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**CTD Observations off
Oregon and California:
R/V Wecoma, W8201B,
28 January to 6 February 1982**

by

Jane Fleischbein
William E Gilbert
Adriana Huyer
R. L. Smith

Data Report 100
Reference 82-18
December 1982

OREGON STATE UNIVERSITY

National Science Foundation
OCE-8026131 and OCE-8014943

School of Oceanography
Oregon State University
Corvallis, OR 97331

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ABSTRACT

Current meter moorings were recovered and deployed off of Coos Bay at $43^{\circ}13'N$, off of Crescent City at $41^{\circ}54'N$, off of Half Moon Bay at $37^{\circ}25'N$ and off of Pt. Purisima at $34^{\circ}45'N$ during 28-29 January 1982. CTD observations were made off of Coos Bay at $43^{\circ}13'N$, off Crescent City at $41^{\circ}54'N$, near Pt. Arena on the northern California coast at $39^{\circ}N$, off Half Moon Bay at $37^{\circ}25'N$ and off Pt. Purisima at $34^{\circ}45'N$ during 28 January - 6 February 1982. The maximum sampling depth was 1000 m. This data report contains vertical sections and vertical profile plots and listings of the data at standard depths for each of the 45 CTD stations.

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INTRODUCTION

The Large Scale West Coast Shelf Experiment seeks to describe the larger-scale alongshore structure of the currents over the continental shelf between Coos Bay, Oregon and Purisima Pt., California. The purpose of cruise W8201B was to recover and deploy current meter moorings off of Coos Bay, Oregon and Crescent City, Half Moon Bay and Purisima Pt., California. In addition CTD sections with a maximum sampling depth of 1000 meters were to be completed off of Coos Bay, Crescent City, Sea Ranch, Half Moon Bay and Purisima Pt. Only the CTD data are included in this report.

The R/V Wecoma departed Newport on 27 January 1982, delayed from a 25 January departure due to bad weather. The ship arrived at the site of Coos Bay Shallow current meter mooring at 0800 PST on 28 January. After recovering and deploying Coos Bay Shallow and Deep moorings, a test CTD cast was done at the site of FM-6 (Station 1, Figure 1) with the portable winch. On 29 January the Crescent City Shallow and Deep moorings were recovered and deployed, and on 30 January the ship dragged for the San Francisco Deep mooring unsuccessfully. The ship proceeded to the site of the Purisima Pt. moorings and on 31 January recovered the Deep mooring by dragging and also the Shallow mooring.

After reinstalling the two moorings, CTD casts were done along the Purisima Pt. section (Stations 2-10). On 1 February the ship proceeded to the San Francisco Deep mooring site and completed a search grid in the vicinity to acoustically locate the mooring. On 2 February the ship ran into Monterey Bay where J. Allen, E. Seifert, and D. Pillsbury disembarked via the ship's launch and then the ship proceeded to the next station

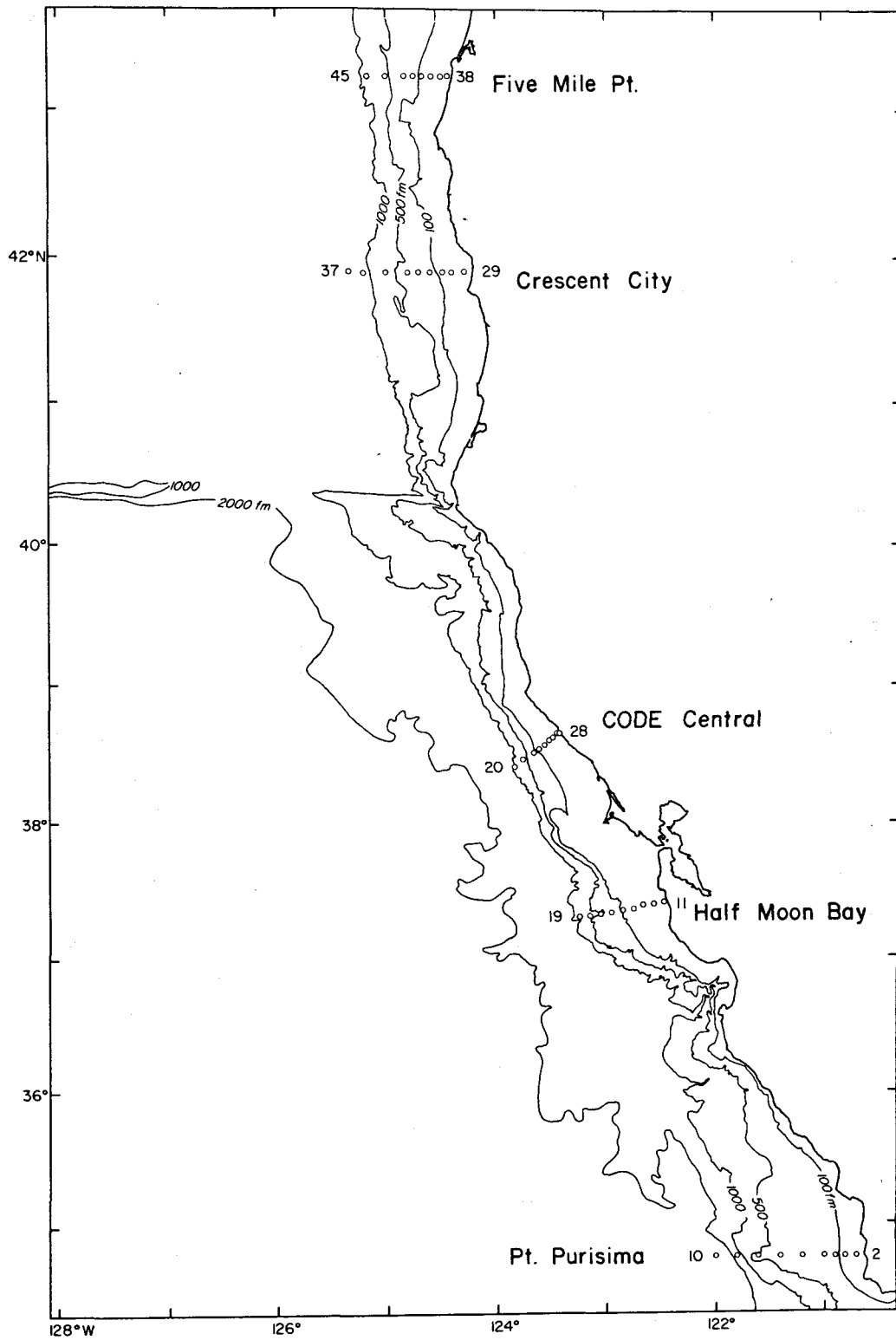


Figure 1. Location of CTD stations during W8201B, 1-6 February 1982.

Table 1. List of CTD stations occupied during W8201B, showing date and time, location, wind speed and direction, and atmospheric pressure.

Date	Time	Station		Location		Wind		Pressure (mb)
		No.	Name	Lat. (°N)	Long. (°W)	Dir. (°T)	Spd (kts)	
Jan 28	2335Z	1	FM-6	43°13.0	124°45.0	000	8	1023.0
Feb 1	0221	2	PR-1	34°45.3	120°42.2	325	15	1020.6
	0315	3	PR-2	45.0	48.0	340	12	1021.0
	0411	4	PR-3	45.0	54.0	340	14	1021.0
	0514	5	PR-4	45.0	121°00.0	340	13	1021.0
	0703	6	PR-5	45.0	12.0	330	16	1021.1
	0826	7	PR-6	45.0	24.2	340	16	1021.3
	0959	8	PR-7	44.9	36.1	340	15	1021.0
	1146	9	PR-8	45.0	48.0	350	16	1021.2
	1337	10	PR-9	45.2	122°00.0	000	16	1021.1
Feb 2	2313	11	HM-1	37°24.5	28.2	320	12	1019.1
	2354	12	HM-2	23.8	33.4	310	10	1019.0
Feb 3	0045	13	HM-3	23.0	39.2	310	8	1019.0
	0130	14	HM-4	22.2	44.9	330	6	1019.0
	0214	15	HM-5	21.4	50.7	340	10	1019.1
	0312	16	HM-6	20.6	56.9	340	12	1019.0
	0421	17	HM-7	19.7	123°03.1	350	14	1018.0
	0605	18	HM-8	18.8	09.2	330	15	1018.0
	0730	19	HM-9	18.0	15.4	340	14	1017.5
	1505	20	COC-9	38°24.0	49.2	000	20	1016.2
	1648	21	COC-8	27.1	44.5	330	26	1016.0
	1823	22	COC-7	30.2	39.7	335	21	1016.2
	1929	23	COC-6	32.7	36.2	330	24	1015.1
	2018	24	COC-5	34.6	33.5	330	23	1014.0
	2101	25	COC-4	36.0	30.9	330	22	1014.0
	2144	26	COC-3	37.6	28.9	330	22	1013.5
	2219	27	COC-2	38.8	26.9	330	20	1012.8
	2254	28	COC-1	38.8	25.5	320	20	1012.4
Feb 4	2213	29	CR-1	41°54.0	124°12.8	340	16	1018.1
	2257	30	CR-2	54.0	24.0	350	18	1018.3
	2341	31	CR-3	53.7	29.0	350	20	1018.9
Feb 5	0032	32	CR-4	53.9	36.0	350	20	--
	0133	33	CR-5	54.0	42.0	000	20	1019.0
	0235	34	CR-6	54.0	48.1	020	24	1019.0
	0406	35	CR-7	54.0	125°00.0	000	20	1019.0
	0541	36	CR-8	54.0	12.0	010	22	1019.3
	0712	37	CR-9	41°54.0	20.0	010	24	1019.9
	1838	38	FM-1	43°13.0	124°26.0	030	8	1022.4
	1917	39	FM-3	13.0	30.0	030	15	1023.0
	1954	40	FM-4	13.0	35.0	030	16	1022.8
	2041	41	FM-5	12.9	40.1	030	18	1022.6
	2128	42	FM-6	13.0	45.0	030	14	1022.4
	2224	43	FM-7	13.0	50.1	030	13	1022.8
	2342	44	FM-8	13.0	125°00.2	040	12	1023.5
Feb 6	0115	45	FM-9	13.1	10.0	040	8	1023.1

at HM-1 and finished the CTD section (Stations 11-19) on 3 February. At the bottom of the cast at Station 17 the CTD was inadvertently let out instead of pulled in and possibly hit bottom, however a comparison of the upcast, a recast with CTD probe #2561 and the original down cast showed no shift in conductivity. The Code Central (Stations 20-28), Crescent City (Stations 29-37) and Five Mile (Stations 38-45) sections were completed on 3-5 February. The ship returned to Newport the morning of 6 February.

Scientific personnel on the cruise were John Allen, Robert Smith, Dale Pillsbury, Dennis Barstow, Jane Fleischbein, Mirth Miller, Henry Pittock, Henry Schaechterle, Rich Schramm and Ed Seifert.

SAMPLING PROCEDURES, CALIBRATION AND DATA PROCESSING

A Neil Brown Instruments Mark IIIb conductivity-temperature depth probe (CTD) was used to obtain continuous profiles of temperature and salinity versus pressure at each station. Characteristics of the CTD probe are presented in Table 2. Sampling procedures were identical with those described by Fleischbein, et al. (1981).

The CTD probe was calibrated for pressure, temperature and conductivity by the manufacturer prior to delivery in the fall of 1980. *In situ* calibration data were also collected for temperature and conductivity sensors. A Niskin bottle equipped with 3 protected reversing thermometers was mounted about 2 m above the CTD sensors to provide calibration samples. The thermometers have an accuracy of $\pm 0.02^{\circ}\text{C}$ and are corrected using the results of calibrations done once every 2 years. Water sample salinity is determined by Guildline Model 8400 Autosal salinometers with precision of better than $\pm 0.002^{\circ}/\text{‰}$ and accuracy of $\pm 0.003^{\circ}/\text{‰}$, using equations given by Bennett (1976).

CTD data are recorded at the actual sample depth after the bottle is tripped. Occasionally due to large wire angles the CTD and sample bottles do not remain at the same depth (and temperature) during soak time. When this resulted in relatively large differences between the sample and CTD temperature readings, these points were eliminated from the overall CTD-sample comparisons.

Triplicate salinity samples were drawn from the Niskin bottle at each station. Two sets of samples were run on OSU's Autosal #3, and were in close agreement with each other (Table 3). The third set of samples was

Table 2. Characteristics of CTD probe 2567.

Probe	Sample Interval	Temperature Time Constant	P	Sensors		
				T	C	
2567	32 ms	180 ms	Range: 1600db Resolution: 0.025db Accuracy: ± 1.6 db	-3 to 32°C .0005°C $\pm .005$ °C	1 to 65 mmhos .005 mmhos $\pm .001$ mmhos	

Table 3. Summary of the differences between the *in situ* calibration data and the Neil Brown CTD probe.

Sta. No.	Temperature ΔT (°C)			Conductivity ΔC (mmhos cm^{-2})			Salinity		Conductivity Correction	
	N	mean	s.d.	N	mean	s.d.	N	mean		s.d.
1-45	45	-0.002	0.014	Bottle Sample Set 1						
				44	0.010	0.003	44	0.010	0.003	
				Bottle Sample Set 2						
				44	0.009	0.003	44	0.010	0.003	
				S ₁ and S ₂ Averaged						
				44	0.009	0.003	44	0.010	0.003	+0.009

saved to run on OSU's Autosol #1 which was being repaired during this time. The repair on this autosol was not completed until June of 1982 so these samples were not used in the calibration of the CTD. An analysis of NOAA's secondary standard seawater run during the same time period as sample sets #1 and 2 showed that OSU Autosol #3 was operating within specifications, so an average of the two sample sets was used to determine the *in situ* conductivity calibration.

Results of the comparison between *in situ* sample data and the CTD output are summarized in Table 3. The sample conductivity was calculated using the CTD temperature and sample salinity. CTD conductivity was corrected for the pressure and temperature effects on the cell prior to the comparison. The temperature differences are within the sampling and instrument errors so no further corrections were applied to temperature prior to processing the data. The conductivity differences had a mean of $0.009 \text{ mmhos cm}^{-2}$ and standard deviation of $0.003 \text{ mmhos cm}^{-2}$ so a conductivity correction of $+0.009 \text{ mmhos cm}^{-2}$ was applied to all stations prior to processing the data.

The procedures for data processing were described by Gilbert, Huyer and Schramm (1981). The coefficient (α) for the conductivity filter was 0.862. Station 18 showed a sudden shift in conductivity at 357 db that was probably due to detritus in the cell so the processed salinity was linearly interpolated from 357-360 db. Station 20 has a 25 minute gap at 720 db due to winch failure. After the winch was repaired the CTD was brought up to 600 db and recast to 1000 m and this second cast was joined to the first at 720 db. These stations also have footnotes to the listings in the body of the data report.

DATA PRESENTATION

The hydrographic data are summarized in vertical sections and offshore profiles. For each section, we show the vertical distribution of temperature, salinity, and sigma-theta, contoured by hand. Tick marks at the top of each section indicate station positions at which a CTD cast was made, and an inverted "T" marks the maximum depth of each cast.

For each hydrographic section we also show offshore profiles of surface temperature, salinity, sigma-theta, and dynamic height at 0, 100 and 200 db relative to 500 db. Dynamic height at shallow stations was computed using the extrapolation method described by Reid and Mantyla (1976); the extrapolated portion of each profile is dashed.

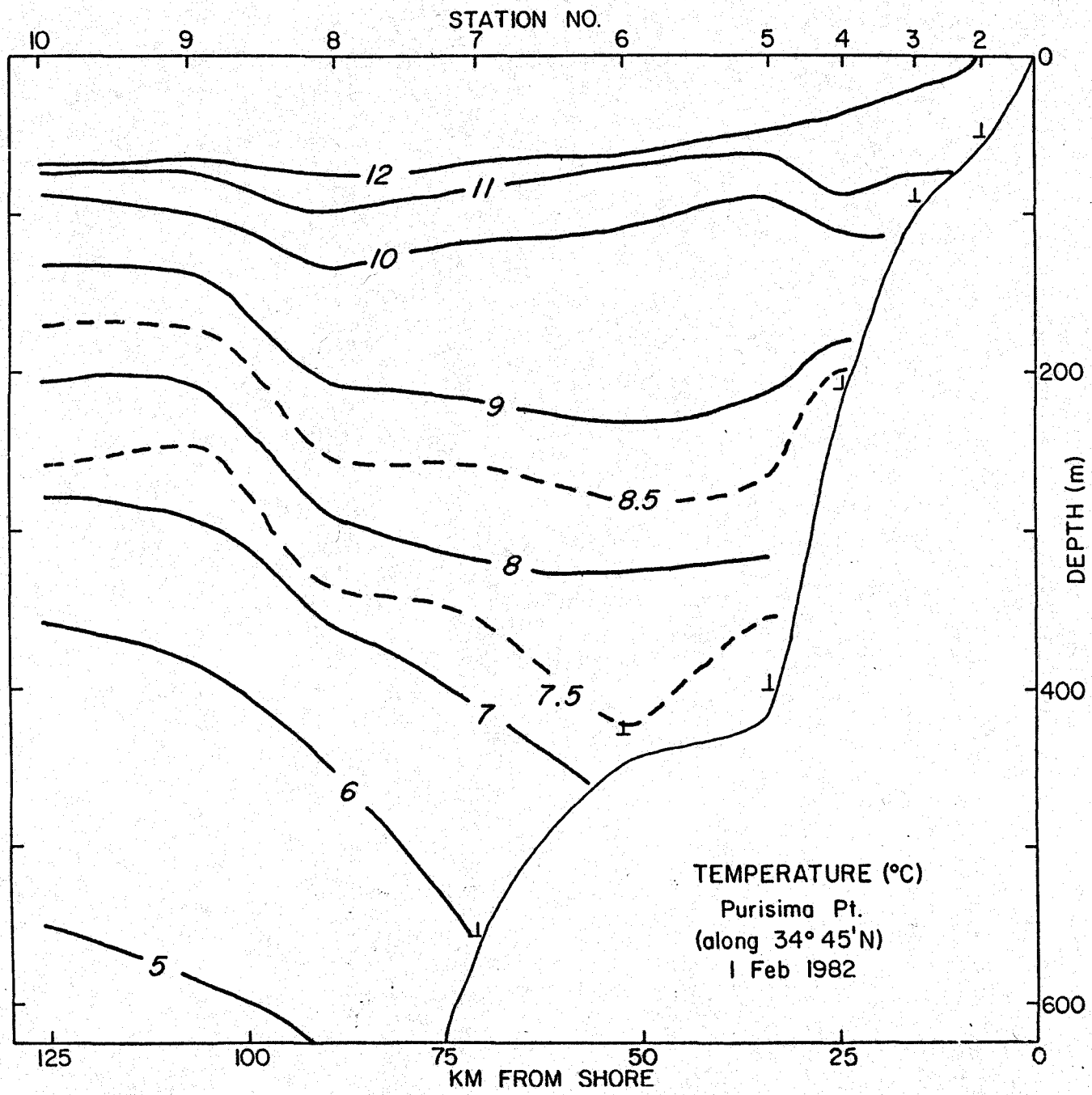
Vertical profiles of temperature, salinity and sigma-theta vs. pressure are shown for each station. Header information for each station is as follows:

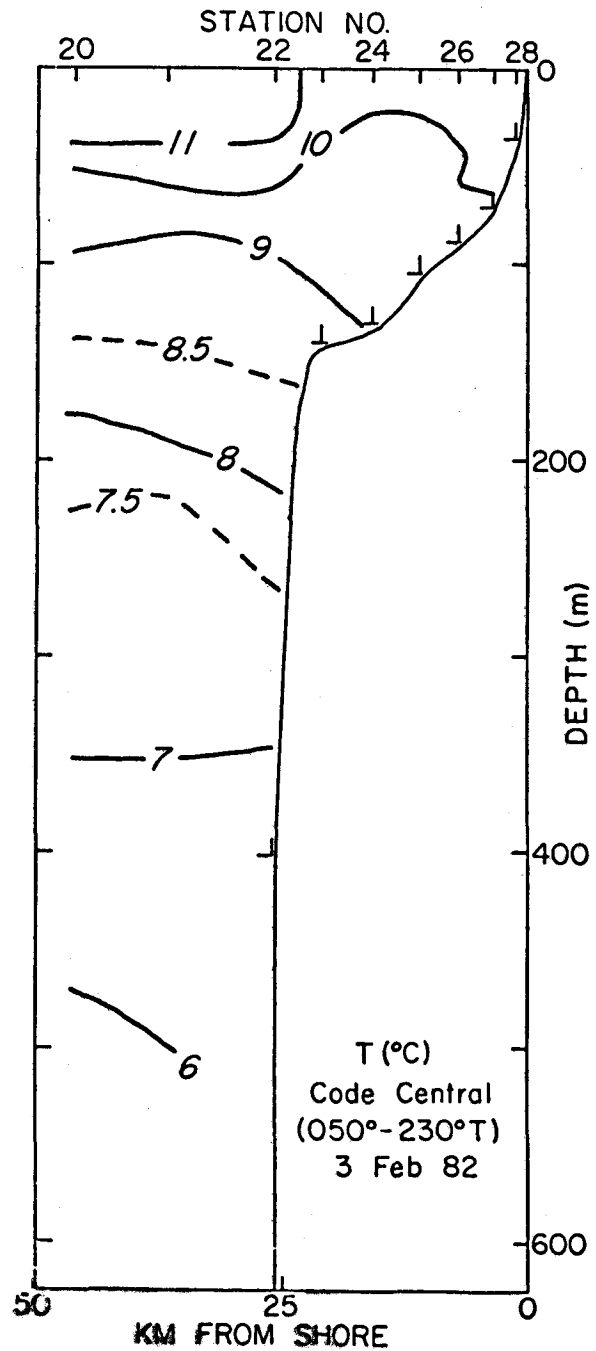
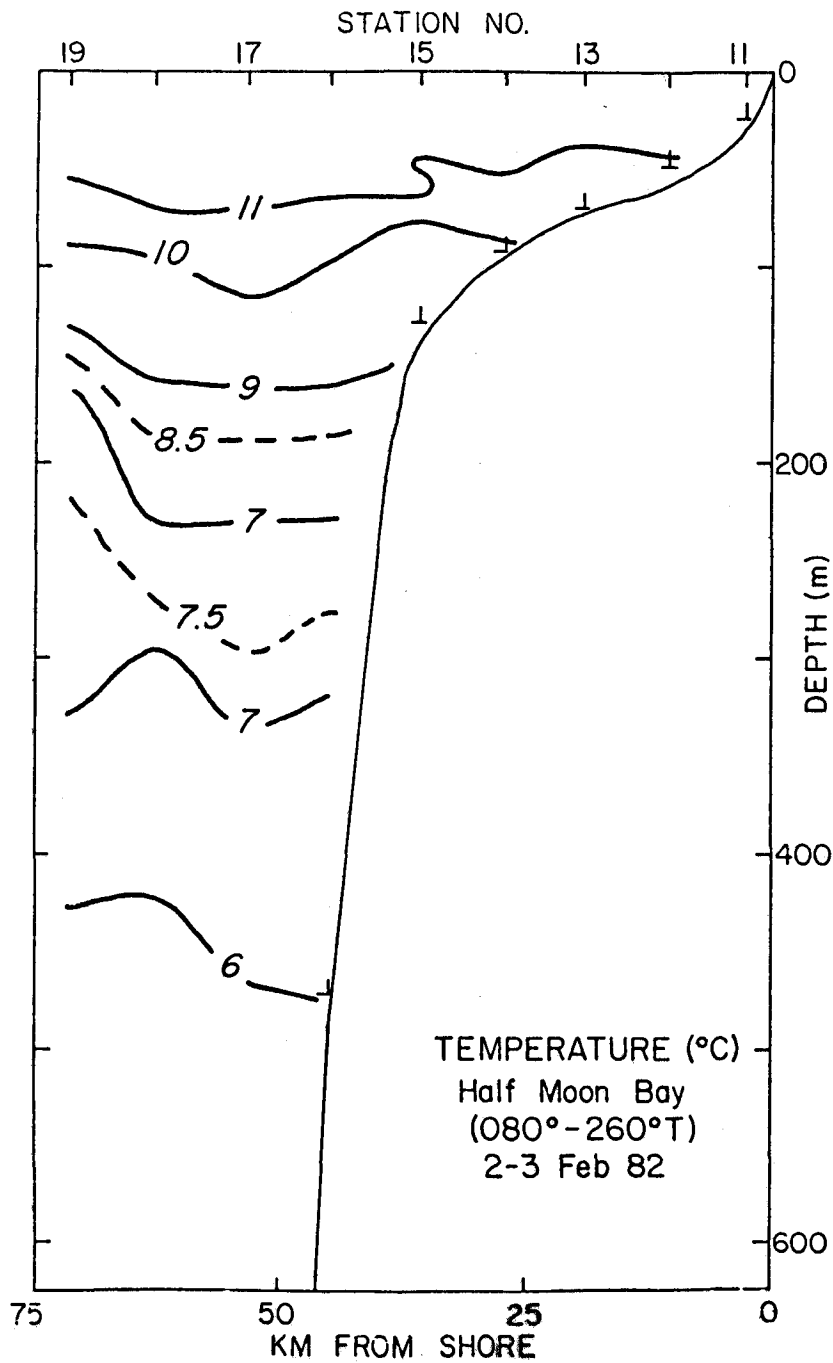
STA NO	Consecutive station number.
STATION	The CTD section name (initialed) and number of the station on the line (Refer to Figures 1 and 2).
LAT	Latitude in degrees and minutes north of the equator.
LONG	Longitude in degrees and minutes north of the equator.
DATE	Day/Month/Year.
TIME	Time in Greenwich Mean Time
PROBE	CTD probe number.
DEPTH	Sonic depth in meters, corrected according to Matthews Tables appearing in the Handbook of Oceanographic Tables, U.S. Naval Oceanographic Office Publication SP-68 (1966).

