

UNIVERSITY OF CALIFORNIA SCRIPPS INSTITUTION OF OCEANOGRAPHY

data report

PHYSICAL AND CHEMICAL DATA

CalCOFI Cruise 6910
9 October - 8 November 1969

and

CalCOFI Cruise 6912
13 November - 17 December 1969

SIO Reference 79-29
15 February 1980

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Sponsored by
Marine Research Committee

SIO Reference 79-29

Approved for distribution:

W. A. Nierenberg
W. A. Nierenberg, Director

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INTRODUCTION

The data in this report was collected during cruises 6910* and 6912 of the California Cooperative Oceanic Fisheries Investigations (CalCOFI) program aboard the RV David Starr Jordan, of the Bureau of Commercial Fisheries (now National Marine Fisheries Service), and the RV Alexander Agassiz, of the Scripps Institution of Oceanography. The report preceeding this one in the series was SIO Ref. 79-7 which included data for July, August, and September 1969.

During the December cruise on the Agassiz, time was spent on lines 90 and 120 to test zooplankton sampling gear. Opening-closing bongo nets were deployed at selected stations both in daylight and at night to sample eight separate depth-ranges between 500m and the sea surface.

This data was collected in part and processed completely by personnel of the Data Collection and Processing Group (DCPG, MLR)**, Scripps Institution of Oceanography.

STANDARD PROCEDURES

Hydrographic Cast Data

The hydrographic casts consisted of 12 to 18 Nansen bottles. At most stations the maximum sampling depth was 550 meters, bottom depth permitting. Temperature, oxygen, and nutrients were determined for all depths on each station, but samples from only five selected depths were used to determine salinity for comparison with the STD.

On STD lowerings where hydrographic casts were not made, a Nansen bottle was usually placed on the wire a few meters above the STD and another bottle was lowered to a depth of approximately 10 meters. Temperature, salinity, and nutrients were determined for most of the 10 meter samples. On the RV David Starr Jordan water samples at some stations were collected with a Niskin rosette lowered on the STD cable. Thermometers were used on the deepest Niskin sampler to record the temperature.

In general, paired protected reversing thermometers were used to determine temperatures which were recorded to hundredths of a Celsius degree. Surface temperatures from "bucket" thermometers and temperatures determined using unprotected (pressure) thermometers were recorded to tenths of a degree. Sample bottles used below 100 meters were equipped with unprotected thermometers for depth determination. Inattention to thermometer readings, however, resulted in extrapolation of some depth curves on all cruises due to unprotected thermometer malfunction in the deepest Nansen bottles.

The salinity samples for both Jordan cruises, 6910, and 6912, were analyzed using the same Bissett Berman (now Grundy Environmental Systems, Inc.) inductive salinometer which operated well. The Australian Autolab inductive salinometer used on the Agassiz for 6910 and for approximately half 6912 frequently showed considerable drift so that much of the data has been tabulated in hundredths. The Bissett Berman inductive salinometer also used for the Agassiz for 6912 operated satisfactorily.

The salinity values were recorded and are reported to three decimal places, provided accepted standards were met. If only one determination per sample was

*The first two digits represent the year and the second digits the month of the cruise. The CalCOFI station designations have been in use for over twenty years. The first part specifies a line normal to the general trend of the coast line (CalCOFI line). The second part specifies a station position relative to the coast on the CalCOFI line.

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

obtained, or there was doubt concerning the accuracy of the analytical results, the salinities are reported to two decimal places. All STD salinities are tabulated to hundredths.

Dissolved oxygen was determined by the Winkler method as modified by Carpenter (1965), using the equipment and procedure outlined by Anderson (1971).

Phosphate, silicate, nitrite, and nitrate were determined using a first generation Technicon^R AutoAnalyzer^R and methods developed at the Bureau of Commercial Fisheries based on the methodologies of Strickland (1968). Samples frozen at sea on the Agassiz for 6912 and determined after the cruise were too erratic for tabulations in the report.

Phytoplankton pigment and production data resulting from these cruises has been reported earlier by Owen (1974).

Most of the sample bottle data could not be evaluated using standard DCPG techniques (Klein, 1973) due to the sparsity of salinity data. However, when it was apparent the STD had malfunctioned, salinity samples were determined from all sample bottles and the standard techniques carried out. All oxygen and nutrients were plotted against depth for evaluation.

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

A Bissett Berman Model 9006 STD was used by each ship for lowerings during all cruises. Both ships also used a digital data logger (DDL) Model 8114 for data recording but the one used during both cruises of the Jordan malfunctioned so all data has been digitized at standard depths from the analogs.

The STD temperature data agreed very closely with the calibration samples for all cruises. Similarly, the STD salinity data from the Agassiz for 6910 and the Jordan for 6912 agreed closely with the sample bottle values. However, the salinity for the Jordan 6910 and the Agassiz 6912 shifted during the cruise requiring changing corrections and causing the data to be somewhat uncertain.

TABULATED DATA

The time reported is Greenwich Mean Time. For STD lowerings it is the "start down" time and for bottle casts it is the time of messenger release. When more than one cast was lowered on a station, the messenger times for the first and last casts are given. Multiple casts, excluding the surface cast, are indicated by a footnote letter following the observed depth.

Bottom depths, determined acoustically, have been corrected using Matthews (1939) tables and are reported in meters. The weather and dominant waves are coded using the National Oceanographic Data Center (NODC) method.

Data for all cruises presented in this report was obtained by bottle casts and by the STD, and appear in two forms:

- 1.) Data from the sample bottle casts is tabulated with the observed levels of depth on the left of a page. When salinity samples were collected and analyzed for all observed levels, interpolated and computed values at standard levels of depth appear on the right of the page.
- 2.) For each STD lowering, temperature and salinity values are read only at standard levels of depth and appear with computed values of DT and DD on the right of the page. Corrections have been applied to the temperature and salinity values as discussed previously in this report. Nutrient data from samples collected with a Niskin rosette is tabulated at observed levels of depth to the left of the STD data.

The same parameters have been tabulated in this report as in previous reports. The decimal has been omitted from the CalCOFI station number so station 90.65 appears in the tabulated data as 90065. The column headings are to be interpreted as follows:

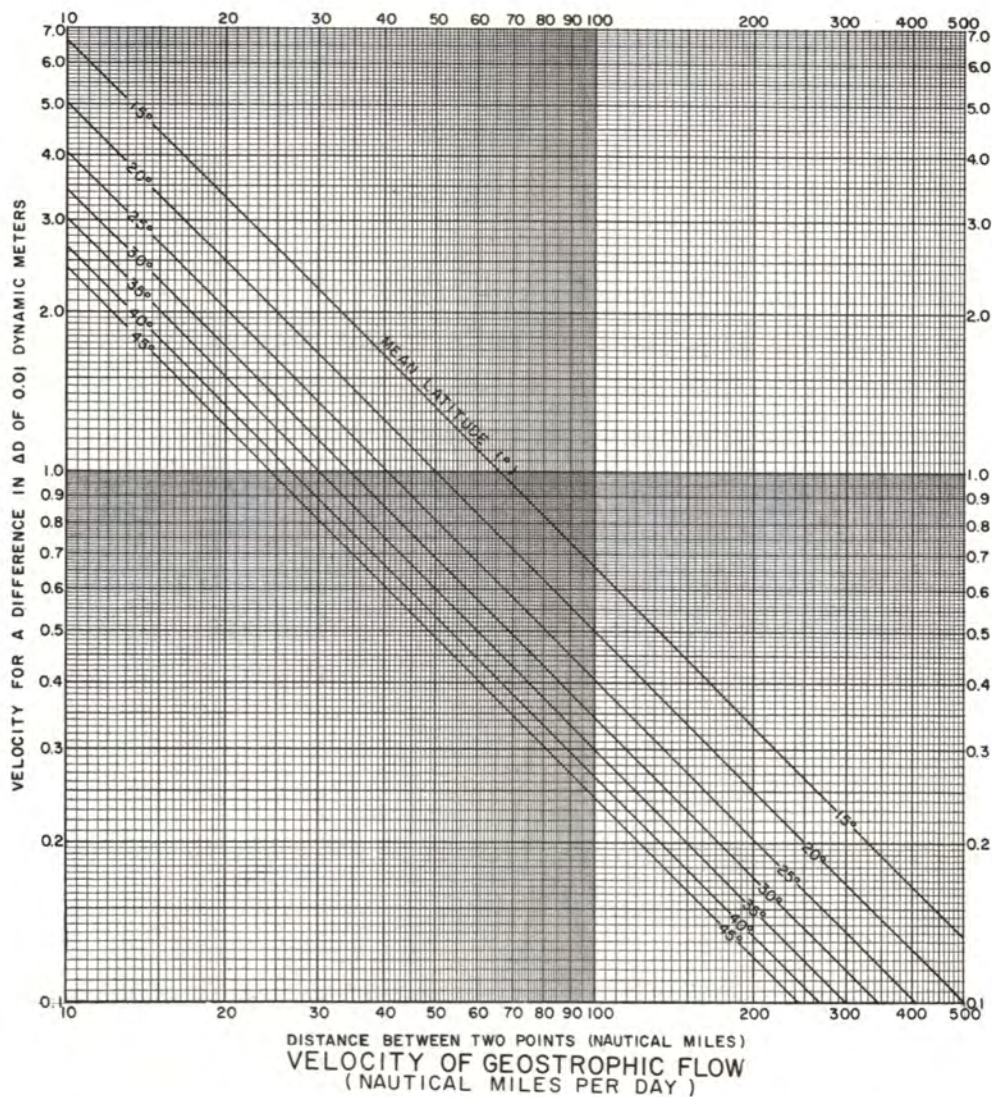
Z	Depth	Meters
T	Temperature	°C
S	Salinity	‰
O2	Dissolved oxygen	ml/L
P04	"Reactive" inorganic phosphate-phosphorous	µg at/L
SI03	"Reactive" inorganic silicate-silicon	µg at/L
N02	"Reactive" nitrite-nitrogen	µg at/L
N03	"Reactive" nitrate-nitrogen	µg at/L
DT	δ_T Thermosteric anomaly	cl/ton
SIGT	$\sigma_t = (\rho_{s,t,0} - 1)10^3$ where $\rho_{s,t,0}$ is the density the parcel would have if moved isothermally to the sea surface.	g/L
DD	Geopotential anomaly, referred to the sea surface.	dyn. meters

FOOTNOTES

Data which appears to be in error without obvious reason is reported, but flagged uncertain with a U. Such data was not used in the determination of data at standard depths. Footnotes are used to indicate data which has required special processing.

REFERENCES

- Anderson, G.C., compiler, 1971, "Oxygen Analysis", Marine Technician's Handbook, SIO Ref. No. 71-10, Sea Grant Pub. No. 11.
- Autolab Ind. Pty. Ltd., Sydney, 1960. Inductively Coupled Salinometer MK 111, Model 601, Operating Inst. and Ills. Parts List.
- Bissett Berman Marine Division, 1967. Operation and Maintenance Manual, Laboratory Salinometer Model 6220.
- Brown, N.L., and B.V. Hamon, 1961. An Inductive Salinometer. Deep Sea Research, 8: 65-75.
- Carpenter, J.H., 1965. The Chesapeake Bay Institute technique for Winkler dissolved oxygen method. Limmol. and Oceanogr., 10: 141-143.
- In situ Salinity/Temperature/Depth Monitoring and Recording System, Model 9006, Tech. Rep. No. 102, Hytech Marine Products, The Bissett Berman Corporation (Now Grundy Environmental Systems, Inc.).
- Klein, Hans T., 1973. A new technique for processing physical oceanographic data. SIO Ref. No. 73-14.
- Matthews, D.J., 1939. Tables of the velocity of sound in pure water and seawater for use in echo-sounding and sound-ranging. Second Edition. Hydrographic Department, Admiralty, London, H.D. 282: 52pp.
- Owen, R.W. Jr., and C.K. Sanchez, 1974. Phytoplankton Pigment and Production Measurements in the California Current Region, 1969-72. U.S. Dept. of Commerce, Nov. 1974. Data Rep. 91.
- Strickland, J.D.H., and T.R. Parsons, 1968. A practical handbook of seawater analysis. Fish. Res. Board of Canada, Bull. No. 167: 311pp.
- University of Washington, 1960. Univ. of Wash. Dept. of Oceanography, Oct. 1960. Tech. Rep. UW Ref. No. 60-18.



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

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

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

FIGURES

Cruise 6912

1. CalCOFI Cruise 6912, station positions
2. Horizontal distribution of dynamic height anomaly (0 over 500 d-bar)
3. Horizontal distribution of dynamic height anomaly (200 over 500 d-bar)
4. Horizontal distribution of temperature at 10 meters
5. Horizontal distribution of salinity at 10 meters
6. Horizontal distribution of thermosteric anomaly at 10 meters
7. Horizontal distribution of temperature at 200 meters
8. Horizontal distribution of salinity at 200 meters
9. Horizontal distribution of thermosteric anomaly at 200 meters

