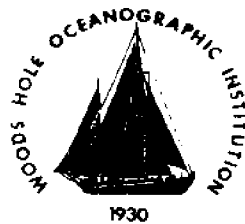




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Woods Hole Oceanographic Institution



Hydrographic Study of Buzzards Bay, 1982 - 1983

by

Leslie K. Rosenfeld, Richard P. Signell and
Glenn G. Gawarkiewicz

February 1984
Technical Report

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Program, under grant numbers NA80-AA-D-00077
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and the Coastal Research Center under a grant from
the Andrew W. Mellon Foundation.*

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WOODS HOLE OCEANOGRAPHIC INSTITUTION
Woods Hole, Massachusetts 02543

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Nick P. Fofonoff, Chairman
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FOREWORD

Coastal Research Center

Technical Report Series: Buzzards Bay

The Coastal Research Center of the Woods Hole Oceanographic Institution has initiated a series WHOI/CRC Technical Reports in order to make information generated by CRC-associated researchers available as rapidly as possible to the coastal community.

Buzzards Bay is an important segment of the Massachusetts coast and has been studied by the Woods Hole scientists and others for decades. However, only a few systematic studies have been completed. Increasing development pressure in this heavily used area has been followed by an increasing demand for more complete information on coastal environmental quality. In an effort to fill this information gap, and to foster understanding of fundamental processes operative in coastal areas in general, Coastal Research Center scientists are pursuing multi-disciplinary research in Buzzards Bay. As the results of this become available, this information will be published in the CRC Technical Report Series.

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Abstract

A series of four hydrographic cruises at three-month intervals was undertaken in Buzzards Bay in 1982-83. Buzzards Bay is located on the southern coast of Massachusetts, west of Cape Cod. Listings and vertical profiles of one-meter-averaged values of temperatures, salinity, sigma-t and light transmission are presented. Selected vertical cross-sections of temperature, salinity and sigma-t are also included, as are horizontal maps of the same variables at depths of 1 m and 8 m.

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I. Introduction

Buzzards Bay is located on the southern coast of Massachusetts, west of Cape Cod and east of Narragansett Bay (Figure 1). The mouth opens into Rhode Island Sound, the head is connected via Cape Cod Canal to Cape Cod Bay and the southeastern side is separated from Vineyard Sound by the Elizabeth Islands. The northwestern side is fed by a number of small rivers, among them the Wareham (fed by the Agawam and Wankinco), Wewantic and Acushnet. No accurate estimates of mean streamflow into the Bay are available due to the lack of flow gauging stations. It has been suggested that groundwater seepage may significantly contribute to the fresh-water inflow. Figure 2 shows the approximate bathymetry of the Bay.

The documentation in 1976 of severe PCB pollution problems (Far-
rington et al., 1984 and Weaver, 1984) in the New Bedford Harbor area of Buzzards Bay led to an increase in scientific interest in the Bay. PCBs were discharged into New Bedford Harbor from two electrical component manufacturers during the two decades prior to 1975. Marine chemists, as well as biologists and geologists became interested in the pollution problem here and needed to know something about the physics of the area. A search of the literature and local data archives turned up very little physical oceanographic data for the Bay, rather surprising since a major oceanographic institution is situated on its shores. As a starting point in understanding the circulation of Buzzards Bay, a series of four hydrographic cruises was undertaken. This report will present the results of these cruises; including data listings, vertical profiles of temperature, salinity and density, and selected vertical sections and horizontal maps of temperature, salinity and density.

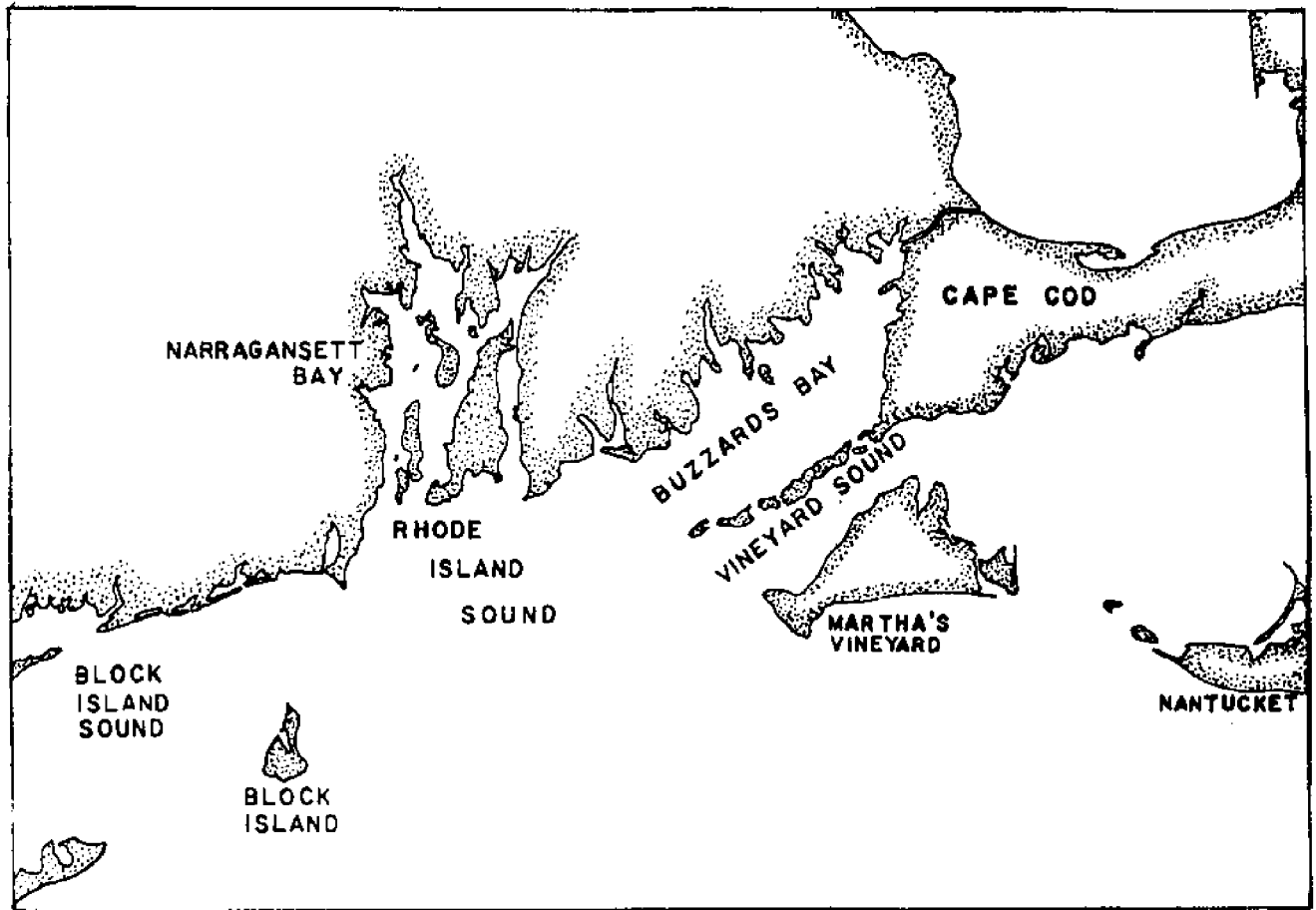


Figure 1: Location of Buzzards Bay in relation to surrounding area.

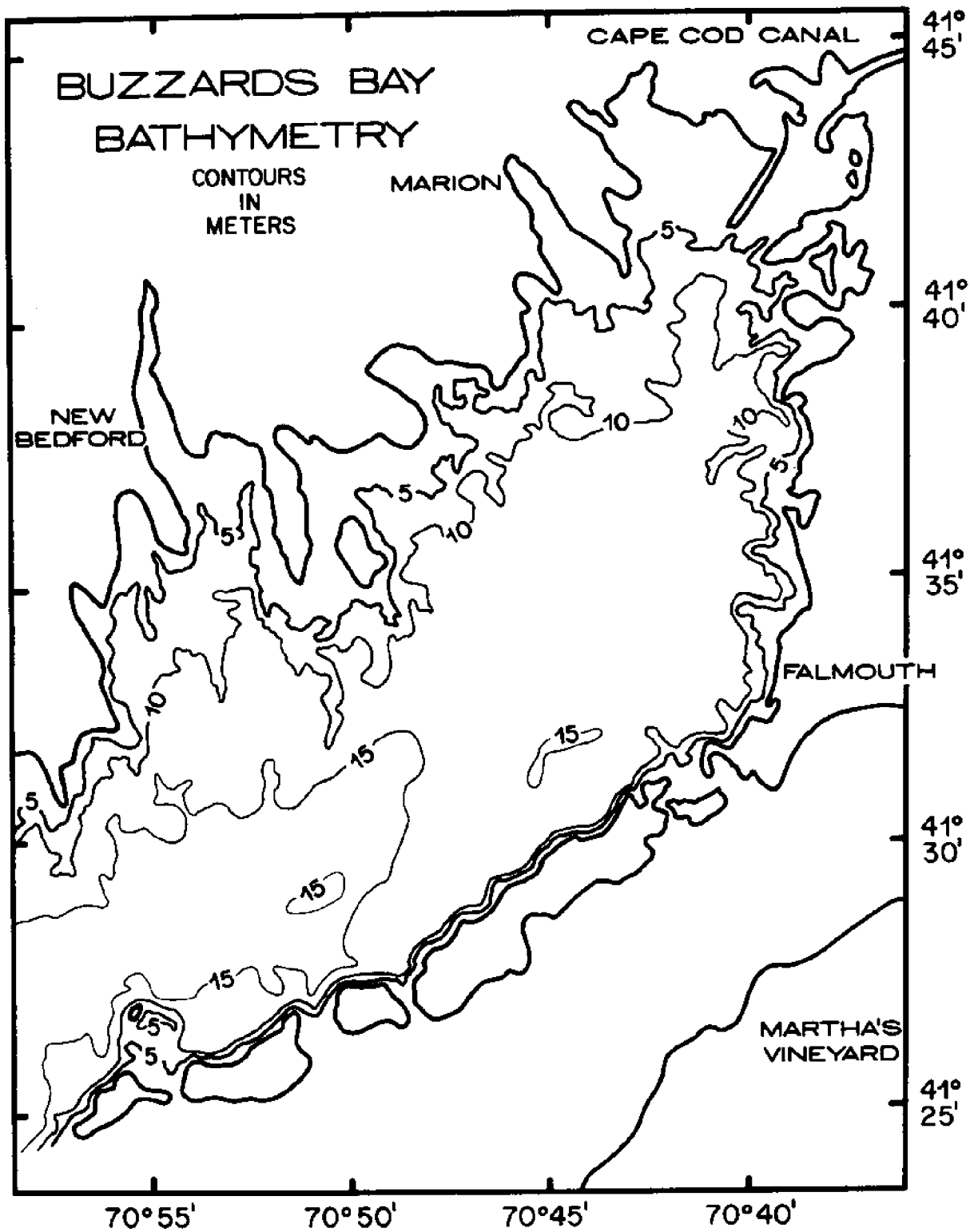


Figure 2: Bathymetry of Buzzards Bay adapted from Moore (1963).
Depths are in meters relative to mean low water.

