

UNIVERSITY OF CALIFORNIA SCRIPPS INSTITUTION OF OCEANOGRAPHY

data report

PHYSICAL AND CHEMICAL DATA

CCOFI CRUISE 5707

(MLR 98)

8 July - 3 August 1957

and

CCOFI CRUISE 5708

(MLR 99)

9-27 August 1957

SIO Reference 58-63

20 August ~~1957~~

1958

CORRECTIONS MADE

per ERRATA

10/3/61 RTH

July 1964 RTH

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p 236

UNIVERSITY OF CALIFORNIA
SCRIPPS INSTITUTION OF OCEANOGRAPHY

PHYSICAL AND CHEMICAL DATA

CCOFI CRUISE 5707
(MLR 98)
8 July - 3 August 1957

and

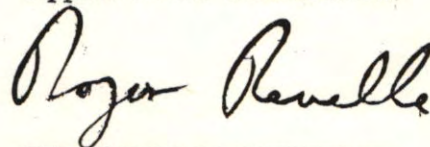
CCOFI CRUISE 5708
(MLR 99)
9-27 August 1957

Sponsored by

Marine Research Committee

SIO Reference 58-63
20 August 1958

Approved for distribution:



Roger Revelle, Director

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INTRODUCTION

The data presented in this report were collected on the ninety-eighth and ninety-ninth consecutive cruises of the California Cooperative Oceanic Fisheries Investigations program. The R/V Black Douglas of the U. S. Fish and Wildlife Service, the R/V Orca, the R/V Paolina-T and the R/V Stranger of the Scripps Institution of Oceanography participated in the ninety-eighth cruise while the R/V Black Douglas and the R/V Stranger participated in the ninety-ninth cruise.

The data are tabulated at observed depths, and the interpolated and computed values are tabulated at standard depths. They are accompanied by charts of horizontal distribution. The presentation of data in this report does not constitute publication, and the interpretations herein may be subject to modification as the program continues.

The stations occupied in the Gulf of California are based on a special grid; therefore, they will appear in each report following the data obtained in the normal station pattern. In each group stations are listed in numerical order. The designation "G" in the station number is used to denote Gulf of California stations.

STANDARD PROCEDURES

Processing of the data was carried out using the method described by Klein.^{1/} Certain approximations have been introduced for the determination of the integrated pressure terms which may result in errors whose maximum values are less than 0.5 dynamic centimeter at 0 over 200 decibars, 1.0 dynamic centimeter at 0 over 500 decibars, and 2.0 dynamic centimeters at 0 over 1000 decibars. The 125-meter level was introduced into the integration to obtain greater accuracy in the determination of ΔD . The interpolated values at 125 meters are not tabulated.

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. Extrapolated values and values interpolated between remote observations are entered within parentheses. A hyphen is used to indicate a missing observed value. The

^{1/}

Klein, Hans T. A new technique for processing physical oceanographic data. (MS). Contribution from the Scripps Institution of Oceanography, New Series, No. 000.

time is the time of messenger release. When more than one cast was made on a station, each messenger time and wire angle is given in the order of increasing depth of casts. A line is left blank between the observed data of each cast.

FOOTNOTES

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

To indicate a premature or a delayed reversal of the water-sampling device which results in certain depth and property errors, the following notation is used.

p: pretrip or posttrip.

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

r: rejected value (value seems to be definitely wrong),

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

FORMAT

These data are typed in the format of the University of California Press publication, "Oceanic Observations of the Pacific." So that these pages can be used as copy for the 1957 volume, the first page of Cruise 5707 is numbered 172 and the first page of Cruise 5708 is numbered 223.

FIGURES

1. CCOFI Cruise 5708 (MLR 99), station positions
2. Horizontal distribution of dynamic height anomaly (0 over 500 d-bar)
3. Horizontal distribution of temperature at 10 meters
4. Horizontal distribution of salinity at 10 meters
5. Horizontal distribution of temperature at 200 meters
6. Horizontal distribution of salinity at 200 meters