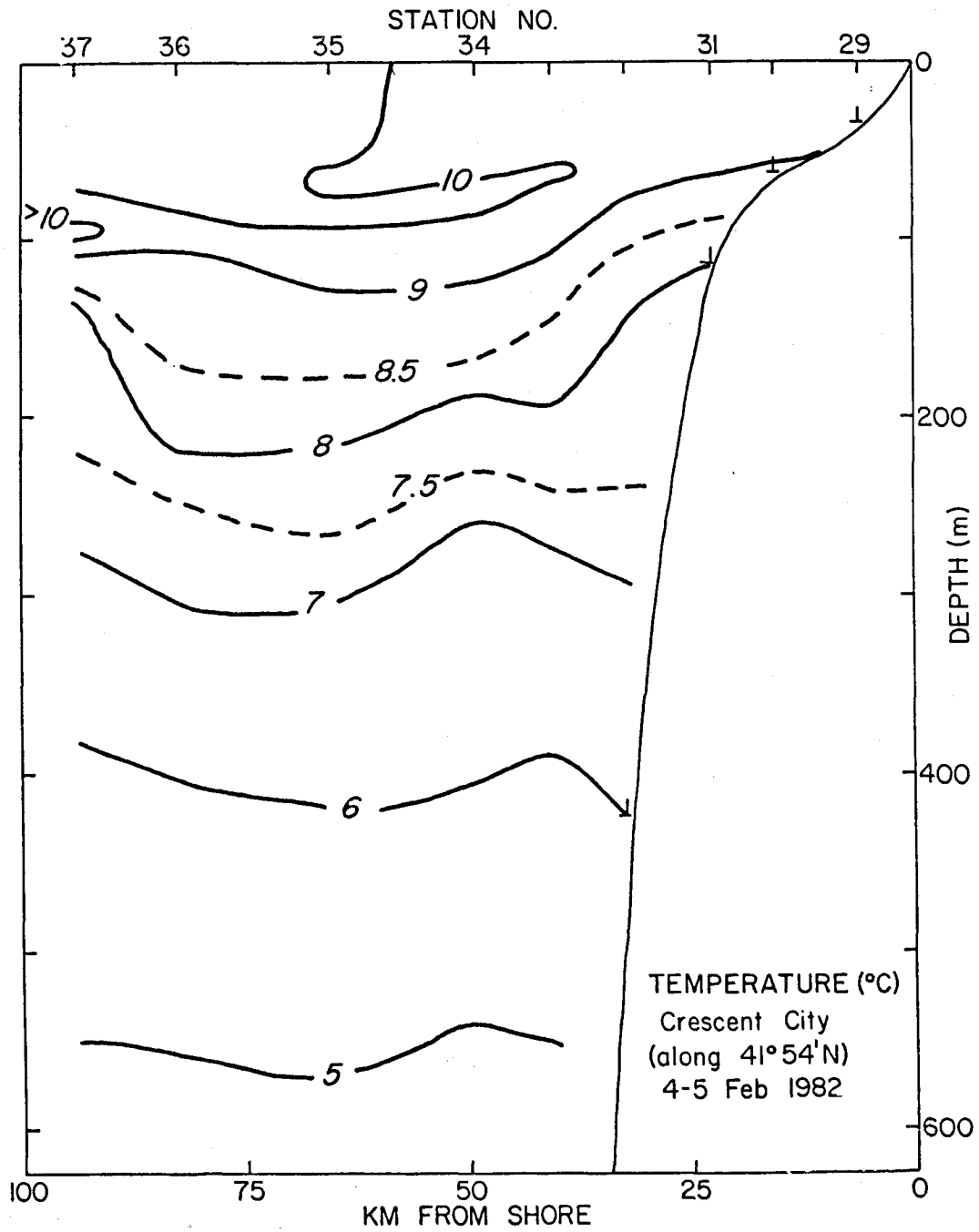
The data listing for each station gives values at standard pressures including observed and calculated parameters at the shallowest and deepest

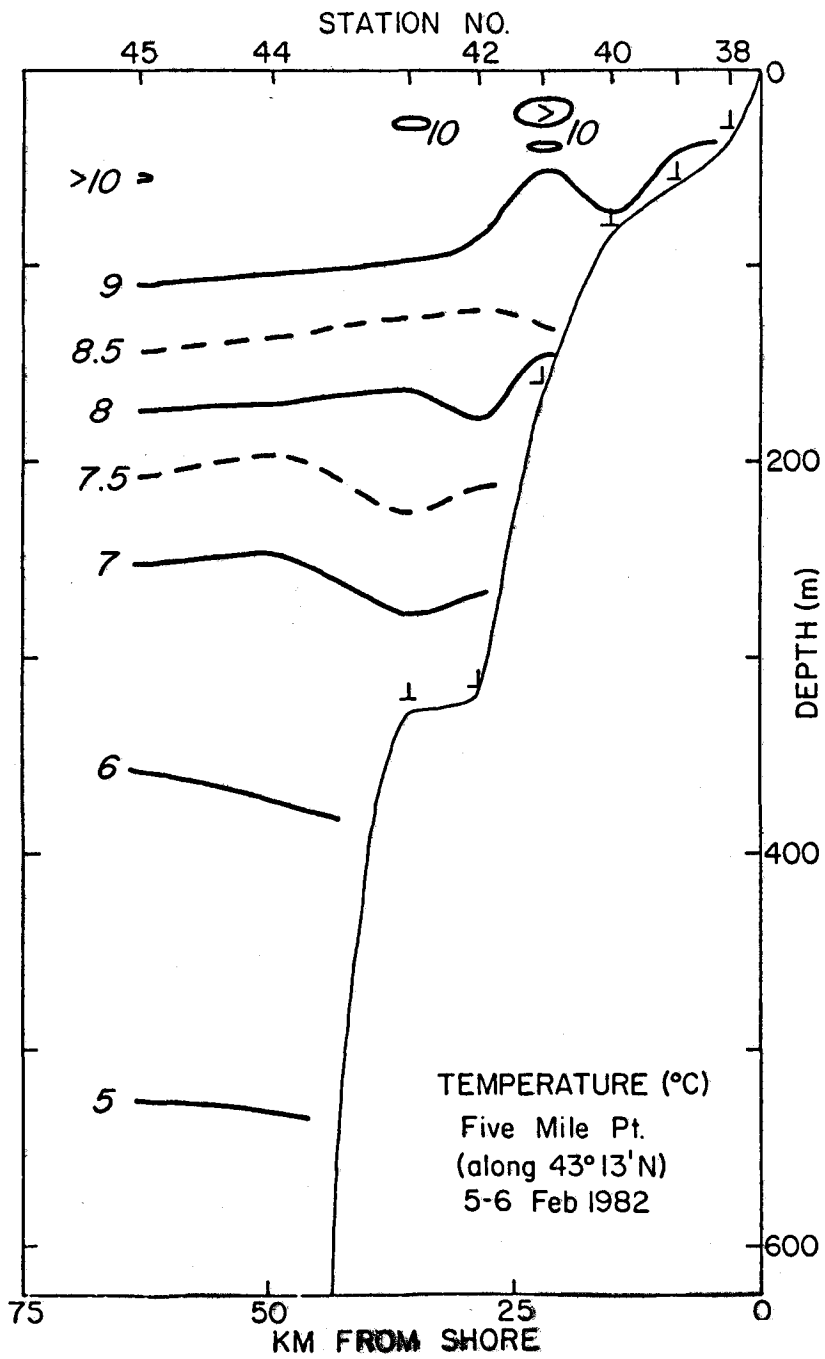
observations levels. Temperature (TEMP), salinity (SAL), potential temperature (POTEN TEMP), sigma-theta (SIGMA THETA), specific volume anomaly $\times 10^5$ (SVA) and dynamic height (DELD) in dynamic meters are given for each pressure (PRESS) in decibars. Computed parameters are calculated from the complete data array.

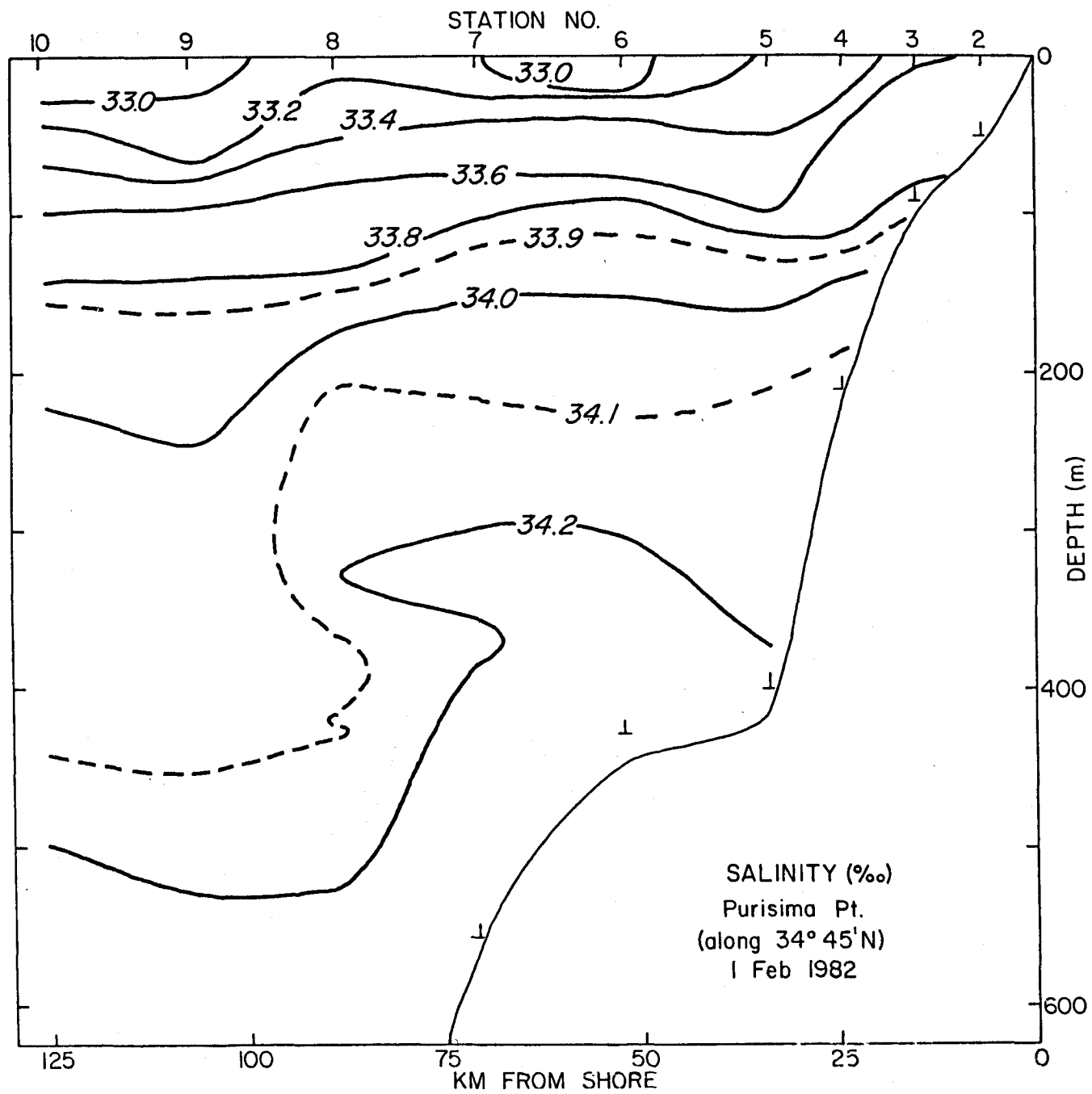
VERTICAL SECTIONS

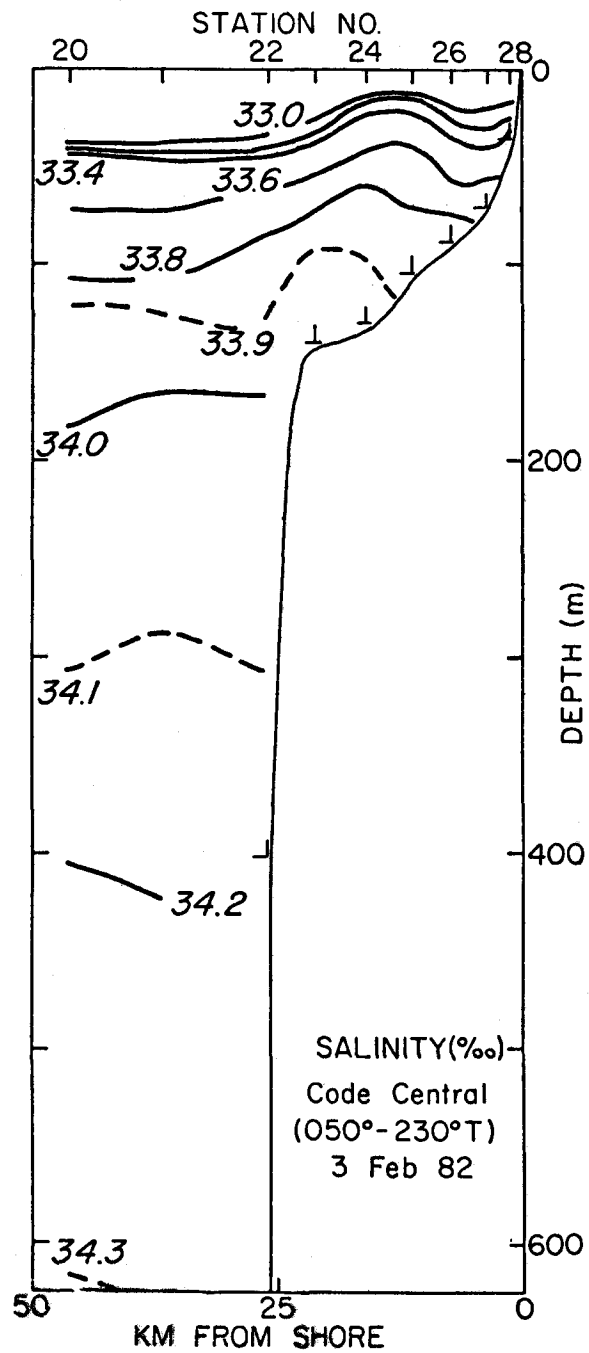
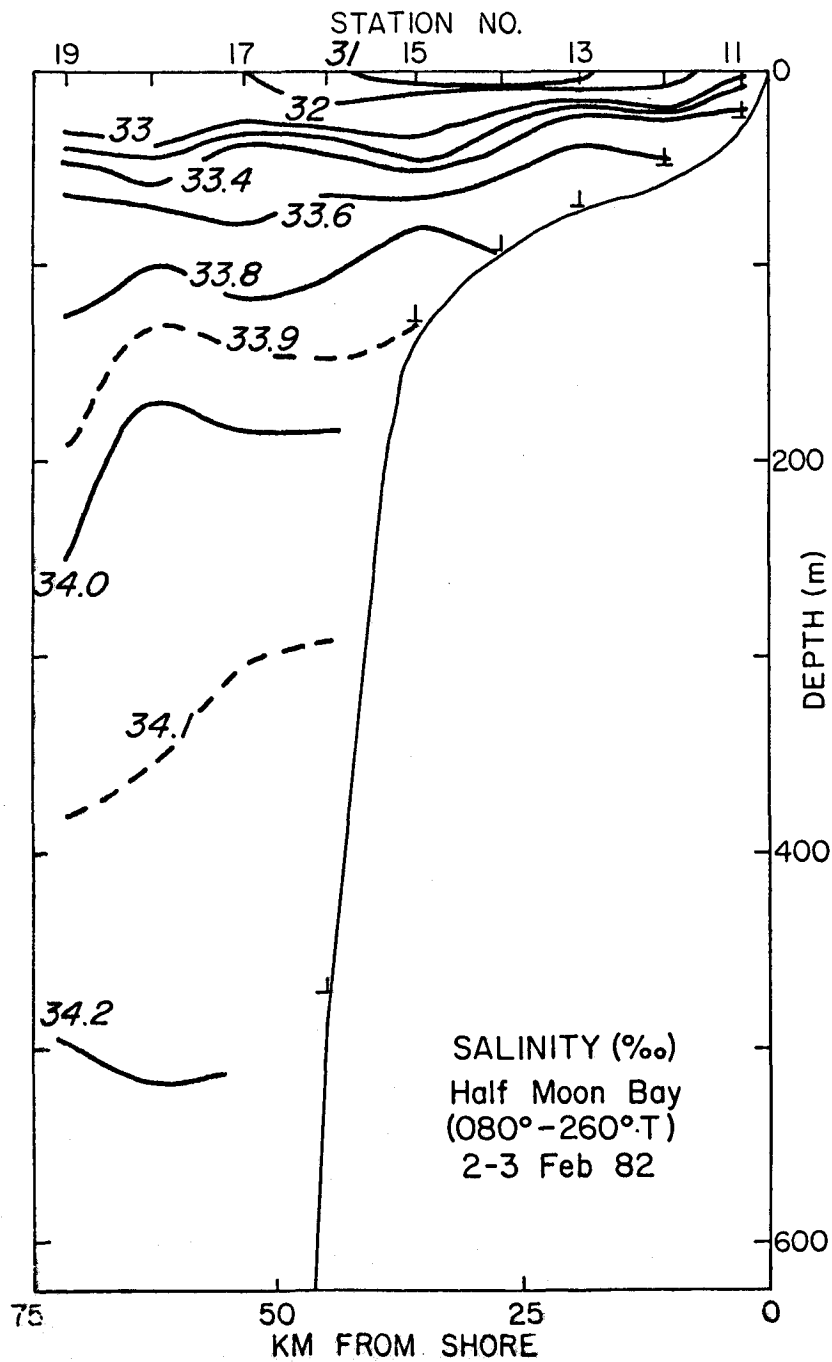


