.3	.056	20	30	10.85	10.85	33.200	25.417	255.8	.082	30		
30	9.63	9.63	34.072	26.290	172.8	.057	30	40	10.85	10.85	33.301	25.481	250.0	.107	40	40	10.85	10.85	33.339	25.544	244.2	.151	50		
40	5.98	5.98	34.083	26.404	162.1	.074	40	50	10.66	10.65	33.339	25.544	244.2	.151	50	50	10.66	10.65	33.400	25.612	235.4	.187	60		
50	8.77	8.76	34.098	26.449	158.0	.090	50	75	9.95	9.94	33.576	25.850	215.5	.139	75	75	9.95	9.94	33.576	26.144	188.2	.241	101		
70	8.67	8.66	34.110	26.474	156.0	.121	70	100	9.43	9.42	33.841	26.144	188.2	.241	101	125	9.27	9.26	33.880	26.201	183.2	.287	126		
								150	8.52	8.50	33.923	26.329	171.3	.331	151	175	8.18	8.16	33.958	26.452	161.9	.372	176		
								200	7.89	7.87	34.009	26.515	154.4	.412	201	225	7.44	7.42	34.050	26.612	145.4	.449	226		
								250	7.30	7.28	34.029	26.663	140.9	.486	252	275	7.02	6.99	34.078	26.693	138.3	.521	277		
								300	6.83	6.80	34.095	26.733	134.9	.554	302	350	6.39	6.36	34.122	26.813	127.7	.619	352		
								400	5.84	5.81	34.122	26.883	121.3	.682	403	450	5.68	5.64	34.165	26.938	116.7	.741	453		
								500	5.30	5.26	34.177	26.993	111.6	.792	504	520	5.24	5.20	34.196	27.015	109.7	.821	524		

STATION 63 70					RV DAVID STARR JORDAN					CALCOFI CRUISE 8107					STATION 63 50					RV DAVID STARR JORDAN					
LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
36 42.6 N	123 54.6 W	29/06/81	0840 GMT	3918 M	36 22.6 N	124 37.7 W	29/06/81	1455 GMT	4206 M	190	08 KT	1012.9 MB	13.3 C	12.4 C	8/8 SC	190	04 KT	340 06 07	2	1013.9 MB	13.7 C	12.5 C	8/8 SC		
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR		
0	12.48	12.48	33.224	25.119	283.4	.000	0	0	14.89	14.89	32.940	24.409	351.1	.000	0	10	14.56	14.56	32.975	24.507	342.0	.035	10		
10	12.61	12.61	33.529	25.331	263.5	.027	10	20	14.36	14.36	32.909	24.498	343.2	.069	20	30	13.21	13.21	32.803	24.651	328.3	.102	30		
20	12.09	12.09	33.555	25.451	252.4	.053	20	40	13.05	13.04	32.823	24.699	324.5	.135	40	50	12.80	12.79	32.830	24.753	319.6	.157	50		
30	11.78	11.78	33.530	25.490	248.9	.078	30	75	10.92	10.91	33.060	25.281	269.7	.240	75	100	10.01	10.00	33.472	25.760	224.7	.301	100		
40	11.34	11.34	33.576	25.515	246.8	.102	40	125	9.27	9.26	33.712	26.069	195.7	.356	126	50	12.80	12.79	32.830	24.753	319.6	.157	50		
50	11.26	11.25	33.530	25.586	240.2	.127	50	150	8.61	8.59	33.801	26.243	179.5	.402	151	75	12.79	12.78	32.830	24.753	319.6	.157	50		
75	10.28	10.27	33.783	25.956	205.5	.182	75	175	8.18	8.16	33.860	26.355	169.2	.445	176	100	10.92	10.91	33.860	26.355	169.2	.445	176		
100	9.53	9.52	33.869	26.149	187.6	.233	100	200	8.06	8.04	33.959	26.451	160.5	.487	201	125	9.27	9.26	34.012	26.513	155.0	.526	226		
125	8.92	8.91	33.864	26.243	179.1	.275	125	225	7.92	7.90	34.012	26.513	155.0	.526	226	150	8.61	8.59	33.801	26.243	179.5	.402	151		
150	8.46	8.44	33.918	26.358	168.6	.322	150	250	7.59	7.57	34.035	26.579	149.0	.563	251	175	8.18	8.16	33.860	26.355	169.2	.445	176		
175	8.23	8.21	33.977	26.439	161.2	.363	175	200	8.06	8.04	33.959	26.451	160.5	.487	201	225	7.92	7.90	34.012	26.513	155.0	.526	226		
200	7.99	7.97	34.032	26.518	154.1	.402	200	250	7.59	7.57	34.035	26.579	149.0	.563	251	275	7.25	7.22	33.990	26.593	148.0	.602	277		
225	7.61	7.59	34.034	26.576	149.0	.439	225	300	6.90	6.87	34.046	26.685	139.4	.637	302	350	6.21	6.18	34.055	26.782	130.5	.704	352		
250	7.11	7.09	34.025	26.639	143.1	.477	250	400	6.03	6.00	34.111	26.851	124.5	.769	403	450	5.76	5.72	34.162	26.925	117.9	.829	453		
275	7.05	7.02	34.054	26.671	140.5	.512	275	500	5.26	5.22	34.170	26.992	111.7	.887	504	300	6.90	6.87	34.186	27.015	109.7	.887	504		
300	6.78	6.73	34.082	26.729	135.1	.546	300	350	6.21	6.18	34.186	26.782	130.5	.704	352	350	6.18	6.15	34.186	26.782	130.5	.704	352		
350	6.37	6.34	34.086	26.787	130.1	.512	350	400	6.03	6.00	34.111	26.851	124.5	.769	403	400	6.21	6.18	34.186	26.782	130.5	.704	352		
400	6.00	5.97	34.121	26.865	123.4	.676	400	450	5.76	5.72	34.162	26.925	117.9	.829	453	450	5.76	5.72	34.170	26.992	111.7	.887	504		
450	6.03	5.99	34.222	26.939	116.9	.736	450	500	5.26	5.22	34.170	26.992	111.7	.887	504	500	5.26	5.22	34.186	27.015	109.7	.887	504		
500	5.78	5.74	34.240	26.985	113.0	.794	500	550	5.26	5.22	34.186	26.782	130.5	.704	352	550	5.26	5.22	34.186	26.782	130.5	.704	352		
540	5.51	5.46	34.263	27.036	108.3	.838	544																		

STATION 67 49					RV DAVID STARR JORDAN					CALCOFI CRUISE 8107					STATION 67 50					RV DAVID STARR JORDAN					
LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
36 49.2 N	121 59.1 W	01/07/81	0450 GMT	461 M	36 47.2 N	122 03.4 W	01/07/81	0255 GMT	296 M	310	05 KT	1014.2 MB	12.3 C	12.0 C	8/8 ST	320	06 KT	290 01 02	2	1014.6 MB	12.9 C	12.4 C	E/8 ST		
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA THETA													

STATION 67 55					RV DAVID STARR JORDAN					CALCOFI CRUISE 8107					STATION 67 60								
LATITUDE		LONGITUDE		DAY/MO/YR	MESSANGER		BOTTOM		LATITUDE		LONGITUDE		DAY/MO/YR	MESSANGER		BOTTOM							
36 37.2 N		122 24.9 W		30/06/81	2255 GMT		2595 M		36 27.2 N		122 46.4 W		30/06/81	1930 GMT		3068 M							
WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND	SPEED	WAVES	WEA				
290	12 KT	300	01 03 2	1016.3 MB	13.7 C	12.8 C	8/8 SC	290	08 KT	310	02 06 2	1016.5 MB	14.2 C	13.1 C	8/8 SC	290	08 KT	310	02 06 2	1016.5 MB	14.2 C	13.1 C	8/8 SC
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	PRESS	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	PRESS	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	PRESS
M	DEG C	DEG C	THETA			D.BAR		M	DEG C	DEG C	THETA			D.BAR		M	DEG C	DEG C	THETA			D.BAR	
0	12.30	12.30	33.930	25.701	228.1	.000	0	0	11.72	11.72	33.445	25.434	253.5	.000	0	0	11.72	11.72	33.445	25.434	253.5	.000	0
10	11.78	11.78	33.753	25.663	232.0	.023	10	10	11.29	11.29	33.568	25.609	237.1	.024	10	10	11.29	11.29	33.568	25.609	237.1	.024	10
20	11.31	11.31	33.755	25.751	223.8	.046	20	20	10.74	10.74	33.646	25.768	222.2	.047	20	20	10.74	10.74	33.646	25.768	222.2	.047	20
30	10.88	10.88	33.840	25.895	210.4	.067	30	30	10.45	10.45	33.616	25.796	219.8	.069	30	30	10.45	10.45	33.616	25.796	219.8	.069	30
40	10.42	10.42	33.725	25.886	211.4	.088	40	40	10.00	10.00	33.734	25.965	203.9	.090	40	40	10.00	10.00	33.734	25.965	203.9	.090	40
50	9.61	9.60	33.745	26.038	197.1	.108	50	50	9.67	9.66	33.784	26.059	195.2	.110	50	50	9.67	9.66	33.784	26.059	195.2	.110	50
75	9.29	9.28	33.896	26.209	181.4	.155	75	75	9.24	9.23	33.882	26.206	181.6	.157	75	75	9.24	9.23	33.882	26.206	181.6	.157	75
100	8.88	8.87	33.933	26.304	172.9	.201	101	100	8.76	8.75	33.971	26.352	168.2	.202	101	100	8.76	8.75	33.971	26.352	168.2	.202	101
125	8.78	8.77	34.036	26.401	164.1	.243	126	125	8.54	8.53	34.035	26.437	160.7	.243	126	125	8.54	8.53	34.035	26.437	160.7	.243	126
150	8.66	8.64	34.075	26.450	159.9	.283	151	150	8.29	8.27	34.058	26.493	155.7	.282	151	150	8.29	8.27	34.058	26.493	155.7	.282	151
175	8.38	8.36	34.100	26.513	154.3	.322	176	175	7.98	7.96	34.104	26.576	148.2	.320	176	175	7.98	7.96	34.104	26.576	148.2	.320	176
200	8.11	8.09	34.126	26.574	148.8	.360	201	200	7.77	7.75	34.127	26.625	143.9	.356	201	200	7.77	7.75	34.127	26.625	143.9	.356	201
225	7.86	7.84	34.160	26.638	143.2	.396	226	225	7.36	7.34	34.131	26.688	138.3	.391	226	225	7.36	7.34	34.131	26.688	138.3	.391	226
250	7.63	7.61	34.195	26.700	137.6	.432	252	250	7.56	7.54	34.203	26.716	136.1	.427	252	250	7.56	7.54	34.203	26.716	136.1	.427	252
275	7.48	7.45	34.188	26.716	136.5	.466	277	275	7.07	7.04	34.166	26.756	132.4	.460	277	275	7.07	7.04	34.166	26.756	132.4	.460	277
300	7.10	7.07	34.176	26.760	132.5	.500	302	300	7.09	7.06	34.186	26.770	131.6	.493	302	300	7.09	7.06	34.186	26.770	131.6	.493	302
350	7.04	7.01	34.226	26.808	128.7	.565	352	350	6.57	6.54	34.213	26.861	123.3	.556	352	350	6.57	6.54	34.213	26.861	123.3	.556	352
400	6.44	6.40	34.199	26.868	123.3	.628	403	400	6.23	6.19	34.218	26.910	119.1	.617	403	400	6.23	6.19	34.218	26.910	119.1	.617	403
450	6.02	5.98	34.181	26.908	119.8	.689	453	450	5.91	5.87	34.273	26.995	111.5	.674	453	450	5.91	5.87	34.273	26.995	111.5	.674	453
500	5.80	5.76	34.228	26.973	114.1	.748	504	500	5.56	5.52	34.284	27.047	107.0	.730	504	500	5.56	5.52	34.284	27.047	107.0	.730	504

STATION 67 70					RV DAVID STARR JORDAN					CALCOFI CRUISE 8107					STATION 67 80								
LATITUDE		LONGITUDE		DAY/MO/YR	MESSANGER		BOTTOM		LATITUDE		LONGITUDE		DAY/MO/YR	MESSANGER		BOTTOM							
36 07.0 N		123 29.3 W		30/06/81	1325 GMT		3635 M		35 47.2 N		124 11.7 W		30/06/81	0745 GMT		4100 M							
WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
310	06 KT	310	02 04 2	1016.3 MB	14.0 C	12.3 C	8/8 SC	220	03 KT	225	04 06 2	1015.6 MB	14.0 C	12.9 C	8/8 SC	220	03 KT	225	04 06 2	1015.6 MB	14.0 C	12.9 C	8/8 SC
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	PRESS	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	PRESS	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	PRESS
M	DEG C	DEG C	THETA			D.BAR		M	DEG C	DEG C	THETA			D.BAR		M	DEG C	DEG C	THETA			D.BAR	
0	13.25	13.25	33.734	25.363	260.3	.000	0	0	14.82	14.82	33.700	25.010	293.9	.000	0	0	14.82	14.82	33.700	25.010	293.9	.000	0
10	12.71	12.71	33.727	25.465	250.8	.025	10	10	13.56	13.56	33.748	25.311	265.5	.028	10	10	13.56	13.56	33.748	25.311	265.5	.028	10
20	12.34	12.34	33.736	25.544	243.6	.050	20	20	13.27	13.27	33.774	25.390	258.2	.054	20	20	13.27	13.27	33.774	25.390	258.2	.054	20
30	12.05	12.05	33.725	25.591	239.3	.074	30	30	13.23	13.23	33.776	25.400	257.5	.080	30	30	13.23	13.23	33.776	25.400	257.5	.080	30
40	11.40	11.40	33.763	25.741	225.2	.097	40	40	13.08	13.07	33.753	25.413	256.6	.105	40	40	13.08	13.07	33.753	25.413	256.6	.105	40
50	10.47	10.46	33.824	25.955	205.1	.119	50	50	10.99	10.98	33.678	25.750	224.7	.129	50	50	10.99	10.98	33.678	25.750	224.7	.129	50
75	9.60	9.59	33.904	26.165	185.6	.167	75	75	9.94	9.93	33.738	25.979	203.3	.182	75	75	9.94	9.93	33.738	25.979	203.3	.182	75
100	9.12	9.11	33.974	26.298	175.3	.213	101	100	9.08	9.07	33.822	26.185	184.1	.232	101	100	9.08	9.07	33.822	26.185	184.1	.232	101
125	8.74	8.73	34.040	26.410	163.3	.255	126	125	8.86	8.85	33.926	26.302	173.5	.277	126	125	8.86	8.85	33.926	26.302	173.5	.277	126
150	8.49	8.47	34.096	26.493	155.8	.295	151	150	8.69	8.67	34.034	26.413	163.4	.319	151	150	8.69	8.67	34.034	26.413	163.4	.319	151
175	8.34	8.32	34.169	26.573	148.6	.333	176	175	8.32	8.30	34.075	26.502	155.3	.358	176	175	8.32	8.30	34.075	26.502	155.3	.358	176
200	8.30	8.28	34.208	26.610	145.6	.369	201	200	8.15	8.13	34.090	26.582	148.5	.434	201	200	8.15	8.13	34.090	26.582	148.5	.434	201
225	8.01	7.99	34.210	26.656	141.6	.405	226	225	7.92	7.90	34.099	26.633	143.9	.471	226	225	7.92	7.90	34.099	26.633	143.9	.471	226
250	7.65	7.63	34.224	26.720	135.8	.441																	

STATION 70 53			RV DAVID STARR JORDAN					CALCOFI CRUISE 8107					STATION 70 60										
LATITUDE	LONGITUDE	DAY/MO/YR	MESSINGER	BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSINGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
36 06.9 N	121 52.1 W	01/07/81	1400 GMT	907 M	35 52.9 N	122 21.9 W	01/07/81	1820 GMT	3068 M	340 09 KT	310 04 04 2	1013.5 MB	12.0 C	11.7 C	%/8 SC	340 16 KT	310 06 06 2	1014.6 MB	14.3 C	12.2 C	8/8 SC		
0	13.22	13.22	33.838	25.449	252.1	.000	0	0	14.21	14.21	33.613	25.072	287.9	.000	0	0	14.21	14.21	33.613	25.072	287.9	.000	0
10	12.54	12.54	33.855	25.597	238.2	.024	10	10	14.20	14.20	33.616	25.077	287.7	.029	10	10	14.20	14.20	33.616	25.077	287.7	.029	10
20	11.97	11.97	33.802	25.665	232.0	.048	20	20	13.83	13.83	33.627	25.163	279.8	.057	20	20	13.83	13.83	33.627	25.163	279.8	.057	20
30	11.48	11.48	33.866	25.807	218.8	.070	30	30	13.44	13.44	33.636	25.248	272.0	.084	30	30	13.44	13.44	33.636	25.248	272.0	.084	30
40	11.14	11.14	33.884	25.883	211.8	.092	40	40	13.19	13.18	33.606	25.277	269.5	.111	40	40	13.19	13.18	33.606	25.277	269.5	.111	40
50	10.68	10.67	33.875	25.958	204.9	.112	50	50	11.18	11.17	33.604	25.658	233.4	.136	50	50	11.18	11.17	33.604	25.658	233.4	.136	50
75	9.64	9.63	33.906	26.160	186.1	.161	75	75	9.80	9.79	33.804	26.053	196.2	.190	75	75	9.80	9.79	33.804	26.053	196.2	.190	75
100	9.10	9.09	33.980	26.306	172.7	.207	101	100	9.04	9.03	33.915	26.264	176.6	.238	101	100	9.04	9.03	33.915	26.264	176.6	.238	101
125	8.85	8.84	34.064	26.411	163.2	.249	126	125	8.70	8.69	33.976	26.366	167.4	.281	126	125	8.70	8.69	33.976	26.366	167.4	.281	126
150	8.44	8.42	34.078	26.486	156.4	.289	151	150	8.27	8.25	34.007	26.456	159.2	.321	151	150	8.27	8.25	34.007	26.456	159.2	.321	151
175	8.23	8.21	34.111	26.544	151.3	.327	176	175	8.04	8.02	34.088	26.555	150.2	.360	176	175	8.04	8.02	34.088	26.555	150.2	.360	176
200	7.95	7.93	34.103	26.580	148.2	.364	201	200	7.71	7.69	34.095	26.609	145.4	.396	201	200	7.71	7.69	34.095	26.609	145.4	.396	201
225	7.78	7.76	34.126	26.624	144.5	.400	226	225	7.43	7.41	34.098	26.652	141.7	.432	226	225	7.43	7.41	34.098	26.652	141.7	.432	226
250	7.71	7.69	34.143	26.647	142.7	.437	252	250	7.23	7.21	34.123	26.700	137.4	.468	252	250	7.23	7.21	34.123	26.700	137.4	.468	252
275	7.66	7.63	34.196	26.697	138.5	.472	277	275	7.04	7.01	34.132	26.733	134.6	.502	277	275	7.04	7.01	34.132	26.733	134.6	.502	277
300	7.48	7.45	34.222	26.743	134.3	.506	302	300	6.90	6.87	34.145	26.763	132.0	.535	302	300	6.90	6.87	34.145	26.763	132.0	.535	302
350	7.15	7.12	34.245	26.808	128.8	.571	352	350	6.32	6.29	34.166	26.857	123.5	.598	352	350	6.32	6.29	34.166	26.857	123.5	.598	352
400	6.74	6.70	34.256	26.873	123.1	.635	403	400	5.75	5.72	34.156	26.921	117.6	.659	403	400	5.75	5.72	34.156	26.921	117.6	.659	403
450	6.47	6.43	34.259	26.912	119.9	.695	453	450	5.43	5.39	34.173	26.974	113.0	.716	453	450	5.43	5.39	34.173	26.974	113.0	.716	453
500	6.22	6.18	34.272	26.955	116.4	.755	504	500	5.18	5.14	34.221	27.042	106.9	.772	504	500	5.18	5.14	34.221	27.042	106.9	.772	504

STATION 70 90			RV DAVID STARR JORDAN					CALCOFI CRUISE 8107					STATION 70 90										
LATITUDE	LONGITUDE	DAY/MO/YR	MESSINGER	BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSINGER	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
35 32.9 N	123 04.4 W	02/07/81	0035 GMT	3730 M	35 12.9 N	123 46.7 W	02/07/81	0655 GMT	4110 M	310 14 KT	320 05 05 2	1013.5 MB	15.3 C	13.9 C	%/8 ST	320 14 KT	320 05 05 2	1012.9 MB	15.5 C	13.8 C	%/8 ST		
0	14.47	14.47	33.677	25.067	288.4	.000	0	0	15.81	15.81	33.012	24.262	365.0	.000	0	0	15.81	15.81	33.012	24.262	365.0	.000	0
10	14.30	14.30	33.676	25.102	285.4	.029	10	10	15.80	15.80	33.018	24.270	364.7	.036	10	10	15.80	15.80	33.018	24.270	364.7	.036	10
20	13.93	13.93	33.615	25.133	282.7	.057	20	20	15.80	15.80	33.020	24.271	364.8	.073	20	20	15.80	15.80	33.020	24.271	364.8	.073	20
30	13.28	13.28	33.630	25.277	269.2	.084	30	30	15.46	15.46	32.963	24.303	362.0	.109	30	30	15.46	15.46	32.963	24.303	362.0	.109	30
40	12.04	12.03	33.531	25.442	253.7	.110	40	40	15.79	15.78	33.146	24.371	355.9	.145	40	40	15.79	15.78	33.146	24.371	355.9	.145	40
50	10.75	10.74	33.592	25.725	227.0	.134	50	50	15.78	15.77	33.185	24.404	353.1	.180	50	50	15.78	15.77	33.185	24.404	353.1	.180	50
75	9.28	9.27	33.634	26.006	200.6	.187	75	75	13.12	13.11	33.151	24.940	302.5	.261	75	75	13.12	13.11	33.151	24.940	302.5	.261	75
100	9.32	9.31	33.891	26.201	182.7	.237	101	100	12.59	12.58	33.296	25.156	282.5	.334	100	100	12.59	12.58	33.296	25.156	282.5	.334	100
125	8.98	8.97	33.948	26.300	173.7	.281	126	125	10.36	10.35	33.474	25.702	230.8	.401	126	125	10.36	10.35	33.474	25.702	230.8	.401	126
150	8.54	8.52	33.984	26.397	164.9	.323	151	150	9.50	9.48	33.701	26.024	200.5	.454	151	150	9.50	9.48	33.701	26.024	200.5	.454	151
175	8.27	8.25	34.030	26.475	157.9	.363	176	175	9.01	8.99	33.828	26.202	183.9	.502	176	175	9.01	8.99	33.828	26.202	183.9	.502	176
200	8.06	8.04	34.076	26.543	151.8	.402	201	200	8.64	8.62	33.951	26.357	169.7	.546	201	200	8.64	8.62	33.951	26.357	169.7	.546	201
225	7.76	7.74	34.104	26.609	145.9	.439	226	225	8.34	8.32	34.012	26.451	161.1	.587	226	225	8.34	8.32	34.012	26.451	161.1	.587	226
250	7.45	7.43	34.105	26.655	141.8	.476	252	250	7.93	7.91	34.028	26.525	154.4	.626	251	250	7.93	7.91	34.028	26.525	154.4	.626	251
275	7.10	7.07	34.098	26.698	137.9	.511	277	275	7.59	7.56	34.058	26.598	147.7	.665	277	275	7.59	7.56	34.058	26.598	147.7	.665	277
300	6.87	6.84	34.099	26.731	135.1	.544	302	300	7.28	7.25	34.061	26.645	143.5	.701	302	300	7.28	7.25	34.061	26.645	143.5	.701	302
350	6.45	6.42	34.127	26.810	128.1	.610	352	350	6.69	6.66	34.097	26.754	133.5	.770	352	350	6.69	6.66	34.097	26.754	133.5	.770	352
400	5.94	5.91	34.143	26.887	121.0	.673	403	400	6.82	6.78	34.104	26.743	135.5	.858	403	400	6.82	6.78	34.104	26.743	135.5	.858	403
450	5.77	5.73	34.215	26.966	114.1	.731	453	450	5.73	5.69													