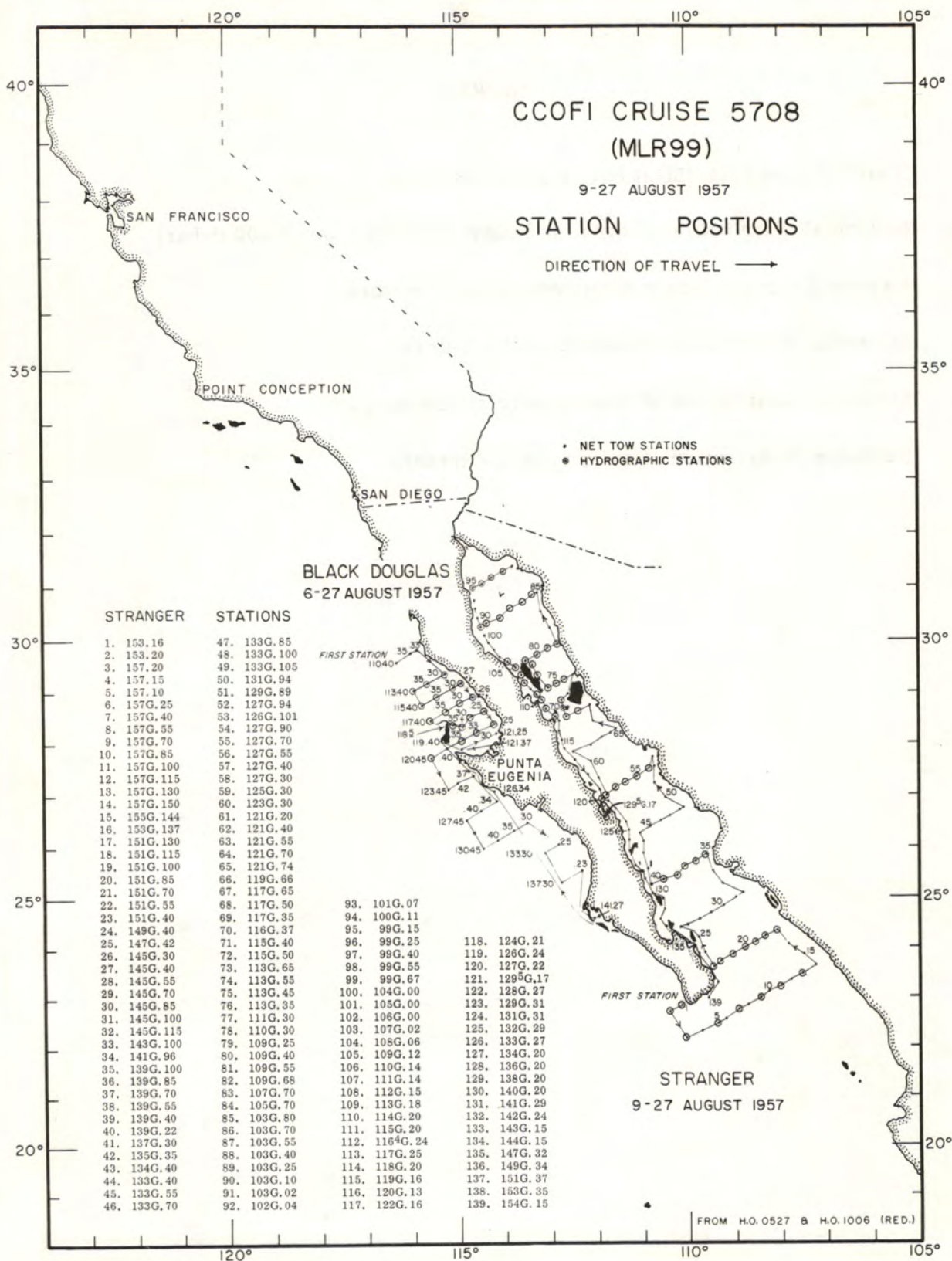


FIGURE 1

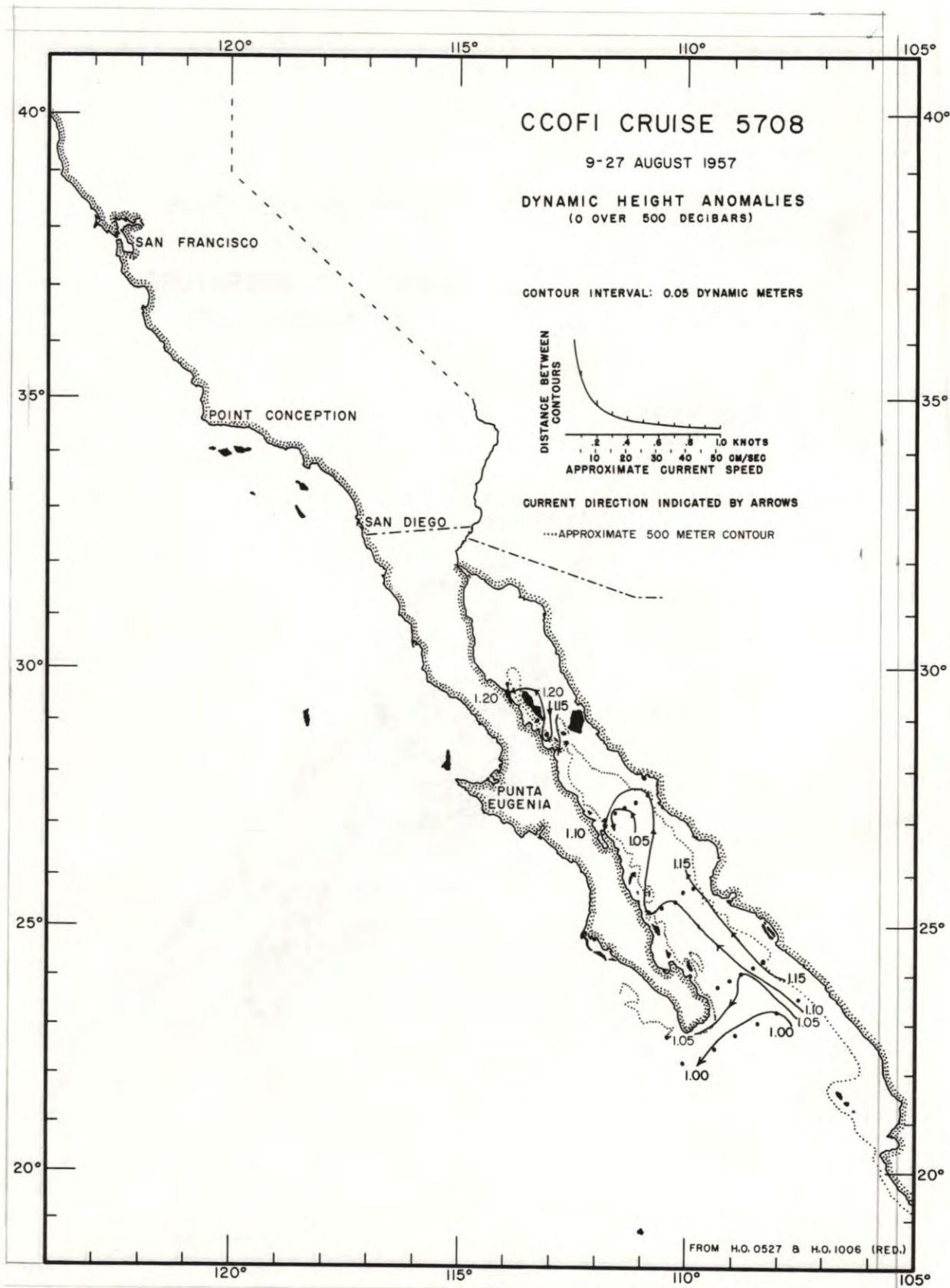


FIGURE 2

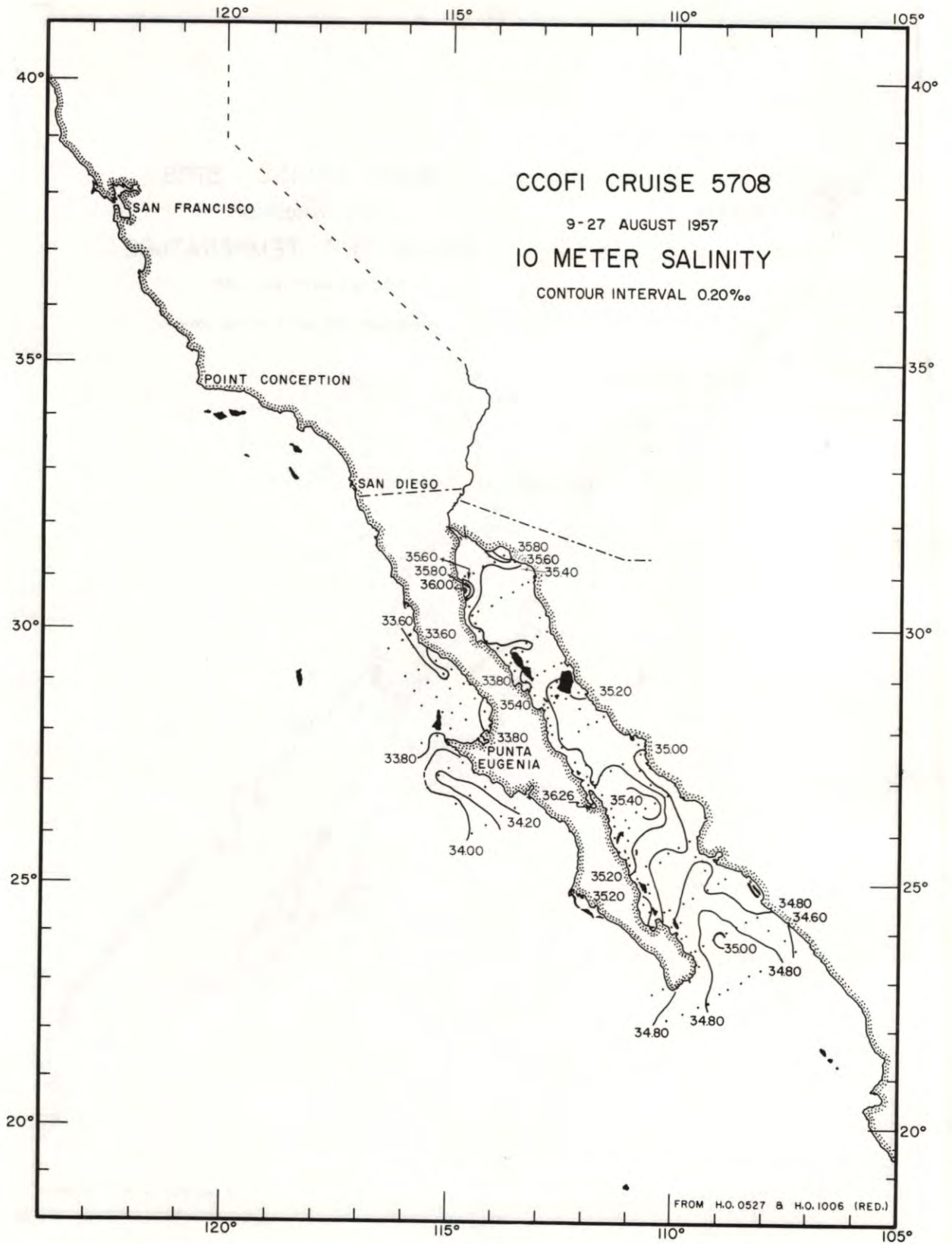


FIGURE 4

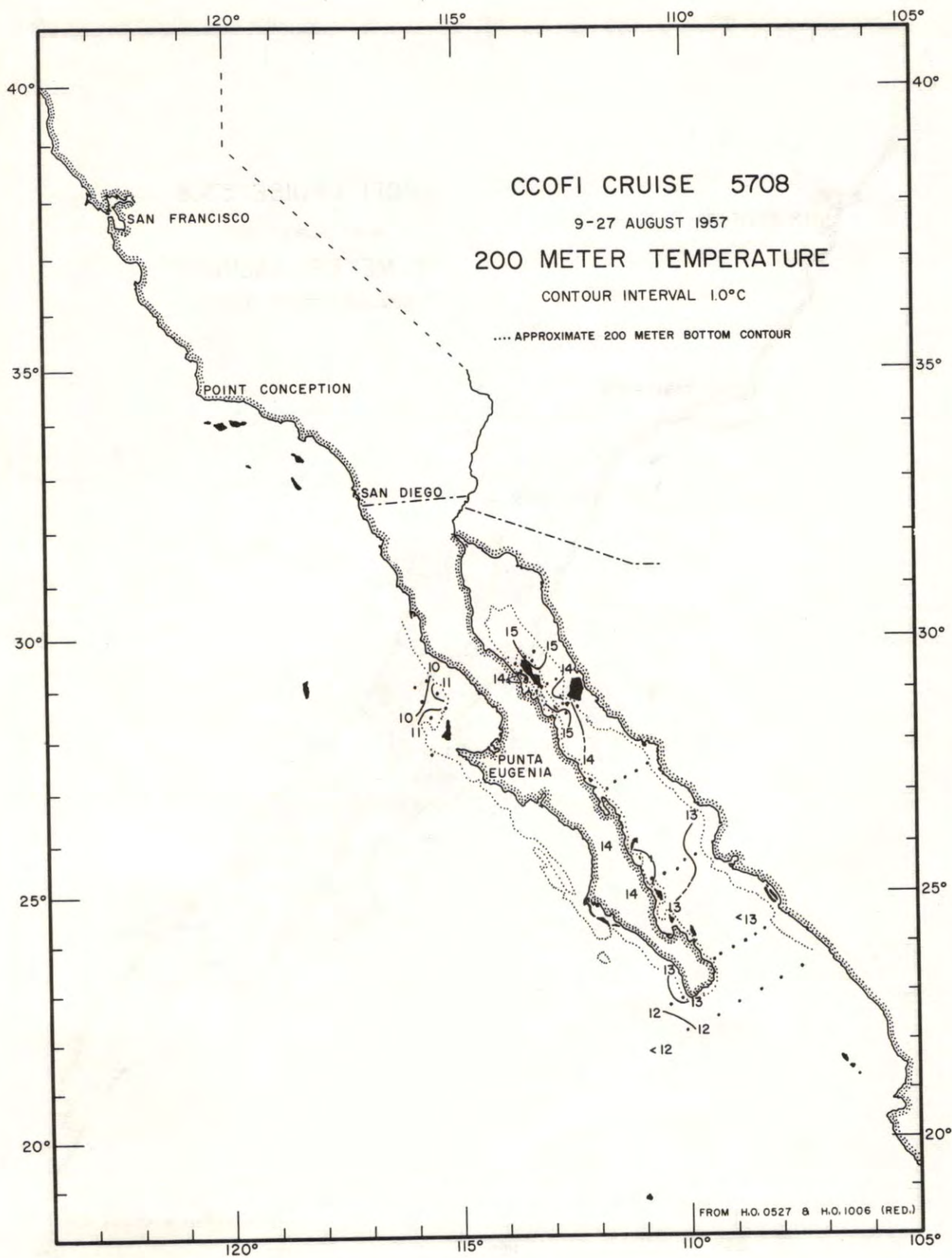


FIGURE 5

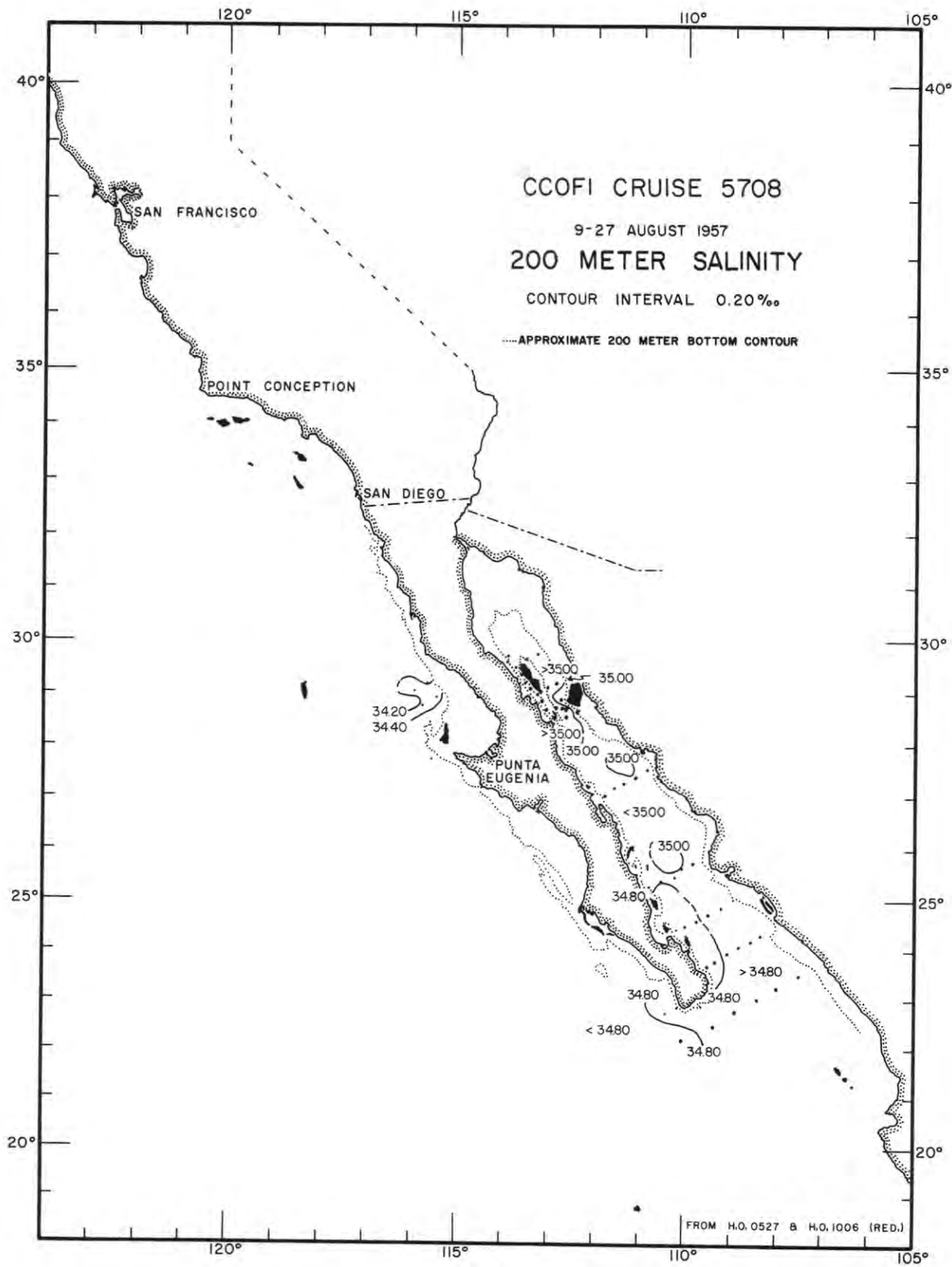


FIGURE 6

CRUISE 5708
PERSONNEL

SHIPS' CAPTAINS

Forster, Charles W., R/V Black Douglas
Haines, Robert B., R/V Stranger

PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

R/V Black Douglas

Vrooman, Andrew M., Fishery Research Biologist, U. S. Fish and Wildlife Service
Reid, Charles F., Fishery Aid, U. S. Fish and Wildlife Service
Brennan, Robert E., Marine Technician

R/V Stranger

Gilkey, Robert W., Senior Marine Technician
Casey, Harold D., Fishery Aid, U. S. Fish and Wildlife Service
Davoll, Peter J., Marine Technician
Jaynes, John M., Marine Technician
Richardson, Park W., Laboratory Technician (productivity studies)
Scanlan, Thomas F., Marine Technician

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O ₂	Z	T	S	O ₂	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10 ⁻⁵ cm ³ /g	dyn. m

BLACK DOUGLAS; August 17, 1957; 0837 GCT; 29°22.5'N, 115°17.5'W; sounding, 25 fm; wind, 300°, force 3; weather, cloudy; sea, moderate; wire angle, 00°.

113.30

0	-	33.73	5.34	0			5.34			
9	21.08	33.75	5.45	10			5.47			
28	15.52	33.58	5.96	20			5.69			

BLACK DOUGLAS; August 17, 1957; 1143 GCT; 29°12'N, 115°39'W; sounding, 630 fm; wind, 300°, force 3; weather, overcast; sea, moderate; wire angle, 00°.

113.35

0	21.4	33.64	5.27	0	21.4	33.64	5.27	23.37	452	
9	21.28	33.66	5.36	10	21.2	33.66	5.36	23.42	447	
23	19.1	33.58	5.80	20	19.8	33.60	5.69	23.78	413	
38	16.0	33.55	5.97	30	17.1	33.56	5.93	24.41	353	
47	15.0	33.55	5.71	50	14.6	33.55	5.55	24.96	301	
56	13.7	33.54	5.22	75	11.58	33.64	3.68	25.63	237	
65	12.5	33.60	4.27	100	10.9	33.70	3.42	25.81	220	
75	11.58	33.64	3.68	150	10.4	34.07	2.18	26.18	185	
84	11.2	33.68	3.67	200	9.9	34.16	1.69	26.33	171	
93	11.0	33.69	3.50	250	10.3	34.46	0.61	26.50	154	
115	10.6	33.81	3.28							
143	10.42	34.04	2.25							
188	9.9	34.09	2.00							
233	10.59	34.47	0.60							
280	9.75	34.43	0.64							

BLACK DOUGLAS; August 17, 1957; 1505, 1519, 1540 GCT; 29°02'N, 115°58.5'W; sounding, 900 fm; wind, 300°, force 2; weather, cloudy; sea, moderate; wire angle, 00°, 00°, 00°.

113.40

0	21.2	33.63	5.32	0	21.2	33.63	5.32	23.42	447	
10	20.48	33.69	5.47	10	20.48	33.69	5.47	23.66	425	
24	18.9	33.58	5.82	20	19.5	33.63	5.71	23.87	404	
				30	17.6	33.56	5.93	24.28	365	
38	16.5	33.55	6.08	50	15.0	33.49	6.20	24.83	313	
48	15.2	33.49	6.21	75	12.1	33.58	4.48	25.48	251	
57	14.1	33.49	5.87	100	10.7	33.80	3.09	25.92	209	
66	13.0	33.56	4.85	150	9.8	34.04	2.33	26.25	178	
76	12.04	33.58	4.44	200	9.4	34.33	1.42	26.56	149	
85	11.4	33.62 ^{a)}	3.88	250	8.8	34.32	1.26	26.64	141	
94	10.9	33.73	3.20							
117	10.3	33.91	2.90							
143	9.91	34.00	2.49							
187	9.5	34.33	1.52							
233	9.02	34.32	1.30							
278	8.39	34.33	1.17							

BLACK DOUGLAS; August 18, 1957; 0335 GCT; 29°11'N, 114°55'W; sounding, 40 fm; wind, 300°, force 2; weather, cloudy; sea, moderate; wire angle, 03°.

115.27

0	-	33.78	5.48	0			5.48			
10	21.78	33.72	5.39	10			5.39			
24	-	33.51	6.06	20			5.96			
38	-	33.48	5.91	30			6.05			
48	-	33.52	4.68	50			4.54			
57	12.42	33.57	3.98							

a) Possible evaporation; value falls on property curve.

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OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O ₂	Z	T	S	O ₂	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^5 \text{ cm}^3/\text{g}$	dyn. m

115.30

BLACK DOUGLAS; August 18, 1957; 0053 GCT; 29°05'N, 115°08'W; sounding, 52 fm; wind, 320°, force 3; weather, cloudy; sea, moderate; wire angle, 10°.

0	-	33.69	5.29	0			5.29			
10	19.56	33.58	5.75	10			5.75			
24	-	33.58	5.91	20			5.85			
38	-	33.48	6.11	30			6.02			
48	-	33.55	5.75	50			5.70			
56	-	33.48	5.40	75			4.32			
66	-	33.53	4.96							
76	11.64	33.54	4.24							

115.35

BLACK DOUGLAS; August 17, 1957; 2209 GCT; 28°55'N, 115°27.5'W; sounding, 650 fm; wind, 290°, force 3; weather, cloudy; sea, moderate; wire angle, 03°.

0	22.7	33.79	5.14	0	22.7	33.79	5.14	23.18	470
10	22.22	33.78	5.24	10	22.22	33.78	5.24	23.25	464
24	20.6	33.72	5.65	20	21.1	33.73	5.53	23.53	437
38	19.3	33.74	5.94	30	19.9	33.73	5.80	23.85	406
48	16.3	33.69	5.97	50	16.0	33.67	5.93	24.75	321
57	15.4	33.64	5.40	75	13.92	33.91	3.24	25.38	261
66	14.6	33.73	4.63	100	12.5	34.13	1.44	25.84	217
75	13.92	33.91	3.24	150	11.8	34.20	0.92	26.02	200
84	13.5	34.07u	1.99	200	11.4	34.38	0.71	26.24	180
91	13.6	34.08	1.70	250	10.6	34.41	1.09	26.40	164
114	12.2	34.14	1.17						
140	11.92	34.18	1.00						
185	11.6	34.34	0.65						
229	11.13	34.42	0.92						
275	9.86	34.38	1.25						

115.40

BLACK DOUGLAS; August 17, 1957; 1835, 1908 GCT; 28°45'N, 115°47'W; sounding, 700 fm; wind, 280°, force 3; weather, cloudy; sea, moderate; wire angle, 02°, 02°.

0	21.9	33.71	5.25	0	21.9	33.71	5.25	23.28	460
9	21.52	33.71	5.25	10	21.4	33.71	5.25	23.42	448
23	19.9	33.72	5.33	20	20.0	33.72	5.30	23.81	410
38	18.6	33.62	5.73	30	19.4	33.70	5.49	23.93	398
48	17.0	33.54	5.94	50	16.6	33.54	5.94	24.51	343
57	15.4	33.55	5.94	75	13.2	33.49	5.50	25.21	277
				100	11.8	33.56	4.35	25.53	246
63	14.4	33.49	6.00	150	10.1	33.95	2.57	26.14	189
71	13.52	33.48	5.87	200	9.8	34.20	1.66	26.38	166
80	12.9	33.49	5.05	250	9.5	34.41	0.99	26.59	145
89	12.4	33.51	4.54						
111	11.2	33.62	4.15						
137	10.18	33.87	2.84						
181	10.1	34.12	2.00						
226	9.65	34.33	1.21						
272	9.40	34.42	0.81						

117.26

BLACK DOUGLAS; August 18, 1957; 0620 GCT; 28°56'N, 114°41'W; sounding, 38 fm; wind, 300°, force 3; weather, cloudy; sea, moderate; wire angle, 00°.

0	-	33.76	5.28	0			5.28		
10	-	33.76	5.31	10			5.31		
24	-	33.59	6.10	20			6.02		
38	-	33.53	6.02	30			6.10		
48	-	33.48	5.80	50			5.72		
57	12.25	33.58	3.60						

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O ₂	Z	T	S	O ₂	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^{-5} \text{cm}^3/\text{g}$	dyn. m

S10

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BLACK DOUGLAS; August 18, 1957; 0839 GCT; 28°48'N, 114°56.5'W; sounding, 55 fm; wind, 280°, force 4; weather, cloudy; sea, moderate; wire angle, 03°.

11730

0	-	33.69	5.35	0			5.35			
10	22.10	33.68	5.32	10			5.32			
24	-	33.59	5.71	20			5.57			
38	-	33.54	6.33	30			6.00			
48	-	33.49	6.25	50			6.20			
58	-	33.48	5.41	75			3.56			
67	-	33.57	4.62							
76	-	33.63	3.45							
86	12.04	33.87	2.10							

BLACK DOUGLAS; August 18, 1957; 1130 GCT; 28°38'N, 115°16'W; sounding, 115 fm; wind, 280°, force 3; weather, cloudy; sea, moderate; wire angle, 02°.

