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**CTD Observations in the  
Coastal Transition Zone  
off Northern California  
18-27 June 1988**

by  
Jane Fleischbein  
Richard E. Schramm  
Adriana Huyer  
P. Michael Kosro  
Tim Cowles  
Kevin Krefft

Data Report **146**  
Reference 88-9  
October 1988

Office of Naval Research  
N00014-87-K-0242  
NR 083-102

**OREGON STATE UNIVERSITY**

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\* per phone call to pub.

## ABSTRACT

Wecoma cruise W8806A was conducted in June 1988 as part of the pilot study for the Coastal Transition Zone project. CTD observations were made over a standard grid in the coastal transition zone off northern California between 37°N and 39.5°N that was to be occupied repeatedly during June, July and August; this cruise was to complete the first survey. Altogether 60 stations were completed successfully. They were concentrated along six alongshore transects. Maximum sampling depth at all stations was 500 m. Temperature, salinity, light transmission and fluorescence were measured at all stations. This report presents vertical profile plots and tabulations of data at selected depths for each station; vertical sections of temperature, salinity and potential density anomaly ( $\sigma$ - $\theta$ ) for the alongshore sections; and maps of temperature, salinity, potential density anomaly and dynamic topography at selected depths.

## ACKNOWLEDGMENTS

We are grateful to all those who participated in this cruise, and particularly to the master, crew and the marine technicians of the R/V Wecoma for their expert work on this cruise. This study is funded by the Office of Naval Research, contract number N00014-87-K-0242.

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## Introduction

Wecoma cruise W8806a was conducted in June 1988 as part of the Coastal Transition Zone project (Coastal Transition Zone Group, 1988). A pilot study including three hydrographic cruises (Schramm, et al., 1987;1988a,b) had been conducted in 1987; observations in 1988 were to be made over a standard grid off northern California between 37°N and 39.5°N that was to be occupied repeatedly during June, July and August; this cruise was to complete the first survey.

The cruise had three basic objectives: to make a CTD and shipborne ADCP survey of the standard grid, to deploy four moorings (with Aanderaa current meters and ADCPs) along one line of the CTZ grid and to recover and redeploy a long-term shelf mooring off Coos Bay. Only the CTD data are presented here.

## Cruise Narrative

Wecoma departed Newport, Oregon at 0800 PDT, 18 June 1988. We steamed directly to the site of a shelf mooring off Coos Bay, arriving there about 1600 PDT. Winds were weak, and the sea state was fair, so there was no difficulty recovering the shelf mooring (CB3) installed there last year. We made a CTD cast (Station 1, Table 1) to ensure the instruments were functioning properly, and then redeployed the CB3 mooring over the 100 m isobath at 43°10'N, 124°34'W. Since winds were still weak, we headed toward the D-Line of the CTZ survey grid (Figure 1), in hope of taking advantage of the weather to deploy one or two of the CTZ moorings as soon as possible.

Wecoma arrived at D-1 at about 1600 PDT on 19 June. We made CTD stations through the night, completing Station 8 at D-7 about 0800 PDT on 20 June (Figure 2, Table 1). Winds had picked up the previous day, but they had

Table 1. List of CTD stations occupied during W8806A, showing date, time, location, weather and sea state.

Date	Time (UT)	Stn No.	Stn. Name	Latitude		Longitude		Depth (m)	Wind		Atmos Press. (mb)	Swell			Air Temp	
				(°N)	(°W)	(°T)	(Kts)		Dir (°T)	Ht (ft)		Per (Sec)	Dry (°C)	Wet (°C)		
June 19	0128	1	CB-M	43	10.0	124	34.0	99	000	4	1019.3	280	4	8	15.1	13.3
20	0057	2	D-1	39	09.1	125	40.3	3629	340	25	1014.0	340	5	6	15.2	13.1
	0346	3	D-2	38	57.1	125	31.7	3731	345	28	1014.0	345	7	7	14.9	12.9
	0542	4	D-3	38	45.5	125	23.3	3690	330	28	1014.2	340	8	7	14.5	12.5
	0750	5	D-4	38	34.6	125	13.8	3607	335	28	1014.0	345	8	8	14.6	13.0
	0950	6	D-5	38	22.6	125	05.7	3824	325	25	1014.0	345	8	8	14.3	12.6
	1204	7	D-6	38	10.8	124	57.1	3899	335	28	1013.8	320	-	7	14.3	12.4
	1409	8	D-7	37	58.9	124	49.1	3987	335	22	1013.9	320	6	9	14.8	12.6
21	0557	9	D-7	37	59.0	124	48.9	3989	320	19	1015.1	340	6	6	--	--
	0809	10	D-8	37	47.4	124	40.8	3914	340	19	1015.0	340	6	6	14.1	13.0
	1009	11	D-9	37	35.5	124	31.6	3965	320	11	1015.1	340	5	7	14.1	13.2
	1202	12	D-10	37	23.8	124	22.5	3999	325	7	1015.0	340	3	5	15.0	13.5
	1905	13	A-12	38	11.5	123	21.7	173	287	6	1015.2	340	4	8	13.4	12.8
	2015	14	A-11	38	09.9	123	31.9	580	315	11	1015.3	325	4	8	18.0	13.8
	2209	15	A-10	38	21.4	123	36.9	535	332	20	1015.0	325	4	8	14.5	13.0
22	0004	16	A-9	38	33.9	123	39.1	183	318	26	1013.0	325	4	6	13.3	13.3
	0122	17	A-8	38	33.0	123	45.5	958	325	28	1013.0	325	2	5	14.5	12.9
	0328	18	A-7	38	44.0	123	53.2	852	330	25	1012.1	325	6	7	14.5	13.0
	0530	19	A-6	38	56.3	123	55.4	149	340	19	1013.2	325	6	6	12.2	11.7
	0630	20	A-5	38	55.2	124	02.0	842	330	25	1013.0	325	6	6	14.0	12.5
	0915	21	A-4	39	06.8	124	10.4	1376	332	21	1013.2	325	6	6	13.2	12.3
	1127	22	A-3	39	20.5	123	56.7	165	350	14	1012.3	330	4	6	12.8	11.7
	1244	23	A-2	39	19.8	124	03.5	606	340	24	1012.5	320	4	5	12.8	12.0
	1451	24	A-1	39	17.8	124	19.0	1545	320	26	1012.4	315	6	6	12.8	12.3
	1739	25	B-1	39	14.8	124	46.2	2924	330	25	1014.1	330	6	7	15.9	14.9
	1929	26	B-2	39	03.3	124	36.6	3386	330	26	1014.0	330	6	6	16.1	14.7
	2105	27	B-3	38	51.9	124	29.3	3476	324	20	1014.2	330	6	6	15.9	14.5
	2254	28	B-4	38	40.8	124	20.8	3407	330	28	1014.2	320	4	6	14.7	13.5
23	0050	29	B-5	38	29.5	124	12.2	3422	325	22	1012.9	315	5	6	14.9	13.9
	0253	30	B-6	38	18.2	124	03.8	3523	338	28	1012.8	320	6	7	14.3	13.4
	0455	31	B-7	38	06.3	123	56.1	3513	325	30	1012.7	320	7	7	14.0	13.0
	0714	32	B-8	37	55.8	123	47.0	3388	324	28	1012.3	320	7	7	13.9	12.9
	0919	33	B-9	37	43.9	123	38.5	2984	330	26	1011.5	320	7	7	14.2	13.0

Date	Time (UT)	Stn No.	Stn. Name	Latitude (N)	Longitude (W)	Depth (m)	Wind		Atmos. Press. (mb)	Swell			Air Temp		
							Dir (°T)	Spd (Kts)		Dir (°T)	Ht (ft)	Per (Sec)	Dry (°C)	Wet (°C)	
June 23	1219	34	C-9	37 39.6	124 05.5	3523	330	25	1012.5	330	8	6	14.1	12.9	
	1447	35	C-8	37 51.0	124 14.0	3767	330	20	1014.3	320	7	7	14.8	13.1	
	1742	36	C-7	38 02.9	124 22.1	3843	330	22	1015.2	320	7	7	15.1	13.3	
	2116	37	C-6	38 15.2	124 30.0	3815	330	26	1015.5	320	7	7	16.0	13.7	
	2332	38	C-5	38 26.0	124 39.1	3797	330	25	1015.1	330	7	7	15.4	13.1	
24	0225	39	C-4	38 37.7	124 48.1	3748	330	34	1014.5	330	8	8	15.1	13.1	
	0500	40	C-3	38 48.8	124 56.2	3508	335	30	1014.9	335	8	7	15.0	13.0	
	0743	41	C-2	39 00.6	125 04.7	3375	350	25	1015.3	335	8	7	15.0	12.9	
	1010	42	C-1	39 11.8	125 13.1	3132	345	26	1015.1	335	8	7	15.3	13.2	
25	0410	43	E-3	38 42.7	125 50.4	4106	325	18	1013.3	325	6	7	14.8	16.3	
	0608	44	E-4	38 30.8	125 41.3	3989	320	23	1015.1	330	6	7	15.0	16.0	
	0805	45	E-5	38 19.2	125 33.0	3905	321	25	1013.6	330	6	6	15.2	16.0	
	0955	46	E-6	38 07.2	125 24.3	3925	322	22	1014.2	330	6	6	15.6	15.1	
	1159	47	E-7	37 55.3	125 16.0	4106	320	22	1014.2	330	5	5	15.1	14.6	
	1405	48	E-8	37 43.4	125 06.9	4147	330	16	1014.8	330	5	5	15.4	14.4	
	26	0227	49	E-9	37 31.6	124 58.2	4157	330	20	1018.1	320	5	5	15.8	13.3
		0433	50	E-10	37 19.9	124 49.4	4179	315	18	1019.0	330	5	7	14.4	12.8
0714		51	F-10	37 15.8	125 15.8	4254	329	19	1020.1	330	5	6	15.2	13.3	
0909		52	F-9	37 27.6	125 24.5	4225	340	21	1020.1	330	5	6	15.0	12.9	
1122		53	F-8	37 39.3	125 33.7	4273	345	12	1020.0	340	5	7	14.3	12.2	
1331		54	F-7	37 51.5	125 42.4	4261	340	16	1020.5	340	5	8	15.0	12.3	
1531		55	F-6	38 03.3	125 51.2	4225	340	14	1021.2	340	5	7	15.4	12.5	
1730		56	F-5	38 15.5	126 00.1	4240	340	16	1021.4	340	5	7	15.5	12.3	
27	1923	57	F-4	38 27.3	126 08.5	4254	001	14	1022.0	340	5	7	18.3	13.8	
	2112	58	F-3	38 39.2	126 17.2	4266	350	13	1022.0	345	5	7	16.5	13.2	
	2311	59	F-2	38 51.2	126 25.5	4218	355	18	1021.5	340	5	6	16.0	12.7	
	27	0151	60	E-2	38 54.2	125 58.5	4059	355	20	1021.0	345	4	6	15.8	12.7



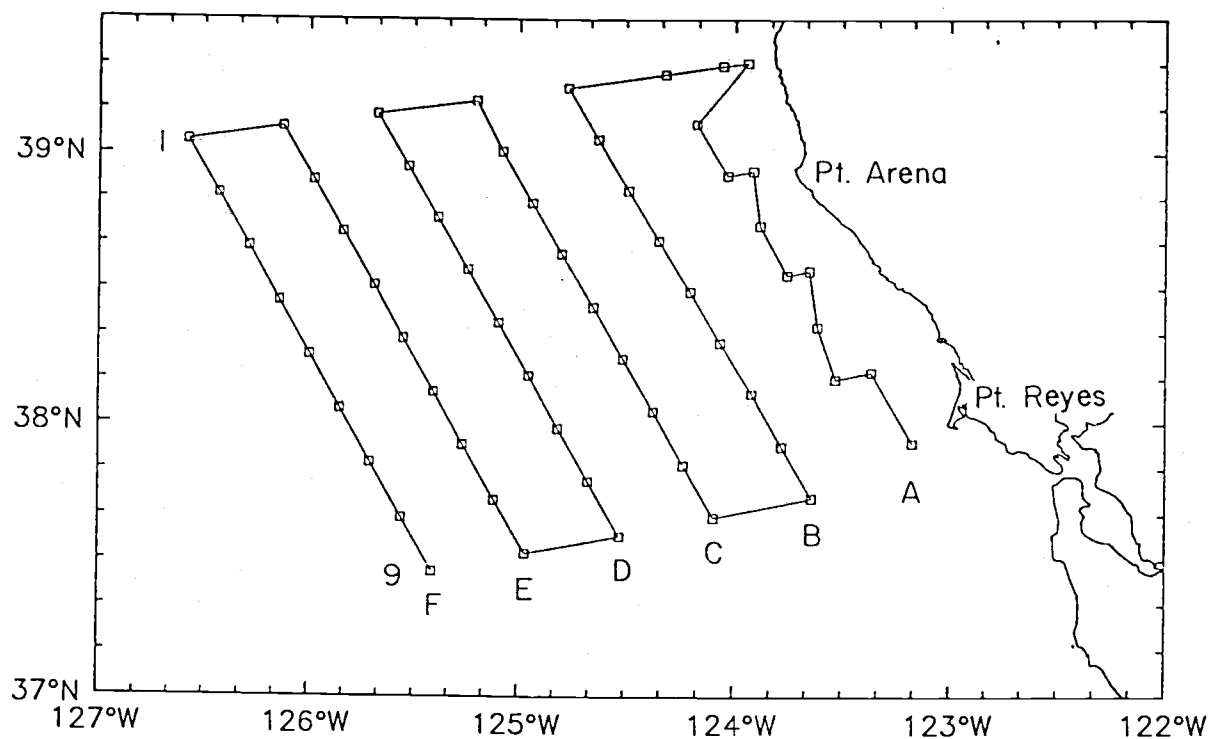


Figure 1. The standard grid for repeated surveys of a portion of the coastal transition zone off northern California during summer 1988. Sections are lettered A through F from the coast, and positions along each line are numbered from 1 through 9 or more from north to south.

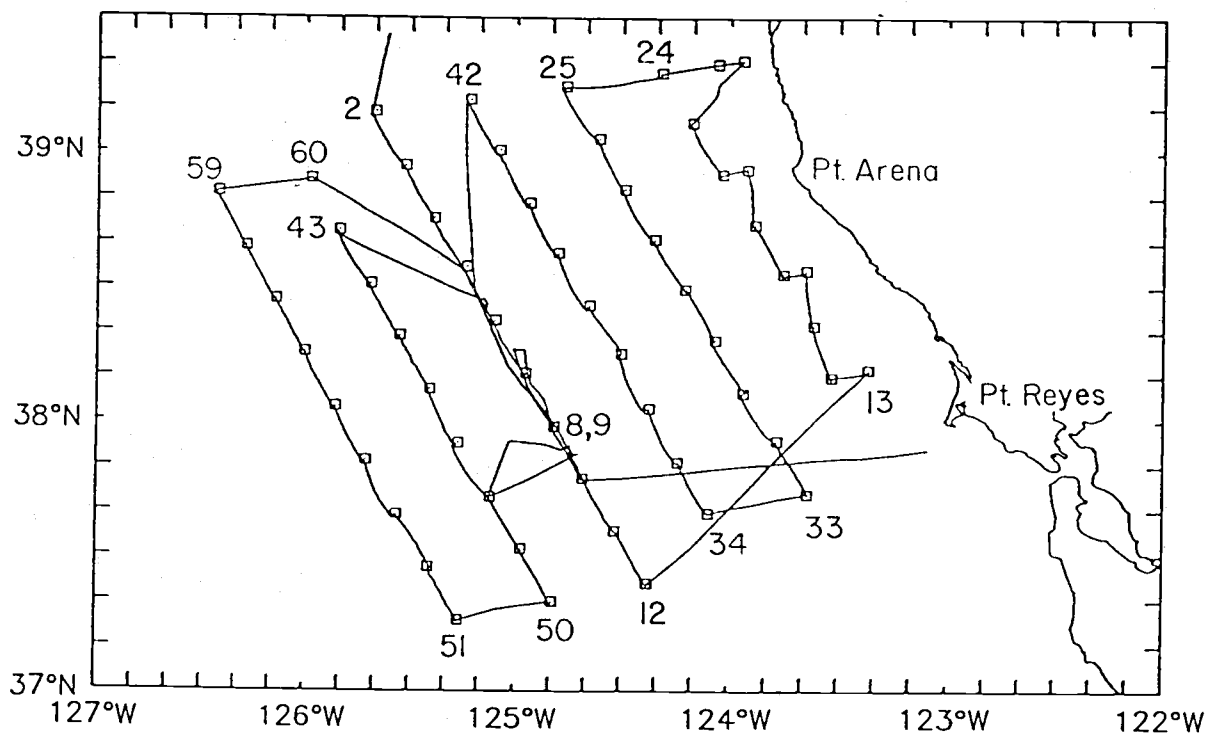


Figure 2. Ship's track during the first mapping cruise, W8806A, R/V Wecoma, 18-27 June 1988. Squares indicate the position of CTD stations.

fallen to about 15 kts by morning, and the sea state was moderate. On the basis of recent satellite images and the historical data, we decided to put the moorings just off the D-Line, between D-3 and D-8. We first deployed mooring D6/7 at 38°05'N, 124°52'W, with four Aanderaa current meters at nominal depths of 100, 150, 200 and 450 m, completing the installation about 1300 PDT. Mooring D5/6 with an upward-looking RDI Acoustic Doppler Current Profiler nominally at 116 m and four Aanderaa current meters at 120, 150, 200 and 450 m was deployed at 38°16'N, 125°00'W on the same day, with installation completed about 2100 PDT. By evening, winds again exceeded 20 kts. We completed the D-Line CTD section (Stations 9-12) by early morning on 21 June, after repeating D-7 and extending the line to D-10 since recent satellite images had indicated significant structure at the southern end of the survey grid.

We then steamed toward A-12 to begin the inshore portion of the survey, and to work offshore, intending to deploy the two remaining moorings when we were again in the vicinity of the D line sites. We arrived at A-12 about noon on 21 June, and worked northward along the A Line (Stations 13-24). Late morning on 22 June we began working the B Line southward from B-1 (Station 25). Winds became strong during the evening so that it seemed as if we might have to suspend CTD operations during the night. However, winds moderated sufficiently to continue working, and we completed Station 33 at B-9 and began working northward from C-9 (Station 34) on the morning of 23 June. We had considered extending these lines southward, but in view of the strong winds and the overall time constraint, we did not.

We had planned to deploy an ADCP mooring on 23 June, but because of the strong winds we were not in the vicinity of the mooring site until relatively late in the day. We therefore continued to work the C-Line northward to C-1

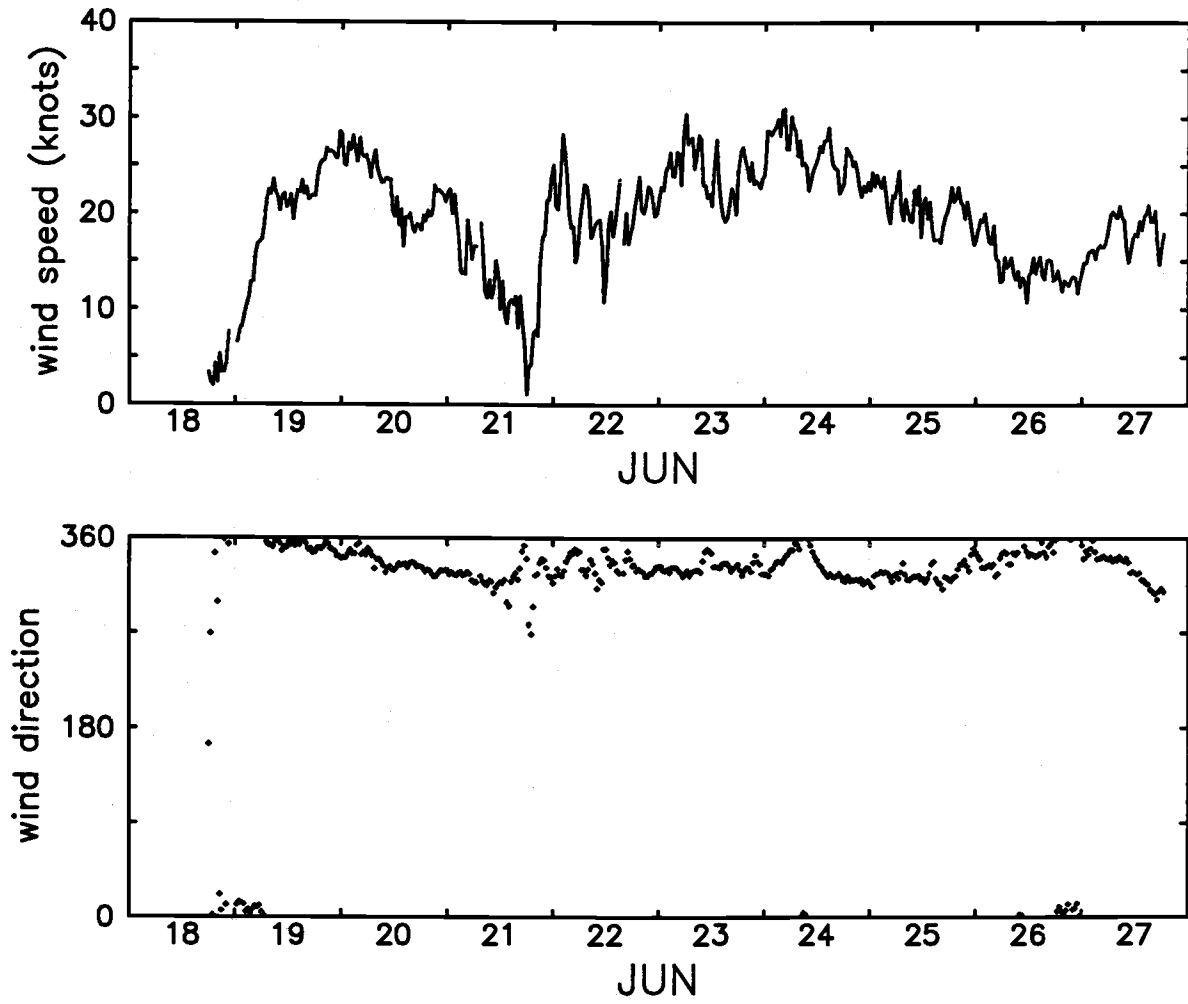


Figure 3. Speed and direction of the wind vectors averaged over half-hour intervals.

(Station 42) and deferred the mooring work until June 24. Winds remained fairly high (20-25 kts, Figure 3), and mooring D4/5 (instruments like mooring D6/7) was deployed at 38°28'N, 125°09'W with some difficulty; the rotor of the top Aanderaa current meter was lost during the deployment. After completing this mooring, we began CTD stations along the E-Line, working southward from E-3 (Station 43) to E-8 (Station 48) before breaking off to install mooring D7/8 (instruments like mooring D6/7) at 37°55'N, 124°44'W on 25 June. We then returned to E-8 and continued making CTD stations, working southward to E-10 (Station 50). Stations 51-59 were completed along the F-Line on 26 June. Since time was running short, we omitted F-1 and E-1 but occupied E-2 as the last CTD station. We steamed toward D-4 and along the D-Line to D-8 in order to obtain a continuous ADCP track through the line of four moorings, and then headed toward San Francisco, arriving at dockside in Sausalito about 1400 PDT on 27 June.

Personnel participating in the cruise were Michael Kosro (chief scientist), Adriana Huyer, Robert L. Smith, Rich Schramm, Jane Fleischbein, Henry Pittock, Robert Still, Robert Marsh, Stephen Pierce, Ted Benson, Kevin Krefft and Chris McElwee of Oregon State University; Francisco Chavez of Monterey Bay Aquarium Research Institute; Kent Forte of Duke University; and Debbie Muggli of the University of Tennessee.

#### SAMPLING AND CALIBRATION PROCEDURES

A Neil Brown Instruments Mark IIIb conductivity-temperature depth (CTD) probe (#2561) was used to obtain continuous profiles of temperature and salinity and pressure at each station. The profiling package consisted of the CTD mounted below a General Oceanics Rosette sampler with twelve 5-liter Niskin bottles. Mounted adjacent to the CTD were a Sea Tech 25 cm

transmissometer (s/n 33D) and a Sea Tech Fluorometer (s/n 48). The CTD was fitted with a 1600 decibar pressure sensor. The fast response thermistor was disabled and replaced in the circuitry with a precision 10 ohm resistor to permit only the platinum thermometer's temperature signal to be digitized. The time constant of the platinum resistance thermometer of the probe had earlier been determined to be 0.235 sec (Fleischbein et al., 1987) using estimates of the slope of the phase spectrum between the measured temperature and conductivity as suggested by Millard, Toole and Swartz (1980). The CTD was set to sample at its maximum rate of 32 Hz. The entire instrument package was lowered at a rate of about 45 meters per minute to a pressure of 500 decibars.

OSU's CTD probe #2561 was calibrated for pressure, temperature and conductivity by the manufacturer in June 1988. Previous experience has indicated that the CTD pressure and temperature sensors are very stable (temperature to within a few millidegrees and pressure to within a few decibars) over a period of several months. At a few stations, protected reversing thermometers were mounted on one bottle; these thermometers are calibrated once every three years at the Northwest Regional Calibration Center and have an accuracy of  $\pm 0.02^{\circ}\text{C}$ . The temperatures recorded by these thermometers were the same as the CTD temperature within the stated accuracy of the reversing thermometers. The CTD pressure at the surface prior to a cast was recorded at a few stations during the cruise; it remained less than 0.5 dbar which is within the stated accuracy of the pressure sensor ( $\pm 1.6$  dbar) so no correction was applied to the CTD pressure data.

Water samples were collected at each station from Niskin bottles at two or more selected depths to provide in situ conductivity calibration data. Bottles were tripped during the up-cast, and the CTD data to be compared

with the samples were recorded at the actual depth at which each bottle was tripped. Duplicate salinity samples were drawn from selected bottles and stored in round 4-oz. glass bottles with new poly-seal caps, with an additional outer seal of 'Parafilm'. One complete set of the salinity samples was analyzed on a Guildline 8400A Autosal salinometer (OSU's #4) in July 1988. Duplicates were analyzed mainly to check those sample values which showed relatively large differences from the CTD. The Guildline Autosal determines water sample salinity with a precision of  $\pm 0.002$  and an accuracy of  $\pm 0.003$ . Sample conductivities were calculated using the sample salinity value with the CTD temperature and pressure values; a value of  $42.914 \text{ mmho cm}^{-1}$  for the conductivity of standard seawater at  $15^\circ\text{C}$  (Culkin and Smith, 1980) was used to convert the measured sample conductivity ratios to conductivity. Sample conductivities were compared to CTD conductivities which had been corrected for temperature and pressure effects on the cell. Sixteen of 124 sample CTD differences were larger by several standard deviations than the others; these occurred in regions of sharp vertical gradients and were eliminated from the in situ calibration data set. The average and standard deviation of the conductivity differences (Table 2) were within the stated accuracy of the CTD so no conductivity correction was applied to the CTD conductivity data.

The transmissometer measures the light transmitted by a collimated beam of nearly monochromatic (660 nm) light through a path length of 25 cm. It provides an analog output of 0 to 5 VDC, corresponding to 0 to 100% transmission. This output is digitized by the CTD using a modified Neil Brown Instruments two-channel DC digitizer board (Option 14). The digitizer has an improved voltage reference which reduces the temperature sensitivity problems commonly found with this option to less than 3 bits over 0 to 30

Table 2. Results of in situ calibration samples, W8806A Stations 1-60:  
 Station number, sample depth (Z) and comparison between sample and  
 corrected CTD values of temperature (T), conductivity (C) and salinity (S).

STA	Z	Sample Values		CTD Values			Differences	
		BS	BC	T(ctd)	C(ctd)	S(ctd)	DC	DS
1	78	33.902	34.546	7.251	34.553	33.910	-0.007	-0.008
2	498	34.081	33.222	5.382	33.223	34.082	-0.001	-0.001
4	396	34.092	34.285	6.612	34.286	34.093	-0.001	-0.001
4	10	32.736	39.916	14.450	39.913	32.734	0.002	0.002
5	499	34.061	33.260	5.444	33.260	34.061	0.000	0.000
5	299	33.996	35.170	7.738	35.171	33.997	-0.001	-0.001
5	2	32.828	40.052	14.492	40.051	32.828	0.000	0.000
6	2	32.484	38.656	13.378	38.654	32.482	0.002	0.002
7	404	34.065	33.488	5.743	33.485	34.062	0.002	0.003
7	2	32.512	37.485	12.054	37.479	32.506	0.007	0.006
8	500	34.182	33.275	5.341	33.278	34.186	-0.003	-0.004
9	325	34.095	34.188	6.535	34.188	34.095	0.000	0.000
10	188	34.002	35.205	7.825	35.213	34.010	-0.007	-0.008
11	499	34.233	33.397	5.428	33.396	34.232	0.001	0.001
11	253	34.015	34.343	6.824	34.344	34.016	-0.001	-0.001
12	351	34.154	34.319	6.609	34.318	34.153	0.001	0.001
13	157	34.043	35.064	7.642	35.063	34.042	0.001	0.001
14	300	34.146	34.581	6.933	34.579	34.144	0.002	0.002
14	215	34.105	34.792	7.250	34.793	34.106	-0.001	-0.001
15	498	34.214	33.724	5.814	33.723	34.213	0.001	0.001
15	327	34.149	34.404	6.720	34.402	34.147	0.002	0.002
16	149	33.973	34.972	7.616	34.967	33.967	0.005	0.006
16	3	32.778	38.865	13.263	38.860	32.774	0.005	0.004
17	406	34.181	34.048	6.253	34.048	34.182	0.000	-0.001
17	149	34.005	35.522	8.190	35.524	34.007	-0.002	-0.002
18	499	34.124	33.076	5.175	33.074	34.122	0.002	0.002
18	265	34.111	34.694	7.111	34.693	34.110	0.001	0.001
19	135	34.019	35.189	7.816	35.190	34.019	0.000	0.000
19	59	33.720	35.625	8.644	35.634	33.729	-0.008	-0.009
20	420	34.175	33.771	5.943	33.771	34.176	0.000	-0.001
20	200	34.013	34.668	7.213	34.670	34.015	-0.002	-0.002
21	372	34.145	34.065	6.325	34.065	34.145	0.000	0.000
21	2	32.964	35.978	9.873	35.978	32.964	0.000	0.000
22	149	34.030	35.188	7.796	35.187	34.029	0.001	0.001
22	124	34.030	35.213	7.836	35.210	34.027	0.003	0.003
23	229	34.100	34.592	7.026	34.590	34.098	0.002	0.002
23	10	33.166	37.179	10.975	37.175	33.162	0.004	0.004
24	404	34.049	32.955	5.159	32.953	34.047	0.002	0.002
24	301	34.050	33.830	6.193	33.830	34.050	0.000	0.000
25	259	33.964	34.633	7.195	34.632	33.963	0.001	0.001
25	39	32.856	40.272	14.679	40.270	32.855	0.001	0.001
26	484	34.056	32.860	5.005	32.860	34.056	0.000	0.000
26	2	32.405	39.414	14.301	39.410	32.402	0.003	0.003
27	499	34.205	33.516	5.589	33.515	34.204	0.001	0.001
27	499	34.205	33.516	5.589	33.515	34.204	0.001	0.001
28	301	34.081	34.285	6.669	34.284	34.080	0.001	0.001
28	176	33.964	34.791	7.411	34.791	33.964	0.000	0.000
29	500	34.201	33.330	5.384	33.331	34.203	-0.001	-0.002
29	280	34.038	34.168	6.593	34.168	34.038	0.000	0.000

Table 2 (Continued)

		<u>Sample Values</u>		<u>CTD Values</u>			<u>Differences</u>	
30	500	34.196	33.508	5.589	33.504	34.192	0.004	0.004
30	409	34.177	34.050	6.258	34.046	34.173	0.004	0.004
30	11	32.774	38.543	12.912	38.540	32.771	0.003	0.003
31	363	34.182	34.144	6.380	34.142	34.180	0.002	0.002
31	5	32.902	38.268	12.468	38.265	32.898	0.004	0.004
32	489	34.209	33.378	5.435	33.377	34.209	0.000	0.000
32	10	32.968	39.604	13.841	39.603	32.967	0.001	0.001
33	414	34.160	33.757	5.946	33.755	34.157	0.002	0.003
33	2	32.893	39.308	13.612	39.305	32.890	0.003	0.003
34	497	34.236	33.291	5.307	33.295	34.241	-0.005	-0.005
35	497	34.224	33.214	5.233	33.212	34.222	0.002	0.002
35	449	34.198	33.299	5.377	33.296	34.195	0.002	0.003
35	4	32.995	39.634	13.845	39.632	32.993	0.002	0.002
36	498	34.230	33.421	5.458	33.422	34.232	-0.002	-0.002
36	364	34.095	33.663	5.930	33.662	34.094	0.001	0.001
37	407	34.047	33.130	5.357	33.129	34.046	0.001	0.001
37	2	32.808	38.697	13.045	38.689	32.801	0.007	0.007
38	209	33.962	34.854	7.467	34.849	33.957	0.005	0.005
38	39	32.979	36.760	10.706	36.760	32.979	0.000	0.000
39	453	34.058	33.106	5.296	33.104	34.056	0.002	0.002
39	10	32.556	39.212	13.898	39.212	32.556	0.000	0.000
40	440	34.035	33.394	5.650	33.392	34.033	0.002	0.002
40	19	32.847	40.482	14.925	40.478	32.844	0.004	0.003
41	342	34.040	34.366	6.781	34.366	34.040	0.000	0.000
41	19	32.849	40.343	14.773	40.340	32.847	0.003	0.002
42	485	34.075	33.151	5.314	33.149	34.073	0.001	0.002
42	19	32.848	40.387	14.822	40.385	32.846	0.002	0.002
43	9	32.845	40.628	15.089	40.626	32.843	0.002	0.002
44	20	32.792	40.514	15.025	40.514	32.792	0.000	0.000
45	403	34.059	34.008	6.332	34.006	34.057	0.002	0.002
45	19	32.759	40.209	14.736	40.205	32.755	0.004	0.004
46	289	34.005	35.078	7.632	35.075	34.002	0.003	0.003
46	19	32.504	39.854	14.655	39.848	32.499	0.006	0.005
47	278	34.075	34.803	7.262	34.805	34.077	-0.001	-0.002
48	501	34.164	33.189	5.261	33.187	34.163	0.001	0.001
48	374	34.064	33.575	5.857	33.573	34.062	0.002	0.002
49	406	34.104	33.611	5.842	33.610	34.103	0.001	0.001
49	10	32.733	38.608	13.031	38.603	32.729	0.004	0.004
50	308	34.058	34.048	6.425	34.048	34.058	0.000	0.000
51	350	34.130	34.204	6.506	34.202	34.128	0.002	0.002
51	2	32.667	39.948	14.571	39.941	32.660	0.007	0.007
52	383	34.136	34.053	6.315	34.052	34.135	0.001	0.001
52	2	32.696	39.506	14.057	39.501	32.691	0.005	0.005
53	340	34.035	33.957	6.330	33.955	34.033	0.002	0.002
53	40	32.819	37.325	11.509	37.325	32.819	0.000	0.000
54	403	34.057	33.787	6.087	33.786	34.056	0.001	0.001
54	10	32.501	39.835	14.642	39.829	32.496	0.006	0.005
55	499	34.121	33.494	5.648	33.495	34.122	-0.001	-0.001
55	20	32.604	40.070	14.770	40.066	32.600	0.004	0.004
56	249	33.938	35.401	8.077	35.400	33.937	0.001	0.001
56	20	32.853	40.656	15.105	40.653	32.850	0.003	0.003



Table 2 (Continued)

		<u>Sample Values</u>		<u>CTD Values</u>			<u>Differences</u>	
57	499	34.095	33.282	5.435	33.280	34.093	0.002	0.002
57	499	34.094	33.281	5.435	33.280	34.093	0.001	0.001
57	499	34.095	33.282	5.435	33.280	34.093	0.002	0.002
58	378	33.982	33.874	6.272	33.872	33.980	0.002	0.002
58	20	32.841	40.812	15.287	40.810	32.839	0.003	0.002
59	387	34.008	33.723	6.072	33.722	34.007	0.000	0.001
60	379	33.983	33.638	6.006	33.638	33.983	0.000	0.000
60	10	32.848	41.185	15.682	41.182	32.845	0.003	0.003
				Mean.			0.0012	0.0012
				Std dev.			0.0026	0.0026
				No. obs.			108.	108.

Table 3. Calibration conversions for fluorescence voltage to total pigment ( $\mu\text{g}/\ell$ ) for day-time and night-time stations of cruise W8806A.

<u>Depth Range</u>	<u>Calibration Equation</u>	<u>No of Samples</u>	<u>Correlation Coefficient</u>
<u>W8806A-Day (0600-1930 local time (GMT-7))</u>			
0-40 m	total pigment = $1.059 * \text{volts} - 0.200$	39	.92
41-60 m	total pigment = $1.100 * \text{volts} + 0.075$	interpolated	
below 60 m	total pigment = $1.165 * \text{volts} + 0.039$	16	.91
<u>W8806A-Night (1930-0600 local time )</u>			
0-40 m	total pigment = $0.910 * \text{volts} + 0.130$	53	.86
41-60 m	total pigment = $0.790 * \text{volts} + 0.120$	interpolated	
below 60 m	total pigment = $0.670 * \text{volts} + 0.196$	21	.88

degrees. The transmissometer output is digitized into a twelve bit number with a range of 0 to 4095 and merged into the data stream. The digitizer is calibrated against a DC Voltage Standard which has an accuracy of  $\pm 0.0004$  mv. The digitizer's output is adjusted so that its output is 4095 at 5.000 VDC and is linear to  $\pm$  one bit over the range of 0-5 volts. The transmissometer was calibrated by the manufacturer against a distilled water standard in May of 1988. Readings in air were also obtained at this time (air calibration = 4.740 VDC, zero offset = 0.002 VDC), and air calibrations, repeated on the ship prior to Station 1 and post station 60 were within the stated accuracy of the transmissometer so the factory calibration was applied to the transmissometer data.

The formula

$$\text{TRANS} = (\text{VOLTS}/5)*100.$$

was used to convert the voltage to percent transmission.

The fluorometer measures the fluorescence emitted by photosynthetic pigments (chlorophyll and related pigments) in marine phytoplankton following excitation with blue light from a xenon flashlamp. The fluorometer provides analog output of 0 to 5 VDC, with adjustable sensitivity ranges and integration time constants. The fluorometer was operated at a mid-range setting which provided an operational sensitivity range of approximately 0.2 to 8.0  $\mu\text{g}$  pigment per liter. The analog output is digitized by the CTD using the same digitizer board as the transmissometer and is merged into the data stream. Calibration samples were obtained from multiple depths via rosette samples from 59 stations. *In vivo* fluorescence values from the fluorometer were compared with the extracted pigment concentrations obtained from the calibration samples, using standard chlorophyll extraction techniques for

frozen, filtered samples. Results of this calibration are presented in Table 3.

#### CTD DATA PROCESSING PROCEDURES

The CTD data are recorded at sea on a Kennedy 9-track data logger, with many stations on each tape. Data logging normally begins as soon as the CTD probe is in the water, and continues until after the probe has reached the maximum depth. The first step in data processing is to obtain a directory of the data tape using program NBCTD3. For each station, this directory lists the header data, the block number in which the instrument descent begins, and the maximum pressure. NBCTD3 is then used to create disc files of pressure, temperature, conductivity, transmissometer counts and fluorescence counts for each cast. This program also corrects the conductivity data for variations in cell geometry due to pressure and temperature changes. Using program CTDRED6 we then apply the temperature, conductivity and pressure calibrations (described above), and check for extraneous values and extreme gradients. This program applies a recursive filter designed by R. Millard (S. Hayes, pers. comm.) to the conductivity data to remove the phase difference introduced by the finite response time ( $T = 235$  msec) of the temperature sensor; this filter has the form

$$C(n) = a_0 C(n-1) + (1-a_0) C_i(n)$$

where  $C_i(n)$  is the observed value plus the calibration adjustment,  $C(n)$  is the filtered value of the  $n^{\text{th}}$  scan, and  $a_0 = T / (T + t_i) = 0.880$  is a constant determined from the time constant  $T$  and the time interval  $t_i$  between scans. The same recursive filter is applied to the pressure data to reduce the digitizing noise and ensure that the pressure data is in phase with the

temperature and conductivity data at low frequencies (<1 Hz). Practical salinity (Lewis, 1978) is computed from the temperature and the filtered conductivity and pressure data using standard algorithms (Fofonoff and Millard, 1983) and a value of 42.914 to convert CTD conductivity to conductivity ratio (Culkin and Smith, 1980).

The filtered pressure data are used to eliminate the ascending scans caused by ship's motion. Data collected during descent are sorted into 2 dbar bins, and the extremes and averages of each variable are computed for each bin. Profiles of the temperature and salinity extremes are plotted to determine whether further editing is needed, and the 2 dbar mean temperatures and salinities constitute the processed data. When editing appears to be necessary, the original data files are examined in detail; data points that are rejected are replaced by linearly interpolated values, and the files are reprocessed using CTDRED6. During Station 35 the data were recorded on the upcast only. This cast was processed with program CTDUP which resequences the data and then averages and filters the data like a down cast.

Stations that showed a sudden downward jump or shift in conductivity that was probably due to detritus in the cell, and were edited during processing, are presented in Table 4. These stations also have footnotes to the listings in the body of the data report.

Table 4. Stations edited during data processing.

<u>Station</u>	<u>Depth of Jump in Conductivity</u>	<u>Editing</u>
8	437db	Linearly interpolated processed salinity 435-439db
30	15-17db	Linearly interpolated processed salinity 13-19db
32	250db	Joined data from 0-202db with data from recast 202-500db, resulting in 4 minute gap at 202db
35	19-21db	Linearly interpolated processed salinity 17-23 db
44	105-109db	Linearly interpolated processed salinity 103-111db
47	285-293db	Linearly interpolated processed salinity 283-295db
54	31-37 db	Linearly interpolated processed salinity 29-39db
60	33-419db	Added 0.030 to processed salinity from 33-419db

The processed data files containing integral pressure, and average temperature, conductivity, salinity, transmission, and fluorescence are archived. These files are used to calculate other parameters of interest such as potential temperature ( $\theta$ ), potential density anomaly ( $\sigma_{\theta}$ ), specific volume anomaly, geopotential anomaly, sound velocity, etc., from the new equation of state of sea-water (UNESCO, 1981) using standard algorithms (Fofonoff and Millard, 1983). In this data report we show only profile plots of temperature, salinity,  $\sigma_{\theta}$ , fluorescence and light transmission vs. pressure, and tables of temperature, salinity,  $\sigma_{\theta}$ , specific volume anomaly, geopotential anomaly, fluorescence and light transmission at selected pressures.

## DATA PRESENTATION

The hydrographic data are summarized in maps and vertical sections. For each alongshore and cross-shore section, we show the vertical distribution of temperature, salinity and sigma-theta, contoured subjectively. Tick marks at the top of each section and dots on each map indicate station positions at which a CTD cast was made.

For the complete survey, we show maps of temperature, salinity and sigma-theta at eleven standard depths: 0, 25, 50, 75, 100, 150, 200, 250, 300, 400 and 500 db. Maps of dynamic heights of the sea surface relative to 100, 250 and 500 db, of the 25, 50 and 100 db surfaces relative to 250 db; and of the 25, 50, 100, 150 and 200 db surfaces relative to 500 db are included.

Averages and standard deviations of the profiles of temperature, salinity and sigma-theta vs pressure are presented for Stations 2-60 (Figure 4). The average and standard deviations for the temperature vs salinity curve are also shown (Figure 5).

Vertical profiles of temperature, salinity and sigma-theta vs. pressure are presented for the 60 stations. In addition, a second group of plots shows the vertical profiles of light transmission and total pigment calculated from fluorescence with the salinity profile repeated to facilitate comparisons among variables.

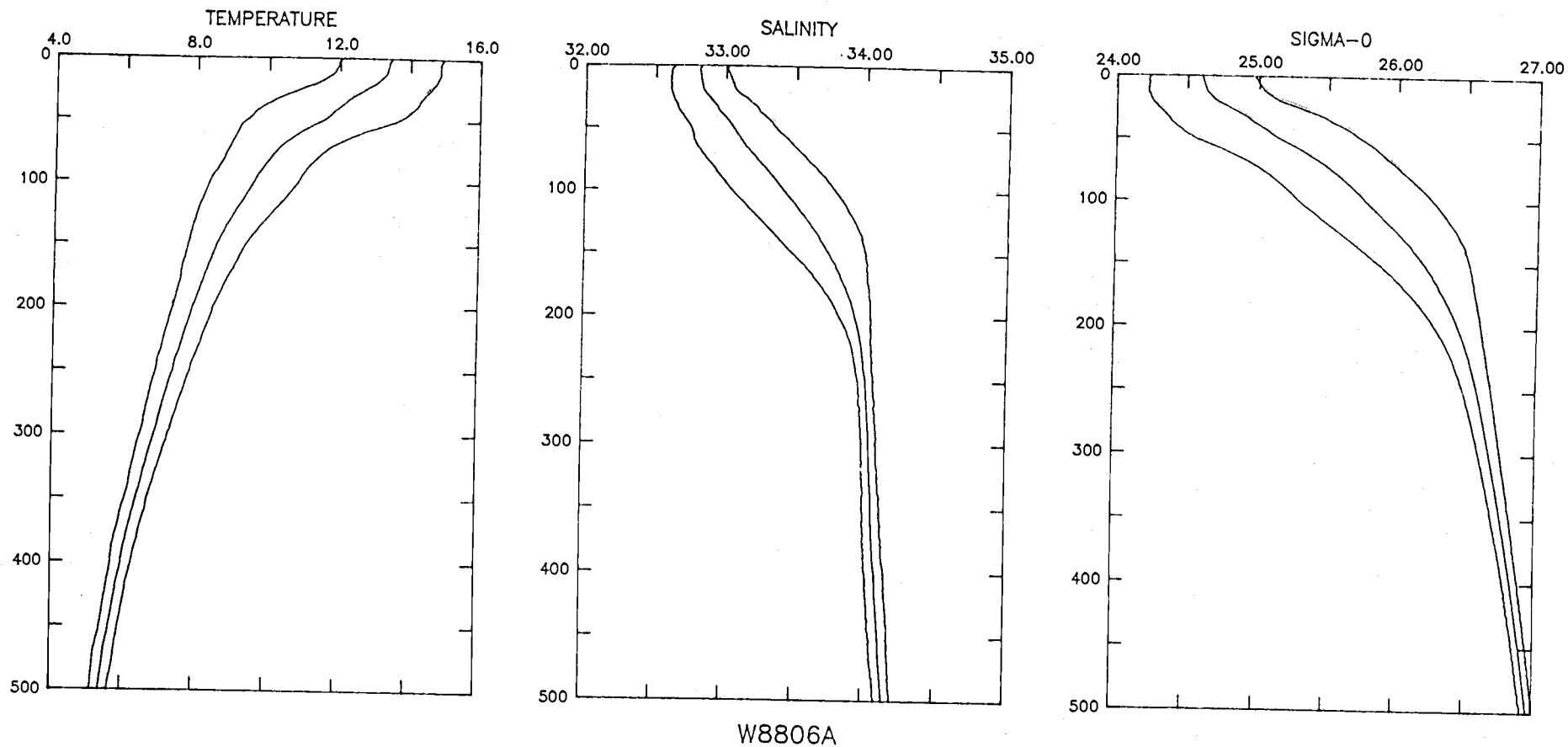


Figure 4. Overall averages, and the average plus and minus the standard deviation of temperature, salinity and density anomaly, calculated and displayed as a function of pressure.

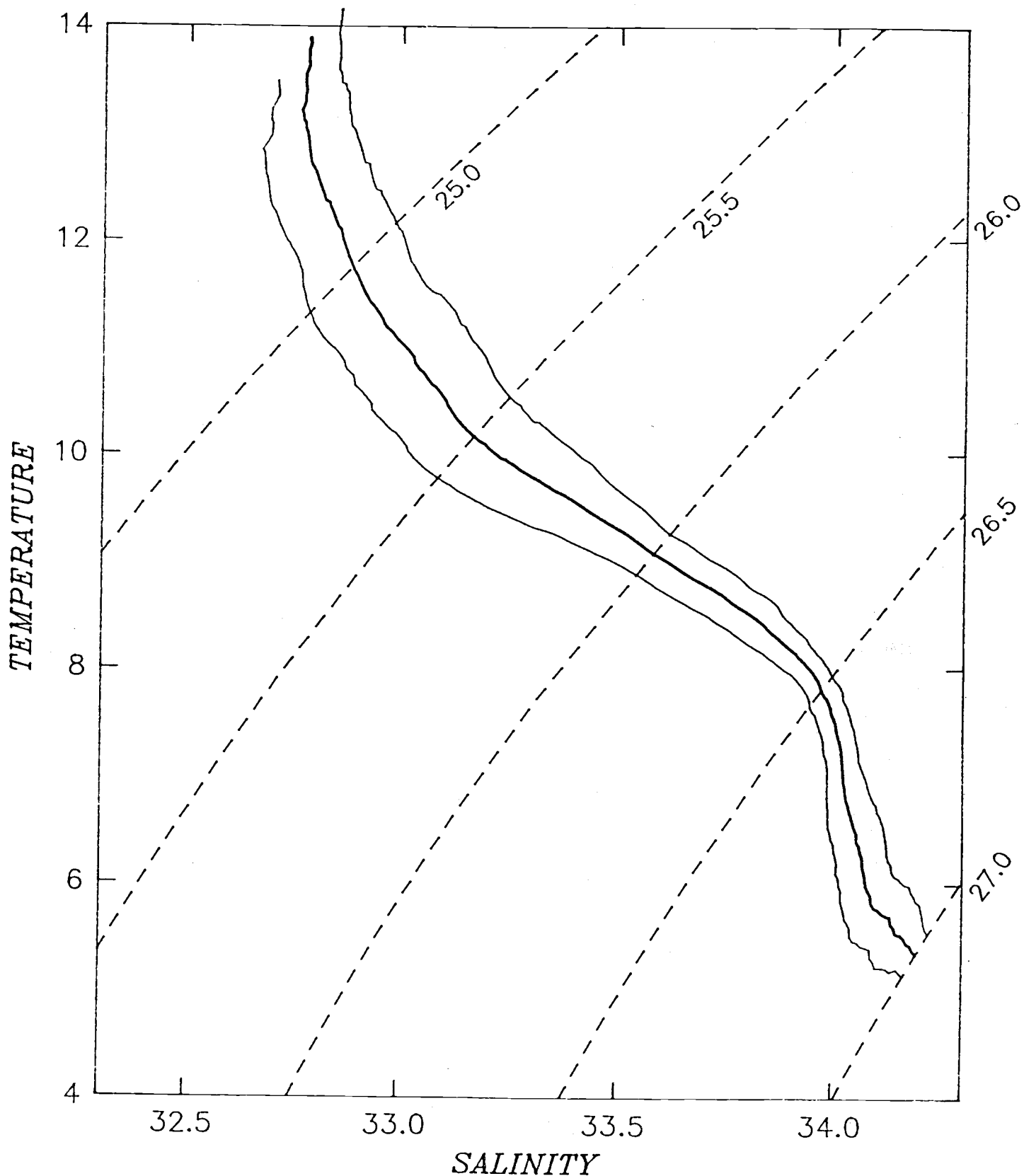


Figure 5. Average T-S curve for Stations 2-60, and the average plus and minus the standard deviations of temperature and salinity, calculated as a function of sigma-theta (intervals of  $0.01 \text{ kg/m}^3$ ), and shown only for the density range covered by at least 10 stations. Dashed curves are lines of constant sigma-t.



For each station, we also present tabulations of selected parameters at standard depths. Header information for each station includes:

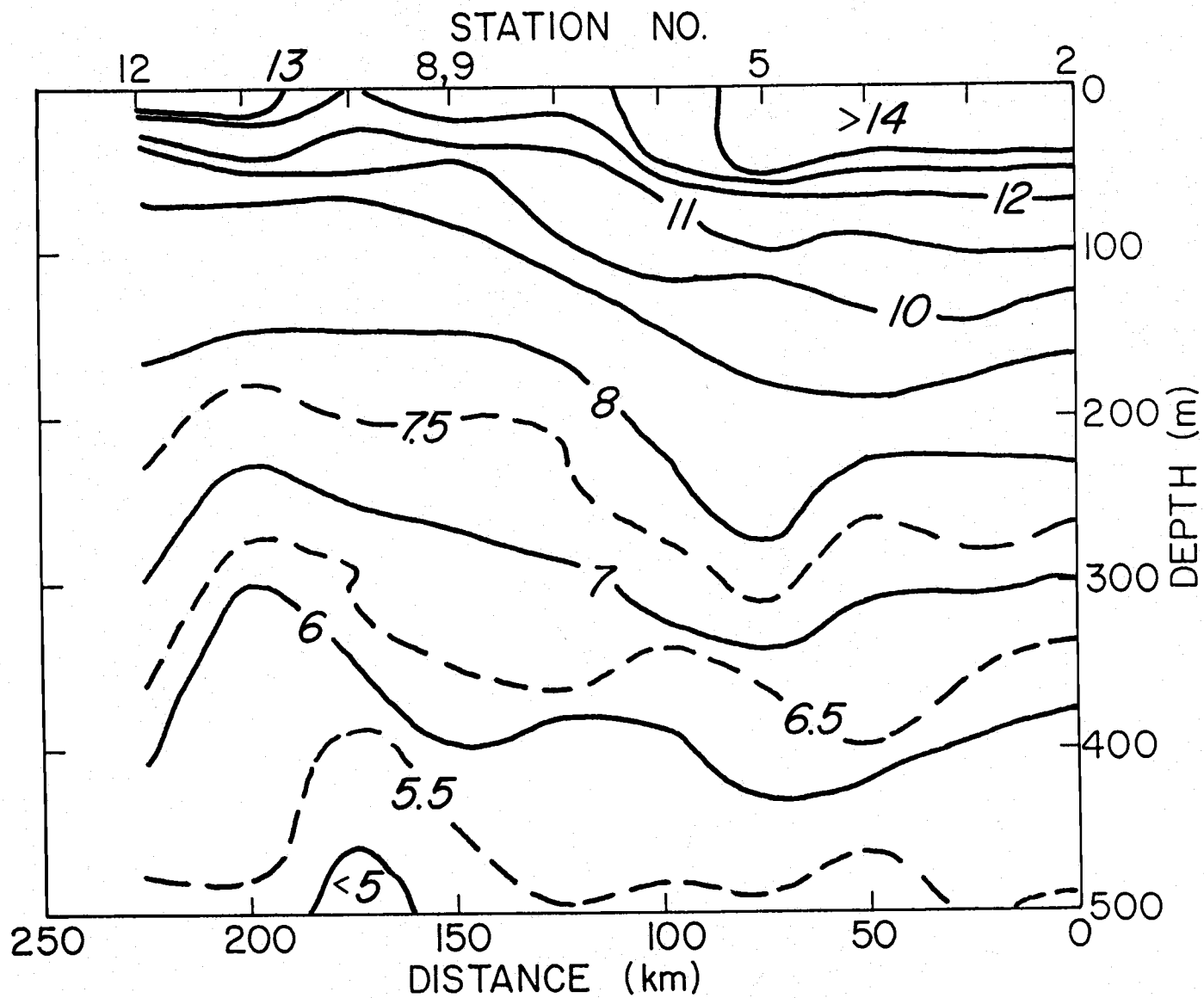
STA NO      Consecutive station number  
LAT          Latitude in degrees and minutes north of the equator  
LONG         Longitude in degrees and minutes west of the Greenwich Meridian  
DATE         Day, Month, Year  
TIME         Universal Time (Greenwich Mean Time)  
PROBE        Serial number of the CTD probe  
DEPTH        Sonic depth in meters, corrected according to Matthews Tables.

The data table for each station gives values of temperature in °C (TEMP), practical salinity (SAL), potential temperature (POTEN TEMP), density anomaly in  $\text{kg/m}^3$  (SIGMA THETA), specific volume anomaly in  $10^{-8} \text{ m}^3/\text{kg}$  (SVA), geopotential anomaly (dynamic height, DELD) in dynamic meters. The values of light transmission (TRN) in percent, and fluorescence converted to total pigment (TP) in  $\mu\text{g}/\ell$  at standard depths accompany the transmission and fluorescence vertical profiles.

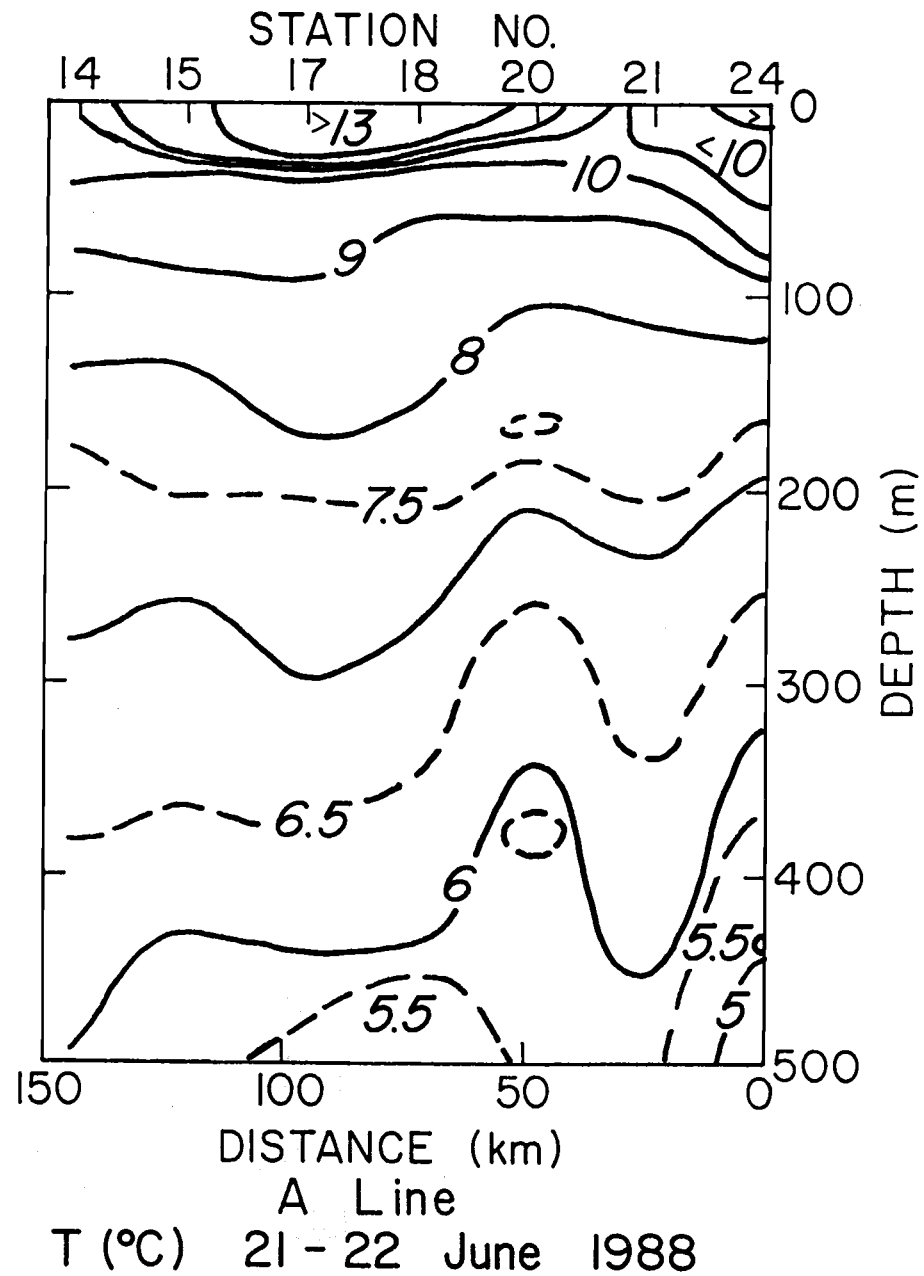
## REFERENCES

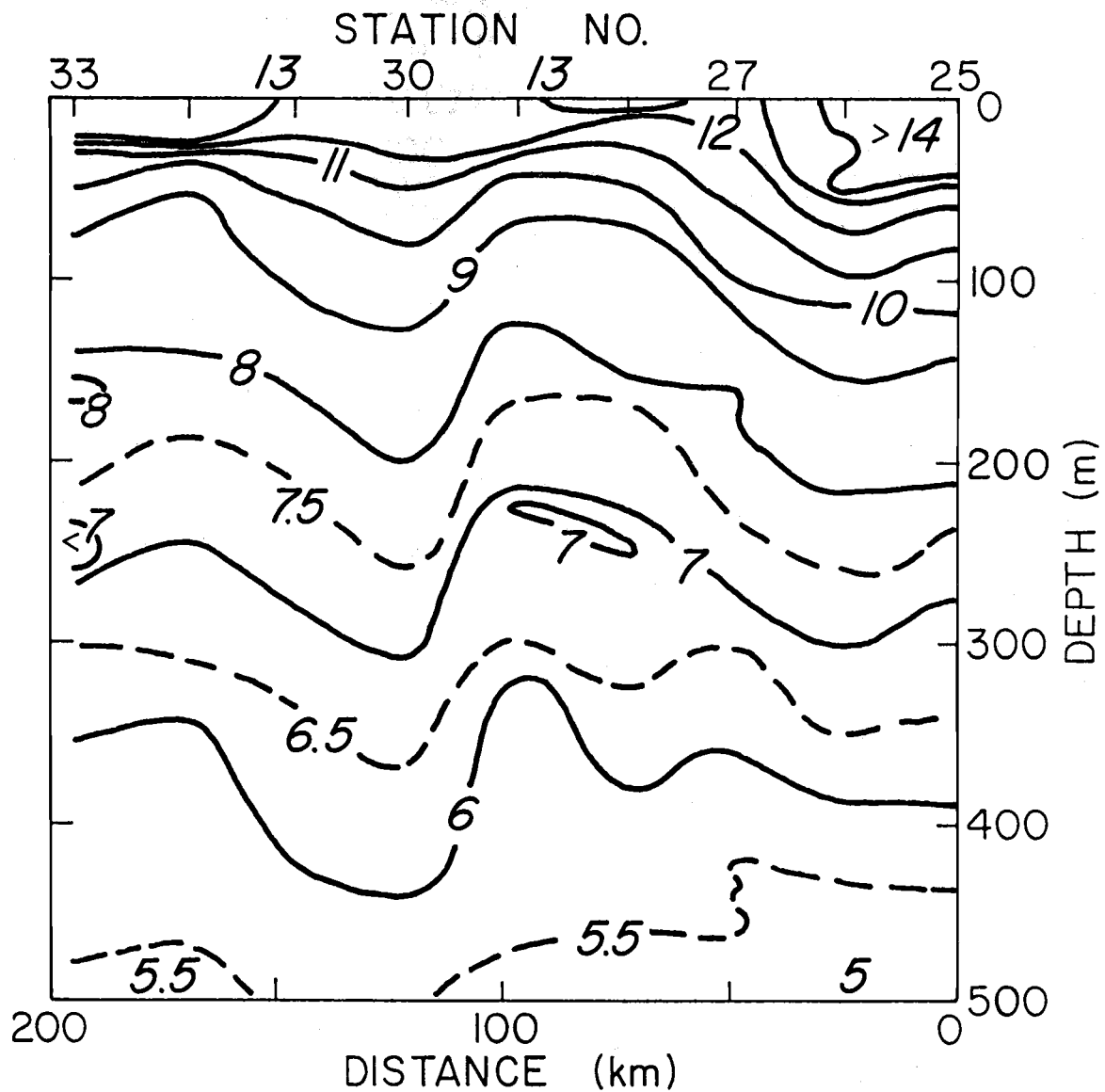
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**VERTICAL SECTIONS**