STATION 73 60 RV DAVID STARR JORDAN CALCOFI CRUISE 8107 STATION 75 70

LATITUDE	LONGITUDE	DAY/MO/YR	MESSANGER	BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSANGER	BOTTOM						
WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS		
DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR
35 18.6 N	121 57.7 W	03/07/81	1235 GMT	2502 m	34 58.6 N	122 39.9 W	03/07/81	0657 GMT	4110 m						
260 03 KT	290 03 07 1	1015.2 MB	14.4 C 13.0 C	1/8 CU	060 02 KT			1014.2 MB	16.0 C 13.2 C						
0	14.52	14.52	33.514	24.930	301.4	.000	0	0	15.60	15.60	33.003	24.302	361.2	.000	0
10	14.52	14.52	33.562	24.968	298.1	.030	10	10	15.26	15.26	33.004	24.378	354.3	.036	10
20	14.49	14.49	33.564	24.976	297.7	.059	20	20	15.20	15.20	33.013	24.398	352.7	.071	20
30	13.90	13.90	33.547	25.087	287.4	.089	30	30	15.02	15.02	33.020	24.443	348.7	.106	30
40	12.20	12.19	33.588	25.456	252.4	.115	40	40	14.39	14.38	33.017	24.576	336.3	.140	40
50	10.74	10.73	33.477	25.637	235.3	.140	50	50	13.55	13.54	32.956	24.702	324.5	.173	50
75	9.82	9.81	33.681	25.954	205.6	.195	75	75	11.90	11.89	33.038	25.086	288.5	.249	75
100	9.07	9.06	33.773	26.148	187.6	.245	101	100	10.92	10.91	33.338	25.498	249.7	.316	100
125	8.82	8.81	33.906	26.292	174.4	.290	126	125	9.96	9.95	33.558	25.836	218.0	.376	126
150	8.47	8.45	33.997	26.418	162.9	.352	151	150	9.29	9.27	33.743	26.091	194.2	.428	151
175	8.32	8.30	34.044	26.478	157.6	.372	176	175	8.73	8.71	33.904	26.306	174.1	.473	176
200	8.04	8.02	34.075	26.545	151.6	.410	201	200	8.38	8.36	34.008	26.441	161.6	.515	201
225	7.54	7.52	34.066	26.611	145.6	.447	226	225	8.03	8.01	34.036	26.516	154.8	.554	226
250	7.23	7.21	34.070	26.658	141.4	.484	252	250	7.83	7.81	34.078	26.579	149.2	.592	251
275	6.96	6.93	34.082	26.705	137.2	.519	277	275	7.31	7.28	34.076	26.652	142.4	.630	277
300	6.74	6.71	34.094	26.744	133.7	.552	302	300	7.08	7.05	34.098	26.701	138.0	.664	302
350	6.33	6.30	34.139	26.834	125.6	.617	352	350	6.87	6.84	34.159	26.779	131.4	.731	352
400	5.91	5.88	34.161	26.906	119.3	.679	403	400	6.49	6.45	34.177	26.844	125.6	.796	403
450	5.67	5.63	34.189	26.958	114.8	.737	453	450	5.62	5.58	34.146	26.930	117.4	.857	453
500	5.54	5.50	34.232	27.008	110.5	.794	504	500	5.51	5.47	34.196	26.983	112.9	.914	503
520	5.45	5.41	34.240	27.025	109.1	.816	524								

STATION 73 80 RV DAVID STARR JORDAN CALCOFI CRUISE 8107 STATION 73 90

LATITUDE	LONGITUDE	DAY/MO/YR	MESSANGER	BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSANGER	BOTTOM						
WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS		
DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR
34 38.6 N	123 21.9 W	03/07/81	0050 GMT	4302 m	34 18.6 N	124 03.7 W	02/07/81	1850 GMT	3050 m						
200 07 KT	330 03 04 2	1013.2 MB	16.7 C 14.8 C	8/8 ST	330 08 KT	320 06 01 2	1013.9 MB	18.6 C 15.5 C	8/8 SC						
0	15.95	15.95	33.224	24.394	352.5	.000	0	0	16.04	16.04	33.058	24.246	366.6	.000	0
10	15.83	15.83	33.071	24.304	361.4	.036	10	10	15.74	15.74	33.127	24.367	355.4	.036	10
20	15.80	15.80	33.075	24.314	360.7	.072	20	20	15.60	15.60	33.137	24.406	352.0	.071	20
30	15.63	15.63	33.078	24.354	357.2	.107	30	30	15.08	15.08	33.181	24.554	338.1	.106	30
40	15.55	15.54	33.068	24.365	356.5	.143	40	40	13.33	13.32	33.124	24.876	307.7	.138	40
50	14.94	14.93	33.008	24.452	348.5	.178	50	50	12.71	12.70	33.136	25.008	272.7	.168	50
75	12.64	12.63	33.150	25.033	293.6	.258	75	75	11.54	11.53	33.164	25.251	238.7	.238	75
100	11.86	11.85	33.241	25.252	273.2	.328	100	100	11.00	10.99	33.474	25.590	241.0	.302	100
125	10.56	10.55	33.477	25.670	233.9	.394	126	125	10.00	9.99	33.574	25.842	217.5	.361	126
150	9.67	9.65	33.630	25.940	208.5	.449	151	150	9.59	9.57	33.694	26.004	202.5	.414	151
175	9.16	9.14	33.742	26.111	192.6	.499	176	175	9.20	9.18	33.809	26.157	188.3	.462	176
200	8.97	8.95	33.888	26.256	179.3	.545	201	200	8.94	8.92	34.042	26.381	167.5	.506	201
225	8.55	8.53	34.018	26.424	163.8	.587	226	225	8.89	8.87	34.128	26.457	160.8	.547	226
250	8.09	8.06	34.030	26.503	156.5	.627	251	250	8.65	8.62	34.171	26.529	154.4	.586	251
275	7.82	7.79	34.047	26.556	151.8	.667	277	275	8.48	8.45	34.193	26.573	150.7	.626	277
300	7.54	7.51	34.054	26.603	147.7	.704	302	300	8.33	8.30	34.206	26.606	147.9	.663	302
350	6.86	6.83	34.067	26.708	138.0	.775	352	350	8.04	8.00	34.224	26.664	143.1	.735	352
400	6.33	6.29	34.102	26.806	129.1	.843	403	400	7.71	7.67	34.223	26.712	139.2	.806	403
450	5.93	5.89	34.132	26.880	122.3	.905	453	450	6.65	6.61	34.183	26.828	128.0	.873	453
500	5.60	5.56	34.144	26.931	117.8	.965	503	500	6.03	5.99	34.184	26.910	120.4	.934	503

STATION 77 51 RV DAVID STARR JORDAN CALCOFI CRUISE 8107 STATION 77 55

LATITUDE	LONGITUDE	DAY/MO/YR	MESSANGER	BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSANGER	BOTTOM						
WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS		
DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR
35 01.3 N	120 55.1 W	04/07/81	0340 GMT	238 m	34 53.3 N	121 11.9 W	04/07/81	0645 GMT	574 m						
330 13 KT			1014.6 MB	15.0 C 14.2 C				320 16 KT			1014.6 MB	15.2 C 14.3 C			
0	14.62	14.62	33.705	25.056	289.4	.000	0	0	15.04	15.04	33.696	24.959	298.7	.000	0
10	14.53	14.53	33.683	25.059	289.5	.029	10	10	14.70	14.70	33.648	24.996	295.5	.030	10
20	12.37	12.37	33.737	25.539	244.1	.055	20	20	13.30	13.30	33.654	25.292	267.6	.058	20
30	11.92	11.92	33.787	25.663	232.5	.079	30	30	12.51	12.51	33.677	25.465	251.3	.083	30
40	11.36	11.36	33.791	25.771	222.5	.102	40	40	11.51	11.51	33.756	25.716	227.7	.107	40
50	11.24	11.23	33.774	25.779	221.9	.124	50	50	11.43	11.42	33.762	25.735	226.1	.130	50
75	10.02	10.01	33.817	26.027	198.8	.176	75	75	10.26	10.25	33.850	26.012	200.2	.183	75
100	9.04	9.03	33.915	26.264	176.6	.223	100	100	9.73	9.72	33.969	26.194	183.4	.230	100
125	9.20	9.19	34.074	26.364	167.7	.267	126	125	9.40	9.39	34.034	26.300	173.9	.277	126
150	9.15	9.13	34.091	26.385	166.2	.309	151	150	9.22	9.20	34.100	26.381	166.6	.319	151
175	8.94	8.92	34.127	2											

STATION 77 60			RV DAVID STARR JORDAN						CALCOFI CRUISE 8107						STATION 77 70				
LATITUDE	LONGITUDE		DAY/MO/YR	MESSENGER	BOTTOM		LATITUDE	LONGITUDE		DAY/MO/YR	MESSENGER	BOTTOM		LATITUDE	LONGITUDE		DAY/MO/YR	MESSENGER	BOTTOM
34 43.3 N	121 32.9 W		04/07/81	1025 GMT	998 M		34 23.3 N	122 14.8 W		04/07/81	1555 GMT	4110 M		34 43.3 N	121 32.9 W		04/07/81	1555 GMT	4110 M
WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND	SPEED	WAVES	
320	18 KT			1014.9 MB	15.5 C	14.5 C		340	15 KT	340 05 06	1	1015.2 MB	16.3 C	15.5 C	7/8 CI	340	15 KT	340 05 06	1
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN	HT	PRESS	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN	HT	PRESS		
M	DEG C	DEG C		THETA		D.BAR		D.BAR	M	DEG C	DEG C		THETA		D.BAR		D.BAR		
0	14.93	14.93	33.709	24.993	295.5	.000	0	0	15.24	15.24	33.072	24.434	348.7	.000	0				
10	14.91	14.91	33.710	24.998	295.3	.029	10	10	15.16	15.16	33.072	24.452	347.3	.035	10				
20	13.02	13.02	33.558	25.273	269.3	.058	20	20	14.48	14.48	33.044	24.577	335.7	.069	20				
30	11.34	11.34	33.728	25.725	226.6	.082	30	30	13.57	13.57	33.124	24.827	312.0	.101	30				
40	11.09	11.09	33.756	25.792	220.4	.104	40	40	13.57	13.56	33.158	24.854	309.8	.132	40				
50	10.10	10.09	33.862	26.048	196.2	.125	50	50	13.52	13.51	33.210	24.905	305.2	.162	50				
75	9.51	9.50	34.000	26.255	177.1	.172	75	75	13.46	13.45	33.380	25.049	292.2	.237	75				
100	9.20	9.19	34.096	26.381	165.6	.216	101	100	10.89	10.88	33.341	25.506	248.9	.304	100				
125	9.14	9.13	34.117	26.407	163.7	.257	126	125	9.76	9.75	33.642	25.935	208.6	.363	126				
150	8.91	8.89	34.164	26.481	157.1	.297	151	150	9.00	8.98	33.816	26.194	184.3	.412	151				
175	8.62	8.60	34.182	26.541	151.8	.335	176	175	8.60	8.58	33.945	26.358	169.1	.456	176				
200	8.55	8.53	34.190	26.558	150.6	.372	201	200	8.39	8.37	34.020	26.449	160.8	.497	201				
225	8.18	8.16	34.180	26.607	146.3	.409	226	225	8.01	7.99	34.044	26.525	153.9	.556	226				
250	7.79	7.77	34.150	26.641	143.3	.447	252	250	7.53	7.51	34.060	26.608	146.3	.573	251				
275	7.22	7.19	34.130	26.707	137.2	.481	277	275	7.32	7.29	34.092	26.663	141.4	.610	277				
300	7.13	7.10	34.135	26.724	135.9	.515	302	300	7.17	7.14	34.161	26.739	134.6	.645	302				
350	6.91	6.88	34.235	26.833	126.3	.580	352	350	6.65	6.62	34.166	26.814	127.9	.710	352				
400	6.40	6.36	34.243	26.908	119.6	.643	403	400	6.57	6.53	34.253	26.894	121.1	.773	403				
450	6.15	6.11	34.254	26.949	116.1	.701	453	450	6.18	6.14	34.255	26.946	116.4	.832	453				
500	5.89	5.85	34.270	26.995	112.2	.759	504	500	5.71	5.67	34.255	27.005	111.0	.888	503				
520	5.77	5.73	34.278	27.017	110.3	.781	524												

STATION 77 80			RV DAVID STARR JORDAN						CALCOFI CRUISE 8107						STATION 77 90				
LATITUDE	LONGITUDE		DAY/MO/YR	MESSENGER	BOTTOM		LATITUDE	LONGITUDE		DAY/MO/YR	MESSENGER	BOTTOM		LATITUDE	LONGITUDE		DAY/MO/YR	MESSENGER	BOTTOM
34 03.3 N	122 56.5 W		04/07/81	2100 GMT	4302 M		33 43.3 N	123 38.0 W		05/07/81	0245 GMT	4493 M							
WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND	SPEED	WAVES	
340	13 KT	340 04 04	2	1016.5 MB	16.5 C	15.7 C	8/8 SC	350	18 KT	340 03 03	1	1014.9 MB	16.7 C	15.7 C	7/8 SC	340	18 KT	340 03 03	1
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN	HT	PRESS	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN	HT	PRESS		
M	DEG C	DEG C		THETA		D.BAR		D.BAR	M	DEG C	DEG C		THETA		D.BAR		D.BAR		
0	15.32	15.32	33.407	24.675	325.7	.000	0	0	16.82	16.82	33.302	24.254	365.8	.000	0				
10	15.27	15.27	33.380	24.666	326.9	.032	10	10	16.68	16.68	33.194	24.205	370.9	.037	10				
20	14.88	14.88	33.411	24.774	316.8	.065	20	20	15.01	15.01	33.207	24.589	334.5	.072	20				
30	14.20	14.20	33.391	24.904	304.8	.095	30	30	14.72	14.72	33.224	24.665	327.6	.105	30				
40	13.76	13.75	33.412	25.012	294.8	.125	40	40	14.63	14.62	33.251	24.705	324.0	.137	40				
50	12.86	12.85	33.465	25.233	273.9	.154	50	50	13.87	13.86	33.261	24.872	308.4	.169	50				
75	11.44	11.43	33.582	25.594	240.1	.218	75	75	12.82	12.81	33.272	25.093	287.9	.243	75				
100	10.44	10.43	33.266	25.916	210.0	.273	100	100	10.85	10.84	33.352	25.521	247.5	.309	100				
125	9.62	9.61	33.846	26.117	191.2	.325	126	125	9.28	9.27	33.557	25.946	207.3	.368	126				
150	9.03	9.01	33.911	26.264	177.7	.371	151	150	8.93	8.91	33.748	26.152	188.2	.417	151				
175	8.40	8.38	33.944	26.387	166.2	.414	176	175	8.47	8.45	33.858	26.310	173.6	.462	176				
200	7.95	7.93	34.008	26.506	155.3	.454	201	200	8.12	8.10	34.060	26.442	161.3	.504	201				
225	7.68	7.66	34.018	26.553	151.1	.492	226	225	7.83	7.81	34.006	26.522	154.2	.543	226				
250	7.20	7.18	34.007	26.613	145.7	.529	251	250	7.31	7.29	34.000	26.592	147.7	.581	251				
275	6.84	6.81	34.026	26.677	139.7	.565	277	275	7.05	7.02	34.004	26.631	144.2	.618	277				
300	6.60	6.57	34.036	26.718	136.2	.600	302	300	6.56	6.53	34.006	26.699	137.9	.653	302				
350	6.17	6.14	34.057	26.790	129.7	.666	352	350	6.29	6.26	34.057	26.775	131.2	.720	352				
400	5.95	5.92	34.123	26.871	122.6	.729	403	400	6.05	6.02	34.101	26.841	125.5	.785	403				
450	5.59	5.55	34.156	26.941	116.2	.789	453	450	5.83	5.79	34.155	26.911	119.3	.846	453				
500	5.38	5.34	34.185	26.990	112.0	.845	503	500	5.54	5.50	34.197	26.980	113.2	.903	503				

STATION 80 51			RV DAVID STARR JORDAN						CALCOFI CRUISE 8107						STATION 80 55				
LATITUDE	LONGITUDE		DAY/MO/YR	MESSENGER	BOTTOM		LATITUDE	LONGITUDE		DAY/MO/YR	MESSENGER	BOTTOM		LATITUDE	LONGITUDE		DAY/MO/YR	MESSENGER	BOTTOM
34 27.0 N	120 31.4 W		06/07/81	0850 GMT	75 M		34 19.0 N	120 48.1 W		06/07/81	0520 GMT	814 M							
WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND	SPEED	WAVES	
300	18 KT			1011.2 MB	16.3 C	15.4 C		310											

STATION		80	60	RV DAVID STARR JORDAN						CALCOFI CRUISE 8107						STATION		80	70			
LATITUDE	LONGITUDE	DAY/MO/YR	MESSINGER	BOTTOM		LATITUDE	LONGITUDE	DAY/MO/YR	MESSINGER	BOTTOM												
34 09.0 N	121 09.0 W	06/07/81	0155 GMT	2222 M		33 49.0 N	121 50.6 W	05/07/81	2007 GMT	3824 M												
WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND	SPEED	WAVES	WEA			
330	14 KT	310	03 04	1	1011.9 MB	17.3 C	16.0 C	1/8 AC	330	15 KT	340	03 03	1	1014.2 MB	16.8 C	16.0 C	2/8 CC	330	15 KT	340	03 03	1
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN	HT	PRESS	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN	HT	PRESS					
M	DEG C	DEG C	THETA					D.BAR	M	DEG C	DEG C	THETA				D.BAR						
0	16.42	16.42	33.513	24.509	341.5	.000	0	0	15.80	15.80	33.481	24.625	330.5	.000	0							
10	15.30	15.30	33.564	24.801	314.1	.033	10	10	15.64	15.64	33.489	24.667	326.8	.033	10							
20	13.42	13.42	33.601	25.226	273.8	.062	20	20	14.31	14.31	33.472	24.943	300.8	.064	20							
30	12.71	12.71	33.647	25.403	257.2	.088	30	30	13.25	13.25	33.523	25.200	276.5	.093	30							
40	11.55	11.55	33.461	25.479	250.2	.114	40	40	12.70	12.69	33.542	25.324	265.0	.120	40							
50	10.59	10.58	33.588	25.750	224.6	.137	50	50	11.45	11.44	33.487	25.518	246.7	.145	50							
75	9.96	9.95	33.816	26.036	197.9	.190	75	75	10.86	10.85	33.769	25.828	217.7	.203	75							
100	9.38	9.37	33.919	26.213	181.6	.239	101	100	9.48	9.47	33.759	26.072	195.0	.256	101							
125	9.00	8.99	34.037	26.367	167.4	.282	126	125	8.78	8.77	33.856	26.259	177.5	.302	126							
150	8.57	8.55	34.104	26.487	156.4	.322	151	150	8.55	8.53	33.931	26.354	169.0	.346	151							
175	8.16	8.14	34.098	26.545	151.2	.360	176	175	8.31	8.29	33.986	26.434	161.7	.387	176							
200	8.10	8.08	34.194	26.629	143.7	.397	201	200	7.93	7.91	34.046	26.538	152.2	.426	201							
225	7.82	7.80	34.206	26.680	139.2	.432	226	225	7.72	7.70	34.060	26.580	148.6	.463	226							
250	7.75	7.73	34.246	26.722	135.6	.468	252	250	7.44	7.42	34.064	26.624	144.7	.499	251							
275	7.48	7.45	34.216	26.738	134.4	.501	277	275	6.89	6.86	34.064	26.700	137.6	.536	277							
300	7.38	7.35	34.251	26.780	130.8	.534	302	300	6.54	6.51	34.059	26.743	133.7	.569	302							
350	6.95	6.92	34.244	26.835	126.1	.598	352	350	6.05	6.02	34.080	26.823	126.4	.634	352							
400	6.63	6.59	34.256	26.888	121.6	.660	403	400	6.13	6.09	34.173	26.887	121.2	.697	403							
450	6.20	6.16	34.268	26.954	115.7	.719	453	450	5.85	5.81	34.216	26.957	115.0	.755	453							
500	5.89	5.85	34.295	27.015	110.3	.776	504	500	5.25	5.21	34.198	27.015	109.5	.811	503							
520	5.04	5.00	34.306	27.125	99.1	.797	524															

STATION		80	80	RV DAVID STARR JORDAN						CALCOFI CRUISE 8107						STATION		80	90		
LATITUDE	LONGITUDE	DAY/MO/YR	MESSINGER	BOTTOM		LATITUDE	LONGITUDE	DAY/MO/YR	MESSINGER	BOTTOM											
33 29.0 N	122 32.0 W	05/07/81	1410 GMT	4110 M		33 09.0 N	123 13.3 W	05/07/81	0820 GMT	4206 M											
WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND	SPEED	WAVES	WEA		
330	18 KT	320	04 04	1	1013.2 MB	17.6 C	16.5 C	3/8 CC	320	15 KT	320	04 04	1	1015.2 MB	17.0 C	16.2 C					
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN	HT	PRESS	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN	HT	PRESS				
M	DEG C	DEG C	THETA					D.BAR	M	DEG C	DEG C	THETA				D.BAR					
0	17.23	17.23	33.386	24.223	368.8	.000	0	0	17.06	17.06	33.453	24.314	360.1	.000	0						
10	17.23	17.23	33.382	24.223	368.8	.037	10	10	17.08	17.08	33.434	24.295	362.2	.036	10						
20	17.22	17.22	33.373	24.216	370.1	.074	20	20	17.07	17.07	33.416	24.284	363.6	.072	20						
30	17.16	17.16	33.370	24.228	369.3	.111	30	30	16.70	16.70	33.400	24.359	356.8	.108	30						
40	17.07	17.06	33.365	24.246	367.9	.148	40	40	16.62	16.61	33.430	24.401	353.2	.143	40						
50	16.94	16.93	33.363	24.275	365.5	.184	50	50	16.35	16.34	33.391	24.433	350.4	.178	50						
75	14.28	14.27	33.260	24.787	317.2	.270	75	75	14.48	14.47	33.200	24.699	325.6	.263	75						
100	13.60	13.59	33.267	24.934	303.9	.347	100	100	13.58	13.57	33.239	24.916	305.5	.341	100						
125	11.86	11.84	33.336	25.327	266.8	.419	126	125	11.52	11.50	33.348	25.399	259.9	.414	126						
150	9.66	9.64	33.937	25.869	215.2	.479	151	150	10.54	10.52	33.478	25.675	234.0	.476	151						
175	8.70	8.68	33.820	26.244	179.9	.528	176	175	9.52	9.50	33.853	25.968	206.4	.530	176						
200	8.40	8.38	33.944	26.388	166.6	.572	201	200	8.99	8.97	33.799	26.183	186.3	.579	201						
225	8.03	8.01	33.994	26.483	157.9	.612	226	225	8.58	8.56	33.940	26.358	170.0	.623	226						
250	7.72	7.70	34.008	26.540	152.8	.651	251	250	8.19	8.16	33.983	26.451	161.5	.665	251						
275	7.35	7.32	34.027	26.608	146.6	.688	277	275	7.96	7.93	33.977	26.481	159.0	.704	276						
300	7.13	7.10	34.055	26.660	141.9	.724	302	300	7.45	7.42	33.961	26.542	153.3	.745	302						
350	6.78	6.75	34.091	26.737	135.2	.794	352	350	6.70	6.67	33.968	26.651	143.3	.818	352						
400	6.34	6.30	34.113	26.813	128.4	.860	402	400	6.21	6.17	34.030	26.764	132.9	.887	402						
450	5.92	5.88	34.130	26.880	122.3	.922	453	450	6.26	6.22	34.166	26.866	124.1	.952	453						
500	5.60	5.56	34.191	26.968	114.4	.981	503	500	5.78	5.74	34.142	26.908	120.3	1.012	503						