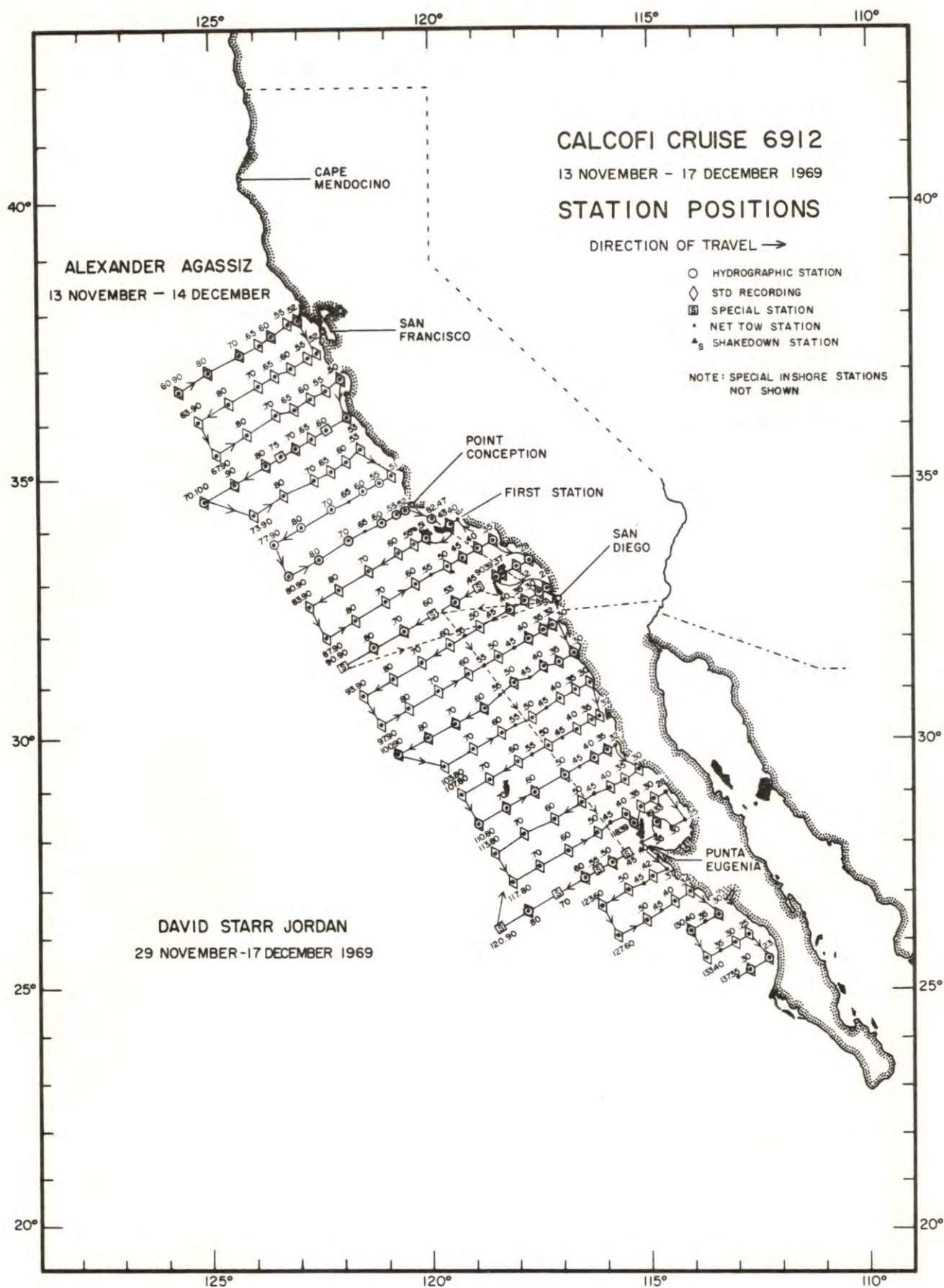


FIGURE 1

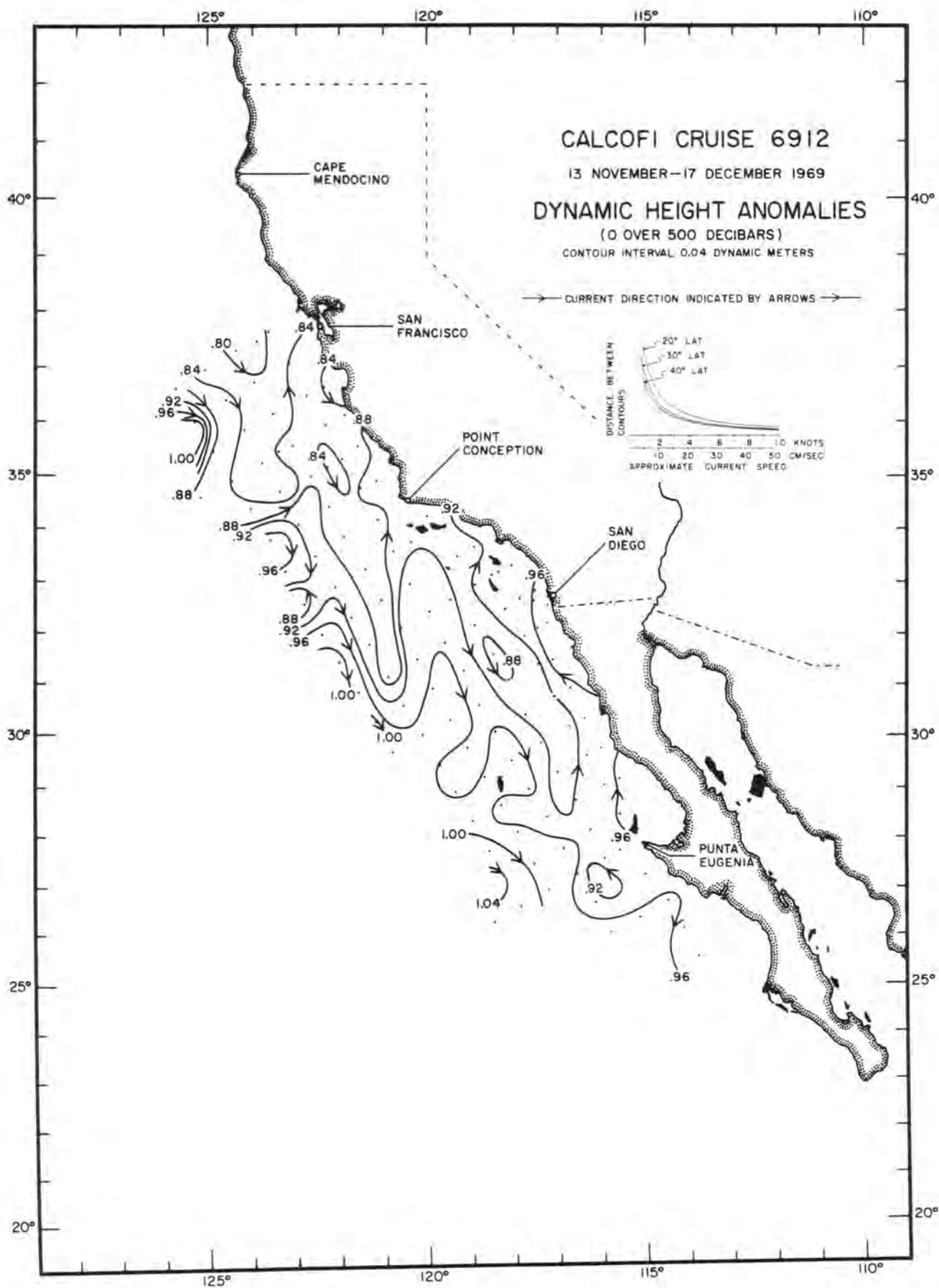


FIGURE 2

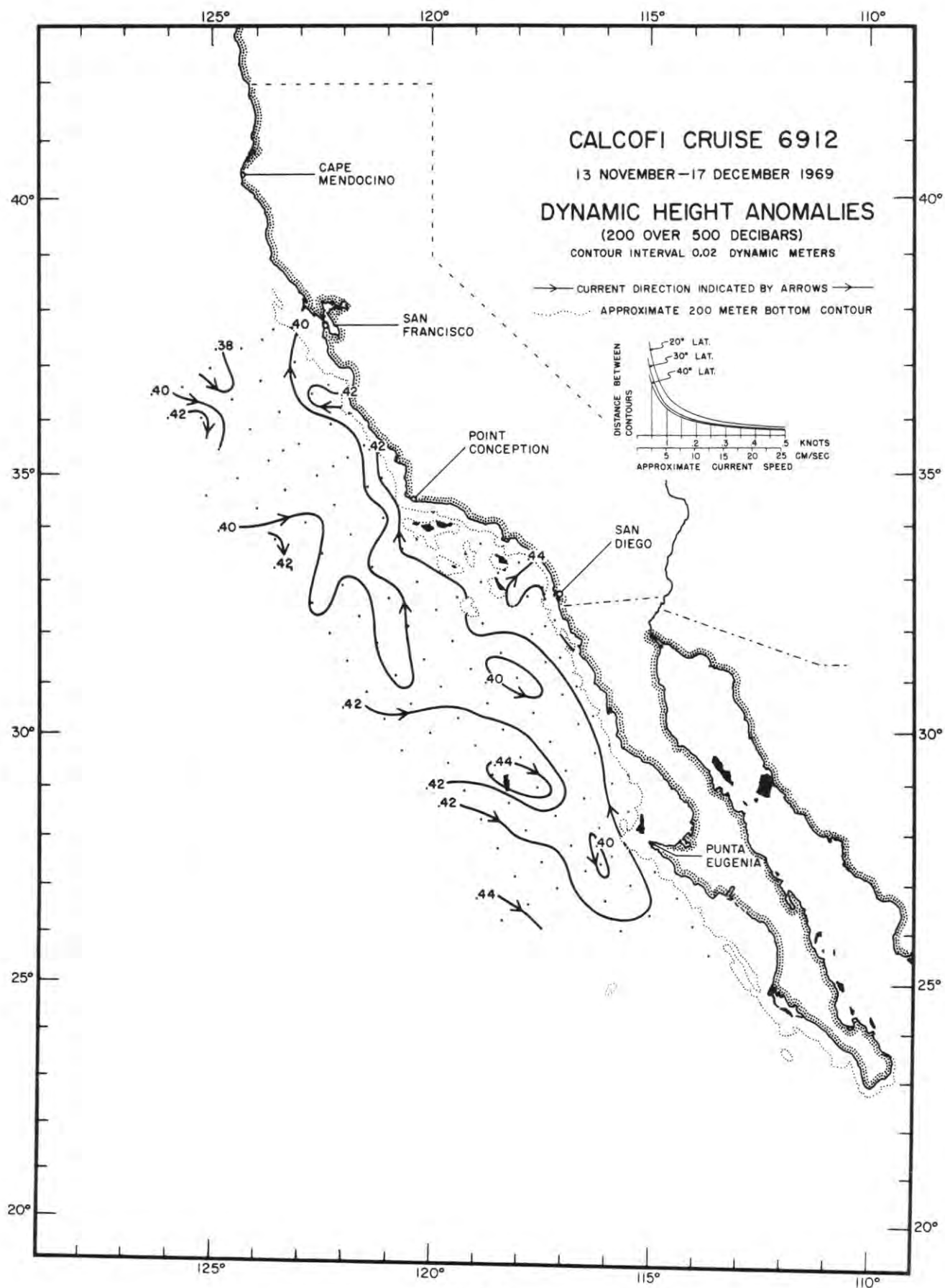


FIGURE 3

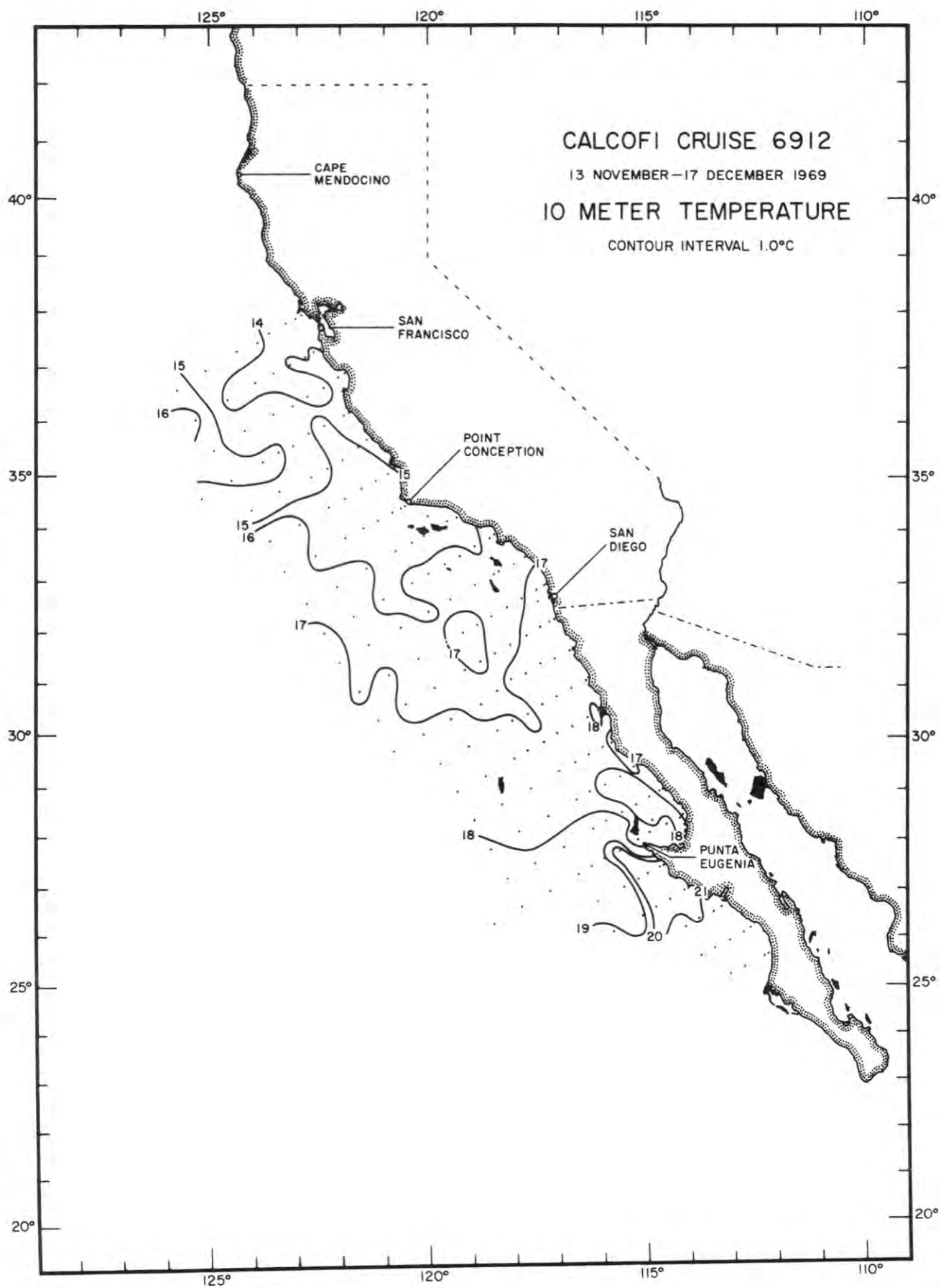


FIGURE 4

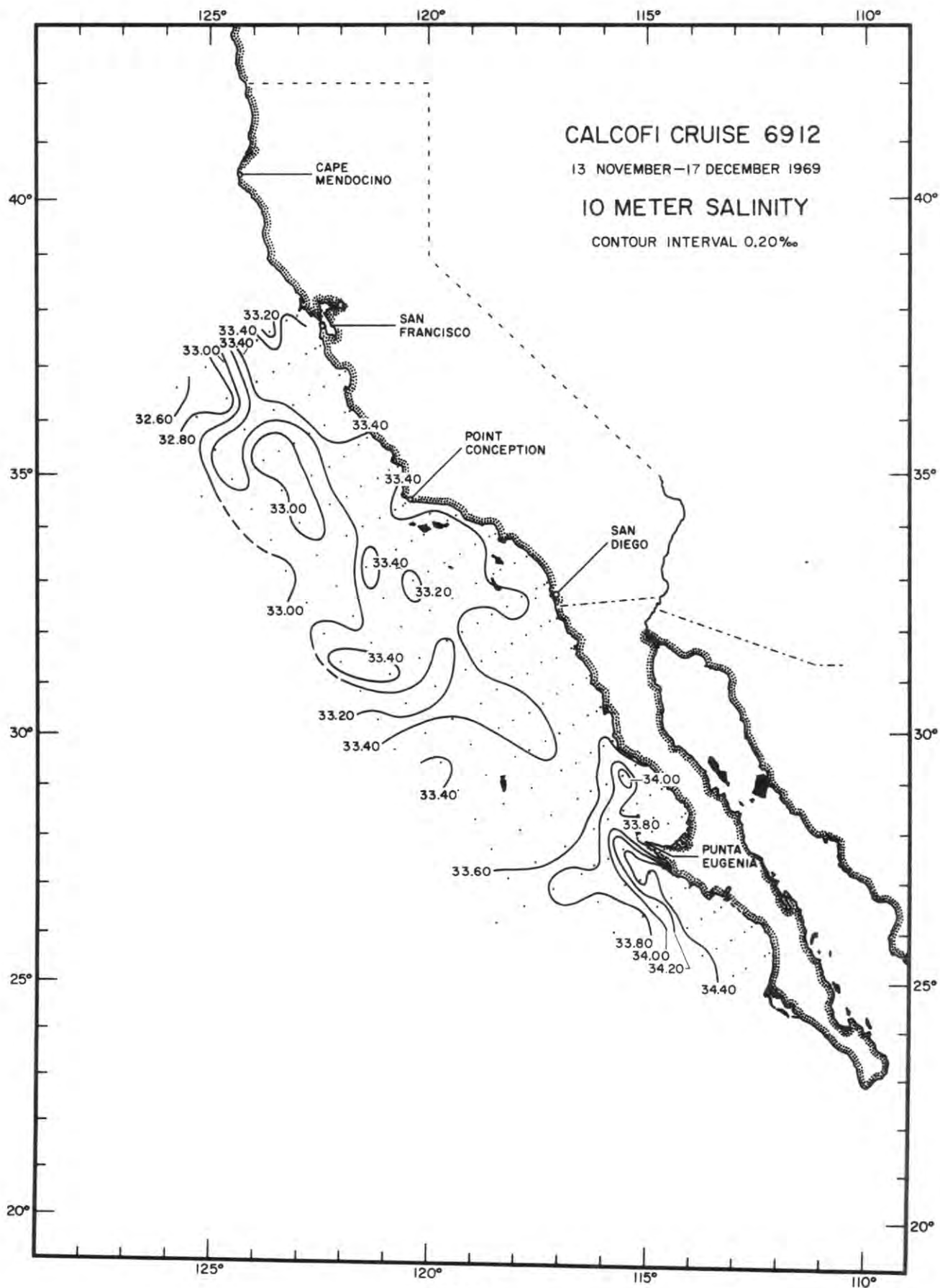


FIGURE 5

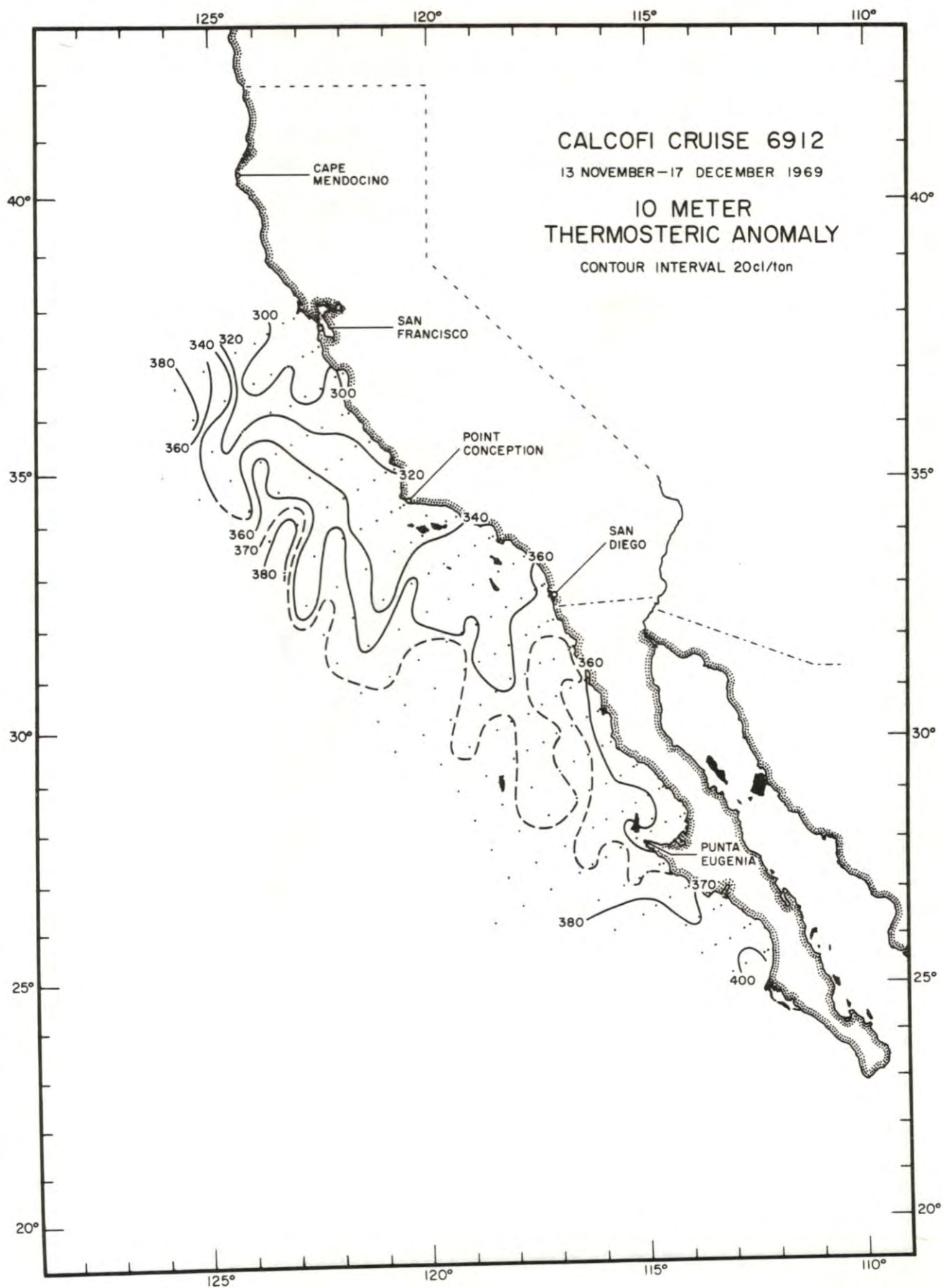


FIGURE 6

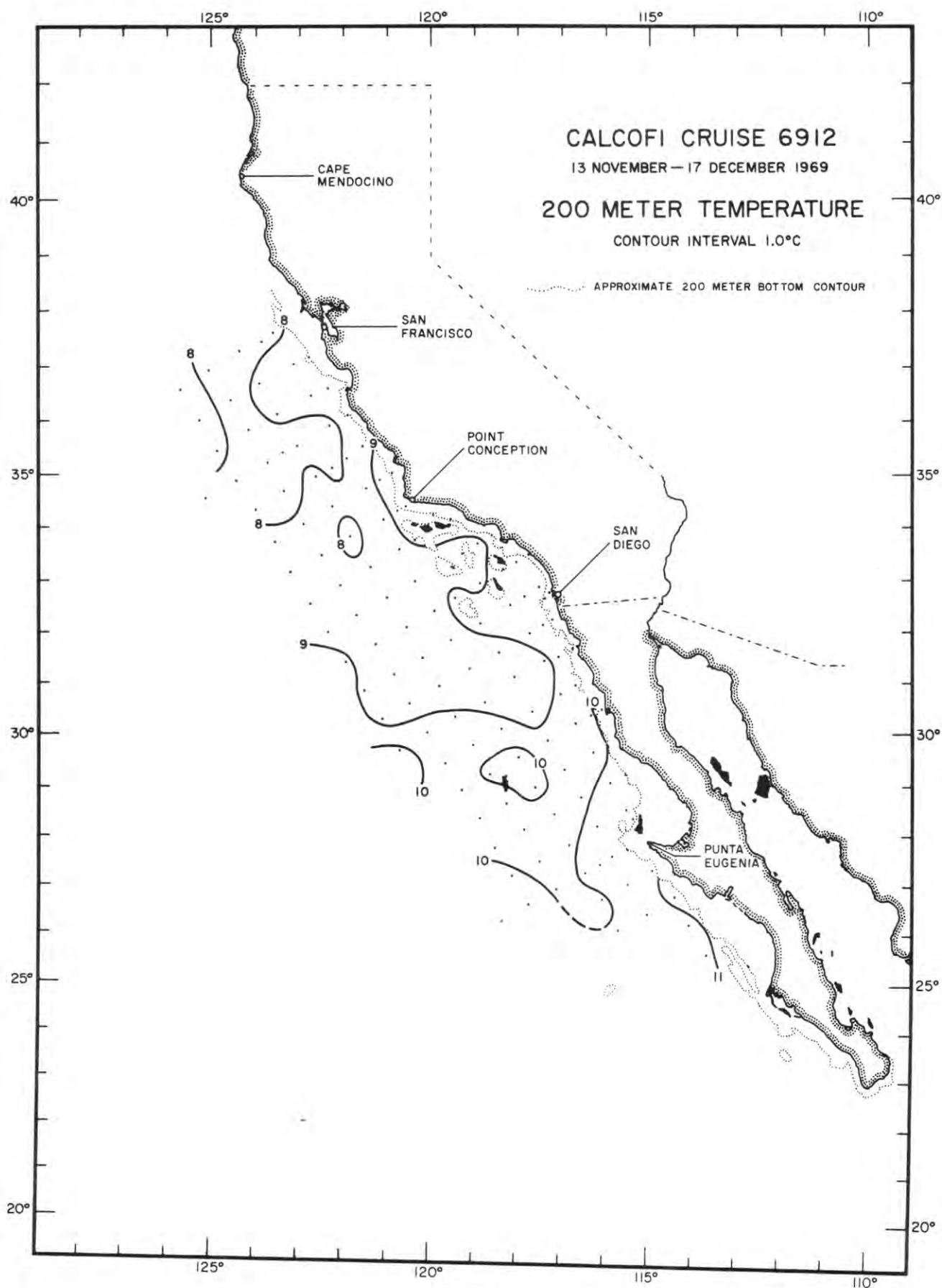


FIGURE 7

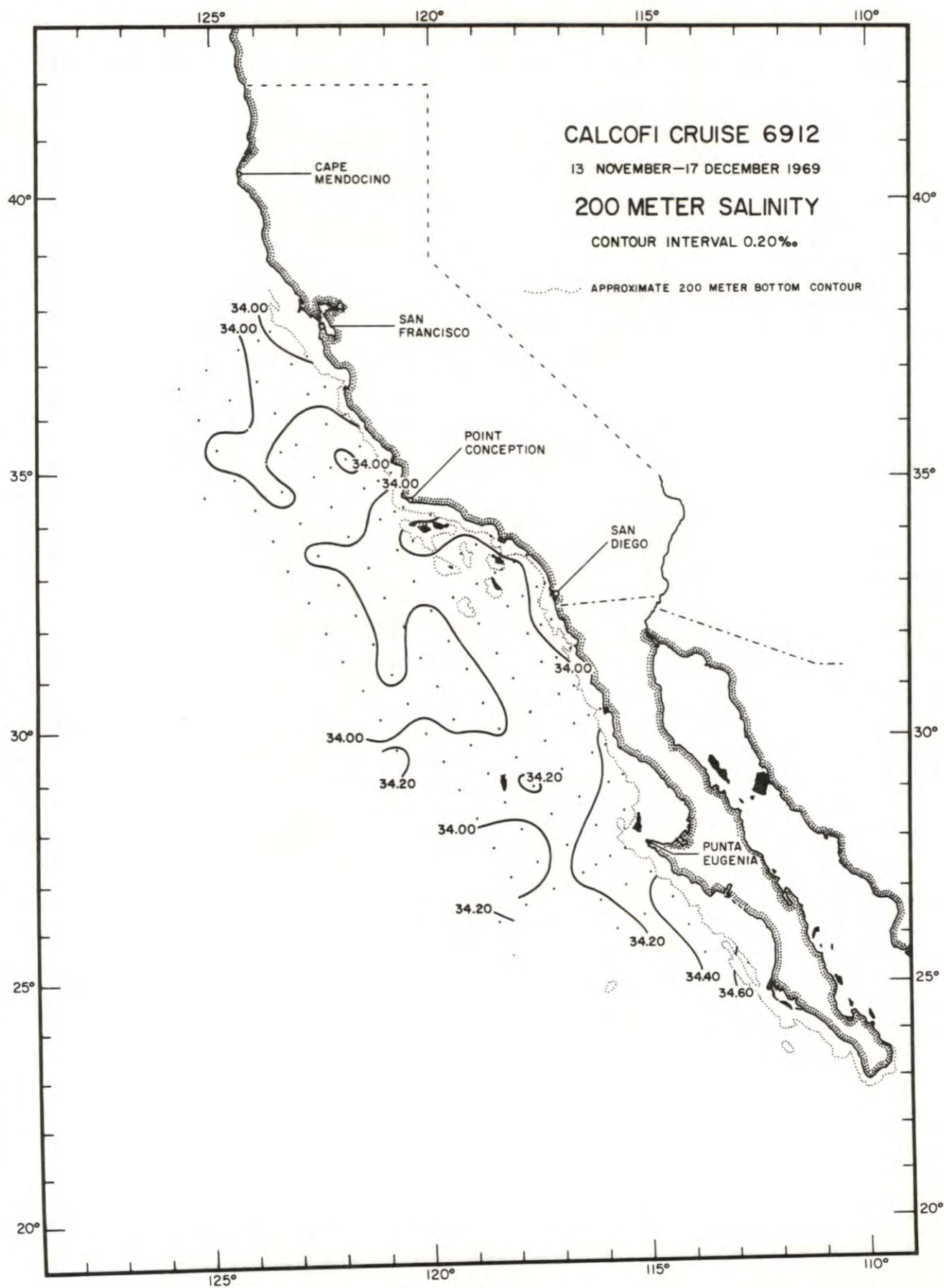


FIGURE 8

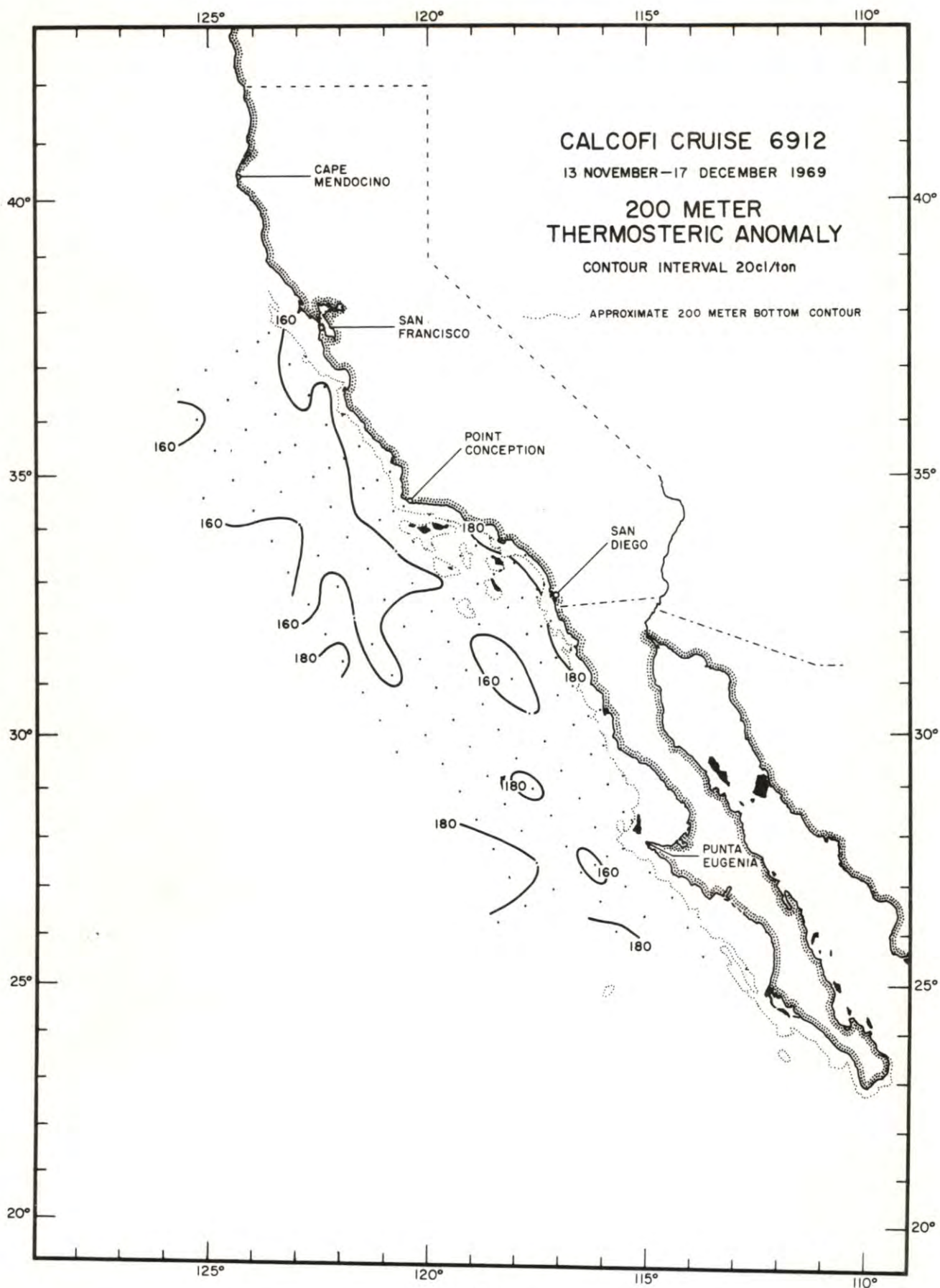


FIGURE 9

PERSONNEL

Cruise 6912

SHIP'S CAPTAINS

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

PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

RV Alexander Agassiz:

Bryan, Walter R.	Marine Technician (in charge) SIO
Ballard, Edward N.	Marine Technician SIO
Beadling, James M.	Marine Science Technician US Coast Guard
Bliss, Kenneth A.	Oceanographer BCF
Bradley, Douglas C.	Electronics Technician SIO
Counts, Robert C.	Fishery Biologist BCF*
Galli, Don R.	Biology Technician BCF*
Huffer, Robert P.	Marine Technician SIO
Jackson, Dan	Visitor
Kaye, Hugh Ross	Electronics Technician SIO
Kellogg, Durrant	Marine Technician SIO
Tont, Sargun A.	Marine Technician SIO
Wells, James A.	Marine Technician SIO

RV David Starr Jordan:

Metoyer, Jack D.	Biological Technician (in charge) BCF*
Kalin, George A.	Physical Science Technician BCF*
Mairot, Maurice F.	Engineering Aide SIO
Paloma, Pedro A.	Fishery Biologist BCF*
Shuey, Raymond E.	Electronics Technician BCF*
Sigrist, Peter H.	Marine Technician SIO
Singleton, James R.	Electronics Technician SIO
Thomas, James E.	Marine Technician SIO

*Bureau of Commercial Fisheries
now National Marine Fisheries Service
Southwest Fisheries Center

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6912 60052

LATITUDE		LONGITUDE		MO/DAY/YR	MESSENGER TIME			BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
37 53.5N		123 01.5W		11/17/69	2040	GMT	TIME	84M	180	9KT	0	180 6 6			
Z	T	S	Q2	P04	S103	N02	N03	DT	Z	T	S	Q2	SIGT	DT	DD
									0	13.64	33.35		25.009	296.0	0.000
									10	13.57	33.35		25.023	294.6	0.030
									20	13.54	33.36		25.037	293.3	0.059
									30	13.53	33.36		25.039	293.1	0.088
									50	11.93	33.54		25.491	250.1	0.143
									75	10.83	33.61		25.745	225.9	0.203

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6912 60052

LATITUDE		LONGITUDE		MO/DAY/YR	MESSENGER TIME			BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
37 53.5N		123 01.5W		11/17/69	2127	GMT	TIME	84M	180	9KT	0	180 6 6			
Z	T	S	Q2	P04	S103	N02	N03	DT	Z	T	S	Q2	SIGT	DT	DD
2	13.61	33.364	5.80												
12	13.47	33.354	5.95												
31	13.42		5.73												
51	12.08		4.32												
71	10.87		3.62												

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6912 60055

LATITUDE		LONGITUDE		MO/DAY/YR	MESSENGER TIME			BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
37 49.0N		123 16.5W		11/17/69	1852	GMT	TIME	112M	010	8KT	0	280 8 6			
Z	T	S	Q2	P04	S103	N02	N03	DT	Z	T	S	Q2	SIGT	DT	DD
									0	13.17	33.44		25.173	280.3	0.000
									10	13.15	33.44		25.177	279.9	0.028
									20	13.15	33.45		25.185	279.2	0.056
									30	13.15	33.45		25.185	279.2	0.084
									50	12.38	33.51		25.382	260.4	0.138
									75	11.48	33.61		25.628	257.0	0.201
									100	10.58	33.72		25.875	213.6	0.258

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6912 60060

LATITUDE		LONGITUDE		MO/DAY/YR	MESSENGER TIME			BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
37 37.0N		123 40.0W		11/17/69	1412	GMT	TIME	3353M	360	26KT	1	330 12 5			
Z	T	S	Q2	P04	S103	N02	N03	DT	Z	T	S	Q2	SIGT	DT	DD
									0	13.72	33.18		24.861	310.0	0.000
									10	13.72	33.18		24.861	310.0	0.031
									20	13.72	33.18		24.861	310.0	0.062
									30	13.70	33.18		24.865	309.6	0.093
									50	10.15	33.10		25.467	252.4	0.149
									75	9.50	33.38		25.793	221.4	0.209
									100	9.14	33.63		26.046	197.3	0.262
									125	8.58	33.79		26.259	177.1	0.309
									150	8.28	33.91		26.398	163.8	0.352
									200	7.76	33.99		26.538	150.6	0.432
									250	7.16	34.03		26.655	139.5	0.507
									300	6.65	34.05		26.740	131.4	0.576
									400	5.80	34.13		26.913	115.0	0.704
									500	5.50	34.26		27.052	101.6	0.819

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6912 60060

LATITUDE		LONGITUDE		MO/DAY/YR	MESSENGER TIME			BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
37 37.0N		123 40.0W		11/17/69	1527	GMT	TIME	3353M	360	26KT	1	330 12 5			
Z	T	S	Q2	P04	S103	N02	N03	DT	Z	T	S	Q2	SIGT	DT	DD
1	13.72	33.225	5.90												
11	13.72	33.210	6.12												
30	13.73	33.217	6.11												
53	9.77		5.52												
88	9.38		4.37												
116	8.71		3.98												
157	8.20		3.13												
209	7.57		3.04												
263	7.14		2.34												
314	6.58	34.055	1.73												
421	5.57	34.096	1.11												
530	5.28		0.44												

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6912 60065

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES	
37 27.0N		123 57.5W		11/16/69		1005 GMT		3540M		330		24KT					
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	S16T	DT	DD		
									0	14.52	33.41		24.872	309.0	0.000		
									10	14.54	33.41		24.867	309.4	0.031		
									20	14.51	33.41		24.874	308.8	0.062		
									30	13.84	33.39		24.998	296.9	0.092		
									50	9.73	33.63		25.950	206.4	0.143		
									75	9.18	33.74		26.125	189.8	0.193		
									100	8.79	33.86		26.281	175.0	0.239		
									125	8.68	33.97		26.384	165.2	0.282		
									150	8.39	33.98		26.436	160.2	0.323		
									200	7.71	34.01		26.561	148.4	0.402		
									250	7.19	34.05		26.667	138.4	0.475		
									300	6.81	34.09		26.750	130.4	0.544		
									400	5.95	34.15		26.912	115.0	0.672		
									500	5.30	34.21		27.037	103.2	0.787		

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6912 60070

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES	
37 17.0N		124 21.5W		11/16/69		0434 GMT		4034M		330		16KT					
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	S16T	DT	DD		
1	14.65	33.421	5.88					310.8									
11	14.50	33.390	6.07					310.1									
31	11.56		5.00														
51	9.90		4.21														
80	9.22		3.47														
110	8.71		3.18														
156	8.01		2.81														
205	7.39		2.36														
256	6.96		1.64														
309	6.44	34.086	1.32					126.0									
408	5.70	34.140	0.82					113.1									
512	5.25		0.41														

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6912 60070

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES	
37 17.0N		124 21.5W		11/16/69		0446 GMT		4034M		330		16KT					
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	S16T	DT	DD		
									0	14.64	33.40		24.838	312.2	0.000		
									10	14.68	33.40		24.830	313.0	0.031		
									20	14.35	33.42		24.915	304.8	0.062		
									30	13.33	33.44		25.141	283.4	0.092		
									50	9.93	33.59		25.885	212.6	0.141		
									75	9.43	33.70		26.054	196.6	0.193		
									100	9.05	33.81		26.201	182.6	0.241		
									125	8.69	33.87		26.304	172.8	0.286		
									150	8.38	33.93		26.399	163.8	0.328		
									200	7.67	33.99		26.551	149.3	0.408		
									250	7.18	34.06		26.676	137.5	0.482		
									300	6.62	34.07		26.760	129.5	0.550		
									400	5.71	34.12		26.916	114.7	0.677		
									500	5.41	34.23		27.039	103.0	0.792		

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6912 60080

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES	
36 56.5N		125 04.5W		11/15/69		2305 GMT		4398M		320		12KT		2		340 3 5	
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	S16T	DT	DD		
									0	14.86	32.77		24.307	362.8	0.000		
									10	14.87	32.78		24.313	362.3	0.036		
									20	14.67	32.76		24.340	359.7	0.072		
									30	14.40	32.76		24.397	354.2	0.108		
									50	10.59	32.91		25.244	273.6	0.171		
									75	9.44	33.21		25.670	233.1	0.235		
									100	8.87	33.63		26.089	193.3	0.288		
									125	8.31	33.81		26.315	171.7	0.335		
									150	8.04	33.90		26.426	161.2	0.377		
									200	7.21	33.93		26.570	147.6	0.455		
									250	6.41	33.96		26.701	135.1	0.528		
									300	6.01	34.02		26.800	125.7	0.595		
									400	5.51	34.13		26.948	111.6	0.718		
									500	4.93	34.21		27.080	99.2	0.828		

RV ALEXANDER AGASSIZ										CALCOFI CRUISE 6912						630A0
LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES							
36 23.0N	124 37.5W	11/18/69	1845	GMT	4158M	070	7KT	1	310	3	4					
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	S16T	DT	DD	
									0	14.05	32.68		24.409	353.1	0.000	
									10	13.98	32.69		24.431	351.0	0.035	
									20	13.96	32.70		24.443	349.9	0.070	
									30	13.96	32.71		24.450	349.2	0.105	
									50	10.85	32.81		25.121	285.3	0.169	
									75	9.23	33.02		25.056	243.9	0.235	
									100	9.52	33.37		25.814	219.3	0.294	
									125	8.75	33.68		26.146	187.8	0.345	
									150	8.45	33.86		26.333	170.0	0.390	
									200	7.80	32.95		26.501	154.1	0.473	
									250	6.89	33.95		26.629	141.9	0.549	
									300	6.42	34.02		26.747	130.7	0.619	
									400	6.21	34.19		26.908	115.4	0.747	
									500	5.59	34.26		27.041	102.8	0.862	

RV ALEXANDER AGASSIZ										CALCOFI CRUISE 6912						63090
LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES							
36 01.5N	125 20.0W	11/18/69	2330	GMT	4593M	040	6KT	1	200	2	6					
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	S16T	DT	DD	
									0	16.59	32.79		23.938	398.0	0.000	
									10	16.51	32.83		23.987	393.3	0.040	
									20	16.48	32.85		24.009	391.2	0.079	
									30	16.50	32.85		24.005	391.6	0.118	
									50	16.48	32.86		24.017	390.5	0.197	
									75	13.95	32.99		24.868	328.4	0.287	
									100	11.77	33.02		25.118	285.6	0.364	
									125	10.55	33.08		25.417	257.1	0.433	
									150	9.52	33.51		25.891	212.0	0.492	
									200	8.78	33.90		26.313	171.9	0.589	
									250	7.96	33.96		26.485	155.6	0.673	
									300	7.53	34.02		26.595	145.2	0.751	
									400	6.11	34.04		26.803	125.4	0.891	
									500	5.57	34.15		26.957	110.8	1.015	

RV ALEXANDER AGASSIZ										CALCOFI CRUISE 6912						67048
LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES							
36 53.5N	121 56.5W	11/20/69	0240	GMT	37M	060	4KT	1								
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	S16T	DT	DD	
									0	14.19	33.47		24.987	298.0	0.000	
									10	14.12	33.48		25.010	295.9	0.030	
									20	14.02	33.48		25.030	293.9	0.059	

RV ALEXANDER AGASSIZ										CALCOFI CRUISE 6912						67050
LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES							
36 49.5N	122 05.0W	11/20/69	0120	GMT	103M	050	12KT	1	080	1	3					
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	S16T	DT	DD	
									0	14.57	33.44		24.884	307.8	0.000	
									10	14.57	33.43		24.876	308.5	0.031	
									20	14.15	33.45		24.980	298.6	0.061	
									30	13.97	33.45		25.018	295.1	0.091	
									50	13.28	33.50		25.197	278.0	0.149	
									75	10.74	33.52		25.892	231.0	0.212	

RV ALEXANDER AGASSIZ										CALCOFI CRUISE 6912						67050
LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES							
36 49.5N	122 05.0W	11/20/69	0120	GMT	103M	050	12KT	1	080	1	3					
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	S16T	DT	DD	
0	14.59	33.463	5.93													
10	14.57	33.457	5.98					306.5								
20	14.39		5.99					306.6								
30	13.95	33.466	5.50													
50	12.96	33.494	5.02					293.5								
74	10.80		4.34					272.4								

RV ALEXANDER AGASSIZ										CALCOFI CRUISE 6912										67055
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME			BOTTOM	WIND		SPEED	WEATHER	DOMINANT WAVES						
36 38.5N		122 25.5W		11/19/69		2146 GMT				2222M				060		090 1 3				
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	SI6T	DT	DD					
									0	13.98	33.46		25.023	294.5	0.000					
									10	13.92	33.46		25.036	293.4	0.029					
									20	13.81	33.46		25.058	291.2	0.059					
									30	13.71	33.46		25.079	289.2	0.088					
									50	11.28	33.48		25.364	243.1	0.141					
									75	10.01	33.64		25.911	210.2	0.198					
									100	9.85	33.75		26.056	196.3	0.249					
									125	9.26	33.86		26.206	182.1	0.297					
									150	9.10	33.92		26.278	175.2	0.343					
									200	8.63	34.07		26.470	157.0	0.427					
									250	7.76	34.03		26.569	147.6	0.505					
									300	7.48	34.10		26.665	138.5	0.579					
									400	6.58	34.17		26.844	121.5	0.715					
									500	5.59	34.16		26.962	110.3	0.836					

RV ALEXANDER AGASSIZ						CALCOFI CRUISE 6912						67060			
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
35 29.0N		122 47.5W		11/19/69		1916 GMT		2926M	090	9KT	1	060 3 3			
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	SI6T	DT	DD
									0	13.99	33.42		24.990	297.7	0.000
									10	13.89	33.43		25.019	295.0	0.030
									20	13.87	33.43		25.023	294.6	0.059
									30	12.46	33.47		25.335	264.8	0.087
									50	10.84	33.63		25.759	224.5	0.136
									75	10.45	33.71		25.890	212.1	0.191
									100	10.19	33.76		25.973	204.2	0.244
									125	9.75	33.86		26.129	189.4	0.294
									150	9.54	33.93		26.215	181.2	0.341
									200	8.97	34.03		26.385	165.1	0.429
									250	8.47	34.09		26.510	153.2	0.510
									300	8.00	34.13		26.612	143.5	0.587
									400	6.83	34.18		26.818	124.0	0.726
									500	6.15	34.25		26.963	110.2	0.850

RV ALEXANDER AGASSIZ						CALCOFI CRUISE 6912										67065			
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME			BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES		
36 18.0N		123 08.0W		11/19/69		1633 GMT			3258M		040		6KT		1		040 3 3		
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	SI6T	DT	DD				
									0	14.54	33.41		24.867	309.4	0.000				
									10	14.54	33.41		24.867	309.4	0.031				
									20	14.53	33.41		24.869	309.2	0.062				
									30	14.49	33.41		24.878	308.4	0.093				
									50	13.04	33.38		25.152	282.3	0.152				
									75	10.53	33.57		25.767	223.8	0.216				
									100	9.89	33.77		26.032	198.6	0.269				
									125	9.65	33.87		26.150	187.4	0.318				
									150	9.29	33.95		26.271	175.9	0.364				

RV ALEXANDER AGASSIZ										CALCOFI CRUISE 6912										67070
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME			BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES							
36 10.0N		123 33.5W		11/19/69		1311 GMT			3635M	070	9KT	1								
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	SI6T	DT	DD					
									0	14.72	33.34		24.775	318.2	0.000					
									10	14.73	33.35		24.781	317.7	0.032					
									20	14.72	33.36		24.790	316.7	0.064					
									30	14.73	33.36		24.788	316.9	0.095					
									50	11.01	33.33		25.442	254.7	0.153					
									75	10.25	33.50		25.761	224.4	0.213					
									100	9.53	33.69		26.029	198.9	0.266					
									125	9.25	33.84		26.192	183.4	0.315					
									150	9.20	33.93		26.270	176.0	0.360					
									200	8.51	34.07		26.488	155.3	0.445					
									250	7.87	34.13		26.632	141.7	0.521					
									300	7.18	34.17		26.762	129.3	0.591					
									400	6.15	34.14		26.877	118.4	0.720					
									500	5.36	34.21		27.030	103.9	0.837					

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6912 67080

LATITUDE		LONGITUDE		MO/DAY/YR	MESSENGER TIME			BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
35 49.0N		124 12.0W		11/19/69	0832 GMT			4014M	100	4KT					
Z	T	S	Q2	P04	S103	N02	N03	DT	Z	T	S	Q2	S10T	DT	DD
									0	14.67	33.39		24.824	313.5	0.000
									10	14.67	33.39		24.824	313.5	0.031
									20	14.68	33.40		24.830	313.0	0.063
									30	14.60	33.41		24.855	310.6	0.094
									50	14.59	33.42		24.907	305.6	0.156
									75	10.48	33.41		25.651	234.8	0.224
									100	9.41	33.64		26.010	200.7	0.279
									125	8.99	33.78		26.187	183.9	0.327
									150	8.64	33.90		26.335	169.8	0.372
									200	7.95	34.00		26.518	152.5	0.454
									250	7.24	34.06		26.667	138.3	0.529
									300	6.85	34.11		26.761	129.4	0.598
									400	5.86	34.17		26.937	112.7	0.724
									500	5.60	34.29		27.064	100.7	0.836

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6912 67090

LATITUDE		LONGITUDE		MO/DAY/YR	MESSENGER TIME			BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
35 28.5N		124 54.5W		11/19/69	0340 GMT			4593M	080	9KT		100 2 5			
Z	T	S	Q2	P04	S103	N02	N03	DT	Z	T	S	Q2	S10T	DT	DD
									0	15.16	33.30		24.649	330.2	0.000
									10	15.17	33.30		24.647	330.4	0.033
									20	15.06	33.30		24.671	328.1	0.066
									30	15.05	33.30		24.673	327.9	0.099
									50	14.21	33.28		24.837	312.3	0.163
									75	10.91	33.35		25.530	246.4	0.233
									100	9.61	33.59		25.938	207.5	0.291
									125	9.00	33.62		26.168	185.7	0.340
									150	8.71	33.90		26.524	170.9	0.385
									200	8.07	34.01		26.508	153.4	0.468
									250	7.55	34.07		26.631	141.7	0.544
									300	7.20	34.12		26.720	133.3	0.615
									400	6.36	34.19		26.889	117.3	0.745
									500	5.68	34.25		27.022	104.6	0.862

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6912 70053

LATITUDE		LONGITUDE		MO/DAY/YR	MESSENGER TIME			BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
36 06.5N		121 59.0W		11/20/69	1447 GMT			1064M	320	3KT	1	320 5			
Z	T	S	Q2	P04	S103	N02	N03	DT	Z	T	S	Q2	S10T	DT	DD
									0	14.57	33.43		24.876	308.5	0.000
									10	14.56	33.44		24.886	307.6	0.031
									20	14.47	33.45		24.913	305.1	0.061
									30	14.27	33.45		24.955	301.0	0.092
									50	14.08	33.46		25.003	296.5	0.152
									75	12.14	33.44		25.373	261.2	0.222
									100	10.28	33.63		25.857	215.3	0.282
									125	9.70	33.77		26.064	195.6	0.334
									150	9.29	33.87		26.209	181.8	0.382
									200	8.83	34.04		26.415	162.2	0.469
									250	8.29	34.09		26.538	150.6	0.550
									300	7.71	34.14		26.663	138.7	0.624
									400	6.52	34.19		26.868	119.3	0.759
									500	5.93	34.25		26.991	107.6	0.878

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6912 70053

LATITUDE		LONGITUDE		MO/DAY/YR	MESSENGER TIME			BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
36 06.5N		121 55.0W		11/20/69	1546 GMT			1064M	320	3KT	1	320 5			
Z	T	S	Q2	P04	S103	N02	N03	DT	Z	T	S	Q2	S10T	DT	DD
1	14.57	33.454	5.69												
11	14.57	33.457	5.81					306.8							
31	14.19	33.458	5.49					306.6							
50	13.48		5.13					298.9							
80	11.44		4.56												
109	9.87		3.86												
153	9.23		3.13												
203	8.84		2.50												
251	8.22		2.16												
305	7.66	34.139	1.60					138.1							
402	6.59	34.163	0.95					122.2							
503	5.90		0.55												

RV ALEXANDER AGASSIZ										CALCOFI CRUISE 6912										70060
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		ROTTOM		WIND	SPEED	WEATHER	DOMINANT WAVES							
35 53.0N		122 22.5W		11/21/69		0129 GMT		3250M		350	15KT	1	350 1 3							
Z	T	S	O2	P04	S103	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD					
									0	15.10	33.42		24.754	320.1	0.000					
									10	15.09	33.44		24.772	318.5	0.032					
									20	15.02	33.44		24.787	317.0	0.064					
									30	14.98	33.44		24.796	316.2	0.095					
									50	12.04	33.36		25.330	265.3	0.154					
									75	10.55	33.49		25.701	230.1	0.216					
									100	9.81	33.71		25.999	201.8	0.271					
									125	9.36	33.85		26.182	184.4	0.319					
									150	8.80	33.90		26.310	172.2	0.365					
									200	7.89	33.97		26.503	153.9	0.448					
									250	7.27	34.01		26.624	142.4	0.524					
									300	6.95	34.08		26.726	132.7	0.594					
									400	6.48	34.21		26.889	117.3	0.725					
									500	5.85	34.27		27.020	104.9	0.842					

RV ALEXANDER AGASSIZ										CALCOFI CRUISE 6912										70060
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		ROTTOM		WIND	SPEED	WEATHER	DOMINANT WAVES							
35 53.0N		122 22.5W		11/21/69		0213 GMT		3250M		350	15KT	1	350 1 3							
Z	T	S	O2	P04	S103	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD					
1	15.07	33.46	5.68					316.6												
11	15.07	33.44	5.87					318.1												
31	14.99	33.45	5.84					315.7												
56	11.77		5.17																	
90	10.23		4.17																	
119	9.71		3.48																	
164	8.56		3.03																	
218	7.75		2.86																	
272	7.18		2.16																	
325	6.89	34.10	1.73					130.7												
434	6.27	34.18	0.78					116.9												
543	5.46		0.50																	

RV ALEXANDER AGASSIZ										CALCOFI CRUISE 6912										70065
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		ROTTOM		WIND	SPEED	WEATHER	DOMINANT WAVES							
35 43.0N		122 44.0W		11/21/69		1113 GMT		1719M		320	20KT	1	330 3 4							
Z	T	S	O2	P04	S103	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD					
									0	14.87	33.19		24.628	332.2	0.000					
									10	14.89	33.20		24.631	331.9	0.033					
									20	14.90	33.20		24.629	332.1	0.066					
									30	14.81	33.20		24.648	330.3	0.100					
									50	11.68	33.24		25.305	267.8	0.160					
									75	10.07	33.46		25.760	224.4	0.222					
									100	9.51	33.73		26.064	195.6	0.274					
									125	9.24	33.86		26.209	181.8	0.322					
									150	8.88	33.97		26.352	168.2	0.367					

RV ALEXANDER AGASSIZ										CALCOFI CRUISE 6912										70070
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		ROTTOM		WIND	SPEED	WEATHER	DOMINANT WAVES							
35 43.5N		123 05.5W		11/21/69		1353 GMT		3881M		330	21KT	1	330 3 4							
Z	T	S	O2	P04	S103	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD					
									0	14.92	33.16		24.594	335.5	0.000					
									10	14.93	33.17		24.599	334.9	0.034					
									20	14.92	33.17		24.602	334.7	0.067					
									30	14.95	33.17		24.599	334.9	0.101					
									50	11.19	32.96		25.177	280.0	0.162					
									75	10.08	33.33		25.658	234.2	0.227					
									100	9.18	33.67		26.071	195.0	0.281					
									125	8.81	33.85		26.270	176.0	0.328					
									150	8.43	33.93		26.391	164.5	0.371					
									200	7.85	33.98		26.517	152.6	0.452					
									250	7.32	34.02		26.625	142.3	0.527					
									300	6.65	34.05		26.740	131.4	0.598					
									400	5.95	34.14		26.902	116.0	0.726					
									500	5.42	34.22		27.030	103.9	0.842					

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6912 70070

RV ALEXANDER AGASSIZ				CALCOFI CRUISE 6912											
LATITUDE		LONGITUDE	MO/DAY/YR	MESSENGER	TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES					
35 32.5N		123 05.5W	11/21/69	1436	GMT	3881M	330	21KT	1	330 3 4					
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SI6T	DT	DD
1	14.92	33.185	6.04					333.6							
11	14.92	33.193	6.03					333.0							
30	14.92	33.182	5.96					333.8							
49	10.84		5.57												
79	9.74		4.76												
108	8.99		3.75												
151	8.37		3.28												
201	7.77		2.77												
250	7.19		2.27												
303	6.63	34.048	1.77					131.3							
401	5.88	34.116	1.15					117.0							
504	5.42		0.59												

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6912 70075

RV ALEXANDER AGASSIZ				CALCOFI CRUISE 6912											
LATITUDE		LONGITUDE	MO/DAY/YR	MESSENGER	TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES					
35 23.0N		123 27.0W	11/21/69	2323	GMT	1918M	320	14KT	2	330 8 20					
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SI6T	DT	DD
									0	15.10	32.94		24.386	355.3	0.000
									10	15.10	32.95		24.394	354.5	0.036
									20	15.10	32.95		24.394	354.5	0.071
									30	15.09	32.98		24.419	352.1	0.106
									50	11.92	32.97		25.051	291.9	0.171
									75	9.76	33.19		25.602	239.5	0.238
									100	9.21	33.57		25.988	202.8	0.293
									125	8.82	33.77		26.206	182.1	0.342
									150	8.50	33.89		26.349	168.5	0.387
									200	7.80	33.99		26.532	151.1	0.468
									250	7.09	34.01		26.649	140.0	0.543
									300	6.77	34.07		26.740	131.4	0.612
									400	6.18	34.19		26.912	115.1	0.741
									500	5.55	34.24		27.033	103.6	0.856