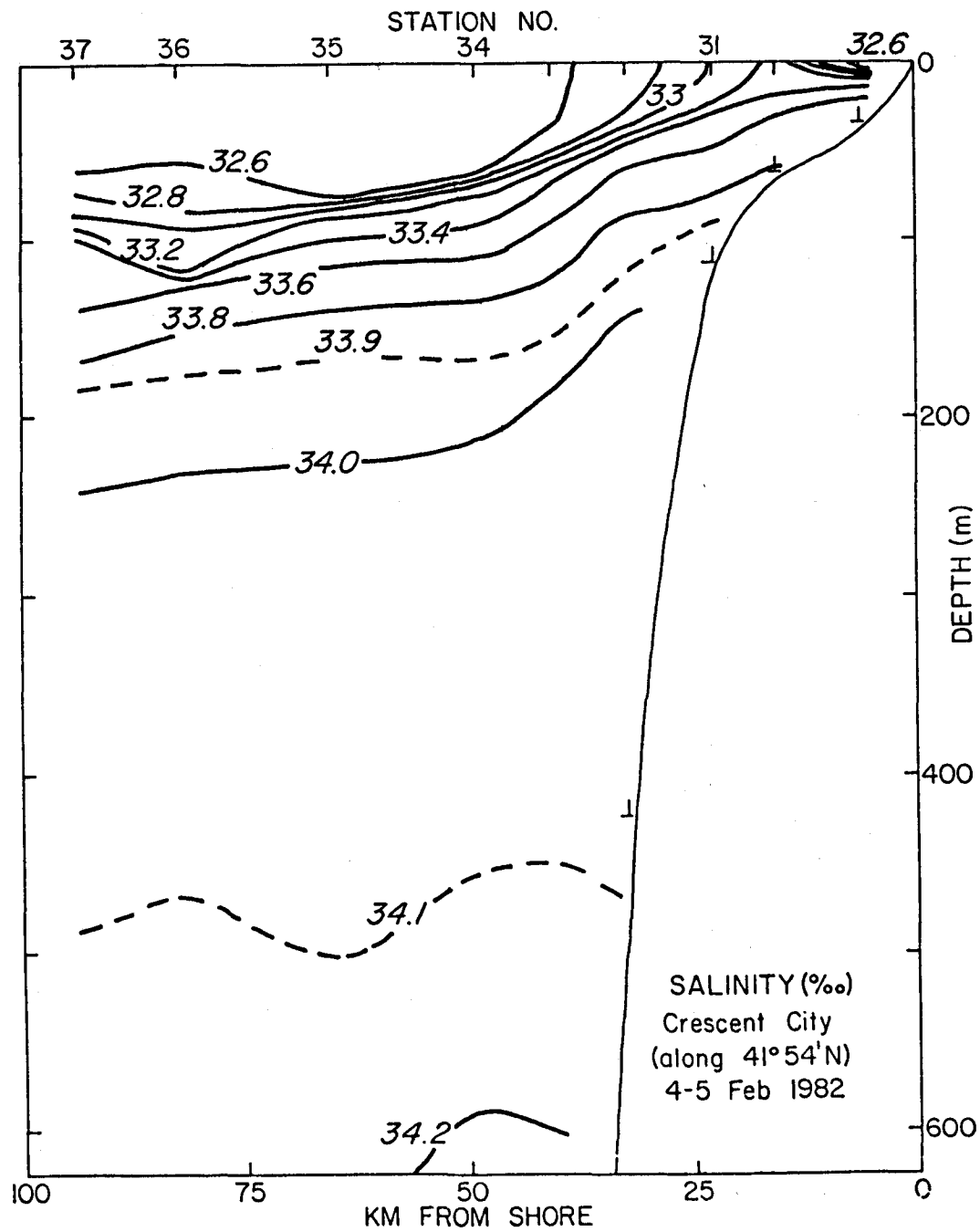


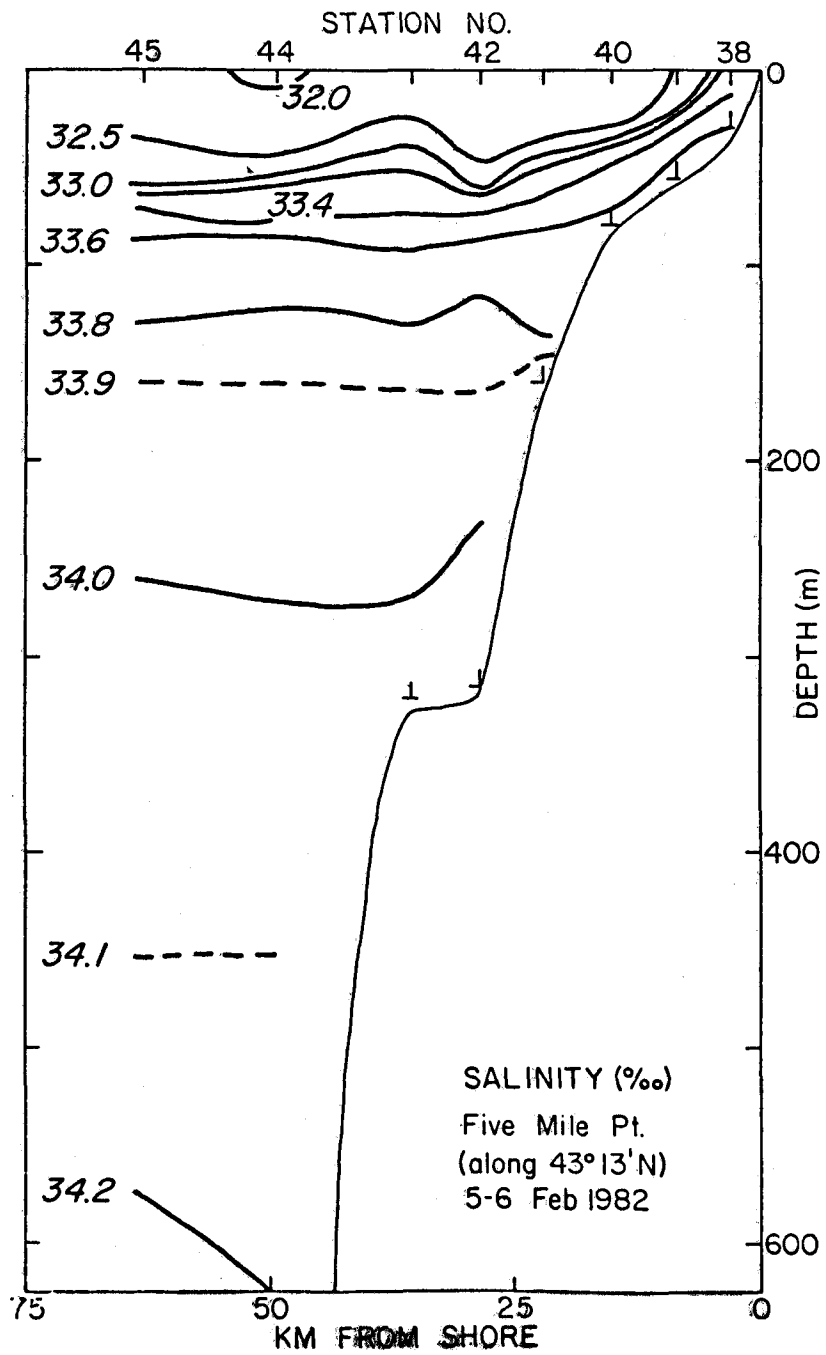


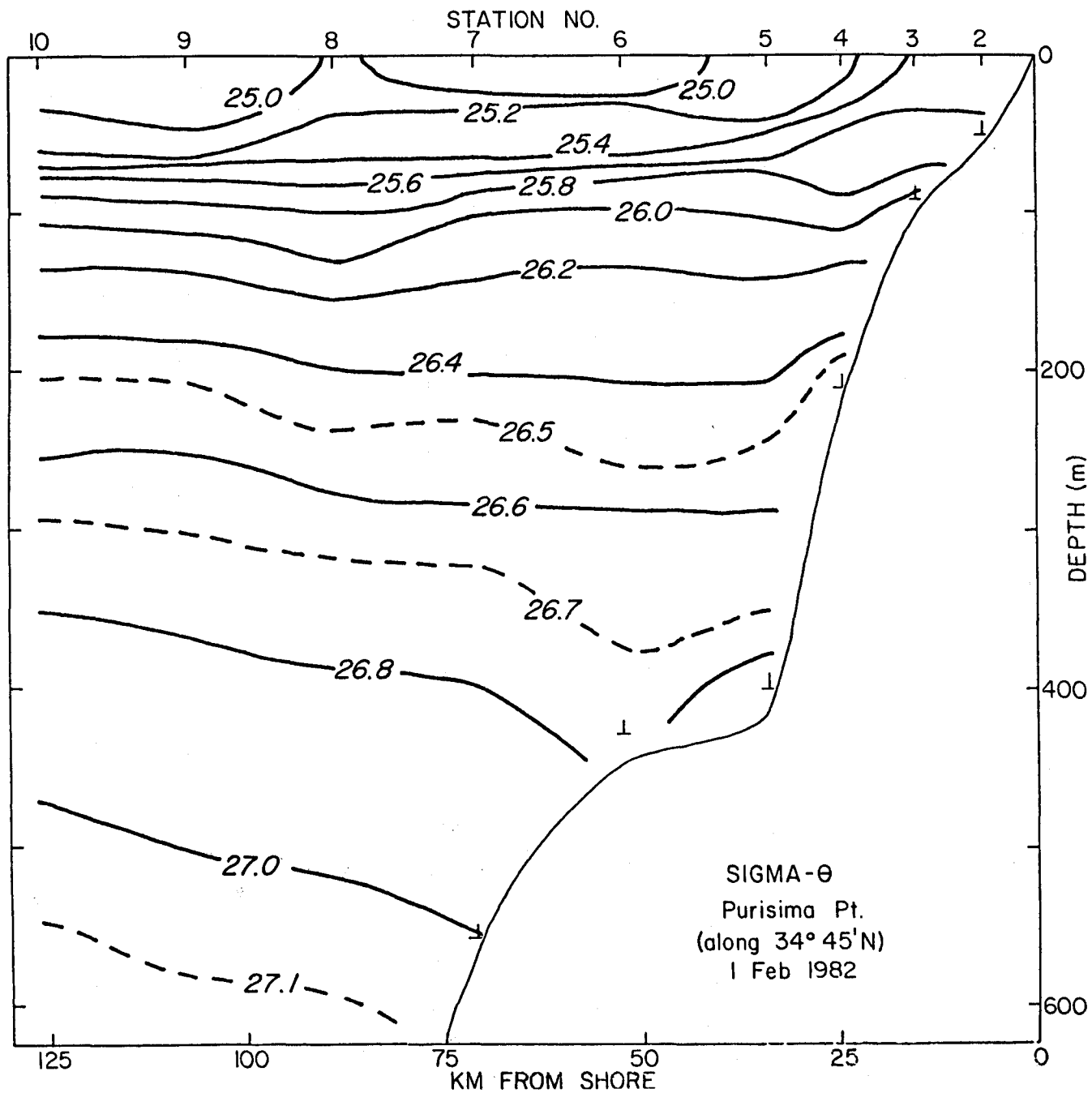


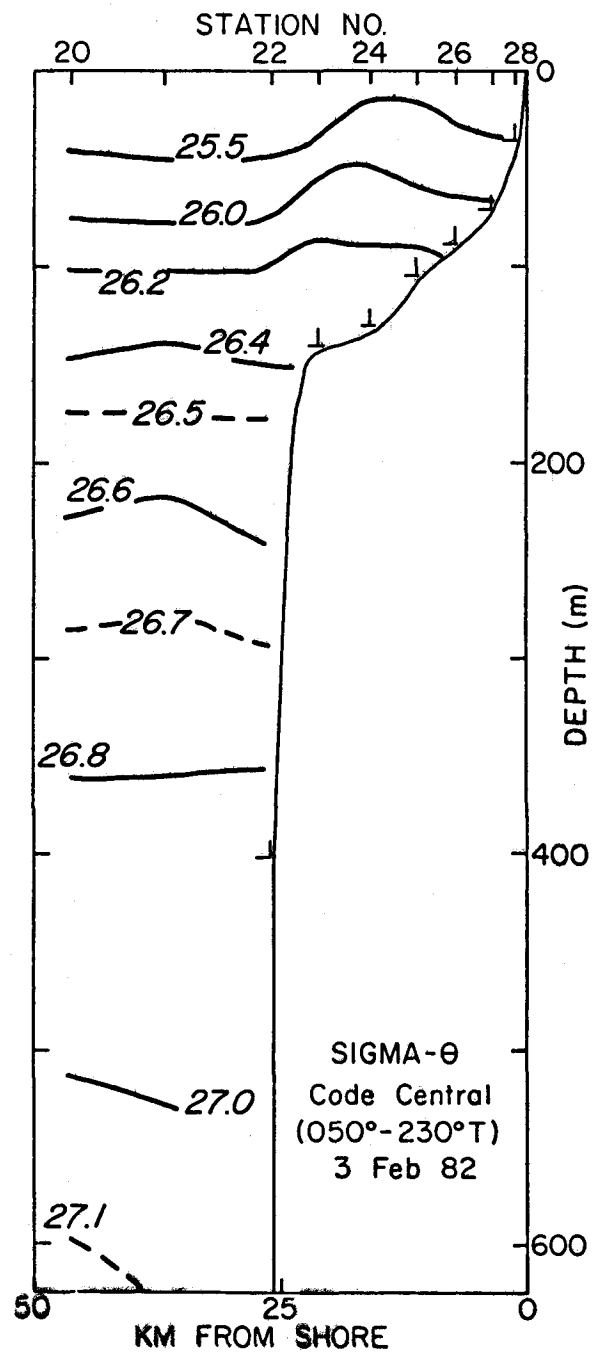
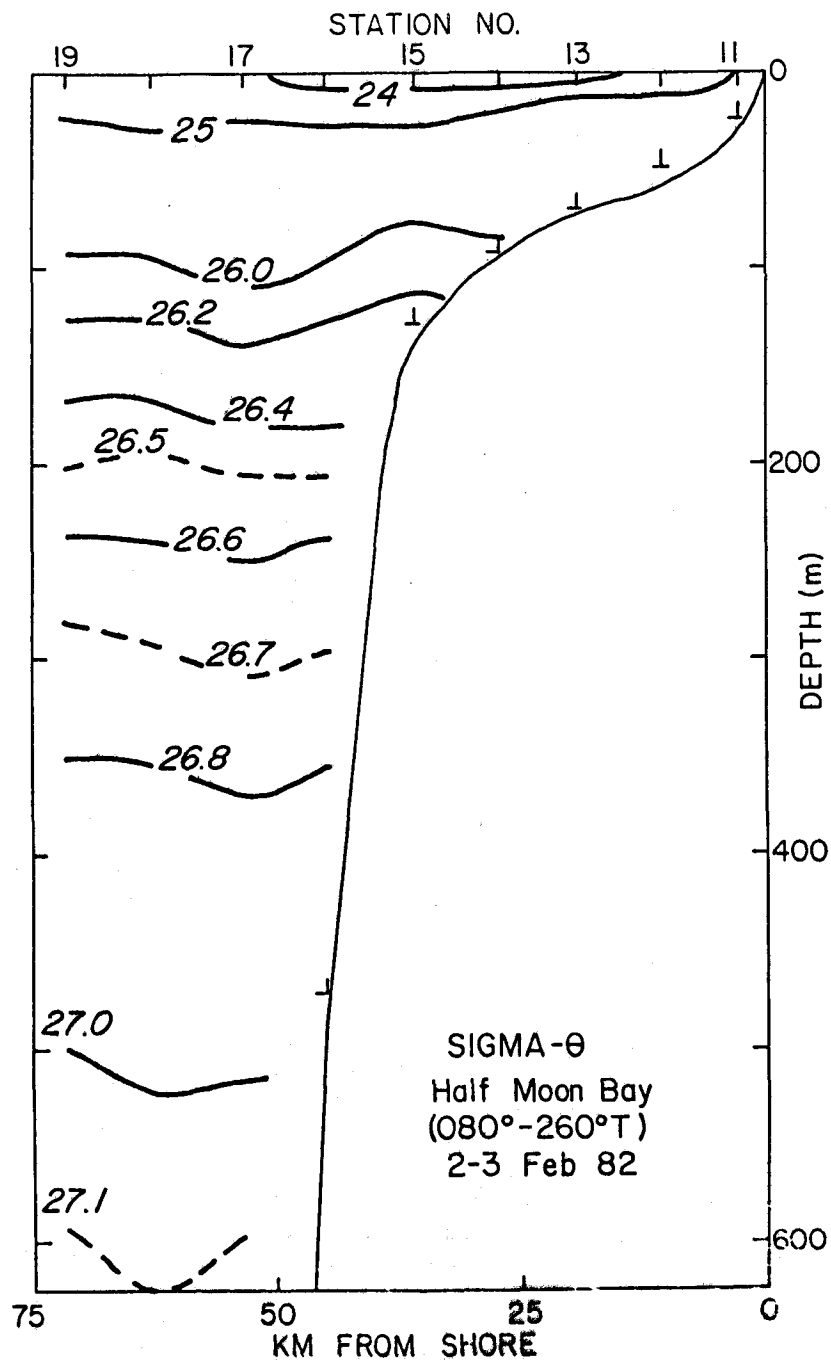


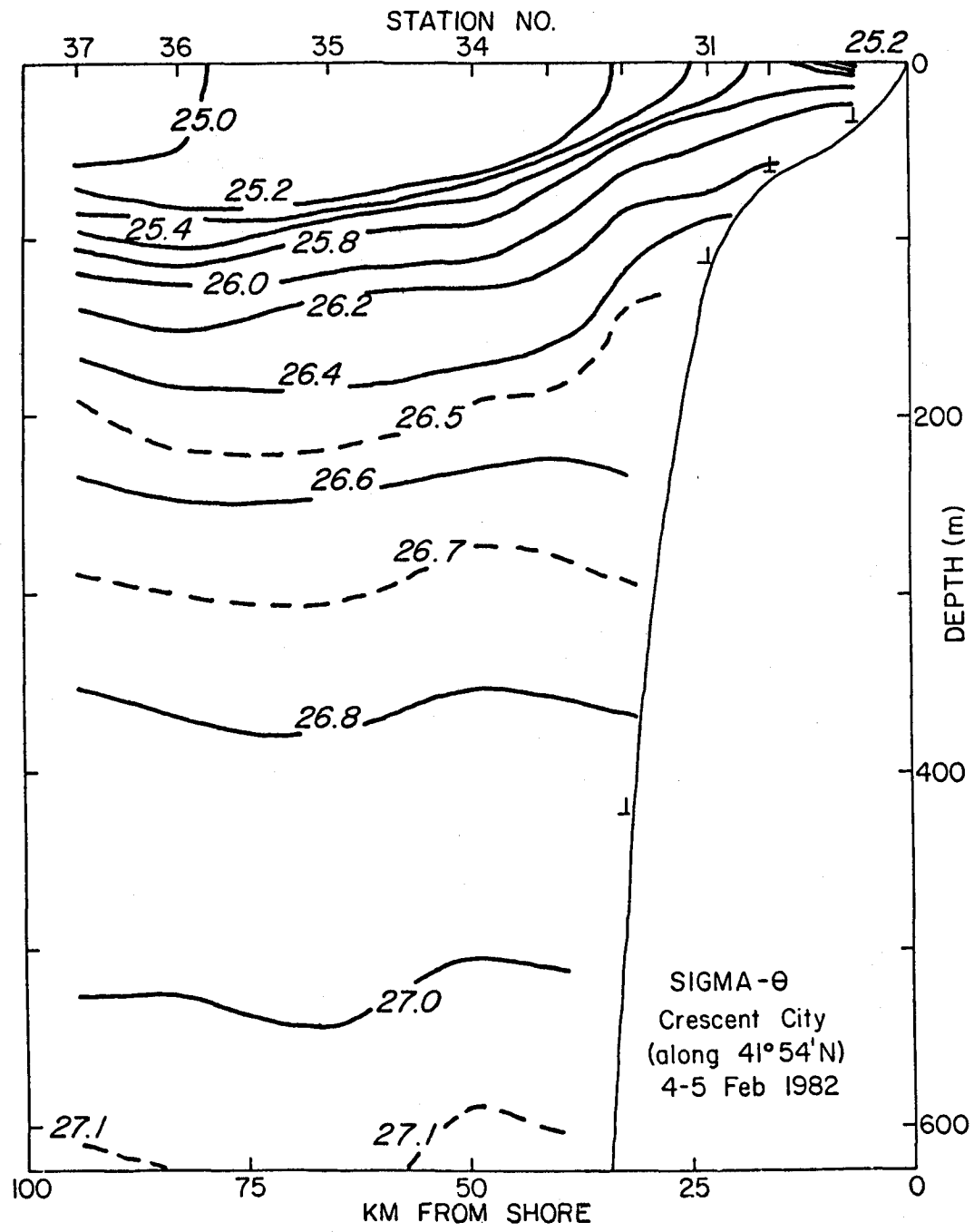


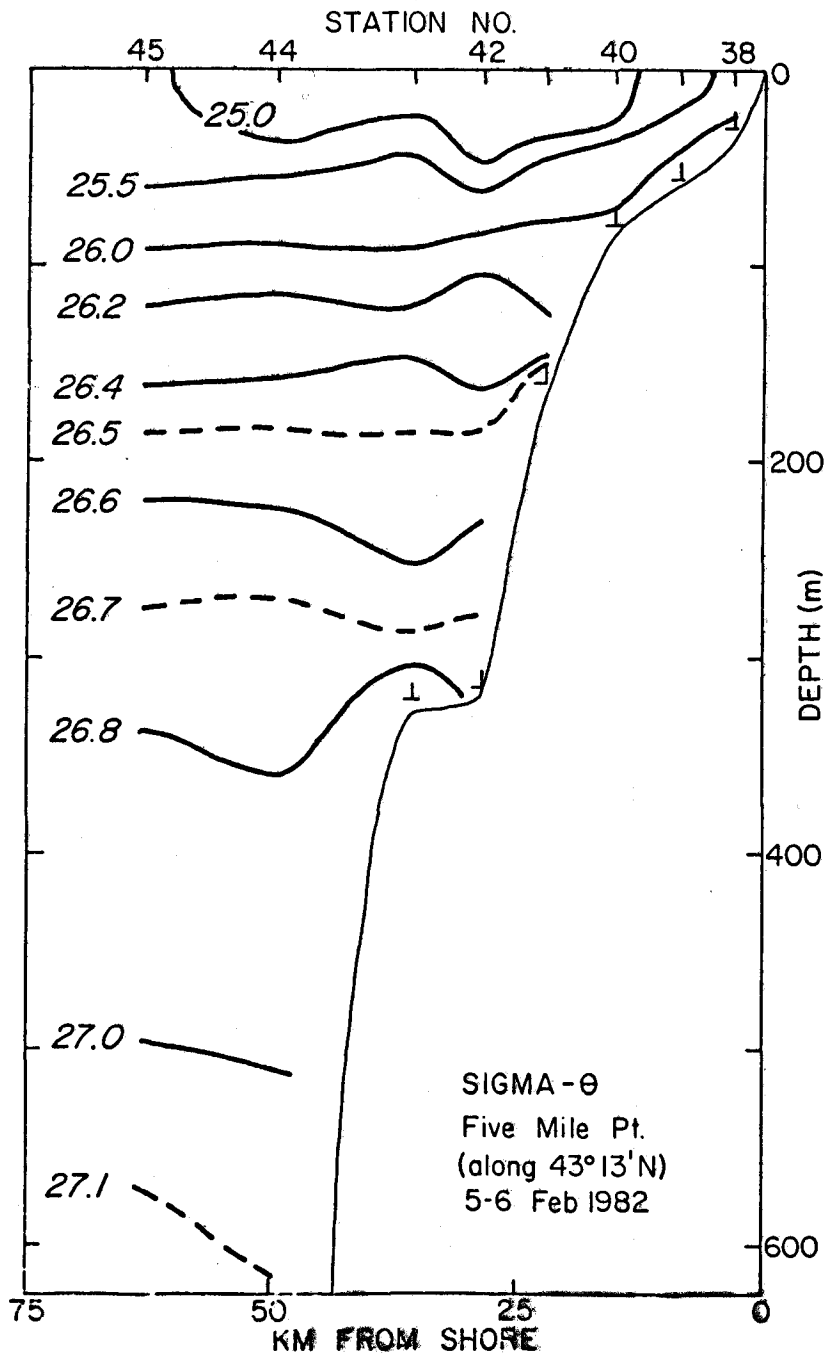






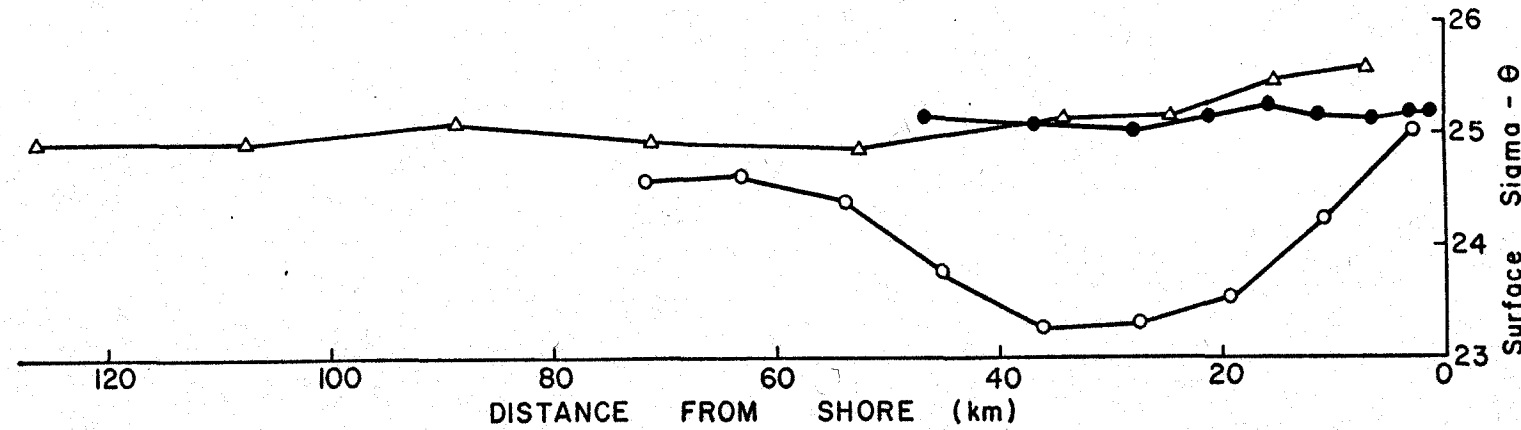
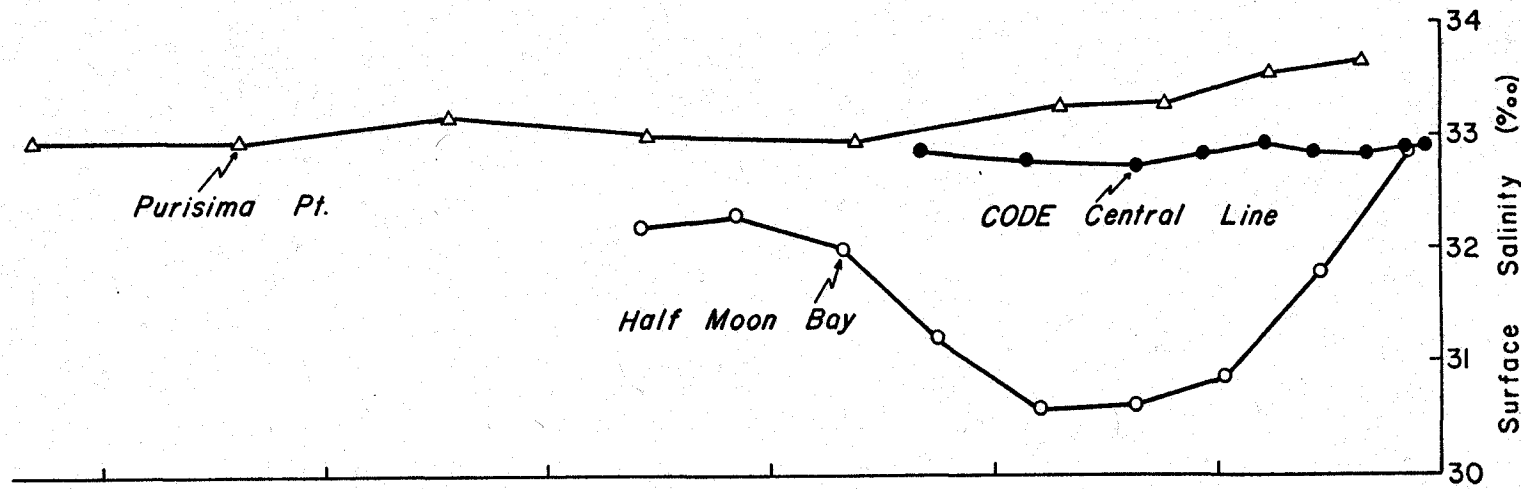
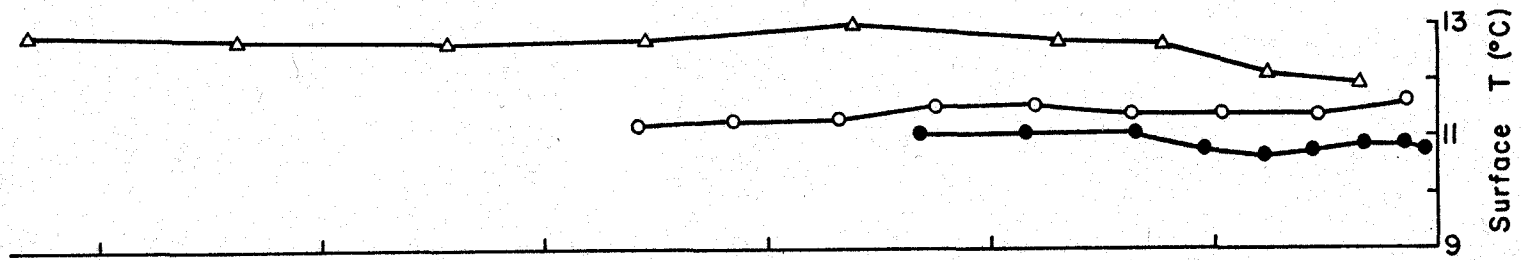




