UNIVERSITY OF CALIFORNIA SCRIPPS INSTITUTION OF OCEANOGRAPHY

data report

PHYSICAL AND CHEMICAL DATA

CCOFI Cruise 6504
31 March - 24 April 1965

and

CCOFI Cruise 6505 (El Golfo II)
14 May - 17 June 1965

SIO Reference 67-16

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Sponsored by
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Approved for distribution:

W. A. Nierenberg

W. A. Nierenberg, Director

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INTRODUCTION

The data presented in this report were collected by the RV Black Douglas of the Bureau of Commercial Fisheries and the RV Alexander Agassiz of the Scripps Institution of Oceanography on Cruise 6504 of the California Cooperative Oceanic Fisheries Investigations program and the RV Alexander Agassiz on Cruise 6505 (EL GOLFO II). The first two figures in this cruise numbering system represent the year of the cruise; the last two figures, the month. The cruises preceding this one in the series are 6501 (Scripps Institution report, SIO Ref. 66-4) and 6404 and 6407 (SIO Ref. 66-20).

On Cruise 6504 the RV Alexander Agassiz made three-bottle casts in the mixed layer for temperature, salinity and inorganic phosphate-phosphorus at each net haul station. These data are reported with the net haul information.

El Golfo II had as its primary objective an examination of the vertical distribution of zooplankton of the Gulf of California immediately after the conclusion of the winter north winds. This study was a repetition in a different season of El Golfo I (6311-12), when similar collections were made to determine zooplankton vertical distribution immediately after the conclusion of the summer southerly winds. Vertically stratified plankton samples were obtained at 10 depths using standard CalCOFI nets modified to open and close at desired fishing depths. Opening and closing of the nets was accomplished by a strangling noose across the throat of the net that was loosened and tightened by a Leavitt-type, messenger-activated, release mechanism. Oblique samples were obtained at 100-meter intervals between the depth of 100 meters and the surface. Vertically stratified samples were obtained at mid-day and again at mid-evening on each station; an attempt was made at every second station to obtain two day and two night sets. In addition to net tows, hydrographic casts and bathythermographs were made. Direct current measurements were obtained by parachute drogues set out at plankton-sampling depths.

Continuing a long-range program of sampling the coastal plankton of the Americas, stations were occupied at intervals of 30 to 60 miles along the Pacific coastline of Mexico as far south as the Gulf of Tehuantepec. At shore stations a skiff was launched to sample surface waters with a half-meter plankton net just seaward of the surf zone, as well as half way between the surf zone and the ship which lay to between the 15- and 20-fathom isobaths. Net tows and bathythermographs were taken from the ship to complete the short transect of three or more samples arranged perpendicular to the shoreline. Off the southern Mexican coast otter trawl samples were also taken on sandy bottoms roughly between 10 and 20 fathoms.

Gravity cores were obtained systematically at stations roughly equivalent to every second skiff-station as well as at various localities within the Gulf of California.

Only data from the hydrographic casts and temperature and salinity data at net tow stations are included in this report.

The data are tabulated at observed depths; the interpolated and computed values are tabulated at standard depths and for Cruise 6504 are accompanied by charts of horizontal distribution.

STANDARD PROCEDURES

Processing of the data was carried out using the method described by Klein.[1] The 125-meter level was introduced into the integration to obtain greater accuracy in the determination of ΔD.

To indicate degree of accuracy, temperatures are recorded in tenths of a degree when obtained by bucket thermometer, thermograph, or bathythermograph, while temperatures from reversing thermometers are recorded in hundredths of a degree. The salinity values obtained by salinometer are recorded to three decimal places, provided they meet accepted standards. The values recorded "have a reproducibility of ±0.004‰ salinity at the 95 per cent probability level, and a probable accuracy of ±0.01‰ salinity or better at the same level of probability."[2] The values are recorded to two decimal places where only one determination per sample was obtained, or where there is doubt concerning the accuracy of a particular sample, or of all samples on a station. The accuracy of all samples obtained by salinometer and recorded to two decimal places is believed to be equal to or better than those obtained by manual titration.

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[1] Klein, Hans T. A new technique for processing physical oceanographic data. MS.

[2] Quotation from Department of Oceanography, University of Washington, Tech. Rep. No. 66, UW Ref. 60-18, October 1960.

Tabulated Data

The data tabulated are of the same type as have previously appeared in these reports; the column headings from the computer are explained as follows:

Z	Depth in meters	
T	Temperature	°C
S	Salinity	‰
OXY	Oxygen	ml/L
PHO	Phosphate	μg at/L
SIL	Silicate	μg at/L
NIT	Nitrite	μg at/L
D*T	δ_T	cl/ton
SIG*T	σ_T	g/L
DD	ΔD	dyn m

Extrapolated values and values between remote observations are not indicated but can be determined from the tabulation of observed depths. A hyphen is used to indicate a missing observed or interpolated value. The time is the time of messenger release. When more than one cast was made on a station messenger times and wire angles are given in the order of increasing depth and a significant change in position during a multiple cast is listed similarly. Multiple casts are indicated by a footnote letter following all observed depths of each cast except the cast originating at the surface.

On stations where more than one cast is lowered, the various property curves may not agree perfectly. This discrepancy may be caused by changes in geographical position, real property changes with time, slight error in measurement, or a combination of these factors. Stations with overlapping casts have the following footnote: Overlapping casts; reconciliation of property curves when necessary.

FOOTNOTES

Laboratory personnel note any possible imperfections in the sealing of the bottles as follows:

Loose bottle cap:	The cap is definitely loose so that it could be moved with very little applied pressure. The salinity values obtained from these samples may be usable depending on time and/or conditions or storage.

Possible evaporation: Either the cap was sealed with less than usual pressure, the bottle edge chipped, the rubber washer cracked, or the bale broke on opening, etc.

Use of the above values in interpolation depends upon consistency with other values of salinity and other properties, and these footnotes are supplemented with "falls on property curve" or "does not fall on property curve," depending upon whether the property curve was drawn through the value or not.