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6912 70075

RV ALEXANDER AGASSIZ				CALCOFI CRUISE 6912											
LATITUDE		LONGITUDE	MO/DAY/YR	MESSENGER	TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES					
35 23.0N		123 27.0W	11/22/69	0032	GMT	1918M	320	14KT	2	330 8 20					
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SI6T	DT	DD
1	15.20	33.013	5.80					352.0							
11	15.21	33.006	5.97					352.7							
31	15.15	33.000	5.95					351.9							
51	10.91		5.65												
80	9.58		4.83												
110	9.00		4.17												
155	8.38		3.02												
205	7.62		2.76												
254	7.03		2.26												
308	6.64	34.087	1.46					128.5							
407	6.12	34.174	0.71					115.5							
510	5.26		0.44												

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6912 70080

RV ALEXANDER AGASSIZ				CALCOFI CRUISE 6912											
LATITUDE		LONGITUDE	MO/DAY/YR	MESSENGER	TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES					
35 13.0N		123 48.0W	11/22/69	0820	GMT	4193M	340	24KT	1	330 8 10					
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SI6T	DT	DD
									0	15.06	32.78		24.272	366.2	0.000
									10	15.07	32.79		24.277	365.6	0.037
									20	15.17	33.05		24.455	348.7	0.072
									30	15.30	33.28		24.603	334.5	0.107
									50	11.33	33.40		25.493	249.9	0.165
									75	9.40	33.66		26.027	199.1	0.222
									100	8.86	33.78		26.207	182.0	0.270
									125	8.59	33.88		26.327	170.6	0.314
									150	8.17	33.95		26.446	159.3	0.356
									200	7.55	34.00		26.576	146.9	0.434
									250	6.97	34.05		26.697	135.5	0.507
									300	6.63	34.09		26.774	128.1	0.574
									400	5.82	34.15		26.926	113.7	0.700
									500	5.42	34.24		27.046	102.4	0.814

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6912 700A0

LATITUDE		LONGITUDE		MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES					
35 13.0N		123 48.0W		11/22/69	0926 GMT	4193M	340	24KT	1	330 8 10					
Z	T	S	O2	PO4	SI03	NO2	NO3	DT	Z	T	S	O2	SI6T	DT	DD
0	15.03	32,816	U	5.86											
10	15.04	32,788		5.87				365.2							
29	15.42	33,320		5.91				334.1							
49	11.23			4.62											
79	9.08			3.77											
109	8.59			3.35											
131	8.07			2.77											
197	7.47			2.45											
242	6.91			1.91											
292	6.54	34,093		1.49				126.8							
385	5.91	34,125		0.92				116.7							

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6912 70090

LATITUDE		LONGITUDE		MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES					
34 52.0N		124 30.0W		11/22/69	1953 GMT	4403M	360	22KT	1	350 8 8					
Z	T	S	O2	PO4	SI03	NO2	NO3	DT	Z	T	S	O2	SI6T	DT	DD
									0	15.08	33.35		24.705	324.9	0.000
									10	15.08	33.35		24.705	324.9	0.032
									20	15.08	33.35		24.705	324.9	0.065
									30	15.07	33.36		24.715	323.9	0.098
									50	14.18	33.32		24.874	308.8	0.161
									75	10.55	33.55		25.748	225.6	0.228
									100	9.42	33.66		26.024	199.4	0.282
									125	8.96	33.79		26.199	182.7	0.330
									150	8.55	33.89		26.344	168.9	0.375
									200	7.77	33.99		26.537	150.7	0.456
									250	6.98	34.02		26.672	137.8	0.530
									300	6.42	34.05		26.771	126.5	0.599
									400	5.63	34.12		26.926	113.8	0.724
									500	5.02	34.21		27.069	100.1	0.836

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6912 70090

LATITUDE		LONGITUDE		MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES					
34 52.0N		124 30.0W		11/22/69	2050 GMT	4403M	360	22KT	1	350 8 8					
Z	T	S	O2	PO4	SI03	NO2	NO3	DT	Z	T	S	O2	SI6T	DT	DD
0	15.08	33,369		5.90				323.5							
10	15.07	33,370		5.89				323.2							
30	15.06	33,368		5.94				323.1							
54	11.89			4.80											
89	9.47			3.89											
119	8.99			3.53											
164	8.31			3.07											
218	7.53			2.52											
271	6.59			2.03											
325	6.16	34,058		1.46				124.7							
433	5.27	34,138		0.85				108.3							
542	4.84			0.42											

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6912 70100

LATITUDE		LONGITUDE		MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES					
34 34.0N		125 11.5W		11/23/69	0150 GMT	4574M	010	23KT	1	350 12 8					
Z	T	S	O2	PO4	SI03	NO2	NO3	DT	Z	T	S	O2	SI6T	DT	DD
									0	14.70	32.95		24.480	346.3	0.000
									10	14.71	32.97		24.493	345.1	0.035
									20	14.69	32.97		24.497	344.7	0.069
									30	14.79	33.29		24.722	323.3	0.103
									50	12.48	33.02		24.984	298.3	0.165
									75	11.27	33.40		25.504	248.8	0.234
									100	9.06	33.52		25.973	204.3	0.291
									125	8.36	33.72		26.207	182.0	0.340
									150	8.30	33.90		26.357	167.8	0.384
									200	7.83	33.97		26.512	153.0	0.466
									250	7.13	34.01		26.643	140.6	0.541
									300	6.68	34.06		26.744	131.0	0.611
									400	6.02	34.15		26.901	116.1	0.739
									500	5.39	34.24		27.050	102.0	0.854

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6912 70100

LATITUDE		LONGITUDE		MO/DAY/YR	MESSENGER TIME		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES				
34 34.0N		125 11.5W		11/23/69	0242 GMT		4574M	010	23KT	1	350 12 8				
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD
1	14.79	33.028	5.81					342.5							
11	14.79	33.029	5.78					342.4							
31	14.87	33.244	5.84					328.3							
55	11.00		5.70												
90	9.22		4.51												
120	8.69		3.74												
163	8.25		3.68												
215	7.64		2.72												
268	7.08		1.83												
320	6.56	34.068	1.54					128.9							
425	5.86	34.142	0.64					114.8							
533	5.23		0.44												

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6912 73050

LATITUDE		LONGITUDE		MO/DAY/YR	MESSENGER TIME		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES				
35 37.5N		121 17.5W		11/24/69	0858 GMT		103M	090	5KT	0	330 2 5				
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD
									0	14.40	33.39		24.882	308.0	0.000
									10	14.41	33.39		24.880	308.2	0.031
									20	14.40	33.39		24.882	308.0	0.062
									30	14.40	33.39		24.882	308.0	0.093
									50	14.25	33.38		24.905	305.8	0.154
									75	12.67	33.48		25.302	268.0	0.226

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6912 73053

LATITUDE		LONGITUDE		MO/DAY/YR	MESSENGER TIME		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES				
35 31.5N		121 28.5W		11/24/69	0644 GMT		741M	310	5KT	0	310 1 3				
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD
									0	15.13	33.32		24.671	328.1	0.000
									10	15.12	33.34		24.689	326.4	0.033
									20	15.04	33.36		24.722	323.3	0.065
									30	14.28	33.26		24.807	315.2	0.097
									50	11.10	33.29		25.449	254.0	0.154
									75	10.42	33.54		25.763	224.2	0.214
									100	9.69	33.69		26.003	201.4	0.268
									125	9.60	33.86		26.150	187.4	0.317
									150	9.21	33.93		26.269	176.1	0.363
									200	8.56	33.98		26.410	162.7	0.450
									250	8.21	34.14		26.589	145.7	0.529
									300	7.18	34.08		26.691	136.0	0.602
									400	6.49	34.19		26.872	118.9	0.734
									500	5.95	34.26		26.997	107.0	0.853

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6912 73060

LATITUDE		LONGITUDE		MO/DAY/YR	MESSENGER TIME		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES				
35 18.5N		121 58.0W		11/24/69	0335 GMT		2502M	340	15KT	0	340 5 6				
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD
									0	15.09	33.29		24.657	329.4	0.000
									10	15.08	33.30		24.667	328.5	0.033
									20	15.10	33.31		24.670	328.2	0.066
									30	15.10	33.32		24.678	327.5	0.099
									50	12.29	33.13		25.105	286.8	0.160
									75	10.41	33.32		25.594	240.3	0.226
									100	9.50	33.52		25.902	211.0	0.283
									125	8.99	33.74		26.156	186.9	0.334
									150	8.71	33.93		26.348	168.6	0.379
									200	8.24	34.04		26.506	153.6	0.461
									250	7.87	34.14		26.640	140.9	0.536
									300	7.05	34.15		26.764	129.1	0.606
									400	6.24	34.20		26.912	115.0	0.733
									500	5.72	34.25		27.017	105.1	0.849

RV ALEXANDER AGASSIZ										CALCOFI CRUISE 6912										73065
LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME			BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES										
35 08.0N	122 18.0W	11/23/69	2156	GMT		3918M	340	15KT	1	340	5	8								
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	SIGT	DT	DD					
									0	14.95	33.33		24.718	323.6	0.000					
									10	14.88	33.34		24.741	321.5	0.032					
									20	14.87	33.38		24.774	318.3	0.064					
									30	14.85	33.38		24.778	317.9	0.096					
									50	11.55	33.05		25.182	279.5	0.156					
									75	9.66	33.37		25.759	224.6	0.219					
									100	9.15	33.66		26.068	195.3	0.272					
									125	8.79	33.84		26.265	176.5	0.319					
									150	8.59	33.92		26.359	167.6	0.363					
									200	7.87	33.99		26.522	152.1	0.444					
									250	7.36	34.07		26.658	139.1	0.519					
									300	6.64	34.08		26.759	129.6	0.588					
									400	5.76	34.12		26.910	115.3	0.716					
									500	5.38	34.23		27.043	102.7	0.830					

RV ALEXANDER AGASSIZ										CALCOFI CRUISE 6912										73070
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES				
34 58.5N		122 40.5W		11/23/69		1903 GMT		4091M		340		15KT		1		340 6 8				
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	SIGT	DT	DD					
									0	15.00	32.91		24.385	355.4	0.000					
									10	14.86	33.02		24.499	344.5	0.035					
									20	14.83	33.07		24.544	340.2	0.069					
									30	14.80	33.08		24.558	338.9	0.103					
									50	11.38	32.79		25.011	295.8	0.167					
									75	10.05	32.96		25.375	261.1	0.237					
									100	9.60	33.45		25.831	217.7	0.297					
									125	9.18	33.66		26.063	195.7	0.349					
									150	8.75	33.82		26.256	177.4	0.397					
									200	8.06	33.96		26.470	157.0	0.482					
									250	7.34	34.00		26.606	144.1	0.559					
									300	6.87	34.06		26.718	133.4	0.630					
									400	6.23	34.13		26.858	120.2	0.762					
									500	5.47	34.23		27.032	103.7	0.880					

RV ALEXANDER AGASSIZ										CALCOFI CRUISE 6912										73080
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES				
34 39.5N		123 22.0W		11/23/69		1411 GMT		4164M		360		15KT		1		330 7 6				
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	SIGT	DT	DD					
									0	14.92	33.01		24.479	346.4	0.000					
									10	14.93	33.02		24.484	345.9	0.035					
									20	14.93	33.04		24.500	344.4	0.069					
									30	14.97	33.12		24.552	339.4	0.103					
									50	12.15	33.28		25.248	273.2	0.165					
									75	10.16	33.59		25.846	216.3	0.226					
									100	9.15	33.73		26.122	190.1	0.278					
									125	8.74	33.84		26.273	175.7	0.324					
									150	8.49	33.92		26.374	166.1	0.367					
									200	7.86	34.01		26.539	150.5	0.448					
									250	7.25	34.05		26.658	139.2	0.522					
									300	6.75	34.08		26.750	130.4	0.592					
									400	5.88	34.15		26.919	114.4	0.719					
									500	5.27	34.24		27.064	100.7	0.832					

RV ALEXANDER AGASSIZ										CALCOFI CRUISE 6912										73090
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES				
34 18.5N		124 04.0W		11/23/69		0910 GMT		3451M		020		20KT		1		330 12 6				
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	SIGT	DT	DD					
									0	14.49	33.01		24.570	337.7	0.000					
									10	14.48	33.01		24.573	337.5	0.034					
									20	14.49	33.01		24.570	337.7	0.068					
									30	14.44	33.01		24.570	337.7	0.101					
									50	12.10	32.93		24.987	298.1	0.165					
									75	10.15	33.10		25.467	252.4	0.234					
									100	9.22	33.45		25.893	211.9	0.293					
									125	8.88	33.67		26.118	190.4	0.344					
									150	8.58	33.85		26.306	172.6	0.390					
									200	7.98	33.98		26.498	154.4	0.473					
									250	7.58	34.10		26.650	139.9	0.548					
									300	6.71	34.08		26.756	129.9	0.618					
									400	5.96	34.16		26.917	114.7	0.745					
									500	5.44	34.24		27.044	102.6	0.859					

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6912 77048

LATITUDE		LONGITUDE		MO/DAY/YR	MESSENGER TIME		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
35 08.0N		120 43.5W		11/24/69	1323 GMT		37M	040	4KT	0	330 1 5			
Z	T	S	02	P04	S103	NO2 NO3	DT	Z	T	S	02	SIGT	DT	DD
								0	14.85	33.37		24.775	318.2	0.000
								10	14.79	33.39		24.799	316.0	0.032
								20	14.56	33.41		24.863	309.8	0.063

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6912 77051

LATITUDE		LONGITUDE		MO/DAY/YR	MESSENGER TIME		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
35 02.0N		120 56.5W		11/24/69	1558 GMT		288M	060	7KT	1	310 3 7			
Z	T	S	02	P04	S103	NO2 NO3	DT	Z	T	S	02	SIGT	DT	DD
								0	15.20	33.29		24.633	331.7	0.000
								10	15.21	33.30		24.638	331.2	0.033
								20	15.22	33.30		24.636	331.4	0.066
								30	15.21	33.30		24.638	331.2	0.100
								50	14.57	33.32		24.792	316.6	0.165
								75	12.04	33.39		25.354	263.1	0.237
								100	10.92	33.50		25.644	235.5	0.300
								125	10.51	33.67		25.883	212.8	0.357
								150	9.96	33.78		26.028	199.0	0.409
								200	9.24	33.93		26.264	176.6	0.505
								250	8.27	34.05		26.509	153.3	0.589

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6912 77055

LATITUDE		LONGITUDE		MO/DAY/YR	MESSENGER TIME		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
34 54.5N		121 12.5W		11/24/69	1935 GMT		584M	050	7KT	1	360 3 8			
Z	T	S	02	P04	S103	NO2 NO3	DT	Z	T	S	02	SIGT	DT	DD
1	15.33	33.362					329.2	0	15.33	33.362		24.660	329.2	0.000
11	15.20	33.359					326.7	10	15.21	33.361		24.684	326.9	0.033
31	15.17	33.357					326.2	20	15.19	33.360		24.688	326.5	0.066
41	14.82	33.333					320.7	30	15.17	33.359		24.691	326.2	0.098
50	13.32	33.172					302.9	50	13.32	33.172		24.936	302.9	0.161
65	11.89	33.328					265.0	75	11.21	33.397		25.511	248.2	0.231
80	10.95	33.424					241.6	100	10.42	33.559		25.778	222.8	0.290
100	10.42	33.559					222.8	125	9.88	33.709		25.986	203.0	0.344
125	9.88	33.709					203.0	150	9.45	33.813		26.137	188.6	0.393
144	9.44	33.776					191.1	200	9.41	33.979		26.274	175.6	0.486
174	9.50	33.917					181.6	250	8.92	34.050		26.408	162.9	0.573
204	9.38	33.985					174.7	300	8.01	34.073		26.566	147.9	0.653
234	9.12	34.049					166.0	400	6.58	34.187		26.856	120.4	0.793
274	8.55	34.040					158.1	500	5.74	34.260		27.023	104.6	0.911
334	7.31	34.130					134.0							
408	6.52	34.191					119.2							
482	5.85	34.252					106.5							
558A	5.52													

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6912 77060

LATITUDE		LONGITUDE		MO/DAY/YR	MESSENGER TIME		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
34 44.0N		121 34.0W		11/24/69	2241 GMT		990M	310	6KT	1	320 12 10			
Z	T	S	02	P04	S103	NO2 NO3	DT	Z	T	S	02	SIGT	DT	DD
1	15.74	33.302					342.2	0	15.74	33.302		24.523	342.2	0.000
11	15.42	33.297					335.8	10	15.45	33.299		24.584	336.4	0.034
30	15.23	33.336					329.0	20	15.30	33.316		24.629	332.1	0.067
40	15.10	33.340					326.0	30	15.25	33.336		24.662	329.0	0.101
49	13.98	33.238					310.8	50	13.78	33.224		24.882	308.0	0.164
64	11.26	33.146					267.4	75	10.94	33.367		25.540	245.4	0.234
78	10.82	33.402					241.1	100	10.58	33.521		25.718	228.5	0.294
97	10.69	33.496					231.9	125	9.85	33.740		26.019	199.9	0.348
120	9.87	33.692					204.1	150	9.40	33.887		26.204	182.3	0.396
140	9.71	33.857					189.3	200	8.48	33.966		26.411	162.7	0.484
168	8.80	33.908					171.6	250	8.13	34.034		26.517	152.6	0.565
196	8.49	33.960					163.2	300	7.55	34.117		26.668	138.2	0.640
224	8.43	33.992					159.9	400	6.53	34.178		26.857	120.3	0.775
261	7.97	34.051					149.0	500	5.80	34.235		26.994	107.2	0.894
317	7.37	34.140					134.1							
388	6.63	34.173					121.9							
461	6.07	34.205					112.6							
541	5.55	34.274					101.3							

A) THE BOTTOM NAISEN BOTTLE CONTAINED MUD.

RV ALEXANDER AGASSIZ						CALCOFI CRUISE 6912											
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES	
34 23.5N		122 15.5W		11/25/69		0457 GMT		4110M		340		11KT					
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD		
1	15.11	33.05	A					347.4	0	15.11	33.05		24.468	347.4	0.000		
11	15.05	33.06						345.5	10	15.05	33.06		24.486	345.7	0.035		
31	15.06	33.16						338.3	20	15.05	33.09		24.513	343.2	0.069		
41	14.62	33.14						330.8	30	15.06	33.15		24.558	338.9	0.103		
50	12.36	32.91						304.2	50	12.36	32.91		24.922	304.2	0.168		
65	10.49	32.90						272.7	75	10.40	33.16		25.471	252.0	0.238		
80	10.35	33.28						242.3	100	9.55	33.52		25.894	211.8	0.296		
100	9.55	33.52						211.8	125	9.11	33.76		26.152	187.2	0.347		
125	9.11	33.76						187.2	150	9.15	33.94		26.287	174.3	0.392		
145	9.25	33.93						176.8	200	8.11	33.99		26.487	155.3	0.476		
174	8.50	33.95						164.0	250	7.45	34.06		26.633	141.6	0.552		
205	8.05	34.00						153.9	300	6.96	34.09		26.729	132.5	0.623		
234	7.65	34.04						145.3	400	6.08	34.16		26.897	116.5	0.753		
274	7.18	34.07						136.7	500	5.54	34.25		27.041	102.8	0.868		
333	6.70	34.11						127.5									
406	6.03	34.16						115.5									
475	5.66	34.23						105.9									
553	5.29	34.29	A					97.1									

RV ALEXANDER AGASSIZ						CALOPI CRUISE 6912											
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES	
34 02.5N		122 57.5W		11/25/69		0955 GMT		4403M		330		8KT					
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD		
1	16.21	32.928						379.6	0	16.21	32.928		24.131	379.6	0.000		
11	16.21	32.926						379.8	10	16.21	32.929		24.129	379.8	0.038		
31	15.59	32.880						369.9	20	16.01	32.914		24.163	376.5	0.076		
41	15.12	32.842						362.9	30	15.64	32.886		24.225	370.6	0.113		
49	13.49	32.932						323.7	50	13.29	32.925		24.750	320.6	0.183		
64	11.05	32.782						290.7	75	10.47	32.897		25.253	272.7	0.257		
79	10.38	32.954						266.9	100	9.68	33.209		25.628	237.0	0.321		
98	9.72	33.179						239.7	125	9.36	33.553		25.949	206.5	0.377		
124	9.37	33.538						207.7	150	9.06	33.800		26.190	183.6	0.427		
144	9.16	33.761						187.9	200	8.21	33.948		26.437	160.2	0.514		
173	8.63	33.884						170.9	250	7.55	34.013		26.586	146.0	0.593		
203	8.17	33.951						159.2	300	7.04	34.056		26.691	136.1	0.665		
233	7.75	33.991						150.3	400	5.94	34.090		26.864	119.6	0.798		
272	7.31	34.035						141.1	500	5.37	34.182		27.006	106.2	0.916		
332	6.74	34.070						131.0									
406	5.87	34.092						118.7									
479	5.48	34.164						108.7									
556	5.09	34.221						100.1									

RV ALEXANDER AGASSIZ						CALCOFI CRUISE 6912												
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES		
33 44.5N		123 37.0W		11/25/69		1447 GMT		4574M		010		17KT		1		020 3 5		
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD			
1	16.48	33.065						375.5	0	16.48	33.065		24.174	375.5	0.000			
11	16.50	33.065						376.0	10	16.50	33.067		24.169	375.9	0.038			
31	16.52	33.080						375.3	20	16.51	33.074		24.172	375.6	0.075			
55	16.47	33.105						372.4	30	16.52	33.082		24.176	375.3	0.113			
65	13.37	32.983						317.7	50	16.48	33.102		24.200	373.0	0.188			
75	12.76	33.002						304.8	75	12.76	33.002		24.916	304.8	0.273			
90	11.65	32.982						286.3	100	11.46	33.065		25.208	277.0	0.346			
105	11.43	33.121						272.2	125	11.00	33.434		25.576	242.0	0.412			
130	10.85	33.507						233.8	150	9.89	33.651		25.939	207.4	0.469			
150	9.89	33.651						207.4	200	8.83	33.872		26.283	174.7	0.566			
174	9.38	33.794						188.8	250	7.89	33.967		26.501	154.1	0.650			
205	8.72	33.880						172.5	300	7.32	34.028		26.630	141.8	0.726			
233	8.14	33.937						159.8	400	6.35	34.099		26.817	124.1	0.864			
274	7.60	34.000						147.6	500	5.88	34.210		26.965	110.0	0.987			
334	6.98	34.053						135.4										
408	6.29	34.104						122.8										
481	5.98	34.193						112.4										
557	5.54	34.244						103.4										

A) THE SALINITY BOTTLE ORDER DIFFERS ON THE ORIGINAL DATA AND SALINITY DETERMINATION SHEET. THEY ARE ASSUMED TO NOW BE IN THE CORRECT ORDER.

RV ALEXANDER AGASSIZ										CALCOFI CRUISE 6912										80052
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES				
34 24.5N		120 36.5W		11/26/69		1916 GMT		323M		020		2KT		2		320 1 8				
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD					
1	15.85	33.399	5.63					337.5	0	15.85	33.399	5.63	24.572	337.5	0.000					
11	15.55	33.396	5.76					331.3	10	15.58	33.399	5.75	24.631	331.9	0.033					
31	14.97	33.371	5.62					321.0	20	15.35	33.388	5.70	24.674	327.8	0.067					
46	13.90	33.362	5.43					300.2	30	15.01	33.374	5.63	24.737	321.8	0.099					
56	12.74	33.350	5.06					278.9	50	13.40	33.356	5.29	25.056	291.5	0.161					
71	12.01	33.397	4.76					262.1	75	11.88	33.408	4.73	25.396	259.2	0.230					
85	11.61	33.427	4.66					252.8	100	11.20	33.483	4.35	25.580	241.6	0.293					
105	11.05	33.506	4.22					237.3	125	10.41	33.672	3.58	25.883	212.8	0.350					
131	10.12	33.722	3.38					205.9	150	9.89	33.824	2.93	26.073	194.8	0.402					
149	9.90	33.817	2.95					195.3	200	9.06	34.031	2.12	26.370	166.5	0.494					
183	9.46	33.971	2.29					177.0	250	8.28	34.108	1.71	26.553	149.2	0.575					
213	8.76	34.065	2.02					159.3												
253	8.26	34.107	1.69					148.9												

RV ALEXANDER AGASSIZ										CALCOFI CRUISE 6912										80055
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES				
34 19.0N		120 48.5W		11/26/69		1649 GMT		785M		040		4KT		1		00				
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD					
1	15.64	33.396	6.08					333.2	0	15.64	33.396	6.08	24.617	333.2	0.000					
11	15.60	33.397	5.97					332.3	10	15.61	33.399	5.98	24.625	332.5	0.033					
31	15.37	33.407	5.92					326.7	20	15.30	33.403	5.96	24.653	329.8	0.066					
41	14.80	33.390	5.75					316.2	30	15.38	33.408	5.92	24.682	327.0	0.099					
50	14.47	33.378	5.61					310.7	50	14.49	33.378	5.61	24.853	310.7	0.163					
65	13.45	33.368	5.41					291.0	75	12.46	33.396	5.16	25.276	270.5	0.236					
80	11.98	33.417 A	5.00					260.1	100	10.86	33.533	4.26	25.880	232.0	0.300					
100	10.86	33.533	4.26					232.0	125	10.28	33.677	3.81	25.892	211.9	0.356					
126	10.27	33.682	3.79					211.3	150	9.77	33.870	3.02	26.128	189.5	0.407					
146	9.84	33.840	3.12					192.6	200	9.02	34.099	2.07	26.431	160.8	0.496					
176	9.38	34.018	2.47					172.2												
205	8.94	34.107 A	2.00					158.9												

RV ALEXANDER AGASSIZ										CALCOFI CRUISE 6912										80060
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES				
34 08.5N		121 09.5W		11/26/69		1337 GMT		2353M		310		6KT		1		310 1 4				
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD					
1	15.17	33.348	5.68					326.9	0	15.17	33.348	5.68	24.684	326.9	0.000					
11	15.17	33.349	5.89					326.8	10	15.17	33.351	5.88	24.685	326.8	0.033					
31	14.61	33.394	5.57					312.0	20	14.92	33.360	5.80	24.747	320.8	0.065					
41	13.20	33.309	5.48					290.5	30	14.64	33.388	5.60	24.828	313.2	0.097					
50	12.00	33.276	5.27					270.8	50	12.00	33.276	5.27	25.273	270.8	0.155					
65	10.55	33.242	5.13					248.4	75	10.48	33.447	4.57	25.678	232.3	0.219					
80	10.45	33.542	4.24					224.6	100	10.06	33.770	3.20	26.002	201.4	0.273					
99	10.08	33.762	3.23					202.3	125	9.60	33.873	2.82	26.160	186.4	0.322					
124	9.61	33.869	2.82					186.9	150	9.27	33.938	2.78	26.263	176.7	0.369					
144	9.35	33.920	2.81					179.0	200	8.62	34.029	2.27	26.437	160.1	0.454					
175	8.93	33.990	2.56					167.4	250	7.92	34.124	1.75	26.619	142.9	0.532					
205	8.56	34.035	2.21					158.6	300	7.33	34.125	1.46	26.705	134.7	0.604					
235	8.06	34.110	1.85					145.8	400	6.50	34.174	1.10	26.883	117.8	0.735					
274	7.72	34.126	1.62					139.9	500	5.60	34.255	0.45	27.035	103.4	0.852					
333	6.83	34.126	1.27					128.0												
406	6.27	34.179	1.08					117.0												
480	5.72	34.239	0.48					105.9												
560	5.34	34.299	0.35					97.0												

A) THE SALINITY BOTTLE ORDER FROM 80 TO 20 METERS DIFFERS ON THE ORIGINAL DATA AND THE SALINITY DETERMINATION SHEET. THEY ARE ASSUMED TO NOW BE IN THE CORRECT ORDER.

RV ALEXANDER AGASSIZ										CALCOFI CRUISE 6912										80070	
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES					
33 49.0N		121 52.0W		11/26/69		0645 GMT		3794M		350		9KT		1		320 1 3					
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	S16T	DT	DD						
1	15.95	33.099	5.80					361.5	0	15.95	33.099	5.80	24.320	361.5	0.000						
11	15.95	33.091	5.80					362.1	10	15.95	33.094	5.80	24.314	362.1	0.036						
31	15.92	33.093	5.82					361.3	20	15.94	33.094	5.81	24.318	361.8	0.072						
41	13.97	33.053	6.03					324.2	30	15.92	33.095	5.82	24.322	361.4	0.109						
51	12.06	32.998	6.01					292.3	50	12.25	33.004	6.01	25.018	295.1	0.175						
66	11.23	33.087	5.69					271.3	75	10.82	33.192	5.36	25.421	256.7	0.244						
81	10.57	33.263	5.14					247.2	100	9.81	33.433	4.74	25.783	222.3	0.304						
101	9.77	33.440	4.72					221.1	125	9.24	33.714	3.89	26.093	192.8	0.357						
126	9.23	33.723	3.86					191.8	150	8.90	33.860	3.56	26.263	176.7	0.403						
146	8.96	33.840	3.60					179.0	200	7.91	33.977	3.03	26.504	153.8	0.488						
175	8.44	33.945	3.34					163.5	250	7.31	34.035	2.20	26.837	141.2	0.563						
206	7.80	33.979	2.95					151.9	300	6.73	34.087	1.52	26.757	129.8	0.633						
236	7.49	34.014	2.46					145.1	400	6.06	34.175	0.86	26.914	114.9	0.760						
275	6.99	34.067	1.78					134.5	500	5.50	34.267	0.36	27.057	101.3	0.874						
334	6.45	34.107	1.28					124.6													
407	6.03	34.181	0.82					113.9													
481	5.59	34.251	0.43					103.5													
559	5.30	34.305	0.25					96.1													

RV ALEXANDER AGASSIZ								CALCOFI CRUISE 6912								80080	
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES	
33 28.5N		122 32.0W		11/26/69		0138 GMT		4308M		350		13KT		2		320 1 2	
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	S16T	DT	DD		
1	15.93	33.182	5.80					355.0	0	15.93	33.182	5.80	24.388	355.0	0.000		
11	15.84	33.172	5.80					353.8	10	15.86	33.176	5.80	24.399	354.0	0.035		
31	15.18	33.087	5.86					346.2	20	15.53	33.131	5.82	24.437	350.4	0.071		
41	15.16	33.101	5.91					344.7	30	15.21	33.093	5.86	24.477	346.6	0.106		
50	15.42	33.387	5.65					329.2	50	15.42	33.387	5.65	24.659	329.2	0.173		
65	12.22	33.356	5.10					268.9	75	11.10	33.450	4.62	25.572	242.4	0.245		
81	10.69	33.509	4.36					231.0	100	10.01	33.602	4.12	25.880	213.0	0.303		
101	9.99	33.604	4.12					212.5	125	9.47	33.784	3.67	26.112	191.0	0.354		
125	9.47	33.784						191.0	150	8.84	33.900	3.35	26.303	172.9	0.400		
145	8.94	33.879	3.35					175.8	200	8.27	34.015	2.80	26.480	156.0	0.484		
175	8.48	33.973	3.30					162.1	250	7.53	34.032	2.41	26.603	144.4	0.561		
205	3.23	34.018	2.70					155.1	300	6.89	34.047	1.91	26.705	134.7	0.633		
235	7.77	34.032	2.53					147.6	400	6.21	34.131	1.18	26.861	119.9	0.765		
274	7.18	34.031	2.20					139.7	500	5.55	34.232	0.51	27.026	104.3	0.883		
334	6.59	34.075	1.55					128.7									
429	6.06	34.157	1.03					116.1									
484	5.63	34.216	0.55					106.6									
563	5.26	34.283	0.33					97.3									

RV ALEXANDER AGASSIZ										CALCOFI CRUISE 6912							80090	
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES		
33 10.0N		123 13.0W		11/25/69		1939 GMT		4308M		350		8KT		1		340 4 7		
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	S16T	DT	DD			
1	16.35	32.963	5.73					380.1	0	16.35	32.963	5.73	24.125	380.1	0.000			
11	16.33	32.958	5.72					380.0	10	16.33	32.961	5.72	24.126	380.0	0.038			
31	16.30	32.959	5.66					379.3	20	16.32	32.961	5.69	24.130	379.7	0.076			
56	13.14	32.901	6.19					319.4	30	16.30	32.961	5.66	24.133	379.4	0.114			
66	12.42	32.971	6.10					300.8	50	13.97	32.896	6.08	24.590	335.9	0.186			
76	11.88	32.980	6.10					290.5	75	11.93	32.983	6.10	25.058	291.3	0.265			
90	11.31	33.007	5.97					278.5	100	11.12	33.082	5.72	25.283	269.9	0.335			
104	11.05	33.120	5.60					265.8	125	10.23	33.454	4.78	25.727	227.6	0.398			
129	10.06	33.514	4.63					220.3	150	9.48	33.641	4.25	25.997	201.9	0.452			
148	9.53	33.623	4.31					203.8	200	8.63	33.937	3.19	26.365	167.0	0.546			
172	9.06	33.812	3.63					182.6	250	7.90	34.046	1.92	26.560	148.5	0.627			
202	8.60	33.941	3.16					166.2	300	7.38	34.122	1.51	26.696	135.5	0.700			
231	8.31	33.991	2.22					158.3	400	6.96	34.175	0.85	26.876	118.5	0.833			
257A	7.75	34.065						144.8	500	5.56	34.234	0.47	27.024	104.5	0.950			
310A	7.33	34.127	1.50					134.5										
381A	6.56	34.166	0.95					121.6										
455A	5.85	34.200	0.63					110.4										
535A	5.41	34.264	0.37					100.4										

A) THE LAST FOUR NANSEN BOTTLES OF THIS CAST PRETRIPPED CAUSING THESE DEPTHS TO BE UNCERTAIN.