STATION		82	46	RV DAVID STARR JORDAN						CALCOFI CRUISE 8107						STATION		82	42		
LATITUDE	LONGITUDE	DAY/MO/YR	MESSINGER	BOTTOM		LATITUDE	LONGITUDE	DAY/MO/YR	MESSINGER	BOTTOM											
34 16.2 N	119 56.3 W	07/07/81	2140 GMT	516 M		34 10.7 N	119 30.5 W	07/07/81	1655 GMT	155 M											
WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND	SPEED	WAVES	WEA		
270	08 KT	270	02 03	1	1011.2 MB	20.6 C	18.7 C	1/8 CI	330	03 KT	290	03 07	1	1011.2 MB	19.9 C	18.0 C	1/8 CI				
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN	HT	PRESS	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN	HT	PRESS				
M	DEG C	DEG C	THETA					D.BAR	M	DEG C	DEG C	THETA				D.BAR					
0	20.16	20.16	33.587	23.644	424.1	.000	0	0	19.06	19.06	33.635	23.964	393.5	.000	0						
10	17.27	17.27	33.556	24.344	357.6	.039	10	10	18.69	18.69	33.684	24.095	381.3	.039	10						
20	15.77	15.77	33.618	24.738																	

STATION 83 51					RV DAVID STARR JORDAN					CALCOFI CRUISE 8107					STATION 83 55							
LATITUDE		LONGITUDE		DAY/MO/YR	MESSANGER		BOTTOM	LATITUDE		LONGITUDE		DAY/MO/YR	MESSANGER		BOTTOM							
33 52.7 N		120 08.0 W		08/07/81	0230 GMT		93 M	33 44.7 N		120 24.6 W		08/07/81	0515 GMT		971 M							
WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS							
230	16 KT	270	02 03	1	1010.2 MB	18.5 C	15.9 C	1/B CT	310	16 KT	310	1010.5 MB	17.0 C	15.1 C	CLOUDS							
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	PRESS	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	PRESS							
M	DEG C	DEG C	THETA		D.BAR			M	DEG C	DEG C	THETA		D.BAR									
0	19.95	19.95	33.683	23.772	411.8	.000	0	0	17.44	17.44	33.687	24.403	351.6	.000	0							
10	14.19	14.19	33.555	25.032	292.0	.035	10	10	17.43	17.43	33.683	24.403	352.0	.035	10							
20	12.80	12.80	33.523	25.289	267.8	.063	20	20	15.97	15.97	33.623	24.697	324.3	.069	20							
30	11.81	11.81	33.548	25.498	248.1	.089	30	30	10.95	10.95	33.725	25.793	220.1	.096	30							
40	11.36	11.36	33.604	25.625	236.3	.113	40	40	10.29	10.29	33.806	25.972	203.3	.117	40							
50	11.29	11.28	33.605	25.639	235.2	.136	50	50	10.09	10.08	33.845	26.036	197.3	.137	50							
75	11.22	11.21	33.678	25.709	229.1	.194	75	75	9.64	9.63	33.910	26.163	165.8	.194	75							
								100	9.28	9.27	34.000	26.292	174.0	.231	101							
								125	9.00	8.99	34.059	26.384	165.8	.273	126							
								150	8.86	8.84	34.110	26.446	160.3	.314	151							
								175	8.74	8.72	34.152	26.498	155.8	.353	176							
								200	8.51	8.49	34.187	26.562	150.2	.391	201							
								225	8.34	8.32	34.200	26.598	147.2	.428	226							
								250	8.13	8.10	34.214	26.642	143.5	.465	252							
								275	7.98	7.95	34.224	26.672	141.0	.501	277							
								300	7.96	7.93	34.234	26.683	140.4	.536	302							
								350	7.44	7.41	34.249	26.771	132.6	.603	352							
								400	6.98	6.96	34.248	26.835	127.0	.669	403							
								450	6.51	6.47	34.266	26.912	119.9	.730	453							
								500	6.25	6.21	34.285	26.962	115.8	.789	503							
STATION 83 60					RV DAVID STARR JORDAN					CALCOFI CRUISE 8107					STATION 83 70							
LATITUDE		LONGITUDE		DAY/MO/YR	MESSANGER		BOTTOM	LATITUDE		LONGITUDE		DAY/MO/YR	MESSANGER		BOTTOM							
33 34.7 N		120 45.3 W		08/07/81	0855 GMT		1368 M	33 14.7 N		121 26.6 W		08/07/81	1425 GMT		3918 M							
WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS							
310	13 KT	340	04 08	1	1011.5 MB	16.1 C	14.6 C	5/8 CC	320	11 KT	310	04 08	1	1011.2 MB	17.0 C	16.4 C	5/8 CC					
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	PRESS	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	PRESS							
M	DEG C	DEG C	THETA		D.BAR			M	DEG C	DEG C	THETA		D.BAR									
0	16.19	16.19	33.682	24.692	324.1	.000	0	0	15.53	15.53	33.384	24.411	331.8	.000	0							
10	16.19	16.19	33.686	24.695	324.1	.032	10	10	15.53	15.53	33.381	24.609	332.3	.033	10							
20	14.59	14.59	33.683	25.046	290.9	.063	20	20	15.54	15.54	33.379	24.606	332.9	.066	20							
30	12.87	12.87	33.671	25.391	258.4	.090	30	30	14.35	14.35	33.378	24.862	308.8	.098	30							
40	11.04	11.04	33.750	25.796	220.0	.114	40	40	13.73	13.72	33.377	24.991	296.8	.128	40							
50	10.35	10.34	33.763	25.928	207.7	.135	50	50	13.16	13.15	33.380	25.108	285.8	.157	50							
75	9.31	9.30	33.860	26.177	184.4	.184	75	75	12.00	11.99	33.265	25.244	273.4	.227	75							
100	9.08	9.07	33.966	26.298	173.4	.230	101	100	10.80	10.79	33.420	25.583	241.6	.291	100							
125	8.78	8.77	34.007	26.378	166.3	.272	126	125	9.05	9.04	33.750	26.134	189.5	.347	126							
150	8.55	8.53	34.073	26.465	158.4	.313	151	150	8.57	8.55	33.903	26.329	171.3	.391	151							
175	8.54	8.52	34.138	26.518	153.9	.352	176	175	8.40	8.38	33.946	26.389	166.0	.433	176							
200	8.39	8.37	34.156	26.556	150.7	.389	201	200	8.14	8.12	34.029	26.494	156.5	.473	201							
225	7.62	7.60	34.125	26.646	142.7	.464	252	225	8.00	7.98	34.080	26.555	151.1	.512	226							
250	7.16	7.13	34.106	26.696	138.1	.499	277	250	7.58	7.56	34.086	26.621	145.1	.548	251							
300	6.87	6.84	34.096	26.729	135.3	.532	302	300	6.83	6.80	34.107	26.742	133.9	.619	302							
350	6.89	6.86	34.230	26.832	126.3	.597	352	350	6.54	6.51	34.132	26.802	128.9	.684	352							
400	6.66	6.62	34.260	26.887	121.7	.660	403	400	6.33	6.29	34.201	26.884	121.7	.748	403							
450	6.37	6.33	34.278	26.940	117.2	.719	453	450	5.99	5.95	34.212	26.936	117.1	.807	453							
500	5.99	5.95	34.296	27.003	111.5	.777	504	500	5.81	5.77	34.292	27.022	109.5	.863	503							
STATION 83 80					RV DAVID STARR JORDAN					CALCOFI CRUISE 8107					STATION 83 90							
LATITUDE		LONGITUDE		DAY/MO/YR	MESSANGER		BOTTOM	LATITUDE		LONGITUDE		DAY/MO/YR	MESSANGER		BOTTOM							
32 54.7 N		122 07.7 W		08/07/81	2040 GMT		4187 M	32 34.7 N		122 48.7 W		09/07/81	0315 GMT		4398 M							
WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS							
360	11 KT	340	06 06	1																		

STATION 87 33			RV DAVID STARR JORDAN					CALCOFI CRUISE 8107					STATION 87 35										
LATITUDE	LONGITUDE	DAY/MO/YR	MESSANGER	BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSANGER	BOTTOM	WIND SPEED	WAVES WEA	BAROMETER	DRY	WET	CLOUDS	WIND SPEED	WAVES WEA	BAROMETER	DRY	WET	CLOUDS		
33 53.4 N	118 29.4 W	11/07/81	0315 GMT	55 M	33 49.4 N	118 37.7 W	11/07/81	0055 GMT	574 M	270 08 KT	1012.5 MB	19.9 C	18.5 C	8/8 ST	280 07 KT	280 01 01	1 1012.5 MB	21.0 C	18.9 C	1/8 ST			
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR
0	20.24	20.24	33.653	23.673	421.3	.000	0	0	21.57	21.57	33.686	23.340	453.0	.000	0	100	10.10	10.09	33.783	25.987	203.1	.275	100
10	17.51	17.51	33.489	24.235	368.0	.039	10	10	20.09	20.09	33.516	23.608	427.8	.044	10	125	9.83	9.82	33.924	26.143	188.8	.326	126
20	13.52	13.52	33.354	25.015	293.9	.072	20	20	16.17	16.17	33.523	24.575	335.9	.082	20	150	9.63	9.61	33.987	26.226	181.4	.372	151
30	12.27	12.27	33.419	25.312	265.9	.100	30	30	14.07	14.07	33.469	24.991	296.5	.113	30	175	9.45	9.43	34.062	26.315	173.5	.416	176
40	11.74	11.73	33.426	25.417	256.1	.126	40	40	11.98	11.97	33.569	25.483	249.8	.141	40	50	11.52	11.51	33.582	25.579	240.9	.165	50
								75	10.76	10.75	33.678	25.791	221.3	.223	75								
								100	10.10	10.09	33.783	25.987	203.1	.275	100								
								125	9.83	9.82	33.924	26.143	188.8	.326	126								
								150	9.63	9.61	33.987	26.226	181.4	.372	151								
								175	9.45	9.43	34.062	26.315	173.5	.416	176								
								200	9.21	9.19	34.163	26.433	162.7	.458	201								
								225	9.12	9.10	34.199	26.476	159.1	.498	226								
								250	8.98	8.95	34.211	26.508	156.6	.537	251								
								275	8.73	8.70	34.231	26.563	151.6	.577	277								
								300	8.46	8.43	34.265	26.632	145.5	.614	302								
								350	8.12	8.08	34.275	26.652	140.5	.685	352								
								400	7.79	7.75	34.272	26.739	136.7	.755	403								
								450	7.41	7.37	34.281	26.802	131.3	.821	453								
								500	6.85	6.80	34.270	26.871	125.0	.885	503								
STATION 87 40			RV DAVID STARR JORDAN					CALCOFI CRUISE 8107					STATION 87 45										
LATITUDE	LONGITUDE	DAY/MO/YR	MESSANGER	BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSANGER	BOTTOM	WIND SPEED	WAVES WEA	BAROMETER	DRY	WET	CLOUDS	WIND SPEED	WAVES WEA	BAROMETER	DRY	WET	CLOUDS		
33 39.4 N	118 58.5 W	10/07/81	2210 GMT	824 M	33 29.4 N	119 19.1 W	10/07/81	1640 GMT	1700 M	250 02 KT	280 02 03	1 1014.2 MB	20.3 C	18.0 C	2/8 ST	240 10 KT	250 04 08	1 1014.2 MB	18.8 C	17.8 C	7/8 ST		
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR
0	21.51	21.51	33.651	23.330	454.0	.000	0	0	19.46	19.46	33.675	23.893	400.3	.000	0	50	11.20	11.19	33.641	25.683	231.0	.155	50
10	18.90	18.90	33.662	24.026	388.0	.042	10	10	18.40	18.40	33.683	24.167	374.5	.039	10	75	9.94	9.93	33.730	25.972	204.0	.210	75
20	18.33	18.33	33.630	24.144	377.0	.080	20	20	16.32	16.32	33.635	24.626	331.0	.074	20	30	14.22	14.22	33.572	25.039	291.9	.105	30
30	16.45	16.45	33.569	24.546	339.0	.116	30	30	11.88	11.88	33.566	25.498	248.4	.132	40	40	11.88	11.88	33.566	25.498	248.4	.132	40
40	14.64	14.63	33.581	24.958	300.0	.148	40	50	11.20	11.19	33.641	25.683	231.0	.155	50	50	11.20	11.19	33.641	25.683	231.0	.155	50
50	12.22	12.21	33.603	25.464	251.9	.175	50	75	9.94	9.93	33.730	25.972	204.0	.210	75	75	224.9	224.9	33.730	25.972	204.0	.210	75
75	10.73	10.72	33.623	25.753	224.9	.234	75	100	9.47	9.46	33.859	26.151	187.4	.260	101	100	193.3	193.3	33.859	26.151	187.4	.260	101
100	9.60	9.59	33.807	26.089	193.3	.286	100	125	9.26	9.25	33.982	26.282	175.5	.305	126	125	177.6	177.6	33.982	26.282	175.5	.305	126
125	9.12	9.11	33.925	26.260	177.6	.334	125	150	8.99	8.97	34.061	26.387	165.9	.348	151	150	174.9	174.9	34.061	26.387	165.9	.348	151
150	9.62	9.60	34.073	26.295	174.9	.378	150	175	8.70	8.68	34.096	26.461	159.4	.388	176	175	174.9	174.9	34.096	26.461	159.4	.388	176
175	9.00	8.98	34.150	26.456	160.0	.420	176	200	8.53	8.51	34.130	26.514	154.8	.427	201	200	153.6	153.6	34.130	26.514	154.8	.427	201
200	8.78	8.76	34.196	26.527	153.6	.459	201	225	8.35	8.33	34.152	26.559	150.9	.465	226	225	153.6	153.6	34.152	26.559	150.9	.465	226
225	8.58	8.56	34.228	26.583	148.7	.496	226	250	8.10	8.07	34.184	26.622	145.3	.502	251	250	144.4	144.4	34.184	26.622	145.3	.502	251
250	8.41	8.38	34.257	26.633	144.4	.532	251	275	7.85	7.82	34.196	26.669	141.2	.539	277	275	140.9	140.9	34.196	26.669	141.2	.539	277
275	8.20	8.17	34.269	26.674	140.9	.569	277	300	7.68	7.65	34.217	26.710	137.6	.573	302	300	137.2	137.2	34.217	26.710	137.6	.573	302
300	8.01	7.98	34.287	26.717	137.2	.604	302	350	7.38	7.35	34.255	26.784	131.3	.640	352	350	132.4	132.4	34.255	26.784	131.3	.640	352
350	7.62	7.59	34.287	26.775	132.4	.671	352	400	7.01	6.97	34.246	26.829	127.5	.706	403	400	127.4	127.4	34.246	26.829	127.5	.706	403
400	7.05	7.01	34.256	26.831	127.4	.736	403	450	6.73	6.69	34.271	26.887	122.6	.768	453	450	120.0	120.0	34.271	26.887	122.6	.768	453
450	6.60	6.56	34.281	26.913	120.0	.798	453	500	6.43	6.38	34.282	26.936	118.4	.827	503	500	116.2	116.2	34.282	26.936	118.4	.827	503
STATION 87 50			RV DAVID STARR JORDAN					CALCOFI CRUISE 8107					STATION 87 55										
LATITUDE	LONGITUDE	DAY/MO/YR	MESSANGER	BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSANGER	BOTTOM	WIND SPEED	WAVES WEA	BAROMETER	DRY	WET	CLOUDS	WIND SPEED	WAVES WEA	BAROMETER	DRY	WET	CLOUDS		
33 19.4 N	119 39.8 W	10/07/81	1219 GMT	73 M	33 09.4 N	120 00.4 W	10/07/81	0825 GMT	1202 M	310 15 KT	1013.9 MB	16.8 C	15.7 C			310 19 KT	1014.9 MB	16.5 C	15.4 C				
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR
0	18.06	18.06	33.732	24.288	362.6	.000	0	0	18.35	18.35	33.727	24.212	369.8	.000	0	10	17.89	17.89	33.345	24.033	387.2	.038	10
10	17.57	17.57	33.599	24.305	361.3	.036	10	20	12.19	12.19	33.709	25.552	242.8	.069	20	30	11.11	11.11	33.702	25.746	224.5	.092	30
20	13.69	13.69	33.687	25.238	272.7	.068	20	40	10.47	10.47	33.748	25.895	210.5	.114	40	50	9.60	9.59	33.864	26.133	188.6	.183	50
30	11.64	11.64	33.717	25.661	232.6	.093	30	50	10.16	10.15	33.789	25.981	202.7	.135	50	75	9.02	9.01	34.006	26.338	169.6	.229	101
40	11.23	11.23	33.750	25.762	223.3	.115	40	100	8.65	8.65	34.082	26.455	158.9	.270	126	150	8.32	8.30	34.136	26.550	150.7	.347	176
50	10.14	10.13	33.806	25.998	20																		

STATION		87	60	RV DAVID STARR JORDAN						CALCOFI CRUISE 8107						STATION		87	70			
LATITUDE	LONGITUDE	DAY/MO/YR	MESSINGER	BOTTOM		LATITUDE	LONGITUDE	DAY/MO/YR	MESSINGER	BOTTOM												
32 59.4 N	120 21.0 W	10/07/81	0430 GMT	759 M		32 39.4 N	121 02.0 W	09/07/81	2200 GMT	3918 M												
WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND	SPEED	WAVES	WEA			
320	14 KT	1015.2 MB	16.4 C	15.4 C	300	06 KT	330 03 03	2	1013.9 MB	17.0 C	16.2 C	8/8 ST	300	06 KT	330 03 03	2	1013.9 MB	17.0 C	16.2 C	8/8 ST		
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	PRESS	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	PRESS	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA		
M	DEG C	DEG C	THETA		D.BAR		D.BAR	M	DEG C	DEG C	THETA		D.BAR		D.BAR	M	DEG C	DEG C	THETA			
0	16.19	16.19	33.629	24.651	328.0	.000	0	0	17.04	17.04	33.480	24.339	357.7	.000	0	0	17.04	17.04	33.459	24.514	.035	10
10	15.81	15.81	33.640	24.746	319.3	.032	10	10	16.22	16.22	33.459	24.514	341.4	.035	10	10	15.83	15.83	33.407	24.563	.337	20
20	15.24	15.24	33.635	24.869	307.9	.063	20	20	15.83	15.83	33.407	24.563	337.1	.069	20	20	14.69	14.69	33.505	24.585	.101	30
30	14.50	14.50	33.642	25.034	292.4	.093	30	30	14.69	14.69	33.505	24.585	306.6	.101	30	30	13.38	13.38	33.510	25.165	.280	40
40	13.97	13.96	33.579	25.097	286.7	.122	40	40	13.38	13.38	33.510	25.165	280.2	.130	40	40	12.01	12.01	33.530	25.446	.253	50
50	12.78	12.77	33.630	25.377	260.2	.149	50	50	12.02	12.02	33.530	25.446	253.7	.156	50	50	10.55	10.55	33.543	25.721	.227	75
75	11.01	11.00	33.706	25.768	223.5	.210	75	75	10.55	10.55	33.543	25.721	227.9	.216	75	75	9.75	9.75	33.731	26.005	.201	100
100	9.53	9.52	33.718	26.031	198.8	.262	100	100	9.74	9.74	33.731	26.005	201.3	.270	100	100	8.84	8.83	33.853	26.248	.184	126
125	8.84	8.83	33.853	26.248	178.6	.311	126	125	9.20	9.19	33.853	26.188	184.4	.320	126	125	8.46	8.44	33.945	26.338	.170	151
150	7.98	7.96	34.010	26.502	155.2	.394	176	150	8.79	8.77	33.958	26.338	170.5	.364	151	175	8.23	8.23	34.000	26.454	.154	176
175	7.40	7.38	34.040	26.610	145.6	.431	201	200	7.88	7.86	33.997	26.507	155.1	.444	201	200	7.51	7.49	34.076	26.592	.147	226
200	7.03	7.02	34.206	26.763	132.4	.572	302	300	6.57	6.54	34.067	26.746	133.4	.587	302	300	6.27	6.24	34.109	26.818	.127	352
300	6.62	6.59	34.204	26.848	124.6	.636	352	350	6.27	6.24	34.109	26.818	127.1	.652	352	350	5.80	5.77	34.139	26.902	.119	403
400	6.26	6.22	34.205	26.896	120.5	.698	403	400	5.80	5.77	34.139	26.902	119.5	.714	403	400	6.06	6.02	34.257	26.963	.114	453
450	5.92	5.88	34.271	26.992	111.8	.756	453	450	5.80	5.76	34.294	27.025	109.2	.772	453	450	5.72	5.68	34.320	27.056	.828	503