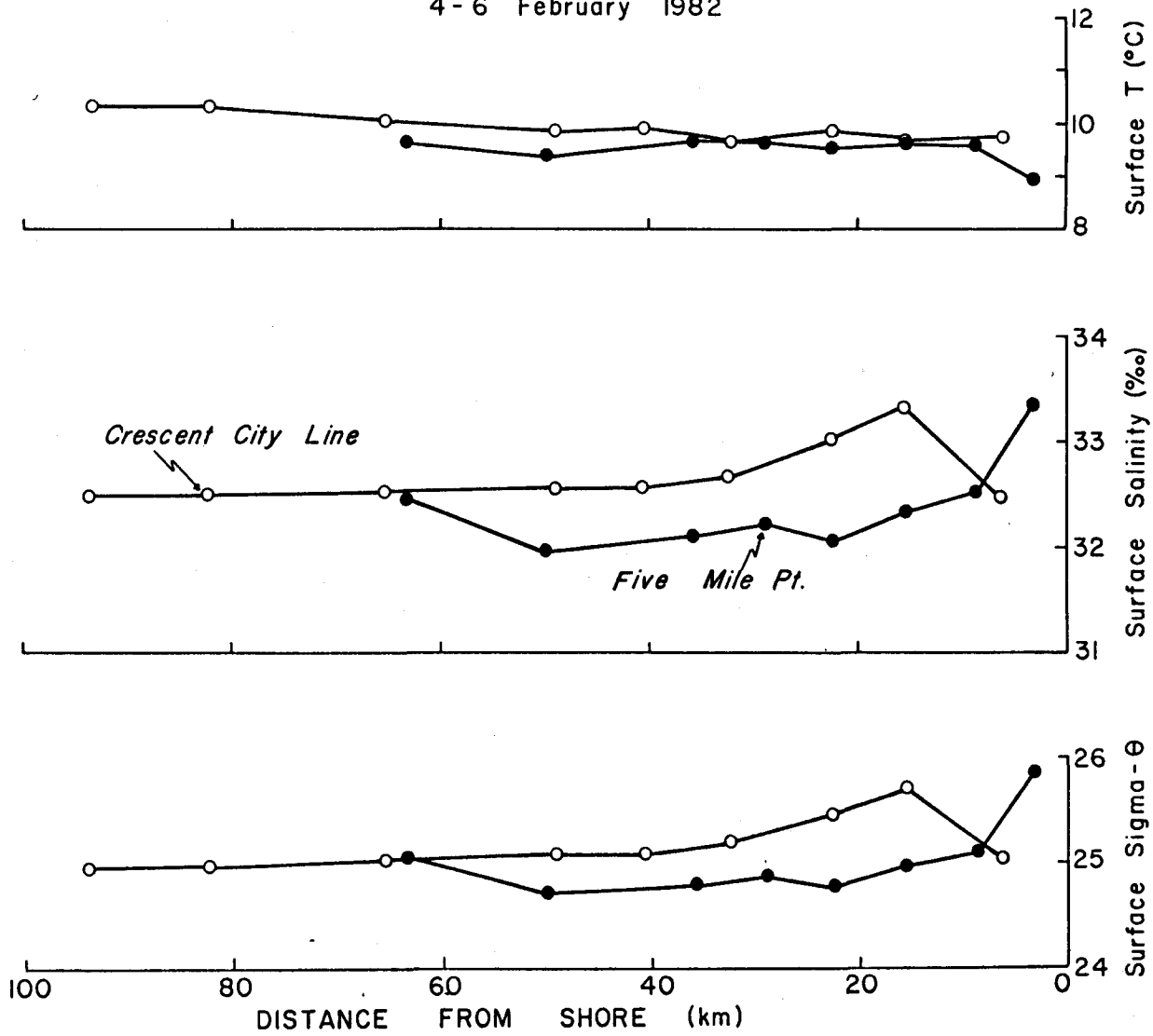


OFFSHORE PROFILES

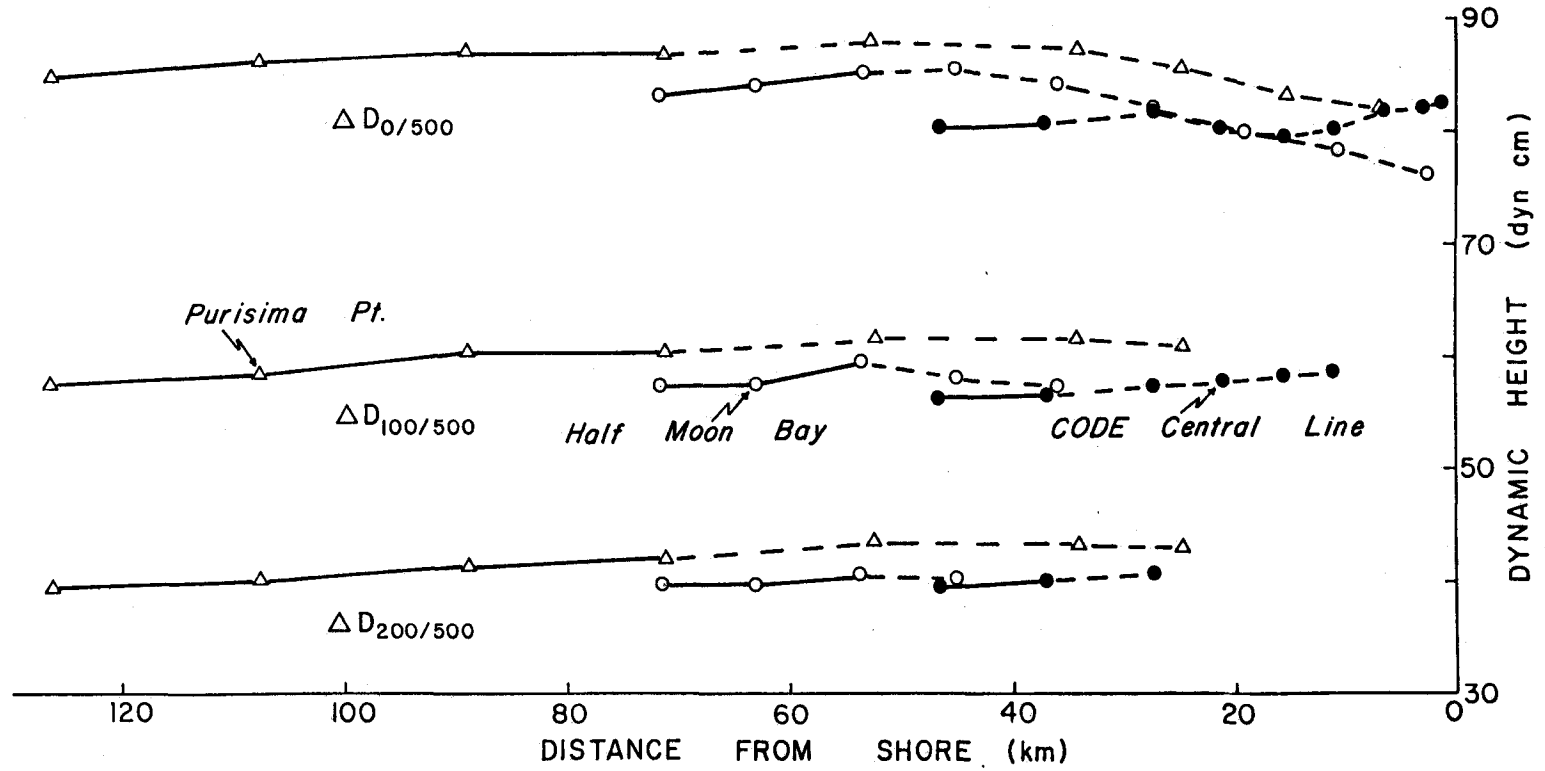
1 - 3 February 1982



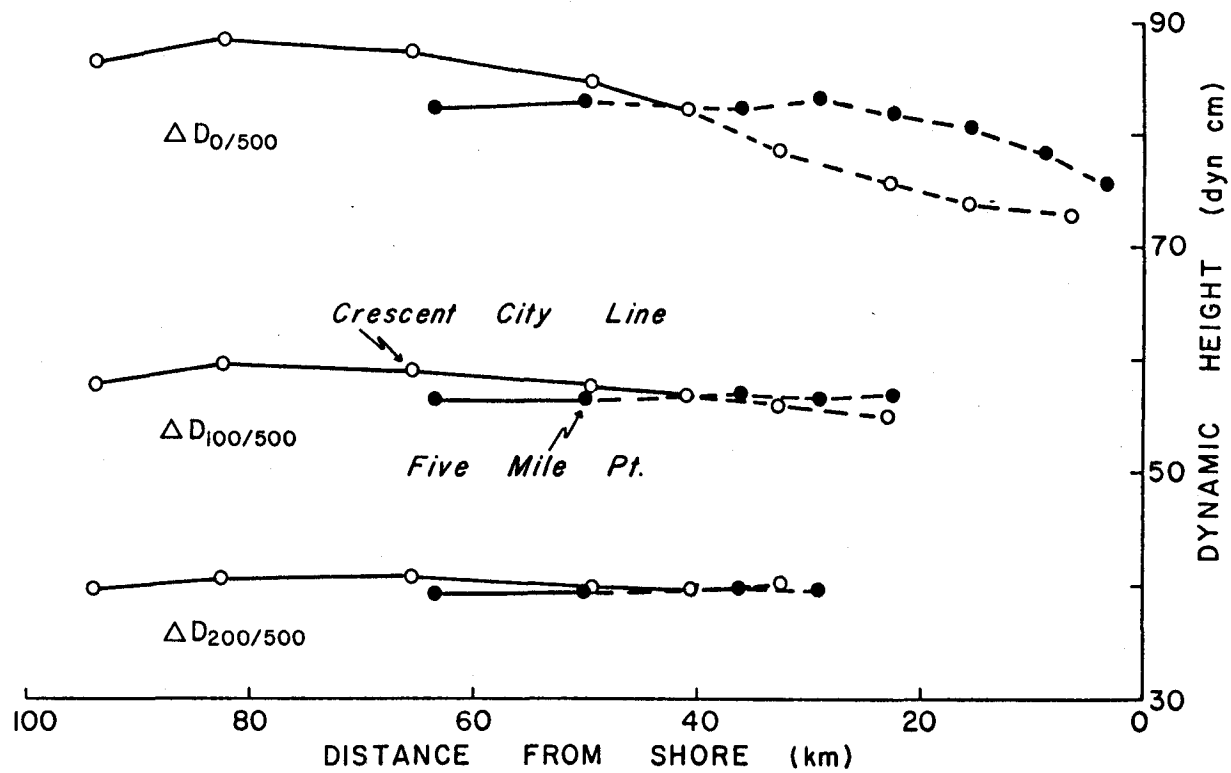
4 - 6 February 1982



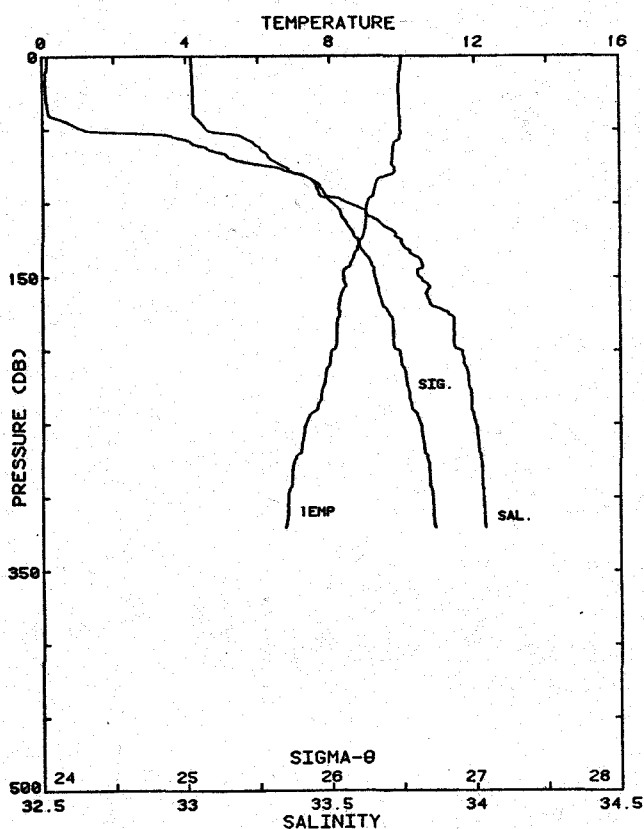
1 - 3 February 1982



4 - 6 February 1982



VERTICAL PROFILES AND LISTINGS



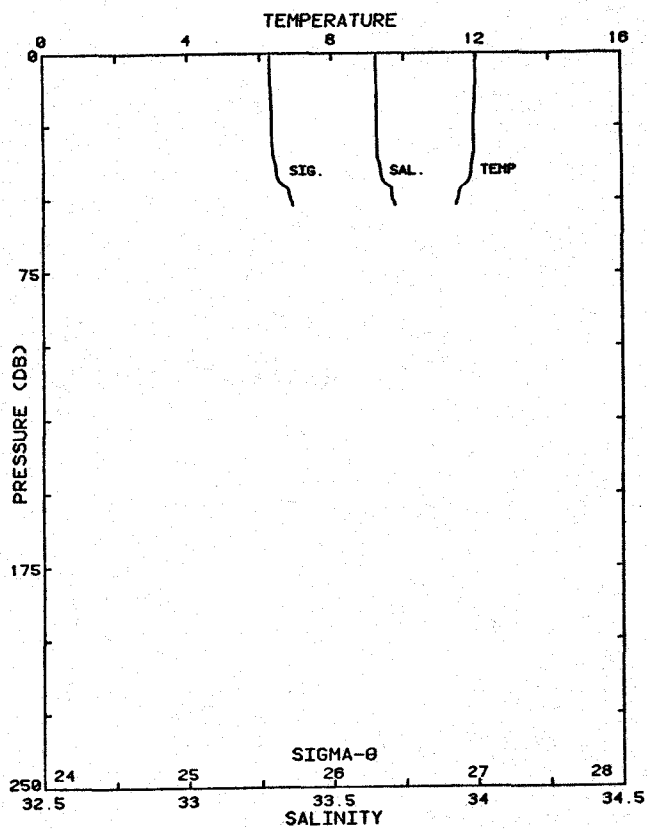
STATION 1 FM6

STA NO 1 ,FM6 LAT: 43 13.0 N LONG:124 45.0 W
 28 JAN 1982 2335 GMT PROBE 2567 DEPTH 318M
 28.8 KM FROM SHORE

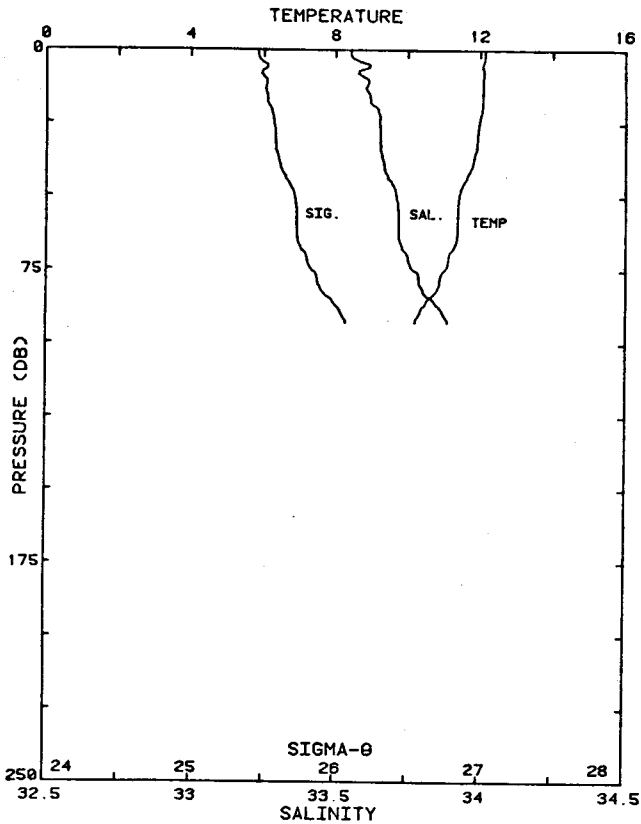
PRESS	TEMP	SAL	POTEN	SIGMA	SVA	DELD
	TEMP		TEMP	THETA		
0	9.975	32.519	9.975	25.042	292.7	0.000
10	9.958	32.516	9.957	25.042	292.8	0.029
20	9.912	32.511	9.909	25.046	292.6	0.059
30	9.913	32.513	9.910	25.048	292.7	0.088
40	9.925	32.522	9.920	25.053	292.4	0.117
50	9.937	32.641	9.931	25.144	284.0	0.146
60	9.764	33.026	9.757	25.473	252.9	0.172
70	9.720	33.160	9.713	25.584	242.5	0.197
80	9.760	33.374	9.751	25.745	227.5	0.221
90	9.232	33.463	9.223	25.901	212.8	0.242
100	9.023	33.556	9.012	26.007	202.9	0.263
110	8.983	33.644	8.971	26.082	196.0	0.283
120	8.920	33.724	8.908	26.155	189.3	0.302
130	8.743	33.757	8.729	26.208	184.3	0.321
140	8.567	33.816	8.552	26.282	177.5	0.339
150	8.357	33.807	8.342	26.307	175.3	0.357
175	8.223	33.906	8.205	26.405	166.4	0.400
200	8.018	33.949	7.999	26.470	160.6	0.441
225	7.758	33.977	7.736	26.530	155.3	0.480
250	7.289	33.998	7.266	26.614	147.5	0.518
300	6.803	34.028	6.776	26.705	139.4	0.590
321	6.726	34.033	6.696	26.719	138.3	0.619

STA NO 2 ,PRI LAT: 34 45.3 N LONG:120 42.2 W
 1 FEB 1982 0221 GMT PROBE 2567 DEPTH 58M
 6.9 KM FROM SHORE

PRESS	TEMP	SAL	POTEN	SIGMA	SVA	DELD
	TEMP		TEMP	THETA		
1	11.974	33.653	11.974	25.568	242.7	0.002
10	11.977	33.653	11.976	25.568	242.9	0.024
20	11.923	33.654	11.920	25.579	242.1	0.049
30	11.906	33.654	11.902	25.582	242.0	0.073
40	11.822	33.665	11.816	25.607	240.0	0.097
50	11.462	33.706	11.456	25.706	230.8	0.120
52	11.412	33.716	11.406	25.722	229.3	0.125



STATION 2 PRI



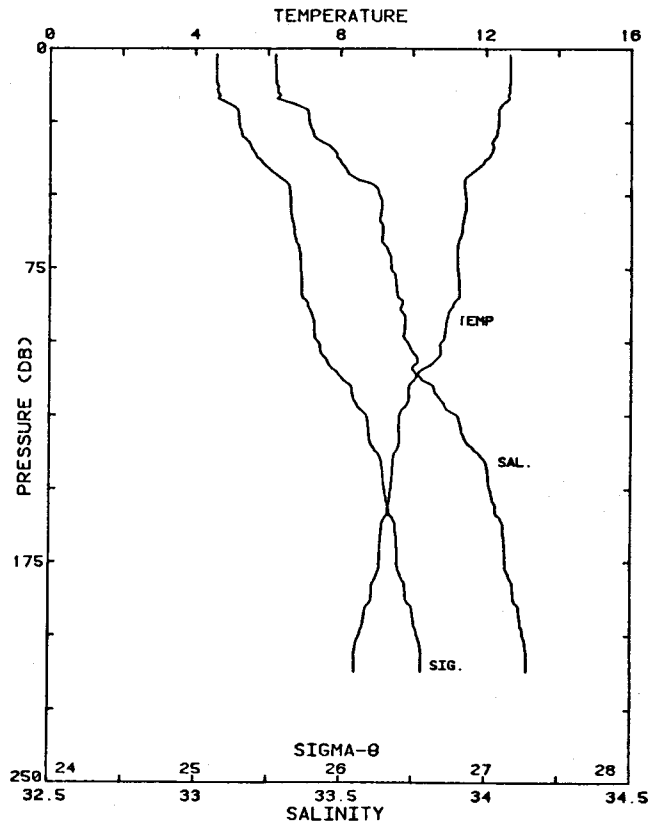
STATION 3 PR2

STA NO 3 ,PR2 LAT: 34 45.0 N LONG:120 48.0 W
1 FEB 1982 0315 GMT PROBE 2567 DEPTH 100M
15.3 KM FROM SHORE

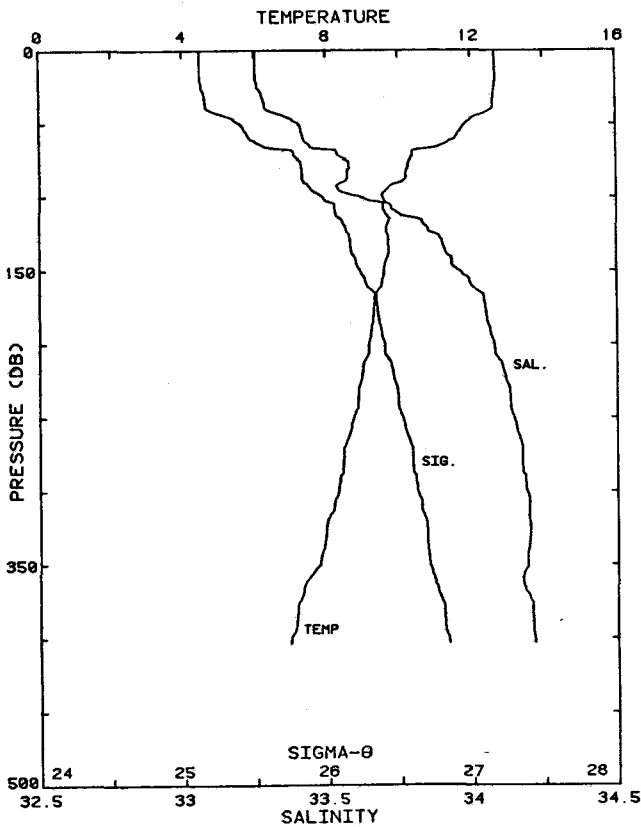
PRESS	TEMP	SAL	POTEN	SIGMA	SVA	DELD
	TEMP			THETA		
0	12.127	33.551	12.126	25.460	252.9	0.000
10	12.064	33.615	12.063	25.522	247.3	0.025
20	12.036	33.646	12.033	25.551	244.8	0.050
30	11.913	33.654	11.909	25.581	242.1	0.074
40	11.767	33.668	11.762	25.619	238.8	0.098
50	11.419	33.711	11.413	25.717	229.7	0.122
60	11.377	33.718	11.369	25.730	228.7	0.144
70	11.136	33.749	11.127	25.798	222.4	0.167
80	10.865	33.789	10.855	25.878	215.1	0.189
90	10.306	33.871	10.296	26.040	199.8	0.210
93	10.204	33.887	10.193	26.070	197.0	0.216

STA NO 4 ,PR3 LAT: 34 45.0 N LONG:120 54.0 W
1 FEB 1982 0411 GMT PROBE 2567 DEPTH 222M
24.6 KM FROM SHORE

PRESS	TEMP	SAL	POTEN	SIGMA	SVA	DELD
	TEMP			THETA		
2	12.648	33.275	12.647	25.146	282.8	0.006
10	12.651	33.276	12.650	25.147	283.0	0.028
20	12.377	33.365	12.374	25.269	271.6	0.056
30	12.263	33.407	12.259	25.323	266.7	0.083
40	11.849	33.510	11.844	25.481	251.9	0.109
50	11.439	33.634	11.433	25.654	235.7	0.133
60	11.366	33.643	11.358	25.674	234.0	0.157
70	11.217	33.669	11.208	25.722	229.7	0.180
80	11.259	33.691	11.249	25.731	229.1	0.203
90	10.988	33.714	10.977	25.798	222.9	0.226
100	10.787	33.732	10.775	25.840	218.4	0.248
110	10.175	33.755	10.163	25.973	206.6	0.269
120	9.875	33.849	9.862	26.097	195.0	0.289
130	9.611	33.917	9.596	26.194	186.0	0.308
140	9.459	33.994	9.444	26.279	178.1	0.326
150	9.400	34.015	9.384	26.306	175.8	0.344
175	9.086	34.068	9.067	26.398	167.4	0.387
200	8.525	34.130	8.505	26.535	154.7	0.427
212	8.410	34.143	8.388	26.563	152.2	0.445



STATION 4 PR3



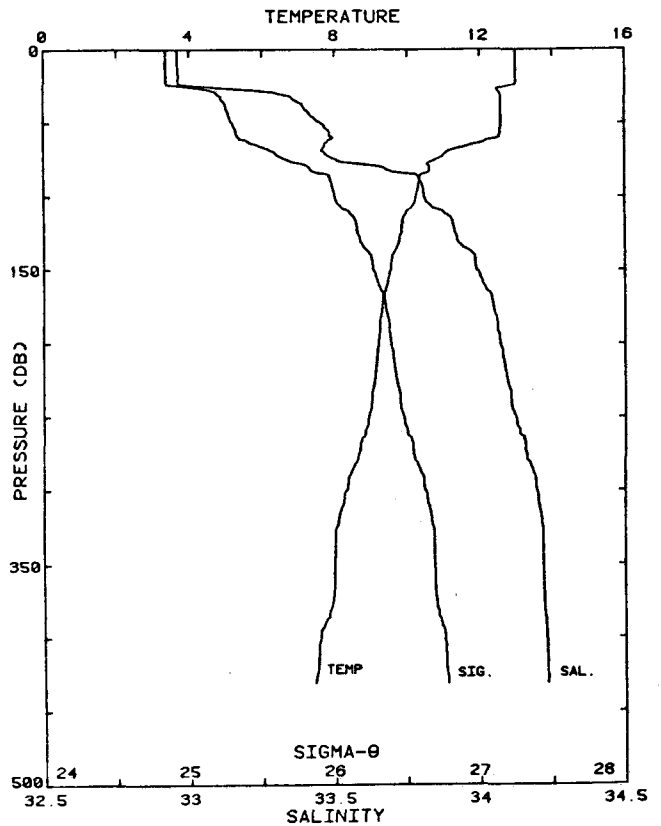
STATION 5 PR4

STA NO 5 ,PR4 LAT: 34 45.0 N LONG:121 0.0 W
 1 FEB 1982 0514 GMT PROBE 2567 DEPTH 414M
 34.0 KM FROM SHORE

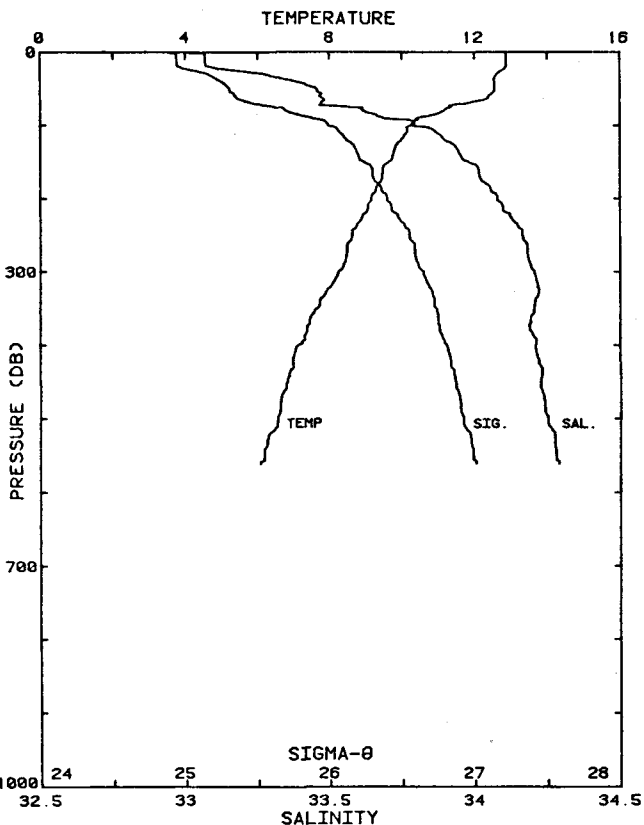
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	12.669	33.255	12.669	25.127	284.6	0.003
10	12.678	33.255	12.677	25.125	285.0	0.028
20	12.678	33.255	12.676	25.125	285.3	0.057
30	12.613	33.276	12.609	25.154	282.8	0.085
40	12.579	33.288	12.574	25.171	281.5	0.114
50	11.848	33.403	11.842	25.399	260.0	0.141
60	11.548	33.419	11.541	25.468	253.7	0.166
70	10.359	33.536	10.351	25.770	225.0	0.191
80	10.234	33.578	10.225	25.824	220.1	0.213
90	10.099	33.561	10.089	25.834	219.3	0.235
100	9.542	33.610	9.531	25.965	207.0	0.256
110	9.588	33.736	9.576	26.056	198.6	0.276
120	9.660	33.843	9.647	26.128	192.0	0.296
130	9.707	33.898	9.692	26.163	188.9	0.315
140	9.695	33.921	9.679	26.184	187.2	0.334
150	9.580	33.956	9.563	26.230	183.0	0.352
175	9.291	34.046	9.271	26.348	172.2	0.396
200	9.143	34.076	9.121	26.396	168.2	0.439
225	8.924	34.118	8.900	26.464	162.1	0.480
250	8.710	34.144	8.684	26.518	157.4	0.520
300	8.282	34.186	8.252	26.617	148.7	0.596
400	6.955	34.213	6.917	26.831	129.2	0.736
403	6.947	34.214	6.909	26.833	129.1	0.740

STA NO 6 ,PRS LAT: 34 45.0 N LONG:121 12.0 W
 1 FEB 1982 0703 GMT PROBE 2567 DEPTH 447M
 52.4 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	12.984	32.960	12.984	24.837	312.2	0.003
10	12.985	32.961	12.984	24.838	312.4	0.031
20	12.986	32.961	12.984	24.838	312.6	0.062
30	12.550	33.308	12.546	25.192	279.2	0.092
40	12.576	33.396	12.571	25.255	273.5	0.120
50	12.583	33.454	12.577	25.298	269.6	0.147
60	12.530	33.494	12.523	25.340	265.9	0.174
70	11.087	33.465	11.079	25.586	242.6	0.199
80	10.611	33.663	10.601	25.825	220.0	0.223
90	10.323	33.797	10.313	25.979	205.6	0.244
100	10.235	33.808	10.224	26.004	203.5	0.264
110	9.967	33.871	9.955	26.098	194.7	0.284
120	9.829	33.910	9.815	26.152	189.8	0.304
130	9.764	33.922	9.749	26.173	188.0	0.322
140	9.581	33.981	9.566	26.249	180.9	0.341
150	9.536	33.988	9.519	26.262	179.9	0.359
175	9.287	34.046	9.268	26.349	172.1	0.403
200	9.183	34.071	9.161	26.386	169.1	0.445
225	9.062	34.095	9.038	26.423	166.0	0.487
250	8.896	34.123	8.869	26.473	161.8	0.528
300	8.313	34.195	8.282	26.619	148.6	0.606
400	7.588	34.228	7.549	26.754	137.1	0.749
431	7.438	34.231	7.396	26.779	135.1	0.791



STATION 6 PRS



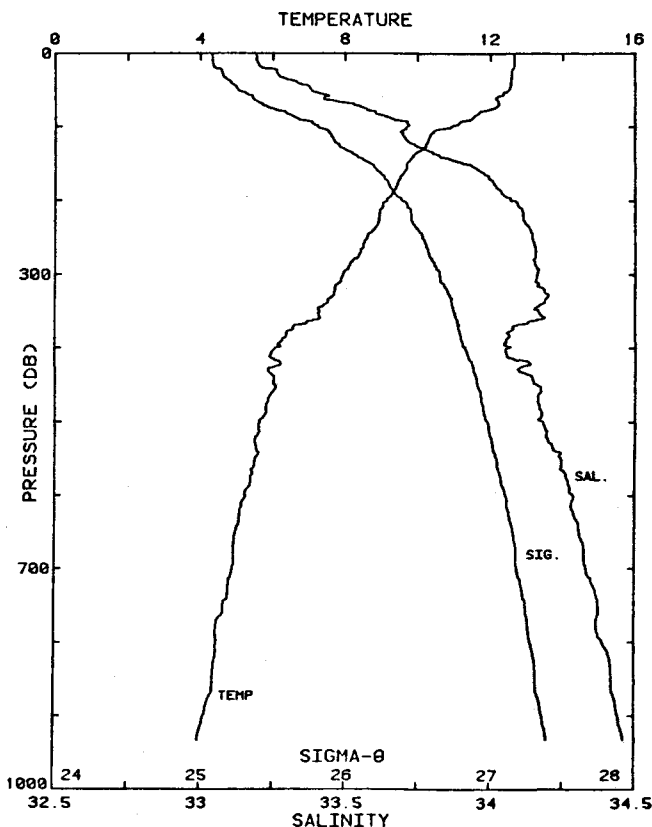
STATION 7 PR6

STA NO 7 ,PR6 LAT: 34 45.0 N LONG:121 24.2 W
 1 FEB 1982 0826 GMT PROBE 2567 DEPTH 569M
 71.0 KM FROM SHORE

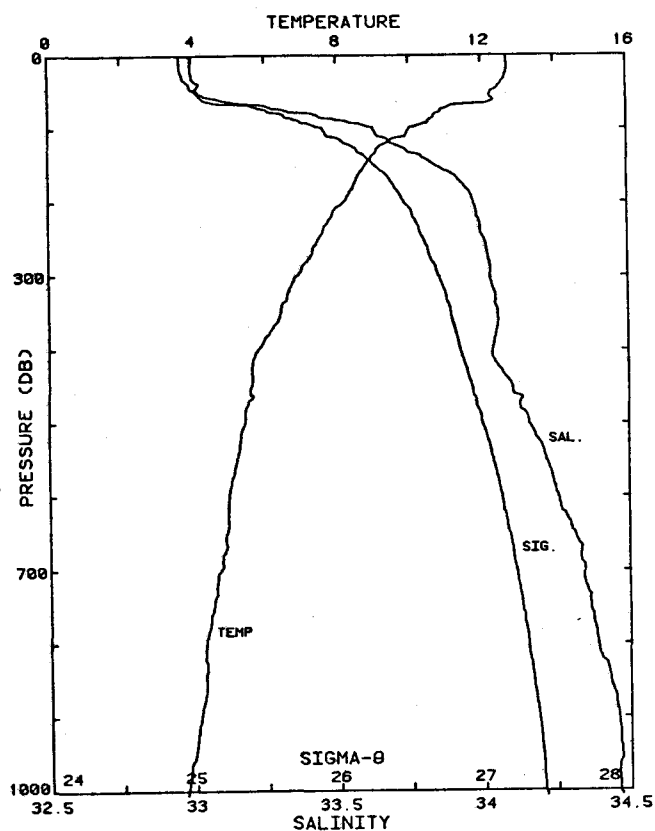
PRESS	TEMP	SAL	POTEN	SIGMA	SVA	DELD
	TEMP		TEMP	THETA		
2	12.863	33.016	12.863	24.904	305.8	0.006
10	12.868	33.070	12.867	24.945	302.2	0.030
20	12.867	33.073	12.864	24.948	302.2	0.061
30	12.604	33.271	12.600	25.153	282.9	0.090
40	12.532	33.373	12.526	25.245	274.4	0.118
50	12.543	33.453	12.537	25.305	268.9	0.145
60	12.399	33.465	12.391	25.343	265.6	0.172
70	11.838	33.471	11.829	25.454	255.2	0.198
80	11.161	33.614	11.151	25.690	233.0	0.222
90	10.448	33.683	10.438	25.869	216.1	0.245
100	10.233	33.791	10.222	25.990	204.8	0.265
110	10.124	33.865	10.111	26.067	197.7	0.285
120	9.974	33.898	9.960	26.118	193.0	0.305
130	9.812	33.935	9.797	26.174	187.9	0.324
140	9.751	33.951	9.735	26.198	185.9	0.343
150	9.626	33.979	9.609	26.240	182.1	0.361
175	9.419	34.024	9.399	26.310	175.9	0.406
200	9.144	34.079	9.122	26.397	168.0	0.448
225	8.898	34.123	8.874	26.471	161.4	0.490
250	8.609	34.165	8.583	26.550	154.3	0.529
300	8.216	34.206	8.185	26.643	146.2	0.605
400	7.121	34.210	7.083	26.806	131.7	0.743
500	6.521	34.250	6.475	26.920	122.0	0.870
561	6.057	34.287	6.008	27.010	113.8	0.942

STA NO 8 ,PR7 LAT: 34 44.9 N LONG:121 36.1 W
 1 FEB 1982 0959 GMT PROBE 2567 DEPTH 943M
 88.8 KM FROM SHORE

PRESS	TEMP	SAL	POTEN	SIGMA	SVA	DELD
	TEMP		TEMP	THETA		
1	12.648	33.190	12.647	25.080	289.0	0.003
10	12.654	33.191	12.653	25.081	289.2	0.029
20	12.644	33.211	12.641	25.098	287.8	0.058
30	12.582	33.269	12.578	25.155	282.7	0.086
40	12.558	33.333	12.553	25.210	277.8	0.114
50	12.504	33.381	12.498	25.258	273.5	0.142
60	12.162	33.425	12.155	25.357	264.3	0.169
70	12.230	33.529	12.221	25.425	258.0	0.195
80	11.690	33.603	11.680	25.584	243.1	0.220
90	11.457	33.665	11.446	25.675	234.7	0.244
100	10.918	33.711	10.906	25.809	222.1	0.267
110	10.354	33.696	10.341	25.896	213.9	0.288
120	10.270	33.716	10.256	25.926	211.3	0.310
130	10.136	33.770	10.121	25.991	205.3	0.330
140	9.856	33.824	9.840	26.081	196.9	0.351
150	9.696	33.901	9.680	26.168	188.9	0.370
175	9.448	34.008	9.429	26.292	177.5	0.416
200	9.147	34.069	9.125	26.389	168.8	0.459
225	8.937	34.114	8.913	26.459	162.6	0.500
250	8.606	34.144	8.580	26.534	155.9	0.540
300	7.934	34.161	7.904	26.650	145.4	0.615
400	6.056	34.059	6.022	26.828	128.6	0.752
500	5.635	34.179	5.593	26.976	115.5	0.874
600	5.255	34.284	5.206	27.106	104.2	0.984
800	4.460	34.388	4.398	27.279	88.8	1.177
933	3.949	34.462	3.879	27.392	78.4	1.288