RV ALEXANDER AGASSIZ										CALCOFI CRUISE 6912									
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER		TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES						
34 15.0N		119 59.5W		11/27/69		0037 GMT			584M	310	9KT	1	270 3 7						
Z	T	S	O2	P04	SI03	NO2	NO3	DT	Z	T	S	O2	SI6T	DT	DD				
1	16.27	33.416	5.79					345.3	0	16.27	33.416	5.79	24.490	345.3	0.000				
11	15.56	33.387	5.74					332.2	10	15.63	33.391	5.75	24.614	333.5	0.034				
31	14.19	33.359	5.60					306.1	20	14.95	33.374	5.68	24.751	320.5	0.067				
46	13.09	33.342	5.50					286.0	30	14.26	33.362	5.61	24.888	307.4	0.098				
57	12.48	33.368	5.08					272.7	50	12.84	33.352	5.37	25.168	280.8	0.157				
71	12.07	33.387	4.50					263.9	75	11.98	33.401	4.52	25.372	261.3	0.225				
87	11.71	33.436	4.59					253.9	100	11.40	33.467	4.51	25.531	246.3	0.289				
102	11.35	33.471	4.50					245.0	125	10.73	33.608	3.89	25.762	224.3	0.349				
125	10.73	33.608	3.89					224.3	150	9.83	33.779	3.36	26.048	197.1	0.402				
144	9.89	33.721	3.52					202.3	200	9.29	34.064	2.06	26.360	167.5	0.495				
174	9.59	33.945	2.68					180.9	250	8.77	34.155	1.48	26.513	152.9	0.577				
204	9.24	34.075	1.98					165.9	300	8.17	34.194	1.17	26.637	141.1	0.653				
234	8.92	34.130	1.57					156.9	400	7.06	34.214	0.57	26.813	124.5	0.792				
274	8.53	34.180	1.39					147.4	500	6.51	34.248	0.20	26.914	114.9	0.918				
334	7.69	34.201	0.88					133.9											
389	7.18	34.208	0.62					126.5											
448	6.62	34.238						117.0											
508	6.49	34.248	0.17					114.6											

RV DAVID STARR JORDAN						CALCOFI CRUISE 6912											
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES	
34 08.0N		119 34.0W		11/29/69		1448 GMT		249M				0KT		0		320 1 5	
Z	T	S	O2	P04	S103	NO2	NO3	DT	Z	T	S	O2	SI6T	DT	DD		
									0	15.83	33.38		24.562	338.4	0.000		
									10	15.83	33.38		24.562	338.4	0.034		
									20	15.80	33.37		24.561	338.5	0.068		
									30	15.42	33.28		24.577	337.1	0.102		
									50	12.76	33.11		24.999	296.9	0.165		
									75	11.15	33.39		25.518	247.5	0.234		
									100	10.81	33.56		25.710	229.2	0.294		
									125	10.16	33.69		25.924	208.9	0.349		
									150	9.58	33.82		26.123	190.0	0.400		
									200	9.21	33.98		26.308	172.4	0.492		

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912						
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER		TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
34 08.0N		119 34.0W		11/29/69		1530 GMT			249M		0KT	0	320 1 5			
Z	T	S	O2	P04	S103	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD	
1	15.78	33.405	5.85	0.24	2.	0.03	0.2	335.6								
12	15.79	33.396	5.84	0.26	2.	0.01	0.3	336.4								
32	15.32	33.384	5.83	0.34	3.	0.10	0.6	327.4								
46	14.32		5.53	0.53	5.	0.22	2.5									
55	12.97		4.92	1.16U	8.	0.27	5.5									
69	12.03		4.81	0.97	10.	0.13	8.9									
84	11.30		4.46	1.13	13.	0.05	12.2									
104	10.44		3.88	1.52	20.	0.00	18.0									
128	10.08		3.86	1.71	24.	0.00	21.4									
148	9.61		3.04	2.37	35.	0.01	32.9									
178	9.29	33.933	2.80	2.44	37.	0.00	35.0	177.1								
202	9.17	33.995	2.74	2.63	41.	0.00	38.4	170.7								

RV DAVID STARR JORDAN						CALCOFI CRUISE 6912									
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER		TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
33 52.0N		120 07.5W		11/29/69		1944 GMT			205M	070	1KT	0	49		
Z	T	S	O2	P04	S103	NO2	NO3	DT	Z	T	S	O2	SI6T	DT	DD
									0	15.95	33.38		24.535	341.0	0.000
									10	15.90	33.38		24.547	339.9	0.034
									20	15.84	33.38		24.560	338.6	0.068
									30	15.36	33.36		24.652	330.0	0.102
									50	13.69	33.26		24.929	303.5	0.165
									75	12.28	33.34		25.269	271.1	0.237
									100	10.58	33.56		25.751	225.4	0.300

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912						
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER		TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
33 52.0N		120 07.5W		11/29/69		2013		GMT	205M	070	1KT	0	49			
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	SIGT	DT	DD	
0	16.11	33.409	5.74	0.11	3.	0.00	0.0	342.3								
10	15.84	33.404	5.79	0.13	2.	0.00	0.0	336.9								
25	15.54		5.77	0.18	3.	0.07	0.2									
35	15.19		5.73	0.26	4.	0.07	0.9									
44	14.81	33.375	5.59	0.34	5.	0.12	1.9	317.5								
59	13.22		5.22	0.55	8.	0.17	6.1									
73	12.61	33.380	5.07	0.66	9.	0.23	8.0	274.2								
97	10.80	33.574	4.21	1.32	17.	0.15	17.3	228.0								

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912					83055	
LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES							
33 44.0N	120 24.5W	11/29/69	2215	GMT	857M	320	5KT	0	100 2 4							
Z	T	S	02	P04 S103	NO2 NO3	DT	Z	T	S	02	SIGT	DT	DD			
							0	16.00	33.33		24.486	345.7	0.000			
							10	15.73	33.37		24.577	337.0	0.034			
							20	15.55	33.36		24.610	334.0	0.068			
							30	15.10	33.34		24.693	326.0	0.101			
							50	12.24	33.22		25.184	279.2	0.162			
							75	11.26	33.41		25.513	247.9	0.228			
							100	10.64	33.56		25.740	226.4	0.288			
							125	9.96	33.70		25.966	204.9	0.342			
							150	9.67	33.80		26.092	192.9	0.392			
							200	9.09	33.95		26.303	172.8	0.486			
							250	8.54	34.05		26.468	157.2	0.570			
							300	7.69	34.08		26.619	142.9	0.648			
							400	6.86	34.09		26.743	131.1	0.790			
							500	6.10	34.18		26.915	114.8	0.919			

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912						83060
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES				
33 34.0N		120 45.0W		11/30/69		0015 GMT		1387M	340	4KT	0	310 2				
Z	T	S	02	P04	S103	NO2	NO3	DT	Z	T	S	02	SIGT	DT	DD	
									0	15.68	33.40		24.611	333.8	0.000	
									10	15.44	33.39		24.657	329.4	0.033	
									20	15.42	33.39		24.661	329.0	0.066	
									30	15.32	33.38		24.676	327.7	0.099	
									50	13.74	33.28		24.934	303.0	0.162	
									75	11.49	33.40		25.464	252.7	0.232	
									100	10.35	33.61		25.829	217.9	0.291	
									125	9.65	33.77		26.072	194.8	0.344	
									150	9.32	33.90		26.227	180.1	0.391	
									200	8.90	34.08		26.435	160.3	0.478	
									250	8.43	34.08		26.508	153.4	0.558	
									300	7.78	34.15		26.661	138.9	0.634	
									400	6.97	34.18		26.799	125.8	0.772	
									500	6.14	34.22		26.941	112.3	0.897	

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912						83070
LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME			BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES						
33 14.5N	121 26.0W	11/30/69	0408	GMT		3832M	100	4KT	0	310 3 5						
Z	T	S	02	P04	S103	NO2	NO3	DT	Z	T	S	02	SIGT	DT	DD	
									0	16.24	33.43		24.508	343.6	0.000	
									10	16.10	33.42		24.532	341.3	0.034	
									20	15.33	33.36		24.658	329.3	0.068	
									30	14.90	33.34		24.736	321.9	0.100	
									50	11.52	33.28		25.365	262.0	0.159	
									75	10.10	33.56		25.833	217.5	0.219	
									100	9.35	33.80		26.145	187.9	0.270	
									125	8.94	33.93		26.312	172.0	0.316	
									150	8.78	33.98		26.376	166.0	0.359	
									200	8.25	34.11		26.559	148.5	0.439	
									250	8.00	34.17		26.644	140.5	0.513	
									300	7.69	34.20		26.713	134.0	0.584	
									400	6.79	34.22		26.855	120.5	0.717	
									500	6.27	34.24		26.940	112.4	0.840	

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912					83080		
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES	
32 54.0N		122 08.0W		11/30/69		0925 GMT		4309M		050		2KT		0		310 3 5	
Z	T	S	02	P04	S103	NO2	NO3	DT	Z	T	S	02	SIGT	DT	DD		
									0	16.07	33.10		24.294	364.0	0.000		
									10	16.06	33.11		24.304	363.1	0.036		
									20	16.04	33.11		24.308	362.7	0.073		
									30	15.85	33.12		24.359	357.9	0.109		
									50	12.90	32.96		24.856	310.5	0.176		
									75	11.40	33.10		25.248	273.2	0.249		
									100	10.68	33.25		25.492	249.9	0.315		
									125	9.60	33.54		25.901	211.1	0.373		
									150	9.07	33.75		26.151	187.4	0.424		
									200	8.22	33.93		26.423	161.5	0.512		
									250	7.27	33.96		26.585	146.1	0.591		
									300	6.67	33.99		26.690	136.1	0.664		
									400	6.04	34.10		26.859	120.1	0.797		
									500	5.51	34.20		27.004	106.4	0.916		

83090

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME			BOTTOM		WIND SPEED		WEATHER		DOMINANT WAVES	
32	34.5N	122	47.0W	11/30/69	1343	GMT			4213M	130	8KT	1				
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	SI4T	DT	DD	
0	15.83	33.11											24.355	358.2	0.000	
10	15.83	33.13											24.371	356.7	0.036	
20	15.84	33.14											24.376	356.2	0.071	
30	16.02	33.27											24.435	350.5	0.107	
50	11.90	32.97											25.055	291.6	0.171	
75	10.46	33.17											25.468	252.2	0.240	
100	9.80	33.43											25.782	222.4	0.299	
125	9.20	33.72											26.106	191.6	0.352	
150	8.79	33.84											26.265	176.5	0.398	
200	8.02	33.95											26.469	157.2	0.463	
250	7.43	34.03											26.617	143.1	0.560	
300	6.61	34.02											26.722	133.1	0.631	
400	5.73	34.08											26.882	117.9	0.761	
500	5.36	34.18											27.006	106.2	0.879	

87035

LATITUDE		LONGITUDE		MO/DAY/YR		MESSAGE TIME			BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
33 50.0N		118 37.5W		12/ 1/69		2125 GMT			427M	030	6KT	1	010 1 6		
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	SIGT	DT	DD
									0	16.53	33.46		24.464	347.8	0.000
									10	16.46	33.46		24.480	346.2	0.035
									20	16.43	33.45		24.480	346.3	0.069
									30	16.36	33.44		24.488	345.5	0.104
									50	15.05	33.24		24.627	332.3	0.172
									75	12.39	33.34		25.248	273.1	0.248
									100	11.56	33.50		25.528	246.5	0.314
									125	11.41	33.70		25.711	229.1	0.374
									150	10.75	33.68		25.814	219.3	0.431
									200	9.72	33.92		26.177	184.8	0.533
									250	8.94	34.09		26.437	160.2	0.622
									300	8.36	34.17		26.590	145.7	0.701
									400	7.27	34.25		26.812	124.5	0.842

87045

	LATITUDE	LONGITUDE	MO/DAY/YR		MESSENGER TIME		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES				
	33 50.0N	118 37.5W	12/ 1/69		2208 GMT		427M	030	6KT	1	010 1 6				
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD
0	16.67	33.467	5.75	0.26	2.	0.01	0.0	350.4							
99	11.60	33.480	4.58	1.08	12.	0.02	8.1	248.7							
153	11.04		3.35	1.05	12.	0.02	8.4								
203	9.63	33.920	2.97	1.71	22.	0.00	14.2	183.4							
295	8.37		1.79												
324	8.06		1.76												
354	7.79		1.44												
375	7.55		1.32												
395	7.36		1.00												
405	7.22	34.256	1.14					123.4							

87040

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND SPEED		WEATHER		DOMINANT WAVES	
33 40.0N		118 58.0W		12/ 1/69		1820 GMT		898M		070 10KT		1		340 1 6	
Z	T	S	Q2	P04	S103	N02	N03	DT	Z	T	S	Q2	SIGT	DT	DO
	0									16.53	33.35		24.380	355.8	0.000
	10									15.90	33.30		24.485	345.8	0.035
	20									15.26	33.29		24.620	333.0	0.069
	30									15.09	33.35		24.703	325.1	0.102
	50									12.56	33.05		24.992	297.6	0.165
	75									11.09	33.30		25.459	253.1	0.234
	100									9.77	33.58		25.904	210.8	0.292
	125									9.27	33.80		26.158	186.7	0.342
	150									9.08	33.90		26.266	176.4	0.388
	200									8.87	34.06		26.424	161.3	0.475
	250									8.71	34.12		26.496	154.5	0.556
	300									8.13	34.13		26.593	145.3	0.633
	400									7.49	34.23		26.765	129.0	0.776
	500									6.74	34.27		26.901	116.1	0.906

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912							87040
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES	
33 40.0N		118 58.0W		12/ 1/69		1845 GMT		898M		070		10KT		1		340 1 6	
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	S1GT	DT	DD		
0	16.39	33.364	5.81	0.37	2.	0.00	0.0	351.7									
10	15.75	33.356	5.91	0.29	3.	0.00	0.0	338.5									
30	15.01		5.85	0.29	4.	0.06	1.0										
49	12.74		5.73		4.												
79	10.89		4.92			0.00	9.6										
109	9.65	33.673	4.16	1.37	20.	0.00	17.5	202.0									
153	9.01		2.98	1.84	31.	0.00	23.0										
203	8.79		2.72	2.13	38.	0.00	25.5										
252	8.60		2.35														
306	7.98		1.83														
404	7.35	34.255 A	1.17					125.2									
509	6.51	34.296 A	0.54					111.2									

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912							87045
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES	
33 30.0N		119 19.0W		12/ 1/69		1530 GMT		1683M		090		1KT		1		49	
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	S1GT	DT	DD		
0	16.10	33.26											24.410	353.0	0.000		
10	16.08	33.26											24.414	352.6	0.035		
20	16.08	33.26											24.414	352.6	0.071		
30	15.72	33.26											24.495	344.9	0.106		
50	13.94	33.13											24.778	318.0	0.172		
75	11.05	33.40											25.543	245.1	0.243		
100	10.11	33.64											25.894	211.8	0.300		
125	9.95	33.84											26.076	194.4	0.352		
150	9.27	33.89											26.228	180.0	0.399		
200	8.80	34.04											26.420	161.8	0.486		
250	8.55	34.13											26.529	151.4	0.567		
300	8.08	34.20											26.655	139.4	0.642		
400	7.35	34.23											26.785	127.1	0.781		
500	6.70	34.27											26.907	115.6	0.909		

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912							87045
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES	
33 30.0N		119 19.0W		12/ 1/69		1512 GMT		1683M		090		1KT		1		49	
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	S1GT	DT	DD		
0	16.06	33.272	5.83	0.16	2.	0.06	0.0	351.3	0	16.06	33.272	5.83	24.428	351.3	0.000		
10	16.04	33.272	5.87	0.18	2.	0.06	0.0	350.8	10	16.04	33.272	5.87	24.432	350.8	0.035		
30	15.79	33.285	5.89	0.24	2.	0.06	0.2	344.5	20	15.91	33.281	5.88	24.466	347.7	0.070		
39	15.08	33.267	5.86	0.26	2.	0.16	0.6	330.9	30	15.79	33.285	5.89	24.499	344.5	0.105		
49	13.94	33.234	5.78	0.34	4.	0.24	2.0	310.3	50	13.82	33.233	5.77	24.880	308.2	0.170		
64	12.23	33.263	5.44	0.58	7.	0.23	6.0	275.9	75	11.24	33.441	4.74	25.540	245.4	0.240		
78	11.01	33.492	4.54	1.02	14.	0.08	13.4	237.6	100	10.04	33.685	3.82	25.939	207.5	0.297		
98	10.11	33.667	3.89	1.42	21.	0.06	19.8	209.8	125	9.47	33.845	3.09	26.160	186.5	0.347		
124	9.48	33.840	3.10	1.76	28.	0.03	25.0	187.0	150	9.22	33.922	2.93	26.259	177.1	0.393		
144	9.27	33.902	2.95	1.87	30.	0.05	26.7	179.1	200	8.74	34.059	2.47	26.443	159.6	0.479		
173	9.05	33.988	2.81	2.00	33.	0.02	28.6	169.4	250	8.47	34.136	1.91	26.545	149.9	0.558		
202	8.72	34.062	2.44	2.18	38.	0.03	31.5	159.0	300	8.06	34.197	1.40	26.655	139.5	0.633		
233	8.60	34.113	2.08					153.4	400	7.32	34.252	0.90	26.807	125.0	0.771		
272	8.28	34.160	1.71					145.3	500	6.59	34.284	0.58	26.932	113.2	0.897		
331	7.83	34.229	1.10					133.7									
405	7.28	34.252	0.90					124.5									
478	6.74	34.273	0.65					115.9									
556	6.25	34.320	0.42					106.2									

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912							87045
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES	
33 30.0N		119 19.0W		12/ 1/69		1420 GMT		1683M		090		1KT		1		49	
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	S1GT	DT	DD		
0	16.10	33.26											24.410	353.0	0.000		
10	16.10	33.26											24.410	353.0	0.035		
20	16.10	33.25											24.402	353.7	0.071		
30	15.67	33.23											24.483	346.0	0.106		
50	13.90	33.14											24.794	316.4	0.172		
75	11.35	33.29											25.404	258.3	0.244		
100	10.12	33.65											25.900	211.2	0.304		
125	9.45	33.84											26.159	186.5	0.354		
150	9.26	33.90											26.237	179.1	0.400		
200	8.79	34.03											26.413	162.4	0.487		
250	8.51	34.13											26.535	150.8	0.568		
300	8.18	34.18											26.625	142.3	0.643		
400	7.37	34.23											26.782	127.4	0.784		
500	6.73	34.25											26.887	117.5	0.913		

A) THE SALINITY SAMPLES AT 404 AND 509 METERS APPEAR TO HAVE BEEN REVERSED. THEY ARE ASSUMED TO NOW BE IN THE CORRECT ORDER.

RV DAVID STARR JORDAN CALCOFI CRUISE 6912 87040

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
33 20.0N	119 39.5W	12/ 1/69	1205 GMT	73M	320	4KT	0			
Z	T	S	02	P04 S103	NO2 NO3 DT	Z	T	S	02	SIGT DT DD
						0	16.22	33.18		24.321 361.4 0.000
						10	16.23	33.22		24.349 358.7 0.036
						20	16.11	33.23		24.384 355.4 0.072
						30	15.40	33.16		24.489 345.4 0.107
						50	12.56	32.99		24.945 302.0 0.172

RV DAVID STARR JORDAN CALCOFI CRUISE 6912 87040

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
33 00.0N	120 21.5W	12/ 1/69	0715 GMT	742M	040	4KT	0			
Z	T	S	02	P04 S103	NO2 NO3 DT	Z	T	S	02	SIGT DT DD
						0	16.26	33.11		24.258 367.4 0.000
						10	16.26	33.11		24.258 367.4 0.037
						20	16.22	33.11		24.268 366.6 0.073
						30	16.20	33.11		24.272 366.1 0.110
						50	15.64	33.00		24.314 362.2 0.183
						75	11.74	32.99		25.100 287.3 0.265
						100	10.40	33.24		25.533 246.1 0.332
						125	9.54	33.63		25.981 203.5 0.389
						150	9.12	33.78		26.166 185.9 0.438
						200	8.41	34.00		26.449 159.0 0.526
						250	7.87	34.07		26.585 146.1 0.604
						300	7.07	34.07		26.699 135.3 0.677
						400	6.62	34.19		26.854 120.5 0.810
						500	6.03	34.25		26.979 108.8 0.931

RV DAVID STARR JORDAN CALCOFI CRUISE 6912 87070

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
32 39.5N	121 02.0W	12/ 1/69	0255 GMT	3926M	070	4KT	1			
Z	T	S	02	P04 S103	NO2 NO3 DT	Z	T	S	02	SIGT DT DD
						0	15.85	33.37		24.550 339.6 0.000
						10	15.70	33.36		24.576 337.1 0.034
						20	15.46	33.36		24.630 332.1 0.067
						30	15.05	33.32		24.689 326.4 0.100
						50	12.80	33.10		24.984 298.4 0.163
						75	10.59	33.47		25.679 232.2 0.230
						100	9.76	33.62		25.937 207.7 0.285
						125	9.20	33.83		26.192 183.4 0.335
						150	8.50	33.92		26.372 166.3 0.379
						200	8.11	34.05		26.533 151.0 0.460
						250	7.43	34.03		26.617 143.1 0.535
						300	7.08	34.10		26.721 133.2 0.606
						400	6.56	34.19		26.862 119.8 0.738
						500	5.92	34.25		26.992 107.4 0.858

RV DAVID STARR JORDAN CALCOFI CRUISE 6912 87080

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
32 19.5N	121 43.0W	11/30/69	2220 GMT	4117M	320	8KT	1			
Z	T	S	02	P04 S103	NO2 NO3 DT	Z	T	S	02	SIGT DT DD
						0	16.60	33.11		24.181 374.9 0.000
						10	16.26	33.11		24.258 367.4 0.037
						20	16.21	33.13		24.285 364.9 0.074
						30	16.10	33.13		24.310 362.5 0.110
						50	12.75	32.85		24.800 315.8 0.178
						75	11.25	33.04		25.228 275.1 0.252
						100	10.03	33.42		25.736 226.8 0.316
						125	9.56	33.69		26.024 199.3 0.369
						150	9.00	33.80		26.201 182.6 0.418
						200	8.19	33.94		26.435 160.3 0.505
						250	7.66	34.01		26.568 147.7 0.584
						300	6.86	34.01		26.681 137.0 0.657
						400	5.97	34.11		26.876 118.5 0.790
						500	5.57	34.21		27.004 106.3 0.908

RV DAVID STARR JORDAN CALCOFI CRUISE 6912 87090

LATITUDE			LONGITUDE			MO/DAY/YR			MESSENGER TIME			BOTTOM			WIND			SPEED			WEATHER			DOMINANT WAVES		
31 59.0N			122 24.0W			11/30/69			1807 GMT			4117M			130			8KT			1			320 3 5		
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD											
0	17.19	33.21											24.119	380.7	0.000											
10	17.16	33.21											24.126	380.0	0.038											
20	17.15	33.21											24.129	379.8	0.076											
30	17.10	33.20											24.133	379.4	0.114											
50	15.50	32.68											24.253	368.0	0.189											
75	11.55	32.95											25.104	286.9	0.271											
100	10.95	33.20											25.410	257.8	0.340											
125	10.05	33.50											25.795	221.2	0.400											
150	9.47	33.71											26.071	194.9	0.453											
200	8.51	33.90											26.555	167.9	0.545											
250	7.75	33.93											26.495	154.6	0.628											
300	6.99	33.97											26.631	141.7	0.704											
400	6.09	34.05											26.813	124.4	0.842											
500	5.66	34.19											26.978	108.9	0.965											

RV DAVID STARR JORDAN CALCOFI CRUISE 6912 90028

LATITUDE			LONGITUDE			MO/DAY/YR			MESSENGER TIME			BOTTOM			WIND			SPEED			WEATHER			DOMINANT WAVES		
33 28.5N			117 46.5W			12/ 2/69			0407 GMT			353M			120			6KT			0					
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD											
0	16.60	33.43											24.425	351.5	0.000											
10	16.50	33.44											24.456	348.6	0.035											
20	16.45	33.42											24.457	348.5	0.070											
30	15.66	33.38											24.600	334.8	0.104											
50	15.32	33.33											24.637	331.3	0.171											
75	12.24	33.32											25.262	271.9	0.247											
100	11.97	33.41											25.582	260.4	0.314											
125	11.52	33.50											25.536	245.8	0.378											
150	10.75	33.61											25.763	224.2	0.437											
200	9.60	33.94											26.213	181.4	0.540											
250	9.05	34.05											26.391	164.5	0.629											
300	8.54	34.15											26.546	149.8	0.710											

RV DAVID STARR JORDAN CALCOFI CRUISE 6912 90028

LATITUDE			LONGITUDE			MO/DAY/YR			MESSENGER TIME			BOTTOM			WIND			SPEED			WEATHER			DOMINANT WAVES		
33 28.5N			117 46.5W			12/ 2/69			0526 GMT			353M			120			6KT			0					
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD											
0	16.54	33.458	5.69	0.24	2.	0.03		348.1																		
10	16.49	33.454	5.79	0.21	2.	0.03		347.3																		
30	16.05		5.82	0.32	3.	0.09																				
49	15.16		5.63	0.42	4.	0.27																				
79	12.51	33.374	5.07	0.84	8.	0.04		272.8																		
108	11.96		4.60	1.02	11.	0.03																				
147	10.87		3.72	1.47	18.	0.01																				
195	9.68		2.79	2.02	29.	0.00																				
244	8.99	34.059	2.43					163.2																		
294	8.50	34.168	1.73					147.9																		

RV DAVID STARR JORDAN CALCOFI CRUISE 6912 90032

LATITUDE			LONGITUDE			MO/DAY/YR			MESSENGER TIME			BOTTOM			WIND			SPEED			WEATHER			DOMINANT WAVES		
33 20.5N			118 03.0W			12/ 2/69			0714 GMT			741M			070			4KT			0					
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD											
0	16.66	33.45											24.427	351.4	0.000											
10	16.52	33.46											24.467	347.6	0.035											
20	16.43	33.46											24.487	345.6	0.070											
30	15.62	33.35											24.586	336.2	0.104											
50	13.00	33.30											25.099	287.4	0.166											
75	11.54	33.37											25.431	255.7	0.235											
100	10.80	33.47											25.642	235.7	0.297											
125	10.22	33.66											25.890	212.1	0.353											
150	9.85	33.84											26.093	192.8	0.404											
200	9.35	34.03											26.324	170.9	0.497											
250	8.70	34.11											26.490	155.1	0.581											
300	8.38	34.18											26.594	145.2	0.658											
400	7.45	34.23											26.771	128.4	0.801											
500	6.50	34.27											26.933	113.0	0.929											

RV DAVIU STARR JORDAN CALCOFI CRUISE 6912 90032

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES	
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD		
0	16.57	33.494	5.70	0.24	2.	0.01	0.0	346.2									
11	16.49	33.493	5.83	0.26	2.	0.00	0.0	344.5									
31	16.21		5.80	0.26	2.	0.00	0.0										
50	13.65		5.75	0.42	3.	0.07	0.2										
79	11.52		4.96	0.89	9.	0.00	4.0										
109	10.53	33.526	4.40	1.24	14.	0.00	6.7	227.1									
154	9.70		3.05	1.95	27.	0.00	10.8										
203	9.24		2.58	2.13	32.	0.00	11.6										
252	8.67		2.28														
306	8.28		1.43														
405	7.29	34.259	0.77					124.1									
510	6.40	34.300	0.43					109.6									

RV DAVIU STARR JORDAN CALCOFI CRUISE 6912 90037

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES	
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD		
									0	16.52	33.47		24.474	346.8	0.000		
									10	16.51	33.47		24.477	346.6	0.035		
									20	16.45	33.45		24.480	346.3	0.069		
									30	16.05	33.42		24.544	340.2	0.104		
									50	13.89	33.23		24.865	309.6	0.169		
									75	11.21	33.36		25.484	250.8	0.239		
									100	10.51	33.64		25.825	218.3	0.299		
									125	9.93	33.72		25.986	203.0	0.352		
									150	9.72	33.88		26.146	187.8	0.401		
									200	9.17	34.04		26.361	167.4	0.492		
									250	8.79	34.14		26.499	154.2	0.574		
									300	8.25	34.17		26.606	144.1	0.651		
									400	7.36	34.21		26.768	128.7	0.794		
									500	6.62	34.25		26.902	116.1	0.923		

RV DAVIU STARR JORDAN CALCOFI CRUISE 6912 90037

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES	
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD		
0	16.45	33.484	5.71	0.39	2.	0.00	0.6	344.3									
10	16.43	33.477	5.80	0.24	2.	0.00	0.5	344.3									
30	16.22		5.79	0.37	2.	0.00	0.6										
49	14.72	33.378	5.68	0.53	3.	0.24	1.2	315.4									
80	11.16		4.93	1.05	9.	0.00	10.1										
109	10.54		3.70	1.63	19.	0.00	18.1										
152	9.57		2.83	2.10	28.	0.00	26.1										
201	9.10		2.41	2.34	35.	0.00	30.6										
249	8.72		1.72														
302	8.17		1.42														
399	7.35	34.230	0.86					127.1									
501	6.54	34.250	0.55					115.0									

RV DAVIU STARR JORDAN CALCOFI CRUISE 6912 90039

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES	
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD		
									0	16.58	33.40		24.407	353.3	0.000		
									10	16.58	33.40		24.407	353.3	0.035		
									20	16.57	33.39		24.402	353.8	0.071		
									30	16.51	33.38		24.408	353.2	0.106		
									50	14.24	33.20		24.769	318.8	0.174		
									75	11.10	33.28		25.441	254.8	0.246		
									100	10.45	33.56		25.773	223.2	0.306		
									125	10.36	33.75		25.936	207.7	0.360		
									150	9.70	33.86		26.134	188.9	0.411		
									200	9.02	34.01		26.361	167.3	0.501		
									250	8.62	34.10		26.495	154.7	0.584		
									300	8.28	34.16		26.594	145.3	0.661		
									400	7.41	34.22		26.769	128.7	0.804		
									500	6.50	34.27		26.933	113.0	0.932		

RV DAVID STARR JORDAN

CALCOFI CRUISE 6912

90039

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER		TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
33 07.0N		118 31.0W		12/ 2/69		1327		GMT	1258M	250	2KT	0			
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	S1GT	DT	DD
0	16.58	33.405	5.72	0.24	2.	0.00	0.1	352.9							
10	16.52	33.406	5.80	0.18	2.	0.00	0.1	351.5							
30	16.45		5.85	0.18	3.	0.00	0.1								
49	14.30	33.321	5.73	0.39	5.	0.00	0.9	311.1							
78	11.23		4.97	0.92	11.	0.00	8.7								
108	10.24		4.17	1.37	19.	0.00	15.4								
153	9.62		2.93	1.92	29.	0.00	23.5								
202	8.90		2.56	2.16	36.	0.00	28.0								
252	8.41		2.12												
306	8.11		1.46												
405	7.31	34.249	0.82					125.1							
507	6.42	34.290	0.45					110.6							

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6912

90045

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER		TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
32 54.5N		118 55.5W		12/ 2/69		2230		GMT	1756M	320	8KT	1	310 3 16		
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	S1GT	DT	DD
0	16.61	33.33							0	16.61	33.33		24.546	359.0	0.000
10	16.44	33.35							10	16.44	33.35		24.401	353.8	0.036
20	16.41	33.35							20	16.41	33.35		24.408	353.2	0.071
30	16.40	33.34							30	16.40	33.34		24.425	351.5	0.106
50	14.45	33.22							50	14.45	33.22		24.740	321.5	0.174
75	11.69	33.29							75	11.69	33.29		25.342	264.3	0.247
100	10.67	33.51							100	10.67	33.51		25.696	230.6	0.310
125	10.02	33.66							125	10.02	33.66		25.924	208.8	0.365
150	9.45	33.81							150	9.45	33.81		26.139	188.4	0.416
200	8.85	34.08							200	8.85	34.08		26.443	159.6	0.504
250	8.51	34.17							250	8.51	34.17		26.566	147.9	0.583
300	8.12	34.26							300	8.12	34.26		26.696	135.5	0.657
400	7.42	34.29							400	7.42	34.29		26.837	122.2	0.791
500	6.45	34.33							500	6.45	34.33		26.987	107.9	0.913

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6912

90045

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER		TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
32 54.5N		118 55.5W		12/ 2/69		2353		GMT	1756M	320	8KT	1	310 3 16		
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	S1GT	DT	DD
2	16.62	33.339	5.59					358.6	0	16.62	33.339	5.59	24.551	358.6	0.000
12	16.42	33.331	5.81					354.8	10	16.45	33.334	5.78	24.585	355.4	0.036
31	16.35	33.336	5.78					352.9	20	16.38	33.336	5.80	24.401	353.8	0.071
41	16.19	33.324	5.80					350.3	30	16.35	33.338	5.78	24.410	352.9	0.107
50	15.78	33.322	5.81					341.6	50	15.78	33.322	5.81	24.529	341.6	0.176
65	12.58	33.173	5.81					288.9	75	11.85	33.253	5.52	25.282	270.0	0.253
79	11.71	33.296	5.38					264.2	100	10.57	33.494	4.71	25.701	230.1	0.316
100	10.57	33.494	4.71					230.1	125	10.10	33.598	4.26	25.863	214.7	0.372
125	10.10	33.598	4.26					214.7	150	9.44	33.805	3.49	26.150	187.4	0.423
145	9.45	33.783	3.62					190.7	200	9.02	34.050	2.55	26.592	164.4	0.513
175	9.00	33.884						176.4	250	8.45	34.158	2.03	26.565	148.0	0.593
205	9.02	34.080	2.50					162.1	300	8.08	34.203	1.42	26.657	139.3	0.667
234	8.58	34.137	2.26					151.3	400	7.30	34.265	0.80	26.819	123.9	0.805
274	8.31	34.179	1.68					144.3	500	6.40	34.302	0.45	26.971	109.4	0.928
334	7.78	34.229	1.16					133.0							
410	7.25	34.269	0.76					122.6							
482	6.54	34.296	0.50					111.6							
562	5.99	34.312	0.36					103.6							

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6912

90045

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER		TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
32 54.5N		118 55.5W		12/ 3/69		0015		GMT	1756M	320	8KT	1	310 3 16		
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	S1GT	DT	DD
0	16.62	33.33							0	16.62	33.33		24.544	359.2	0.000
10	16.44	33.33							10	16.44	33.33		24.586	355.3	0.036
20	16.41	33.33							20	16.41	33.33		24.593	354.6	0.071
30	16.30	33.33							30	16.30	33.33		24.418	352.2	0.107
50	15.69	33.29							50	15.69	33.29		24.525	342.0	0.176
75	12.08	33.25							75	12.08	33.25		25.238	274.1	0.254
100	10.87	33.47							100	10.87	33.47		25.630	236.9	0.318
125	10.14	33.63							125	10.14	33.63		25.881	213.0	0.375
150	9.45	33.81							150	9.45	33.81		26.139	188.4	0.426
200	9.05	34.07							200	9.05	34.07		26.404	163.3	0.515
250	8.48	34.17							250	8.48	34.17		26.571	147.4	0.595
300	8.17	34.25							300	8.17	34.25		26.681	137.0	0.669
400	7.28	34.29							400	7.28	34.29		26.842	121.7	0.804
500	6.46	34.33							500	6.46	34.33		26.986	108.1	0.926

RV ALEXANDER AGASSIZ								CALCOFI CRUISE 6912						90043	
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
32 38.5N		119 28.5W		12/ 4/69		0000 GMT		1295M	330	26KT	1	330 8 5			
Z	T	S	U2	P04	S103	NO2	NO3	DT	Z	T	S	02	S16T	DT	DD
									0	16.76	33.39		24.357	358.0	0.000
									10	16.78	33.39		24.353	358.4	0.036
									20	16.78	33.40		24.361	357.7	0.072
									30	16.78	33.40		24.361	357.7	0.108
									50	14.81	33.22		24.770	318.7	0.175
									75	12.29	33.34		25.268	271.3	0.250
									100	11.09	33.57		25.668	233.2	0.313
									125	10.36	33.70		25.898	211.4	0.369
									150	9.40	33.89		26.124	189.9	0.420
									200	9.37	34.13		26.399	163.8	0.510
									250	8.55	34.15		26.545	149.9	0.591
									300	8.35	34.25		26.654	139.6	0.666
									400	7.23	34.28		26.841	121.8	0.802
									500	6.38	34.30		26.973	109.3	0.925

PV ALEXANDER AGASSIZ						CALCOFI CRUISE 6912								90053	
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER		TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
32 38.5N		119 28.5W		12/ 4/69		0037		GMT	1295M	330	26KT	1	330 8 5		
Z	T	S	U2	P04	S103	NO2	NO3	DT	Z	T	S	02	S16T	DT	LD
1	16.81	33.415	5.41					357.2							
11	16.80	33.413	5.64					357.2							
30	16.80	33.415	5.67					357.0							
50	14.09		5.69												
78	11.94		5.31												
108	10.96		4.01												
151	9.95		2.90												
198	3.40		2.39												
247	8.40		2.19												
300	8.24	34.220	1.52					140.2							
397	7.20	34.226 U	0.91												
500	6.42		0.57												

RV ALEXANDER AGASSIZ										CALCOFI CRUISE 6912					90040	
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER		TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
32 25.0N		119 57.5W		12/13/69		1416		GMT	2116M	350	9KT	2	300 11 13			
Z	T	S	02	P04	S103	NO2	NO3	DT	Z	T	S	02	S16T	DT	DD	
									0	15.90	33.26		24.455	348.7	0.000	
									10	15.91	33.27		24.460	348.2	0.035	
									20	15.90	33.28		24.470	347.2	0.070	
									30	15.91	33.29		24.475	346.7	0.104	
									50	15.19	33.24		24.597	335.2	0.173	
									75	11.87	33.20		25.239	274.1	0.249	
									100	11.16	33.40		25.524	247.0	0.315	
									125	10.17	33.53		25.798	220.9	0.374	
									150	9.42	33.76		26.102	192.0	0.426	
									200	8.79	33.96		26.359	167.6	0.518	
									250	8.12	34.08		26.555	148.9	0.599	
									300	7.76	34.13		26.648	140.1	0.674	
									400	6.79	34.18		26.824	123.5	0.811	
									500	6.19	34.29		26.990	107.7	0.933	

RV ALEXANDER AGASSIZ						CALCOFI CRUISE 6912										90040	
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER		TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES				
32 25.0N		119 57.5W		12/13/69		1508		GMT	2116M	350	9KT	2	300 11 13				
Z	T	S	02	P04	S103	NO2	NO3	DT	Z	T	S	02	S16T	DT	DD		
2	15.89	33.227	5.44					350.9									
13	15.89	33.238	5.71					350.1									
42	15.86		5.72														
63	12.65	33.106	6.05					295.1									
82	11.79		5.71														
111	10.45		4.73														
157	9.38		3.69														
206	8.74		2.92														
254	8.14		2.37														
308	7.76	34.166	1.55					137.5									
405	6.69	34.213	0.85					119.7									
508	6.15		0.37														