11735

0	21.9	33.75	5.29	0	21.9	33.75	5.29	23.33	456
10	21.85	33.73	5.25	10	21.85	33.73	5.25	23.32	457
24	20.1	33.71	4.93	20	20.5	33.71	5.00	23.66	424
38	18.4	33.80	5.09	30	19.4	33.74	4.98	23.98	394
47	17.2	33.78	5.07	50	16.7	33.74	5.11	24.64	330
56	15.8	33.68	5.78	75	13.5	33.75	3.73	25.34	264
64	14.6	33.73	4.62	100	13.1	34.01	1.76	25.62	237
73	13.58	33.74	3.91	150	13.1		0.70		
82	13.3	33.87	3.05	200	(10.9)				
90	13.2	33.92	2.59						
112	13.34	34.20	0.66						
139	13.2	34.22	0.54						
184	10.88	34.09	1.45						

BLACK DOUGLAS; August 18, 1957; 1426 GCT; 28°28'N, 115°35.5'W; sounding, 400 fm; wind, 300°, force 3; weather, cloudy; sea, moderate; wire angle, 02°.

11740

0	22.3	33.80	5.22	0	22.3	33.80	5.22	23.53	437
9	21.21	33.76	5.49	10	21.1	33.76	5.50	23.54	436
23	18.8	33.69	5.90	20	19.6	33.72	5.86	23.92	400
38	15.3	33.65	5.87	30	16.6	33.45	5.90	24.42	350
47	16.0	33.60	5.59	50	15.2	33.47	5.52	24.76	319
57	14.9	33.60	5.43	75	15.08	34.29	1.78	25.43	256
66	14.6	34.00	3.23	100	13.1	33.97	2.50	25.63	237
75	15.08	34.29	1.78	150	12.0	34.14	1.41	25.93	208
84	14.0	-	3.76	200	11.8	34.46	0.87	26.23	180
93	12.8	33.88	3.17	250	10.8	34.46	0.79	26.41	163
115	13.7	34.19	1.62						
143	12.14	34.14	1.48						
189	11.9	34.42 ^{a)}	0.94						
236	11.11	34.47	0.77						
284	10.04	34.42	0.91						

BLACK DOUGLAS; August 19, 1957; 0111 GCT; 28°40.5'N, 114°25.5'W; sounding, 44 fm; wind, 300°, force 4; weather, cloudy; sea, moderate; wire angle, 00°.

118⁵25

0	-	33.73	5.27	0			5.27		
10	22.78	33.71	5.24	10			5.24		
24	-	33.59	6.09	20			6.00		
38	-	33.57	6.02	30			6.09		
48	-	33.51	5.47	50			5.32		
58	-	33.55	4.71						
67	12.19	33.68	3.78						

a) Possible evaporation; value falls on property curve.

SIO
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5708

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O ₂	Z	T	S	O ₂	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^{-5} \text{cm}^3/\text{g}$	dyn. m

118⁵30 BLACK DOUGLAS; August 18, 1957; 2205 GCT; 28°30'N, 114°45.5'W; sounding, 58 fm; wind, 300°, force 3; weather, cloudy; sea, moderate; wire angle, 07°.

0	-	33.66	5.45	0			5.45			
10	-	33.67	5.50	10			5.50			
24	-	33.65	5.82	20			5.75			
38	-	33.71	5.19	30			5.62			
48	-	33.73	4.85	50			4.85			
57	-	33.63	5.40	75			2.44			
67	-	33.98	2.82							
76	-	33.98	2.42							
86	-	33.98	2.37							
96	14.00	33.96 ^{a)}	2.19							

118⁵35 BLACK DOUGLAS; August 18, 1957; 1825 GCT; 28°20.5'N, 115°05'W; sounding, 64 fm; wind, 320°, force 3; weather, cloudy; sea, moderate; wire angle, 00°.

0	-	33.73	5.34	0			5.34			
10	-	33.66	5.36	10			5.36			
23	-	33.62	5.51	20			5.46			
38	-	33.66	5.79	30			5.75			
48	-	33.65	5.82	50			5.84			
57	-	33.55	5.90	75			4.27			
67	-	33.52	5.78							
76	-	33.71	4.22							
86	-	33.68	4.08							
96	13.67	33.77	3.39							

119.33 BLACK DOUGLAS; August 18, 1957; 2009 GCT; 28°19'N, 114°53'W; sounding, 58 fm; wind, 320°, force 3; weather, partly cloudy; sea, slight; wire angle, 04°.

0	-	33.65	5.55	0			5.55			
10	22.14	33.70	5.43	10			5.43			
24	-	33.66	5.66	20			5.60			
38	-	33.71	5.45	30			5.56			
48	-	33.69	5.75	50			5.76			
57	-	33.66	5.76	75			5.10			
67	-	33.71	5.86							
77	-	33.55	4.97							
86	-	33.53	4.74							
96	12.58	33.71 ^{a)}	3.34							

120.25 BLACK DOUGLAS; August 19, 1957; 0344 GCT; 28°23'N, 114°14.5'W; sounding, 30 fm; wind, 280°, force 4; weather, clear; sea, moderate; wire angle, 03°.

0	-	33.92	5.86	0			5.86			
9	-	33.95	5.09	10			5.10			
28	-	33.66	6.15	20			5.90			
48	14.48	33.53	5.74	30			6.15			

120.30 BLACK DOUGLAS; August 19, 1957; 0625 GCT; 28°13'N, 114°34'W; sounding, 52 fm; wind, 210°, force 3; weather, clear; sea, slight; wire angle, 05°.

0	-	33.76	5.56	0			5.56			
9	-	33.69	5.44	10			5.44			
23	-	33.70	5.63	20			5.53			
38	-	33.67	6.16	30			5.88			
48	-	33.63	6.11	50			6.11			
57	-	33.55	6.05	75			5.75			
67	-	33.57	5.85							
76	13.25	33.57	5.75							

a) Loose bottle cap.

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O ₂	Z	T	S	O ₂	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^{-5} \text{cm}^3/\text{g}$	dyn. m

S10
CCOFI
5708

BLACK DOUGLAS; August 19, 1957; 0903 GCT; 28°03'N, 114°54'W; sounding, 43 fm; wind, 220°, force 2; weather, clear; sea, slight; wire angle, 00°.

120.35

0	22.4	33.68	5.55	0			5.55			
9	21.86	33.68	5.46	10			5.46			
23	-	33.66	6.70	20			6.63			
38	-	33.64	5.99	30			6.40			
48	-	33.64	6.10	50			6.13			
57	-	33.57	6.15							
67	13.96	33.48	5.76							

BLACK DOUGLAS; August 19, 1957; 1418 GCT; 27°43'N, 115°33'W; sounding, 1100 fm; wind, 300°, force 3; weather, cloudy; sea, moderate; wire angle, 04°.

12045

0	22.5	33.76		0	22.5	33.76		23.16	472	
9	22.32	33.75		10	22.3	33.75		23.21	467	
23	20.2	33.68		20	21.3	33.72		23.47	443	
38	17.0	33.55		30	18.1	33.59		24.18	375	
47	15.8	33.76		50	15.5	33.73		24.91	305	
56	14.7	33.64		75	12.5	33.51		25.36	263	
65	14.1	33.60		100	11.9	33.63		25.57	243	
74	12.57	33.51		150	11.9	34.36		26.14	188	
83	12.3	33.57		200	11.5	34.56		26.37	166	
92	12.1	33.58		250	10.7	34.57		26.51	153	
114	11.1	33.71								
140	11.79	34.27								
183	11.8	34.58								
229	10.72	34.52								
274	10.74	34.62								

STRANGER; August 9, 1957; 0233 GCT; 22°55'N, 110°07'W; sounding, 245 fm; wind, missing, force 1; weather, partly cloudy; sea, slight; wire angle, 05°.

153.16

0	28.08	34.94	4.60	0	28.08	34.94	4.60	22.34	550	0.00
10	27.64	34.90	4.80	10	27.64	34.90	4.80	22.45	540	0.05
29	24.69	34.78	4.74	20	27.15	34.87	4.80	22.60	525	0.11
48	22.13	34.67	3.87	30	24.53	34.77	4.70	23.33	456	0.16
73	20.08	34.60	2.82	50	22.00	34.67	3.82	23.98	394	0.24
98	18.11	34.54	2.02	75	19.95	34.60	2.77	24.49	346	0.33
122	16.57	34.78	1.28	100	18.10	34.61	2.00	24.97	300	0.42
161	14.55	34.85	0.64	150	15.00	34.84	0.78	25.87	214	0.54
200	13.22	34.81	0.30	200	13.22	34.81	0.30	26.22	181	0.64
234	12.10	34.73	0.17	250	11.82	34.72	0.13	26.42	162	0.73
390	10.11	34.69	0.08	300	11.12	34.70	0.10	26.54	151	0.82
				400	(10.00)	(34.69)	(0.07)	(26.73)	(132)	(0.96)

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OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O ₂	Z	T	S	O ₂	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^5 \text{ cm}^3/\text{g}$	dyn. m

153.20

STRANGER; August 9, 1957; 0523, 0617 GCT; 22°47'N, 110°22'W; sounding, 420 fm; wind, missing, force 1; weather, cloudy; sea, slight; wire angle, 00°, 00°.

0	27.08	34.90	4.86	0	27.08	34.90	4.86	22.64	522	0.00
10	26.95	34.88	4.78	10	26.95	34.88	4.78	22.67	519	0.05
29	25.44	34.85	5.05	20	26.60	34.87	4.82	22.77	509	0.10
44	23.02	34.70	4.87	30	25.28	34.84	5.04	23.15	473	0.15
53	21.52	34.67	3.57	50	22.07	34.68	4.08	23.98	394	0.24
62	20.16	34.61	2.53	75	18.88	34.69	1.84	24.83	313	0.33
72	19.22	34.69	1.92	100	15.78	34.74	1.18	25.61	238	0.40
89	16.07	34.69	1.23	150	13.92	34.86	0.56	26.11	191	0.51
				200	12.78	34.81	0.22	26.31	172	0.60
101	15.78	34.74	1.18	250	11.91	34.80	0.23	26.47	157	0.68
115	15.18	34.78	0.86	300	11.07	34.73	0.20	26.56	149	0.76
138	14.24	34.83	0.61	400	9.67	34.63	0.14	26.74	132	0.91
166	13.58	34.88	0.48	500	8.47	34.59	0.13	26.90	116	1.04
202	12.74	34.81	0.21							
252	11.88	34.80	0.23							
332	10.65	34.68	0.18							
432	9.22	34.61	0.13							
570	7.74	34.58	0.15							

157.20

STRANGER; August 9, 1957; 1115, 1149 GCT; 22°17'N, 110°02'W; sounding, 1693 fm; wind, 260°, force 2; weather, partly cloudy; sea, slight; wire angle, 01°, 00°.

0	27.76	34.69	4.54	0	27.76	34.69	4.54	22.26	558	0.00
10	27.77	34.73	4.53	10	27.77	34.73	4.53	22.29	555	0.06
29	24.02	34.63	5.02	20	27.77	34.73	4.55	22.30	554	0.11
39	22.93	34.49	5.19	30	23.88	34.62	5.04	23.40	449	0.16
48	21.86	34.38	5.20	50	21.50	34.37	5.16	23.91	401	0.25
56	20.30	34.36	4.74	75	18.26	34.45	3.28	24.81	315	0.34
66	19.61	34.47	4.10	100	15.00	34.40	1.79	25.53	247	0.41
80	17.32	34.43	2.80	150	12.99	34.71	0.17	26.19	183	0.52
				200	11.92	34.74	0.14	26.43	161	0.60
94	15.71	34.38	2.00	250	11.07	34.72	0.10	26.57	148	0.68
109	14.24	34.47	1.31	300	10.66	34.71	0.07	26.63	142	0.76
132	13.62	34.63	0.33	400	9.40	34.65	0.05	26.80	126	0.90
158	12.72	34.72	0.16	500	8.00	34.56	0.09	26.95	111	1.02
192	12.08	34.74	0.15							
238	11.20	34.83u	0.11							
313	10.53	34.70	0.07							
408	9.26	34.64	0.05							
533	7.50	34.53	0.11							

99G.15

STRANGER; August 20, 1957; 0020 GCT; 30°58'N, 114°40'W; sounding, 13 fm; wind, 130°, force 1; weather, overcast; sea, slight; wire angle, 00°.

0	30.04	35.57	4.12	0	30.04	35.57	4.12	22.14	569	0.00
10	30.08	35.57	4.08	10	30.08	35.57	4.08	22.14	569	0.06
19	30.54	35.83	4.22							

99G.25

STRANGER; August 20, 1957; 0143 GCT; 31°03'N, 114°29'W; sounding, 15 fm; wind, 270°, force 1; weather, overcast; sea, smooth; wire angle, 00°.

0	30.34	35.54	4.21	0	30.34	35.54	4.21	22.03	580	0.00
10	30.36	35.55	4.22	10	30.36	35.55	4.22	22.04	579	0.06
24	30.36	35.55	4.10	20	30.36	35.55	4.16	22.04	579	0.12

99G.40

STRANGER; August 20, 1957; 0342 GCT; 31°11'N, 114°15'W; sounding, 35 fm; wind, missing, force 1; weather, overcast; sea, smooth; wire angle, 00°.

0	30.23	35.41	3.78	0	30.23	35.41	3.78	21.97	586	0.00
10	30.25	35.39	3.37	10	30.25	35.39	3.37	21.95	588	0.06
29	29.20	35.33	3.38	20	29.72	35.35	3.38	22.11	573	0.12
49	27.46	35.32	2.88	30	29.19	35.33	3.35	22.28	556	0.17

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O ₂	Z	T	S	O ₂	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^{-5} \text{cm}^3/\text{g}$	dyn. m

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STRANGER; August 19, 1957; 1901 GCT; 30°17'N, 114°30'W; sounding, 26 fm; wind, 330°, force 5; weather, cloudy; sea, rough; wire angle, 00°.

103G.02

0	29.48	35.35	4.58	0	29.48	35.35	4.58	22.18	565	0.00
19	29.24	35.36	4.46	10	29.47	35.35	4.56	22.18	565	0.06
34	27.61	35.35	3.65	20	29.18	35.36	4.40	22.31	553	0.11
				30	27.79	35.35	3.74	22.76	510	0.16

STRANGER; August 19, 1957; 1747 GCT; 30°21'N, 114°22'W; sounding, 38 fm; wind, 350°, force 4; weather, cloudy; sea, rough; wire angle, 03°.

103G.10

0	29.72	35.26	-	0	29.72	35.26		22.04	579	0.00
20	29.66	35.27	3.68	10	29.70	35.27		22.05	578	0.06
39	28.94	35.26	2.96	20	29.66	35.27	3.68	22.07	576	0.12
58	26.08	35.25	2.83	30	29.22	35.27	3.15	22.21	563	0.17
				50	27.79	35.25	2.85	22.70	516	0.28

STRANGER; August 19, 1957; 1540 GCT; 30°27'N, 114°05'W; sounding, 90 fm; wind, 150°, force 6; weather, cloudy; sea, rough; wire angle, 10°.

103G.25

0	29.55	35.29	4.52	0	29.55	35.29	4.52	22.12	571	0.00
10	29.56	35.27	4.47	10	29.56	35.27	4.47	22.10	573	0.06
30	28.83	35.40	4.56	20	29.30	35.32	4.51	22.23	561	0.11
49	24.96	35.31	3.58	30	28.83	35.40	4.56	22.45	540	0.17
73	21.54	35.30	3.03	50	24.80	35.31	3.54	23.66	424	0.26
96	19.58	35.32	2.72	75	21.35	35.30	3.01	24.64	331	0.36
119	17.89	35.23	2.57	100	19.22	35.31	2.70	25.21	277	0.44
147	16.02	35.17	2.26	150	(15.81)	(35.16)	(2.21)	(25.94)	(207)	(0.56)

STRANGER; August 19, 1957; 1343 GCT; 30°37'N, 113°53'W; sounding, 45 fm; wind, 140°, force 7; weather, cloudy; sea, rough; wire angle, 04°.