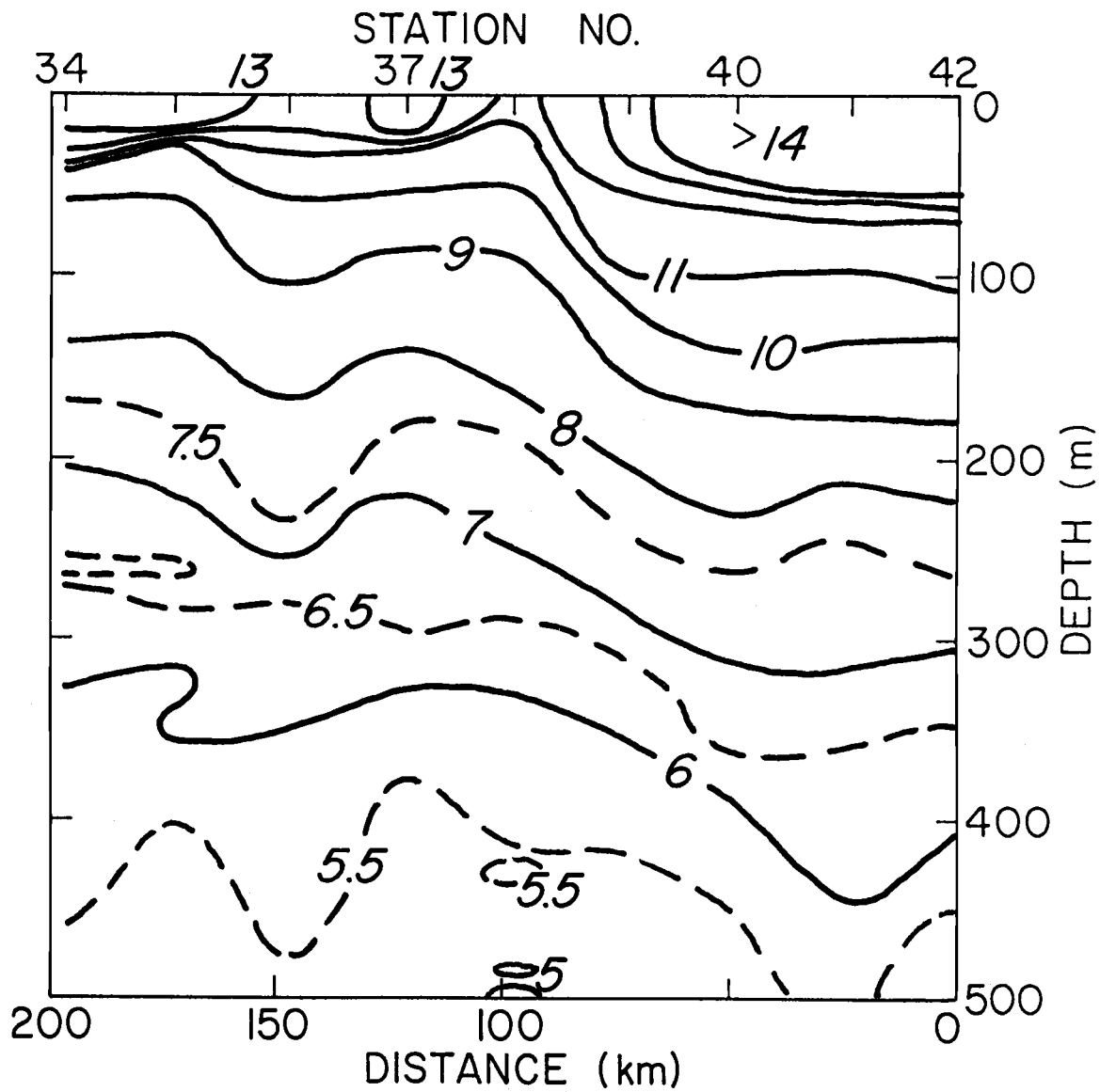


D Line  
 T (°C) 20 - 21 June 1988

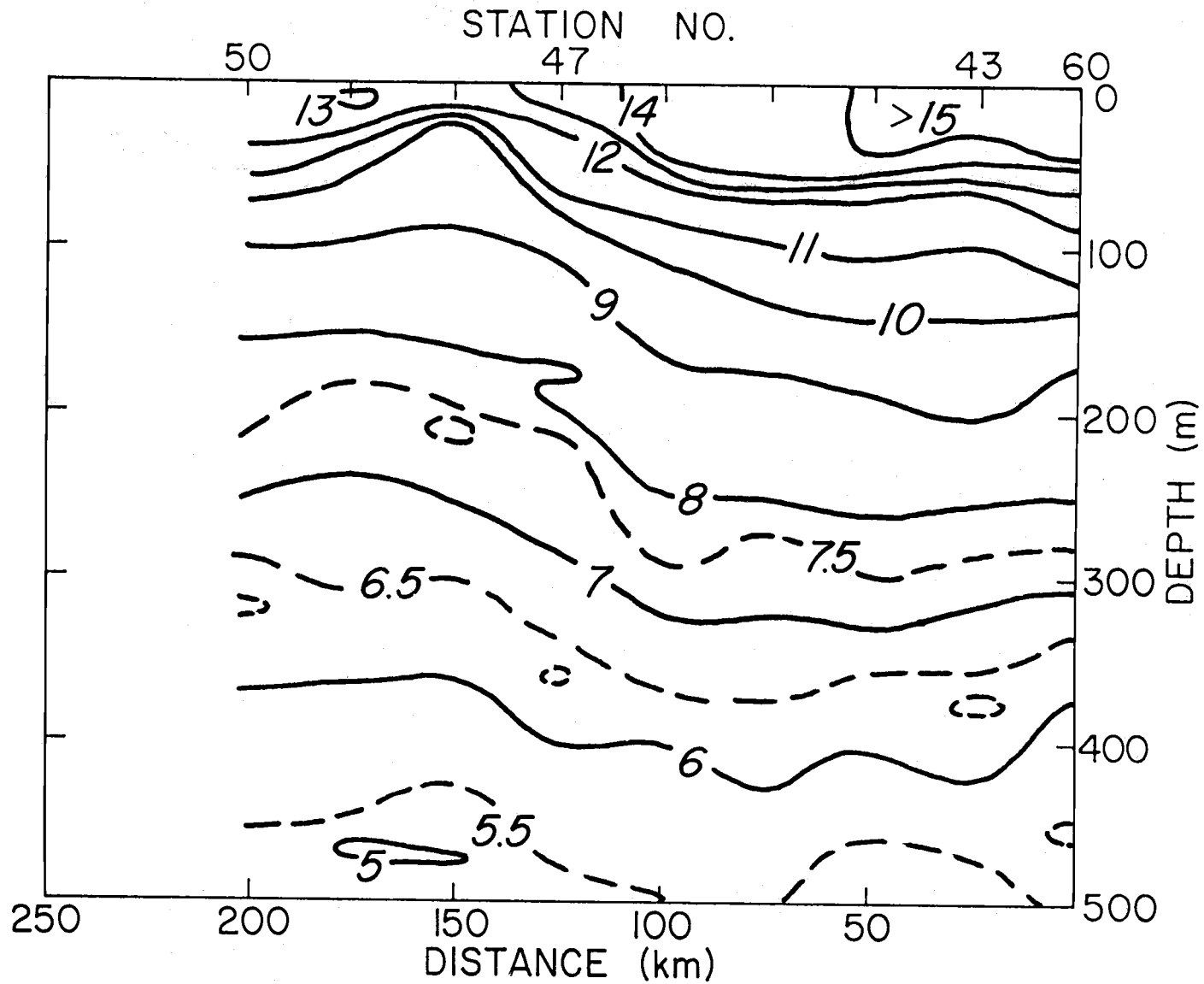




B Line  
T (°C) 22-23 June 1988

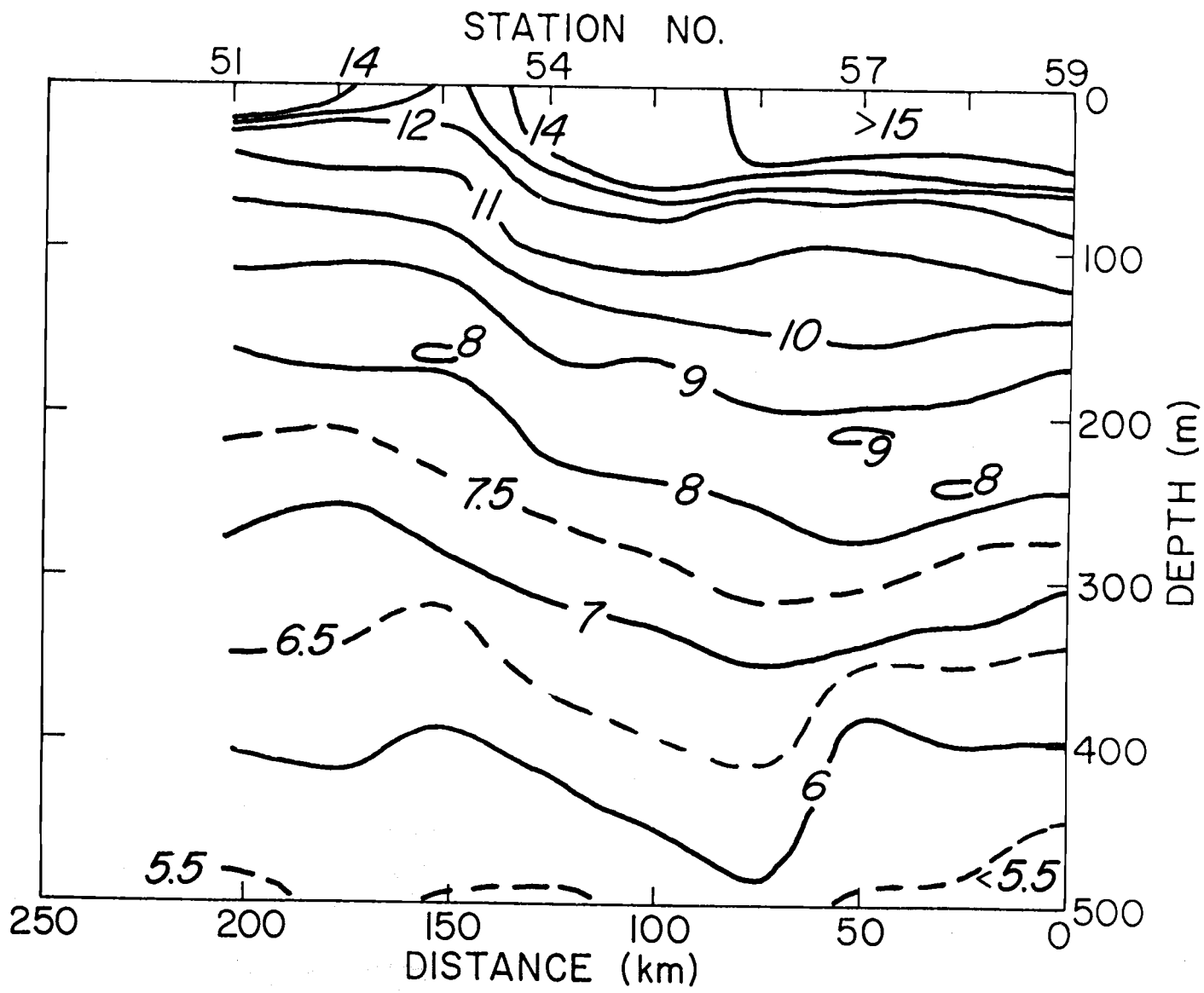


C Line  
T (°C) 23 - 24 June 1988

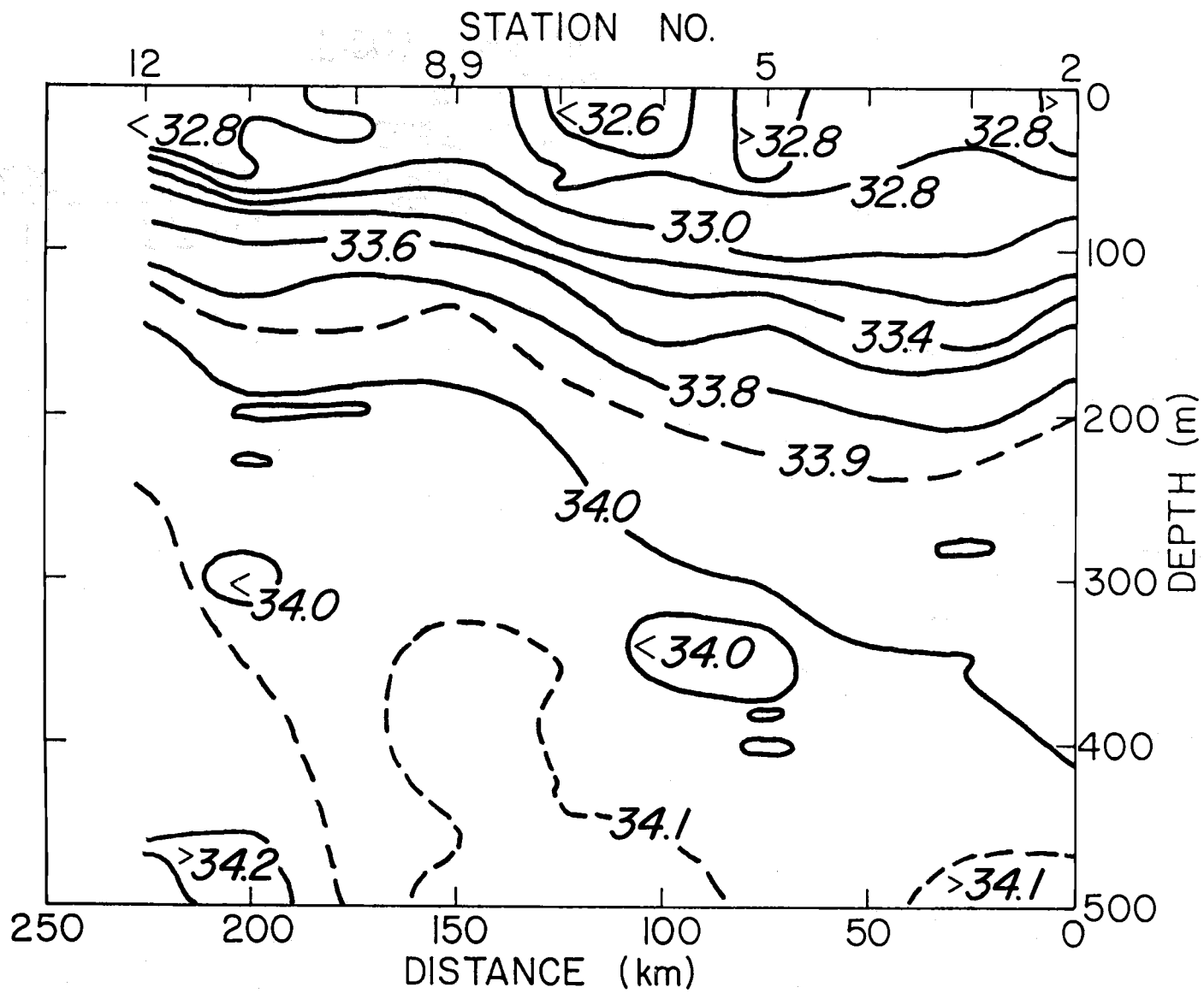


E Line  
T (°C) 25-27 June 1988

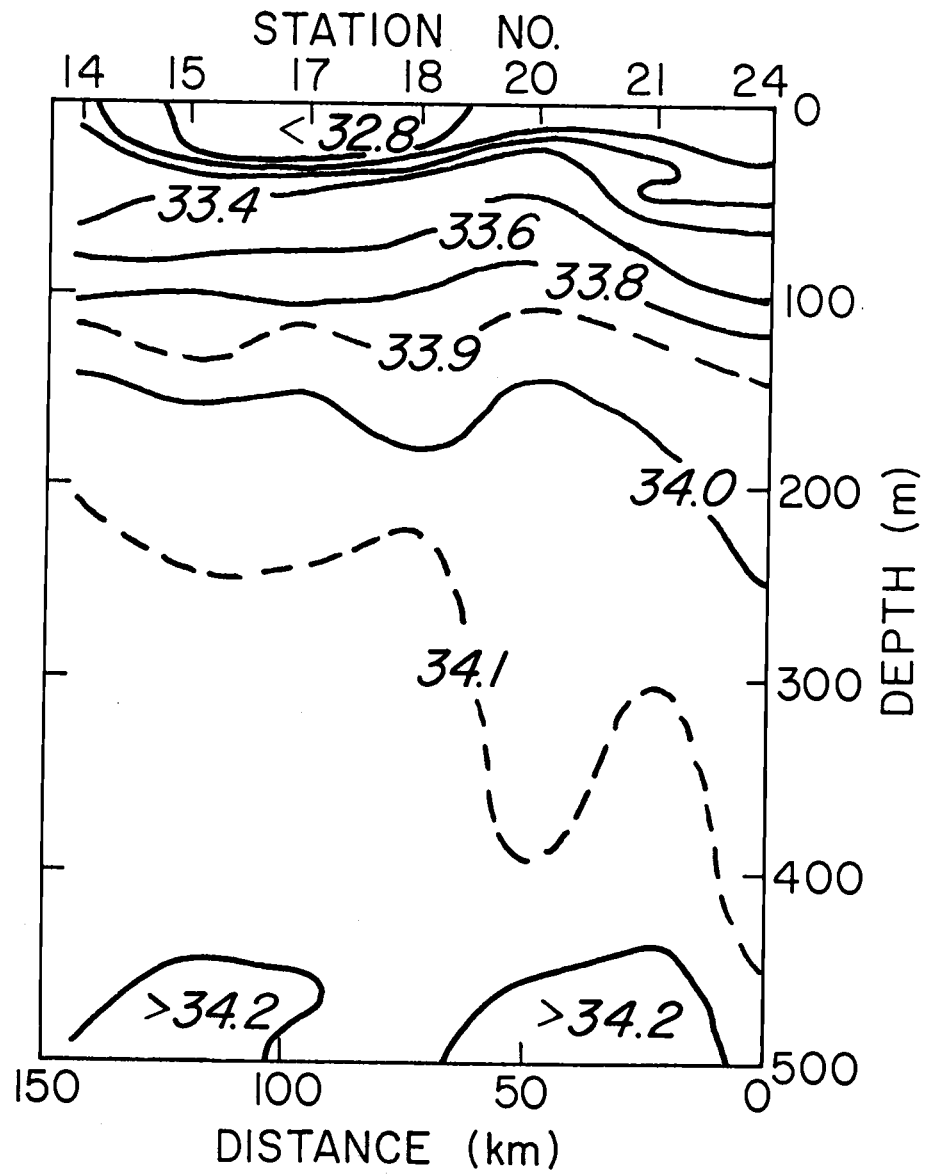




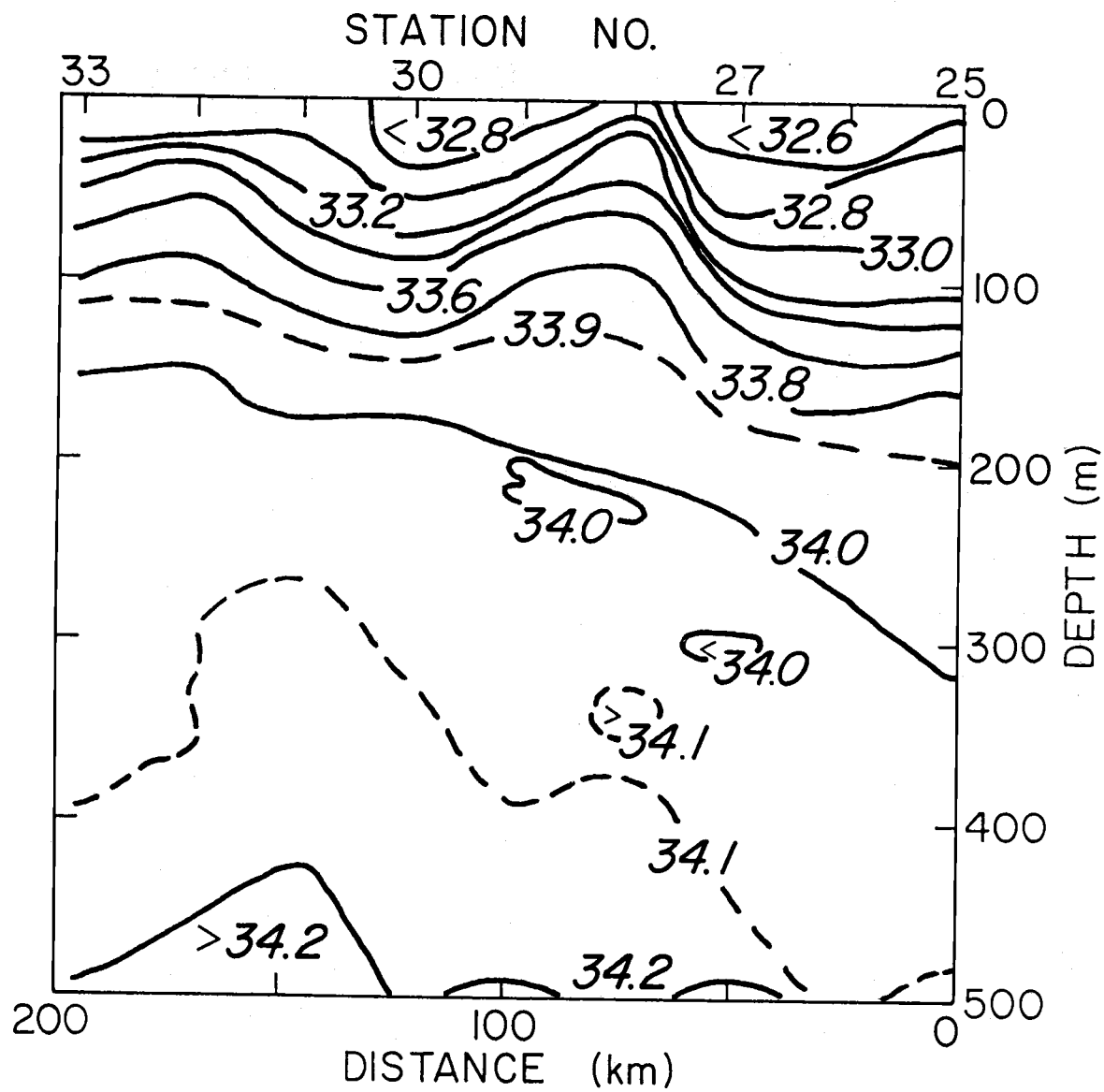
F Line  
 T (°C) 26 June 1988



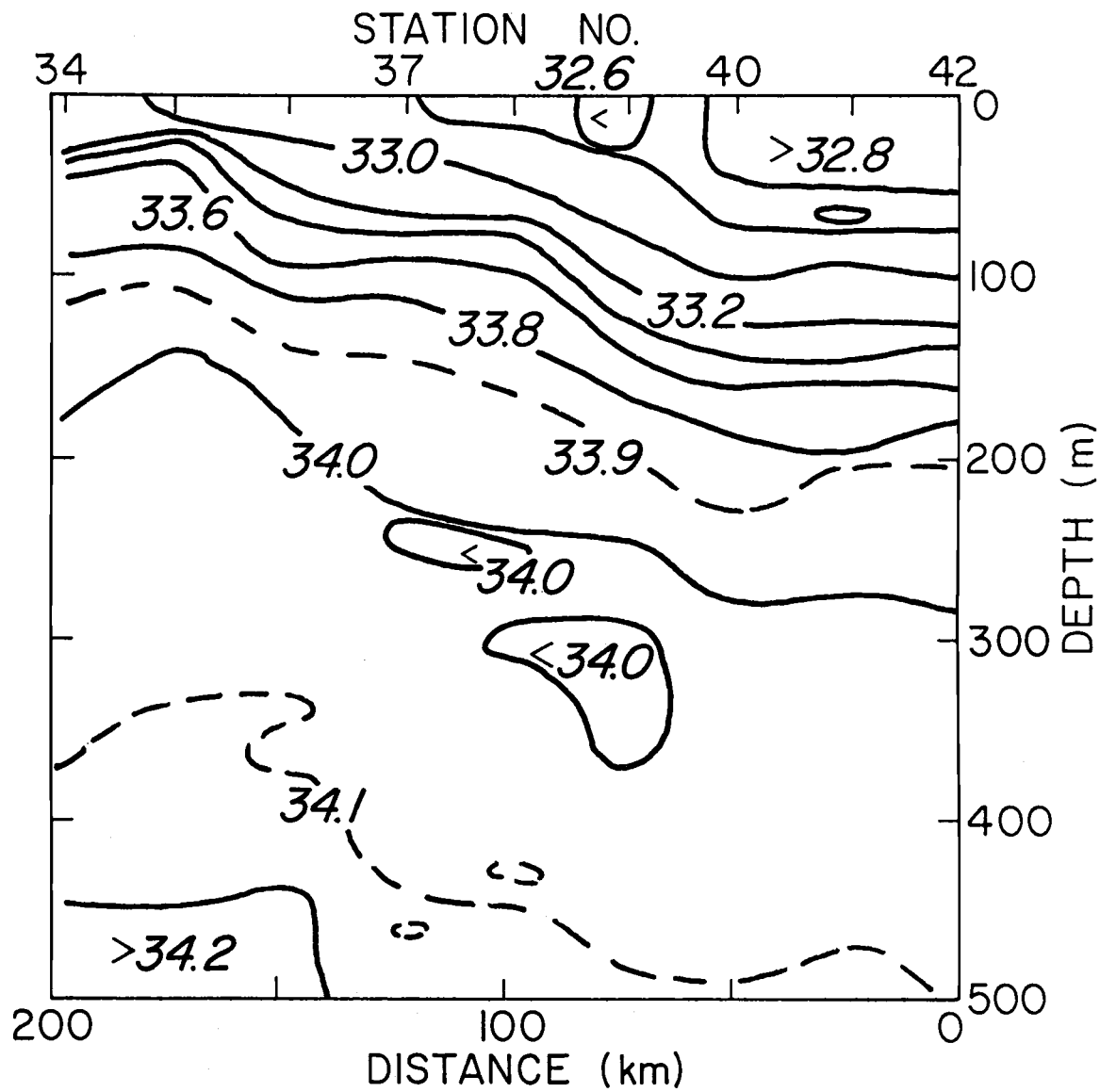
D Line  
Salinity 20-21 June 1988



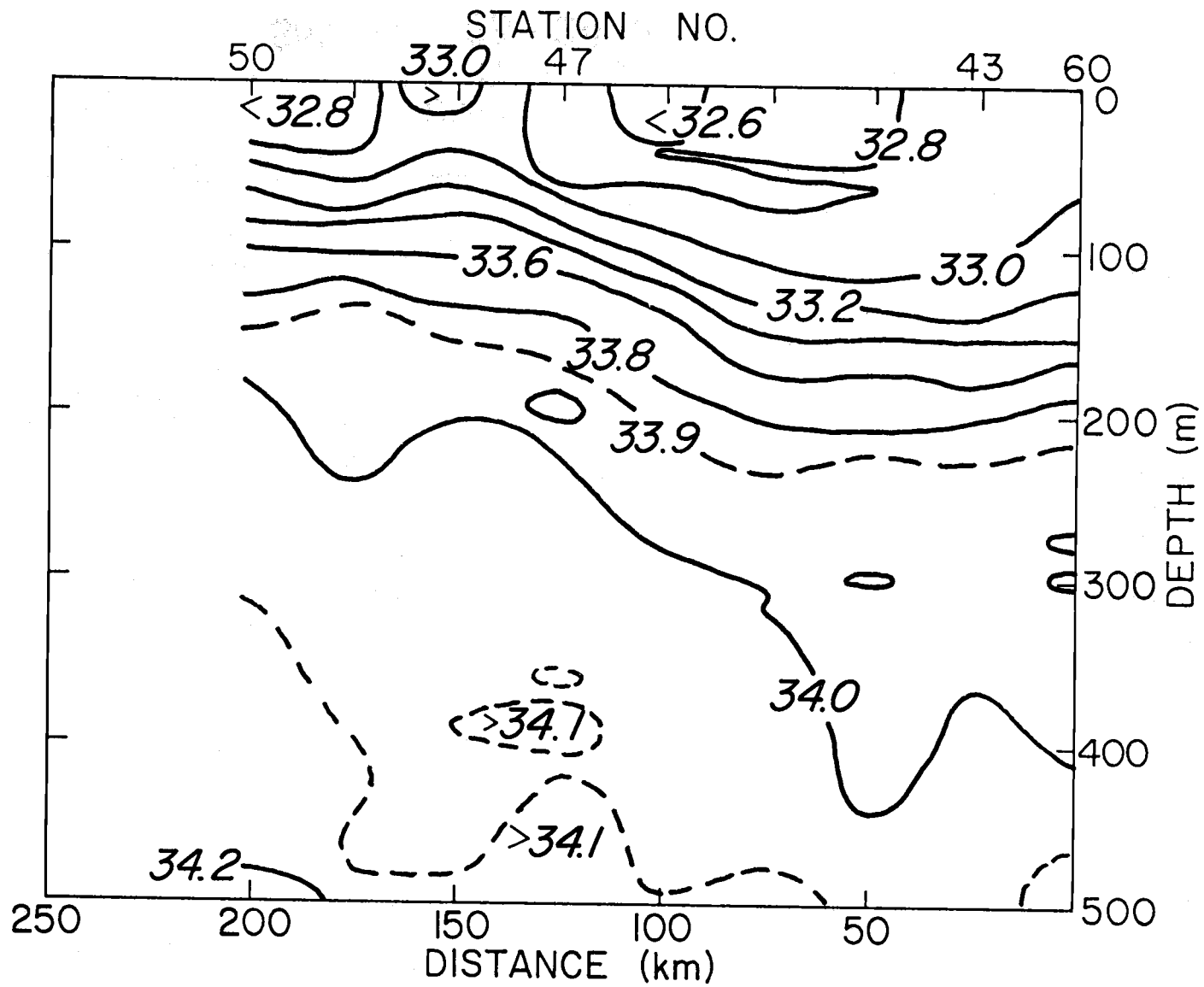
A Line  
Salinity 21-22 June 1988



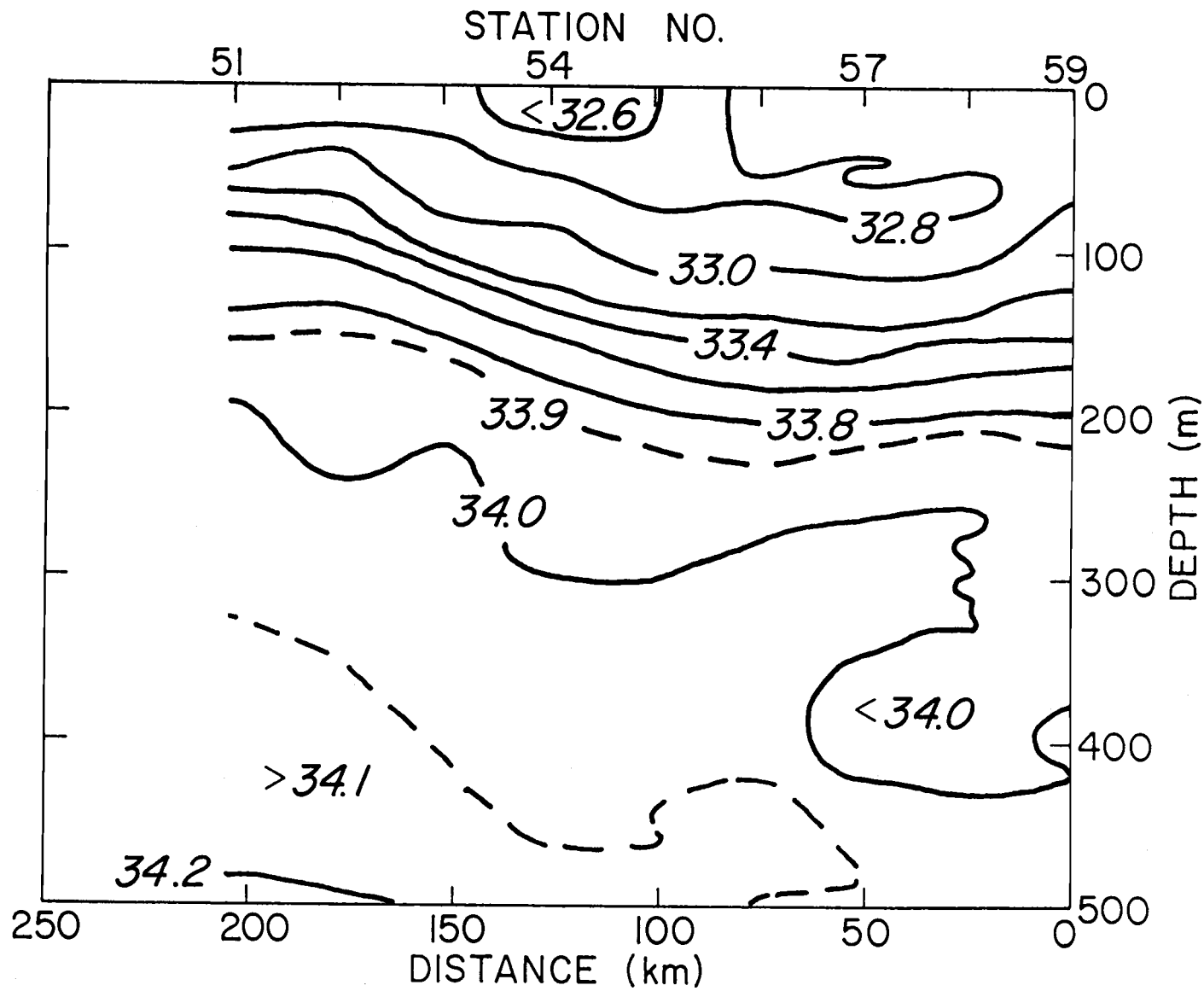
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Salinity 22-23 June 1988



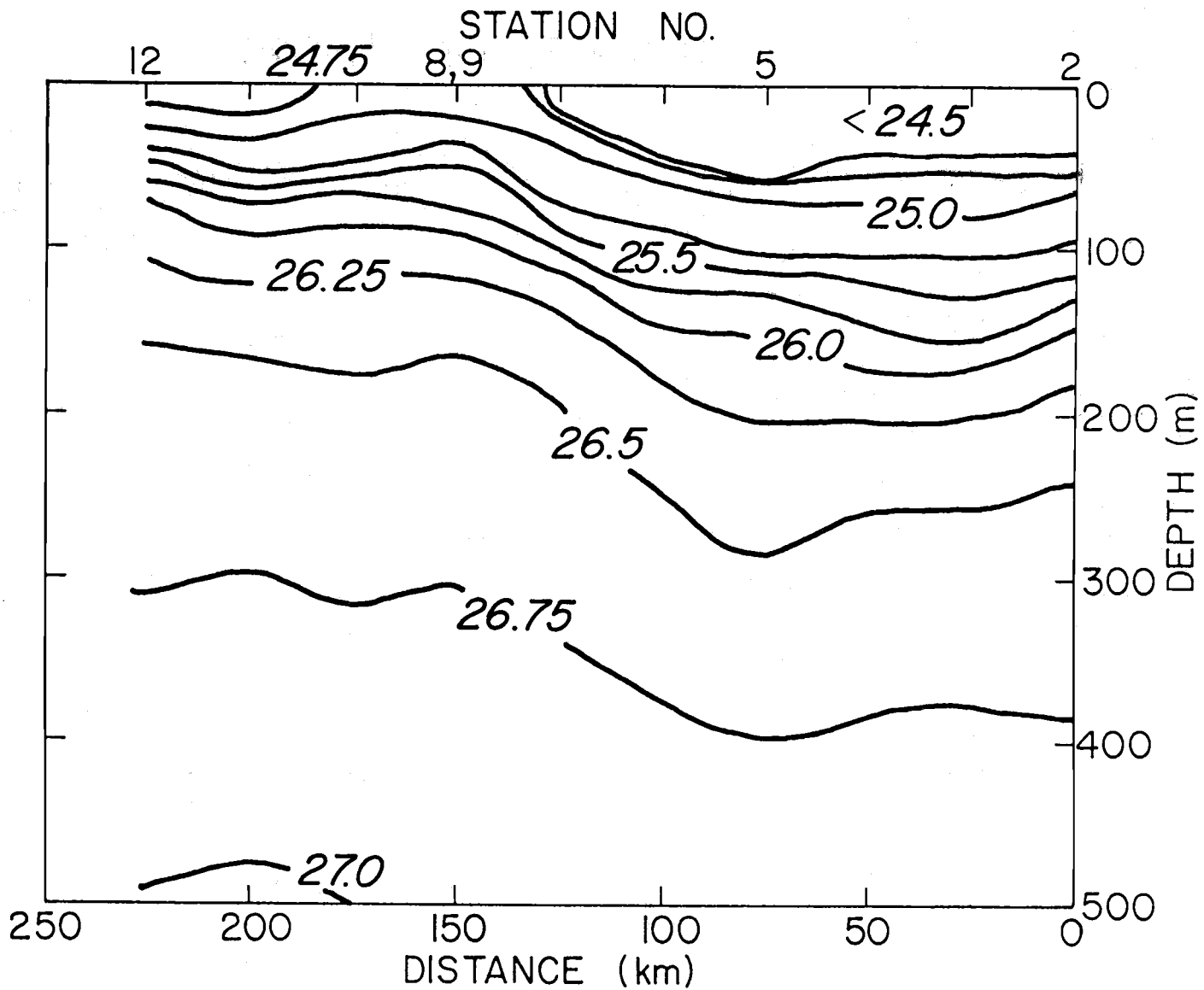
C Line  
Salinity 23 - 24 June 1988



E Line  
Salinity 25 - 27 June 1988

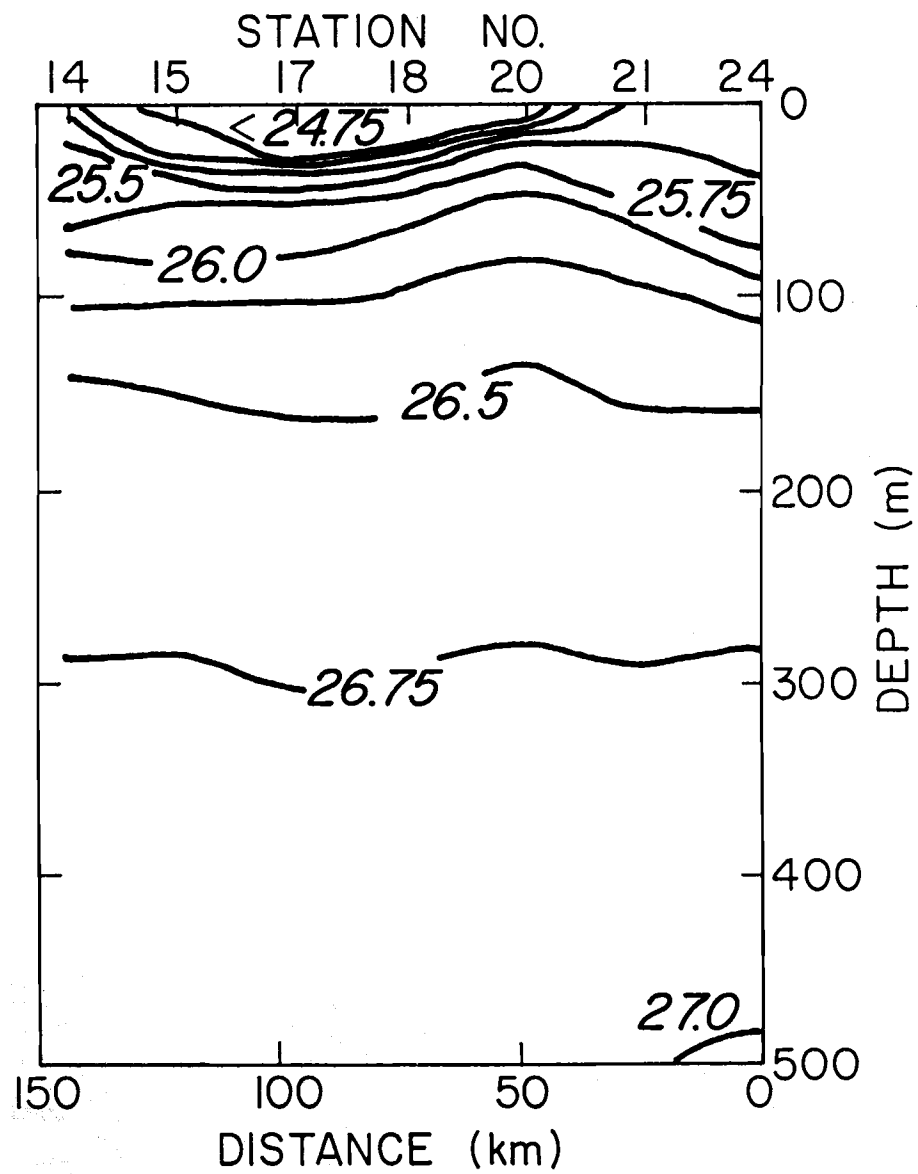


F Line  
Salinity 26 June 1988

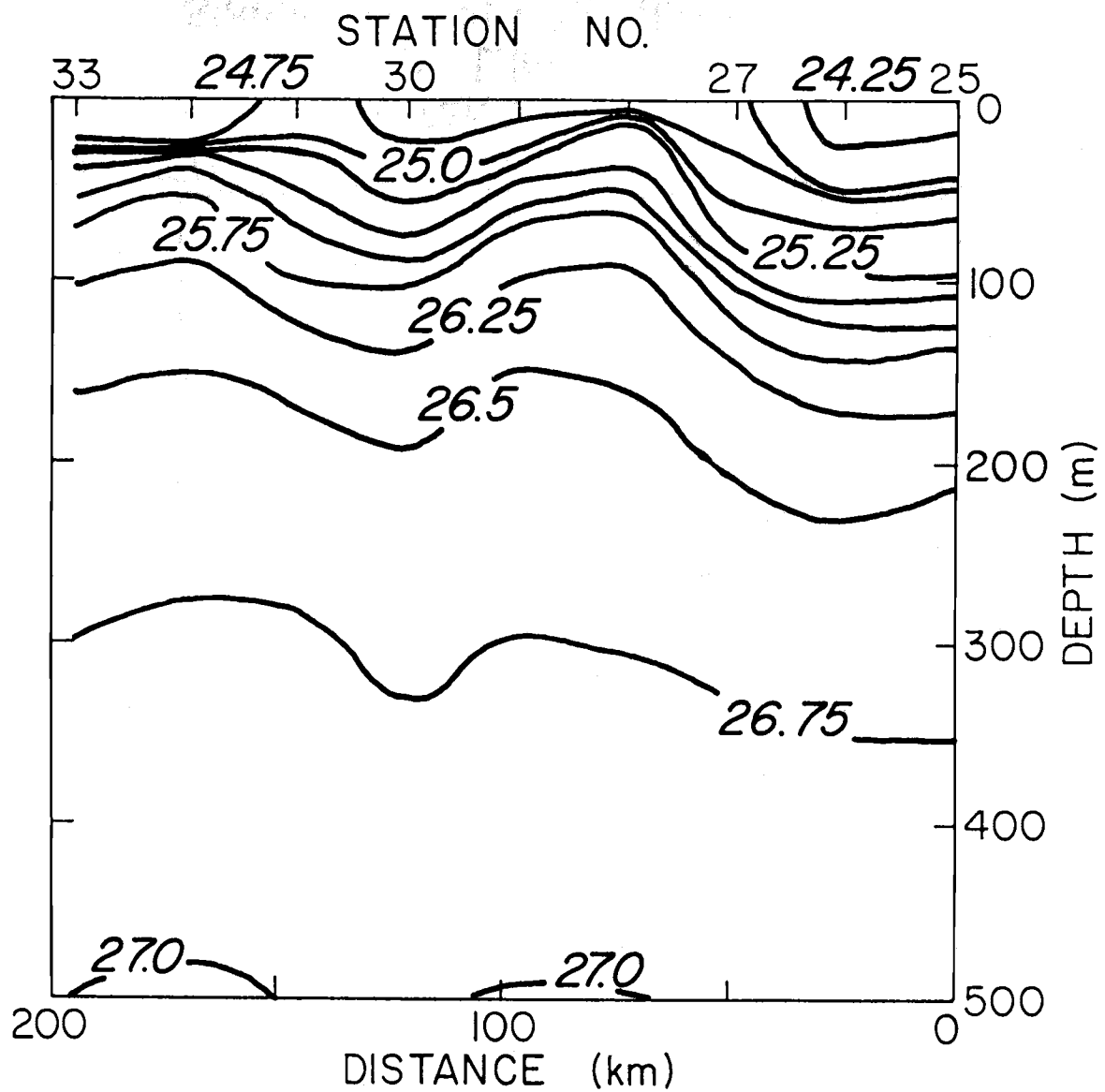


D Line  
Sigma -  $\theta$     20 - 21 June 1988

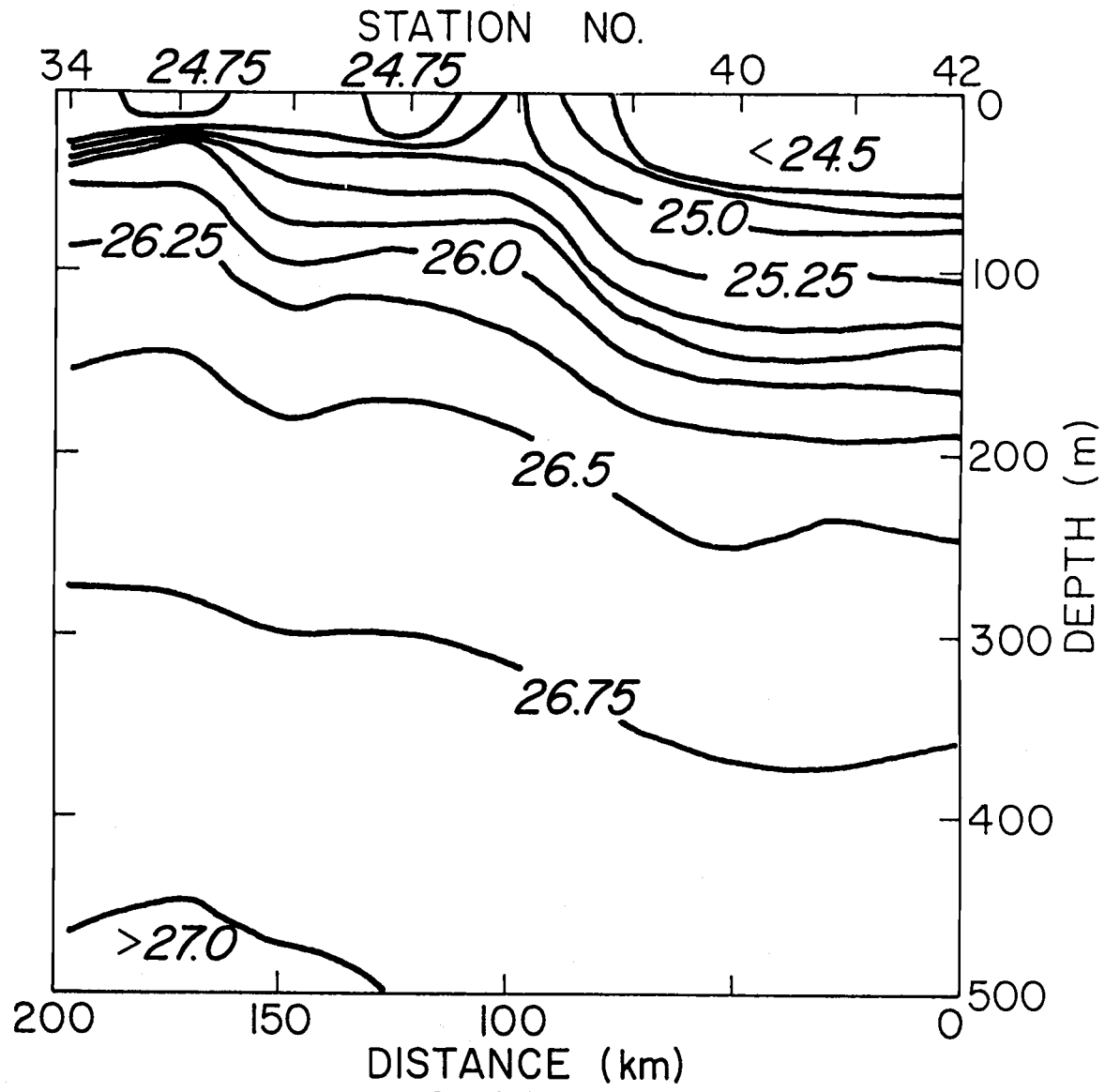




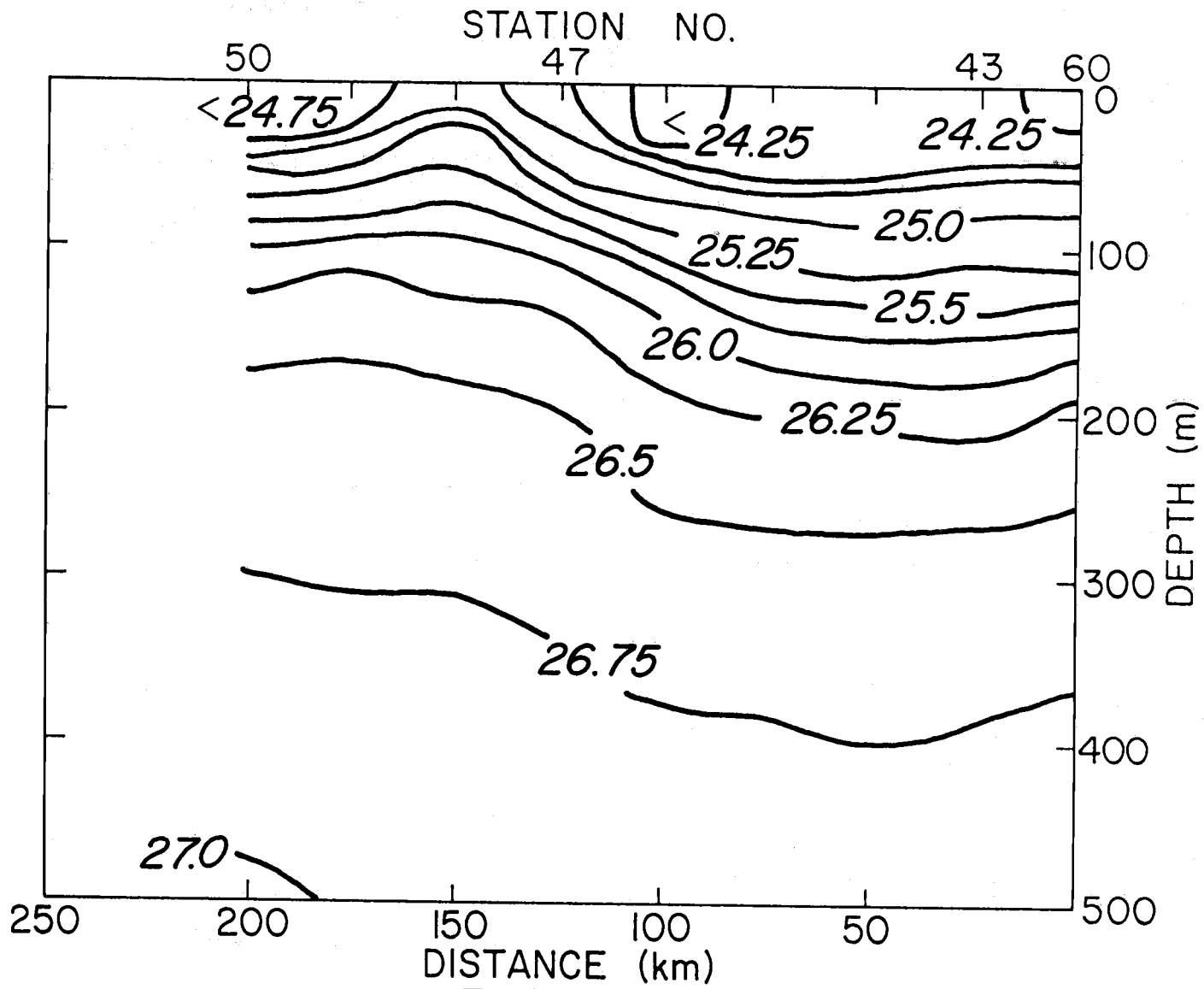
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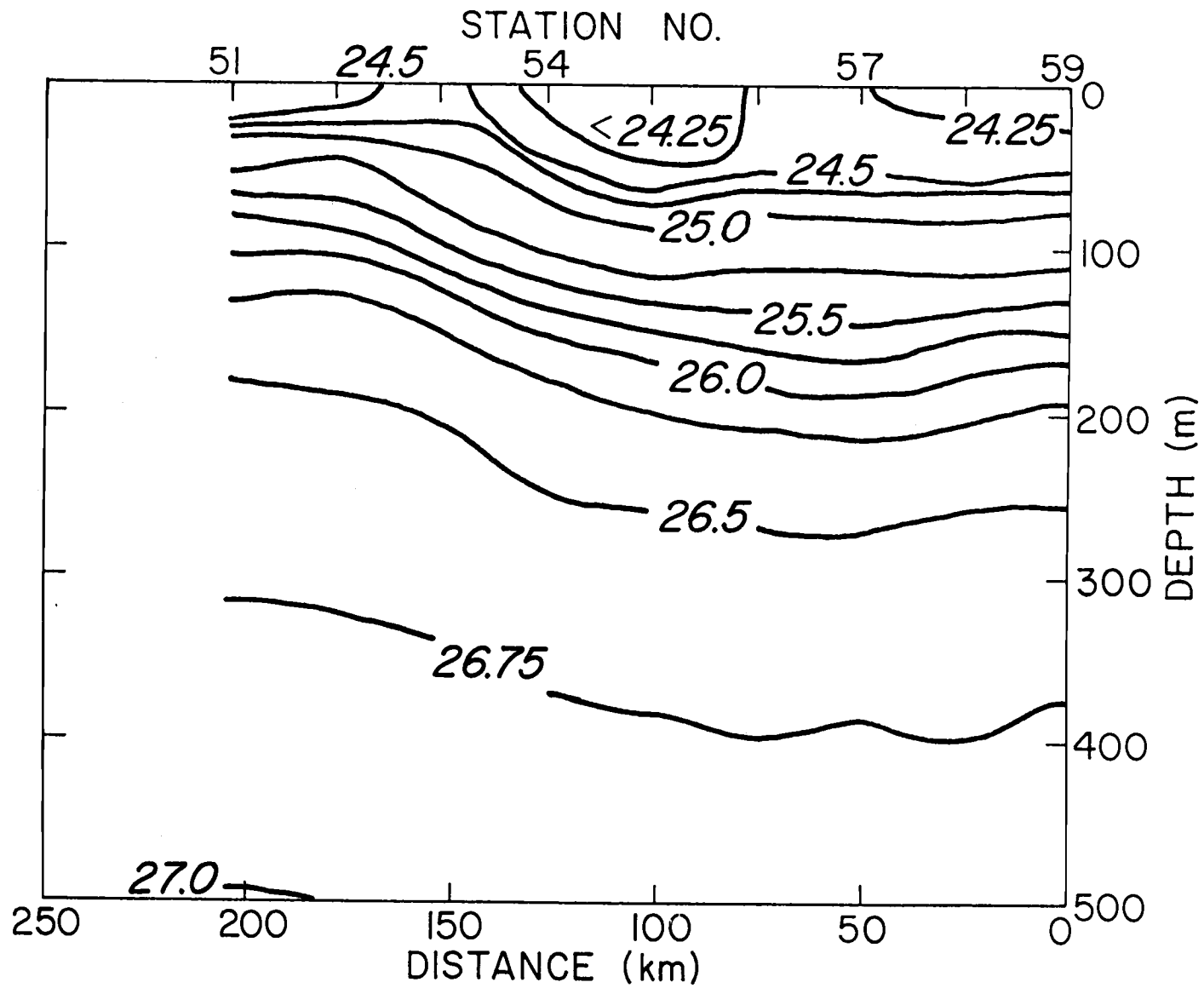
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 Sigma -  $\theta$  22-23 June 1988



C Line  
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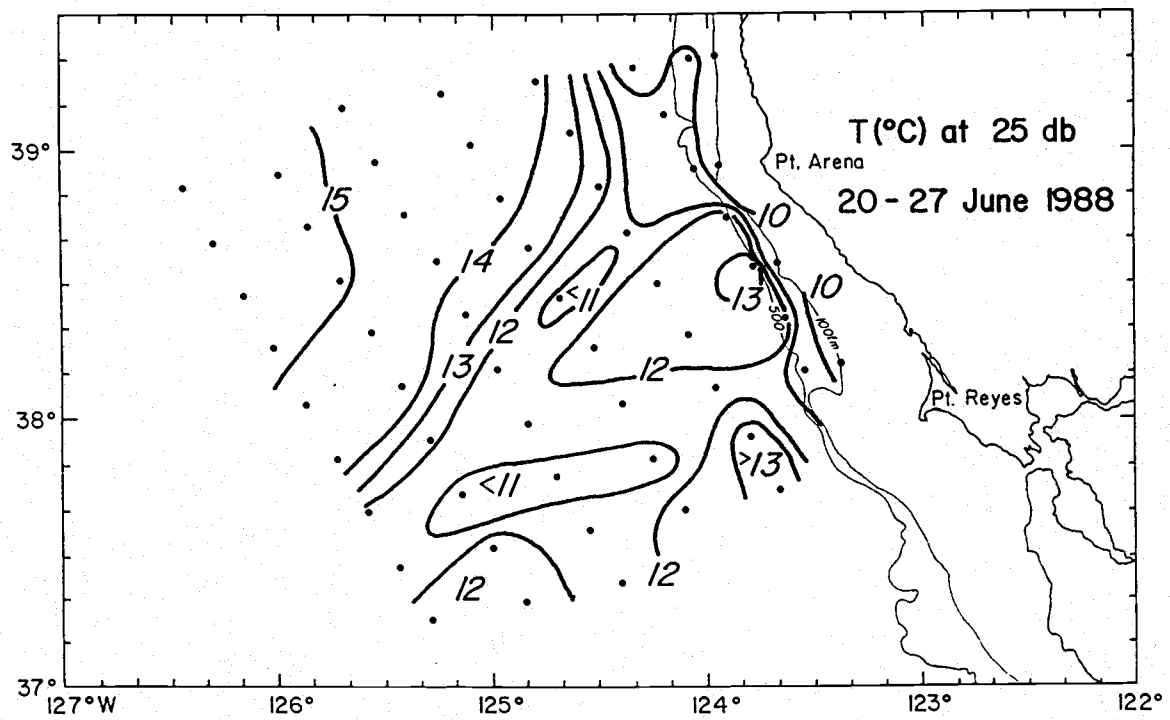
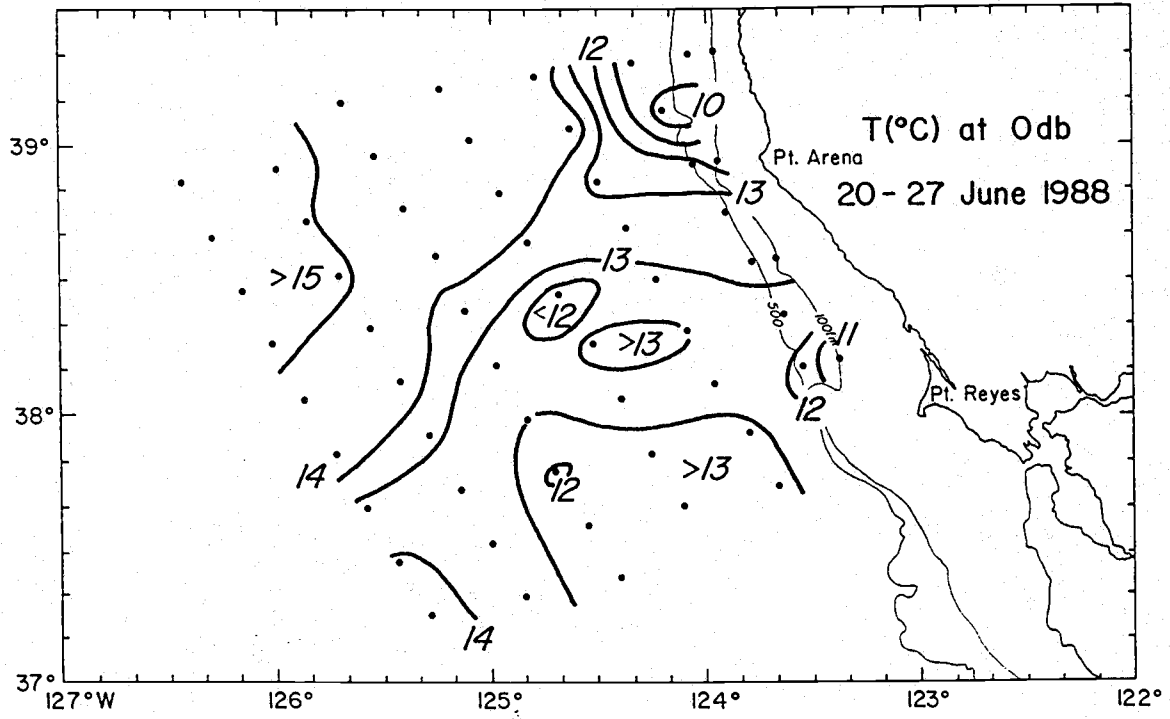


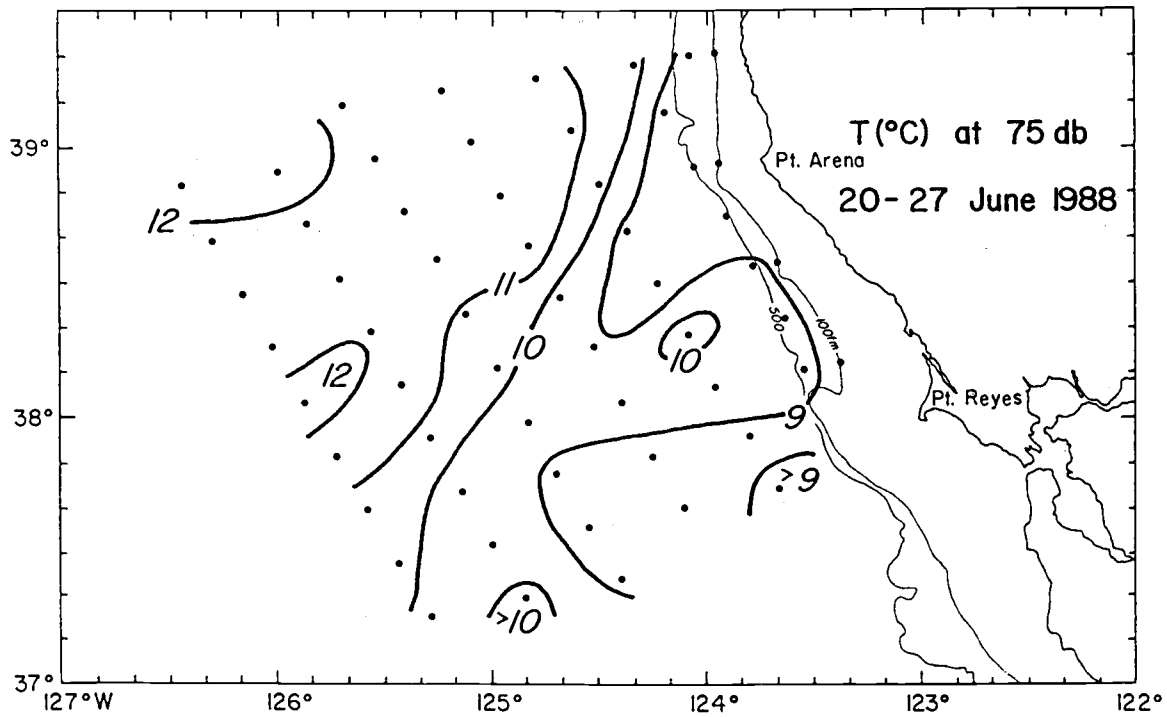
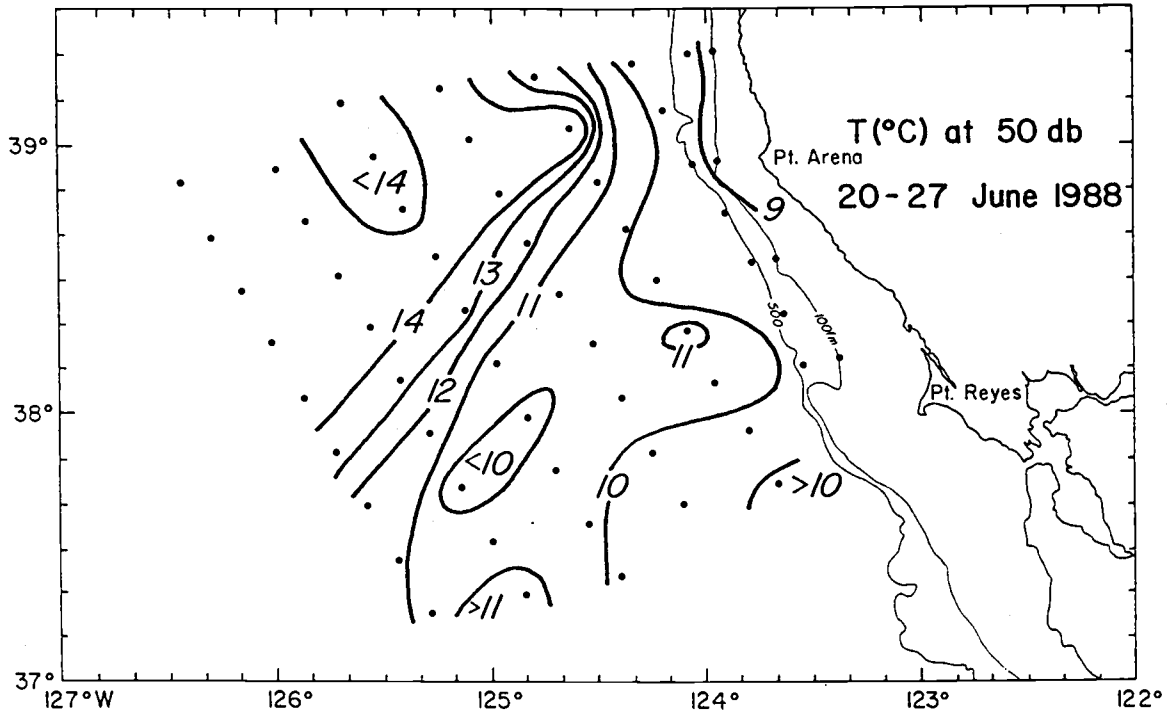
E Line  
 Sigma -  $\theta$  25 - 27 June 1988



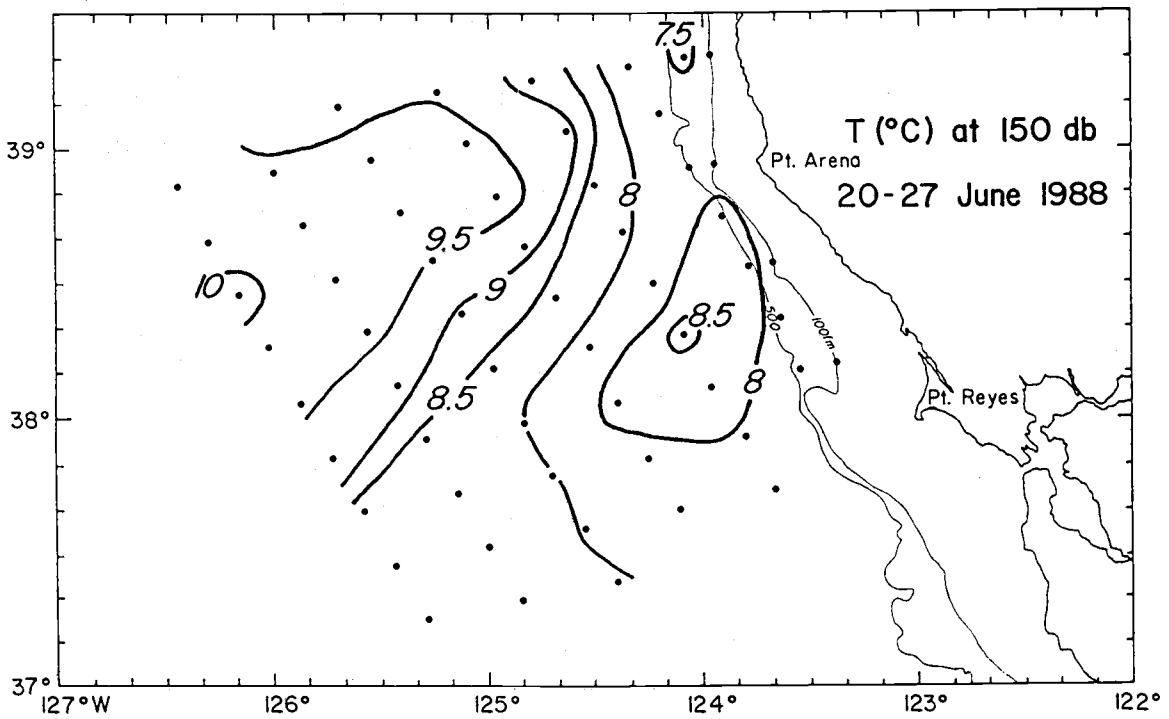
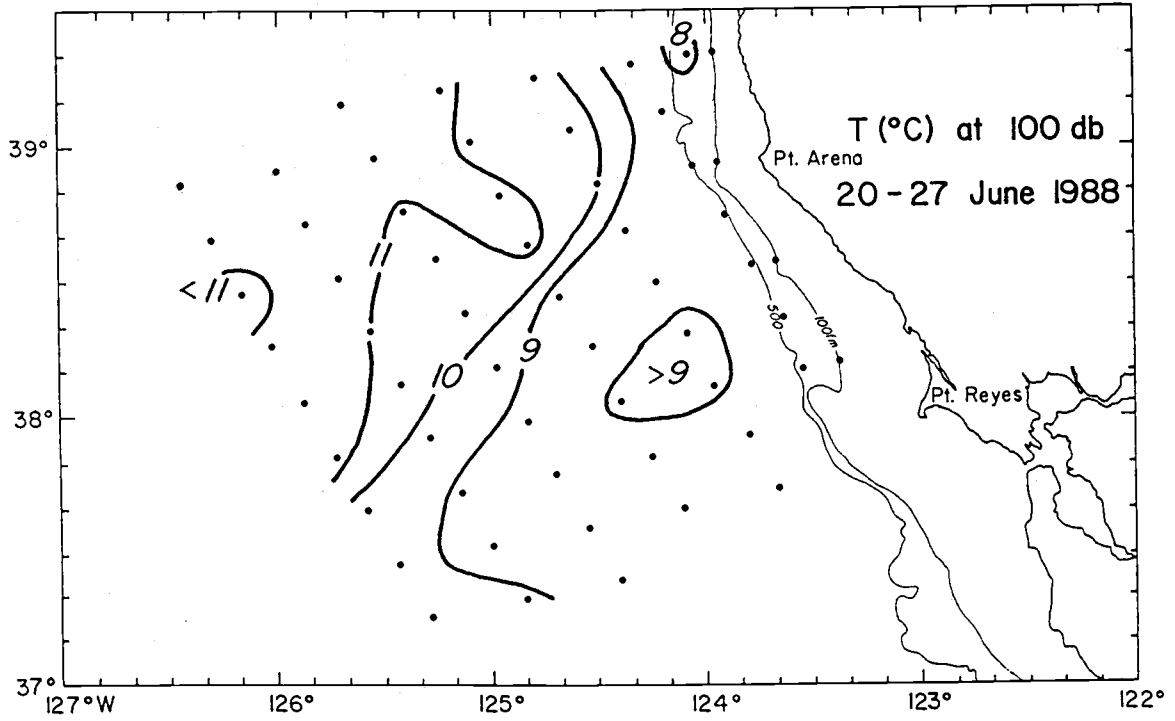
F Line  
 Sigma-θ 26 June 1988

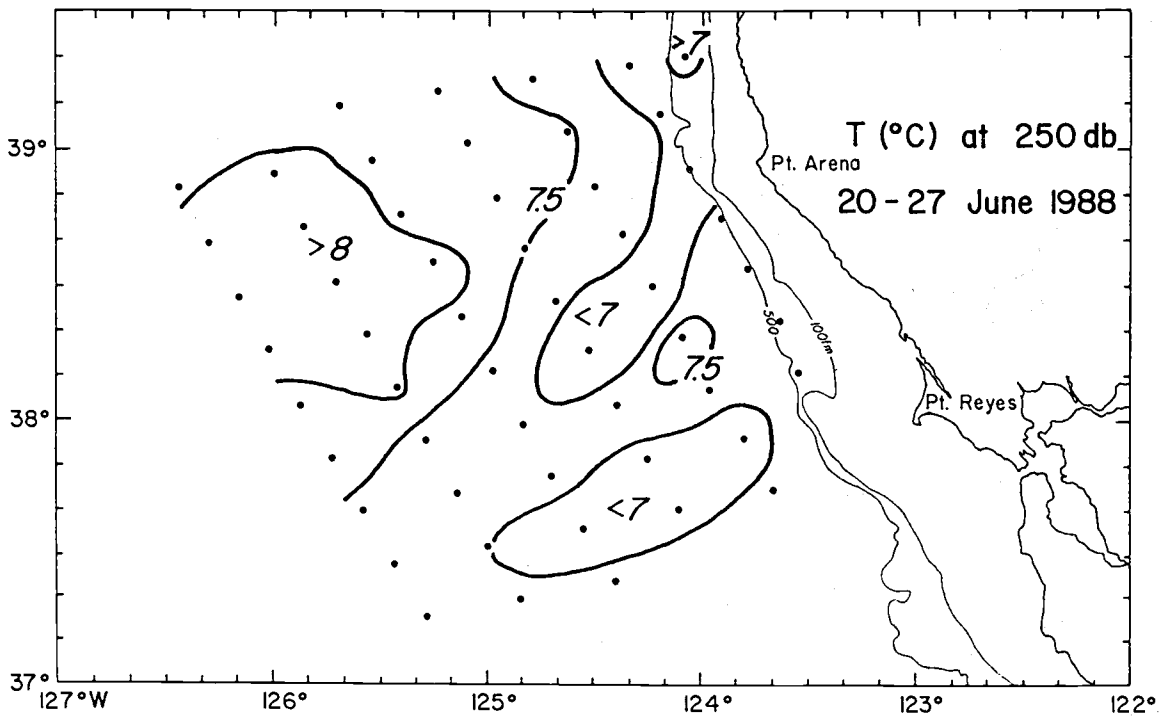
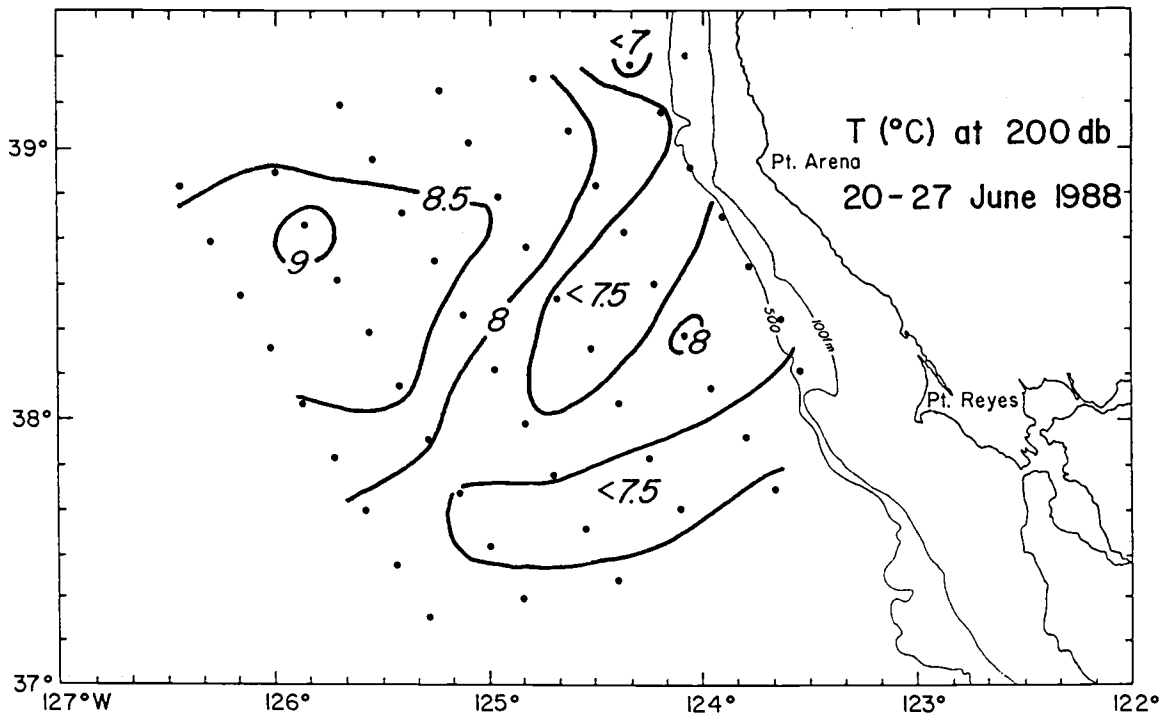
**MAPS AT SELECTED DEPTHS**

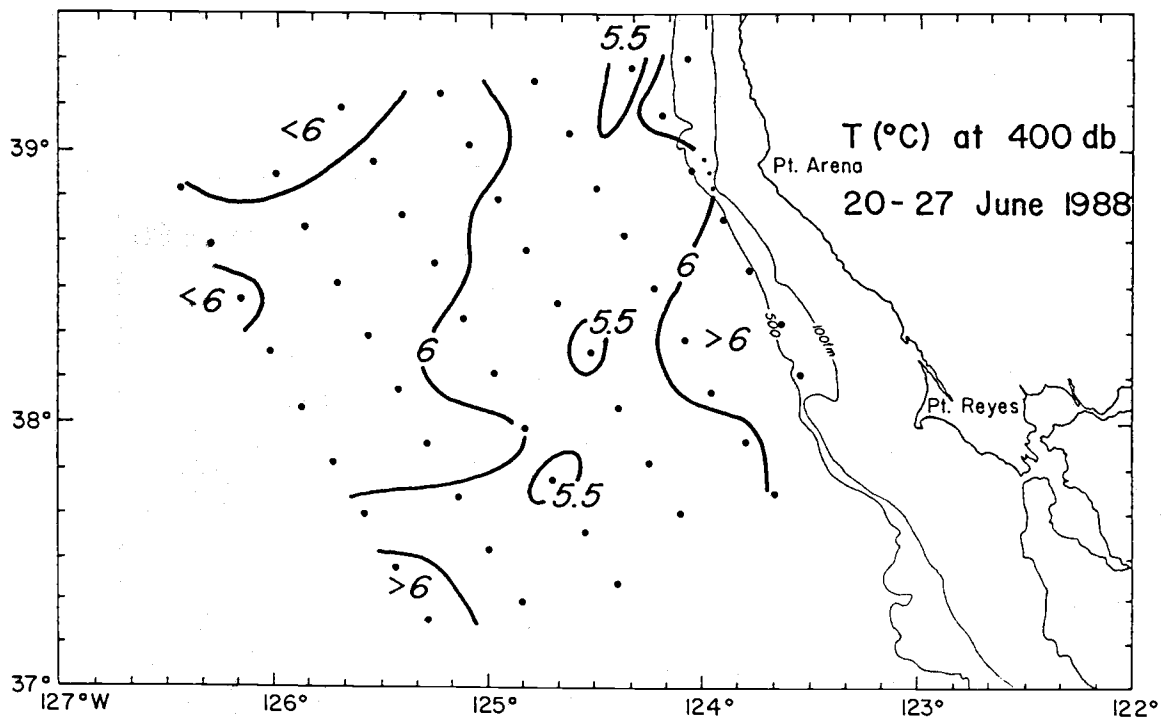
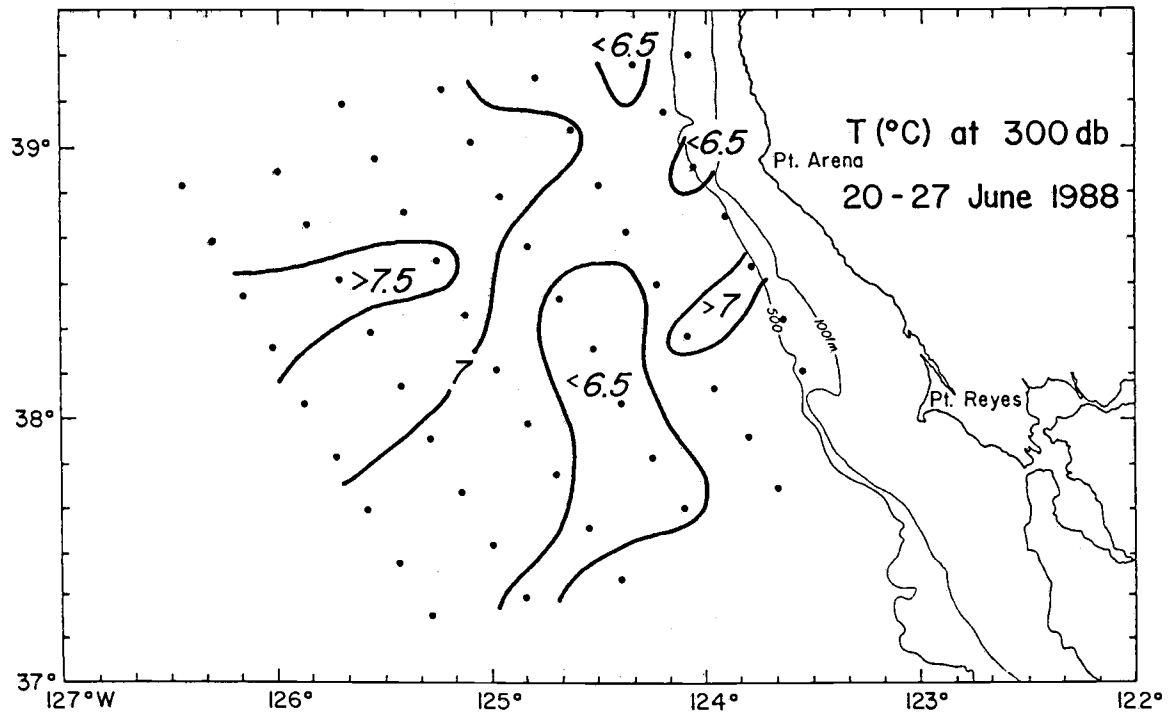


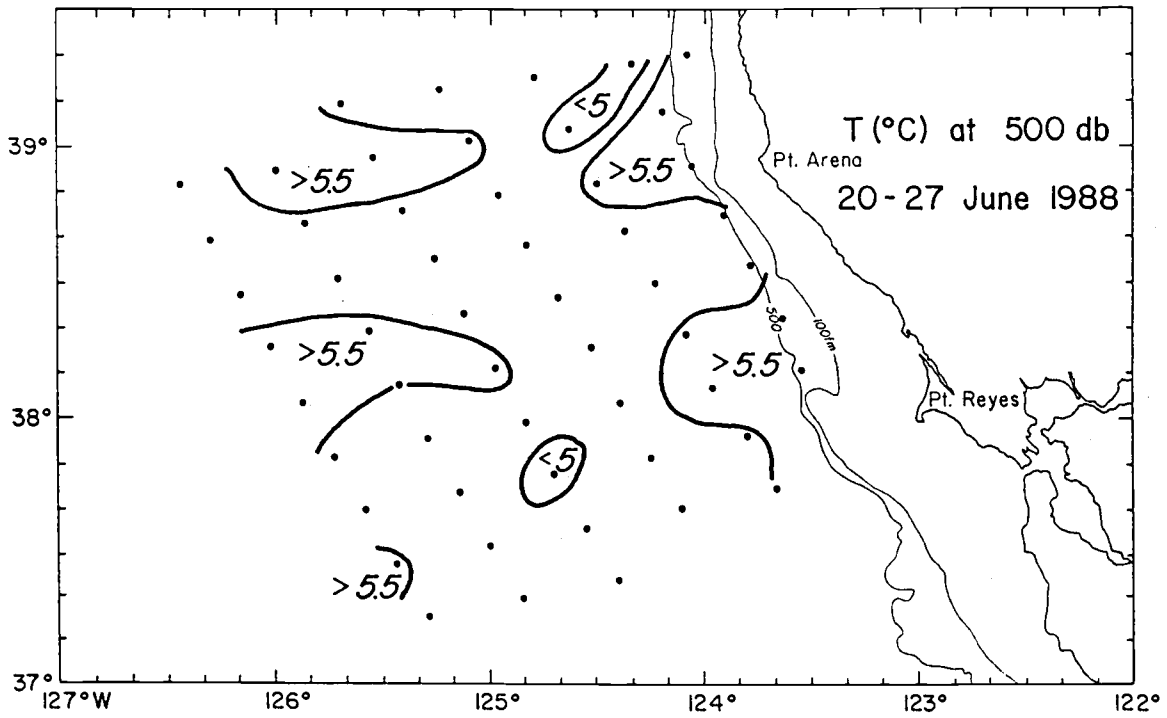


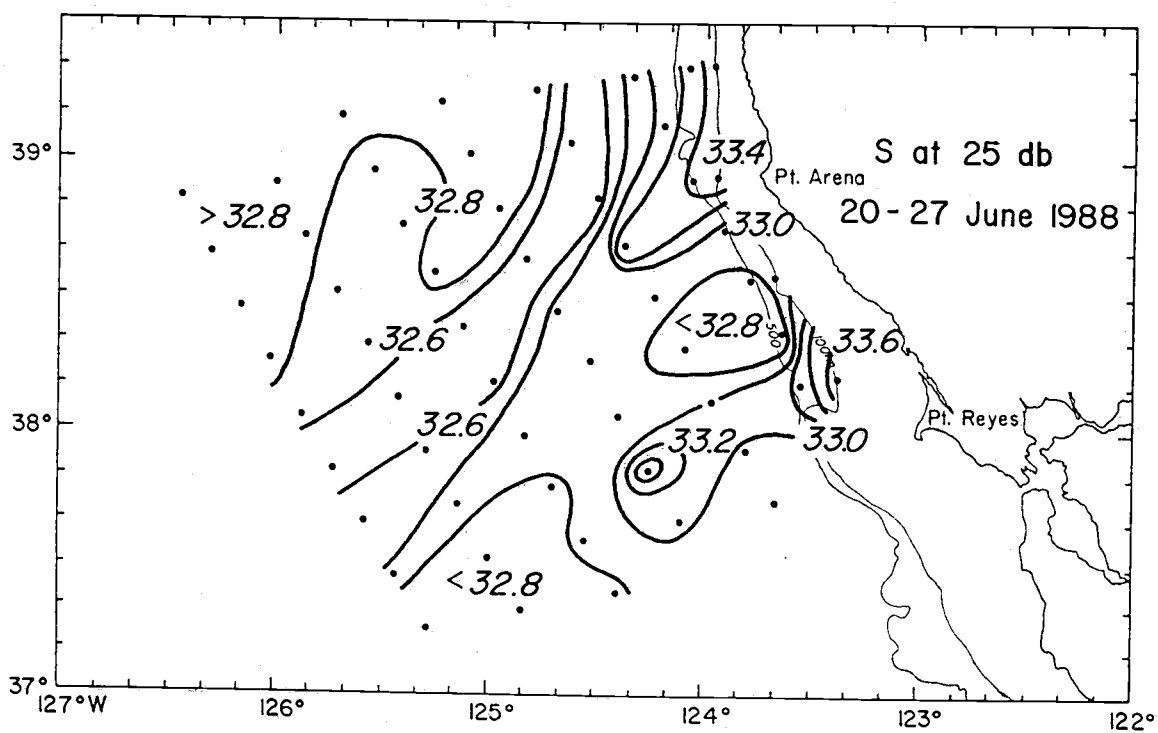
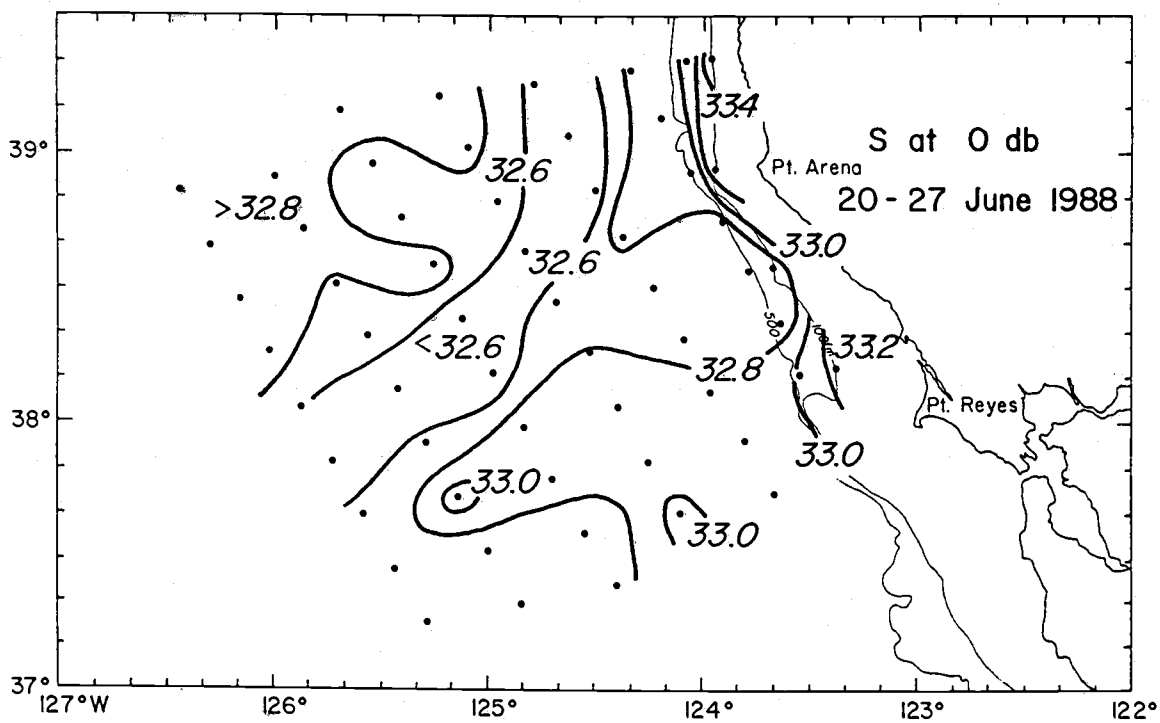