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6912 90070

LATITUDE				LONGITUDE				MO/DAY/YR				MESSENGER TIME				BOTTOM				WIND				SPEED				WEATHER				DOMINANT WAVES			
32 05.0N				120 39.0W				12/14/69				0207 GMT				3718M				340				12KT				2							
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	S16T	DT	DD																				
									0	16.61	33.27		24.301	363.4	0.000																				
									10	16.63	33.27		24.296	363.8	0.036																				
									20	16.64	33.28		24.301	363.3	0.073																				
									30	16.63	33.28		24.304	363.1	0.109																				
									50	16.23	33.23		24.357	358.0	0.182																				
									75	12.75	33.10		24.993	297.4	0.264																				
									100	11.22	33.29		25.427	256.1	0.334																				
									125	10.23	33.56		25.811	219.6	0.394																				
									150	9.24	33.74		26.115	190.7	0.446																				
									200	8.38	34.00		26.423	161.5	0.535																				
									250	7.90	34.09		26.596	145.1	0.614																				
									300	7.41	34.13		26.698	135.4	0.686																				
									400	6.63	34.22		26.877	118.4	0.818																				
									500	5.91	34.28		27.017	105.1	0.936																				

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6912 90070

LATITUDE				LONGITUDE				MO/DAY/YR				MESSENGER TIME				BOTTOM				WIND				SPEED				WEATHER				DOMINANT WAVES			
32 05.0N				120 39.0W				12/14/69				0245 GMT				3718M				340				12KT				2							
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	S16T	DT	DD																				
1	16.68	33.257	5.63					365.9																											
11	16.69	33.263	5.64					365.7																											
31	16.71		5.63																																
51	15.09	33.160	6.01					339.0																											
80	12.36		5.94																																
111	11.17		5.37																																
155	9.31		3.83																																
204	8.57		2.86																																
254	7.91		2.26																																
308	7.41	34.130	1.62					135.4																											
405	6.67	34.232	0.74					118.0																											
506	5.91		0.33																																

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6912 90080

LATITUDE				LONGITUDE				MO/DAY/YR				MESSENGER TIME				BOTTOM				WIND				SPEED				WEATHER				DOMINANT WAVES			
31 45.5N				121 19.0W				12/14/69				0652 GMT				3794M				340				8KT				2							
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	S16T	DT	DD																				
									0	16.50	33.34		24.380	355.9	0.000																				
									10	16.51	33.34		24.377	356.1	0.036																				
									20	16.51	33.35		24.385	355.4	0.071																				
									30	16.51	33.35		24.385	355.4	0.107																				
									50	16.43	33.36		24.411	352.9	0.178																				
									75	11.93	33.30		25.305	267.8	0.256																				
									100	10.90	33.49		25.640	235.9	0.319																				
									125	9.81	33.67		25.968	204.8	0.375																				
									150	9.07	33.84		26.221	180.7	0.424																				
									200	8.24	33.99		26.467	157.3	0.510																				
									250	7.42	34.04		26.626	142.2	0.587																				
									300	6.82	34.08		26.741	131.5	0.657																				
									400	6.06	34.17		26.912	115.1	0.785																				
									500	5.51	34.28		27.067	100.4	0.899																				

RV ALEXANDER AGASSIZ CALCOFI CRUISE 6912 90080

LATITUDE				LONGITUDE				MO/DAY/YR				MESSENGER TIME				BOTTOM				WIND				SPEED				WEATHER				DOMINANT WAVES			
31 45.5N				121 19.0W				12/14/69				0744 GMT				3794M				340				8KT				2							
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	S16T	DT	DD																				
1	16.49	33.300	5.46					358.6																											
11	16.49	33.304	5.64					358.3																											
31	16.47		5.68																																
51	16.38	33.295	5.69					356.5																											
80	11.73		5.38																																
110	10.15		4.46																																
152	9.06		4.05																																
200	8.26		3.17																																
251	7.52		2.62																																
305	6.85	34.081	1.87					131.6																											
402	5.94	34.165	0.85					114.0																											
508	5.47		0.37																																

RV ALEXANDER AGASSIZ						CALCOFI CRUISE 6912									
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		ROTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
31 24.0N		122 01.0W		12/14/69		2258 GMT		3926M	030	4KT	1	330 7 9			
Z	T	S	02	P04	S103	NO2	NO3	DT	Z	T	S	02	SIGT	DT	DD
0	17.14									33.45			24.514	362.1	0.000
10	17.14									33.45			24.514	362.1	0.036
20	17.11									33.45			24.521	361.4	0.072
30	17.11									33.46			24.529	360.7	0.109
50	17.11									33.46			24.529	360.7	0.181
75	15.78									33.69			24.811	314.7	0.266
100	14.55									33.67			25.069	290.2	0.342
125	13.15									33.68			25.366	261.9	0.412
150	11.59									33.61			25.608	238.9	0.475
200	9.65									33.84			26.127	189.6	0.584
250	8.48									34.00			26.438	160.0	0.674
300	7.48									34.08			26.649	140.0	0.751
400	6.46									34.18			26.868	119.3	0.886
500	5.75									34.26			27.022	104.7	1.004

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RV DAVID STAR JORDAN					CALCOFI CRUISE 6912										
LATITUDE		LONGITUDE		MO/DAY/YR	PASSENGER TIME			BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
32 56.0N		117 19.0W		12/ 2/69	1945 GMT			131M	100	KT	1	040 1 5			
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	SIGT	DT	DD
									0	17.65	33.47		24.208	372.2	0.000
									10	17.47	33.46		24.243	368.8	0.037
									20	17.46	33.47		24.253	367.9	0.074
									30	16.75	33.41		24.375	356.3	0.110
									50	16.08	33.33		24.468	347.5	0.181
									75	12.70	33.35		25.196	278.1	0.259
									100	12.02	33.43		25.388	259.8	0.327

RV DAVID STAR JORDAN						CALCOFI CRUISE 6912									
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		POTOM	WINU	SPEED	WEATHER	DOMINANT WAVES			
32 56.0N		117 19.0W		12/ 2/69		2006 GMT		131M	100	6KT	1	040 1 5			
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	S16T	DT	DD
0	17.60	33.483	5.58	0.21	1.	0.00	0.0	370.1							
10	17.39	33.481	5.66	0.26	1.	0.00	0.0	365.5							
25	17.37		5.71	0.21	1.	0.00	0.0								
35	16.45	33.449	5.57	0.26	2.	0.00	0.0	346.8							
44	16.19		5.54	0.26	2.	0.00	0.0								
59	13.86		5.39	0.47	4.	0.14	1.4								
74	12.63	33.354	4.81	0.55	5.	0.02	2.9	276.5							
99	12.10	33.464		0.84	9.	0.02	6.0	258.7							

RV DAVID STARR JORDAN					CALCOFI CRUISE 6912										
LATITUDE		LONGITUDE	MO/YEAR/YR	MESSANGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES						
32 54.5N		117 22.0W	12/ 3/69	0007 GMT	510M	190	8KT	2	1F0	2	6				
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	S107	DT	DD
						0	17.60	33.48					24.228	370.3	0.000
						10	17.50	33.46					24.236	369.5	0.037
						20	17.50	33.48					24.252	368.1	0.074
						30	16.46	33.40					24.435	350.6	0.110
						50	14.20	33.28					24.839	312.1	0.176
						75	12.56	33.35					25.223	275.5	0.250
						100	12.17	33.40					25.337	264.7	0.318
						125	11.62	33.48					25.502	249.0	0.383
						150	10.85	33.62					25.750	225.4	0.443
						200	9.82	33.90					26.145	187.9	0.548
						250	8.99	34.08					26.421	161.7	0.638
						300	8.41	34.14					26.558	148.6	0.718
						400	7.58	34.22					26.744	131.0	0.866

RV DAVID STARR JORDAN CALCOFI CRUISE 6912 93028

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
32 54.5N		117 22.0W		12/ 3/69		0048 GMT		510M	190	8KT	2	180 2 6			
Z	T	S	O2	PO4	SI03	NO2	NO3	DT	Z	T	S	O2	SI6T	DT	DD
0	17.53	33.488	5.51	0.21	1.	0.00	0.0	368.2							
21	17.41	33.473	5.70	0.21	2.	0.00	0.0	366.5							
39	16.0		5.72	0.32	2.	0.01	0.0								
75	12.56		5.30	0.63	6.	0.00	4.1								
104	12.05	33.422	4.96	0.84	9.	0.00	6.8	260.9							
154	10.68		3.84	1.42	18.	0.00	14.1								
203	9.70		2.95	1.92	28.	0.00	21.4								
258	8.91		1.66												
356	7.95	34.216	1.24					136.4							
459	7.07	34.265	0.66					120.8							

RV DAVID STARR JORDAN CALCOFI CRUISE 6912 93030

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
32 50.5N		117 31.0W		12/ 3/69		0220 GMT		842M	230	10KT		280 4 6			
Z	T	S	O2	PO4	SI03	NO2	NO3	DT	Z	T	S	O2	SI6T	DT	DD
0	17.11	33.50											24.360	357.8	0.000
10	17.00	33.47											24.363	357.5	0.036
20	16.94	33.49											24.392	354.7	0.071
30	16.87	33.47											24.393	354.6	0.107
50	14.11	33.16											24.765	319.1	0.175
75	12.41	33.29											25.225	275.4	0.249
100	11.22	33.42											25.528	246.5	0.315
125	10.65	33.68											25.835	217.3	0.374
150	10.15	33.74											25.965	205.0	0.427
200	9.58	33.98											26.247	178.2	0.525
250	9.06	34.07											26.402	163.5	0.612
300	8.59	34.16											26.577	146.8	0.692
400	7.47	34.24											26.776	128.0	0.836
500	6.76	34.28											26.906	115.6	0.965

RV DAVID STARR JORDAN CALCOFI CRUISE 6912 93030

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
32 50.5N		117 31.0W		12/ 3/69		0255 GMT		842M	230	10KT		280 4 6			
Z	T	S	O2	PO4	SI03	NO2	NO3	DT	Z	T	S	O2	SI6T	DT	DD
1	16.94	33.489	5.63	0.21	1.	0.00	0.0	354.8							
10	16.93	33.485	5.71	0.24	2.	0.00	0.0	354.8							
48	14.46		5.74	0.39	3.	0.10	0.5								
68	12.86		5.43	0.58	5.	0.00	2.9								
87	11.53		4.83	0.95	10.	0.00	8.0								
119	10.40	33.586	4.21	1.32	16.	0.00	12.6	220.5							
149	10.06		3.46	1.66	22.	0.00	16.3								
199	9.46		2.62	2.08	32.	0.00	21.5								
246	8.98		2.38												
300	8.27		1.78												
398	7.44	34.234	0.88					128.0							
503	6.61	34.285	0.48					113.3							

RV DAVID STARR JORDAN CALCOFI CRUISE 6912 93035

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
32 40.5N		117 51.5W		12/ 3/69		0517 GMT		630M	230	6KT		280 4 6			
Z	T	S	O2	PO4	SI03	NO2	NO3	DT	Z	T	S	O2	SI6T	DT	DD
0	16.45	33.34											24.391	354.8	0.000
10	16.41	33.35											24.408	353.2	0.035
20	16.37	33.36											24.425	351.6	0.071
30	15.99	33.28											24.450	349.2	0.106
50	13.67	33.18											24.932	303.2	0.171
75	11.50	33.33											25.408	258.0	0.242
100	10.51	33.57											25.771	223.5	0.302
125	9.87	33.85											26.098	192.4	0.355
150	9.65	33.92											26.189	183.7	0.403
200	9.07	34.01											26.354	168.1	0.492
250	8.74	34.15											26.515	152.7	0.575
300	8.41	34.18											26.605	144.2	0.651
400	7.40	34.23											26.792	126.4	0.793
500	6.55	34.27											26.929	113.4	0.919

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912						93035
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER		TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
32 40.5N		117 51.5W		12/ 3/69		0555		GMT	630M	230	6KT		280 4 6			
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	S1GT	DT	DD	
0	16.42	33.363	5.90	0.24	2.	0.00	0.0	352.4								
10	16.35	33.362	6.01	0.26	2.	0.00	0.0	351.0								
49	14.57		5.85	0.37	3.	0.00	0.8									
69	12.28		5.54	0.66	6.	0.00	4.6									
89	11.05		4.80	1.02	11.	0.00	9.2									
123	10.02	33.762	3.48	1.71	23.	0.00	16.4	201.3								
152	9.57		2.96	1.97	29.	0.00	18.9									
201	8.98		2.70	2.16	35.	0.00	20.9									
250	8.66		1.90													
304	8.18		1.58													
403	7.17	34.242	0.93					123.8								
507	6.45	34.283	0.46					111.4								

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912							93040
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER		TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES				
32 30.0N		118 11.5W		12/ 3/69		0850		GMT	1664M	330	4KT		280 4 6				
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	S1GT	DT	DD		
	0	16.50	33.36										24.395	354.4	0.000		
	10	16.50	33.36										24.395	354.4	0.035		
	20	16.43	33.36										24.411	352.9	0.071		
	30	16.27	33.34										24.432	350.8	0.106		
	50	13.63	33.31										24.980	298.7	0.171		
	75	11.92	33.42										25.460	258.8	0.241		
	100	10.82	33.70										25.817	219.0	0.302		
	125	10.41	33.61										25.974	204.1	0.355		
	150	10.22	33.93										26.161	192.1	0.405		
	200	9.67	34.10										26.326	170.7	0.498		
	250	9.35	34.21										26.464	157.5	0.582		
	300	8.69	34.22										26.578	146.8	0.661		

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912							93040
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER		TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES				
32 30.0N		118 11.5W		12/ 3/69		0920		GMT	1664M	330	4KT		280 4 6				
Z	T	S	U2	P04	S103	N02	N03	DT	Z	T	S	02	S1GT	DT	DD		
0	16.45	33.375	5.91	0.24	1.	0.03	0.0	352.2	0	16.45	33.375	5.91	24.418	352.2	0.000		
10	16.43	33.369	5.82	0.26	2.	0.03	0.0	352.2	10	16.43	33.369	5.82	24.418	352.2	0.035		
30	16.28	33.391	5.83					347.3	20	16.36	33.382	5.83	24.443	349.8	0.070		
49	14.18	33.296	5.80	0.37	3.	0.29	0.8	310.5	30	16.28	33.391	5.83	24.469	347.3	0.105		
79	11.82	33.478	4.60	0.97	11.	0.09	9.5	252.7	50	14.08	33.300	5.77	24.877	308.4	0.171		
109	10.73	33.729	3.28	1.66	20.	0.05	18.2	215.4	75	12.06	33.443	4.80	25.388	259.8	0.243		
153	10.05	33.980	2.45	2.08	29.	0.05	23.4	185.6	100	10.96	33.657	3.65	25.757	224.8	0.304		
203	9.63	34.132	2.04	2.29	34.	0.05	26.7	167.7	125	10.40	33.837	2.88	25.995	202.1	0.358		
252	9.23	34.236	1.60					153.8	150	10.07	33.968	2.48	26.154	187.0	0.407		
308	8.59	34.219	1.54					145.4	200	9.65	34.127	2.06	26.349	168.5	0.498		
406	7.57	34.254	0.92					128.3	250	9.25	34.234	1.61	26.499	154.2	0.581		
510	6.52	34.281	0.51					112.5	300	8.69	34.226	1.55	26.582	146.4	0.658		
									400	7.63	34.252	0.96	26.761	129.4	0.802		
									500	6.62	34.280	0.54	26.924	113.9	0.931		

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912							93040
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER		TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES				
32 30.0N		118 11.5W		12/ 3/69		0923		GMT	1664M	330	4KT		280 4 6				
Z	T	S	Q2	P04	S1C3	N02	N03	DT	Z	T	S	Q2	S1GT	DT	DD		
									0	16.50	33.37		24.402	353.7	0.000		
									10	16.47	33.37		24.409	353.0	0.035		
									20	16.42	33.38		24.428	351.2	0.071		
									30	16.22	33.34		24.444	349.8	0.106		
									50	13.72	33.24		24.908	305.6	0.171		
									75	11.75	33.47		25.470	252.1	0.242		
									100	10.80	33.72		25.836	217.2	0.301		
									125	10.40	33.84		26.000	201.7	0.354		
									150	10.16	33.96		26.134	188.9	0.403		
									200	9.69	34.12		26.338	169.5	0.495		
									250	9.34	34.22		26.474	156.7	0.578		
									300	8.90	34.24		26.560	148.5	0.657		
									400	7.74	34.23		26.729	132.4	0.804		
									500	6.63	34.26		26.908	115.4	0.935		

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912						93050	
LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME			BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES							
32 10.0N	118 53.0W	12/ 3/69	1435	GMT		1295M	300	4KT	1	280 4 6							
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	SIGT	DT	DD		
									0	17.15	33.47		24.527	360.8	0.000		
									10	17.13	33.46		24.524	361.1	0.036		
									20	17.10	33.47		24.539	359.7	0.072		
									30	15.16	33.34		24.680	327.2	0.107		
									50	12.96	33.24		25.060	291.0	0.169		
									75	11.54	33.42		25.470	252.1	0.237		
									100	10.52	33.58		25.777	222.9	0.297		
									125	10.12	33.78		26.001	201.6	0.350		
									150	9.96	33.98		26.184	184.2	0.399		
									200	9.47	34.15		26.598	163.9	0.488		
									250	8.84	34.18		26.523	152.0	0.569		
									300	8.42	34.21		26.612	143.6	0.646		
									400	7.57	34.22		26.746	130.8	0.789		
									500	6.58	34.27		26.923	114.1	0.918		

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912					93060	
LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES							
31 50.0N	119 34.0W	12/ 3/69	1937	GMT	2322M	300	12KT	1	300 5 3							
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	SIGT	DT	DD	
									0	17.04	33.16		24.116	381.0	0.000	
									10	17.00	33.18		24.141	378.6	0.038	
									20	16.98	33.18		24.146	378.2	0.076	
									30	16.97	33.18		24.148	378.0	0.114	
									50	14.63	33.10		24.610	333.9	0.185	
									75	12.77	33.18		25.051	291.9	0.264	
									100	11.57	33.26		25.341	264.4	0.334	
									125	10.28	33.47		25.733	227.1	0.396	
									150	9.50	33.70		26.042	197.7	0.450	
									200	8.74	33.98		26.582	165.4	0.542	
									250	8.17	34.07		26.540	150.4	0.623	
									300	7.79	34.13		26.643	140.6	0.698	
									400	6.84	34.19		26.825	123.3	0.836	
									500	6.13	34.25		26.966	110.0	0.959	

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912						93070	
LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES								
31 30.0N	120 14.0W	12/ 4/69	0000	GMT	4022M	330	22KT	1	330 5 4								
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	SIGT	DT	DD		
									0	17.00	33.23		24.179	375.0	0.000		
									10	16.92	33.24		24.206	372.5	0.037		
									20	16.93	33.24		24.203	372.7	0.075		
									30	17.22	33.42		24.272	366.1	0.112		
									50	14.15	32.98		24.619	333.1	0.182		
									75	11.74	33.02		25.123	285.1	0.259		
									100	10.81	33.28		25.493	249.9	0.327		
									125	10.36	33.53		25.765	224.0	0.387		
									150	9.72	33.68		25.990	202.6	0.441		
									200	8.50	33.96		26.404	163.3	0.534		
									250	8.08	34.05		26.538	150.6	0.614		
									300	7.56	34.11		26.661	138.9	0.689		
									400	6.57	34.20		26.869	119.2	0.823		
									500	5.81	34.24		26.998	106.9	0.942		

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912						93080	
LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES								
31 10.0N	120 54.5W	12/ 4/69	0443	GMT	4022M	330	22KT	1	060 5 4								
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	SIGT	DT	DD		
									0	17.28	33.44		24.273	366.0	0.000		
									10	17.28	33.45		24.281	365.2	0.037		
									20	17.28	33.46		24.289	364.5	0.073		
									30	17.35	33.51		24.315	362.0	0.110		
									50	14.04	33.26		24.857	310.4	0.177		
									75	11.01	33.49		25.620	237.8	0.246		
									100	9.96	33.66		25.935	207.9	0.302		
									125	9.41	33.86		26.182	184.4	0.352		
									150	8.98	33.96		26.529	170.4	0.397		
									200	8.39	34.06		26.499	154.3	0.479		
									250	7.60	34.08		26.632	141.7	0.555		
									300	7.17	34.14		26.740	131.4	0.626		
									400	6.54	34.22		26.889	117.3	0.755		
									500	5.92	34.29		27.024	104.5	0.872		

RV DAVID STARR JORDAN									CALCOFI CRUISE 6912						
LATITUDE 30 50.0N		LONGITUDE 121 34.0W		MO/DAY/YR 12/ 4/69		MESSENGER TIME 0859 GMT			BOTTOM 4309M	WIND 330	SPEED 21KT	WEATHER	DOMINANT WAVES 330 6		
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD
									0	16.63	33.11		24.174	375.5	0.000
									10	16.63	33.11		24.174	375.5	0.038
									20	16.64	33.11		24.171	375.7	0.075
									30	16.64	33.11		24.171	375.7	0.113
									50	15.59	33.29		24.547	339.9	0.185
									75	13.00	33.14		24.975	299.2	0.265
									100	12.69	33.46		25.283	269.8	0.337
									125	11.50	33.48		25.524	246.9	0.402
									150	10.25	33.65		25.878	213.3	0.460
									200	8.63	33.88		26.521	171.1	0.558
									250	7.82	33.98		26.522	152.1	0.641
									300	7.20	34.02		26.642	140.7	0.716
									400	6.14	34.09		26.838	122.1	0.853
									500	5.78	34.24		27.002	106.5	0.973

RV ALEXANDER AGASSIZ									CALCOFI CRUISE 6912						
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME			BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
32 40.0N		117 35.0W		11/13/69		1947 GMT			1156M	340	10KT	1	250 1 12		
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD
									04	17.88	33.44		24.129	379.7	0.000
									10	17.80	33.46		24.164	376.4	0.038
									20	17.09	33.40		24.288	364.6	0.075
									30	16.49	33.36		24.397	354.2	0.111
									50	13.60	33.27		24.955	301.1	0.177
									75	11.92	33.40		25.584	260.2	0.247
									100	11.14	33.42		25.543	245.1	0.311
									125	10.43	33.60		25.808	219.9	0.370
									150	10.02	33.81		26.041	197.7	0.423
									200	9.50	34.08		26.571	166.4	0.515
									250	8.52	34.11		26.518	152.5	0.597
									300	8.17	34.22		26.658	139.2	0.673
									400	7.03	34.26		26.854	120.6	0.808
									500	6.24	34.32		27.007	106.1	0.928

RV ALEXANDER AGASSIZ						CALCOFI CRUISE 6912									
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME			BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
32 40.0N		117 35.0W		11/13/69		2044 GMT			1156M	340	10KT	1	250 1 12		
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD
1A	18.17		5.79						0	18.17		5.79			
11	17.65		5.74						10	17.72		5.75			
21	16.82		5.98						20	16.90		5.96			
31	16.33		5.92						30	16.40		5.93			
41	14.60		6.07						50	13.29		5.68			
51	13.17		5.63						75	11.89		5.05			
61	12.45		5.47						100	10.87		4.64			
71	11.94		5.19						125	10.52		3.97			
80	11.83		4.90						150	10.11		3.39			
90	11.31		4.85												
100	10.87		4.64												
110	10.59		4.35												
120	10.64		4.06												
130	10.38		3.89												
140	10.22		3.70												
149	10.11		3.44												
158	10.08		2.97												
166	9.73		2.73												

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912						
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES				
32 40.0N		117 35.0W		11/28/69		2354 GMT		1184M	310	8KT	1	320 1 5				
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD	
									04	17.11	33.44		24.314	362.1	0.000	
									10	17.04	33.45		24.338	359.8	0.036	
									20	16.95	33.44		24.351	358.5	0.072	
									30	16.88	33.42		24.353	358.4	0.108	
									50	13.92	33.25		24.874	308.8	0.175	
									75	11.80	33.34		25.360	262.5	0.247	
									100	10.72	33.50		25.680	232.1	0.309	
									125	10.18	33.60		25.851	215.9	0.366	
									150	9.90	33.70		25.976	204.0	0.419	
									200	9.27	33.92		26.251	177.8	0.516	
									250	8.82	34.08		26.448	159.1	0.602	
									300	8.33	34.16		26.586	146.0	0.681	
									400	7.61	34.21		26.732	132.1	0.826	
									500	6.63	34.24		26.892	116.9	0.958	

A) A SHAKEDOWN STATION.

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912						94032	
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES	
32 40.0N		117 35.0W		11/29/69		0134 GMT		1184M		310		8KT		1		320 1 5	
Z	T	S	O2	P04	S103	NO2	NO3	DT	Z	T	S	O2	S16T	DT	DD		
0A	17.00	33.47	5.44					357.5	0	17.00	33.47	5.44	24.363	357.5	0.000		
9	17.00	33.46	5.74					358.2	10	16.99	33.46	5.75	24.356	358.1	0.036		
30	16.83	33.44	5.89					355.9	20	16.92	33.45	5.83	24.366	357.1	0.072		
38	16.80	33.43	6.10					355.9	30	16.84	33.44	5.89	24.379	355.9	0.107		
49	15.89	33.40	5.85					358.3	50	15.72	33.39	5.84	24.596	355.3	0.177		
64	13.27	33.316	5.73					291.3	75	12.17	33.34	5.42	25.284	269.8	0.253		
79	11.90	33.349	5.29					263.6	100	10.92	33.50	4.66	25.644	235.5	0.316		
97	11.05	33.478	4.74					239.3	125	10.10	33.62	4.10	25.877	213.4	0.373		
122	10.15	33.615	4.17					214.3	150	9.85	33.67	3.64	25.960	205.5	0.426		
143	9.92	33.629	3.73					209.5	200	9.18	33.96	2.75	26.298	173.3	0.523		
172	9.61	33.823	3.37					190.3	250	8.79	34.10	2.30	26.463	157.7	0.607		
201	9.17	33.967	2.73					172.8	300	8.38	34.15	2.00	26.568	147.7	0.686		
230	9.00	34.074	2.32					162.3	400	7.62	34.22	1.10	26.737	131.7	0.832		
270	8.58	34.100	2.28					154.1	500	6.62	34.27	0.63	26.916	114.7	0.962		
329	8.21	34.191	1.67					141.9									
403	7.59	34.217	1.08					131.3									
476	6.86	34.254	0.74					118.8									
555	6.08	34.304	0.37					105.3									

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912						94032	
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES	
32 40.0N		117 35.0W		11/29/69		0159 GMT		1184M		310		8KT		1		320 1 5	
Z	T	S	O2	P04	S103	NO2	NO3	DT	Z	T	S	O2	S16T	DT	DD		
									0A	17.07	33.46		24.338	359.8	0.000		
									10	16.96	33.44		24.349	358.8	0.036		
									20	16.94	33.45		24.361	357.6	0.072		
									30	16.90	33.44		24.363	357.4	0.108		
									50	15.69	33.30		24.532	341.3	0.178		
									75	11.91	33.27		25.285	269.6	0.255		
									100	10.81	33.42		25.602	239.6	0.319		
									125	10.14	33.62		25.873	213.7	0.376		
									150	9.82	33.74		26.020	199.7	0.428		
									200	9.19	33.98		26.311	172.1	0.523		
									250	8.82	34.10		26.463	157.6	0.608		
									300	8.35	34.15		26.575	147.0	0.686		
									400	7.60	34.20		26.726	132.7	0.832		
									500	6.68	34.25		26.894	116.8	0.964		

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912						97032	
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES	
32 12.0N		117 15.0W		12/ 5/69		1945 GMT		1387M		300		2KT		2		300 3 5	
Z	T	S	O2	P04	S103	NO2	NO3	DT	Z	T	S	O2	S16T	DT	DD		
0			5.61	0.21	1.	0.00	0.1		0	17.76	33.49		24.197	373.3	0.000		
10			5.65	0.21	2.	0.01	0.1		10	17.58	33.49		24.240	369.2	0.037		
20			5.56	0.21	2.	0.02	0.0		20	17.46	33.48		24.261	367.1	0.074		
35			5.59	0.24	2.	0.00	0.0		30	17.02	33.45		24.343	359.4	0.110		
50			5.65	0.26	2.	0.06	0.1		50	15.70	33.35		24.569	337.9	0.180		
75			5.06	0.68	8.	0.12	4.5		75	13.48	33.42		25.095	287.7	0.259		
100			4.63	0.92	10.	0.02	7.7		100	12.37	33.44		25.330	265.4	0.329		
150			4.20	1.26	16.	0.01	15.6		125	11.65	33.52		25.527	246.6	0.393		
200			3.51	1.68	26.	0.00	24.7		150	10.60	33.60		25.778	222.7	0.453		
300			2.15						200	9.39	33.92		26.232	179.6	0.555		
400			0.96						250	8.97	34.09		26.432	160.6	0.642		
500			0.56						300	8.75	34.14		26.506	153.6	0.724		
									400	7.41	34.22		26.769	128.7	0.871		
									500	6.52	34.29		26.946	111.8	0.998		

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912						97035	
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES	
32 07.0N		117 28.0W		12/ 5/69		1730 GMT		1295M		099		KT		2		330 5 8	
Z	T	S	O2	P04	S103	NO2	NO3	DT	Z	T	S	O2	S16T	DT	DD		
0			5.70	0.26	2.	0.00	0.0		0	17.26	33.48		24.309	362.6	0.000		
10			5.64	0.24	2.	0.00	0.0		10	17.21	33.47		24.313	362.2	0.036		
20			5.82	0.24	2.	0.00	0.0		20	17.16	33.46		24.317	361.8	0.073		
35			5.69	0.26	2.	0.00	0.0		30	16.79	33.40		24.358	357.9	0.109		
75			5.34	0.58	5.	0.04	2.6		50	14.20	33.29		24.847	311.4	0.176		
100			4.75	0.95	10.	0.03	7.5		75	12.50	33.33		25.219	275.9	0.250		
150			4.03	1.42	19.	0.01	12.9		100	11.41	33.47		25.533	246.1	0.315		
200			2.90	1.92	30.	0.01	17.8		125	10.69	33.58		25.747	225.7	0.375		
400			1.18						150	9.98	33.66		25.931	208.2	0.430		
500			0.57						200	9.40	33.98		26.277	175.4	0.527		
									250	8.72	34.08		26.464	157.6	0.613		
									300	8.54	34.21		26.593	145.3	0.691		
									400	7.51	34.24		26.770	128.5	0.834		
									500	6.45	34.29		26.956	110.9	0.961		

A) A SHAKEDOWN STATION.

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912										97040
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME				BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES						
31 56.0N		117 48.0W		12/ 5/69		1342 GMT				1332M	330	4KT	2	330 5 6						
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD					
									0	17.27	33.42		24.261	367.2	0.000					
									10	17.27	33.42		24.261	367.2	0.037					
									20	17.15	33.3A		24.258	367.4	0.074					
									30	15.90	33.26		24.455	348.7	0.109					
									50	13.00	33.19		25.014	295.5	0.174					
									75	11.29	33.34		25.454	253.6	0.243					
									100	10.56	33.56		25.754	225.0	0.303					
									125	10.35	33.74		25.930	208.3	0.358					
									150	9.84	33.86		26.110	191.2	0.409					
									200	9.34	34.08		26.365	167.0	0.500					
									250	8.91	34.18		26.512	153.1	0.562					
									300	8.25	34.21		26.638	141.1	0.658					
									400	7.21	34.24		26.813	124.5	0.797					
									500	6.44	34.28		26.949	111.5	0.922					

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912										97040
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES								
31 56.0N		117 48.0W		12/ 5/69		1437 GMT		1332M	330	4KT	2	330 5 6								
Z	T	S	O2	P04	S103	N02	N03	DT				O2	S10T	DT	DD					
0	17.43	33.474	5.64	0.24	1.	0.03	0.0	366.9												
11	17.45	33.470	5.76	0.24	1.	0.03	0.0	367.6												
30	17.04		5.82	0.24	1.	0.03	0.0													
50	14.14		6.00	0.34	2.	0.09	0.0													
80	11.44		5.41	0.79	7.	0.07	5.2													
109	10.60	33.552	4.28	1.21	15.	0.04	9.5	226.3												
153	9.86		3.10	1.76	25.	0.03	14.7													
202	9.28		2.40	2.16	34.	0.04	17.5													
251	8.83		1.80																	
305	8.24		1.34																	
404	7.12	34.265	0.80					121.4												
508	6.29	34.316	0.45					107.0												

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912						97040
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES				
31 35.5N		118 29.0W		12/ 5/69		0804 GMT		2509M	340	10KT	1	8 6				
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD	
									0	16.97	33.48		24.377	356.1	0.000	
									10	16.96	33.48		24.380	355.9	0.036	
									20	16.96	33.48		24.380	355.9	0.071	
									30	14.80	33.28		24.712	324.2	0.105	
									50	12.17	33.32		25.321	266.2	0.165	
									75	11.91	33.52		25.590	240.7	0.228	
									100	10.19	33.72		25.942	207.1	0.285	
									125	9.70	33.84		26.118	190.4	0.335	
									150	9.25	34.02		26.332	170.1	0.381	
									200	8.82	34.13		26.487	155.4	0.464	
									250	8.26	34.19		26.620	142.7	0.540	
									300	7.91	34.22		26.696	135.5	0.612	
									400	6.91	34.25		26.862	119.8	0.746	
									500	6.08	34.30		27.012	105.6	0.865	

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912										97040
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME				BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES						
31 15.5N		119 10.0W		12/ 5/69		0255 GMT				3642M	340	20KT	1	330 7 6						
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD					
									0	16.93	33.23		24.196	373.4	0.000					
									10	16.93	33.23		24.196	373.4	0.037					
									20	16.93	33.24		24.203	372.7	0.075					
									30	16.93	33.30		24.249	368.3	0.112					
									50	16.61	33.22		24.262	367.0	0.186					
									75	12.09	33.28		25.259	272.1	0.266					
									100	11.25	33.31		25.438	255.1	0.332					
									125	9.93	33.52		25.831	217.8	0.392					
									150	9.46	33.72		26.064	195.6	0.444					
									200	8.78	33.97		26.368	166.7	0.537					
									250	8.10	34.03		26.519	152.3	0.618					
									300	7.59	34.08		26.633	141.5	0.694					
									400	6.96	34.24		26.848	121.2	0.831					
									500	6.32	34.29		26.973	109.3	0.953					

RV DAVID STARR JORDAN CALCOFI CRUISE 6912 97070

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES	
30 55.0N		119 50.5W		12/ 4/69		2227 GMT		3738M		330		20KT		1		330 10 6	
Z	T	S	O2	P04	S103	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD		
									0	16.93	33.15		24.134	379.3	0.000		
									10	16.92	33.15		24.137	379.0	0.038		
									20	16.92	33.15		24.137	379.0	0.076		
									30	16.91	33.15		24.139	378.8	0.114		
									50	14.53	33.00		24.554	339.2	0.186		
									75	12.56	33.08		25.015	295.4	0.266		
									100	11.14	33.29		25.442	254.7	0.335		
									125	10.48	33.49		25.714	228.9	0.396		
									150	9.56	33.62		25.970	204.5	0.451		
									200	8.81	33.96		26.356	167.9	0.546		
									250	8.30	34.08		26.528	151.5	0.627		
									300	7.56	34.12		26.669	138.1	0.702		
									400	6.86	34.21		26.838	122.1	0.838		
									500	6.14	34.26		26.972	109.3	0.960		

RV DAVID STARR JORDAN CALCOFI CRUISE 6912 97080

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES	
30 35.0N		120 31.0W		12/ 4/69		1750 GMT		3926M		020		8KT		1		350 6 5	
Z	T	S	O2	P04	S103	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD		
									0	16.49	33.11		24.206	372.4	0.000		
									10	16.49	33.12		24.213	371.7	0.037		
									20	16.49	33.12		24.213	371.7	0.074		
									30	16.49	33.12		24.213	371.7	0.112		
									50	15.42	33.00		24.562	357.5	0.185		
									75	12.53	33.08		25.021	294.8	0.267		
									100	11.45	33.27		25.370	261.5	0.337		
									125	10.48	33.48		25.706	229.6	0.399		
									150	9.54	33.67		26.012	200.5	0.453		
									200	8.56	33.98		26.410	162.7	0.546		
									250	8.14	34.04		26.521	152.2	0.626		
									300	7.47	34.10		26.666	138.4	0.701		
									400	6.61	34.18		26.848	121.2	0.836		
									500	6.02	34.24		26.972	109.4	0.958		

