

data report
Physical and Chemical Data

CalCOFI Cruise 6601
12 January - 7 February

CalCOFI Cruise 6602
15 February - 6 March

CalCOFI Cruise 6604
26 March - 3 May

CalCOFI Cruise 6605
5-29 May

Special Cruise 6605
11-14 May

and

CalCOFI Cruise 6606
12 June - 1 July

SIO Reference 68-3

UNIVERSITY OF CALIFORNIA
SCRIPPS INSTITUTION OF OCEANOGRAPHY

PHYSICAL AND CHEMICAL DATA

CalCOFI Cruise 6601
12 January - 7 February

CalCOFI Cruise 6602
15 February - 6 March

CalCOFI Cruise 6604
26 March - 3 May

CalCOFI Cruise 6605
5-29 May

Special Cruise 6605
11-14 May

and

CalCOFI Cruise 6606
12 June - 1 July

Sponsored by
Marine Research Committee

SIO Reference 68-3

Approved for distribution:

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

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INTRODUCTION

The data in this report were collected on Cruises 6601, 6602, 6604, 6605 and 6606 of the California Cooperative Fisheries Investigations (CalCOFI) program by the RV David Starr Jordan of the Bureau of Commercial Fisheries, the RV Alaska of the California Fish and Game Department and the RV Alexander Agassiz of the Scripps Institution of Oceanography. The RV Alexander Agassiz participated in Cruises 6601, 6602, 6604 and Special Cruise 6605; RV David Starr Jordan, in 6601, 6605 and 6606; and the RV Alaska, in 6604 only. 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 6504 and 6505 (El Golfo II), both of which appear in Scripps Institution report, SIO Ref. 67-16; and 6507 and 6509, which appear in SIO Ref. 67-17.

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.

TABULATED DATA

On Cruises 6601 and 6604 the Nansen-bottle-cast data are tabulated at observed depths; the values at standard depths are computer interpolations according to a modified Rattray technique^{1/}, except that some property values at standard depths have been determined from consideration of other information such as bathythermograph traces and adjacent stations. These property values were entered in the "observed" columns to prevent instabilities or to indicate features not covered by the hydrographic cast. The values are indicated by notations (see FOOTNOTES).

On Cruises 6602, 6605 and 6606 only 10-meter temperature and salinity values were collected.

For the few Nansen-bottle casts made by the Agassiz on Special Cruise 6605, the property values at standard depths were read from property curves before the computations were made.

The Salinity-Temperature-Depth Recorder was not used on any of the cruises in this report.

^{1/}Rattray, Maurice (1962). Interpolation errors and oceanographic sampling. Deep-Sea Res. 9: 25-37.

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

STANDARD PROCEDURES

The observed data have been plotted and then evaluated using the method described by Klein.^{2/} This involves consideration of their variation as functions of density or depth and their relation to each other and comparison with concurrent bathythermograph observations and with previous or adjacent observations. 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 $\pm 0.004\%$ salinity at the 95 per cent probability level, and a probable accuracy of $\pm 0.01\%$ salinity or better at the same level of probability."^{3/} The values are recorded to two decimal places when 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.

^{2/}Klein, Hans T. A new technique for processing physical oceanographic data. MS.

^{3/}Quotation from Department of Oceanography, University of Washington, Tech. Rep. No. 66, UW Ref. 60-18, October 1960.

A hyphen is used to indicate a missing observed value. The time is the time of messenger release. When more than one bottle cast was made on station, messenger times and wire angles are given in order of increasing depth, and a significant change in position during a multiple cast is listed similarly. Multiple casts are indicated by a letter following all observed depths of each cast except the cast originating at the surface. Footnotes corresponding to each letter explain the type of cast.

On stations where more than one cast was lowered, slight discrepancies in the property values may be noted. These may be caused by changes in geographical position, real changes with time, slight errors in measurement or a combination of these factors. Values at standard depths in the area of these discrepancies may be determined from reconciliation of the plotted observed values and entered in the "observed" columns with notations.