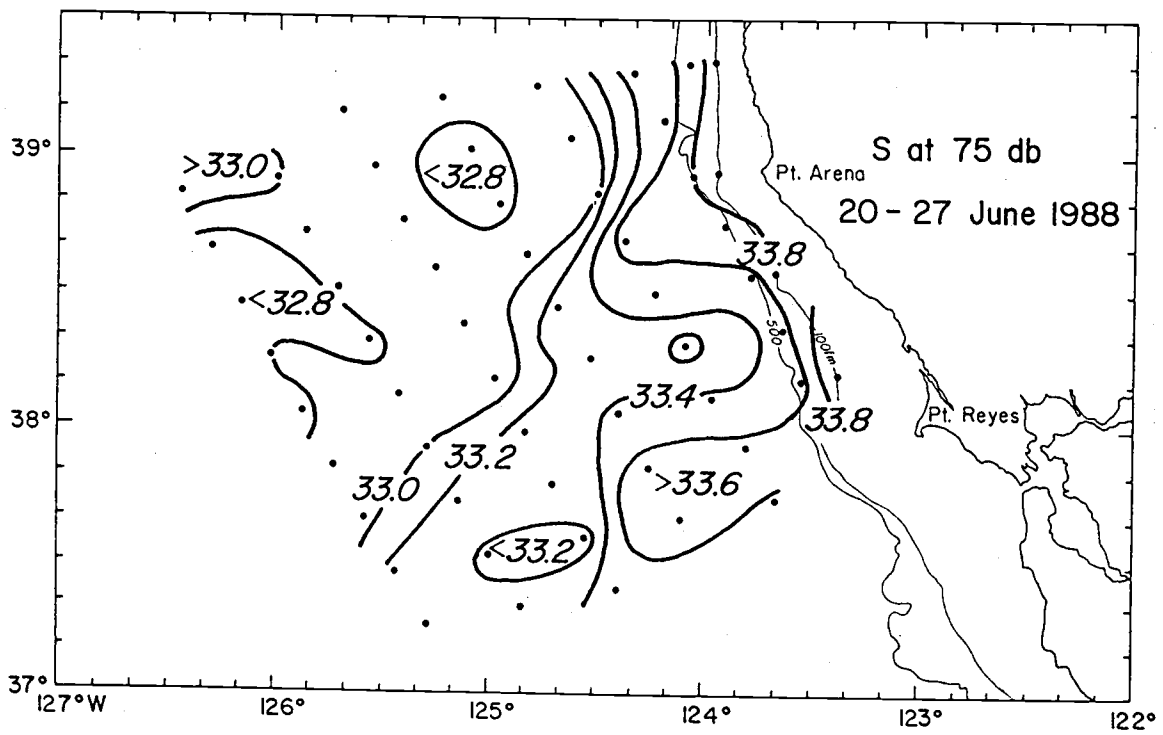
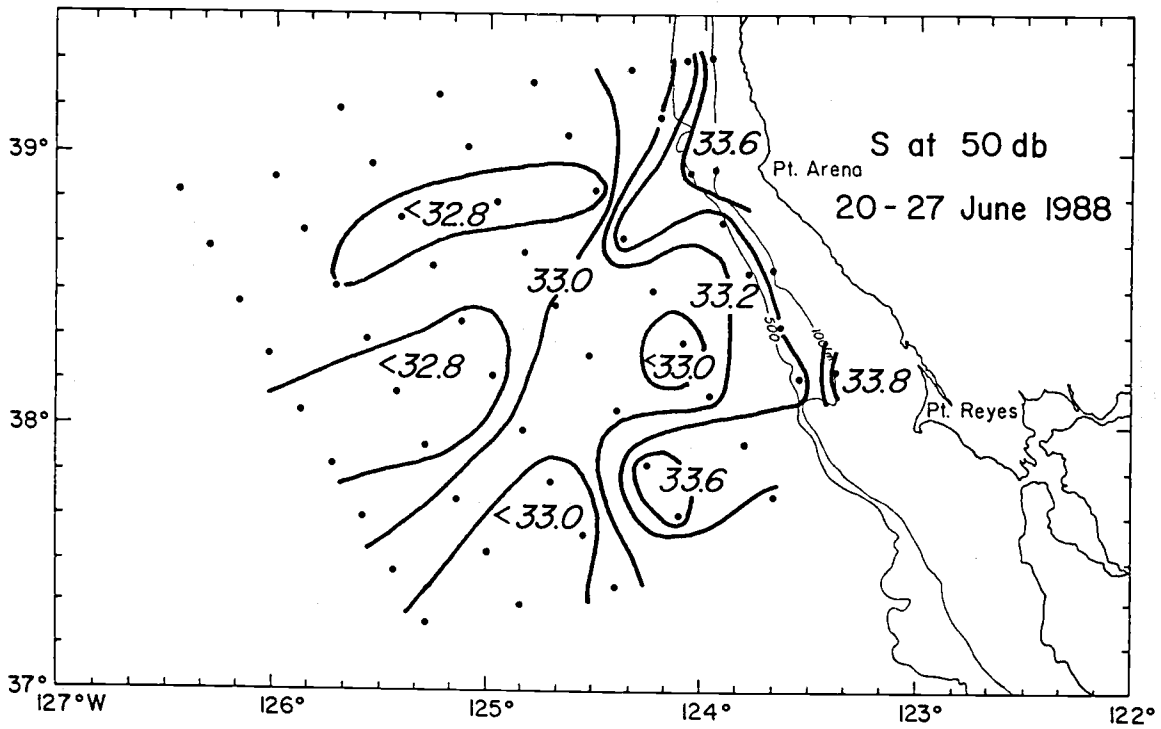


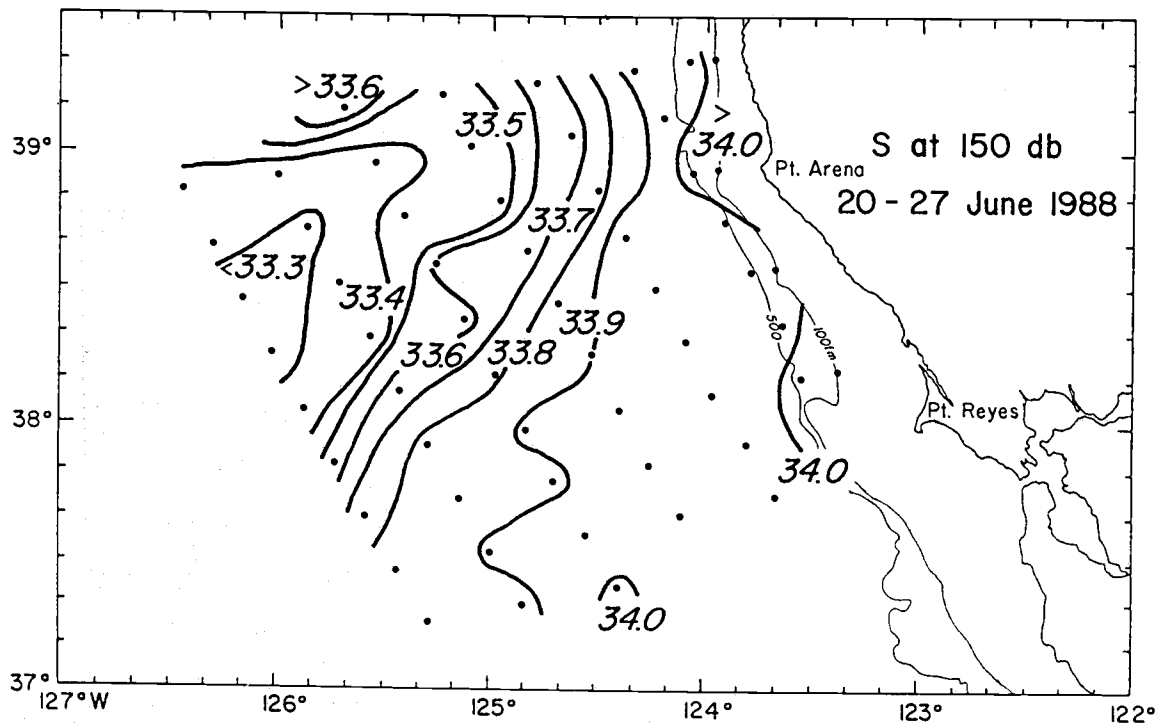
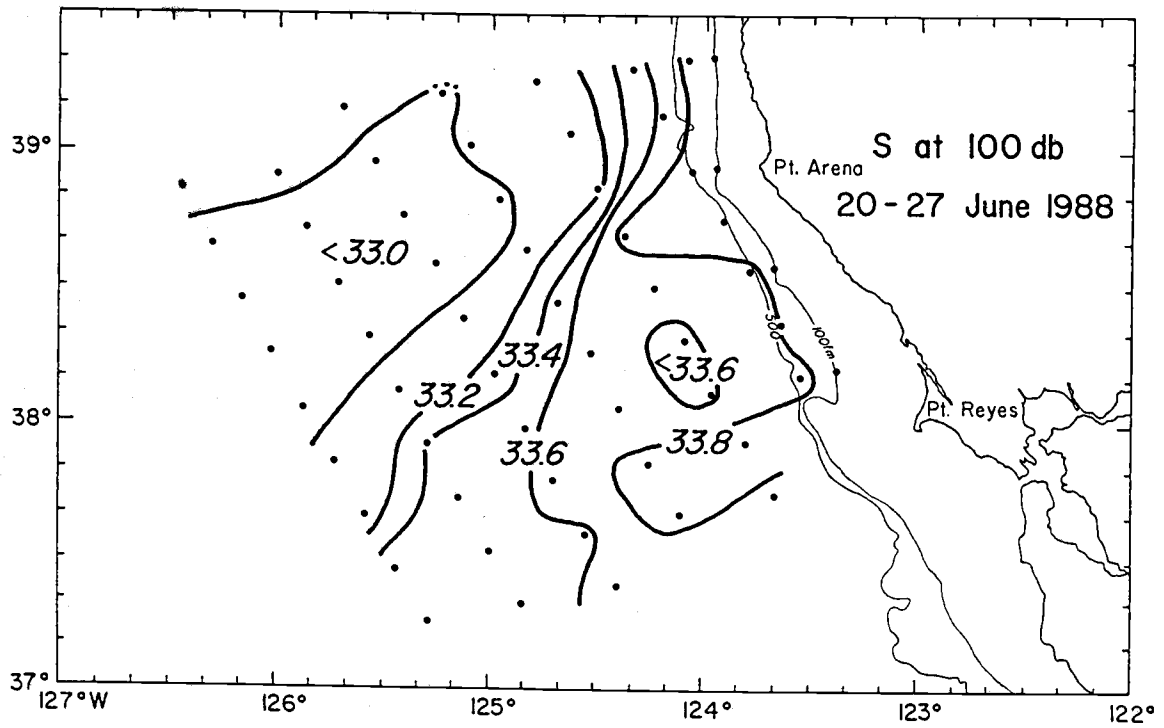


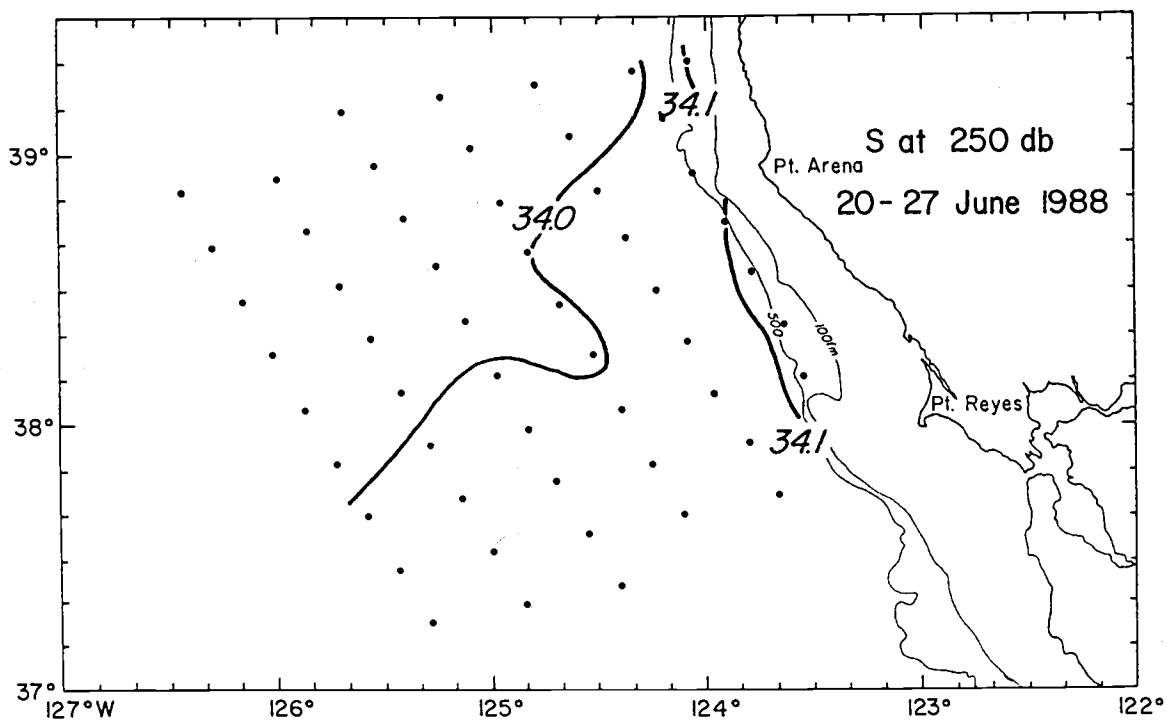
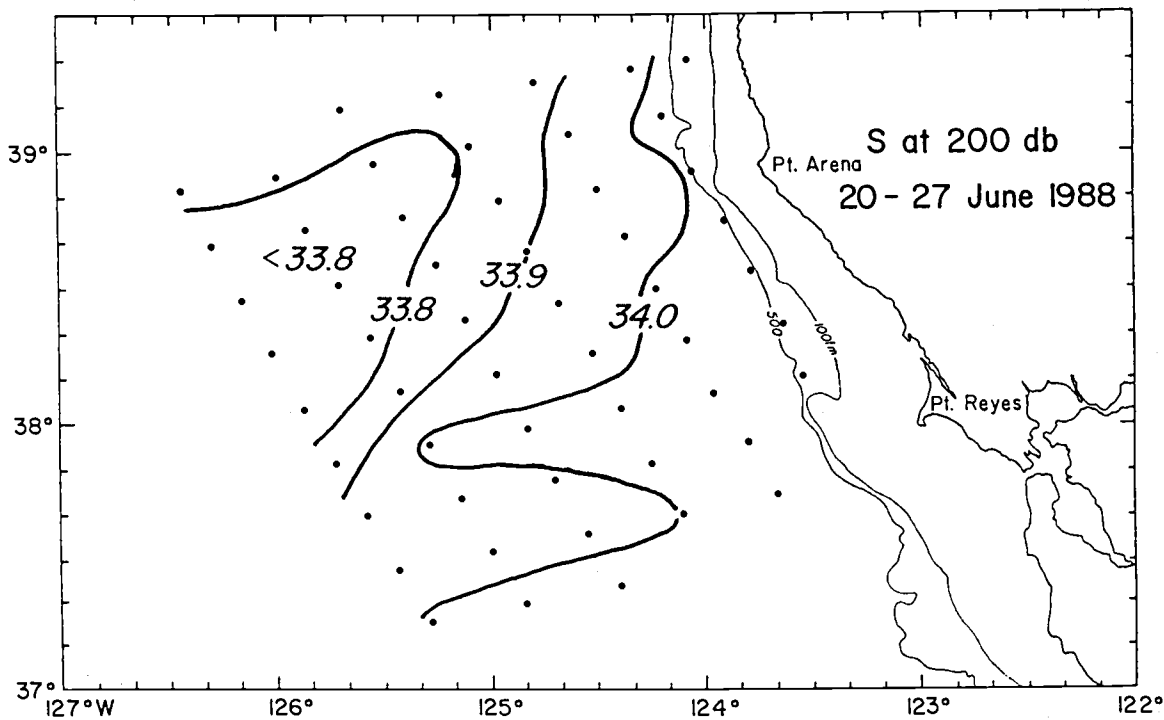




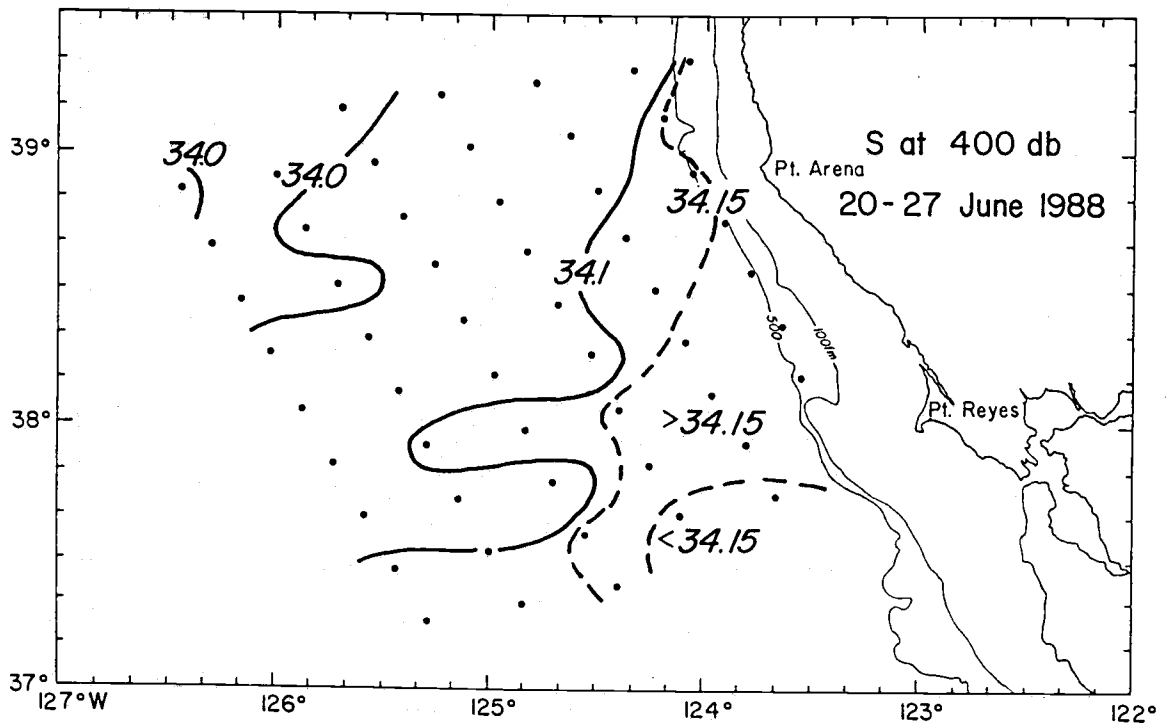
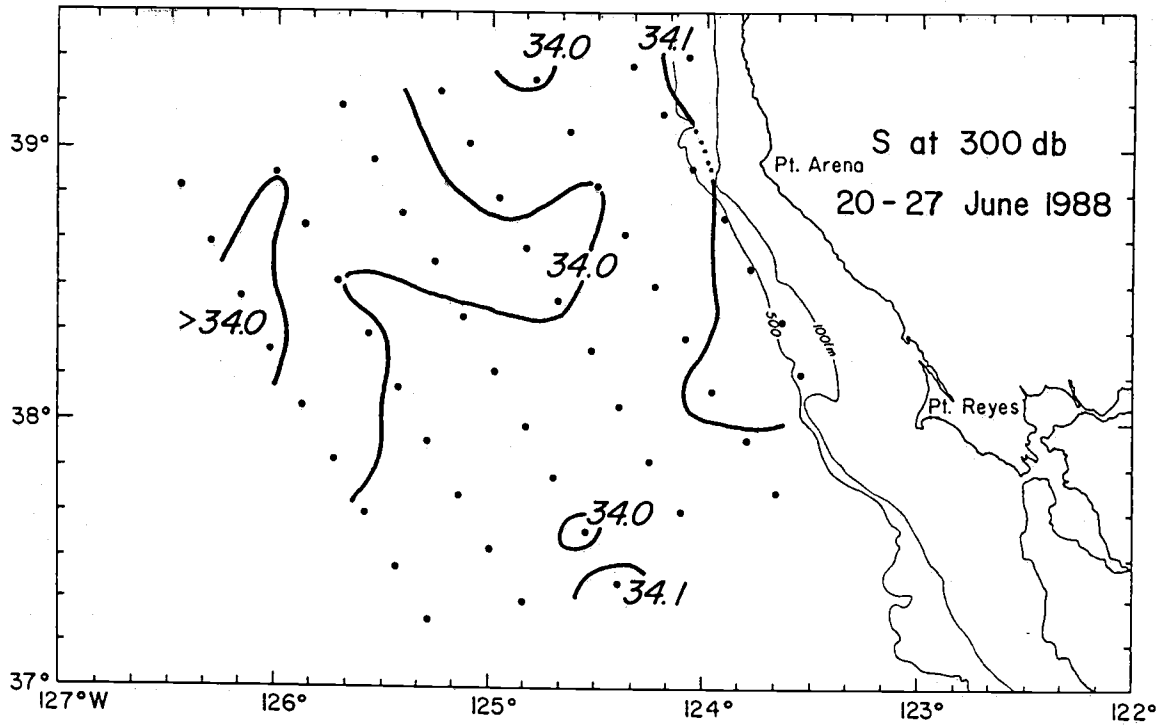


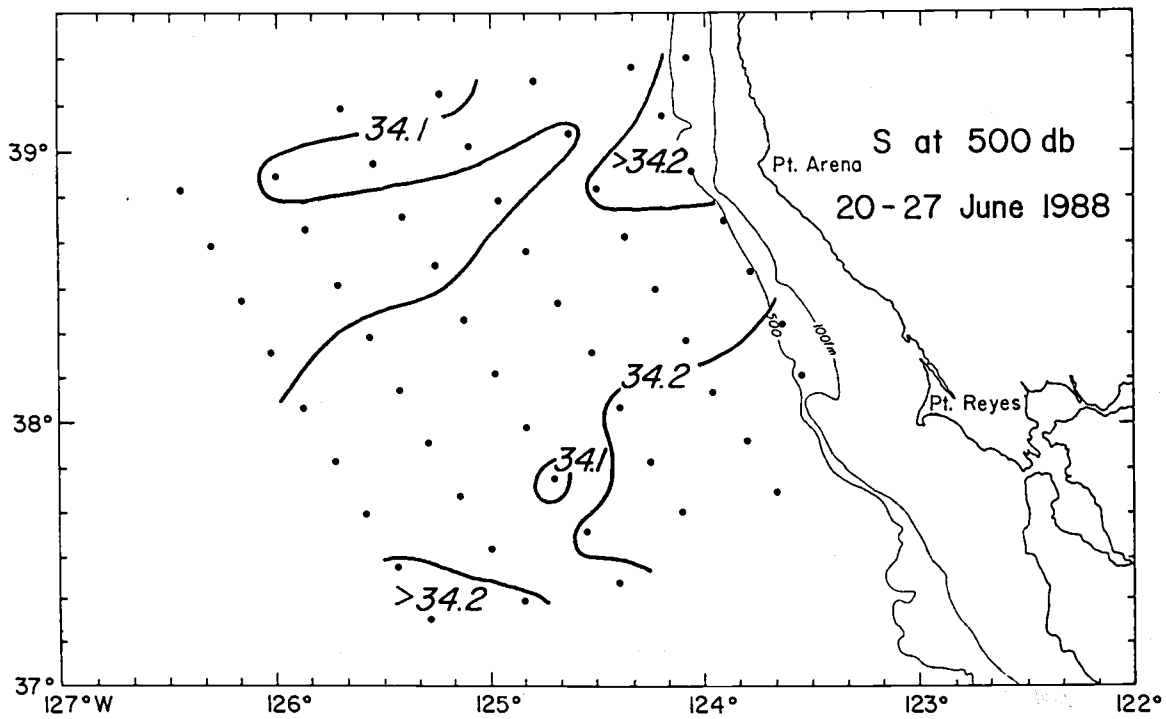


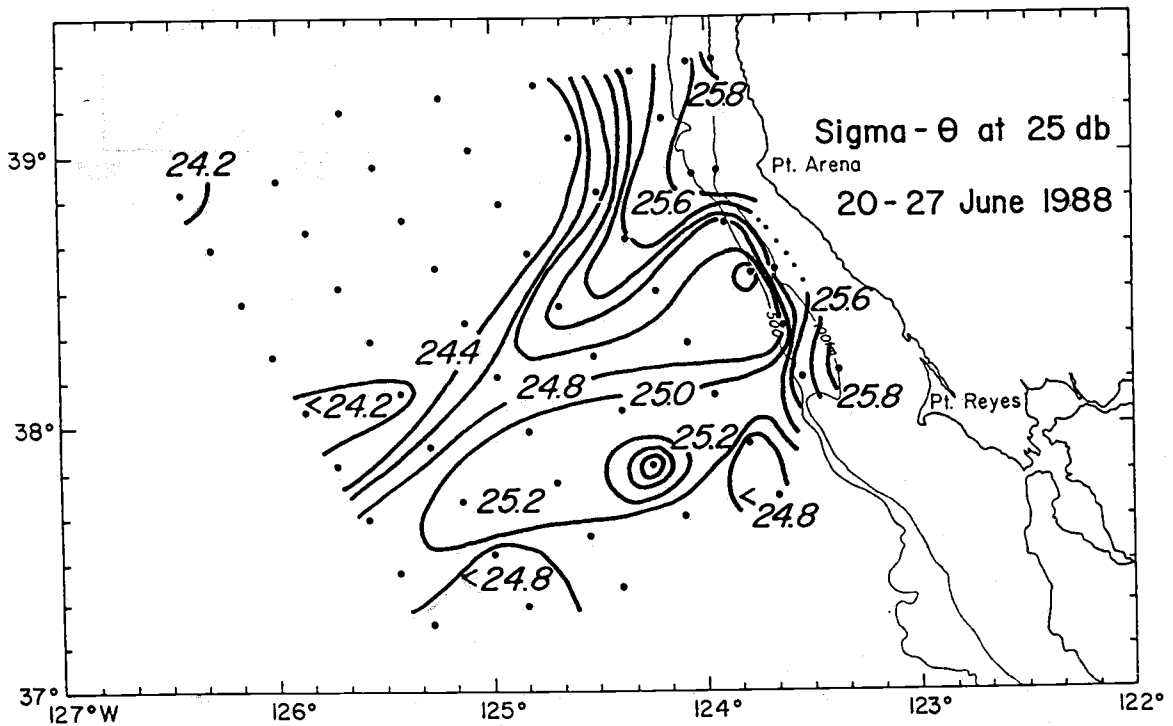
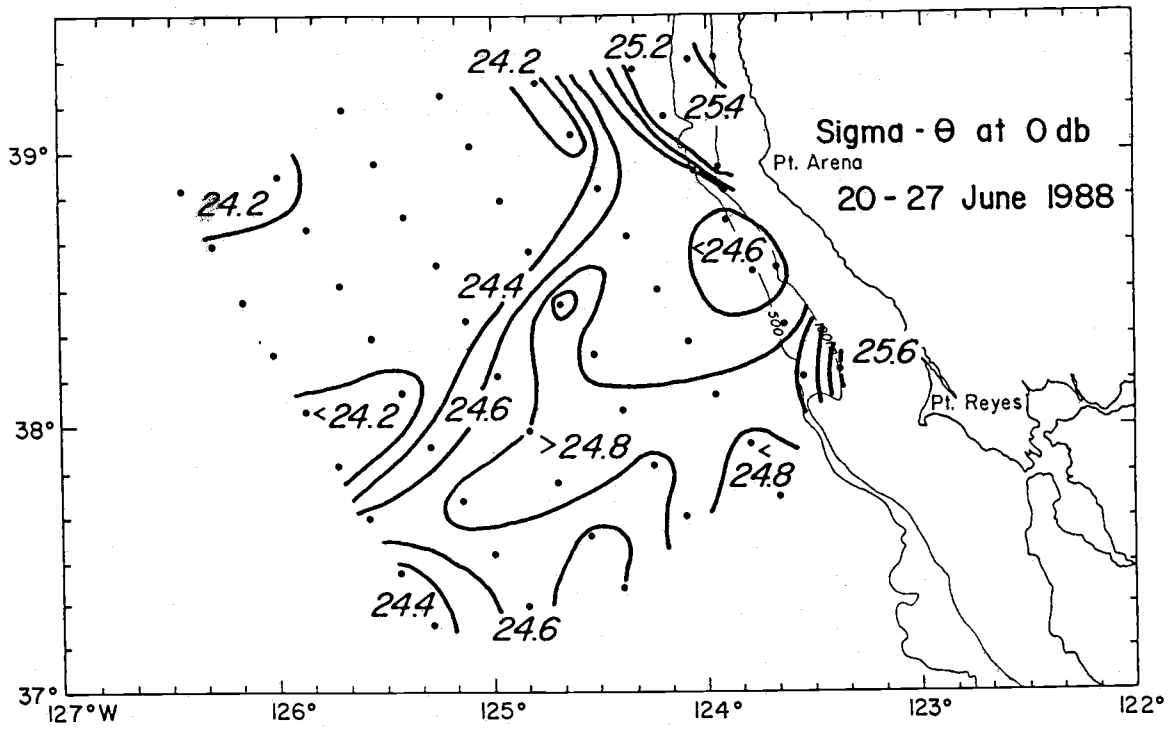


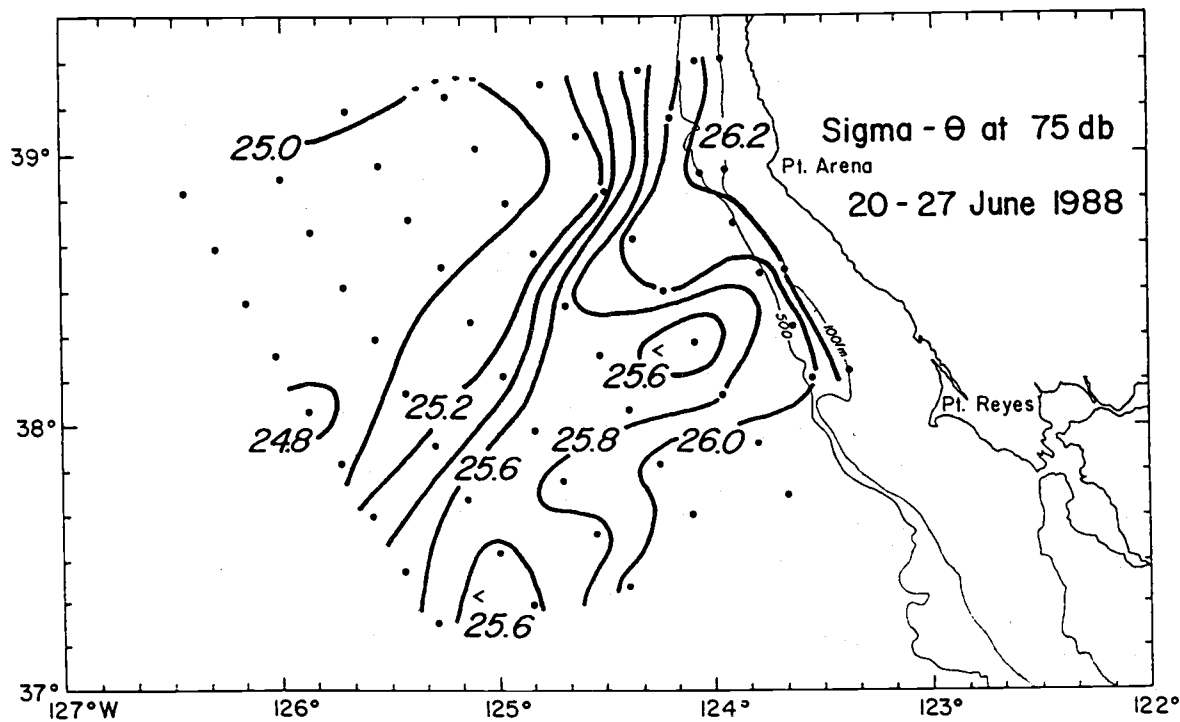
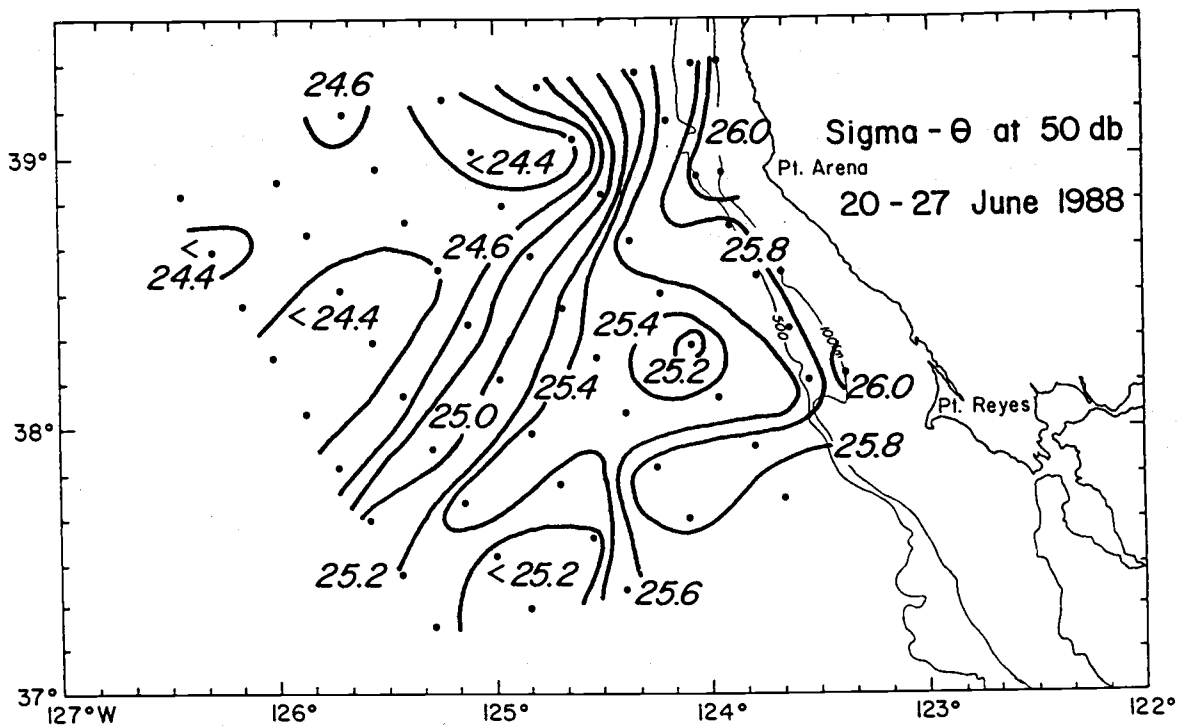


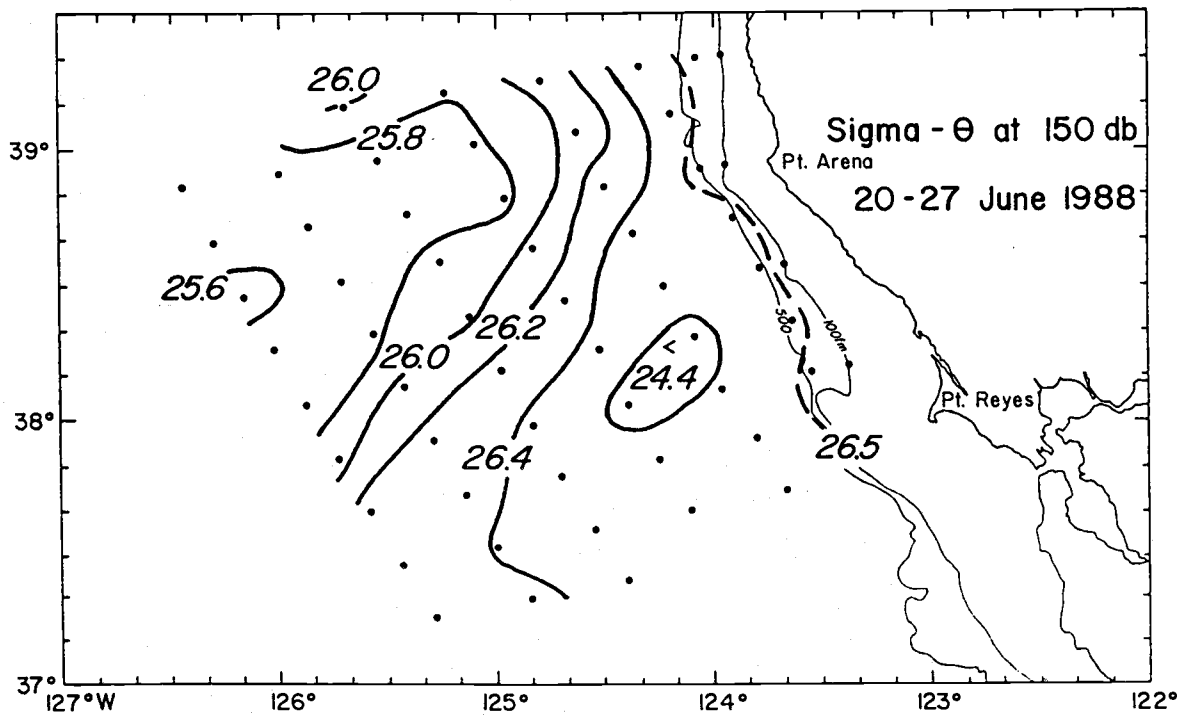
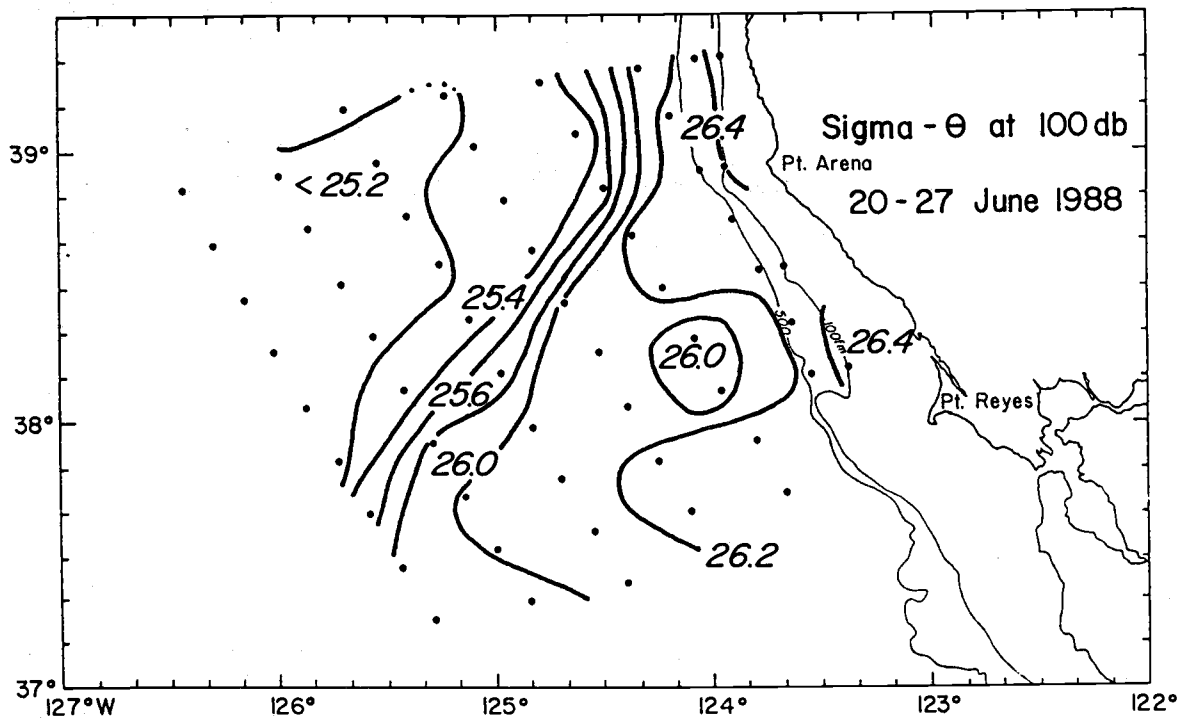


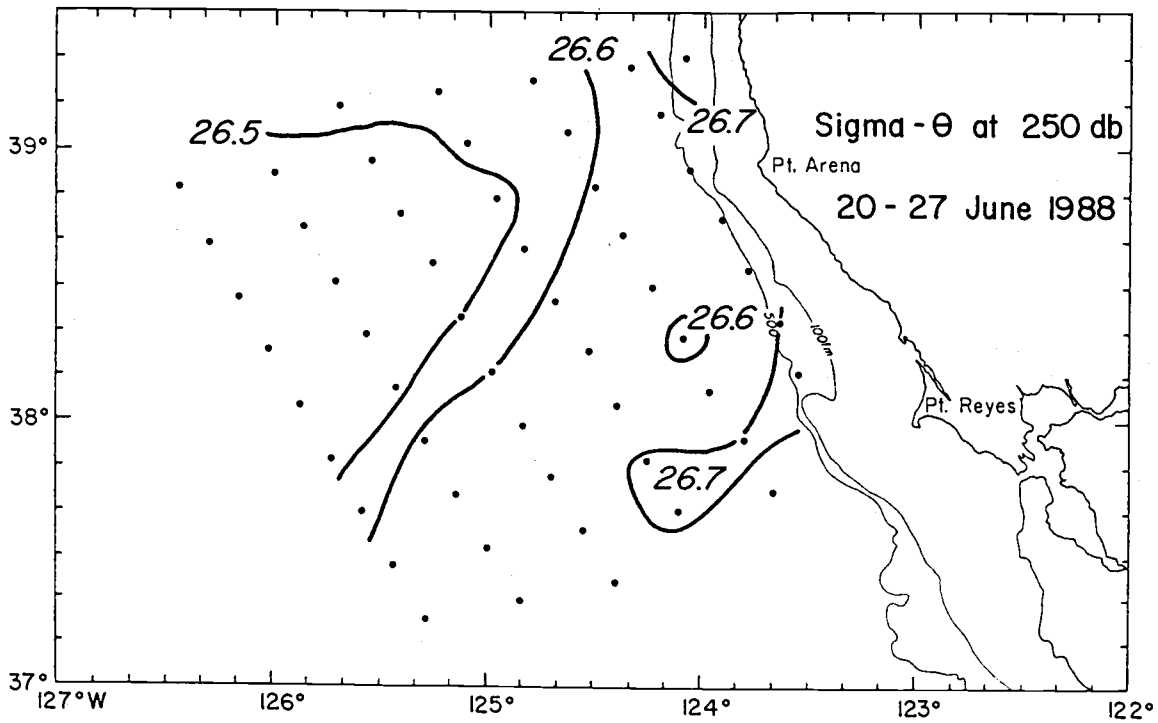
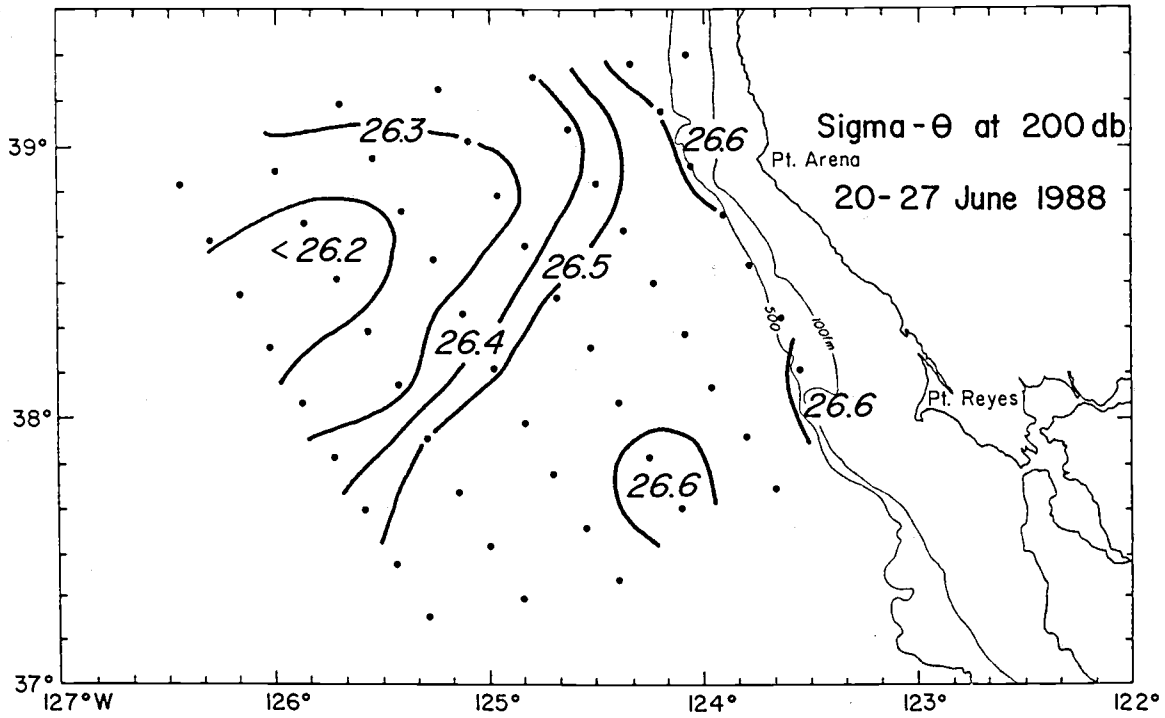


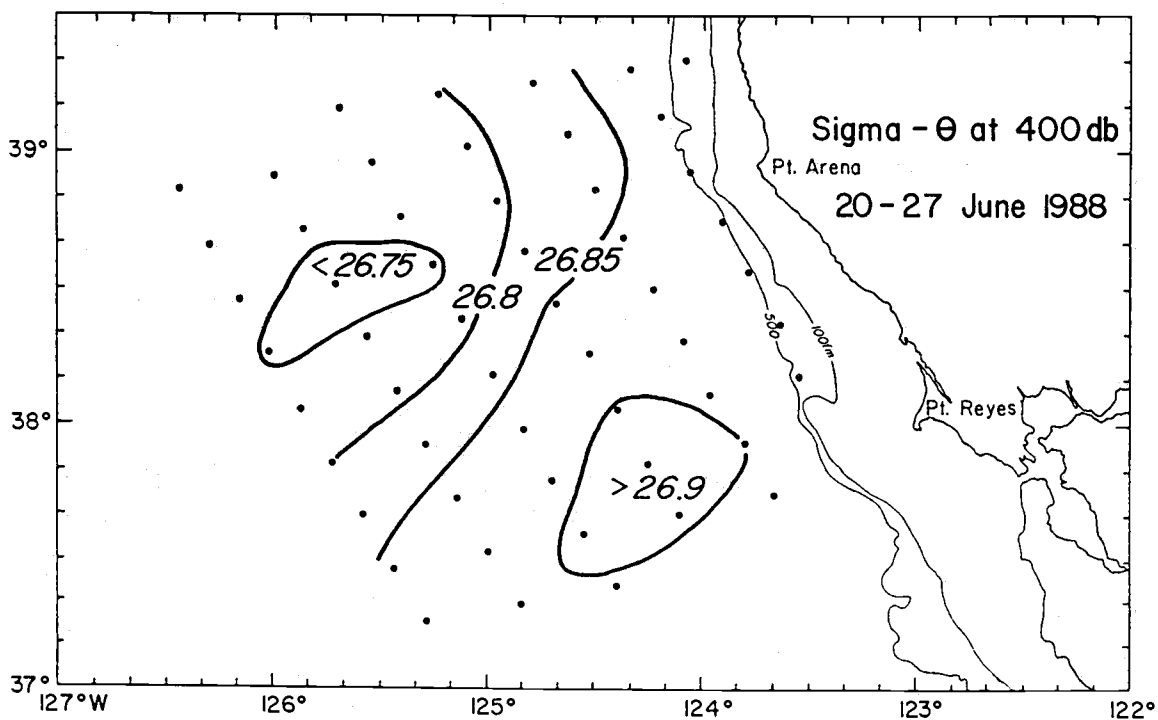
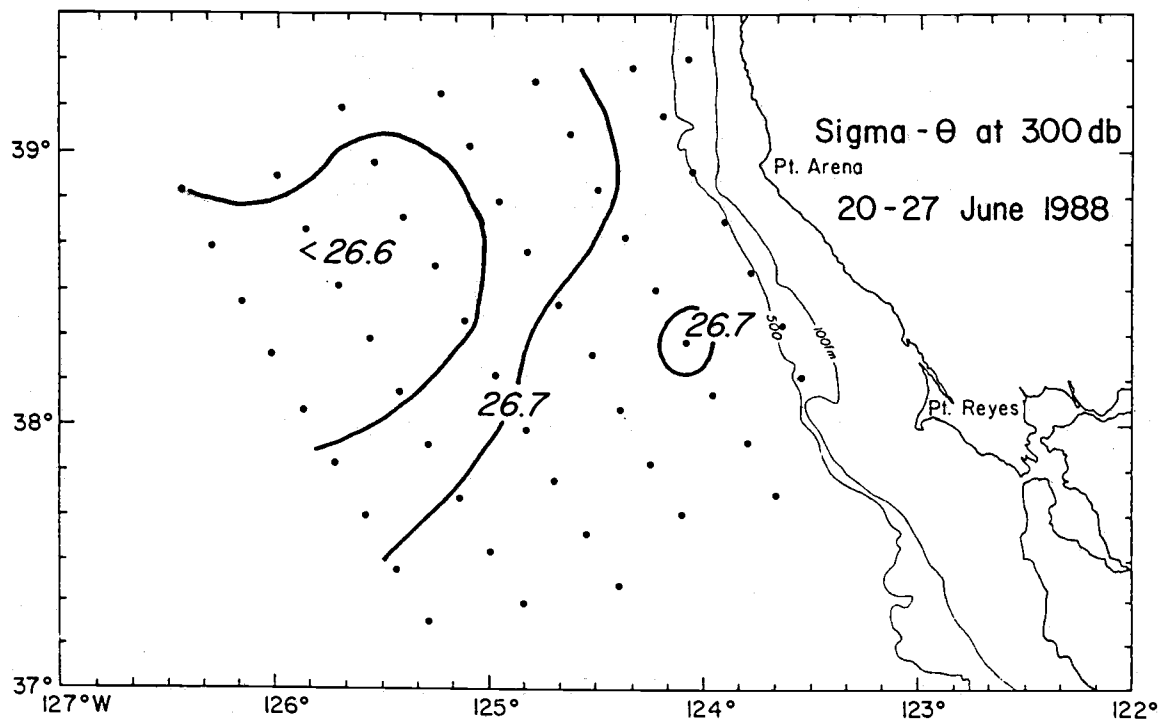


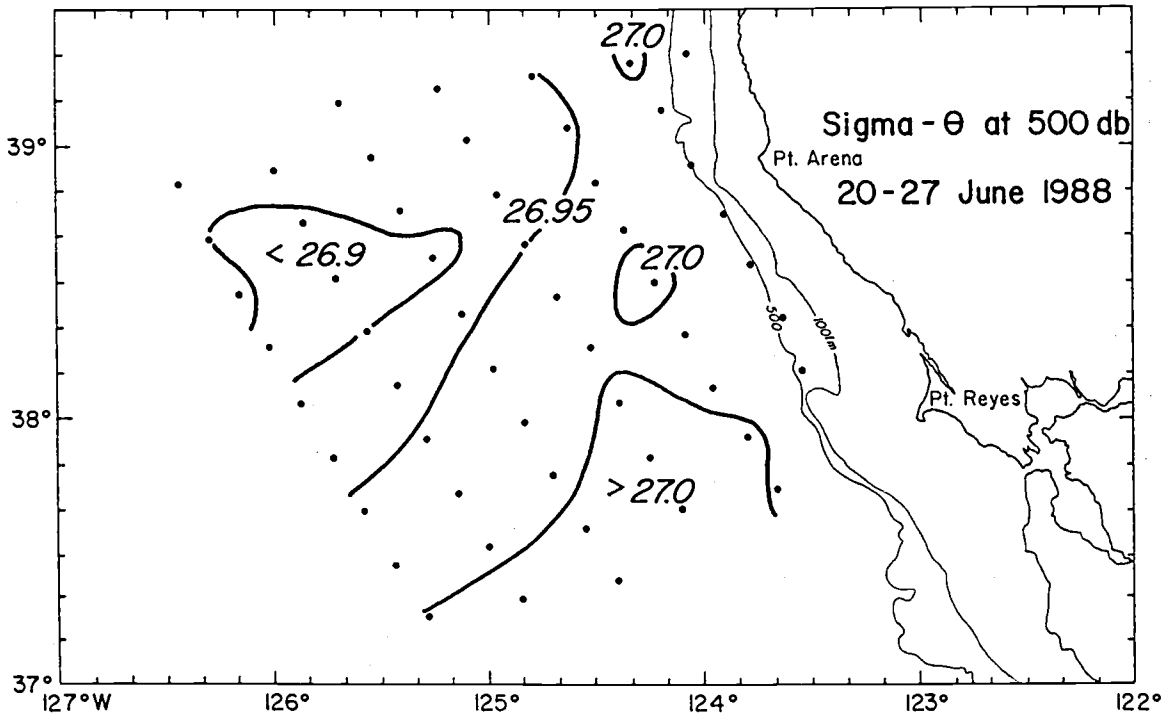




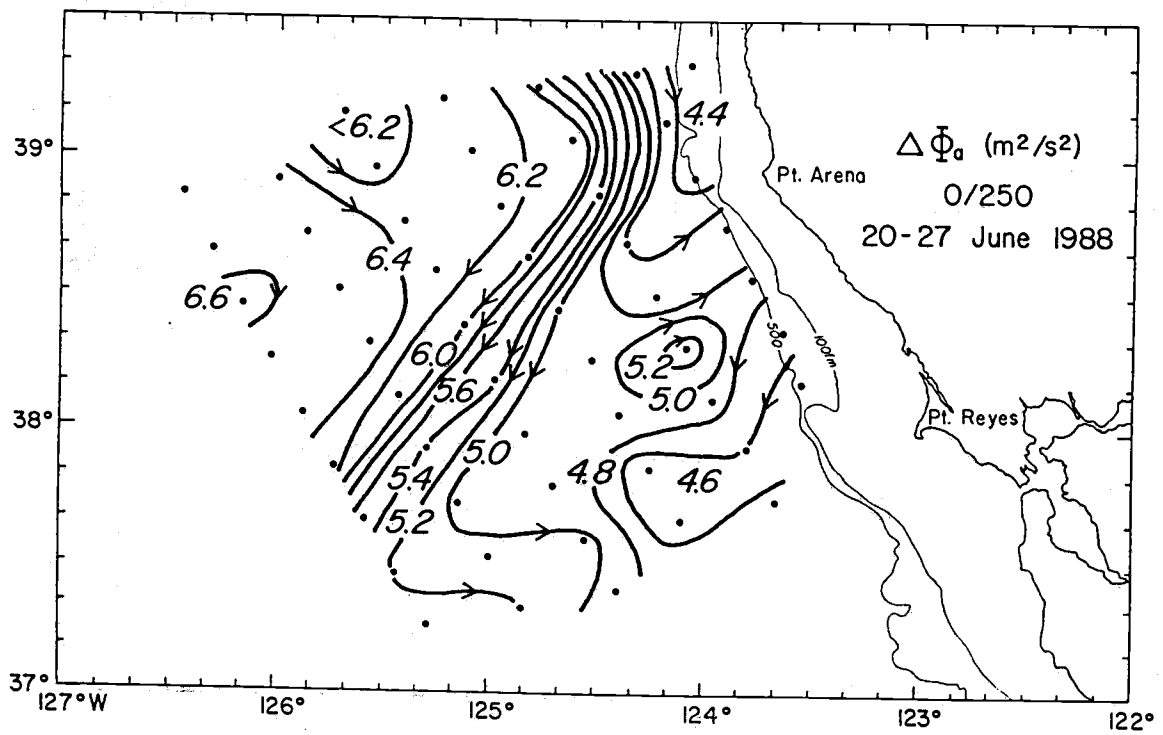
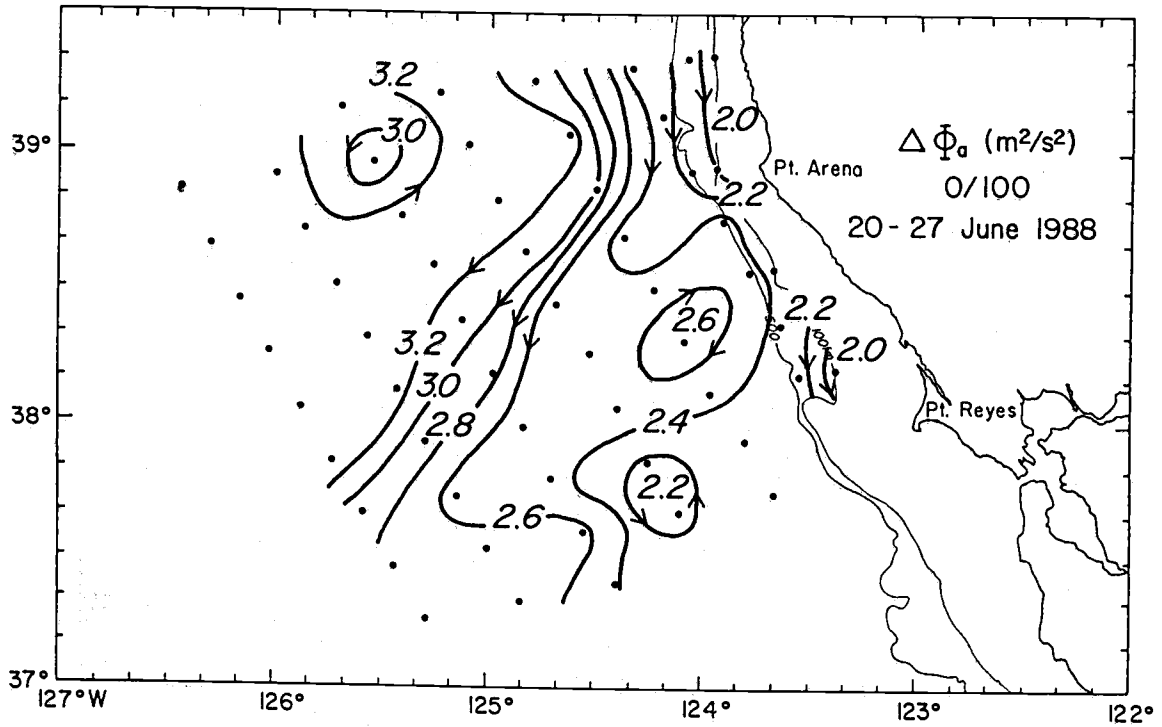


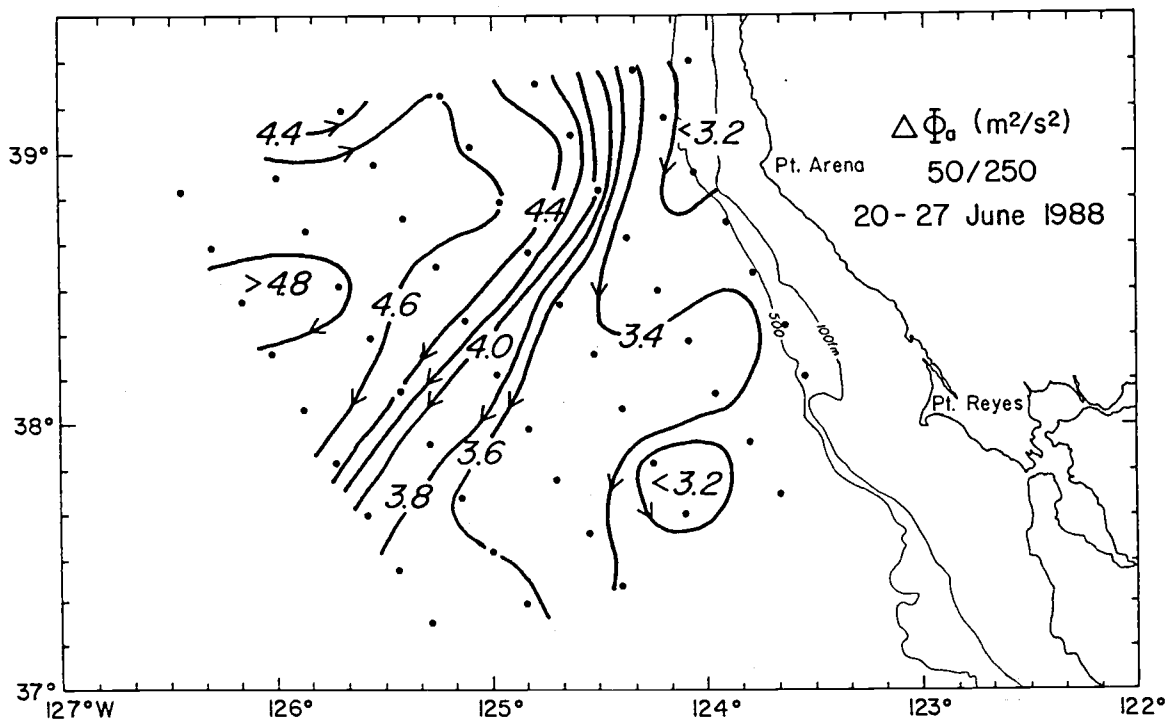
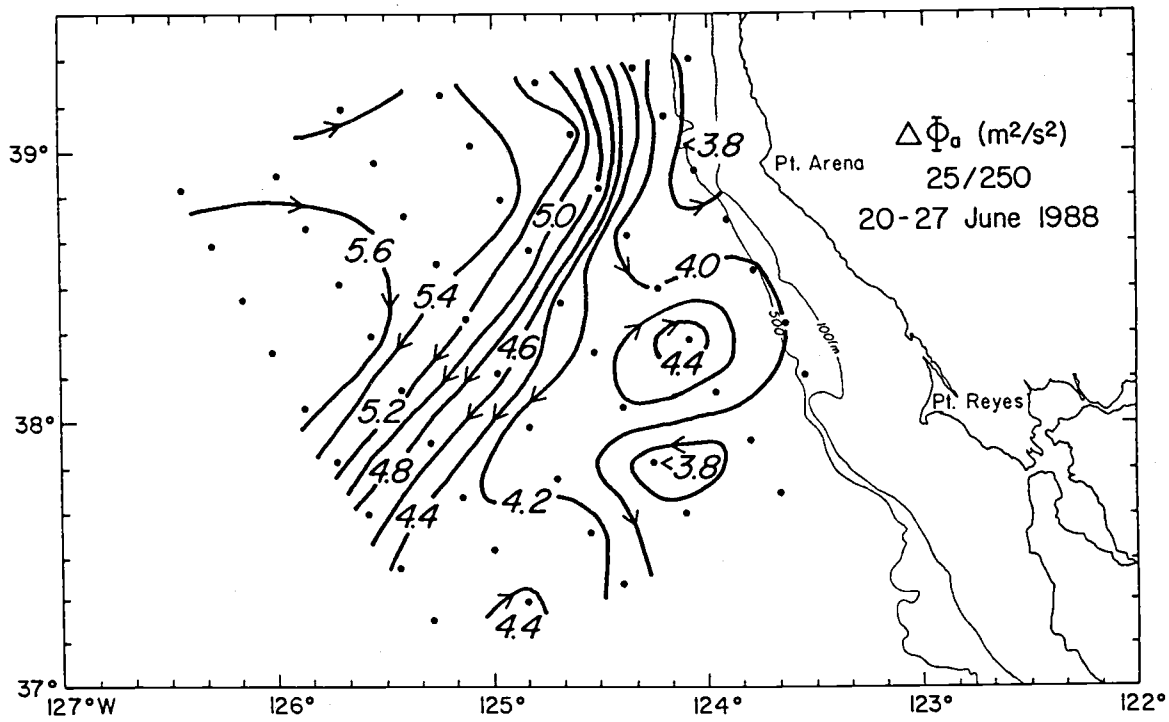


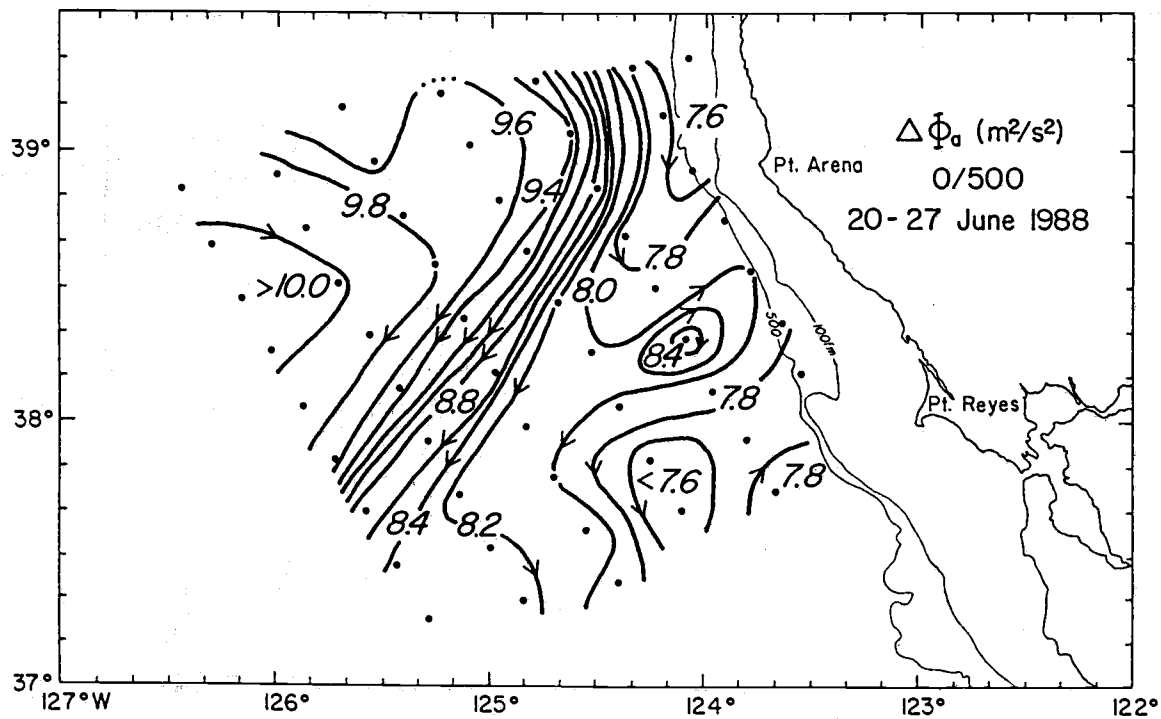
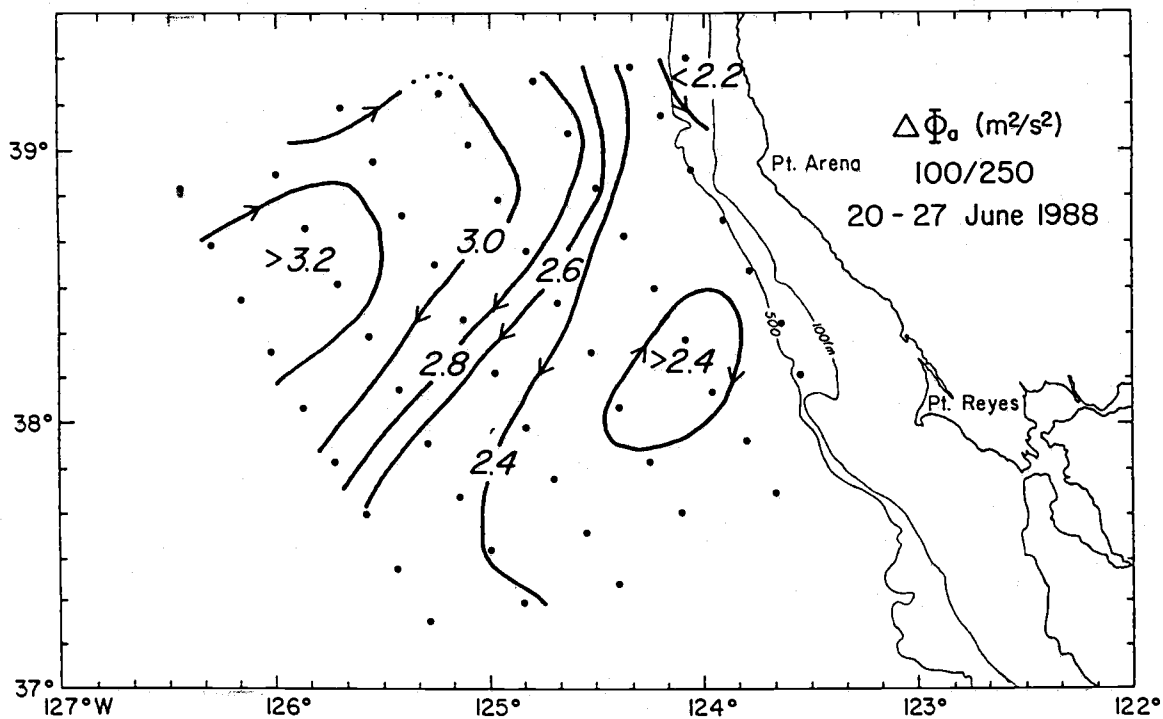


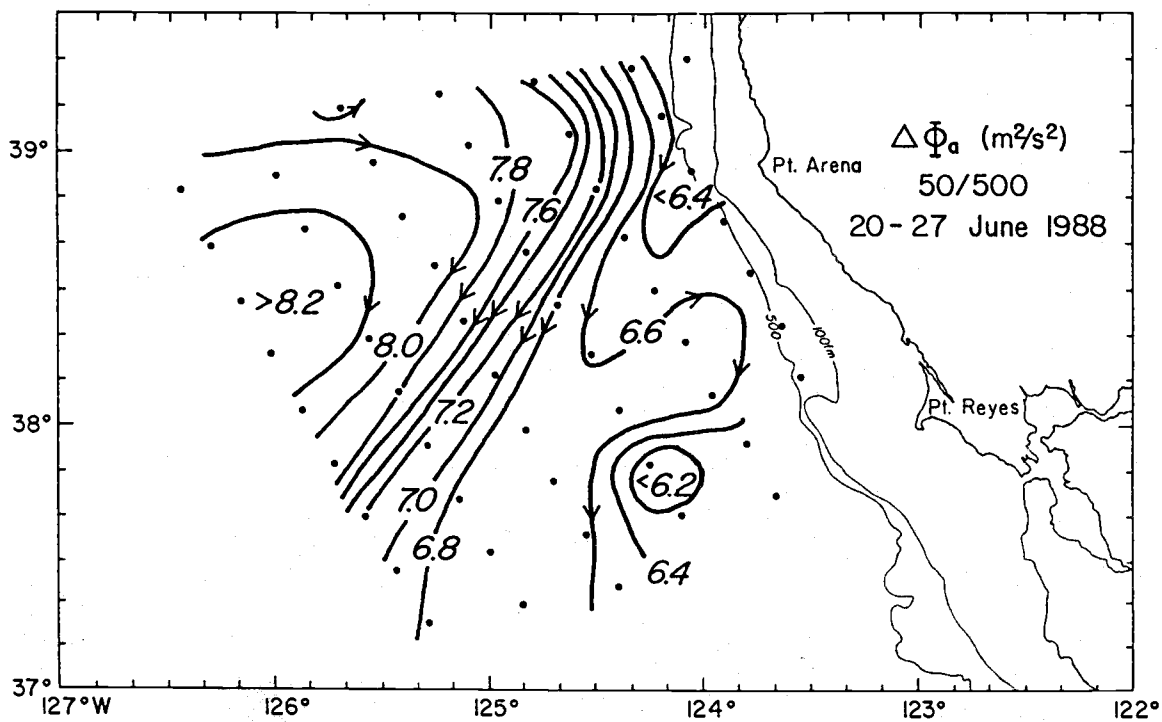
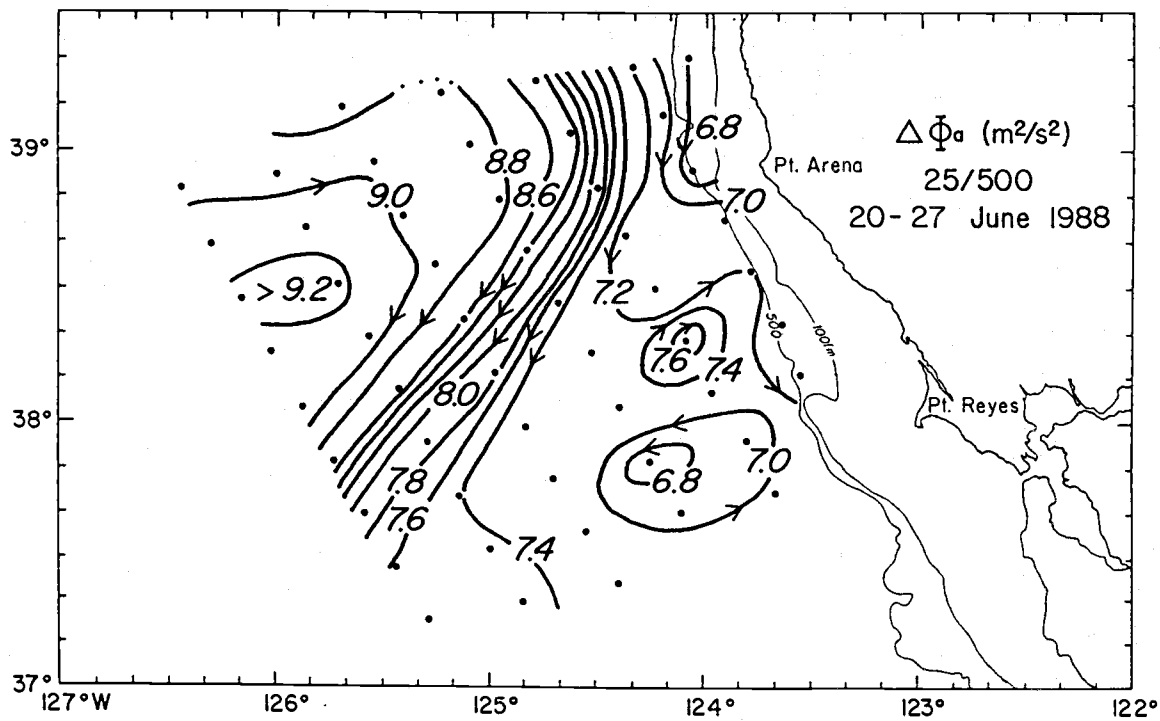