STATION		87	80	RV DAVID STARR JORDAN						CALCOFI CRUISE 8107						STATION		87	90			
LATITUDE	LONGITUDE	DAY/MO/YR	MESSINGER	BOTTOM		LATITUDE	LONGITUDE	DAY/MO/YR	MESSINGER	BOTTOM												
32 19.4 N	121 42.9 W	09/07/81	1525 GMT	4302 M		31 59.4 N	122 23.5 W	09/07/81	0910 GMT	4014 M												
WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND	SPEED	WAVES	WEA			
340	11 KT	320 03 06	2	1014.2 MB	15.6 C	14.5 C	8/8 SC	360	10 KT	360 10 KT	1016.5 MB	16.2 C	14.8 C	8/8 SC								
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	PRESS	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	PRESS	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA		
M	DEG C	DEG C	THETA		D.BAR		D.BAR	M	DEG C	DEG C	THETA		D.BAR		D.BAR	M	DEG C	DEG C	THETA			
0	16.73	16.73	33.537	24.456	346.6	.000	0	0	17.10	17.10	33.574	24.397	352.2	.000	0	0	17.10	17.10	33.554	24.387	.035	10
10	16.47	16.47	33.523	24.506	342.2	.034	10	10	17.08	17.08	33.554	24.387	353.5	.035	10	10	16.80	16.80	33.569	24.465	.070	20
20	15.12	15.12	33.520	24.807	313.8	.067	20	20	16.80	16.80	33.569	24.465	346.4	.070	20	20	16.72	16.72	33.506	24.436	.105	30
30	14.68	14.68	33.424	24.828	312.1	.098	30	30	16.72	16.72	33.506	24.436	347.5	.105	30	30	15.01	15.01	33.615	24.904	.137	40
40	14.07	14.06	33.381	24.923	303.2	.129	40	40	15.01	15.00	33.615	24.904	305.1	.137	40	40	14.61	14.60	33.593	24.974	.298	50
50	13.26	13.25	33.371	25.082	288.4	.158	50	50	14.61	14.60	33.593	24.974	298.8	.167	50	50	14.29	14.29	33.595	26.773	.126	75
75	11.68	11.68	33.482	25.472	251.7	.225	75	75	2.90	2.90	33.595	26.773	126.8	.220	75	75	11.34	11.34	33.611	26.907	.113	100
100	10.52	10.51	33.560	25.741	226.5	.285	100	100	1.34	1.34	33.611	26.907	113.8	.250	100	100	1.10	1.10	33.704	27.055	.99	126
125	9.70	9.69	33.710	25.998	202.6	.340	126	125	.10	.10	33.704	27.055	99.4	.278	126	125	9.39	9.37	33.795	26.115	.191	151
150	9.18	9.16	33.812	26.162	187.3	.389	151	150	9.39	9.37	33.795	26.115	191.8	.314	151	150	8.85	8.83	33.918	26.298	.174	176
175	8.78	8.76	33.963	26.344	170.5	.433	176	175	8.85	8.83	33.918	26.298	174.8	.359	176	175	8.50	8.48	34.005	26.410	.164	201
200	8.60	8.58	34.011	26.410	164.6	.475	201	200	8.57	8.55	34.005	26.410	164.6	.402	201	200	8.28	8.26	34.062	26.499	.156	226
225	8.23	8.21	34.076	26.518	154.7	.514	226	225	8.28	8.26	34.062	26.499	156.5	.441	226	225	8.02	7.99	34.096	26.565	.150	251
250	8.10	8.07	34.127	26.578	149.5	.552	251	250	8.02	7.99	34.096	26.565	150.6	.480	251	250	7.74	7.71	34.122	26.627	.145	277
275	7.83	7.80	34.142	26.629	144.9	.590	277	275	7.74	7.71	34.122	26.627	145.1	.518	277	275	7.45	7.45	34.146	26.683	.140	302
300	7.59	7.56	34.149	26.670	141.3	.626	302	300	7.48	7.45	34.146	26.683	140.0	.553	302	300	7.08	7.05	34.200	26.782	.131	352
350	7.19	7.16	34.188	26.758	133.6	.694	352	350	7.08	7.05	34.200	26.782	131.2	.620	352	350	6.72	6.68	34.230	26.855	.124	403
400	6.63	6.59	34.222	26.861	124.1	.759	403	400	5.99	5.95	34.202	26.898	117.9	.745	403	400	5.76	5.74	34.242	26.987	.112	453
450	6.31	6.27	34.247	26.923	118.7	.819	453	500	5.76	5.74	34.242	26.987	112.9	.803	503	500						

STATION		90	28	RV DAVID STARR JORDAN						CALCOFI CRUISE 8107						STATION		90	30
LATITUDE	LONGITUDE	DAY/MO/YR	MESSINGER	BOTTOM		LATITUDE	LONGITUDE	DAY/MO/YR	MESSINGER	BOTTOM									
33 29.1 N	117 46.1 W																		

STATION 90 37			RV DAVID STARR JORDAN						CALCOFI CRUISE 8107						STATION 90 45		
LATITUDE	LONGITUDE	DAY/MO/YR	MESSANGER		BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSANGER		BOTTOM						
33 11.1 N	118 23.2 W	11/07/81	1530	GMT	1202 M	32 55.1 N	118 56.1 W	11/07/81	2037	GMT	1812 M						
WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS		
230	06 KT	280	02 04	2	1014.6 MB	18.7 C	17.2 C	8/8 SC	290	11 KT	300	04 03	2	1014.6 MB	19.8 C	17.9 C	8/8 ST
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN	HT	PRESS	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN	HT	PRESS
M	DEG C	DEG C	THETA			D.BAR		D.BAR	M	DEG C	DEG C	THETA			D.BAR		D.BAR
0	21.61	21.61	33.682	23.326	454.4	.000	0		0	20.36	20.36	33.696	23.674	421.1	.000	0	
10	19.32	19.32	33.681	23.934	396.8	.042	10		10	19.31	19.31	33.574	23.854	404.3	.041	10	
20	18.04	18.04	33.613	24.202	371.5	.081	20		20	17.02	17.02	33.656	24.480	345.0	.078	20	
30	15.51	15.51	33.558	24.750	319.5	.115	30		30	14.61	14.61	33.496	24.898	305.4	.111	30	
40	14.24	14.23	33.495	24.976	298.3	.146	40		40	13.25	13.24	33.517	25.196	277.2	.140	40	
50	13.00	12.99	33.487	25.223	274.9	.174	50		50	12.05	12.04	33.447	25.375	260.3	.167	50	
75	11.00	10.99	33.601	25.688	231.1	.237	75		75	10.53	10.52	33.598	25.769	223.4	.227	75	
100	10.20	10.19	33.735	25.933	208.3	.292	100		100	9.81	9.80	33.699	25.970	204.7	.280	100	
125	9.42	9.41	34.916	26.987	108.8	.333	125		125	9.12	9.11	33.858	26.207	182.5	.330	126	
150	9.17	9.15	34.013	26.321	172.3	.368	150		150	8.67	8.65	33.972	26.368	167.7	.374	151	
175	8.86	8.84	34.086	26.428	162.6	.409	175		175	8.40	8.38	34.056	26.475	157.9	.414	176	
200	8.60	8.58	34.106	26.484	157.6	.449	200		200	8.24	8.22	34.118	26.549	151.3	.452	201	
225	8.56	8.54	34.175	26.545	152.3	.488	225		225	8.04	8.02	34.145	26.600	146.9	.489	226	
250	8.33	8.30	34.246	26.636	144.1	.524	250		250	7.86	7.84	34.188	26.661	141.5	.525	251	
275	8.14	8.11	34.279	26.691	139.2	.561	275		275	7.83	7.80	34.205	26.679	140.2	.562	277	
300	7.96	7.93	34.290	26.727	136.2	.595	300		300	7.67	7.64	34.238	26.728	135.9	.596	302	
350	7.66	7.63	34.285	26.768	133.1	.662	350		350	7.17	7.14	34.247	26.807	128.9	.661	352	
400	7.19	7.15	34.281	26.832	127.4	.728	400		400	6.99	6.95	34.291	26.867	123.9	.725	403	
450	6.84	6.80	34.281	26.880	123.3	.790	450		450	6.57	6.53	34.289	26.923	119.0	.786	453	
500	6.51	6.46	34.309	26.947	117.5	.850	500		500	6.25	6.21	34.301	26.974	114.6	.844	503	

STATION 90 53			RV DAVID STARR JORDAN						CALCOFI CRUISE 8107						STATION 90 60		
LATITUDE	LONGITUDE	DAY/MO/YR	MESSANGER		BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSANGER		BOTTOM						
32 39.1 N	119 28.9 W	12/07/81	0205	GMT	1387 M	32 25.1 N	119 57.6 W	12/07/81	0630	GMT	925 M						
WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS		
310	25 KT	300	04 03	0	1012.5 MB	17.7 C	16.2 C	0/8	310	22 KT	310	1013.9 MB	16.2 C	15.1 C			
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN	HT	PRESS	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN	HT	PRESS
M	DEG C	DEG C	THETA			D.BAR		D.BAR	M	DEG C	DEG C	THETA			D.BAR		D.BAR
0	18.89	18.89	33.745	24.091	381.4	.000	0		0	18.12	18.12	33.752	24.288	362.6	.000	0	
10	18.83	18.83	33.698	24.071	383.7	.038	10		10	18.14	18.14	33.743	24.277	364.0	.036	10	
20	17.39	17.39	33.642	24.382	354.4	.075	20		20	18.01	18.01	33.602	24.201	371.6	.073	20	
30	13.27	13.27	33.602	25.258	271.1	.106	30		30	14.14	14.14	33.629	25.100	286.1	.106	30	
40	11.38	11.38	33.595	25.614	237.3	.131	40		40	12.68	12.67	33.664	25.423	255.6	.133	40	
50	10.39	10.38	33.744	25.906	209.8	.154	50		50	12.08	12.07	33.735	25.593	239.6	.157	50	
75	9.33	9.32	33.834	26.154	186.6	.203	75		75	10.06	10.05	33.784	25.994	201.9	.212	75	
100	8.68	8.67	33.936	26.337	169.6	.249	101		100	9.18	9.17	33.906	26.235	179.4	.259	100	
125	8.54	8.53	34.056	26.453	159.1	.290	126		125	8.76	8.75	34.052	26.416	162.7	.304	126	
150	8.33	8.31	34.090	26.512	153.9	.329	151		150	8.40	8.38	34.107	26.515	153.7	.343	151	
175	8.18	8.16	34.142	26.576	148.2	.366	176		175	8.13	8.11	34.140	26.582	147.7	.380	176	
200	8.03	8.01	34.174	26.624	144.1	.402	201		200	7.95	7.93	34.168	26.631	143.4	.417	201	
225	7.78	7.76	34.172	26.660	141.1	.438	226		225	7.72	7.70	34.172	26.668	140.3	.452	226	
250	7.31	7.29	34.168	26.724	135.2	.473	252		250	7.49	7.47	34.175	26.704	137.2	.486	251	
275	7.04	7.01	34.176	26.768	131.3	.507	277		275	7.28	7.25	34.181	26.739	134.2	.521	277	
300	6.91	6.88	34.194	26.800	128.5	.539	302		300	7.07	7.04	34.203	26.785	130.1	.554	302	
350	6.81	6.78	34.258	26.865	123.2	.601	352		350	6.76	6.73	34.241	26.858	123.8	.617	352	
400	6.54	6.50	34.275	26.915	119.0	.663	403		400	6.43	6.39	34.266	26.922	118.2	.678	403	
450	6.32	6.28	34.291	26.957	115.6	.721	453		450	5.97	5.93	34.306	27.013	109.9	.735	453	
500	6.10	6.06	34.305	26.997	112.3	.777	503		500	5.75	5.71	34.324	27.055	106.4	.788	503	

STATION 90 70			RV DAVID STARR JORDAN						CALCOFI CRUISE 8107						STATION 90 80		
LATITUDE	LONGITUDE	DAY/MO/YR	MESSANGER		BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSANGER		BOTTOM						
32 05.1 N	120 38.3 W	12/07/81	1240	GMT	4110 M	31 45.1 N	121 18.9 W	12/07/81	1935	GMT	3730 M						
WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS		
330	24 KT	330	06 06	1	1015.2 MB	15.5 C	14.5 C	6/8 CU	330	23 KT	330	07 05	1	1016.5 MB	16.5 C	14.9 C	2/8 CU
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN	HT	PRESS	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN	HT	PRESS
M	DEG C	DEG C	THETA			D.BAR		D.BAR	M	DEG C	DEG C	THETA			D.BAR		D.BAR
0	17.04	17.04	33.541	24.386	353.2	.000	0		0	16.90	16.90	33.560	24.434	348.7	.000	0	
10	17.05	17.05	33.540	24.384	353.8	.035	10		10	16.81	16.81	33.568	24.461	346.4	.035	10	
20	17.05	17.05	33.532	24.378	354.7	.071	20		20	16.81	16.81	33.569	24.463	346.6	.069	20	
30	16.70	16.70	33.518	24.449	348.2	.106	30		30	16.74	16.74	33.564	24.475	345.7	.104	30	
40	15.95	15.94	33.525	24.627	331.6	.139	40		40	16.55	16.54	33.562	24.				

STATION		90	90	RV DAVID STARR JORDAN						CALCOFI CRUISE 8107						STATION		93	26.7	
LATITUDE	LONGITUDE	DAY/MO/YR	MESSINGER	BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSINGER	BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSINGER	BOTTOM						
31 25.1 N	121 59.4 W	13/07/81	0226 GMT	4014 M	32 57.4 N	117 18.3 W	15/07/81	1100 GMT	64 M											
WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS			WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS			
330 21 KT	340 08 05	1	1016.3 MB	16.8 C	15.0 C	4/8 SC			120 05 KT		1011.5 MB		21.8 C	19.7 C						
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN	HT	PRESS	D.BAR	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN	HT	PRESS	D.BAR	
M	DEG C	DEG C		THETA						M	DEG C	DEG C		THETA						
0	17.29	17.29	33.508	24.302	361.3	.000	0			0	22.87	22.87	33.674	22.967	488.7	.000	0			
10	17.30	17.30	33.501	24.294	362.3	.036	10			10	15.44	15.44	33.541	24.752	318.7	.040	10			
20	17.30	17.30	33.497	24.292	362.9	.072	20			20	13.87	13.87	33.515	25.068	288.9	.070	20			
30	17.18	17.18	33.475	24.304	362.1	.108	30			30	12.82	12.82	33.516	25.280	268.9	.098	30			
40	15.95	15.94	33.269	24.430	350.3	.144	40			40	12.00	11.99	33.570	25.480	250.1	.124	40			
50	14.69	14.68	33.421	24.824	313.1	.177	50			50	11.90	11.89	33.602	25.524	246.2	.149	50			
75	12.79	12.78	33.415	25.209	276.8	.250	75													
100	11.39	11.38	33.574	25.598	240.3	.315	100													
125	10.17	10.16	33.648	25.870	214.7	.373	126													
150	9.10	9.08	33.819	26.180	185.6	.423	151													
175	8.64	8.62	33.950	26.355	169.3	.467	176													
200	7.98	7.96	34.008	26.501	155.8	.508	201													
225	7.62	7.60	34.036	26.576	148.9	.545	226													
250	7.34	7.32	34.046	26.624	144.7	.582	251													
275	7.14	7.11	34.054	26.658	141.7	.619	277													
300	6.95	6.92	34.082	26.707	137.4	.653	302													
350	6.62	6.59	34.134	26.793	129.8	.720	352													
400	6.25	6.22	34.189	26.883	121.7	.782	402													
450	6.01	5.97	34.221	26.941	116.7	.842	453													
500	5.76	5.72	34.256	27.000	111.5	.899	503													
STATION		93	28	RV DAVID STARR JORDAN						CALCOFI CRUISE 8107						STATION		93	30	
LATITUDE	LONGITUDE	DAY/MO/YR	MESSINGER	BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSINGER	BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSINGER	BOTTOM						
32 54.8 N	117 23.7 W	15/07/81	0850 GMT	594 M	32 50.8 N	117 31.9 W	15/07/81	0615 GMT	832 M											
WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS			WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS			
290 03 KT				1011.9 MB	21.9 C	20.8 C			280 03 KT				1011.5 MB	22.6 C	20.8 C					
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN	HT	PRESS	D.BAR	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN	HT	PRESS	D.BAR	
M	DEG C	DEG C		THETA						M	DEG C	DEG C		THETA						
0	23.25	23.25	33.640	22.832	501.5	.000	0			0	23.16	23.16	33.463	22.724	511.9	.000	0			
10	18.56	18.56	33.715	24.151	376.0	.044	10			10	20.71	20.71	33.553	23.473	440.8	.048	10			
20	15.64	15.64	33.504	24.679	325.9	.079	20			20	16.49	16.49	33.512	24.493	343.7	.087	20			
30	14.38	14.38	33.544	24.984	297.1	.110	30			30	15.20	15.20	33.508	24.780	316.6	.119	30			
40	13.12	13.11	33.576	25.268	270.4	.138	40			40	13.24	13.23	33.573	25.241	272.9	.149	40			
50	12.40	12.39	33.581	25.413	256.8	.164	50			50	12.37	12.36	33.592	25.396	258.4	.175	50			
75	10.79	10.78	33.605	25.729	227.2	.224	75			75	11.10	11.09	33.648	25.707	229.3	.236	75			
100	10.24	10.23	33.734	25.925	209.0	.279	100			100	10.14	10.14	33.704	25.929	209.6	.249	100			
125	9.85	9.84	33.851	26.083	194.5	.331	126			125	9.76	9.75	33.884	26.124	190.7	.342	126			
150	9.66	9.64	33.975	26.212	182.8	.378	151			150	9.67	9.65	34.048	26.267	177.6	.368	151			
175	9.46	9.44	34.090	26.335	171.6	.422	176			175	9.58	9.56	34.140	26.354	169.8	.403	176			
200	9.38	9.36	34.164	26.406	165.4	.464	201			200	9.45	9.43	34.208	26.429	163.2	.447	201			
225	9.27	9.25	34.218	26.467	160.1	.504	226			225	9.29	9.27	34.253	26.491	157.8	.544	226			
250	9.11	9.08	34.241	26.511	156.4	.543	251			250	9.13	9.10	34.279	26.538	153.9	.523	251			
275	9.00	8.97	34.250	26.536	154.4	.583	277			275	8.95	8.92	34.287	26.573	151.0	.562	277			
300	8.74	8.71	34.254	26.580	150.6	.621	302			300	8.82	8.79	34.298	26.602	148.6	.602	302			
350	8.30	8.26	34.257	26.651	144.6	.694	352			350	8.39	8.35	34.301	26.672	142.7	.762	352			
400	7.79	7.75	34.274	26.741	136.6	.766	403			400	7.88	7.84	34.294	26.743	136.5	.765	403			
450	7.23	7.19	34.277	26.823	129.1	.832	453			450	7.37	7.33	34.301	26.823	129.3	.808	453			
500	6.76	6.71	34.280	26.891	123.0	.894	503			500	6.80	6.75	34.299	26.900	122.2	.871	495			
STATION		93	35	RV DAVID STARR JORDAN						CALCOFI CRUISE 8107						STATION		93	40	
LATITUDE	LONGITUDE	DAY/MO/YR	MESSINGER	BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSINGER	BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSINGER	BOTTOM						
32 40.8 N	117 52.4 W	15/07/81	0230 GMT	611 M	32 30.8 N	118 12.8 W	14/07/81	2215 GMT	1664 M											
WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS			WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS			
260 09 KT	270 03 03	1	1011.5 MB	21.5 C	20.0 C	3/8 AC			300 12 KT	300 02 03	1	1012.2 MB	20.9 C	19.3 C	4/8 AC					
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN	HT	PRESS	D.BAR	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN	HT	PRESS	D.BAR	
M	DEG C	DEG C		THETA						M	DEG C	DEG C		THETA						
0	22.50	22.50	33.748	23.128	473.3	.000	0			0	21.39	21.39	33.742	23.432	444.3	.000	0			
10	18.81	18.81	33.711	24.086	382.2	.043	10			10	20.25	20.25	33.534	23.580	430.5	.044	10			
20	18.51	18.51	33.566	24.050	386.0	.081	20			20	16.95	16.95	33.668	24.506	342.5	.082	20			
30	16.45	16.45	33.603	24.573	336.5	.117	30			30	15.38	15.38	33.541	24.766	318.0	.115	30			
40	15.30	15.29	33.567	24.804	314.7	.149	40			40	14.33	14.32	33.596	25.035	292.6	.145	40			
50	14.79	14.78	33.529	24.886	307.1	.180	50			50	13.61	13.60	33.600	25.188	278.3	.174	50			
75	12.16	12.15	33.492	25.390	259.5	.251	75			75	11.37	11.36	33.566	25.594	240.0	.238	75			
100	10.28	10.27	33.618	25.828	218.3	.310	100			100	9.96	9.95	33.682	25.932	208.3	.294	100			
125	9.58	9.57	33.813	26.098	193.1	.363	126			125	9.34	9.33	33.799	26.126	190.3	.346	126			
150	9.37	9.35	33.887	26.190	184.8	.410	151			150	8.94	8.92	33.919	26.284	175.7	.391	151			
175	8.96	8.94	34.010	26.353	169.7	.454	176			175	8.62	8.60	34.040	26.429	162.3	.433	176			
200	8.98	8.96	34.184</																	

CORRIGENDA

PHYSICAL, CHEMICAL AND BIOLOGICAL DATA REPORT, SIO Reference 85-12

The tabulated temperature is in error at 100 m, station 93 30,
Cruise 8107 (p. 134). The correct data are listed below:

DEPTH	TEMP	POT TEMP	SIGMA THETA	SVA	DYN HT
100	10.14	10.13	25.919	209.6	.290
125					.342
150					.388
175					.431
200					.472
225					.512
250					.551
275					.590
300					.628
350					.700
400					.770
450					.836
500					.899

STATION 93 45

RV DAVID STARR JORDAN

CALCOFI CRUISE 8107

STATION 93 50

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENDER	BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSENDER	BOTTOM						
WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS								
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR
32 20.8 N	118 33.5 W	14/07/81	1715 GMT	1387 M	32 10.8 N	118 53.6 W	14/07/81	1245 GMT	1525 M						
310	14 KT	290 03 05	1	1013.2 MB	19.9 C	18.5 C	6/8 CU	310	13 KT	290 03 06	1	1012.9 MB	17.4 C	16.7 C	4/8 SC
0	20.39	20.39	33.705	23.673	421.3	.000	0	0	18.61	18.61	33.740	24.158	375.0	.000	0
10	18.97	18.97	33.570	23.938	396.4	.041	10	10	18.62	18.62	33.728	24.146	376.5	.037	10
20	17.00	17.00	33.608	24.448	348.0	.078	20	20	15.43	15.43	33.603	24.802	314.2	.072	20
30	14.96	14.96	33.545	24.861	308.9	.111	30	30	13.87	13.87	33.578	25.117	284.5	.102	30
40	14.09	14.08	33.622	25.105	285.9	.140	40	40	12.64	12.63	33.599	25.380	259.7	.129	40
50	13.69	13.68	33.621	25.188	278.3	.168	50	50	11.35	11.34	33.609	25.631	236.0	.153	50
75	11.48	11.47	33.574	25.581	241.4	.233	75	75	10.02	10.01	33.697	25.933	207.7	.209	75
100	9.78	9.77	33.704	25.979	203.8	.288	100	100	9.29	9.28	33.871	26.190	183.7	.257	100
125	9.26	9.25	33.840	26.171	186.0	.339	126	125	8.88	8.87	33.982	26.342	169.7	.303	126
150	8.85	8.83	33.943	26.317	172.6	.383	151	150	8.78	8.76	34.067	26.425	162.3	.344	151
175	8.58	8.56	33.998	26.402	164.9	.425	176	175	8.58	8.56	34.124	26.501	155.5	.384	176
200	8.19	8.17	34.072	26.520	154.0	.465	201	200	8.34	8.32	34.146	26.555	150.8	.422	201
225	8.26	8.24	34.145	26.567	150.1	.502	226	225	8.02	8.00	34.150	26.607	146.2	.458	226
250	8.09	8.06	34.216	26.649	142.7	.539	251	250	7.74	7.72	34.156	26.653	142.1	.494	251
275	7.84	7.81	34.225	26.693	138.9	.575	277	275	7.58	7.55	34.190	26.703	137.8	.530	277
300	7.64	7.61	34.238	26.733	135.4	.609	302	300	7.27	7.24	34.214	26.766	132.0	.564	302
350	7.24	7.21	34.262	26.809	128.8	.675	352	350	6.89	6.86	34.229	26.831	126.4	.628	352
400	6.83	6.79	34.295	26.892	121.4	.738	403	400	6.52	6.48	34.263	26.908	119.7	.690	403
450	6.53	6.49	34.324	26.955	115.9	.797	453	450	6.32	6.28	34.275	26.944	116.8	.749	453
500	6.10	6.06	34.314	27.004	111.6	.853	503	500	6.01	5.97	34.323	27.022	109.8	.805	503
								520	5.94	5.89	34.324	27.032	109.1	.828	524