FOOTNOTES

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

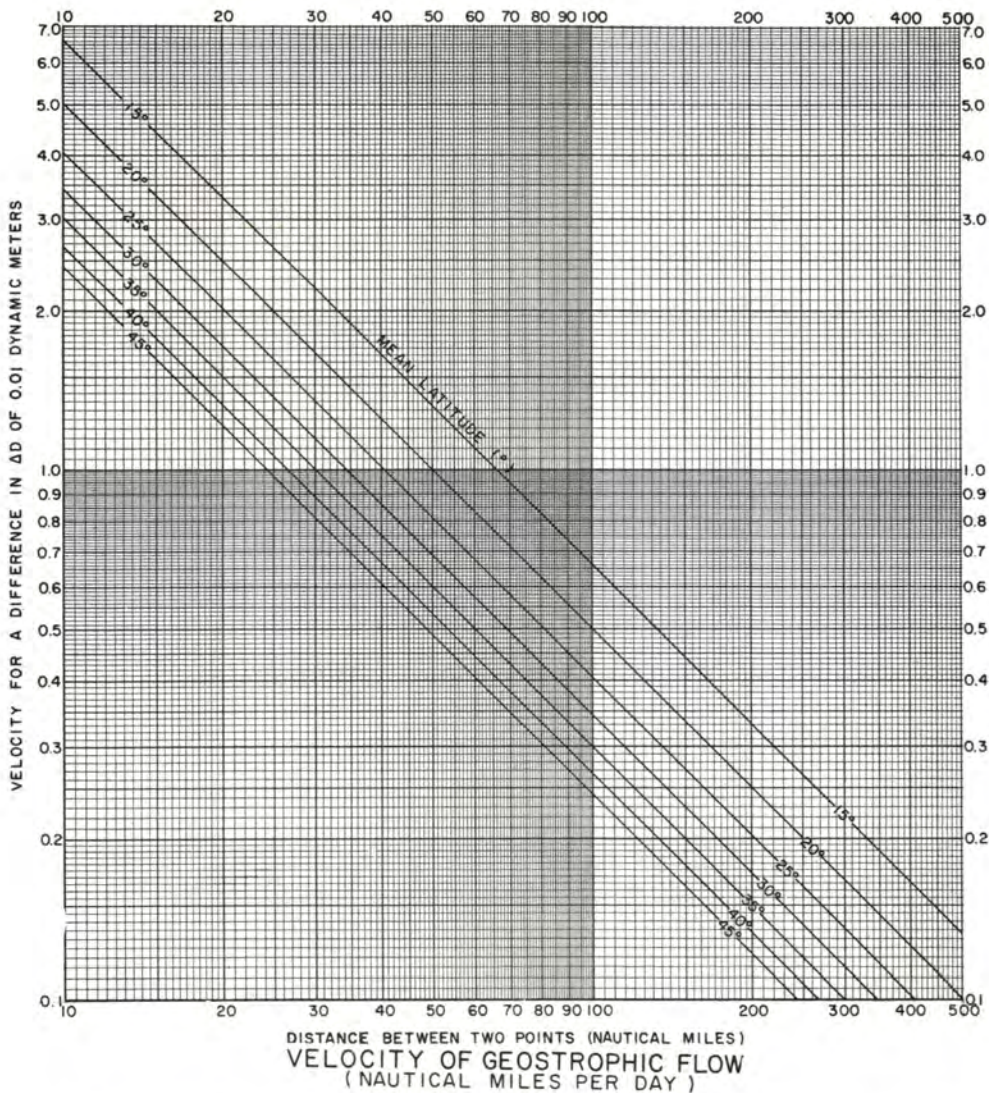
Values which are not used in interpolation because they seem to be in error without apparent reason are indicated by the following notation.

u: uncertain value

Values at standard levels of depth entered in the observed columns to limit machine interpolations may have either of the following notations.

k: a value determined from another measurement such as a bathythermogram or STD recording.

g: a value determined from considerations such as stability or previous or surrounding stations.



cm/sec	0	1	2	3	4	5	6	7	8	9
0	<i>KNOTS</i> 0.02 <i>NM/DAY</i>	0.02	0.04	0.06	0.08	0.10	0.12	0.14	0.16	0.17
10	0.19	0.21	0.23	0.25	0.27	0.29	0.31	0.33	0.35	0.37
20	0.39	0.41	0.43	0.45	0.47	0.49	0.51	0.52	0.54	0.56
30	0.58	0.60	0.62	0.64	0.66	0.68	0.70	0.72	0.74	0.76
40	0.78	0.80	0.82	0.84	0.85	0.87	0.89	0.91	0.93	0.95
50	0.97	0.99	1.01	1.03	1.05	1.07	1.09	1.11	1.13	1.15
60	1.17	1.18	1.20	1.22	1.24	1.26	1.28	1.30	1.32	1.34
70	1.36	1.38	1.40	1.42	1.44	1.46	1.48	1.50	1.52	1.53
80	1.55	1.57	1.59	1.61	1.63	1.65	1.67	1.69	1.71	1.73
90	1.75	1.77	1.79	1.81	1.83	1.85	1.86	1.88	1.90	1.92
100	1.94	1.96	1.98	2.00	2.02	2.04	2.06	2.08	2.10	2.12

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 6602

1. CalCOFI Cruise 6602, station positions
2. Horizontal distribution of temperature at 10 meters
3. Horizontal distribution of salinity at 10 meters
4. Horizontal distribution of thermosteric anomaly at 10 meters