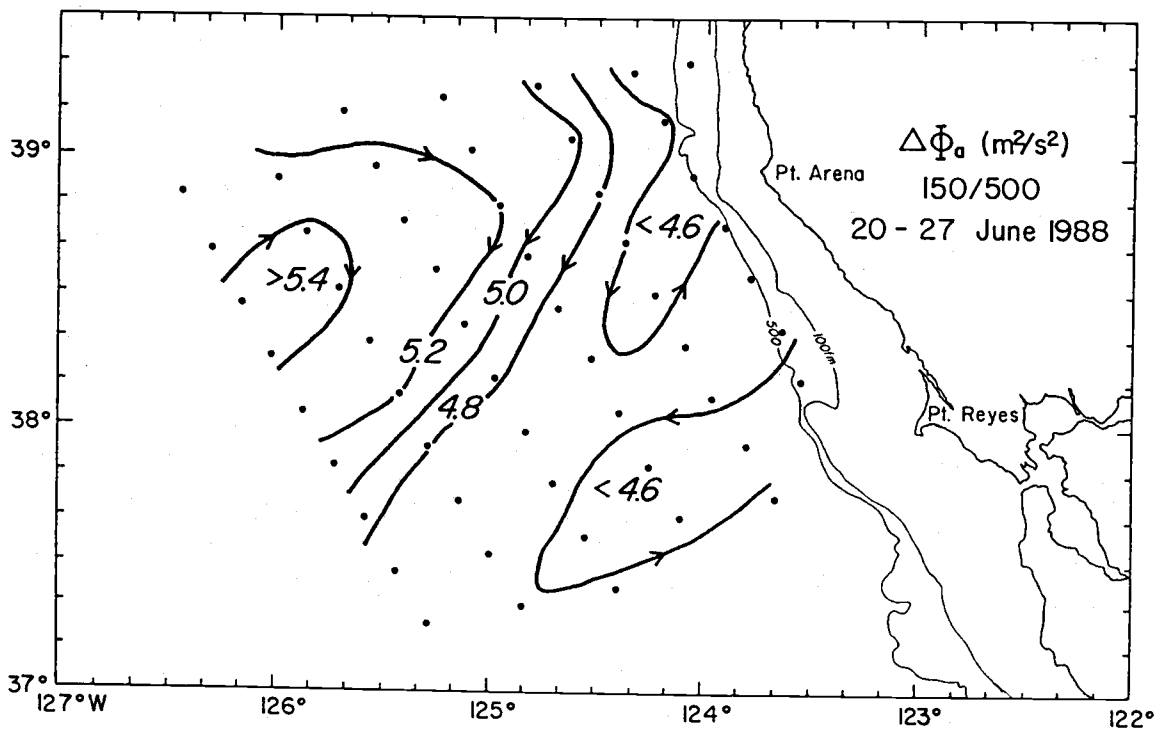
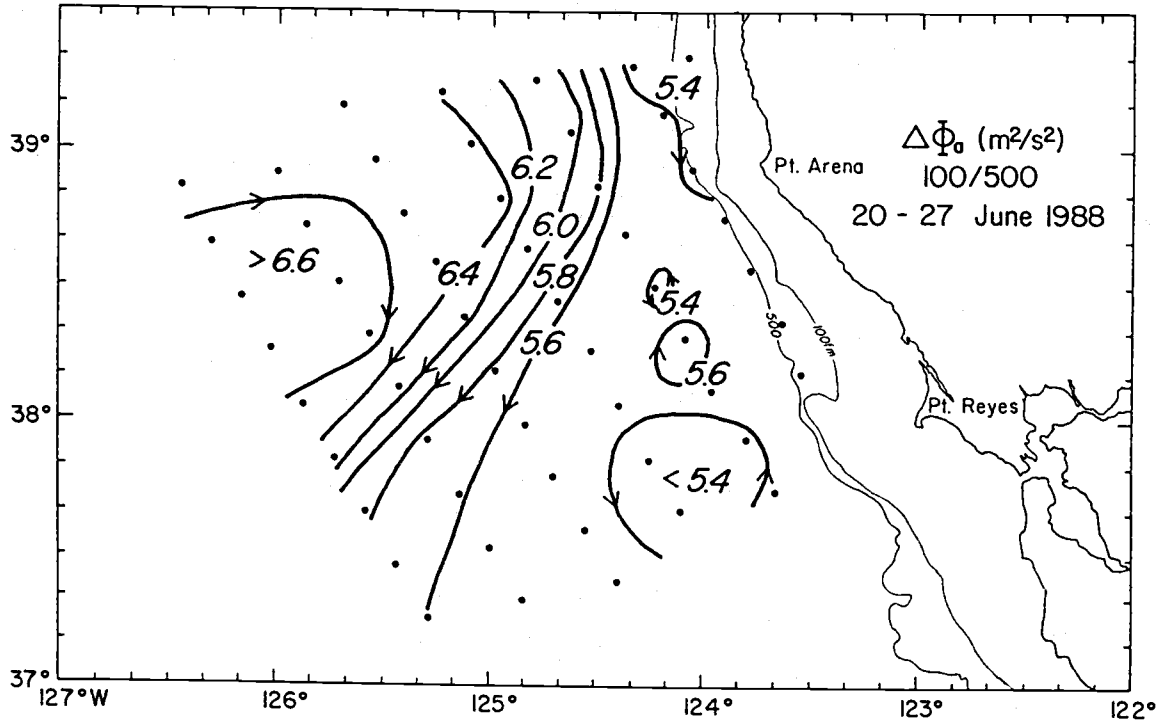


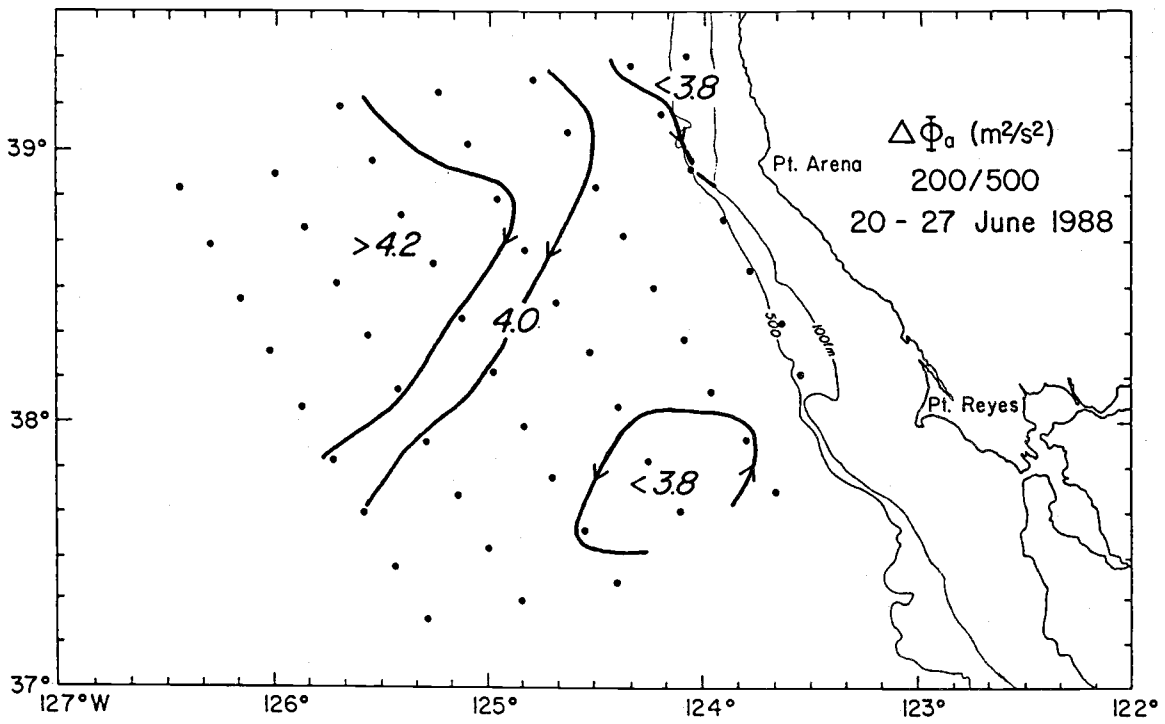




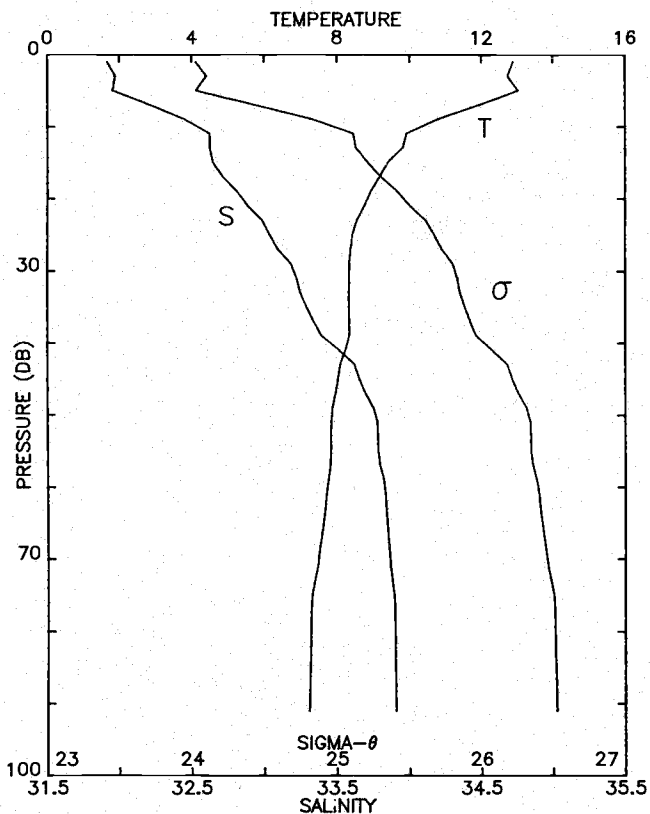








**PROFILE PLOTS AND LISTINGS**

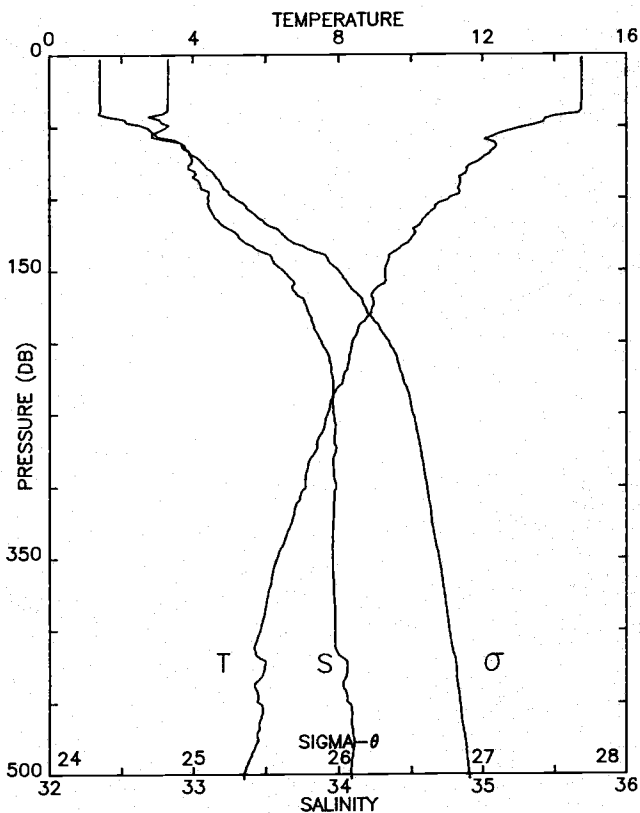


STA NO 1 CB-M LAT: 43 10.0 N LONG:124 34.0 W  
 19 JUN 1988 0128 GMT PROBE 2561 DEPTH 99M

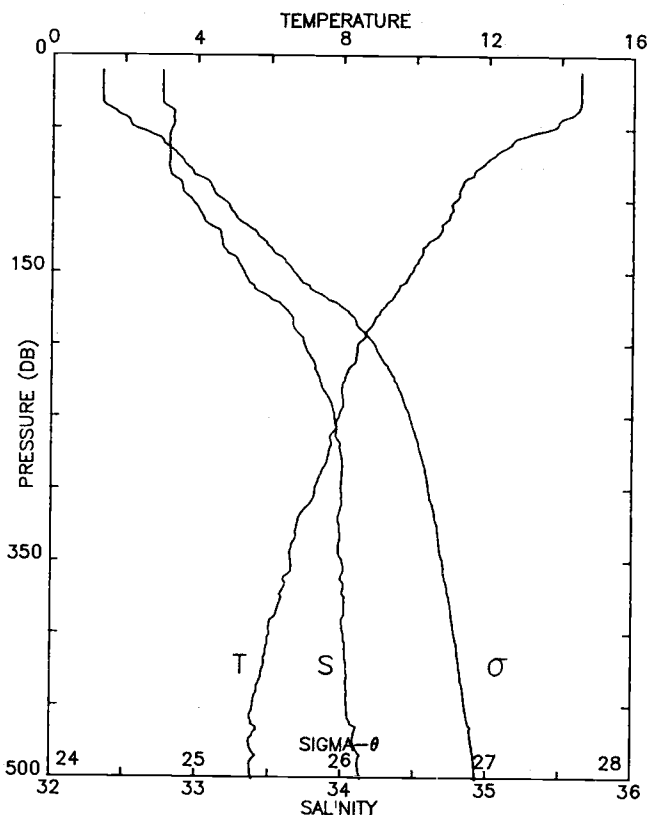
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	12.886	31.918	12.886	24.029	387.3	0.004
10	10.352	32.539	10.351	24.972	297.7	0.036
20	8.850	32.851	8.848	25.459	251.4	0.064
30	8.339	33.205	8.336	25.815	217.8	0.087
40	8.285	33.453	8.281	26.018	198.7	0.108
50	7.852	33.766	7.847	26.328	169.5	0.126
60	7.730	33.828	7.724	26.394	163.3	0.143
70	7.484	33.866	7.477	26.459	157.2	0.159
80	7.273	33.899	7.265	26.515	152.1	0.174
90	7.230	33.907	7.222	26.527	151.1	0.189
91	7.223	33.908	7.214	26.529	150.9	0.191

STA NO 2 D-1 LAT: 39 9.1 N LONG:125 40.3 W  
 20 JUN 1988 0057 GMT PROBE 2561 DEPTH 3629M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
3	14.753	32.826	14.752	24.350	356.7	0.011
10	14.754	32.826	14.753	24.351	356.9	0.036
20	14.750	32.825	14.747	24.351	357.2	0.071
30	14.747	32.824	14.743	24.350	357.5	0.107
40	14.697	32.804	14.692	24.346	358.2	0.143
50	13.233	32.819	13.226	24.659	328.5	0.177
60	12.177	32.853	12.169	24.890	306.7	0.209
70	12.106	32.980	12.097	25.002	296.3	0.240
80	11.541	32.988	11.531	25.114	285.8	0.269
90	11.359	33.049	11.348	25.195	278.3	0.297
100	11.052	33.104	11.039	25.293	269.2	0.324
110	10.497	33.135	10.485	25.414	257.8	0.350
120	10.119	33.230	10.105	25.553	244.7	0.376
130	9.924	33.352	9.909	25.681	232.8	0.400
140	9.380	33.537	9.365	25.914	210.6	0.422
150	9.263	33.622	9.247	26.000	202.7	0.442
175	8.924	33.783	8.905	26.181	186.0	0.491
200	8.361	33.884	8.341	26.347	170.5	0.536
225	8.116	33.957	8.094	26.441	161.9	0.577
250	7.685	33.966	7.661	26.511	155.5	0.616
300	7.085	33.981	7.057	26.609	146.7	0.692
400	5.834	33.974	5.800	26.767	132.2	0.831
500	5.390	34.082	5.349	26.907	119.8	0.957
503	5.386	34.087	5.345	26.912	119.4	0.960







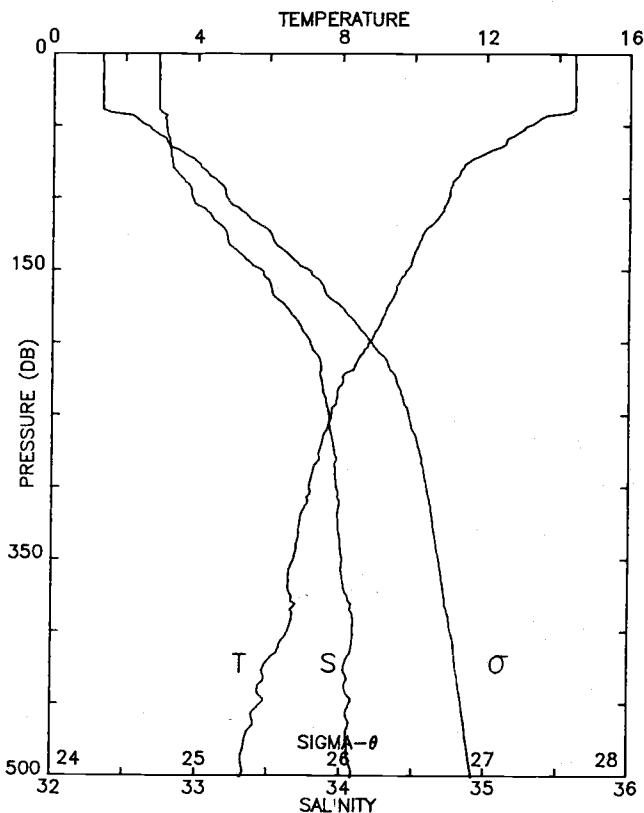
STATION 3 D-2

STA NO 3 D-2 LAT: 38 57.1 N LONG: 125 31.7 W  
 20 JUN 1988 0346 GMT PROBE 2561 DEPTH 3731M

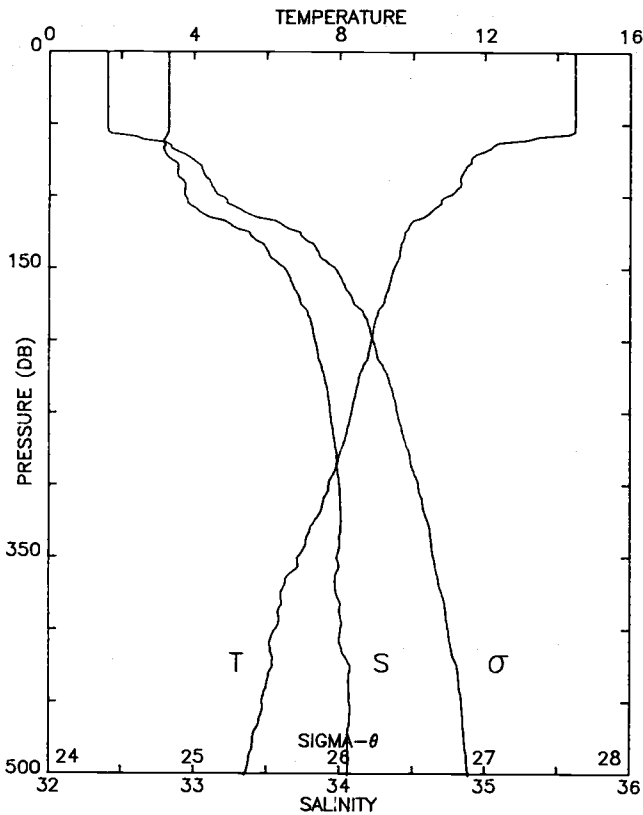
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
11	14.538	32.757	14.537	24.343	357.7	0.039
20	14.540	32.757	14.537	24.342	358.0	0.072
30	14.537	32.758	14.533	24.345	358.0	0.107
40	14.340	32.837	14.334	24.447	348.5	0.143
50	13.724	32.826	13.717	24.566	337.5	0.177
60	12.639	32.807	12.632	24.767	318.5	0.210
70	12.084	32.810	12.076	24.875	308.4	0.241
80	11.609	32.813	11.599	24.965	300.0	0.271
90	11.256	32.894	11.245	25.093	288.0	0.301
100	11.087	32.962	11.075	25.176	280.3	0.329
110	10.937	33.030	10.924	25.255	272.9	0.357
120	10.718	33.131	10.704	25.373	262.0	0.384
130	10.319	33.173	10.304	25.475	252.4	0.410
140	10.106	33.267	10.090	25.584	242.2	0.434
150	9.883	33.322	9.866	25.664	234.7	0.458
175	9.104	33.599	9.085	26.008	202.4	0.513
200	8.425	33.736	8.404	26.221	182.4	0.561
225	8.060	33.842	8.037	26.359	169.6	0.605
250	7.904	33.945	7.879	26.464	160.1	0.646
300	7.245	33.993	7.217	26.596	148.0	0.723
400	6.014	34.016	5.980	26.778	131.4	0.862
500	5.545	34.138	5.503	26.933	117.5	0.986
501	5.559	34.141	5.517	26.933	117.5	0.987

STA NO 4 D-3 LAT: 38 45.5 N LONG: 125 23.3 W  
 20 JUN 1988 0542 GMT PROBE 2561 DEPTH 3690M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	14.439	32.728	14.439	24.341	357.6	0.004
10	14.443	32.730	14.442	24.342	357.7	0.036
20	14.447	32.730	14.444	24.342	358.0	0.072
30	14.447	32.730	14.443	24.342	358.3	0.107
40	14.354	32.739	14.348	24.368	356.1	0.143
50	13.155	32.780	13.148	24.645	329.9	0.177
60	12.545	32.804	12.537	24.783	316.9	0.209
70	11.888	32.812	11.880	24.913	304.7	0.241
80	11.317	32.837	11.308	25.037	293.1	0.270
90	11.048	32.925	11.038	25.154	282.2	0.299
100	10.948	32.966	10.936	25.204	277.6	0.327
110	10.778	33.076	10.765	25.320	266.8	0.354
120	10.417	33.172	10.403	25.457	253.9	0.381
130	10.161	33.212	10.146	25.532	246.9	0.405
140	9.985	33.315	9.969	25.642	236.7	0.430
150	9.806	33.448	9.789	25.776	224.1	0.453
175	9.275	33.615	9.256	25.994	203.8	0.506
200	8.775	33.787	8.754	26.207	183.8	0.555
225	8.033	33.864	8.010	26.380	167.6	0.599
250	7.726	33.917	7.701	26.467	159.7	0.640
300	7.127	33.969	7.099	26.593	148.2	0.716
400	6.553	34.088	6.517	26.765	133.0	0.857
500	5.293	34.083	5.252	26.919	118.5	0.982
501	5.268	34.081	5.228	26.921	118.4	0.983



STATION 4 D-3



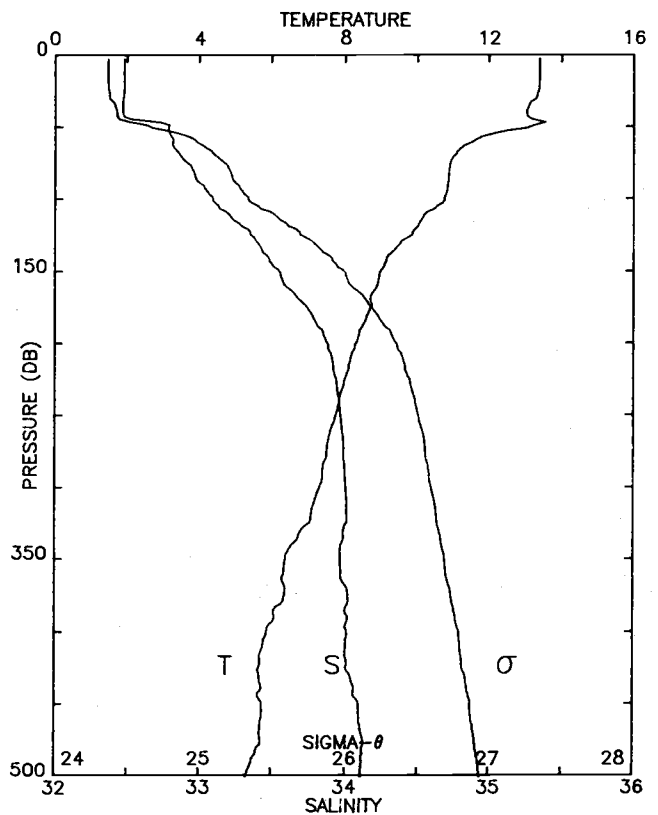
STATION 5 D-4

STA NO 5 D-4 LAT: 38 34.6 N LONG: 125 13.8 W  
20 JUN 1988 0750 GMT PROBE 2561 DEPTH 3607M

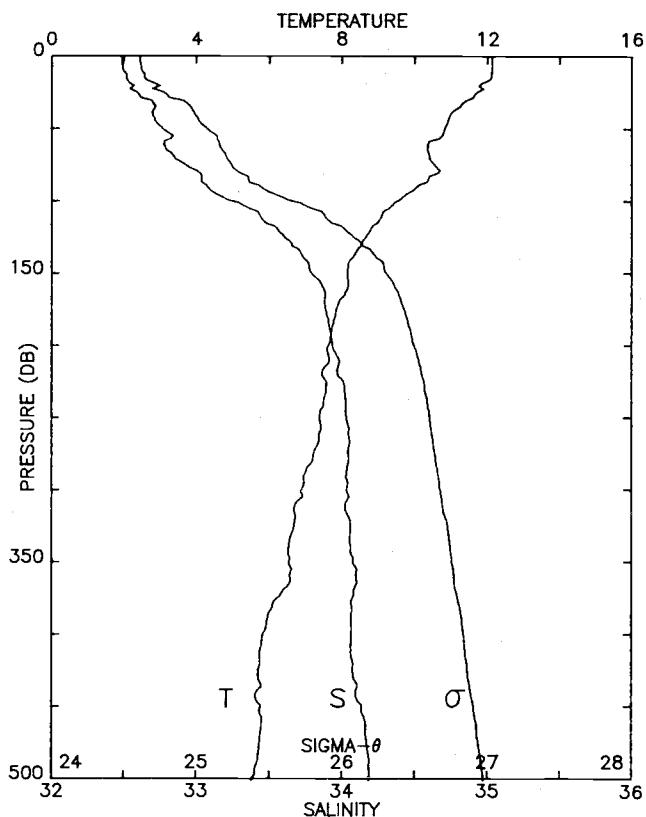
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	14.488	32.825	14.488	24.406	351.4	0.004
10	14.489	32.825	14.488	24.406	351.6	0.035
20	14.492	32.825	14.490	24.405	352.0	0.070
30	14.492	32.825	14.488	24.406	352.2	0.106
40	14.492	32.825	14.486	24.406	352.5	0.141
50	14.495	32.825	14.488	24.406	352.8	0.176
60	13.312	32.800	13.303	24.629	331.7	0.211
70	11.856	32.801	11.847	24.910	305.0	0.242
80	11.462	32.892	11.452	25.054	291.5	0.272
90	11.312	32.933	11.301	25.113	286.1	0.301
100	10.943	32.942	10.931	25.186	279.4	0.329
110	10.518	33.031	10.506	25.330	265.8	0.357
120	9.906	33.254	9.893	25.607	239.5	0.382
130	9.737	33.418	9.722	25.763	224.9	0.405
140	9.632	33.515	9.617	25.856	216.2	0.427
150	9.470	33.622	9.453	25.967	205.9	0.448
175	9.188	33.735	9.169	26.101	193.6	0.498
200	8.863	33.830	8.842	26.228	182.0	0.545
225	8.530	33.894	8.506	26.330	172.7	0.589
250	8.321	33.934	8.295	26.393	167.0	0.631
300	7.688	33.997	7.659	26.537	153.9	0.712
400	6.225	34.007	6.190	26.744	134.7	0.856
500	5.412	34.058	5.371	26.886	121.8	0.983
501	5.391	34.057	5.350	26.887	121.7	0.984

STA NO 6 D-5 LAT: 38 22.6 N LONG: 125 5.7 W  
20 JUN 1988 0950 GMT PROBE 2561 DEPTH 3824M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
3	13.382	32.478	13.382	24.365	355.4	0.011
10	13.384	32.477	13.382	24.364	355.6	0.036
20	13.375	32.477	13.372	24.366	355.7	0.071
30	13.295	32.472	13.291	24.378	354.8	0.107
40	13.027	32.466	13.021	24.427	350.4	0.142
50	13.148	32.788	13.141	24.652	329.2	0.176
60	11.570	32.816	11.562	24.975	298.6	0.207
70	11.036	32.868	11.028	25.111	285.8	0.237
80	10.878	32.954	10.869	25.206	276.9	0.265
90	10.837	33.013	10.826	25.259	272.1	0.292
100	10.747	33.091	10.735	25.337	265.0	0.319
110	10.235	33.192	10.223	25.503	249.2	0.345
120	9.967	33.309	9.954	25.640	236.4	0.369
130	9.530	33.397	9.516	25.781	223.1	0.392
140	9.161	33.471	9.146	25.898	212.1	0.414
150	8.971	33.552	8.955	25.992	203.4	0.435
175	8.696	33.741	8.678	26.183	185.6	0.484
200	8.300	33.877	8.280	26.351	170.1	0.528
225	7.989	33.939	7.967	26.446	161.4	0.570
250	7.745	33.970	7.721	26.506	156.0	0.609
300	7.302	34.006	7.274	26.598	147.8	0.685
400	5.867	34.013	5.833	26.794	129.7	0.824
500	5.309	34.112	5.268	26.940	116.6	0.947
501	5.292	34.111	5.251	26.942	116.4	0.949



STATION 6 D-5



STATION 7 D-6

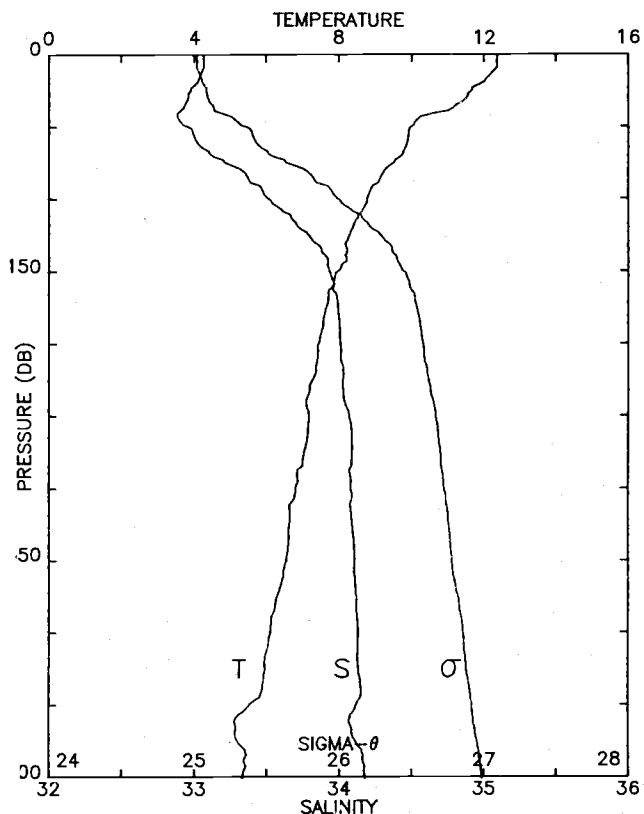
STA NO 7 D-6 LAT: 38 10.8 N LONG: 124 57.1 W  
 20 JUN 1988 1204 GMT PROBE 2561 DEPTH 3899M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	12.126	32.483	12.126	24.612	331.7	0.003
10	12.126	32.496	12.124	24.622	331.0	0.033
20	11.795	32.557	11.793	24.731	320.9	0.066
30	11.496	32.656	11.492	24.863	308.5	0.098
40	10.983	32.700	10.978	24.989	296.7	0.128
50	10.813	32.769	10.807	25.073	288.9	0.157
60	10.374	32.778	10.367	25.156	281.2	0.185
70	10.405	32.853	10.397	25.209	276.4	0.213
80	10.666	33.016	10.657	25.291	268.8	0.241
90	10.073	33.076	10.063	25.439	254.9	0.267
100	9.514	33.252	9.503	25.670	233.1	0.291
110	9.088	33.436	9.077	25.882	213.1	0.314
120	8.779	33.560	8.766	26.028	199.3	0.334
130	8.525	33.654	8.511	26.141	188.7	0.354
140	8.249	33.746	8.235	26.254	178.1	0.372
150	8.142	33.792	8.127	26.307	173.3	0.389
175	7.837	33.889	7.820	26.428	162.1	0.431
200	7.621	33.935	7.601	26.496	156.0	0.471
225	7.570	34.013	7.549	26.565	149.9	0.509
250	7.386	34.031	7.362	26.605	146.4	0.546
300	6.875	34.034	6.847	26.678	140.0	0.618
400	5.818	34.063	5.784	26.839	125.4	0.750
500	5.528	34.187	5.487	26.974	113.7	0.870
501	5.515	34.187	5.474	26.975	113.6	0.871

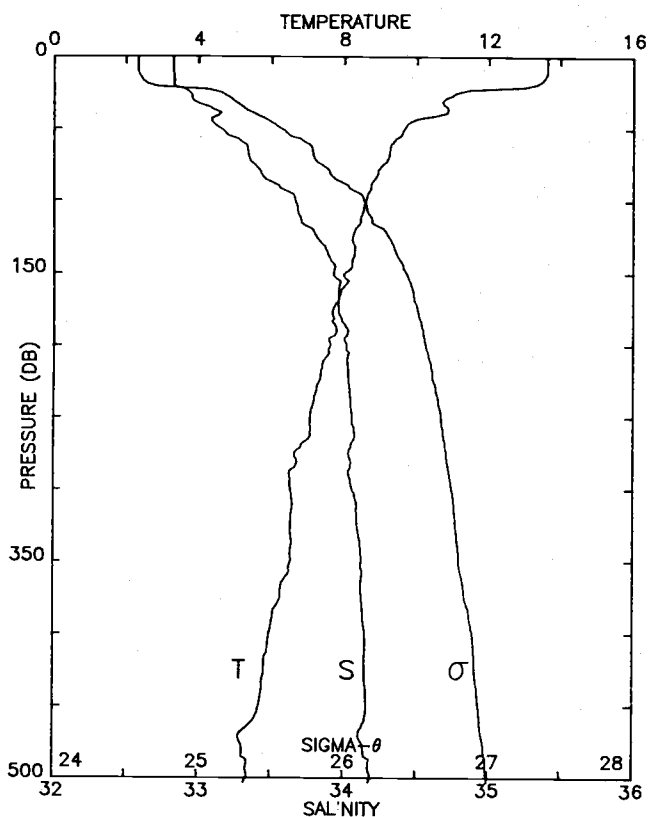
STA NO 8 D-7 LAT: 37 58.9 N LONG: 124 49.1 W  
 20 JUN 1988 1409 GMT PROBE 2561 DEPTH 3987M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	12.369	33.065	12.369	25.017	293.1	0.003
10	12.325	33.061	12.324	25.022	292.9	0.029
20	11.922	33.015	11.919	25.064	289.2	0.058
30	11.504	32.958	11.500	25.096	286.3	0.087
40	10.788	32.894	10.783	25.174	279.1	0.115
50	9.998	32.954	9.992	25.356	261.9	0.142
60	9.882	33.018	9.875	25.426	255.5	0.168
70	9.717	33.126	9.710	25.537	245.1	0.193
80	9.264	33.329	9.255	25.770	223.1	0.217
90	8.999	33.426	8.990	25.887	212.1	0.238
100	8.768	33.518	8.758	25.996	202.0	0.259
110	8.568	33.644	8.556	26.126	189.8	0.279
120	8.368	33.728	8.356	26.222	180.8	0.297
130	8.185	33.835	8.172	26.333	170.4	0.315
140	8.184	33.916	8.170	26.397	164.5	0.332
150	7.959	33.938	7.945	26.448	159.8	0.348
175	7.651	33.994	7.635	26.537	151.7	0.387
200	7.444	34.012	7.424	26.581	147.9	0.424
225	7.273	34.029	7.252	26.619	144.6	0.461
250	7.178	34.071	7.155	26.666	140.6	0.496
300	6.803	34.081	6.776	26.726	135.5	0.565
400	6.108	34.132	6.074	26.858	123.9	0.695
500	5.344	34.179	5.303	26.989	112.0	0.813
501	5.339	34.180	5.298	26.990	111.9	0.815

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STATION 8 D-7

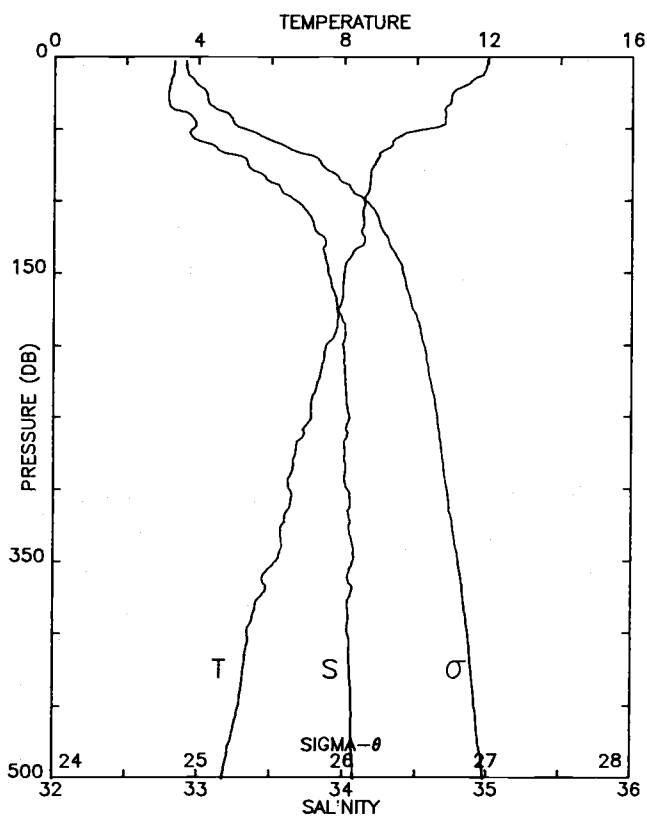


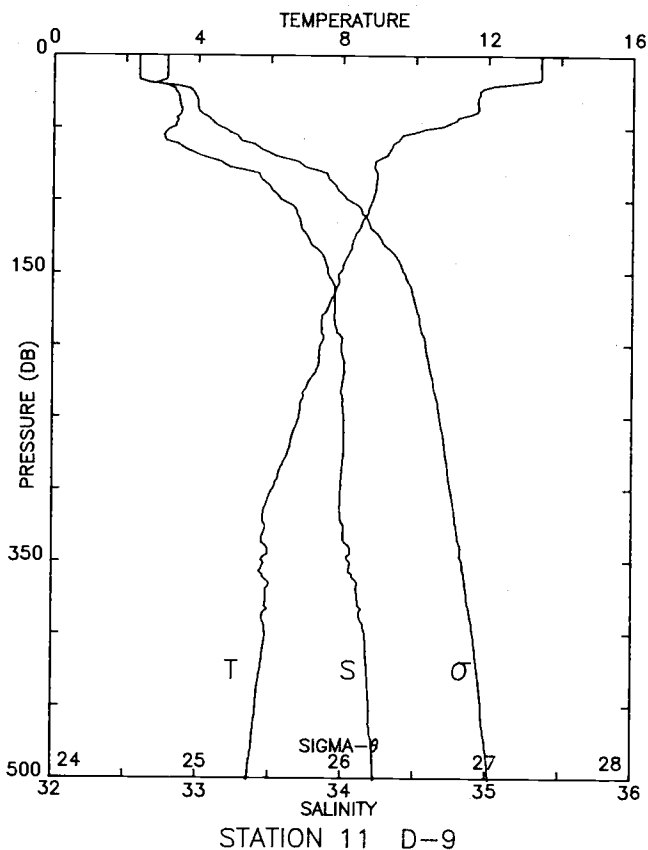
STA NO 9 D-7 LAT: 37 59.0 N LONG: 124 48.9 W  
21 JUN 1988 0557 GMT PROBE 2561 DEPTH 3989M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	13.633	32.824	13.633	24.582	334.6	0.003
10	13.631	32.825	13.630	24.583	334.8	0.033
20	13.160	32.831	13.157	24.683	325.5	0.067
30	10.737	32.961	10.734	25.236	273.0	0.096
40	10.658	33.146	10.653	25.393	258.3	0.122
50	9.649	33.152	9.644	25.568	241.7	0.147
60	9.321	33.310	9.315	25.746	225.0	0.171
70	9.212	33.347	9.204	25.792	220.8	0.193
80	8.925	33.426	8.917	25.899	210.8	0.214
90	8.734	33.554	8.724	26.029	198.6	0.235
100	8.592	33.665	8.582	26.138	188.5	0.254
110	8.473	33.693	8.462	26.178	184.8	0.273
120	8.293	33.784	8.281	26.278	175.5	0.291
130	8.270	33.855	8.257	26.336	170.1	0.308
140	8.236	33.904	8.222	26.380	166.1	0.325
150	8.009	33.925	7.995	26.431	161.5	0.341
175	7.682	33.959	7.665	26.505	154.7	0.381
200	7.604	34.016	7.585	26.562	149.8	0.419
225	7.303	34.029	7.282	26.615	145.0	0.456
250	7.064	34.057	7.040	26.670	140.1	0.491
300	6.529	34.057	6.502	26.743	133.6	0.560
400	5.951	34.151	5.917	26.892	120.5	0.688
500	5.342	34.187	5.301	26.995	111.4	0.804
503	5.291	34.181	5.250	26.997	111.3	0.808

STA NO 10 D-8 LAT: 37 47.4 N LONG: 124 40.8 W  
21 JUN 1988 0809 GMT PROBE 2561 DEPTH 3914M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
3	11.955	32.831	11.955	24.913	303.1	0.009
10	11.895	32.827	11.894	24.922	302.4	0.030
20	11.371	32.799	11.369	24.997	295.6	0.060
30	10.950	32.789	10.947	25.064	289.3	0.089
40	10.801	32.935	10.796	25.204	276.3	0.118
50	10.331	32.963	10.325	25.307	266.6	0.145
60	9.317	33.053	9.310	25.545	244.1	0.171
70	8.932	33.308	8.924	25.806	219.5	0.194
80	8.721	33.401	8.712	25.911	209.6	0.215
90	8.693	33.557	8.684	26.038	197.8	0.236
100	8.548	33.670	8.538	26.149	187.4	0.255
110	8.517	33.765	8.506	26.228	180.1	0.273
120	8.488	33.802	8.476	26.262	177.1	0.291
130	8.536	33.875	8.523	26.312	172.5	0.309
140	8.148	33.875	8.134	26.370	167.1	0.326
150	8.000	33.893	7.985	26.407	163.7	0.342
175	7.846	33.952	7.829	26.476	157.6	0.382
200	7.522	33.995	7.503	26.557	150.2	0.421
225	7.294	34.011	7.273	26.602	146.2	0.458
250	7.118	34.040	7.095	26.650	142.0	0.494
300	6.529	34.027	6.502	26.719	135.9	0.563
400	5.367	34.031	5.335	26.868	122.2	0.692
500	4.710	34.075	4.671	26.979	112.2	0.810
501	4.708	34.076	4.670	26.980	112.1	0.811



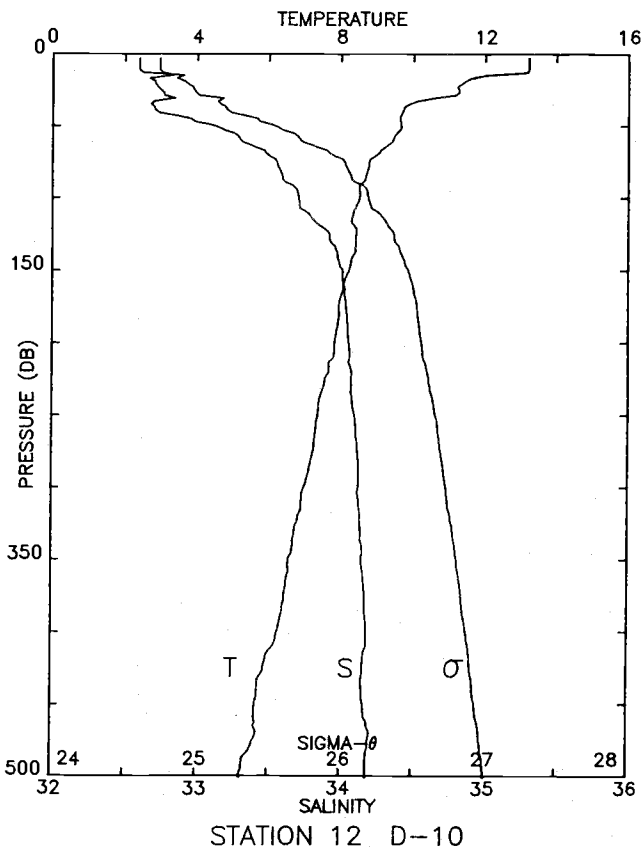


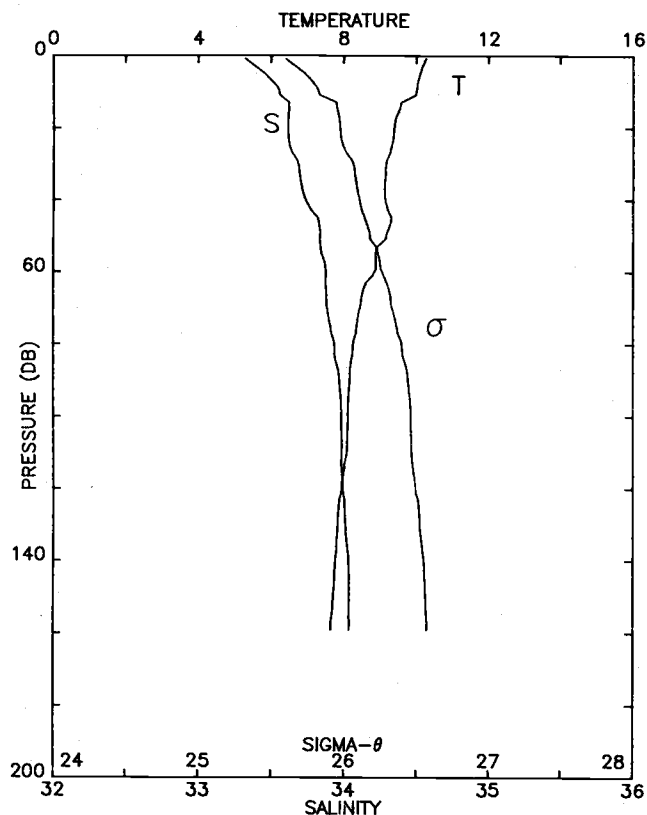
STA NO 11 D-9 LAT: 37 35.5 N LONG: 124 31.6 W  
21 JUN 1988 1009 GMT PROBE 2561 DEPTH 3965M

PRESS	TEMP	SAL	POTEN	SIGMA	SVA	DELD
			TEMP	THETA		
1	13.446	32.785	13.446	24.589	333.9	0.003
10	13.446	32.785	13.445	24.590	334.1	0.033
20	12.473	32.752	12.470	24.755	318.6	0.067
30	11.702	32.871	11.698	24.992	296.2	0.097
40	11.584	32.883	11.579	25.023	293.5	0.126
50	10.504	32.823	10.499	25.168	279.9	0.155
60	9.445	32.821	9.438	25.343	263.3	0.182
70	9.122	33.046	9.114	25.571	241.8	0.207
80	8.923	33.371	8.914	25.856	214.9	0.230
90	8.912	33.495	8.903	25.955	205.7	0.251
100	8.810	33.591	8.800	26.047	197.2	0.271
110	8.659	33.688	8.648	26.146	187.9	0.291
120	8.450	33.723	8.438	26.206	182.4	0.309
130	8.266	33.786	8.253	26.283	175.2	0.327
140	8.102	33.876	8.088	26.378	166.3	0.344
150	7.919	33.901	7.904	26.425	162.0	0.360
175	7.581	33.951	7.564	26.514	153.9	0.400
200	7.393	33.996	7.374	26.576	148.4	0.437
225	7.085	34.006	7.065	26.627	143.7	0.474
250	6.800	34.015	6.777	26.673	139.6	0.509
300	6.086	33.994	6.060	26.750	132.6	0.577
400	5.906	34.167	5.872	26.910	118.7	0.703
500	5.419	34.232	5.378	27.022	109.0	0.817
501	5.412	34.232	5.370	27.023	108.9	0.818

STA NO 12 D-10 LAT: 37 23.8 N LONG: 124 22.5 W  
21 JUN 1988 1202 GMT PROBE 2561 DEPTH 3999M

PRESS	TEMP	SAL	POTEN	SIGMA	SVA	DELD
			TEMP	THETA		
3	13.220	32.738	13.219	24.599	333.1	0.010
10	13.221	32.738	13.220	24.598	333.3	0.033
20	11.389	32.707	11.386	24.922	302.6	0.065
30	10.847	32.810	10.844	25.098	286.1	0.095
40	9.702	32.723	9.697	25.225	274.2	0.123
50	9.663	33.119	9.658	25.540	244.4	0.148
60	9.432	33.307	9.426	25.725	227.0	0.172
70	8.984	33.493	8.977	25.942	206.5	0.193
80	8.731	33.574	8.722	26.045	196.9	0.213
90	8.561	33.639	8.552	26.123	189.7	0.233
100	8.499	33.710	8.489	26.188	183.7	0.251
110	8.334	33.767	8.323	26.258	177.2	0.269
120	8.387	33.872	8.374	26.332	170.4	0.287
130	8.409	33.930	8.395	26.375	166.5	0.304
140	8.324	33.977	8.310	26.424	162.0	0.320
150	8.217	34.012	8.202	26.468	158.0	0.336
175	7.941	34.037	7.924	26.529	152.6	0.375
200	7.831	34.057	7.811	26.561	149.9	0.413
225	7.562	34.072	7.540	26.612	145.4	0.450
250	7.369	34.097	7.345	26.660	141.2	0.486
300	7.002	34.126	6.974	26.734	134.8	0.555
400	6.264	34.182	6.229	26.878	122.2	0.683
500	5.236	34.183	5.195	27.005	110.4	0.799
501	5.240	34.184	5.199	27.006	110.3	0.800



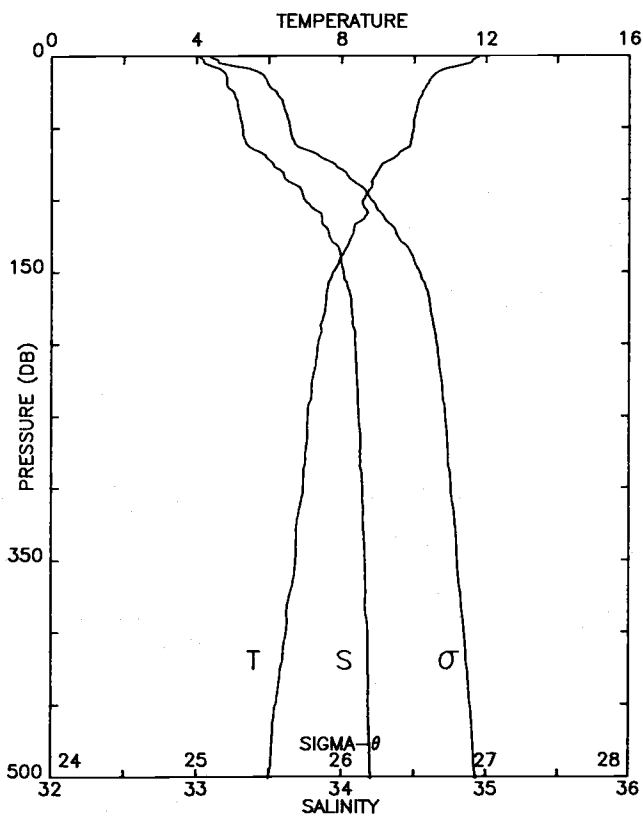


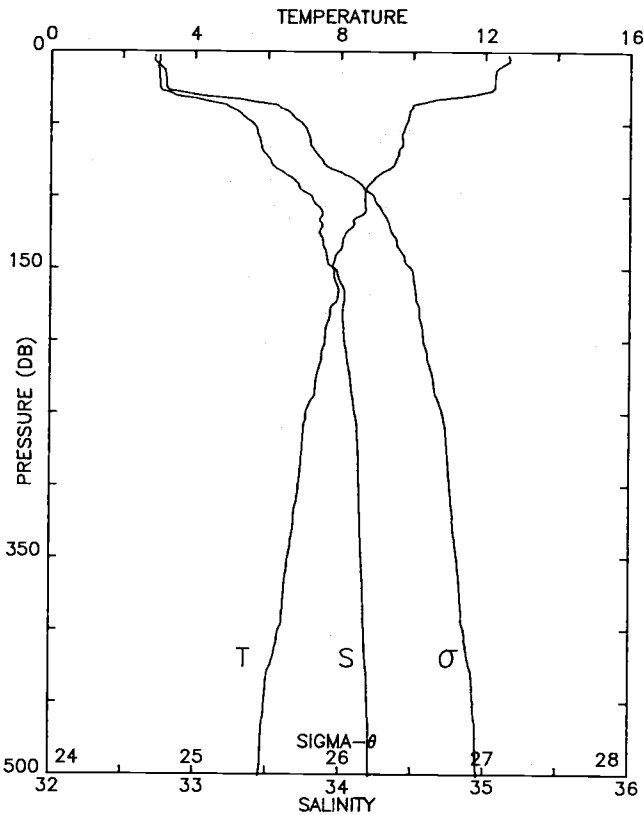
STA NO 13 A-12 LAT: 38 11.5 N LONG: 123 21.7 W  
21 JUN 1988 1905 GMT PROBE 2561 DEPTH 173M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	10.265	33.326	10.265	25.600	237.7	0.002
10	9.992	33.554	9.991	25.825	216.5	0.023
20	9.380	33.615	9.378	25.974	202.6	0.043
30	9.159	33.685	9.156	26.064	194.2	0.063
40	9.138	33.738	9.133	26.109	190.1	0.082
50	9.166	33.838	9.160	26.183	183.3	0.101
60	8.839	33.878	8.832	26.266	175.6	0.119
70	8.438	33.887	8.431	26.336	169.1	0.136
80	8.259	33.936	8.251	26.401	163.1	0.153
90	8.159	33.971	8.150	26.444	159.2	0.169
100	8.112	33.986	8.102	26.462	157.6	0.185
110	8.073	33.987	8.062	26.470	157.1	0.200
120	7.938	33.996	7.926	26.497	154.7	0.216
130	7.827	34.013	7.814	26.526	152.0	0.231
140	7.763	34.036	7.749	26.554	149.6	0.246
150	7.704	34.039	7.690	26.565	148.6	0.261
159	7.640	34.039	7.624	26.574	147.9	0.275

STA NO 14 A-11 LAT: 38 9.9 N LONG: 123 31.9 W  
21 JUN 1988 2015 GMT PROBE 2561 DEPTH 580M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.778	33.023	11.778	25.096	285.7	0.003
10	10.774	33.171	10.773	25.392	257.7	0.028
20	10.352	33.210	10.350	25.496	248.1	0.053
30	10.136	33.275	10.133	25.583	240.0	0.077
40	10.021	33.296	10.016	25.620	236.7	0.101
50	9.964	33.317	9.958	25.646	234.4	0.124
60	9.887	33.338	9.880	25.675	231.8	0.148
70	9.469	33.478	9.462	25.853	215.1	0.170
80	8.977	33.586	8.968	26.016	199.7	0.191
90	8.825	33.691	8.815	26.123	189.8	0.210
100	8.576	33.747	8.566	26.205	182.1	0.229
110	8.677	33.860	8.665	26.278	175.4	0.247
120	8.326	33.902	8.314	26.365	167.3	0.264
130	8.183	33.949	8.169	26.423	161.9	0.281
140	7.961	33.994	7.947	26.492	155.5	0.296
150	7.757	34.014	7.743	26.537	151.3	0.312
175	7.538	34.069	7.521	26.613	144.5	0.348
200	7.346	34.093	7.327	26.659	140.5	0.384
225	7.185	34.107	7.164	26.693	137.6	0.419
250	7.067	34.118	7.044	26.718	135.6	0.453
300	6.940	34.144	6.912	26.756	132.7	0.520
400	6.475	34.181	6.439	26.850	125.0	0.649
500	5.985	34.203	5.941	26.931	118.3	0.771
501	5.978	34.203	5.935	26.931	118.2	0.772



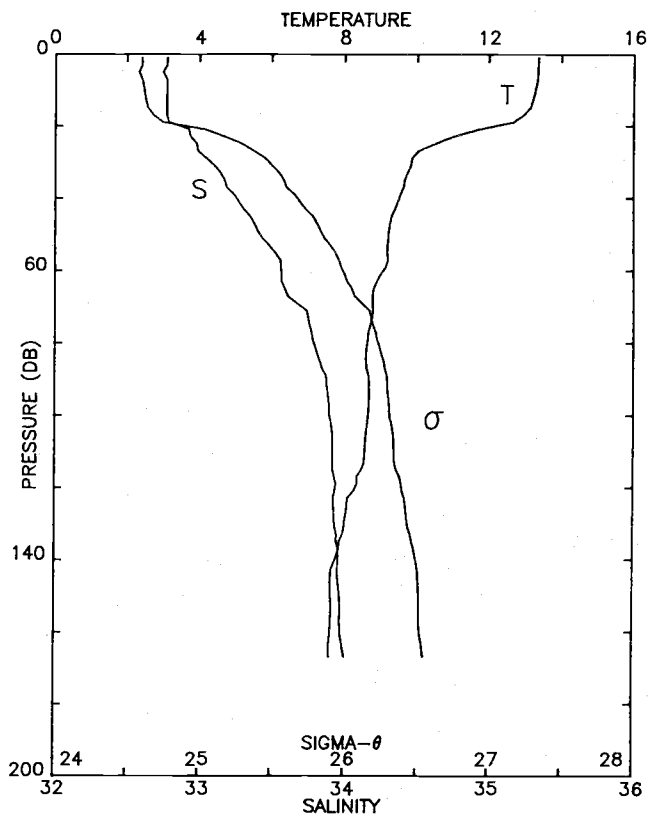


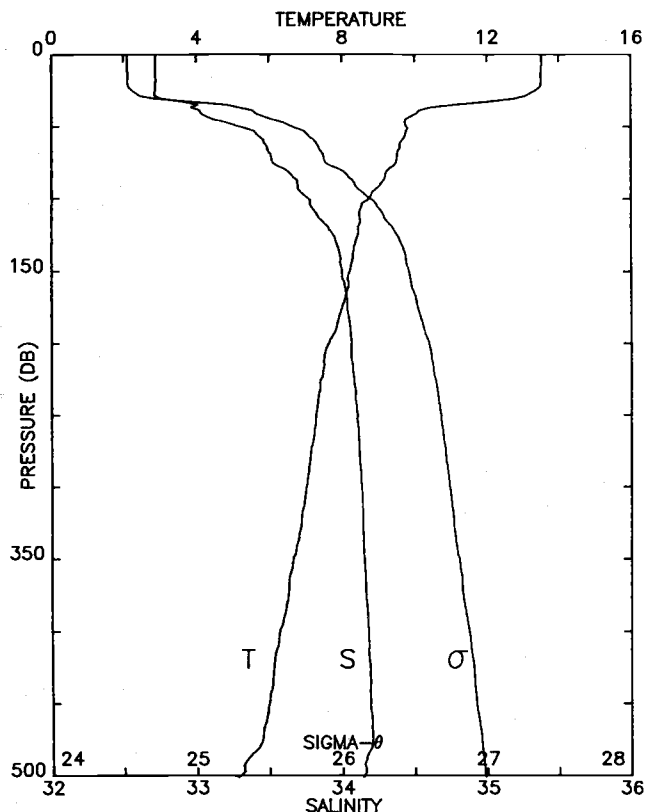
STA NO 15 A-10 LAT: 38 21.4 N LONG: 123 36.9 W  
21 JUN 1988 2209 GMT PROBE 2561 DEPTH 535M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
3	12.637	32.751	12.636	24.723	321.3	0.010
10	12.432	32.744	12.431	24.756	318.2	0.032
20	12.249	32.753	12.246	24.799	314.4	0.064
30	11.586	32.854	11.582	25.001	295.4	0.095
40	9.936	33.266	9.931	25.610	237.6	0.121
50	9.803	33.401	9.797	25.738	225.6	0.144
60	9.704	33.444	9.697	25.788	221.1	0.166
70	9.591	33.479	9.584	25.834	216.9	0.188
80	9.404	33.549	9.395	25.919	209.0	0.209
90	8.852	33.695	8.842	26.121	189.9	0.229
100	8.686	33.801	8.675	26.231	179.7	0.248
110	8.693	33.873	8.682	26.285	174.7	0.265
120	8.367	33.875	8.355	26.337	169.9	0.283
130	8.068	33.879	8.055	26.386	165.4	0.299
140	7.898	33.905	7.885	26.431	161.2	0.316
150	7.802	33.961	7.787	26.490	155.8	0.332
175	7.792	34.023	7.775	26.539	151.6	0.370
200	7.579	34.030	7.560	26.576	148.4	0.408
225	7.351	34.071	7.329	26.641	142.6	0.444
250	7.056	34.102	7.032	26.707	136.6	0.479
300	6.863	34.137	6.835	26.761	132.1	0.546
400	6.334	34.175	6.298	26.863	123.6	0.674
500	5.815	34.211	5.773	26.958	115.5	0.792
501	5.814	34.211	5.771	26.958	115.5	0.794

STA NO 16 A-9 LAT: 38 33.9 N LONG: 123 39.1 W  
22 JUN 1988 0004 GMT PROBE 2561 DEPTH 183M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	13.357	32.775	13.357	24.599	333.0	0.003
10	13.270	32.774	13.269	24.616	331.6	0.033
20	12.164	32.856	12.162	24.894	305.4	0.066
30	9.835	33.077	9.831	25.479	249.8	0.093
40	9.494	33.259	9.490	25.677	231.2	0.117
50	9.204	33.421	9.199	25.851	214.8	0.139
60	9.059	33.568	9.053	25.989	201.9	0.160
70	8.768	33.710	8.761	26.146	187.2	0.180
80	8.620	33.793	8.611	26.234	179.0	0.198
90	8.666	33.880	8.657	26.295	173.4	0.215
100	8.649	33.902	8.639	26.315	171.7	0.233
110	8.559	33.922	8.548	26.345	169.0	0.250
120	8.308	33.942	8.295	26.399	164.1	0.266
130	8.013	33.936	8.000	26.439	160.4	0.283
140	7.761	33.963	7.748	26.497	155.0	0.298
150	7.651	33.973	7.636	26.521	152.8	0.314
167	7.620	34.010	7.603	26.554	149.9	0.339





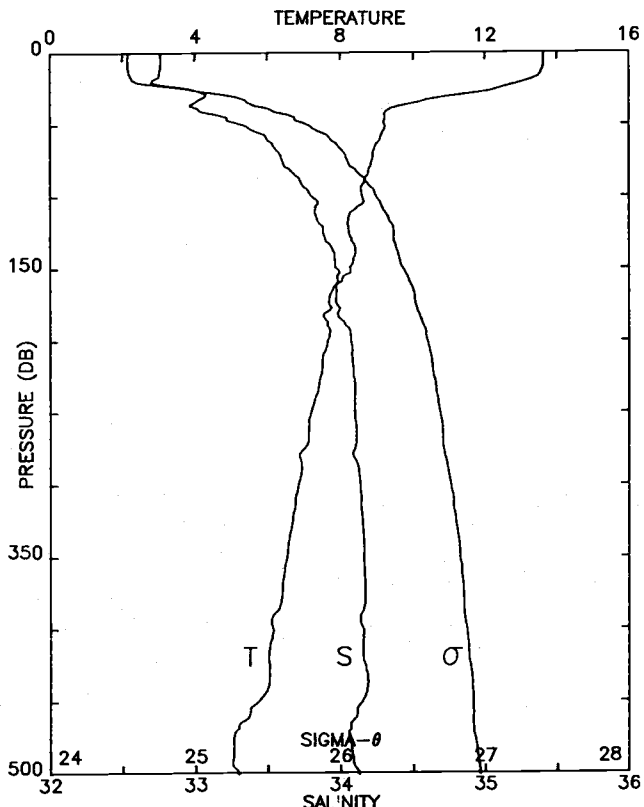
STATION 17 A-8

STA NO 17 A-8 LAT: 38 33.0 N LONG: 123 45.5 W  
22 AUG 1988 0122 GMT PROBE 2561 DEPTH 958M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELO
1	13.514	32.722	13.514	24.527	339.9	0.003
10	13.518	32.722	13.516	24.526	340.1	0.034
20	13.503	32.722	13.500	24.530	340.1	0.068
30	12.887	32.742	12.883	24.667	327.2	0.102
40	10.088	33.028	10.084	25.399	257.7	0.130
50	9.780	33.296	9.774	25.660	233.1	0.155
60	9.636	33.463	9.629	25.814	218.6	0.177
70	9.517	33.513	9.509	25.873	213.2	0.199
80	9.261	33.616	9.252	25.994	201.8	0.220
90	9.057	33.697	9.047	26.090	192.9	0.239
100	8.735	33.773	8.724	26.201	182.6	0.258
110	8.466	33.823	8.455	26.281	175.0	0.276
120	8.437	33.907	8.425	26.352	168.5	0.293
130	8.358	33.959	8.345	26.405	163.6	0.310
140	8.288	33.989	8.274	26.439	160.6	0.326
150	8.190	33.998	8.175	26.461	158.6	0.342
175	7.985	34.035	7.967	26.521	153.4	0.381
200	7.616	34.063	7.597	26.597	146.4	0.419
225	7.392	34.080	7.371	26.643	142.5	0.455
250	7.265	34.104	7.242	26.679	139.3	0.490
300	7.009	34.135	6.981	26.740	134.3	0.558
400	6.265	34.180	6.230	26.875	122.4	0.687
500	5.169	34.149	5.129	26.986	112.1	0.805
501	5.122	34.145	5.082	26.988	111.9	0.806

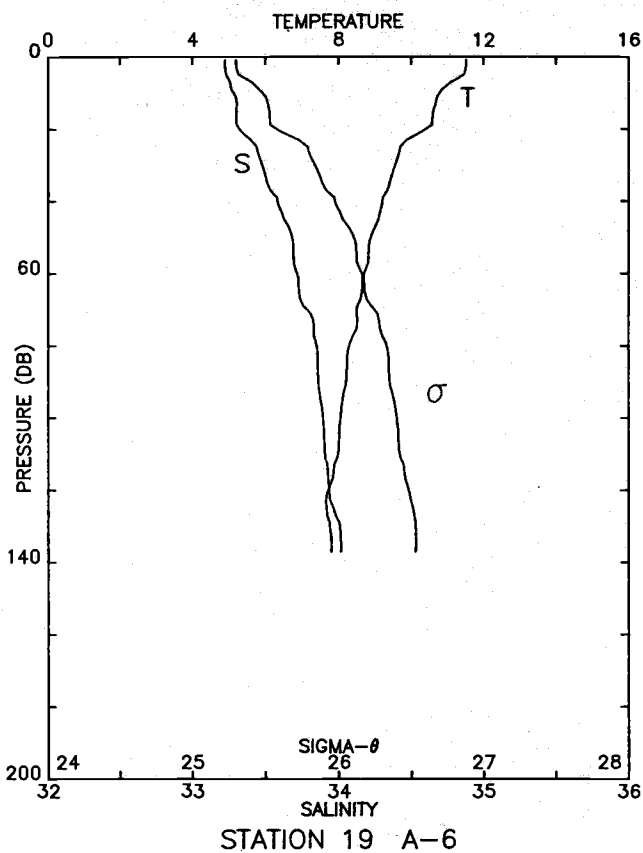
STA NO 18 A-7 LAT: 38 44.0 N LONG: 123 53.2 W  
22 JUN 1988 0328 GMT PROBE 2561 DEPTH 852M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELO
1	13.622	32.762	13.622	24.536	338.9	0.003
10	13.615	32.760	13.614	24.536	339.2	0.034
20	13.135	32.701	13.132	24.587	334.6	0.068
30	11.242	33.071	11.239	25.231	273.5	0.098
40	9.314	33.028	9.310	25.525	245.6	0.124
50	9.207	33.324	9.202	25.774	222.1	0.147
60	9.082	33.499	9.076	25.931	207.4	0.169
70	8.887	33.584	8.880	26.029	198.3	0.189
80	8.799	33.638	8.791	26.085	193.2	0.209
90	8.649	33.731	8.640	26.181	184.2	0.227
100	8.603	33.807	8.593	26.248	178.0	0.246
110	8.345	33.826	8.334	26.302	173.0	0.263
120	8.205	33.871	8.193	26.358	167.8	0.280
130	8.304	33.899	8.290	26.366	167.3	0.297
140	8.411	33.960	8.396	26.398	164.5	0.313
150	8.271	33.976	8.255	26.432	161.5	0.330
175	7.688	33.978	7.671	26.519	153.4	0.369
200	7.659	34.074	7.639	26.599	146.3	0.406
225	7.448	34.092	7.427	26.644	142.4	0.442
250	7.193	34.100	7.170	26.687	138.6	0.477
300	6.848	34.137	6.821	26.763	132.0	0.545
400	6.140	34.156	6.105	26.873	122.5	0.672
500	5.190	34.126	5.150	26.965	114.1	0.791
501	5.196	34.128	5.155	26.966	114.0	0.792



STATION 18 A-7



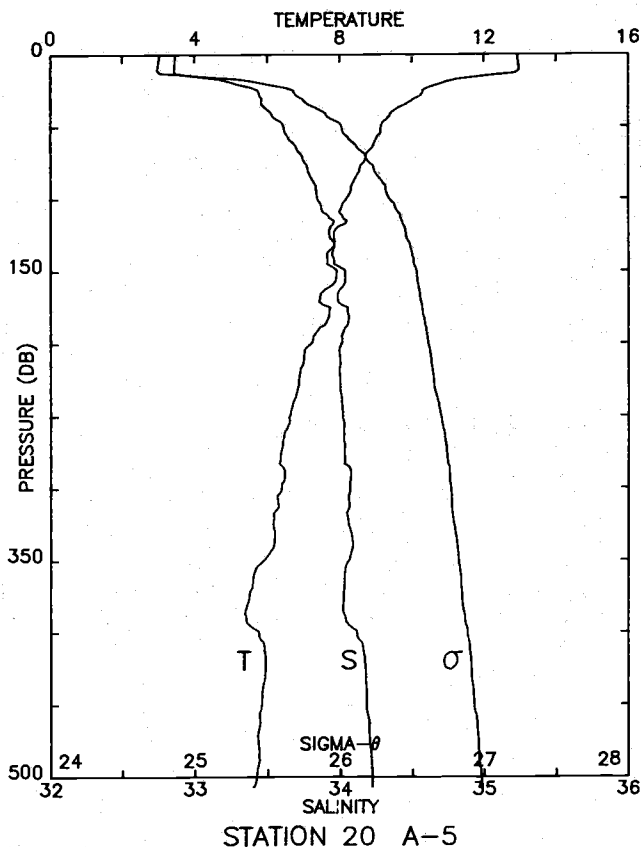


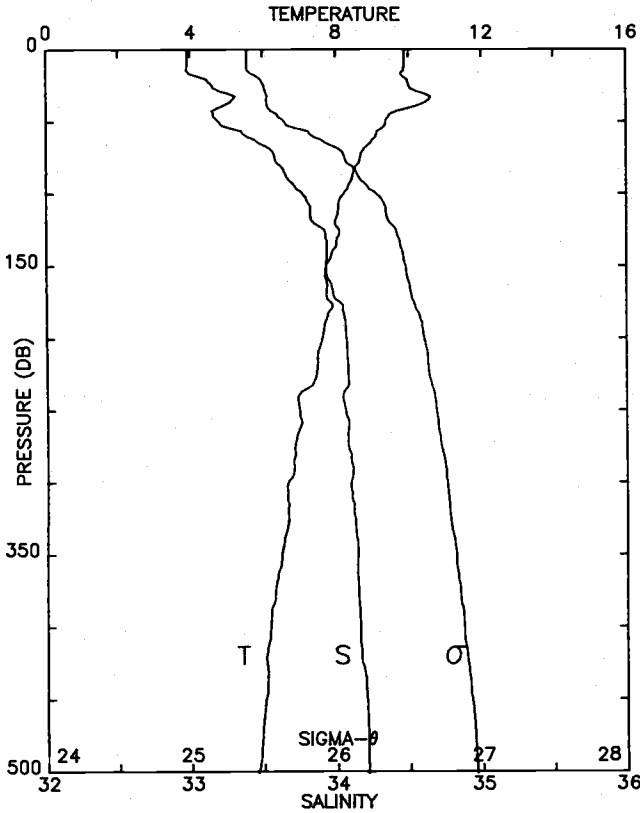
STA NO 19 A-6 LAT: 38 56.3 N LONG: 123 55.4 W  
22 JUN 1988 0530 GMT PROBE 2561 DEPTH 149M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.517	33.223	11.517	25.299	266.3	0.003
10	10.776	33.284	10.775	25.480	249.3	0.026
20	10.400	33.322	10.398	25.575	240.5	0.051
30	9.548	33.478	9.545	25.839	215.6	0.073
40	9.203	33.582	9.198	25.977	202.7	0.094
50	8.875	33.682	8.870	26.107	190.5	0.114
60	8.692	33.717	8.686	26.163	185.4	0.133
70	8.497	33.788	8.490	26.249	177.4	0.151
80	8.284	33.852	8.276	26.332	169.7	0.168
90	8.200	33.863	8.191	26.353	167.8	0.185
100	8.047	33.895	8.037	26.401	163.4	0.202
110	7.977	33.908	7.966	26.422	161.6	0.218
120	7.718	33.938	7.706	26.483	155.9	0.234
130	7.770	34.009	7.757	26.531	151.5	0.249
137	7.807	34.017	7.794	26.532	151.6	0.260

STA NO 20 A-5 LAT: 38 55.2 N LONG: 124 2.0 W  
22 JUN 1988 0630 GMT PROBE 2561 DEPTH 842M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	12.931	32.868	12.931	24.756	318.0	0.003
10	12.968	32.860	12.967	24.742	319.6	0.032
20	10.830	33.266	10.828	25.456	251.8	0.061
30	10.141	33.455	10.138	25.723	226.7	0.084
40	9.450	33.518	9.445	25.886	211.3	0.106
50	9.133	33.614	9.127	26.013	199.4	0.127
60	8.968	33.663	8.962	26.078	193.5	0.147
70	8.708	33.739	8.700	26.178	184.1	0.165
80	8.533	33.782	8.525	26.238	178.5	0.184
90	8.328	33.832	8.319	26.309	172.0	0.201
100	8.173	33.848	8.163	26.345	168.7	0.218
110	8.007	33.899	7.996	26.410	162.7	0.235
120	7.912	33.932	7.901	26.450	159.1	0.251
130	7.856	33.958	7.844	26.479	156.5	0.267
140	7.647	33.953	7.634	26.505	154.1	0.282
150	7.911	34.035	7.896	26.532	151.9	0.298
175	7.746	34.053	7.728	26.570	148.6	0.335
200	7.205	34.010	7.186	26.613	144.7	0.372
225	6.872	34.000	6.851	26.651	141.4	0.407
250	6.606	34.019	6.583	26.702	136.8	0.442
300	6.387	34.070	6.361	26.772	130.8	0.509
400	5.761	34.115	5.727	26.888	120.8	0.635
500	5.691	34.222	5.649	26.981	113.2	0.752
507	5.608	34.221	5.566	26.991	112.3	0.760



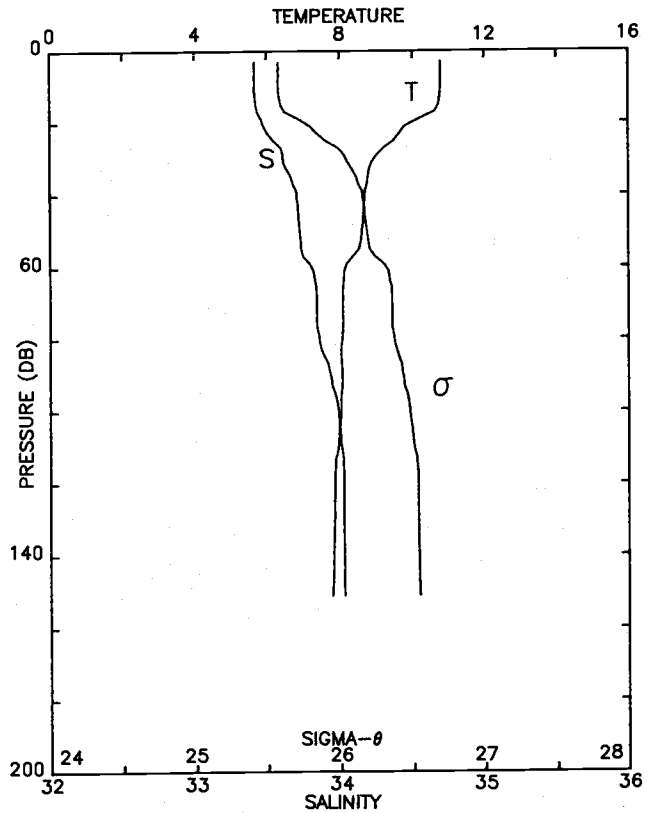


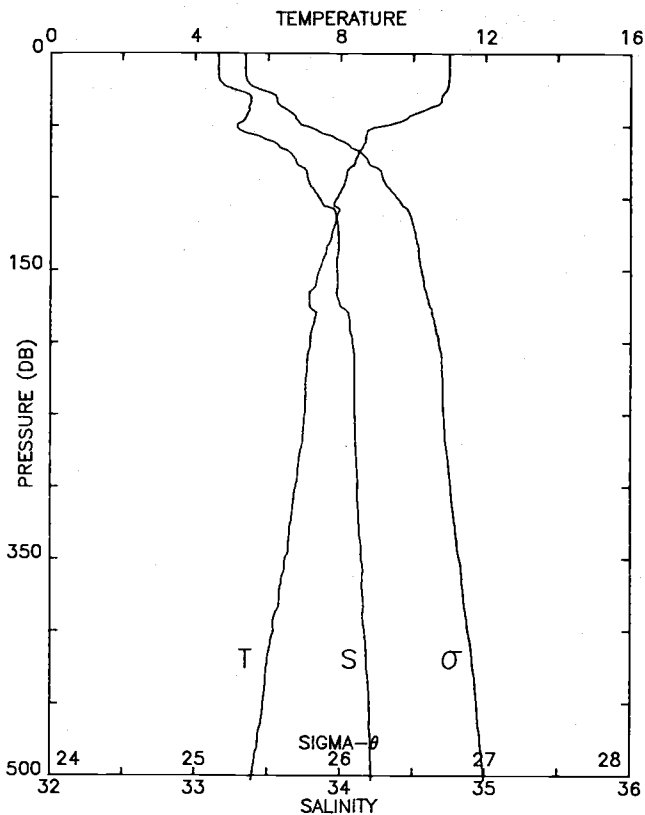
STA NO 21 A-4 LAT: 39 6.8 N LONG: 124 10.4 W  
 22 JUN 1988 0915 GMT PROBE 2561 DEPTH 1376M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	9.893	32.978	9.893	25.392	257.5	0.003
10	9.894	32.980	9.893	25.393	257.6	0.026
20	9.900	33.084	9.897	25.473	250.2	0.051
30	10.296	33.234	10.292	25.524	245.6	0.076
40	10.142	33.215	10.138	25.535	244.7	0.101
50	9.372	33.193	9.367	25.645	234.4	0.125
60	9.102	33.382	9.095	25.837	216.4	0.147
70	8.745	33.559	8.738	26.031	198.1	0.168
80	8.584	33.610	8.576	26.096	192.1	0.187
90	8.430	33.673	8.421	26.169	185.3	0.206
100	8.211	33.770	8.201	26.278	175.1	0.224
110	8.062	33.825	8.051	26.344	169.0	0.241
120	7.970	33.843	7.958	26.371	166.6	0.258
130	8.053	33.931	8.040	26.428	161.4	0.275
140	7.898	33.937	7.884	26.456	158.8	0.291
150	7.715	33.930	7.701	26.478	156.9	0.306
175	7.842	34.024	7.825	26.533	152.1	0.345
200	7.612	34.070	7.592	26.603	145.9	0.382
225	7.446	34.083	7.425	26.637	143.0	0.418
250	6.987	34.062	6.964	26.685	138.6	0.453
300	6.651	34.094	6.624	26.756	132.5	0.521
400	6.162	34.159	6.127	26.872	122.6	0.649
500	5.830	34.217	5.787	26.960	115.3	0.767
501	5.826	34.217	5.783	26.961	115.2	0.768