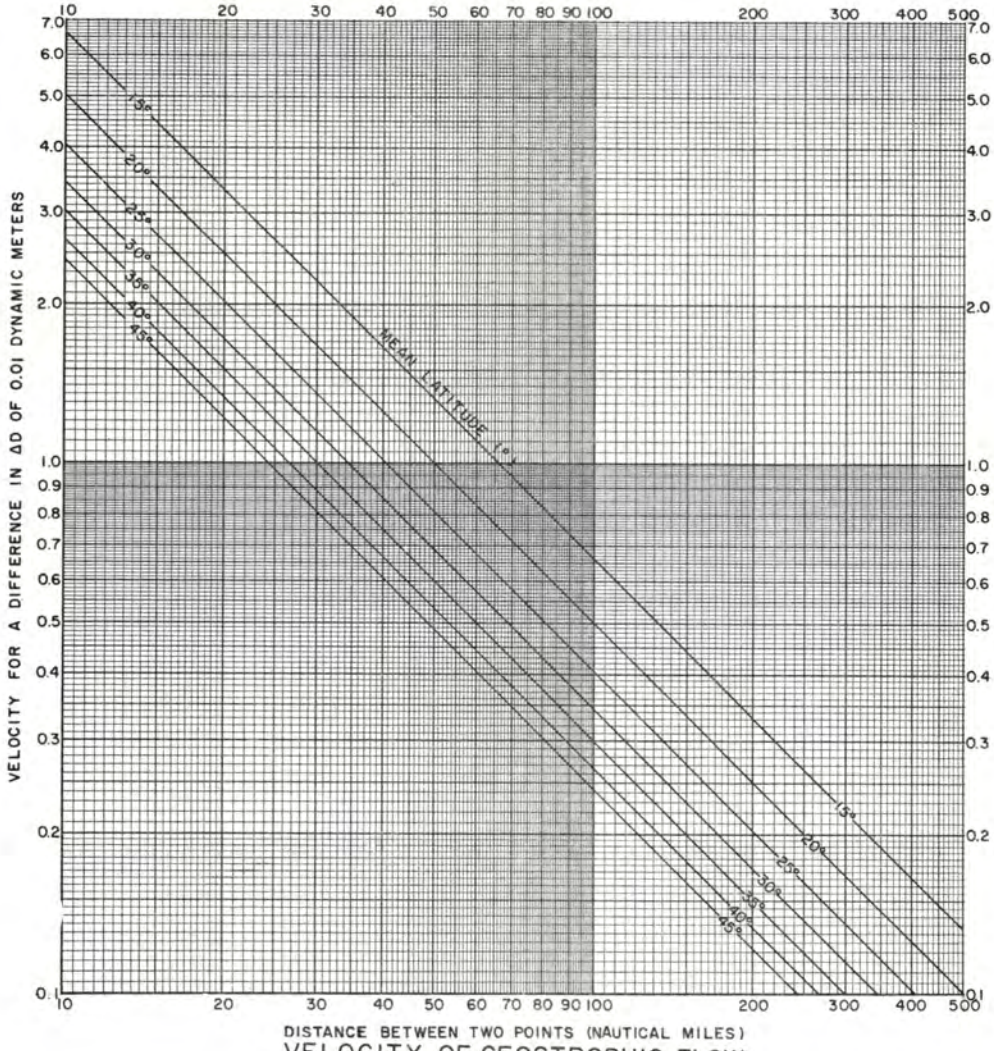
In addition to footnotes, a special notation is used without a footnote because its meaning is always the same.

Values which are not drawn through because they seem to be in error without apparent reason are indicated by the following notation.

u: uncertain value (value may be correct; occasionally it can influence the drawing of the property curve).

FORMAT

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



VELOCITY OF GEOSTROPHIC FLOW
(NAUTICAL MILES PER DAY)

cm/sec	0	1	2	3	4	5	6	7	8	9
0	KNOTS / NM/DAY	0.02 / 0.47	0.04 / 0.93	0.06 / 1.40	0.08 / 1.86	0.10 / 2.33	0.12 / 2.80	0.14 / 3.26	0.16 / 3.73	0.17 / 4.20
10	0.19 / 4.66	0.21 / 5.13	0.23 / 5.59	0.25 / 6.06	0.27 / 6.53	0.29 / 6.99	0.31 / 7.46	0.33 / 7.93	0.35 / 8.39	0.37 / 8.86
20	0.39 / 9.32	0.41 / 9.79	0.43 / 10.26	0.45 / 10.72	0.47 / 11.19	0.49 / 11.66	0.51 / 12.12	0.52 / 12.59	0.54 / 13.05	0.56 / 13.52
30	0.58 / 13.99	0.60 / 14.45	0.62 / 14.92	0.64 / 15.38	0.66 / 15.85	0.68 / 16.32	0.70 / 16.78	0.72 / 17.25	0.74 / 17.72	0.76 / 18.18
40	0.78 / 18.65	0.80 / 19.11	0.82 / 19.58	0.84 / 20.05	0.85 / 20.51	0.87 / 20.98	0.89 / 21.45	0.91 / 21.91	0.93 / 22.38	0.95 / 22.84
50	0.97 / 2331	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 6505 (El Golfo II)