II. Sampling Scheme

A series of four hydrographic cruises was planned to document the seasonal variability in the hydrographic conditions in Buzzards Bay during the course of one year. All four cruises employed the R/V Asterias, which belongs to the Woods Hole Oceanographic Institution (WHOI) and lasted two days, with the exception of the first cruise which included a third day devoted to a 12-hour anchor station. The dates of these cruises were July 29-31, 1982, October 28-29, 1982, January 13-14, 1983 and May 5-6, 1983. The sampling strategy was designed to provide maximum coverage of the Bay within the allotted ship time. The basic plan which we attempted to cover on all four cruises consisted of a transect along the axis of the Bay and three cross-bay lines; one near the mouth, one at mid-bay extending from the outer harbor at New Bedford to the southwest end of Naushon Island, and another farther up the Bay stretching from near Mattapoisett Neck to Uncatena Island. As time allowed, stations were added between these lines and in the upper bay. Stations were nominally spaced 3 km apart on the cross-bay transects and 4 km apart along the axis. During the first cruise, a test was made with three stations (30, 30C and 30D) spaced only 0.5 km apart to see if there was significant variation on this scale. We found that there was not. During the first cruise no attempt was made to take into account variability due to the tidal cycle but a twelve-hour anchor station with CTD casts every half hour was made in the upper bay at station 39C (also referred to as A1-A24). On subsequent cruises the anchor station was dispensed with, but sampling was timed so as to try to complete an entire cross-bay line

in a two-hour period surrounding slack tide. During the third cruise when we expanded our coverage to encompass the Cape Cod Canal, parts of Cape Cod Bay and Vineyard Sound, we tried to sample these surrounding bodies of water during that portion of the tidal cycle when flow was into Buzzards Bay so as to see the influence of these water types on the Bay.

Stations were designated numerically in sequential order on the first cruise. All station names start with the initials BB for Buzzards Bay followed by the number 1, 2, 3 or 4 to designate the cruise. The next two numbers indicate the station location (these are shown in Figures 3, 37, 59, 60, and 88) and are consistent from cruise to cruise. When the same station was reoccupied during a single cruise, the station name ends with the letter R to signify a repeated station. The letters A, B and C at the end of a station name just mean that these stations were added as we went along and were not part of the initial numbering scheme. During the third cruise a number of stations were added near Sippewissett Marsh to investigate the possible effects of groundwater. These have the letters GW following the cruise designation. Also on cruise three, VS was used to identify Vineyard Sound stations and QH for Quicks Hole. Casts were generally taken to within 1 m of the bottom (a specially built cage was added to the bottom of the instrument to keep the sensors out of the mud), but when the sea was rough, we stopped farther off the bottom. Cast depths at a given station may also vary from cruise to cruise due to the tides (tidal range is about 1 m throughout most of the Bay).

III. Instrumentation

All of the data presented in this report is based on measurements made using a Neil Brown Instrument Systems MK III CTD and attached Sea

Tech beam transmissometer (with a 25 cm path length) belonging to B. Butman of the U.S. Geological Survey, Woods Hole, Massachusetts. The instruments provided continuous sampling of temperature, conductivity, dissolved oxygen, light transmission and pressure. The data passed through a deck unit and was then subsampled and recorded by a HP85 computer (on loan from R. Beardsley of WHOI). No oxygen data is included here due to uncertainty as to the values of coefficients in the algorithm used to reduce the data. Salinity and density were calculated from the measured parameters.

Conductivity is measured with a miniature four electrode ceramic cell. Temperature is determined from the combined outputs of a high speed (30 millisecond) thermistor and a platinum resistance thermometer. Pressure is sensed by a strain gauge pressure transducer. The manufacturer specifies an accuracy of ± 0.5 db for pressure, $\pm 0.005^{\circ}\text{C}$ for temperature and ± 0.005 mmho for conductivity (which corresponds to roughly $\pm 0.005\text{‰}$ in salinity). A calibration on the instrument we used was performed by Karl Schleicher at the WHOI calibration facility in the fall of 1981. He found a temperature offset of -0.010°C and a standard deviation of $.001^{\circ}\text{C}$, and a conductivity offset of $+ 0.010$ mmho with a $.003$ mmho standard deviation. Another calibration done in January, 1982 also found a temperature offset of -0.010°C and a conductivity offset of 0.006 mmho.

During all our cruises, surface salinity samples were taken using a bucket, and deeper samples were taken with a Niskin bottle attached to the wire above the CTD fish on the first, third and fourth cruises. Surface temperatures were measured with a bucket thermometer, but this has an accuracy of only about 0.5°C . The salinity samples were analyzed with

a Guildline model 6400 salinometer. Comparisons with the CTD are presented for the deeper samples only because of the larger gradients near the surface. For cruise one, the average difference between salinometer and CTD values had a magnitude of $0.004^{\circ}/\text{‰}$, for cruise three, $0.003^{\circ}/\text{‰}$. It appears that there was a problem with the analysis of the salinity samples from the fourth cruise so those comparisons are not included. No samples were taken to calibrate the transmissometer, but the manufacturer states the accuracy to be ± 0.5 percent.

Navigation and station location were determined primarily by use of a Loran-C, with the additional aid of radar and visual sighting.

IV. Data Analysis

All data analysis was carried out using an HP85 computer. The acquisition program (adapted from one written by Frank Sommer of University of Alaska, Fairbanks) was set to subsample at 0.4 seconds, resulting in an average of five to six readings per meter. All variables were converted to engineering units and listings were made after each station. A temperature-dependent depth offset was applied while on board, and small corrections were applied later, based on the fact that the first good salinity values should fall at or just below the surface. (Data was always taken on the downcast with acquisition starting in the air.) Once the depth was corrected, bad near-surface values of transmission were thrown out (near the surface the instrument is partly in air and partly in water). The data was then averaged into one meter bins with values greater than .5 m and less than or equal to 1.5 m being assigned to 1 m and similarly for the rest of the cast.

V. Data Presentation

The data is presented by cruise with a short introduction for each. A station map and cruise track is shown, followed by a table giving the times at which each station was occupied. All times are local (Standard or Daylight-Saving depending on the dates of the cruise). The vertical profiles and listings of the one-meter-averaged data are presented first. Values of 0.000 in the listings indicate that no data was available for that depth at that station. Following this are vertical sections (along-axis, lower, middle, and upper bay) of temperature, salinity and sigma-t. Temperature is contoured at $.5^{\circ}\text{C}$ intervals for cruises one and four, and at $.2^{\circ}\text{C}$ for cruises two and three. Salinity is contoured at $.1^{\circ}/\text{oo}$ intervals for all cruises. Sigma-t is contoured at $.2 \text{ g/cm}^3$ intervals for cruises one and four, and $.1 \text{ g/cm}^3$ for cruises two and three. Finally, there are horizontal maps of temperature, salinity and sigma-t at one and eight meters depth. Contour intervals are the same as for the vertical stations. Note that some stations were shallower than eight meters.

Acknowledgments. We would like to thank all the people who assisted in the data collection. C. Mills was particularly valuable, participating in every cruise. A. D. Colburn, captain of the R/V Asterias, was always calm, helpful and competent. R. Limeburner assisted in setting up the CTD equipment and helped with the HP85 programming. This work could not have been accomplished without the generosity of B. Butman who loaned us the CTD. The typing was skillfully done by A.-M. Michael. This work was supported by a grant from the Andrew W. Mellon Foundation to the Coastal Research Center at WHOI and by Sea Grant.

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Cruise One: July 29-31, 1982

On July 29 the winds were approximately 15 kts out of the west. We started out at Station 1, near the head of the Bay and worked our way down the center toward the mouth, where there was 5 to 6 foot swell with a 1 to 2 foot chop. When the section across the mouth (Stations 14-19) was started at 1545, tidal flow was into the Bay (according to White, 1981). By the time Station 19 was finished, the tide was just starting to ebb. We spent the night at Cuttyhunk and the next day the winds and seas were calm with just a slight swell. We worked our way up the Bay on an ebb tide. The New Bedford Harbor line (Stations 25-30) was started at 1140, just before the tide started to flood, and was completed three hours later. Stations 31-36 were occupied between 1740 and 1845, during which time the tide switched from flood to ebb. On July 31 we occupied the anchor station (39C or A1-A24) from about 1230 until 0030 on August 1. The sea was calm and the wind 5-10 kts out of the southwest. CTD casts were made every half hour. The tide started to flood at 1308 and turned to ebb at 1929.

Table 1: Cruise One Station Times

Station Number	Time*	Station Number	Time*
	July 29, 1982		July 30, 1982
BB1-1	0904	BB1-9R	0933
BB1-2	0937	BB1-23	0946
BB1-3	1008	BB123C	1011
BB1-4	1025	BB1-8R	1035
BB1-5	1050	BB1-24	1105
BB1-6	1106	BB1-25	1137
BB1-7	1128	BB1-26	1202
BB1-8	1151	BB1-27	1309
BB1-9	1215	BB1-28	1325
BB1-10	1232	BB1-7R	1338
BB1-11	1440	BB1-29	1353
BB1-12	1457	BB1-30	1408
BB1-13	1511	BB130C	1426
BB1-14	1545	BB130D	1446
BB1-15	1600	BB1-31	1740
BB1-16	1613	BB1-32	1755
BB113R	1629	BB1-5R	1815
BB1-17	1640	BB1-35	1833
BB1-18	1654	BB1-36	1843
BB1-19	1714	BB1-37	1858
		BB1-40	1745
	July 30, 1982	BB1-1R	2010
		BB1-39	2028
BB119C	0739	BB139C	2051
BB1-20	0759	BB1-41	2125
BB111R	0814	BB1-3R	2150
BB1-21	0831	BB1-38	2206
BB121C	0848		
BB1-22	0907		

*(Eastern Daylight-Saving Time)