STA NO 22 A-3 LAT: 39 20.5 N LONG: 123 56.7 W  
 22 JUN 1988 1127 GMT PROBE 2561 DEPTH 165M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
3	10.782	33.415	10.782	25.581	239.6	0.007
10	10.785	33.415	10.783	25.580	239.8	0.024
20	9.974	33.470	9.972	25.762	222.7	0.048
30	8.933	33.615	8.930	26.045	196.0	0.068
40	8.678	33.707	8.674	26.157	185.5	0.087
50	8.596	33.730	8.591	26.188	182.8	0.106
60	8.146	33.810	8.140	26.319	170.5	0.124
70	8.070	33.844	8.063	26.357	167.1	0.140
80	8.045	33.860	8.037	26.373	165.7	0.157
90	8.050	33.937	8.041	26.433	160.2	0.173
100	8.015	33.989	8.005	26.479	156.0	0.189
110	7.933	34.011	7.922	26.508	153.4	0.205
120	7.839	34.025	7.827	26.534	151.1	0.220
130	7.829	34.025	7.816	26.536	151.1	0.235
140	7.806	34.027	7.793	26.540	150.8	0.250
150	7.781	34.029	7.767	26.546	150.5	0.265
151	7.776	34.030	7.761	26.547	150.4	0.267





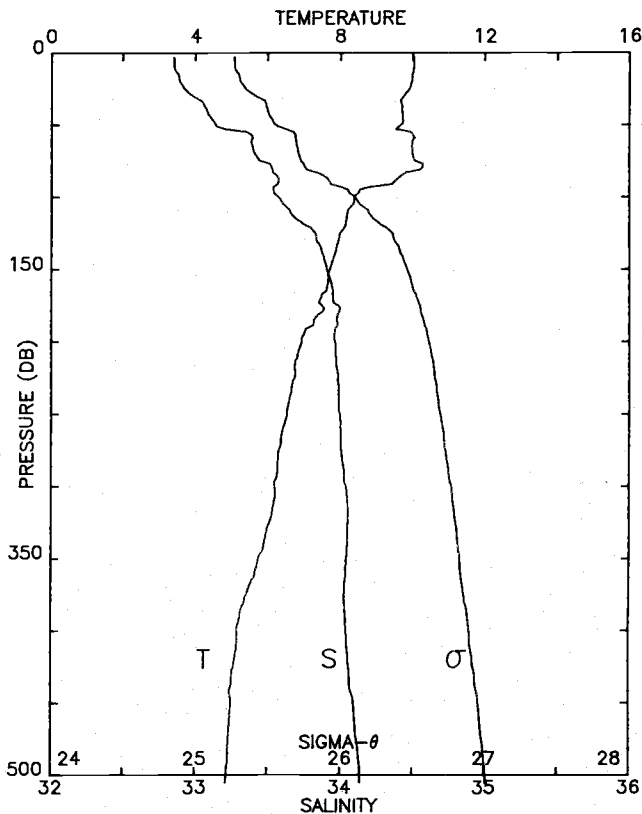
STATION 23 A-2

STA NO 23 A-2 LAT: 39 19.8 N LONG:124 3.5 W  
 22 JUN 1988 1244 GMT PROBE 2561 DEPTH 606M

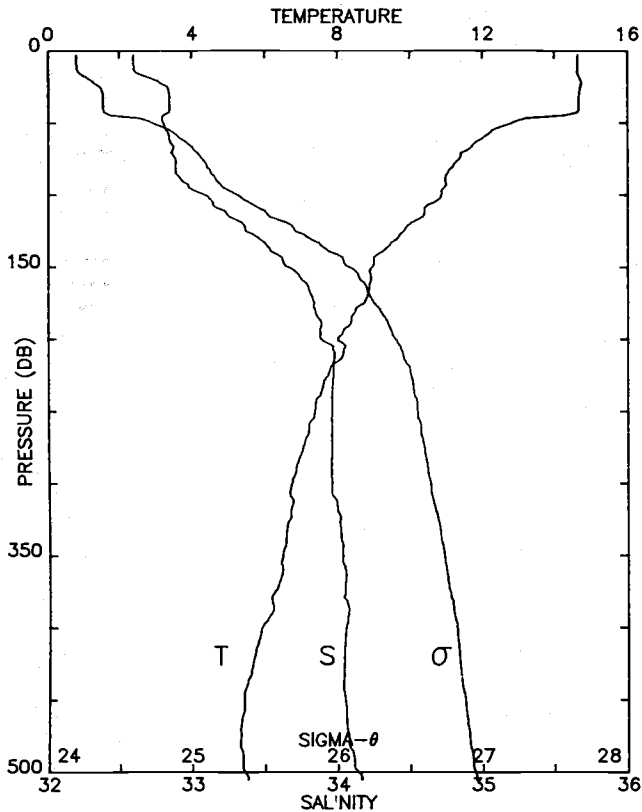
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	10.991	33.157	10.991	25.343	262.2	0.003
10	10.991	33.157	10.990	25.343	262.4	0.026
20	10.973	33.177	10.971	25.362	260.8	0.052
30	10.783	33.382	10.779	25.555	242.6	0.078
40	10.188	33.368	10.183	25.647	234.1	0.102
50	9.132	33.288	9.126	25.758	223.6	0.125
60	8.682	33.507	8.676	26.000	200.8	0.146
70	8.466	33.667	8.459	26.159	185.9	0.165
80	8.206	33.756	8.198	26.268	175.7	0.183
90	8.094	33.788	8.085	26.310	171.9	0.201
100	7.892	33.854	7.882	26.392	164.2	0.217
110	7.936	33.965	7.925	26.472	156.8	0.233
120	7.814	33.983	7.802	26.504	153.9	0.249
130	7.701	33.987	7.689	26.524	152.2	0.264
140	7.556	33.980	7.542	26.539	150.9	0.279
150	7.405	33.976	7.391	26.558	149.2	0.294
175	7.142	34.001	7.125	26.614	144.2	0.331
200	7.171	34.083	7.152	26.676	138.8	0.366
225	7.034	34.097	7.013	26.706	136.3	0.401
250	7.012	34.100	6.989	26.712	136.1	0.435
300	6.768	34.121	6.741	26.762	132.0	0.502
400	6.160	34.170	6.125	26.881	121.7	0.629
500	5.577	34.218	5.535	26.992	112.0	0.745
503	5.568	34.219	5.526	26.994	111.8	0.749

STA NO 24 A-1 LAT: 39 17.8 N LONG:124 19.0 W  
 22 JUN 1988 1451 GMT PROBE 2561 DEPTH 1545M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
3	10.039	32.851	10.039	25.268	269.3	0.008
10	10.030	32.853	10.029	25.271	269.2	0.027
20	9.965	32.892	9.963	25.313	265.4	0.054
30	9.757	32.979	9.754	25.415	255.9	0.080
40	9.707	33.078	9.702	25.501	247.9	0.105
50	9.676	33.141	9.670	25.556	242.9	0.129
60	10.028	33.391	10.021	25.693	230.2	0.153
70	10.000	33.411	9.993	25.713	228.4	0.176
80	10.249	33.529	10.240	25.763	224.0	0.198
90	9.454	33.571	9.444	25.929	208.3	0.220
100	8.375	33.573	8.365	26.099	192.1	0.240
110	8.179	33.654	8.168	26.192	183.4	0.259
120	8.107	33.772	8.095	26.296	173.7	0.276
130	7.930	33.837	7.917	26.373	166.6	0.293
140	7.821	33.881	7.807	26.424	161.9	0.310
150	7.697	33.907	7.682	26.462	158.4	0.326
175	7.492	33.987	7.475	26.555	150.0	0.364
200	6.929	33.964	6.910	26.615	144.5	0.401
225	6.737	33.985	6.717	26.658	140.7	0.437
250	6.526	33.998	6.503	26.697	137.3	0.472
300	6.196	34.041	6.170	26.773	130.5	0.539
400	5.169	34.041	5.138	26.899	119.1	0.664
500	4.884	34.139	4.845	27.010	109.5	0.778
505	4.869	34.140	4.830	27.013	109.2	0.783



STATION 24 A-1

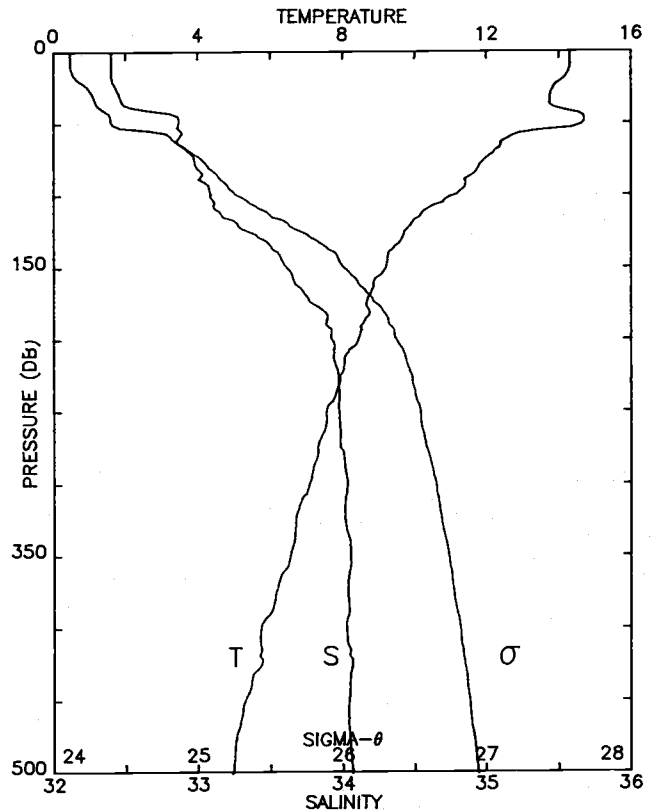


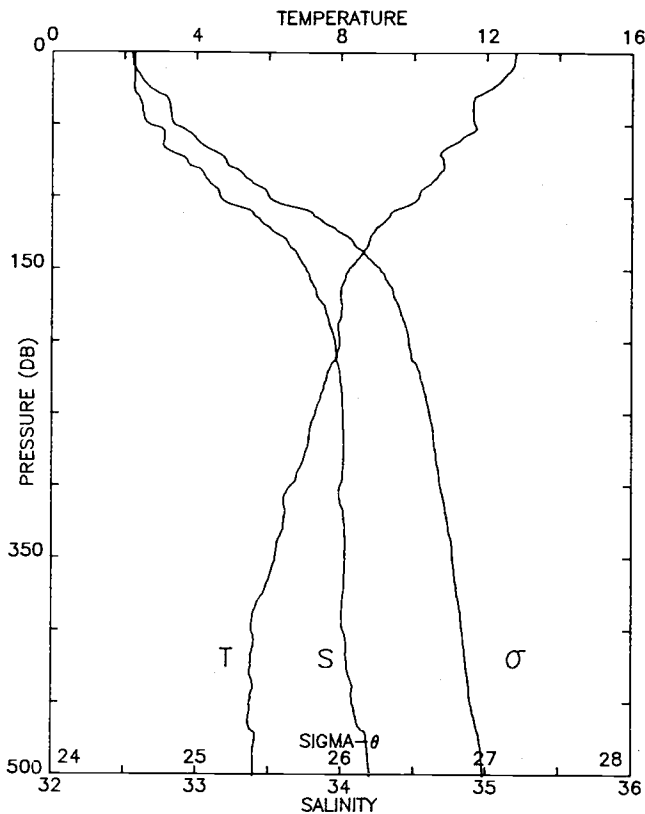
STA NO 25 B-1 LAT: 39 14.8 N LONG: 124 46.2 W  
 22 JUN 1988 1739 GMT PROBE 2561 DEPTH 2924M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
3	14.642	32.598	14.641	24.198	371.3	0.011
10	14.636	32.600	14.635	24.201	371.2	0.037
20	14.715	32.739	14.712	24.291	362.8	0.074
30	14.680	32.848	14.675	24.384	354.3	0.110
40	14.670	32.850	14.664	24.388	354.2	0.145
50	12.841	32.804	12.834	24.725	322.2	0.179
60	12.039	32.845	12.031	24.910	304.8	0.211
70	11.494	32.864	11.485	25.026	293.9	0.240
80	11.180	32.891	11.170	25.104	286.7	0.269
90	10.969	32.932	10.958	25.173	280.3	0.298
100	10.856	33.087	10.844	25.314	267.2	0.325
110	10.404	33.200	10.391	25.481	251.4	0.351
120	9.997	33.353	9.984	25.669	233.7	0.376
130	9.655	33.462	9.640	25.811	220.3	0.398
140	9.175	33.568	9.160	25.971	205.2	0.420
150	8.950	33.666	8.935	26.084	194.6	0.440
175	8.741	33.843	8.723	26.256	178.7	0.486
200	8.015	33.887	7.995	26.401	165.2	0.529
225	7.739	33.972	7.717	26.508	155.4	0.569
250	7.373	33.962	7.350	26.553	151.4	0.607
300	6.728	33.961	6.700	26.641	143.4	0.681
400	5.892	34.052	5.858	26.822	127.1	0.816
500	5.441	34.144	5.400	26.950	115.8	0.938
505	5.531	34.165	5.488	26.956	115.4	0.944

STA NO 26 B-2 LAT: 39 3.3 N LONG: 124 36.6 W  
 22 JUN 1988 1929 GMT PROBE 2561 DEPTH 3386M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	14.303	32.402	14.303	24.118	378.8	0.004
10	14.302	32.401	14.301	24.118	379.1	0.038
20	14.080	32.408	14.077	24.169	374.4	0.076
30	13.756	32.455	13.752	24.272	364.9	0.113
40	13.985	32.595	13.979	24.334	359.3	0.149
50	14.655	32.869	14.647	24.406	352.8	0.184
60	12.626	32.868	12.618	24.817	313.7	0.217
70	12.196	32.942	12.187	24.956	300.7	0.248
80	11.776	32.989	11.766	25.072	289.9	0.278
90	11.389	33.028	11.378	25.173	280.4	0.306
100	11.073	33.089	11.061	25.277	270.7	0.334
110	10.293	33.132	10.281	25.447	254.7	0.360
120	9.880	33.276	9.866	25.629	237.5	0.385
130	9.623	33.442	9.609	25.801	221.3	0.408
140	9.258	33.558	9.243	25.951	207.2	0.429
150	9.178	33.619	9.162	26.011	201.6	0.450
175	8.629	33.799	8.611	26.239	180.4	0.497
200	8.420	33.927	8.400	26.372	168.1	0.540
225	7.929	33.972	7.907	26.480	158.1	0.581
250	7.547	33.975	7.523	26.539	152.8	0.620
300	7.084	34.033	7.056	26.650	142.8	0.694
400	5.735	34.026	5.701	26.821	127.0	0.830
500	4.964	34.069	4.925	26.946	115.6	0.951
501	4.956	34.069	4.916	26.947	115.5	0.952





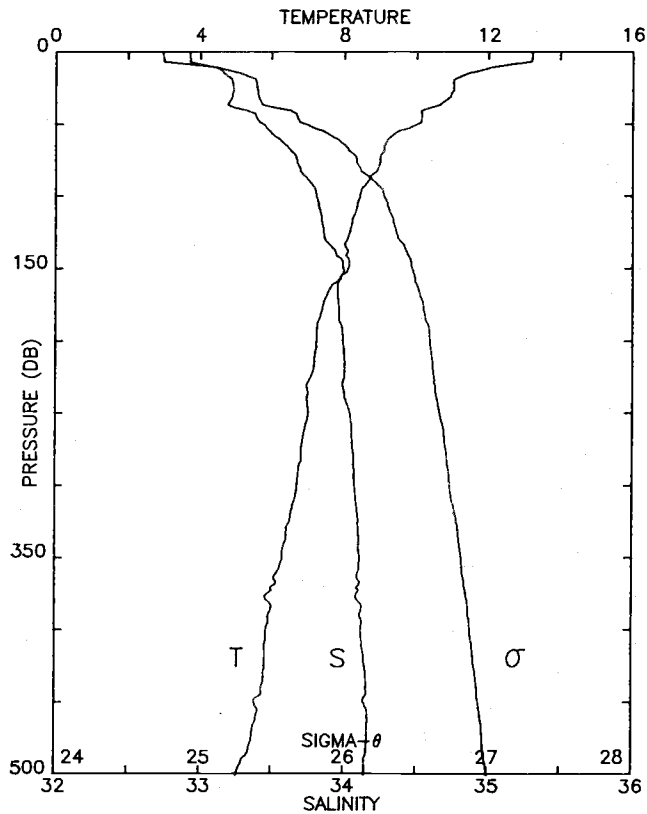
STATION 27 B-3

STA NO 27 B-3 LAT: 38 51.9 N LONG: 124 29.3 W  
 22 JUN 1988 2105 GMT PROBE 2561 DEPTH 3476M

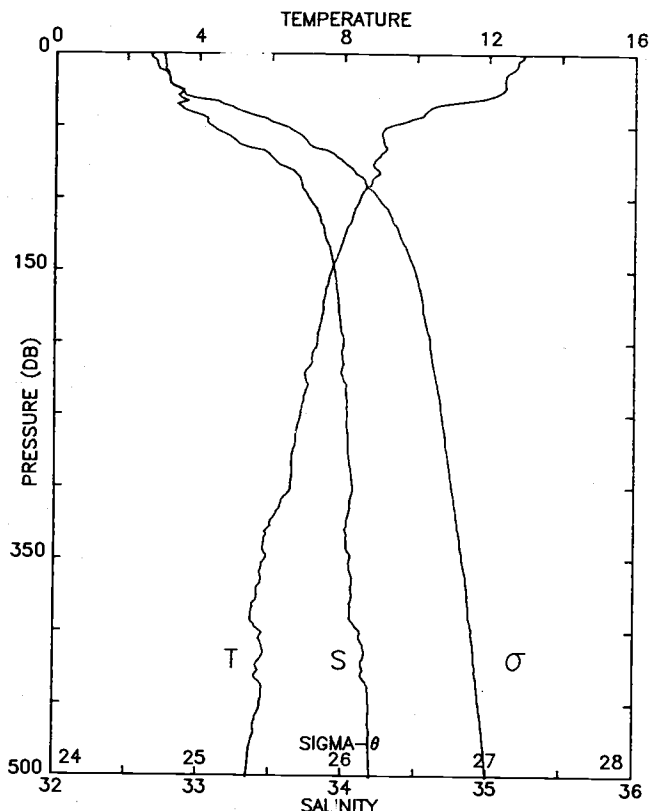
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	12.788	32.570	12.788	24.553	337.4	0.003
10	12.716	32.571	12.715	24.567	336.2	0.034
20	12.372	32.568	12.370	24.632	330.3	0.067
30	11.749	32.589	11.745	24.765	317.9	0.100
40	11.607	32.625	11.602	24.819	312.9	0.131
50	11.660	32.669	11.654	24.844	310.8	0.162
60	11.289	32.778	11.282	24.996	296.5	0.192
70	10.718	32.840	10.709	25.145	282.5	0.222
80	10.812	32.992	10.803	25.247	273.0	0.249
90	10.461	33.088	10.450	25.383	260.3	0.276
100	10.115	33.163	10.104	25.501	249.3	0.301
110	9.411	33.377	9.399	25.784	222.4	0.325
120	9.035	33.487	9.023	25.930	208.7	0.347
130	8.777	33.625	8.763	26.079	194.7	0.367
140	8.558	33.701	8.543	26.173	185.9	0.386
150	8.218	33.760	8.203	26.270	176.7	0.404
175	8.034	33.888	8.017	26.399	165.0	0.447
200	7.964	33.960	7.944	26.466	159.0	0.487
225	7.604	33.994	7.582	26.545	151.8	0.526
250	7.285	34.016	7.261	26.607	146.2	0.563
300	6.614	33.995	6.587	26.683	139.4	0.634
400	5.529	34.015	5.496	26.836	125.3	0.766
500	5.584	34.206	5.542	26.982	113.0	0.885
501	5.582	34.206	5.540	26.982	113.0	0.887

STA NO 28 B-4 LAT: 38 40.8 N LONG: 124 20.8 W  
 22 JUN 1988 2254 GMT PROBE 2561 DEPTH 3407M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	13.219	32.926	13.219	24.744	319.2	0.003
10	12.291	33.062	12.290	25.030	292.2	0.031
20	11.026	33.222	11.024	25.387	258.4	0.059
30	10.945	33.225	10.942	25.404	257.0	0.084
40	10.242	33.282	10.237	25.571	241.3	0.110
50	10.039	33.431	10.034	25.722	227.2	0.133
60	9.238	33.541	9.232	25.939	206.7	0.154
70	9.058	33.647	9.050	26.051	196.2	0.175
80	8.935	33.692	8.927	26.106	191.2	0.194
90	8.647	33.763	8.638	26.207	181.8	0.213
100	8.422	33.809	8.412	26.277	175.2	0.230
110	8.310	33.832	8.299	26.312	172.0	0.248
120	8.190	33.850	8.178	26.344	169.2	0.265
130	8.066	33.869	8.053	26.378	166.1	0.282
140	8.062	33.944	8.048	26.438	160.7	0.298
150	8.098	33.992	8.083	26.470	157.8	0.314
175	7.414	33.961	7.397	26.545	150.8	0.352
200	7.227	33.990	7.208	26.595	146.5	0.389
225	7.072	33.999	7.051	26.624	144.1	0.426
250	7.013	34.040	6.990	26.664	140.7	0.461
300	6.702	34.075	6.675	26.734	134.6	0.530
400	5.861	34.119	5.827	26.879	121.7	0.657
500	5.048	34.148	5.009	26.999	110.8	0.774
501	5.042	34.149	5.002	27.000	110.6	0.775



STATION 28 B-4



STATION 29 B-5

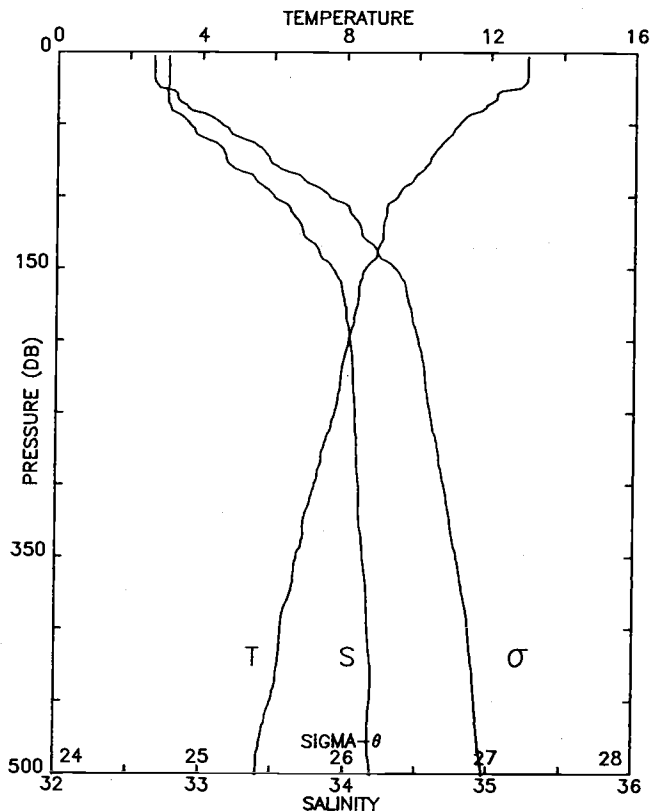
STA NO 29 B-5 LAT: 38 29.5 N LONG:124 12.2 W  
 23 JUN 1988 0050 GMT PROBE 2561 DEPTH 3422M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	12.952	32.754	12.952	24.664	326.8	0.003
10	12.715	32.762	12.713	24.716	322.0	0.032
20	12.427	32.794	12.425	24.797	314.6	0.064
30	11.960	32.863	11.956	24.938	301.4	0.095
40	10.244	32.926	10.240	25.293	267.8	0.123
50	9.221	33.081	9.215	25.582	240.4	0.148
60	9.068	33.246	9.062	25.736	225.9	0.172
70	8.986	33.483	8.979	25.934	207.3	0.193
80	8.901	33.628	8.893	26.061	195.5	0.214
90	8.737	33.705	8.728	26.147	187.4	0.233
100	8.430	33.758	8.419	26.236	179.1	0.251
110	8.264	33.823	8.253	26.312	172.1	0.269
120	8.102	33.860	8.090	26.366	167.1	0.286
130	7.971	33.886	7.958	26.405	163.5	0.302
140	7.828	33.918	7.814	26.452	159.2	0.318
150	7.668	33.939	7.654	26.492	155.6	0.334
175	7.449	33.971	7.432	26.548	150.6	0.372
200	7.280	34.006	7.261	26.600	146.0	0.409
225	6.976	34.004	6.955	26.641	142.4	0.445
250	6.827	34.030	6.804	26.682	138.9	0.480
300	6.551	34.069	6.524	26.750	133.0	0.548
400	5.760	34.124	5.726	26.895	120.1	0.674
500	5.385	34.201	5.344	27.002	110.9	0.790
501	5.382	34.201	5.341	27.002	110.8	0.791

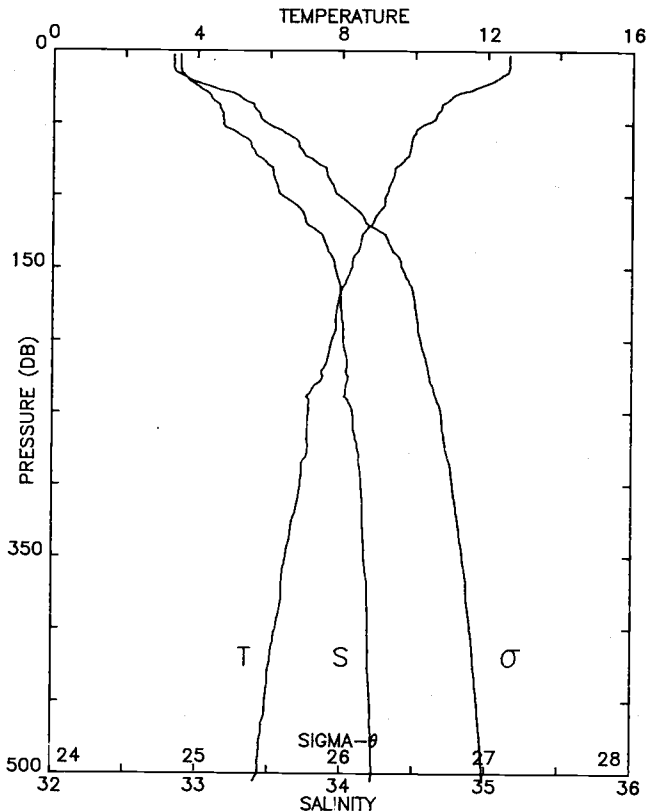
STA NO 30 B-6 LAT: 38 18.2 N LONG:124 3.8 W  
 23 JUN 1988 0253 GMT PROBE 2561 DEPTH 3523M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
3	13.004	32.768	13.004	24.664	326.8	0.010
10	12.994	32.768	12.993	24.666	326.8	0.033
20	12.973	32.768	12.971	24.670	326.7	0.065
30	12.142	32.762	12.138	24.826	312.1	0.097
40	11.755	32.783	11.750	24.915	303.8	0.128
50	11.113	32.910	11.107	25.130	283.6	0.157
60	10.775	33.016	10.768	25.272	270.2	0.185
70	10.422	33.153	10.414	25.440	254.4	0.211
80	10.165	33.214	10.156	25.532	245.9	0.236
90	9.803	33.384	9.793	25.725	227.7	0.260
100	9.404	33.500	9.393	25.881	213.0	0.282
110	9.101	33.618	9.089	26.022	199.8	0.302
120	9.012	33.690	9.000	26.093	193.3	0.322
130	8.993	33.740	8.979	26.135	189.4	0.341
140	8.837	33.819	8.822	26.222	181.3	0.360
150	8.520	33.908	8.504	26.341	170.1	0.377
175	8.308	33.992	8.290	26.439	161.3	0.418
200	8.060	34.030	8.040	26.507	155.2	0.458
225	7.858	34.051	7.836	26.553	151.2	0.496
250	7.692	34.068	7.668	26.591	147.9	0.533
300	7.150	34.093	7.122	26.688	139.3	0.605
400	6.253	34.163	6.218	26.863	123.5	0.737
500	5.590	34.192	5.548	26.970	114.1	0.856
501	5.591	34.193	5.549	26.970	114.1	0.857

LIN INT SAL 13-19 DB



STATION 30 B-6



STATION 31 B-7

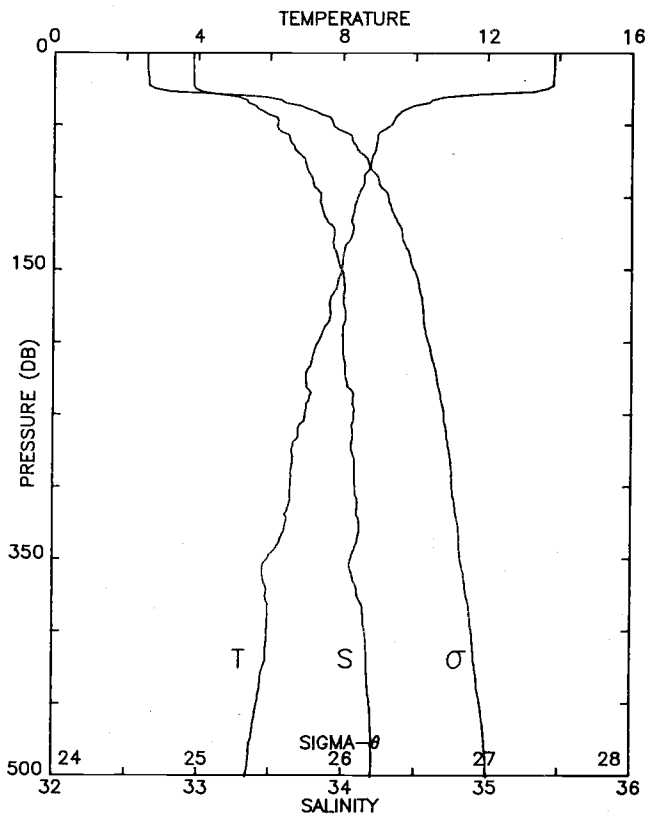
STA NO 31 B-7 LAT: 38 6.3 N LONG: 123 56.1 W  
 23 JUN 1988 0455 GMT PROBE 2561 DEPTH 3513M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
3	12.588	32.880	12.587	24.832	310.8	0.009
10	12.588	32.880	12.587	24.832	311.0	0.031
20	12.203	32.934	12.200	24.948	300.2	0.062
30	11.118	33.080	11.115	25.261	270.6	0.090
40	10.698	33.156	10.694	25.394	258.1	0.117
50	10.335	33.179	10.330	25.475	250.7	0.142
60	9.923	33.323	9.916	25.657	233.5	0.166
70	9.842	33.395	9.835	25.727	227.1	0.189
80	9.517	33.501	9.508	25.863	214.3	0.212
90	9.359	33.538	9.350	25.918	209.3	0.233
100	9.209	33.580	9.198	25.975	204.0	0.253
110	9.068	33.714	9.057	26.103	192.1	0.273
120	8.834	33.758	8.821	26.174	185.5	0.292
130	8.535	33.874	8.521	26.312	172.6	0.310
140	8.403	33.917	8.388	26.365	167.6	0.327
150	8.270	33.954	8.255	26.415	163.1	0.343
175	7.878	33.995	7.861	26.505	154.8	0.383
200	7.727	34.014	7.708	26.543	151.7	0.421
225	7.483	34.049	7.461	26.605	146.1	0.458
250	7.080	34.077	7.057	26.684	138.8	0.494
300	6.859	34.141	6.831	26.765	131.8	0.562
400	6.195	34.192	6.160	26.894	120.5	0.687
500	5.713	34.227	5.671	26.983	113.1	0.804
505	5.624	34.219	5.582	26.987	112.6	0.810

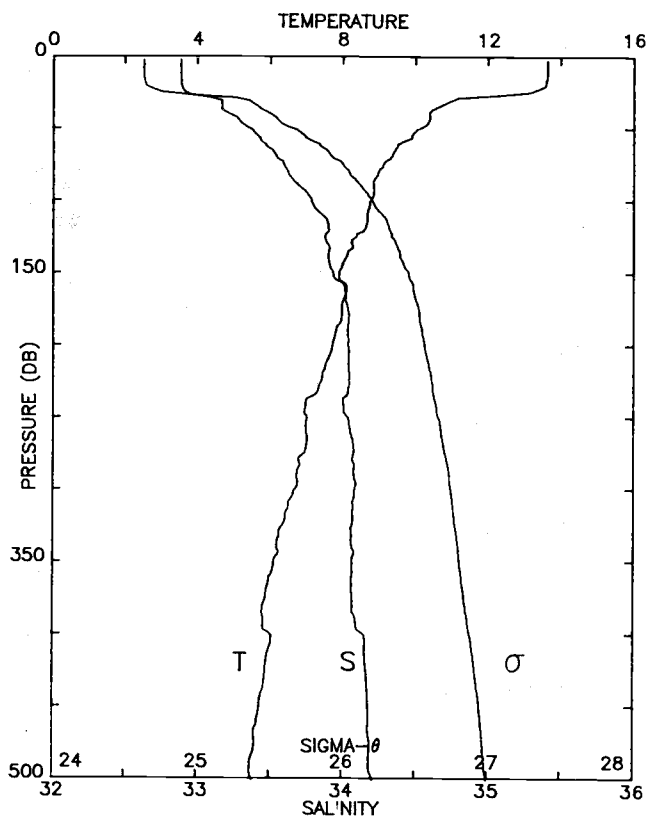
STA NO 32 B-8 LAT: 37 55.8 N LONG: 123 47.0 W  
 23 JUN 1988 0714 GMT PROBE 2561 DEPTH 3388M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	OELO
1	13.853	32.963	13.853	24.644	328.7	0.003
10	13.853	32.962	13.851	24.644	329.0	0.033
20	13.821	32.964	13.818	24.652	328.5	0.066
30	11.260	33.207	11.256	25.333	263.8	0.097
40	9.674	33.432	9.669	25.783	221.1	0.121
50	9.312	33.548	9.307	25.933	207.1	0.142
60	8.931	33.635	8.925	26.061	195.0	0.162
70	8.834	33.702	8.827	26.129	188.8	0.181
80	8.719	33.755	8.710	26.189	183.3	0.200
90	8.564	33.797	8.555	26.246	178.0	0.218
100	8.394	33.847	8.383	26.311	172.0	0.235
110	8.295	33.865	8.284	26.341	169.4	0.252
120	8.288	33.932	8.276	26.394	164.5	0.269
130	8.169	33.935	8.156	26.414	162.7	0.285
140	8.009	33.961	7.995	26.459	158.6	0.301
150	7.968	33.991	7.954	26.489	156.0	0.317
175	7.644	34.010	7.627	26.551	150.4	0.355
200	7.325	34.002	7.306	26.590	147.0	0.393
225	7.002	34.024	6.981	26.653	141.3	0.429
250	6.967	34.079	6.944	26.701	137.1	0.463
300	6.577	34.088	6.550	26.761	132.0	0.530
400	5.940	34.160	5.906	26.901	119.7	0.656
500	5.364	34.205	5.323	27.007	110.4	0.771
501	5.359	34.205	5.318	27.008	110.3	0.772

4 MIN GAP AT 202 DB



STATION 32 B-8



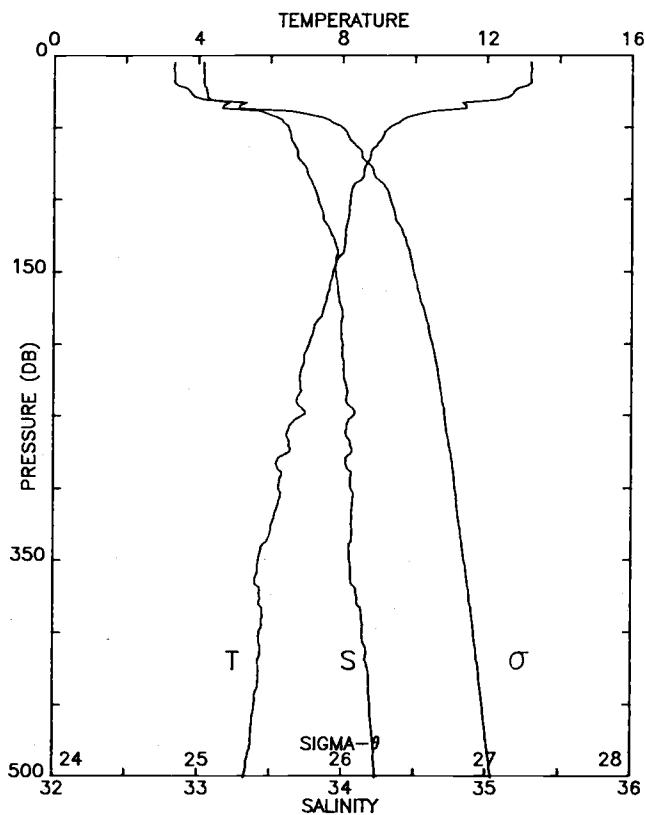
STATION 33 B-9

STA NO 33 B-9 LAT: 37 43.9 N LONG: 123 38.5 W  
 23 JUN 1988 0919 GMT PROBE 2561 DEPTH 2984M

PRESS	TEMP	SAL	POTEN	SIGMA	SVA	DELD
	TEMP		TEMP	THETA		
3	13.629	32.884	13.629	24.629	330.2	0.010
10	13.632	32.884	13.630	24.629	330.4	0.033
20	13.570	32.889	13.567	24.645	329.1	0.066
30	11.067	33.132	11.063	25.311	265.9	0.097
40	10.384	33.219	10.379	25.498	248.3	0.122
50	10.132	33.359	10.126	25.650	234.0	0.147
60	9.600	33.453	9.593	25.812	218.8	0.169
70	9.325	33.544	9.318	25.928	208.0	0.191
80	8.982	33.619	8.974	26.041	197.3	0.211
90	8.846	33.699	8.837	26.126	189.5	0.230
100	8.764	33.784	8.753	26.205	182.1	0.249
110	8.671	33.858	8.659	26.277	175.5	0.267
120	8.602	33.904	8.590	26.324	171.2	0.284
130	8.262	33.897	8.249	26.371	166.9	0.301
140	8.073	33.902	8.059	26.403	164.0	0.317
150	7.900	33.934	7.885	26.454	159.2	0.334
175	7.970	34.039	7.953	26.526	152.9	0.373
200	7.720	34.042	7.700	26.566	149.5	0.410
225	7.407	34.048	7.386	26.615	145.0	0.447
250	7.017	34.036	6.994	26.660	141.0	0.483
300	6.689	34.087	6.662	26.746	133.5	0.551
400	6.024	34.146	5.989	26.879	121.8	0.679
500	5.517	34.213	5.475	26.996	111.6	0.795
501	5.528	34.217	5.486	26.997	111.5	0.797

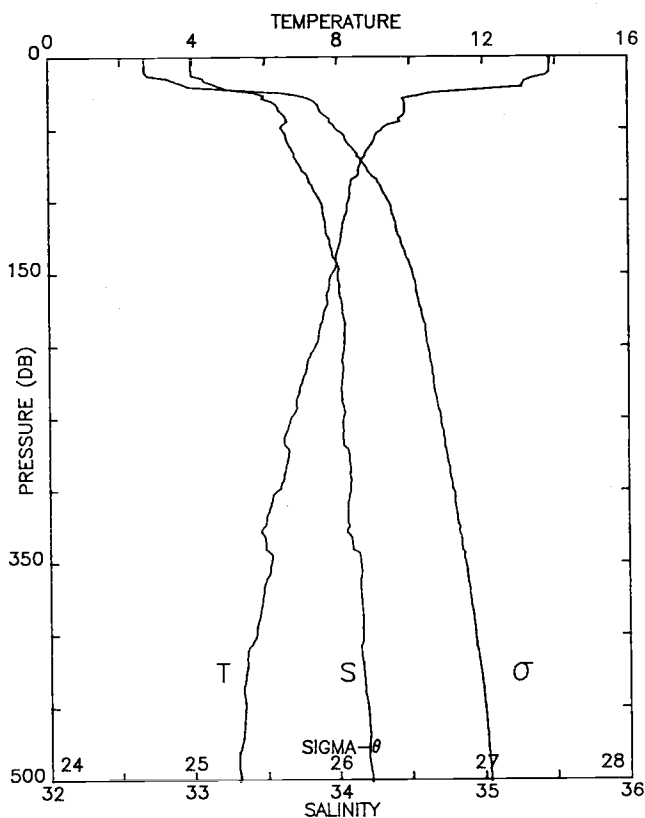
STA NO 34 C-9 LAT: 37 39.6 N LONG: 124 5.5 W  
 23 JUN 1988 1219 GMT PROBE 2561 DEPTH 3523M

PRESS	TEMP	SAL	POTEN	SIGMA	SVA	DELD
	TEMP		TEMP	THETA		
5	13.195	33.036	13.194	24.834	310.7	0.016
10	13.216	33.034	13.215	24.828	311.4	0.031
20	13.156	33.037	13.153	24.843	310.3	0.062
30	12.448	33.071	12.444	25.007	294.8	0.092
40	10.293	33.454	10.289	25.696	229.4	0.119
50	9.297	33.624	9.291	25.995	201.2	0.140
60	8.999	33.652	8.993	26.064	194.7	0.160
70	8.751	33.690	8.743	26.133	188.4	0.179
80	8.574	33.753	8.566	26.210	181.3	0.197
90	8.301	33.795	8.292	26.284	174.4	0.215
100	8.199	33.832	8.189	26.329	170.3	0.232
110	8.169	33.866	8.158	26.360	167.5	0.249
120	8.081	33.908	8.069	26.406	163.3	0.266
130	8.054	33.948	8.041	26.442	160.1	0.282
140	7.888	33.954	7.875	26.471	157.4	0.298
150	7.725	33.951	7.710	26.493	155.5	0.314
175	7.470	33.994	7.454	26.564	149.1	0.352
200	7.075	34.000	7.057	26.624	143.7	0.388
225	6.812	34.013	6.792	26.670	139.6	0.424
250	6.904	34.079	6.881	26.710	136.3	0.458
300	6.234	34.060	6.208	26.784	129.6	0.525
400	5.702	34.141	5.668	26.915	118.1	0.648
500	5.300	34.236	5.259	27.039	107.2	0.761
501	5.299	34.236	5.258	27.040	107.2	0.762



STATION 34 C-9





STATION 35 C-8

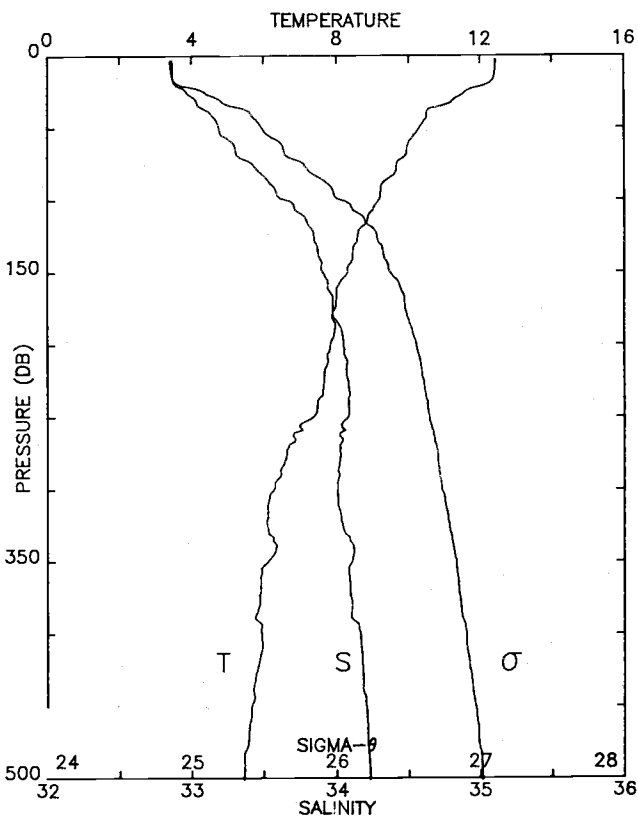
STA NO 35 C-8 LAT: 37 51.0 N LONG: 124 14.0 W  
 23 JUN 1988 1447 GMT PROBE 2561 DEPTH 3767M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	13.847	32.992	13.847	24.668	326.5	0.003
10	13.837	32.993	13.836	24.671	326.4	0.033
20	13.084	33.165	13.081	24.956	299.5	0.064
30	9.825	33.512	9.821	25.820	217.4	0.089
40	9.835	33.624	9.831	25.906	209.4	0.110
50	9.250	33.613	9.245	25.994	201.3	0.131
60	8.967	33.658	8.961	26.074	193.8	0.151
70	8.717	33.706	8.710	26.151	186.7	0.169
80	8.585	33.768	8.576	26.219	180.4	0.188
90	8.344	33.826	8.335	26.302	172.7	0.205
100	8.292	33.881	8.282	26.353	168.0	0.222
110	8.208	33.904	8.196	26.384	165.3	0.239
120	8.115	33.916	8.103	26.407	163.2	0.256
130	8.041	33.946	8.028	26.442	160.0	0.272
140	7.941	33.977	7.928	26.481	156.5	0.288
150	7.837	34.001	7.823	26.516	153.4	0.303
175	7.622	34.034	7.605	26.573	148.3	0.341
200	7.367	34.044	7.348	26.618	144.4	0.377
225	6.986	34.025	6.966	26.656	141.0	0.413
250	6.676	34.036	6.654	26.706	136.4	0.448
300	6.324	34.084	6.297	26.791	129.0	0.514
400	5.693	34.164	5.660	26.935	116.3	0.636
500	5.222	34.223	5.182	27.038	107.2	0.747
501	5.214	34.223	5.174	27.039	107.2	0.748

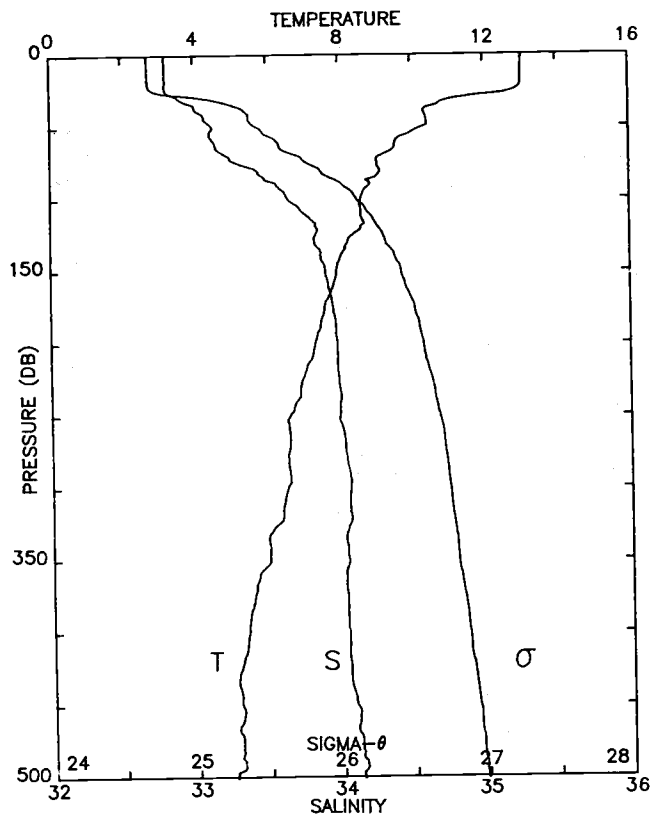
LIN INT SAL 17-23 DB  
 UP CAST

STA NO 36 C-7 LAT: 38 2.9 N LONG: 124 22.1 W  
 23 JUN 1988 1742 GMT PROBE 2561 DEPTH 3843M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
3	12.431	32.866	12.430	24.851	309.0	0.009
10	12.409	32.868	12.408	24.857	308.7	0.031
20	12.190	32.884	12.187	24.912	303.7	0.062
30	11.299	33.021	11.295	25.183	278.1	0.091
40	10.500	33.131	10.495	25.409	256.7	0.117
50	10.300	33.192	10.294	25.491	249.2	0.143
60	10.001	33.283	9.994	25.613	237.8	0.167
70	9.882	33.327	9.874	25.667	232.8	0.191
80	9.644	33.466	9.635	25.815	218.9	0.213
90	9.241	33.562	9.231	25.956	205.7	0.234
100	9.174	33.652	9.163	26.037	198.2	0.255
110	8.902	33.764	8.891	26.167	185.9	0.274
120	8.651	33.833	8.639	26.261	177.2	0.292
130	8.533	33.860	8.520	26.301	173.6	0.309
140	8.448	33.887	8.434	26.335	170.5	0.327
150	8.306	33.911	8.291	26.375	166.9	0.343
175	7.967	33.977	7.949	26.478	157.4	0.383
200	7.841	34.052	7.822	26.556	150.5	0.422
225	7.655	34.084	7.633	26.608	145.9	0.459
250	7.358	34.079	7.334	26.647	142.5	0.495
300	6.286	34.006	6.260	26.734	134.3	0.564
400	5.946	34.166	5.912	26.905	119.3	0.690
500	5.451	34.232	5.409	27.018	109.4	0.804
501	5.449	34.232	5.408	27.019	109.4	0.805



STATION 36 C-7

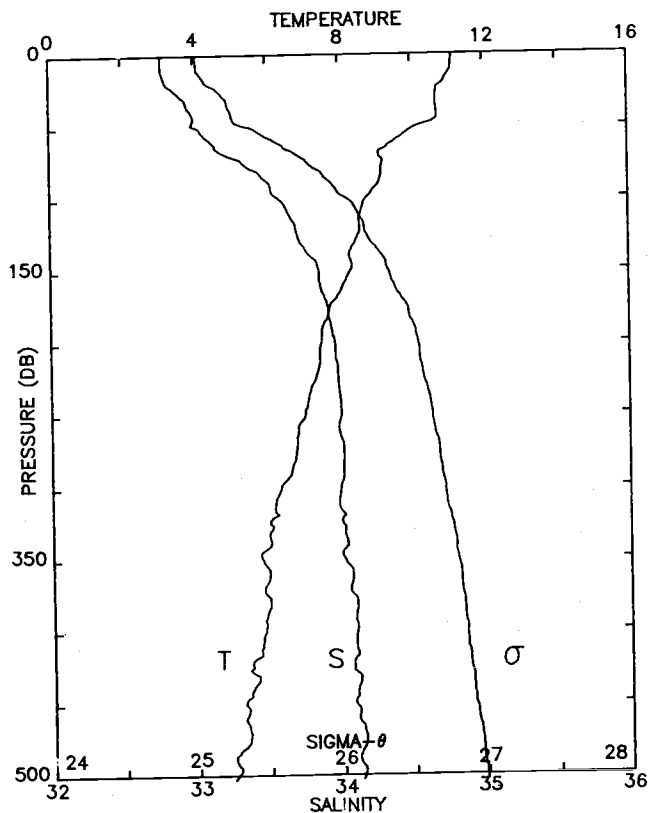


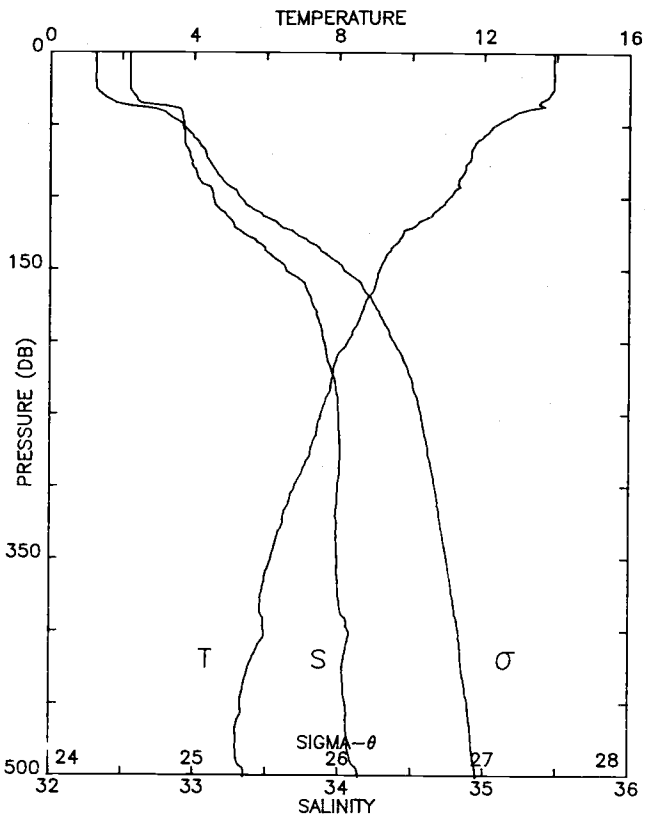
STA NO 37 C-6 LAT: 38 15.2 N LONG: 124 30.0 W  
 23 JUN 1988 2116 GMT PROBE 2561 DEPTH 3815M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	13.065	32.804	13.065	24.680	325.3	0.003
10	13.049	32.804	13.048	24.684	325.2	0.033
20	13.038	32.805	13.035	24.686	325.2	0.065
30	11.425	32.892	11.422	25.059	289.9	0.097
40	10.357	33.039	10.353	25.362	261.2	0.124
50	10.343	33.126	10.337	25.432	254.7	0.150
60	9.568	33.136	9.561	25.569	241.8	0.175
70	9.152	33.227	9.145	25.708	228.8	0.198
80	9.130	33.426	9.122	25.867	213.9	0.220
90	8.841	33.564	8.831	26.021	199.5	0.241
100	8.593	33.643	8.583	26.121	190.1	0.261
110	8.596	33.753	8.585	26.207	182.1	0.279
120	8.593	33.841	8.580	26.276	175.8	0.297
130	8.216	33.825	8.202	26.321	171.5	0.314
140	8.020	33.870	8.006	26.385	165.6	0.331
150	7.905	33.902	7.890	26.428	161.7	0.348
175	7.569	33.953	7.552	26.517	153.6	0.387
200	7.295	33.979	7.276	26.577	148.2	0.425
225	6.937	33.990	6.917	26.635	143.0	0.461
250	6.588	33.993	6.566	26.684	138.5	0.497
300	6.496	34.062	6.469	26.751	132.8	0.564
400	5.383	34.042	5.350	26.875	121.5	0.692
500	5.022	34.133	4.983	26.990	111.5	0.808
501	5.028	34.136	4.988	26.991	111.4	0.809

STA NO 38 C-5 LAT: 38 26.0 N LONG: 124 39.1 W  
 23 JUN 1988 2332 GMT PROBE 2561 DEPTH 3797M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.152	32.777	11.152	25.018	293.0	0.003
10	11.124	32.779	11.123	25.025	292.6	0.029
20	10.891	32.812	10.888	25.092	286.4	0.058
30	10.693	32.926	10.689	25.216	274.9	0.086
40	10.718	32.985	10.714	25.258	271.1	0.114
50	10.194	33.009	10.188	25.366	261.0	0.140
60	9.543	33.116	9.536	25.558	242.9	0.166
70	9.096	33.233	9.089	25.721	227.6	0.189
80	9.151	33.412	9.143	25.853	215.2	0.211
90	9.059	33.523	9.050	25.954	205.8	0.232
100	8.719	33.585	8.709	26.056	196.3	0.252
110	8.575	33.650	8.563	26.129	189.5	0.272
120	8.551	33.699	8.538	26.171	185.7	0.290
130	8.415	33.728	8.402	26.215	181.7	0.309
140	8.252	33.802	8.238	26.298	174.0	0.327
150	8.279	33.857	8.264	26.338	170.4	0.344
175	7.700	33.917	7.683	26.470	158.1	0.385
200	7.465	33.963	7.446	26.540	151.8	0.424
225	7.311	33.984	7.289	26.579	148.5	0.461
250	7.009	34.001	6.986	26.634	143.5	0.498
300	6.327	33.992	6.301	26.718	135.8	0.568
400	5.845	34.093	5.812	26.860	123.4	0.696
500	5.046	34.136	5.006	26.990	111.6	0.814
503	4.952	34.125	4.912	26.992	111.3	0.817





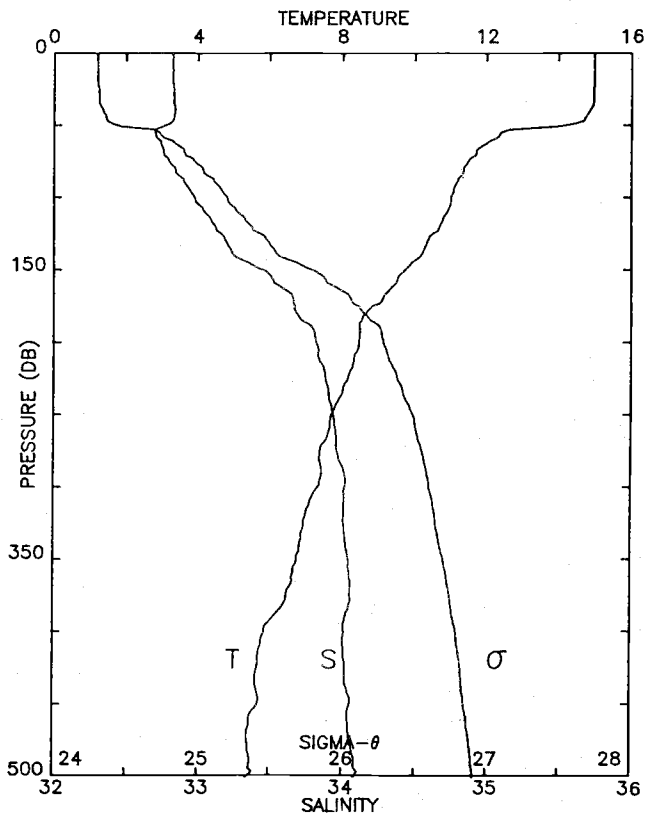
STA NO 39 C-4 LAT: 38 37.7 N LONG:124 48.1 W  
 24 JUN 1988 0225 GMT PROBE 2561 DEPTH 3748M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	13.915	32.553	13.915	24.315	360.1	0.004
10	13.913	32.553	13.911	24.316	360.2	0.036
20	13.919	32.553	13.916	24.315	360.6	0.072
30	13.771	32.588	13.767	24.372	355.4	0.108
40	13.063	32.909	13.057	24.763	318.4	0.142
50	12.303	32.927	12.297	24.924	303.2	0.173
60	11.859	32.934	11.852	25.013	295.0	0.203
70	11.638	32.971	11.629	25.083	288.5	0.232
80	11.478	33.003	11.468	25.137	283.6	0.261
90	11.281	33.054	11.270	25.213	276.6	0.289
100	11.040	33.132	11.028	25.317	266.9	0.316
110	10.634	33.199	10.621	25.440	255.3	0.342
120	10.077	33.279	10.063	25.598	240.5	0.367
130	9.647	33.427	9.632	25.785	222.8	0.390
140	9.303	33.532	9.288	25.923	209.8	0.412
150	9.113	33.635	9.097	26.034	199.4	0.432
175	8.693	33.826	8.675	26.250	179.3	0.479
200	8.237	33.900	8.217	26.378	167.5	0.522
225	7.807	33.971	7.785	26.498	156.4	0.563
250	7.504	34.000	7.480	26.564	150.3	0.601
300	6.773	33.993	6.746	26.660	141.6	0.674
400	5.951	34.073	5.917	26.831	126.3	0.808
500	5.404	34.143	5.362	26.954	115.4	0.929
501	5.404	34.144	5.363	26.954	115.4	0.930

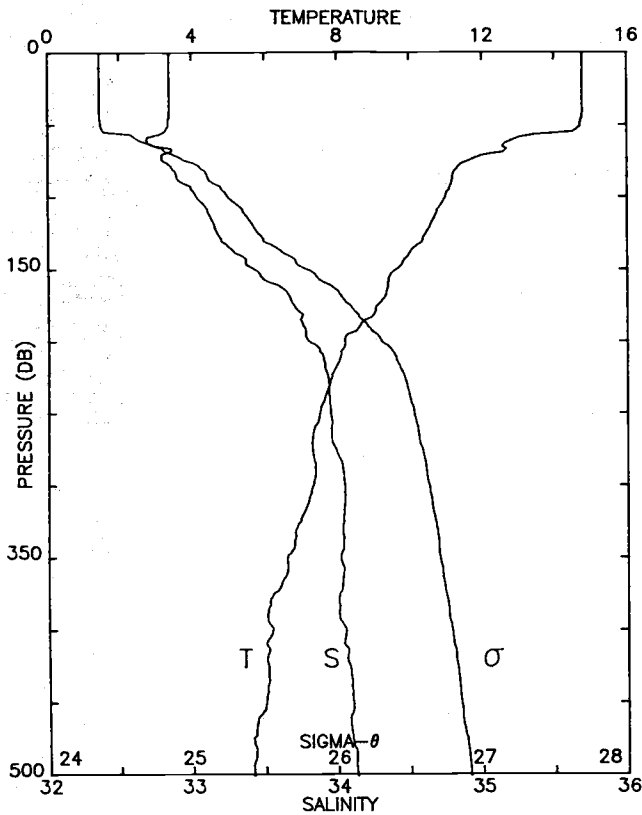
STATION 39 C-4

STA NO 40 C-3 LAT: 38 48.8 N LONG:124 56.2 W  
 24 JUN 1988 0500 GMT PROBE 2561 DEPTH 3508M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	14.973	32.821	14.973	24.299	361.5	0.004
10	14.972	32.823	14.971	24.301	361.6	0.036
20	14.974	32.824	14.971	24.302	361.9	0.072
30	14.951	32.831	14.946	24.312	361.2	0.108
40	14.844	32.839	14.838	24.342	358.6	0.145
50	14.187	32.777	14.180	24.433	350.2	0.180
60	12.162	32.725	12.154	24.794	315.8	0.213
70	11.693	32.762	11.684	24.910	304.9	0.244
80	11.359	32.842	11.349	25.033	293.5	0.274
90	11.157	32.909	11.146	25.122	285.2	0.303
100	11.009	32.979	10.997	25.203	277.7	0.331
110	10.895	33.046	10.882	25.275	271.1	0.358
120	10.681	33.121	10.667	25.371	262.1	0.385
130	10.355	33.196	10.340	25.486	251.3	0.410
140	10.172	33.252	10.156	25.561	244.4	0.435
150	9.735	33.450	9.718	25.789	222.9	0.459
175	8.802	33.676	8.784	26.116	192.1	0.510
200	8.456	33.823	8.435	26.285	176.4	0.556
225	8.157	33.886	8.134	26.379	167.8	0.599
250	7.704	33.938	7.679	26.487	157.8	0.640
300	7.335	34.020	7.307	26.605	147.3	0.716
400	5.868	34.014	5.834	26.794	129.6	0.854
500	5.422	34.094	5.381	26.912	119.3	0.979
501	5.369	34.086	5.328	26.913	119.2	0.980



STATION 40 C-3



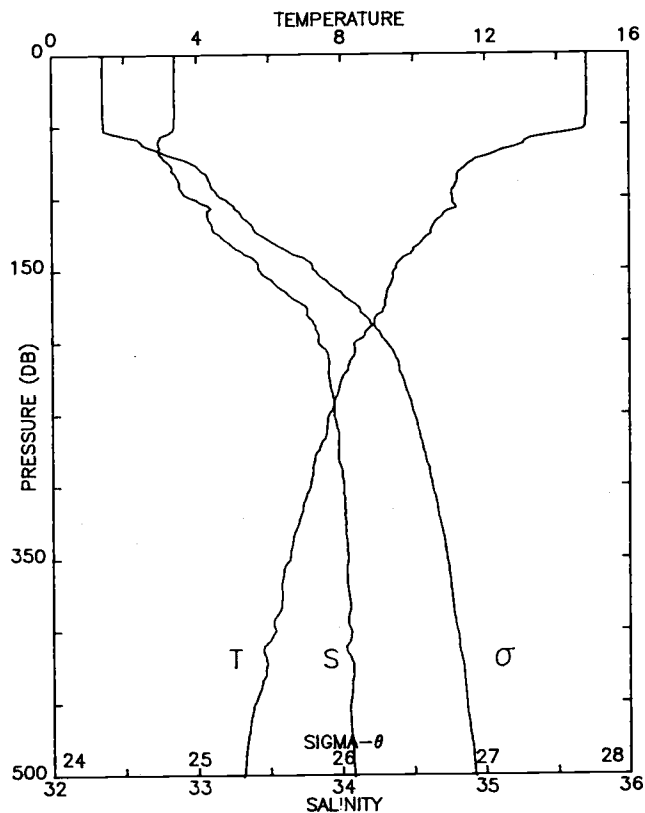
STA NO 41 C-2 LAT: 39 0.6 N LONG: 125 4.7 W  
 24 JUN 1988 0743 GMT PROBE 2561 DEPTH 3375M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	14.775	32.845	14.775	24.360	355.7	0.004
10	14.774	32.845	14.772	24.361	356.0	0.036
20	14.775	32.845	14.772	24.360	356.3	0.071
30	14.776	32.845	14.771	24.361	356.5	0.107
40	14.777	32.845	14.771	24.361	356.8	0.143
50	14.711	32.837	14.704	24.369	356.3	0.178
60	12.920	32.692	12.912	24.623	332.2	0.213
70	12.312	32.827	12.303	24.845	311.3	0.245
80	11.306	32.861	11.297	25.058	291.1	0.275
90	11.155	32.927	11.144	25.136	283.9	0.304
100	10.981	33.031	10.969	25.248	273.4	0.332
110	10.744	33.110	10.731	25.352	263.7	0.358
120	10.560	33.157	10.546	25.420	257.4	0.384
130	10.354	33.203	10.338	25.492	250.8	0.410
140	9.963	33.324	9.947	25.652	235.7	0.434
150	9.624	33.428	9.608	25.790	222.7	0.457
175	9.078	33.702	9.059	26.092	194.4	0.509
200	8.202	33.804	8.182	26.308	174.1	0.555
225	7.839	33.933	7.817	26.463	159.6	0.596
250	7.498	33.953	7.474	26.528	153.7	0.635
300	7.310	34.049	7.281	26.631	144.8	0.710
400	6.190	34.055	6.155	26.787	130.7	0.848
500	5.664	34.133	5.622	26.915	119.4	0.972
501	5.666	34.135	5.623	26.916	119.3	0.974

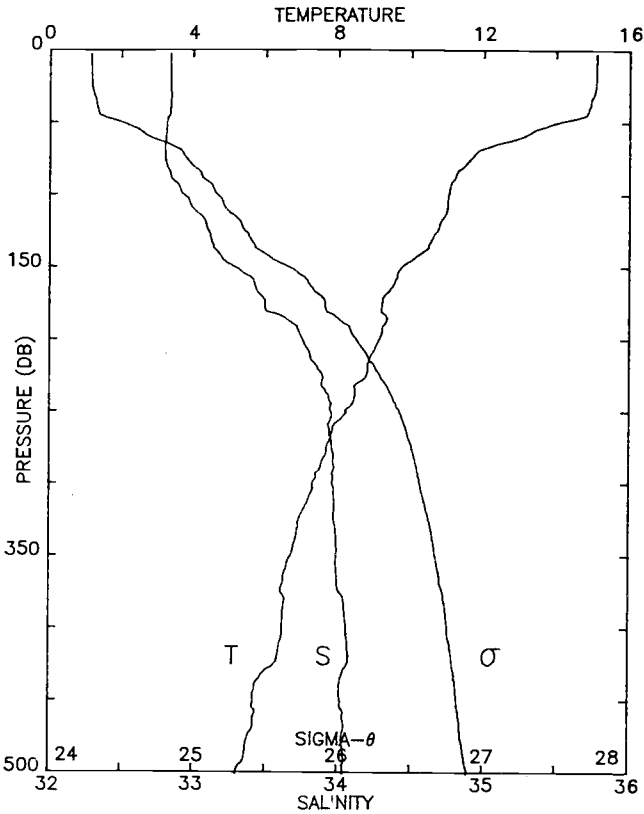
STATION 41 C-2

STA NO 42 C-1 LAT: 39 11.8 N LONG: 125 13.1 W  
 24 JUN 1988 1010 GMT PROBE 2561 DEPTH 3132M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	14.828	32.848	14.828	24.351	356.6	0.004
10	14.832	32.848	14.830	24.351	356.9	0.036
20	14.826	32.846	14.823	24.351	357.2	0.071
30	14.825	32.846	14.821	24.351	357.5	0.107
40	14.831	32.847	14.825	24.351	357.7	0.143
50	14.785	32.841	14.777	24.356	357.5	0.179
60	13.173	32.734	13.165	24.606	333.9	0.214
70	12.176	32.748	12.167	24.810	314.6	0.246
80	11.368	32.827	11.359	25.020	294.7	0.276
90	11.179	32.879	11.169	25.095	287.8	0.305
100	11.086	32.970	11.074	25.183	279.7	0.334
110	10.884	33.072	10.871	25.298	268.9	0.361
120	10.530	33.107	10.516	25.387	260.6	0.388
130	10.244	33.206	10.230	25.513	248.7	0.413
140	9.823	33.354	9.808	25.700	231.1	0.437
150	9.476	33.433	9.460	25.818	220.0	0.460
175	9.199	33.758	9.180	26.118	192.0	0.511
200	8.374	33.843	8.354	26.313	173.7	0.557
225	8.007	33.918	7.985	26.427	163.2	0.599
250	7.652	33.950	7.627	26.504	156.1	0.639
300	7.134	34.016	7.106	26.629	144.8	0.714
400	6.144	34.063	6.109	26.799	129.5	0.850
500	5.260	34.084	5.219	26.924	118.0	0.973
501	5.243	34.086	5.203	26.927	117.7	0.975



STATION 42 C-1



STATION 43 E-3

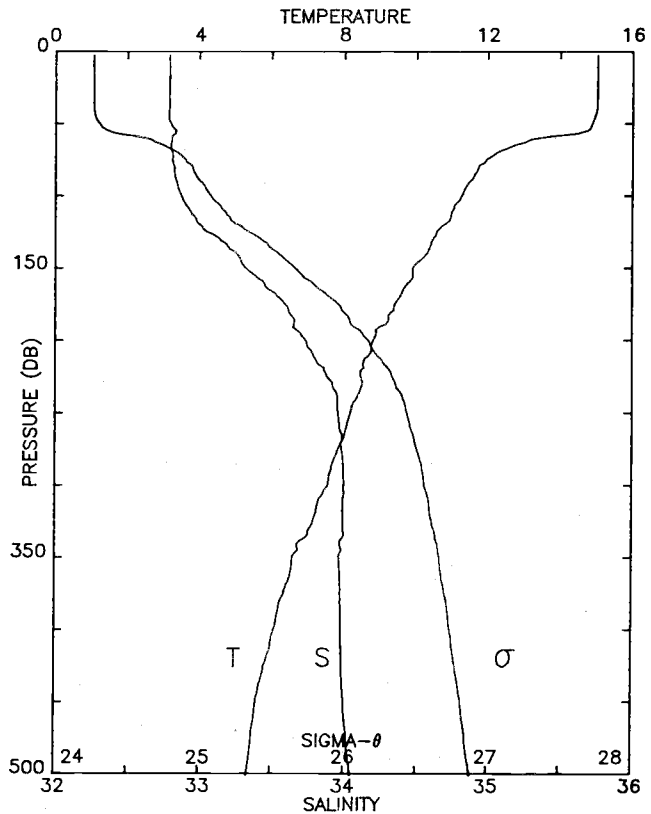
STA NO 43 E-3 LAT: 38 42.7 N LONG: 125 50.4 W  
 25 JUN 1988 0410 GMT PROBE 2561 DEPTH 4106M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
3	15.096	32.842	15.096	24.288	362.6	0.011
10	15.092	32.842	15.091	24.289	362.7	0.036
20	15.085	32.842	15.082	24.292	362.8	0.073
30	15.032	32.845	15.027	24.306	361.8	0.109
40	14.891	32.841	14.885	24.333	359.5	0.145
50	14.035	32.815	14.028	24.494	344.3	0.180
60	13.036	32.808	13.028	24.690	325.9	0.214
70	11.818	32.802	11.809	24.918	304.2	0.245
80	11.458	32.816	11.448	24.995	297.1	0.275
90	11.150	32.859	11.139	25.085	288.7	0.304
100	11.022	32.930	11.010	25.163	281.5	0.333
110	10.981	33.002	10.968	25.226	275.8	0.361
120	10.782	33.089	10.768	25.329	266.1	0.388
130	10.581	33.123	10.565	25.391	260.5	0.414
140	10.293	33.171	10.277	25.478	252.3	0.440
150	9.749	33.284	9.732	25.657	235.4	0.464
175	9.209	33.498	9.190	25.912	211.5	0.520
200	9.136	33.754	9.114	26.125	191.8	0.570
225	8.781	33.894	8.757	26.290	176.5	0.616
250	8.216	33.951	8.191	26.422	164.2	0.659
300	7.299	33.962	7.271	26.564	151.1	0.737
400	6.477	34.062	6.442	26.755	133.9	0.879
500	5.213	34.042	5.173	26.896	120.6	1.006
501	5.213	34.043	5.172	26.897	120.6	1.007

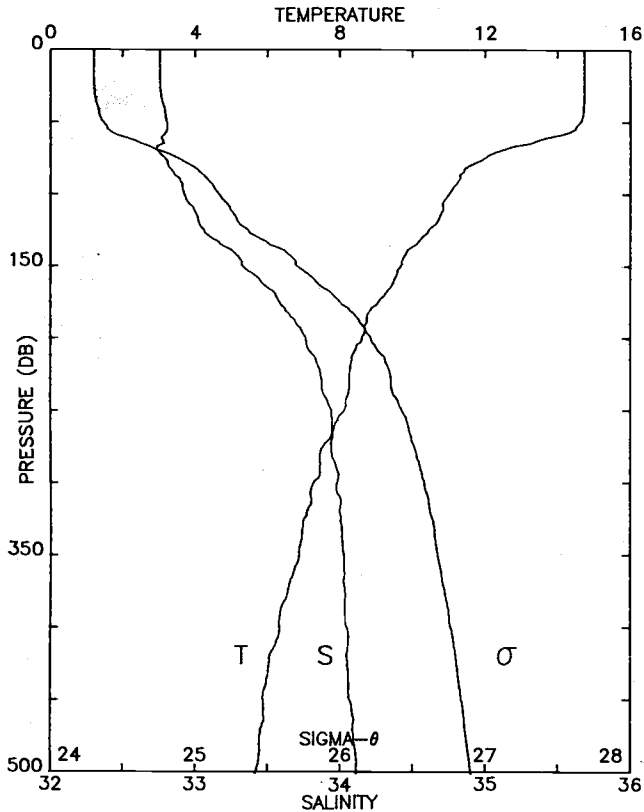
STA NO 44 E-4 LAT: 38 30.8 N LONG: 125 41.3 W  
 25 JUN 1988 0608 GMT PROBE 2561 DEPTH 3989M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
3	15.024	32.790	15.024	24.264	365.0	0.011
10	15.025	32.790	15.023	24.264	365.2	0.037
20	15.023	32.789	15.020	24.265	365.4	0.073
30	15.021	32.789	15.017	24.265	365.7	0.110
40	15.011	32.787	15.005	24.266	365.8	0.146
50	14.875	32.798	14.868	24.304	362.5	0.183
60	13.466	32.807	13.458	24.603	334.1	0.218
70	12.253	32.810	12.244	24.843	311.4	0.250
80	11.738	32.824	11.728	24.951	301.4	0.281
90	11.502	32.840	11.491	25.006	296.3	0.311
100	11.258	32.875	11.245	25.078	289.7	0.340
110	11.012	32.933	10.999	25.167	281.4	0.369
120	10.761	33.004	10.747	25.266	272.1	0.396
130	10.449	33.141	10.434	25.428	256.9	0.423
140	10.272	33.260	10.256	25.550	245.4	0.448
150	9.891	33.323	9.874	25.664	234.8	0.472
175	9.382	33.596	9.363	25.961	206.9	0.527
200	8.792	33.735	8.771	26.164	188.0	0.577
225	8.451	33.882	8.428	26.332	172.4	0.622
250	8.164	33.958	8.138	26.436	162.9	0.664
300	7.546	34.000	7.517	26.559	151.8	0.742
400	6.080	33.980	6.045	26.741	134.8	0.884
500	5.344	34.049	5.303	26.886	121.7	1.013
501	5.341	34.050	5.300	26.887	121.6	1.014