STATION 8 PR7



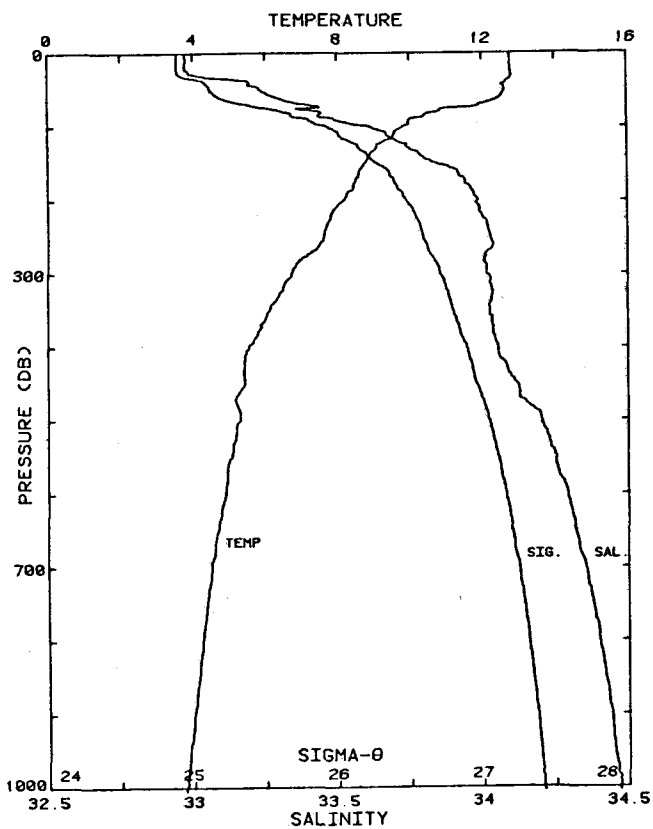
STATION 9 PR8

STA NO 10 ,PR9 LAT: 34 45.2 N LONG:122 0.0 W
1 FEB 1982 1337 GMT PROBE 2567 DEPTH 4130M
126.1 KM FROM SHORE

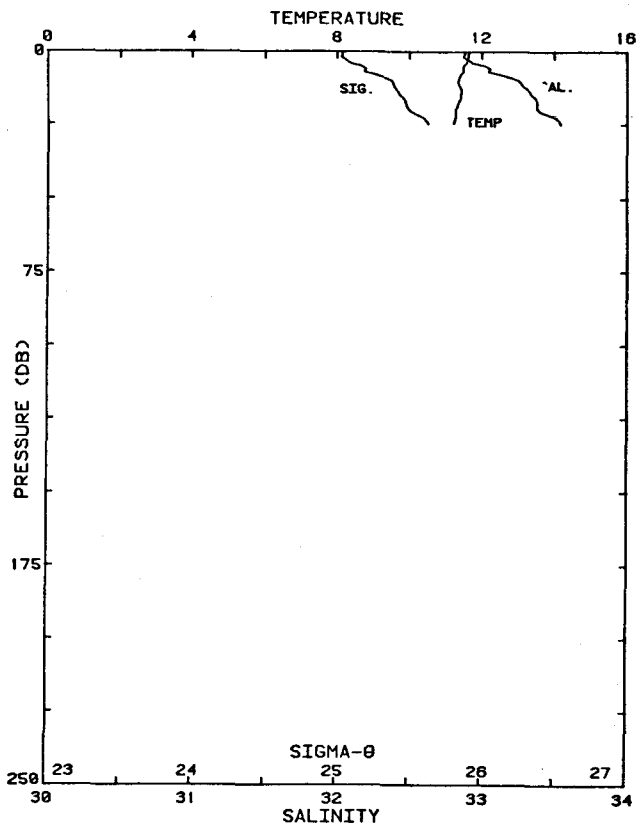
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	12.763	32.973	12.763	24.891	307.1	0.003
10	12.779	32.975	12.777	24.889	307.5	0.031
20	12.780	32.974	12.777	24.888	307.8	0.061
30	12.810	33.017	12.806	24.913	305.5	0.092
40	12.644	33.197	12.638	25.088	289.4	0.122
50	12.618	33.236	12.611	25.124	286.2	0.151
60	12.494	33.291	12.486	25.190	280.2	0.179
70	11.887	33.405	11.878	25.394	261.0	0.206
80	10.740	33.444	10.730	25.632	238.4	0.231
90	9.990	33.492	9.980	25.799	222.6	0.254
100	9.797	33.615	9.786	25.927	210.7	0.276
110	9.562	33.669	9.550	26.008	203.1	0.297
120	9.259	33.707	9.246	26.088	195.7	0.317
130	9.046	33.749	9.032	26.154	189.6	0.336
140	8.867	33.789	8.852	26.214	184.0	0.355
150	8.729	33.844	8.714	26.279	178.0	0.373
175	8.481	33.943	8.463	26.395	167.5	0.415
200	8.175	33.986	8.155	26.475	160.2	0.456
225	7.805	34.003	7.783	26.544	153.9	0.496
250	7.611	34.027	7.587	26.591	149.8	0.533
300	6.709	34.010	6.682	26.704	139.4	0.606
400	5.520	34.052	5.487	26.888	122.4	0.737
500	5.282	34.201	5.242	27.036	109.6	0.853
600	4.866	34.291	4.819	27.156	98.9	0.956
800	4.219	34.397	4.158	27.312	85.2	1.139
1000	3.775	34.470	3.701	27.417	76.3	1.300
1005	3.758	34.470	3.684	27.419	76.2	1.304

STA NO 9 ,PR8 LAT: 34 45.0 N LONG:121 48.0 W
1 FEB 1982 1146 GMT PROBE 2567 DEPTH 2075M
107.5 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	12.707	32.965	12.706	24.895	306.7	0.003
10	12.712	32.995	12.710	24.918	304.8	0.031
20	12.707	32.995	12.704	24.919	304.9	0.061
30	12.637	33.001	12.634	24.937	303.5	0.091
40	12.492	33.022	12.486	24.982	299.4	0.122
50	12.251	33.019	12.244	25.026	295.5	0.151
60	12.309	33.090	12.301	25.070	291.6	0.181
70	11.126	33.256	11.118	25.417	258.6	0.209
80	10.736	33.410	10.726	25.607	240.8	0.234
90	10.521	33.529	10.511	25.737	228.6	0.257
100	10.006	33.627	9.995	25.901	213.2	0.280
110	9.906	33.640	9.894	25.928	210.8	0.301
120	9.368	33.687	9.355	26.054	198.9	0.321
130	9.094	33.742	9.080	26.141	190.8	0.340
140	8.954	33.799	8.939	26.208	184.7	0.359
150	8.788	33.839	8.772	26.266	179.3	0.377
175	8.490	33.927	8.472	26.381	168.7	0.421
200	8.188	33.969	8.167	26.460	161.6	0.462
225	7.752	33.988	7.730	26.540	154.4	0.501
250	7.471	34.004	7.447	26.593	149.6	0.539
300	6.887	34.023	6.860	26.690	140.9	0.612
400	5.777	34.031	5.743	26.841	127.1	0.745
500	5.399	34.155	5.358	26.985	114.4	0.866
600	4.939	34.254	4.891	27.119	102.5	0.974
800	4.289	34.388	4.228	27.297	86.8	1.162
1000	3.749	34.462	3.675	27.413	76.7	1.325
1006	3.730	34.468	3.656	27.420	76.0	1.329



STATION 10 PR9



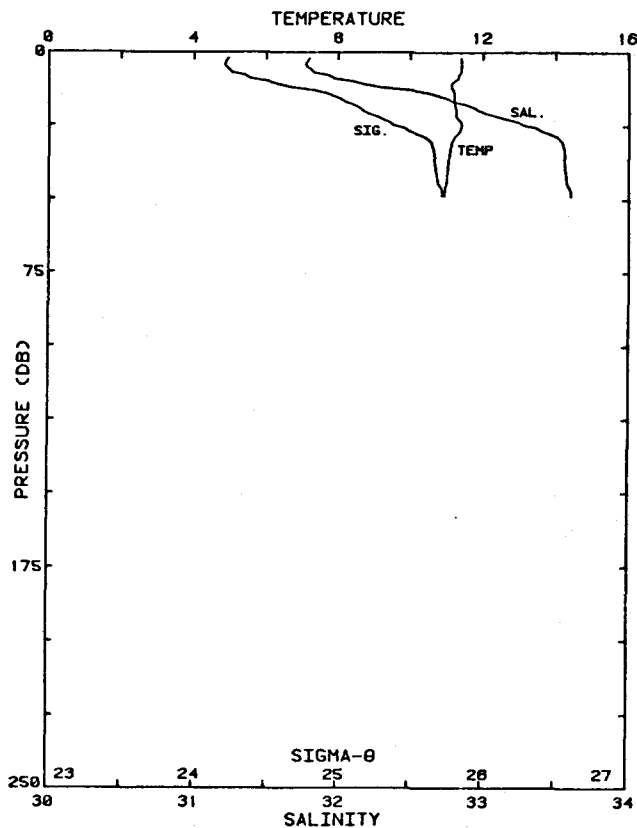
STATION 11 HM1

STA NO 11 ,HM1 LAT: 37 24.5 N LONG:122 28.2 W
 2 FEB 1982 2313 GMT PROBE 2567 DEPTH 30M
 2.8 KM FROM SHORE

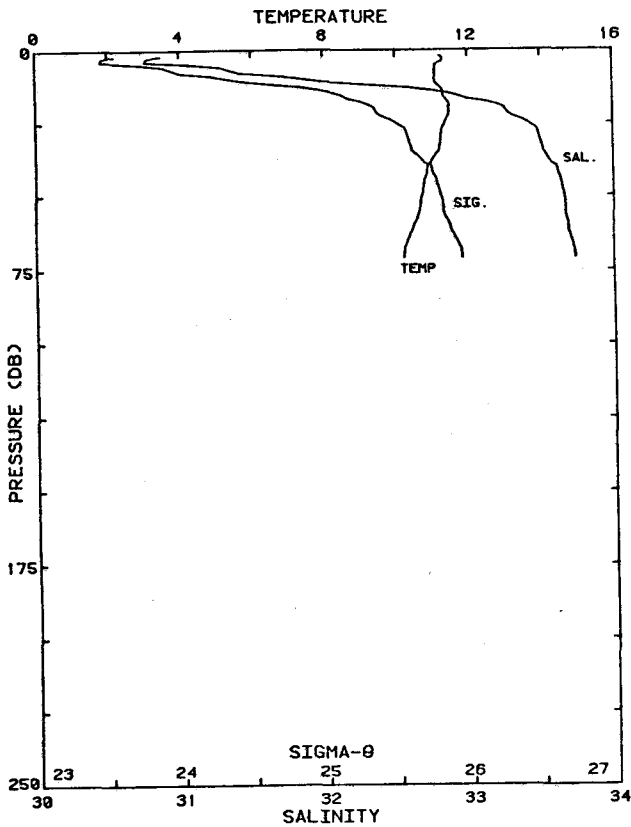
PRESS	TEMP	SAL	POTEN	SIGMA	SVA	DELD
	TEMP		TEMP	THETA		
0	11.644	32.874	11.644	25.026	294.2	0.000
10	11.336	33.254	11.335	25.377	261.0	0.028
20	11.263	33.380	11.261	25.488	250.8	0.054
25	11.196	33.542	11.193	25.626	237.7	0.066

STA NO 12 ,HM2 LAT: 37 23.8 N LONG:122 33.4 W
 2 FEB 1982 2354 GMT PROBE 2567 DEPTH 58M
 10.7 KM FROM SHORE

PRESS	TEMP	SAL	POTEN	SIGMA	SVA	DELD
	TEMP		TEMP	THETA		
2	11.394	31.797	11.394	24.237	369.4	0.007
10	11.184	32.104	11.183	24.512	343.4	0.037
20	11.244	32.965	11.241	25.170	281.0	0.067
30	11.160	33.532	11.156	25.625	238.0	0.093
40	11.032	33.567	11.027	25.675	233.4	0.117
49	10.934	33.604	10.928	25.722	229.2	0.137



STATION 12 HM2



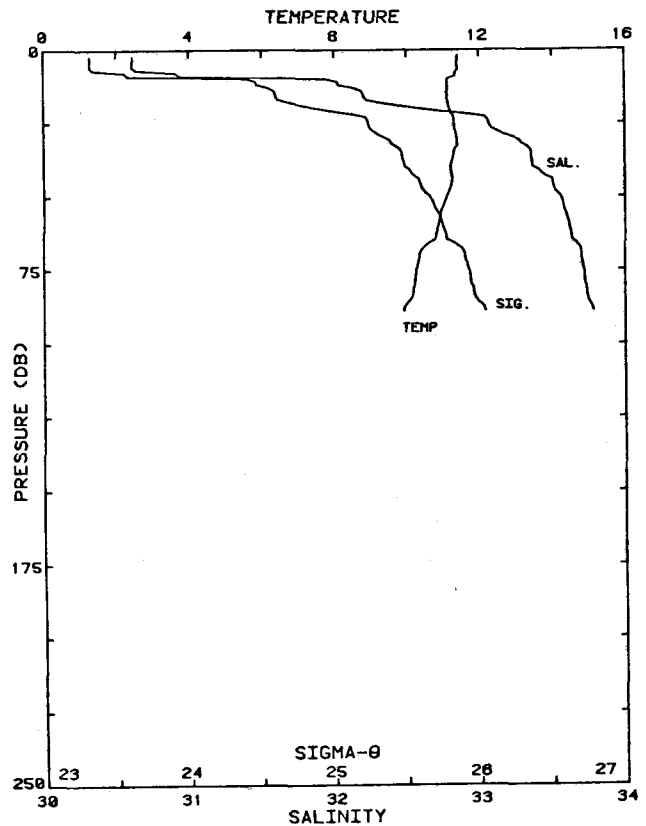
STATION 13 HM3

STA NO 13 ,HM3 LAT: 37 23.0 N LONG:122 39.2 W
 3 FEB 1982 0045 GMT PROBE 2567 DEPTH 76M
 19.3 KM FROM SHORE

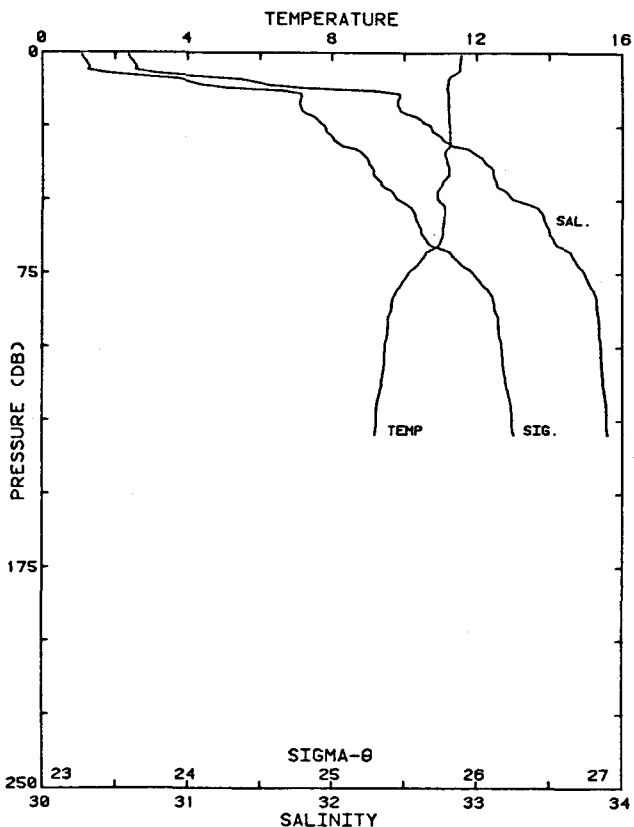
PRESS	TEMP	SAL	POTEN	SIGMA	SVA	DELD
	TEMP		TEMP	THETA		
2	11.218	30.872	11.218	23.551	434.8	0.009
10	11.077	31.836	11.076	24.323	361.3	0.041
20	11.467	33.245	11.465	25.346	264.2	0.071
30	11.230	33.491	11.227	25.581	242.1	0.097
40	10.854	33.608	10.849	25.739	227.3	0.120
50	10.700	33.657	10.694	25.804	221.4	0.143
60	10.472	33.687	10.465	25.868	215.5	0.165
70	10.192	33.733	10.184	25.952	207.7	0.186
71	10.190	33.734	10.182	25.953	207.6	0.188

STA NO 14 ,HM4 LAT: 37 22.2 N LONG:122 44.9 W
 3 FEB 1982 0130 GMT PROBE 2567 DEPTH 93M
 27.4 KM FROM SHORE

PRESS	TEMP	SAL	POTEN	SIGMA	SVA	DELD
	TEMP		TEMP	THETA		
2	11.409	30.615	11.409	23.318	457.0	0.009
10	11.121	31.941	11.120	24.397	354.3	0.045
20	11.170	32.559	11.168	24.868	309.7	0.078
30	11.378	33.223	11.375	25.345	264.5	0.106
40	11.203	33.367	11.198	25.489	251.1	0.132
50	11.098	33.558	11.092	25.656	235.5	0.156
60	10.856	33.616	10.849	25.745	227.2	0.179
70	10.354	33.702	10.346	25.900	212.7	0.201
80	10.215	33.727	10.206	25.943	208.8	0.222
89	9.906	33.780	9.896	26.037	200.0	0.241



STATION 14 HM4



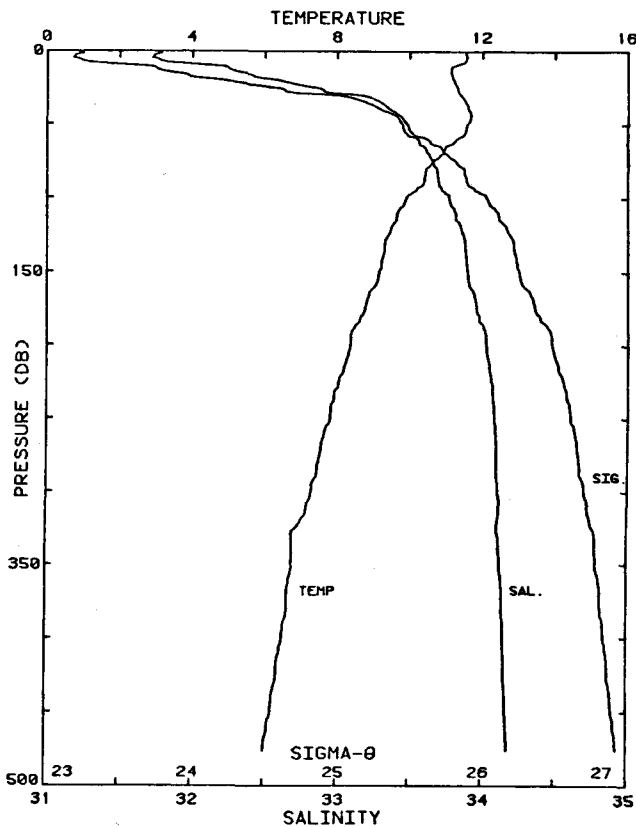
STATION 15 HMS

STA NO 15 HMS LAT: 37 21.4 N LONG:122 50.7 W
 3 FEB 1982 0214 GMT PROBE 2567 DEPTH 138M
 36.0 KM FROM SHORE

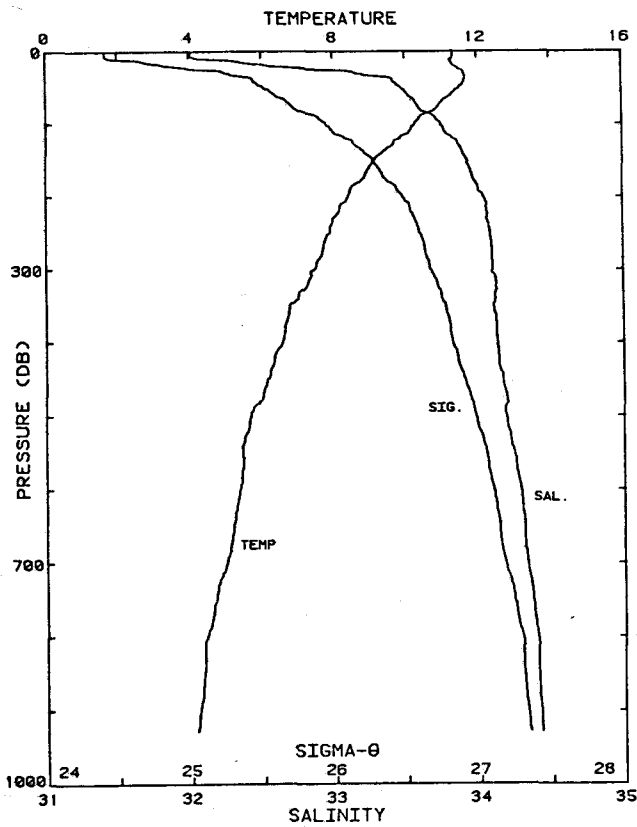
PRESS	TEMP	SAL	POTEN	SIGMA	SVA	DELD
	TEMP		TEMP	THETA		
1	11.560	30.592	11.560	23.274	461.3	0.005
10	11.200	31.465	11.199	24.014	390.8	0.044
20	11.211	32.469	11.209	24.791	317.0	0.078
30	11.253	32.764	11.250	25.012	296.2	0.108
40	11.222	33.109	11.217	25.286	270.4	0.136
50	10.907	33.245	10.901	25.448	255.3	0.163
60	11.063	33.496	11.056	25.615	239.6	0.187
70	10.499	33.664	10.491	25.845	217.9	0.210
80	9.839	33.786	9.830	26.053	198.3	0.231
90	9.541	33.839	9.531	26.144	189.8	0.250
100	9.454	33.852	9.443	26.168	187.7	0.269
110	9.376	33.863	9.364	26.190	185.8	0.288
120	9.219	33.888	9.206	26.235	181.7	0.306
130	9.157	33.897	9.143	26.252	180.3	0.325

STA NO 16 HMS LAT: 37 20.6 N LONG:122 56.9 W
 3 FEB 1982 0312 GMT PROBE 2567 DEPTH 488M
 45.0 KM FROM SHORE

PRESS	TEMP	SAL	POTEN	SIGMA	SVA	DELD
	TEMP		TEMP	THETA		
1	11.535	31.222	11.535	23.766	414.3	0.004
10	11.265	31.576	11.264	24.089	383.7	0.041
20	11.197	32.187	11.195	24.574	337.6	0.077
30	11.378	32.936	11.375	25.123	285.7	0.109
40	11.603	33.300	11.599	25.364	263.0	0.136
50	11.574	33.451	11.568	25.487	251.6	0.161
60	11.304	33.553	11.297	25.615	239.6	0.186
70	10.902	33.628	10.894	25.746	227.4	0.210
80	10.447	33.687	10.437	25.873	215.5	0.232
90	10.373	33.701	10.363	25.897	213.5	0.253
100	9.916	33.769	9.905	26.027	201.2	0.274
110	9.660	33.817	9.647	26.107	193.7	0.294
120	9.496	33.853	9.483	26.163	188.7	0.313
130	9.320	33.881	9.306	26.214	184.0	0.332
140	9.259	33.889	9.244	26.230	182.7	0.350
150	9.165	33.900	9.148	26.254	180.6	0.368
175	8.775	33.962	8.757	26.364	170.5	0.412
200	8.362	34.028	8.341	26.480	159.8	0.453
225	8.037	34.066	8.015	26.559	152.6	0.492
250	7.798	34.084	7.774	26.609	148.3	0.530
300	7.281	34.108	7.253	26.702	140.0	0.602
400	6.507	34.151	6.471	26.843	127.7	0.734
476	6.016	34.180	5.975	26.929	120.1	0.828



STATION 16 HM6



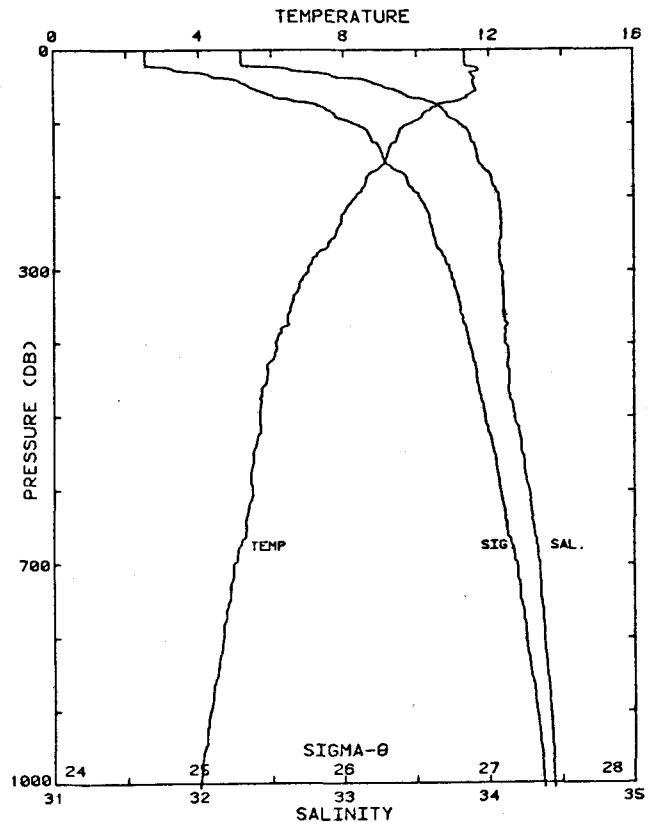
STATION 17 HM7

STA NO 17 ,HM7 LAT: 37 19.7 N LONG:123 3.1 W
 3 FEB 1982 0421 GMT PROBE 2567 DEPTH 879H
 53.6 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.326	32.011	11.326	24.414	352.5	0.004
10	11.329	32.041	11.327	24.438	350.4	0.035
20	11.337	32.531	11.335	24.816	314.6	0.068
30	11.628	33.149	11.625	25.242	274.4	0.098
40	11.650	33.415	11.645	25.445	255.3	0.124
50	11.512	33.467	11.506	25.511	249.4	0.149
60	11.289	33.515	11.282	25.589	242.1	0.174
70	11.026	33.566	11.018	25.676	234.0	0.198
80	10.859	33.597	10.849	25.730	229.1	0.221
90	10.436	33.695	10.426	25.881	214.9	0.243
100	10.261	33.743	10.250	25.949	208.7	0.264
110	10.131	33.769	10.119	25.991	204.9	0.285
120	9.858	33.821	9.844	26.078	196.8	0.305
130	9.652	33.864	9.637	26.146	190.5	0.324
140	9.376	33.893	9.361	26.214	184.2	0.343
150	9.145	33.919	9.129	26.271	178.9	0.361
175	8.872	33.964	8.853	26.350	171.8	0.405
200	8.414	34.035	8.394	26.478	160.1	0.446
225	8.090	34.064	8.067	26.550	153.6	0.485
250	7.891	34.079	7.866	26.591	150.0	0.523
300	7.467	34.098	7.438	26.668	143.3	0.596
400	6.545	34.129	6.509	26.820	129.8	0.731
500	5.662	34.186	5.619	26.978	115.4	0.854
600	5.348	34.286	5.298	27.096	105.2	0.964
800	4.424	34.396	4.363	27.290	87.7	1.158
929	4.142	34.428	4.071	27.346	83.2	1.269