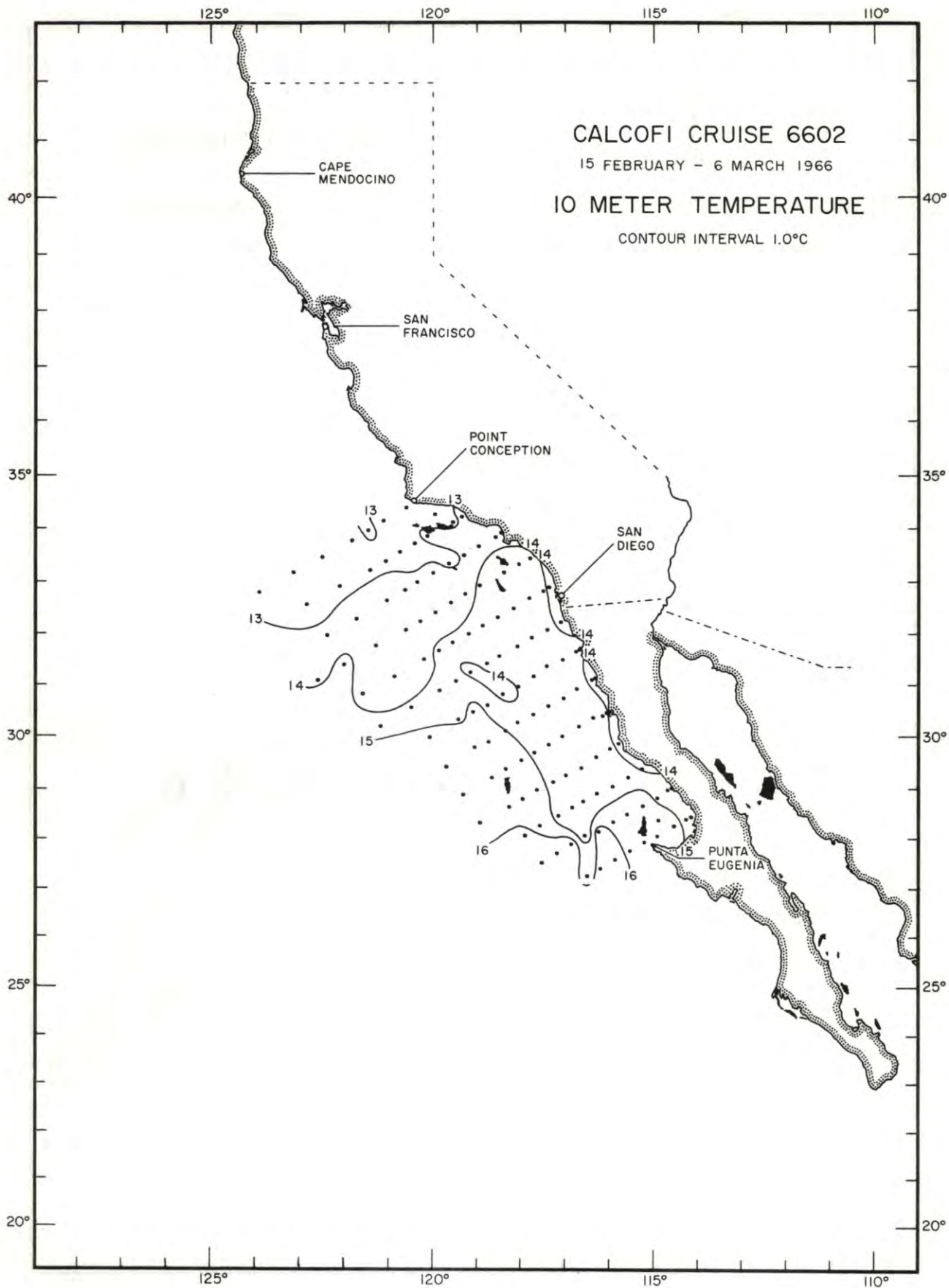


FIGURE 2

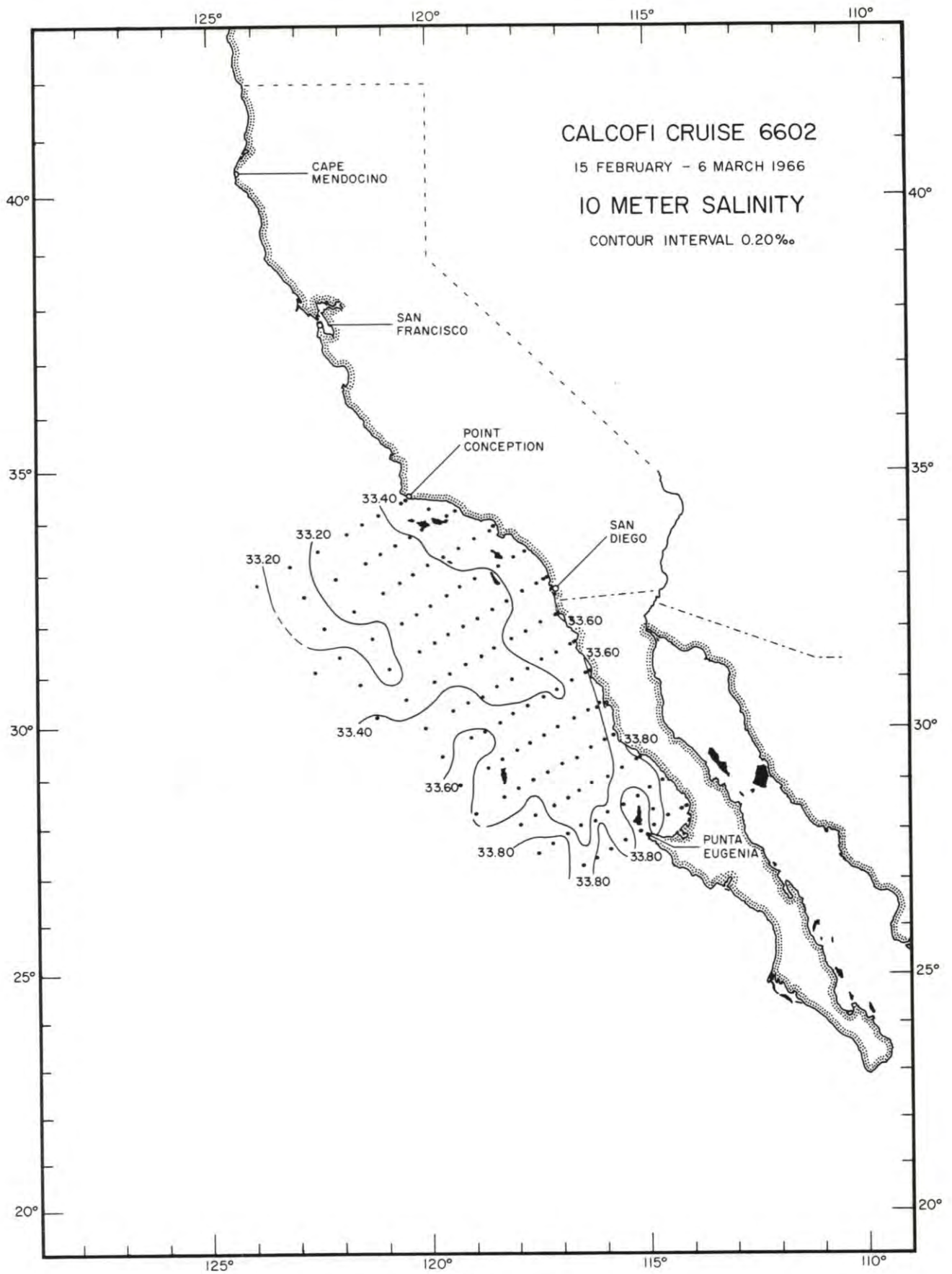


FIGURE 3

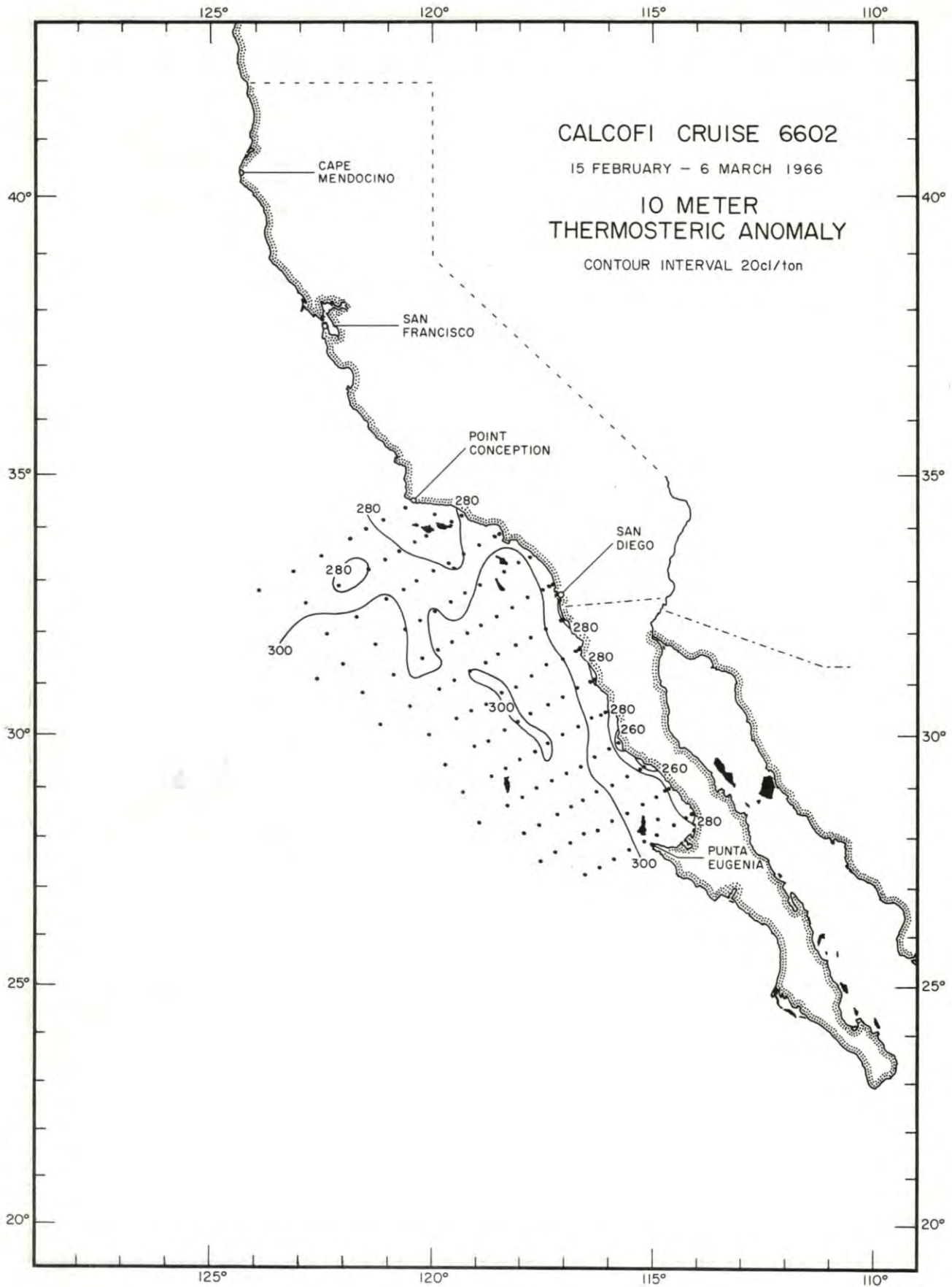


FIGURE 4

PERSONNEL
Cruise 6602

SHIP'S CAPTAIN

Davis, Laurence E., RV Alexander Agassiz

PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

RV Alexander Agassiz

Wagner, Vaughn M., Fisheries Technician (in charge), Bureau of Commercial
Fisheries

Counts, Robert C., Fishery Research Biologist, Bureau of Commercial
Fisheries

Crowe, Fred J., Laboratory Assistant

Justice, David K., Fishery Biologist, Bureau of Commercial Fisheries

Station	Date	Time GCT	DATA AT NET TOW STATIONS		Sounding (fm)	Wind		Weather	Sea	10 METERS		
			Latitude North	Longitude West		Dir	Force			T °C	S ‰	δ_T cl/ton
80.51-G	II-15	1740	34°26.0'	120°32.5'	50	350°	1	missing	rough	12.89	33.477	273
80.52-G	15	1813	34°24.5'	120°36.5'	180	350°	1	missing	rough	12.81	33.493	270
80.60-G	15	2150	34°09.5'	121°08.5'	-	350°	1	missing	rough	12.57	33.388	272
80.65-G	16	0035	33°59.0'	121°30.0'	-	320°	2	missing	rough	13.10	33.355	286
80.70-G	16	0230	33°48.5'	121°51.0'	2050	340°	4	missing	rough	12.50	33.240	283
80.80-G	16	0650	33°28.5'	122°31.0'	2050	340°	4	missing	very rough	12.62	33.207	287
80.90-G	16	1110	33°10.0'	123°10.0'	2400	340°	4	missing	very rough	12.66	33.110	295