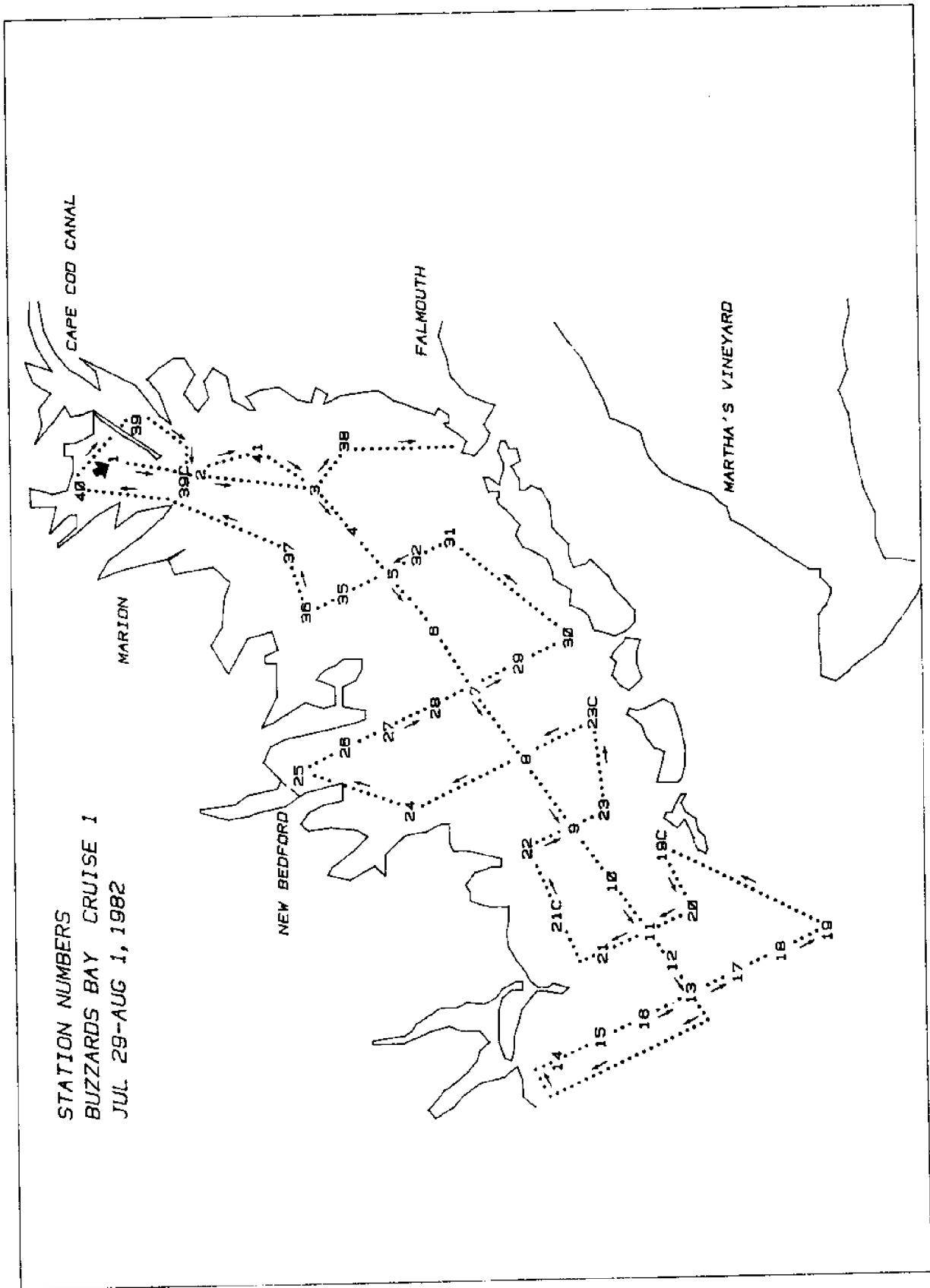
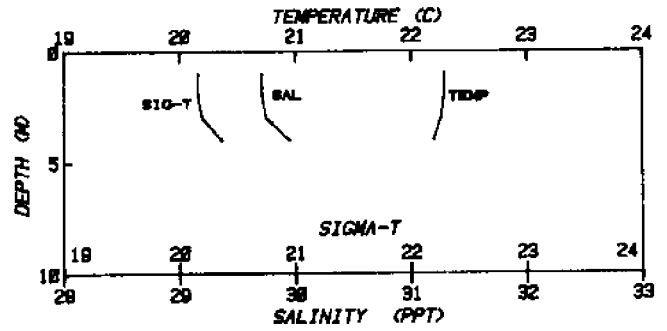


Figure 3: Cruise track and station locations for Cruise 1. Bold arrow indicates first station.

STATION 1
 LATITUDE 41 42.2 N
 LONGITUDE 70 40.8 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

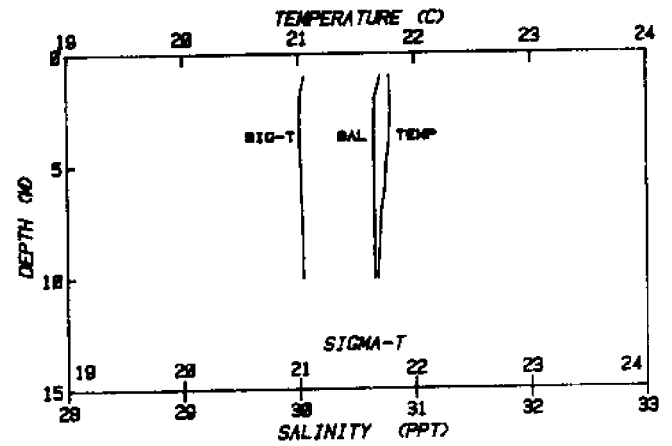
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	22.286	29.707	20.157	37.27
2.0	22.202	29.711	20.161	37.32
3.0	22.250	29.746	20.195	37.09
4.0	22.193	29.949	20.365	34.65



STATION 2
 LATITUDE 41 39.6 N
 LONGITUDE 70 41.5 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	21.783	30.705	21.048	51.34
2.0	21.789	30.656	21.010	50.98
3.0	21.788	30.649	21.005	52.34
4.0	21.774	30.646	21.006	53.91
5.0	21.747	30.647	21.014	54.61
6.0	21.741	30.647	21.016	54.69
7.0	21.707	30.647	21.026	55.41
8.0	21.697	30.649	21.030	56.07
9.0	21.688	30.649	21.032	55.49
10.0	21.678	30.650	21.035	54.18



STATION 3
 LATITUDE 41 36.2 N
 LONGITUDE 70 42.2 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 31, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	22.004	31.019	21.226	48.54
2.0	22.004	31.018	21.225	50.00
3.0	22.003	31.018	21.226	49.51
4.0	21.995	31.016	21.226	49.22
5.0	21.984	31.015	21.229	49.25
6.0	21.970	31.013	21.231	49.06
7.0	21.953	31.015	21.237	49.28
8.0	21.949	31.016	21.238	50.05
9.0	21.950	31.016	21.239	50.59
10.0	21.903	31.020	21.254	50.29
11.0	21.891	31.023	21.260	50.66

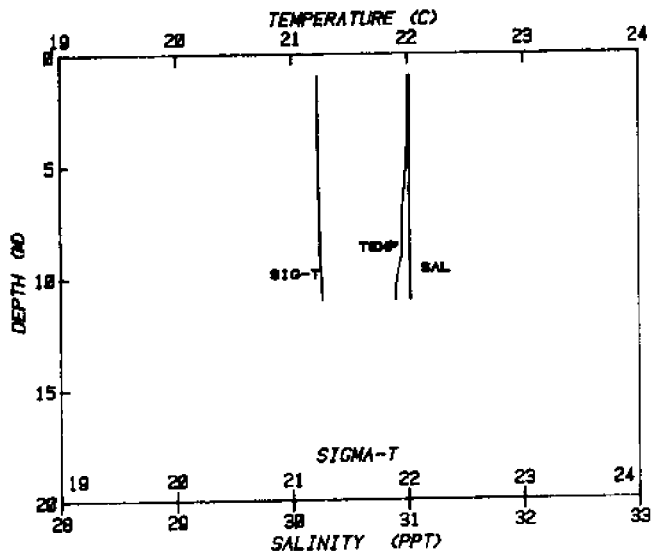
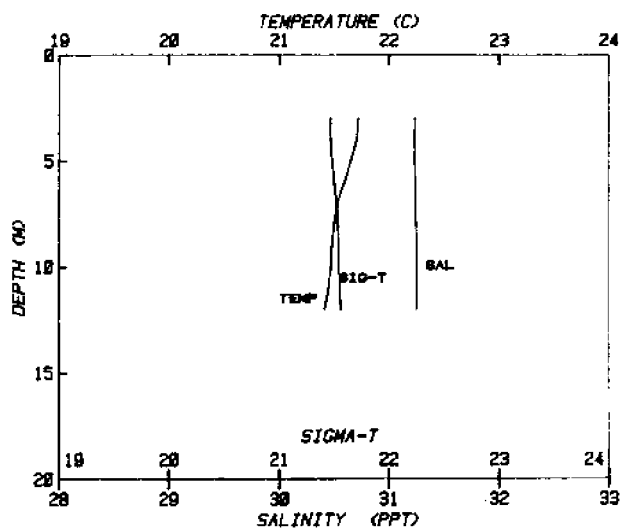


Figure 4

STATION 4
 LATITUDE 41 35.1 N
 LONGITUDE 70 43.9 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 31, 1982

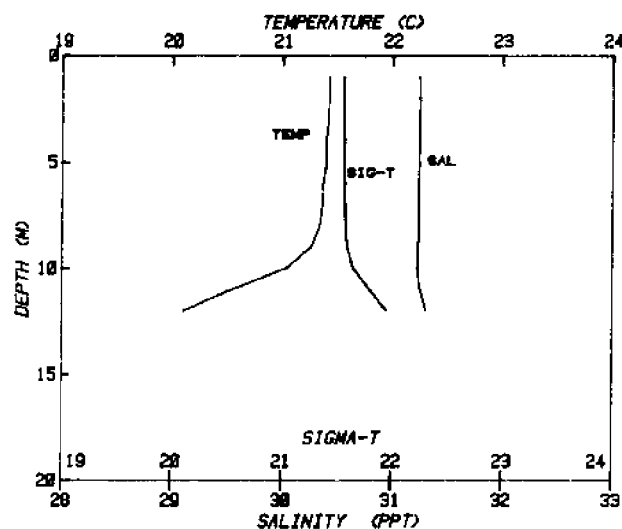
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	0.000	0.000	0.000	0.00
2.0	0.000	0.000	0.000	0.00
3.0	21.720	31.233	21.466	51.48
4.0	21.700	31.230	21.468	51.09
5.0	21.657	31.233	21.484	51.02
6.0	21.596	31.238	21.500	51.41
7.0	21.532	31.243	21.524	52.41
8.0	21.502	31.250	21.537	54.06
9.0	21.484	31.253	21.544	53.91
10.0	21.474	31.253	21.547	53.57
11.0	21.461	31.254	21.554	52.23
12.0	21.416	31.252	21.562	50.00



STATION 5
 LATITUDE 41 33.9 N
 LONGITUDE 70 45.6 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	21.424	31.247	21.556	46.00
2.0	21.427	31.248	21.557	55.63
3.0	21.415	31.246	21.558	55.00
4.0	21.395	31.247	21.564	55.47
5.0	21.401	31.247	21.562	55.70
6.0	21.372	31.244	21.568	55.27
7.0	21.367	31.244	21.570	55.35
8.0	21.342	31.240	21.576	56.25
9.0	21.262	31.238	21.593	57.19
10.0	21.035	31.231	21.648	58.02
11.0	20.543	31.255	21.797	56.89
12.0	20.112	31.308	21.950	51.18