103G.40

0	29.32	35.41	4.69	0	29.32	35.41	4.69	22.28	556	0.00
10	29.32	35.40	4.50	10	29.32	35.40	4.50	22.28	556	0.06
29	28.53	35.39	4.69	20	29.00	35.40	4.56	22.38	546	0.11
49	26.22	35.30	4.40	30	28.47	35.39	4.68	22.55	530	0.16
74	23.39	35.30	3.40	50	26.13	35.30	4.36	23.24	464	0.26
				75	(23.30)	(35.30)	(3.37)	(24.08)	(384)	(0.37)

STRANGER; August 19, 1957; 1137 GCT; 30°43'N, 113°37'W; sounding, 36 fm; wind, 150°, force 6; weather, lightning; sea, moderate; wire angle, 00°.

103G.55

0	29.52	35.28	4.50	0	29.52	35.28	4.50	22.12	571	0.00
10	29.52	35.27	4.50	10	29.52	35.27	4.50	22.11	572	0.06
29	29.08	35.26	4.52	20	29.31	35.26	4.52	22.18	566	0.11
49	28.19	35.22	4.35	30	29.04	35.26	4.52	22.27	557	0.17
58	27.02	35.22	3.83	50	28.13	35.22	4.44	22.53	532	0.28

STRANGER; August 19, 1957; 0938 GCT; 30°51'N, 113°22'W; sounding, 22 fm; wind, 150°, force 1; weather, lightning; sea, smooth; wire angle, 00°.

103G.70

0	29.80	35.34	4.15	0	29.80	35.34	4.15	22.07	576	0.00
24	29.22	35.30	4.20	10	29.80	35.34	4.16	22.07	576	0.06
34	28.70	35.30	3.75	20	29.41	35.31	4.20	22.18	566	0.11
				30	28.91	35.30	4.00	22.34	551	0.17

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OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O ₂	Z	T	S	O ₂	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^5 \text{cm}^3/\text{g}$	dyn. m

108G.06

STRANGER; August 21, 1957; 0020, 0058 GCT; 29°37'N, 113°56'W; sounding, 530 fm; wind, 120°, force 1; weather, partly cloudy; sea, smooth; wire angle, 00°, 00°.

0	29.92	35.50	4.55	0	29.92	35.50	4.55	22.16	568	0.00
10	29.58	35.48	4.53	10	29.58	35.48	4.53	22.25	559	0.06
29	28.56	35.44	4.05	20	29.08	35.46	4.34	22.40	544	0.11
49	26.56	35.29	3.56	30	28.50	35.44	4.02	22.58	527	0.16
59	25.51	35.30	3.46	50	26.47	35.29	3.54	23.13	475	0.26
				75	24.17	35.28	3.32	23.82	409	0.38
68	25.00	35.28	3.44	100	19.55	35.26	2.88	25.10	287	0.46
83	22.49	35.27	3.09	150	15.50	35.15	2.08	26.00	202	0.59
97	19.80	35.26	2.91	200	14.58	35.14	1.90	26.20	183	0.69
126	17.46	35.23	2.64	250	13.94	35.09	1.74	26.28	175	0.78
155	15.30	35.14	2.02	300	13.63	35.05	1.65	26.32	171	0.87
191	14.69	35.15	1.92	400	13.24	35.01	1.52	26.37	166	1.05
257	13.87	35.08	1.71	500	12.86	35.00	1.34	26.44	160	1.22
351	13.42	35.02	1.59	600	12.50	34.96	1.21	26.48	156	1.38
473	12.95	35.01	1.40							
567	12.64	34.97	1.27							
662	12.24	34.94	1.17							
854	-	34.91	1.13							

109G.12

STRANGER; August 21, 1957; 0251 GCT; 29°30'N, 113°46'W; sounding, 300 fm; wind, 320°, force 2; weather, partly cloudy; sea, smooth; wire angle, 00°.

0	29.68	35.47	4.52	0	29.68	35.47	4.52	22.21	563	0.00
10	29.04	35.41	4.59	10	29.04	35.41	4.59	22.37	547	0.06
29	28.73	35.37	4.57	20	28.80	35.38	4.57	22.44	541	0.11
39	27.64	35.32	4.32	30	28.73	35.37	4.55	22.47	538	0.16
49	26.97	35.30	3.89	50	26.88	35.30	3.86	23.00	487	0.27
58	26.10	35.26	3.72	75	24.61	35.34	3.30	23.88	403	0.38
68	25.18	35.32	3.58	100	19.65	35.26	2.57	25.06	291	0.47
82	23.92	35.34	3.24	150	15.79	35.18	2.09	25.96	206	0.59
95	20.51	35.26	2.66	200	14.57	35.13	1.73	26.19	184	0.69
109	18.74	35.26	2.47	250	13.97	35.08	1.60	26.28	175	0.78
133	16.38	35.22	2.34	300	13.61	35.08	1.63	26.35	169	0.87
160	15.50	35.16	1.92							
194	14.66	35.14	1.77							
241	14.02	35.08	1.59							
288	13.69	35.08	1.64							
387	12.88	35.02	1.29							
483	-	35.00	1.20							

109G.25

STRANGER; August 18, 1957; 1217 GCT; 29°36'N, 113°33'W; sounding, 120 fm; wind, missing, force 1; weather, partly cloudy; sea, smooth; wire angle, 00°.

0	29.48	35.39	4.60	0	29.48	35.39	4.60	22.22	562	0.00
10	29.38	35.36	4.52	10	29.38	35.36	4.52	22.23	561	0.06
29	27.34	35.32	4.41	20	28.45	35.33	4.45	22.52	533	0.11
49	25.20	35.30	3.78	30	27.20	35.32	4.39	22.91	495	0.16
73	22.70	35.26	3.17	50	25.07	35.30	3.73	23.56	434	0.25
97	20.14	35.24	2.72	75	22.50	35.26	3.12	24.29	364	0.35
122	19.48	35.19	2.62	100	20.03	35.24	2.70	24.95	301	0.44
161	16.15	35.15	2.16	150	16.80	35.16	2.24	25.70	230	0.58
201	15.11	35.10	1.89	200	15.12	35.10	1.90	26.04	198	0.69

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O ₂	Z	T	S	O ₂	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^{-5} \text{cm}^3/\text{g}$	dyn. m

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STRANGER; August 18, 1957; 2139 GCT; 29°44'N, 113°18'W; sounding, 110 fm; wind, 080°, force 1; weather, cloudy; sea, smooth; wire angle, 06°.

I09G40

0	30.49	35.41	4.67	0	30.49	35.41	4.67	21.88	594	0.00
10	29.13	35.44	4.42	10	29.13	35.44	4.42	22.37	547	0.06
28	28.04	35.37	4.48	20	29.10	35.44	4.44	22.38	546	0.11
49	24.92	35.31	3.61	30	27.66	35.36	4.40	22.80	507	0.16
72	23.56	35.30	3.42	50	24.83	35.31	3.60	23.65	426	0.26
97	21.49	35.28	3.02	75	23.37	35.30	3.38	24.07	385	0.36
121	19.39	35.24	2.70	100	21.15	35.28	2.96	24.69	326	0.45
161	17.43	35.22	2.44	150	17.92	35.22	2.50	25.48	251	0.59
200	15.32	35.16	1.98	200	15.32	35.16	1.98	26.05	197	0.71

STRANGER; August 18, 1957; 2339 GCT; 29°52'N, 113°03'W; sounding, 56 fm; wind, missing, force 1; weather, cloudy; sea, smooth; wire angle, 00°.

I09G55

0	31.12	35.43	3.88	0	31.12	35.43	3.88	21.70	610	0.00
10	29.68	35.37	3.50	10	29.68	35.37	3.50	22.12	571	0.06
29	28.76	35.35	3.53	20	29.18	35.36	3.51	22.29	555	0.12
49	25.37	35.30	2.83	30	28.60	35.35	3.52	22.48	537	0.17
73	23.06	35.30	2.42	50	25.12	35.30	2.79	23.54	436	0.27
				75	(22.88)	(35.30)	(2.40)	(24.22)	(371)	(0.37)

STRANGER; August 19, 1957; 0118 GCT; 29°58'N, 112°50'W; sounding, 43 fm; wind, missing, force 1; weather, cloudy; sea, smooth; wire angle, 00°.

I09G68

0	30.46	35.41	4.24	0	30.46	35.41	4.24	21.90	593	0.00
10	29.42	35.30	4.19	10	29.42	35.30	4.19	22.17	567	0.06
32	27.89	35.21	3.42	20	28.62	35.25	3.87	22.39	546	0.11
49	26.73	35.17	2.01	30	28.02	35.22	3.51	22.56	529	0.17
73	23.21	35.23	2.73	50	26.67	35.17	2.02	22.98	490	0.27
				75	(23.00)	(35.24)	(2.80)	(24.14)	(379)	(0.38)

STRANGER; August 21, 1957; 0441 GCT; 29°22'N, 113°38'W; sounding, 150 fm; wind, 330°, force 3; weather, partly cloudy; sea, smooth; wire angle, 15°.

I10G.14

1	28.96	35.37	4.69	0	(28.96)	(35.37)	(4.69)	(22.37)	(547)	(0.00)
10	28.90	35.41	4.59	10	28.90	35.41	4.59	22.43	542	0.05
28	28.62	35.42	4.46	20	28.78	35.42	4.50	22.48	537	0.11
47	26.58	35.47	4.02	30	28.57	35.42	4.44	22.55	530	0.16
71	21.58	35.28	3.06	50	25.93	35.45	3.90	23.42	447	0.26
96	18.74	35.20	2.56	75	21.01	35.26	2.93	24.71	324	0.36
119	17.65	35.19	2.44	100	18.50	35.20	2.53	25.32	266	0.43
158	15.82	35.12	2.04	150	16.19	35.13	2.12	25.84	217	0.56
197	14.88	35.07	1.89	200	14.83	35.07	1.85	26.08	194	0.66
231p	14.24	35.05	1.72							

STRANGER; August 18, 1957; 1050 GCT; 29°34'N, 113°24'W; sounding, 120 fm; wind, missing, force 1; weather, partly cloudy; sea, smooth; wire angle, 00°.

I10G.30

0	28.82	35.40	3.61	0	28.82	35.40	3.61	22.44	540	0.00
10	28.20	35.34	4.06	10	28.20	35.34	4.06	22.60	525	0.05
29	26.14	35.28	3.83	20	27.90	35.32	4.04	22.69	516	0.10
50	24.63	35.28	3.24	30	26.00	35.28	3.80	23.26	462	0.15
73	23.16	35.27	3.00	50	24.63	35.28	3.24	23.68	422	0.24
97	20.38	35.27	2.34	75	23.00	35.27	2.98	24.16	377	0.34
121	19.04	35.23	2.42	100	20.17	35.27	2.35	24.94	302	0.43
159	16.32	35.15	1.98	150	16.82	35.16	2.07	25.69	231	0.57
197	15.57	35.13	1.94	200	(15.49)	(35.13)	(1.95)	(25.98)	(204)	(0.68)

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OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O ₂	Z	T	S	O ₂	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^5 \text{ cm}^3/\text{g}$	dyn. m

111G.14

STRANGER; August 21, 1957; 0613 GCT; 29°14'N, 113°34'W; sounding, 290 fm; wind, 330°, force 3; weather, clear; sea, smooth; wire angle, 00°.

0	28.78	35.43	4.50	0	28.78	35.43	4.50	22.48	537	0.00
10	28.80	35.44	4.69	10	28.80	35.44	4.69	22.48	537	0.05
29	28.12	35.40	4.50	20	28.70	35.43	4.66	22.51	534	0.11
39	27.38	35.43	4.20	30	28.05	35.40	4.48	22.70	516	0.16
49	26.35	35.41	3.96	50	26.30	35.41	3.95	23.27	461	0.26
58	26.08	35.41	3.78	75	25.19	35.33	3.44	23.88	403	0.36
68	25.44	35.36	3.65	100	21.09	35.25	2.89	24.67	328	0.46
82	22.90	35.32	3.25	150	15.83	35.09	1.96	25.87	214	0.60
97	21.50	35.26	2.96	200	13.92	35.03	1.67	26.24	179	0.70
110	19.80	35.22	2.70	250	13.56	35.02	1.56	26.32	171	0.79
134	16.70	35.12	2.21	300	13.39	35.03	1.55	26.36	168	0.88
160	15.41	35.08	1.84							
193	14.07	35.03	1.72							
239	13.60	35.02	1.56							
285	13.43	35.03	1.58							
384	13.02	35.01	1.44							
480	-	34.95	1.37							

111G.30

STRANGER; August 18, 1957; 0848 GCT; 29°21'N, 113°18'W; sounding, 85 fm; wind, 220°, force 4; weather, missing; sea, smooth; wire angle, 03°.

0	29.08	35.38	4.65	0	29.08	35.38	4.65	22.34	551	0.00
10	29.10	35.39	3.98	10	29.10	35.39	3.98	22.34	550	0.06
29	27.24	35.37	3.94	20	28.41	35.39	3.95	22.56	529	0.11
48	25.05	35.29	3.44	30	27.13	35.37	3.93	22.99	489	0.16
72	22.43	35.29	2.86	50	24.87	35.29	3.40	23.62	428	0.25
95	20.32	35.26	2.30	75	22.10	35.29	2.76	24.44	350	0.35
118	18.61	35.22	2.37	100	19.90	35.25	2.30	25.00	297	0.43

113G.18

STRANGER; August 21, 1957; 0950 GCT; 28°58'N, 113°18'W; sounding, 600 fm; wind, 330°, force 1; weather, clear; sea, smooth; wire angle, 10°.

0	28.48	35.43	4.92	0	28.48	35.43	4.92	22.57	528	0.00
10	28.26	35.43	4.96	10	28.26	35.43	4.96	22.65	521	0.05
29	26.70	35.43	3.85	20	27.70	35.43	4.51	22.84	503	0.10
48	24.66	35.32	3.48	30	26.55	35.42	3.79	23.22	467	0.15
58	24.22	35.32	3.42	50	24.56	35.32	3.46	23.74	416	0.24
67	22.55	35.26	3.22	75	22.20	35.26	3.14	24.38	356	0.34
82	21.98	35.26	3.08	100	20.39	35.26	2.75	24.88	308	0.42
96	21.00	35.27	2.78	150	16.01	35.14	2.03	25.87	214	0.55
125	17.15	35.17	2.27	200	14.38	35.03	1.94	26.15	187	0.65
152	15.97	35.14	2.02	250	13.75	35.02	1.74	26.27	176	0.74
189	14.73	35.08	1.95	300	13.30	34.99	1.60	26.34	169	0.84
252	13.72	35.02	1.71	400	12.82	34.96	1.44	26.41	163	1.01
345	13.04	34.97	1.52	500	12.54	34.93	1.35	26.45	159	1.18
466	12.60	34.94	1.37	600	12.39	34.91	1.33	26.46	158	1.34
558	12.46	34.92	1.33	700	12.21	34.88	1.33	26.47	157	1.52
703	12.20	34.87	1.33							
843	-	34.87	1.27							

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O ₂	Z	T	S	O ₂	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^5 \text{ cm}^3/\text{g}$	dyn. m

STRANGER; August 18, 1957; 0551 GCT; 29°06'N, 113°02'W; sounding, 250 fm; wind, 130°, force 2; weather, cloudy; sea, smooth; wire angle, 08°.