STATION 93 55

RV DAVID STARR JORDAN

CALCOFI CRUISE 8107

STATION 93 60

LATITUDE	LONGITUDE	DAY/MO/YR	MESSINGER	BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSINGER	BOTTOM						
WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	PRESS	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	PRESS
M	DEG C	DEG C	THETA		D.BAR			M	DEG C	DEG C	THETA		D.BAR		
0	18.13	18.13	33.727	24.267	364.6	.000	0	0	17.50	33.725	24.418	350.2	.000	0	
10	18.03	18.03	33.707	24.276	364.1	.036	10	10	17.50	33.723	24.417	350.7	.035	10	
20	14.37	14.37	33.758	25.151	281.0	.068	20	20	15.54	35.560	24.745	319.7	.068	20	
30	13.67	13.67	33.597	25.173	279.2	.096	30	30	13.93	33.350	24.928	302.4	.099	30	
40	12.22	12.21	33.618	25.476	250.5	.123	40	40	12.97	33.549	25.276	269.5	.128	40	
50	11.47	11.46	33.699	25.679	231.4	.147	50	50	12.63	33.664	25.433	254.9	.154	50	
75	10.08	10.07	33.712	25.935	207.5	.201	75	75	10.95	33.631	25.720	228.0	.214	75	
100	9.01	9.00	33.926	26.278	175.3	.251	101	100	9.96	33.779	26.008	201.1	.267	100	
125	8.76	8.75	34.002	26.377	166.4	.293	126	125	9.12	33.864	26.212	182.1	.317	126	
150	8.48	8.46	34.087	26.487	156.3	.333	151	150	8.61	34.003	26.401	164.5	.360	151	
175	8.24	8.22	34.159	26.564	149.3	.371	176	175	8.33	34.056	26.487	156.7	.400	176	
200	8.09	8.07	34.190	26.627	143.8	.408	201	200	7.98	34.098	26.572	149.0	.438	201	
225	7.68	7.66	34.194	26.691	138.0	.443	226	225	7.68	34.128	26.639	142.9	.474	226	
250	7.49	7.47	34.201	26.724	135.2	.477	251	250	7.57	34.180	26.697	137.9	.509	251	
275	7.40	7.37	34.239	26.767	131.6	.511	277	275	7.59	34.222	26.727	135.5	.544	277	
300	7.16	7.13	34.262	26.819	126.9	.543	302	300	7.33	34.234	26.774	131.4	.577	302	
350	6.78	6.75	34.261	26.871	122.6	.605	352	350	6.82	34.245	26.853	124.3	.641	352	
400	6.36	6.32	34.288	26.949	115.6	.665	403	400	6.49	34.262	26.911	119.3	.702	403	
450	6.10	6.06	34.310	27.000	111.3	.721	453	450	6.24	34.289	26.966	114.7	.760	453	
500	5.97	5.93	34.317	27.022	109.7	.776	503	500	6.00	34.310	27.013	110.6	.816	503	

STATION 93 70

RV DAVID STARR JORDAN

CALCOFI CRUISE 8107

STATION 93 80

LATITUDE	LONGITUDE	DAY/MO/YR	MESSINGER	BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSINGER	BOTTOM						
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN	HT PRESS	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN	HT PRESS
M	DEG C	DEG C		THETA		D.BAR	D.BAR	M	DEG C	DEG C		THETA		D.BAR	D.BAR
31	30.8 N	120 14.8 W	13/07/81	2105 GMT	3730 M	31	10.8 N	120 55.2 W	13/07/81	1420 GMT	3918 M				
WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
320	17 KT	330 04 04	2	1016.5 MB	17.1 C	15.6 C	8/8 ST	340	23 KT	330 07 05	1	1015.9 MB	16.5 C	15.3 C	5/8 SC
0	17.62	17.62	33.699	24.369	354.9	.000	0	0	17.90	17.90	33.570	24.203	370.7	.000	0
10	17.59	17.59	33.692	24.371	355.0	.035	10	10	17.91	17.91	33.567	24.198	371.5	.037	10
20	16.75	16.75	33.470	24.400	352.5	.071	20	20	17.92	17.92	33.567	24.196	372.0	.074	20
30	15.09	15.09	33.616	24.887	306.4	.103	30	30	17.89	17.88	33.546	24.188	373.2	.111	30
40	14.14	14.13	33.567	25.052	290.9	.133	40	40	16.70	16.69	33.508	24.442	349.2	.147	40
50	13.36	13.35	33.556	25.204	276.7	.161	50	50	15.78	15.77	33.368	24.545	339.7	.181	50
75	12.21	12.20	33.619	25.479	251.1	.227	75	75	13.43	13.42	33.428	25.092	288.1	.260	75
100	10.39	10.38	33.616	25.807	220.2	.286	100	100	11.99	11.98	33.639	25.537	246.2	.326	100
125	9.64	9.63	33.746	26.036	199.0	.340	126	125	10.30	10.29	33.661	25.858	215.9	.386	126
150	9.13	9.11	33.842	26.193	184.3	.387	151	150	9.17	9.15	33.754	26.118	191.5	.436	151
175	8.64	8.62	33.933	26.342	170.6	.432	176	175	8.75	8.73	33.853	26.262	178.2	.482	176
200	8.33	8.31	34.070	26.497	156.3	.472	201	200	8.32	8.30	33.947	26.403	165.2	.525	201
225	8.07	8.05	33.132	25.800	222.5	.519	226	225	8.04	8.02	34.018	26.500	156.3	.565	226
250	7.66	7.64	34.201	26.700	137.7	.564	251	250	7.89	7.87	34.067	26.561	150.9	.603	251
275	7.87	7.84	34.183	26.656	142.4	.600	277	275	7.60	7.57	34.090	26.622	145.4	.641	277
300	7.46	7.43	34.214	26.740	134.7	.634	302	300	7.28	7.25	34.113	26.686	139.6	.677	302
350	6.99	6.96	34.205	26.799	129.6	.700	352	350	6.77	6.74	34.134	26.772	131.9	.744	352
400	6.56	6.52	34.201	26.854	124.8	.763	402	400	6.44	6.40	34.185	26.857	124.4	.808	402
450	6.27	6.23	34.262	26.940	117.1	.824	453	450	6.13	6.09	34.222	26.927	118.2	.869	453
500	6.01	5.97	34.305	27.008	111.1	.881	503	500	5.99	5.95	34.273	26.985	113.2	.926	503

STATION 93 90 RV DAVID STARR JORDAN CALCOFI CRUISE 8107 RV NEW HORIZON STATION 100 29.2

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM						
30 50.8 N	121 35.4 W	13/07/81	0825 GMT	4198 M	31 42.4 N	116 43.7 W	28/07/81	0041 GMT	93 M						
WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
350	22 KT			1016.9 MB	16.8 C	14.9 C		300	17 KT	300 03 04	1	1013.9 MB	19.8 C	18.0 C	1/8 ST
0	18.48	18.48	33.575	24.064	384.0	.000	0	0	18.33	18.33	33.574	24.100	380.5	.000	0
10	18.49	18.49	33.570	24.058	384.9	.038	10	10	17.15	17.15	33.604	24.409	351.4	.036	10
20	18.50	18.50	33.558	24.047	386.3	.077	20	20	14.58	14.58	33.643	25.018	293.7	.069	20
30	17.15	17.15	33.911	24.338	358.8	.114	30	30	12.88	12.88	33.563	25.305	266.6	.096	30
40	16.54	16.53	33.426	24.416	351.7	.149	40	40	12.31	12.30	33.561	25.414	256.4	.123	40
50	15.50	15.49	33.431	24.656	329.1	.183	50	50	11.81	11.80	33.591	25.532	245.4	.147	50
75	13.66	13.65	33.475	25.082	289.1	.260	75	75	10.98	10.97	33.722	25.786	221.8	.206	75
100	11.83	11.82	33.903	25.461	253.4	.328	100	86	10.82	10.81	33.741	25.830	217.9	.230	86
125	10.36	10.35	33.637	25.830	218.7	.389	126								
150	9.31	9.29	33.766	26.105	192.8	.440	151								
175	8.80	8.78	33.892	26.285	176.0	.486	176								
200	8.43	8.41	33.958	26.394	166.0	.528	201								
225	8.10	8.08	33.994	26.473	159.0	.568	226								
250	7.63	7.61	34.028	26.568	150.1	.607	251								
275	7.28	7.25	34.037	26.625	144.9	.643	276								
300	6.82	6.79	34.049	26.698	138.1	.680	302								
350	6.54	6.51	34.083	26.763	132.6	.747	352								
400	6.22	6.18	34.138	26.848	125.0	.811	402								
450	5.82	5.78	34.199	26.948	115.9	.872	453								
500	5.75	5.71	34.273	27.015	110.1	.928	503								

STATION 100 30 RV NEW HORIZON CALCOFI CRUISE 8107 STATION 100 35

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM						
31 41.0 N	116 46.5 W	27/07/81	2150 GMT	390 M	31 31.0 N	117 07.5 W	27/07/81	1720 GMT	1221 M						
WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
300	15 KT	310 02 04	4	1015.2 MB	21.3 C	18.5 C	0/8	320	12 KT	310 02 08	1	1016.9 MB	20.3 C	17.9 C	7/8 ST
0	19.68	19.68	33.605	23.783	410.8	.000	0	0	20.73	20.73	33.710	23.586	429.5	.000	0
10	17.72	17.72	33.614	24.280	363.7	.039	10	10	20.64	20.64	33.702	23.605	428.2	.043	10
20	14.96	14.96	33.541	24.857	309.0	.072	20	20	20.24	20.24	33.685	23.698	419.6	.085	20
30	13.19	13.19	33.548	25.232	273.5	.101	30	30	18.31	18.30	33.633	24.152	376.7	.125	30
40	12.57	12.56	33.547	25.353	262.2	.128	40	40	16.22	16.21	33.566	24.597	334.2	.160	40
50	11.96	11.95	33.574	25.491	249.3	.153	50	50	15.08	15.07	33.556	24.844	311.2	.192	50
75	10.92	10.91	33.693	25.766	223.7	.212	75	75	12.70	12.69	33.599	25.369	261.6	.264	75
100	10.55	10.54	33.789	25.915	210.1	.266	100	100	11.06	11.05	33.703	25.758	225.1	.324	100
125	10.16	10.15	33.936	26.097	193.3	.318	126	125	10.33	10.32	33.809	25.969	205.5	.380	126
150	9.88	9.86	34.058	26.240	180.2	.365	151	150	9.80	9.78	33.966	26.181	185.7	.428	151
175	9.67	9.65	34.104	26.311	173.9	.408	176	175	9.35	9.33	34.049	26.321	172.9	.473	176
200	9.32	9.30	34.177	26.426	165.4	.450	201	200	9.26	9.24	34.083	26.362	169.4	.515	201
225	9.33	9.31	34.242	26.476	159.2	.490	226	225	9.03	9.01	34.134	26.440	162.5	.557	226
250	9.06	9.03	34.255	26.530	154.6	.529	251	250	9.41	9.38	34.298	26.507	156.9	.596	251
275	8.79	8.76	34.271	26.585	149.6	.569	277	275	8.65	8.62	34.240	26.583	149.8	.636	277
300	8.60	8.57	34.278	26.621	146.7	.605	302	300	8.67	8.64	34.321	26.644	144.6	.672	302
350	8.05	8.01	34.304	26.726	137.3	.676	352	350	7.69	7.66	34.233	26.722	137.4	.742	352
400							400	7.12	7.08	34.260	26.825	128.0	.808	402	
450							450	6.88	6.84	34.315	26.902	121.4	.871	453	
500							500	6.39	6.34	34.316	26.968	115.3	.930	503	
							543	6.25	6.20	34.349	27.013	111.6	.980	547	

STATION 100 40 RV NEW HORIZON CALCOFI CRUISE 8107 STATION 100 45

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM						
31 20.6 N	117 27.6 W	27/07/81	1220 GMT	1905 M	31 10.8 N	117 47.2 W	27/07/81	0800 GMT	1707 M						
WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS
300	15 KT			1015.9 MB	17.8 C	14.8 C		320	08 KT			1015.2 MB	17.1 C	15.1 C	
0	20.94	20.94	33.770	23.575	430.6	.000	0	0	19.89	19.89	33.694	23.796	409.5	.000	0
10	20.94	20.94	33.767	23.574	431.1	.043	10	10	19.89	19.89	33.694	23.796	409.9	.041	10
20	19.79	19.79	33.702	23.829	407.1	.085	20	20	19.89	19.89	33.696	23.798	410.0	.082	20
30	17.98	17.97	33.637	24.236	368.6	.123	30	30	18.85	18.84	33.648	24.029	388.4	.122	30
40	16.76	16.75	33.573	24.478	345.8	.159	40	40	17.88	17.87	33.606	24.237	368.9	.159	40
50	16.14	16.13	33.555	24.607	333.8	.195	50	50	16.96	16.95	33.580	24.437	350.1	.195	50
75	13.54	13.53	33.510	25.133	284.2	.270	75	75	14.65	14.64	33.528	24.916	305.0	.277	75
100	12.43	12.42	33.522	25.363	262.9	.338	100	100	12.68	12.67	33.532	25.322	266.8	.348	100
125	10.67	10.66	33.595	25.743	227.0	.401	126	125	10.70	10.69	33.651	25.781	223.4	.411	126
150	9.64	9.62	33.725	26.020	201.0	.454	151	150	9.79	9.77	33.759	26.021	200.9	.464	151
175	9.11	9.09	33.921	26.259	178.6	.501	176	175	9.25	9.23	33.873	26.199	184.3	.512	176
200	8.88	8.86	34.038	26.388	166.9	.544	201	200	9.05	9.03	33.956	26.297	175.6	.556	201
225	8.63	8.61	34.098	26.474	159.1	.585	226	225	8.55	8.53	34.033	26.435	162.7	.598	226
250	8.48	8.45	34.149	26.537	153.5	.624	251	250	8.23	8.20	34.079	26.520	155.0	.638	251
275	8.21	8.18	34.196	26.615	146.4	.662	277	275	7.82	7.79	34.113	26.608	146.9	.675	276
300	7.90	7.87	34.214	26.676	141.0	.698	302	300	7.62	7.59	34.162	26.676	140.8	.712	302
350	7.43	7.40	34.257	26.778	131.8	.766	352	350	7.20	7.17	34.185	26.754	134.0	.781	352
400	6.99	6.95	34.284	26.862	124.5	.829	402	400	6.54	6.50	34.171	26.833	126.7	.845	402
450	6.58	6.54	34.308	26.936	117.8	.891	453	450	6.19	6.15	34.214	26.913	119.6	.908	453
500	6.28	6.24	34.328	26.992	113.0	.948	503	500	5.90	5.86	34.249	26.977	113.9	.965	503
							515	5.84	5.80	34.270	27.002	111.7	.982	518	

STATION 100 50					RV NEW HORIZON					CALCOFI CRUISE 8107					STATION 100 60				
LATITUDE	LONGITUDE	DAY/MO/YR	MESSANGER	BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSANGER	BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSANGER	BOTTOM					
31 02.6 N	118 07.6 W	27/07/81	0139 GMT	1736 M	30 40.9 N	118 47.1 W	26/07/81	1850 GMT	2962 M	30 01.5 N	118 47.1 W	26/07/81	1850 GMT	2962 M					
WIND SPEED	WAVES	WEA	BAROMETER	DRY WET CLOUDS	WIND SPEED	WAVES	WEA	BAROMETER	DRY WET CLOUDS	WIND SPEED	WAVES	WEA	BAROMETER	DRY WET CLOUDS					
300 17 KT	320 03 03	1	1014.6 MB	17.4 C 15.1 C 7/8 ST	300 10 KT	310 03 04	2	1018.0 MB	17.4 C 15.0 C 8/8 ST	300 10 KT	310 03 04	2	1018.0 MB	17.4 C 15.0 C 8/8 ST					
DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR			DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR		
0 19.97	19.97	33.698	23.778	411.2 .000 0						0 17.93	17.93	33.615	24.230	368.1 .000 0					
10 19.90	19.90	33.499	23.798	409.7 .041 10						10 17.86	17.86	33.604	24.239	367.6 .037 10					
20 19.81	19.81	33.696	23.819	408.0 .082 20						20 17.83	17.83	33.601	24.244	367.5 .073 20					
30 19.02	19.01	33.681	24.011	390.1 .121 30						30 17.71	17.70	33.591	24.266	365.7 .110 30					
40 17.80	17.59	33.626	24.320	360.9 .159 40						40 16.98	16.97	33.543	24.403	352.9 .146 40					
50 15.52	15.51	33.541	24.736	321.5 .193 50						50 15.27	15.26	33.459	24.728	322.2 .179 50					
75 13.09	13.08	33.562	25.264	271.7 .267 75						75 12.85	12.84	33.548	25.301	268.2 .253 75					
100 11.75	11.74	33.631	25.576	242.5 .331 100						100 11.18	11.17	33.606	25.661	234.4 .315 100					
125 10.74	10.72	33.784	25.878	214.2 .390 126						125 10.07	10.06	33.738	25.958	206.5 .372 126					
150 10.21	10.19	33.899	26.060	197.4 .441 151						150 9.51	9.49	33.840	26.131	190.4 .422 151					
175 9.85	9.83	34.027	26.221	182.5 .488 176						175 9.09	9.07	33.939	26.276	177.0 .467 176					
200 9.52	9.50	34.124	26.352	170.5 .532 201						200 8.77	8.75	34.007	26.381	167.5 .510 201					
225 8.67	8.65	34.061	26.439	162.4 .573 226						225 8.48	8.46	34.080	26.483	158.2 .550 226					
250 8.44	8.41	34.159	26.552	152.2 .612 251						250 8.36	8.33	34.130	26.541	153.1 .589 251					
275 8.22	8.19	34.204	26.620	146.0 .651 277						275 8.31	8.28	34.196	26.601	147.9 .628 277					
300 7.62	7.59	34.163	26.677	140.7 .686 302						300 8.18	8.15	34.255	26.667	142.0 .664 302					
350 7.50	7.47	34.245	26.759	133.7 .754 352						350 7.15	7.13	34.206	26.776	131.8 .732 352					
400 6.70	6.66	34.219	26.850	125.3 .819 402						400 6.75	6.71	34.221	26.844	125.8 .796 402					
450 6.24	6.20	34.235	26.923	118.7 .880 453						450 6.32	6.28	34.258	26.931	118.0 .858 453					
500 5.85	5.81	34.263	26.995	112.2 .938 503						500 5.96	5.92	34.287	27.000	111.8 .915 503					
538 5.79	5.74	34.297	27.030	109.4 .981 542						534 5.72	5.67	34.301	27.041	108.1 .953 538					

STATION 100 70					RV NEW HORIZON					CALCOFI CRUISE 8107					STATION 100 80				
LATITUDE	LONGITUDE	DAY/MO/YR	MESSANGER	BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSANGER	BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSANGER	BOTTOM					
30 22.0 N	119 28.2 W	26/07/81	1210 GMT	3780 M	30 01.5 N	120 07.0 W	26/07/81	0528 GMT	3832 M	30 01.5 N	120 07.0 W	26/07/81	0528 GMT	3832 M					
WIND SPEED	WAVES	WEA	BAROMETER	DRY WET CLOUDS	WIND SPEED	WAVES	WEA	BAROMETER	DRY WET CLOUDS	WIND SPEED	WAVES	WEA	BAROMETER	DRY WET CLOUDS					
330 12 KT	350 05 08	2	1016.6 MB	16.1 C 14.3 C 8/8 ST	330 15 KT	350 05 08	2	1015.2 MB	16.9 C 15.3 C 8/8 ST	330 15 KT	350 05 08	2	1015.2 MB	16.9 C 15.3 C 8/8 ST					
DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR			DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR		
0 18.41	18.41	33.643	24.133	377.3 .000 0						0 19.86	19.86	33.784	23.872	402.2 .000 0					
10 18.41	18.41	33.643	24.134	377.7 .038 10						10 19.86	19.86	33.785	23.874	402.5 .040 10					
20 18.41	18.41	33.643	24.134	378.0 .075 20						20 19.83	19.83	33.789	23.885	401.8 .080 20					
30 18.41	18.40	33.642	24.134	378.4 .113 30						30 19.72	19.71	33.780	23.907	400.0 .120 30					
40 18.38	18.37	33.641	24.141	378.0 .151 40						40 18.15	18.14	33.669	24.219	370.6 .159 40					
50 17.34	17.33	33.629	24.385	355.1 .187 50						50 17.21	17.20	33.628	24.415	352.2 .195 50					
75 14.74	14.73	33.552	24.915	305.1 .269 75						75 13.22	13.21	33.515	25.202	277.7 .273 75					
100 12.64	12.63	33.581	25.368	262.4 .340 100						100 11.28	11.27	33.515	25.646	235.7 .337 100					
125 10.69	10.68	33.666	25.795	222.1 .403 126						125 10.39	10.38	33.698	25.372	214.7 .395 126					
150 9.68	9.66	33.802	26.073	196.0 .455 151						150 9.52	9.50	33.830	26.121	191.3 .446 151					
175 9.14	9.12	33.947	26.275	177.2 .501 176						175 9.13	9.11	33.963	26.289	175.8 .491 176					
200 8.80	8.78	34.019	26.385	167.1 .544 201						200 8.92	8.90	34.044	26.386	167.0 .534 201					
225 8.48	8.46	34.084	26.486	157.9 .584 226						225 8.57	8.55	34.110	26.492	157.3 .574 226					
250 8.16	8.13	34.108	26.553	151.8 .622 251						250 8.19	8.16	34.120	26.558	151.3 .612 251					
275 7.90	7.87	34.144	26.621	145.7 .659 276						275 7.92	7.89	34.159	26.629	144.9 .649 276					
300 7.56	7.53	34.176	26.696	138.9 .696 302						300 7.44	7.41	34.122	26.670	141.2 .686 302					
350 7.10	7.07	34.182	26.765	132.8 .764 352						350 7.03	7.00	34.164	26.761	133.1 .754 352					
400 6.72	6.68	34.279	26.854	125.3 .828 402						400 6.68	6.64	34.238	26.867	123.6 .818 402					
450 6.38	6.34	34.258	26.923	118.8 .889 453						450 6.39	6.35	34.271	26.932	118.0 .879 453					
500 6.00	5.96	34.285	26.993	112.5 .947 503						500 6.03	5.99	34.301	27.002	111.7 .936 503					
513 6.01	5.96	34.312	27.014	110.5 .961 516						531 5.83	5.78	34.316	27.039	108.3 .970 534					

STATION 100 90					RV NEW HORIZON					CALCOFI CRUISE 8107					STATION 110 33				
LATITUDE	LONGITUDE	DAY/MO/YR	MESSANGER	BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSANGER	BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSANGER	BOTTOM					
29 43.8 N	120 51.5 W	25/07/81	2155 GMT	3879 M	29 50.2 N	115 50.1 W	31/07/81	1155 GMT	56 M	29 50.2 N	115 50.1 W	31/07/81	1155 GMT	56 M					
WIND SPEED	WAVES	WEA	BAROMETER	DRY WET CLOUDS	WIND SPEED	WAVES	WEA	BAROMETER	DRY WET CLOUDS	WIND SPEED	WAVES	WEA	BAROMETER	DRY WET CLOUDS					
330 11 KT	350 05 08	2	1012.9 MB	18.1 C 16.8 C 8/8 ST	330 13 KT	350 05 08	2	1015.6 MB	17.6 C 16.3 C 8/8 ST	330 13 KT	350 05 08	2	1015.6 MB	17.6 C 16.3 C 8/8 ST					
DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	D													