LIN INT SAL 103-111 DB



STATION 44 E-4



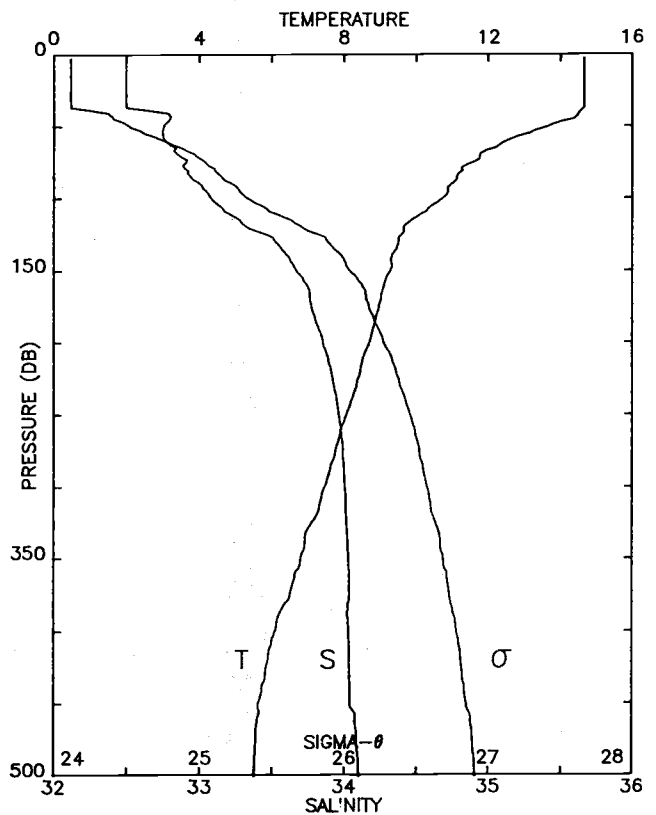
STATION 45 E-5

STA NO 45 E-5 LAT: 38 19.2 N LONG: 125 33.0 W  
 25 JUN 1988 0805 GMT PROBE 2561 DEPTH 3905M

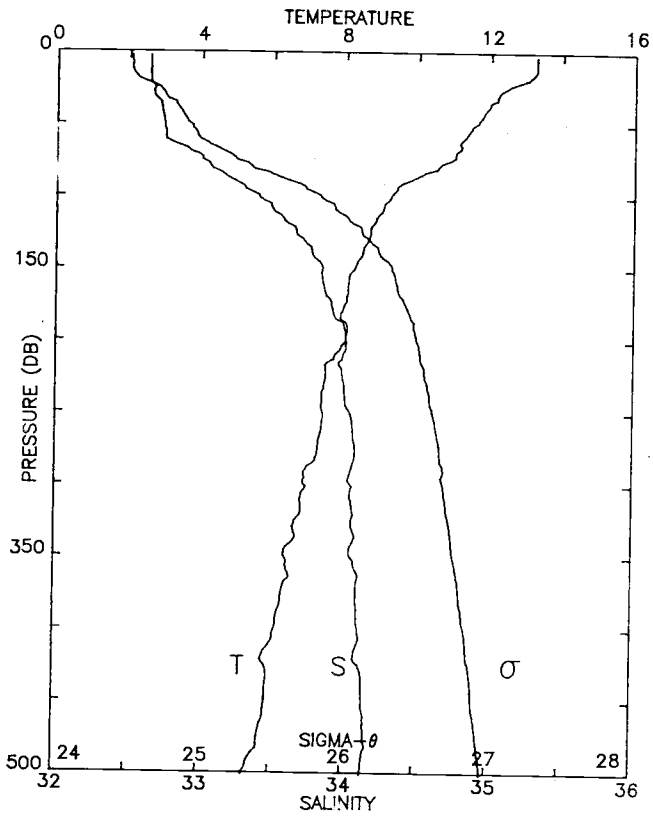
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	14.737	32.756	14.737	24.299	361.5	0.004
10	14.741	32.756	14.739	24.299	361.8	0.036
20	14.738	32.756	14.735	24.300	362.0	0.072
30	14.738	32.762	14.733	24.305	361.8	0.109
40	14.715	32.786	14.710	24.328	359.9	0.145
50	14.620	32.804	14.613	24.363	356.9	0.181
60	13.895	32.774	13.886	24.492	344.8	0.216
70	12.420	32.740	12.411	24.757	319.6	0.249
80	11.599	32.814	11.589	24.968	299.7	0.280
90	11.283	32.895	11.272	25.089	288.4	0.309
100	11.004	32.927	10.992	25.163	281.5	0.338
110	10.844	32.990	10.831	25.241	274.3	0.365
120	10.669	33.028	10.655	25.301	268.7	0.393
130	10.274	33.112	10.259	25.435	256.2	0.419
140	9.847	33.266	9.831	25.627	238.1	0.444
150	9.681	33.330	9.664	25.704	230.8	0.467
175	9.063	33.583	9.044	26.002	202.9	0.521
200	8.609	33.763	8.588	26.214	183.1	0.569
225	8.264	33.867	8.241	26.348	170.7	0.613
250	8.124	33.942	8.099	26.428	163.6	0.655
300	7.265	33.981	7.237	26.584	149.2	0.733
400	6.325	34.052	6.290	26.767	132.7	0.874
500	5.672	34.118	5.630	26.901	120.7	1.000
501	5.658	34.116	5.616	26.902	120.6	1.001

STA NO 46 E-6 LAT: 38 7.2 N LONG: 125 24.3 W  
 25 JUN 1988 0955 GMT PROBE 2561 DEPTH 3925M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
3	14.655	32.497	14.654	24.118	378.9	0.011
10	14.655	32.497	14.654	24.118	379.1	0.038
20	14.656	32.497	14.653	24.118	379.4	0.076
30	14.656	32.496	14.652	24.118	379.7	0.114
40	14.538	32.717	14.533	24.313	361.3	0.151
50	13.673	32.754	13.666	24.521	341.7	0.186
60	12.530	32.768	12.522	24.757	319.4	0.220
70	11.765	32.861	11.757	24.974	298.9	0.250
80	11.260	32.911	11.250	25.105	286.6	0.280
90	10.990	33.006	10.979	25.227	275.2	0.308
100	10.724	33.083	10.712	25.334	265.2	0.335
110	10.200	33.193	10.188	25.510	248.6	0.361
120	9.644	33.330	9.631	25.710	229.7	0.384
130	9.495	33.527	9.480	25.888	213.0	0.406
140	9.308	33.614	9.293	25.986	203.8	0.427
150	9.265	33.673	9.249	26.039	199.0	0.447
175	8.950	33.777	8.931	26.171	186.9	0.495
200	8.689	33.854	8.668	26.273	177.6	0.541
225	8.375	33.923	8.352	26.376	168.2	0.584
250	8.053	33.964	8.027	26.456	160.9	0.625
300	7.458	34.007	7.429	26.577	150.0	0.703
400	6.081	34.030	6.046	26.781	131.1	0.843
500	5.498	34.101	5.457	26.909	119.7	0.967
501	5.497	34.102	5.455	26.910	119.6	0.968



STATION 46 E-6



STA NO 47 E-7 LAT: 37 55.3 N LONG: 125 16.0 W  
25 JUN 1988 1159 GMT PROBE 2561 DEPTH 4106M

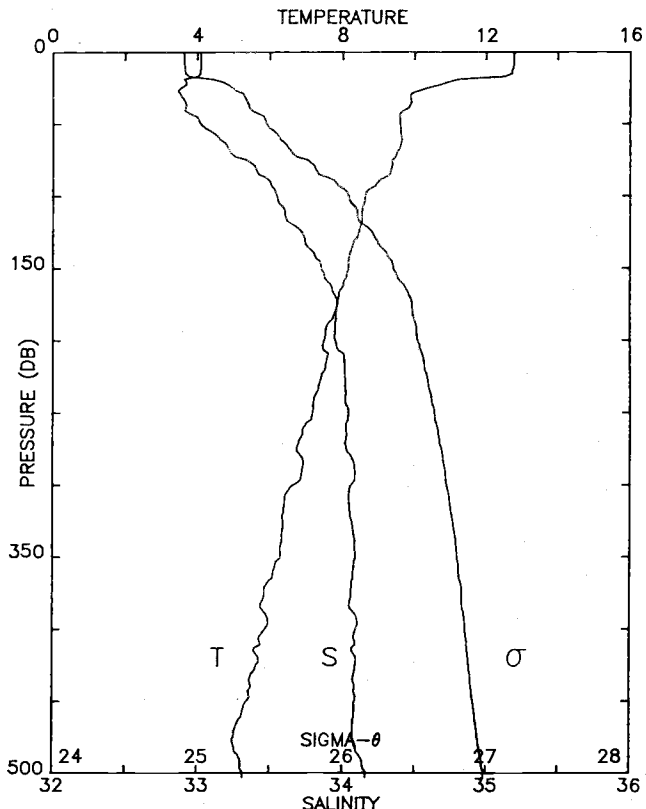
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
3	13.266	32.641	13.266	24.514	341.1	0.010
10	13.264	32.642	13.263	24.515	341.2	0.034
20	12.910	32.642	12.907	24.585	334.8	0.068
30	12.185	32.667	12.182	24.744	319.9	0.101
40	11.861	32.723	11.855	24.849	310.1	0.132
50	11.561	32.741	11.555	24.918	303.8	0.163
60	11.228	32.750	11.221	24.985	297.5	0.193
70	11.026	32.949	11.017	25.176	279.6	0.222
80	10.538	33.068	10.529	25.354	262.8	0.249
90	9.642	33.243	9.632	25.641	235.6	0.274
100	9.256	33.401	9.245	25.828	218.0	0.296
110	9.025	33.502	9.013	25.944	207.2	0.318
120	8.752	33.626	8.740	26.084	194.0	0.338
130	8.643	33.710	8.630	26.166	186.4	0.357
140	8.472	33.773	8.457	26.242	179.3	0.375
150	8.267	33.842	8.252	26.328	171.3	0.392
175	7.995	33.909	7.978	26.420	162.9	0.434
200	8.027	34.016	8.007	26.500	155.8	0.474
225	7.479	33.988	7.457	26.558	150.5	0.512
250	7.399	34.043	7.375	26.613	145.7	0.549
300	6.912	34.053	6.885	26.689	139.0	0.620
400	6.111	34.116	6.076	26.844	125.2	0.752
500	5.272	34.142	5.231	26.968	113.9	0.872
501	5.264	34.142	5.224	26.969	113.8	0.873

LIN INT SAL 283-295 DB

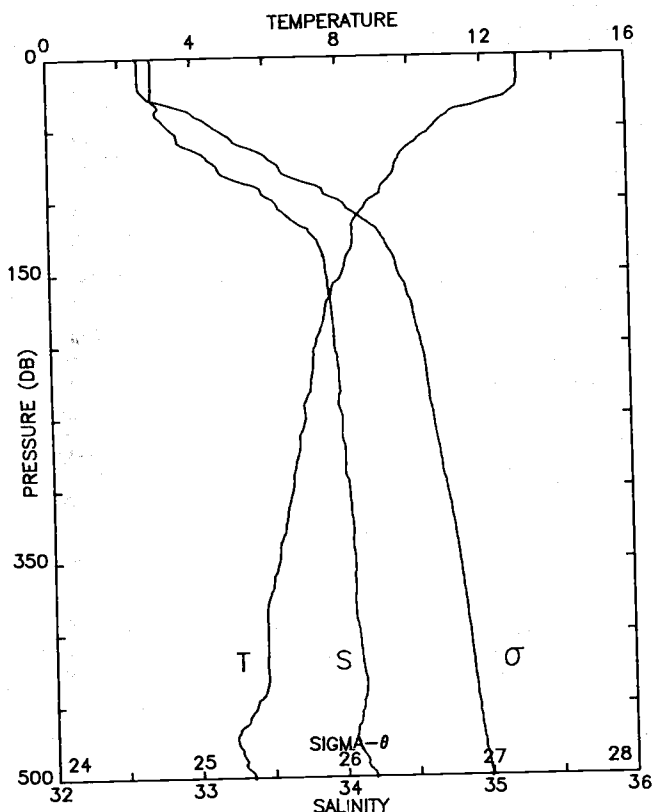
STATION 47 E-7

STA NO 48 E-8 LAT: 37 43.4 N LONG: 125 6.9 W  
25 JUN 1988 1405 GMT PROBE 2561 DEPTH 4147M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	12.770	33.021	12.770	24.906	303.7	0.003
10	12.747	33.022	12.746	24.911	303.5	0.030
20	11.085	32.915	11.083	25.138	282.1	0.060
30	9.883	32.884	9.880	25.321	264.9	0.088
40	9.748	32.918	9.744	25.369	260.5	0.114
50	9.589	33.025	9.584	25.479	250.2	0.139
60	9.638	33.151	9.632	25.570	241.8	0.164
70	9.504	33.232	9.496	25.655	233.9	0.187
80	9.356	33.399	9.348	25.810	219.4	0.210
90	8.983	33.501	8.973	25.949	206.3	0.232
100	8.629	33.551	8.618	26.043	197.5	0.252
110	8.534	33.606	8.523	26.101	192.2	0.271
120	8.498	33.664	8.486	26.152	187.5	0.290
130	8.352	33.742	8.339	26.235	179.7	0.309
140	8.200	33.806	8.186	26.309	172.9	0.326
150	8.160	33.857	8.145	26.355	168.7	0.343
175	7.857	33.963	7.839	26.483	156.9	0.384
200	7.497	33.949	7.478	26.525	153.2	0.423
225	7.412	34.017	7.391	26.590	147.4	0.460
250	7.177	34.039	7.153	26.641	142.9	0.496
300	6.659	34.059	6.632	26.728	135.2	0.566
400	5.878	34.093	5.844	26.856	123.8	0.695
500	5.269	34.163	5.228	26.985	112.3	0.813
503	5.271	34.163	5.230	26.985	112.3	0.816



STATION 48 E-8



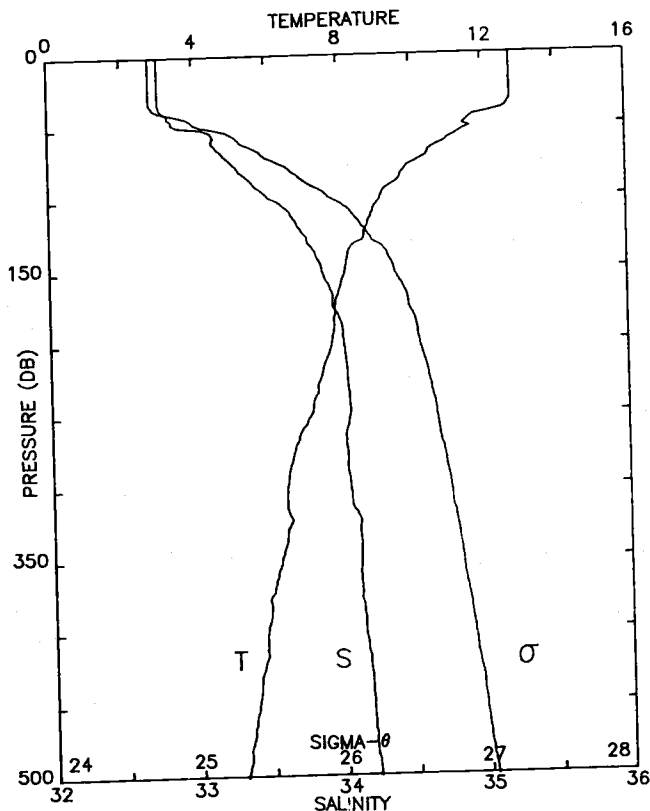
STA NO 49 E-9 LAT: 37 31.6 N LONG: 124 58.2 W  
 26 JUN 1988 0227 GMT PROBE 2561 DEPTH 4157M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	12.996	32.721	12.996	24.630	330.1	0.003
10	13.002	32.728	13.000	24.634	329.9	0.033
20	12.979	32.727	12.976	24.638	329.8	0.066
30	12.434	32.728	12.430	24.744	319.9	0.099
40	11.079	32.757	11.074	25.016	294.1	0.129
50	10.618	32.853	10.613	25.172	279.5	0.158
60	10.119	32.920	10.112	25.309	266.6	0.185
70	9.697	33.100	9.690	25.520	246.7	0.211
80	9.542	33.190	9.533	25.616	237.8	0.235
90	9.196	33.441	9.186	25.869	214.0	0.257
100	8.828	33.558	8.818	26.018	199.9	0.278
110	8.520	33.648	8.509	26.136	188.8	0.298
120	8.382	33.791	8.370	26.269	176.3	0.316
130	8.367	33.863	8.353	26.328	170.9	0.333
140	8.183	33.898	8.169	26.384	165.8	0.350
150	8.073	33.910	8.058	26.410	163.5	0.367
175	7.584	33.943	7.567	26.507	154.5	0.406
200	7.308	33.960	7.290	26.560	149.8	0.444
225	7.159	33.987	7.138	26.602	146.2	0.481
250	7.002	34.007	6.979	26.640	142.9	0.517
300	6.620	34.047	6.593	26.723	135.6	0.587
400	5.842	34.098	5.808	26.864	123.0	0.716
500	5.428	34.195	5.387	26.992	111.8	0.834
501	5.430	34.195	5.389	26.992	111.9	0.835

STATION 49 E-9

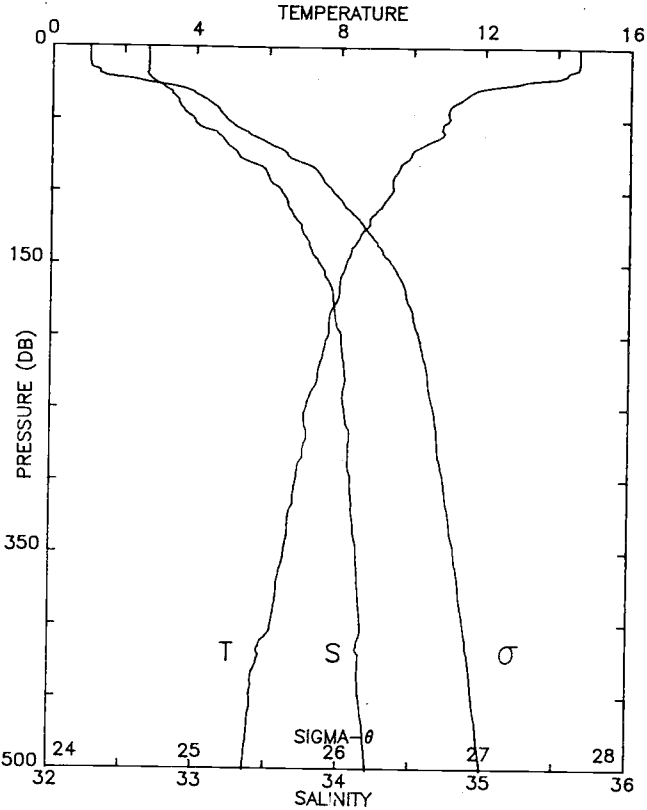
STA NO 50 E-10 LAT: 37 19.9 N LONG: 124 49.4 W  
 26 JUN 1988 0433 GMT PROBE 2561 DEPTH 4179M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	12.808	32.758	12.808	24.695	323.8	0.003
10	12.808	32.760	12.807	24.696	324.0	0.032
20	12.808	32.759	12.806	24.696	324.2	0.065
30	12.810	32.760	12.806	24.697	324.4	0.097
40	12.395	32.810	12.390	24.815	313.4	0.129
50	11.570	32.975	11.564	25.098	286.6	0.159
60	10.989	33.129	10.982	25.323	265.4	0.187
70	10.442	33.218	10.434	25.487	249.9	0.212
80	9.813	33.312	9.804	25.667	233.0	0.236
90	9.482	33.415	9.472	25.802	220.3	0.259
100	9.127	33.535	9.116	25.953	206.1	0.280
110	8.903	33.663	8.891	26.089	193.4	0.300
120	8.728	33.725	8.715	26.165	186.3	0.319
130	8.522	33.781	8.509	26.240	179.3	0.337
140	8.206	33.841	8.192	26.335	170.4	0.355
150	8.135	33.880	8.120	26.376	166.7	0.372
175	7.849	33.950	7.831	26.474	157.8	0.412
200	7.736	34.020	7.717	26.546	151.3	0.450
225	7.421	34.042	7.399	26.609	145.7	0.487
250	7.151	34.054	7.128	26.657	141.4	0.523
300	6.443	34.049	6.416	26.748	133.1	0.592
400	5.820	34.136	5.786	26.897	120.0	0.718
500	5.207	34.221	5.167	27.039	107.2	0.832
501	5.203	34.223	5.163	27.040	107.0	0.833



STATION 50 E-10





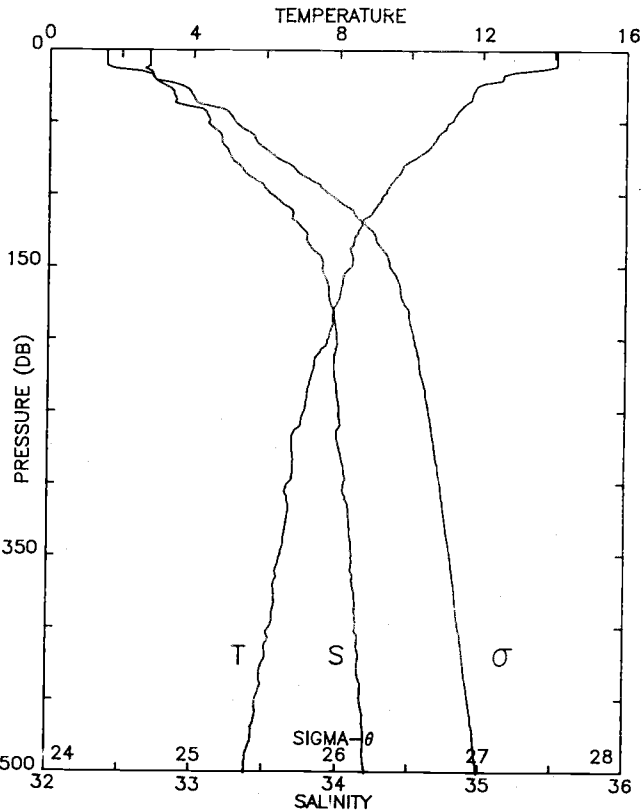
STATION 51 F-10

STA NO 51 F-10 LAT: 37 15.8 N LONG: 125 15.8 W  
 26 JUN 1988 0714 GMT PROBE 2561 DEPTH 4254M

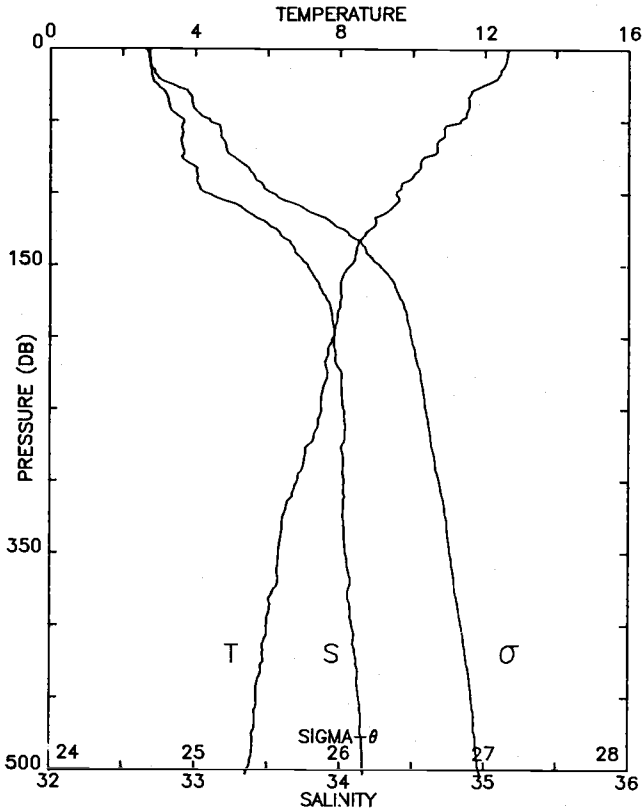
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	14.583	32.663	14.583	24.261	365.2	0.004
10	14.594	32.666	14.593	24.261	365.4	0.037
20	14.124	32.663	14.121	24.357	356.5	0.073
30	11.706	32.808	11.702	24.943	300.9	0.105
40	11.074	32.885	11.069	25.117	284.6	0.135
50	10.986	32.985	10.980	25.211	275.8	0.163
60	10.832	33.148	10.825	25.365	261.4	0.190
70	10.098	33.246	10.090	25.567	242.3	0.215
80	9.712	33.374	9.703	25.732	226.8	0.238
90	9.468	33.501	9.458	25.871	213.8	0.260
100	9.429	33.590	9.418	25.948	206.7	0.281
110	9.141	33.635	9.129	26.029	199.1	0.302
120	8.808	33.701	8.796	26.133	189.3	0.321
130	8.555	33.752	8.542	26.213	181.9	0.339
140	8.310	33.800	8.296	26.288	174.9	0.357
150	8.160	33.861	8.145	26.358	168.4	0.375
175	7.930	33.956	7.913	26.467	158.5	0.415
200	7.672	34.010	7.652	26.547	151.2	0.454
225	7.402	34.036	7.381	26.606	145.9	0.491
250	7.079	34.034	7.055	26.650	142.0	0.527
300	6.810	34.083	6.783	26.726	135.5	0.597
400	6.159	34.162	6.124	26.875	122.4	0.725
500	5.442	34.211	5.401	27.003	110.9	0.842
501	5.440	34.212	5.399	27.004	110.8	0.843

STA NO 52 F-9 LAT: 37 27.6 N LONG: 125 24.5 W  
 26 JUN 1988 0909 GMT PROBE 2561 DEPTH 4225M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	14.045	32.691	14.045	24.395	352.4	0.004
10	14.047	32.692	14.046	24.395	352.7	0.035
20	12.527	32.728	12.524	24.726	321.3	0.069
30	11.711	32.860	11.707	24.982	297.2	0.099
40	11.401	33.000	11.396	25.148	281.6	0.129
50	11.085	33.104	11.079	25.286	268.7	0.156
60	10.723	33.192	10.716	25.418	256.3	0.182
70	10.407	33.241	10.399	25.511	247.7	0.207
80	9.801	33.318	9.792	25.673	232.4	0.232
90	9.519	33.425	9.509	25.804	220.1	0.254
100	9.255	33.540	9.244	25.937	207.7	0.276
110	8.979	33.673	8.968	26.084	193.9	0.296
120	8.628	33.723	8.616	26.178	185.0	0.315
130	8.423	33.781	8.410	26.255	177.8	0.333
140	8.341	33.847	8.327	26.320	171.9	0.350
150	8.333	33.890	8.318	26.355	168.7	0.367
175	7.955	33.944	7.937	26.454	159.7	0.408
200	7.711	33.989	7.692	26.526	153.3	0.447
225	7.267	33.973	7.246	26.576	148.7	0.485
250	7.074	34.008	7.051	26.630	143.9	0.521
300	6.650	34.042	6.623	26.715	136.3	0.591
400	6.168	34.133	6.134	26.851	124.6	0.722
500	5.517	34.207	5.476	26.991	112.1	0.840
501	5.519	34.208	5.477	26.991	112.1	0.841



STATION 52 F-9



STATION 53 F-8

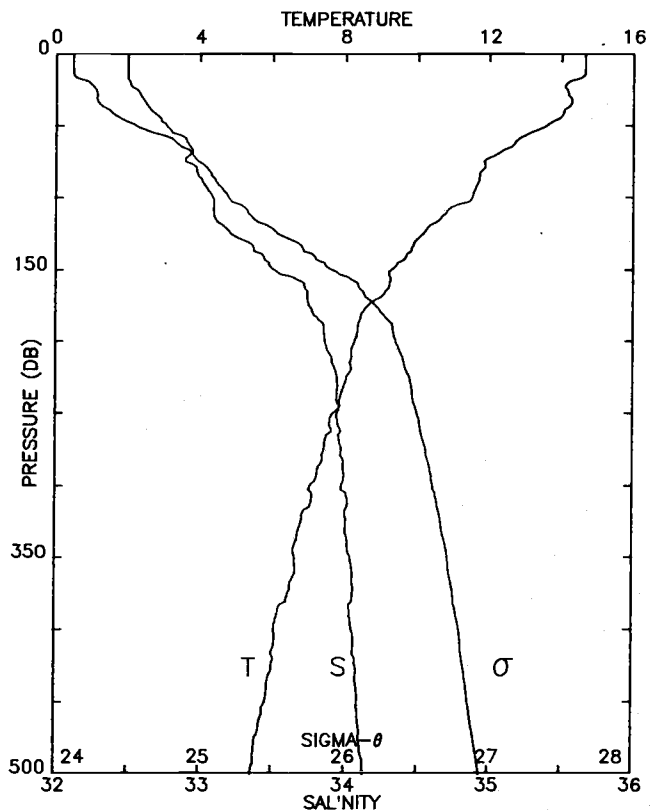
STA NO 53 F-8 LAT: 37 39.3 N LONG: 125 33.7 W  
 26 JUN 1988 1122 GMT PROBE 2651 DEPTH 4273M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	12.657	32.684	12.657	24.667	326.5	0.003
10	12.562	32.690	12.560	24.690	324.6	0.033
20	12.337	32.705	12.335	24.745	319.6	0.065
30	11.600	32.791	11.596	24.949	300.3	0.096
40	11.539	32.823	11.534	24.986	297.1	0.126
50	11.309	32.920	11.303	25.103	286.1	0.155
60	10.857	32.913	10.850	25.178	279.2	0.183
70	10.669	32.920	10.660	25.216	275.7	0.211
80	10.204	32.968	10.195	25.333	264.7	0.238
90	9.938	33.015	9.928	25.415	257.2	0.264
100	9.542	33.082	9.531	25.532	246.2	0.289
110	9.413	33.323	9.401	25.742	226.4	0.313
120	8.975	33.485	8.962	25.938	207.9	0.334
130	8.638	33.599	8.624	26.080	194.5	0.355
140	8.440	33.687	8.426	26.179	185.3	0.373
150	8.276	33.773	8.260	26.272	176.6	0.392
175	7.984	33.918	7.967	26.429	162.0	0.434
200	7.791	33.958	7.771	26.489	156.7	0.473
225	7.634	34.010	7.612	26.553	151.0	0.512
250	7.468	34.025	7.444	26.589	148.0	0.549
300	6.806	34.029	6.778	26.684	139.4	0.621
400	5.968	34.087	5.934	26.840	125.5	0.753
500	5.454	34.165	5.413	26.965	114.4	0.873
503	5.417	34.170	5.376	26.973	113.6	0.876

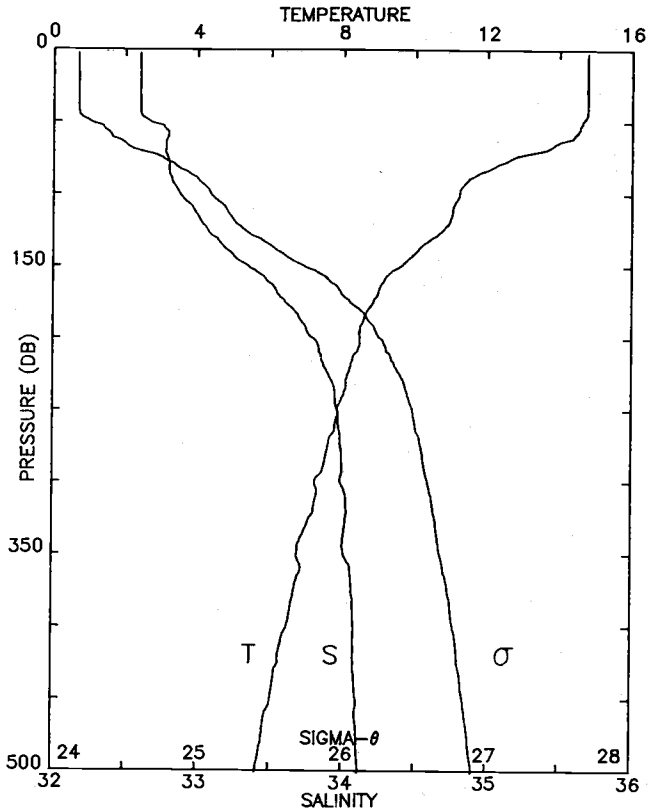
STA NO 54 F-7 LAT: 37 51.5 N LONG: 125 42.4 W  
 26 JUN 1988 1331 GMT PROBE 2561 DEPTH 4261M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	14.653	32.497	14.653	24.118	378.8	0.004
10	14.654	32.497	14.653	24.118	379.1	0.038
20	14.173	32.512	14.170	24.231	368.6	0.076
30	14.222	32.594	14.218	24.284	363.8	0.112
40	14.051	32.667	14.046	24.376	355.3	0.148
50	13.573	32.768	13.566	24.552	338.8	0.183
60	12.777	32.904	12.769	24.815	313.9	0.216
70	12.204	32.934	12.195	24.948	301.4	0.246
80	11.836	32.977	11.826	25.051	291.8	0.276
90	11.672	33.025	11.661	25.119	285.6	0.305
100	11.509	33.090	11.497	25.199	278.2	0.333
110	10.797	33.094	10.784	25.330	265.8	0.360
120	10.299	33.167	10.285	25.473	252.3	0.386
130	9.928	33.312	9.913	25.649	235.8	0.411
140	9.673	33.434	9.658	25.787	222.8	0.434
150	9.253	33.514	9.237	25.917	210.5	0.456
175	8.607	33.754	8.589	26.207	183.4	0.504
200	8.251	33.863	8.231	26.347	170.4	0.548
225	8.033	33.946	8.010	26.445	161.5	0.589
250	7.689	33.947	7.664	26.496	156.9	0.629
300	7.064	33.979	7.036	26.609	146.6	0.705
400	6.073	34.050	6.039	26.798	129.5	0.843
500	5.448	34.133	5.406	26.941	116.7	0.966
501	5.445	34.134	5.403	26.942	116.6	0.967

LIN INT SAL 29-39 DB



STATION 54 F-7



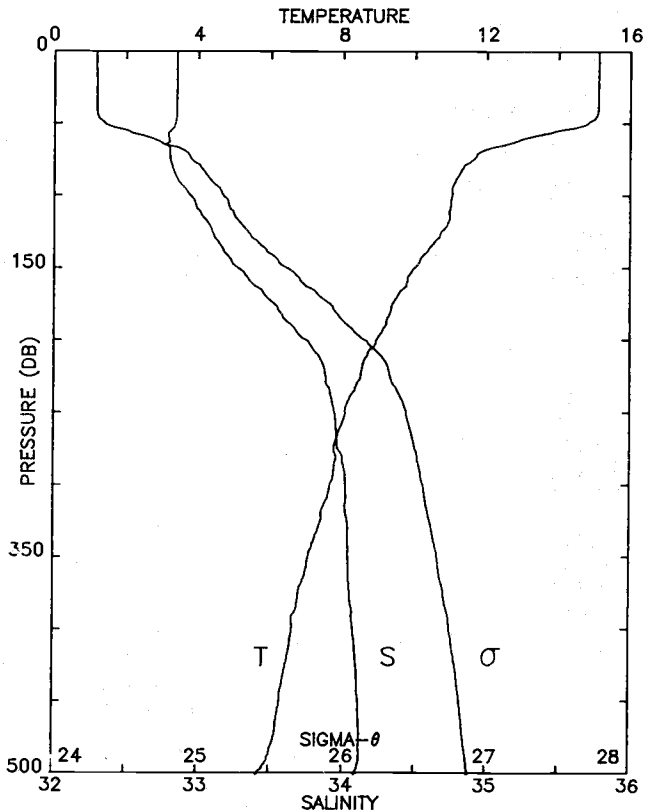
STATION 55 F-6

STA NO 55 F-6 LAT: 38 3.3 N LONG: 125 51.2 W  
 26 JUN 1988 1531 GMT PROBE 2561 DEPTH 4225M

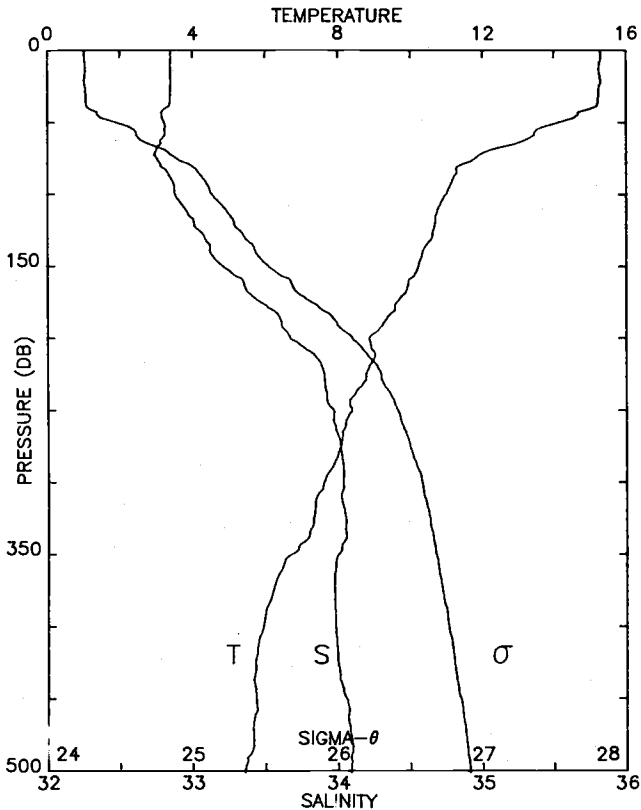
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
3	14.780	32.600	14.780	24.171	373.9	0.011
10	14.775	32.601	14.774	24.172	373.9	0.037
20	14.776	32.602	14.774	24.173	374.1	0.075
30	14.775	32.601	14.771	24.173	374.4	0.112
40	14.774	32.602	14.768	24.174	374.6	0.150
50	14.635	32.668	14.628	24.255	367.2	0.187
60	14.390	32.798	14.381	24.407	352.9	0.223
70	13.430	32.778	13.421	24.589	335.8	0.257
80	12.234	32.806	12.224	24.844	311.6	0.289
90	11.453	32.822	11.442	25.001	296.8	0.320
100	11.204	32.877	11.192	25.089	288.6	0.349
110	11.032	32.969	11.019	25.192	279.0	0.377
120	10.917	33.029	10.903	25.259	272.9	0.405
130	10.497	33.115	10.482	25.399	259.6	0.432
140	10.019	33.218	10.003	25.560	244.4	0.457
150	9.581	33.346	9.565	25.733	228.1	0.481
175	8.833	33.603	8.815	26.054	197.9	0.533
200	8.465	33.796	8.445	26.262	178.6	0.580
225	8.125	33.902	8.103	26.397	166.1	0.623
250	7.856	33.963	7.831	26.485	158.1	0.663
300	7.231	33.985	7.203	26.591	148.4	0.740
400	6.474	34.082	6.438	26.771	132.4	0.880
500	5.642	34.118	5.600	26.906	120.2	1.006
501	5.637	34.118	5.595	26.906	120.2	1.007

STA NO 56 F-5 LAT: 38 15.5 N LONG: 126 0.1 W  
 26 JUN 1988 1730 GMT PROBE 2561 DEPTH 4240M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	15.108	32.851	15.108	24.293	362.2	0.004
10	15.108	32.849	15.106	24.292	362.5	0.036
20	15.098	32.849	15.095	24.295	362.6	0.072
30	15.097	32.849	15.093	24.295	362.8	0.109
40	15.092	32.849	15.086	24.296	363.0	0.145
50	14.800	32.839	14.793	24.352	358.0	0.181
60	13.144	32.793	13.136	24.657	329.0	0.216
70	11.812	32.800	11.803	24.918	304.2	0.247
80	11.360	32.820	11.350	25.017	295.0	0.277
90	11.119	32.864	11.108	25.094	287.9	0.306
100	11.026	32.948	11.014	25.176	280.3	0.335
110	10.967	33.005	10.954	25.231	275.3	0.363
120	10.893	33.078	10.878	25.301	268.8	0.390
130	10.620	33.124	10.604	25.385	261.0	0.416
140	10.280	33.190	10.263	25.495	250.7	0.442
150	9.981	33.276	9.964	25.612	239.7	0.466
175	9.374	33.529	9.355	25.910	211.8	0.523
200	8.930	33.743	8.908	26.148	189.5	0.573
225	8.486	33.883	8.462	26.327	172.8	0.618
250	8.058	33.945	8.033	26.441	162.3	0.660
300	7.668	34.024	7.638	26.560	151.7	0.738
400	6.621	34.077	6.585	26.748	134.8	0.881
500	5.693	34.093	5.650	26.880	122.7	1.010
501	5.679	34.091	5.637	26.879	122.8	1.011



STATION 56 F-5



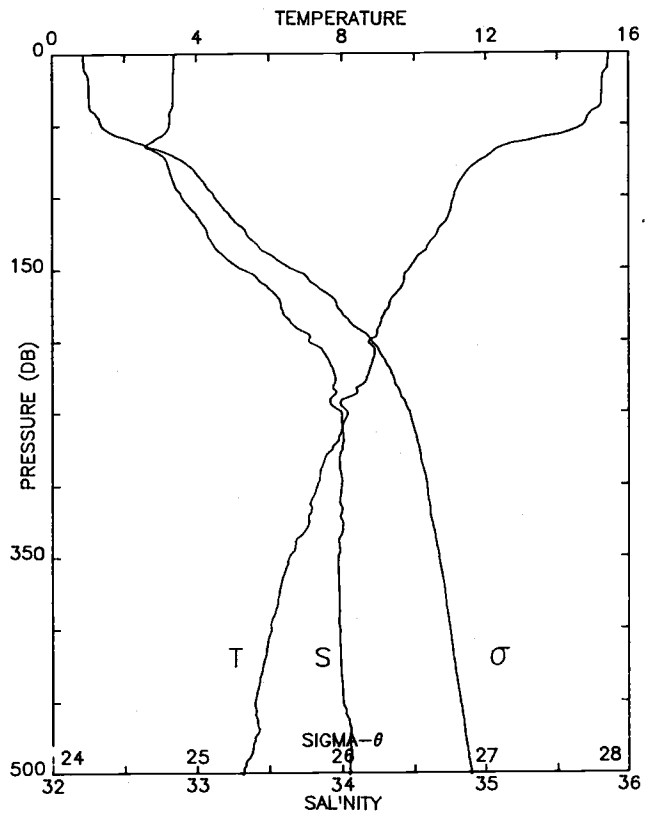
STATION 57 F-4

STA NO 57 F-4 LAT: 38 27.3 N LONG:126 8.5 W  
26 JUN 1988 1923 GMT PROBE 2561 DEPTH 4254M

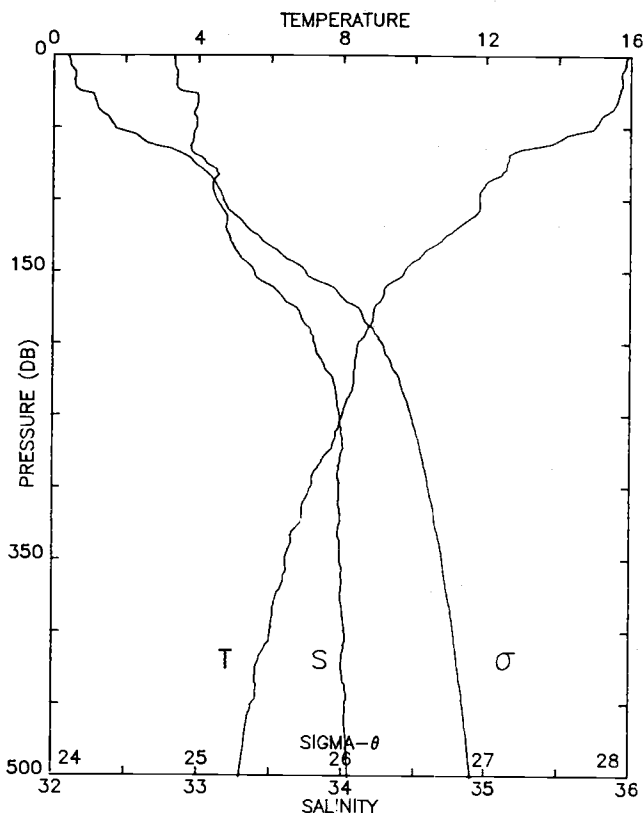
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	15.280	32.851	15.280	24.256	365.7	0.004
10	15.258	32.849	15.256	24.259	365.6	0.037
20	15.285	32.850	15.282	24.255	366.4	0.073
30	15.233	32.848	15.229	24.264	365.7	0.110
40	15.068	32.823	15.062	24.281	364.4	0.146
50	14.141	32.804	14.134	24.464	347.3	0.182
60	13.362	32.803	13.353	24.622	332.4	0.216
70	12.119	32.748	12.110	24.820	313.6	0.248
80	11.344	32.783	11.335	24.990	297.6	0.279
90	11.159	32.859	11.148	25.083	288.9	0.308
100	10.967	32.883	10.955	25.136	284.1	0.337
110	10.755	32.951	10.742	25.226	275.7	0.365
120	10.679	33.013	10.665	25.288	270.0	0.392
130	10.592	33.087	10.576	25.361	263.3	0.419
140	10.334	33.126	10.318	25.435	256.4	0.445
150	10.214	33.210	10.197	25.522	248.3	0.470
175	9.622	33.465	9.603	25.820	220.4	0.528
200	8.877	33.674	8.856	26.103	193.8	0.580
225	8.782	33.907	8.759	26.301	175.5	0.626
250	8.386	33.971	8.360	26.412	165.3	0.669
300	7.603	34.036	7.574	26.579	149.9	0.747
400	5.926	33.982	5.892	26.762	132.7	0.888
500	5.438	34.091	5.396	26.909	119.7	1.014
501	5.436	34.092	5.395	26.909	119.7	1.015

STA NO 58 F-3 LAT: 38 39.2 N LONG:126 17.2 W  
26 JUN 1988 2112 GMT PROBE 2561 DEPTH 4266M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	15.443	32.845	15.443	24.215	369.6	0.004
10	15.418	32.842	15.416	24.219	369.5	0.037
20	15.255	32.837	15.252	24.251	366.7	0.074
30	15.240	32.836	15.236	24.254	366.8	0.110
40	15.059	32.817	15.053	24.279	364.7	0.147
50	14.740	32.809	14.733	24.341	359.0	0.183
60	13.395	32.708	13.387	24.541	340.0	0.218
70	12.144	32.749	12.135	24.817	313.9	0.251
80	11.565	32.811	11.555	24.972	299.3	0.282
90	11.258	32.845	11.247	25.054	291.7	0.311
100	11.100	32.901	11.088	25.126	285.0	0.340
110	10.999	32.983	10.986	25.208	277.5	0.368
120	10.766	33.053	10.752	25.304	268.6	0.395
130	10.493	33.099	10.477	25.387	260.8	0.422
140	10.147	33.184	10.131	25.512	249.0	0.448
150	9.846	33.318	9.829	25.668	234.4	0.472
175	9.302	33.585	9.283	25.965	206.5	0.526
200	8.732	33.777	8.711	26.206	184.0	0.575
225	8.673	33.956	8.649	26.356	170.2	0.619
250	8.153	33.997	8.128	26.467	159.9	0.661
300	7.325	33.998	7.297	26.588	148.8	0.738
400	6.050	33.986	6.016	26.749	134.1	0.879
500	5.277	34.054	5.237	26.898	120.5	1.007
501	5.266	34.053	5.225	26.898	120.5	1.008



STATION 58 F-3



STATION 59 F-2

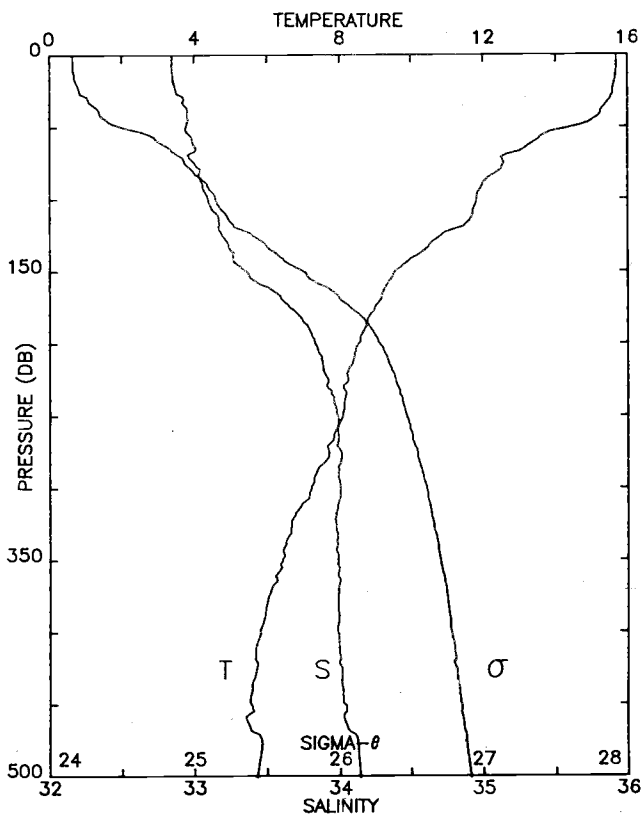
STA NO 59 F-2 LAT: 38 51.2 N LONG: 126 25.5 W  
 26 JUN 1988 2311 GMT PROBE 2561 DEPTH 4218M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	15.903	32.831	15.903	24.103	380.3	0.004
10	15.784	32.846	15.782	24.141	376.9	0.038
20	15.758	32.847	15.754	24.148	376.5	0.076
30	15.642	32.995	15.637	24.288	363.5	0.113
40	15.323	32.968	15.317	24.338	359.1	0.149
50	14.973	32.985	14.965	24.427	350.8	0.184
60	13.892	32.958	13.884	24.634	331.3	0.218
70	12.630	32.997	12.620	24.916	304.5	0.250
80	12.508	33.121	12.498	25.036	293.4	0.280
90	11.960	33.098	11.948	25.122	285.4	0.309
100	11.811	33.123	11.798	25.170	281.1	0.337
110	11.713	33.187	11.699	25.238	274.8	0.365
120	11.164	33.189	11.150	25.339	265.3	0.392
130	10.672	33.226	10.656	25.455	254.3	0.418
140	10.141	33.287	10.125	25.594	241.3	0.442
150	9.701	33.382	9.685	25.741	227.4	0.466
175	8.867	33.680	8.848	26.108	192.8	0.518
200	8.423	33.803	8.403	26.274	177.4	0.565
225	8.310	33.936	8.287	26.396	166.3	0.608
250	7.986	33.979	7.961	26.478	158.8	0.648
300	7.119	33.976	7.091	26.600	147.5	0.725
400	6.005	34.019	5.971	26.781	131.0	0.864
500	5.166	34.046	5.126	26.905	119.7	0.989
501	5.157	34.048	5.116	26.907	119.5	0.990

STA NO 60 E-2 LAT: 38 54.2 N LONG: 125 58.5 W  
 27 JUN 1988 0151 GMT PROBE 2561 DEPTH 4059M

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	15.685	32.845	15.685	24.162	374.6	0.004
10	15.685	32.846	15.683	24.163	374.8	0.037
20	15.613	32.860	15.610	24.190	372.6	0.075
30	15.515	32.925	15.510	24.262	366.0	0.112
40	15.238	32.924	15.232	24.322	360.5	0.148
50	14.480	32.912	14.472	24.476	346.1	0.184
60	13.425	32.958	13.417	24.729	322.2	0.217
70	12.571	32.930	12.562	24.876	308.4	0.248
80	12.443	33.012	12.433	24.964	300.2	0.279
90	11.964	33.029	11.952	25.068	290.5	0.308
100	11.811	33.067	11.799	25.126	285.2	0.337
110	11.690	33.126	11.677	25.194	278.9	0.365
120	11.288	33.141	11.273	25.280	270.9	0.393
130	10.557	33.202	10.542	25.456	254.2	0.419
140	10.074	33.241	10.058	25.569	243.6	0.444
150	9.549	33.333	9.532	25.728	228.6	0.468
175	8.977	33.629	8.958	26.051	198.2	0.521
200	8.526	33.801	8.505	26.256	179.1	0.568
225	8.240	33.893	8.217	26.372	168.5	0.611
250	8.071	33.956	8.045	26.447	161.7	0.652
300	7.206	33.974	7.178	26.586	148.9	0.730
400	5.803	33.957	5.769	26.757	133.1	0.870
500	5.734	34.142	5.691	26.913	119.7	0.996
501	5.728	34.142	5.685	26.914	119.5	0.997

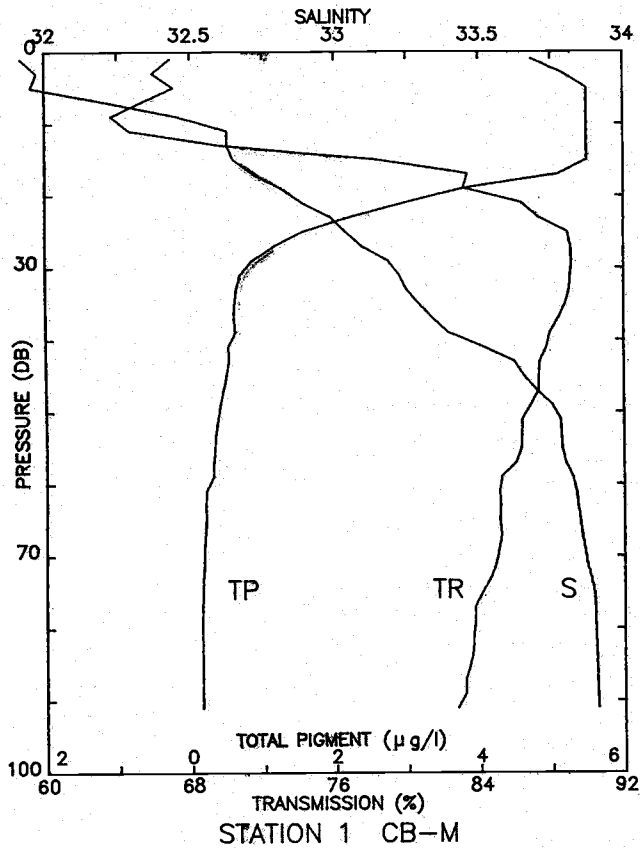
SAL+0.03, 33-419 DB



STATION 60 E-2

TRANSMISSION AND FLUORESCENCE

PROFILE PLOTS AND LISTINGS

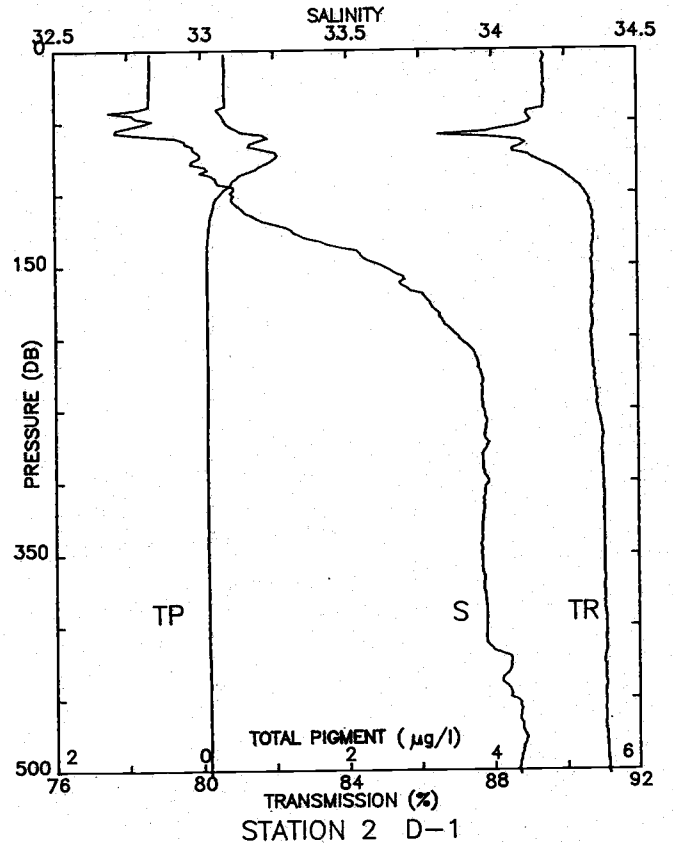


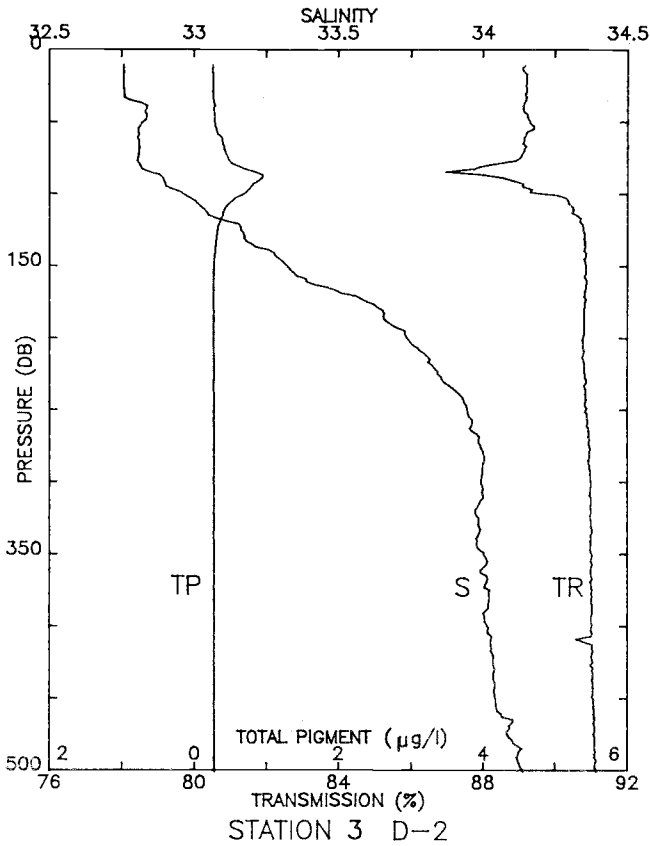
STA 1 CB-M LAT: 43 10.0 N LONG:124 34.0 W  
 19 JUN 1988 0128 GMT PROBE 2561 DEPTH 99M

PRESS	TEMP	SAL	TRN	TP
1	12.886	31.918	66.9	4.74
10	10.352	32.539	64.2	5.49
20	8.850	32.851	84.7	3.39
30	8.339	33.205	89.1	0.77
40	8.285	33.453	87.8	0.56
50	7.852	33.766	86.6	0.39
60	7.730	33.828	85.2	0.25
70	7.484	33.866	85.0	0.16
80	7.273	33.899	83.7	0.14
90	7.230	33.907	83.0	0.14
91	7.223	33.908	82.7	0.14

STA 2 D-1 LAT: 39 9.1 N LONG:125 40.3 W  
 20 JUN 1988 0057 GMT PROBE 2561 DEPTH 3629M

PRESS	TEMP	SAL	TRN	TP
3	14.753	32.826	89.4	0.31
10	14.754	32.826	89.4	0.32
20	14.750	32.825	89.4	0.32
30	14.747	32.824	89.4	0.32
40	14.697	32.804	89.4	0.27
50	13.233	32.819	89.0	0.33
60	12.177	32.853	87.3	0.88
70	12.106	32.980	88.5	0.93
80	11.541	32.988	89.5	0.84
90	11.359	33.049	90.2	0.45
100	11.052	33.104	90.6	0.25
110	10.497	33.135	90.7	0.15
120	10.119	33.230	90.8	0.11
130	9.924	33.352	90.8	0.09
140	9.380	33.537	90.7	0.07
150	9.263	33.622	90.7	0.07
175	8.924	33.783	90.7	0.07
200	8.361	33.884	90.7	0.07
225	8.116	33.957	90.8	0.08
250	7.685	33.966	90.9	0.07
300	7.085	33.981	91.0	0.07
400	5.834	33.974	91.1	0.08
500	5.390	34.082	91.1	0.09
503	5.386	34.087	91.2	0.09



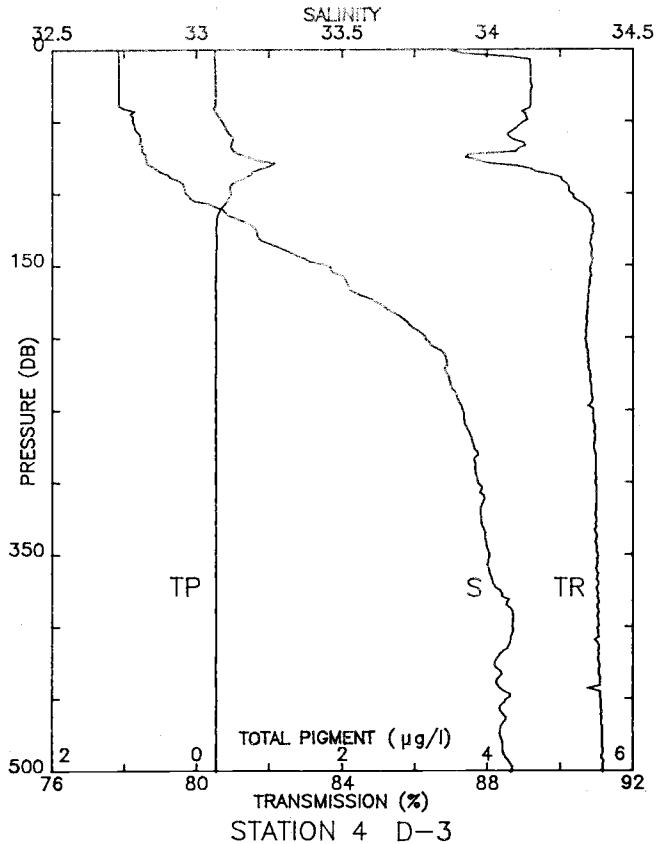


STA 3 D-2 LAT: 38 57.1 N LONG:125 31.7 W  
20 JUN 1988 0346 GMT PROBE 2561 DEPTH 3731M

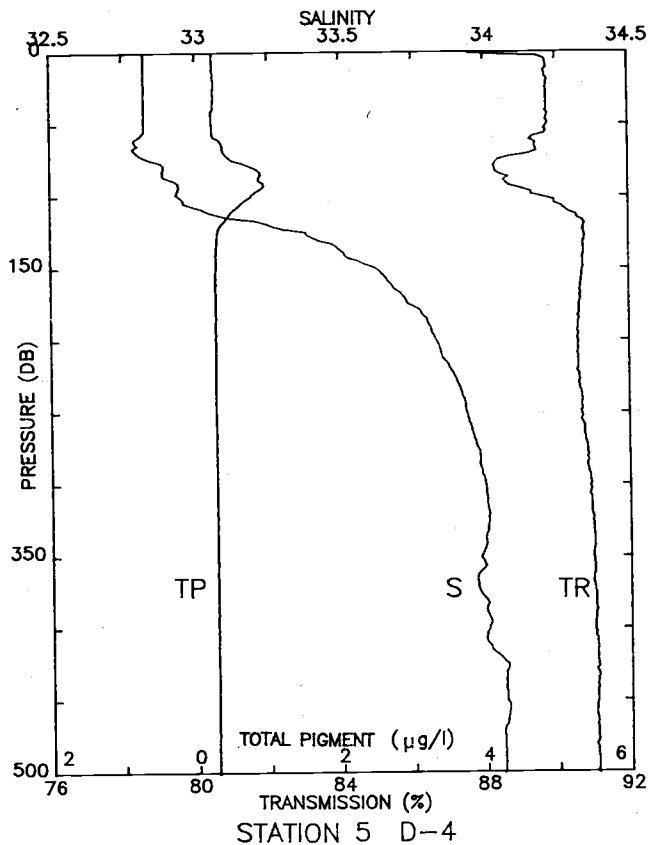
PRESS	TEMP	SAL	TRN	TP
11	14.538	32.757	89.2	0.26
20	14.540	32.757	89.2	0.26
30	14.537	32.758	89.2	0.26
40	14.340	32.837	89.1	0.28
50	13.724	32.826	89.3	0.28
60	12.639	32.807	89.2	0.36
70	12.084	32.810	89.1	0.43
80	11.609	32.813	88.2	0.57
90	11.256	32.894	88.7	0.91
100	11.087	32.962	89.7	0.68
110	10.937	33.030	90.5	0.43
120	10.718	33.131	90.7	0.35
130	10.319	33.173	90.8	0.30
140	10.106	33.267	90.8	0.28
150	9.883	33.322	90.9	0.27
175	9.104	33.599	90.8	0.26
200	8.425	33.736	90.8	0.26
225	8.060	33.842	90.8	0.27
250	7.904	33.945	90.9	0.27
300	7.245	33.993	91.0	0.27
400	6.014	34.016	91.0	0.27
500	5.545	34.138	91.1	0.27
501	5.559	34.141	91.1	0.27

STA 4 D-3 LAT: 38 45.5 N LONG:125 23.3 W  
20 JUN 1988 0542 GMT PROBE 2561 DEPTH 3690M

PRESS	TEMP	SAL	TRN	TP
1	14.439	32.728	87.0	0.26
10	14.443	32.730	89.2	0.26
20	14.447	32.730	89.2	0.26
30	14.447	32.730	89.2	0.27
40	14.354	32.739	89.2	0.25
50	13.155	32.780	89.0	0.36
60	12.545	32.804	88.6	0.48
70	11.888	32.812	88.8	0.51
80	11.317	32.837	88.5	1.05
90	11.048	32.925	90.0	0.62
100	10.948	32.966	90.3	0.47
110	10.778	33.076	90.8	0.35
120	10.417	33.172	90.9	0.28
130	10.161	33.212	90.9	0.28
140	9.985	33.315	90.9	0.27
150	9.806	33.448	90.8	0.27
175	9.275	33.615	90.8	0.27
200	8.775	33.787	90.7	0.27
225	8.033	33.864	90.8	0.27
250	7.726	33.917	90.9	0.27
300	7.127	33.969	91.0	0.27
400	6.553	34.088	91.0	0.27
500	5.293	34.083	91.2	0.27
501	5.268	34.081	91.2	0.27





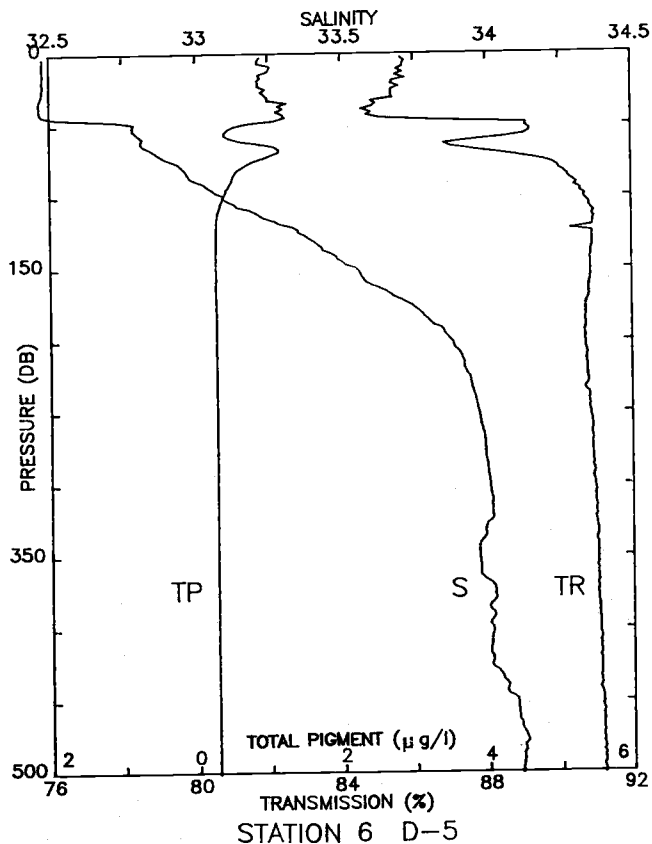


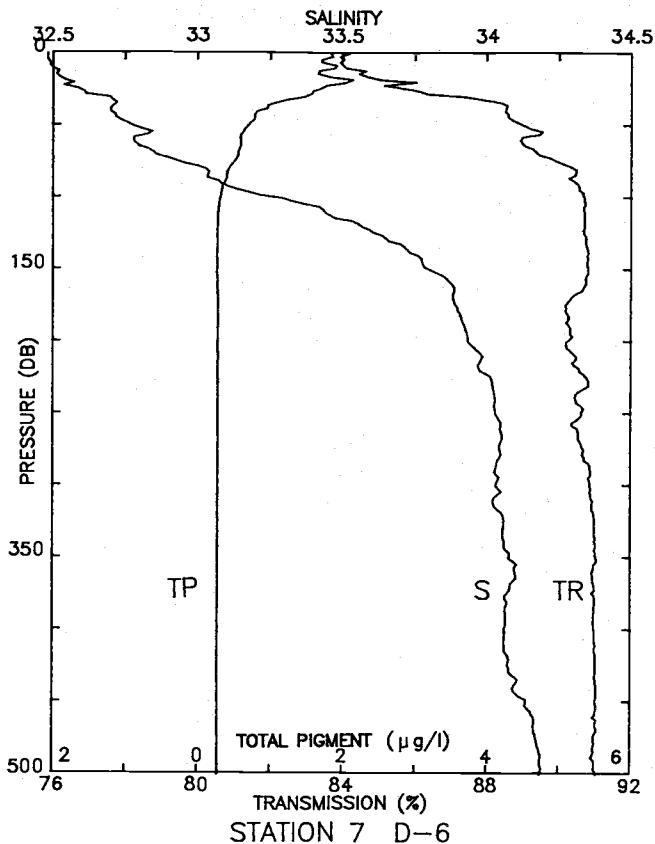
STA 5 D-4 LAT: 38 34.6 N LONG: 125 13.8 W  
20 JUN 1988 0750 GMT PROBE 2561 DEPTH 3607M

PRESS	TEMP	SAL	TRN	TP
1	14.488	32.825	87.6	0.24
10	14.489	32.825	89.8	0.24
20	14.492	32.825	89.8	0.26
30	14.492	32.825	89.8	0.26
40	14.492	32.825	89.7	0.24
50	14.495	32.825	89.8	0.23
60	13.312	32.800	89.3	0.30
70	11.856	32.801	89.3	0.40
80	11.462	32.892	88.3	0.79
90	11.312	32.933	88.6	0.91
100	10.943	32.942	89.5	0.76
110	10.518	33.031	90.3	0.51
120	9.906	33.254	90.8	0.35
130	9.737	33.418	90.8	0.29
140	9.632	33.515	90.7	0.28
150	9.470	33.622	90.7	0.27
175	9.188	33.735	90.6	0.27
200	8.863	33.830	90.6	0.27
225	8.530	33.894	90.6	0.27
250	8.321	33.934	90.7	0.27
300	7.688	33.997	90.9	0.27
400	6.225	34.007	91.0	0.27
500	5.412	34.058	91.1	0.27
501	5.391	34.057	91.1	0.27

STA 6 D-5 LAT: 38 22.6 N LONG: 125 5.7 W  
20 JUN 1988 0950 GMT PROBE 2561 DEPTH 3824M

PRESS	TEMP	SAL	TRN	TP
3	13.382	32.478	85.7	0.89
10	13.384	32.477	85.6	1.02
20	13.375	32.477	85.4	0.86
30	13.295	32.472	85.4	0.96
40	13.027	32.466	84.7	1.16
50	13.148	32.788	89.1	0.62
60	11.570	32.816	88.0	0.53
70	11.036	32.868	88.4	1.09
80	10.878	32.954	90.0	0.62
90	10.837	33.013	90.4	0.48
100	10.747	33.091	90.7	0.37
110	10.235	33.192	90.9	0.30
120	9.967	33.309	90.9	0.27
130	9.530	33.397	90.9	0.27
140	9.161	33.471	90.9	0.26
150	8.971	33.552	90.9	0.26
175	8.696	33.741	90.7	0.26
200	8.300	33.877	90.7	0.27
225	7.989	33.939	90.8	0.27
250	7.745	33.970	90.8	0.27
300	7.302	34.006	91.0	0.27
400	5.867	34.013	91.1	0.27
500	5.309	34.112	91.2	0.27
501	5.292	34.111	91.2	0.27





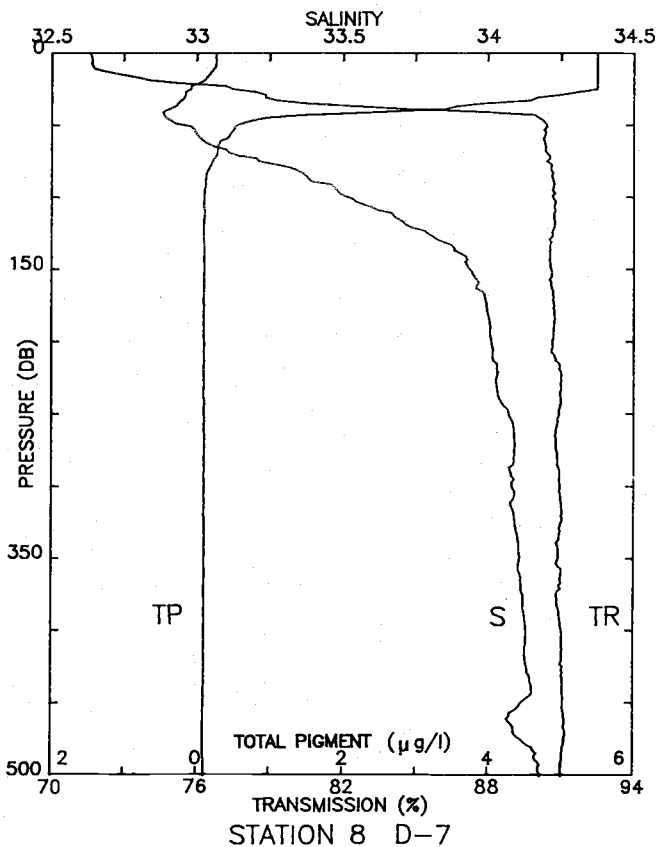
STA 7 D-6 LAT: 38 10.8 N LONG:124 57.1 W  
20 JUN 1988 1204 GMT PROBE 2561 DEPTH 3899M

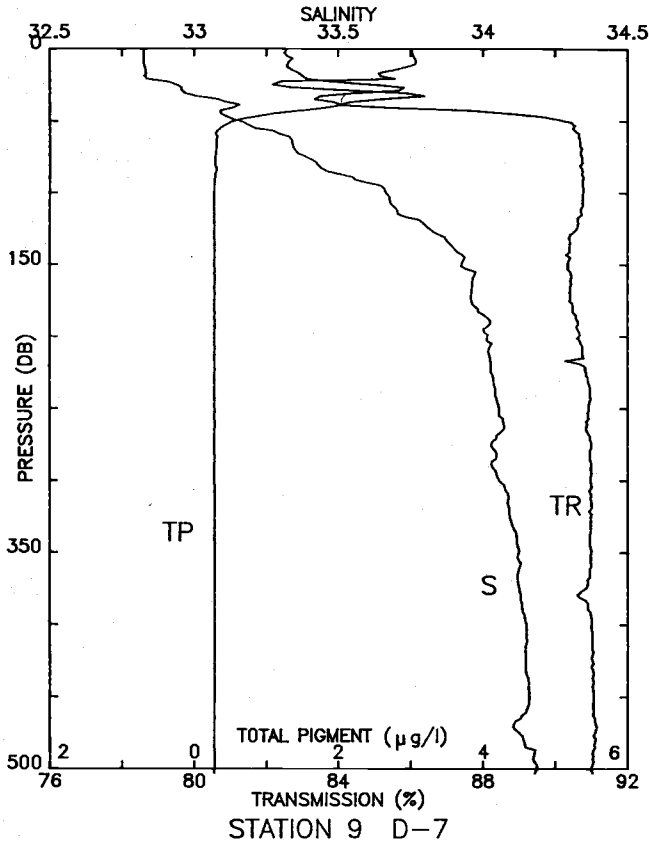
PRESS	TEMP	SAL	TRN	TP
1	12.126	32.483	84.2	1.84
10	12.126	32.496	84.1	1.90
20	11.795	32.557	85.5	2.09
30	11.496	32.656	86.9	1.52
40	10.983	32.700	88.5	0.88
50	10.813	32.769	89.0	0.70
60	10.374	32.778	88.9	0.58
70	10.405	32.853	89.4	0.55
80	10.666	33.016	90.4	0.43
90	10.073	33.076	90.5	0.37
100	9.514	33.252	90.7	0.31
110	9.088	33.436	90.7	0.28
120	8.779	33.560	90.7	0.27
130	8.525	33.654	90.7	0.27
140	8.249	33.746	90.8	0.26
150	8.142	33.792	90.8	0.26
175	7.837	33.889	90.2	0.28
200	7.621	33.935	90.2	0.27
225	7.570	34.013	90.8	0.27
250	7.386	34.031	90.6	0.27
300	6.875	34.034	90.9	0.28
400	5.818	34.063	91.0	0.28
500	5.528	34.187	91.0	0.28
501	5.515	34.187	91.0	0.28