STATION 6
 LATITUDE 41 32.7 N
 LONGITUDE 70 47.9 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 31, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	20.957	31.299	21.721	56.18
2.0	20.949	31.298	21.722	56.09
3.0	20.876	31.295	21.740	56.04
4.0	20.834	31.298	21.753	55.99
5.0	20.717	31.297	21.783	56.54
6.0	20.609	31.295	21.810	57.34
7.0	20.417	31.309	21.871	59.58
8.0	20.270	31.316	21.913	61.19
9.0	20.131	31.320	21.954	61.25
10.0	19.964	31.330	22.005	60.66
11.0	19.801	31.350	22.114	63.44
12.0	19.316	31.356	22.191	64.56
13.0	19.236	31.367	22.219	63.54
14.0	19.223	31.371	22.225	62.24

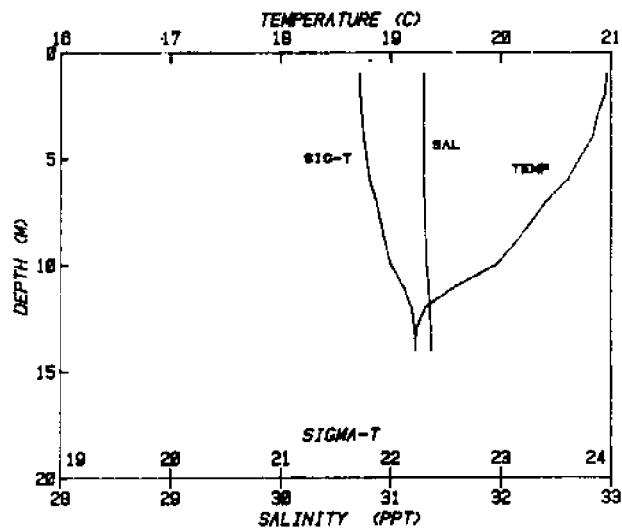
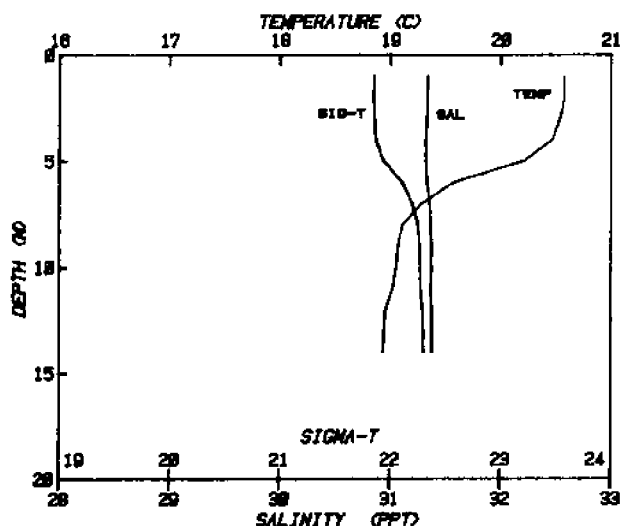


Figure 5

STATION 7
 LATITUDE 41 31.5 N
 LONGITUDE 70 50.3 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 31, 1982

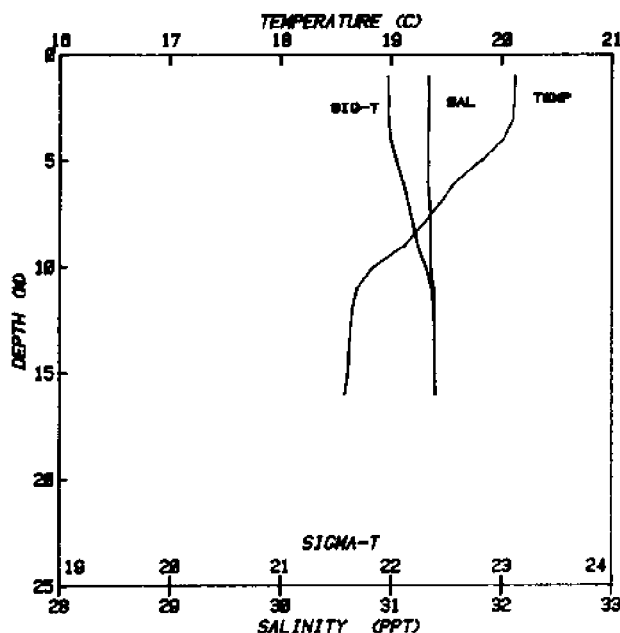
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. X
1.0	20.573	31.338	21.852	54.38
2.0	20.575	31.333	21.848	54.11
3.0	20.535	31.329	21.855	54.59
4.0	20.466	31.320	21.867	55.06
5.0	20.288	31.321	21.935	55.71
6.0	19.579	31.333	22.107	57.48
7.0	19.288	31.358	22.199	61.56
8.0	19.112	31.366	22.250	62.23
9.0	19.068	31.375	22.268	63.03
10.0	19.056	31.377	22.272	63.22
11.0	19.025	31.370	22.275	63.33
12.0	18.960	31.379	22.298	63.24
13.0	18.946	31.381	22.303	62.99
14.0	18.938	31.381	22.385	63.10



STATION 8
 LATITUDE 41 30.0 N
 LONGITUDE 70 53.1 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Z
1.0	20.122	31.342	21.973	55.59
2.0	20.115	31.343	21.976	55.78
3.0	20.106	31.339	21.975	55.70
4.0	20.015	31.333	21.995	55.03
5.0	19.818	31.335	22.047	55.84
6.0	19.581	31.333	22.106	56.20
7.0	19.444	31.350	22.154	57.71
8.0	19.285	31.356	22.198	58.78
9.0	19.119	31.355	22.239	60.26
10.0	18.837	31.360	22.314	61.72
11.0	18.691	31.384	22.368	60.16
12.0	18.649	31.391	22.384	58.23
13.0	18.631	31.393	22.390	56.94
14.0	18.620	31.392	22.392	54.92
15.0	18.609	31.393	22.396	54.44
16.0	18.584	31.394	22.403	52.25



STATION 9
 LATITUDE 41 28.6 N
 LONGITUDE 70 55.9 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 31, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Z
1.0	19.905	31.342	22.029	52.41
2.0	19.829	31.343	22.033	52.31
3.0	19.860	31.342	22.041	52.88
4.0	19.788	31.341	22.058	52.44
5.0	19.760	31.342	22.067	52.32
6.0	19.725	31.342	22.076	52.29
7.0	19.592	31.329	22.113	52.53
8.0	19.239	31.339	22.198	54.11
9.0	19.096	31.361	22.250	56.72
10.0	19.006	31.361	22.273	57.19
11.0	18.941	31.367	22.294	56.98
12.0	18.764	31.370	22.340	50.48
13.0	18.646	31.377	22.375	50.89
14.0	18.601	31.384	22.398	50.76

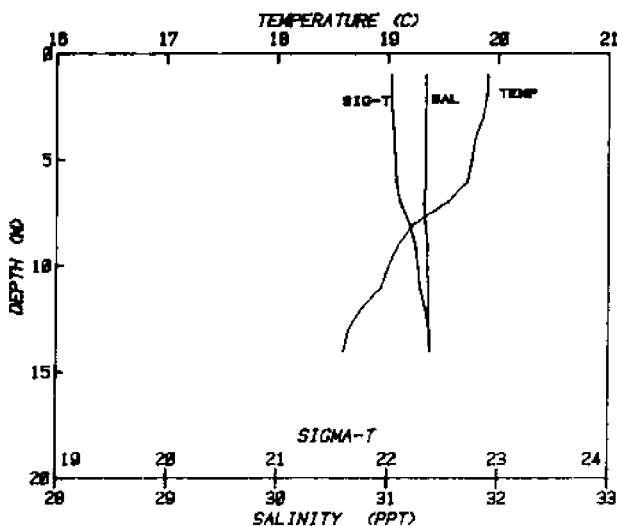
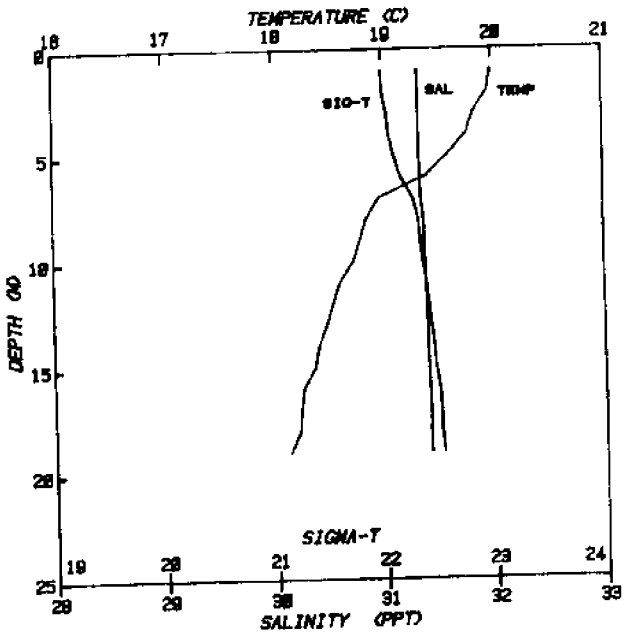


Figure 6

STATION 10
 LATITUDE 41 27.5 N
 LONGITUDE 70 58.3 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 31, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	19.996	31.330	21.997	48.23
2.0	19.957	31.331	22.007	48.39
3.0	19.891	31.331	22.040	48.84
4.0	19.764	31.333	22.059	49.22
5.0	19.595	31.334	22.103	50.13
6.0	19.393	31.342	22.161	51.30
7.0	18.964	31.348	22.273	54.28
8.0	18.846	31.370	22.320	56.66
9.0	18.786	31.372	22.336	57.13
10.0	18.723	31.376	22.355	57.73
11.0	18.597	31.379	22.388	59.94
12.0	18.534	31.386	22.409	60.25
13.0	18.472	31.390	22.427	59.17
14.0	18.395	31.393	22.449	59.80
15.0	18.360	31.399	22.461	61.28
16.0	18.251	31.404	22.492	62.59
17.0	18.228	31.407	22.500	63.49
18.0	18.214	31.404	22.502	62.81
19.0	18.127	31.406	22.524	61.09



STATION 11
 LATITUDE 41 26.4 N
 LONGITUDE 71 43 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	19.599	31.376	22.134	57.34
2.0	19.605	31.374	22.131	57.50
3.0	19.581	31.373	22.136	57.67
4.0	19.444	31.356	22.158	58.07
5.0	19.020	31.338	22.251	58.40
6.0	17.974	31.364	22.529	59.69
7.0	17.531	31.433	22.688	64.53
8.0	17.450	31.449	22.720	68.59
9.0	17.414	31.452	22.731	69.81
10.0	17.372	31.456	22.749	70.41
11.0	17.256	31.462	22.781	70.57
12.0	17.238	31.464	22.781	69.69
13.0	17.239	31.464	22.781	69.42
14.0	17.249	31.465	22.780	69.39
15.0	17.272	31.469	22.780	69.77
16.0	17.289	31.467	22.783	69.88
17.0	17.193	31.469	22.784	69.23
18.0	17.191	31.460	22.796	69.98
19.0	17.181	31.465	22.797	68.81