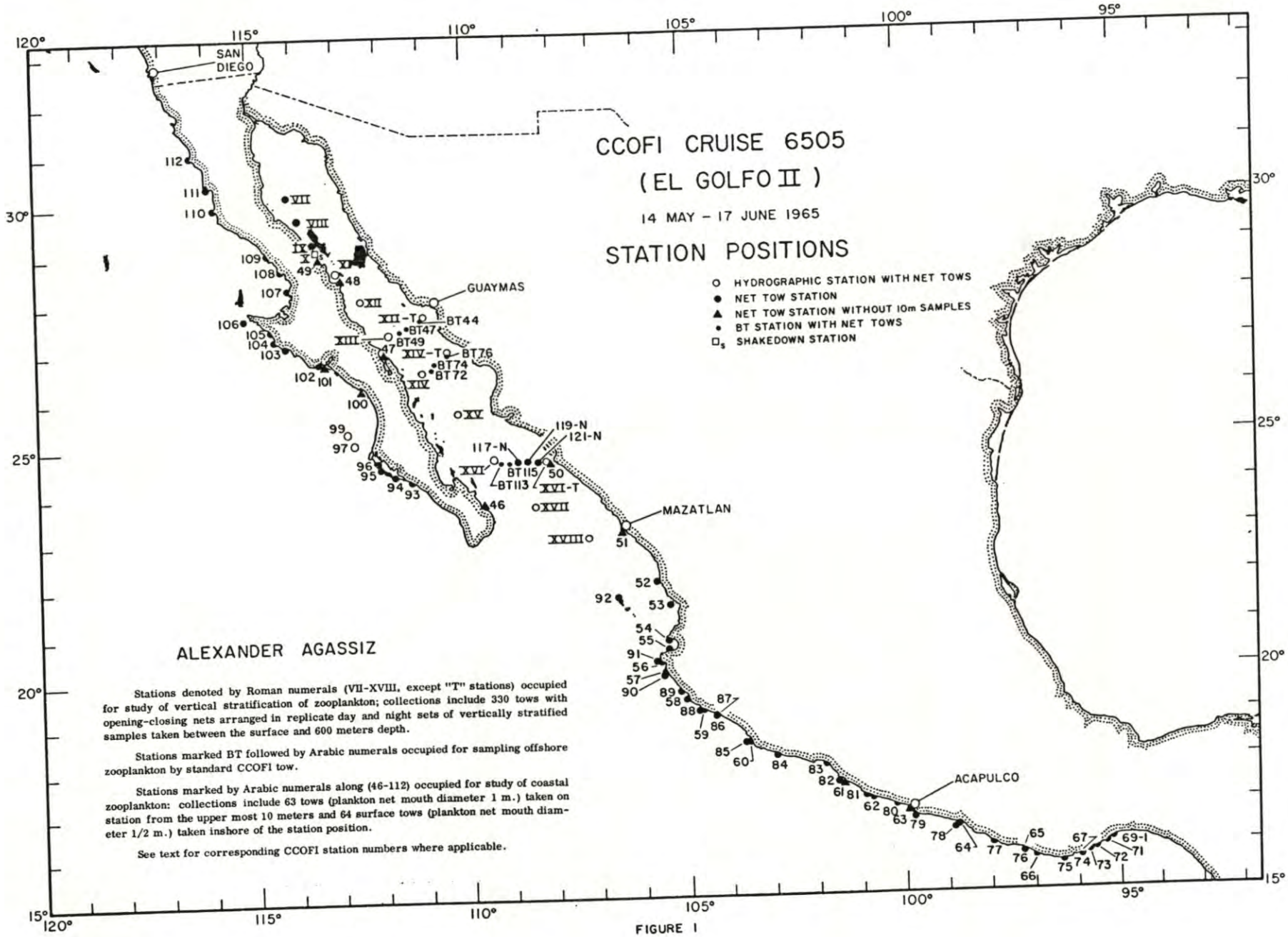

CCOFI CRUISE 6505
(EL GOLFO II)
14 MAY - 17 JUNE 1965
STATION POSITIONS
HYDROGRAPHIC STATION WITH NET TOWS
NET TOW STATION
NET TOW STATION WITHOUT 10m SAMPLES
BT STATION WITH NET TOWS
SHAKEDOWN STATION
SAN DIEGO
GUAYMAS
MAZATLAN
ACAPULCO
ALEXANDER AGASSIZ
Stations denoted by Roman numerals (VII-XVIII, except "T" stations) occupied for study of vertical stratification of zooplankton; collections include 330 tows with opening-closing nets arranged in replicate day and night sets of vertically stratified samples taken between the surface and 600 meters depth.
Stations marked BT followed by Arabic numerals occupied for sampling offshore zooplankton by standard CCOFI tow.
Stations marked by Arabic numerals along (46-112) occupied for study of coastal zooplankton: collections include 63 tows (plankton net mouth diameter 1 m.) taken on station from the upper most 10 meters and 64 surface tows (plankton net mouth diameter 1/2 m.) taken inshore of the station position.
See text for corresponding CCOFI station numbers where applicable.

FIGURE 1

PERSONNEL
Cruise 6505 (El Golfo II)

SHIP'S CAPTAIN

Davis, Laurence, RV Alexander Agassiz

PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

RV Alexander Agassiz

Fleminger, Abraham, (chief scientist)
Brennen, Robert E., Senior Marine Technician
Brown, Daniel, Principal Marine Technician
*Bryan, Walter R., Senior Marine Technician
*Crowe, Fred J., Laboratory Assistant
*Davoll, Peter J., Marine Technician
**Jerde, Charles, Postgraduate Research Biologist
Matsui, Tetsuo, Postgraduate Research Biologist
*Mead, Richard V., Principal Marine Technician
Pine, James S., Senior Marine Technician
Shane, Gillian, Assistant Specialist Biologist
Soutar, Andrew, Laboratory Technician
Trowbridge, Ann P., Laboratory Technician
*Wilson, Warren E., Marine Technician

*San Diego to Mazatlan.
**Mazatlan to San Diego.

OBSERVED LEVELS OF DEPTH								STANDARD LEVELS OF DEPTH						
			INPUT				COMPUTED				INPUT			COMPUTED	
Z	T	S	OXY	PHO	SIL	NIT	D*T	Z	T	S	OXY	SIG*T	D*T	DD
XI						CCOFI 6505	EL GOLFO II						116G.24	
ALEXANDER AGASSIZ, MAY 15 1965, 1649 GCT, 28 37.5N 112 56W, SOUNDING 640 FM, WIND 030 FORCE 3, WEATHER CLEAR, SEA SLIGHT, WIRE ANGLE 10.														
0	16.50	35.122	4.38	1.91	32	0.41	225.9	0	16.50	35.12	4.38	25.74	226.1	0
10	16.18	35.108	4.26	2.10	33	0.38	219.9	10	16.18	35.11	4.26	25.81	219.7	.022
29	15.84	35.085	4.13	2.19	37	0.40	214.2	20	16.01	35.10	4.18	25.84	216.8	.044
49	15.33	35.068	3.93	2.25	40	0.41	204.5	30	15.82	35.08	4.13	25.87	214.1	.066
73	14.40	35.063	3.15	2.50	45	0.12	185.5	50	15.31	35.07	3.93	25.98	203.9	.108
99	14.17	35.061	3.12	2.52	45	0.11	181.0	75	14.39	35.06	3.15	26.17	185.6	.157
124	13.93	35.060	2.89	2.51	48	0.06	176.3	100	14.15	35.06	3.11	26.22	180.7	.203
149	13.65	35.056	2.74	2.65	51	-	171.0	125	13.92	35.06	2.88	26.27	176.1	.249
199	13.42	35.057	2.64	2.66	54	0.02	166.4	150	13.65	35.06	2.74	26.32	170.7	.293
248	13.14	35.026	2.46	2.76	56	0.01	163.3	200	13.42	35.06	2.63	26.37	166.2	.380
297	12.76	34.977	2.23	2.86	56	0.03	159.7	250	13.13	35.02	2.45	26.40	163.5	.465
396	12.42	34.938	2.12	2.86	58	0.00	156.2	300	12.73	34.97	2.22	26.44	159.6	.550
493	12.34	34.930	2.06	2.83	58	0.00	155.3	400	12.41	34.94	2.11	26.48	155.8	.716
591	12.20	34.916	2.06	2.87	60	0.00	153.7	500	12.33	34.93	2.06	26.49	155.1	.883