STA 8 D-7 LAT: 37 58.9 N LONG:124 49.1 W  
20 JUN 1988 1409 GMT PROBE 2561 DEPTH 3987M

PRESS	TEMP	SAL	TRN	TP
1	12.369	33.065	71.6	5.49
10	12.325	33.061	71.8	5.49
20	11.922	33.015	74.7	5.49
30	11.504	32.958	78.8	4.83
40	10.788	32.894	86.3	2.95
50	9.998	32.954	90.4	0.57
60	9.882	33.018	90.3	0.37
70	9.717	33.126	90.5	0.27
80	9.264	33.329	90.6	0.16
90	8.999	33.426	90.7	0.12
100	8.768	33.518	90.7	0.10
110	8.568	33.644	90.7	0.11
120	8.368	33.728	90.7	0.09
130	8.185	33.835	90.5	0.10
140	8.184	33.916	90.5	0.10
150	7.959	33.938	90.6	0.10
175	7.651	33.994	90.7	0.10
200	7.444	34.012	90.6	0.10
225	7.273	34.029	91.0	0.10
250	7.178	34.071	90.9	0.10
300	6.803	34.081	91.0	0.10
400	6.108	34.132	91.0	0.10
500	5.344	34.179	91.0	0.11
501	5.339	34.180	91.0	0.11

LIN INT SAL 435-439 DB



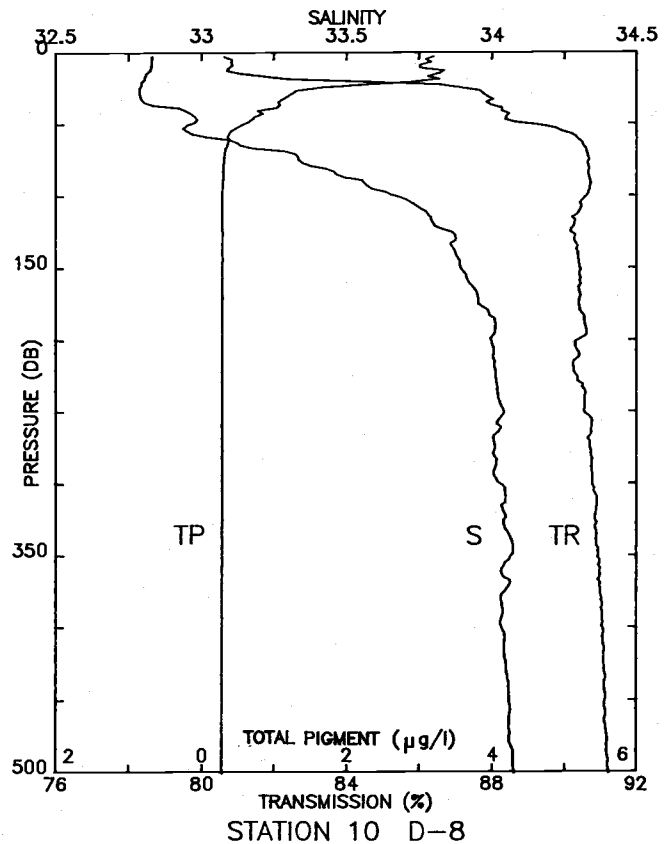


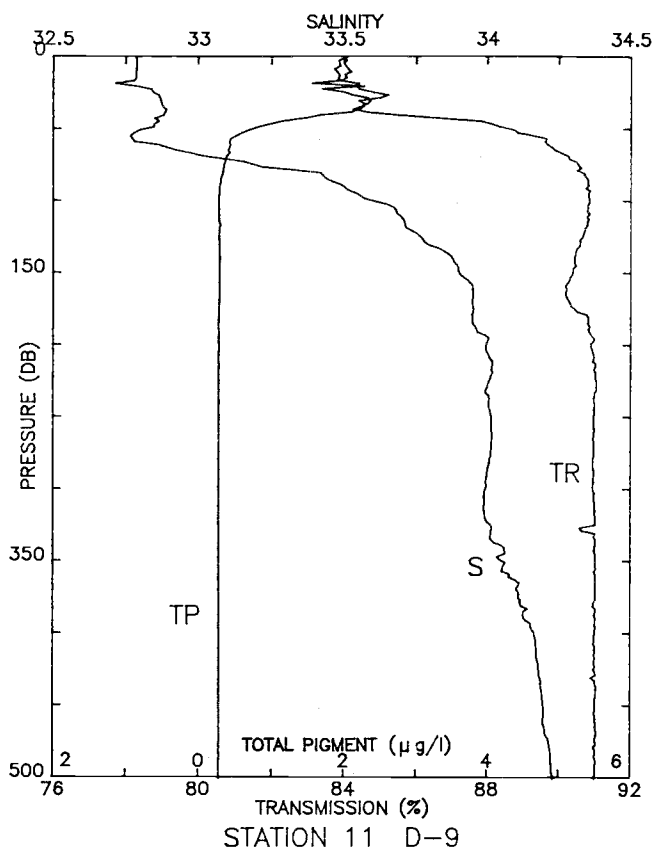
STA 9 D-7 LAT: 37 59.0 N LONG:124 48.9 W  
21 JUN 1988 0557 GMT PROBE 2561 DEPTH 3989M

PRESS	TEMP	SAL	TRN	TP
1	13.633	32.824	86.0	1.27
10	13.631	32.825	86.1	1.30
20	13.160	32.831	85.4	1.53
30	10.737	32.961	85.2	2.51
40	10.658	33.146	84.7	1.94
50	9.649	33.152	90.2	0.57
60	9.321	33.310	90.7	0.30
70	9.212	33.347	90.7	0.30
80	8.925	33.426	90.7	0.28
90	8.734	33.554	90.8	0.28
100	8.592	33.665	90.8	0.27
110	8.473	33.693	90.7	0.27
120	8.293	33.784	90.6	0.27
130	8.270	33.855	90.4	0.27
140	8.236	33.904	90.4	0.28
150	8.009	33.925	90.3	0.28
175	7.682	33.959	90.4	0.28
200	7.604	34.016	90.6	0.28
225	7.303	34.029	90.9	0.28
250	7.064	34.057	90.9	0.28
300	6.529	34.057	91.0	0.27
400	5.951	34.151	91.0	0.28
500	5.342	34.187	91.0	0.28
503	5.291	34.181	91.0	0.28

STA 10 D-8 LAT: 37 47.4 N LONG:124 40.8 W  
21 JUN 1988 0809 GMT PROBE 2561 DEPTH 3914M

PRESS	TEMP	SAL	TRN	TP
3	11.955	32.831	80.6	3.20
10	11.895	32.827	80.8	3.01
20	11.371	32.799	83.5	3.09
30	10.950	32.789	87.8	1.23
40	10.801	32.935	88.3	0.90
50	10.331	32.963	89.0	0.59
60	9.317	33.053	90.4	0.37
70	8.932	33.308	90.6	0.32
80	8.721	33.401	90.7	0.30
90	8.693	33.557	90.7	0.29
100	8.548	33.670	90.6	0.28
110	8.517	33.765	90.4	0.28
120	8.488	33.802	90.3	0.28
130	8.536	33.875	90.3	0.29
140	8.148	33.875	90.4	0.28
150	8.000	33.893	90.4	0.28
175	7.846	33.952	90.4	0.28
200	7.522	33.995	90.4	0.28
225	7.294	34.011	90.3	0.28
250	7.118	34.040	90.5	0.28
300	6.529	34.027	90.8	0.28
400	5.367	34.031	91.0	0.27
500	4.710	34.075	91.2	0.27
501	4.708	34.076	91.2	0.27



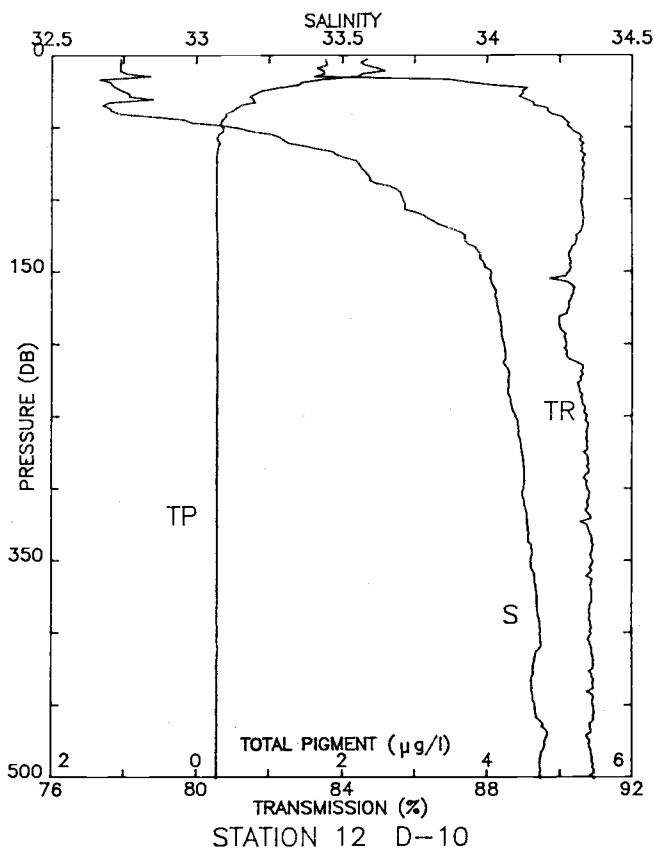


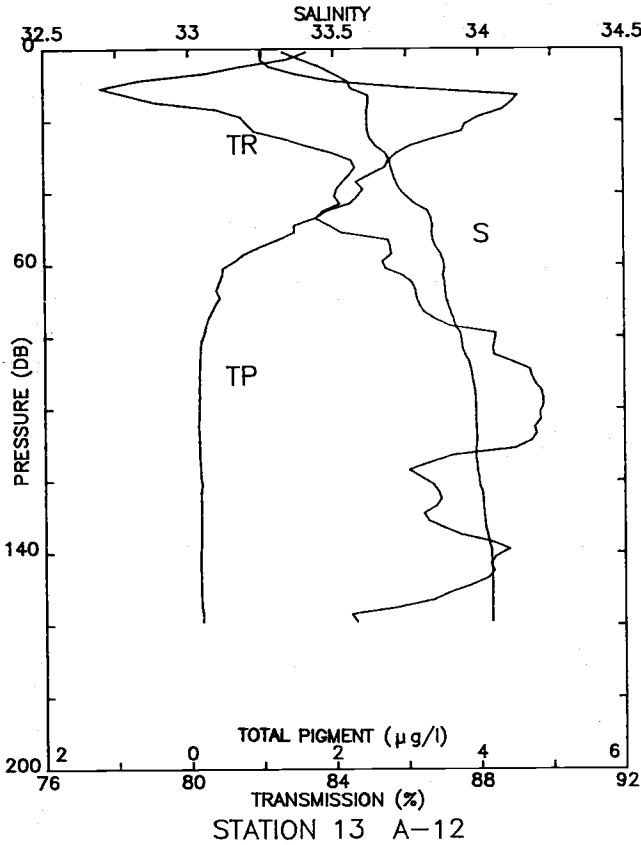
STA 11 D-9 LAT: 37 35.5 N LONG:124 31.6 W  
21 JUN 1988 1009 GMT PROBE 2561 DEPTH 3965M

PRESS	TEMP	SAL	TRN	TP
1	13.446	32.785	84.0	2.03
10	13.446	32.785	84.2	1.88
20	12.473	32.752	83.8	2.19
30	11.702	32.871	84.7	2.35
40	11.584	32.883	85.1	1.89
50	10.504	32.823	88.5	0.75
60	9.445	32.821	89.6	0.42
70	9.122	33.046	90.3	0.37
80	8.923	33.371	90.6	0.33
90	8.912	33.495	90.8	0.29
100	8.810	33.591	90.9	0.27
110	8.659	33.688	90.8	0.27
120	8.450	33.723	90.7	0.28
130	8.266	33.786	90.6	0.28
140	8.102	33.876	90.4	0.29
150	7.919	33.901	90.4	0.28
175	7.581	33.951	90.4	0.28
200	7.393	33.996	90.9	0.27
225	7.085	34.006	91.0	0.27
250	6.800	34.015	91.0	0.27
300	6.086	33.994	91.0	0.27
400	5.906	34.167	91.0	0.28
500	5.419	34.232	91.0	0.28
501	5.412	34.232	91.0	0.28

STA 12 D-10 LAT: 37 23.8 N LONG:124 22.5 W  
21 JUN 1988 1202 GMT PROBE 2561 DEPTH 3999M

PRESS	TEMP	SAL	TRN	TP
3	13.220	32.738	83.5	2.33
10	13.221	32.738	83.4	2.54
20	11.389	32.707	87.8	1.43
30	10.847	32.810	89.0	0.76
40	9.702	32.723	89.7	0.45
50	9.663	33.119	90.3	0.36
60	9.432	33.307	90.6	0.30
70	8.984	33.493	90.7	0.28
80	8.731	33.574	90.6	0.28
90	8.561	33.639	90.6	0.27
100	8.499	33.710	90.6	0.27
110	8.334	33.767	90.6	0.27
120	8.387	33.872	90.6	0.28
130	8.409	33.930	90.4	0.28
140	8.324	33.977	90.3	0.29
150	8.217	34.012	90.2	0.29
175	7.941	34.037	90.2	0.29
200	7.831	34.057	90.2	0.29
225	7.562	34.072	90.6	0.29
250	7.369	34.097	90.7	0.28
300	7.002	34.126	90.8	0.28
400	6.264	34.182	90.9	0.28
500	5.236	34.183	90.9	0.28
501	5.240	34.184	91.0	0.28



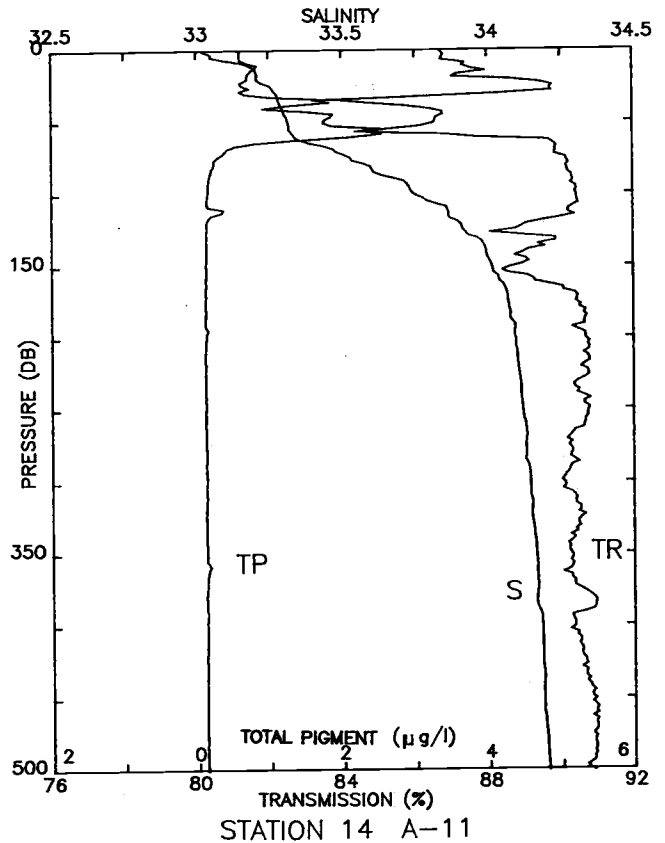


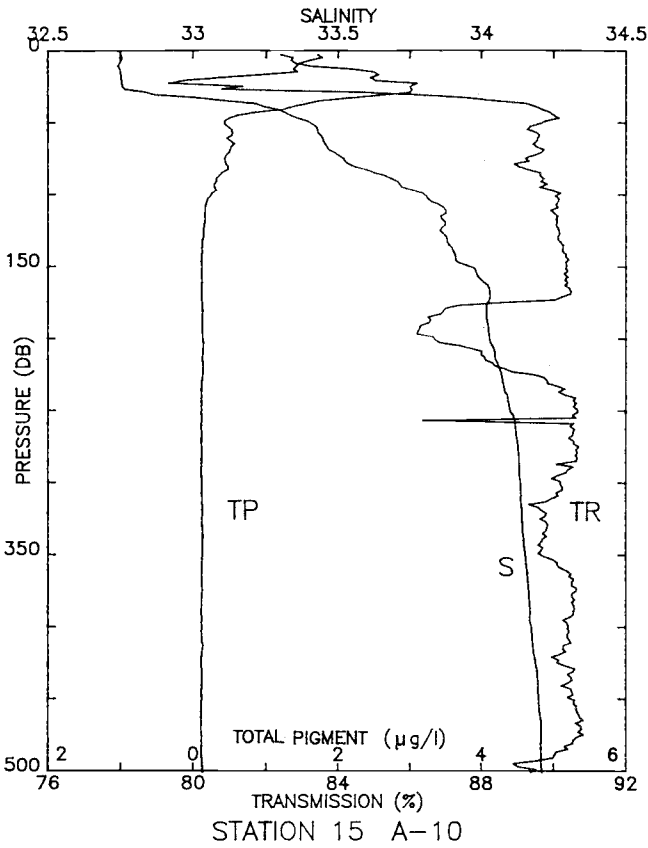
STA 13 A-12 LAT: 38 11.5 N LONG:123 21.7 W  
21 JUN 1988 1905 GMT PROBE 2561 DEPTH 173M

PRESS	TEMP	SAL	TRN	TP
1	10.265	33.326	83.2	1.01
10	9.992	33.554	78.1	2.51
20	9.380	33.615	81.5	3.90
30	9.159	33.685	84.2	2.81
40	9.138	33.738	84.0	2.36
50	9.166	33.838	84.0	1.45
60	8.839	33.878	85.4	0.54
70	8.438	33.887	86.3	0.39
80	8.259	33.936	88.4	0.18
90	8.159	33.971	89.4	0.13
100	8.112	33.986	89.7	0.12
110	8.073	33.987	89.2	0.13
120	7.938	33.996	86.5	0.15
130	7.827	34.013	86.5	0.14
140	7.763	34.036	88.6	0.13
150	7.704	34.039	87.4	0.14
159	7.640	34.039	84.6	0.16

STA 14 A-11 LAT: 38 9.9 N LONG:123 31.9 W  
21 JUN 1988 2015 GMT PROBE 2561 DEPTH 580M

PRESS	TEMP	SAL	TRN	TP
1	11.778	33.023	86.7	0.60
10	10.774	33.171	87.4	0.77
20	10.352	33.210	87.8	0.70
30	10.136	33.275	89.0	0.63
40	10.021	33.296	82.2	3.01
50	9.964	33.317	83.5	3.27
60	9.887	33.338	87.2	2.31
70	9.469	33.478	89.9	0.40
80	8.977	33.586	90.2	0.23
90	8.825	33.691	90.3	0.17
100	8.576	33.747	90.4	0.15
110	8.677	33.860	90.3	0.26
120	8.326	33.902	89.3	0.13
130	8.183	33.949	89.4	0.13
140	7.961	33.994	89.0	0.13
150	7.757	34.014	88.8	0.12
175	7.538	34.069	90.4	0.11
200	7.346	34.093	90.7	0.12
225	7.185	34.107	90.8	0.11
250	7.067	34.118	90.8	0.12
300	6.940	34.144	90.0	0.12
400	6.475	34.181	90.3	0.12
500	5.985	34.203	90.8	0.12
501	5.978	34.203	90.9	0.12



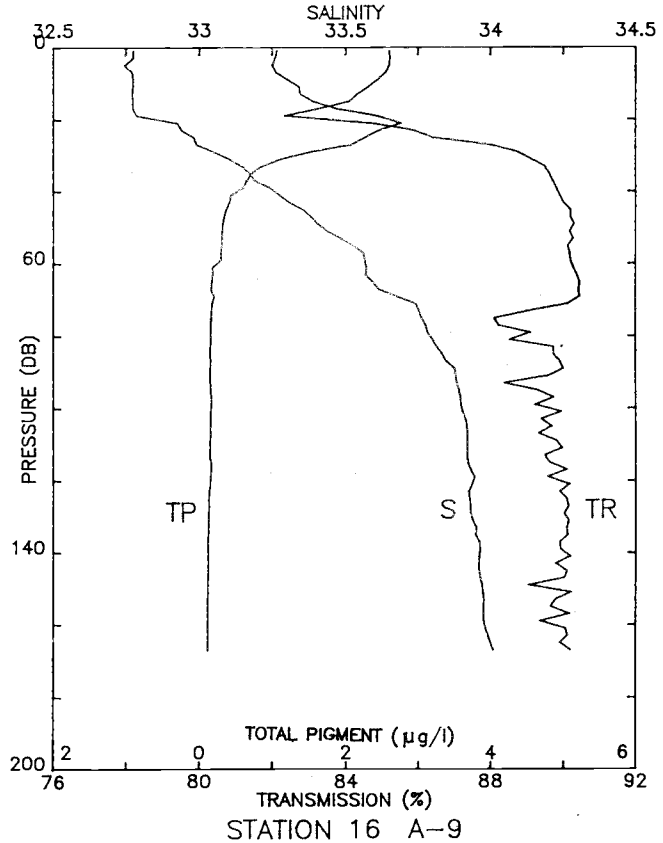


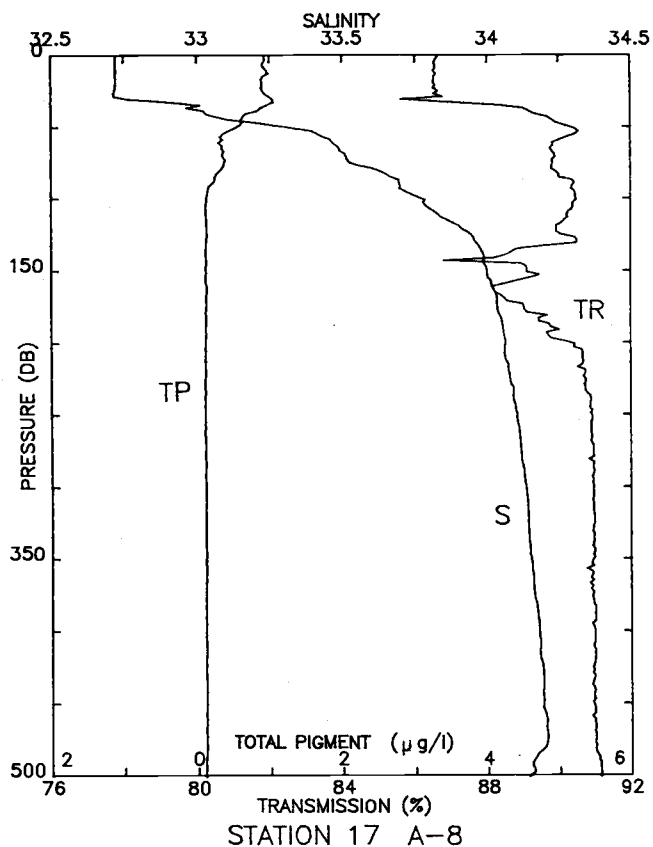
STA 15 A-10 LAT: 38 21.4 N LONG:123 36.9 W  
21 JUN 1988 2209 GMT PROBE 2561 DEPTH 535M

PRESS	TEMP	SAL	TRN	TP
3	12.637	32.751	83.4	1.20
10	12.432	32.744	82.9	1.51
20	12.249	32.753	80.3	2.48
30	11.586	32.854	85.5	2.82
40	9.936	33.266	89.6	1.30
50	9.803	33.401	89.7	0.43
60	9.704	33.444	89.6	0.49
70	9.591	33.479	89.7	0.50
80	9.404	33.549	89.0	0.46
90	8.852	33.695	89.7	0.32
100	8.686	33.801	90.1	0.24
110	8.693	33.873	90.0	0.16
120	8.367	33.875	90.1	0.15
130	8.068	33.879	90.1	0.13
140	7.898	33.905	90.3	0.12
150	7.802	33.961	90.4	0.12
175	7.792	34.023	88.6	0.12
200	7.579	34.030	86.7	0.13
225	7.351	34.071	89.5	0.13
250	7.056	34.102	90.7	0.11
300	6.863	34.137	90.2	0.12
400	6.334	34.175	90.4	0.12
500	5.815	34.211	89.4	0.13
501	5.814	34.211	89.4	0.13

STA 16 A-9 LAT: 38 33.9 N LONG:123 39.1 W  
22 JUN 1988 0004 GMT PROBE 2561 DEPTH 183M

PRESS	TEMP	SAL	TRN	TP
1	13.357	32.775	85.2	1.06
10	13.270	32.774	84.7	1.29
20	12.164	32.856	83.5	2.60
30	9.835	33.077	88.9	1.32
40	9.494	33.259	89.9	0.52
50	9.204	33.421	90.2	0.32
60	9.059	33.568	90.2	0.24
70	8.768	33.710	90.3	0.19
80	8.620	33.793	88.8	0.16
90	8.666	33.880	89.8	0.15
100	8.649	33.902	89.6	0.16
110	8.559	33.922	89.9	0.15
120	8.308	33.942	89.9	0.15
130	8.013	33.936	90.1	0.13
140	7.761	33.963	90.1	0.12
150	7.651	33.973	89.6	0.12
167	7.620	34.010	90.2	0.12



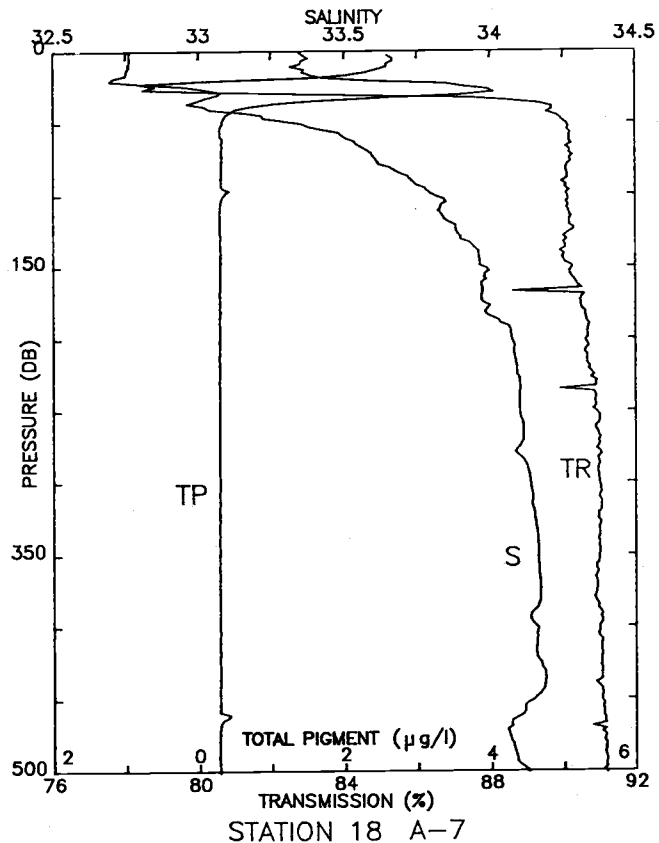


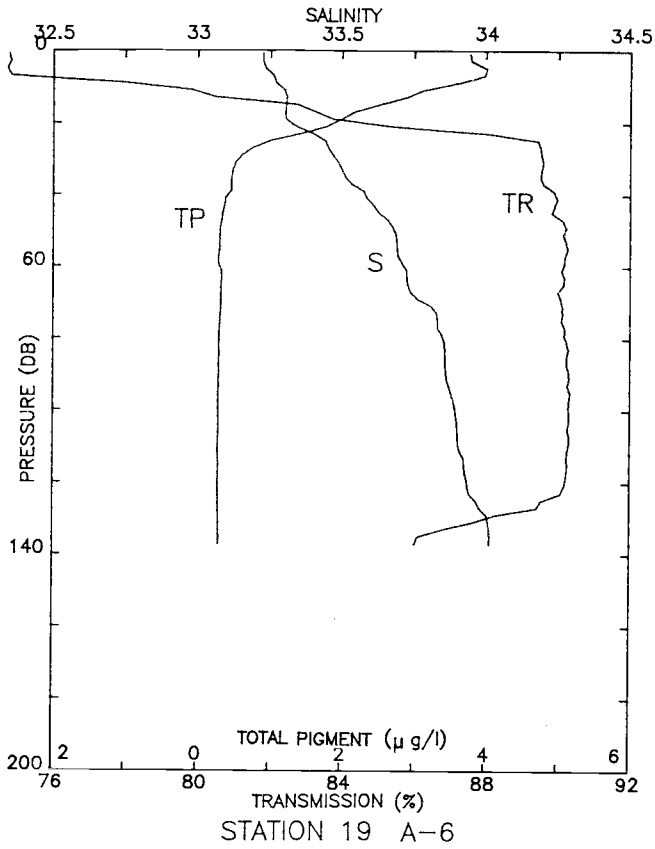
STA 17 A-8 LAT: 38 33.0 N LONG:123 45.5 W  
22 AUG 1988 0122 GMT PROBE 2561 DEPTH 958M

PRESS	TEMP	SAL	TRN	TP
1	13.514	32.722	86.6	0.92
10	13.518	32.722	86.5	0.94
20	13.503	32.722	86.5	0.90
30	12.887	32.742	86.2	1.02
40	10.088	33.028	89.3	0.75
50	9.780	33.296	90.3	0.55
60	9.636	33.463	89.9	0.32
70	9.517	33.513	89.9	0.35
80	9.261	33.616	89.8	0.32
90	9.057	33.697	90.4	0.19
100	8.735	33.773	90.5	0.13
110	8.466	33.823	90.2	0.12
120	8.437	33.907	89.9	0.13
130	8.358	33.959	90.5	0.12
140	8.288	33.989	88.4	0.12
150	8.190	33.998	89.1	0.12
175	7.985	34.035	89.0	0.12
200	7.616	34.063	90.3	0.11
225	7.392	34.080	90.7	0.11
250	7.265	34.104	90.9	0.11
300	7.009	34.135	91.0	0.11
400	6.265	34.180	91.0	0.11
500	5.169	34.149	91.1	0.10
501	5.122	34.145	91.1	0.10

STA 18 A-7 LAT: 38 44.0 N LONG:123 53.2 W  
22 JUN 1988 0328 GMT PROBE 2561 DEPTH 852M

PRESS	TEMP	SAL	TRN	TP
1	13.622	32.762	70.5	1.39
10	13.615	32.760	85.1	1.33
20	13.135	32.701	81.7	2.02
30	11.242	33.071	82.4	3.82
40	9.314	33.028	89.7	0.61
50	9.207	33.324	90.0	0.32
60	9.082	33.499	90.2	0.31
70	8.887	33.584	90.2	0.31
80	8.799	33.638	90.1	0.31
90	8.649	33.731	90.0	0.31
100	8.603	33.807	90.1	0.35
110	8.345	33.826	90.1	0.29
120	8.205	33.871	90.2	0.29
130	8.304	33.899	90.0	0.30
140	8.411	33.960	90.0	0.30
150	8.271	33.976	90.2	0.30
175	7.688	33.978	90.5	0.29
200	7.659	34.074	90.6	0.29
225	7.448	34.092	90.9	0.28
250	7.193	34.100	90.9	0.28
300	6.848	34.137	91.0	0.29
400	6.140	34.156	91.0	0.28
500	5.190	34.126	91.2	0.27
501	5.196	34.128	91.2	0.27



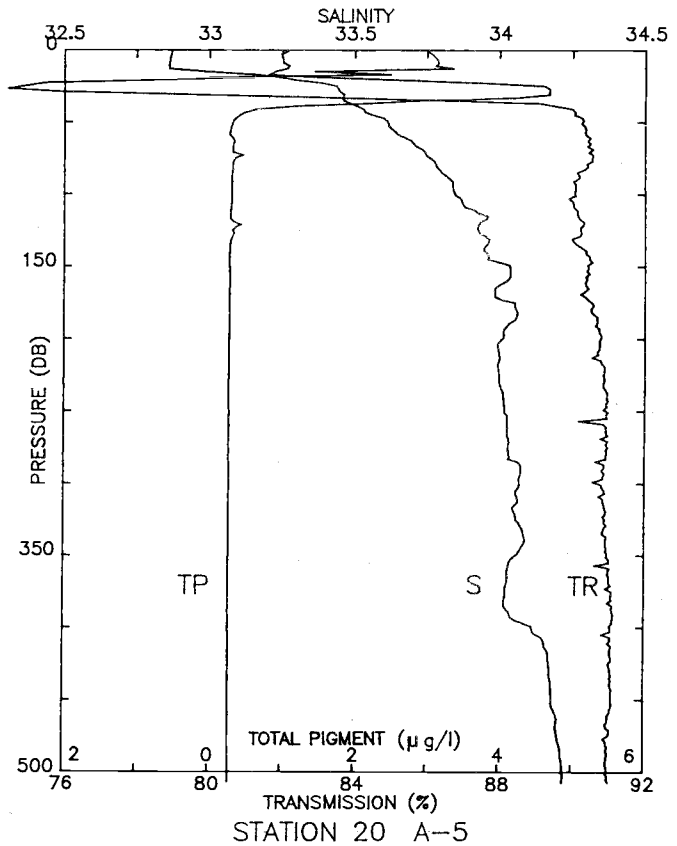


STA 19 A-6 LAT: 38 56.3 N LONG:123 55.4 W  
 22 JUN 1988 0530 GMT PROBE 2561 DEPTH 149M

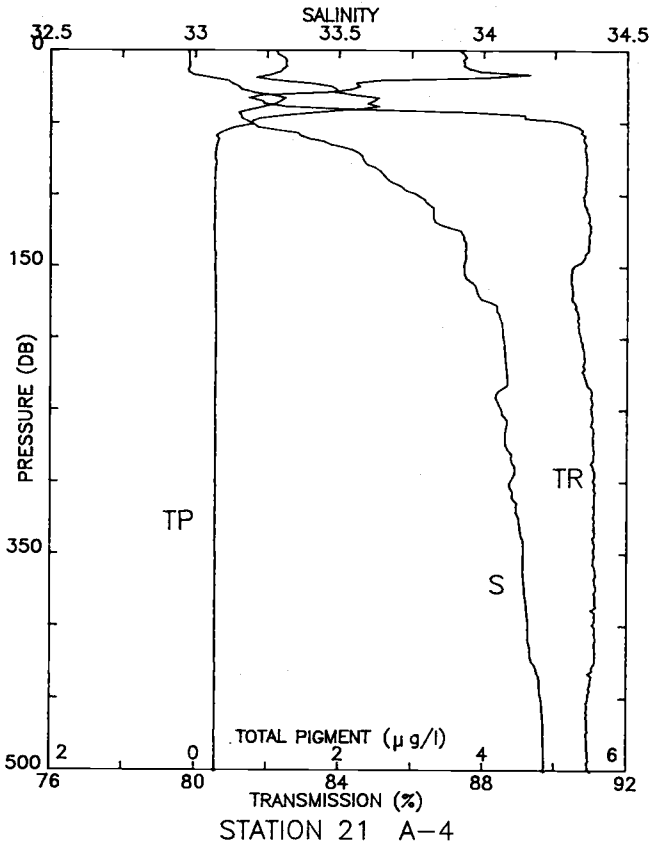
PRESS	TEMP	SAL	TRN	TP
1	11.517	33.223	74.8	3.78
10	10.776	33.284	78.9	3.36
20	10.400	33.322	84.6	1.89
30	9.548	33.478	89.6	0.56
40	9.203	33.582	89.9	0.41
50	8.875	33.682	90.2	0.31
60	8.692	33.717	90.1	0.30
70	8.497	33.788	90.1	0.32
80	8.284	33.852	90.2	0.30
90	8.200	33.863	90.3	0.29
100	8.047	33.895	90.3	0.29
110	7.977	33.908	90.3	0.28
120	7.718	33.938	90.2	0.28
130	7.770	34.009	87.9	0.29
137	7.807	34.017	86.0	0.29

STA 20 A-5 LAT: 38 55.2 N LONG:124 2.0 W  
 22 JUN 1988 0630 GMT PROBE 2561 DEPTH 842M

PRESS	TEMP	SAL	TRN	TP
1	12.931	32.868	86.0	1.07
10	12.968	32.860	86.3	1.06
20	10.830	33.266	79.5	2.04
30	10.141	33.455	77.6	4.68
40	9.450	33.518	89.8	0.94
50	9.133	33.614	90.3	0.32
60	8.968	33.663	90.4	0.30
70	8.708	33.739	90.5	0.32
80	8.533	33.782	90.4	0.32
90	8.328	33.832	90.1	0.31
100	8.173	33.848	90.1	0.31
110	8.007	33.899	90.1	0.30
120	7.912	33.932	90.3	0.38
130	7.856	33.958	90.1	0.31
140	7.647	33.953	90.4	0.28
150	7.911	34.035	90.4	0.28
175	7.746	34.053	90.5	0.28
200	7.205	34.010	90.8	0.28
225	6.872	34.000	90.9	0.28
250	6.606	34.019	90.9	0.28
300	6.387	34.070	90.7	0.28
400	5.761	34.115	91.1	0.27
500	5.691	34.222	91.0	0.28
507	5.608	34.221	91.0	0.28





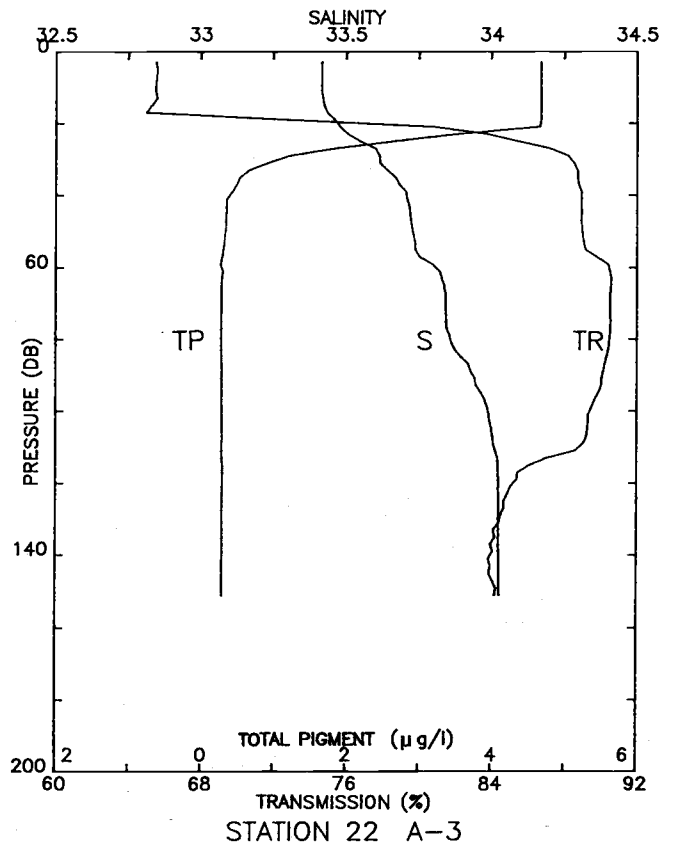


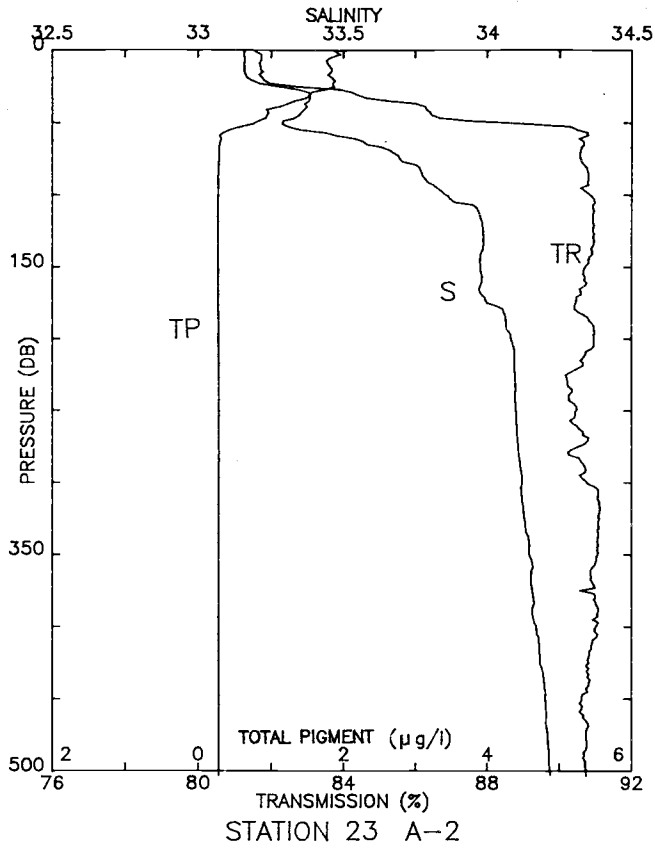
STA 21 A-4 LAT: 39 6.8 N LONG:124 10.4 W  
 22 JUN 1988 0915 GMT PROBE 2561 DEPTH 1376M

PRESS	TEMP	SAL	TRN	TP
1	9.893	32.978	87.4	1.13
10	9.894	32.980	87.4	1.26
20	9.900	33.084	86.6	0.99
30	10.296	33.234	82.8	2.07
40	10.142	33.215	83.5	2.37
50	9.372	33.193	90.3	0.79
60	9.102	33.382	90.8	0.31
70	8.745	33.559	90.8	0.28
80	8.584	33.610	90.9	0.28
90	8.430	33.673	90.9	0.27
100	8.211	33.770	90.8	0.27
110	8.062	33.825	90.9	0.27
120	7.970	33.843	91.0	0.27
130	8.053	33.931	90.9	0.27
140	7.898	33.937	90.9	0.28
150	7.715	33.930	90.5	0.28
175	7.842	34.024	90.5	0.28
200	7.612	34.070	90.7	0.29
225	7.446	34.083	90.8	0.29
250	6.987	34.062	91.0	0.28
300	6.651	34.094	91.1	0.28
400	6.162	34.159	91.1	0.28
500	5.830	34.217	91.0	0.28
501	5.826	34.217	91.0	0.28

STA 22 A-3 LAT: 39 20.5 N LONG:123 56.7 W  
 22 JUN 1988 1127 GMT PROBE 2561 DEPTH 165M

PRESS	TEMP	SAL	TRN	TP
3	10.782	33.415	65.5	4.68
10	10.785	33.415	65.5	4.68
20	9.974	33.470	76.7	4.67
30	8.933	33.615	88.4	1.07
40	8.678	33.707	88.9	0.39
50	8.596	33.730	89.0	0.33
60	8.146	33.810	90.5	0.28
70	8.070	33.844	90.5	0.28
80	8.045	33.860	90.5	0.28
90	8.050	33.937	90.1	0.28
100	8.015	33.989	89.4	0.29
110	7.933	34.011	88.8	0.29
120	7.839	34.025	85.2	0.29
130	7.829	34.025	84.5	0.29
140	7.806	34.027	84.0	0.29
150	7.781	34.029	84.2	0.29
151	7.776	34.030	84.2	0.29



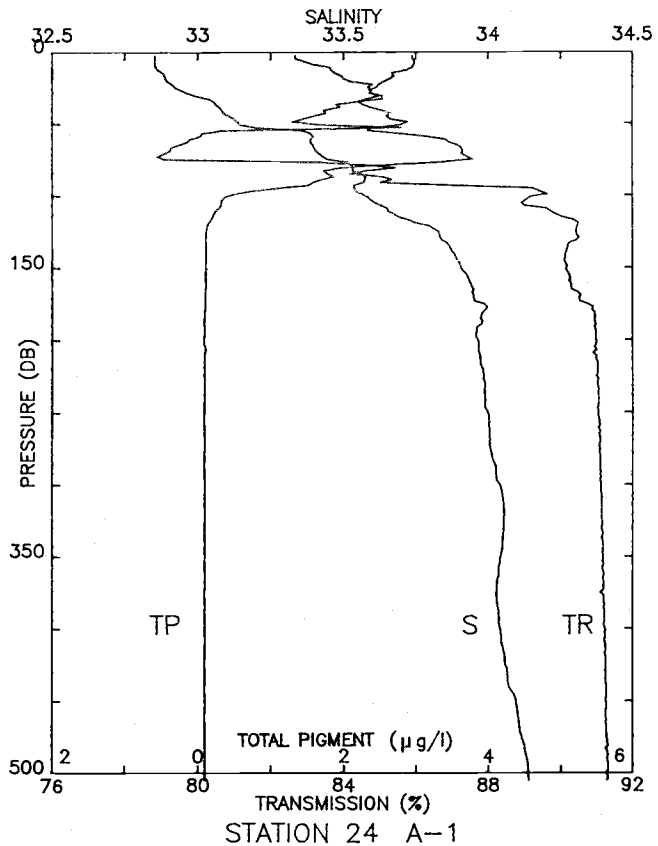


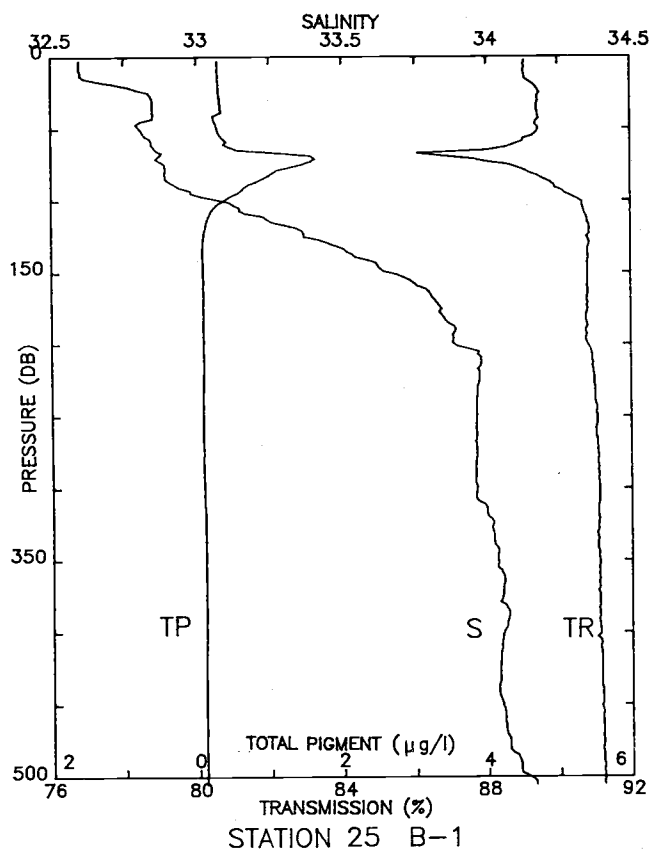
STA 23 A-2 LAT: 39 19.8 N LONG:124 3.5 W  
22 JUN 1988 1244 GMT PROBE 2561 DEPTH 606M

PRESS	TEMP	SAL	TRN	TP
1	10.991	33.157	81.6	1.89
10	10.991	33.157	81.7	1.79
20	10.973	33.177	81.8	1.86
30	10.783	33.382	84.3	1.54
40	10.188	33.368	86.3	1.03
50	9.132	33.288	88.2	0.78
60	8.682	33.507	90.7	0.30
70	8.466	33.667	90.6	0.28
80	8.206	33.756	90.7	0.28
90	8.094	33.788	90.8	0.27
100	7.892	33.854	90.9	0.27
110	7.936	33.965	90.9	0.27
120	7.814	33.983	90.9	0.27
130	7.701	33.987	90.9	0.27
140	7.556	33.980	90.9	0.27
150	7.405	33.976	90.7	0.27
175	7.142	34.001	90.4	0.27
200	7.171	34.083	91.0	0.28
225	7.034	34.097	90.2	0.28
250	7.012	34.100	90.5	0.28
300	6.768	34.121	90.8	0.28
400	6.160	34.170	91.0	0.28
500	5.577	34.218	90.7	0.28
503	5.568	34.219	90.7	0.28

STA 24 A-1 LAT: 39 17.8 N LONG:124 19.0 W  
22 JUN 1988 1451 GMT PROBE 2561 DEPTH 1545M

PRESS	TEMP	SAL	TRN	TP
3	10.039	32.851	85.9	1.34
10	10.030	32.853	85.9	1.69
20	9.965	32.892	85.2	2.05
30	9.757	32.979	84.9	2.43
40	9.707	33.078	83.7	2.45
50	9.676	33.141	83.0	2.84
60	10.028	33.391	79.9	3.26
70	10.000	33.411	79.1	3.64
80	10.249	33.529	85.1	2.23
90	9.454	33.571	85.2	1.64
100	8.375	33.573	89.4	0.44
110	8.179	33.654	89.7	0.26
120	8.107	33.772	90.5	0.14
130	7.930	33.837	90.5	0.10
140	7.821	33.881	90.1	0.11
150	7.697	33.907	90.2	0.11
175	7.492	33.987	90.7	0.10
200	6.929	33.964	91.0	0.08
225	6.737	33.985	91.0	0.09
250	6.526	33.998	91.0	0.09
300	6.196	34.041	91.1	0.10
400	5.169	34.041	91.2	0.09
500	4.884	34.139	91.3	0.09
505	4.869	34.140	91.3	0.10



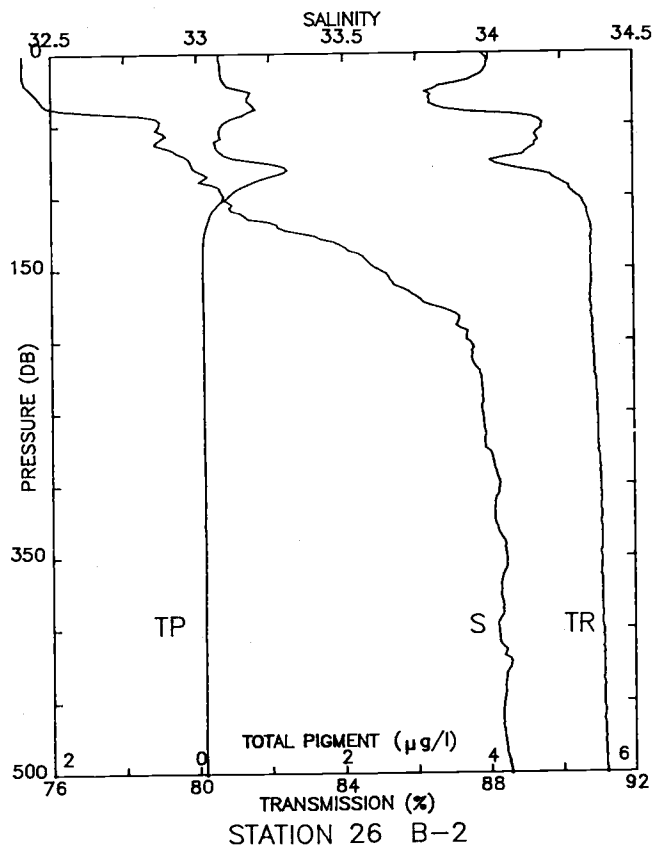


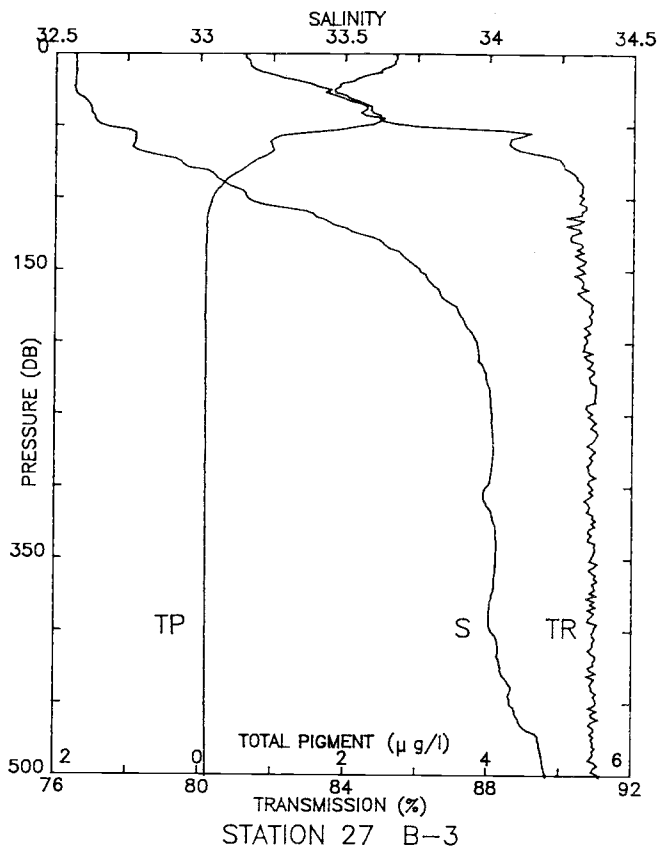
STA 25 B-1 LAT: 39 14.8 N LONG:124 46.2 W  
22 JUN 1988 1739 GMT PROBE 2561 DEPTH 2924M

PRESS	TEMP	SAL	TRN	TP
3	14.642	32.598	89.1	0.29
10	14.636	32.600	89.0	0.29
20	14.715	32.739	89.3	0.30
30	14.680	32.848	89.4	0.31
40	14.670	32.850	89.4	0.28
50	12.841	32.804	89.4	0.28
60	12.039	32.845	88.9	0.39
70	11.494	32.864	87.2	1.60
80	11.180	32.891	89.1	1.07
90	10.969	32.932	89.9	0.67
100	10.856	33.087	90.6	0.36
110	10.404	33.200	90.8	0.16
120	9.997	33.353	90.9	0.11
130	9.655	33.462	90.8	0.07
140	9.175	33.568	90.8	0.07
150	8.950	33.666	90.8	0.07
175	8.741	33.843	90.8	0.08
200	8.015	33.887	90.8	0.08
225	7.739	33.972	91.0	0.08
250	7.373	33.962	91.0	0.07
300	6.728	33.961	91.1	0.08
400	5.892	34.052	91.1	0.09
500	5.441	34.144	91.2	0.10
505	5.531	34.165	91.2	0.10

STA 26 B-2 LAT: 39 3.3 N LONG:124 36.6 W  
22 JUN 1988 1929 GMT PROBE 2561 DEPTH 3386M

PRESS	TEMP	SAL	TRN	TP
1	14.303	32.402	87.8	0.30
10	14.302	32.401	87.9	0.32
20	14.080	32.408	87.3	0.37
30	13.756	32.455	86.4	0.71
40	13.985	32.595	87.1	0.75
50	14.655	32.869	89.5	0.33
60	12.626	32.868	89.3	0.28
70	12.196	32.942	89.0	0.36
80	11.776	32.989	88.7	1.22
90	11.389	33.028	90.0	0.74
100	11.073	33.089	90.5	0.41
110	10.293	33.132	90.7	0.19
120	9.880	33.276	90.8	0.12
130	9.623	33.442	90.8	0.08
140	9.258	33.558	90.8	0.07
150	9.178	33.619	90.8	0.07
175	8.629	33.799	90.8	0.08
200	8.420	33.927	90.9	0.08
225	7.929	33.972	90.9	0.08
250	7.547	33.975	91.0	0.08
300	7.084	34.033	91.1	0.09
400	5.735	34.026	91.1	0.09
500	4.964	34.069	91.2	0.09
501	4.956	34.069	91.2	0.09



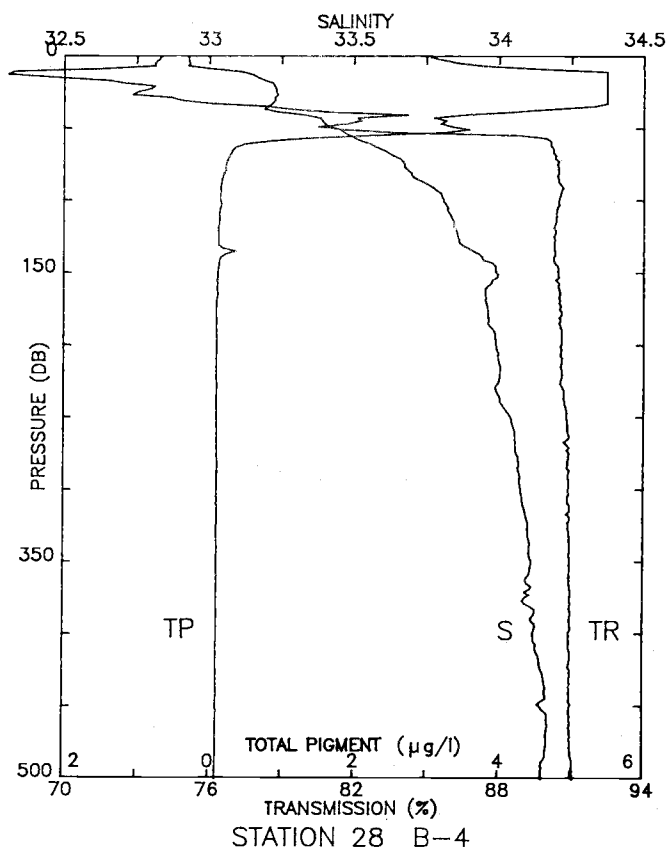


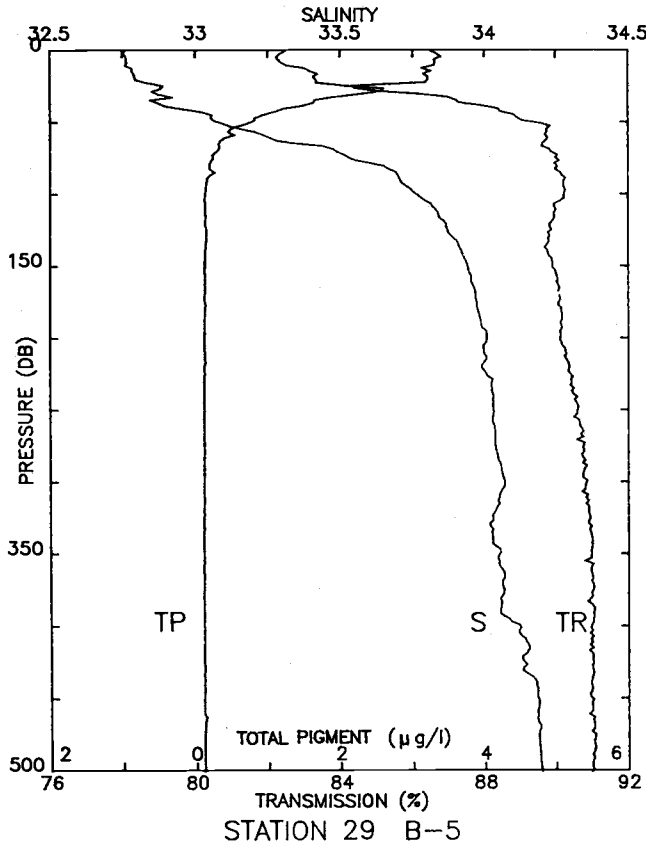
STA 27 B-3 LAT: 38 51.9 N LONG:124 29.3 W  
22 JUN 1988 2105 GMT PROBE 2561 DEPTH 3476M

PRESS	TEMP	SAL	TRN	TP
1	12.788	32.570	85.4	0.62
10	12.716	32.571	85.1	0.72
20	12.372	32.568	84.0	1.45
30	11.749	32.589	84.1	1.91
40	11.607	32.625	84.7	2.25
50	11.660	32.669	85.8	2.27
60	11.289	32.778	88.6	0.99
70	10.718	32.840	89.4	0.93
80	10.812	32.992	90.1	0.59
90	10.461	33.088	90.6	0.32
100	10.115	33.163	90.6	0.17
110	9.411	33.377	90.6	0.11
120	9.035	33.487	90.3	0.09
130	8.777	33.625	90.4	0.08
140	8.558	33.701	90.4	0.08
150	8.218	33.760	90.6	0.08
175	8.034	33.888	90.8	0.07
200	7.964	33.960	90.7	0.08
225	7.604	33.994	90.8	0.08
250	7.285	34.016	90.8	0.09
300	6.614	33.995	90.9	0.09
400	5.529	34.015	90.9	0.09
500	5.584	34.206	91.1	0.10
501	5.582	34.206	91.1	0.10

STA 28 B-4 LAT: 38 40.8 N LONG:124 20.8 W  
22 JUN 1988 2254 GMT PROBE 2561 DEPTH 3407M

PRESS	TEMP	SAL	TRN	TP
1	13.219	32.926	74.0	3.06
10	12.291	33.062	69.7	5.04
20	11.026	33.222	73.1	5.49
30	10.945	33.225	74.6	5.49
40	10.242	33.282	82.6	3.83
50	10.039	33.431	81.0	3.47
60	9.238	33.541	90.1	0.66
70	9.058	33.647	90.3	0.27
80	8.935	33.692	90.5	0.22
90	8.647	33.763	90.6	0.16
100	8.422	33.809	90.5	0.15
110	8.310	33.832	90.4	0.14
120	8.190	33.850	90.3	0.13
130	8.066	33.869	90.3	0.13
140	8.062	33.944	90.2	0.15
150	8.098	33.992	90.4	0.12
175	7.414	33.961	90.5	0.10
200	7.227	33.990	90.6	0.10
225	7.072	33.999	90.5	0.10
250	7.013	34.040	90.8	0.10
300	6.702	34.075	90.9	0.11
400	5.861	34.119	90.9	0.11
500	5.048	34.148	91.1	0.10
501	5.042	34.149	91.1	0.10



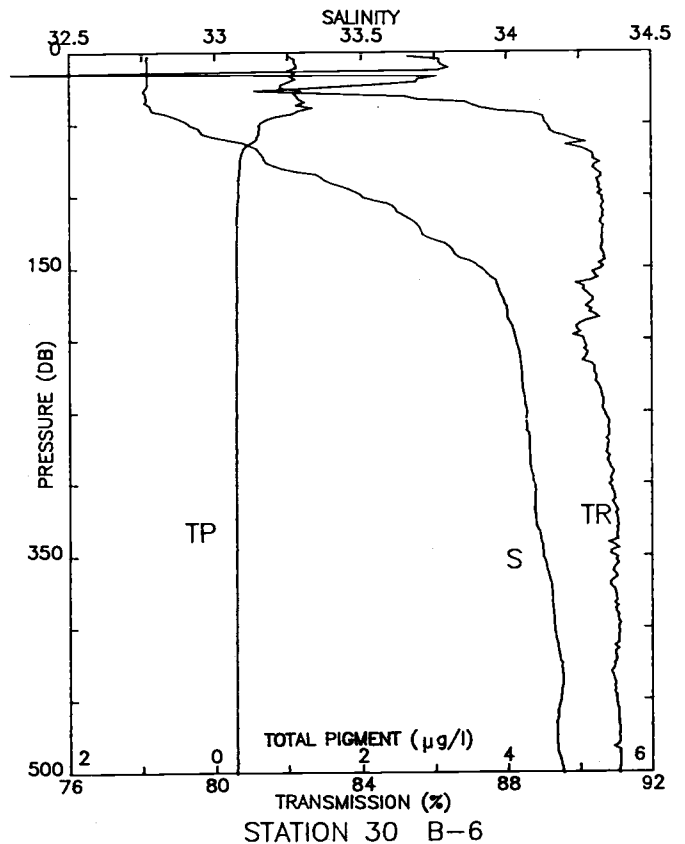


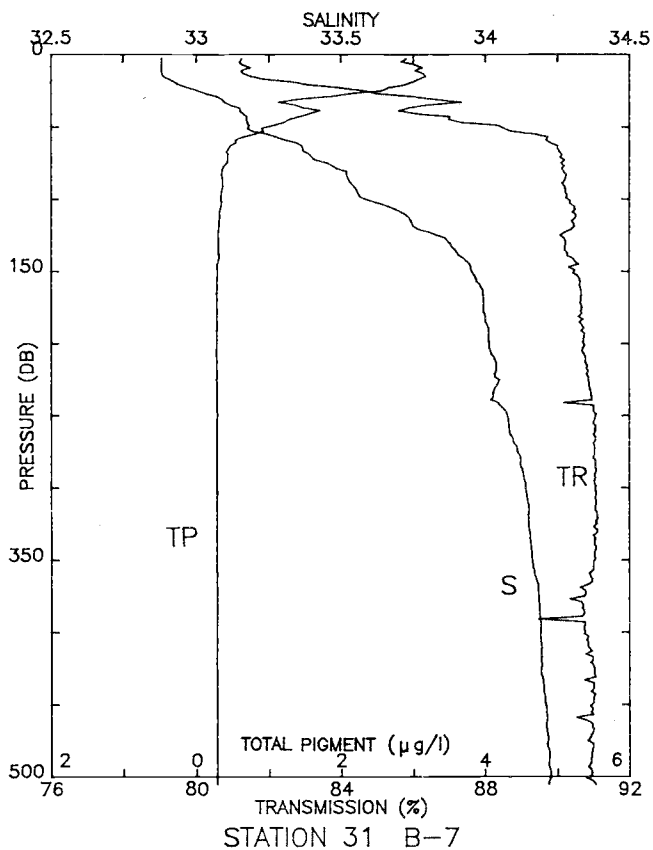
STA 29 B-5 LAT: 38 29.5 N LONG:124 12.2 W  
23 JUN 1988 0050 GMT PROBE 2561 DEPTH 3422M

STA 30 B-6 LAT: 38 18.2 N LONG:124 3.8 W  
23 JUN 1988 0253 GMT PROBE 2561 DEPTH 3523M

PRESS	TEMP	SAL	TRN	TP
3	13.004	32.768	85.3	1.02
10	12.994	32.768	86.3	1.11
20	12.973	32.768	85.5	1.05
30	12.142	32.762	84.1	1.10
40	11.755	32.783	87.5	1.24
50	11.113	32.910	89.1	0.61
60	10.775	33.016	89.7	0.56
70	10.422	33.153	90.3	0.36
80	10.165	33.214	90.4	0.33
90	9.803	33.384	90.5	0.31
100	9.404	33.500	90.6	0.32
110	9.101	33.618	90.6	0.30
120	9.012	33.690	90.6	0.29
130	8.993	33.740	90.6	0.29
140	8.837	33.819	90.7	0.29
150	8.520	33.908	90.6	0.28
175	8.308	33.992	90.3	0.29
200	8.060	34.030	90.1	0.29
225	7.858	34.051	90.5	0.28
250	7.692	34.068	90.7	0.28
300	7.150	34.093	90.9	0.28
400	6.253	34.163	91.1	0.28
500	5.590	34.192	91.1	0.28
501	5.591	34.193	91.1	0.28

LIN INT SAL 13-19 DB



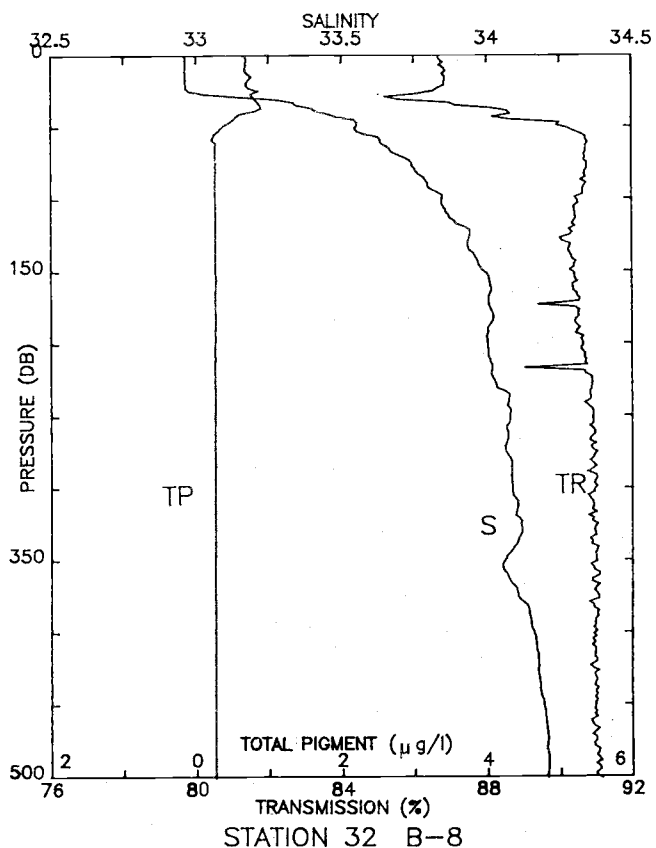


STA 31 B-7 LAT: 38 6.3 N LONG:123 56.1 W  
23 JUN 1988 0455 GMT PROBE 2561 DEPTH 3513M

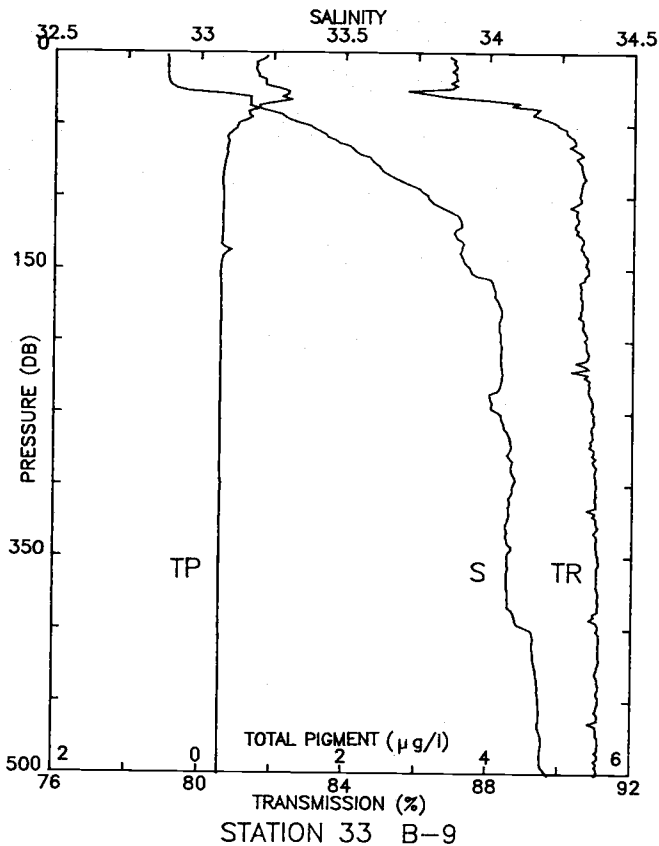
PRESS	TEMP	SAL	TRN	TP
3	12.588	32.880	81.2	2.90
10	12.588	32.880	81.4	3.07
20	12.203	32.934	82.9	2.93
30	11.118	33.080	86.3	1.65
40	10.698	33.156	85.8	1.64
50	10.335	33.179	88.4	0.98
60	9.923	33.323	89.7	0.54
70	9.842	33.395	90.1	0.43
80	9.517	33.501	90.1	0.35
90	9.359	33.538	90.2	0.36
100	9.209	33.580	90.3	0.34
110	9.068	33.714	90.5	0.31
120	8.834	33.758	90.4	0.31
130	8.535	33.874	90.2	0.30
140	8.403	33.917	90.4	0.31
150	8.270	33.954	90.5	0.29
175	7.878	33.995	90.7	0.28
200	7.727	34.014	90.7	0.28
225	7.483	34.049	90.9	0.28
250	7.080	34.077	91.1	0.29
300	6.859	34.141	91.1	0.28
400	6.195	34.192	90.7	0.28
500	5.713	34.227	90.9	0.28
505	5.624	34.219	91.0	0.28

STA 32 B-8 LAT: 37 55.8 N LONG:123 47.0 W  
23 JUN 1988 0714 GMT PROBE 2561 DEPTH 3388M

PRESS	TEMP	SAL	TRN	TP
1	13.853	32.963	86.7	0.68
10	13.853	32.962	86.8	0.67
20	13.821	32.964	86.8	0.69
30	11.260	33.207	85.4	0.80
40	9.674	33.432	88.6	0.71
50	9.312	33.548	90.1	0.36
60	8.931	33.635	90.8	0.25
70	8.834	33.702	90.7	0.27
80	8.719	33.755	90.7	0.27
90	8.564	33.797	90.7	0.26
100	8.394	33.847	90.5	0.27
110	8.295	33.865	90.4	0.27
120	8.288	33.932	90.3	0.27
130	8.169	33.935	90.2	0.27
140	8.009	33.961	90.3	0.27
150	7.968	33.991	90.3	0.27
175	7.644	34.010	90.4	0.27
200	7.325	34.002	90.6	0.27
225	7.002	34.024	90.9	0.26
250	6.967	34.079	90.9	0.26
300	6.577	34.088	91.0	0.26
400	5.940	34.160	91.0	0.26
500	5.364	34.205	91.1	0.26
501	5.359	34.205	91.1	0.26



4 MIN GAP AT 202 DB

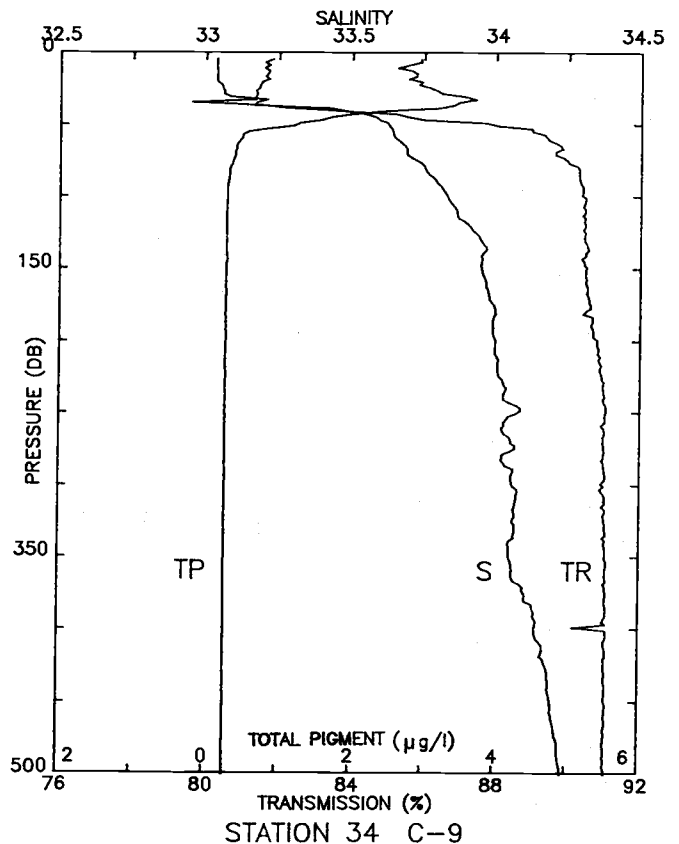


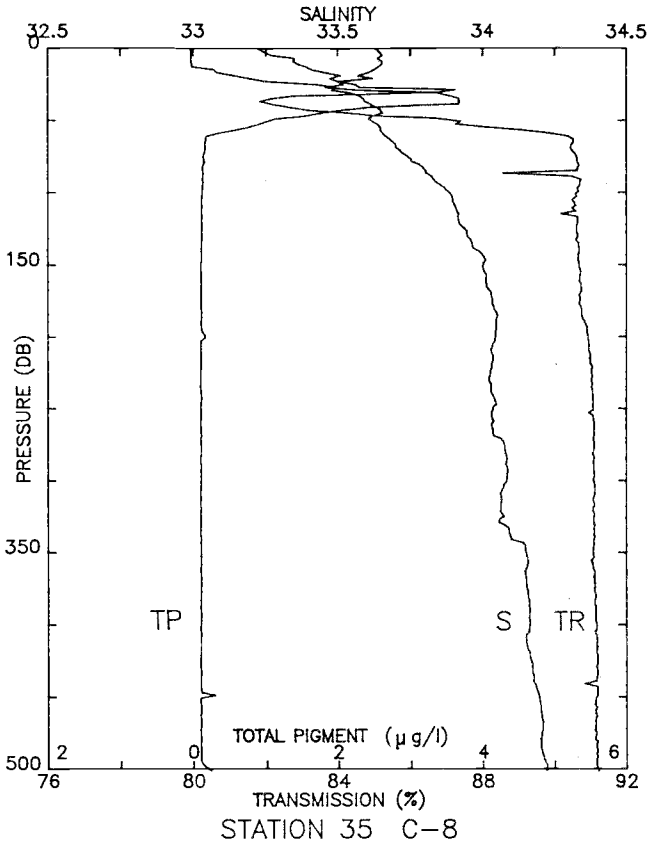
STA 33 B-9 LAT: 37 43.9 N LONG:123 38.5 W  
23 JUN 1988 0919 GMT PROBE 2561 DEPTH 2984M

PRESS	TEMP	SAL	TRN	TP
3	13.629	32.884	86.9	0.90
10	13.632	32.884	87.0	0.76
20	13.570	32.889	87.0	0.89
30	11.067	33.132	86.6	1.16
40	10.384	33.219	89.3	0.72
50	10.132	33.359	89.9	0.51
60	9.600	33.453	90.3	0.37
70	9.325	33.544	90.5	0.36
80	8.982	33.619	90.5	0.31
90	8.846	33.699	90.6	0.29
100	8.764	33.784	90.5	0.31
110	8.671	33.858	90.4	0.30
120	8.602	33.904	90.4	0.30
130	8.262	33.897	90.6	0.29
140	8.073	33.902	90.7	0.34
150	7.900	33.934	90.8	0.28
175	7.970	34.039	90.6	0.28
200	7.720	34.042	90.7	0.28
225	7.407	34.048	90.7	0.28
250	7.017	34.036	90.9	0.28
300	6.689	34.087	91.0	0.29
400	6.024	34.146	91.0	0.28
500	5.517	34.213	91.0	0.28
501	5.528	34.217	91.0	0.28