RV DAVID STARR JORDAN CALCOFI CRUISE 6912 97090

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES	
30 15.5N		121 10.5W		12/ 6/69		1318 GMT		3926M		330		20KT		1		330 4 4	
Z	T	S	O2	P04	S103	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD		
									0	17.09	33.24		24.166	376.3	0.000		
									10	17.09	33.24		24.166	376.3	0.038		
									20	17.09	33.24		24.166	376.3	0.075		
									30	17.09	33.24		24.166	376.3	0.113		
									50	17.10	33.24		24.163	376.5	0.189		
									75	13.71	33.17		24.856	310.5	0.275		
									100	12.70	33.30		25.158	281.8	0.349		
									125	12.97	33.52		25.491	259.5	0.418		
									150	10.15	33.55		25.817	219.1	0.478		
									200	8.84	33.86		26.273	175.8	0.579		
									250	8.00	33.95		26.471	156.9	0.664		
									300	7.40	34.04		26.629	141.9	0.741		
									400	6.87	34.21		26.836	122.2	0.878		
									500	6.07	34.24		26.966	110.0	1.001		

RV DAVID STARR JORDAN CALCOFI CRUISE 6912 100030

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES	
31 40.5N		116 46.5W		12/ 6/69		0309 GMT		427M		330		6KT		1		330 4 4	
Z	T	S	O2	P04	S103	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD		
									0	17.82	33.49		24.182	374.7	0.000		
									10	17.75	33.48		24.191	373.8	0.037		
									20	17.48	33.45		24.233	369.8	0.075		
									30	16.95	33.42		24.336	360.0	0.111		
									50	15.16	33.31		24.657	329.4	0.180		
									75	13.49	33.45		25.116	285.7	0.258		
									100	12.83	33.51		25.294	268.8	0.328		
									125	12.22	33.48		25.589	259.7	0.394		
									150	11.25	33.60		25.662	233.7	0.457		
									200	9.99	33.88		26.101	192.1	0.565		
									250	9.46	34.04		26.314	171.9	0.658		
									300	8.71	34.13		26.504	153.8	0.742		
									400	7.73	34.23		26.731	132.3	0.892		

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912							100035
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND	SPEED	WEATHER	DOMINANT WAVES				
31 30.5N		117 07.0W		12/ 6/69		0606 GMT		1156M		030	4KT	1					
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD		
0			5.55						0	17.92	33.47		24.143	378.4	0.000		
10			5.47	0.24	1.	0.01	0.0		10	17.92	33.47		24.143	378.4	0.038		
20			5.49	0.24	1.	0.00	0.0		20	17.92	33.47		24.143	378.4	0.076		
35			5.62	0.21	1.	0.02	0.0		30	17.90	33.46		24.140	378.7	0.114		
50			5.75	0.30	2.	0.02	0.0		50	15.60	33.33		24.575	337.2	0.186		
75			5.54	0.50	4.	0.08	2.5		75	13.00	33.32		25.114	285.9	0.264		
100			4.50	0.97	11.	0.02	9.0		100	11.85	33.50		25.474	251.6	0.332		
150			3.47	1.60	21.	0.00	18.0		125	10.94	33.66		25.765	224.0	0.392		
200			2.67	2.02	31.	0.02	24.4		150	10.10	33.75		25.981	203.5	0.446		
400			0.93						200	9.47	34.06		26.328	170.5	0.541		
500			0.48						250	8.77	34.08		26.456	158.4	0.625		
									300	7.97	34.13		26.617	143.1	0.703		
									400	7.24	34.24		26.809	124.9	0.843		
									500	6.41	34.30		26.969	109.7	0.967		

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912							100040
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND	SPEED	WEATHER	DOMINANT WAVES				
31 22.5N		117 28.0W		12/ 6/69		0931 GMT		1757M		360	9KT		330 5 8				
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD		
									0	18.23	33.55		24.128	379.8	0.000		
									10	18.23	33.55		24.128	379.8	0.038		
									20	18.23	33.55		24.128	379.8	0.076		
									30	17.12	33.40		24.281	365.3	0.113		
									50	13.60	33.31		24.986	298.1	0.180		
									75	11.76	33.46		25.460	253.0	0.249		
									100	11.07	33.66		25.741	226.2	0.310		
									125	10.43	33.76		25.932	208.1	0.364		
									150	9.73	33.90		26.160	186.5	0.415		
									200	8.82	34.00		26.385	165.1	0.504		
									250	8.20	34.10		26.559	148.6	0.585		
									300	7.74	34.14		26.659	139.1	0.659		
									400	6.76	34.19		26.836	122.3	0.795		
									500	6.27	34.30		26.987	107.9	0.917		

RV DAVID STARR JORDAN						CALCOFI CRUISE 6912						100040			
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND	SPEED	WEATHER	DOMINANT WAVES		
31 22.5N		117 28.0W		12/ 6/69		1018 GMT		1757M		360	9KT		330 5 8		
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD
0	18.13	33.552	5.46	0.24	1.	0.00	0.0	377.4							
11	18.13	33.550	5.61	0.26	1.	0.00	0.0	377.5							
30	18.12		5.61	0.21	1.	0.00	0.0								
49	14.32		5.75	0.37	2.	0.06	0.2								
78	12.15		5.27	0.63	5.	0.02	3.4								
108	10.95	33.692	3.84	1.47	17.	0.00	11.5	221.8							
152	9.67		3.21	1.68	25.	0.00	14.6								
202	8.70		3.00	1.92	32.	0.00	16.5								
251	8.11		2.47												
305	7.66		2.05												
404	6.62	34.193	1.03					120.3							
506	6.13	34.305	0.40					105.9							

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912							100050
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND	SPEED	WEATHER	DOMINANT WAVES				
31 05.0N		118 08.0W		12/ 6/69		1503 GMT		1763M		240	2KT	1	330 5 8				
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD		
									0	17.05	33.50		24.374	356.4	0.000		
									10	17.02	33.51		24.388	355.0	0.036		
									20	17.02	33.51		24.388	355.0	0.071		
									30	15.50	33.30		24.575	337.3	0.106		
									50	12.98	33.34		25.134	284.1	0.168		
									75	11.37	33.47		25.540	245.4	0.235		
									100	10.45	33.59		25.797	221.0	0.293		
									125	9.73	33.73		26.028	199.0	0.347		
									150	9.23	33.90		26.242	178.7	0.394		
									200	8.55	34.04		26.459	158.1	0.480		
									250	7.87	34.12		26.624	142.4	0.557		
									300	7.45	34.16		26.716	133.7	0.629		
									400	6.82	34.25		26.875	118.6	0.760		
									500	6.15	34.31		27.011	105.7	0.879		

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912							100050
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER		TIME		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
31 05.0N		118 08.0W		12/ 6/69		1540		GMT		1763M	240	2KT	1	330 5 8			
Z	T	S	U2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD		
0	17.03	33.493	5.74	0.24	1.	0.01	0.0	356.5									
10	16.92	33.494	5.72	0.24	1.	0.00	0.0	353.9									
30	16.68	33.469	5.91	0.24	2.	0.00	0.1	350.4									
49	12.95		5.50	0.53	5.	0.02	3.3										
79	11.25		4.56	1.34	19.	0.01	17.3										
109	9.85		3.96	1.39	20.	0.06	18.2										
153	8.99		3.11	1.89	30.	0.01	26.4										
203	8.38		2.67	2.16	59.	0.08	30.2										
252	7.74		1.97														
306	7.31		1.45														
405	6.50	34.227	0.70					116.3									
508	5.96	34.322	0.46					102.5									

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912							100060
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER		TIME		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
30 35.5N		118 47.5W		12/ 6/69		2147		GMT		2886M	310	2KT	1	300 6 8			
Z	T	S	U2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD		
0			5.64	0.29	1.	0.00	0.0		0	16.96	33.29		24.234	369.7	0.000		
10			5.63	0.26	1.	0.00	0.0		10	16.84	33.32		24.285	364.8	0.037		
20			5.64	0.26	1.	0.00	0.0		20	16.81	33.34		24.308	362.7	0.073		
35			5.64	0.24	1.	0.00	0.0		30	16.81	33.38		24.338	359.8	0.109		
50			5.64	0.26	1.	0.00	0.0		50	15.63	33.25		24.508	343.7	0.180		
75			6.03	0.32	2.	0.10	0.3		75	12.84	33.18		25.038	293.2	0.260		
100			5.46	0.58	5.	0.01	4.6		100	11.10	33.36		25.503	248.9	0.328		
150			3.75	1.52	21.	0.00	20.1		125	10.23	33.52		25.780	222.6	0.388		
200			2.86	1.97	32.	0.00	27.0		150	9.68	33.74		26.044	197.5	0.441		
300			1.77						200	8.91	33.97		26.348	168.6	0.534		
400			1.02						250	8.36	34.09		26.527	151.6	0.616		
500			0.63						300	7.93	34.15		26.639	141.0	0.692		
									400	6.63	34.19		26.853	120.7	0.828		
									500	6.05	34.26		26.984	108.3	0.949		

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912							100070
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER		TIME		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
30 18.0N		119 28.0W		12/ 7/69		0250		GMT		3738M	330	15KT					
Z	T	S	U2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD		
0			5.52	0.24	1.	0.00	0.0		0	17.83	33.52		24.203	372.7	0.000		
10			5.58	0.24	1.	0.01	0.0		10	17.83	33.52		24.203	372.7	0.037		
20			5.05	0.26	1.	0.01	0.1		20	17.83	33.52		24.203	372.7	0.075		
35			5.51	0.26	1.	0.00	0.1		30	17.83	33.52		24.203	372.7	0.112		
50			5.50	0.24	1.	0.00	0.1		50	17.83	33.52		24.203	372.7	0.187		
75			5.88	0.29	2.	0.00	0.1		75	14.16	33.34		24.894	306.9	0.272		
100			5.38	0.50	5.	0.04	3.1		100	12.39	33.35		25.256	272.4	0.345		
150			4.38	1.16	14.	0.00	13.0		125	11.26	33.47		25.560	243.5	0.410		
200			3.10	1.87	28.	0.01	22.4		150	10.45	33.66		25.851	215.8	0.468		
300			2.13						200	9.36	33.95		26.260	177.0	0.568		
400			1.17						250	8.87	34.13		26.479	156.2	0.654		
500			0.51						300	8.16	34.15		26.604	144.3	0.731		
									400	6.75	34.13		26.790	126.7	0.872		
									500	6.58	34.32		26.962	110.3	0.998		

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912							100080
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER		TIME		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
30 01.0N		120 07.0W		12/ 7/69		0740		GMT		2227M	210	5KT					
Z	T	S	U2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD		
0			5.57	0.29	1.	0.01	0.0		0	17.58	33.41		24.179	375.0	0.000		
10			5.55	0.29	1.	0.00	0.0		10	17.58	33.41		24.179	375.0	0.038		
20			5.53	0.29	1.	0.00	0.0		20	17.58	33.41		24.179	375.0	0.075		
35			5.58	0.26	1.	0.00	0.0		30	17.58	33.41		24.179	375.0	0.113		
50			5.57	0.29	1.	0.00	0.0		50	17.58	33.41		24.179	375.0	0.188		
75			5.97	0.26	2.	0.00	0.0		75	14.04	33.37		24.942	302.3	0.273		
100			5.57	0.45	3.	0.11	1.3		100	12.50	33.43		25.297	268.5	0.345		
150			4.23	1.24	15.	0.02	13.4		125	11.10	33.57		25.666	233.4	0.408		
300			1.67						150	10.54	33.71		25.874	213.6	0.465		
400			0.71						200	9.62	34.03		26.280	175.1	0.564		
500			0.40						250	9.00	34.15		26.474	156.6	0.649		
									300	8.47	34.23		26.620	142.8	0.726		
									400	7.60	34.31		26.812	124.5	0.866		
									500	6.76	34.35		26.961	110.4	0.991		

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912							100090	
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES						
29 40.5N		120 47.0W		12/ 7/69		1240 GMT		4022M	330	14KT		350 6 6						
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	SIGT	DT	DD			
0			5.55	0.24	3.	0.00	0.0		0	17.45	33.41		24.210	372.0	0.000			
10			5.58	0.26	2.	0.00	0.0		10	17.45	33.41		24.210	372.0	0.037			
20			5.46	0.32	2.	0.00	0.0		20	17.45	33.41		24.210	372.0	0.074			
35			5.56	0.26	2.	0.00	0.0		30	17.45	33.41		24.210	372.0	0.112			
50			5.58	0.32	2.	0.00	0.0		50	15.85	33.22		24.435	350.6	0.184			
75			5.95	0.24	3.	0.00	0.0		75	13.67	33.20		24.887	307.5	0.267			
100			5.73	0.60	5.	0.04	3.2		100	12.90	33.36		25.281	270.0	0.340			
150			3.59	1.50	20.	0.00	15.0		125	11.00	33.54		25.661	233.9	0.403			
200			2.06	2.21	33.	0.00	20.8		150	10.59	33.87		26.025	199.3	0.458			
300			0.96						200	10.25	34.24		26.337	169.7	0.552			
400			0.58						250	9.83	34.33		26.478	156.2	0.636			
500			0.47						300	9.27	34.37		26.602	144.5	0.714			
									400	8.10	34.37		26.785	127.1	0.856			
									500	7.15	34.36		26.916	114.7	0.985			

RV DAVID STARR JORDAN						CALCOFI CRUISE 6912								103030	
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME			BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
31 06.0N		116 24.5W		12/ 8/69		2020 GMT			67M	260	1KT	0	330 4 8		
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	SIGT	DT	DD
									0	17.72	33.50		24.214	371.6	0.000
									10	17.65	33.49		24.223	370.8	0.037
									20	17.58	33.49		24.240	369.2	0.074
									30	16.57	33.24		24.287	364.7	0.111
									50	14.29	33.35		24.874	308.8	0.179

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912					103035		
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND	SPEED	WEATHER	DOMINANT WAVES				
30 56.0N		116 45.0W		12/ 8/69		1745 GMT		1664M		140	2KT	1	350 5 7				
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	SIGT	DT	DD		
									0	17.55	33.53		24.283	365.1	0.000		
									10	17.52	33.53		24.285	364.9	0.037		
									20	17.52	33.53		24.285	364.9	0.073		
									30	17.01	33.49		24.376	356.2	0.109		
									50	15.32	33.46		24.737	321.8	0.177		
									75	13.30	33.42		25.131	284.3	0.253		
									100	12.03	33.64		25.549	244.5	0.320		
									125	11.66	33.86		25.789	221.7	0.379		
									150	11.00	33.94		25.971	204.4	0.433		
									200	9.64	34.06		26.300	173.2	0.529		
									250	8.93	34.20		26.524	151.9	0.613		
									300	8.20	34.15		26.598	144.9	0.689		
									400	7.21	34.23		26.805	125.2	0.830		
									500	6.47	34.28		26.945	111.9	0.956		

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912					103040		
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND	SPEED	WEATHER	DOMINANT WAVES				
30 46.0N		117 04.5W		12/ 8/69		1512 GMT		1856M		340	4KT	1	290 7 7				
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	SIGT	DT	DD		
									0	17.67	33.49		24.218	371.2	0.000		
									10	17.67	33.49		24.218	371.2	0.037		
									20	17.52	33.44		24.216	371.4	0.074		
									30	16.12	33.34		24.466	347.6	0.110		
									50	14.00	33.38		24.958	300.8	0.175		
									75	12.61	33.48		25.314	266.9	0.247		
									100	11.26	33.70		25.738	226.5	0.309		
									125	10.86	33.66		25.934	207.9	0.364		
									150	10.48	34.04		26.141	188.2	0.414		
									200	9.73	34.16		26.363	167.2	0.505		
									250	9.02	34.25		26.549	149.5	0.586		
									300	8.47	34.31		26.682	136.9	0.660		
									400	7.65	34.34		26.828	123.0	0.796		
									500	6.16	34.26		26.970	109.6	0.920		

RV DAVID STARR JORDAN CALCOFI CRUISE 6912 103050

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
30 24.0N	117 44.0W	12/ 8/69	0939 GMT	2135M	330	4KT	1	
Z	T	S	O2	P04 S103	NO2 NO3	DT	Z	T S O2 SIGT DT DD
0	16.92	33.33						24.274 365.9 0.000
10	16.85	33.36						24.314 362.1 0.036
20	16.72	33.36						24.344 359.3 0.073
30	16.53	33.36						24.388 355.1 0.108
50	13.61	33.20						24.899 306.4 0.175
75	12.00	33.24						25.245 273.5 0.248
100	10.53	33.43						25.658 234.2 0.311
125	9.94	33.62						25.907 210.5 0.368
150	9.33	33.83						26.171 185.4 0.418
200	8.60	34.02						26.435 160.3 0.506
250	8.10	34.07						26.551 149.4 0.585
300	7.56	34.12						26.669 138.1 0.659
400	6.66	34.17						26.833 122.5 0.795
500	6.06	34.27						26.991 107.6 0.917

RV DAVID STARR JORDAN CALCOFI CRUISE 6912 103060

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
30 06.0N	118 25.0W	12/ 8/69	0435 GMT	3546M	330	4KT	1	
Z	T	S	O2	P04 S103	NO2 NO3	DT	Z	T S O2 SIGT DT DD
0	17.20	33.34						24.216 371.5 0.000
10	17.18	33.34						24.221 371.0 0.037
20	17.22	33.35						24.219 371.2 0.074
30	17.26	33.38						24.228 370.3 0.111
50	16.62	33.22						24.260 367.3 0.185
75	14.04	33.20						24.811 314.8 0.271
100	11.63	33.22						25.299 268.4 0.345
125	10.33	33.60						25.825 218.3 0.406
150	10.23	33.78						25.982 203.4 0.459
200	9.17	33.99						26.322 171.1 0.555
250	8.47	34.05						26.479 156.2 0.639
300	7.79	34.12						26.636 141.3 0.715
400	6.97	34.22						26.831 122.8 0.853
500	6.55	34.33						26.974 109.2 0.976

RV DAVID STARR JORDAN CALCOFI CRUISE 6912 103070

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
29 46.5N	119 04.5W	12/ 8/69	0005 GMT	3546M	330	14KT	2	330 6 6
Z	T	S	O2	P04 S103	NO2 NO3	DT	Z	T S O2 SIGT DT DD
0	17.60	33.57						24.296 363.8 0.000
10	17.55	33.57						24.308 362.6 0.036
20	17.53	33.57						24.313 362.2 0.073
30	17.50	33.57						24.320 361.5 0.109
50	14.04	33.23						24.834 312.6 0.177
75	12.22	33.30						25.250 273.0 0.250
100	10.97	33.51						25.643 235.6 0.314
125	10.27	33.67						25.890 212.1 0.371
150	9.97	33.91						26.128 189.5 0.422
200	9.60	34.11						26.345 168.9 0.513
250	8.92	34.16						26.494 154.7 0.596
300	7.89	34.11						26.613 143.4 0.673
400	7.36	34.29						26.831 122.8 0.812
500	6.52	34.34						26.986 108.1 0.934

RV DAVID STARR JORDAN CALCOFI CRUISE 6912 103080

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES
29 26.5N	119 43.0W	12/ 7/69	1926 GMT	3832M	350	12KT	1	49 7 6
Z	T	S	O2	P04 S103	NO2 NO3	DT	Z	T S O2 SIGT DT DD
0	17.33	33.34						24.185 374.4 0.000
10	17.32	33.34						24.188 374.2 0.037
20	17.33	33.34						24.185 374.4 0.075
30	17.33	33.35						24.193 373.7 0.112
50	14.60	33.24						24.724 323.1 0.182
75	11.85	33.34						25.351 263.4 0.256
100	11.01	33.62						25.721 228.2 0.318
125	10.79	33.79						25.892 211.9 0.374
150	10.69	33.92						26.011 200.6 0.426
200	9.75	34.11						26.320 171.2 0.521
250	9.20	34.21						26.489 155.2 0.605
300	8.20	34.11						26.767 147.8 0.683
400	7.13	34.26						26.840 121.9 0.823
500	6.48	34.31						26.967 109.8 0.946

RV DAVID STARR JORDAN						CALCOFI CRUISE 6912						107032			
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER		TIME	POTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
30 26.0N		116 11.0W		12/ 9/69		0152 GMT			390M	210	10KT	2	330 4 8		
Z	T	S	02	P04	S103	NO2	NO3	DT	Z	T	S	02	SIGT	DT	DD
									0	18.00	33.54		24.177	375.2	0.000
									10	18.00	33.54		24.177	375.2	0.038
									20	17.83	33.50		24.187	374.2	0.075
									30	16.71	33.40		24.477	356.1	0.112
									50	15.32	33.47		24.745	321.1	0.180
									75	13.63	33.55		25.165	281.1	0.255
									100	12.80	33.78		25.509	248.4	0.322
									125	11.71	33.90		25.810	219.7	0.381
									150	10.83	34.09		26.118	190.4	0.433
									200	10.03	34.13		26.289	174.2	0.526
									250	9.47	34.22		26.452	158.7	0.612
									300	9.17	34.24		26.517	152.6	0.692

RV DAVID STARR JORDAN						CALCOFI CRUISE 6912						107035			
LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME		POTOM	WIND	SPEED	WEATHER	DOMINANT WAVES						
30 21.5N	116 22.5W	12/ 9/69	0339	GMT	1757M	300	10KT	2							
Z	T	S	02	P04	S103	NO2	NO3	DT	Z	T	S	02	SIGT	DT	DD
									0	17.61	33.54		24.271	366.2	0.000
									10	17.59	33.55		24.283	365.0	0.037
									20	17.49	33.52		24.284	364.9	0.073
									30	16.26	33.42		24.496	344.8	0.109
									50	14.95	33.48		24.833	312.7	0.175
									75	12.77	33.42		25.236	274.3	0.248
									100	11.95	33.59		25.525	246.8	0.314
									125	10.91	33.80		25.879	213.2	0.372
									150	10.81	34.04		26.083	193.8	0.424
									200	9.89	34.16		26.336	169.8	0.517
									250	9.19	34.19		26.475	156.6	0.600
									300	8.47	34.24		26.627	142.1	0.678
									400	7.44	34.23		26.772	128.3	0.819
									500	6.43	34.29		26.958	110.7	0.945

RV DAVID STARR JORDAN						CALCOFI CRUISE 6912						107040			
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		POTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
30 11.0N		116 42.0W		12/ 9/69		0620 GMT		2602M	290	10KT	1				
Z	T	S	02	P04	S103	NO2	NO3	DT	Z	T	S	02	SIGT	DT	DD
									0	17.71	33.49		24.209	372.1	0.000
									10	17.72	33.49		24.206	372.4	0.037
									20	17.73	33.49		24.204	372.6	0.075
									30	16.31	33.38		24.454	348.8	0.111
									50	13.46	33.32		25.022	294.7	0.175
									75	11.88	33.45		25.430	255.8	0.244
									100	10.93	33.62		25.736	226.8	0.305
									125	10.42	33.76		25.934	207.9	0.360
									150	10.44	33.99		26.109	191.3	0.411
									200	9.34	34.15		26.419	161.8	0.501
									250	8.59	34.18		26.562	148.3	0.581
									300	7.66	34.14		26.670	138.0	0.655
									400	7.15	34.25		26.829	122.9	0.791
									500	6.59	34.35		26.984	108.2	0.913

RV DAVID STARR JORDAN						CALCOFI CRUISE 6912						107050			
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		POTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
29 50.5N		117 22.0W		12/ 9/69		1110 GMT		2416M	260	12KT					
Z	T	S	02	P04	S103	NO2	NO3	DT	Z	T	S	02	SIGT	DT	DD
									0	17.05	33.33		24.244	368.8	0.000
									10	17.05	33.33		24.244	368.8	0.037
									20	17.05	33.33		24.244	368.8	0.074
									30	17.05	33.36		24.267	366.6	0.111
									50	14.42	33.21		24.739	321.6	0.180
									75	12.37	33.26		25.190	278.7	0.255
									100	10.53	33.47		25.689	231.2	0.319
									125	10.14	33.73		25.959	205.6	0.375
									150	9.53	33.90		26.193	183.3	0.424
									200	9.27	34.15		26.431	160.8	0.512
									250	8.92	34.25		26.565	148.0	0.591
									300	8.51	34.33		26.692	136.0	0.665
									400	7.52	34.33		26.839	122.0	0.800
									500	6.49	34.35		26.998	106.9	0.921

107060

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME			BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
29 32.0N		118 01.5W		12/ 9/69		1416 GMT			3546M	330	18KT	1	330 5 6		
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	S16T	DT	DD
	0									17.99	33.57		24.202	372.8	0.000
	10									17.99	33.57		24.202	372.8	0.037
	20									17.99	33.58		24.209	372.1	0.075
	30									17.99	33.58		24.209	372.1	0.112
	50									16.40	33.15		24.257	367.6	0.186
	75									13.09	33.38		25.143	283.2	0.268
	100									11.90	33.56		25.512	248.1	0.335
	125									11.43	33.88		25.865	214.5	0.393
	150									10.83	34.01		26.056	196.3	0.445
	200									10.36	34.19		26.279	175.2	0.540
	250									9.59	34.28		26.479	156.1	0.625
	300									9.11	34.33		26.597	145.0	0.703
	400									7.96	34.35		26.791	126.6	0.846
	500									6.97	34.36		26.941	112.4	0.972

107070

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME			BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES		
29 11.0N		118 41.0W		12/ 9/69		2041 GMT			3169M		330		12KT		1		340 5 8		
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	SIGT	DT	DD				
									0	17.81	33.46		24.162	376.6	0.000				
									10	17.80	33.46		24.164	376.4	0.038				
									20	17.77	33.46		24.171	375.7	0.075				
									30	17.76	33.46		24.174	375.5	0.113				
									50	15.75	33.29		24.511	343.3	0.185				
									75	13.02	33.25		25.056	291.4	0.265				
									100	11.57	33.63		25.627	237.1	0.331				
									125	11.10	33.81		25.852	215.7	0.389				
									150	10.47	33.94		26.065	195.5	0.441				
									200	10.04	34.11		26.271	175.9	0.535				
									250	9.56	34.18		26.406	163.0	0.623				
									300	8.94	34.26		26.569	147.6	0.703				
									400	7.87	34.28		26.749	130.5	0.848				
									500	7.11	34.32		26.890	117.2	0.979				

1070R0

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND SPEED		WEATHER		DOMINANT WAVES		
28 51.5N		119 20.0W		12/10/69		0054 GMT		3738M		330 12KT		1		340 5 8		
Z	T	S	02	P04	SI03	NO2	NO3	DT	Z	T	S	02	SI6T	DT	DD	
	0	17.71	33.46						0	17.71	33.46		24.186	374.3	0.000	
	10	17.71	33.46						10	17.71	33.46		24.186	374.3	0.037	
	20	17.71	33.46						20	17.71	33.46		24.186	374.3	0.075	
	30	17.71	33.46						30	17.71	33.46		24.186	374.3	0.112	
	50	17.68	33.46						50	17.68	33.46		24.193	373.6	0.187	
	75	13.58	33.33						75	13.58	33.33		25.005	296.3	0.272	
	100	11.72	33.50						100	11.72	33.50		25.499	249.3	0.340	
	125	10.59	33.63						125	10.59	33.63		25.838	217.1	0.399	
	150	10.01	33.87						150	10.01	33.87		26.090	193.1	0.451	
	200	9.29	34.09						200	9.29	34.09		26.381	165.5	0.543	
	250	9.03	34.25						250	9.03	34.25		26.547	149.7	0.624	
	300	8.34	34.26						300	8.34	34.26		26.663	138.7	0.698	
	400	7.29	34.28						400	7.29	34.28		26.833	122.6	0.835	
	500	6.50	34.33						500	6.50	34.33		26.981	108.6	0.950	

110035

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES	
29 46.0N		116 00.0W		12/11/69		0631 GMT		1114M		010		6KT		1			
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	S1GT	DT	DD		
0			5.57	0.32	3.	0.04	0.0		0	17.19	33.61		24.425	351.5	0.000		
10			5.61	0.34	3.	0.02	0.0		10	17.16	33.61		24.432	350.9	0.035		
20			5.51	0.29	3.	0.05	0.0		20	16.87	33.56		24.462	348.0	0.070		
35			5.16	0.45	5.	0.40	0.8		30	16.51	33.56		24.546	340.0	0.105		
50			4.85	0.55	5.	0.20	2.9		50	15.60	33.60		24.782	317.5	0.171		
75			4.37	0.87	9.	0.02	6.7		75	12.96	33.65		25.377	260.9	0.243		
100			3.24	1.60	18.	0.01	14.4		100	12.12	33.80		25.656	234.4	0.306		
150			2.15	2.16	28.	0.00	19.7		125	11.78	33.96		25.844	216.5	0.363		
200			2.00	2.34	35.	0.00	23.1		150	11.16	34.07		26.043	197.5	0.415		
300			1.31						200	9.90	34.25		26.404	163.3	0.507		
400			0.81						250	9.49	34.29		26.504	153.8	0.589		
500			0.54						300	8.80	34.29		26.615	143.2	0.666		
									400	7.61	34.31		26.811	124.7	0.806		
									500	6.44	34.33		26.988	107.8	0.922		

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912										110040
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES				
29 36.5N		116 19.5W		12/11/69		0327 GMT		2509M		350		KT		1		350 5 4				
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	S1GT	DT	DD					
0			5.57	0.24	2.	0.00	0.1		0	17.87	33.54		24.208	372.2	0.000					
10			5.56	0.24		0.00			10	17.87	33.54		24.208	372.2	0.037					
20			5.56	0.24	2.	0.00			20	17.87	33.54		24.208	372.2	0.075					
35			5.52	0.18	2.	0.00	0.0		30	17.87	33.54		24.208	372.2	0.112					
50			5.69	0.26	2.	0.03	0.0		50	15.25	33.40		24.706	324.7	0.162					
75			5.40	0.47	4.	0.03	2.3		75	13.12	33.45		25.191	278.6	0.258					
100			3.98	1.13	12.	0.00	11.9		100	12.18	33.72		25.582	241.4	0.323					
150			3.07	1.71	23.	0.00	21.3		125	11.43	33.91		25.870	214.0	0.381					
200			2.70	2.09	32.	0.00	26.2		150	10.57	33.92		26.032	198.6	0.433					
300			1.21						200	9.22	34.03		26.345	168.9	0.527					
400			0.82						250	9.04	34.24		26.538	150.6	0.609					
500			0.44						300	8.68	34.29		26.634	141.5	0.684					
									400	7.10	34.24		26.828	123.0	0.822					
									500	6.38	34.32		26.989	107.8	0.945					

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912										110050
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES				
29 16.5N		116 59.0W		12/10/69		2125 GMT		3642M		340		16KT		1		340 6 8				
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	S1GT	DT	DD					
0			5.67	0.26	2.	0.00	0.0		0	17.73	33.52		24.227	370.4	0.000					
10			5.55	0.21	2.	0.00	0.0		10	17.73	33.52		24.227	370.4	0.037					
20			5.49	0.21	2.	0.00	0.0		20	17.67	33.52		24.241	369.0	0.074					
35			5.50	0.24	3.	0.02	0.1		30	15.62	33.42		24.640	331.0	0.109					
50			5.45	0.45	5.	0.16	1.4		50	13.61	33.39		25.046	292.4	0.172					
75			4.72	0.82	9.	0.02	7.4		75	12.05	33.52		25.452	253.7	0.240					
100			4.28	1.10	14.	0.00	12.1		100	10.73	33.61		25.763	224.2	0.301					
150			2.61	2.00	29.	0.00	24.8		125	10.48	33.82		25.970	204.5	0.355					
200			2.56	2.05	35.	0.00	26.2		150	10.26	33.98		26.133	189.1	0.405					
300			1.16						200	9.37	34.16		26.422	161.6	0.494					
400			0.67						250	9.00	34.26		26.560	148.5	0.574					
500			0.49						300	8.38	34.28		26.672	137.8	0.648					
									400	7.46	34.34		26.856	120.4	0.783					
									500	6.46	34.33		26.986	108.1	0.904					

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912										110060
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES				
28 56.5N		117 39.0W		12/10/69		1604 GMT		3546M		010		10KT		1		350 6 8				
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	S1GT	DT	DD					
0			5.53	0.18	2.	0.00	0.1		0	17.78	33.58		24.260	367.2	0.000					
10			5.53	0.21	2.	0.00	0.0		10	17.78	33.58		24.260	367.2	0.037					
20			5.50	0.21	2.	0.00	0.0		20	17.78	33.58		24.260	367.2	0.074					
35			5.54	0.21	2.	0.00	0.1		30	17.78	33.58		24.260	367.2	0.110					
50			5.72	0.39	4.	0.04	0.4		50	13.77	33.29		24.936	302.9	0.178					
75			4.83	0.53	8.	0.04	6.6		75	12.29	33.56		25.438	255.1	0.248					
100			3.51	1.45	18.	0.00	16.1		100	11.65	33.82		25.760	224.5	0.308					
150			1.69	2.24	31.	0.03	26.4		125	11.66	34.07		25.951	206.3	0.363					
200			1.65	2.34	34.	0.00	27.9		150	11.41	34.15		26.060	196.0	0.414					
300			1.30						200	10.84	34.20		26.202	182.5	0.510					
400			0.75						250	10.32	34.27		26.348	168.6	0.601					
500			0.68						300	9.73	34.33		26.495	154.6	0.684					
									400	8.45	34.35		26.716	133.6	0.835					
									500	7.26	34.35		26.892	116.9	0.968					

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912										110070
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES				
28 36.5N		118 18.0W		12/10/69		1045 GMT		3642M		330		16KT				340 5 8				
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	S1GT	DT	DD					
									0	17.75	33.51		24.214	371.6	0.000					
									10	17.75	33.51		24.214	371.6	0.037					
									20	17.75	33.51		24.214	371.6	0.074					
									30	17.75	33.51		24.214	371.6	0.112					
									50	16.02	33.33		24.481	346.2	0.184					
									75	13.15	33.36		25.115	285.8	0.263					
									100	11.58	33.58		25.587	241.0	0.329					
									125	10.71	33.74		25.868	214.2	0.387					
									150	10.07	33.96		26.150	187.4	0.438					
									200	9.41	34.13		26.392	164.4	0.528					
									250	8.98	34.23		26.540	150.4	0.609					
									300	8.66	34.29		26.637	141.2	0.684					
									400	7.59	34.32		26.822	123.7	0.823					
									500	6.53	34.33		26.977	108.9	0.946					

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912							110070
LATITUDE 28 36.5N		LONGITUDE 118 18.0W		MO/DAY/YR 12/10/69		MESSENGER 1115 GMT		TIME	BOTTOM 3642M	WIND 330	SPEED 16KT	WEATHER	DOMINANT WAVES 340 5 8				
Z	T	S	O2	P04	SI03	N02	N03	DT	Z	T	S	O2	SI6T	DT	DD		
0	17.67	33.488	5.76	0.18	1.	0.00	0.1	371.4									
10	17.67	33.488	5.86	0.18	1.	0.00	0.0	371.4									
39	17.67		5.44	0.18	2.	0.00	0.1										
59	15.30	33.375	5.66	0.34	3.	0.27	0.3	327.6									
79	12.56		4.89	0.74	8.	0.03	6.7										
108	11.14		4.20	1.21	15.	0.00	14.9										
153	9.92		2.88	1.84	28.	0.03	24.3										
202	9.28	34.130	2.31	2.16	37.	0.06	30.2	162.4									
249	8.90		1.73														
304	8.53		1.31														
402	7.56		0.99														
506	6.50	34.336	0.86					108.1									

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912										110080
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER		TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES							
28 16.5N		118 57.5W		12/10/69		0526 GMT			3832M	330	10KT		340 5 8							
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SI6T	DT	DD					
0			5.54	0.21	2.	0.00	0.0		0	17.75	33.49		24.199	373.1	0.000					
10			5.53	0.24	2.	0.00	0.0		10	17.75	33.49		24.199	373.1	0.037					
20			5.51	0.21	2.	0.00	0.0		20	17.75	33.49		24.199	373.1	0.075					
35			5.51	0.21	2.	0.01	0.0		30	17.75	33.49		24.199	373.1	0.112					
50			5.51	0.21	2.	0.00	0.0		50	16.41	33.40		24.446	349.5	0.185					
75			5.74	0.36	3.	0.14	0.1		75	13.56	33.37		25.040	292.9	0.265					
100			5.52	0.50	5.	0.05	2.6		100	12.09	33.39		25.344	264.0	0.335					
150			4.00	1.34	19.	0.02	16.2		125	10.96	33.57		25.691	231.0	0.398					
200			2.78	1.95	31.	0.07	24.0		150	10.29	33.71		25.917	209.5	0.454					
300			1.98						200	9.66	34.03		26.273	175.7	0.552					
400			0.83						250	8.67	34.10		26.487	155.4	0.637					
500			0.61						300	8.43	34.22		26.618	143.0	0.714					
									400	7.25	34.26		26.823	123.5	0.853					
									500	6.55	34.30		26.977	108.9	0.976					