113G.35

0	30.18	35.23	4.78	0	30.18	35.23	4.78	21.85	597	0.00
9	29.67	35.22	4.84	10	29.59	35.22	4.84	22.05	578	0.06
28	27.99	35.19	4.19	20	28.80	35.20	4.60	22.31	554	0.12
48	25.64	35.18	3.70	30	27.78	35.19	4.12	22.64	522	0.17
72	22.80	35.27	3.39	50	25.30	35.19	3.66	23.40	449	0.27
95	20.94	35.30	2.98	75	22.55	35.28	3.32	24.29	364	0.37
118	19.15	35.24	2.70	100	20.50	35.29	2.90	24.87	309	0.45
154	16.75	35.18	2.09	150	17.00	35.19	2.14	25.68	232	0.59
192	15.37	35.12	1.95	200	14.98	35.10	1.88	26.08	194	0.70
237	12.56	34.96	1.35	250	12.30	34.93	1.30	26.50	154	0.79
281	11.92	34.90	1.20	300	11.73	34.89	1.14	26.57	147	0.87
382	11.00	34.85	0.96							

STRANGER; August 18, 1957; 0332 GCT; 29°12'N, 112°52'W; sounding, 170 fm; wind, 070°, force 2; weather, cloudy; sea, smooth; wire angle, 00°.

113G.45

0	30.40	35.23	4.71	0	30.40	35.23	4.71	21.78	604	0.00
12	29.32	35.21	4.76	10	29.43	35.21	4.74	22.09	574	0.06
31	28.56	35.43 ^{a)}	4.28	20	29.00	35.20	4.59	22.24	560	0.12
50	26.74	35.19	3.73	30	28.60	35.20	4.30	22.38	547	0.17
75	22.84	35.35 ^{a)}	3.42	50	26.74	35.19	3.73	22.97	490	0.27
99	20.30	35.26	2.63	75	22.84	35.24	3.42	24.18	375	0.38
123	18.74	35.24	2.36	100	20.25	35.26	2.63	24.91	305	0.47
162	15.80	35.16	2.05	150	16.67	35.19	2.13	25.76	224	0.61
202	14.46	35.25	1.81	200	14.53	35.16	1.84	26.22	181	0.71
236p	12.88	34.97	1.41	250	12.49	34.95	1.33	26.47	157	0.80
282p	11.77	34.90	1.16							

STRANGER; August 18, 1957; 0200 GCT; 29°16'N, 112°42'W; sounding, 90 fm; wind, missing, force 1; weather, cloudy; sea, smooth; wire angle, 00°.

113G.55

0	30.32	35.17	3.50	0	30.32	35.17	3.50	21.77	606	0.00
10	29.25	35.21	3.53	10	29.25	35.21	3.53	22.16	568	0.06
29	28.60	35.19	2.76	20	28.82	35.20	3.07	22.29	555	0.11
49	28.30	35.17	2.71	30	28.59	35.19	2.75	22.37	548	0.17
74	25.84	35.28	2.63	50	28.28	35.17	2.71	22.46	539	0.28
98	20.56	35.23	1.55	75	25.40	35.28	2.58	23.45	444	0.40
123	17.59	35.17	1.47	100	20.41	35.22	1.53	24.85	311	0.50

STRANGER; August 21, 1957; 1147 GCT; 28°51'N, 113°11'W; sounding, 700 fm; wind, 330°, force 3; weather, clear; sea, smooth; wire angle, 12°.

114G.20

0	28.42	35.09	4.76	0	28.42	35.09	4.76	22.34	550	0.00
10	28.40	35.14	4.86	10	28.40	35.14	4.86	22.39	546	0.05
29	26.13	35.24	3.80	20	27.30	35.20	4.27	22.80	507	0.11
48	25.56	35.20	3.62	30	26.08	35.24	3.78	23.21	467	0.16
57	25.36	35.28	3.61	50	25.50	35.20	3.62	23.36	453	0.25
67	24.74	35.34	3.55	75	24.00	35.33	3.40	23.90	402	0.36
81	23.54	35.31	3.27	100	22.21	35.24	3.29	24.36	357	0.45
95	22.58	35.26	3.29	150	16.45	35.14	2.32	25.78	223	0.60
127	17.03	35.15	3.14	200	14.81	35.07	1.82	26.08	194	0.71
156	16.42	35.15	2.10	250	13.67	35.01	1.56	26.28	174	0.80
192	15.04	35.08	1.89	300	13.30	34.99	1.48	26.34	169	0.89
256	13.60	35.01	1.54	400	12.90	34.97	1.40	26.41	163	1.06
354	13.08	34.98	1.44	500	12.52	34.96	1.30	26.48	156	1.23
475	12.60	34.96	1.33	600	12.25	34.96	1.24	26.51	153	1.40
621	12.22	34.95	1.22	700	12.09	34.94	1.19	26.54	151	1.56
817	11.96	34.91	1.16	800	11.97	34.92	1.17	26.55	150	1.72
1063	-	34.87	1.10							

a) Loose bottle cap; value does not fall on property curve.

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OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O ₂	Z	T	S	O ₂	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^5 \text{cm}^3/\text{g}$	dyn. m

115G.20

STRANGER; August 21, 1957; 1405 GCT; 28°41'N, 113°06'W; sounding, 210 fm; wind, 350°, force 1; weather, clear; sea, smooth; wire angle, 00°.

0	28.38	35.39	4.84	0	28.38	35.39	4.84	22.58	527	0.00
10	27.75	35.37	4.93	10	27.75	35.37	4.93	22.77	509	0.05
30	26.94	35.40	3.98	20	27.35	35.38	4.51	22.92	495	0.10
49	26.26	35.37	3.74	30	26.94	35.40	3.98	23.06	481	0.15
73	23.38	35.28	3.08	50	26.22	35.37	3.74	23.26	462	0.24
98	19.30	35.16	2.46	75	22.90	35.27	2.99	24.18	375	0.35
123	18.04	35.13	2.29	100	19.19	35.16	2.42	25.12	285	0.43
161	15.01	35.06	1.81	150	15.87	35.08	1.95	25.85	216	0.56
199	14.16	35.05	1.66	200	14.15	35.05	1.65	26.22	181	0.66
246 ^{a)}	13.67	35.01	1.57	250	13.68	35.01	1.57	26.28	175	0.76
293	13.60	35.00	1.57	300	(13.60)	(35.00)	(1.57)	(26.29)	(174)	(0.85)

115G.40

STRANGER; August 17, 1957; 2001 GCT; 28°52'N, 112°45'W; sounding, 225 fm; wind, 170°, force 3; weather, partly cloudy; sea, smooth; wire angle, 04°.

0	29.46	35.08	4.78	0	29.46	35.08	4.78	21.99	584	0.00
11	28.84	35.12	4.65	10	28.87	35.12	4.66	22.21	563	0.06
30	26.96	35.12	4.07	20	28.00	35.12	4.41	22.51	534	0.11
49	24.80	35.14	3.61	30	26.96	35.12	4.07	22.85	502	0.16
74	22.78	35.22	3.42	50	24.70	35.14	3.60	23.56	434	0.26
98	21.53	35.19	3.32	75	22.73	35.22	3.42	24.20	373	0.36
113	19.50	35.19	2.81	100	21.46	35.19	3.30	24.53	341	0.45
160	15.32	35.03	1.96	150	16.20	35.16	1.93	25.84	217	0.59
198	13.80	34.96	1.55	200	13.73	34.96	1.53	26.24	179	0.69
246	12.03	34.88	1.20	250	11.97	34.87	1.18	26.52	152	0.78
291	11.49	34.83	1.08	300	11.37	34.82	1.04	26.59	146	0.86
393	9.74	34.75	0.77	400	(9.60)	(34.74)	(0.75)	(26.84)	(122)	(1.00)

116⁴G.24

STRANGER; August 21, 1957; 1620 GCT; 28°32'N, 112°54'W; sounding, 210 fm; wind, 300°, force 3; weather, clear; sea, smooth; wire angle, 12°.

0	29.92	35.19	4.65	0	29.92	35.19	4.65	21.92	591	0.00
10	28.80	35.21	4.94	10	28.80	35.21	4.94	22.31	554	0.06
29	27.68	35.33	4.77	20	28.19	35.28	4.88	22.57	528	0.11
48	26.76	35.34	3.96	30	27.66	35.33	4.73	22.78	508	0.16
72	25.43	35.31	3.70	50	26.63	35.34	3.90	23.12	476	0.26
96	24.00	35.30	3.40	75	25.22	35.31	3.64	23.53	437	0.38
119	21.56	35.23	2.93	100	23.65	35.30	3.31	23.99	393	0.48
151	16.95	35.12	2.07	150	17.00	35.12	2.07	25.63	237	0.64
186	15.60	35.08	1.85	200	15.03	35.07	1.76	26.04	198	0.75
231	13.93	35.04	1.59	250	13.68	35.02	1.59	26.29	174	0.85
276	13.43	34.99	1.57	300	13.37	35.00	1.55	26.33	170	0.94
322	13.28	35.01	1.53							

a) Additional value of 234 meters not used in interpolation.

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O ₂	Z	T	S	O ₂	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^{-5} \text{cm}^3/\text{g}$	dyn. m

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STRANGER; August 17, 1957; 1817 GCT; 28°42'N, 112°42'W; sounding, 285 fm; wind, missing, force 1; weather, partly cloudy; sea, smooth; wire angle, 06°.

116G.37

0	29.17	35.16	4.80	0	29.17	35.16	4.80	22.15	569	0.00
10	29.00	35.15	4.56	10	29.00	35.15	4.56	22.19	565	0.06
29	28.07	35.17	4.16	20	28.78	35.15	4.40	22.27	557	0.11
39	27.44	35.21	4.03	30	28.00	35.17	4.14	22.54	531	0.17
48	25.74	35.19	3.78	50	25.41	35.18	3.70	23.38	452	0.26
58	24.62	35.18	3.58	75	23.37	35.22	3.38	24.01	391	0.37
68	24.09	35.21	3.47	100	20.00	35.23	2.92	24.96	301	0.46
82	22.27	35.23	3.30	150	16.52	35.17	2.21	25.78	223	0.59
96	20.34	35.24	2.95	200	14.45	35.07	1.67	26.17	186	0.69
110	19.28	35.21	2.88	250	12.16	34.89	1.23	26.50	155	0.78
134	17.16	35.14	2.33	300	11.60	34.86	1.19	26.57	147	0.86
162	16.09	35.20	2.11	400	9.82	34.65	0.69	26.73	133	1.01
194	14.65	35.06	1.88	500	(8.83)	(34.60)		(26.85)	(121)	(1.14)
240	12.24	34.89	1.23							
284	11.86	34.88	1.24							
381	10.06	34.67	0.72							
477	9.04	34.61	0.54							

STRANGER; August 17, 1957; 1602 GCT; 28°32'N, 112°39'W; sounding, 300 fm; wind, missing, force 1; weather, partly cloudy; sea, smooth; wire angle, 03°.

117G.35

0	29.11	35.16	4.79	0	29.11	35.16	4.79	22.16	567	0.00
9	28.89	35.16	4.60	10	28.85	35.16	4.58	22.25	559	0.06
20	27.96	35.16	4.23	20	27.96	35.16	4.23	22.55	530	0.11
29	26.94	35.26	3.89	30	26.85	35.26	3.89	22.98	489	0.16
38	26.24	35.17	3.90	50	25.39	35.16	3.78	23.36	452	0.26
54	25.04	35.16	3.70	75	22.22	35.22	3.22	24.34	360	0.36
67	22.47	35.22	3.26	100	20.35	35.23	3.02	24.87	309	0.44
83	22.02	35.21	3.21	150	16.74	35.15	2.26	25.71	229	0.58
105	19.88	35.23	2.98	200	15.30	35.09	1.82	26.00	202	0.69
134	17.29	35.19	2.37	250	13.87	35.03	1.41	26.26	177	0.79
165	16.26	35.11	2.16	300	12.06	34.85	1.12	26.48	156	0.88
211	14.83	35.04	1.85	400	8.83	34.72	0.52	26.95	112	1.02
286	12.59	34.88	1.29	500	7.93	34.67	0.40	27.05	102	1.13
380	9.13	34.73	0.55							
503	7.90	34.67	0.40							

STRANGER; August 17, 1957; 1357 GCT; 28°39'N, 112°25'W; sounding, 140 fm; wind, missing, force 1; weather, partly cloudy sea, smooth; wire angle, 04°.

117G.50

0	29.63	35.13	4.40	0	29.63	35.13	4.40	21.97	586	0.00
10	29.65	35.12	4.42	10	29.65	35.12	4.42	21.94	588	0.06
29	27.58	35.08	4.09	20	28.57	35.09	4.29	22.29	555	0.12
39	26.39	35.10	3.64	30	27.28	35.08	4.04	22.65	521	0.17
48	24.44	35.13	3.64	50	24.30	35.14	3.61	23.68	422	0.26
58	23.92	35.16	3.56	75	22.75	35.15	3.19	24.14	378	0.36
67	22.89	35.14	3.22	100	19.73	35.15	2.78	24.97	300	0.45
81	22.64	35.16	3.17	150	16.00	35.04	1.80	25.80	221	0.58
95	20.82	35.16	2.94	200	13.41	34.93	1.49	26.27	176	0.69
108	18.82	35.14	2.60							
131	18.11	35.10	2.42							
158	15.50	35.02	1.75							
198	13.89	34.96	1.59							
224	12.56	34.88	1.20							

STRANGER; August 22, 1957; 1457 GCT; 26°58'N, 111°55'W; sounding, 33 fm; wind, 210°, force 1; weather, partly cloudy; sea, smooth; wire angle, 05°.

127G.22

0	29.73	35.25	4.50	0	29.73	35.25	4.50	22.03	580	0.00
10	29.63	35.21	4.54	10	29.63	35.21	4.54	22.03	580	0.06
29	27.08	35.32	2.88	20	28.80	35.26	4.51	22.35	550	0.11
48	24.72	35.16	3.14	30	26.90	35.31	2.89	23.00	487	0.17

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OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O ₂	Z	T	S	O ₂	σ_t	δT	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^5 \text{ cm}^3/\text{g}$	dyn. m

127G.30

STRANGER; August 16, 1957; 1503 GCT; 27°02'N, 111°48'W; sounding, 600 fm; wind, 230°, force 1; weather, cloudy; sea, slight; wire angle, 09°.

0	30.20	35.17	4.54	0	30.20	35.17	4.54	21.80	602	0.00
9	29.87	35.17	4.40	10	29.79	35.17	4.39	21.94	589	0.06
28	27.54	35.05	3.93	20	28.60	35.10	4.13	22.29	555	0.12
39	26.20	35.08	3.79	30	27.35	35.05	3.92	22.67	518	0.17
49	24.58	35.07	3.66	50	24.40	35.07	3.62	23.59	431	0.26
58	22.74	35.07	3.32	75	20.90	35.06	3.05	24.58	336	0.36
67	21.84	35.08	3.09	100	18.90	35.14	2.67	25.16	280	0.44
80	20.40	35.05	3.02	150	15.87	35.00	2.00	25.79	221	0.57
94	19.36	35.18	2.76	200	13.89	34.97	1.23	26.21	182	0.67
108	18.36	35.08	2.58	250	12.99	34.90	0.95	26.33	170	0.76
131	17.17	35.10	2.31	300	11.84	34.81	0.55	26.49	155	0.85
158	15.60	35.04	1.82	400	9.40	34.69	0.24	26.83	123	0.99
190	14.12	34.99	1.30	500	7.70	34.61	0.16	27.04	103	1.11
236	13.28	34.92	1.06							
310	11.60	34.79	0.50							
404	9.32	34.69	0.24							
527	7.34	34.60	0.15							

127G.40

STRANGER; August 16, 1957; 1250 GCT; 27°11'N, 111°35'W; sounding, 1000 fm; wind, 110°, force 1; weather, partly cloudy; sea, slight; wire angle, 00°.