STATION 110 35 RV NEW HORIZON CALCOFI CRUISE 8107 STATION 110 40

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM
29 46.8 N	116 00.0 W	31/07/81	1407 GMT	1101 M	29 36.4 N	116 19.5 W	31/07/81	1752 GMT	2490 M
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA THETA	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA THETA
M	DEG C	DEG C			M	DEG C	DEG C		
0	18.08	18.08	33.584	24.169	373.9	.000	0	21.26	21.26
10	18.08	18.08	33.584	24.170	374.2	.037	10	21.17	21.17
20	17.64	17.64	33.594	24.285	363.6	.074	20	20.57	20.57
30	15.32	15.32	33.572	24.803	314.5	.108	30	18.53	18.53
40	14.16	14.15	33.570	25.051	291.1	.138	40	16.47	16.46
50	13.06	13.05	33.614	25.309	266.7	.166	50	14.93	14.92
75	11.18	11.17	33.769	25.787	221.7	.226	75	12.54	12.53
100	10.47	10.46	33.883	26.002	201.8	.279	100	11.09	11.08
125	10.35	10.34	34.037	26.143	199.0	.330	125	10.26	10.25
150	9.78	9.76	34.067	26.264	177.9	.375	150	10.22	10.20
175	9.80	9.78	34.211	26.373	168.1	.418	175	9.75	9.74
200	10.07	10.05	34.381	26.461	160.5	.459	200	9.73	9.71
225	9.71	9.68	34.387	26.527	154.6	.498	225	9.54	9.51
250	9.51	9.48	34.420	26.586	149.4	.536	250	9.64	9.61
275	9.24	9.21	34.434	26.641	144.6	.574	275	8.76	8.73
300	8.89	8.86	34.406	26.676	141.7	.609	300	8.38	8.35
350	8.52	8.48	34.415	26.741	136.2	.674	350	7.75	7.72
400	7.98	7.94	34.379	26.796	131.6	.745	400	7.25	7.21
450	7.32	7.28	34.354	26.872	124.6	.810	450	6.90	6.86
500	6.95	6.90	34.359	26.927	119.8	.870	500	6.54	6.49
531	6.91	6.86	34.380	26.950	118.2	.903	535	6.49	6.47

STATION 110 45 RV NEW HORIZON CALCOFI CRUISE 8107 STATION 110 50

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM
29 27.1 N	116 38.4 W	31/07/81	2155 GMT	530 M	29 18.0 N	116 59.7 W	01/08/81	0217 GMT	2819 M
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA THETA	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA THETA
M	DEG C	DEG C			M	DEG C	DEG C		
0	21.60	21.60	33.779	23.402	447.1	.000	0	21.51	21.51
10	21.48	21.48	33.777	23.434	444.4	.044	10	21.51	21.51
20	21.39	21.39	33.776	23.459	442.5	.089	20	21.27	21.27
30	19.61	19.60	33.641	23.829	407.5	.131	30	19.33	19.32
40	15.26	15.25	33.569	24.814	313.7	.167	40	16.01	16.00
50	13.13	13.12	33.560	25.254	272.0	.196	50	13.87	13.86
75	11.57	11.56	33.641	25.616	238.0	.260	75	11.51	11.50
100	10.38	10.37	33.803	25.955	206.2	.315	100	10.53	10.52
125	9.80	9.79	33.855	26.094	193.5	.367	125	9.93	9.92
150	9.77	9.75	34.036	26.241	180.1	.413	150	9.66	9.64
175	9.38	9.36	34.119	26.371	168.2	.456	175	9.40	9.38
200	9.36	9.34	34.179	26.421	163.9	.497	200	9.19	9.17
225	9.40	9.37	34.278	26.493	157.7	.537	225	8.94	8.92
250	9.07	9.04	34.300	26.563	151.4	.576	250	8.60	8.57
275	8.43	8.40	34.275	26.644	143.9	.614	275	8.15	8.12
300	7.93	7.90	34.268	26.714	137.4	.649	300	7.95	7.92
350	7.40	7.37	34.309	26.823	127.6	.715	350	7.61	7.58
400	7.09	7.05	34.328	26.883	122.6	.777	400	7.19	7.15
450	6.88	6.84	34.336	26.918	119.8	.838	450	6.61	6.57
500	6.74	6.69	34.343	26.943	118.1	.897	500	6.25	6.21
524	6.72	6.67	34.346	26.948	117.9	.925	527	6.08	6.03

STATION 110 60 RV NEW HORIZON CALCOFI CRUISE 8107 STATION 110 70

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM
28 56.7 N	117 38.4 W	01/08/81	0838 GMT	3594 M	28 36.9 N	118 18.3 W	01/08/81	1438 GMT	3559 M
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA THETA	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA THETA
M	DEG C	DEG C			M	DEG C	DEG C		
0	21.03	21.03	33.795	23.570	431.1	.000	0	21.03	21.03
10	21.02	21.02	33.794	23.573	431.2	.043	10	21.05	21.05
20	21.02	21.02	33.795	23.574	431.5	.086	20	21.05	21.05
30	20.62	20.61	33.760	23.655	424.1	.129	30	18.71	18.70
40	17.73	17.72	33.604	24.271	365.6	.165	40	17.73	17.72
50	16.36	16.35	33.523	24.532	340.9	.203	50	16.76	16.75
75	13.82	13.81	33.564	25.117	285.7	.281	75	15.38	15.37
100	11.62	11.61	33.660	25.622	238.1	.346	100	13.43	13.42
125	10.80	10.78	34.105	26.118	191.5	.402	125	11.74	11.72
150	10.97	10.95	34.248	26.199	184.4	.449	150	10.26	10.24
175	10.69	10.66	34.257	26.258	179.3	.494	175	9.35	9.33
200	10.57	10.55	34.264	26.299	176.0	.538	201	8.85	8.83
225	10.74	10.71	34.373	26.339	172.9	.581	226	8.41	8.39
250	10.50	10.47	34.381	26.388	163.7	.624	250	8.07	8.04
275	10.08	10.05	34.392	26.470	161.4	.665	275	7.71	7.68
300	9.37	9.34	34.328	26.538	155.0	.706	302	7.55	7.52
350	8.91	8.87	34.356	26.635	146.6	.781	352	7.16	7.13
400	8.19	8.15	34.351	26.742	136.8	.851	402	6.44	6.40
450	7.31	7.27	34.354	26.873	124.5	.917	453	6.24	6.20
500	7.04	6.99	34.360	26.916	121.0	.978	503	6.16	6.12
520	6.94	6.89	34.361	26.931	119.8	1.002	523	5.99	5.94

STATION 110 80

RV NEW HORIZON

CALCOFI CRUISE 8107

STATION 119 33

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENDER	BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSENDER	BOTTOM						
28 16.7 N	118 57.0 W	01/08/81	2109 GMT	3879 M	28 17.8 N	114 51.8 W	04/08/81	1743 GMT	104 M						
WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS								
340	15 KT	330 05 06	2	1016.9 MB	19.0 C	16.9 C	8/8 ST								
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR
0	20.10	20.10	33.719	23.760	412.9	.000	0	0	20.88	20.88	33.690	23.531	434.8	.000	0
10	20.09	20.09	33.721	23.765	412.9	.041	10	10	20.81	20.81	33.694	23.553	433.1	.043	10
20	20.06	20.06	33.722	23.774	412.4	.082	20	20	20.57	20.57	33.690	23.615	427.6	.086	20
30	19.26	19.25	33.749	24.002	391.0	.122	30	30	18.20	18.19	33.654	24.195	372.5	.126	30
40	19.16	19.15	33.985	24.208	371.7	.160	40	40	16.56	16.55	33.602	24.547	339.2	.162	40
50	18.35	18.34	34.019	24.438	350.1	.196	50	50	14.71	14.70	33.576	24.939	302.1	.193	50
75	17.36	17.35	34.012	24.675	328.4	.281	75	75	11.84	11.83	33.639	25.564	243.0	.261	75
100	15.51	15.49	33.905	25.020	296.0	.359	100	100	10.82	10.81	33.828	25.898	211.8	.318	100
125	13.44	13.42	33.814	25.390	261.2	.428	125								
150	11.11	11.09	33.672	25.726	229.3	.491	151								
175	10.00	9.98	33.735	25.966	206.5	.545	176								
200	9.11	9.09	33.785	26.153	189.2	.595	201								
225	8.73	8.71	33.880	26.288	176.8	.640	226								
250	8.31	8.28	33.967	26.420	164.4	.682	251								
275	7.86	7.83	34.011	26.522	155.0	.722	276								
300	7.43	7.40	34.041	26.608	147.1	.761	302								
350	6.77	6.74	34.090	26.738	135.1	.851	352								
400	6.42	6.38	34.143	26.826	127.2	.896	402								
450	6.09	6.05	34.173	26.893	121.3	.959	453								
500	5.96	5.92	34.274	26.990	112.8	1.017	503								
526	5.89	5.84	34.300	27.019	110.3	1.046	529								

STATION 120 24

RV NEW HORIZON

CALCOFI CRUISE 8107

STATION 120 25

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENDER	BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSENDER	BOTTOM						
28 25.0 N	114 11.2 W	04/08/81	0537 GMT	34 M	28 23.2 N	114 15.0 W	04/08/81	0757 GMT	60 M						
WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS								
300	22 KT			1011.8 MB	20.0 C	18.5 C									
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR
0	22.71	22.71	33.819	23.123	473.8	.000	0	0	22.31	22.31	33.828	23.242	462.4	.000	0
10	22.72	22.72	33.827	23.126	473.8	.047	10	10	22.27	22.27	33.823	23.250	462.0	.046	10
20	17.72	17.72	33.610	24.278	364.3	.089	20	20	16.65	16.65	33.601	24.524	340.7	.086	20
30	15.70	15.70	33.562	24.711	325.2	.123	30	30	15.78	15.78	33.575	24.703	324.0	.119	30
								40	15.32	15.31	33.551	25.208	276.0	.149	40
								50	12.12	12.11	33.645	25.516	247.0	.175	50
								60	11.61	11.60	33.727	25.675	232.0	.199	60

STATION 120 30

RV NEW HORIZON

CALCOFI CRUISE 8107

STATION 120 35

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENDER	BOTTOM	LATITUDE	LONGITUDE	DAY/MO/YR	MESSENDER	BOTTOM						
28 12.8 N	114 35.7 W	04/08/81	1110 GMT	97 M	28 03.3 N	114 53.5 W	04/08/81	1452 GMT	82 M						
WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS								
320	13 KT			1010.8 MB	19.5 C	18.0 C									
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR
0	21.96	21.96	33.796	23.316	455.3	.000	0	0	21.07	21.07	33.700	23.487	439.0	.000	0
10	21.96	21.96	33.793	23.314	455.9	.045	10	10	21.07	21.07	33.699	23.487	439.4	.044	10
20	17.03	17.03	33.596	24.432	349.6	.086	20	20	21.08	21.08	33.700	23.485	439.9	.088	20
30	15.65	15.65	33.615	24.763	318.3	.119	30	30	20.99	20.98	33.694	23.506	438.4	.131	30
40	15.24	15.23	33.651	24.866	308.7	.150	40	40	18.76	18.75	33.649	24.052	386.5	.173	40
50	12.45	12.44	33.629	25.440	254.2	.173	50	50	15.79	15.78	33.569	24.697	325.2	.208	50
75	11.45	11.44	33.718	25.698	230.2	.238	75	75	12.28	12.27	33.710	25.537	245.7	.279	75
93	10.64	10.63	33.879	25.969	204.8	.277	93								

STATION 120 38.5				RV NEW HORIZON				CALCOFI CRUISE 8107				STATION 120 45			
LATITUDE	LONGITUDE	DAY/MO/YR	MESSENDER	BOTTOM		LATITUDE	LONGITUDE	DAY/MO/YR	MESSENDER	BOTTOM					
27 56.0 N	115 07.0 W	07/08/81	1230 GMT	43 M		27 44.0 N	115 32.3 W	07/08/81	0738 GMT	2117 M					
WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	CLOUDS		
240 04 KT	1012.9 MB	21.8 C 19.8 C					320 12 KT	1014.6 MB	21.3 C 19.6 C						
DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR
0	23.05	23.05	33.806	23.016	484.0	.000	0	0	22.85	22.85	33.944	23.177	468.6	.000	0
10	22.50	22.50	33.768	23.144	472.2	.048	10	10	22.85	22.85	33.944	23.178	468.9	.047	10
20	19.23	19.23	33.623	23.913	399.1	.091	20	20	22.84	22.84	33.946	23.183	468.9	.094	20
30	15.86	15.86	33.556	24.671	327.1	.127	30	30	20.17	20.16	33.716	23.741	415.9	.138	30
40	15.09	15.08	33.590	24.867	308.6	.159	40	40	17.56	17.55	33.735	24.613	352.1	.176	40
								50	16.47	16.46	33.735	24.668	328.0	.210	50
								75	13.06	13.05	33.738	25.406	258.2	.283	75
								100	11.98	11.97	33.865	25.715	229.4	.343	100
								125	11.31	11.29	33.892	25.860	216.1	.401	126
								150	9.91	9.89	33.897	26.109	192.6	.452	151
								175	9.69	9.67	34.026	26.247	180.0	.498	176
								200	9.47	9.45	34.151	26.383	167.6	.541	201
								225	9.69	9.66	34.305	26.466	160.4	.582	226
								250	9.64	9.61	34.366	26.522	155.5	.621	251
								275	9.05	9.02	34.323	26.585	149.8	.659	276
								300	8.46	8.43	34.278	26.642	144.5	.797	302
								350	8.09	8.05	34.323	26.734	136.5	.767	352
								400	7.16	7.12	34.259	26.818	125.6	.833	402
								450	6.80	6.76	34.277	26.882	123.1	.897	453
								500	7.10	7.05	34.434	26.966	116.4	.956	503
								517	6.88	6.83	34.411	26.573	115.3	.975	520
STATION 120 50				RV NEW HORIZON				CALCOFI CRUISE 8107				STATION 120 60			
LATITUDE	LONGITUDE	DAY/MO/YR	MESSENDER	BOTTOM		LATITUDE	LONGITUDE	DAY/MO/YR	MESSENDER	BOTTOM					
27 33.7 N	115 51.8 W	07/08/81	0250 GMT	3795 M		27 13.9 N	116 30.7 W	06/08/81	2038 GMT	3704 M					
WIND SPEED	WAVES	WEA	BAROMETR	DRY	WET	CLOUDS	WIND SPEED	WAVES	WEA	BAROMETR	DRY	WET	CLOUDS		
320 12 KT	1015.2 MB	21.1 C 19.1 C					290 10 KT	330 02 08	1	1013.5 MB	21.6 C 18.7 C	7/8 ST			
DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR
0	22.60	22.60	33.840	23.170	469.3	.000	0	0	22.20	22.20	33.856	23.295	457.4	.000	0
10	22.44	22.44	33.852	23.225	464.5	.047	10	10	21.55	21.55	33.820	23.448	443.1	.045	10
20	21.81	21.81	33.806	23.366	451.3	.092	20	20	21.22	21.22	33.796	23.521	436.6	.089	20
30	19.57	19.56	33.674	23.787	411.5	.135	30	30	19.01	19.00	33.679	24.012	390.0	.130	30
40	17.87	17.86	33.674	24.291	363.7	.174	40	40	17.55	17.54	37.633	24.337	359.3	.167	40
50	16.32	16.31	33.696	24.674	327.4	.202	50	50	16.22	16.21	33.541	24.578	336.5	.202	50
75	13.04	13.03	33.723	25.399	258.9	.281	75	75	13.38	13.37	33.525	25.177	280.0	.279	75
100	11.66	11.65	33.819	25.738	227.0	.342	100	100	12.04	12.03	35.667	25.549	245.1	.344	100
125	11.34	11.32	34.077	25.998	203.0	.397	126	125	10.14	10.13	33.699	25.915	210.5	.401	125
150	10.01	9.99	34.017	26.186	185.4	.446	151	150	9.32	9.30	33.806	26.135	189.9	.453	151
175	10.09	10.07	34.215	26.328	172.5	.490	176	175	9.01	8.99	33.940	26.290	175.7	.498	176
200	9.71	9.69	34.287	26.448	161.5	.532	201	200	9.36	9.34	34.178	26.420	164.0	.540	201
225	9.60	9.57	34.356	26.507	156.5	.571	226	225	9.64	9.61	34.266	26.491	158.0	.580	226
250	8.97	8.94	34.291	26.573	150.5	.609	251	250	9.34	9.31	34.343	26.554	152.4	.619	251
275	8.79	8.76	34.320	26.624	146.0	.646	276	275	8.85	8.82	34.345	26.634	145.1	.656	276
300	8.72	8.69	34.367	26.672	141.9	.683	302	300	8.55	8.53	34.373	26.701	139.0	.692	302
350	8.31	8.27	34.396	26.759	134.4	.752	352	350	7.11	7.08	34.205	26.782	131.2	.759	352
400	7.33	7.29	34.405	26.838	127.5	.817	402	400	6.95	6.91	34.281	26.865	124.1	.823	402
450	7.09	7.05	34.368	26.915	120.4	.880	453	450	6.69	6.65	34.348	26.953	116.3	.884	453
500	6.54	6.49	34.369	26.990	113.4	.938	503	500	6.34	6.29	34.383	27.027	109.7	.940	503
521	6.31	6.26	34.363	27.016	111.1	.961	524	530	6.18	6.13	34.398	27.060	106.8	.972	533
STATION 120 70				RV NEW HORIZON				CALCOFI CRUISE 8107				STATION 120 80			
LATITUDE	LONGITUDE	DAY/MO/YR	MESSENDER	BOTTOM		LATITUDE	LONGITUDE	DAY/MO/YR	MESSENDER	BOTTOM					
26 53.4 N	117 10.3 W	06/08/81	1442 GMT	3461 M		26 33.0 N	117 48.6 W	06/08/81	0850 GMT	3757 M					
WIND SPEED	WAVES	WEA	BAROMETR	DRY	WET	CLOUDS	WIND SPEED	WAVES	WEA	BAROMETR	DRY	WET	CLOUDS		
030 06 KT	340 03 DR	2	1015.6 MB	20.1 C 17.6 C	7/8 ST		320 13 KT			1015.6 MB	19.8 C 17.3 C				
DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	PRESS D.BAR
0	21.53	21.53	33.824	23.456	442.0	.000	0	0	22.18	22.18	33.806	23.262	460.5	.000	0
10	21.56	21.56	33.820	23.445	443.4	.044	10	10	22.18	22.18	33.809	23.265	460.6	.046	10
20	19.09	19.09	33.677	23.991	391.6	.086	20	20	20.94	20.94	33.658	23.491	439.4	.091	20
30	18.54	18.53	33.733	24.195	372.5	.124	30	30	18.88	18.87	33.677	24.043	387.0	.132	30
40	18.17	18.16	33.837	24.343	358.8	.160	40	40	17.77	17.76	33.644	24.292	363.6	.169	40
50	17.83	17.82	33.863	24.446	349.3	.196	50	50	17.39	17.38	33.661	24.397	353.9	.205	50
75	17.02	17.01	33.872	24.648	330.9	.280	75	75	16.03	16.02	33.714	24.755	320.5	.289	75
100	14.23	14.22	33.691	25.131	285.2	.357	100	100	13.64	13.63	33.650	25.222	276.5	.364	100
125	12.19	12.17	33.672	25.526	248.0	.423	125	125	11.76	11.74	33.700	25.628	238.2	.428	125
150	10.85	10.83	33.777	25.854	217.1	.484	151	150	10.76	10.74	33.866	25.939	209.0	.485	151
175	10.17	10.15	33.982	26.132	191.0	.534	176	175	10.07	10.05	34.018	26.177	186.8	.535	176
200	10.28	10.26	34.197	26.281	177.5	.580	201	200	9.95	9.93	34.131	26.286	177.0	.580	201
225	10.00	9.97	34.267	26.385	168.2	.623	226	225	9.87	9.84	34.249	26.392	167.4	.623	226
250	9.64	9.61	34.328	26.493	158.4	.664	251	250	9.85	9.82	34.366	26.487	159.0	.663	251
275	9.52	9.49	34.373	26.548	153.6	.702	276	275	9.56	9.53	34.395	26.559	152.6	.702	276
300	9.51	9.48	34.438	26.601	149.2	.741	302	300	9.34	9.31	34.426	26.620	147.3	.741	302
350	8.97	8.93	34.426	26.680	142.4	.814	352	350	8.85	8.81	34.435	26.706	139.8	.812	352
400	8.47	8.43	34.431	26.763	135.2	.883	402	400	8.39	8.35	34.432	26.776	133.9	.880	402
450	7.87	7.82	34.426	26.849	127.3	.949	453	450	7.82	7.77	34.420	26.85			