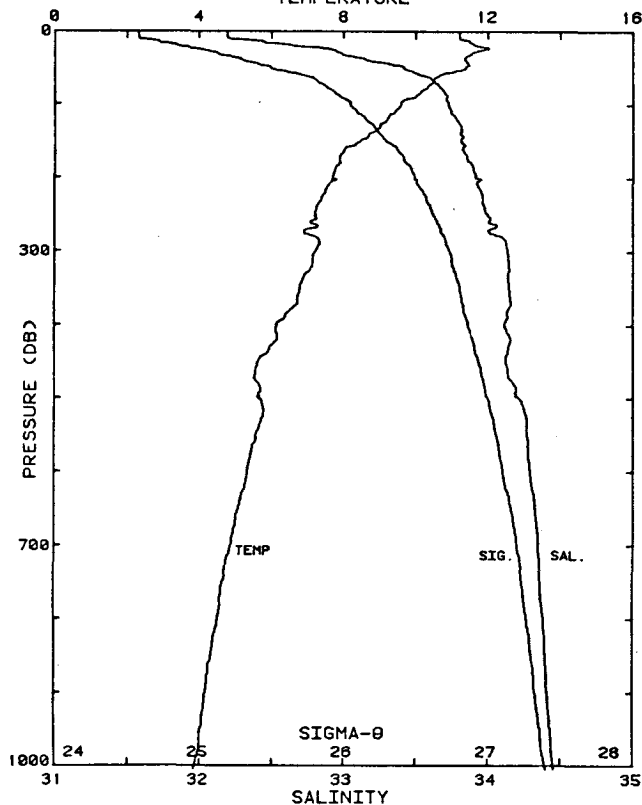
STA NO 18 ,HM8 LAT: 37 18.8 N LONG:123 9.2 W
 3 FEB 1982 0605 GMT PROBE 2567 DEPTH 1071M
 63.0 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	11.312	32.290	11.312	24.634	331.6	0.003
10	11.326	32.292	11.325	24.632	331.9	0.033
20	11.337	32.297	11.335	24.635	331.9	0.066
30	11.641	32.707	11.637	24.897	307.1	0.098
40	11.603	33.125	11.599	25.229	275.9	0.127
50	11.587	33.271	11.581	25.345	265.0	0.154
60	11.492	33.408	11.484	25.469	253.6	0.180
70	11.141	33.572	11.132	25.660	235.6	0.205
80	10.391	33.676	10.382	25.873	215.4	0.227
90	10.150	33.712	10.139	25.943	209.0	0.248
100	9.829	33.790	9.818	26.058	198.2	0.269
110	9.513	33.854	9.501	26.161	188.7	0.288
120	9.452	33.872	9.438	26.185	186.6	0.307
130	9.275	33.899	9.261	26.235	182.0	0.325
140	9.198	33.913	9.183	26.258	180.0	0.343
150	9.140	33.922	9.123	26.275	178.6	0.361
175	8.607	34.014	8.589	26.431	164.1	0.404
200	8.327	34.063	8.306	26.513	156.7	0.445
225	7.917	34.076	7.894	26.585	150.2	0.483
250	7.759	34.079	7.735	26.611	148.1	0.520
300	6.987	34.081	6.959	26.722	137.9	0.592
400	6.105	34.104	6.070	26.858	123.9	0.723
500	5.653	34.169	5.611	26.966	116.5	0.844
600	5.446	34.268	5.396	27.070	107.8	0.956
800	4.641	34.373	4.578	27.248	92.1	1.153
1000	3.992	34.444	3.916	27.374	80.8	1.325
1007	3.985	34.445	3.909	27.376	80.8	1.331



STATION 18 HM8

TEMPERATURE



STATION 19 HM9

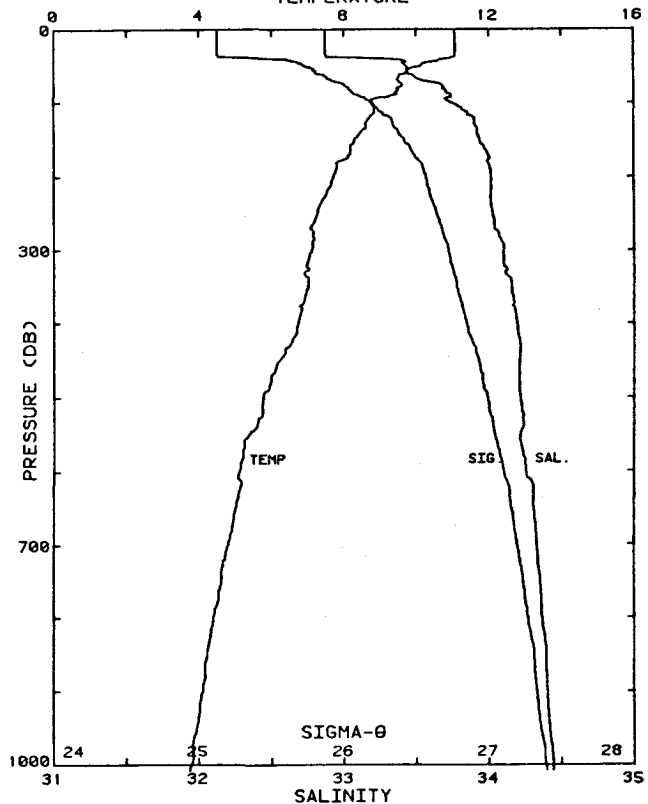
STA NO 19 ,HM9 LAT: 37 18.0 N LONG:123 15.4 W
 3 FEB 1982 0730 GMT PROBE 2567 DEPTH 1267M
 71.6 KM FROM SHORE

PRESS	TEMP	SAL	POTEN	SIGMA	SVA	DELD
	TEMP		THETA			
1	11.213	32.197	11.213	24.579	336.8	0.003
10	11.214	32.200	11.213	24.581	336.8	0.034
20	11.709	32.664	11.706	24.851	311.3	0.066
30	11.539	32.983	11.535	25.130	285.0	0.096
40	11.375	33.176	11.370	25.310	268.1	0.123
50	11.374	33.417	11.368	25.497	250.6	0.149
60	10.650	33.526	10.643	25.712	230.4	0.173
70	10.464	33.629	10.456	25.824	219.9	0.195
80	10.212	33.685	10.202	25.911	211.8	0.217
90	9.993	33.716	9.983	25.973	206.1	0.238
100	9.588	33.723	9.577	26.046	199.4	0.258
110	9.424	33.744	9.412	26.089	195.4	0.278
120	9.212	33.778	9.199	26.150	189.8	0.297
130	9.020	33.815	9.006	26.210	184.3	0.316
140	8.706	33.805	8.692	26.251	180.5	0.334
150	8.461	33.811	8.445	26.294	176.5	0.352
175	7.883	33.855	7.865	26.416	165.2	0.394
200	7.681	33.912	7.662	26.490	158.6	0.435
225	7.410	33.964	7.389	26.570	151.3	0.473
250	7.240	33.998	7.216	26.621	146.8	0.511
300	7.218	34.133	7.190	26.730	137.3	0.581
400	6.137	34.110	6.103	26.858	125.9	0.713
500	5.686	34.210	5.644	26.995	113.9	0.833
600	5.339	34.290	5.290	27.100	104.8	0.942
800	4.529	34.384	4.466	27.268	90.0	1.134
1000	3.862	34.453	3.787	27.395	78.6	1.303
1005	3.826	34.456	3.751	27.401	78.0	1.307

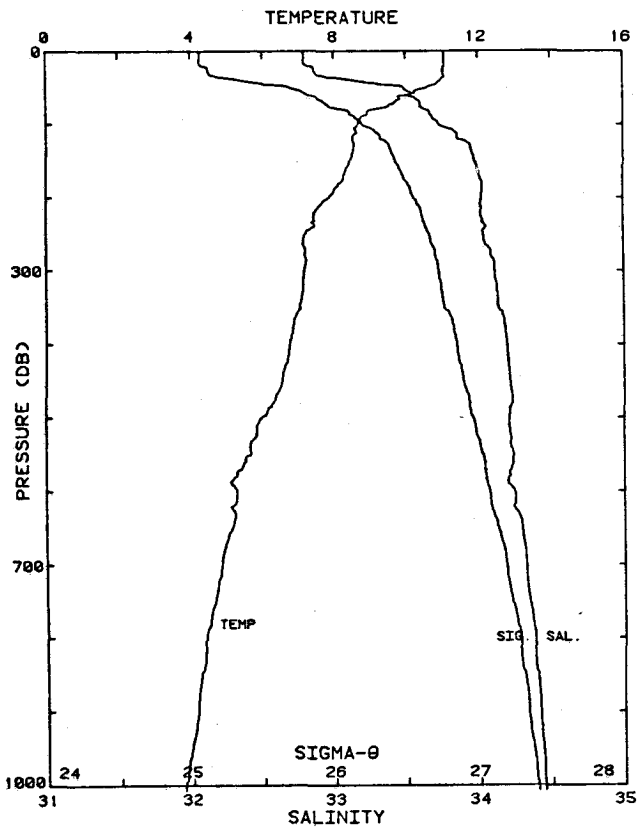
STA NO 20 ,COC9 LAT: 38 24.0 N LONG:123 49.2 W
 3 FEB 1982 1505 GMT PROBE 2567 DEPTH 1660M
 46.4 KM FROM SHORE 25 MIN. GAP 720-721HR

PRESS	TEMP	SAL	POTEN	SIGMA	SVA	DELD
	TEMP		THETA			
1	11.063	32.872	11.063	25.129	284.4	0.003
10	11.066	32.872	11.065	25.129	284.6	0.028
20	11.067	32.871	11.064	25.129	284.9	0.057
30	11.071	32.872	11.067	25.128	285.1	0.085
40	10.922	33.188	10.918	25.400	259.5	0.114
50	10.140	33.429	10.134	25.724	228.9	0.137
60	9.704	33.440	9.697	25.805	221.3	0.160
70	9.495	33.539	9.488	25.917	210.9	0.181
80	9.471	33.683	9.462	26.034	200.1	0.202
90	9.368	33.741	9.358	26.096	194.3	0.221
100	8.775	33.731	8.764	26.183	186.2	0.240
110	8.852	33.817	8.841	26.238	181.2	0.259
120	8.724	33.891	8.711	26.316	174.0	0.277
130	8.602	33.901	8.589	26.343	171.6	0.294
140	8.474	33.919	8.459	26.377	168.5	0.311
150	8.295	33.936	8.280	26.417	164.8	0.328
175	8.113	34.002	8.095	26.497	157.6	0.368
200	7.709	34.016	7.690	26.568	151.2	0.406
225	7.508	34.014	7.487	26.595	149.0	0.444
250	7.270	34.024	7.246	26.637	145.3	0.480
300	7.108	34.099	7.080	26.719	138.3	0.551
400	6.743	34.193	6.707	26.844	127.8	0.684
500	5.770	34.217	5.727	26.989	114.5	0.805
600	5.116	34.254	5.068	27.098	104.7	0.915
800	4.386	34.364	4.324	27.268	89.7	1.108
1000	3.801	34.442	3.727	27.392	78.7	1.276
1008	3.755	34.444	3.681	27.398	78.1	1.282

TEMPERATURE



STATION 20 COC9

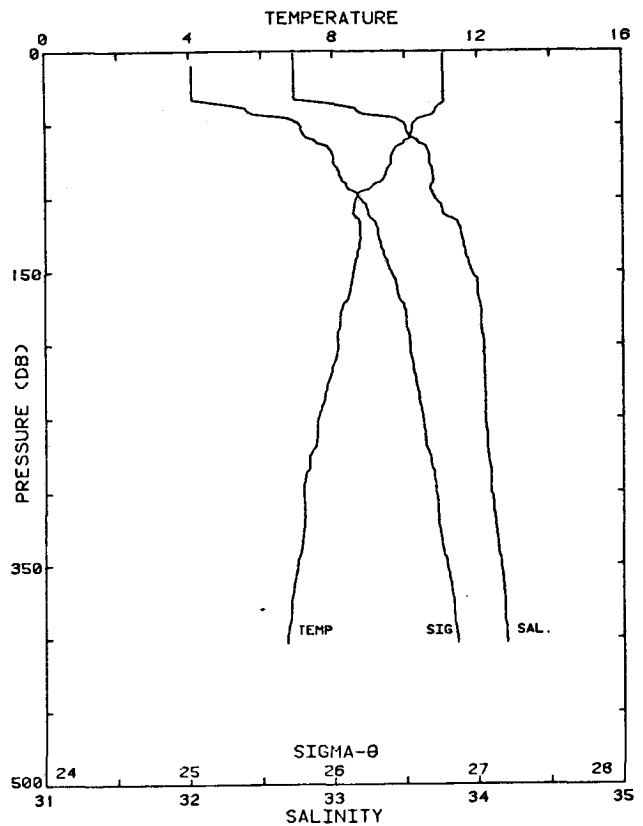


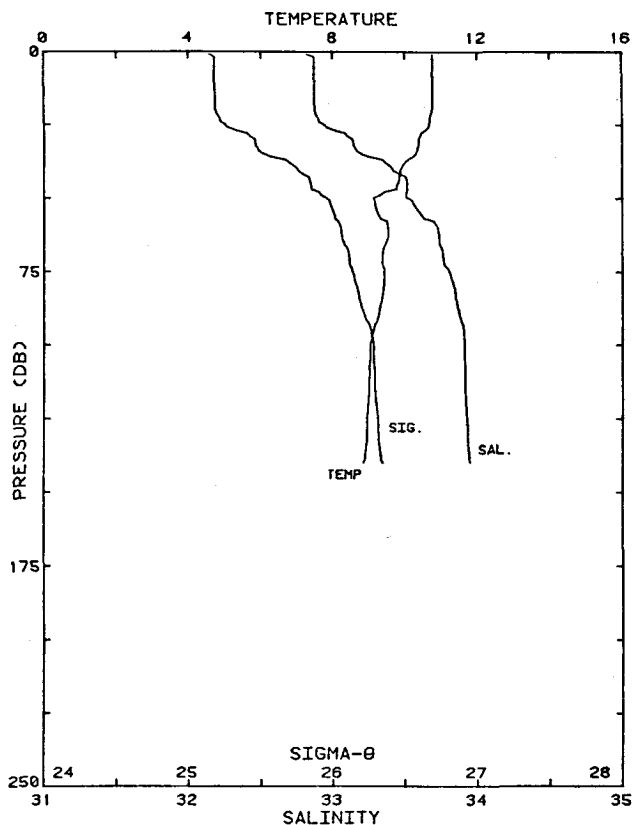
STA NO 21 ,COC8 LAT: 38 27.1 N LONG:123 44.5 W
 3 FEB 1982 1648 GMT PROBE 2567 DEPTH 1159M
 36.9 KM FROM SHORE

PRESS	TEMP	SAL	POTEN	SIGMA	SVA	DELD
	TEMP		TEMP	THETA		
1	11.069	32.783	11.069	25.059	291.0	0.003
10	11.071	32.794	11.070	25.067	290.5	0.029
20	11.069	32.807	11.066	25.078	289.7	0.058
30	11.034	32.869	11.031	25.133	284.7	0.087
40	10.963	33.125	10.958	25.344	264.8	0.115
50	10.596	33.484	10.591	25.688	232.4	0.139
60	10.121	33.527	10.114	25.804	221.6	0.162
70	9.708	33.594	9.700	25.925	210.2	0.184
80	9.175	33.618	9.166	26.031	200.3	0.204
90	8.784	33.682	8.775	26.142	189.8	0.224
100	8.681	33.724	8.670	26.191	185.3	0.242
110	8.606	33.827	8.594	26.284	176.0	0.260
120	8.508	33.854	8.495	26.320	173.4	0.278
130	8.546	33.944	8.533	26.385	167.6	0.295
140	8.507	33.955	8.492	26.400	166.3	0.312
150	8.440	33.971	8.425	26.423	164.3	0.328
175	8.253	34.013	8.235	26.484	158.9	0.368
200	7.869	34.018	7.849	26.546	153.4	0.407
225	7.424	34.012	7.402	26.606	147.9	0.445
250	7.178	34.031	7.154	26.656	143.5	0.481
300	7.151	34.108	7.123	26.721	138.2	0.552
400	6.730	34.192	6.694	26.845	127.7	0.685
500	5.968	34.204	5.925	26.955	118.0	0.809
600	5.273	34.239	5.224	27.068	107.7	0.921
800	4.391	34.380	4.330	27.280	88.6	1.117
1000	3.769	34.447	3.695	27.400	77.9	1.285
1007	3.766	34.447	3.691	27.400	78.0	1.290

STA NO 22 ,COC7 LAT: 38 30.2 N LONG:123 39.7 W
 3 FEB 1982 1823 GMT PROBE 2567 DEPTH 460M
 27.2 KM FROM SHORE

PRESS	TEMP	SAL	POTEN	SIGMA	SVA	DELD
	TEMP		TEMP	THETA		
2	11.055	32.726	11.055	25.018	295.0	0.006
10	11.052	32.727	11.051	25.019	295.1	0.029
20	11.055	32.729	11.053	25.020	295.2	0.059
30	11.053	32.729	11.049	25.021	295.4	0.089
40	10.828	33.159	10.823	25.394	260.1	0.117
50	10.200	33.494	10.194	25.764	225.1	0.141
60	10.093	33.563	10.086	25.836	218.5	0.163
70	9.626	33.659	9.618	25.989	204.1	0.184
80	9.492	33.680	9.483	26.028	200.6	0.204
90	9.165	33.687	9.155	26.087	195.2	0.224
100	8.630	33.701	8.620	26.181	186.3	0.243
110	8.538	33.755	8.526	26.233	181.1	0.262
120	8.718	33.875	8.706	26.304	175.1	0.279
130	8.708	33.898	8.694	26.324	173.4	0.297
140	8.635	33.915	8.621	26.349	171.2	0.314
150	8.527	33.954	8.512	26.396	166.9	0.331
175	8.230	34.019	8.213	26.492	158.2	0.372
200	8.111	34.038	8.091	26.526	155.4	0.411
225	7.847	34.040	7.825	26.566	151.9	0.449
250	7.548	34.045	7.524	26.614	147.6	0.487
300	7.137	34.082	7.109	26.702	139.9	0.559
400	6.682	34.192	6.645	26.852	127.0	0.692
403	6.677	34.193	6.640	26.853	126.9	0.696



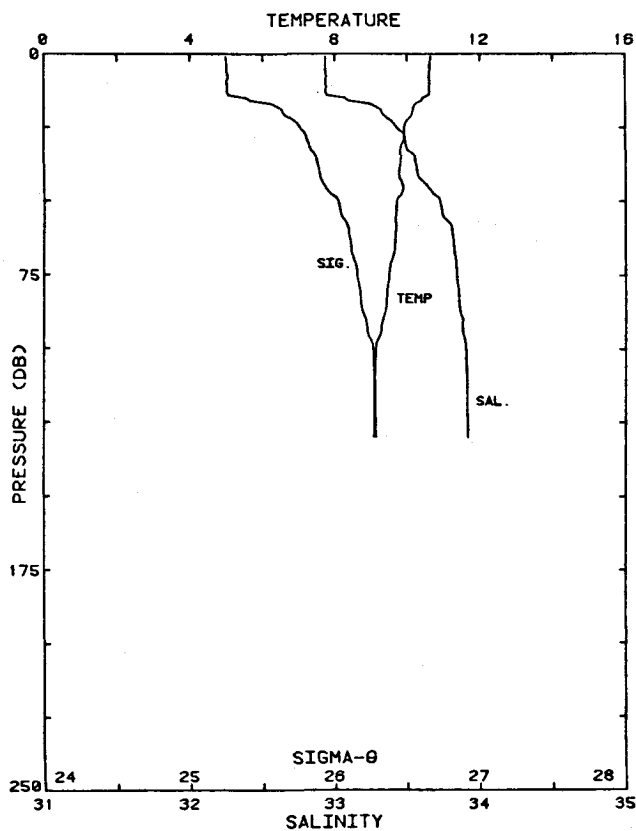


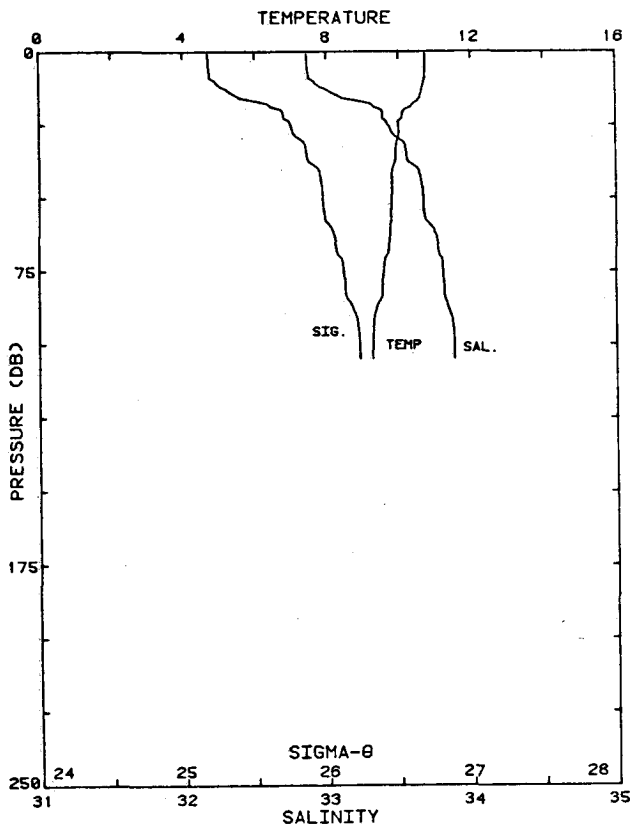
STA NO 23 ,COC6 LAT: 38 32.7 N LONG:123 36.2 W
 3 FEB 1982 1929 GMT PROBE 2567 DEPTH 141M
 21.1 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	10.767	32.821	10.767	25.142	283.2	0.003
10	10.760	32.873	10.759	25.183	279.4	0.028
20	10.743	32.875	10.740	25.188	279.2	0.056
30	10.367	33.135	10.363	25.456	254.0	0.083
40	9.890	33.409	9.885	25.750	226.2	0.107
50	9.118	33.511	9.112	25.956	206.8	0.129
60	9.529	33.723	9.522	26.055	197.6	0.149
70	9.372	33.763	9.364	26.112	192.4	0.169
80	9.410	33.839	9.402	26.165	187.6	0.108
90	9.257	33.877	9.247	26.220	182.6	0.206
100	9.029	33.912	9.018	26.284	176.7	0.224
110	9.001	33.914	8.989	26.290	176.3	0.242
120	8.962	33.918	8.949	26.299	175.6	0.260
130	8.928	33.930	8.915	26.314	174.4	0.277
140	8.829	33.946	8.814	26.343	171.9	0.294

STA NO 24 ,COC5 LAT: 38 34.6 N LONG:123 33.5 W
 3 FEB 1982 2018 GMT PROBE 2567 DEPTH 134M
 15.6 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	10.655	32.931	10.655	25.247	273.2	0.003
10	10.611	32.931	10.610	25.255	272.6	0.027
20	10.139	33.325	10.137	25.642	236.0	0.053
30	9.878	33.490	9.875	25.815	219.8	0.076
40	9.763	33.568	9.759	25.895	212.4	0.097
50	9.710	33.723	9.705	26.024	200.3	0.118
60	9.679	33.807	9.672	26.094	193.8	0.138
70	9.566	33.830	9.558	26.132	190.5	0.157
80	9.431	33.849	9.423	26.169	187.2	0.176
90	9.310	33.878	9.300	26.212	183.4	0.194
100	9.121	33.902	9.110	26.262	178.8	0.213
110	9.089	33.909	9.077	26.272	178.0	0.230
120	9.069	33.912	9.056	26.278	177.7	0.248
130	9.053	33.914	9.039	26.282	177.4	0.266





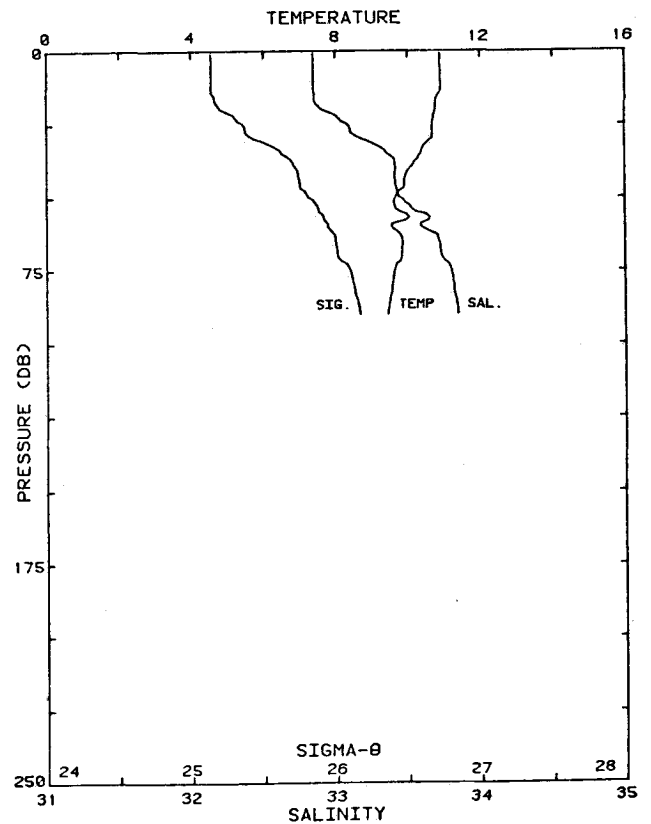
STATION 25 COC4

STA NO 25 ,COC4 LAT: 38 36.0 N LONG:123 30.9 W
 3 FEB 1982 2101 GMT PROBE 2567 DEPTH 109M
 11.2 KM FROM SHORE

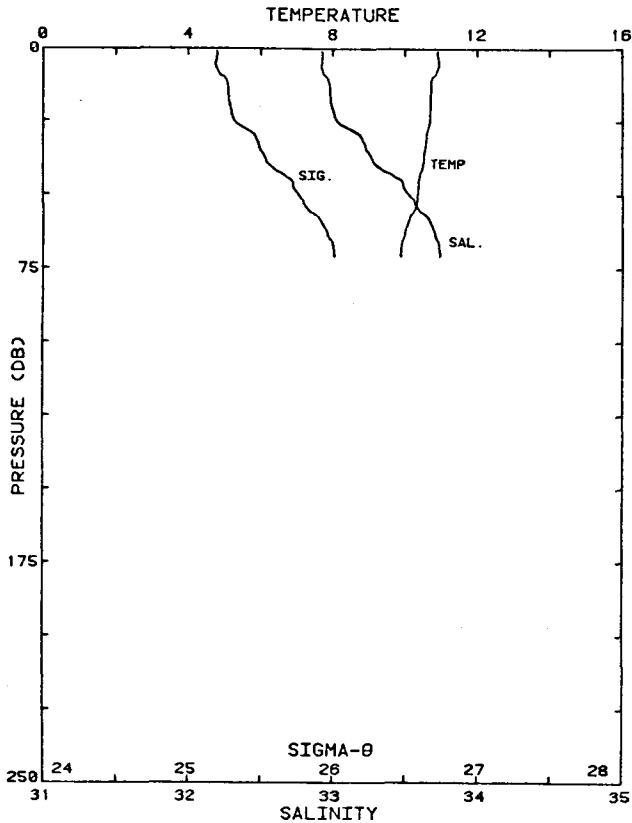
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	10.746	32.862	10.745	25.177	279.8	0.003
10	10.688	32.909	10.687	25.225	275.5	0.028
20	10.151	33.379	10.149	25.682	232.2	0.054
30	9.952	33.504	9.949	25.813	220.0	0.074
40	9.818	33.626	9.814	25.931	209.0	0.098
50	9.786	33.667	9.780	25.968	205.7	0.119
60	9.737	33.725	9.731	26.022	200.8	0.139
70	9.645	33.781	9.638	26.081	195.4	0.159
80	9.521	33.808	9.512	26.123	191.6	0.178
90	9.301	33.853	9.292	26.194	185.0	0.197
100	9.245	33.875	9.234	26.220	182.7	0.215
105	9.240	33.876	9.228	26.222	182.6	0.225

STA NO 26 ,COC3 LAT: 38 37.6 N LONG:123 28.9 W
 3 FEB 1982 2144 GMT PROBE 2567 DEPTH 91M
 6.5 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	10.899	32.844	10.899	25.137	283.7	0.003
10	10.894	32.848	10.893	25.141	283.5	0.028
20	10.767	32.901	10.765	25.205	277.7	0.057
30	10.671	33.176	10.668	25.435	255.9	0.083
40	10.064	33.413	10.059	25.724	228.7	0.107
50	9.657	33.435	9.651	25.809	220.0	0.129
60	9.540	33.586	9.533	25.946	207.9	0.151
70	9.820	33.729	9.812	26.012	202.0	0.171
80	9.556	33.814	9.547	26.122	191.7	0.191
90	9.431	33.844	9.421	26.166	187.7	0.210