80.100-G	16	1525	32°48.5'	123°55.0'	2200	010°	3	missing	rough	12.81	33.252	288
82.47-G	17	2100	34°15.0'	119°59.0'	310	280°	3	partly cloudy	moderate	12.60	33.525	264
83.40-G	18	0055	33°14.0'	119°21.5'	12	260°	3	partly cloudy	slight	13.26	33.447	281
83.43-G	17	2340	34°08.0'	119°34.0'	130	260°	3	partly cloudy	moderate	12.93	33.511	270
83.51-G	17	1725	33°52.0'	120°08.5'	65	320°	5	missing	moderate	13.20	33.468	279
83.55-G	17	1515	33°44.0'	120°24.5'	800	310°	5	missing	rough	12.88	33.392	278
83.60-G	17	1258	33°34.0'	120°45.5'	1000	290°	5	missing	moderate	12.81	33.342	281
83.65-G	17	1010	33°23.5'	121°05.5'	2050	320°	4	missing	moderate	12.80	33.258	287
83.70-G	17	0755	33°13.0'	121°26.0'	2050	330°	4	missing	moderate	12.92	33.374	280
83.80-G	17	0350	32°54.0'	122°08.0'	2250	330°	3	partly cloudy	rough	12.90	33.386	279
83.90-G	16	2220	32°35.0'	122°52.0'	2250	360°	5	missing	rough	12.64	33.145	292
87.33-G	18	0730	33°54.0'	118°29.5'	24	230°	2	missing	moderate	13.50	33.440	286

Station	Date	Time GCT	DATA AT NET TOW STATIONS						10 METERS			
			Latitude North	Longitude West	Sounding (fm)	Wind Dir	Force	Weather	Sea	T °C	S ‰	δ_T cl/ton
87.35-G	II-18	0825	33°50.0'	118°37.5'	330	230°	2	cloudy	moderate	13.64	33.425	290