0	30.45	35.32		0	30.45	35.32		21.82	600	0.00
10	30.48	35.33		10	30.48	35.33		21.82	600	0.06
29	26.00	34.97		20	30.42	35.32		21.84	598	0.12
38	23.30	35.07		30	25.70	34.97		23.13	475	0.17
48	20.78	35.05		50	20.39	35.04		24.70	325	0.25
58	19.34	35.00		75	18.00	35.00		25.29	269	0.33
68	18.32	35.00		100	16.35	34.96		25.66	234	0.39
82	17.67	35.01		150	14.77	34.96		26.01	201	0.50
94	16.65	34.96		200	13.54	34.91		26.24	179	0.60
109	15.98	34.96		250	12.53	34.87		26.41	163	0.69
133	15.12 ^{a)}	34.95		300	11.79	34.82		26.52	153	0.77
161	14.54	34.96		400	9.70	34.67		26.77	129	0.92
193	13.69	34.92		500	8.23	34.57		26.92	114	1.04
240	12.70	34.88								
317	11.48	34.80								
410	9.50	34.66								
535	7.82	34.54								

127G.55

STRANGER; August 16, 1957; 1027 GCT; 27°17'N, 111°23'W; sounding, 1000 fm; wind, 130°, force 1; weather, partly cloudy; sea, slight; wire angle, 09°.

0	31.09	35.39	4.40	0	31.09	35.39	4.40	21.67	614	0.00
9	30.29	35.31 ^{a)}	4.34	10	30.10	35.30	4.33	21.93	589	0.06
28	24.92	35.03	4.09	20	27.23	35.15	4.20	22.77	509	0.12
42	22.65	34.94	3.50	30	24.57	35.02	4.04	23.51	439	0.16
52	21.32	34.89	2.88	50	21.58	34.90	2.93	24.27	366	0.24
61	20.26	35.07	2.90	75	19.30	35.07	2.71	25.01	296	0.32
70	19.66	35.07	2.74	100	17.29	34.99	2.30	25.46	253	0.40
88	18.10	35.03	2.56	150	14.73	35.01	1.76	26.06	196	0.51
100	17.29	34.99	2.30	200	13.50	34.94	1.51	26.27	176	0.60
118	15.68	35.97	1.82	250	12.52	34.93	1.02	26.44	160	0.69
136	15.14	35.03	1.96	300	11.61	34.79	0.66	26.52	152	0.77
167	14.24	34.96	1.65	400	9.69	34.64	0.43	26.74	131	0.92
203	13.42	34.94 ^{b)}	1.50	500	8.21	34.56	0.14	26.91	115	1.05
253	12.46	34.92 ^{b)}	0.99							
333	11.00	34.72	0.49							
431	9.18	34.61	0.22							
568	7.45	34.52	0.11							

a) Additional value of 15.29° not used in interpolation.

b) Possible evaporation; value falls on property curve.

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O ₂	Z	T	S	O ₂	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^5 \text{cm}^3/\text{g}$	dyn. m

STRANGER; August 16, 1957; 0750 GCT; 27°23'N, 111°10'W; sounding, 975 fm; wind, 100°, force 1; weather, partly cloudy; sea, smooth; wire angle, 12°.

127G.70

0	30.58	35.20	4.55	0	30.58	35.20	4.55	21.72	611	0.00
9	30.00	35.13	4.51	10	29.90	35.12	4.50	21.86	595	0.06
28	25.62	34.79	4.28	20	27.56	34.91	4.38	22.49	536	0.12
38	24.14	34.82	4.02	30	25.26	34.80	4.22	23.13	475	0.17
47	23.64	34.81	4.00	50	23.00	34.79	3.57	23.80	411	0.26
57	21.98	34.77	3.18	75	21.00	35.05	3.16	24.56	339	0.35
67	21.34	35.01	3.24	100	18.43	35.03	2.47	25.20	278	0.43
81	20.73	35.06	3.06	150	15.32	35.01	1.69	25.93	208	0.55
95	18.95	35.04	2.65	200	13.54	35.00	1.40	26.30	173	0.65
108	17.78	35.01	2.23	250	12.59	34.91	1.07	26.43	161	0.74
130	16.70	35.05	2.07	300	11.73	34.83	0.88	26.54	151	0.82
156	14.95	35.00	1.62	400	9.80	34.76	0.53	26.82	124	0.96
187	13.81	35.01	1.50	500	7.98	34.64	0.26	27.02	105	1.08
232	12.92	34.94	1.13							
305	11.64	34.83	0.87							
393	9.93	34.76	0.55							
518	7.60	34.62	0.22							

STRANGER; August 16, 1957; 0455 GCT; 27°33'N, 110°50'W; sounding, 420 fm; wind, 300°, force 1; weather, lightning; sea, smooth; wire angle, 00°.

127G.90

0	30.13	34.91	4.17	0	30.13	34.91	4.17	21.66	616	0.00
10	29.81	34.95	4.13	10	29.81	34.95	4.13	21.78	604	0.06
29	27.74	34.85	4.24	20	28.83	34.92	4.18	22.06	577	0.12
39	27.04	34.78	4.30	30	27.64	34.84	4.26	22.42	543	0.18
48	24.93	34.84	3.99	50	24.78	34.85	3.95	23.31	458	0.28
58	24.02	34.90	3.82	75	22.00	35.01	2.92	24.25	368	0.38
68	22.88	35.04	2.56	100	19.38	35.04	2.58	24.97	300	0.46
81	21.34	34.99	3.14	150	15.10	35.03	1.72	25.99	203	0.59
97	19.74	35.03	2.65	200	13.40	34.96	1.34	26.30	173	0.68
115	17.48	35.07	2.24	250	12.53	34.91	1.12	26.43	161	0.77
134	15.88	35.05	-	300	11.23	34.82	0.75	26.61	144	0.85
162	14.64	35.01	1.61	400	9.16	34.69	0.37	26.87	119	0.99
195	13.50	34.97	1.38	500	7.60	34.62	0.22	27.06	101	1.10
242	12.72	34.92 ^{a)}	1.17							
317	10.82	34.79	0.66							
413	8.93	34.68	0.36							
538	7.10	34.60	0.18							

STRANGER; August 13, 1957; 1030 GCT; 25°16'N, 110°49'W; sounding, 470 fm; wind, 250°, force 3; weather, partly cloudy; sea, slight; wire angle, 00°.

139G.22

0	29.22	35.08	4.95	0	29.22	35.08	4.95	22.07	576	0.00
9	29.24	35.10	4.86	10	29.14	35.09	4.85	22.11	573	0.06
29	25.38	34.87	4.68	20	27.17	34.98	4.81	22.67	519	0.11
38	24.04	34.79	4.14	30	25.17	34.86	4.63	23.20	468	0.16
48	-	34.88	3.62	50	22.82	34.88	3.53	23.92	400	0.25
58	21.96	34.89	3.22	75	20.55	34.97	2.93	24.62	333	0.34
68	20.98	34.93	3.00	100	18.33	34.98	2.30	25.20	278	0.42
82	20.08	35.00	2.84	150	16.21	34.97	1.79	25.69	231	0.55
96	18.87	34.99	2.52	200	14.24	34.89	1.28	26.07	195	0.66
109	17.58	34.97	2.04	250	13.23	34.90	1.01	26.29	174	0.75
132	16.83	34.96	1.95	300	11.76	34.78	0.45	26.48	156	0.84
161	15.77	34.97	1.65	400	8.90	34.61	0.12	26.84	122	0.98
191	14.63	34.90	1.34	500	7.58	34.55	0.10	27.00	106	1.10
235	13.55	34.92	1.13							
311	11.41	34.75	0.38							
404	8.84	34.60	0.12							
526	7.30	34.54	0.10							

a) Possible evaporation; value falls on property curve.

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OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O ₂	Z	T	S	O ₂	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^{-5} \text{cm}^3/\text{g}$	dyn. m

139G.40

STRANGER; August 13, 1957; 0745 GCT; 25°24'N, 110°32'W; sounding, 700 fm; wind, 190°, force 2; weather, partly cloudy; sea, slight; wire angle, 02°.

0	29.76	35.05	4.90	0	29.76	35.05	4.90	21.87	596	0.00
10	28.26	34.93	4.81	10	28.26	34.93	4.81	22.28	556	0.06
29	24.80	34.74	4.46	20	26.48	34.80	4.69	22.76	510	0.11
39	23.88	34.74	4.15	30	24.72	34.74	4.43	23.24	464	0.16
48	-	34.98	3.55	50	23.00	35.02	3.58	23.97	395	0.24
58	22.28	35.07	3.72	75	20.03	35.08	2.99	24.83	313	0.33
68	20.93	35.08	3.30	100	17.67	35.08	2.48	25.44	255	0.41
82	19.14	35.08	2.74	150	14.53	34.79	0.52	25.94	207	0.53
96	17.80	35.08	2.50	200	13.50	34.80	0.47	26.16	186	0.63
110	17.39	35.09	2.34	250	13.05	34.95	1.20	26.36	167	0.72
133	15.85	34.83	0.84	300	12.20	34.84	0.73	26.45	159	0.80
161	14.04	34.79	0.44	400	10.65	34.70	0.34	26.63	142	0.96
194	13.58	34.79	0.40	500	8.62	34.61	0.18	26.90	116	1.10
241	13.20	34.95	1.20							
317	11.90	34.81	0.58							
412	10.45	34.69	0.31							
537	7.72	34.58	0.16							

139G.55

STRANGER; August 13, 1957; 0527 GCT; 25°29'N, 110°15'W; sounding, 900 fm; wind, 200°, force 2; weather, partly cloudy; sea, slight; wire angle, 00°.

0	30.06	34.98	4.60	0	30.06	34.98	4.60	21.73	610	0.00
10	29.64	34.96	4.69	10	29.64	34.96	4.69	21.84	598	0.06
29	25.96	34.73	4.59	20	27.79	34.82	4.65	22.35	550	0.12
39	24.23	34.73	4.13	30	25.87	34.73	4.57	22.90	497	0.17
49	-	34.71	3.79	50	23.48	34.72	3.77	23.60	430	0.26
58	22.45	35.05	3.62	75	20.10	35.09	3.03	24.82	314	0.36
68	20.96	35.12	3.20	100	17.46	35.07	2.45	25.48	251	0.43
83	19.18	35.05	2.84	150	14.60	34.92	1.42	26.02	200	0.54
97	17.66	35.06	2.49	200	13.65	34.99	1.63	26.27	176	0.64
111	16.87	35.07	2.33	250	12.35	34.86	0.74	26.44	160	0.72
134	15.37	34.97	1.72	300	11.77	34.80	0.40	26.50	154	0.81
161	14.26	34.91	1.35	400	10.81	34.75	0.26	26.63	142	0.96
194	13.80	34.99	1.67	500	9.00	34.66	0.18	26.87	119	1.10
239	12.54	34.88	0.89							
316	11.60	34.79	0.37							
411	10.67	34.74	0.26							
535	8.17	34.61	0.15							

139G.70

STRANGER; August 13, 1957; 0234 GCT; 25°41'N, 110°03'W; sounding, 1290 fm; wind, missing; force 1; weather, partly cloudy; sea, slight; wire angle, 00°.

0	29.74	34.92	4.80	0	29.74	34.92	4.80	21.79	603	0.00
10	29.62	34.96	4.65	10	29.62	34.96	4.65	21.86	597	0.06
29	27.10	34.78	4.76	20	29.52	34.96	4.65	21.88	594	0.12
39	25.65	34.74	4.64	30	26.87	34.77	4.75	22.62	524	0.18
49	-	34.69	3.45	50	24.54	34.69	3.47	23.27	461	0.27
58	23.53	34.83	3.88	75	21.45	34.89	3.03	24.31	363	0.38
68	21.96	34.69	2.91	100	18.24	35.09	2.56	25.30	268	0.46
82	21.00	35.08	3.15	150	15.33	35.02	1.76	25.93	208	0.58
95	18.70	35.10	2.68	200	13.73	35.00	1.57	26.27	176	0.68
109	17.58	35.08	2.36	250	12.60	34.92	1.09	26.43	161	0.76
133	16.40 ^{a)}	35.08	2.12	300	11.51	34.81	0.52	26.56	149	0.84
161	14.73	34.99	1.56	400	9.64	34.68	0.22	26.79	127	0.99
195	13.84	35.00	1.60	500	8.01	34.62	0.16	26.99	108	1.11
242	12.78	34.94	1.18							
317	11.18	34.78	0.38							
412	9.44	34.67	0.21							
538	7.38	34.60	0.15							

a) Additional value of 16.23° not used in interpolation.

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O ₂	Z	T	S	O ₂	σ_t	δT_3	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	10 ⁵ cm ³ /g	dyn. m

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STRANGER; August 12, 1957; 2318 GCT; 25°46'N, 109°49'W; sounding, 570 fm; wind, 240°, force 1; weather, partly cloudy; sea, moderate; wire angle, 07°.

139G.85

0	31.14	35.15	4.56	0	31.14	35.15	4.56	21.47	634	0.00
10	30.46	35.07	4.31	10	30.46	35.07	4.31	21.66	616	0.06
29	29.94	35.02	4.31	20	30.42	35.06	4.29	21.65	615	0.12
39	28.86	34.91	4.39	30	29.87	35.01	4.32	21.80	602	0.18
46	-	34.76	4.78	50	26.88	34.74	4.76	22.59	527	0.30
58	25.32	34.73	4.57	75	22.58	34.78	3.46	23.90	401	0.41
67	23.68	34.78	3.92	100	19.89	34.99	2.73	24.81	315	0.51
80	22.05	34.78	3.30	150	14.14	34.95	1.28	26.14	189	0.63
96	20.32	35.01	2.90	200	12.88	34.88	1.03	26.34	169	0.72
109	18.86	34.90	2.38	250	12.14	34.85	0.60	26.47	157	0.81
132	16.32 ^{a)}	34.99	1.91	300	10.62	34.74	0.27	26.66	139	0.89
159	13.51	34.92	1.14	400	9.40	34.65	0.23	26.81	125	1.03
193	12.97	34.88	1.06	500	7.83	34.61	0.17	27.01	106	1.15
235	12.45	34.87	0.73							
312	10.40	34.72	0.26							
406	9.32	34.65	0.23							
529	7.32	34.60	0.13							

STRANGER; August 12, 1957; 2052 GCT; 25°54'N, 109°35'W; sounding, 12 fm; wind, 230°, force 3; weather, partly cloudy; sea, slight; wire angle, 00°.

139G.100

0	30.76	34.97	4.61	0	30.76	34.97	4.61	21.49	631	0.00
10	30.12	34.92	4.56	10	30.12	34.92	4.56	21.66	615	0.06
19	30.10	34.97	4.51							

STRANGER; August 11, 1957; 1939 GCT; 23°41'N, 109°27'W; sounding, 290 fm; wind, 150°, force 4; weather, cloudy; sea, slight; wire angle, 00°.

151G.40

0	29.78	34.82	4.67	0	29.78	34.82	4.67	21.70	612	0.00
19	28.24	34.90	4.90	10	29.02	34.87	4.68	21.98	585	0.06
38	24.70	34.70	4.22	20	27.98	34.89	4.89	22.34	550	0.12
63	20.60	34.64	2.74	30	26.18	34.79	4.62	22.84	503	0.17
88	18.43	34.79	1.88	50	22.63	34.66	3.53	23.80	411	0.26
113	16.59	34.96	1.77	75	19.53	34.69	2.29	24.68	327	0.35
152	13.88	34.69	0.72	100	18.33	35.20	1.76	25.39	260	0.43
191	13.07	34.76	0.26	150	13.97	34.70	0.72	25.98	204	0.54
240	12.58	34.81	0.24	200	12.98	34.77	0.25	26.24	179	0.64
270	11.80	34.78	0.22	250	12.30	34.80	0.24	26.40	164	0.73
333	11.19	34.74	0.16	300	11.44	34.76	0.20	26.53	152	0.81

STRANGER; August 11, 1957; 1703 GCT; 23°47'N, 109°13'W; sounding, 1700 fm; wind, 160°, force 4; weather, cloudy; sea, very rough; wire angle, 00°.