STATION 26 COC3



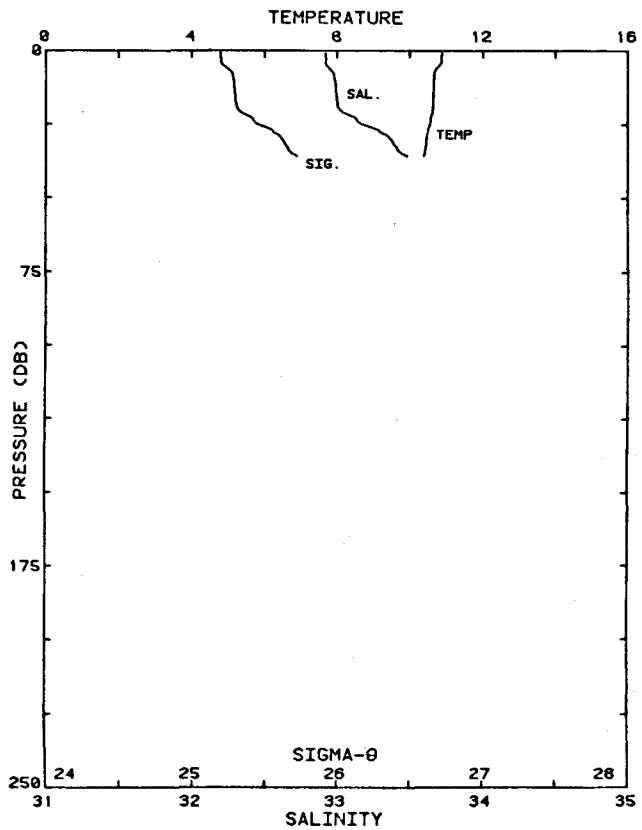
STATION 27 COC2

STA NO 27 ,COC2 LAT: 38 38.8 N LONG:123 26.9 W
 3 FEB 1982 2219 GMT PROBE 2567 DEPTH 72M
 3.0 KM FROM SHORE

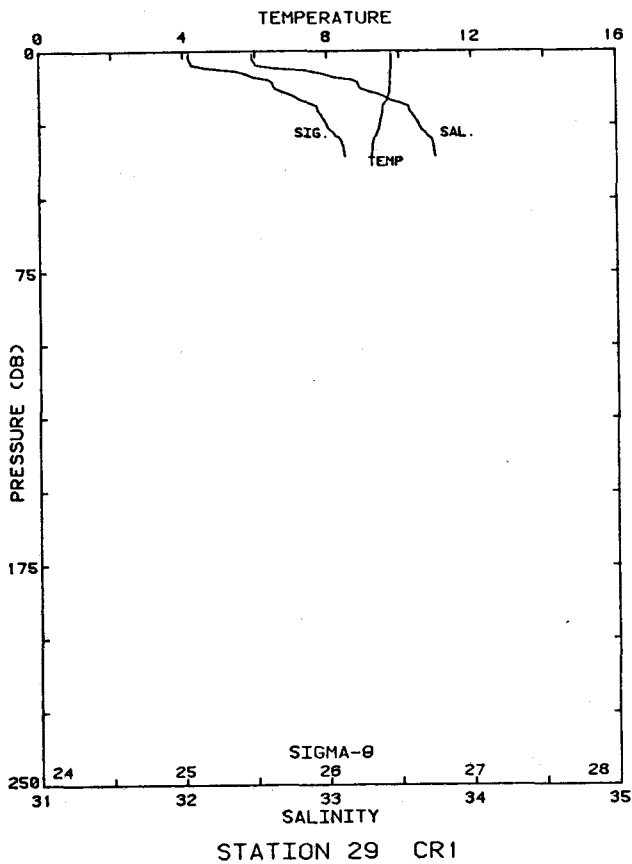
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	10.907	32.922	10.907	25.195	278.1	0.003
10	10.753	32.957	10.751	25.251	273.0	0.028
20	10.687	32.992	10.684	25.289	269.6	0.055
30	10.577	33.191	10.574	25.463	253.3	0.081
40	10.492	33.302	10.487	25.564	243.9	0.106
50	10.345	33.528	10.339	25.766	225.0	0.129
60	10.075	33.679	10.069	25.929	209.6	0.151
70	9.879	33.742	9.871	26.012	202.0	0.172
71	9.879	33.742	9.871	26.012	202.0	0.174

STA NO 28 ,COC1 LAT: 38 38.8 N LONG:123 25.5 W
 3 FEB 1982 2254 GMT PROBE 2567 DEPTH 41M
 1.3 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	10.876	32.918	10.876	25.198	277.9	0.003
10	10.654	32.984	10.653	25.289	269.4	0.027
20	10.623	33.018	10.620	25.320	266.6	0.054
30	10.456	33.366	10.453	25.620	238.4	0.080
36	10.375	33.483	10.371	25.725	228.5	0.094



STATION 28 COC1

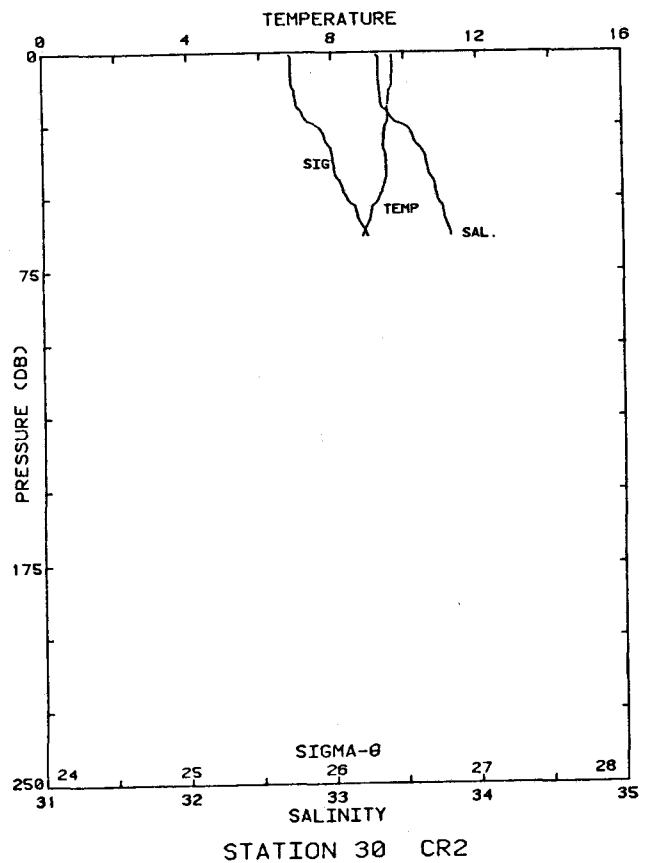


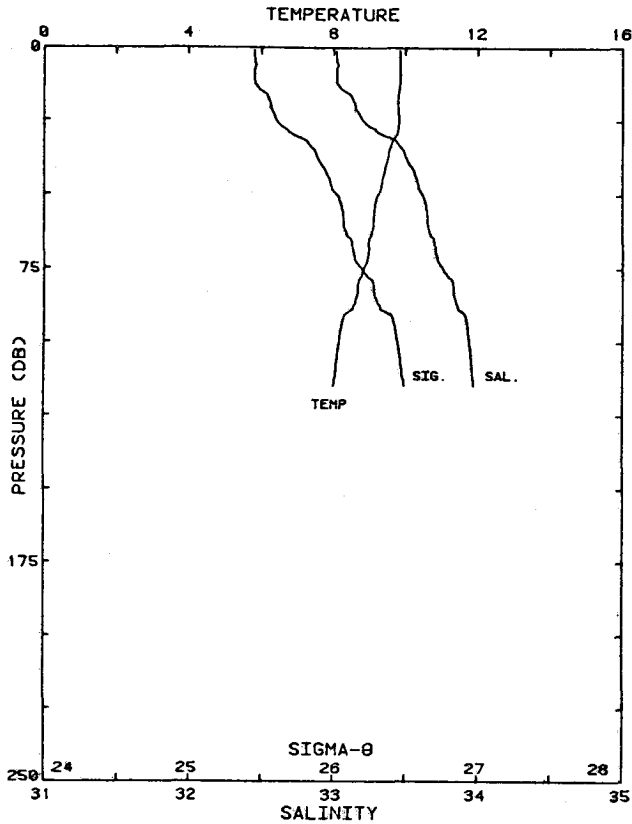
STA NO 29 ,CR1 LAT: 41 54.0 N LONG:124 17.0 W
4 FEB 1982 2213 GMT PROBE 2567 DEPTH 40M
6.3 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	9.786	32.479	9.786	25.042	292.7	0.003
10	9.759	33.180	9.757	25.593	240.5	0.028
20	9.538	33.569	9.536	25.933	208.4	0.050
30	9.295	33.721	9.292	26.091	193.6	0.071
36	9.228	33.747	9.224	26.122	190.7	0.082

STA NO 30 ,CR2 LAT: 41 54.0 N LONG:124 24.0 W
4 FEB 1982 2257 GMT PROBE 2567 DEPTH 67M
15.6 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	9.670	33.308	9.670	25.707	229.4	0.002
10	9.671	33.326	9.670	25.721	228.3	0.023
20	9.529	33.373	9.527	25.781	222.8	0.045
30	9.419	33.564	9.416	25.948	207.1	0.067
40	9.490	33.659	9.486	26.011	201.4	0.087
50	9.281	33.724	9.276	26.096	193.5	0.107
60	8.915	33.792	8.909	26.208	183.1	0.126
63	8.813	33.813	8.807	26.240	180.0	0.131





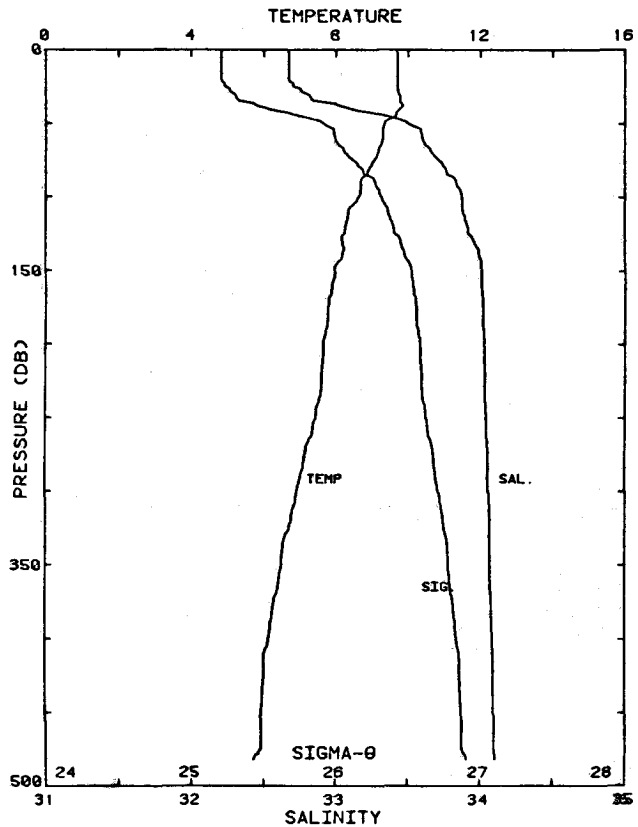
STATION 31 CR3

STA NO 31 ,CR3 LAT: 41 53.7 N LONG:124 29.0 W
 4 FEB 1982 2341 GMT PROBE 2567 DEPTH 120M
 22.6 KM FROM SHORE

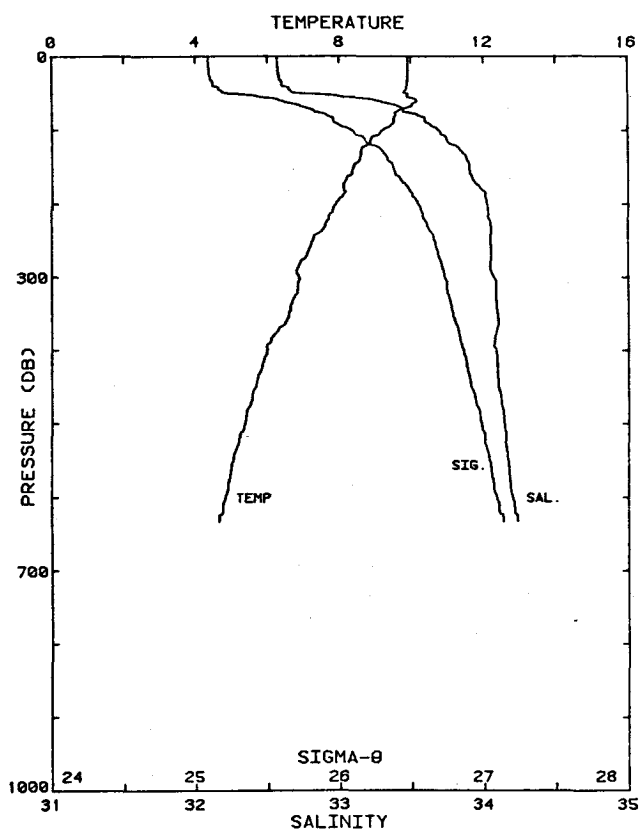
PRESS	TEMP	SAL	POTEN	SIGMA	SVA	DELD
	TEMP		TEMP	THETA		
1	9.846	33.019	9.846	25.452	253.6	0.003
10	9.849	33.017	9.848	25.450	254.0	0.025
20	9.786	33.150	9.784	25.565	243.3	0.050
30	9.743	33.343	9.739	25.723	228.6	0.074
40	9.456	33.532	9.451	25.917	210.2	0.096
50	9.231	33.617	9.226	26.020	200.7	0.116
60	9.108	33.654	9.101	26.069	196.2	0.136
70	8.960	33.711	8.952	26.138	189.9	0.155
80	8.676	33.829	8.667	26.274	177.1	0.174
90	8.397	33.890	8.387	26.365	168.7	0.191
100	8.140	33.941	8.130	26.444	161.3	0.208
110	8.049	33.960	8.038	26.472	158.8	0.224
115	7.997	33.971	7.985	26.489	157.3	0.231

STA NO 32 ,CR4 LAT: 41 53.9 N LONG:124 36.0 W
 5 FEB 1982 0032 GMT PROBE 2567 DEPTH 491M
 32.3 KM FROM SHORE

PRESS	TEMP	SAL	POTEN	SIGMA	SVA	DELD
	TEMP		TEMP	THETA		
1	9.691	32.674	9.690	25.210	276.7	0.003
10	9.702	32.671	9.701	25.206	277.3	0.028
20	9.702	32.672	9.700	25.207	277.4	0.055
30	9.745	32.789	9.742	25.291	269.6	0.083
40	9.780	33.091	9.776	25.521	248.0	0.109
50	9.344	33.497	9.338	25.909	211.3	0.132
60	9.296	33.597	9.289	25.995	203.3	0.152
70	9.174	33.661	9.166	26.064	196.9	0.172
80	8.943	33.751	8.935	26.171	186.9	0.192
90	8.690	33.830	8.680	26.273	177.4	0.210
100	8.637	33.870	8.627	26.313	173.8	0.227
110	8.349	33.878	8.338	26.363	169.2	0.245
120	8.266	33.910	8.254	26.401	165.8	0.261
130	8.184	33.956	8.171	26.450	161.3	0.278
140	8.165	33.991	8.151	26.480	158.7	0.294
150	7.954	34.006	7.940	26.523	154.6	0.309
175	7.772	34.017	7.755	26.559	151.7	0.348
200	7.646	34.027	7.627	26.585	149.6	0.385
225	7.587	34.030	7.566	26.596	148.9	0.423
250	7.439	34.039	7.415	26.625	146.6	0.460
300	6.922	34.055	6.894	26.710	139.0	0.531
400	6.138	34.085	6.103	26.838	127.7	0.664
482	5.724	34.108	5.683	26.909	121.8	0.767



STATION 32 CR4



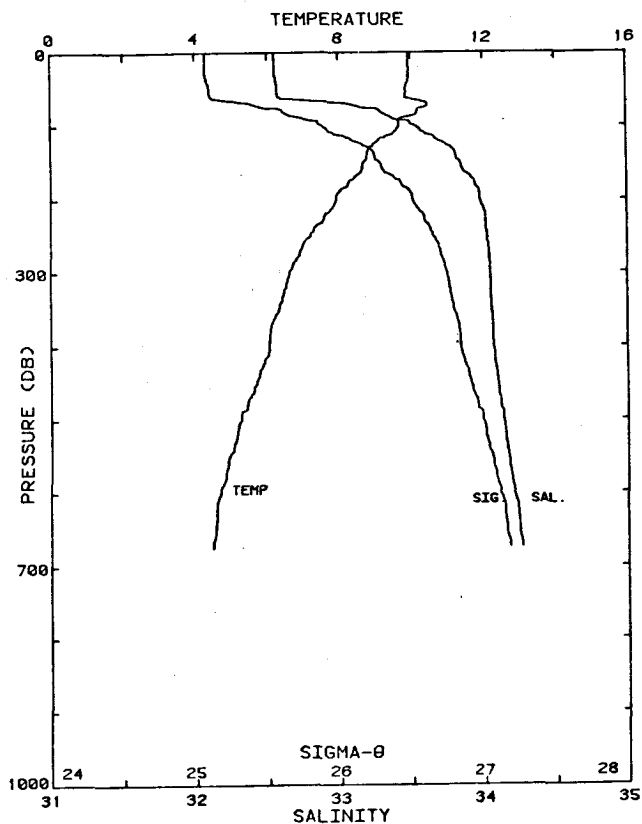
STATION 33 CR5

STA NO 33 ,CR5 LAT: 41 54.0 N LONG:124 42.0 W
5 FEB 1982 0133 GMT PROBE 2567 DEPTH 643M
40.6 KM FROM SHORE

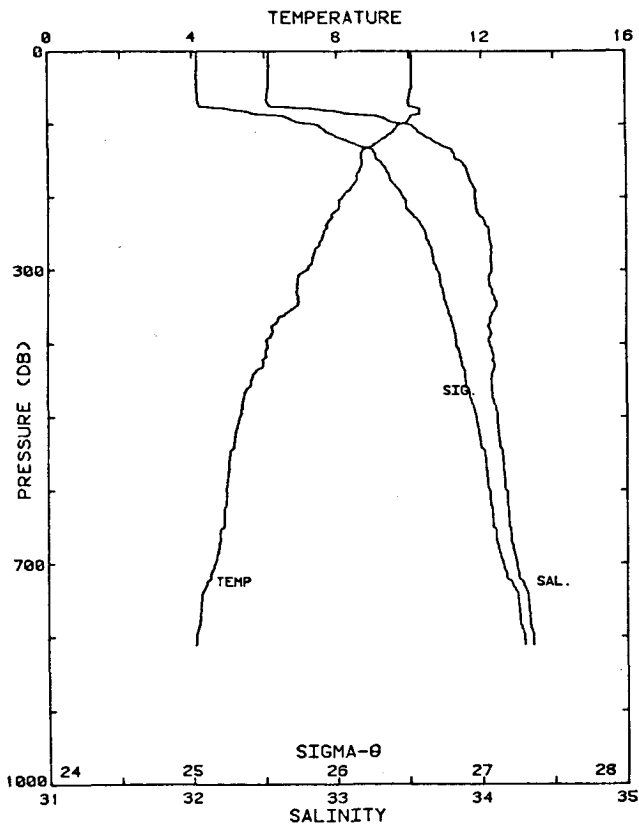
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	9.904	32.570	9.904	25.094	287.8	0.003
10	9.916	32.574	9.915	25.092	288.1	0.029
20	9.917	32.574	9.915	25.095	288.1	0.058
30	9.906	32.583	9.903	25.104	287.4	0.086
40	9.890	32.600	9.885	25.120	286.0	0.115
50	9.796	32.676	9.790	25.195	279.2	0.143
60	10.132	33.239	10.125	25.578	243.0	0.169
70	9.900	33.429	9.892	25.764	225.5	0.192
80	9.563	33.540	9.554	25.907	212.1	0.214
90	9.520	33.599	9.510	25.960	207.3	0.235
100	9.218	33.683	9.207	26.074	196.6	0.255
110	8.909	33.737	8.898	26.166	188.0	0.275
120	8.797	33.772	8.784	26.212	183.8	0.293
130	8.585	33.846	8.572	26.302	175.4	0.311
140	8.560	33.880	8.545	26.333	172.7	0.329
150	8.387	33.898	8.372	26.373	169.0	0.346
175	8.083	33.948	8.065	26.459	161.2	0.387
200	7.895	34.016	7.875	26.541	153.9	0.427
225	7.633	34.043	7.611	26.600	148.5	0.464
250	7.257	34.045	7.234	26.655	143.6	0.501
300	6.862	34.066	6.835	26.727	137.3	0.571
400	5.977	34.082	5.943	26.856	125.9	0.703
500	5.358	34.136	5.317	26.976	115.3	0.824
600	4.815	34.197	4.768	27.087	105.2	0.934
633	4.637	34.230	4.588	27.133	101.0	0.968

STA NO 34 ,CR6 LAT: 41 54.0 N LONG:124 48.1 W
5 FEB 1982 0235 GMT PROBE 2567 DEPTH 687M
49.1 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
2	9.928	32.551	9.928	25.075	289.6	0.006
10	9.937	32.551	9.936	25.073	289.9	0.029
20	9.937	32.551	9.935	25.073	290.1	0.058
30	9.939	32.552	9.935	25.074	290.2	0.087
40	9.920	32.563	9.916	25.086	289.3	0.116
50	9.847	32.567	9.841	25.102	288.0	0.145
60	9.828	32.573	9.821	25.110	287.5	0.174
70	10.421	33.050	10.413	25.381	262.0	0.201
80	10.171	33.281	10.162	25.604	241.0	0.227
90	9.735	33.366	9.725	25.743	227.9	0.250
100	9.661	33.522	9.650	25.877	215.4	0.272
110	9.499	33.591	9.487	25.957	207.9	0.293
120	9.078	33.678	9.066	26.094	195.1	0.314
130	8.843	33.773	8.829	26.205	184.7	0.333
140	8.762	33.806	8.747	26.244	181.2	0.351
150	8.666	33.835	8.651	26.281	177.8	0.369
175	8.269	33.934	8.251	26.420	165.0	0.412
200	7.901	33.972	7.881	26.505	157.2	0.452
225	7.562	34.012	7.540	26.586	149.9	0.491
250	7.185	34.021	7.162	26.647	144.4	0.527
300	6.602	34.045	6.576	26.745	135.5	0.597
400	6.020	34.067	5.986	26.839	127.6	0.728
500	5.243	34.133	5.203	26.986	114.1	0.849
600	4.672	34.208	4.626	27.111	102.8	0.958
675	4.458	34.263	4.406	27.179	96.8	1.032



STATION 34 CR6



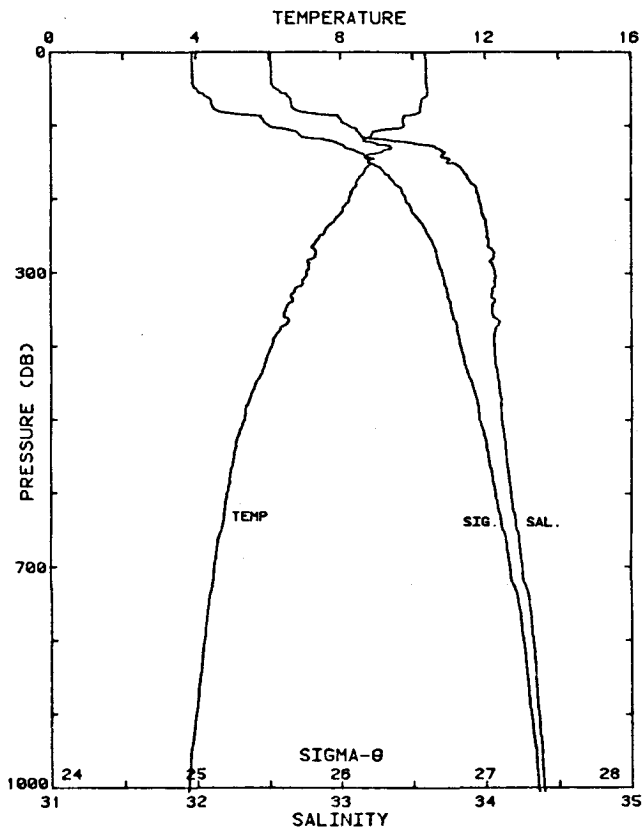
STATION 35 CR7

STA NO 35 ,CR7 LAT: 41 54.0 N LONG:125 0.0 W
 5 FEB 1982 0406 GMT PROBE 2567 DEPTH 821M
 65.4 KM FROM SHORE

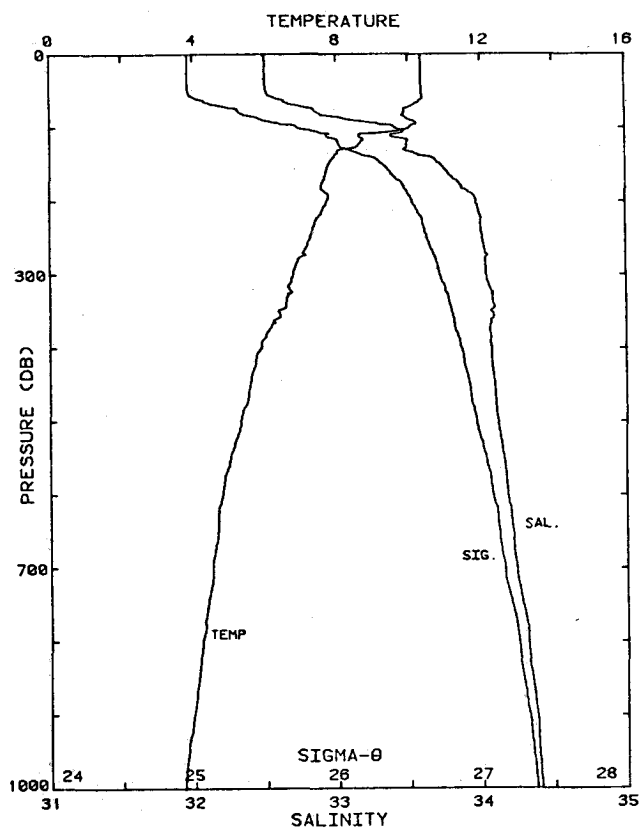
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	10.061	32.530	10.061	25.036	293.2	0.003
10	10.069	32.529	10.068	25.034	293.6	0.029
20	10.068	32.529	10.066	25.035	293.8	0.059
30	10.066	32.527	10.063	25.034	294.1	0.088
40	10.060	32.527	10.056	25.035	294.2	0.118
50	10.072	32.528	10.066	25.034	294.5	0.147
60	9.999	32.518	9.992	25.038	294.2	0.176
70	9.973	32.519	9.965	25.044	293.9	0.206
80	10.296	32.868	10.287	25.261	273.6	0.235
90	10.029	33.294	10.019	25.638	237.9	0.260
100	9.758	33.477	9.747	25.826	220.2	0.284
110	9.550	33.558	9.538	25.923	211.2	0.305
120	9.253	33.645	9.240	26.040	200.2	0.326
130	8.956	33.724	8.942	26.149	190.0	0.345
140	8.640	33.806	8.625	26.262	179.4	0.364
150	8.671	33.847	8.655	26.290	177.0	0.381
175	8.526	33.912	8.508	26.363	170.5	0.425
200	8.127	33.948	8.107	26.453	162.3	0.466
225	7.812	33.981	7.790	26.525	155.7	0.506
250	7.615	34.048	7.590	26.607	148.3	0.544
300	7.168	34.063	7.139	26.682	141.8	0.617
400	6.064	34.050	6.030	26.820	129.4	0.752
500	5.304	34.101	5.263	26.954	117.2	0.875
600	4.934	34.158	4.886	27.043	109.6	0.988
800	4.083	34.347	4.024	27.286	87.4	1.187
811	4.070	34.350	4.009	27.290	87.1	1.197