87.40-G	18	1050	33°40.0'	118°58.0'	500	290°	1	cloudy	moderate	13.35	33.426	284
87.45-G	18	1310	33°30.0'	119°19.0'	900	300°	1	cloudy	moderate	13.06	33.418	280
87.50-G	18	1540	33°20.0'	119°39.5'	20	280°	3	cloudy	moderate	12.94	33.443	276
87.55-G	18	1755	33°10.0'	120°00.0'	650	290°	2	cloudy	moderate	13.24	33.317	291
87.60-G	18	2015	33°59.5'	120°22.0'	360	280°	3	cloudy	slight	13.04	33.342	285
87.65-G	18	2240	32°51.0'	120°39.5'	2100	280°	3	cloudy	moderate	13.46	33.332	294
87.70-G	19	0135	32°39.5'	121°02.0'	2100	180°	3	partly cloudy	slight	13.42	33.214	301
87.80-G	19	0550	32°19.5'	121°43.0'	2290	180°	4	missing	moderate	13.82	33.297	304
87.90-G	19	1000	31°59.5'	122°22.5'	2260	180°	3	missing	moderate	13.32	33.092	309
90.28-G	21	0740	33°28.5'	117°46.5'	220	130°	1	missing	smooth	14.06	33.446	298
90.32-G	21	0545	33°20.5'	118°03.0'	410	280°	1	missing	slight	14.30	33.428	303
90.37-G	21	0215	33°11.0'	118°22.5'	680	300°	1	partly cloudy	rough	14.24	33.407	303
90.45-G	20	2250	32°54.6'	118°55.5'	950	280°	4	partly cloudy	rough	14.06	33.393	301
90.50-G	20	2010	32°45.5'	119°16.5'	285	300°	4	partly cloudy	rough	13.24	33.366	288
90.55-G	20	1745	32°35.0'	119°37.0'	260	330°	4	overcast	rough	13.28	33.379	287
90.60-G	20	1530	32°25.0'	119°57.5'	470	320°	5	cloudy	moderate	13.40	33.204	302