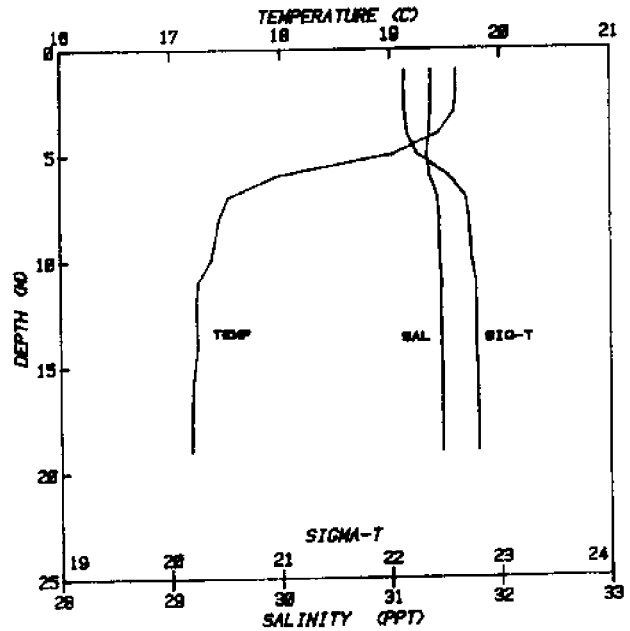
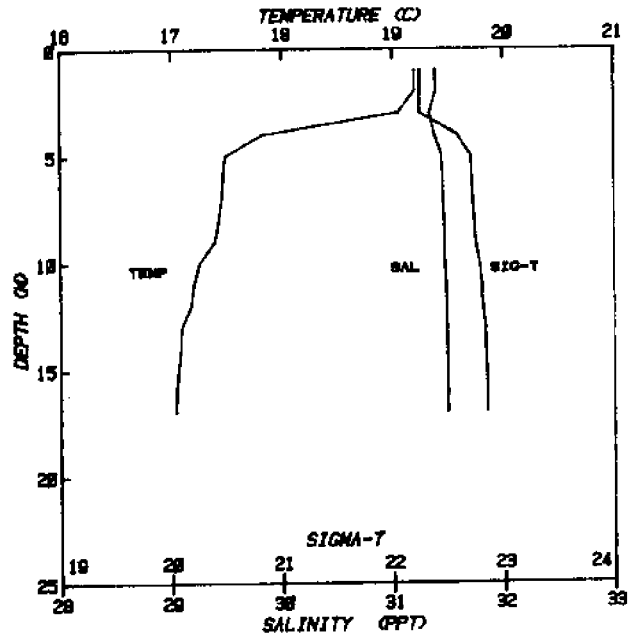


Figure 7

STATION 12
 LATITUDE 41 25.7 N
 LONGITUDE 71 1.5 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. X
1.0	19.199	31.394	22.249	56.25
2.0	19.201	31.394	22.249	59.89
3.0	19.053	31.337	22.242	60.08
4.0	17.830	31.380	22.576	60.26
5.0	17.491	31.444	22.786	65.63
6.0	17.473	31.455	22.719	67.60
7.0	17.457	31.459	22.726	68.85
8.0	17.430	31.468	22.739	69.53
9.0	17.395	31.469	22.749	70.72
10.0	17.256	31.471	22.782	71.60
11.0	17.203	31.483	22.804	72.50
12.0	17.177	31.484	22.811	72.22
13.0	17.097	31.488	22.834	71.66
14.0	17.083	31.489	22.837	71.96
15.0	17.062	31.492	22.844	71.52
16.0	17.047	31.492	22.848	69.92
17.0	17.038	31.492	22.850	69.14



STATION 13
 LATITUDE 41 25.2 N
 LONGITUDE 71 2.8 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. X
1.0	19.056	31.398	22.289	61.15
2.0	19.049	31.389	22.283	61.59
3.0	18.888	31.399	22.331	61.60
4.0	18.759	31.375	22.345	61.88
5.0	18.418	31.378	22.431	62.13
6.0	17.618	31.421	22.659	63.83
7.0	17.583	31.449	22.688	66.29
8.0	17.558	31.457	22.700	67.25
9.0	17.530	31.461	22.710	67.42
10.0	17.465	31.466	22.729	68.67
11.0	17.331	31.469	22.763	70.61
12.0	17.254	31.470	22.782	72.07
13.0	17.034	31.478	22.840	72.24
14.0	16.883	31.483	22.879	72.52
15.0	16.803	31.497	22.908	72.17
16.0	16.760	31.501	22.922	71.64
17.0	16.746	31.501	22.924	70.94

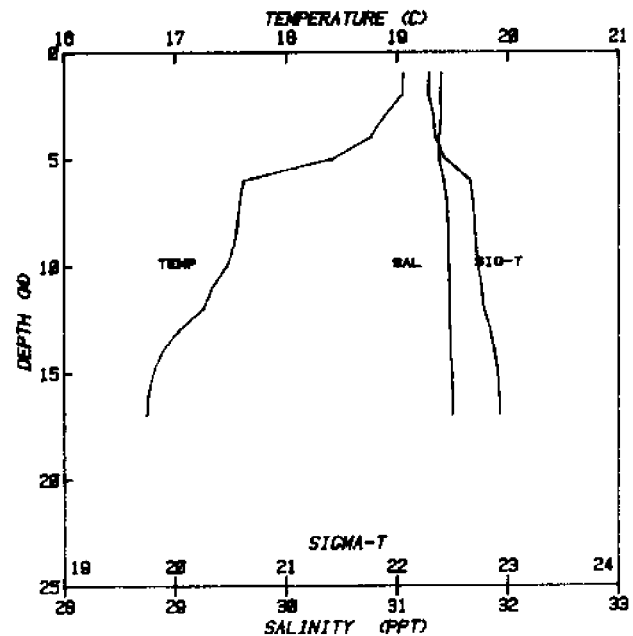
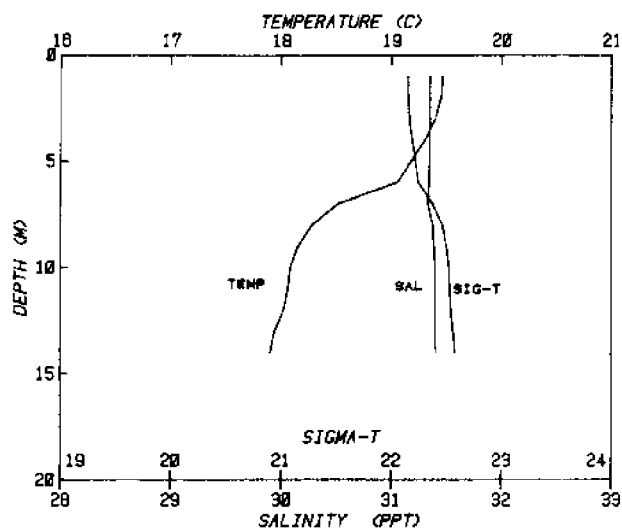


Figure 8

STATION 14
 LATITUDE 41 29.2 N
 LONGITUDE 71 5.4 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

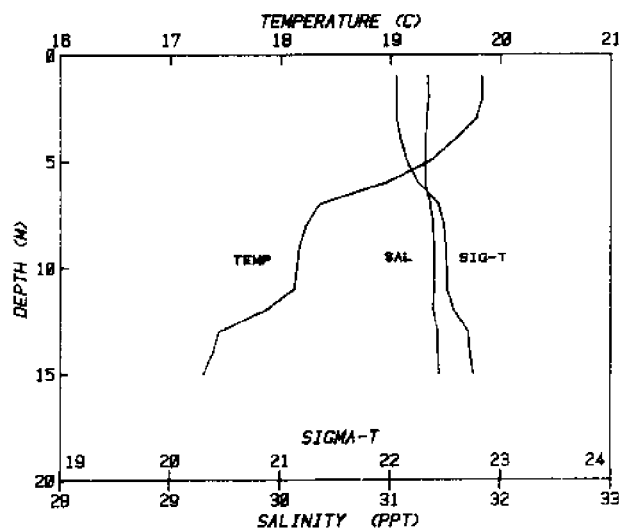
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	19.465	31.350	22.149	59.06
2.0	19.450	31.351	22.153	61.60
3.0	19.398	31.350	22.165	61.43
4.0	19.364	31.350	22.189	61.09
5.0	19.180	31.350	22.221	61.14
6.0	19.058	31.345	22.247	61.74
7.0	18.519	31.337	22.376	62.81
8.0	18.283	31.380	22.466	64.34
9.0	18.156	31.391	22.506	67.38
10.0	18.083	31.402	22.531	65.89
11.0	18.066	31.403	22.536	63.49
12.0	18.028	31.401	22.544	61.72
13.0	17.945	31.402	22.565	58.44
14.0	17.904	31.411	22.582	48.01



STATION 15
 LATITUDE 41 27.9 N
 LONGITUDE 71 4.5 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	19.524	31.340	22.049	60.47
2.0	19.510	31.343	22.049	62.03
3.0	19.277	31.325	22.050	61.68
4.0	19.239	31.315	22.093	60.35
5.0	19.224	31.314	22.147	61.05
6.0	18.949	31.313	22.247	61.37
7.0	18.757	31.361	22.400	62.84
8.0	18.731	31.306	22.461	64.25
9.0	18.160	31.395	22.506	64.53
10.0	18.140	31.396	22.513	64.71
11.0	18.124	31.396	22.517	64.63
12.0	17.844	31.390	22.575	63.13
13.0	17.492	31.432	22.719	56.41
14.0	17.386	31.436	22.726	54.10
15.0	17.301	31.445	22.737	40.71



STATION 16
 LATITUDE 41 26.6 N
 LONGITUDE 71 3.0 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	20.368	31.327	21.898	61.59
2.0	20.321	31.326	21.896	62.14
3.0	20.345	31.322	21.900	62.07
4.0	19.933	31.307	21.921	60.59
5.0	19.411	31.299	22.123	58.13
6.0	18.695	31.357	22.347	57.86
7.0	18.319	31.367	22.449	58.59
8.0	17.855	31.402	22.587	65.28
9.0	17.748	31.412	22.620	67.19
10.0	17.642	31.427	22.613	69.18
11.0	17.519	31.425	22.685	69.38
12.0	17.487	31.431	22.726	69.71
13.0	17.354	31.433	22.733	68.44
14.0	17.198	31.441	22.729	64.57
15.0	17.231	31.447	22.724	63.48
16.0	17.117	31.455	22.809	59.14