151G.55

0	29.68	34.97	4.66	0	29.68	34.97	4.66	21.82	600	0.00
12	29.68	34.96	4.56	10	29.68	34.96	4.57	21.82	600	0.06
30	25.91	34.81	5.19	20	29.68	34.96	4.57	21.83	599	0.12
40	24.46	34.81	5.20	30	25.91	34.81	5.19	22.94	493	0.17
50	23.23	34.67	5.26	50	23.23	34.67	5.26	23.63	427	0.27
59	22.53	34.66	4.77	75	20.88	34.72	3.28	24.34	360	0.36
69	21.80	34.61	3.86	100	16.86	34.90	1.71	25.49	250	0.44
82	19.32	34.97	2.52	150	13.14	34.72	0.28	26.16	186	0.55
96	17.22	34.90	1.78	200	12.05	34.74	0.17	26.40	164	0.64
110	15.92	34.90	1.51	250	11.44	34.76	0.13	26.52	152	0.72
134	13.94	34.75	0.37	300	10.71	34.70	0.10	26.62	143	0.80
162	12.75	34.71	0.24	400	9.37	34.62	0.12	26.79	127	0.94
194	12.14	34.74	0.19	500	8.15	34.57	0.13	26.94	113	1.07
243	11.56	34.76	0.14							
319	10.44	34.68	0.10							
415	9.18	34.61	0.13							
540	7.62	34.55	0.13							

a) Additional value of 16.64° not used in interpolation.

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OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O ₂	Z	T	S	O ₂	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^{-5} \text{cm}^3/\text{g}$	dyn. m

151G.70

STRANGER; August 11, 1957; 1446 GCT; 23°56'N, 109°00'W; sounding, 1330 fm; wind, 160°, force 3; weather, cloudy; sea, very rough; wire angle, 00°.

0	29.60	35.03	4.52	0	29.60	35.03	4.52	21.91	592	0.00
10	29.62	35.02	4.60	10	29.62	35.02	4.60	21.89	594	0.06
29	26.06	34.77	4.76	20	29.50	35.00	4.61	21.92	591	0.12
39	24.73	34.74	4.54	30	25.98	34.77	4.75	22.88	498	0.17
49	23.36	34.69	4.01	50	23.20	34.69	3.97	23.66	424	0.26
58	21.62	34.61	3.46	75	19.43	34.59	2.61	24.62	333	0.36
69	20.17	34.53	2.96	100	16.43	34.87	1.57	25.56	243	0.43
84	18.36	34.72	2.06	150	14.00	34.87	1.06	26.10	192	0.54
98	16.52	34.85	1.55	200	12.73	34.87	0.66	26.36	167	0.64
113	16.06	34.96	1.76	250	11.83	34.84	0.42	26.52	152	0.72
136	14.28	34.86	1.05	300	11.08	34.74	0.20	26.58	147	0.80
164	13.70	34.88	1.07	400	9.82	34.63	0.13	26.71	134	0.94
196	12.82	34.87	0.70	500	8.32	34.55	0.11	26.90	117	1.08
243	11.96	34.85	0.46							
318	10.81	34.70	0.13							
413	9.66	34.62	0.13							
538	7.64	34.52	0.10							

151G.85

STRANGER; August 11, 1957; 1225 GCT; 24°04'N, 108°45'W; sounding, 500+ fm; wind, 190°, force 7; weather, cloudy; sea, rough; wire angle, 02°.

0	29.42	34.87	4.52	0	29.42	34.87	4.52	21.84	598	0.00
10	29.46	34.83	4.60	10	29.46	34.83	4.60	21.80	602	0.06
29	26.98	34.79	5.03	20	28.57	34.81	4.78	22.10	574	0.12
39	25.59	34.78	5.11	30	26.83	34.79	5.05	22.63	522	0.17
48	24.26	34.72	4.59	50	24.00	34.73	4.40	23.46	444	0.27
58	23.00	34.81	3.30	75	20.57	34.64	2.34	24.36	358	0.37
67	21.45	34.65	2.56	100	16.02	34.86	1.33	25.65	235	0.45
81	19.80	34.66	2.18	150	14.00	35.04	0.63	26.24	179	0.55
95	16.81	34.84	1.47	200	12.08	34.82	0.30	26.46	158	0.64
109	15.14	34.88	1.23	250	11.42	34.82	0.27	26.58	147	0.71
133	14.16	34.94	1.14	300	10.87	34.77	0.23	26.64	142	0.79
163	12.75	34.79	0.35	400	9.18	34.62	0.11	26.82	124	0.93
195	12.16	34.82	0.30	500	7.62	34.54	0.10	26.98	108	1.05
242	11.54	34.83	0.28							
318	10.65	34.74	0.21							
414	8.96	34.61	0.10							
538	7.10	34.51	0.10							

151G.100

STRANGER; August 11, 1957; 0927, 1021 GCT; 24°11'N, 108°31'W; sounding, 830 fm; wind, 180°, force 3; weather, cloudy; sea, very rough; wire angle, 12°, 12°.

0	29.64	34.75	4.67	0	29.64	34.75	4.67	21.67	614	0.00
10	29.65	34.74	4.63	10	29.65	34.74	4.63	21.67	615	0.06
29	28.54	34.72	4.76	20	29.62	34.73	4.64	21.82	600	0.12
39	26.64	34.72	4.95	30	28.35	34.72	4.78	22.10	573	0.18
48	25.58	34.72	4.76	50	25.33	34.71	4.62	23.05	483	0.29
58	24.62	34.69	3.99	75	22.64	34.67	4.97	23.80	411	0.40
67	23.65	34.74 ^{a)}	5.04	100	18.90	34.51	2.38	24.69	326	0.49
80	21.98	34.61	4.86	150	14.58	34.98	1.37	26.07	195	0.61
94	19.50	34.49 ^{a)}	3.42	200	12.59	34.83	0.34	26.37	167	0.71
				250	11.93	34.81	0.44	26.46	157	0.79
104	18.55	34.52 ^{a)}	2.01	300	11.02	34.72	0.23	26.57	148	0.87
127	15.60	35.01	1.87	400	9.13	34.64	0.14	26.83	123	1.01
154	14.32	34.94	1.40	500	7.44	34.54	0.11	27.01	106	1.13
185	12.76	34.82	0.30							
230	12.25	34.84	0.49							
305	10.93	34.71	0.22							
398	9.18	34.64	0.13							
521	7.09	34.52	0.10							

a) Possible evaporation; value falls on property curve.

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O ₂	Z	T	S	O ₂	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^5 \text{cm}^3/\text{g}$	dyn. m

S10
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5708

STRANGER; August 11, 1957; 0704 GCT; 24°18'N, 108°17'W; sounding, 440 fm; wind, 180°, force 2; weather, cloudy; sea, rough; wire angle, 04°.

151G.115

0	30.27	34.65	4.58	0	30.27	34.65	4.58	21.43	638	0.00
10	30.30	34.65	4.51	10	30.30	34.65	4.51	21.41	640	0.06
28	28.76	34.65	4.77	20	29.57	34.65	4.65	21.67	615	0.13
38	27.90	34.66	4.79	30	28.57	34.65	4.78	21.97	586	0.19
48	27.21	34.65	5.08	50	26.90	34.65	4.98	22.51	534	0.30
58	25.45	34.65	3.90	75	23.84	34.66	3.51	23.45	444	0.42
67	24.34	34.67	3.62	100	18.80	34.66	2.23	24.83	313	0.52
82	23.42	34.64	3.42	150	14.63	34.94	1.34	26.03	199	0.64
95	20.03	34.56	2.49	200	12.83	34.83	0.62	26.31	172	0.74
109	17.20	34.90	1.92	250	12.16	34.85	0.52	26.46	158	0.82
132	15.58	34.96	1.58	300	11.12	34.80	0.24	26.62	143	0.90
160	14.19	34.92	1.19	400	9.43	34.64	0.11	26.79	127	1.04
194	12.98	34.83	0.64	500	7.68	34.54	0.12	26.98	108	1.17
240	12.31	34.85	0.56							
314	10.85	34.78	0.18							
408	9.30	34.63	0.10							
532	7.09	34.52	0.14							

STRANGER; August 11, 1957; 0510 GCT; 24°25'N, 108°02'W; sounding, 23 fm; wind, 180°, force 1; weather, cloudy; sea, rough; wire angle, 00°.

151G.130

0	30.24	34.87	4.37	0	30.24	34.87	4.37	21.60	622	0.00
10	30.26	34.87	4.42	10	30.26	34.87	4.42	21.59	623	0.06
29	28.07	34.69	3.89	20	29.00	34.77	4.02	21.90	593	0.12
39	26.71	34.67	3.94	30	28.00	34.69	3.88	22.18	566	0.18

STRANGER; August 9, 1957; 1700 GCT; 22°32'N, 109°22'W; sounding, 1600 fm; wind, 140°, force 2; weather, partly cloudy; sea, moderate; wire angle, 00°.

157G.10

1	27.64	34.84	4.79	0	(27.64)	(34.84)	(4.79)	(22.41)	(544)	(0.00)
10	27.37	34.78	4.70	10	27.37	34.78	4.70	22.46	539	0.05
30	24.45	34.68	5.08	20	25.96	34.72	4.86	22.86	501	0.11
39	23.50	34.69	5.25	30	24.45	34.68	5.08	23.28	460	0.15
49	21.67	34.58	5.22	50	21.47	34.56	5.17	24.05	387	0.24
58	19.58	34.43	3.96	75	17.22	34.43	2.66	25.05	292	0.32
68	18.26	34.40	3.73	100	15.22	34.67	0.20	25.70	230	0.39
81	16.46	34.49	1.72	150	12.94	34.83	0.10	26.30	173	0.49
94	15.71	34.65	0.23	200	12.19	34.81	0.13	26.43	161	0.58
108	14.45	34.70	0.19	250	11.57	34.77	0.12	26.52	152	0.66
131	13.38	34.81	0.10	300	11.00	34.75	0.12	26.60	145	0.73
159	12.78	34.83	0.10	400	9.64	34.64	0.10	26.74	131	0.88
191	12.30	34.82	0.13	500	8.36	34.57	0.10	26.91	115	1.00
238	11.69	34.78	0.12							
313	10.83	34.74	0.13							
408	9.56	34.63	0.10							
534	7.88	34.55	0.12							

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OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O ₂	Z	T	S	O ₂	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^5 \text{cm}^3/\text{g}$	dyn. m

157G.40

STRANGER; August 9, 1957; 2136 GCT; 22°49'N, 108°54'W; sounding, 1650 fm; wind, 210°, force 2; weather, partly cloudy; sea, moderate; wire angle, 00°.

0	29.15	34.86	4.75	0	29.15	34.86	4.75	21.93	590	0.00
10	28.58	34.89	4.70	10	28.58	34.89	4.70	22.15	569	0.06
29	22.54	34.65	5.28	20	25.50	34.77	5.02	23.04	484	0.11
38	21.41	34.58	4.50	30	22.39	34.64	5.23	23.87	405	0.16
49	20.90	34.67	2.84	50	20.83	34.67	2.75	24.31	362	0.23
58	19.55	34.65	2.10	75	16.57	34.53	1.49	25.28	270	0.31
67	17.09	34.47	2.32	100	14.50	34.68	0.20	25.86	215	0.37
82	16.09	34.60	0.96	150	13.08	34.78	0.07	26.22	180	0.47
95	14.74	34.66	0.24	200	12.32	34.83	0.05	26.42	162	0.56
109	14.16	34.71	0.13	250	11.76	34.80	0.04	26.51	153	0.64
131	13.49	34.77	0.07	300	11.19	34.77	0.07	26.59	146	0.72
160	12.90	34.79	0.07	400	9.65	34.66	0.11	26.77	129	0.86
192	12.40	34.83	0.06	500	8.24	34.59	0.11	26.94	113	0.99
240	11.85	34.81	0.03							
316	11.00	34.76	0.09							
411	9.50	34.65	0.12							
534	7.74	34.57	0.10							

157G.70

STRANGER; August 10, 1957; 0159 GCT; 23°05'N, 108°23'W; sounding, 1495 fm; wind, 230°, force 2; weather, partly cloudy; sea, very rough; wire angle, 02°.

0	29.70	34.85	4.80	0	29.70	34.85	4.80	21.74	608	0.00
10	29.38	34.88	4.63	10	29.38	34.88	4.63	21.87	595	0.06
29	23.12	34.63	5.30	20	28.94	34.86	4.69	22.00	583	0.12
38	20.16	34.45	4.53	30	22.70	34.61	5.28	23.74	417	0.17
47	18.98	34.50	2.73	50	18.47	34.49	2.42	24.79	317	0.24
56	16.92	34.42	1.79	75	15.52	34.58	1.00	25.55	244	0.31
66	15.63	34.36	2.10	100	14.38	34.81	0.80	25.98	204	0.37
79	15.46	34.67	0.65	150	13.08	34.84	0.51	26.26	177	0.47
94	14.55	34.74	0.80	200	12.39	34.82	0.30	26.40	164	0.55
108	14.18	34.86	0.80	250	11.75	34.78	0.32	26.49	155	0.64
130	13.60	34.84	0.68	300	11.06	34.73	0.18	26.57	147	0.71
158	12.92	34.83	0.43	400	9.65	34.68	0.10	26.78	128	0.86
190	12.51	34.83	0.30	500	8.19	34.59	0.09	26.94	112	0.98
237	11.92	34.79	0.32							
310	10.92	34.72	0.17							
405	9.58	34.67	0.10							
529	7.77	34.56	0.09							

157G.100

STRANGER; August 10, 1957; 0554 GCT; 23°18'N, 107°58'W; sounding, 1300 fm; wind, 240°, force 3; weather, lightning; sea, very rough; wire angle, 05°.

0	29.72	34.96	4.66	0	29.72	34.96	4.66	21.81	601	0.00
9	29.59	34.94	4.56	10	29.53	34.94	4.56	21.86	596	0.06
29	24.54	34.80	5.15	20	27.00	34.89	4.87	22.66	520	0.12
39	23.34	34.71	5.16	30	24.30	34.78	5.17	23.41	448	0.16
47	21.04	34.57	2.20	50	20.27	34.53	2.39	24.35	359	0.24
57	18.54	34.46	2.98	75	16.38	34.68	1.30	25.44	255	0.32
68	17.16	34.53	1.27	100	14.32	34.69	0.73	25.90	211	0.38
82	15.64	34.79	1.37	150	13.24	34.84	0.38	26.24	179	0.48
96	14.49	34.69	0.77	200	12.47	34.83	0.31	26.39	165	0.57
110	14.03	34.69	0.64	250	11.83	34.79	0.23	26.47	156	0.65
133	13.62	34.82	0.31	300	11.20	34.74	0.14	26.56	149	0.73
161	13.04	34.84	0.41	400	9.78	34.65	0.13	26.74	132	0.88
194	12.58	34.83	0.32	500	8.25	34.57	0.13	26.92	115	1.00
241	11.97	34.80	0.24							
315	10.98	34.72	0.12							
410	9.62	34.64	0.13							
534	7.72	34.54	0.13							

OBSERVED				INTERPOLATED				COMPUTED		
Z	T	S	O ₂	Z	T	S	O ₂	σ_t	δ_T	ΔD
m	°C	‰	ml/L	m	°C	‰	ml/L	g/L	$10^{-5} \text{cm}^3/\text{g}$	dyn. m

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STRANGER; August 10, 1957; 1018 GCT; 23°34'N, 107°30'W; sounding, 600 fm; wind, 270°, force 3; weather, partly cloudy; sea, very rough; wire angle, 07°.