DATA AT NET TOW STATIONS										10 METERS		
Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	T °C	S ‰	δ_T cl/ton
						Dir	Force					
90.65-G	II-20	1240	32°13.5'	120°17.0'	2100	330°	2	missing	moderate	13.05a)	33.298	289a)
90.70-G	20	1020	32°03.5'	120°37.0'	2120	330°	2	missing	moderate	13.70	33.265	303
90.80-G	20	0415	31°45.0'	121°18.5'	2080	310°	1	missing	moderate	13.76	33.178	311
90.90-G	20	0150	31°23.5'	122°02.0'	2260	220°	2	partly cloudy	moderate	14.10	33.315	308
90.100-G	19	1810	31°06.0'	122°37.5'	2200	160°	3	partly cloudy	moderate	13.99	33.277	308
93.27-G	21	1420	32°56.0'	117°19.0'	60	270°	1	fog	slight	13.72	33.438	291
93.28-G	21	1450	32°54.5'	117°22.0'	50	300°	1	fog	slight	13.92	33.449	294
93.30-G	21	1600	32°50.5'	117°31.0'	420	360°	2	fog	slight	14.37	33.496	300
93.35-G	21	1815	32°40.5'	117°51.5'	350	020°	1	partly cloudy	slight	14.28	33.408	304
93.40-G	21	2055	32°30.0'	118°11.5'	1050	340°	2	fog	moderate	14.32	33.397	306
93.45-G	21	2330	32°20.0'	118°32.0'	900	320°	4	fog	moderate	14.17	33.340	307
93.50-G	22	0145	32°10.0'	118°52.5'	800	300°	3	fog	moderate	14.18	33.337	308
93.55-G	22	0420	32°00.0'	119°13.5'	850	290°	3	fog	slight	14.30	33.361	308
93.60-G	22	0640	31°50.0'	119°34.0'	1300	290°	3	missing	slight	14.03	33.354	303
93.65-G	22	0900	31°40.0'	119°53.5'	2100	290°	4	missing	slight	14.06	33.396	301
93.70-G	22	1120	31°30.0'	120°14.5'	2200	320°	2	missing	slight	13.64	33.337	297
93.80-G	22	1610	31°11.0'	120°54.0'	2100	280°	2	overcast	slight	13.56	33.090	313

a) Alternate value, 13.69°C; 301 cl/ton.

Station	Date	Time GCT	DATA AT NET TOW STATIONS						10 METERS		
			Latitude North	Longitude West	Sounding (fm)	Wind Dir Force	Weather	Sea	T °C	S ‰	δ_T cl/ton
93.90-G	II-22	2020	30°50.0'	121°35.5'	2240	280° 2	cloudy	slight	13.86	33.222	309
97.29-G	25	2320	32°17.5'	117°04.5'	26	210° 3	overcast	moderate	13.78	33.634	278
97.30-G	24	1710	32°18.0'	117°07.0'	25	080° 1	cloudy	moderate	13.73	33.562	282
97.35-G	24	1430	32°04.0'	117°26.0'	650	320° 3	cloudy	moderate	14.40	33.499	300
97.40-G	24	1140	31°56.0'	117°48.0'	590	300° 4	missing	moderate	14.54	33.482	304
97.45-G	24	0840	31°46.0'	118°08.5'	1000	290° 4	missing	rough	14.40	33.406	307
97.50-G	24	0445	31°36.0'	118°30.5'	1400	290° 4	missing	rough	14.50	33.386	310
97.55-G	24	0150	31°25.5'	118°49.5'	260	320° 4	drizzle	moderate	14.06	33.355	304
97.60-G	23	2220	31°15.5'	119°10.0'	2000	320° 4	overcast	moderate	13.96	33.378	300
97.65-G	23	1850	31°05.0'	119°30.5'	1850	340° 4	drizzle	moderate	14.20	33.332	308
97.70-G	23	1500	30°55.0'	119°50.5'	2050	340° 4	overcast	moderate	14.27	33.310	311
97.80-G	23	0840	30°35.0'	120°31.0'	2170	330° 3	missing	moderate	14.02	33.354	303
97.90-G	23	0105	30°11.0'	121°13.0'	2100	330° 3	partly cloudy	moderate	14.89	33.409	317
100.29-G	26	0320	31°42.0'	116°43.5'	75	210° 2	missing	rough	14.18	33.548	292
100.30-G	26	0400	31°40.5'	116°46.5'	230	210° 4	missing	rough	14.02	33.585	286
100.35-G	26	0620	31°30.5'	117°07.0'	700	290° 4	missing	rough	14.24	33.440	301
100.40-G	26	0840	31°21.5'	117°27.0'	1250	260° 5	missing	rough	14.30	33.438	302
100.45-G	26	1100	31°10.0'	117°48.0'	1250	300° 6	missing	very rough	14.56	33.388	312
100.50-G	26	1320	30°58.0'	118°07.0'	1200	310° 4	missing	high	14.01	33.374	302