689	12.08	34.907	1.99	2.86	60	0.00	152.2	600	12.19	34.91	2.05	26.50	154.0	1.052
787	11.93	34.892	1.88	2.91	62	0.00	150.6	700	12.07	34.91	1.98	26.52	151.8	1.221
886	11.82	34.881	1.88	2.91	62	0.01	149.4	800	11.90	34.89	1.88	26.54	150.2	1.390
985	11.72	34.868	1.63	2.96	66	0.01	148.5	1000	11.70	34.87	-	26.56	148.0	1.732
XII						CCOFI 6505	EL GOLFO II						120G.32	
ALEXANDER AGASSIZ, MAY 17 1965, 1525 GCT, 28 01N 112 23W, SOUNDING 500 FM, WIND 180 FORCE 3, WEATHER CLEAR, SEA SMOOTH, WIRE ANGLE 19.														
0	21.28	35.329	5.37	0.93	7	0.03	326.5	0	21.28	35.33	5.37	24.69	326.4	0
9	20.24	35.288	5.35	1.03	7	0.11	302.7	10	20.20	35.29	5.33	24.95	301.5	.031
23	19.43	35.242	4.91	1.31	10	0.32	285.8	20	19.61	35.25	5.00	25.07	289.7	.061
47	17.36	35.142	4.10	1.85	17	0.45	243.9	30	18.97	35.22	4.68	25.22	276.2	.089
66	15.50	35.058	3.05	2.38	28	0.07	208.8	50	16.94	35.12	3.89	25.64	235.9	.141
85	15.21	35.043	3.02	2.44	30	0.06	203.8	75	15.33	33.05	3.04	24.42	352.0	.215
213	14.98	35.026	2.81	2.49	31	0.04	200.2	100	15.08	35.03	2.96	26.00	202.0	.285
142	14.18	34.986	2.36	2.69	38	0.02	186.7	125	14.68	35.01	2.64	26.07	195.1	.335
190	13.36	34.944	2.08	2.73	45	0.02	173.6	150	14.02	34.98	2.31	26.19	183.9	.384
238	12.53	34.887	1.54	2.94	49	0.00	162.0	200	13.18	34.93	1.98	26.32	171.1	.475
285	12.26	34.868	1.34	3.00	51	0.01	158.3	250	12.43	34.88	1.45	26.43	160.6	.561
333	11.49	34.813	1.09	3.01	53	0.00	148.5	300	12.05	34.85	1.27	26.48	155.8	.643
381	10.65	34.758	.86	3.07	58	0.00	138.1	400	10.20	34.72	.73	26.72	133.4	.796
429	9.48	34.676	.53	3.19	66	0.00	125.1	500	8.39	34.62	.40	26.94	112.7	.928
477	8.69	34.640	.43	3.22	72	-	115.6	600	7.20	34.56	.28	27.07	100.5	1.044
572	7.54	34.575	.28	3.37	82	-	104.0	700	6.03	34.54	.30	27.21	87.1	1.147
670	6.33	34.543	.32	3.40	93	-	90.5	800	5.40	34.55	.25	27.29	78.9	1.240
792	5.44	34.546	.25	3.49	111	-	79.7							
XIII						CCOFI 6505	EL GOLFO II						126G.88	
ALEXANDER AGASSIZ, MAY 19 1965, 1131 GCT, 27 42N 110 57W, SOUNDING 305 FM, WIND 040 FORCE 2, WEATHER CLOUDY, SEA SMOOTH, WIRE ANGLE 07.														
0	23.36	35.322	5.59	0.76	1	0.00	383.0	0	23.36	35.32	5.59	24.09	383.2	0
10	23.29	35.314	5.26	0.76	2	0.04	381.7	10	23.29	35.31	5.26	24.10	382.0	.038
30	20.00	35.175	5.47	1.06	4	0.06	304.8	20	22.22	35.26	5.37	24.37	356.4	.075
40	18.40	35.101	4.26	1.47	9	0.54	271.1	30	20.00	35.18	5.47	24.92	304.5	.108
50	17.37	35.004	3.41	1.83	14	0.61	254.1	50	17.37	35.00	3.41	25.44	254.4	.165
64	16.05	34.946	2.68	2.23	20	0.09	228.9	75	15.75	35.02	2.75	25.84	217.0	.224
79	15.61	35.032	2.77	2.42	25	0.04	213.1	100	14.61	34.94	2.11	26.03	198.8	.277
99	14.62	34.940	2.11	2.58	30	0.01	199.0	125	14.25	34.92	1.75	26.09	193.0	.326
124	14.26	34.925	1.76	2.67	35	0.00	192.8	150	13.72	34.91	1.40	26.19	183.1	.374
144	13.81	34.917	-	2.79	39	0.00	184.4	200	12.71	34.82	.82	26.33	170.2	.465
174	13.40	34.888	1.23	2.86	41	-	178.5	250	12.20	34.82	.81	26.43	160.8	.551
203	12.67	34.814	.81	2.90	42	-	169.9	300	11.86	34.83	1.08	26.50	153.9	.633
233	12.30	34.813	.58	2.95	45	-	163.1	400	10.18	34.73	.55	26.73	132.3	.784
272	12.10	34.836	1.06	3.00	49	-	157.8	500	8.25	34.61	.32	26.95	111.4	.915
330	11.50	34.809	1.08	3.00	54	-	149.0							
404	10.10	34.722	.53	3.13	61	-	131.6							
478	8.71	34.630	.36	3.28	72	-	116.7							
548	7.24	34.568	.26	3.56	84	-	100.4							