STA 34 C-9 LAT: 37 39.6 N LONG:124 5.5 W  
23 JUN 1988 1219 GMT PROBE 2561 DEPTH 3523M

PRESS	TEMP	SAL	TRN	TP
5	13.195	33.036	81.8	2.95
10	13.216	33.034	81.7	2.70
20	13.156	33.037	81.6	2.87
30	12.448	33.071	81.4	3.40
40	10.293	33.454	83.0	2.81
50	9.297	33.624	87.9	1.24
60	8.999	33.652	89.4	0.48
70	8.751	33.690	89.6	0.40
80	8.574	33.753	90.3	0.33
90	8.301	33.795	90.3	0.31
100	8.199	33.832	90.4	0.29
110	8.169	33.866	90.5	0.29
120	8.081	33.908	90.5	0.29
130	8.054	33.948	90.5	0.29
140	7.888	33.954	90.5	0.29
150	7.725	33.951	90.5	0.28
175	7.470	33.994	90.6	0.28
200	7.075	34.000	90.8	0.28
225	6.812	34.013	91.0	0.28
250	6.904	34.079	91.1	0.27
300	6.234	34.060	91.0	0.27
400	5.702	34.141	90.6	0.28
500	5.300	34.236	91.1	0.28
501	5.299	34.236	91.1	0.28





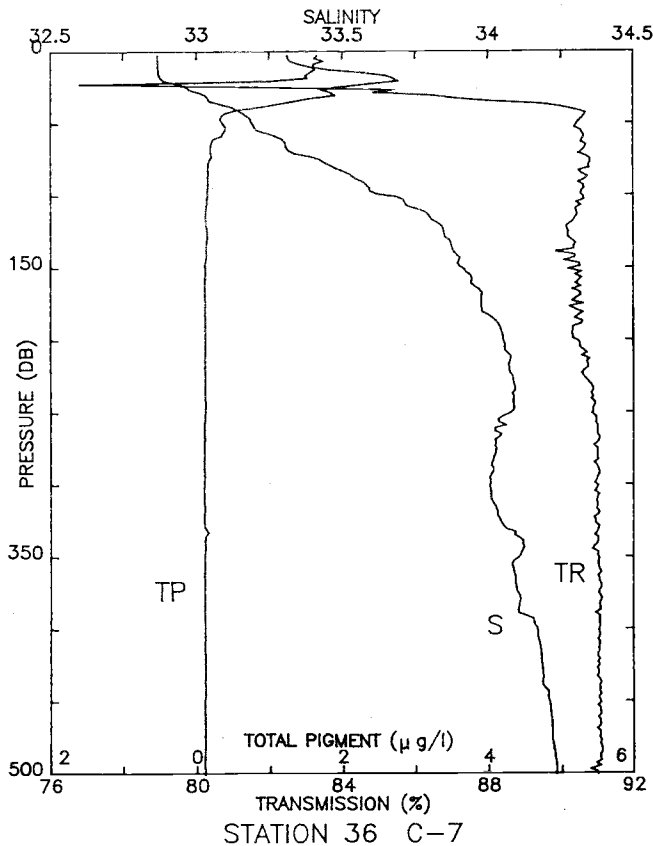
STA 35 C-8 LAT: 37 51.0 N LONG:124 14.0 W  
 23 JUN 1988 1447 GMT PROBE 2561 DEPTH 3767M

PRESS	TEMP	SAL	TRN	TP
1	13.847	32.992	85.1	0.91
10	13.837	32.993	85.2	1.41
20	13.084	33.165	84.8	1.97
30	9.825	33.512	87.0	2.79
40	9.835	33.624	82.4	3.06
50	9.250	33.613	87.1	1.06
60	8.967	33.658	90.1	0.26
70	8.717	33.706	90.5	0.16
80	8.585	33.768	90.7	0.15
90	8.344	33.826	90.6	0.13
100	8.292	33.881	90.6	0.12
110	8.208	33.904	90.5	0.12
120	8.115	33.916	90.6	0.11
130	8.041	33.946	90.6	0.12
140	7.941	33.977	90.7	0.11
150	7.837	34.001	90.7	0.10
175	7.622	34.034	90.7	0.11
200	7.367	34.044	90.9	0.16
225	6.986	34.025	91.0	0.10
250	6.676	34.036	91.1	0.10
300	6.324	34.084	91.1	0.11
400	5.693	34.164	91.2	0.10
500	5.222	34.223	91.2	0.21
501	5.214	34.223	91.2	0.23

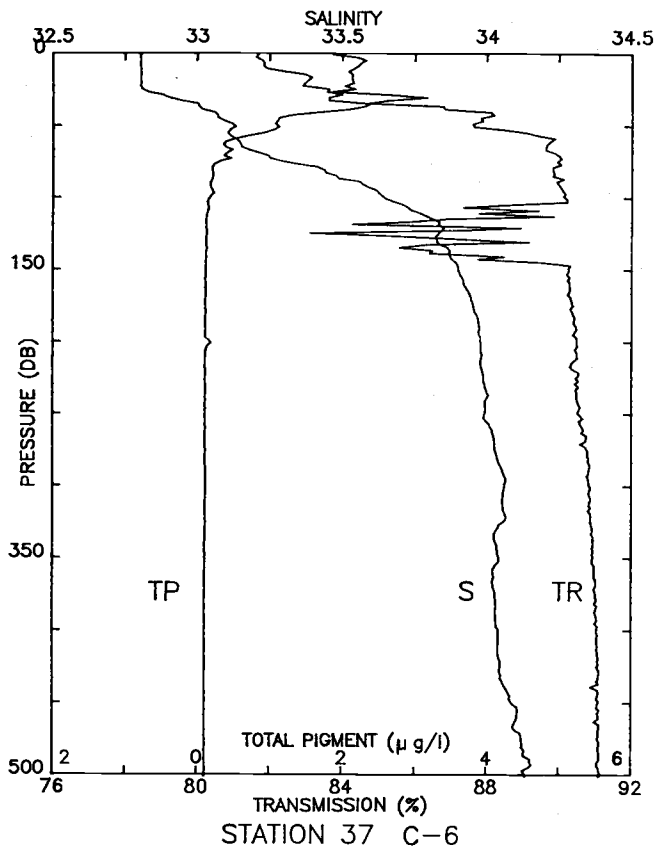
LIN INT SAL 17-23 DB  
 UP CAST

STA 36 C-7 LAT: 38 2.9 N LONG:124 22.1 W  
 23 JUN 1988 1742 GMT PROBE 2561 DEPTH 3843M

PRESS	TEMP	SAL	TRN	TP
3	12.431	32.866	83.3	1.24
10	12.409	32.868	83.2	1.49
20	12.190	32.884	82.5	2.73
30	11.299	33.021	85.7	1.87
40	10.500	33.131	90.2	0.72
50	10.300	33.192	90.4	0.36
60	10.001	33.283	90.6	0.29
70	9.882	33.327	90.5	0.19
80	9.644	33.466	90.8	0.15
90	9.241	33.562	90.6	0.16
100	9.174	33.652	90.6	0.15
110	8.902	33.764	90.4	0.12
120	8.651	33.833	90.2	0.13
130	8.533	33.860	90.2	0.15
140	8.448	33.887	90.1	0.13
150	8.306	33.911	90.3	0.11
175	7.967	33.977	90.6	0.11
200	7.841	34.052	90.4	0.12
225	7.655	34.084	90.6	0.12
250	7.358	34.079	90.9	0.12
300	6.286	34.006	91.0	0.10
400	5.946	34.166	91.0	0.11
500	5.451	34.232	91.0	0.11
501	5.449	34.232	91.0	0.11





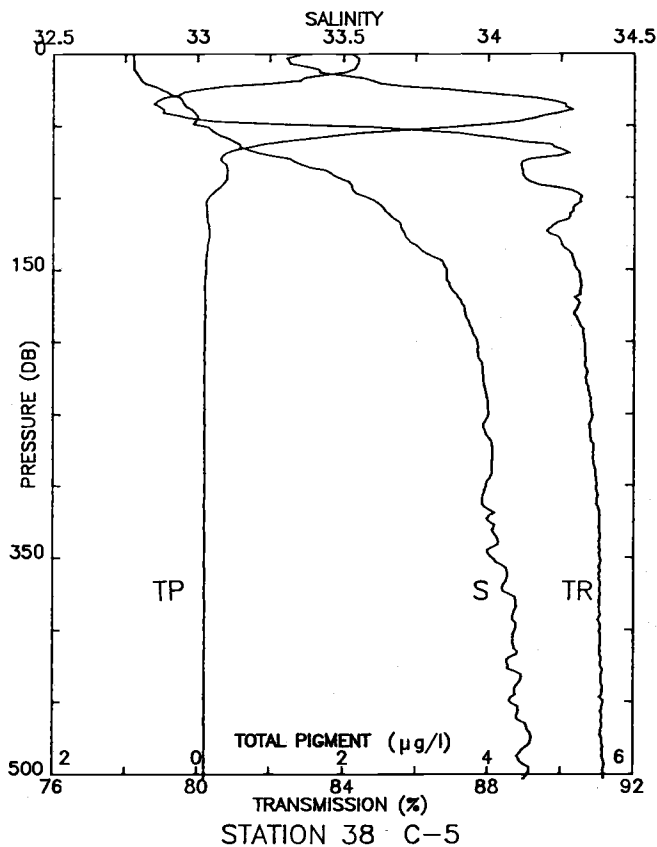


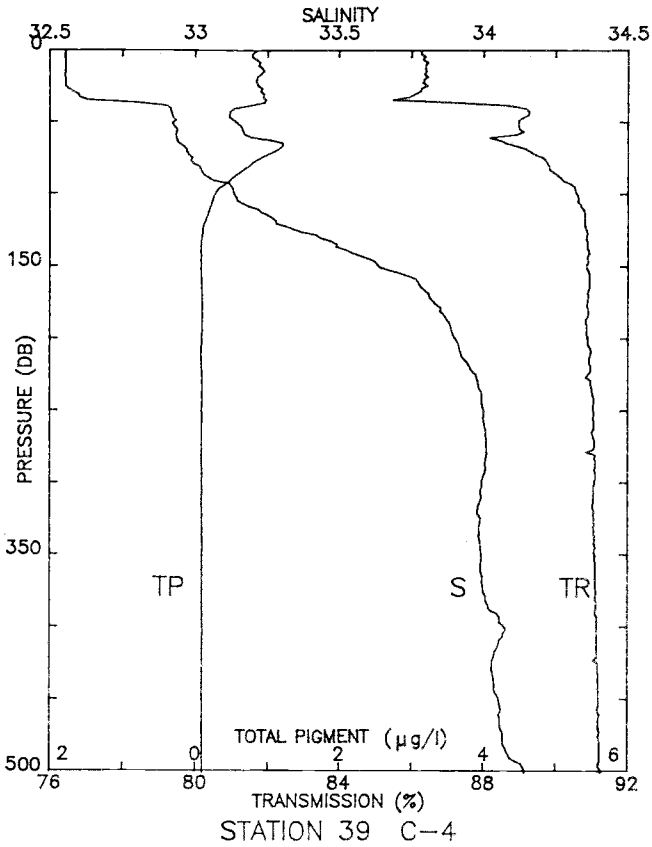
STA 37 C-6 LAT: 38 15.2 N LONG:124 30.0 W  
23 JUN 1988 2116 GMT PROBE 2561 DEPTH 3815M

PRESS	TEMP	SAL	TRN	TP
1	13.065	32.804	83.7	0.83
10	13.049	32.804	84.4	0.94
20	13.038	32.805	84.3	1.51
30	11.425	32.892	85.8	1.91
40	10.357	33.039	87.5	1.92
50	10.343	33.126	87.6	1.10
60	9.568	33.136	89.8	0.47
70	9.152	33.227	89.9	0.38
80	9.130	33.426	89.8	0.20
90	8.841	33.564	90.0	0.18
100	8.593	33.643	90.2	0.17
110	8.596	33.753	88.6	0.14
120	8.593	33.841	86.6	0.12
130	8.216	33.825	88.2	0.12
140	8.020	33.870	87.4	0.12
150	7.905	33.902	90.3	0.11
175	7.569	33.953	90.4	0.11
200	7.295	33.979	90.5	0.18
225	6.937	33.990	90.5	0.11
250	6.588	33.993	90.5	0.11
300	6.496	34.062	90.9	0.11
400	5.383	34.042	91.0	0.10
500	5.022	34.133	91.1	0.10
501	5.028	34.136	91.1	0.10

STA 38 C-5 LAT: 38 26.0 N LONG:124 39.1 W  
23 JUN 1988 2332 GMT PROBE 2561 DEPTH 3797M

PRESS	TEMP	SAL	TRN	TP
1	11.152	32.777	84.3	1.40
10	11.124	32.779	84.3	1.59
20	10.891	32.812	82.4	2.45
30	10.693	32.926	79.3	4.45
40	10.718	32.985	79.0	5.07
50	10.194	33.009	83.6	3.75
60	9.543	33.116	88.6	1.37
70	9.096	33.233	90.1	0.36
80	9.151	33.412	88.9	0.41
90	9.059	33.523	89.3	0.36
100	8.719	33.585	90.5	0.15
110	8.575	33.650	90.3	0.12
120	8.551	33.699	89.7	0.15
130	8.415	33.728	90.0	0.15
140	8.252	33.802	90.3	0.12
150	8.279	33.857	90.5	0.11
175	7.700	33.917	90.5	0.10
200	7.465	33.963	90.6	0.10
225	7.311	33.984	90.7	0.09
250	7.009	34.001	90.9	0.10
300	6.327	33.992	91.0	0.10
400	5.845	34.093	91.1	0.10
500	5.046	34.136	91.2	0.10
503	4.952	34.125	91.2	0.10



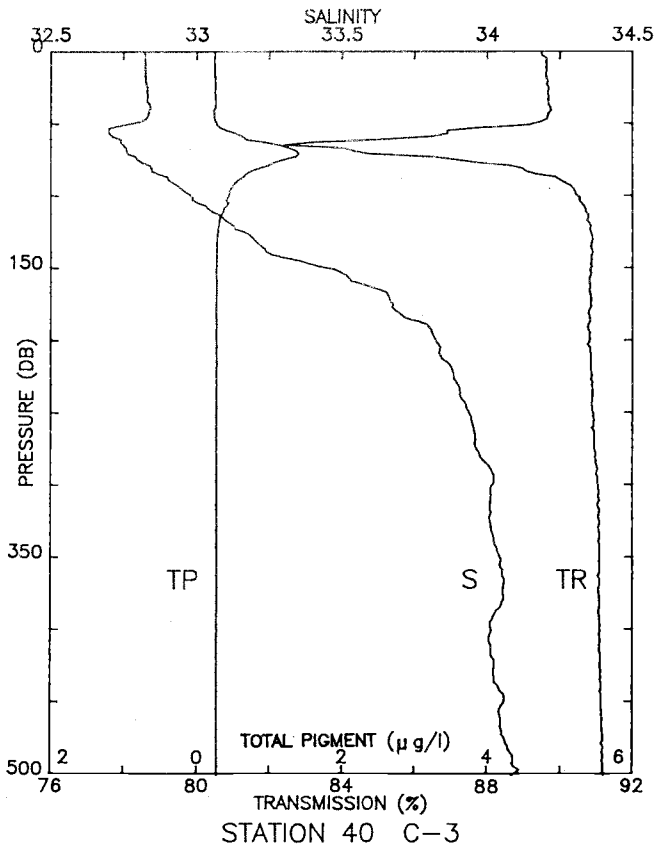


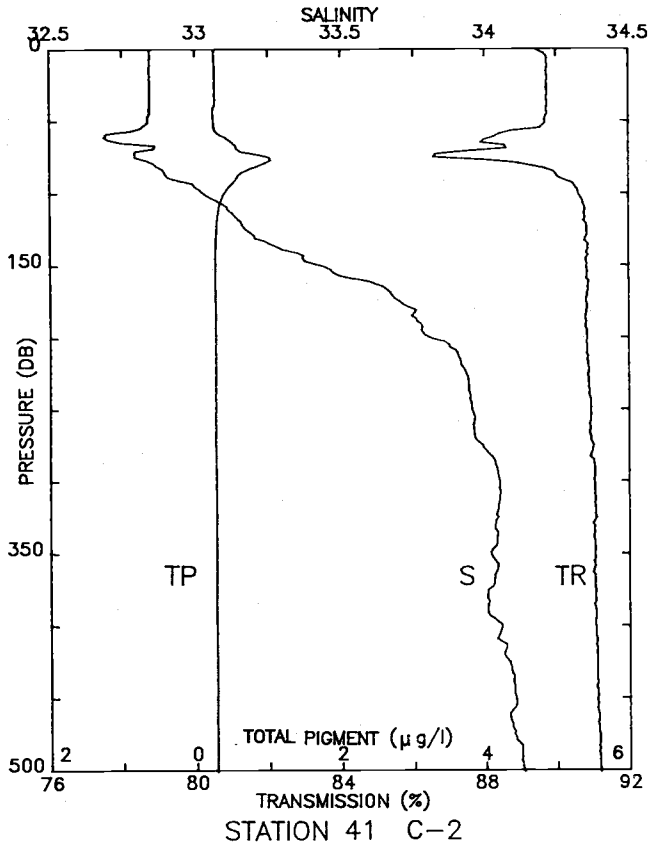
STA 39 C-4 LAT: 38 37.7 N LONG:124 48.1 W  
24 JUN 1988 0225 GMT PROBE 2561 DEPTH 3748M

PRESS	TEMP	SAL	TRN	TP
1	13.915	32.553	86.3	0.85
10	13.913	32.553	86.4	0.89
20	13.919	32.553	86.4	0.85
30	13.771	32.588	86.2	0.92
40	13.063	32.909	88.9	0.66
50	12.303	32.927	89.0	0.55
60	11.859	32.934	88.5	0.72
70	11.638	32.971	89.3	1.12
80	11.478	33.003	89.8	0.76
90	11.281	33.054	90.2	0.49
100	11.040	33.132	90.6	0.27
110	10.634	33.199	90.7	0.20
120	10.077	33.279	90.8	0.13
130	9.647	33.427	90.9	0.09
140	9.303	33.532	90.9	0.08
150	9.113	33.635	90.9	0.07
175	8.693	33.826	90.9	0.09
200	8.237	33.900	90.9	0.08
225	7.807	33.971	90.9	0.09
250	7.504	34.000	91.0	0.08
300	6.773	33.993	91.1	0.09
400	5.951	34.073	91.1	0.09
500	5.404	34.143	91.2	0.10
501	5.404	34.144	91.2	0.10

STA 40 C-3 LAT: 38 48.8 N LONG:124 56.2 W  
24 JUN 1988 0500 GMT PROBE 2561 DEPTH 3508M

PRESS	TEMP	SAL	TRN	TP
1	14.973	32.821	89.5	0.25
10	14.972	32.823	89.6	0.24
20	14.974	32.824	89.6	0.25
30	14.951	32.831	89.7	0.25
40	14.844	32.839	89.7	0.24
50	14.187	32.777	89.3	0.27
60	12.162	32.725	85.8	0.65
70	11.693	32.762	84.5	1.39
80	11.359	32.842	88.8	0.92
90	11.157	32.909	90.1	0.55
100	11.009	32.979	90.5	0.43
110	10.895	33.046	90.7	0.36
120	10.681	33.121	90.8	0.30
130	10.355	33.196	90.9	0.28
140	10.172	33.252	90.9	0.27
150	9.735	33.450	90.9	0.27
175	8.802	33.676	90.9	0.27
200	8.456	33.823	90.8	0.26
225	8.157	33.886	90.9	0.27
250	7.704	33.938	90.9	0.26
300	7.335	34.020	91.1	0.27
400	5.868	34.014	91.1	0.27
500	5.422	34.094	91.2	0.27
501	5.369	34.086	91.2	0.27



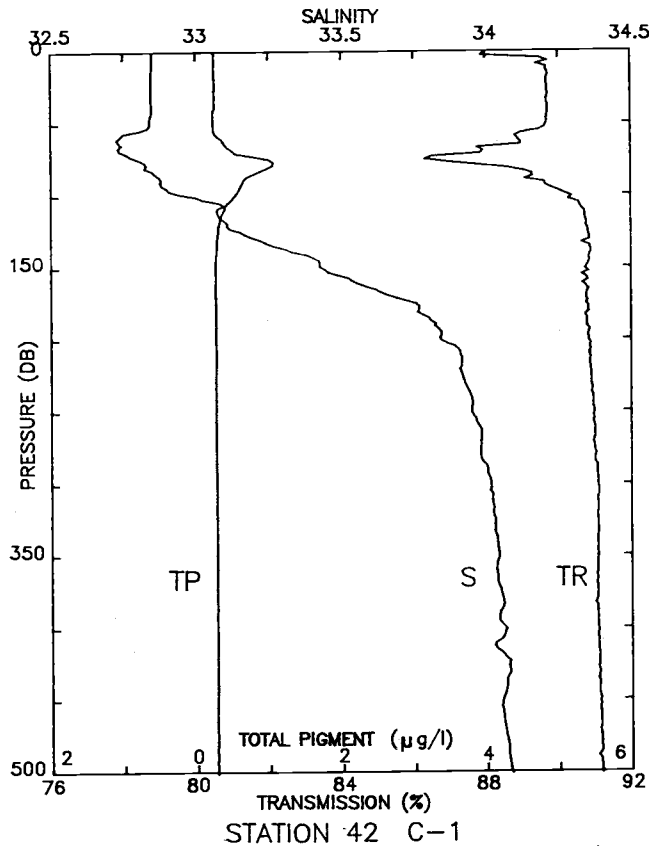


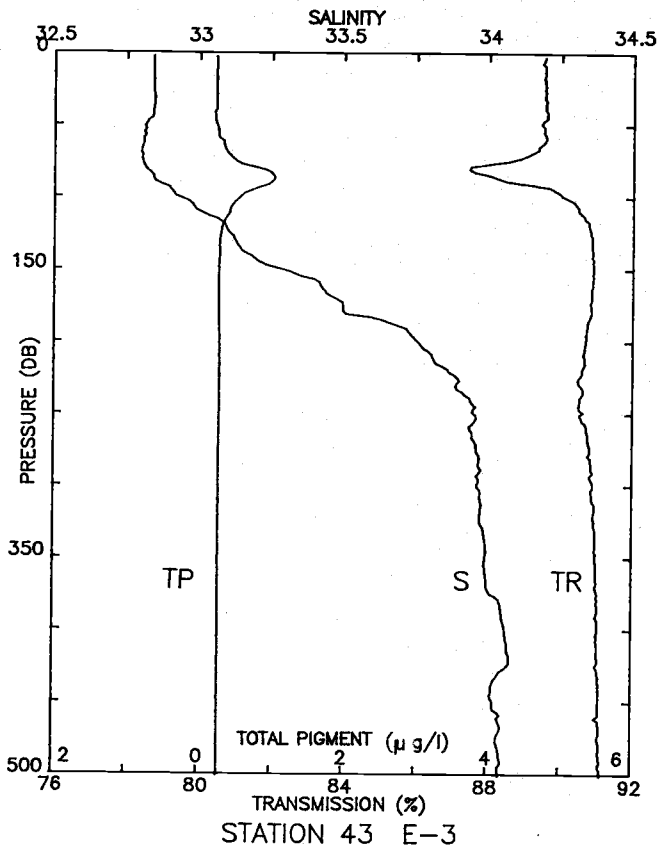
STA 41 C-2 LAT: 39 0.6 N LONG:125 4.7 W  
24 JUN 1988 0743 GMT PROBE 2561 DEPTH 3375M

PRESS	TEMP	SAL	TRN	TP
1	14.775	32.845	89.5	0.25
10	14.774	32.845	89.7	0.26
20	14.775	32.845	89.8	0.27
30	14.776	32.845	89.8	0.26
40	14.777	32.845	89.7	0.25
50	14.711	32.837	89.7	0.24
60	12.920	32.692	88.3	0.37
70	12.312	32.827	88.0	0.60
80	11.306	32.861	89.1	0.90
90	11.155	32.927	90.1	0.55
100	10.981	33.031	90.6	0.39
110	10.744	33.110	90.8	0.32
120	10.560	33.157	90.8	0.29
130	10.354	33.203	90.8	0.28
140	9.963	33.324	90.9	0.27
150	9.624	33.428	90.8	0.27
175	9.078	33.702	90.8	0.27
200	8.202	33.804	90.9	0.27
225	7.839	33.933	90.9	0.27
250	7.498	33.953	91.0	0.27
300	7.310	34.049	91.0	0.27
400	6.190	34.055	91.1	0.27
500	5.664	34.133	91.2	0.27
501	5.666	34.135	91.2	0.27

STA 42 C-1 LAT: 39 11.8 N LONG:125 13.1 W  
24 JUN 1988 1010 GMT PROBE 2561 DEPTH 3132M

PRESS	TEMP	SAL	TRN	TP
1	14.828	32.848	88.0	0.25
10	14.832	32.848	89.5	0.25
20	14.826	32.846	89.7	0.25
30	14.825	32.846	89.7	0.25
40	14.831	32.847	89.7	0.25
50	14.785	32.841	89.7	0.23
60	13.173	32.734	88.8	0.32
70	12.176	32.748	87.9	0.53
80	11.368	32.827	88.1	1.02
90	11.179	32.879	89.3	0.65
100	11.086	32.970	90.3	0.53
110	10.884	33.072	90.7	0.38
120	10.530	33.107	90.8	0.31
130	10.244	33.206	90.9	0.28
140	9.823	33.354	90.9	0.27
150	9.476	33.433	90.8	0.26
175	9.199	33.758	90.8	0.26
200	8.374	33.843	90.8	0.26
225	8.007	33.918	90.9	0.26
250	7.652	33.950	91.0	0.26
300	7.134	34.016	91.1	0.27
400	6.144	34.063	91.1	0.27
500	5.260	34.084	91.2	0.27
501	5.243	34.086	91.2	0.27



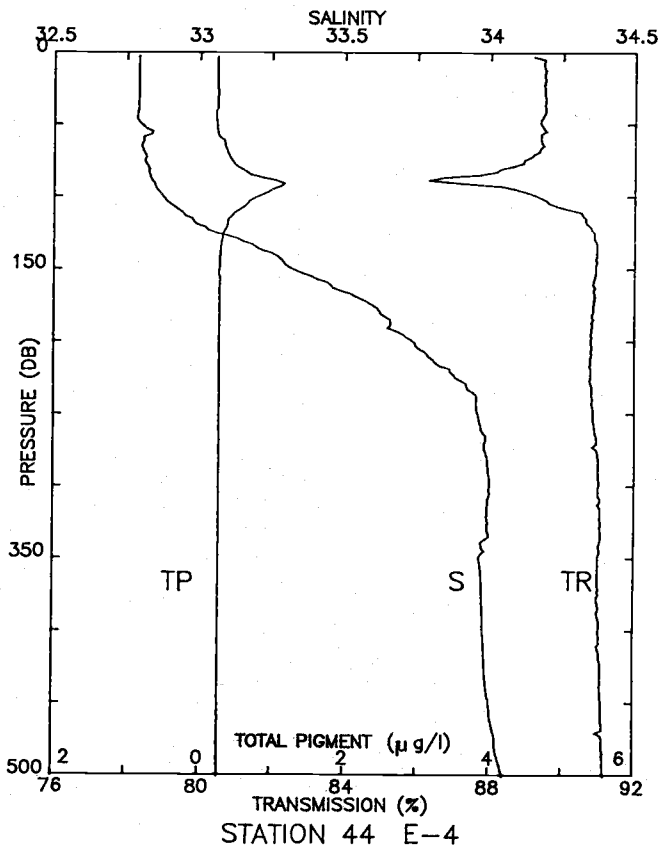


STA 43 E-3 LAT: 38 42.7 N LONG:125 50.4 W  
25 JUN 1988 0410 GMT PROBE 2561 DEPTH 4106M

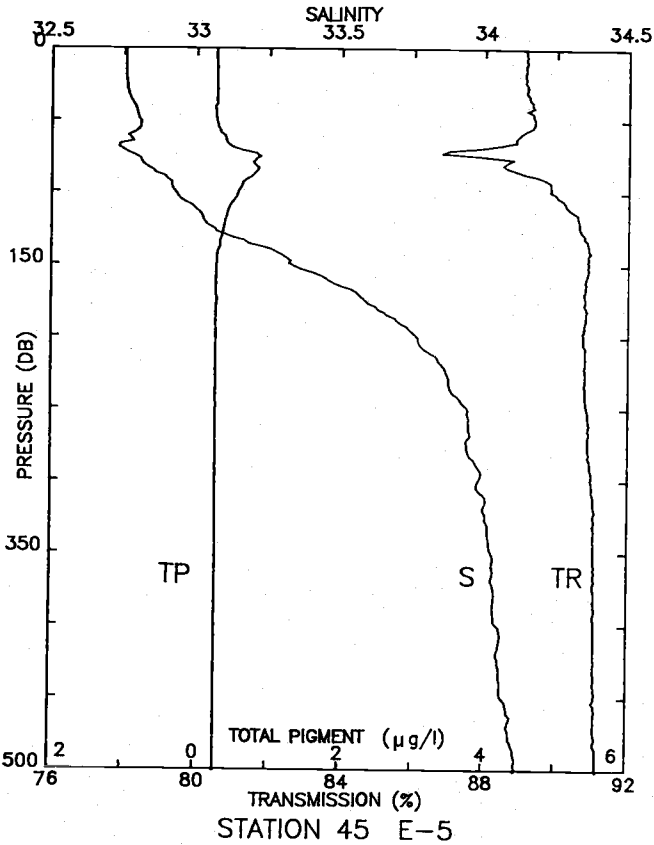
PRESS	TEMP	SAL	TRN	TP
3	15.096	32.842	89.5	0.22
10	15.092	32.842	89.5	0.22
20	15.085	32.842	89.5	0.22
30	15.032	32.845	89.5	0.22
40	14.891	32.841	89.6	0.21
50	14.035	32.815	89.5	0.23
60	13.036	32.808	89.6	0.29
70	11.818	32.802	89.1	0.40
80	11.458	32.816	87.5	0.82
90	11.150	32.859	88.8	0.98
100	11.022	32.930	90.1	0.55
110	10.981	33.002	90.5	0.41
120	10.782	33.089	90.8	0.31
130	10.581	33.123	90.9	0.27
140	10.293	33.171	90.9	0.27
150	9.749	33.284	90.9	0.26
175	9.209	33.498	90.8	0.26
200	9.136	33.754	90.7	0.28
225	8.781	33.894	90.5	0.28
250	8.216	33.951	90.6	0.28
300	7.299	33.962	90.9	0.27
400	6.477	34.062	91.0	0.27
500	5.213	34.042	91.1	0.27
501	5.213	34.043	91.1	0.27

STA 44 E-4 LAT: 38 30.8 N LONG:125 41.3 W  
25 JUN 1988 0608 GMT PROBE 2561 DEPTH 3989M

PRESS	TEMP	SAL	TRN	TP
3	15.024	32.790	89.2	0.24
10	15.025	32.790	89.5	0.24
20	15.023	32.789	89.5	0.24
30	15.021	32.789	89.5	0.25
40	15.011	32.787	89.5	0.23
50	14.875	32.798	89.4	0.23
60	13.466	32.807	89.4	0.30
70	12.253	32.810	89.3	0.39
80	11.738	32.824	88.5	0.55
90	11.502	32.840	86.8	1.11
100	11.258	32.875	89.3	0.80
110	11.012	32.933	90.3	0.52
120	10.761	33.004	90.7	0.38
130	10.449	33.141	90.9	0.31
140	10.272	33.260	91.0	0.28
150	9.891	33.323	90.9	0.27
175	9.382	33.596	90.9	0.27
200	8.792	33.735	90.8	0.27
225	8.451	33.882	90.8	0.27
250	8.164	33.958	90.9	0.27
300	7.546	34.000	91.0	0.27
400	6.080	33.980	91.0	0.27
500	5.344	34.049	91.2	0.27
501	5.341	34.050	91.2	0.27



LIN INT SAL 103-111 DB

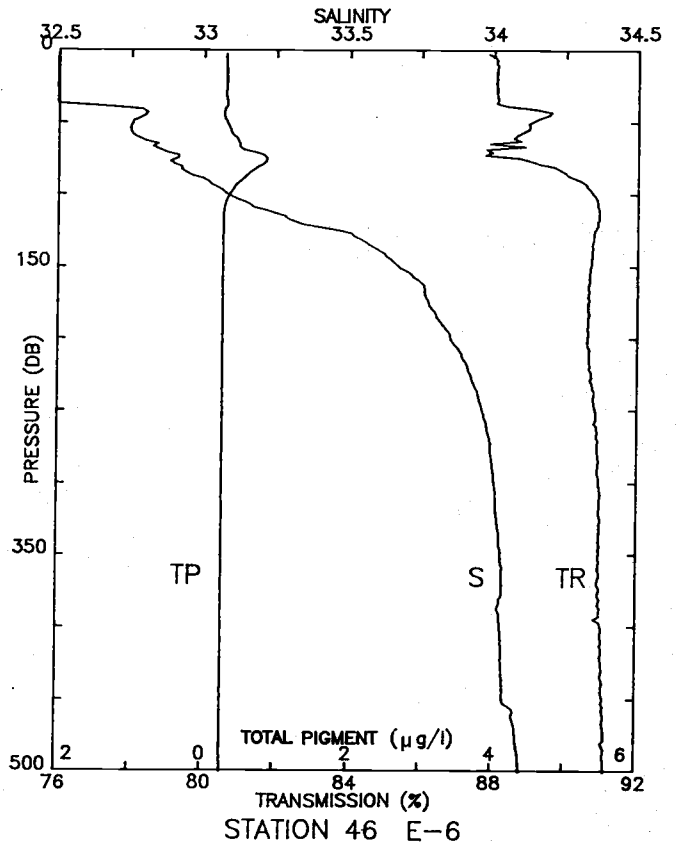


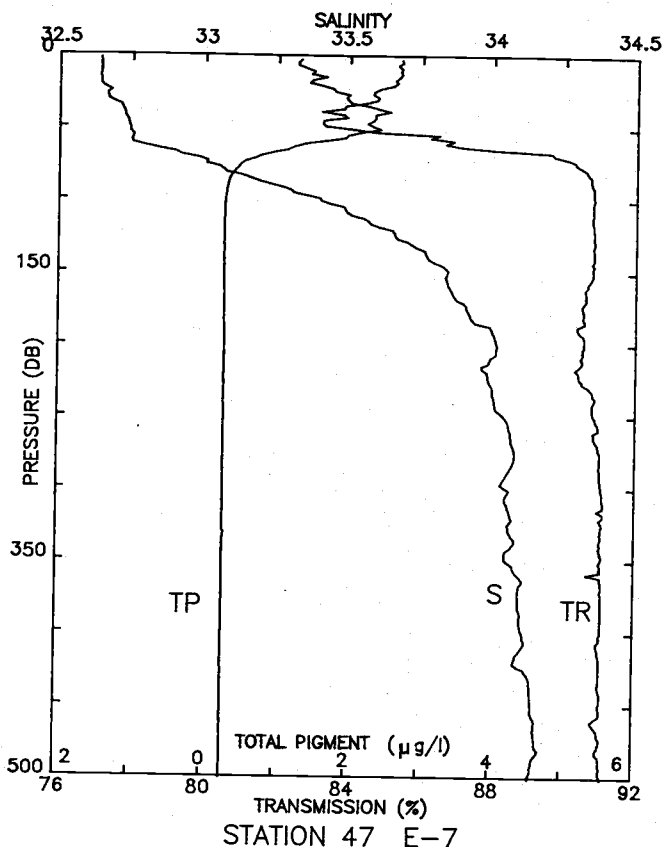
STA 45 E-5 LAT: 38 19.2 N LONG:125 33.0 W  
25 JUN 1988 0805 GMT PROBE 2561 DEPTH 3905M

PRESS	TEMP	SAL	TRN	TP
1	14.737	32.756	89.1	0.27
10	14.741	32.756	89.2	0.26
20	14.738	32.756	89.1	0.27
30	14.738	32.762	89.2	0.27
40	14.715	32.786	89.3	0.26
50	14.620	32.804	89.4	0.27
60	13.895	32.774	89.0	0.36
70	12.420	32.740	87.5	0.57
80	11.599	32.814	88.6	0.79
90	11.283	32.895	89.6	0.72
100	11.004	32.927	89.9	0.56
110	10.844	32.990	90.3	0.45
120	10.669	33.028	90.6	0.38
130	10.274	33.112	90.8	0.34
140	9.847	33.266	90.9	0.29
150	9.681	33.330	90.9	0.27
175	9.063	33.583	90.8	0.28
200	8.609	33.763	90.8	0.26
225	8.264	33.867	90.8	0.26
250	8.124	33.942	90.9	0.27
300	7.265	33.981	91.0	0.27
400	6.325	34.052	91.1	0.27
500	5.672	34.118	91.2	0.27
501	5.658	34.116	91.2	0.27

STA 46 E-6 LAT: 38 7.2 N LONG:125 24.3 W  
25 JUN 1988 0955 GMT PROBE 2561 DEPTH 3925M

PRESS	TEMP	SAL	TRN	TP
3	14.655	32.497	87.9	0.30
10	14.655	32.497	88.1	0.30
20	14.656	32.497	88.1	0.31
30	14.656	32.496	88.1	0.30
40	14.538	32.717	88.8	0.30
50	13.673	32.754	89.0	0.31
60	12.530	32.768	88.6	0.43
70	11.765	32.861	87.9	0.63
80	11.260	32.911	89.5	0.78
90	10.990	33.006	90.3	0.52
100	10.724	33.083	90.8	0.36
110	10.200	33.193	90.9	0.28
120	9.644	33.330	90.9	0.27
130	9.495	33.527	90.8	0.27
140	9.308	33.614	90.7	0.27
150	9.265	33.673	90.7	0.27
175	8.950	33.777	90.6	0.27
200	8.689	33.854	90.6	0.27
225	8.375	33.923	90.7	0.27
250	8.053	33.964	90.8	0.27
300	7.458	34.007	91.0	0.27
400	6.081	34.030	91.0	0.27
500	5.498	34.101	91.1	0.27
501	5.497	34.102	91.1	0.27





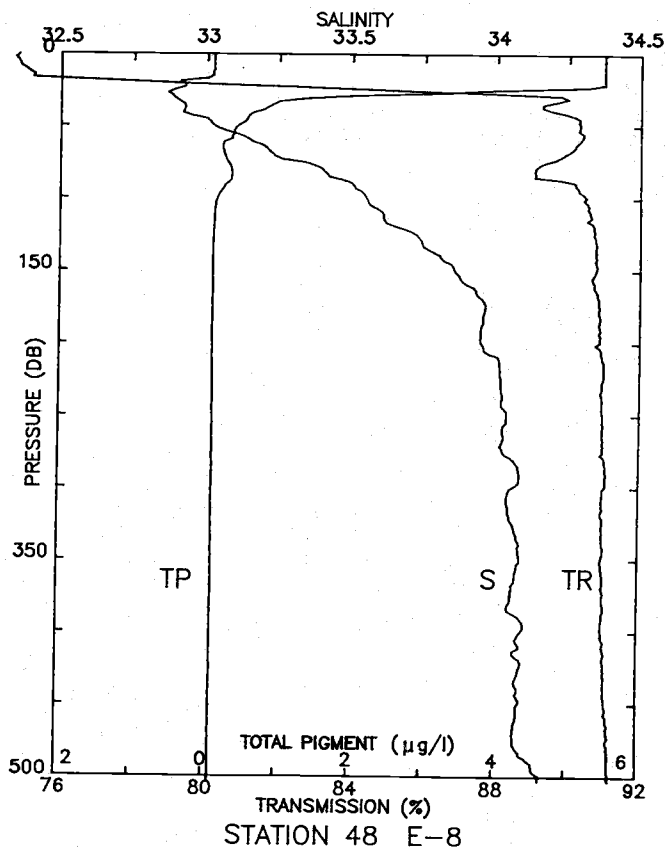
STA 47 E-7 LAT: 37 55.3 N LONG:125 16.0 W  
25 JUN 1988 1159 GMT PROBE 2561 DEPTH 4106M

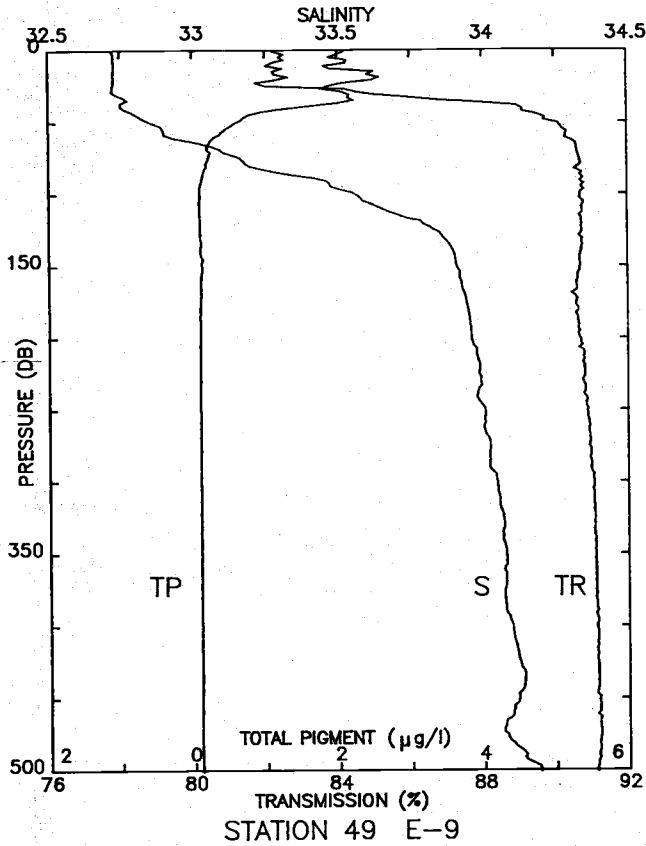
PRESS	TEMP	SAL	TRN	TP
3	13.266	32.641	85.4	1.31
10	13.264	32.642	85.4	1.46
20	12.910	32.642	85.2	1.53
30	12.185	32.667	84.8	1.96
40	11.861	32.723	83.5	2.45
50	11.561	32.741	83.7	2.37
60	11.228	32.750	86.8	1.51
70	11.026	32.949	89.9	0.73
80	10.538	33.068	90.6	0.40
90	9.642	33.243	90.8	0.31
100	9.256	33.401	90.8	0.28
110	9.025	33.502	90.8	0.27
120	8.752	33.626	90.8	0.27
130	8.643	33.710	90.8	0.26
140	8.472	33.773	90.8	0.27
150	8.267	33.842	90.8	0.27
175	7.995	33.909	90.5	0.27
200	8.027	34.016	90.6	0.28
225	7.479	33.988	90.5	0.27
250	7.399	34.043	90.9	0.27
300	6.912	34.053	91.1	0.28
400	6.111	34.116	91.1	0.28
500	5.272	34.142	91.1	0.27
501	5.264	34.142	91.1	0.27

LIN INT SAL 283-295 DB

STA 48 E-8 LAT: 37 43.4 N LONG:125 6.9 W  
25 JUN 1988 1405 GMT PROBE 2561 DEPTH 4147M

PRESS	TEMP	SAL	TRN	TP
1	12.770	33.021	74.8	5.49
10	12.747	33.022	75.0	5.49
20	11.085	32.915	78.5	5.49
30	9.883	32.884	89.9	1.69
40	9.748	32.918	89.7	0.71
50	9.589	33.025	90.3	0.43
60	9.638	33.151	90.3	0.29
70	9.504	33.232	89.8	0.25
80	9.356	33.399	89.1	0.34
90	8.983	33.501	90.2	0.28
100	8.629	33.551	90.5	0.14
110	8.534	33.606	90.6	0.11
120	8.498	33.664	90.7	0.10
130	8.352	33.742	90.8	0.09
140	8.200	33.806	90.8	0.09
150	8.160	33.857	90.8	0.09
175	7.857	33.963	90.9	0.09
200	7.497	33.949	90.8	0.09
225	7.412	34.017	91.0	0.09
250	7.177	34.039	91.0	0.10
300	6.659	34.059	91.0	0.10
400	5.878	34.093	91.0	0.10
500	5.269	34.163	91.2	0.09
503	5.271	34.163	91.2	0.09



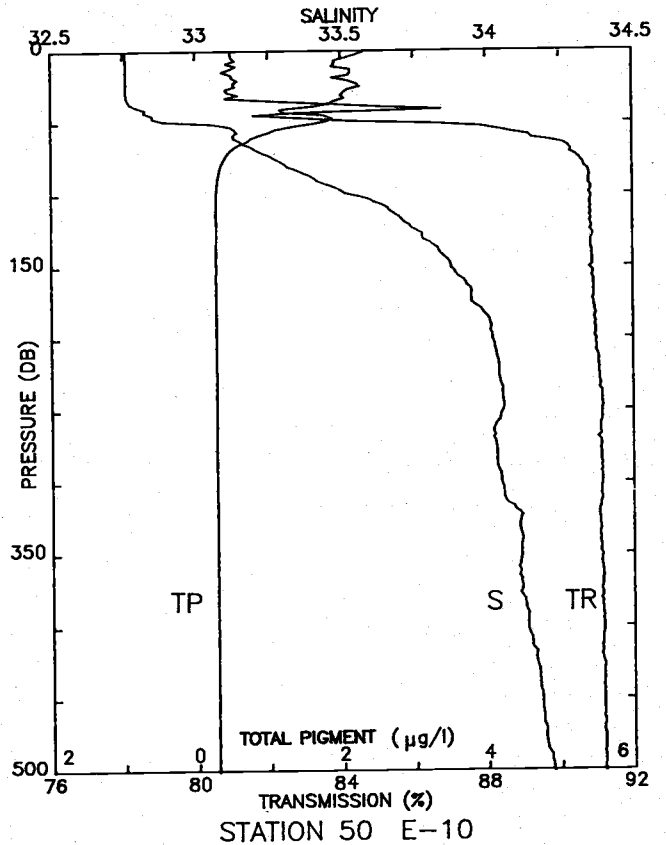


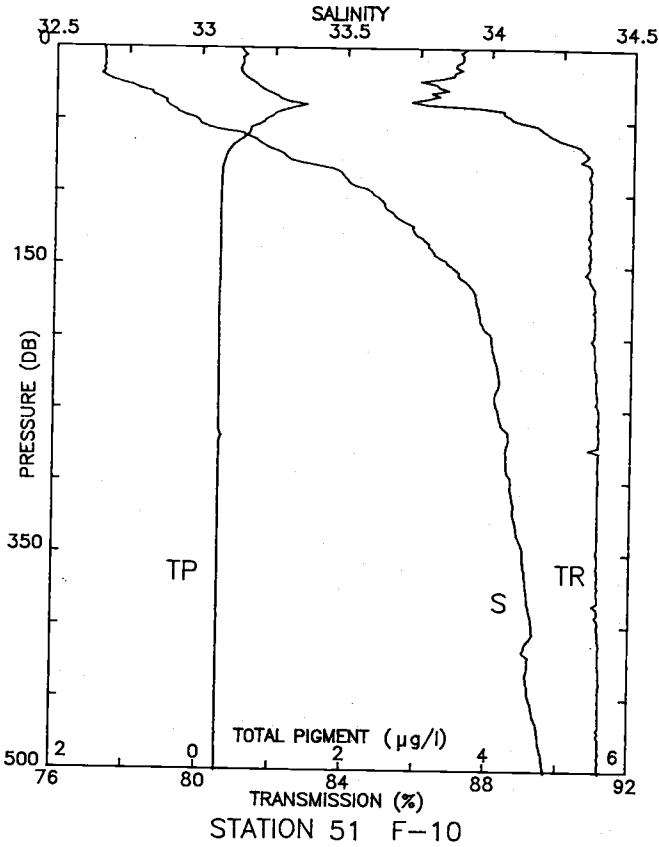
STA 49 E-9 LAT: 37 31.6 N LONG:124 58.2 W  
 26 JUN 1988 0227 GMT PROBE 2561 DEPTH 4157M

PRESS	TEMP	SAL	TRN	TP
1	12.996	32.721	82.2	2.09
10	13.002	32.728	82.1	1.96
20	12.979	32.727	82.5	2.53
30	12.434	32.728	84.8	2.11
40	11.079	32.757	89.0	1.43
50	10.618	32.853	89.9	0.62
60	10.119	32.920	90.3	0.32
70	9.697	33.100	90.6	0.21
80	9.542	33.190	90.7	0.18
90	9.196	33.441	90.7	0.12
100	8.828	33.558	90.7	0.09
110	8.520	33.648	90.7	0.09
120	8.382	33.791	90.7	0.09
130	8.367	33.863	90.7	0.10
140	8.183	33.898	90.7	0.10
150	8.073	33.910	90.7	0.12
175	7.584	33.943	90.6	0.10
200	7.308	33.960	90.7	0.09
225	7.159	33.987	90.8	0.09
250	7.002	34.007	90.9	0.09
300	6.620	34.047	91.0	0.09
400	5.842	34.098	91.1	0.10
500	5.428	34.195	91.1	0.10
501	5.430	34.195	91.1	0.10

STA 50 E-10 LAT: 37 19.9 N LONG:124 49.4 W  
 26 JUN 1988 0433 GMT PROBE 2561 DEPTH 4179M

PRESS	TEMP	SAL	TRN	TP
1	12.808	32.758	81.0	2.30
10	12.808	32.760	81.0	1.90
20	12.808	32.759	81.1	1.99
30	12.810	32.760	81.0	2.02
40	12.395	32.810	85.8	1.39
50	11.570	32.975	85.4	1.72
60	10.989	33.129	89.2	0.82
70	10.442	33.218	90.3	0.47
80	9.813	33.312	90.7	0.34
90	9.482	33.415	90.8	0.30
100	9.127	33.535	90.8	0.27
110	8.903	33.663	90.8	0.27
120	8.728	33.725	90.8	0.27
130	8.522	33.781	90.9	0.28
140	8.206	33.841	90.9	0.27
150	8.135	33.880	90.9	0.27
175	7.849	33.950	90.9	0.27
200	7.736	34.020	91.0	0.27
225	7.421	34.042	91.1	0.27
250	7.151	34.054	91.1	0.27
300	6.443	34.049	91.1	0.27
400	5.820	34.136	91.2	0.28
500	5.207	34.221	91.2	0.28
501	5.203	34.223	91.2	0.28



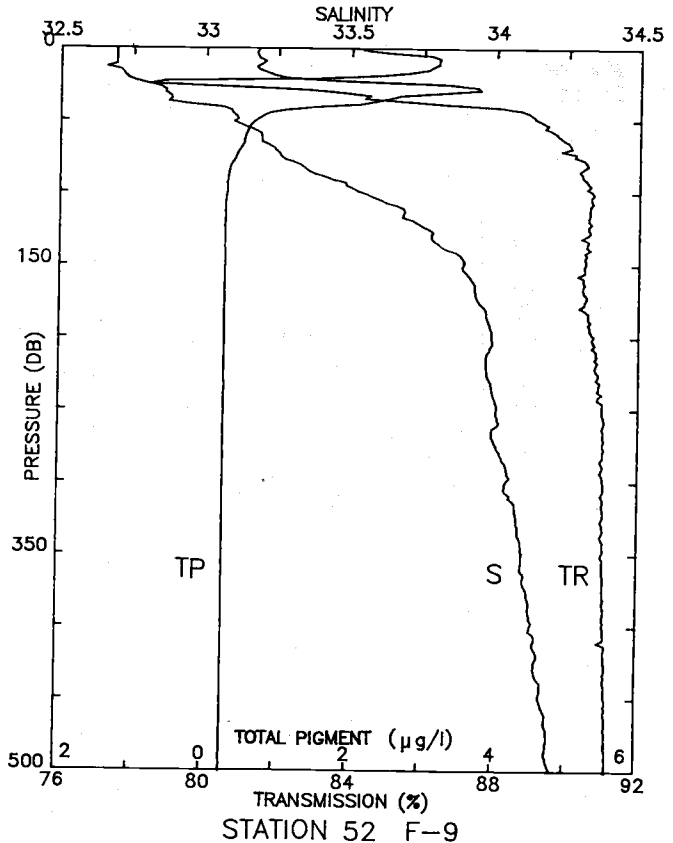


STA 51 F-10 LAT: 37 15.8 N LONG:125 15.8 W  
26 JUN 1988 0714 GMT PROBE 2561 DEPTH 4254M

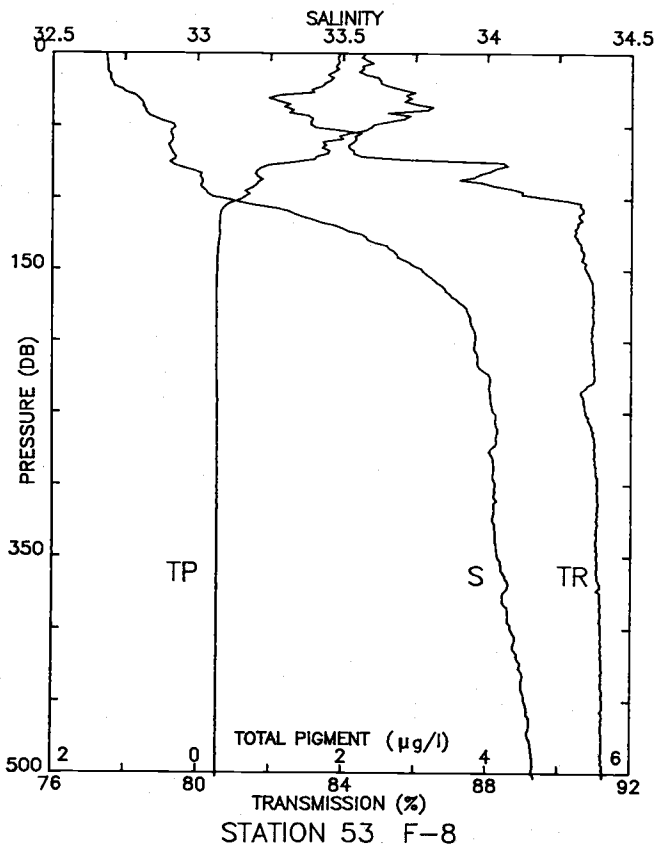
PRESS	TEMP	SAL	TRN	TP
1	14.583	32.663	87.3	0.53
10	14.594	32.666	87.1	0.55
20	14.124	32.663	86.8	0.58
30	11.706	32.808	86.5	0.89
40	11.074	32.885	86.9	1.35
50	10.986	32.985	88.7	0.86
60	10.832	33.148	89.7	0.62
70	10.098	33.246	90.6	0.38
80	9.712	33.374	90.8	0.30
90	9.468	33.501	90.8	0.28
100	9.429	33.590	90.8	0.27
110	9.141	33.635	90.8	0.27
120	8.808	33.701	90.8	0.27
130	8.555	33.752	90.8	0.27
140	8.310	33.800	90.8	0.27
150	8.160	33.861	90.8	0.27
175	7.930	33.956	91.0	0.26
200	7.672	34.010	90.9	0.27
225	7.402	34.036	91.0	0.27
250	7.079	34.034	91.1	0.27
300	6.810	34.083	91.1	0.27
400	6.159	34.162	91.1	0.28
500	5.442	34.211	91.2	0.28
501	5.440	34.212	91.2	0.28

STA 52 F-9 LAT: 37 27.6 N LONG:125 24.5 W  
26 JUN 1988 0909 GMT PROBE 2561 DEPTH 4225M

PRESS	TEMP	SAL	TRN	TP
1	14.045	32.691	84.3	0.72
10	14.047	32.692	86.4	0.80
20	12.527	32.728	84.0	1.05
30	11.711	32.860	83.3	3.52
40	11.401	33.000	87.4	1.81
50	11.085	33.104	89.2	0.70
60	10.723	33.192	89.7	0.55
70	10.407	33.241	90.0	0.47
80	9.801	33.318	90.5	0.37
90	9.519	33.425	90.5	0.31
100	9.255	33.540	90.7	0.30
110	8.979	33.673	90.6	0.28
120	8.628	33.723	90.6	0.28
130	8.423	33.781	90.5	0.28
140	8.341	33.847	90.6	0.28
150	8.333	33.890	90.5	0.28
175	7.955	33.944	90.5	0.28
200	7.711	33.989	90.7	0.28
225	7.267	33.973	90.9	0.27
250	7.074	34.008	91.0	0.28
300	6.650	34.042	91.0	0.27
400	6.168	34.133	91.1	0.28
500	5.517	34.207	91.2	0.27
501	5.519	34.208	91.2	0.27







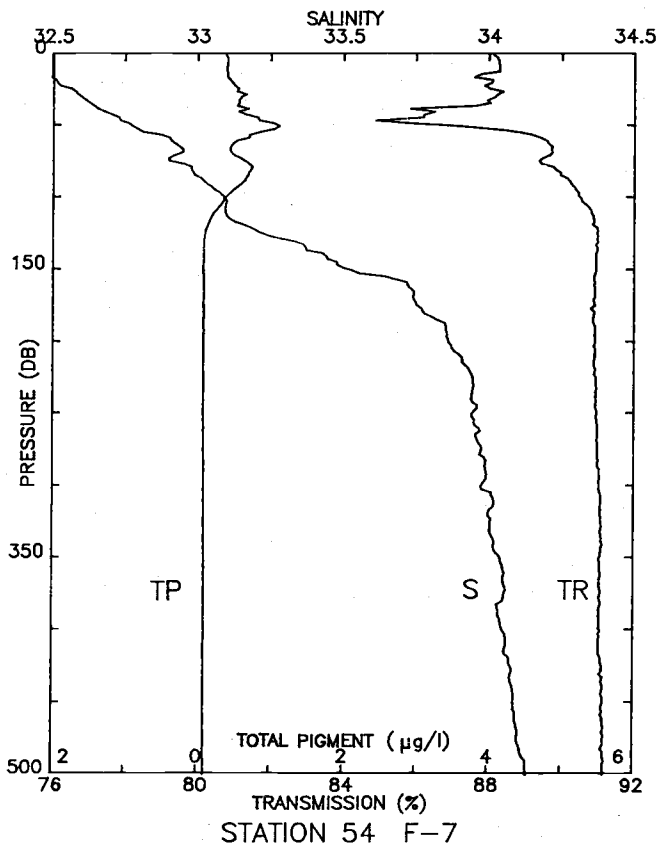
STA 53 F-8 LAT: 37 39.3 N LONG:125 33.7 W  
26 JUN 1988 1122 GMT PROBE 2651 DEPTH 4273M

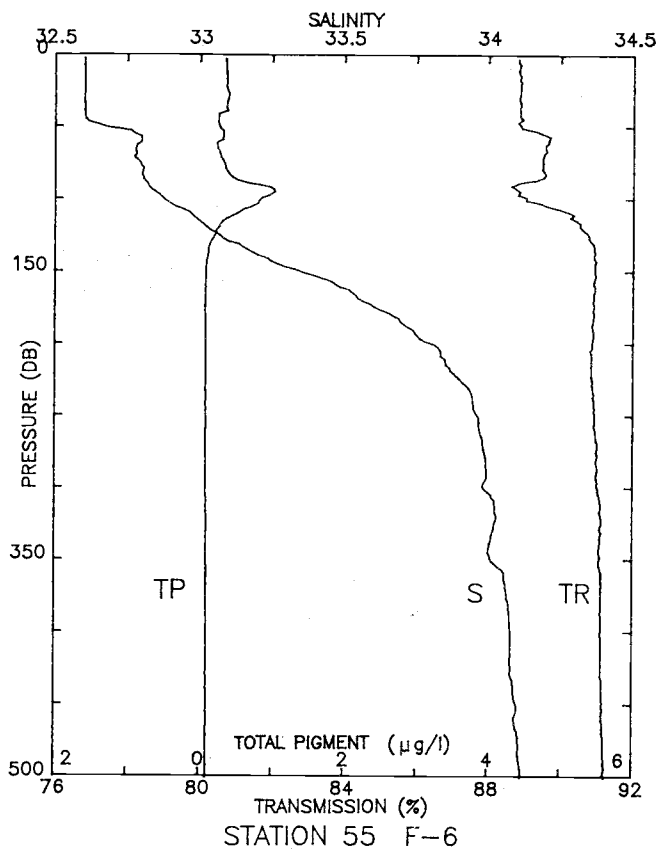
PRESS	TEMP	SAL	TRN	TP
1	12.657	32.684	83.9	2.29
10	12.562	32.690	83.8	2.27
20	12.337	32.705	83.6	2.52
30	11.600	32.791	82.1	2.90
40	11.539	32.823	82.6	2.88
50	11.309	32.920	83.2	2.40
60	10.857	32.913	84.3	1.86
70	10.669	32.920	84.4	1.71
80	10.204	32.968	88.2	0.84
90	9.938	33.015	88.0	0.81
100	9.542	33.082	89.9	0.61
110	9.413	33.323	90.6	0.32
120	8.975	33.485	90.5	0.30
130	8.638	33.599	90.5	0.29
140	8.440	33.687	90.7	0.28
150	8.276	33.773	90.8	0.27
175	7.984	33.918	90.9	0.26
200	7.791	33.958	90.9	0.27
225	7.634	34.010	91.0	0.27
250	7.468	34.025	90.7	0.27
300	6.806	34.029	91.1	0.27
400	5.968	34.087	91.2	0.27
500	5.454	34.165	91.2	0.28
503	5.417	34.170	91.2	0.27

STA 54 F-7 LAT: 37 51.5 N LONG:125 42.4 W  
26 JUN 1988 1331 GMT PROBE 2561 DEPTH 4261M

PRESS	TEMP	SAL	TRN	TP
1	14.653	32.497	88.1	0.38
10	14.654	32.497	88.3	0.40
20	14.173	32.512	88.1	0.46
30	14.222	32.594	88.2	0.63
40	14.051	32.667	86.2	0.62
50	13.573	32.768	86.5	1.08
60	12.777	32.904	89.5	0.62
70	12.204	32.934	89.7	0.47
80	11.836	32.977	89.8	0.74
90	11.672	33.025	90.2	0.62
100	11.509	33.090	90.5	0.38
110	10.797	33.094	90.8	0.23
120	10.299	33.167	90.9	0.13
130	9.928	33.312	91.0	0.08
140	9.673	33.434	91.0	0.08
150	9.253	33.514	91.0	0.07
175	8.607	33.754	90.9	0.08
200	8.251	33.863	90.9	0.08
225	8.033	33.946	91.0	0.08
250	7.689	33.947	91.0	0.08
300	7.064	33.979	91.0	0.08
400	6.073	34.050	91.1	0.10
500	5.448	34.133	91.2	0.10
501	5.445	34.134	91.2	0.10

LIN INT SAL 29-39 DB



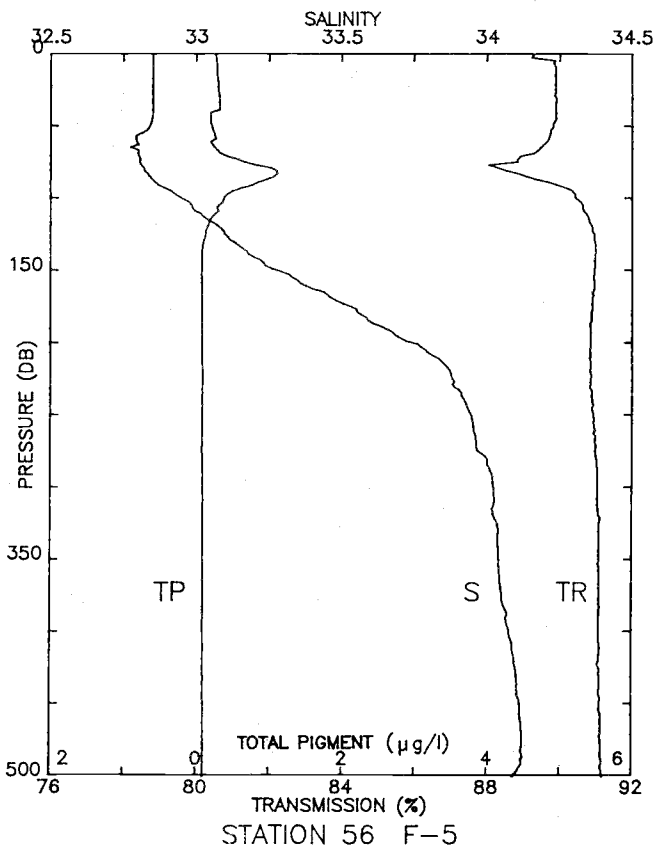


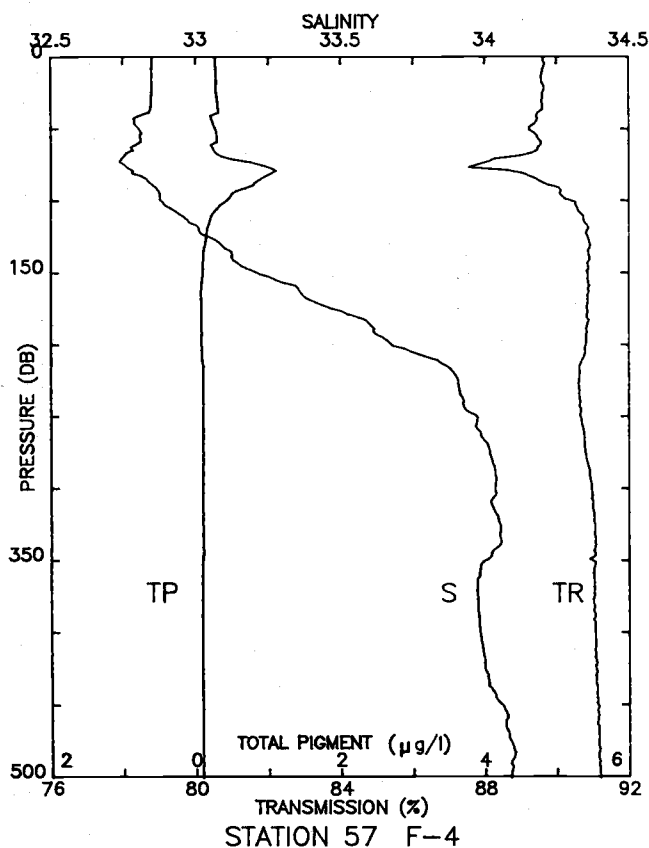
STA 55 F-6 LAT: 38 3.3 N LONG:125 51.2 W  
26 JUN 1988 1531 GMT PROBE 2561 DEPTH 4225M

PRESS	TEMP	SAL	TRN	TP
3	14.780	32.600	88.8	0.34
10	14.775	32.601	88.8	0.36
20	14.776	32.602	88.9	0.36
30	14.775	32.601	88.9	0.38
40	14.774	32.602	88.9	0.31
50	14.635	32.668	88.9	0.27
60	14.390	32.798	89.7	0.27
70	13.430	32.778	89.5	0.28
80	12.234	32.806	89.5	0.37
90	11.453	32.822	88.7	0.81
100	11.204	32.877	89.0	0.83
110	11.032	32.969	90.3	0.50
120	10.917	33.029	90.6	0.24
130	10.497	33.115	90.9	0.14
140	10.019	33.218	90.9	0.10
150	9.581	33.346	91.0	0.08
175	8.833	33.603	90.9	0.07
200	8.465	33.796	90.9	0.07
225	8.125	33.902	90.9	0.08
250	7.856	33.963	91.0	0.08
300	7.231	33.985	91.0	0.08
400	6.474	34.082	91.1	0.10
500	5.642	34.118	91.2	0.10
501	5.637	34.118	91.2	0.09

STA 56 F-5 LAT: 38 15.5 N LONG:126 0.1 W  
26 JUN 1988 1730 GMT PROBE 2561 DEPTH 4240M

PRESS	TEMP	SAL	TRN	TP
1	15.108	32.851	89.3	0.26
10	15.108	32.849	89.9	0.28
20	15.098	32.849	89.9	0.30
30	15.097	32.849	89.9	0.31
40	15.092	32.849	89.9	0.25
50	14.800	32.839	89.8	0.21
60	13.144	32.793	89.7	0.23
70	11.812	32.800	89.1	0.38
80	11.360	32.820	88.4	1.06
90	11.119	32.864	89.8	0.81
100	11.026	32.948	90.5	0.38
110	10.967	33.005	90.7	0.28
120	10.893	33.078	90.9	0.15
130	10.620	33.124	91.0	0.10
140	10.280	33.190	91.0	0.08
150	9.981	33.276	91.0	0.07
175	9.374	33.529	90.9	0.08
200	8.930	33.743	90.9	0.08
225	8.486	33.883	90.9	0.09
250	8.058	33.945	90.9	0.08
300	7.668	34.024	91.0	0.09
400	6.621	34.077	91.1	0.09
500	5.693	34.093	91.2	0.10
501	5.679	34.091	91.2	0.10



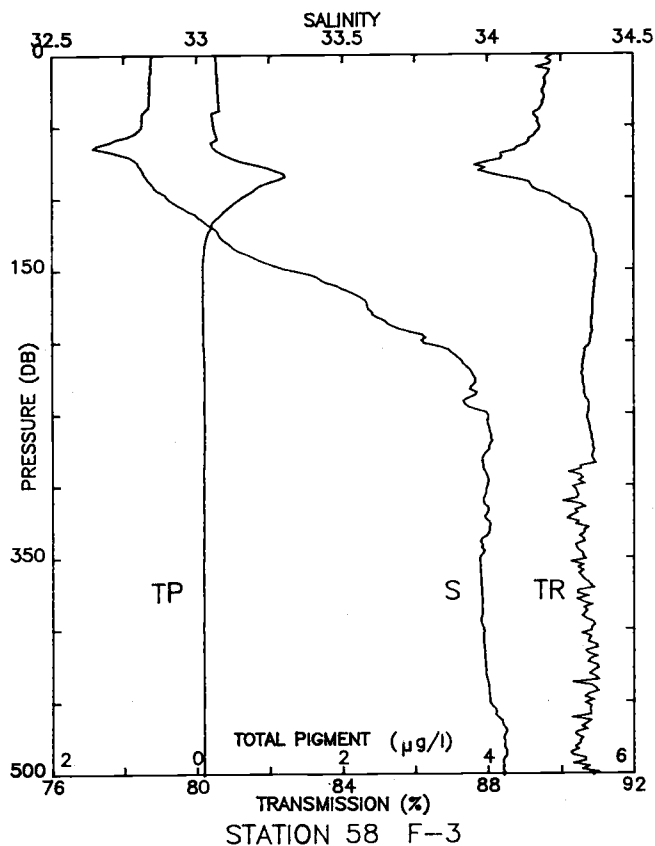


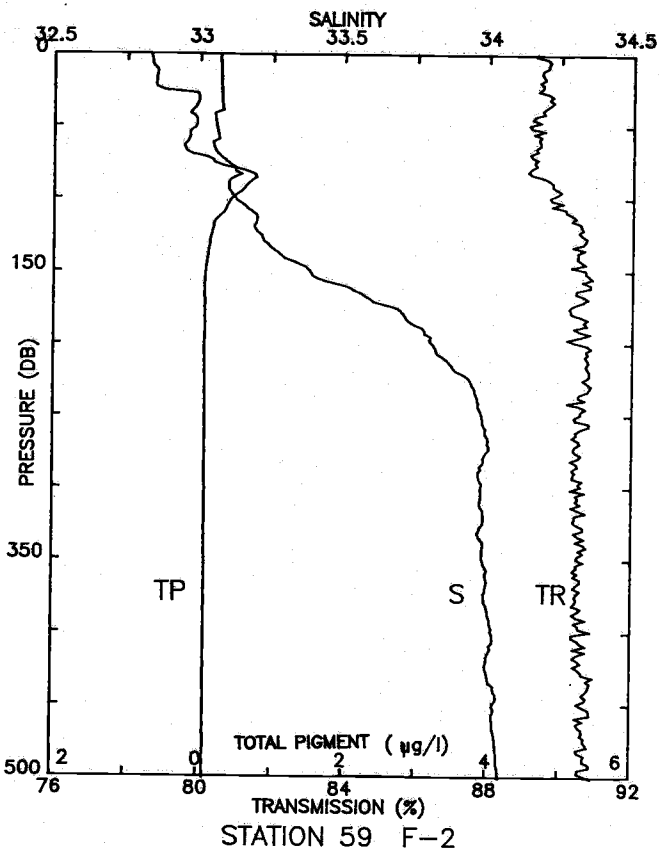
STA 57 F-4 LAT: 38 27.3 N LONG: 126 8.5 W  
26 JUN 1988 1923 GMT PROBE 2561 DEPTH 4254M

PRESS	TEMP	SAL	TRN	TP
1	15.280	32.851	89.6	0.27
10	15.258	32.849	89.6	0.28
20	15.285	32.850	89.6	0.28
30	15.233	32.848	89.6	0.30
40	15.068	32.823	89.5	0.26
50	14.141	32.804	89.2	0.27
60	13.362	32.803	89.6	0.25
70	12.119	32.748	88.6	0.43
80	11.344	32.783	88.8	1.07
90	11.159	32.859	89.9	0.73
100	10.967	32.883	90.4	0.41
110	10.755	32.951	90.7	0.22
120	10.679	33.013	90.9	0.15
130	10.592	33.087	90.9	0.13
140	10.334	33.126	90.9	0.10
150	10.214	33.210	90.8	0.09
175	9.622	33.465	90.8	0.07
200	8.877	33.674	90.8	0.08
225	8.782	33.907	90.6	0.10
250	8.386	33.971	90.6	0.10
300	7.603	34.036	91.0	0.10
400	5.926	33.982	91.0	0.09
500	5.438	34.091	91.2	0.09
501	5.436	34.092	91.2	0.09

STA 58 F-3 LAT: 38 39.2 N LONG: 126 17.2 W  
26 JUN 1988 2112 GMT PROBE 2561 DEPTH 4266M

PRESS	TEMP	SAL	TRN	TP
1	15.443	32.845	89.7	0.26
10	15.418	32.842	89.5	0.27
20	15.255	32.837	89.6	0.29
30	15.240	32.836	89.5	0.30
40	15.059	32.817	89.3	0.26
50	14.740	32.809	89.4	0.23
60	13.395	32.708	89.1	0.24
70	12.144	32.749	88.4	0.39
80	11.565	32.811	87.8	1.03
90	11.258	32.845	89.1	0.93
100	11.100	32.901	89.9	0.60
110	10.999	32.983	90.5	0.35
120	10.766	33.053	90.8	0.19
130	10.493	33.099	90.9	0.12
140	10.147	33.184	91.0	0.09
150	9.846	33.318	90.9	0.08
175	9.302	33.585	90.9	0.08
200	8.732	33.777	90.8	0.08
225	8.673	33.956	90.6	0.10
250	8.153	33.997	90.7	0.10
300	7.325	33.998	90.5	0.09
400	6.050	33.986	90.8	0.09
500	5.277	34.054	91.0	0.09
501	5.266	34.053	90.9	0.09





STA 59 F-2 LAT: 38 51.2 N LONG: 126 25.5 W  
 26 JUN 1988 2311 GMT PROBE 2561 DEPTH 4218M

PRESS	TEMP	SAL	TRN	TP
1	15.903	32.831	89.3	0.27
10	15.784	32.846	89.5	0.28
20	15.758	32.847	89.4	0.28
30	15.642	32.995	89.7	0.29
40	15.323	32.968	89.5	0.25
50	14.973	32.985	89.1	0.22
60	13.892	32.958	89.4	0.21
70	12.630	32.997	89.1	0.26
80	12.508	33.121	89.1	0.59
90	11.960	33.098	89.8	0.65
100	11.811	33.123	89.7	0.43
110	11.713	33.187	90.2	0.31
120	11.164	33.189	90.6	0.18
130	10.672	33.226	90.6	0.13
140	10.141	33.287	90.5	0.11
150	9.701	33.382	90.7	0.08
175	8.867	33.680	90.2	0.07
200	8.423	33.803	90.6	0.07
225	8.310	33.936	90.6	0.08
250	7.986	33.979	90.5	0.08
300	7.119	33.976	90.4	0.09
400	6.005	34.019	90.6	0.09
500	5.166	34.046	90.8	0.09
501	5.157	34.048	90.9	0.09

STA 60 E-2 LAT: 38 54.2 N LONG: 125 58.5 W  
 27 JUN 1988 0151 GMT PROBE 2561 DEPTH 4059M

PRESS	TEMP	SAL	TRN	TP
1	15.685	32.845	89.3	0.30
10	15.685	32.846	89.5	0.30
20	15.613	32.860	89.5	0.31
30	15.515	32.925	89.5	0.32
40	15.238	32.954	89.7	0.28
50	14.480	32.942	89.5	0.24
60	13.425	32.988	89.7	0.22
70	12.571	32.960	89.6	0.35
80	12.443	33.042	89.9	0.50
90	11.964	33.059	90.2	0.57
100	11.811	33.097	90.4	0.43
110	11.690	33.156	90.6	0.30
120	11.288	33.171	90.6	0.23
130	10.557	33.232	90.8	0.14
140	10.074	33.271	90.9	0.10
150	9.549	33.363	90.9	0.07
175	8.977	33.659	90.8	0.07
200	8.526	33.831	90.8	0.08
225	8.240	33.923	90.9	0.08
250	8.071	33.986	90.9	0.08
300	7.206	34.004	91.1	0.08
400	5.803	33.987	91.1	0.08
500	5.734	34.142	91.2	0.10
501	5.728	34.142	91.2	0.10

SAL+0.03, 33-419 DB