RV DAVID STARR JORDAN

CALCOFI CRUISE 8107

10 METER DATA

LINE	STA		Z	T	S	02	02 PCT	SIG TH	SVA
60	50	28/06/81 0856GMT 37 56.8N 122 52.9W WEATH BOTTOM 46M WIND 130 16 KT WAVES BAR 1008.8MB DRY 12.8C WET 11.9C CLOUDS	10	10.38	33.926			26.049	195.3
60	52.5	28/06/81 0655GMT 37 51.8N 123 03.8W WEATH BOTTOM 86M WIND 190 08 KT WAVES BAR 1008.8MB DRY 12.7C WET 11.5C CLOUDS	10	10.46	33.971			26.070	193.3
60	55	28/06/81 0447GMT 37 46.8N 123 14.7W WEATH BOTTOM 139M WIND 290 06 KT WAVES BAR 1008.5MB DRY 11.8C WET 10.6C CLOUDS	10	9.35	33.845			26.158	184.9
60	60	28/06/81 0020GMT 37 36.8N 123 36.5W WEATH 0 BOTTOM 3353M WIND 340 18 KT WAVES 330 15 08 BAR 1009.1MB DRY 13.2C WET 11.9C CLOUDS 0/8	10	10.63	33.786			25.896	209.8
60	80	26/06/81 1422GMT 36 56.8N 125 03.2W WEATH 2 BOTTOM 4302M WIND 340 38 KT WAVES 350 12 06 BAR 1019.6MB DRY 15.0C WET 13.7C CLOUDS 8/8 SC	10	15.69	32.814			24.137	377.3
60	90	26/06/81 0835GMT 36 36.8N 125 46.3W WEATH BOTTOM 4493M WIND 340 30 KT WAVES BAR 1020.7MB DRY 15.4C WET 13.8C CLOUDS	10	14.58	32.866			24.418	350.5
63	50	28/06/81 1925GMT 37 22.6N 122 28.4W WEATH 1 BOTTOM 29M WIND 190 16 KT WAVES 220 04 06 BAR 1011.9MB DRY 15.5C WET 13.7C CLOUDS 7/8 SC	10	10.03	33.979			26.150	185.6
63	52	28/06/81 2110GMT 37 18.6N 122 37.1W WEATH 2 BOTTOM 89M WIND 160 16 KT WAVES 160 04 03 BAR 1011.9MB DRY 14.3C WET 13.0C CLOUDS 8/6 ST	10	10.97	33.967			25.977	202.1
63	55	28/06/81 2340GMT 37 12.6N 122 50.1W WEATH 2 BOTTOM 314M WIND 160 12 KT WAVES 270 04 04 BAR 1012.2MB DRY 13.9C WET 12.8C CLOUDS 8/8 ST	10	11.15	33.816			25.827	216.3
63	60	29/06/81 0316GMT 37 02.6N 123 11.7W WEATH 2 BOTTOM 2595M WIND 180 11 KT WAVES BAR 1011.9MB DRY 13.6C WET 12.8C CLOUDS 8/8 ST	10	11.44	32.972			25.118	283.8
63	70	29/06/81 0913GMT 36 42.6N 123 54.8W WEATH BOTTOM 3918M WIND 190 08 KT WAVES BAR 1012.9MB DRY 13.3C WET 12.4C CLOUDS	10	15.38	33.565			24.783	315.7
63	80	29/06/81 1455GMT 36 22.6N 124 37.7W WEATH 2 BOTTOM 4206M WIND 190 04 KT WAVES 340 06 07 BAR 1013.9MB DRY 13.7C WET 12.5C CLOUDS 8/8 SC	10	14.56	32.917			24.452	346.3
63	90	29/06/81 2147GMT 36 02.6N 125 20.5W WEATH 2 BOTTOM 4588M WIND 120 03 KT WAVES 020 04 04 BAR 1015.6MB DRY 15.0C WET 13.4C CLOUDS 8/8 ST	10	14.61	32.922			24.455	347.0
67	49	01/07/81 0513GMT 36 49.2N 121 59.1W WEATH BOTTOM 461M WIND 310 05 KT WAVES BAR 1014.2MB DRY 12.3C WET 12.0C CLOUDS	10	12.23	33.823			25.632	234.9
67	50	01/07/81 0306GMT 36 47.2N 122 03.4W WEATH 2 BOTTOM 296M WIND 320 06 KT WAVES 290 01 02 BAR 1014.6MB DRY 12.9C WET 12.4C CLOUDS 8/8 ST	10	12.29	33.811			25.611	236.9
67	55	30/06/81 2320GMT 36 37.2N 122 24.9W WEATH 2 BOTTOM 2595M WIND 290 12 KT WAVES 300 01 03 BAR 1016.3MB DRY 13.7C WET 12.8C CLOUDS 8/8 ST	10	11.77	33.737			25.652	233.0
67	60	30/06/81 1950GMT 36 27.2N 122 46.4W WEATH 2 BOTTOM 3068M WIND 290 08 KT WAVES 310 02 06 BAR 1016.5MB DRY 14.2C WET 13.1C CLOUDS 8/8 SC	10	10.96	33.601			25.694	229.0
67	70	30/06/81 1345GMT 36 07.0N 123 29.3W WEATH 2 BOTTOM 3635M WIND 310 06 KT WAVES 310 02 04 BAR 1016.3MB DRY 14.0C WET 12.3C CLOUDS 8/8 SC	10	12.85	33.715			25.428	254.3
67	80	30/06/81 0830GMT 35 47.2N 124 11.7W WEATH BOTTOM 4100M WIND 220 03 KT WAVES BAR 1015.6MB DRY 14.0C WET 12.9C CLOUDS	10	13.44	33.758			25.343	262.4
67	90	30/06/81 0251GMT 35 27.2N 124 54.2W WEATH 1 BOTTOM 4493M WIND 360 03 KT WAVES 310 02 03 BAR 1015.2MB DRY 15.3C WET 13.4C CLOUDS 7/8 ST	10	16.04	33.043			24.235	368.0
70	51	01/07/81 1148GMT 36 10.9N 121 43.6W WEATH BOTTOM 276M WIND 130 05 KT WAVES BAR 1013.2MB DRY 12.0C WET 11.6C CLOUDS	10	12.37	33.837			25.616	236.4
70	53	01/07/81 1416GMT 36 06.9N 121 52.1W WEATH 2 BOTTOM 907M WIND 340 09 KT WAVES 310 04 04 BAR 1013.5MB DRY 12.0C WET 11.7C CLOUDS 8/8 SC	10	12.53	33.824			25.575	240.3
70	60	01/07/81 1840GMT 35 52.9N 122 21.9W WEATH 2 BOTTOM 3068M WIND 340 16 KT WAVES 310 06 06 BAR 1014.6MB DRY 14.3C WET 12.2C CLOUDS 8/8 SC	10	14.19	33.600			25.067	288.7
70	70	02/07/81 0101GMT 35 32.9N 123 04.4W WEATH 2 BOTTOM 3730M WIND 310 14 KT WAVES 320 05 05 BAR 1013.5MB DRY 15.3C WET 13.9C CLOUDS 8/8 ST	10	14.31	33.654			25.083	287.2
70	80	02/07/81 0717GMT 35 12.9N 123 46.7W WEATH BOTTOM 4110M WIND 320 14 KT WAVES BAR 1012.9MB DRY 15.5C WET 13.8C CLOUDS	10	15.80	33.015			24.268	364.9
70	90	02/07/81 1316GMT 34 52.9N 124 28.8W WEATH 2 BOTTOM 4493M WIND 340 16 KT WAVES 340 06 08 BAR 1013.2MB DRY 15.6C WET 13.8C CLOUDS 8/8 ST	10	15.60	33.071			24.355	356.5

RV DAVID STARR JORDAN								CALCOFI CRUISE 8107								10 METER DATA								
LINE	STA									Z	T	S	02	02 PCT	SIG TH	SVA								
73	50	03/07/81 2015GMT 35 38.6N 121 15.3W WEATH 2 BOTTOM 33M WIND 300 18 KT WAVES 300 01 02 BAR 1015.9MB DRY 14.6C WET 13.5C CLOUDS 8/8 ST								10	12.46	33.760			25.539	243.8								
73	53	03/07/81 1725GMT 35 32.6N 121 28.1W WEATH 2 BOTTOM 488M WIND 330 08 KT WAVES 280 04 06 BAR 1015.9MB DRY 14.8C WET 13.8C CLOUDS 8/8 ST								10	13.25	33.632			25.284	268.0								
73	60	03/07/81 1250GMT 35 18.6N 121 57.7W WEATH 1 BOTTOM 2502M WIND 260 03 KT WAVES 290 03 07 BAR 1015.2MB DRY 14.4C WET 13.0C CLOUDS 1/8 CU								10	14.53	33.535			24.945	300.3								
73	70	03/07/81 0717GMT 34 58.6N 122 39.9W WEATH BOTTOM 4110M WIND 060 02 KT WAVES BAR 1014.2MB DRY 16.0C WET 13.2C CLOUDS								10	15.26	33.000			24.375	354.6								
73	80	03/07/81 0115GMT 34 38.6N 123 21.9W WEATH 2 BOTTOM 4302M WIND 200 07 KT WAVES 330 03 04 BAR 1013.2MB DRY 16.7C WET 14.8C CLOUDS 8/8 ST								10	15.85	33.076			24.303	361.5								
73	90	02/07/81 1911GMT 34 18.6N 124 03.7W WEATH 2 BOTTOM 3050M WIND 330 08 KT WAVES 320 06 10 BAR 1013.9MB DRY 18.6C WET 15.5C CLOUDS 8/8 SC								10	15.89	33.086			24.302	361.6								
77	48	04/07/81 0145GMT 35 07.3N 120 42.4W WEATH 1 BOTTOM 29M WIND 300 10 KT WAVES 300 01 02 BAR 1014.9MB DRY 15.8C WET 14.9C CLOUDS 7/8 SC								10	11.96	33.750			25.627	235.4								
77	51	04/07/81 0335GMT 35 01.3N 120 55.1W WEATH BOTTOM 238M WIND 330 13 KT WAVES BAR 1014.6MB DRY 15.0C WET 14.2C CLOUDS								10	14.49	33.708			25.087	286.8								
77	55	04/07/81 0705GMT 34 53.3N 121 11.9W WEATH BOTTOM 574M WIND 320 16 KT WAVES BAR 1014.6MB DRY 15.2C WET 14.3C CLOUDS								10	14.89	33.685			24.983	296.7								
77	60	04/07/81 1043GMT 34 43.3N 121 32.9W WEATH BOTTOM 998M WIND 320 18 KT WAVES BAR 1014.9MB DRY 15.5C WET 14.5C CLOUDS								10	12.95	33.717			25.410	256.1								
77	70	04/07/81 1614GMT 34 23.3N 122 14.8W WEATH 1 BOTTOM 4110M WIND 340 15 KT WAVES 340 05 06 BAR 1015.2MB DRY 16.3C WET 15.5C CLOUDS 7/8 CI								10	15.20	33.068			24.440	348.4								
77	80	04/07/81 2120GMT 34 03.3N 122 56.5W WEATH 2 BOTTOM 4302M WIND 340 13 KT WAVES 340 04 04 BAR 1016.5MB DRY 16.5C WET 15.7C CLOUDS 8/8 SC								10	15.30	33.402			24.676	326.0								
77	90	05/07/81 0312GMT 33 43.3N 123 38.0W WEATH 1 BOTTOM 4493M WIND 350 18 KT WAVES 340 03 03 BAR 1014.9MB DRY 16.7C WET 15.7C CLOUDS 7/8 SC								10	16.84	33.311			24.257	365.9								
80	51	06/07/81 0909GMT 34 27.0N 120 31.4W WEATH BOTTOM 75M WIND 300 18 KT WAVES BAR 1011.2MB DRY 16.3C WET 15.4C CLOUDS								10	16.12	33.666			24.696	324.1								
80	55	06/07/81 0544GMT 34 19.0N 120 48.1W WEATH BOTTOM 814M WIND 310 18 KT WAVES BAR 1011.5MB DRY 16.3C WET 15.1C CLOUDS								10	14.70	33.674			25.016	293.6								
80	60	06/07/81 0220GMT 34 09.0N 121 09.0W WEATH 1 BOTTOM 2222M WIND 330 14 KT WAVES 310 03 04 BAR 1011.9MB DRY 17.3C WET 16.0C CLOUDS 1/8 AC								10	15.27	33.554			24.800	314.2								
80	70	05/07/81 2027GMT 33 49.0N 121 50.6W WEATH 1 BOTTOM 3824M WIND 330 15 KT WAVES 340 03 03 BAR 1014.2MB DRY 16.8C WET 16.0C CLOUDS 2/8 CC								10	15.66	33.481			24.657	327.8								
80	80	05/07/81 1434GMT 33 29.0N 122 32.0W WEATH 1 BOTTOM 4110M WIND 330 18 KT WAVES 320 04 04 BAR 1013.2MB DRY 17.6C WET 16.5C CLOUDS 3/8 CC								10	17.24	33.387			24.221	369.3								
80	90	05/07/81 0844GMT 33 09.0N 123 13.3W WEATH BOTTOM 4206M WIND 320 15 KT WAVES BAR 1015.2MB DRY 17.0C WET 16.2C CLOUDS								10	17.08	33.433			24.294	362.3								
82	46	07/07/81 2158GMT 34 16.2N 119 56.3W WEATH 1 BOTTOM 516M WIND 270 08 KT WAVES 270 02 03 BAR 1011.2MB DRY 20.6C WET 18.7C CLOUDS 1/8 CI								10	16.89	33.689			24.535	339.4								
83	40.6	07/07/81 1540GMT 34 13.5N 119 24.7W WEATH 2 BOTTOM 29M WIND 270 05 KT WAVES 280 03 08 BAR 1011.2MB DRY 21.0C WET 19.1C CLOUDS 8/8 ST								10	14.31	33.601			25.042	291.0								
83	42	07/07/81 1709GMT 34 10.7N 119 30.5W WEATH 1 BOTTOM 155M WIND 330 03 KT WAVES 290 03 07 BAR 1011.2MB DRY 19.9C WET 18.0C CLOUDS 1/8 CI								10	18.62	33.675			24.106	380.3								
83	51	08/07/81 0248GMT 33 52.7N 120 08.0W WEATH 1 BOTTOM 93M WIND 230 16 KT WAVES 270 02 03 BAR 1010.2MB DRY 18.5C WET 15.9C CLOUDS 1/8 CI								10	14.00	33.575			25.087	286.8								
83	55	08/07/81 0536GMT 33 44.7N 120 24.6W WEATH BOTTOM 971M WIND 310 16 KT WAVES BAR 1010.5MB DRY 17.0C WET 15.1C CLOUDS								10	17.44	33.689			24.405	351.8								
83	60	08/07/81 0918GMT 33 34.7N 120 45.3W WEATH BOTTOM 1368M WIND 310 13 KT WAVES BAR 1011.5MB DRY 16.1C WET 14.6C CLOUDS								10	16.20	33.685			24.692	324.4								
83	70	08/07/81 1444GMT 33 14.7N 121 26.6W WEATH 1 BOTTOM 3918M WIND 320 11 KT WAVES 310 04 08 BAR 1011.2MB DRY 17.0C WET 16.4C CLOUDS 5/8 CC								10	15.52	33.415			24.637	329.6								

RV DAVID STARR JORDAN

CALCOFI CRUISE 8107

10 METER DATA

LINE	STA		Z	T	S	02	02 PCT	STG TH	SVN
83	80	08/07/81 2105GMT 32 54.7N 122 07.7W WEATH 1 BOTTOM 4187M WIND 360 11 KT WAVES 340 06 06 BAR 1016.3MB DRY 17.9C WET 15.9C CLOUDS 7/8 ST	10	17.25	33.403			24.231	368.4
83	90	09/07/81 0336GMT 32 34.7N 122 48.7W WEATH 2 BOTTOM 4398M WIND 340 14 KT WAVES 340 04 03 BAR 1016.3MB DRY 16.3C WET 14.9C CLOUDS 8/8 ST	10	17.11	33.379			24.246	367.0
87	33	11/07/81 0143GMT 33 53.4N 118 29.4W WEATH 2 BOTTOM 55M WIND 270 08 KT WAVES BAR 1012.5MB DRY 19.9C WET 18.5C CLOUDS 8/8 ST	10	16.74	33.594			24.498	342.9
87	35	11/07/81 0122GMT 33 49.4N 118 37.7W WEATH 1 BOTTOM 574M WIND 280 07 KT WAVES 280 01 01 BAR 1012.5MB DRY 21.0C WET 18.9C CLOUDS 1/8 ST	10	19.44	33.672			23.896	400.4
87	40	10/07/81 2045GMT 33 39.4N 118 58.5W WEATH 1 BOTTOM 824M WIND 250 02 KT WAVES 280 02 03 BAR 1014.2MB DRY 20.3C WET 18.0C CLOUDS 2/8 ST	10	18.52	33.693			24.145	376.6
87	45	10/07/81 1701GMT 33 29.4N 119 19.1W WEATH 1 BOTTOM 1700M WIND 240 10 KT WAVES 250 04 08 BAR 1014.2MB DRY 18.8C WET 17.8C CLOUDS 7/8 ST	10	19.29	33.695			23.952	395.0
87	50	10/07/81 1234GMT 33 19.4N 119 39.8W WEATH BOTTOM 73M WIND 310 15 KT WAVES BAR 1013.9MB DRY 16.8C WET 15.7C CLOUDS	10	16.54	33.722			24.642	329.2
87	55	10/07/81 0849GMT 33 09.4N 120 00.4W WEATH BOTTOM 1202M WIND 310 19 KT WAVES BAR 1014.9MB DRY 16.5C WET 15.4C CLOUDS	10	18.32	33.736			24.227	368.8
87	60	10/07/81 0452GMT 32 59.4N 120 21.0W WEATH BOTTOM 759M WIND 320 14 KT WAVES BAR 1015.2MB DRY 16.4C WET 15.4C CLOUDS	10	15.82	33.633			24.738	320.0
87	70	09/07/81 2226GMT 32 39.4N 121 02.0W WEATH 2 BOTTOM 3918M WIND 300 06 KT WAVES 330 03 03 BAR 1013.9MB DRY 17.0C WET 16.2C CLOUDS 8/8 ST	10	16.28	33.468			24.507	342.0
87	80	09/07/81 1548GMT 32 19.4N 121 42.9W WEATH 2 BOTTOM 4302M WIND 340 11 KT WAVES 320 03 06 BAR 1014.2MB DRY 15.6C WET 14.5C CLOUDS 8/8 SC	10	16.45	33.531			24.516	341.2
87	90	09/07/81 0930GMT 31 59.4N 122 23.6W WEATH BOTTOM 4014M WIND 360 10 KT WAVES BAR 1016.5MB DRY 16.2C WET 14.8C CLOUDS	10	17.12	33.578			24.396	352.6
90	28	11/07/81 0929GMT 33 29.1N 117 46.1W WEATH BOTTOM 55M WIND 00 WAVES BAR 1013.5MB DRY 20.5C WET 19.8C CLOUDS	10	18.27	33.583			24.122	378.7
90	30	11/07/81 1131GMT 33 25.1N 117 54.3W WEATH BOTTOM 620M WIND 080 07 KT WAVES BAR 1012.9MB DRY 20.7C WET 18.9C CLOUDS	10	20.64	33.677			23.586	430.0
90	37	11/07/81 1554GMT 33 11.1N 118 23.2W WEATH 2 BOTTOM 1202M WIND 230 06 KT WAVES 280 02 04 BAR 1014.6MB DRY 18.7C WET 17.2C CLOUDS 8/8 SC	10	18.97	33.645			23.995	390.9
90	45	11/07/81 2058GMT 32 55.1N 118 56.1W WEATH 2 BOTTOM 1812M WIND 290 11 KT WAVES 300 04 03 BAR 1014.6MB DRY 19.8C WET 17.9C CLOUDS 8/8 ST	10	19.31	33.688			23.942	396.0
90	53	12/07/81 0229GMT 32 39.1N 119 28.9W WEATH 0 BOTTOM 1387M WIND 310 25 KT WAVES 300 04 03 BAR 1012.5MB DRY 17.7C WET 16.2C CLOUDS 0/8	10	18.76	33.749			24.127	378.3
90	60	12/07/81 0703GMT 32 25.1N 119 57.6W WEATH BOTTOM 925M WIND 310 22 KT WAVES BAR 1013.9MB DRY 16.2C WET 15.1C CLOUDS	10	18.19	33.751			24.271	364.6
90	70	12/07/81 1307GMT 32 05.1N 120 38.3W WEATH 1 BOTTOM 4110M WIND 320 24 KT WAVES 330 06 06 BAR 1015.2MB DRY 15.5C WET 14.5C CLOUDS 6/8 CU	10	17.04	33.537			24.384	353.8
90	80	12/07/81 2000GMT 31 45.1N 121 18.9W WEATH 1 BOTTOM 3730M WIND 330 23 KT WAVES 330 07 05 BAR 1016.5MB DRY 16.5C WET 14.9C CLOUDS 2/8 CU	10	18.84	33.573			23.973	393.0
90	90	13/07/81 0258GMT 31 25.1N 121 59.4W WEATH 1 BOTTOM 4014M WIND 330 21 KT WAVES 340 08 05 BAR 1016.3MB DRY 16.8C WET 15.0C CLOUDS 4/8 SC	10	17.30	33.504			24.297	362.1
93	26.7	15/07/81 1113GMT 32 57.4N 117 18.3W WEATH BOTTOM 64M WIND 120 05 KT WAVES BAR 1011.5MB DRY 21.8C WET 19.7C CLOUDS	10	16.75	33.574			24.480	344.6
93	28	15/07/81 0914GMT 32 54.8N 117 23.7W WEATH BOTTOM 594M WIND 290 03 KT WAVES BAR 1011.9MB DRY 21.9C WET 20.8C CLOUDS	10	18.10	33.593			24.172	374.0
93	30	15/07/81 0637GMT 32 50.8N 117 31.9W WEATH BOTTOM 832M WIND 280 03 KT WAVES BAR 1011.5MB DRY 22.6C WET 20.8C CLOUDS	10	18.66	33.620			24.054	385.3
93	35	15/07/81 0254GMT 32 40.8N 117 52.4W WEATH 1 BOTTOM 611M WIND 260 09 KT WAVES 270 03 03 BAR 1011.5MB DRY 21.5C WET 20.0C CLOUDS 3/8 AC	10	20.24	33.692			23.703	418.8
93	40	14/07/81 2240GMT 32 30.8N 118 12.8W WEATH 1 BOTTOM 1664M WIND 300 12 KT WAVES 300 02 03 BAR 1012.2MB DRY 20.9C WET 19.3C CLOUDS 4/8 AC	10	17.62	33.678			24.354	356.7