DATA AT NET TOW STATIONS										10 METERS		
Station	Date	Time GCT	Latitude	Longitude	Sounding (fm)	Wind		Weather	Sea	T °C	S ‰	δ_T cl/ton
			North	West		Dir	Force					
100.55-G	II-26	1610	30°50.5'	118°27.5'	1350	300°	5	cloudy	high	13.83	33.372	298
100.60-G	26	1910	30°37.0'	118°47.5'	1650	290°	5	cloudy	very rough	14.72	33.390	314
100.65-G	26	2200	30°29.0'	119°07.5'	2000	300°	5	cloudy	very rough	15.11	33.467	317
100.70-G	27	0100	30°21.0'	119°26.5'	2100	330°	5	overcast	very rough	14.90	33.431	315
100.80-G	27	0515	30°00.0'	120°06.5'	2100	330°	4	missing	rough	15.12	33.508	314
103.29-G	28	1140	31°07.0'	116°21.0'	17	100°	3	missing	slight	13.68	33.617	277
103.30-G	28	1100	31°06.0'	116°24.5'	36	100°	2	missing	slight	13.86	33.560	285
103.35-G	28	0840	30°57.0'	116°45.0'	1050	310°	4	missing	moderate	14.30	33.463	300
103.40-G	28	0610	30°46.0'	117°04.5'	1000	310°	3	missing	moderate	14.58	33.388	312
103.45-G	28	0400	30°36.5'	117°23.0'	1900	350°	3	missing	moderate	14.76	33.409	314
103.50-G	28	0135	30°26.5'	118°46.5'	1480	350°	3	missing	rough	14.76	33.421	313
103.55-G	27	2305	30°16.0'	118°06.0'	950	340°	4	missing	rough	14.30	33.468	300
103.60-G	27	2055	30°06.5'	118°24.0'	1800	350°	3	missing	rough	15.00	33.464	315
103.65-G	27	1830	29°56.5'	118°44.5'	1800	340°	4	partly cloudy	rough	15.53	33.624	314
103.70-G	27	1600	29°46.0'	119°03.5'	1900	340°	4	cloudy	rough	15.57	33.634	314
103.80-G	27	1000	29°26.5'	119°43.0'	2900	260°	4	missing	rough	15.16	33.518	314
107.31-G	28	1605	30°28.0'	116°07.0'	25	060°	2	fog	moderate	14.04	33.635	283
107.32-G	28	1700	30°26.0'	116°11.0'	360	360°	1	fog	moderate	14.14	33.598	288
107.35-G	28	1840	30°21.5'	116°22.5'	1000	300°	2	clear	moderate	14.18	33.489	296

DATA AT NET TOW STATIONS										10 METERS		
Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	T °C	S ‰	δ_T cl/ton
						Dir	Force					
107.40-G	II-28	2055	30°11.0'	116°41.5'	1500	330°	4	clear	moderate	14.66	33.421	311
107.45-G	28	2335	30°00.5'	117°03.5'	800	320°	3	partly cloudy	moderate	14.78	33.411	314
107.50-G	III-1	0135	29°50.0'	117°23.0'	1380	300°	3	missing	moderate	14.18	33.547	292
107.55-G	1	0345	29°41.0'	117°42.0'	1700	020°	3	missing	moderate	14.76	33.406	314
107.60-G	1	0610	29°32.0'	118°01.5'	2000	290°	3	missing	moderate	15.21	33.485	318
107.65-G	1	0830	29°21.0'	118°21.0'	1700	310°	3	partly cloudy	slight	15.20	33.538	314
107.70-G	1	1100	29°11.0'	118°40.0'	1700	310°	4	missing	slight	15.20	33.494	317
107.80-G	1	1510	28°51.5'	119°20.0'	2000	340°	4	overcast	rough	15.80	33.690	315
110.32-G	2	2230	29°52.0'	115°48.0'	16	310°	6	drizzle	very rough	13.20	33.747	258
110.35-G	2	1940	29°46.0'	116°00.0'	700	320°	7	cloudy	very rough	14.26	33.568	292
110.40-G	2	1640	29°36.5'	116°19.5'	480	300°	5	cloudy	very rough	14.27	33.555	294
110.45-G	2	1420	29°24.5'	116°39.0'	1000	310°	4	cloudy	very rough	14.33	33.401	306
110.50-G	2	1105	29°16.0'	116°59.5'	2000	330°	6	cloudy	very rough	14.68	33.417	312
110.55-G	2	0820	29°06.5'	117°19.0'	2000	320°	6	cloudy	very rough	14.98	33.551	308
110.60-G	2	0600	28°56.5'	117°39.0'	2000	320°	4	missing	very rough	15.12	33.571	309
110.65-G	2	0330	28°47.0'	117°58.0'	1900	320°	4	cloudy	rough	15.05	33.486	315
110.70-G	2	0100	28°36.5'	118°19.0'	2100	320°	5	cloudy	very rough	15.46	33.566	317
110.80-G	1	1910	28°16.5'	118°57.5'	2140	320°	4	overcast	rough	15.59	33.584	318
113.29-G	3	0045	29°24.0'	115°13.0'	15	310°	6	cloudy	rough	13.60	33.822	260