STA NO 36 ,CR8 LAT: 41 54.0 N LONG:125 12.0 W
 5 FEB 1982 0541 GMT PROBE 2567 DEPTH 2702M
 82.4 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	10.341	32.507	10.341	24.971	299.5	0.003
10	10.356	32.512	10.355	24.973	299.5	0.030
20	10.356	32.513	10.354	24.974	299.6	0.060
30	10.361	32.513	10.358	24.973	299.9	0.090
40	10.366	32.516	10.362	24.975	299.9	0.120
50	10.390	32.548	10.385	24.995	298.2	0.150
60	10.370	32.625	10.363	25.059	292.3	0.179
70	10.215	32.652	10.207	25.106	288.0	0.208
80	10.181	32.690	10.172	25.142	284.8	0.237
90	9.726	32.985	9.716	25.447	255.9	0.264
100	9.748	33.050	9.737	25.495	251.7	0.289
110	8.862	33.124	8.851	25.695	232.6	0.314
120	8.613	33.321	8.601	25.887	214.6	0.336
130	9.402	33.656	9.387	26.024	202.0	0.357
140	8.716	33.695	8.701	26.164	188.7	0.376
150	8.727	33.732	8.711	26.192	186.3	0.395
175	8.440	33.888	8.422	26.358	170.9	0.439
200	8.202	33.953	8.182	26.446	163.0	0.481
225	7.840	33.987	7.818	26.526	155.7	0.521
250	7.378	34.004	7.354	26.606	148.3	0.559
300	7.019	34.058	6.991	26.700	140.1	0.631
400	6.056	34.056	6.022	26.826	128.8	0.765
500	5.337	34.104	5.296	26.952	117.4	0.887
600	4.832	34.170	4.785	27.063	107.5	0.999
800	4.208	34.320	4.147	27.252	90.8	1.196
1000	3.761	34.397	3.687	27.360	81.6	1.368
1005	3.744	34.399	3.670	27.364	81.2	1.372



STATION 36 CR8

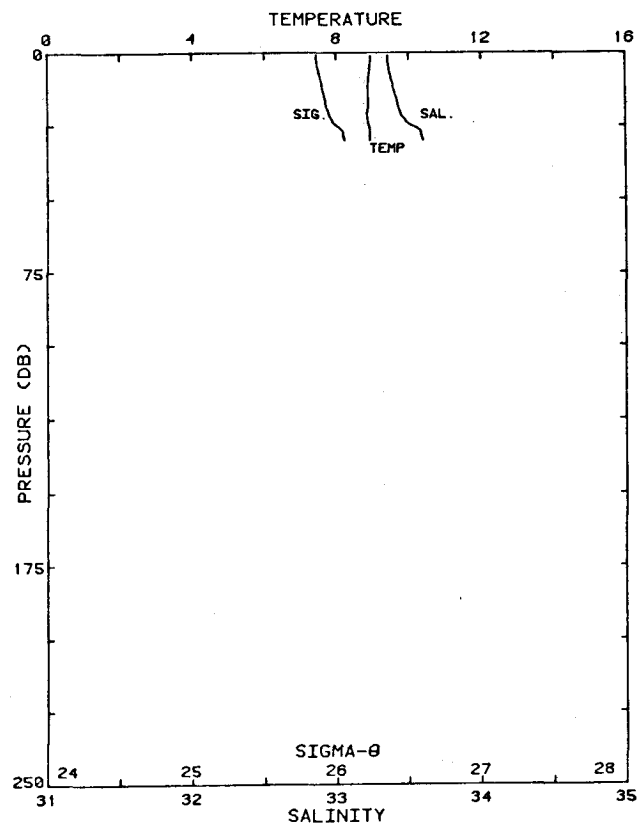


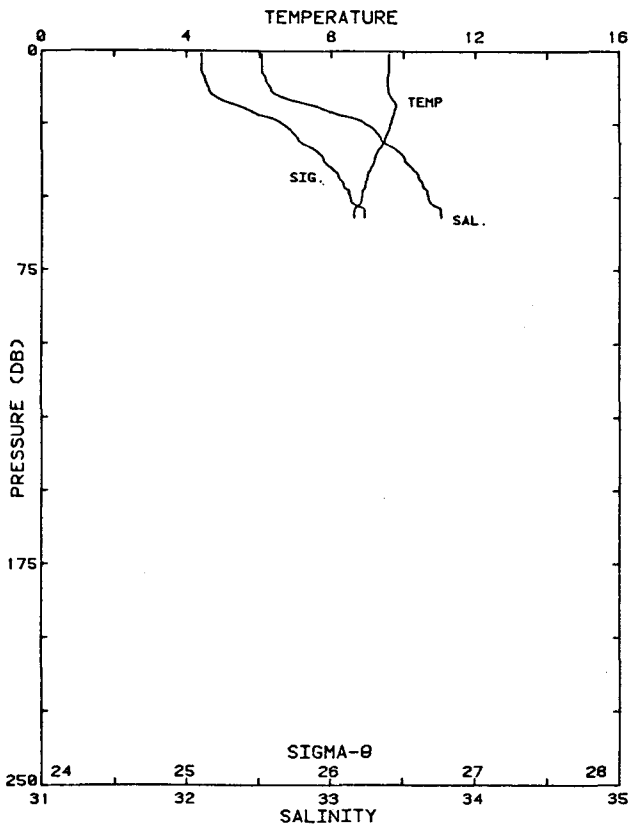
STA NO 37 ,CR9 LAT: 41 54.0 N LONG:125 20.0 W
5 FEB 1982 0712 GMT PROBE 2567 DEPTH 3085M
93.7 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
2	10.360	32.493	10.360	24.957	300.8	0.004
10	10.363	32.505	10.362	24.966	300.1	0.030
20	10.359	32.504	10.357	24.966	300.3	0.060
30	10.363	32.504	10.360	24.966	300.5	0.090
40	10.369	32.506	10.364	24.967	300.7	0.120
50	10.376	32.513	10.370	24.971	300.5	0.150
60	10.406	32.577	10.399	25.016	296.5	0.180
70	10.116	32.728	10.108	25.182	280.8	0.209
80	9.877	32.861	9.868	25.326	267.3	0.236
90	10.038	33.101	10.028	25.486	252.3	0.262
100	10.034	33.407	10.022	25.726	229.8	0.286
110	8.631	33.375	8.620	25.927	210.6	0.308
120	8.677	33.490	8.664	26.009	203.0	0.329
130	8.107	33.467	8.094	26.078	196.5	0.349
140	7.916	33.647	7.902	26.247	180.6	0.368
150	7.760	33.719	7.745	26.326	173.2	0.386
175	7.580	33.843	7.563	26.450	161.9	0.428
200	7.722	33.966	7.702	26.526	155.2	0.467
225	7.434	33.999	7.412	26.594	149.1	0.505
250	7.261	34.009	7.237	26.627	146.3	0.542
300	6.774	34.030	6.747	26.711	138.8	0.613
400	5.886	34.070	5.852	26.858	125.6	0.745
500	5.301	34.109	5.260	26.960	116.6	0.866
600	4.790	34.177	4.743	27.074	106.4	0.977
800	4.199	34.313	4.139	27.247	91.2	1.175
1000	3.705	34.407	3.632	27.373	80.2	1.346
1001	3.705	34.406	3.632	27.373	80.2	1.347

STA NO 38 ,FM1 LAT: 43 13.0 N LONG:124 26.0 W
5 FEB 1982 1838 GMT PROBE 2567 DEPTH 34M
3.2 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	8.948	33.356	8.948	25.861	214.8	0.002
10	8.875	33.385	8.874	25.895	211.8	0.021
20	8.853	33.434	8.851	25.937	208.0	0.042
30	8.916	33.600	8.913	26.057	196.7	0.063





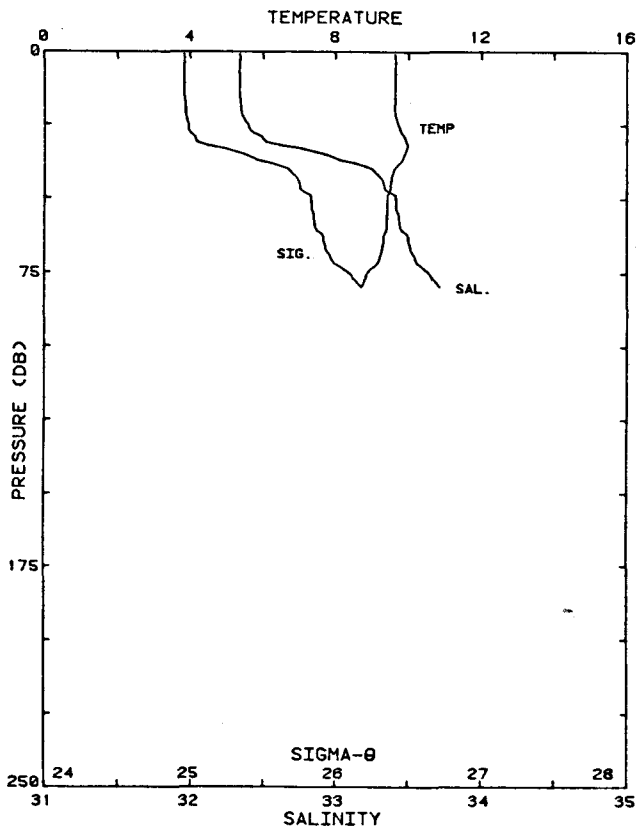
STATION 39 FM3

STA NO 39 ,FM3 LAT: 43 13.0 N LONG:124 30.0 W
 5 FEB 1982 1917 GMT PROBE 2567 DEPTH 59M
 8.6 KM FROM SHORE

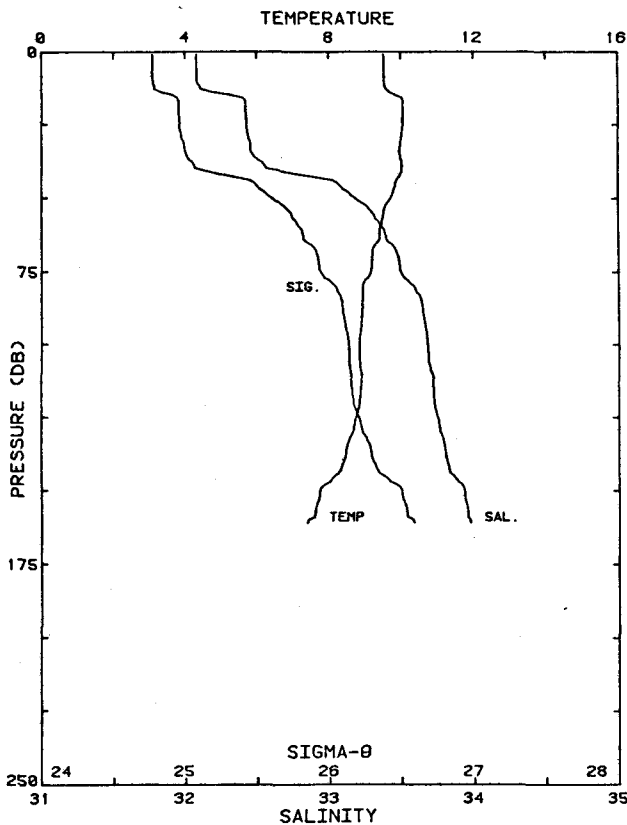
PRESS	TEMP	SAL	POTEN	SIGMA	SVA	DELD
	TEMP	THETA				
1	9.593	32.517	9.593	25.103	286.9	0.003
10	9.556	32.546	9.555	25.132	284.3	0.029
20	9.759	32.939	9.757	25.405	258.5	0.056
30	9.481	33.343	9.477	25.766	224.5	0.080
40	9.086	33.551	9.082	25.992	203.2	0.101
50	8.824	33.671	8.819	26.127	190.5	0.121
57	8.618	33.757	8.612	26.226	181.2	0.134

STA NO 40 ,FM4 LAT: 43 13.0 N LONG:124 35.0 W
 5 FEB 1982 1954 GMT PROBE 2567 DEPTH 85M
 15.3 KM FROM SHORE

PRESS	TEMP	SAL	POTEN	SIGMA	SVA	DELD
	TEMP	THETA				
1	9.632	32.340	9.632	24.959	300.6	0.003
10	9.638	32.337	9.637	24.956	301.1	0.030
20	9.621	32.347	9.619	24.966	300.2	0.060
30	9.918	32.502	9.915	25.039	293.6	0.090
40	9.617	33.254	9.612	25.675	233.3	0.116
50	9.424	33.416	9.418	25.832	218.6	0.139
60	9.397	33.445	9.390	25.860	216.1	0.161
70	9.212	33.546	9.205	25.968	206.0	0.182
80	8.710	33.718	8.702	26.182	185.8	0.201



STATION 40 FM4



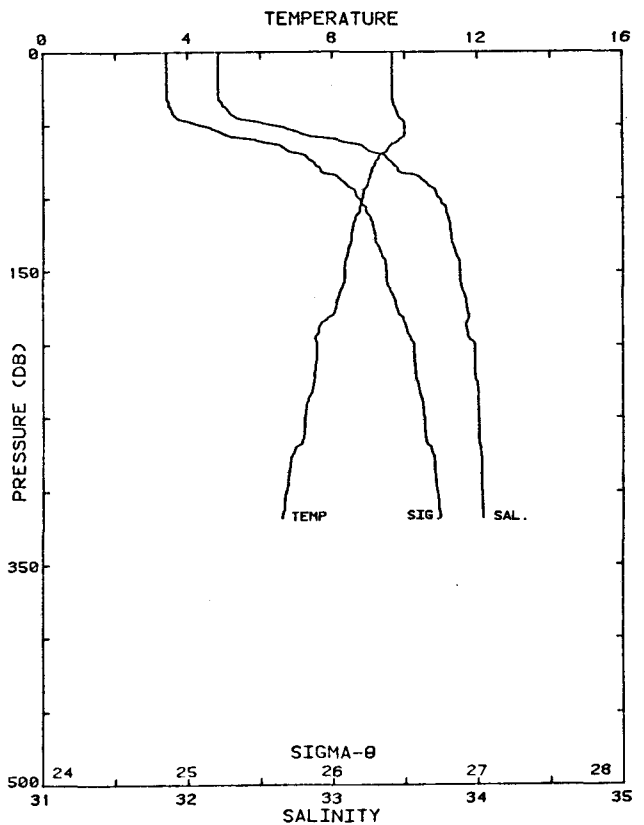
STATION 41 FMS

STA NO 41 ,FM5 LAT: 43 12.9 N LONG:124 40.1 W
 5 FEB 1982 2041 GMT PROBE 2567 DEPTH 165M
 22.3 KM FROM SHORE

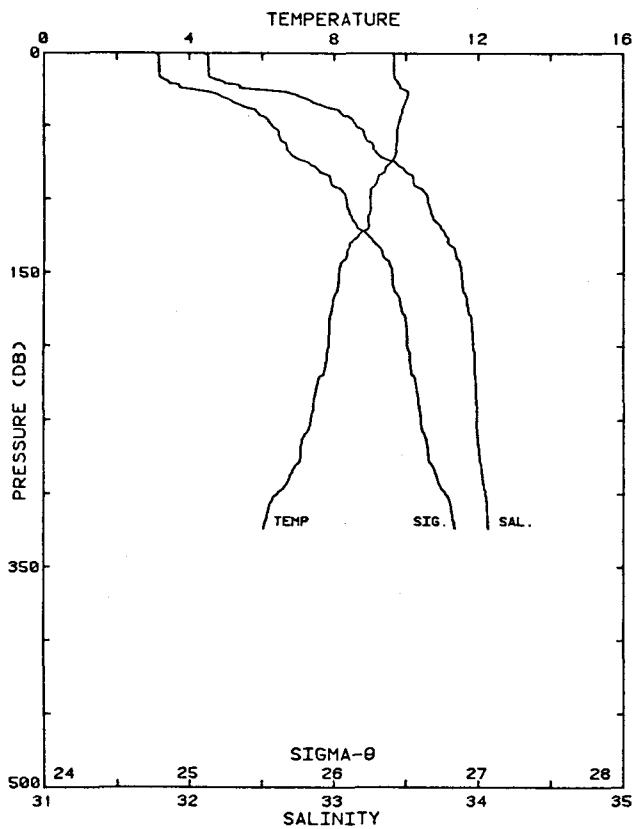
PRESS	TEMP	SAL	POTEN	SIGMA	SVA	DELD
	TEMP		TEMP	THETA		
1	9.532	32.079	9.532	24.772	318.4	0.003
10	9.534	32.084	9.533	24.775	318.3	0.032
20	10.046	32.422	10.044	24.955	301.3	0.063
30	10.008	32.444	10.004	24.979	299.3	0.093
40	10.025	32.566	10.021	25.071	290.7	0.122
50	9.715	33.178	9.709	25.599	240.7	0.148
60	9.425	33.369	9.419	25.796	222.2	0.171
70	9.201	33.479	9.194	25.918	210.8	0.193
80	8.930	33.586	8.922	26.044	198.9	0.214
90	8.902	33.650	8.893	26.099	193.9	0.233
100	8.827	33.677	8.817	26.132	191.0	0.252
110	8.887	33.708	8.875	26.147	189.8	0.271
120	8.836	33.724	8.823	26.168	188.0	0.290
130	8.641	33.766	8.627	26.231	182.2	0.309
140	8.390	33.813	8.376	26.306	175.2	0.327
150	7.712	33.934	7.698	26.502	156.6	0.343
161	7.368	33.974	7.352	26.583	149.0	0.360

STA NO 42 ,FM6 LAT: 43 13.0 N LONG:124 45.0 W
 5 FEB 1982 2128 GMT PROBE 2567 DEPTH 319M
 28.8 KM FROM SHORE

PRESS	TEMP	SAL	POTEN	SIGMA	SVA	DELD
	TEMP		TEMP	THETA		
1	9.649	32.218	9.649	24.861	309.9	0.003
10	9.648	32.209	9.647	24.855	310.7	0.031
20	9.652	32.210	9.649	24.855	310.9	0.062
30	9.648	32.211	9.645	24.856	311.0	0.093
40	9.753	32.275	9.748	24.890	308.0	0.124
50	9.985	32.568	9.979	25.080	290.1	0.154
60	9.849	33.022	9.842	25.456	254.5	0.182
70	9.330	33.330	9.322	25.781	223.8	0.206
80	9.073	33.448	9.065	25.914	211.4	0.228
90	8.960	33.646	8.951	26.087	195.1	0.248
100	8.812	33.728	8.802	26.174	187.0	0.267
110	8.712	33.781	8.701	26.231	181.8	0.285
120	8.541	33.808	8.529	26.279	177.4	0.303
130	8.493	33.819	8.480	26.295	176.0	0.321
140	8.377	33.853	8.363	26.339	172.0	0.338
150	8.308	33.876	8.293	26.368	169.4	0.355
175	8.079	33.923	8.062	26.440	163.1	0.397
200	7.543	33.976	7.523	26.560	151.9	0.436
225	7.474	33.986	7.453	26.578	150.6	0.474
250	7.202	34.004	7.179	26.631	145.9	0.511
300	6.694	34.027	6.667	26.719	138.0	0.582
318	6.575	34.034	6.546	26.740	136.2	0.607



STATION 42 FM6



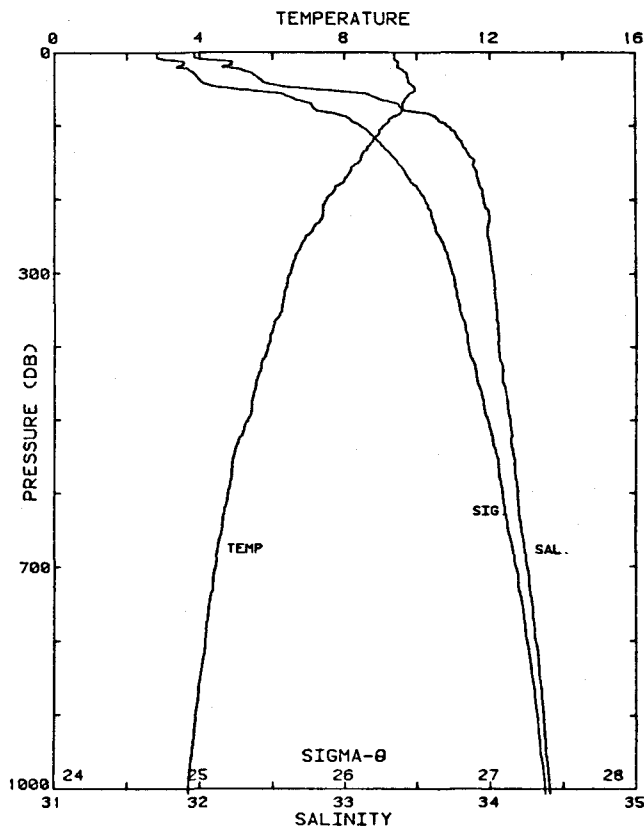
STATION 43 FM7

STA NO 43 ,FM7 LAT: 43 13.0 N LONG:124 50.1 W
 5 FEB 1982 2224 GHT PROBE 2567 DEPTH 328M
 35.8 KM FROM SHORE

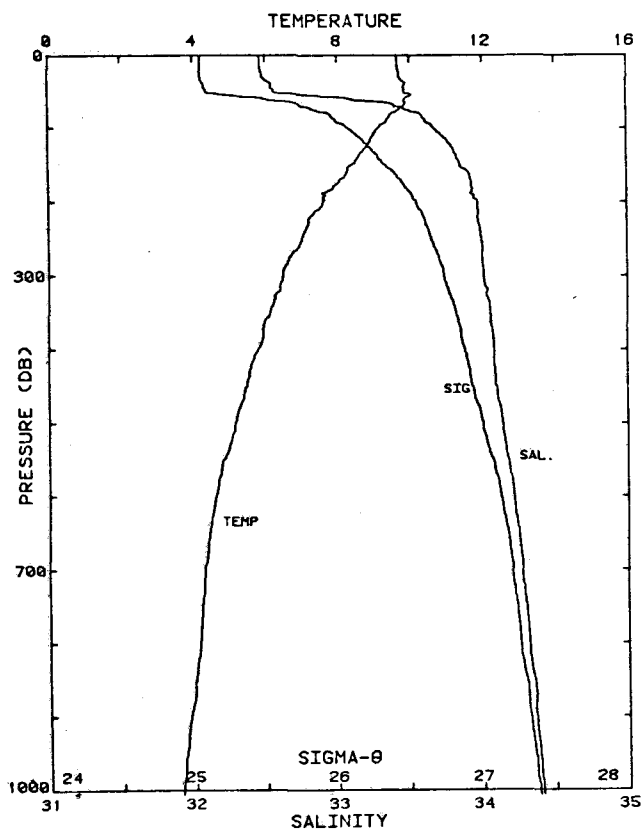
PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	9.666	32.112	9.666	24.776	318.0	0.003
10	9.666	32.134	9.665	24.793	316.6	0.032
20	9.776	32.242	9.774	24.860	310.4	0.063
30	10.035	32.758	10.032	25.218	276.5	0.093
40	9.883	33.035	9.878	25.460	253.8	0.119
50	9.767	33.151	9.761	25.570	243.5	0.144
60	9.745	33.226	9.739	25.632	237.8	0.168
70	9.685	33.306	9.677	25.704	231.2	0.191
80	9.414	33.483	9.406	25.887	214.0	0.214
90	9.150	33.548	9.140	25.980	205.3	0.234
100	8.996	33.646	8.985	26.081	195.9	0.254
110	8.980	33.670	8.968	26.103	194.0	0.274
120	8.947	33.738	8.934	26.161	188.6	0.293
130	8.427	33.789	8.414	26.282	177.2	0.311
140	8.308	33.847	8.294	26.346	171.4	0.329
150	8.115	33.881	8.100	26.401	166.2	0.345
175	7.912	33.928	7.895	26.468	160.3	0.386
200	7.829	33.960	7.809	26.506	157.1	0.426
225	7.533	33.979	7.511	26.564	151.9	0.464
250	7.333	33.983	7.309	26.596	149.2	0.502
300	6.426	34.044	6.399	26.767	133.2	0.574
324	6.050	34.065	6.022	26.833	127.1	0.605

STA NO 44 ,FM8 LAT: 43 13.0 N LONG:125 0.2 W
 5 FEB 1982 2342 GMT PROBE 2567 DEPTH 1878M
 49.8 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	9.387	31.969	9.387	24.709	324.4	0.003
10	9.390	32.003	9.389	24.735	322.1	0.032
20	9.460	32.158	9.458	24.845	311.8	0.063
30	9.718	32.367	9.714	24.966	300.5	0.094
40	9.766	32.434	9.762	25.011	296.4	0.124
50	9.945	32.750	9.939	25.228	276.0	0.153
60	9.752	33.181	9.746	25.595	241.3	0.178
70	9.595	33.352	9.588	25.755	226.3	0.202
80	9.578	33.413	9.569	25.805	221.7	0.224
90	9.305	33.629	9.295	26.018	201.7	0.245
100	9.106	33.697	9.095	26.104	193.7	0.265
110	8.975	33.758	8.964	26.172	187.4	0.284
120	8.792	33.787	8.780	26.224	182.6	0.303
130	8.616	33.815	8.603	26.273	178.1	0.321
140	8.479	33.850	8.465	26.322	173.7	0.338
150	8.375	33.886	8.360	26.366	169.7	0.355
175	7.976	33.918	7.958	26.451	161.9	0.397
200	7.494	33.956	7.475	26.551	152.7	0.436
225	7.359	33.993	7.337	26.600	148.4	0.473
250	6.931	33.978	6.908	26.647	144.1	0.510
300	6.494	34.021	6.468	26.741	135.8	0.580
400	5.857	34.052	5.823	26.848	126.6	0.711
500	5.307	34.135	5.267	26.980	114.8	0.831
600	4.772	34.188	4.725	27.085	105.4	0.941
800	4.146	34.310	4.086	27.250	90.8	1.137
1000	3.682	34.409	3.609	27.377	79.8	1.306
1006	3.683	34.410	3.609	27.379	79.7	1.311



STATION 44 FM8



STATION 45 FM9

STA NO 45 ,FM9 LAT: 43 13.1 N LONG:125 10.0 W
 6 FEB 1982 0115 GMT PROBE 2567 DEPTH 1640M
 63.3 KM FROM SHORE

PRESS	TEMP	SAL	POTEN TEMP	SIGMA THETA	SVA	DELD
1	9.647	32.459	9.647	25.049	292.0	0.003
10	9.666	32.466	9.665	25.051	292.0	0.029
20	9.684	32.471	9.681	25.053	292.0	0.058
30	9.726	32.486	9.723	25.057	291.8	0.088
40	9.891	32.549	9.886	25.080	289.9	0.117
50	9.861	32.565	9.856	25.097	288.4	0.146
60	9.875	33.068	9.869	25.487	251.6	0.173
70	9.846	33.396	9.838	25.748	227.0	0.197
80	9.508	33.562	9.500	25.933	209.6	0.219
90	9.364	33.605	9.355	25.990	204.4	0.240
100	9.145	33.665	9.134	26.072	196.7	0.260
110	9.006	33.715	8.994	26.134	191.1	0.279
120	8.899	33.766	8.887	26.190	185.9	0.298
130	8.727	33.801	8.713	26.245	180.8	0.316
140	8.585	33.823	8.570	26.284	177.3	0.334
150	8.414	33.846	8.398	26.329	173.2	0.352
175	8.023	33.925	8.005	26.450	162.1	0.393
200	7.601	33.965	7.582	26.543	153.5	0.433
225	7.194	33.970	7.173	26.605	147.9	0.471
250	7.011	33.993	6.988	26.649	144.0	0.507
300	6.473	34.005	6.446	26.731	136.7	0.577
400	5.803	34.079	5.770	26.875	123.9	0.707
500	5.146	34.136	5.106	27.000	112.7	0.826
600	4.605	34.211	4.559	27.121	101.7	0.933
800	4.147	34.316	4.087	27.255	90.4	1.123
1000	3.630	34.408	3.557	27.382	79.2	1.292
1006	3.621	34.410	3.548	27.385	79.0	1.297

ACKNOWLEDGMENTS

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