RV DAVID STARR JORDAN						CALCOFI CRUISE 6912										113030	
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER		TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES				
29 22.0N		115 18.0W		12/11/69		1430		GMT	60M	350	8KT	0	290 4 6				
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SI6T	DT	DD		
									0	16.85	33.62		24.512	343.2	0.000		
									10	16.80	33.61		24.516	342.8	0.034		
									20	16.79	33.61		24.519	342.6	0.069		
									30	16.43	33.57		24.572	337.6	0.103		
									50	15.67	33.59		24.759	319.7	0.169		

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912						113035	
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER		TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES				
29 11.5N		115 38.0W		12/11/69		1700 GMT			1295M	170	6KT	0	320 4 7				
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SI6T	DT	DD		
									0	18.76	34.05		24.377	356.1	0.000		
									10	18.79	34.06		24.377	356.1	0.036		
									20	18.81	34.07		24.380	355.8	0.071		
									30	18.81	34.07		24.380	355.8	0.107		
									50	15.25	33.57		24.837	312.3	0.174		
									75	14.00	33.66		25.173	280.3	0.248		
									100	11.94	33.72		25.628	237.0	0.314		
									125	11.84	34.04		25.895	211.7	0.370		
									150	11.47	34.10		26.010	200.7	0.423		
									200	10.70	34.28		26.289	174.2	0.519		
									250	10.19	34.38		26.456	158.3	0.604		
									300	9.37	34.40		26.609	143.8	0.683		
									400	7.81	34.31		26.782	127.4	0.825		
									500	6.96	34.34		26.926	113.7	0.952		

RV DAVID STARR JORDAN								CALCOFI CRUISE 6912					113040			
LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER		TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES						
29 02.0N	115 57.0W	12/11/69	2005	GMT		1856M	290	10KT	0	320 4 6						
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SI6T	DT	DD	
									0	18.15	33.75		24.300	363.4	0.000	
									10	18.14	33.75		24.302	363.2	0.036	
									20	18.14	33.75		24.302	363.2	0.073	
									30	18.13	33.76		24.312	362.2	0.109	
									50	17.25	33.74		24.510	343.4	0.180	
									75	14.62	33.63		25.019	294.9	0.260	
									100	13.23	33.78		25.423	256.5	0.330	
									125	11.54	33.97		25.896	211.5	0.389	
									150	11.27	34.08		26.031	198.7	0.441	
									200	10.48	34.29		26.335	169.8	0.535	
									250	9.90	34.33		26.466	157.3	0.619	
									300	9.21	34.37		26.612	143.5	0.697	
									400	8.11	34.33		26.753	130.2	0.841	
									500	7.15	34.35		26.908	115.5	0.971	

117030

RV DAVID STARR JORDAN						CALCOFI CRUISE 6912								
LATITUDE	LONGITUDE	MO/DAT/YR	MESSENGER TIME		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES					
28 48.0N	114 56.5W	12/14/69	0434 GMT		99M	310	8KT	1						
Z	T	S	02	P04 S103	N02 N03	DT	Z	T	S	02	SIGT	DT	DD	
							0	18.13	33.74		24.297	363.7	0.000	
							10	18.12	33.75		24.307	362.7	0.036	
							20	18.07	33.74		24.312	362.3	0.073	
							30	17.95	33.72		24.326	361.0	0.109	
							50	15.20	33.40		24.717	323.7	0.178	
							75	14.00	33.66		25.173	280.3	0.254	

117035

RV DAVID STARR JORDAN						CALCOFI CRUISE 6912									
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
28 38.0N		115 16.0W		12/14/69		0207 GMT		205M	280	4KT	1				
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	SIGT	DT	DD
									0	18.47	33.79		24.451	368.1	0.000
									10	18.35	33.78		24.278	365.5	0.037
									20	18.32	33.78		24.281	365.2	0.073
									30	18.27	33.77		24.286	364.8	0.110
									50	17.00	33.56		24.431	350.9	0.182
									75	14.75	33.61		24.980	298.6	0.263
									100	12.97	33.70		25.413	257.4	0.333
									125	12.34	33.95		25.730	227.3	0.395
									150	11.72	34.02		25.902	211.0	0.450

117040

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912					
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES			
28 28.0N		115 35.5W		12/13/69		1310 GMT		1040M	030	3KT	0				
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	SIGT	DT	DD
									0	17.93	33.71		24.323	361.2	0.000
									10	17.93	33.71		24.323	361.2	0.036
									20	17.93	33.71		24.323	361.2	0.072
									30	17.93	33.71		24.323	361.2	0.109
									50	17.75	33.68		24.344	359.2	0.181
									75	13.83	33.60		25.162	281.3	0.261
									100	12.33	33.86		25.662	233.8	0.326
									125	11.62	34.01		25.912	210.0	0.382
									150	11.24	34.05		26.013	200.4	0.435
									200	10.77	34.22		26.230	179.8	0.532
									250	10.06	34.33		26.439	159.9	0.619
									300	9.05	34.32		26.599	144.8	0.698
									400	7.86	34.33		26.790	126.6	0.840
									500	7.05	34.35		26.922	114.2	0.968

117050

RV DAVID STARR JORDAN						CALCOFI CRUISE 6912					DOMINANT WAVES			
LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME		BOTTOM	WIND	SPEED	WEATHER						
28 08.0N	116 15.0W	12/13/69	0813	GMT	4309M	030	3KT	1						
Z	T	S	02	P04 S103	N02 N03	DT	Z	T	S	02	SIGT	DT	DD	
							0	18.02	33.63		24.240	369.1	0.000	
							10	18.02	33.63		24.240	369.1	0.037	
							20	18.05	33.68		24.271	366.2	0.074	
							30	18.09	33.71		24.284	364.9	0.110	
							50	17.52	33.60		24.338	359.8	0.183	
							75	13.47	33.41		25.089	288.3	0.265	
							100	11.74	33.63		25.596	240.1	0.331	
							125	10.97	33.94		25.977	203.9	0.387	
							150	10.83	34.12		26.141	188.2	0.437	
							200	10.27	34.32		26.395	164.1	0.527	
							250	9.51	34.38		26.571	147.5	0.607	
							300	9.30	34.43		26.644	140.5	0.682	
							400	7.57	34.36		26.856	120.4	0.819	
							500	6.76	34.38		26.985	108.1	0.940	

117060

RV DAVID STARR JORDAN					CALCOFI CRUISE 6912					DOMINANT WAVES				
LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME		BOTTOM	WIND	SPEED	WEATHER						
27 47.0N	116 53.0W	12/13/69	0404	GMT	3642M	020	8KT							
Z	T	S	02	P04 S103	N02 N03	DT	Z	T	S	02	SIGT	DT	DD	
							0	18.16	33.55		24.145	378.2	0.000	
							10	18.16	33.55		24.145	378.2	0.038	
							20	18.16	33.55		24.145	378.2	0.076	
							30	18.15	33.55		24.147	378.0	0.114	
							50	18.12	33.55		24.155	377.3	0.189	
							75	14.22	33.38		24.912	305.2	0.275	
							100	12.15	33.43		25.368	261.8	0.347	
							125	10.93	33.61		25.728	227.5	0.408	
							150	9.93	33.82		26.064	195.6	0.462	
							200	9.34	34.12		26.396	164.1	0.554	
							250	8.66	34.13		26.512	153.0	0.635	
							300	8.18	34.25		26.679	137.1	0.710	
							400	7.47	34.32		26.839	122.0	0.846	
							500	6.62	34.36		26.988	107.8	0.967	

117070

RV DAVIU STARR JORDAN										CALCOFI CRUISE 6912				DOMINANT WAVES			
LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME		BOTTOM	WIND	SPEED	WEATHER						020	6	9	
27 27.0N	117 32.5W	12/12/69	2330	GMT	3926M	330	8KT	1									
Z	T	S	O2	P04	S103	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD		
0	18.19	33.55							0	18.19	33.55		24.138	378.9	0.000		
10	18.15	33.56							10	18.15	33.56		24.155	377.2	0.038		
20	18.15	33.56							20	18.15	33.56		24.155	377.2	0.076		
30	18.15	33.56							30	18.15	33.56		24.160	376.8	0.113		
50	16.15	33.45							50	16.15	33.45		24.348	339.8	0.185		
75	14.65	33.45							75	14.65	33.45		24.875	308.7	0.267		
100	13.36	33.49							100	13.36	33.49		25.173	280.3	0.341		
125	11.68	33.54							125	11.68	33.54		25.537	245.7	0.407		
150	10.84	33.66							150	10.84	33.66		25.783	222.3	0.467		
200	9.56	33.95							200	9.56	33.95		26.227	180.1	0.569		
250	9.00	34.12							250	9.00	34.12		26.451	158.9	0.656		
300	8.22	34.17							300	8.22	34.17		26.611	143.6	0.734		
400	7.10	34.23							400	7.10	34.23		26.820	123.8	0.874		
500	6.62	34.34							500	6.62	34.34		26.972	109.3	0.997		

117080

RV DAVIU STARR JORDAN										CALCOFI CRUISE 6912				DOMINANT WAVES			
LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME		BOTTOM	WIND	SPEED	WEATHER						030	6	8	
27 08.0N	118 10.5W	12/12/69	1910	GMT	4309M	030	9KT	2									
Z	T	S	O2	P04	S103	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD		
0	18.56	33.72							0	18.56	33.72		24.176	375.3	0.000		
10	18.54	33.72							10	18.54	33.72		24.181	374.8	0.038		
20	18.54	33.72							20	18.54	33.72		24.181	374.8	0.075		
30	18.54	33.72							30	18.54	33.72		24.181	374.8	0.113		
50	18.54	33.72							50	18.54	33.72		24.181	374.8	0.188		
75	16.21	33.67							75	16.21	33.67		24.699	325.5	0.276		
100	15.12	33.69							100	15.12	33.69		24.957	300.8	0.355		
125	13.45	33.65							125	13.45	33.65		25.282	269.9	0.427		
150	11.61	33.60							150	11.61	33.60		25.597	240.0	0.491		
200	10.17	33.92							200	10.17	33.92		26.101	192.0	0.601		
250	9.21	34.11							250	9.21	34.11		26.409	162.8	0.692		
300	8.68	34.20							300	8.68	34.20		26.564	148.1	0.773		
400	7.20	34.21							400	7.20	34.21		26.791	126.6	0.916		
500	6.41	34.31							500	6.41	34.31		26.977	108.9	1.040		

118039

RV DAVIU STARR JORDAN										CALCOFI CRUISE 6912				DOMINANT WAVES			
LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME		BOTTOM	WIND	SPEED	WEATHER						320	4	11	
28 18.5N	115 24.0W	12/13/69	1505	GMT	266M	020	2KT	1									
Z	T	S	O2	P04	S103	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD		
0	18.54	33.89							0	18.54	33.89		24.310	362.4	0.000		
10	18.45	33.89							10	18.45	33.89		24.333	360.3	0.036		
20	18.45	33.89							20	18.45	33.89		24.333	360.3	0.072		
30	18.45	33.89							30	18.45	33.89		24.333	360.3	0.108		
50	17.80	33.70							50	17.80	33.70		24.347	358.9	0.181		
75	15.02	33.74							75	15.02	33.74		25.018	295.1	0.263		
100	12.75	33.67							100	12.75	33.67		25.434	255.5	0.332		
125	11.63	33.93							125	11.63	33.93		25.849	216.0	0.392		
150	11.90	34.09							150	11.90	34.09		26.033	198.5	0.444		
200	10.32	34.26							200	10.32	34.26		26.340	169.3	0.538		

118039

RV DAVIU STARR JORDAN										CALCOFI CRUISE 6912				DOMINANT WAVES			
LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME		BOTTOM	WIND	SPEED	WEATHER						320	4	11	
28 18.5N	115 24.0W	12/13/69	1540	GMT	266M	020	2KT	1									
Z	T	S	O2	P04	S103	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD		
0	18.50	33.877	5.36	0.39	2.	0.02	0.2	362.4	0	18.50	33.877						
10	18.36	33.872	5.46	0.32	2.	0.01	0.2	359.5	10	18.36	33.872						
40	18.36		5.38	0.29	2.	0.03	0.1		40	18.36							
59	15.43	33.729	4.32	0.82	8.	0.02	6.0	304.4	59	15.43	33.729						
79	14.48		4.27	0.89	9.	0.05	6.8		79	14.48							
109	12.06		4.01	1.21	14.	0.02	12.7		109	12.06							
124	11.66		2.94	1.68	21.	0.01	19.6		124	11.66							
148	11.34		2.25	2.02	27.	0.01	24.6		148	11.34							
171	11.03	34.134	1.99	2.13	31.	0.09	26.0	190.6	171	11.03	34.134						
196	10.37	34.232	1.49	2.47	38.	0.03	29.6	172.2	196	10.37	34.232						

119033

RV DAVIU STARR JORDAN										CALCOFI CRUISE 6912				DOMINANT WAVES			
LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME		BOTTOM	WIND	SPEED	WEATHER						320	4	6	
28 19.0N	114 53.0W	12/14/69	1612	GMT	112M	320	11KT	1									
Z	T	S	O2	P04	S103	NO2	NO3	DT	Z	T	S	O2	SIGT	DT	DD		
0	18.84	33.69							0	18.84	33.69		24.083	384.1	0.000		
10	18.80	33.69							10	18.80	33.69		24.093	383.2	0.038		
20	18.80	33.69							20	18.80	33.69		24.093	383.2	0.077		
30	18.80	33.70							30	18.80	33.70		24.100	382.5	0.115		
50	17.93	33.61							50	17.93	33.61		24.247	368.5	0.190		
75	14.97	33.56							75	14.97	33.56		24.890	307.2	0.275		

RV DAVID STARR JORDAN

CALCOFI CRUISE 6912

119033

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER		TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
28 19.0N		114 53.0W		12/14/69		1645		GMT	112M	320	11KT	1	320 4 6		
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	S10T	DT	DD
0	18.10	33.683	5.41	0.16	4.	0.14	0.1	367.1							
10	18.07	33.678	5.39	0.21	4.	0.23	0.0	366.8							
24	18.07		5.36	0.18	4.	0.22	0.0								
34	18.06		5.27	0.18	4.	0.22	0.1								
44	18.07		5.21	0.13	3.	0.33	0.4								
58	17.24	33.691	4.90	0.42	5.	0.05	2.6	346.8							
73	15.07	33.607	4.31	0.82	8.	0.01	6.6	305.8							
98	12.86	33.708	2.48	1.81	21.	0.02	17.0	254.8							

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6912

120045

	LATITUDE	LONGITUDE	MO/DAT/YR	MESSENGER	TIME	POTOM	WIND	SPEED	WEATHER	DOMINANT WAVES					
	27 43.0N	115 33.0W	12/ 6/69	1515	GMT	2490M	060	9KT	1	010 3 4					
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	S10T	DT	DD
2	20.56	34.403	5.12					374.9	0	20.56	34.403	5.12	24.179	374.9	0.000
13	20.56	34.397	5.12					375.4	10	20.56	34.399	5.12	24.175	375.3	0.038
32	20.52	34.386	5.13					375.2	20	20.55	34.394	5.12	24.175	375.3	0.075
42	16.09	33.618	5.56					326.6	30	20.52	34.388	5.13	24.176	375.2	0.113
50	14.93	33.621	5.11					301.9	50	14.93	33.621	5.11	24.946	301.9	0.181
65	14.18	33.745	4.18					277.6	75	14.15	33.987	3.00	25.392	259.5	0.251
80	14.14	34.092	2.44					251.4	100	13.86	34.189	1.94	25.610	238.7	0.314
100	13.86	34.189	1.94					238.7	125	12.02	34.122	2.13	25.924	208.8	0.371
124	12.04	34.115	2.16					209.7	150	11.64	34.256	1.60	26.100	192.2	0.422
143	11.78	34.242	1.59					195.7	200	10.44	34.318	1.41	26.363	167.1	0.514
173	11.09	34.264	1.65					182.0	250	9.83	34.407	0.99	26.538	150.5	0.595
202	10.40	34.322						166.1	300	9.00	34.354	0.91	26.832	141.6	0.671
231	10.21	34.421	1.07					155.6	400	7.79	34.351	0.54	26.817	124.1	0.810
270	9.38	34.370	0.94					146.2	500	6.80	34.366	0.36	26.968	109.7	0.934
330	8.70	34.346	0.88					137.6							
402	7.76	34.351	0.53					123.7							
474	7.03	34.359	0.42					113.2							
548	6.41	34.361	0.23					103.6							

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6912

120050

LATITUDE		LONGITUDE		MO/DA/YR		MESSENGER			TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
27 33.0N		115 52.5W		12/ 7/69		1356			GMT	4078M	280	10KT	1	280 3 6		
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	SIGT	DT	DD	
1	18.81	33.822	5.21					373.8	0	18.81	33.822	5.21	24.191	373.8	0.000	
11	18.81	33.812	5.41					374.6	10	18.81	33.814	5.40	24.184	374.5	0.037	
31	18.81	33.810	5.40					374.7	20	18.81	33.813	5.41	24.182	374.6	0.075	
39	18.80	33.808	5.44					374.6	30	18.81	33.812	5.40	24.182	374.7	0.113	
50	16.60	33.702	5.31					331.7	50	16.60	33.702	5.31	24.633	331.7	0.183	
65	14.03	33.557	5.07					288.4	75	13.09	33.603	4.53	25.313	267.0	0.259	
79	12.84	33.633	4.29					259.9	100	12.03	33.783	3.53	25.660	238.0	0.322	
100	12.03	33.783	3.53					234.0	125	11.37	33.969	2.72	25.927	208.6	0.378	
125	11.37	33.969	2.72					208.6	150	10.73	34.098	2.37	26.141	188.3	0.428	
144	10.76	34.045	2.51					192.5	200	10.40	34.341	1.33	26.389	164.7	0.518	
174	10.62	34.259	1.76					174.4	250	10.01	34.498	0.57	26.578	146.7	0.599	
203	10.37	34.348	1.28					163.7	300	9.34	34.490	0.41	26.684	136.6	0.672	
232	10.21	34.478	0.65					151.4	400	7.90	34.422	0.29	26.855	120.4	0.807	
272	9.72	34.493	0.48					142.4	500	6.77	34.380	0.27	26.982	108.4	0.929	
331	8.90	34.477	0.37					130.9								
405	7.83	34.417	0.29					119.8								
478	6.99	34.382	0.28					111.0								
555	6.31	34.387	0.21					101.9								

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6912

120055

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME			BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
27 23.0N		116 12.0W		12/ 7/69		2326 GMT			3832M	330	16KT	1	330 3 5		
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	S10T	DT	DD
									0	18.17	33.72		24.272	366.1	0.000
									10	18.17	33.72		24.272	366.1	0.037
									20	18.18	33.71		24.262	367.0	0.073
									30	18.18	33.71		24.262	367.0	0.110
									50	16.92	33.61		24.488	345.5	0.182
									75	13.83	33.62		25.178	279.9	0.260
									100	11.67	33.61		25.593	240.3	0.326
									125	10.81	33.82		25.912	210.0	0.383
									150	10.60	34.19		26.237	179.2	0.432
									200	10.20	34.44		26.501	154.1	0.517
									250	9.62	34.49		26.638	141.0	0.593
									300	9.15	34.50		26.723	133.0	0.665
									400	8.26	34.53		26.886	117.5	0.797
									500	6.76	34.42		27.016	105.2	0.915

RV ALEXANDER AGASSIZ										CALCOFI CRUISE 6912										120055
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND	SPEED	WEATHER	DOMINANT WAVES							
27 23.0N		116 12.0W		12/ 8/69		0024 GMT		3832M		330	16KT	1	330 3 5							
Z	T	S	Q2	P04	S103	N02	N03	DT	Z	T	S	Q2	SIGT	DT	DD					
2	18.14	33.609	5.51					373.4												
12	18.14	33.627	5.51					372.1												
32	18.12	33.604	5.50					373.4												
42	17.01		5.36																	
52	15.07		5.04																	
66	13.77		5.10																	
82	12.79		4.63																	
101	11.26		4.26																	
127	10.77		3.29																	
145	10.40		2.72																	
176	10.50		1.75																	
206	10.27		1.05																	
235	10.03																			
275	9.32		0.76																	
334	8.75		0.52																	
408	8.18	34.497	0.22					118.8												
482	7.01	34.399	0.24					110.0												
561	6.17		0.31																	

RV ALEXANDER AGASSIZ										CALCOFI CRUISE 6912										120600
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND	SPEED	WEATHER	DOMINANT WAVES							
27 13.0N		116 31.0W		12/ 8/69		1209 GMT		3869M		020	10KT	1	020 3 5							
Z	T	S	Q2	P04	S103	N02	N03	DT	Z	T	S	Q2	SIGT	DT	DD					
									0	18.74	33.84		24.222	370.8	0.000					
									10	18.74	33.84		24.222	370.8	0.037					
									20	18.76	33.84		24.217	371.3	0.074					
									30	18.76	33.84		24.217	371.3	0.111					
									50	15.97	32.46		24.741	321.4	0.161					
									75	13.13	33.45		25.189	278.8	0.256					
									100	11.86	33.75		25.666	233.4	0.321					
									125	11.42	34.10		26.019	199.6	0.376					
									150	10.92	34.25		26.226	180.1	0.424					
									200	10.57	34.38		26.590	164.6	0.512					
									250	9.82	34.40		26.935	150.9	0.594					
									300	9.28	34.45		26.663	138.7	0.669					
									400	7.91	34.59		26.829	122.9	0.806					
									500	6.88	34.39		26.979	108.7	0.929					

RV ALEXANDER AGASSIZ						CALCOFI CRUISE 6912						120065			
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND	SPEED	WEATHER	DOMINANT WAVES		
27 13.0N		116 31.0W		12/ 8/69		1310 GMT		3869M		020	10KT	1	020 3 5		
Z	T	S	Q2	P04	S103	N02	N03	DT	Z	T	S	Q2	SIGT	DT	DD
1	18.64	33.725	5.30					376.8							
11	18.64	33.722	5.42					377.0							
30	13.64		5.40												
40	13.02	33.653	5.48					367.5							
51	14.83		5.68												
66	13.92		5.17												
90	12.50		5.03												
100	12.29		3.39												
124	11.60		2.47												
144	11.22		2.07												
173	10.75		1.69												
202	10.46		1.29												
232	10.12		1.08												
271	9.67		0.98												
329	8.92		0.41												
402	7.94	34.405	0.46					122.2							
475	7.17	34.400	0.24					112.0							
553	6.40		0.29												

RV ALEXANDER AGASSIZ										CALCOFI CRUISE 6912										120070
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND	SPEED	WEATHER	DOMINANT WAVES							
26 53.0N		117 10.0W		12/ 8/69		2351 GMT		4078M		330	15KT	2	330 6 9							
Z	T	S	Q2	P04	S103	N02	N03	DT	Z	T	S	Q2	SIGT	DT	DD					
									0	18.93	33.86		24.190	373.9	0.000					
									10	18.95	33.86		24.184	374.4	0.037					
									20	18.92	33.86		24.192	373.7	0.075					
									30	18.92	33.86		24.192	373.7	0.112					
									50	19.02	33.90		24.197	373.2	0.187					
									75	15.05	33.58		24.888	307.4	0.273					
									100	12.41	33.56		25.415	257.3	0.344					
									125	11.25	33.61		25.670	233.0	0.406					
									150	10.44	33.76		25.930	208.3	0.462					
									200	9.82	34.10		26.301	173.1	0.559					
									250	10.20	34.47		26.524	151.8	0.643					
									300	9.48	34.44		26.622	142.5	0.719					
									400	7.72	34.34		26.818	124.0	0.859					
									500	6.69	34.33		26.955	111.0	0.983					

RV ALEXANDER AGASSIZ						CALCOFI CRUISE 6912						120070			
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND	SPEED	WEATHER	DOMINANT WAVES		
26 53.0N		117 10.0W		12/ 9/69		0040 GMT		4078M		330	15KT	2	330 6 9		
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	S16T	DT	DD
1	18.99	33.782	5.34					381.1							
11	18.99	33.786	5.37					380.8							
32	19.01		5.39												
56	18.94	33.791	5.37					379.2							
66	15.74		5.47												
76	13.91		5.64												
91	12.55		5.16												
106	11.66		4.85												
131	10.85		4.19												
151	10.31		3.57												
176	9.95		3.00												
205	10.13		1.94												
235	10.54		0.79												
275	9.86		0.53												
334	9.07		0.42												
407	7.72	34.379	0.41					121.1							
481	6.85	34.371	0.28					109.7							
559	6.21		0.20												

RV ALEXANDER AGASSIZ								CALCOFI CRUISE 6912								120080
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND	SPEED	WEATHER	DOMINANT WAVES			
26 33.0N		117 49.0W		12/ 9/69		1315 GMT		4021M		330	11KT	1				
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	S16T	DT	DD	
									0	18.46	33.69		24.178	375.1	0.000	
									10	18.47	33.69		24.175	375.3	0.038	
									20	18.47	33.69		24.175	375.3	0.075	
									30	18.48	33.69		24.173	375.6	0.113	
									50	18.46	33.69		24.178	375.1	0.188	
									75	17.43	34.05		24.704	325.0	0.276	
									100	15.46	33.87		25.021	294.8	0.354	
									125	13.10	33.76		25.434	255.5	0.424	
									150	11.64	33.71		25.676	232.4	0.486	
									200	9.63	34.01		26.262	176.7	0.590	
									250	8.88	34.14		26.485	155.6	0.675	
									300	8.61	34.22		26.590	145.6	0.753	
									400	7.54	34.30		26.813	124.5	0.894	
									500	6.59	34.34		26.976	109.0	1.018	

RV ALEXANDER AGASSIZ						CALCOFI CRUISE 6912						120090					
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND		SPEED		WEATHER		DOMINANT WAVES	
26 33.0N		117 49.0W		12/ 9/69		1414 GMT		4021M		330		11KT		1			
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	S16T	DT	DD		
1	18.43	33.606	5.27					380.5									
11	18.44	33.614	5.45					380.1									
31	18.44		5.47														
56	17.62	33.790	5.83					348.2									
65	17.63		5.76														
76	17.08		5.70														
90	15.93		5.47														
105	14.94		5.44														
129	12.78		5.12														
149	11.61		4.83														
173	10.37		3.90														
203	9.65		3.20														
233	9.26		2.92														
271	8.76		2.05														
330	8.35		1.23														
404	7.54	34.319	0.58					123.0									
478	6.92	34.365	0.31					111.3									
557	6.23		0.26														

RV ALEXANDER AGASSIZ										CALCOFI CRUISE 6912										120090
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND	SPEED	WEATHER	DOMINANT WAVES							
26 12.0N		118 27.0W		12/10/69		1522 GMT		4021M		350	12KT	1	340 4 5							
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	S16T	DT	DD					
									0	18.48	33.67		24.157	377.0	0.000					
									10	18.48	33.68		24.165	376.3	0.038					
									20	18.48	33.69		24.173	375.6	0.075					
									30	18.48	33.69		24.173	375.6	0.113					
									50	18.48	33.69		24.173	375.6	0.188					
									75	16.30	33.70		24.701	325.2	0.276					
									100	14.01	33.63		25.148	282.7	0.353					
									125	12.09	33.53		25.453	253.7	0.421					
									150	10.78	33.71		25.832	217.6	0.480					
									200	10.48	34.27		26.320	171.2	0.580					
									250	10.23	34.43		26.488	155.3	0.664					
									300	9.86	34.46		26.574	147.1	0.742					
									400	8.36	34.34		26.722	133.0	0.889					
									500	7.26	34.31		26.861	119.9	1.023					

RV ALEXANDER AGASSIZ						CALCOFI CRUISE 6912						120090			
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND	SPEED	WEATHER	DOMINANT WAVES		
26 12.0N		118 27.0W		12/10/69		1611 GMT		4021M		350	12KT	1	340 4 5		
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	S16T	DT	DD
1	18.42	33.603	5.44					380.5							
11	18.42	33.601	5.43					380.6							
31	18.41		5.45												
55	18.41	33.602	5.42					380.3							
64	16.70		5.88												
74	15.84		5.83												
89	14.52		5.80												
103	13.81		5.48												
129	11.38		4.45												
147	10.74		3.73												
173	10.54		2.36												
202	10.42		1.61												
231	10.39		1.11												
271	10.16		0.66												
329	9.58		0.54												
403	9.51	34.406	0.55					130.3							
477	7.52	34.396	0.39					117.0							
556	6.53		0.27												

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912							123042
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND	SPEED	WEATHER	DOMINANT WAVES				
27 14.0N		114 59.0W		12/15/69		0605 GMT		1763M		340	6KT	0					
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	S16T	DT	DD		
									0	20.28	34.38		24.236	369.5	0.000		
									10	20.28	34.38		24.236	369.5	0.037		
									20	20.28	34.38		24.236	369.5	0.074		
									30	20.25	34.37		24.236	369.5	0.111		
									50	17.45	34.04		24.691	326.1	0.181		
									75	14.00	33.93		25.381	260.5	0.255		
									100	11.55	33.74		25.716	228.6	0.316		
									125	11.10	34.05		26.039	198.0	0.370		
									150	11.26	34.21		26.134	188.9	0.419		
									200	10.70	34.32		26.320	171.2	0.511		
									250	10.12	34.44		26.515	152.8	0.595		
									300	9.50	34.41		26.596	145.1	0.672		
									400	8.57	34.41		26.745	130.9	0.817		
									500	7.20	34.39		26.932	113.2	0.947		

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912						123050
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND	SPEED	WEATHER	DOMINANT WAVES			
26 59.0N		115 31.0W		12/15/69		1038 GMT		3738M		320	13KT					
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	S16T	DT	DD	
									0	18.98	33.83		24.154	377.3	0.000	
									10	18.98	33.83		24.154	377.3	0.038	
									20	18.98	33.83		24.154	377.3	0.076	
									30	18.98	33.83		24.154	377.3	0.113	
									50	14.51	33.43		24.889	307.3	0.182	
									75	12.06	33.46		25.404	258.3	0.253	
									100	10.69	33.63		25.786	222.0	0.314	
									125	10.60	33.87		25.988	202.8	0.367	
									150	10.88	34.09		26.109	191.3	0.417	
									200	10.02	34.28		26.407	163.0	0.508	
									250	9.40	34.31		26.534	150.9	0.589	
									300	8.50	34.29		26.662	138.8	0.664	
									400	7.65	34.38		26.860	120.0	0.799	
									500	6.69	34.39		27.002	106.5	0.920	

RV DAVID STARR JORDAN										CALCOFI CRUISE 6912						123060
LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME		BOTTOM		WIND	SPEED	WEATHER	DOMINANT WAVES			
26 40.0N		116 09.0W		12/15/69		1445 GMT		3926M		310	9KT	1	310	4	9	
Z	T	S	O2	P04	S103	N02	N03	DT	Z	T	S	O2	S16T	DT	DD	
									0	18.79	33.78		24.164	376.4	0.000	
									10	18.79	33.78		24.164	376.4	0.038	
									20	18.79	33.78		24.164	376.4	0.075	
									30	18.79	33.78		24.164	376.4	0.113	
									50	14.85	33.42		24.809	315.0	0.182	
									75	12.65	33.41		25.252	272.8	0.256	
									100	11.51	33.70		25.693	230.9	0.320	
									125	10.77	33.92		25.997	202.0	0.375	
									150	10.14	34.00		26.169	185.6	0.424	
									200	9.52	34.19		26.421	161.7	0.512	
									250	8.93	34.25		26.563	148.2	0.592	
									300	8.66	34.37		26.699	135.2	0.665	
									400	7.77	34.38		26.842	121.7	0.800	
									500	6.73	34.39		26.997	107.0	0.922	

127034

RV DAVID STARH JORDAN						CALCOFI CRUISE 6912						127040			
LATITUDE	LONGITUDE	MO/DAY/YR	MESSANGER	TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES						
26 43.5N	114 29.0W	12/16/69	0430	GMT	2981M	320	3KT		310	4	8				
Z	T	S	U2	P04	S103	N02	N03	DT	Z	T	S	O2	S1GT	DT	DD
	0									20.79	34.45		24.153	377.4	0.000
	10									20.73	34.45		24.169	375.9	0.038
	20									20.71	34.45		24.174	375.4	0.075
	30									20.70	34.45		24.177	375.1	0.113
	50									17.75	33.92		24.527	341.8	0.185
	75									15.06	33.93		25.155	282.0	0.263
	100									13.58	34.17		25.653	234.6	0.328
	125									13.26	34.37		25.872	213.8	0.385
	150									12.80	34.48		26.049	196.9	0.438
	200									11.75	34.56		26.314	171.8	0.532
	250									10.88	34.55		26.467	157.3	0.617
	300									10.04	34.51		26.583	146.3	0.696
	400									8.26	34.40		26.785	127.1	0.839
	500									7.31	34.42		26.940	112.4	0.967

127050

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER TIME			BOTTOM		WIND SPEED		WEATHER		DOMINANT WAVES		
26 22.5N		115 07.5W		12/15/69		219 6MT			3169M		280 10KT		2		310 6 8		
Z	T	S	Q2	P04	S103	N02	N03	DT	Z	T	S	Q2	S16T	DT	DD		
0	18.95	33.76											24.108	381.7	0.000		
10	18.92	33.76											24.116	381.0	0.038		
20	18.86	33.76											24.131	379.5	0.076		
30	18.86	33.76											24.131	379.5	0.114		
50	16.30	33.30											24.395	354.4	0.188		
75	13.61	33.36											25.022	294.6	0.269		
100	11.90	33.46											25.434	255.5	0.339		
125	10.62	33.67											25.829	217.9	0.399		
150	10.03	33.89											26.102	192.0	0.451		
200	10.28	34.33											26.401	163.5	0.541		
250	10.03	34.43											26.522	152.0	0.623		
300	9.40	34.43											26.628	142.0	0.699		
400	7.97	34.37											26.805	125.2	0.839		
500	6.85	34.37											26.965	110.1	0.96		

127060

LATITUDE		LONGITUDE		MO/DAY/YR		MESSAGE TIME			BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
26 03.5N		115 46.5W		12/15/69		1906 GMT			3832M	280	13KT	1	310 6 9		
Z	T	S	OZ	P04	S103	N02	N03	DT	Z	T	S	OZ	SIGT	DT	DD
									0	19.18	33.78		24.065	385.8	0.000
									10	19.17	33.78		24.068	385.6	0.039
									20	19.15	33.78		24.073	385.1	0.077
									30	19.14	33.78		24.075	384.8	0.116
									50	16.51	33.32		24.408	353.2	0.190
									75	14.50	33.42		24.926	303.8	0.272
									100	13.00	33.51		25.261	272.0	0.345
									125	11.47	33.59		25.615	238.3	0.409
									150	10.27	33.74		25.944	207.0	0.466
									200	10.26	34.09		26.218	180.9	0.565
									250	9.58	34.24		26.450	158.9	0.652
									300	8.90	34.29		26.599	144.7	0.731
									400	8.07	34.42		26.829	122.9	0.871
									500	7.19	34.40		26.941	112.3	0.996

RV DAVID STARR JORDAN CALCOFI CRUISE 6912 133030

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES						
25 54.5N	113 07.5W	12/17/69	0446 GMT	205M	280	8KT	2	260	3	8				
Z	T	S	02	P04 S103	N02 N03	DT	Z	T	S	02	S16T	DT	DD	
								0	21.65	34.50		23.956	396.1	0.000
								10	21.65	34.50		23.956	396.1	0.040
								20	21.65	34.50		23.956	396.1	0.079
								30	21.57	34.49		24.026	389.5	0.119
								50	17.42	34.02		24.683	326.9	0.191
								75	14.87	34.08		25.311	267.1	0.265
								100	14.24	34.35		25.654	234.5	0.329
								125	13.24	34.50		25.977	203.8	0.384
								150	12.55	34.58		26.176	184.9	0.434