DATA AT NET TOW STATIONS												
Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 METERS		
						Dir	Force			T °C	S ‰	δ_T cl/ton
113.30-G	III-3	0340	29°22.0'	115°18.0'	35	320°	7	cloudy	rough	13.93	33.681	278
113.35-G	3	0640	29°11.5'	115°38.0'	800	300°	5	cloudy	high	14.83	33.659	298
113.40-G	3	1015	29°02.0'	115°57.0'	1100	310°	5	missing	high	14.20	33.505	296
113.45-G	3	1250	28°52.0'	116°18.5'	1150	320°	6	missing	very rough	14.74	33.549	304
113.50-G	3	1545	28°42.0'	116°38.0'	1900	330°	6	cloudy	very rough	14.44	33.417	307
113.55-G	3	1745	28°36.5'	116°53.0'	1900	340°	5	partly cloudy	very rough	14.49	33.420	308
113.60-G	3	2010	28°27.5'	117°11.5'	1950	340°	4	partly cloudy	very rough	14.88	33.430	315
113.65-G	3	2310	28°12.0'	117°36.0'	2050	340°	4	partly cloudy	very rough	15.72	33.660	316
113.70-G	4	0135	28°01.5'	117°57.0'	1750	360°	4	partly cloudy	very rough	16.10	33.742	318
117.25-G	5	0800	28°58.0'	114°37.0'	26	020°	2	partly cloudy	slight	14.42	33.837	276
117.26-G	5	0715	28°56.0'	114°41.5'	40	040°	3	partly cloudy	moderate	14.77	33.825	283
117.30-G	5	0520	28°48.0'	114°56.5'	58	020°	5	missing	rough	14.92a)	33.700	296a)
117.35-G	5	0355	28°38.0'	115°16.0'	120	020°	5	clear	very rough	15.74	33.911	298
117.40-G	5	0025	28°28.0'	115°35.5'	495	020°	5	partly cloudy	rough	15.52	33.872	296
117.45-G	4	1930	28°18.0'	115°56.0'	2000	060°	5	partly cloudy	very rough	15.23	33.608	309
117.50-G	4	1640	28°07.0'	116°16.0'	2300	045°	6	partly cloudy	very rough	16.18b)	33.795	316b)

a) Alternate value, 14.80°C; 294 cl/ton.

b) Alternate value, 15.92°C; 310 cl/ton.

Station	Date	Time GCT	DATA AT NET TOW STATIONS						10 METERS			
			Latitude North	Longitude West	Sounding (fm)	Wind Dir	Force	Weather	Sea	T °C	S ‰	δ_T cl/ton
117.55-G	III-4	1425	28°02.5'	116°35.5'	2450	020°	5	cloudy	very rough	14.85a)	33.481	310a)
117.60-G	4	1145	27°52.0'	116°54.0'	2040	020°	4	partly cloudy	very rough	16.07	33.779	314
117.65-G	4	0905	27°40.5'	117°14.5'	2080	010°	5	clear	high	16.48b)	33.911	314b)
117.70-G	4	0540	27°29.5'	117°33.5'	2075	020°	5	missing	very rough	16.36	33.910	311
119.33-G	5	1730	28°19.0'	114°53.0'	60	340°	3	partly cloudy	moderate	15.18	33.767	296
120.24-G	5	1210	28°23.5'	114°10.0'	16	040°	8	partly cloudy	moderate	14.41	33.878	273
120.25-G	5	1240	28°21.5'	114°14.5'	26	040°	7	partly cloudy	moderate	14.70	33.849	280
120.30-G	5	1500	28°13.0'	114°34.0'	50	010°	7	partly cloudy	moderate	15.20	33.864	290
120.35-G	5	1930	28°03.0'	114°54.0'	43	340°	3	partly cloudy	moderate	15.25	33.786	297
120.40-G	5	2140	27°56.5'	115°14.0'	20	280°	2	partly cloudy	moderate	15.38	33.890	292
120.45-G	6	0015	27°43.0'	115°33.0'	1540	330°	3	cloudy	slight	15.56	33.691	310
120.50-G	6	0220	27°33.0'	115°52.5'	2050	330°	3	cloudy	slight	16.12	33.839	311
120.55-G	6	0425	27°23.0'	116°12.0'	2070	320°	4	cloudy	slight	16.10	33.824	312
120.60-G	6	0640	27°13.0'	116°30.5'	2100	320°	4	cloudy	slight	15.61	33.664	313

a) Alternate value, 14.69°C; 308 cl/ton.

b) Alternate value, 16.26°C; 309 cl/ton.

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