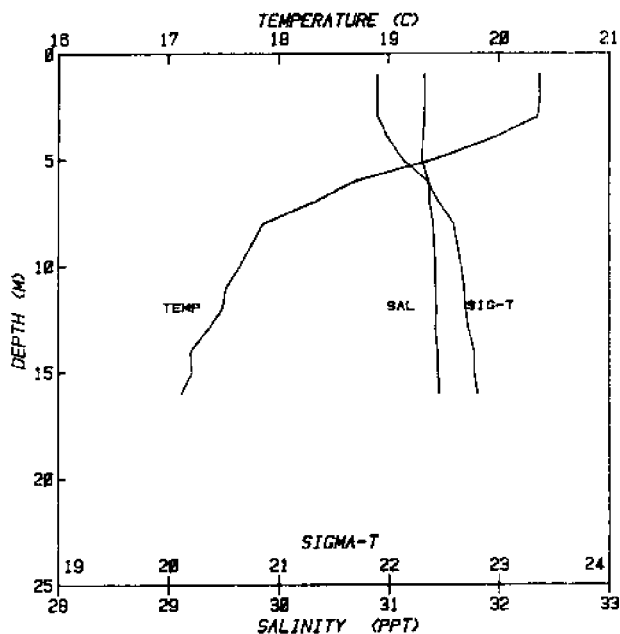
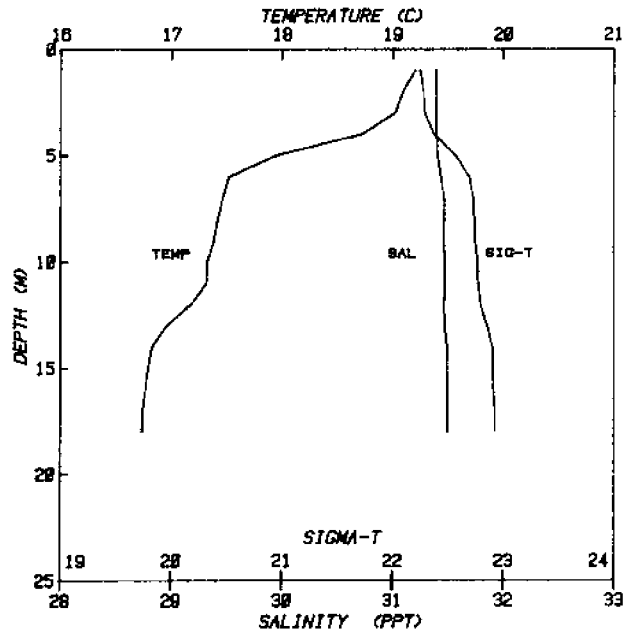


Figure 9

STATION 13K
 LATITUDE 41 25.2 N
 LONGITUDE 71 2.8 E

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	19.204	31.396	22.249	60.04
2.0	19.092	31.397	22.278	60.16
3.0	19.024	31.393	22.292	60.53
4.0	18.724	31.402	22.374	61.64
5.0	17.949	31.408	22.569	63.72
6.0	17.820	31.436	22.693	66.56
7.0	17.462	31.468	22.731	68.69
8.0	17.419	31.469	22.742	66.67
9.0	17.386	31.466	22.748	69.02
10.0	17.327	31.476	22.771	69.27
11.0	17.318	31.480	22.775	69.64
12.0	17.177	31.465	22.797	70.96
13.0	16.950	31.474	22.856	72.03
14.0	16.824	31.496	22.903	72.19
15.0	16.793	31.496	22.910	72.11
16.0	16.769	31.499	22.917	71.98
17.0	16.742	31.502	22.926	71.25
18.0	16.738	31.503	22.928	70.28



STATION 17
 LATITUDE 41 23.8 N
 LONGITUDE 71 2 E

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	18.760	31.450	22.540	56.09
2.0	18.171	31.450	22.565	67.58
3.0	17.703	31.446	22.681	69.53
4.0	17.362	31.466	22.777	71.89
5.0	16.935	31.498	22.880	74.22
6.0	16.904	31.500	22.887	74.61
7.0	16.862	31.507	22.902	74.74
8.0	16.857	31.506	22.904	74.79
9.0	16.811	31.507	22.914	74.80
10.0	16.767	31.508	22.925	74.82
11.0	16.749	31.516	22.935	74.69
12.0	16.749	31.510	22.947	74.34
13.0	16.683	31.518	22.957	74.06
14.0	16.583	31.514	22.972	73.63
15.0	16.517	31.519	22.991	73.00
16.0	16.486	31.521	23.000	72.39
17.0	16.432	31.521	23.012	72.40
18.0	16.408	31.525	23.021	71.80
19.0	16.361	31.526	23.032	71.09

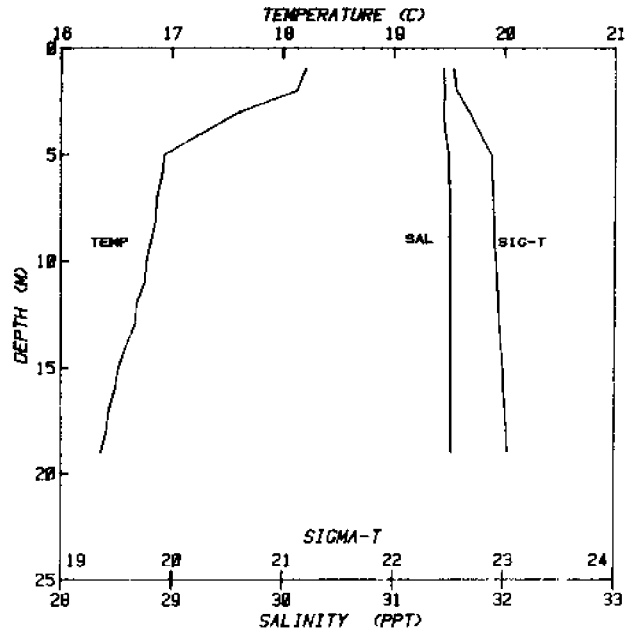
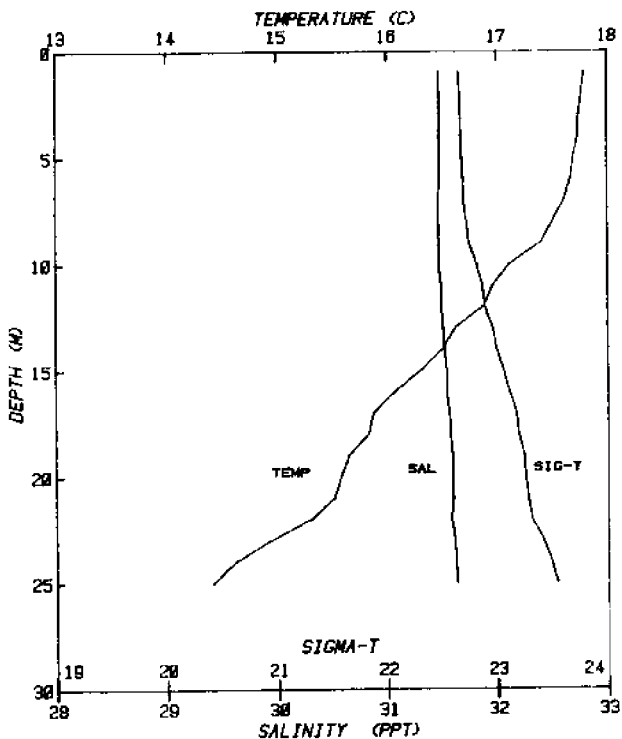


Figure 10

STATION 19
 LATITUDE 41 22.5 N
 LONGITUDE 71 1.2 E

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	17.797	31.478	22.668	69.25
2.0	17.767	31.482	22.669	69.38
3.0	17.741	31.482	22.675	69.45
4.0	17.735	31.480	22.676	69.48
5.0	17.696	31.479	22.684	69.14
6.0	17.668	31.482	22.693	68.96
7.0	17.619	31.473	22.699	69.30
8.0	17.508	31.474	22.725	69.27
9.0	17.403	31.476	22.751	69.77
10.0	17.120	31.477	22.819	71.47
11.0	16.964	31.497	22.821	73.52
12.0	16.879	31.499	22.892	74.72
13.0	16.622	31.512	22.997	75.55
14.0	16.508	31.524	22.997	75.55
15.0	16.310	31.544	23.057	75.55
16.0	16.072	31.591	23.189	76.52
17.0	15.877	31.567	23.173	76.88
18.0	15.829	31.574	23.189	77.14
19.0	15.649	31.587	23.209	77.19
20.0	15.576	31.587	23.255	77.34
21.0	15.515	31.593	23.273	77.40
22.0	15.306	31.576	23.306	77.19
23.0	14.935	31.608	23.411	77.56
24.0	14.618	31.617	23.485	76.95
25.0	14.412	31.630	23.539	76.96



STATION 19
 LATITUDE 41 21.1 N
 LONGITUDE 71 1.4 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	17.887	31.477	22.656	68.11
2.0	17.796	31.477	22.658	68.07
3.0	17.757	31.476	22.668	68.28
4.0	17.665	31.472	22.686	68.44
5.0	17.656	31.479	22.696	68.98
6.0	17.567	31.476	22.710	69.30
7.0	17.457	31.474	22.737	70.55
8.0	17.336	31.482	22.772	71.77
9.0	17.292	31.484	22.784	72.46
10.0	17.286	31.486	22.787	72.85
11.0	17.286	31.487	22.788	72.81
12.0	17.285	31.487	22.794	73.44
13.0	17.261	31.487	22.794	73.44
14.0	17.195	31.466	22.805	74.06
15.0	15.409	31.501	23.226	75.26
16.0	15.017	31.575	23.368	76.33
17.0	14.488	31.628	23.522	78.19
18.0	14.191	31.657	23.616	79.22
19.0	13.861	31.681	23.693	79.22
20.0	13.686	31.684	23.721	79.32
21.0	13.531	31.700	23.774	77.50
22.0	13.455	31.687	23.779	76.43
23.0	13.381	31.711	23.812	75.63
24.0	13.340	31.715	23.824	75.00
25.0	13.313	31.712	23.827	74.69
26.0	13.272	31.718	23.849	73.62
27.0	13.187	31.720	23.868	72.57
28.0	13.154	31.727	23.870	71.51