OBSERVED LEVELS OF DEPTH								STANDARD LEVELS OF DEPTH						
INPUT							COMPUTED	INPUT					COMPUTED	
Z	T	S	OXY	PHO	SIL	NIT	D*T	Z	T	S	OXY	SIG*T	D*T	DD
126G.42						CCOFI 6505	EL GOLFO II						XIII	
ALEXANDER AGASSIZ, MAY 20 1965, 0113 GCT, 27 18N 111 42W, SOUNDING 820 FM, WIND CALM, WEATHER CLOUDY, SEA CALM, WIRE ANGLE 06.														
0	24.06A	35.343	5.47	0.74	4	0.00	401.1	0	24.06	35.34	5.47	23.90	401.4	0
10	22.72	35.335	5.56	0.78	3	0.00	364.5	10	22.72	35.34	5.56	24.29	364.1	.038
30	21.09	35.241	6.30	0.86	5	0.04	327.9	20	22.28	35.31	5.78	24.39	354.4	.074
55	16.85	35.117	3.91	1.94	16	0.31	234.1	30	21.09	35.24	6.30	24.67	328.0	.108
71	15.62	35.054	3.02	2.34	26	0.10	211.7	50	17.35	35.13	4.27	25.55	244.5	.166
86	14.86	35.024	2.64	2.46	34	0.03	197.8	75	15.10	35.03	2.73	25.99	202.4	.222
101	14.36	35.005	2.41	2.60	38	0.01	189.0	100	14.40	35.01	2.43	26.13	189.4	.272
125	13.81	34.951	1.75	2.72	41	0.01	181.9	125	13.81	34.95	1.75	26.21	182.0	.319
145	13.38	34.925	1.48	2.70	43	0.00	175.3	150	13.36	34.93	1.65	26.28	174.6	.365
164	13.33	34.958	1.95	2.80	46	0.00	172.0	200	12.78	34.90	1.43	26.38	165.7	.452
194	12.86	34.910	1.46	2.85	48	-	166.5	250	12.27	34.86	1.22	26.45	159.1	.536
244	12.34	34.874	1.27	2.89	50	-	159.4	300	11.47	34.81	.79	26.56	148.4	.616
297	11.52	34.812	.79	2.96	52	-	149.1	400	9.89	34.72	.78	26.77	128.3	.763
376	10.30	34.748	.86	3.05	64	-	132.9	500	8.03	34.60	.33	26.98	109.0	.890
473	8.52	34.626	.38	3.17	73	-	114.1	600	6.75	34.57	-	27.14	93.8	1.000
580	6.93	34.567	.28	3.32	103	-	96.4							
132G.48						CCOFI 6505	EL GOLFO II						XIV	
ALEXANDER AGASSIZ, MAY 22 1965, 0120 GCT, 26 31.5N 111 03W, SOUNDING 810 FM, WIND 160 FORCE 3, WEATHER OVERCAST, SEA SLIGHT, WIRE ANGLE 17.														
0	24.72	35.337	5.15	0.80	4	0.00	420.4	0	24.72	35.34	5.15	23.70	420.2	0
9	23.58	35.310	5.46	0.77	3	0.01	390.0	10	23.47	35.31	5.47	24.05	387.0	.040
28	19.10	35.191	6.15	1.10	9	0.21	281.4	20	21.00	35.24	5.98	24.70	325.6	.076
53	16.30	35.121	3.98	2.12	20	0.05	221.6	30	18.94	35.19	6.11	25.20	277.6	.106
67	15.22	35.063	3.17	2.42	29	0.03	202.5	50	16.70	35.13	4.37	25.70	229.8	.157
81	14.67	35.032	3.02	2.45	41	0.02	193.3	75	14.88	35.04	3.05	26.05	197.1	.211
95	14.23	35.022	3.00	2.49	43	0.02	185.1	100	14.11	35.02	2.92	26.20	182.8	.259
125	13.66	34.988	2.70	2.61	47	0.02	176.2	125	13.66	34.99	2.70	26.27	176.1	.305
148	13.42	34.977	2.69	3.20	49	0.03	172.3	150	13.40	34.97	2.69	26.31	172.4	.349
171	13.11	34.962	2.51	3.24	52	0.03	167.4	200	12.39	34.88	1.37	26.44	159.9	.435
204	12.30	34.874	1.29	3.38	49	0.01	158.6	250	11.55	34.80	1.89	26.54	150.5	.515
265	11.32	34.788	.80	3.55	53	0.02	147.4	300	10.80	34.76	1.64	26.64	140.4	.591
358	9.92	34.700	.48	3.73	63	0.00	130.3	400	9.24	34.66	.39	26.83	122.5	.730
450	8.48	34.613	.33	3.88	71	0.00	114.5	500	7.92	34.59	.30	26.98	108.2	.854
578	7.10	34.568	.27	4.06	84	-	98.6	600	6.89	34.56	.27	27.11	96.4	.965
723	5.71	34.529	.27	4.13	98	-	84.1	700	5.89	34.53	.27	27.22	86.1	1.066
868	5.00	34.536	.33	-	109	-	75.5	800	5.30	34.53	.30	27.29	79.3	1.158
1077	4.16	34.566	.46	-	132	-	64.4	1000	4.47	34.55	.41	27.40	68.8	1.325
131G.91						CCOFI 6505	EL GOLFO II						XIVT	
ALEXANDER AGASSIZ, MAY 22 1965, 1753 GCT, 26 56N 110 24.5W, SOUNDING 570 FM, WIND 150 FORCE 1, WEATHER PARTLY CLOUDY, SEA SLIGHT, WIRE ANGLE 05.														
0	25.69	35.263	5.14	0.74	4	0.01	454.1	0	25.69	35.26	5.14	23.35	454.3	0
10	23.78	35.275	5.47	0.84	3	0.01	398.2	10	23.78	35.28	5.47	23.94	397.8	.043
25	20.71	35.135	6.00	0.98	4	0.03	325.8	20	21.75	35.19	5.91	24.45	348.9	.080
50	16.76	34.958	3.17	2.09	18	0.36	243.7	30	19.55	35.07	5.37	24.95	301.2	.113
70	15.90	34.957	2.68	2.32	21	0.10	224.8	50	16.76	34.96	3.17	25.56	243.5	.167
90	15.04	34.931	2.18	2.50	27	0.06	208.4	75	15.68	34.95	2.53	25.80	220.6	.226
119	13.80	34.893	1.31	2.78	36	0.02	185.9	100	14.55	34.91	1.83	26.02	199.8	.279
149	13.36	34.880	1.03	2.89	41	0.01	178.3	125	13.70	34.89	1.25	26.18	184.2	.328
198	12.47	34.828	.73	2.88	43	0.01	165.2	150	13.35	34.88	1.03	26.25	178.1	.374
247	11.92	34.810	.76	3.00	47	0.00	156.4	200	12.44	34.83	.73	26.39	164.5	.462
295	11.10	34.764	.49	3.06	48	0.01	145.3	250	11.87	34.81	.75	26.49	155.5	.545
345	10.46	34.723	.55	3.11	54	0.00	137.5	300	11.03	34.76	.50	26.60	144.4	.623
393	9.58	34.658	.36	3.17	60	-	128.0	400	9.48	34.65	.37	26.79	127.0	.766
441	8.96	34.626	.38	3.19	65	-	120.7	500	8.20	34.59	.33	26.94	112.1	.894
490	8.32	34.595	.33	3.27	70	-	113.5	600	7.17	34.56	.30	27.07	100.1	1.010
587	7.28	34.562	.29	3.35	80	-	101.4	700	6.31	34.54	.33	27.17	90.5	1.115
686	6.42	34.539	.32	3.45	88	-	92.0	800	5.52	34.53	.38	27.26	81.8	1.211
810	5.44	34.531	.39	3.47	103	-	80.8							