RV DAVID STARR JORDAN CALCOFI CRUISE 6912 133040

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES						
25 34.5N	113 45.5W	12/16/69	2155 GMT	3169M	110	10KT	2	260	4	8				
Z	T	S	02	P04 S103	N02 N03	DT	Z	T	S	02	S16T	DT	DD	
								0	21.30	34.43		23.999	392.0	0.000
								10	21.10	34.36		24.001	391.9	0.039
								20	20.84	34.28		24.010	391.0	0.078
								30	20.50	34.18		24.026	389.6	0.118
								50	16.09	33.81		24.833	312.6	0.188
								75	13.49	33.78		25.371	261.5	0.260
								100	12.37	33.81		25.616	238.2	0.323
								125	11.26	34.00		25.971	204.4	0.379
								150	11.38	34.27		26.158	186.6	0.429
								200	10.71	34.43		26.404	163.3	0.518
								250	10.34	34.54		26.554	149.0	0.599
								300	9.71	34.51		26.639	141.0	0.674
								400	8.46	34.46		26.801	125.6	0.814
								500	7.29	34.44		26.959	110.6	0.940

RV DAVID STARR JORDAN CALCOFI CRUISE 6912 137023

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES						
25 34.0N	112 19.0W	12/17/69	1246 GMT	75M	320	10KT								
Z	T	S	02	P04 S103	N02 N03	DT	Z	T	S	02	S16T	DT	DD	
								0	21.75	34.51		23.936	398.1	0.000
								10	21.75	34.51		23.936	398.1	0.040
								20	21.75	34.51		23.936	398.1	0.080
								30	21.72	34.50		23.937	398.0	0.120
								50	18.85	34.00		24.316	361.9	0.196

RV DAVID STARR JORDAN CALCOFI CRUISE 6912 137023

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES							
25 34.0N	112 19.0W	12/17/69	1308 GMT	75M	320	10KT									
Z	T	S	02	P04 S103	N02 N03	DT	Z	T	S	02	S16T	DT	DD		
0	21.71	34.489	4.46U	0.24	2.	0.01	0.7	398.5	0	21.71	34.489	4.46	23.931	398.5	0.000
10	21.69	34.487	5.10	0.26	2.	0.01	0.7	398.1	10	21.69	34.487	5.10	23.935	398.1	0.040
20	21.71	34.487	5.11	0.24	2.	0.00	0.6	398.7	20	21.71	34.487	5.11	23.930	398.7	0.080
30	21.69		5.09	0.26	2.	0.00	0.7		30	21.69	34.481	5.09	23.930	398.6	0.120
39	21.70	34.484	5.08	0.24	2.	0.00	0.7	398.6	50	19.10	34.020	4.40	24.268	366.4	0.196
62	16.66	34.199	2.83					296.7							

RV DAVID STARR JORDAN CALCOFI CRUISE 6912 137030

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES						
25 20.0N	112 46.0W	12/17/69	1612 GMT	371M	300	9KT	2	300	5	6				
Z	T	S	02	P04 S103	N02 N03	DT	Z	T	S	02	S16T	DT	DD	
								0	21.96	34.51		23.878	403.6	0.000
								10	21.96	34.51		23.878	403.6	0.040
								20	21.96	34.51		23.878	403.6	0.081
								30	21.96	34.51		23.878	403.6	0.121
								50	17.47	33.99		24.648	330.2	0.195
								75	15.47	34.09		25.187	278.9	0.272
								100	14.85	34.18		25.393	259.4	0.339
								125	13.37	34.36		25.842	216.6	0.400
								150	12.76	34.43		26.019	199.8	0.453
								200	11.53	34.62		26.402	163.4	0.546
								250	11.09	34.62		26.483	155.7	0.628
								300	10.82	34.62		26.532	151.1	0.708

RV DAVID STARR JORDAN

CALCOFI CRUISE 6912

137030

LATITUDE		LONGITUDE		MO/DAY/YR		MESSENGER		TIME	BOTTOM	WIND	SPEED	WEATHER	DOMINANT WAVES		
25 20.0N		112 46.0W		12/17/69		1701	GMT		371M	300	9KT	2	300	5	6
Z	T	S	02	P04	S103	N02	N03	DT	Z	T	S	02	S16T	DT	DD
0	22.05	34.50	5.07		3.	0.00	0.0	406.8							
10	21.95	34.50	5.08	0.26	4.	0.00	0.0	404.1							
29	21.97		5.04	0.26	4.	0.00	0.1								
44	21.90		5.17	0.26	4.	0.00	0.0								
58	17.59		5.10	0.53	7.	0.10	1.2								
72	16.05		4.06	0.95	12.	0.01	6.4								
87	15.06	34.09	3.19	1.45	18.	0.00	11.7	270.3							
106	14.50		2.05	1.81	17.	0.00	16.5								
130	13.27		1.07	2.37	26.	0.00	20.3								
150	12.52		0.85	2.52	30.	0.00	21.5								
194	11.53		0.29	2.87	39.	0.00	22.0								
229	11.11		0.24	2.97	42.	0.00	21.5								
263	10.91	34.60	0.18					154.1							
303	10.71	34.60	0.19					150.7							

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6912

TEN METER DATA

					Z	T	S	02	D
60.050	11/17/69	2305GMT	37 57.5N	122 53.5W	10	13.54			
	BOTTOM	47M	WIND 340 14KT	WEATHER 0					
	DOMINANT WAVES	320 03 04							
60.055	11/17/69	1835GMT	37 49.0N	123 16.5W	10	13.12			
	BOTTOM	112M	WIND 010 08KT	WEATHER 0					
	DOMINANT WAVES	280 08 06							
60.065	11/16/69	0900GMT	37 27.0N	123 57.5W	10	13.46			
	BOTTOM	3541M	WIND 330 24KT	WEATHER					
	DOMINANT WAVES								
63.050	11/18/69	0300GMT	37 23.0N	122 28.0W	10	13.50			
	BOTTOM	37M	WIND 350 18KT	WEATHER					
	DOMINANT WAVES								
63.052	11/18/69	0400GMT	37 18.5N	122 36.5W	10	14.12			
	BOTTOM	84M	WIND 350 15KT	WEATHER					
	DOMINANT WAVES								
63.055	11/18/69	0600GMT	37 12.5N	122 50.0W	10	13.96			
	BOTTOM	325M	WIND 360 12KT	WEATHER 0					
	DOMINANT WAVES	230 03 06							
63.060	11/18/69	0900GMT	37 02.5N	123 11.5W	10	14.10			
	BOTTOM	2690M	WIND 010 09KT	WEATHER 0					
	DOMINANT WAVES	270 05							
63.065	11/18/69	1145GMT	36 52.5N	123 33.5W	10	13.54			
	BOTTOM	3731M	WIND 050 10KT	WEATHER					
	DOMINANT WAVES								
63.070	11/18/69	1440GMT	36 41.5N	123 57.0W	10	13.94			
	BOTTOM	3919M	WIND 070 06KT	WEATHER 1					
	DOMINANT WAVES	310 02 04							
63.080	11/18/69	1910GMT	36 23.0N	124 37.5W	10	13.98			
	BOTTOM	4159M	WIND 070 07KT	WEATHER 1					
	DOMINANT WAVES	310 03 04							
63.090	11/18/69	2354GMT	36 01.5N	125 20.0W	10	16.48			
	BOTTOM	4594M	WIND 040 08KT	WEATHER 1					
	DOMINANT WAVES	200 02 06							
67.048	11/20/69	0250GMT	36 53.5N	121 56.5W	10	14.00	33.489		292.8
	BOTTOM	37M	WIND 060 04KT	WEATHER 1					
	DOMINANT WAVES								
67.055	11/19/69	2215GMT	36 38.5N	122 25.5W	10	13.96	33.476		293.0
	BOTTOM	2222M	WIND 060 08KT	WEATHER 1					
	DOMINANT WAVES	090 01 03							

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6912

TEN METER DATA

			Z	T	S	02	DT
67.060	11/19/69 1930GMT 36 29.0N 122 47.5W BOTTOM 2927M WIND 090 09KT WEATHER 1 DOMINANT WAVES 060 03 03		10	13.96	33.447		295.1
67.065	11/19/69 1645GMT 36 18.0N 123 08.0W BOTTOM 3259M WIND 040 06KT WEATHER 1 DOMINANT WAVES 040 03 03		10	14.47			
67.070	11/19/69 1353GMT 36 10.0N 123 33.5W BOTTOM 3636M WIND 070 09KT WEATHER 1 DOMINANT WAVES		10	14.70			
67.080	11/19/69 0850GMT 35 49.0N 124 12.0W BOTTOM 4015M WIND 100 04KT WEATHER DOMINANT WAVES		10	14.65			
67.090	11/19/69 0410GMT 35 28.5N 124 54.5W BOTTOM 4514M WIND 080 09KT WEATHER DOMINANT WAVES 100 02 05		10	15.08			
70.051	11/20/69 1345GMT 36 10.5N 121 46.5W BOTTOM 325M WIND 090 03KT WEATHER 1 DOMINANT WAVES		10	14.52	33.446		306.4
70.065	11/21/69 1125GMT 35 43.0N 122 44.0W BOTTOM 1720M WIND 320 20KT WEATHER 1 DOMINANT WAVES 330 03 04		10	14.91	33.207		331.8
73.050	11/24/69 0908GMT 35 37.5N 121 17.5W BOTTOM 103M WIND 090 05KT WEATHER 0 DOMINANT WAVES 330 02 05		10	14.40	33.398		307.5
73.053	11/24/69 0725GMT 35 31.5N 121 28.5W BOTTOM 741M WIND 310 05KT WEATHER 0 DOMINANT WAVES 310 01 03		10	15.12	33.359		325.0
73.060	11/24/69 0200GMT 35 18.5N 121 58.0W BOTTOM 2503M WIND 340 15KT WEATHER 0 DOMINANT WAVES 340 05 06		10	15.10	33.336		326.3
73.065	11/23/69 2120GMT 35 08.0N 122 18.0W BOTTOM 3919M WIND 340 15KT WEATHER 1 DOMINANT WAVES 340 05 08		10	14.78	33.337		319.6
73.070	11/23/69 1944GMT 34 58.5N 122 40.5W BOTTOM 4092M WIND 340 15KT WEATHER 1 DOMINANT WAVES 340 06 08		10	14.84	33.060		341.1
73.080	11/23/69 1440GMT 34 39.5N 123 22.0W BOTTOM 4165M WIND 360 15KT WEATHER 1 DOMINANT WAVES 330 07 06		10	14.92	33.035		341.1

RV ALEXANDER AGASSIZ

CALCOFI CRUISE 6912

TEN METER DATA

			Z	T	S	02	DT
73.090	11/23/69 0943GMT 34 18.5N 124 04.0W BOTTOM 3451M WIND 020 20KT WEATHER 1 DOMINANT WAVES 330 12 06		10	14.48	33.024		336.5
77.048	11/24/69 1333GMT 35 08.0N 120 43.5W BOTTOM 37M WIND 040 04KT WEATHER 0 DOMINANT WAVES 330 01 05		10	14.70	33.406		312.9
77.051	11/24/69 1530GMT 35 02.0N 120 56.5W BOTTOM 288M WIND 060 07KT WEATHER 1 DOMINANT WAVES 310 03 07		10	15.22	33.323		329.7
77.055	11/24/69 1750GMT 34 54.5N 121 12.5W BOTTOM 584M WIND 050 07KT WEATHER 1 DOMINANT WAVES 360 03 08		10	15.28	33.366		327.8
77.065	11/25/69 0153GMT 34 33.5N 121 54.5W BOTTOM 3872M WIND 360 10KT WEATHER DOMINANT WAVES 300 03 07		10	15.56	33.245		342.6
80.051	11/26/69 2100GMT 34 26.0N 120 32.5W BOTTOM 140M WIND 310 02KT WEATHER 1 DOMINANT WAVES 340 01 08		10	15.58	33.390		332.4
80.065	11/26/69 1016GMT 33 59.5N 121 30.0W BOTTOM 3494M WIND 310 08KT WEATHER 1 DOMINANT WAVES 320 01 04		10	15.50	33.310		336.6

RV DAVID STARR JORDAN

CALCOFI CRUISE 6912

TEN METER DATA

					Z	T	S	02	P04	S103	N02	N03	DT
83.040	11/29/69	1310GMT	34 14.0N	119 22.0W	10	15.74	33.416		0.45	3.	0.17	1.2	333.9
	BOTTOM	21M	WIND 050 04KT	WEATHER 0									
	DOMINANT WAVES												
83.055	11/29/69	2300GMT	33 44.0N	120 24.5W	10	15.66	33.396		0.26	2.	0.00	0.0	333.7
	BOTTOM	861M	WIND 320 05KT	WEATHER 0									
	DOMINANT WAVES 100 02 04												
83.060	11/30/69	0100GMT	33 34.0N	120 45.0W	10	15.60	33.420		0.26	3.	0.03	0.4	330.6
	BOTTOM	1387M	WIND 340 04KT	WEATHER 0									
	DOMINANT WAVES 310 02												
83.070	11/30/69	0523GMT	33 14.5N	121 26.0W	10	16.05	33.446		0.24	2.	0.00	0.0	338.5
	BOTTOM	3832M	WIND 100 04KT	WEATHER 0									
	DOMINANT WAVES 310 03 05												
83.080	11/30/69	0950GMT	32 54.0N	122 08.0W	10	16.02	33.135		0.39	1.	0.00	0.0	360.4
	BOTTOM	4309M	WIND 050 02KT	WEATHER 0									
	DOMINANT WAVES 310 03 05												
83.090	11/30/69	1405GMT	32 34.5N	122 47.0W	10	15.81	33.137		0.29	1.	0.00	0.1	355.8
	BOTTOM	4213M	WIND 130 08KT	WEATHER 1									
	DOMINANT WAVES												
87.033	12/01/69	2345GMT	33 54.0N	118 29.5W	10	16.36	33.415		0.26	1.	0.00	0.2	347.5
	BOTTOM	45M	WIND 310 06KT	WEATHER 2									
	DOMINANT WAVES 49 01 06												
87.050	12/01/69	1215GMT	33 20.0N	119 39.5W	10	16.16	33.201		0.26	2.	0.00	0.1	358.6
	BOTTOM	73M	WIND 320 04KT	WEATHER 0									
	DOMINANT WAVES												
87.055	12/01/69	0942GMT	33 10.0N	120 00.0W	10	16.09	33.255		0.26	2.	0.00	0.1	353.2
	BOTTOM	1202M	WIND 330 05KT	WEATHER 0									
	DOMINANT WAVES												
87.060	12/01/69	0730GMT	33 00.0N	120 21.5W	10	16.16	33.136		0.26	2.	0.00	0.0	363.4
	BOTTOM	742M	WIND 040 04KT	WEATHER 0									
	DOMINANT WAVES												
87.070	12/01/69	0305GMT	32 39.5N	121 02.0W	10	15.68	33.386		0.29	2.	0.00	0.1	334.8
	BOTTOM	3926M	WIND 070 04KT	WEATHER 1									
	DOMINANT WAVES												
87.080	11/30/69	2300GMT	32 19.5N	121 43.0W	10	16.37	33.151		0.42	1.	0.02	0.3	366.8
	BOTTOM	4117M	WIND 320 08KT	WEATHER 1									
	DOMINANT WAVES 320 03 05												
87.090	11/30/69	1829GMT	31 59.0N	122 24.0W	10	17.08	33.234		0.29	1.	0.01	0.1	376.5
	BOTTOM	4117M	WIND 130 08KT	WEATHER 1									
	DOMINANT WAVES 320 03 05												

RV DAVID STARR JORDAN

CALCOFI CRUISE 6912

TEN METER DATA

			Z	T	S	02	P04	S103	N02	N03	DT
93.045	12/03/69	1215GMT	32	20.0N	118 32.0W						
	BOTTOM	1590M			WIND 320 04KT WEATHER						
	DOMINANT WAVES	280 04 06	10	16.76	33.449	0.13	2.	0.04	0.1	353.7	
93.050	12/03/69	1510GMT	32	10.0N	118 53.0W						
	BOTTOM	1295M			WIND 300 04KT WEATHER 1						
	DOMINANT WAVES	280 04 06	10	17.08	33.470	0.21	1.	0.03	0.1	359.3	
93.055	11/03/69	1725GMT	32	00.0N	119 13.5W						
	BOTTOM	1485M			WIND 050 02KT WEATHER 1						
	DOMINANT WAVES	310 02 06	10	17.06	33.502	0.13	1.	0.04	0.2	356.5	
93.060	12/03/69	1950GMT	31	50.0N	119 34.0W						
	BOTTOM	2322M			WIND 300 12KT WEATHER 1						
	DOMINANT WAVES	300 05 03	10	16.90	33.177	0.34	1.	0.05	0.1	376.6	
93.070	12/04/69	0030GMT	31	30.0N	120 14.0W						
	BOTTOM	4022M			WIND 330 22KT WEATHER 1						
	DOMINANT WAVES	330 05 04	10	16.89	33.247	0.24	1.	0.01	0.2	371.3	
93.080	12/04/69	0505GMT	31	10.0N	120 54.5W						
	BOTTOM	4022M			WIND 330 22KT WEATHER 1						
	DOMINANT WAVES	060 05 04	10	17.25	33.473	0.24	1.	0.03	0.3	362.9	
93.090	12/04/69	0910GMT	30	50.0N	121 34.0W						
	BOTTOM	4309M			WIND 330 21KT WEATHER						
	DOMINANT WAVES	330 06	10	16.12 U	33.143	0.24	1.	0.01	0.2		
97.029	12/05/69	2220GMT	32	17.5N	117 04.0W						
	BOTTOM	46M			WIND 270 03KT WEATHER 1						
	DOMINANT WAVES	270 04 07	10	17.25	33.479	0.26	1.	0.00	0.0	362.5	
97.030	12/05/69	2145GMT	32	16.0N	117 07.0W						
	BOTTOM	58M			WIND 270 05KT WEATHER 1						
	DOMINANT WAVES	270 04 07	10	17.15	33.480	0.21	1.	0.00	0.0	360.1	
97.045	12/05/69	1100GMT	31	46.0N	118 08.0W						
	BOTTOM	1572M			WIND 330 06KT WEATHER 1						
	DOMINANT WAVES	07 06	10	16.96	33.448	0.26	1.	0.00	0.0	358.2	
97.050	12/05/69	0825GMT	31	35.5N	118 29.0W						
	BOTTOM	2509M			WIND 340 10KT WEATHER 1						
	DOMINANT WAVES	08 06	10	16.88	33.472	0.26	2.	0.00	0.0	354.6	
97.055	12/05/69	0532GMT	31	25.5N	118 49.5W						
	BOTTOM	3983M			WIND 250 12KT WEATHER 1						
	DOMINANT WAVES	330 07 06	10	17.14	33.526	0.18	2.	0.00	0.0	356.5	
97.060	12/05/69	0315GMT	31	15.5N	119 10.0W						
	BOTTOM	3642M			WIND 340 20KT WEATHER 1						
	DOMINANT WAVES	330 07 06	10	16.88	33.233	0.24	2.	0.00	0.0	372.1	

						Z	T	S	02	P04	S103	N02	N03	DT
97.070	12/04/69	2240GMT	30 55.0N	119 50.5W		10	16.83	33.160		0.26	2.	0.01	0.0	376.5
	BOTTOM	3738M	WIND 330 20KT	WEATHER 1										
	DOMINANT	WAVES	330 10 06											
97.080	12/04/69	1810GMT	30 35.0N	120 31.0W		10	16.48	33.129		0.32	2.	0.00	0.0	370.8
	BOTTOM	3926M	WIND 020 08KT	WEATHER 1										
	DOMINANT	WAVES	350 06 05											
97.090	12/04/69	1330GMT	30 15.5N	121 10.5W		10	17.03	33.239		0.18	1.	0.01	0.1	375.0
	BOTTOM	3926M	WIND 330 20KT	WEATHER 1										
	DOMINANT	WAVES	330 04 04											
100.029	12/06/69	0230GMT	31 42.0N	116 43.5W		10	17.32	33.476		0.24	2.	0.00	0.0	364.5
	BOTTOM	103M	WIND 350 03KT	WEATHER 1										
	DOMINANT	WAVES												
100.045	12/06/69	1245GMT	31 10.5N	117 46.5W		10	17.54	33.483		0.24	2.	0.00	0.0	368.8
	BOTTOM	1392M	WIND 340 04KT	WEATHER										
	DOMINANT	WAVES												
100.055	12/06/69	1900GMT	30 50.5N	118 27.5W		10	16.64	33.288		0.26	2.	0.00	0.0	362.8
	BOTTOM	2227M	WIND 280 02KT	WEATHER 2										
	DOMINANT	WAVES	290 04 07											
103.029	12/08/69	2115GMT	31 07.0N	116 21.0W		10	17.00	33.479		0.34	3.	0.02	0.0	356.8
	BOTTOM	28M	WIND 290 04KT	WEATHER 1										
	DOMINANT	WAVES	330 04 08											
103.030	12/08/69	2040GMT	31 06.0N	116 24.5W		10	17.60	33.480		0.34	2.	0.00	0.0	370.5
	BOTTOM	67M	WIND 260 01KT	WEATHER 0										
	DOMINANT	WAVES	330 04 08											
103.035	12/08/69	1810GMT	30 56.0N	116 45.0W		10	17.44	33.516		0.26	2.	0.02	0.0	364.1
	BOTTOM	1664M	WIND 140 02KT	WEATHER 1										
	DOMINANT	WAVES	350 05 07											
103.040	12/08/69	1520GMT	30 46.0N	117 04.5W		10	17.60	33.479		0.16	2.	0.02	0.0	370.4
	BOTTOM	1856M	WIND 340 04KT	WEATHER 1										
	DOMINANT	WAVES	290 07 07											
103.045	12/08/69	1223GMT	30 34.0N	117 23.0W		10	17.60	33.462		0.18	2.	0.04	0.0	371.7
	BOTTOM	2227M	WIND 330 04KT	WEATHER 1										
	DOMINANT	WAVES												
103.050	12/08/69	0953GMT	30 24.0N	117 44.0W		10	16.84	33.332		0.13	1.	0.04	0.0	364.0
	BOTTOM	2135M	WIND 330 04KT	WEATHER 1										
	DOMINANT	WAVES												
103.055	12/08/69	0715GMT	30 15.0N	118 05.0W		10	17.05	33.288		0.24	1.	0.01	0.0	371.9
	BOTTOM	2444M	WIND 350 03KT	WEATHER 1			</							

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TEN METER DATA

			Z	T	S	O2	P04	SiO3	NO2	NO3	DT
103.060	12/08/69 0500GMT 30 06.0N 118 25.0W BOTTOM 3546M WIND 330 04KT WEATHER 1 DOMINANT WAVES		10	17.18	33.349		0.26	2.	0.01	0.0	370.3
103.070	12/08/69 0020GMT 29 46.5N 119 04.5W BOTTOM 3546M WIND 330 14KT WEATHER 2 DOMINANT WAVES 330 06 06		10	17.44	33.564		0.24	2.	0.05	0.0	360.6
103.080	12/07/69 1940GMT 29 26.5N 119 43.0W BOTTOM 3832M WIND 350 12KT WEATHER 1 DOMINANT WAVES 49 07 06		10	17.23	33.346		0.26	2.	0.02	0.0	371.7
107.031	12/09/69 0115GMT 30 28.0N 116 07.0W BOTTOM 41M WIND 060 08KT WEATHER 2 DOMINANT WAVES 330 04 08		10	17.06	33.496		0.42	3.	0.04	0.0	356.9
107.032	12/09/69 0212GMT 30 26.0N 116 11.0W BOTTOM 390M WIND 210 10KT WEATHER 2 DOMINANT WAVES 330 04 08		10	17.86	33.515		0.26	2.	0.00	0.0	373.8
107.035	12/09/69 0400GMT 30 21.5N 116 22.5W BOTTOM 1757M WIND 300 10KT WEATHER 2 DOMINANT WAVES		10	17.57	33.541		0.21	2.	0.00	0.0	365.2
107.040	12/09/69 0640GMT 30 11.0N 116 42.0W BOTTOM 2602M WIND 290 10KT WEATHER 1 DOMINANT WAVES		10	17.64	33.468		0.18	1.	0.00	0.0	372.1
107.045	12/09/69 0855GMT 30 01.5N 117 02.0W BOTTOM 1763M WIND 280 08KT WEATHER DOMINANT WAVES		10	17.41	33.454		0.29	2.	0.00	0.0	367.9
107.050	12/09/69 1125GMT 29 50.5N 117 22.0W BOTTOM 2416M WIND 260 12KT WEATHER DOMINANT WAVES		10	17.00			0.18	1.	0.00	0.0	
107.055	12/09/69 1350GMT 29 41.0N 117 42.0W BOTTOM 3358M WIND 320 19KT WEATHER DOMINANT WAVES		10	17.02	33.338		0.26	1.	0.00	0.0	367.5
107.060	12/09/69 1632GMT 29 32.0N 118 01.5W BOTTOM 3546M WIND 330 18KT WEATHER 1 DOMINANT WAVES 330 05 06		10	17.90	33.552						372.0
107.070	12/09/69 2100GMT 29 11.0N 118 41.0W BOTTOM 3169M WIND 330 12KT WEATHER 1 DOMINANT WAVES 340 05 08		10	17.74	33.449		0.29	1.	0.01	0.2	375.8
107.080	12/10/69 0115GMT 28 51.5N 119 20.0W BOTTOM 3738M WIND 330 12KT WEATHER 1 DOMINANT WAVES 340 05 08		10	17.62	33.450		0.32	1.	0.01	0.1	373.0

						Z	T	S	O2	P04	S103	N02	N03	DT
110.032	12/11/69	0925GMT	29 51.0N	115 49.5W		10	16.25	33.531		0.42	5.	0.38	1.5	336.5
		37M	WIND 050 02KT	WEATHER 1										
		DOMINANT WAVES												
110.045	12/11/69	0055GMT	29 26.5N	116 39.5W		10	17.92	33.577		0.29	1.	0.02	0.1	370.7
		929M	WIND 330 17KT	WEATHER 1										
		DOMINANT WAVES	340 05 04											
113.029	12/11/69	1352GMT	29 24.0N	115 13.0W		10	17.05	33.605		0.34	3.	0.18	0.8	348.8
		22M	WIND 040 05KT	WEATHER 0										
		DOMINANT WAVES	290 01											
113.030	12/11/69	1438GMT	29 22.0N	115 18.0W		10		33.609		0.37	4.	0.17	0.4	
		60M	WIND 350 08KT	WEATHER 0										
		DOMINANT WAVES	290 04 06											
113.035	12/11/69	1715GMT	29 11.5N	115 38.0W		10	18.92	34.097		0.37	3.	0.02	0.0	356.5
		1298M	WIND 170 08KT	WEATHER 0										
		DOMINANT WAVES	320 04 07											
113.040	12/11/69	2020GMT	29 02.0N	115 57.0W		10	18.13	33.754		0.32	2.	0.06	0.2	362.7
		1856M	WIND 290 10KT	WEATHER 0										
		DOMINANT WAVES	320 04 06											
113.045	12/11/69	2300GMT	28 52.0N	116 18.0W		10	17.85	33.540		0.21	2.	0.01	0.2	371.7
		2043M	WIND 340 08KT	WEATHER 0										
		DOMINANT WAVES	090 06 08											
113.050	12/12/69	0135GMT	28 42.0N	116 36.0W		10	17.59	33.503		0.18	2.	0.00	0.5	368.4
		3738M	WIND 350 20KT	WEATHER 1										
		DOMINANT WAVES	350 06 08											
113.060	12/12/69	0551GMT	28 23.0N	117 16.0W		10	17.73	33.515		0.24	2.	0.02	0.2	370.8
		3642M	WIND 030 15KT	WEATHER										
		DOMINANT WAVES	350 06 08											
113.070	12/12/69	0955GMT	28 04.0N	117 55.5W		10	17.78	33.519		0.29	2.	0.02	0.4	371.6
		3452M	WIND 280 15KT	WEATHER										
		DOMINANT WAVES	350 06 08											
113.080	12/12/69	1450GMT	27 42.0N	118 33.0W		10	18.02	33.579		0.18	1.	0.00	0.5	372.8
		3926M	WIND 030 12KT	WEATHER 1										
		DOMINANT WAVES	030 06 06											
117.025	12/14/69	0720GMT	28 58.0N	114 37.0W		10	17.39	33.684		0.26	3.	0.05	0.4	350.7
		41M	WIND 350 05KT	WEATHER										
		DOMINANT WAVES												
117.026	12/14/69	0634GMT	28 56.0N	114 41.5W		10	17.38	33.677		0.26	3.	0.05	0.0	351.0
		75M	WIND 350 05KT	WEATHER										
		DOMINANT WAVES												

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TEN METER DATA

			Z	T	S	02	P04	S103	N02	N03	DT
117.030	12/14/69	0450GMT 28 48.0N 114 56.5W BOTTOM 99M WIND 310 08KT WEATHER 1 DOMINANT WAVES	10	18.02	33.729		0.21	3.	0.06	0.7	361.9
117.035	12/14/69	0215GMT 28 38.0N 115 16.0W BOTTOM 205M WIND 280 04KT WEATHER 1 DOMINANT WAVES	10	18.23	33.764		0.21	3.	0.06	0.8	364.3
117.040	12/13/69	1400GMT 28 28.0N 115 35.5W BOTTOM 1040M WIND 030 03KT WEATHER 0 DOMINANT WAVES	10	17.86	33.686		0.26	2.	0.05	0.2	361.3
117.045	12/13/69	1039GMT 28 18.0N 115 56.0W BOTTOM 3452M WIND 040 04KT WEATHER 1 DOMINANT WAVES	10	18.48	33.894		0.24	2.	0.05	0.0	360.7
117.050	12/13/69	0830GMT 28 08.0N 116 15.0W BOTTOM 4309M WIND 030 03KT WEATHER 1 DOMINANT WAVES	10	17.94	33.631		0.21	2.	0.05	0.0	367.2
117.060	12/13/69	0430GMT 27 47.0N 116 53.0W BOTTOM 3642M WIND 020 08KT WEATHER DOMINANT WAVES	10	18.03	33.527		0.21	2.	0.03	0.0	376.9
117.070	12/13/69	0000GMT 27 27.0N 117 32.5W BOTTOM 3926M WIND 330 08KT WEATHER 1 DOMINANT WAVES 020 06 09	10	18.10	33.531		0.26	2.	0.03	0.8	378.2
117.080	12/12/69	1928GMT 27 08.0N 118 10.5W BOTTOM 4309M WIND 030 09KT WEATHER 2 DOMINANT WAVES 030 06 08	10	18.43	33.701		0.26	2.	0.04	0.5	373.6
120.024	12/14/69	1115GMT 28 25.0N 114 10.5W BOTTOM 34M WIND 340 10KT WEATHER DOMINANT WAVES	10	17.84	33.743		0.24	2.	0.05	0.7	356.7
120.025	12/14/69	1200GMT 28 22.5N 114 15.0W BOTTOM 52M WIND 340 10KT WEATHER DOMINANT WAVES	10	18.02	33.808		0.18	2.	0.05	0.3	356.2
120.030	12/14/69	1410GMT 28 13.0N 114 34.0W BOTTOM 95M WIND 320 08KT WEATHER 1 DOMINANT WAVES 310 04 06	10	17.28	33.677		0.18	3.	0.04	0.1	348.7
120.035	12/14/69	1900GMT 28 03.0N 114 54.0W BOTTOM 78M WIND 300 KT WEATHER 1 DOMINANT WAVES 320 04 06	10	16.98	33.654		0.24	3.	0.04	0.2	343.6
120.040	12/14/69	2103GMT 27 56.5N 115 14.0W BOTTOM 41M WIND 320 13KT WEATHER 1 DOMINANT WAVES 320 06 06	10	17.98	33.803		0.24	3.	0.10	0.9	355.6

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TEN METER DATA

						Z	T	S	O2	P04	S103	N02	N03	DT
123.036	12/15/69	0330GMT	27 26.0N	114 36.0W	52M WIND 310 07KT WEATHER 0 DOMINANT WAVES	10	20.05	34.391		0.60	5.	0.06	0.8	362.9
123.037	12/15/69	0410GMT	27 24.0N	114 40.0W	69M WIND 310 07KT WEATHER 0 DOMINANT WAVES	10	20.14	34.415		0.60	4.	0.08	0.8	363.4
123.042	12/15/69	0620GMT	27 14.0N	114 59.0W	1763M WIND 340 06KT WEATHER 0 DOMINANT WAVES	10	20.12	34.360		0.53	4.	0.04	0.0	366.9
123.045	12/15/69	0810GMT	27 08.0N	115 11.5W	4309M WIND 220 10KT WEATHER 0 DOMINANT WAVES	10	20.31	34.416		0.53	5.	0.02	0.5	367.7
123.050	12/15/69	1049GMT	26 59.0N	115 31.0W	3738M WIND 320 13KT WEATHER DOMINANT WAVES	10	18.86	33.803		0.37	5.	0.03	0.0	376.4
123.060	12/15/69	1500GMT	26 40.0N	116 09.0W	3926M WIND 310 09KT WEATHER 1 DOMINANT WAVES 310 04 09	10	18.70	33.766		0.08	2.	0.04	0.0	375.5
127.033	12/16/69	0815GMT	26 57.5N	114 02.0W	65M WIND 330 04KT WEATHER DOMINANT WAVES	10	20.58	34.441		0.29	4.	0.00	0.2	372.7
127.034	12/16/69	0725GMT	26 55.0N	114 06.5W	84M WIND 330 04KT WEATHER DOMINANT WAVES	10	20.81	34.442		0.29	3.	0.00	0.1	378.5
127.040	12/16/69	0500GMT	26 43.5N	114 29.0W	2981M WIND 320 03KT WEATHER DOMINANT WAVES 310 04 08	10	20.66	34.421		0.29	3.	0.00	0.1	376.2
127.045	12/16/69	0206GMT	26 32.0N	114 48.0W	3358M WIND 310 10KT WEATHER DOMINANT WAVES 310 06 08	10	20.14	34.142		0.26	3.	0.00	0.2	383.2
127.050	12/15/69	2337GMT	26 22.5N	115 07.5W	3169M WIND 280 10KT WEATHER 2 DOMINANT WAVES 310 06 08	10	18.86	33.729		0.26	2.	0.00	0.2	381.8
127.060	12/15/69	1920GMT	26 03.5N	115 46.5W	3832M WIND 280 13KT WEATHER 1 DOMINANT WAVES 310 06 09	10	18.95	33.750		0.24	3.	0.00	0.2	382.4
130.028	12/16/69	1215GMT	26 33.5N	113 21.0W	56M WIND 270 04KT WEATHER DOMINANT WAVES	10	21.20	34.457		0.26	2.	0.01	0.1	387.5

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TEN METER DATA

			Z	T	S	02	P04	SI03	N02	N03	DT	
130.035	12/16/69	1615GMT	26	19.0N	113 48.0W	10	20.76	34.456	0.26	2.	0.00	0.2 376.2
	POTOM	539M		WIND 290	07KT WEATHER 2							
	DOMINANT WAVES	270 04 07										
133.023	12/17/69	0825GMT	26	08.5N	112 40.0W	10	21.24	34.493	0.24	3.	0.01	0.2 385.9
	BOTTOM	75M		WIND 300	10KT WEATHER 2							
	DOMINANT WAVES	300 03 09										
133.025	12/17/69	0730GMT	26	04.5N	112 48.0W	10	21.28	34.476	0.21	2.	0.00	0.1 388.2
	BOTTOM	82M		WIND 300	08KT WEATHER 2							
	DOMINANT WAVES	300 03 09										
133.030	12/17/69	0500GMT	25	54.5N	113 07.5W	10	21.62	34.478	0.24	2.	0.00	0.0 397.0
	BOTTOM	205M		WIND 280	08KT WEATHER 2							
	DOMINANT WAVES	260 03 08										
133.035	12/17/69	0245GMT	25	44.5N	113 26.5W	10	21.50	34.456	0.26	2.	0.02	0.1 395.4
	BOTTOM	845M		WIND 030	12KT WEATHER 2							
	DOMINANT WAVES	260 02 08										
133.040	12/17/69	0015GMT	25	34.5N	113 45.5W	10	21.14	34.387	0.24	2.	0.00	0.2 391.0
	POTOM	3169M		WIND 110	10KT WEATHER 2							
	DOMINANT WAVES	260 04 08										
137.022	12/17/69	1210GMT	25	36.0N	112 15.0W	10	21.67	34.475	0.26	2.	0.02	0.1 398.5
	BOTTOM	52M		WIND 320	10KT WEATHER							
	DOMINANT WAVES											
137.035	12/17/69	1917GMT	25	11.0N	113 02.5W	10	21.42	34.452	0.29	2.	0.00	0.2 393.6
	BOTTOM	1021M		WIND 300	15KT WEATHER 2							
	DOMINANT WAVES	300 05 06										

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