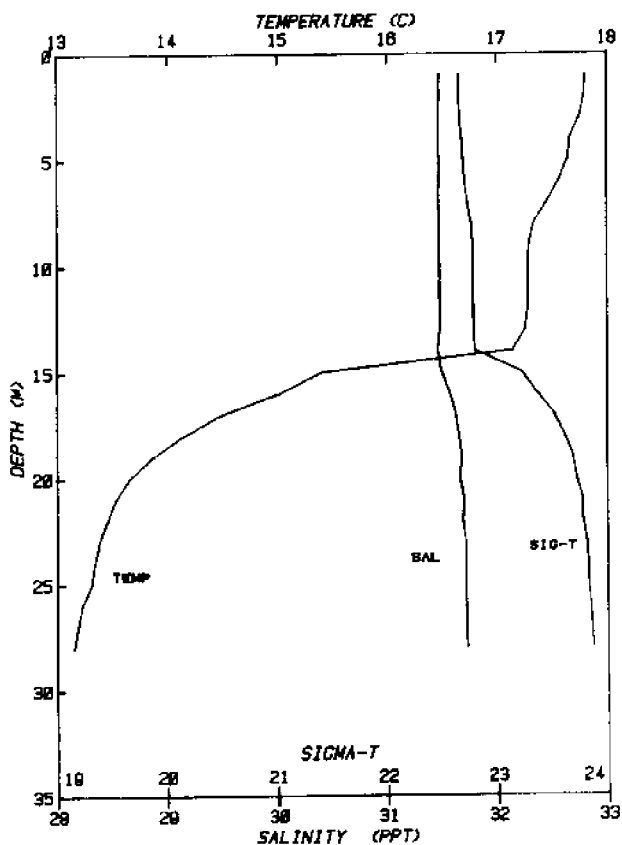
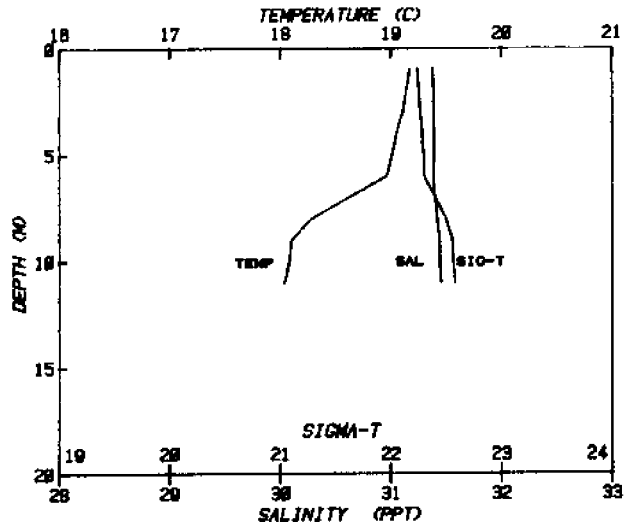


Figure 11

STATION 19C
 LATITUDE 41 26 N
 LONGITUDE 70 56.9 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	19.173	31.378	22.244	58.83
2.0	19.139	31.383	22.256	58.66
3.0	19.107	31.385	22.266	58.91
4.0	19.051	31.392	22.285	59.26
5.0	19.012	31.392	22.295	58.44
6.0	18.965	31.383	22.308	58.38
7.0	18.819	31.403	22.401	58.47
8.0	18.781	31.421	22.498	57.94
9.0	18.100	31.443	22.559	57.40
10.0	18.080	31.447	22.567	57.40
11.0	18.037	31.452	22.581	57.34



STATION 20
 LATITUDE 41 25.1 N
 LONGITUDE 70 59.5 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	19.176	31.375	22.241	62.91
2.0	18.441	31.388	22.433	66.41
3.0	17.718	31.442	22.650	68.91
4.0	17.638	31.468	22.619	69.22
5.0	17.511	31.467	22.707	68.98
6.0	17.510	31.479	22.728	69.18
7.0	17.475	31.474	22.733	68.59
8.0	17.472	31.476	22.735	68.65
9.0	17.451	31.475	22.739	68.85
10.0	17.418	31.480	22.751	69.17
11.0	17.398	31.479	22.757	69.58
12.0	17.305	31.488	22.784	69.82
13.0	17.247	31.495	22.803	69.92
14.0	17.185	31.495	22.818	70.31
15.0	17.081	31.501	22.847	70.21
16.0	16.948	31.505	22.881	69.69
17.0	16.838	31.516	22.915	70.23
18.0	16.701	31.517	22.947	70.70
19.0	16.481	31.538	23.008	70.55
20.0	16.424	31.545	23.032	71.09
21.0	16.408	31.542	23.034	71.33
22.0	16.362	31.546	23.047	71.82
23.0	16.334	31.550	23.057	70.20
24.0	16.321	31.549	23.059	69.94
25.0	16.201	31.547	23.085	68.75
26.0	16.127	31.556	23.128	65.42

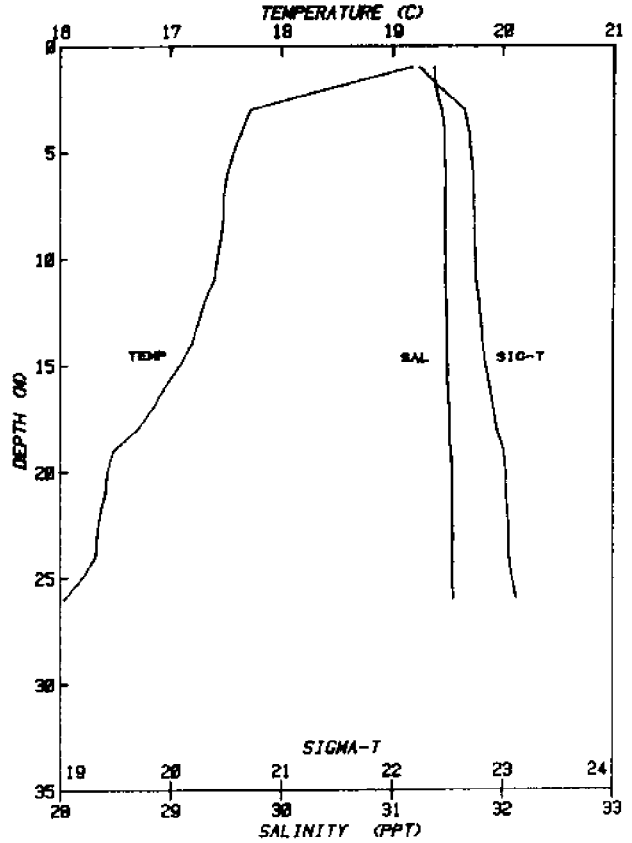
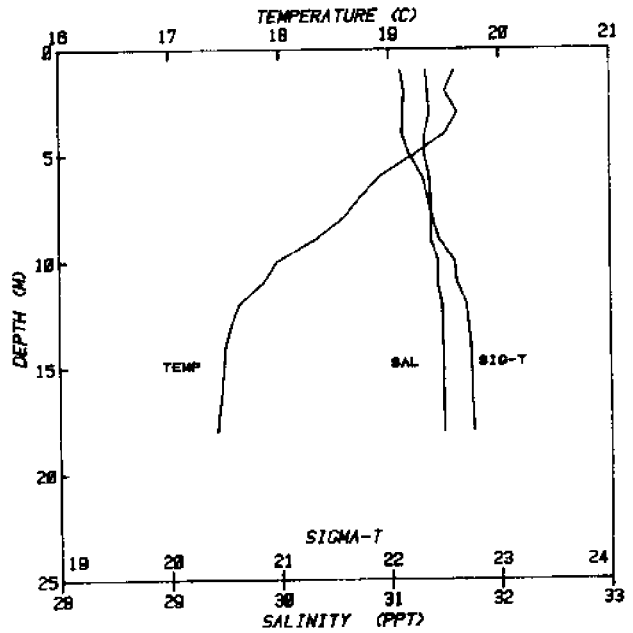


Figure 12

STATION 11K
 LATITUDE 41 26.4 N
 LONGITUDE 71 13 E

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	19.594	31.309	22.107	46.98
2.0	19.506	31.352	22.140	59.38
3.0	19.620	31.371	22.124	59.43
4.0	19.507	31.325	22.119	59.30
5.0	19.227	31.321	22.187	59.69
6.0	18.917	31.366	22.299	60.23
7.0	18.739	31.377	22.352	60.00
8.0	18.577	31.376	22.390	61.15
9.0	18.319	31.375	22.454	62.30
10.0	17.976	31.446	22.591	66.25
11.0	17.851	31.434	22.612	68.20
12.0	17.631	31.472	22.694	71.67
13.0	17.555	31.476	22.716	72.27
14.0	17.504	31.481	22.732	72.40
15.0	17.488	31.489	22.738	72.25
16.0	17.420	31.483	22.741	72.03
17.0	17.446	31.482	22.746	70.81
18.0	17.423	31.486	22.754	68.40



STATION 21
 LATITUDE 41 27.8 N
 LONGITUDE 71 14 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	19.589	31.325	22.098	38.75
2.0	19.366	31.346	22.171	56.15
3.0	19.199	31.366	22.228	56.41
4.0	18.598	31.330	22.350	53.65
5.0	18.304	31.397	22.468	49.22
6.0	18.205	31.407	22.502	50.47
7.0	18.133	31.408	22.524	52.77
8.0	18.128	31.415	22.531	55.03
9.0	18.115	31.415	22.534	55.03
10.0	18.082	31.417	22.543	58.07
11.0	18.058	31.419	22.553	58.95
12.0	18.006	31.421	22.565	59.22
13.0	17.982	31.421	22.571	58.46
14.0	17.960	31.424	22.578	56.09
15.0	17.953	31.425	22.581	53.35
16.0	17.950	31.426	22.582	51.02
17.0	17.946	31.425	22.583	50.75
18.0	17.944	31.426	22.583	50.47

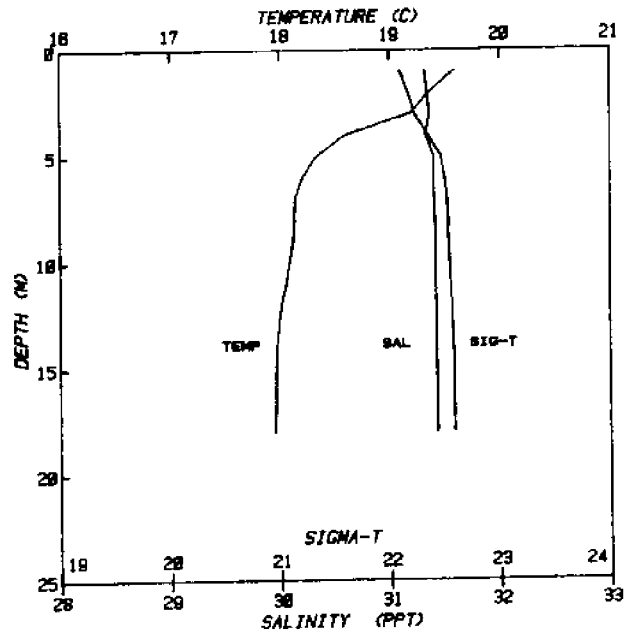
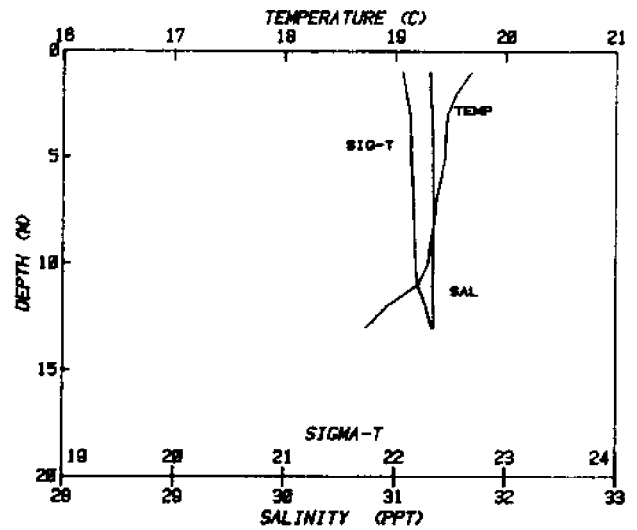