A) ALTERNATE VALUE, 23.35, NOT USED IN INTERPOLATION.

OBSERVED LEVELS OF DEPTH								STANDARD LEVELS OF DEPTH						
		INPUT					COMPUTED		INPUT				COMPUTED	
Z	T	S	OXY	PHO	SIL	NIT	D*T	Z	T	S	OXY	SIG*T	D*T	DD
XV							CCOFI 6505 EL GOLFO II						139G.60	
ALEXANDER AGASSIZ, MAY 23 1965, 1558 GCT, 25 38N 110 14W, SOUNDING 1110 FM, WIND 330 FORCE 3, WEATHER PARTLY CLOUDY, SEA MODERATE, WIRE ANGLE 22.														
0	24.44	35.273	5.17	0.75	3	0.01	417.0	0	24.44	35.27	5.17	23.74	417.2	0
9	24.38	35.284	5.24	0.79	3	0.01	414.5	10	24.37	35.28	5.24	23.76	414.5	.042
32	22.18	35.223	5.75	0.91	4	0.01	358.0	20	24.00	35.28	5.38	23.87	404.0	.083
60	17.22	35.010	3.53	1.93	15	0.75	250.3	30	22.45	35.24	5.74	24.29	364.0	.121
83	15.88	34.936	2.56	2.35	22	0.07	225.9	50	18.65	35.08	4.52	25.19	278.6	.186
97	15.62	34.946	2.61	2.39	24	0.04	219.6	75	16.04	34.94	2.60	25.71	229.1	.250
110	15.25	34.951	2.43	2.47	27	0.04	211.3	100	15.49	34.95	2.57	25.84	216.5	.306
142	14.22	34.921	1.74	2.73	35	0.02	192.3	125	14.82	34.94	2.15	25.98	203.2	.359
164	13.46	34.889	1.35	2.88	39	0.02	179.5	150	13.94	34.91	1.59	26.15	187.5	.409
195	12.82	34.869	1.10	2.96	45	0.02	168.7	200	12.76	34.87	1.13	26.36	167.5	.500
226	12.52	34.871	1.25	2.95	47	0.02	162.9	250	12.22	34.85	1.17	26.45	158.9	.585
286	11.72	34.815	.95	3.00	50	0.01	152.4	300	11.50	34.80	1.87	26.55	149.6	.665
391	9.98	34.678	.39	3.11	58	0.02	132.9	400	9.83	34.67	.39	26.74	131.1	.813
503	8.30	34.603	.37	3.28	73	0.02	112.6	500	8.35	34.61	.37	26.94	112.8	.944
629	6.06	34.530	.27	3.46	93	-	88.2	600	6.51	34.54	.28	27.14	93.0	1.056
777	5.00	34.535	.35	3.51	110	-	75.5	700	5.46	34.53	.31	27.27	81.1	1.152
								800	4.89	34.54	-	27.35	74.0	1.238
XVI							CCOFI 6505 EL GOLFO II						146G.73	
ALEXANDER AGASSIZ, MAY 25 1965, 1444 GCT, 24 37N 109 21.5W, SOUNDING 1187 FM, WIND 230 FORCE 4, WEATHER PARTLY CLOUDY, SEA MODERATE, WIRE ANGLE 10.														
0	25.42	35.128	4.97	0.65	2	0.00	455.8	0	25.42	35.13	4.97	23.33	455.7	0
10	25.42	35.130	5.05	0.54	3	0.01	455.7	10	25.42	35.13	5.05	23.33	455.7	.046
35	19.96	34.896	4.97	1.00	6	0.12	324.1	20	25.40	35.13	5.05	23.34	455.1	.091
64	15.89	34.801	2.16	2.30	21	0.48	236.0	30	21.30	34.95	5.00	24.39	354.4	.132
89	14.10	34.741	.68	2.67	30	0.12	203.0	50	17.50	34.84	3.57	25.29	269.0	.194
104	13.48	34.746	.54	2.75	32	0.02	190.4	75	14.93	34.77	1.29	25.83	217.9	.256
119	13.11	34.803	.41	2.83	35	0.01	179.1	100	13.65	34.74	.59	26.08	194.2	.308
154	12.46	34.771	.25	2.81	34	0.01	169.2	125	13.03	34.80	.38	26.25	177.8	.355
178	12.08	34.776	.28	2.84	37	0.01	161.8	150	12.58	34.78	.28	26.32	170.7	.400
213	11.68	34.766	.30	3.02	43	0.01	155.3	200	11.83	34.77	.30	26.46	157.7	.484
248	11.23	34.742	.33	2.99	46	0.01	149.2	250	11.21	34.74	.33	26.55	149.0	.563
317	10.40	34.696	.34	3.11	54	0.01	138.4	300	10.62	34.71	.34	26.64	141.1	.639
435	8.39	34.585	.27	3.27	67	0.00	115.3	400	8.90	34.61	.28	26.85	121.0	.777
562	7.12	34.545	.34	3.34	81	0.02	100.5	500	7.71	34.56	.30	26.99	107.4	.900
704	5.88	34.522	.31	3.42	95	-	86.6	600	6.77	34.54	.33	27.11	96.3	1.010
867	5.05	34.529	.36	3.51	110	-	76.5	700	5.91	34.52	.31	27.21	87.1	1.111
								800	5.31	34.53	.34	27.29	79.4	1.204
								1000	4.71	34.54	-	27.37	72.0	1.375
XVIT							CCOFI 6505 EL GOLFO II						149G.127	
ALEXANDER AGASSIZ, MAY 26 1965, 1048 GCT, 24 37.5N 108 14.5W, SOUNDING 340 FM, WIND 360 FORCE 3, WEATHER CLEAR, SEA CALM, WIRE ANGLE 04.														
0	25.42	35.072	5.06	0.76	12	0.00	459.9	0	25.42	35.07	5.06	23.29	460.0	0
10	25.43	35.059	5.04	0.80	14	0.04	461.1	10	25.43	35.06	5.04	23.28	461.0	.046
30	21.95	34.862	3.77	1.23	14	0.60	377.9	20	22.92	34.92	4.17	23.92	399.9	.089
40	20.02	34.710	2.36	1.90	22	1.21	339.0	30	21.95	34.86	3.77	24.15	378.1	.128
55	17.48	34.598	.81	2.39	23	0.28	286.2	50	18.15	34.62	1.09	24.96	300.2	.196
70	16.80	34.597	.68	2.55	24	0.07	270.9	75	16.69	34.60	.65	25.30	268.2	.268
95	15.02	34.662	.44	2.71	26	0.01	227.6	100	14.77	34.68	.49	25.79	221.1	.330
115	14.14	34.705	.64	2.78	28	0.00	206.5	125	13.62	34.73	.46	26.08	194.3	.382
135	13.30	34.746	.34	2.83	30	0.25	186.9	150	13.12	34.77	.35	26.21	181.7	.430
155	13.06	34.773	.35	2.89	33	0.00	180.3	200	12.39	34.77	.30	26.35	168.0	.520
185	12.66	34.778	.31	2.84	34	-	172.4	250	11.62	34.75	.25	26.49	155.5	.604
220	12.04	34.769	.28	2.87	35	-	161.6	300	11.12	34.72	.37	26.55	148.9	.683
250	11.62	34.753	.25	2.90	37	-	155.2	400	9.59	34.64	.29	26.76	129.5	.830
300	11.12	34.719	.37	3.02	41	-	149.0	500	7.99	34.56	.37	26.95	111.4	.959
354	10.33	34.672	.35	3.09	49	-	139.1	600	6.73	34.53	.41	27.11	96.6	1.072
439	8.94	34.604	.25	3.30	61	-	122.1							
524	7.66	34.556	.42	3.36	75	-	107.0							
609	6.62	34.530	.41	3.45	87	-	95.2							