RV DAVID STARR JORDAN										CALCOFI CRUISE 8107						10 METER DATA					
LINE	STA											Z	T	S	02	02	PCT	SIG	TH	SVA	
93	45	14/07/81	1739GMT	32 20.8N	118 33.3W	WEATH	1	BOTTOM	1387M	WIND 310 14 KT	WAVES 290 03 05	BAR 1013.2MB	DRY 19.9C	WET 18.5C	CLOUDS 6/8 CU	10	20.30	33.719	23.708	418.3	
93	50	14/07/81	1308GMT	32 10.8N	118 53.6W	WEATH	1	BOTTOM	1525M	WIND 310 13 KT	WAVES 290 03 06	BAR 1012.9MB	DRY 17.4C	WET 16.7C	CLOUDS 4/8 SC	10	18.64	33.730	24.143	376.8	
93	55	14/07/81	0839GMT	32 00.8N	119 14.0W	WEATH	1	BOTTOM	1627M	WIND 310 14 KT	WAVES	BAR 1014.2MB	DRY 16.8C	WET 15.9C	CLOUDS	10	18.12	33.739	24.279	363.8	
93	60	14/07/81	0439GMT	31 50.8N	119 34.3W	WEATH	1	BOTTOM	2222M	WIND 320 15 KT	WAVES	BAR 1014.2MB	DRY 16.2C	WET 15.3C	CLOUDS	10	17.52	33.725	24.414	351.0	
93	70	13/07/81	2130GMT	31 30.8N	120 14.8W	WEATH	2	BOTTOM	3730M	WIND 320 17 KT	WAVES 330 04 04	BAR 1016.5MB	DRY 17.1C	WET 15.6C	CLOUDS 8/8 ST	10	17.64	33.696	24.363	355.8	
93	80	13/07/81	1444GMT	31 10.8N	120 55.2W	WEATH	1	BOTTOM	3918M	WIND 340 23 KT	WAVES 330 07 05	BAR 1015.9MB	DRY 16.5C	WET 15.3C	CLOUDS 5/8 SC	10	17.89	33.576	24.210	370.4	
93	90	13/07/81	0845GMT	30 50.8N	121 35.4W	WEATH	1	BOTTOM	4198M	WIND 350 22 KT	WAVES	BAR 1016.9MB	DRY 16.8C	WET 14.9C	CLOUDS	10	18.49	33.577	24.063	384.4	
RV NEW HORIZON										CALCOFI CRUISE 8107						10 METER DATA					
LINE	STA											Z	T	S	02	02	PCT	SIG	TH	SVA	
97	29	23/07/81	1913GMT	32 17.3N	117 04.8W	WEATH	0	BOTTOM	52M	WIND 310 08 KT	WAVES 300 03 06	BAR 1013.5MB	DRY 20.1C	WET 18.2C	CLOUDS 0/8	10	15.24	33.562	24.812	313.0	
97	30	23/07/81	2348GMT	32 15.3N	117 09.0W	WEATH	0	BOTTOM	63M	WIND 300 07 KT	WAVES 300 03 06	BAR 1013.9MB	DRY 21.0C	WET 19.0C	CLOUDS 0/8	10	14.29	33.558	25.013	293.8	
97	32	24/07/81	0218GMT	32 11.0N	117 17.6W	WEATH	0	BOTTOM	1784M	WIND 290 08 KT	WAVES 300 02 06	BAR 1012.5MB	DRY 20.0C	WET 18.5C	CLOUDS 0/8	10	17.14	33.594	24.404	351.9	
97	35	24/07/81	0458GMT	32 05.1N	117 29.3W	WEATH	4	BOTTOM	1095M	WIND 290 08 KT	WAVES	BAR 1013.2MB	DRY 20.1C	WET 18.4C	CLOUDS	10	20.73	33.717	23.592	429.4	
97	40	24/07/81	0840GMT	31 55.0N	117 49.0W	WEATH	1	BOTTOM	1129M	WIND 290 13 KT	WAVES	BAR 1013.5MB	DRY 18.3C	WET 17.0C	CLOUDS	10	19.96	33.692	23.777	411.7	
97	45	24/07/81	1204GMT	31 45.0N	118 10.0W	WEATH	1	BOTTOM	1535M	WIND 340 17 KT	WAVES	BAR 1013.5MB	DRY 17.5C	WET 16.2C	CLOUDS	10	19.78	33.709	23.836	406.0	
97	50	24/07/81	1523GMT	31 35.7N	118 30.4W	WEATH	2	BOTTOM	2749M	WIND 330 14 KT	WAVES 310 03 06	BAR 1014.9MB	DRY 17.6C	WET 16.1C	CLOUDS 8/8 ST	10	18.63	33.751	24.161	375.0	
97	55	24/07/81	1926GMT	31 26.1N	118 50.0W	WEATH	2	BOTTOM	1169M	WIND 310 17 KT	WAVES 290 04 06	BAR 1015.6MB	DRY 17.9C	WET 16.2C	CLOUDS 8/8 ST	10	19.04	33.745	24.054	385.3	
97	60	24/07/81	2346GMT	31 14.7N	119 10.8W	WEATH	2	BOTTOM	3719M	WIND 310 19 KT	WAVES 300 05 08	BAR 1014.2MB	DRY 17.8C	WET 15.8C	CLOUDS 8/2 ST	10	18.42	33.762	24.222	369.2	
97	70	25/07/81	0543GMT	30 55.1N	119 49.9W	WEATH	1	BOTTOM	3561M	WIND 300 15 KT	WAVES	BAR 1014.2MB	DRY 16.2C	WET 14.8C	CLOUDS	10	18.93	33.770	24.101	380.8	
97	80	25/07/81	1128GMT	30 35.7N	120 30.3W	WEATH	1	BOTTOM	3870M	WIND 350 18 KT	WAVES	BAR 1013.5MB	DRY 16.3C	WET 15.2C	CLOUDS	10	19.07	33.731	24.035	387.0	
97	90	25/07/81	1642GMT	30 15.9N	121 11.7W	WEATH	2	BOTTOM	3832M	WIND 330 13 KT	WAVES 350 05 08	BAR 1014.9MB	DRY 17.0C	WET 15.2C	CLOUDS 8/8 ST	10	18.84	33.715	24.081	382.7	
100	29.2	28/07/81	0101GMT	31 42.4N	116 43.7W	WEATH	1	BOTTOM	93M	WIND 300 17 KT	WAVES 300 03 04	BAR 1013.9MB	DRY 19.8C	WET 18.0C	CLOUDS 8/8 ST	10	18.18	33.581	24.143	376.8	
100	30	27/07/81	2223GMT	31 41.0N	116 46.5W	WEATH	4	BOTTOM	390M	WIND 300 15 KT	WAVES 310 02 04	BAR 1015.2MB	DRY 21.3C	WET 18.5C	CLOUDS 0/8	10	17.41	33.582	24.330	358.9	
100	35	27/07/81	1758GMT	31 31.0N	117 07.5W	WEATH	1	BOTTOM	1221M	WIND 320 12 KT	WAVES 310 02 08	BAR 1016.9MB	DRY 20.3C	WET 17.9C	CLOUDS 7/8 ST	10	20.63	33.699	23.605	428.1	
100	40	27/07/81	1304GMT	31 20.6N	117 27.6W	WEATH	1	BOTTOM	1905M	WIND 300 15 KT	WAVES	BAR 1015.9MB	DRY 17.8C	WET 14.8C	CLOUDS	10	20.65	33.759	23.645	424.3	
100	45	27/07/81	0840GMT	31 10.8N	117 47.2W	WEATH	1	BOTTOM	1707M	WIND 320 08 KT	WAVES	BAR 1015.2MB	DRY 17.1C	WET 15.1C	CLOUDS	10	19.86	33.695	23.805	409.0	

RV NEW HORIZON

CALCOFI CRUISE 8107

10 METER DATA

LINE	STA		Z	T	S	02	02 PCT	SIG TH	SVA
100	50	27/07/81 0231GMT 31 02.6N 118 07.6W WEATH 1 BOTTOM 1736M WIND 300 17 KT WAVES 320 03 03 BAR 1014.6MB DRY 17.4C WET 15.1C CLOUDS 7/8 ST	10	19.94	33.701			23.789	410.6
100	60	26/07/81 1936GMT 30 40.9N 118 47.1W WEATH 2 BOTTOM 2962M WIND 300 10 KT WAVES 310 03 04 BAR 1018.0MB DRY 17.4C WET 15.0C CLOUDS 8/8 ST	10	18.04	33.633			24.217	369.7
100	70	26/07/81 1309GMT 30 22.0N 119 28.2W WEATH BOTTOM 3780M WIND 330 12 KT WAVES BAR 1016.6MB DRY 16.1C WET 14.3C CLOUDS	10	18.41	33.644			24.135	377.6
100	80	26/07/81 0553GMT 30 01.5N 120 07.0W WEATH BOTTOM 3832M WIND 350 15 KT WAVES BAR 1015.9MB DRY 16.9C WET 15.3C CLOUDS	10	19.90	33.785			23.863	403.5
100	90	25/07/81 2248GMT 29 43.8N 120 51.5W WEATH 2 BOTTOM 3879M WIND 330 11 KT WAVES 350 05 08 BAR 1012.9MB DRY 18.1C WET 16.8C CLOUDS 8/8 ST	10	18.99	33.716			24.044	386.2
103	29	28/07/81 0712GMT 31 09.0N 116 20.8W WEATH BOTTOM 28M WIND 310 11 KT WAVES BAR 1016.3MB DRY 18.7C WET 17.5C CLOUDS	10	17.67	33.562			24.253	366.3
103	30	28/07/81 0950GMT 31 07.2N 116 24.3W WEATH BOTTOM 60M WIND 300 11 KT WAVES BAR 1015.6MB DRY 19.0C WET 17.8C CLOUDS	10	15.41	33.556			24.770	317.0
103	35	28/07/81 1254GMT 30 56.7N 116 45.3W WEATH 2 BOTTOM 1479M WIND 300 15 KT WAVES 300 03 06 BAR 1014.9MB DRY 19.7C WET 17.3C CLOUDS 8/8 ST	10	21.22	33.737			23.475	440.5
103	40	28/07/81 1604GMT 30 47.2N 117 05.4W WEATH 2 BOTTOM 1800M WIND 290 13 KT WAVES 310 04 06 BAR 1015.9MB DRY 19.4C WET 16.0C CLOUDS 8/8 ST	10	21.07	33.740			23.518	436.4
103	45	28/07/81 1917GMT 30 37.1N 117 24.8W WEATH 1 BOTTOM 1879M WIND 360 14 KT WAVES 310 04 06 BAR 1017.6MB DRY 19.9C WET 16.9C CLOUDS 6/8 ST	10	21.21	33.794			23.521	436.2
103	50	28/07/81 2302GMT 30 27.0N 117 44.0W WEATH 1 BOTTOM 2800M WIND 290 15 KT WAVES 310 04 06 BAR 1015.6MB DRY 18.8C WET 16.2C CLOUDS 4/8 AS	10	20.92	33.745			23.562	432.2
103	60	29/07/81 0508GMT 30 06.0N 118 24.1W WEATH BOTTOM 3410M WIND 310 11 KT WAVES BAR 1016.3MB DRY 17.7C WET 15.3C CLOUDS	10	20.52	33.802			23.713	417.8
103	70	29/07/81 1041GMT 29 46.0N 119 03.5W WEATH BOTTOM 3512M WIND 330 15 KT WAVES BAR 1014.9MB DRY 17.5C WET 15.6C CLOUDS	10	19.75	33.760			23.883	401.6
103	80	29/07/81 1553GMT 29 26.5N 119 44.5W WEATH 2 BOTTOM 3757M WIND 290 11 KT WAVES 310 02 06 BAR 1016.6MB DRY 18.3C WET 15.9C CLOUDS 8/8 ST	10	19.90	33.772			23.853	404.4
107	31	31/07/81 0203GMT 30 29.5N 116 06.0W WEATH 1 BOTTOM 19M WIND 280 10 KT WAVES 240 02 06 BAR 1014.6MB DRY 19.0C WET 17.3C CLOUDS 2/8 CU	10	18.44	33.581			24.079	382.9
107	32	31/07/81 0349GMT 30 27.5N 116 10.0W WEATH BOTTOM 177M WIND 280 10 KT WAVES BAR 1011.9MB DRY 18.7C WET 17.1C CLOUDS	10	18.60	33.590			24.046	386.0
107	35	31/07/81 0635GMT 30 21.5N 116 21.5W WEATH BOTTOM 1350M WIND 300 10 KT WAVES BAR 1016.3MB DRY 18.9C WET 16.9C CLOUDS	10	19.48	33.642			23.863	403.5
107	40	30/07/81 2056GMT 30 12.0N 116 42.0W WEATH 1 BOTTOM 2554M WIND 300 13 KT WAVES 330 03 06 BAR 1016.6MB DRY 20.3C WET 17.0C CLOUDS 6/8 ST	10	21.80	33.797			23.362	451.4
107	45	30/07/81 1743GMT 30 01.5N 117 02.1W WEATH 2 BOTTOM 1373M WIND 310 11 KT WAVES 320 03 06 BAR 1016.6MB DRY 18.8C WET 16.3C CLOUDS 8/8 ST	10	21.65	33.794			23.401	447.7
107	50	30/07/81 1420GMT 29 51.3N 117 21.9W WEATH 2 BOTTOM 2462M WIND 340 17 KT WAVES 320 03 05 BAR 1015.6MB DRY 18.0C WET 15.9C CLOUDS 8/8 ST	10	21.46	33.793			23.452	442.7
107	60	30/07/81 0851GMT 29 31.4N 118 01.8W WEATH BOTTOM 3613M WIND 300 13 KT WAVES BAR 1015.9MB DRY 17.8C WET 15.3C CLOUDS	10	20.43	33.762			23.706	418.5
107	70	30/07/81 0301GMT 29 12.0N 118 41.0W WEATH 2 BOTTOM 3179M WIND 300 12 KT WAVES 310 03 05 BAR 1015.6MB DRY 18.5C WET 15.9C CLOUDS 8/8 ST	10	20.81	33.797			23.631	425.6
107	80	29/07/81 2104GMT 28 51.7N 119 21.3W WEATH 2 BOTTOM 3594M WIND 300 12 KT WAVES 310 03 06 BAR 1016.6MB DRY 20.4C WET 16.9C CLOUDS 8/8 ST	10	20.91	33.841			23.638	425.0
110	33	31/07/81 1212GMT 29 50.2N 115 50.1W WEATH BOTTOM 56M WIND 330 13 KT WAVES BAR 1015.6MB DRY 17.6C WET 16.3C CLOUDS	10	14.21	33.593			25.057	289.7
110	35	31/07/81 1457GMT 29 46.8N 116 00.0W WEATH 2 BOTTOM 1101M WIND 340 15 KT WAVES 330 02 06 BAR 1016.6MB DRY 18.7C WET 15.8C CLOUDS 8/8 ST	10	18.34	33.573			24.097	381.1
110	40	31/07/81 1823GMT 29 36.4N 116 19.5W WEATH 1 BOTTOM 2490M WIND 320 13 KT WAVES 330 03 06 BAR 1016.9MB DRY 20.1C WET 17.9C CLOUDS 6/8 CU	10	21.00	33.749			23.544	434.0

RV NEW HORIZON

CALCOFI CRUISE 8107

10 METER DATA

LINE	STA		Z	T	S	02	02 PCT	SIG TH	SVA
110	45	31/07/81 2238GMT 29 27.1N 116 38.4W WEATH 1 BOTTOM 530M WIND 310 14 KT WAVES 320 03 05 BAR 1015.9MB DRY 19.8C WET 17.2C CLOUDS 6/8 CU	10	21.42	33.780			23.453	442.6
110	50	01/08/81 0303GMT 29 18.0N 116 59.7W WEATH 1 BOTTOM 2819M WIND 310 14 KT WAVES 320 03 04 BAR 1018.0MB DRY 19.0C WET 16.8C CLOUDS 7/8 ST	10	21.48	33.795			23.448	443.1
110	60	01/08/81 0925GMT 28 56.7N 117 38.4W WEATH BOTTOM 3594M WIND 330 14 KT WAVES BAR 1017.3MB DRY 18.5C WET 16.7C CLOUDS	10	21.01	33.796			23.577	430.8
110	70	01/08/81 1513GMT 28 36.9N 118 18.3W WEATH 2 BOTTOM 3559M WIND 350 13 KT WAVES 330 05 06 BAR 1018.0MB DRY 18.5C WET 16.4C CLOUDS 8/8 ST	10	21.05	33.814			23.580	430.6
110	80	01/08/81 2158GMT 28 16.7N 118 57.0W WEATH 2 BOTTOM 3879M WIND 340 15 KT WAVES 330 05 06 BAR 1016.9MB DRY 19.0C WET 16.9C CLOUDS 8/8 ST	10	20.09	33.718			23.762	413.1
113	29	03/08/81 1410GMT 29 25.3N 115 14.0W WEATH 2 BOTTOM 30M WIND 100 05 KT WAVES 290 02 05 BAR 1011.5MB DRY 18.1C WET 17.3C CLOUDS 8/8 ST	10	15.79	33.584			24.707	323.0
113	30	03/08/81 1121GMT 29 23.0N 115 18.0W WEATH BOTTOM 56M WIND 310 17 KT WAVES BAR 1011.2MB DRY 17.9C WET 16.2C CLOUDS	10	16.24	33.589			24.609	332.3
113	35	03/08/81 0704GMT 29 13.5N 115 36.5W WEATH BOTTOM 1165M WIND 310 21 KT WAVES BAR 1012.9MB DRY 18.9C WET 17.9C CLOUDS	10	18.69	33.619			24.046	386.1
113	40	03/08/81 0400GMT 29 04.2N 115 56.6W WEATH BOTTOM 3419M WIND 310 22 KT WAVES BAR 1012.9MB DRY 20.4C WET 18.5C CLOUDS	10	21.62	33.785			23.402	447.5
113	45	03/08/81 0015GMT 28 54.0N 116 16.5W WEATH 1 BOTTOM 3376M WIND 310 18 KT WAVES 330 05 06 BAR 1015.2MB DRY 21.9C WET 19.4C CLOUDS 5/8 ST	10	22.57	33.894			23.220	464.9
113	50	02/08/81 2037GMT 28 42.3N 116 36.7W WEATH 1 BOTTOM 3559M WIND 310 17 KT WAVES 330 04 05 BAR 1015.6MB DRY 22.1C WET 19.3C CLOUDS 6/8 ST	10	22.56	33.848			23.188	468.0
113	60	02/08/81 1456GMT 28 22.2N 117 16.5W WEATH 1 BOTTOM 3636M WIND 340 14 KT WAVES 330 03 06 BAR 1015.9MB DRY 19.7C WET 17.8C CLOUDS 7/8 ST	10	21.21	33.799			23.525	435.8
113	70	02/08/81 0935GMT 28 02.7N 117 55.4W WEATH BOTTOM 3113M WIND 330 14 KT WAVES BAR 1016.6MB DRY 19.5C WET 17.4C CLOUDS	10	21.25	33.812			23.524	435.9
113	80	02/08/81 0339GMT 27 43.4N 118 34.3W WEATH BOTTOM 3813M WIND 330 15 KT WAVES BAR 1016.9MB DRY 19.4C WET 17.2C CLOUDS	10	20.64	33.756			23.646	424.2
117	25	03/08/81 1947GMT 28 57.2N 114 35.7W WEATH 1 BOTTOM 48M WIND 270 16 KT WAVES 260 03 05 BAR 1012.5MB DRY 19.6C WET 18.5C CLOUDS 6/8 ST	10	17.50	33.642			24.355	356.6
117	30	03/08/81 2355GMT 28 47.5N 114 56.2W WEATH 1 BOTTOM 101M WIND 280 17 KT WAVES 290 04 05 BAR 1011.2MB DRY 20.0C WET 18.3C CLOUDS 5/8 AS	10	19.20	33.646			23.938	396.4
117	35	04/08/81 2211GMT 28 37.6N 115 15.6W WEATH 1 BOTTOM 192M WIND 280 15 KT WAVES 310 03 06 BAR 1012.9MB DRY 21.0C WET 18.5C CLOUDS 7/8 ST	10	21.03	33.729			23.521	436.2
117	40	05/08/81 0456GMT 28 27.1N 115 35.7W WEATH BOTTOM 1392M WIND 320 12 KT WAVES BAR 1013.9MB DRY 20.4C WET 18.5C CLOUDS	10	20.50	33.702			23.642	424.6
117	45	05/08/81 0833GMT 28 17.7N 115 54.9W WEATH BOTTOM 3377M WIND 290 10 KT WAVES BAR 1013.9MB DRY 20.0C WET 18.0C CLOUDS	10	21.06	33.748			23.527	435.6
117	50	05/08/81 1144GMT 28 07.6N 116 14.0W WEATH BOTTOM 4107M WIND 300 14 KT WAVES BAR 1013.5MB DRY 20.0C WET 17.9C CLOUDS	10	21.25	33.735			23.465	441.5
117	60	05/08/81 1638GMT 27 48.3N 116 54.5W WEATH 2 BOTTOM 3604M WIND 320 11 KT WAVES 320 02 06 BAR 1015.9MB DRY 20.1C WET 17.9C CLOUDS 8/8 ST	10	21.21	33.761			23.496	438.5
117	70	05/08/81 2150GMT 27 27.9N 117 32.1W WEATH 2 BOTTOM 3642M WIND 290 08 KT WAVES 270 03 06 BAR 1015.2MB DRY 21.1C WET 19.2C CLOUDS 8/8 ST	10	21.00	33.776			23.564	432.0
117	80	06/08/81 0312GMT 27 07.9N 118 10.7W WEATH BOTTOM 3983M WIND 320 12 KT WAVES BAR 1015.9MB DRY 19.9C WET 17.4C CLOUDS	10	21.10	33.790			23.548	433.6
118	39	05/08/81 0146GMT 28 16.0N 115 22.4W WEATH 2 BOTTOM 172M WIND 310 11 KT WAVES 310 03 05 BAR 1012.5MB DRY 20.7C WET 18.7C CLOUDS 8/8 ST	10	22.26	33.747			23.196	467.3
119	33	04/08/81 1759GMT 28 17.8N 114 51.8W WEATH 1 BOTTOM 104M WIND 320 17 KT WAVES 310 02 06 BAR 1013.5MB DRY 20.6C WET 18.8C CLOUDS 6/8 ST	10	20.81	33.696			23.555	432.9
120	24	04/08/81 0556GMT 28 25.0N 114 11.2W WEATH BOTTOM 34M WIND 300 22 KT WAVES BAR 1011.8MB DRY 20.0C WET 18.6C CLOUDS	10	22.68	33.840			23.147	471.8

RV NEW HORIZON								CALCOFI CRUISE 8107						10 METER DATA					
LINE	STA							Z	T	S	02	02	PCT	SIG	TH	SVA			
120	25	04/08/81	0802GMT	28 23.2N	114 15.0W	WEATH		10	22.24	33.825				23.260	461.1				
				BOTTOM 60M	WIND 300 17 KT	WAVES													
				BAR 1011.2MB	DRY 19.6C	WET 18.3C	CLOUDS												
120	30	04/08/81	1128GMT	28 12.8N	114 35.7W	WEATH		10	21.90	33.786				23.326	454.8				
				BOTTOM 97M	WIND 320 13 KT	WAVES													
				BAR 1010.8MB	DRY 19.5C	WET 18.0C	CLOUDS												
120	35	04/08/81	1506GMT	28 03.3N	114 53.5W	WEATH 2		10	21.07	33.699				23.487	439.4				
				BOTTOM 82M	WIND 330 19 KT	WAVES 340 03 06													
				BAR 1011.2MB	DRY 20.3C	WET 18.6C	CLOUDS 8/8 ST												
120	38.5	07/08/81	1242GMT	27 56.0N	115 07.0W	WEATH		10	22.22	33.775				23.228	464.2				
				BOTTOM 43M	WIND 240 04 KT	WAVES													
				BAR 1012.9MB	DRY 21.8C	WET 19.8C	CLOUDS												
120	45	07/08/81	0828GMT	27 44.0N	115 32.3W	WEATH		10	22.81	33.946				23.191	467.7				
				BOTTOM 2117M	WIND 320 12 KT	WAVES													
				BAR 1014.6MB	DRY 21.3C	WET 19.6C	CLOUDS												
120	50	07/08/81	0332GMT	27 33.7N	115 51.8W	WEATH		10	21.89	33.833				23.364	451.1				
				BOTTOM 3795M	WIND 320 18 KT	WAVES													
				BAR 1015.2MB	DRY 21.1C	WET 19.1C	CLOUDS												
120	60	06/08/81	2131GMT	27 13.9N	116 30.7W	WEATH 1		10	21.44	33.823				23.480	440.0				
				BOTTOM 3709M	WIND 290 10 KT	WAVES 330 02 08													
				BAR 1013.5MB	DRY 21.6C	WET 18.7C	CLOUDS 7/8 ST												
120	70	06/08/81	1515GMT	26 53.4N	117 10.3W	WEATH 2		10	21.57	33.822				23.444	443.5				
				BOTTOM 3461M	WIND 030 06 KT	WAVES 340 03 08													
				BAR 1015.6MB	DRY 20.1C	WET 17.6C	CLOUDS 8/8 ST												
120	80	06/08/81	0935GMT	26 33.0N	117 48.8W	WEATH		10	21.18	33.823				23.551	433.3				
				BOTTOM 3757M	WIND 320 13 KT	WAVES													
				BAR 1015.6MB	DRY 19.8C	WET 17.3C	CLOUDS												
123	36	07/08/81	1819GMT	27 26.8N	114 36.3W	WEATH 1		10	16.75	33.736				24.604	332.8				
				BOTTOM 37M	WIND 320 04 KT	WAVES 210 01 04													
				BAR 1014.2MB	DRY 20.9C	WET 19.7C	CLOUDS 1/8 AS												
123	37	07/08/81	2000GMT	27 25.2N	114 40.4W	WEATH 1		10	15.26	33.701				24.915	303.2				
				BOTTOM 63M	WIND 310 08 KT	WAVES 270 02 03													
				BAR 1013.2MB	DRY 20.1C	WET 19.0C	CLOUDS 2/8 CU												
123	42	07/08/81	2326GMT	27 14.5N	115 00.1W	WEATH 1		10	22.99	33.873				23.084	477.9				
				BOTTOM 1841M	WIND 310 21 KT	WAVES 330 03 05													
				BAR 1011.5MB	DRY 23.3C	WET 21.2C	CLOUDS 3/8 CU												

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