157G.130

0	29.70	34.60	-	0	29.70	34.60		21.55	626	0.00
10	29.21	34.71	-	10	29.21	34.71		21.80	601	0.06
29	27.66	34.62	-	20	29.15	34.71		21.82	600	0.12
38	26.67	34.70	-	30	27.57	34.62		22.28	556	0.18
48	25.04	34.72	-	50	24.48	34.73		23.31	457	0.28
57	23.38	34.76	-	75	22.10	34.57	4.81	23.88	403	0.39
68	22.64	34.61	5.67	100	17.63	34.48	1.69	25.00	297	0.48
81	21.58	34.54	4.29	150	13.58	34.80	0.54	26.14	188	0.60
93	19.12	34.42	3.38	200	12.51	34.87	0.60	26.41	163	0.69
109	16.34	34.56	0.56	250	11.82	34.82	0.25	26.50	154	0.77
131	14.56	34.68	0.24	300	11.08	34.73	0.13	26.56	149	0.85
156	13.57	34.87	0.52	400	9.55	34.67	0.10	26.79	127	0.99
186	12.80	34.88	0.68	500	7.89	34.59	0.10	26.99	108	1.12
231	12.06	34.85	0.33							
301	11.07	34.72	0.12							
391	9.69	34.67	0.10							
509	7.72	34.58	0.10							

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters		50 Meters	
						Dir	Force			T	S	T	S
110.33-B	17	0350	29°50.5'	115°52.0'	50	300°	3	partly cloudy	moderate	-	33.58	13.48	33.53
110.35-B	17	0215	29°46.5'	116°00.0'	700	300°	3	partly cloudy	moderate	21.46	33.66	14.37	33.49
110.40-B	16	2345	29°36.5'	116°19.5'	1500	280°	4	partly cloudy	moderate	21.16	33.69	14.56	33.40
120.40-B	19	1105	27°56.5'	115°14.0'	23	260°	4	clear	moderate	-	33.80	-	-
123.37-B	19	2350	27°24.0'	114°39.5'	40	300°	3	cloudy	slight	-	34.01	17.00	34.04
123.42-B	19	2115	27°14.0'	114°59.5'	1000	300°	3	partly cloudy	moderate	23.72	34.09	17.73	33.88
123.45-B	19	1935	27°08.0'	115°11.0'	2250	310°	3	cloudy	moderate	-	34.22	16.92	34.00
127.34-B	20	0502	26°55.5'	114°06.0'	45	310°	3	partly cloudy	slight	22.02	34.02	17.83	34.08
127.40-B	20	0750	26°43.5'	114°29.5'	1600	300°	2	clear	slight	24.88	34.23	16.90	33.84
127.45-B	20	1030	26°33.5'	114°48.5'	1750	300°	3	partly cloudy	moderate	23.58	33.91	16.79	33.65
130.30-B	20	2300	26°29.0'	113°29.0'	41	280°	4	partly cloudy	moderate	23.74	34.18	17.96	34.10
130.35-B	20	2035	26°19.0'	113°48.5'	200	300°	3	clear	moderate	25.05	34.33	17.03	33.85
130.40-B	20	1750	26°09.0'	114°07.5'	1100	300°	3	partly cloudy	slight	24.14	34.18	18.56	33.94
130.45-B	20	1515	25°59.0'	114°25.5'	2000	300°	3	partly cloudy	moderate	23.42	34.05	15.96	33.75
133.25-B	21	0345	26°04.5'	112°48.0'	45	280°	3	clear	moderate	25.38	-	18.33	-
133.30-B	21	0630	25°54.5'	113°07.5'	100	300°	3	partly cloudy	moderate	25.41	-	19.18	-
137.23-B	21	1850	25°34.0'	112°18.5'	38	290°	2	partly cloudy	moderate	26.24	-	20.92	-
137.30-B	21	1115	25°20.0'	112°45.5'	200	280°	4	partly cloudy	moderate	25.68	-	18.88	-

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters		50 Meters	
						Dir	Force			T	S	T	S
157.15-S	9	1435	22°23.0'	109°41.0'	-	120°	2	partly cloudy	moderate	24.60	34.65	23.40 ^{a)}	34.52
99G.55-S	20	0750	31°18.0'	114°00.0'	10	160°	3	overcast	smooth	29.94	35.40	-	-
99G.67-S	20	0940	31°23.0'	113°48.0'	4	170°	1	partly cloudy	smooth	30.82 ^{b)}	35.80	-	-
100G.11-S	19	2240	30°45.0'	114°39.0'	11	170°	4	overcast	rough	30.75	36.01	-	-
101G.07-S	19	2125	30°35.0'	114°38.0'	12	120°	3	overcast	rough	29.92	35.62	29.79 ^{c)}	35.58
102G.04-S	19	2015	30°27.0'	114°34.0'	14	030°	3	cloudy	rough	29.78	35.46	26.62 ^{c)}	35.38
103G.80-S	19	0840	30°55.0'	113°15.0'	8	150°	1	cloudy	smooth	30.43	35.44	-	-
104G.00-S	20	1815	30°07.0'	114°26.0'	-	120°	1	partly cloudy	smooth	29.60	35.28	26.94	35.26
105G.00-S	20	1940	29°59.0'	114°20.0'	56	090°	2	partly cloudy	smooth	29.42	35.41	26.26	35.25
105G.70-S	19	0600	30°34.0'	113°11.0'	17	200°	1	cloudy	smooth	29.70	35.29	29.24 ^{d)}	35.28
106G.00-S	20	2055	29°50.0'	114°15.0'	47	100°	3	cloudy	smooth	29.42	35.35	25.52	35.28
107G.02-S	20	2205	29°42.0'	114°06.0'	50	120°	3	partly cloudy	smooth	29.54	35.41	27.24	35.30
107G.70-S	19	0335	30°16.0'	112°59.0'	33	-	1	cloudy	smooth	28.98	35.21	26.90	35.20

a) Mean value between 23.33° and 23.47°.

b) Depth, 8 meters.

c) Depth, 20 meters.

d) Depth, 30 meters.

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters		50 Meters	
						Dir	Force			T	S	T	S
112G.15-S	21	0746	29°05.0'	113°26.0'	350	330°	3	clear	smooth	28.36	35.39	25.26	35.30
113G.65-S	18	0030	29°22.0'	112°31.0'	33	-	1	cloudy	smooth	29.93	35.22	28.26	35.19
115G.50-S	17	2130	28°59.0'	112°36.0'	57	200°	3	partly cloudy	smooth	29.51	35.17	26.82	35.20
117G.25-S	21	1735	28°27.0'	112°49.0'	150	320°	3	clear	smooth	28.19	35.26	26.18	35.34
117G.65-S	17	1200	28°47.0'	112°11.0'	10	-	1	partly cloudy	smooth	30.56	35.22	-	-
118G.20-S	22	0250	28°15.0'	112°48.0'	70	350°	3	clear	smooth	27.01	35.34	25.60	35.31
119G.16-S	22	0445	28°05.0'	112°46.0'	35	010°	4	clear	smooth	27.92	35.22	25.65	35.18
119G.66-S	17	0920	28°27.0'	112°07.0'	29	170°	3	partly cloudy	smooth	29.82	35.19	24.97	35.13
120G.13-S	22	0610	27°55.0'	112°43.0'	120	320°	1	clear	smooth	30.02	35.18	24.58	35.14
121G.20-S	16	2300	27°50.0'	112°32.0'	320	140°	3	partly cloudy	slight	30.06	35.32	23.63	35.01
121G.40-S	17	0135	27°58.0'	112°11.0'	600	180°	2	partly cloudy	smooth	30.10	35.12	25.52	34.96
121G.55-S	17	0340	28°07.0'	111°57.0'	170	210°	3	partly cloudy	smooth	30.02	35.08	24.70	34.97
121G.70-S	17	0530	28°14.0'	111°43.0'	28	160°	1	partly cloudy	smooth	30.42	35.16	28.00 ^{a)}	35.08
121G.74-S	17	0615	28°17.0'	111°38.0'	25	160°	1	partly cloudy	smooth	30.28	35.17	27.97 ^{a)}	35.04
122G.16-S	22	0842	27°40.0'	112°29.0'	190	240°	1	partly cloudy	smooth	30.32	35.18	25.56	35.19
123G.30-S	16	2025	27°39.0'	112°10.0'	600	060°	1	partly cloudy	smooth	30.14	35.26	24.12	35.06

a) Depth, 40 meters.

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters		50 Meters	
						Dir	Force			T	S	T	S
124G.21-S	22	1055	27°25.0'	112°13.0'	310	140°	1	partly cloudy	smooth	30.15	35.24	23.58	35.17
125G.30-S	16	1750	27°20.0'	111°59.0'	730	-	1	cloudy	smooth	29.03	35.22	25.28 ^{a)}	35.04
126G.24-S	22	1330	27°08.0'	111°58.0'	53	320°	1	cloudy	smooth	29.12	35.22	24.06	35.10
126G.101-S	14	1200	27°46.0'	110°46.0'	78	070°	5	rain	slight	30.26	35.08	30.22	35.07
127G.94-S	14	1020	27°34.0'	110°47.0'	115	160°	3	cloudy	slight	30.16	35.04	28.82	34.96
128G.27-S	23	0055	26°53.0'	111°45.0'	90	-	1	cloudy	smooth	29.69	35.26	24.74	35.10
129 ⁵ G.17-S	22	1735	26°35.0'	111°45.0'	17	320°	3	partly cloudy	smooth	31.70	36.26	31.46 ^{b)}	36.43
129G.31-S	23	0235	26°46.0'	111°35.0'	190	-	1	cloudy	smooth	30.22	35.29	24.38	35.15
129G.89-S	14	0740	27°15.0'	110°45.0'	600	160°	5	cloudy	slight	30.14	34.99	28.67	34.90
131G.31-S	23	0505	26°29.0'	111°24.0'	205	-	1	cloudy	calm	30.20	35.26	23.98	35.11
131G.94-S	14	0515	26°59.0'	110°30.0'	550	-	1	missing	smooth	30.35	34.94	26.32 ^{c)}	34.75
132G.29-S	23	0635	26°19.0'	111°21.0'	200	-	1	partly cloudy	calm	29.75	35.25	23.68	35.16
133G.27-S	23	0810	26°09.0'	111°15.0'	230	-	1	partly cloudy	calm	29.44	35.21	23.90	35.12
133G.40-S	13	1822	26°16.0'	111°05.0'	300+	320°	3	partly cloudy	smooth	29.94	35.26	22.66	35.12
133G.55-S	13	2015	26°24.0'	110°51.0'	1470	350°	3	clear	smooth	30.32	35.36	21.40	35.03

a) Mean value between 25.34° and 25.23°.

b) Depth, 20 meters.

c) Additional value of 26.70°.

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters		50 Meters	
						Dir	Force			T	S	T	S
133G. 70-S	13	2200	26°31.0'	110°37.0'	730	300°	2	clear	slight	30.87	35.51	22.27	35.17
133G. 85-S	14	0000	26°38.0'	110°23.0'	575	320°	3	partly cloudy	slight	31.07	35.57	24.38	35.32
133G. 100-S	14	0155	26°45.0'	110°09.0'	97	290°	1	cloudy	smooth	30.65	35.25	25.10	35.05
133G. 105-S	14	0250	26°47.0'	110°05.0'	150+	-	1	partly cloudy	smooth	30.50	34.99	26.60	34.78
134G. 20-S	23	1000	25°56.0'	111°19.0'	150	-	1	partly cloudy	calm	30.13	35.16	24.42	35.05
134G. 40-S	13	1645	26°07.0'	110°59.0'	-	310°	2	partly cloudy	smooth	29.53	35.21	23.26	35.06
135G. 35-S	13	1515	25°56.0'	110°58.0'	412	-	1	partly cloudy	smooth	30.19	35.21	23.18	34.96
136G. 20-S	23	1225	25°40.0'	111°08.0'	110	020°	1	partly cloudy	calm	30.89	35.25	25.16	35.08
137G. 30-S	13	1245	25°35.0'	110°53.0'	268	280°	4	partly cloudy	slight	29.54	35.10	22.02	34.81
138G. 20-S	24	0505	25°23.0'	110°55.0'	330	-	1	clear	smooth	30.40	35.23	23.70	34.87
140G. 20-S	24	0730	25°06.0'	110°45.0'	280	-	1	clear	smooth	29.73	35.16	23.36	34.80
141G. 29-S	24	0940	25°01.0'	110°31.0'	71	-	1	clear	smooth	30.76	35.19	24.42	34.92
141G. 96-S	12	1830	25°35.0'	109°27.0'	200+	200°	1	partly cloudy	moderate	30.15	34.83	27.98	34.84
142G. 24-S	24	1100	24°49.0'	110°29.0'	130	170°	1	clear	smooth	30.67	35.05	23.63	34.78
143G. 15-S	24	1240	24°37.0'	110°33.0'	200	160°	3	partly cloudy	smooth	30.27	35.27	23.18	34.87
143G. 100-S	12	1610	25°20.0'	109°13.0'	50	200°	2	partly cloudy	rough	30.24	34.79	25.56	34.81
144G. 15-S	24	1405	24°28.0'	110°28.0'	110	170°	4	partly cloudy	slight	29.94	35.19	24.06	34.94
145G. 30-S	12	0250	24°27.0'	110°09.0'	230	230°	2	partly cloudy	slight	28.46	34.92	22.38	34.83

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters		50 Meters	
						Dir	Force			T	S	T	S
145G.40-S	12	0415	24°32.0'	109°59.0'	430	240°	1	partly cloudy	slight	28.96	34.86	23.12	34.76
145G.55-S	12	0600	24°39.0'	109°43.0'	750	150°	4	partly cloudy	slight	29.78	34.76	23.92	34.79
145G.70-S	12	0750	24°47.0'	109°29.0'	1200	160°	4	cloudy	rough	29.84	34.78	24.06	34.73
145G.85-S	12	1020	24°55.0'	109°13.0'	670	160°	3	partly cloudy	rough	29.86	34.84	25.64	34.75
145G.100-S	12	1215	25°04.0'	108°56.0'	37	150°	2	partly cloudy	rough	30.26	34.81	26.31	34.72
145G.115-S	12	1330	25°10.0'	108°48.0'	14	150°	1	partly cloudy	rough	30.36	34.94	30.36 ^{a)}	34.94
147G.32-S	26	2115	24°11.0'	109°56.0'	66	140°	3	partly cloudy	smooth	30.03	34.76	23.46	34.70
147G.42-S	12	0015	24°15.0'	109°46.0'	445	150°	3	partly cloudy	slight	29.96	34.74	22.21	34.67
149G.34-S	26	2355	23°55.0'	109°43.0'	290	140°	3	partly cloudy	slight	31.01	34.88	25.48	34.70
149G.40-S	11	2200	23°57.0'	109°39.0'	515	140°	5	partly cloudy	moderate	30.02	34.76	24.04	34.72
151G.37-S	27	0210	23°39.0'	109°31.0'	47	-	1	partly cloudy	smooth	30.01	34.84	24.14	34.72
153G.35-S	27	0430	23°20.0'	109°21.0'	450	170°	4	clear	smooth	29.12	34.67	25.09	34.70
153G.137-S	11	0245	24°07.0'	107°48.0'	30	200°	1	partly cloudy	moderate	30.38	34.65	28.43	34.73
154G.15-S	27	0720	23°02.0'	109°34.0'	220	240°	3	clear	smooth	29.94	34.77	22.80	34.68
155G.144-S	11	0030	23°55.0'	107°29.0'	48	250°	1	partly cloudy	moderate	30.34	34.61	28.33	34.74
157G.25-S	9	1925	22°38.0'	109°09.0'	1610	190°	2	partly cloudy	moderate	28.52	34.94	21.28	34.54
157G.55-S	9	2345	22°55.0'	108°41.0'	-	210°	2	partly cloudy	rough	28.40	34.94	19.56	34.51

a) Depth, 20 meters.

TEMPERATURE AND SALINITY AT 10 AND 50 METERS (NET-TOW STATIONS)

Station	Date	Time GCT	Latitude North	Longitude West	Sounding (fm)	Wind		Weather	Sea	10 Meters		50 Meters	
						Dir	Force			T	S	T	S
157G.85-S	10	0345	23°11.0'	108°12.0'	1322	220°	2	partly cloudy	rough	29.42	34.93	19.28	34.52
157G.115-S	10	0800	23°26.0'	107°45.0'	1200	220°	3	cloudy	rough	29.56	34.94	23.24	34.70
157G.150-S	10	2210	23°43.0'	107°12.0'	46	220°	1	partly cloudy	moderate	30.40 ^{a)}	34.42	27.42	34.70

a) Value seems low; no error in procedure noted.

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