OBSERVED LEVELS OF DEPTH								STANDARD LEVELS OF DEPTH						
		INPUT					COMPUTED			INPUT				COMPUTED	
Z	T	S	OXY	PHO	SIL	NIT	D*T	Z	T	S	OXY	SIG*T	D*T	DD
154G.89						CCOFI 6505	EL GOLFO II							XVII
ALEXANDER AGASSIZ, MAY 27 1965, 2227 GCT, 23 40N 108 25W, SOUNDING 1280 FM, WIND 250 FORCE 2, WEATHER CLOUDY, SEA ROUGH, WIRE ANGLE 12.														
0	27.18	35.200	4.90	0.63	3	0.00	503.5	0	27.18	35.20	4.90	22.83	503.5	0
10	25.70	35.151	5.02	0.59	2	0.01	462.4	10	25.70	35.15	5.02	23.26	462.5	.048
29	23.66	34.998	5.35	0.65	3	0.00	414.8	20	25.10	35.11	5.14	23.41	447.8	.094
54	18.31	34.601	4.64	1.14	8	0.30	305.3	30	23.50	34.98	5.34	23.79	411.6	.137
68	15.98	34.622	1.63	2.27	19	0.11	251.0	50	19.23	34.64	4.93	24.71	324.6	.211
83	15.36	34.821	1.88	2.50	25	0.04	223.2	75	15.67	34.76	1.78	25.66	234.2	.281
98	14.76	34.825	1.49	2.63	29	0.02	210.3	100	14.68	34.82	1.40	25.92	209.0	.337
127	13.28	34.746	.28	2.79	32	0.00	186.5	125	13.35	34.75	.30	26.15	187.6	.388
150	12.82	34.768	.25	2.74	34	0.84	176.1	150	12.82	34.77	.25	26.27	176.0	.434
174	12.39	34.770	.23	2.80	33	1.40	168.0	200	11.91	34.77	.23	26.45	159.2	.520
209	11.75	34.761	.23	2.89	36	1.69	157.0	250	11.19	34.72	.25	26.54	150.1	.600
270	10.92	34.698	.25	2.99	43	0.06	147.1	300	10.54	34.67	.23	26.62	142.7	.676
367	9.60	34.613	.23	3.23	50	0.28	131.6	400	9.15	34.59	.25	26.79	126.3	.818
460	8.31	34.554	.28	3.39	61	0.02	116.4	500	7.88	34.54	.27	26.95	111.3	.945
584	7.03	34.521	.24	-	77	0.05	101.1	600	6.89	34.52	.25	27.08	99.4	1.060
728	5.68	34.504	.27	3.47	93	0.03	85.6	700	5.92	34.51	.26	27.20	88.0	1.162
869	4.93	34.522	.33	3.53	105	0.01	75.8	800	5.27	34.51	.29	27.28	80.4	1.256
1072	4.02	34.546	.56	3.46	121	0.00	64.5	1000	4.33	34.54	.49	27.41	68.1	1.424
160G.128						CCOFI 6505	EL GOLFO II							XVIII
ALEXANDER AGASSIZ, MAY 29 1965, 0230 GCT, 22 59N 107 12.5W, SOUNDING 830 FM, WIND 240 FORCE 3, WEATHER PARTLY CLOUDY, SEA ROUGH, WIRE ANGLE 06.														
0	26.40	34.947	4.90	0.44	3	0.00	498.0	0	26.40	34.95	4.90	22.89	497.8	0
10	26.20	34.953	5.00	0.47	3	0.00	491.5	10	26.20	34.95	5.00	22.95	491.8	.049
30	20.96	34.606	5.26	0.51	3	0.01	370.5	20	24.30	34.83	5.13	23.44	444.9	.096
60	16.64	34.628	2.95	1.78	14	0.52	265.0	30	20.96	34.61	5.26	24.23	370.2	.137
81	14.80	34.627	.90	2.52	22	0.17	225.6	50	17.00	34.63	3.23	25.25	272.9	.202
96	13.94	34.640	.61	2.62	24	0.05	207.3	75	15.30	34.63	1.26	25.64	235.9	.266
110	13.34	34.694	.41	2.71	26	0.01	191.5	100	13.73	34.66	.53	26.00	201.6	.321
140	12.68	34.728	.38	2.85	33	0.04	176.4	125	12.97	34.71	.38	26.19	183.2	.370
165	12.28	34.760	.39	2.78	35	0.30	166.7	150	12.49	34.75	.39	26.32	171.3	.415
195	11.88	34.745	.34	2.95	39	0.07	160.5	200	11.82	34.75	.34	26.45	159.0	.500
229	11.50	34.734	.33	3.01	40	-	154.5							
650	6.58	34.517	.31	3.52	77	-	95.6							
807	5.26	34.523	.35	3.65	100	-	79.3							
974	4.18	34.544	.39	3.65	117	-	66.2							
1181	3.73	34.572	.77	3.55	128	-	59.7							
138.30						CCOFI 6505	EL GOLFO II							97
ALEXANDER AGASSIZ, JUNE 14 1965, 0538 GCT, 25 03N 112 35.5W, SOUNDING 160 FM, WIND 320 FORCE 4, WEATHER MISSING, SEA MODERATE, WIRE ANGLE 33.														
1	18.52	33.996	5.60	0.47	-	0.00	354.3	0	18.52	34.00	5.60	24.40	354.0	0
9	18.52	33.996	5.65	0.47	-	0.01	354.3	10	18.51	33.99	5.66	24.39	354.5	.035
22	17.90	33.931	5.82	0.51	-	0.00	344.4	20	18.15	33.95	5.78	24.45	348.9	.071
42	14.20	33.837	4.54	1.10	-	0.39	271.3	30	15.90	33.87	5.27	24.92	304.1	.103
65	12.94	34.005	2.94	1.72	-	0.08	234.5	50	13.11	33.94	3.31	25.57	242.4	.158
84	12.06	34.219	1.98	2.16	-	0.01	202.4	75	12.20	34.15	2.19	25.91	210.1	.215
103	11.76	34.309	1.48	2.21	-	0.00	190.4	100	11.77	34.29	1.54	26.10	192.0	.266
123	11.98	34.519	.69	2.70	-	0.01	178.9	125	11.98	34.52	.68	26.24	178.8	.313
165	11.66	34.561	.60	2.74	-	0.02	170.1	150	11.78	34.55	.63	26.30	173.0	.358
188	11.54	34.596	.46	2.84	-	0.03	165.4	200	11.47	34.61	.37	26.41	163.1	.444
215	11.36	34.622	.31	2.93	-	0.01	160.3	250	10.80	34.61	.24	26.53	151.5	.525
224	11.24	34.617	.33	2.93	-	0.00	158.6							
234	11.09	34.613	-	2.99	-	0.00	156.3							
243	10.9 A	34.610	.27	2.99	-	0.00	153.2							
252	10.8 A	34.606	.24	3.01	-	-	151.8							
137.30						CCOFI 6505	EL GOLFO II							99
ALEXANDER AGASSIZ, JUNE 14 1965, 1008 GCT, 25 15.5N 112 44W, SOUNDING 270 FM, WIND 310 FORCE 5, WEATHER MISSING, SEA MODERATE, WIRE ANGLE 19.														
0	16.84	33.972	6.10	0.82	-	0.12	317.3	0	16.84	33.97	6.10	24.78	317.4	0
14	16.32	33.956	6.02	0.84	-	0.18	307.0	10	16.56	33.96	6.07	24.84	312.0	.031
28	14.46	33.949	4.68	1.32	-	0.31	268.3	20	15.70	33.95	5.62	25.03	294.0	.062
52	12.62	34.198	1.46	2.43	-	0.10	214.3	30	14.00	34.01	3.98	25.44	254.6	.089
80	12.21	34.266	1.38	2.49	-	0.14	201.7	50	12.67	34.19	1.50	25.85	215.8	.137
103	12.11	34.341	1.12	2.52	-	0.07	194.4	75	12.25	34.25	1.38	25.98	203.6	.189
154	11.42	34.522	.81	2.74	-	0.01	168.7	100	12.13	34.33	1.15	26.06	195.5	.240
200	11.24	34.609	.44	2.86	-	0.01	159.2	125	11.82	34.43	.96	26.20	182.6	.288
298	10.52	34.606	.26	3.02	-	0.00	147.1	150	11.46	34.51	.83	26.33	170.3	.333
394	10.32	34.592	.25	3.01	-	0.00	144.8	200	11.24	34.61	.44	26.45	159.1	.417
433	10.30	34.596	.35	3.12	-	0.00	144.2	250	10.85	34.61	.32	26.52	152.4	.498
443	10.28	34.587	.28	3.12	-	0.00	144.5	300	10.50	34.61	.26	26.58	146.5	.575
452	10.24	34.587	.33	3.11	-	0.00	143.9	400	10.31	34.59	.27	26.60	144.8	.729
462	10.23	34.583	.30	3.24	-	0.00	144.0							
472	10.22	34.576	.36	3.12	-	0.01	144.3							

A) TEMPERATURE INFERRED FROM PRESSURE THERMOMETER AND WIRE DEPTH.

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	10 METERS T °C	10 METERS S ‰	10 METERS δ_T cl/ton
DATA AT NET TOW STATIONS												
VII (105G.18)-G	V-14	0535	30°10.0'	114°05.0'	200	200°	3	clear	slight	19.21	35.438	266
VIII (108G.14)-G	14	0940	29°40.0'	113°50.0'	360	220°	5	clear	moderate	19.74	35.762	256
IX (111G.15)-G	14	1350	29°12.5'	113°30.0'	510	330°	3	clear	slight	15.60	35.099	208
117N (148G.98)-G	26	0530	24°37.0'	108°49.5'	620	240°	2	missing	missing	25.88	35.118	470
119N (148G.110)-G	26	0715	24°37.5'	108°35.5'	645	030°	3	missing	missing	25.70	34.987	474
121N (149G.121)-G	26	0900	24°37.5'	108°21.5'	490	010°	3	missing	missing	25.15	35.020	456
52-G	VI-2	0300	22°02.5'	105°40.5'	7	300°	2	missing	missing	26.59	34.762	517
53-G	2	0905	21°30.5'	105°21.0'	7	040°	1	clear	missing	26.41	34.669	518
54-G	2	1710	20°44.0'	105°24.5'	10	230°	4	clear	slight	27.60	34.539	564
55-G	2	2000	20°32.0'	105°24.5'	80	280°	3	partly cloudy	moderate	23.42	34.556	440
56-G	3	0015	20°14.5'	105°36.5'	16	280°	3	partly cloudy	moderate	24.26	34.558	463
57-G	3	0435	20°00.0'	105°32.0'	9	280°	2	clear	missing	25.30	34.548	494
58-G	3	1015	19°24.0'	105°02.5'	10	100°	1	clear	missing	24.77	34.520	481
59-G	3	1335	19°12.0'	104°42.0'	10	020°	1	partly cloudy	missing	22.24	34.502	412
60-G	3	2240	18°27.5'	103°36.0'	8	calm		cloudy	moderate	26.00	34.495	519
62-G	4	1917	17°09.5'	100°46.5'	11	250°	3	partly cloudy	rough	27.70	34.490	570
64-G	6	0025	16°32.0'	98°47.5'	10	270°	3	cloudy	moderate	29.98	34.386	650
65-G	6	1210	15°54.5'	97°14.0'	35	330°	2	cloudy	moderate	27.96	34.055	609

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DATA AT NET TOW STATIONS										10 METERS		
Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Force	Weather	Sea	T °C	S ‰	δ_T cl/ton
66-G	VI-6	1450	15°47.0'	96°59.0'	18	270°	3	cloudy	rough	28.22	34.017	621
67-G	6	2330	15°49.0'	95°58.0'	12	-	4	cloudy	rough	29.79	34.112	664
69-1-G	7	1210	16°09.0'	95°14.0'	5	340°	3	cloudy	rough	30.12	34.036	680
71-G	7	2300	16°03.0'	95°22.0'	7	210°	2	cloudy	moderate	30.03	34.084	674
72-G	8	0140	15°56.0'	95°37.0'	9	270°	2	missing	slight	29.98	34.089	671
73-G	8	0300	15°53.0'	95°45.5'	7	240°	3	partly cloudy	moderate	29.96	34.074	672
74-G	8	0440	15°44.5'	95°57.0'	260	240°	3	missing	moderate	30.06	34.964	683
75-G	8	0743	15°40.0'	96°26.0'	50	280°	3	missing	missing	28.69	34.147	626
76-G	8	1245	15°53.0'	97°16.0'	95	130°	3	partly cloudy	moderate	26.96	34.066	579
77-G	8	1720	16°06.0'	98°00.5'	9	250°	2	partly cloudy	moderate	28.98	34.340	621
78-G	8	2250	16°26.5'	98°51.0'	365	230°	4	partly cloudy	moderate	29.34	34.490	622
79-G	9	0433	16°42.0'	99°48.0'	97	240°	2	partly cloudy	missing	28.31	34.486	590
80-G	9	0750	16°58.5'	100°14.5'	13	180°	2	partly cloudy	moderate	29.03	34.519	610
81-G	9	1230	17°12.5'	100°55.5'	16	350°	4	partly cloudy	moderate	28.33	34.478	591
82-G	9	1645	17°31.5'	101°34.5'	100	270°	2	partly cloudy	moderate	29.30	34.606	612
83-G	9	2000	17°54.0'	101°51.5'	6	250°	3	partly cloudy	moderate	28.11	34.516	581
84-G	10	0245	18°07.5'	102°58.5'	20	240°	5	clear	moderate	28.20	34.429	591
85-G	10	0730	18°26.5'	103°39.0'	260	260°	3	partly cloudy	moderate	27.82	34.441	578

DATA AT NET TOW STATIONS										10 METERS		
Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Force	Weather	Sea	T °C	S ‰	δ_T cl/ton
86-G	VI-10	1350	19°01.0'	104°26.0'	90	040°	2	partly cloudy	moderate	26.54	34.514	533
87-G	11	0105	19°05.0'	104°21.0'	14	260°	4	partly cloudy	moderate	27.46	34.561	558
88-G	11	0355	19°09.0'	104°45.5'	95	290°	3	partly cloudy	moderate	27.14	34.540	549
89-G	11	0900	19°35.5'	105°11.0'	12	030°	2	partly cloudy	moderate	24.32	34.514	468
90-G	11	1205	19°58.0'	105°36.0'	80	320°	4	partly cloudy	moderate	27.97	34.661	566
91-G	11	1420	20°15.0'	105°44.5'	95	010°	4	partly cloudy	moderate	27.33	34.640	548
92-G	12	0040	21°38.0'	106°33.0'	170	040°	1	clear	calm	28.26	35.010	551
93 (144.21)-G	13	0650	24°13.5'	111°18.0'	10	320°	4	clear	moderate	14.81	34.209	257
94 (143.24)-G	13	0945	24°20.0'	111°40.0'	30	270°	3	missing	calm	14.15	34.200	243
95 (142.27)-G	13	1330	24°33.0'	112°03.0'	17	320°	4	overcast	calm	15.48	34.378	258
96 (141.28)-G	13	1420	24°37.5'	112°07.0'	18	320°	3	overcast	calm	14.60	34.383	240
102 (129.28)-G	15	0338	26°43.5'	113°30.0'	10	280°	5	clear	moderate	13.66	34.036	246
103 (125.35)-G	15	1040	27°08.0'	114°17.0'	7	340°	2	clear	calm	11.77	34.060	209
104 (125.35)-G	15	1305	27°12.0'	114°28.0'	32	330°	3	cloudy	moderate	11.84	34.015	214
105 (124.35)-G	15	1705	27°24.5'	114°31.5'	18	300°	4	partly cloudy	moderate	12.76	34.058	227
106 (121.40)-G	15	2350	27°40.0'	115°08.0'	48	290°	4	partly cloudy	moderate	12.88	34.059	229
107 (121.25)-G	16	1320	28°14.0'	114°06.5'	5	310°	4	cloudy	moderate	16.86	33.830	328
108 (119.23)-G	16	1805	28°39.0'	114°14.5'	12	290°	3	cloudy	slight	16.47	33.827	320

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DATA AT NET TOW STATIONS										10 METERS		
Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind Dir	Wind Force	Weather	Sea	T °C	S ‰	δ_T cl/ton
109 (117.25)-G	VI-17	0120	28°58.0'	114°34.5'	4	290°	4	partly cloudy	slight	14.57	33.785	282
110 (110.32)-G	17	1320	29°56.0'	115°48.0'	5	350°	3	cloudy	moderate	12.88	33.753	252
111 (107.30)-G	17	1815	30°22.0'	115°57.5'	7	290°	3	partly cloudy	moderate	12.82	33.865	242
112 (104.30)-G	17	2325	30°57.5'	116°17.0'	5	280°	4	partly cloudy	moderate	13.03	33.863	247