Figure 13

STATION 21C
 LATITUDE 41 29.1 N
 LONGITUDE 70 59.6 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

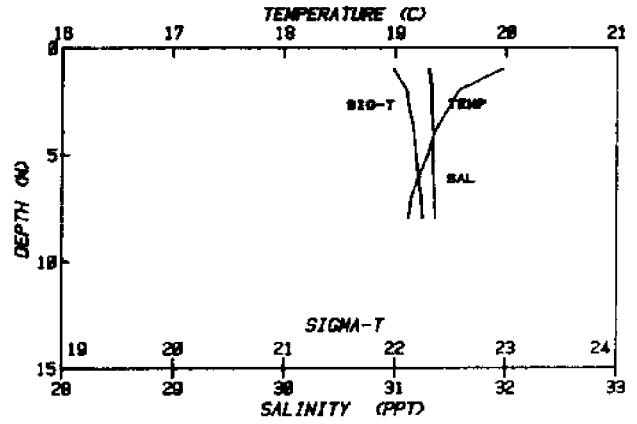
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	19.607	31.313	22.063	52.07
2.0	19.555	31.317	22.100	48.94
3.0	19.473	31.335	22.135	48.10
4.0	19.461	31.342	22.143	48.49
5.0	19.454	31.344	22.146	49.78
6.0	19.417	31.345	22.156	50.47
7.0	19.376	31.349	22.170	50.94
8.0	19.361	31.351	22.175	51.19
9.0	19.327	31.350	22.183	50.21
10.0	19.304	31.351	22.190	49.69
11.0	19.212	31.343	22.207	46.80
12.0	18.933	31.351	22.283	47.19
13.0	18.742	31.358	22.337	45.89



STATION 22
 LATITUDE 41 38 N
 LONGITUDE 70 56.9 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	19.965	31.306	21.984	38.58
2.0	19.576	31.327	22.103	45.47
3.0	19.461	31.330	22.134	45.78
4.0	19.348	31.344	22.174	45.73
5.0	19.295	31.341	22.185	44.38
6.0	19.214	31.344	22.207	42.34
7.0	19.143	31.351	22.233	38.31
8.0	19.121	31.361	22.244	38.53



STATION 9R
 LATITUDE 41 20.0 N
 LONGITUDE 70 55.9 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	20.530	31.375	21.851	57.60
2.0	20.482	31.385	21.887	58.40
3.0	20.381	31.382	21.919	56.73
4.0	20.306	31.374	21.958	56.41
5.0	19.990	31.319	21.971	56.32
6.0	19.258	31.349	22.079	57.17
7.0	19.212	31.338	22.123	57.42
8.0	19.177	31.365	22.170	57.81
9.0	18.985	31.362	22.229	58.05
10.0	18.638	31.368	22.284	58.60
11.0	18.374	31.370	22.312	58.99
12.0	18.383	31.370	22.357	59.33
13.0	18.515	31.383	22.412	59.21
14.0	18.496	31.391	22.462	59.40

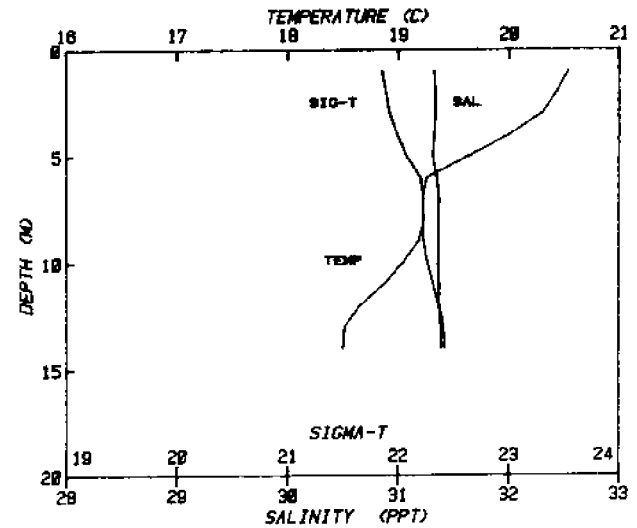
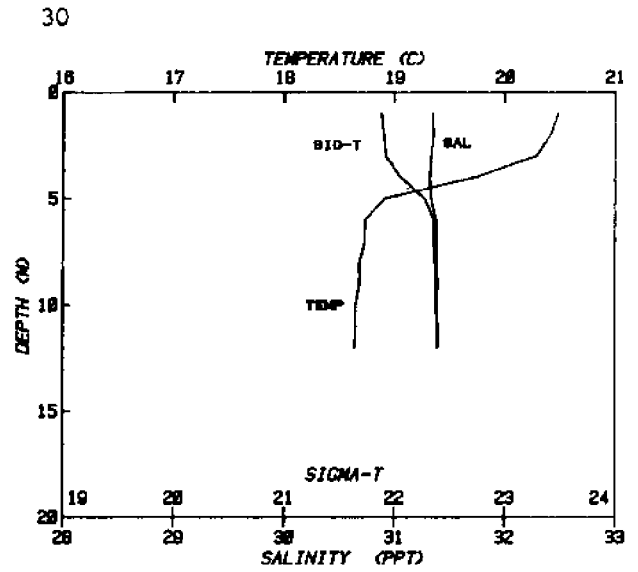


Figure 14

STATION 23
 LATITUDE 41 27.7 N
 LONGITUDE 70 55.4 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	20.485	31.346	21.881	62.19
2.0	20.414	31.353	21.905	61.29
3.0	20.289	31.331	21.921	59.82
4.0	19.740	31.320	22.055	58.80
5.0	18.912	31.332	22.274	57.66
6.0	18.708	31.379	22.353	55.83
7.0	18.735	31.384	22.358	55.73
8.0	18.687	31.388	22.373	54.69
9.0	18.680	31.394	22.377	54.84
10.0	18.651	31.388	22.382	54.95
11.0	18.651	31.396	22.388	54.06
12.0	18.644	31.397	22.390	53.98



STATION 23C
 LATITUDE 41 28 N
 LONGITUDE 70 51.5 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	20.558	31.337	21.855	62.41
2.0	20.166	31.336	21.953	60.41
3.0	20.021	31.345	22.007	59.14
4.0	19.749	31.326	22.058	59.73
5.0	19.229	31.364	22.219	60.97
6.0	19.182	31.362	22.229	61.53
7.0	19.054	31.370	22.268	61.85
8.0	18.961	31.385	22.303	61.84
9.0	18.905	31.389	22.312	61.84
10.0	18.894	31.386	22.320	61.64
11.0	18.834	31.391	22.338	61.14
12.0	18.759	31.385	22.353	61.46
13.0	18.722	31.397	22.369	61.23
14.0	18.694	31.397	22.378	60.91
15.0	18.654	31.391	22.384	60.36
16.0	18.618	31.397	22.382	58.52

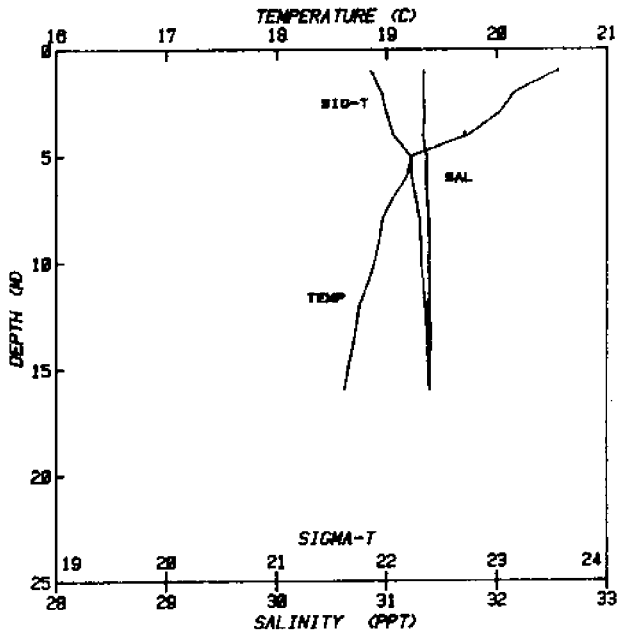
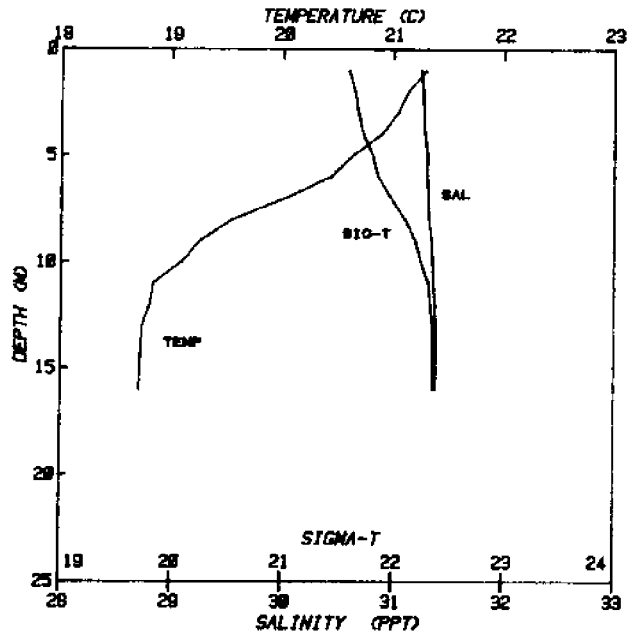


Figure 15

STATION 88
 LATITUDE 41 30 N
 LONGITUDE 70 53.1 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

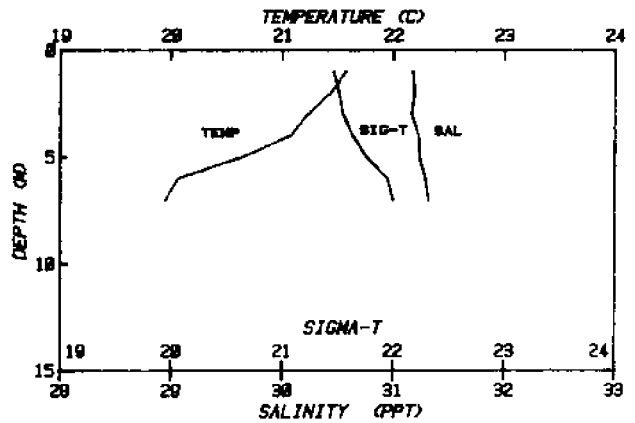
DEPTH M	TEMP, C	SALINITY PPT	SIGMA-T	TRANS. Z
1.0	21.290	31.248	21.593	53.75
2.0	21.129	31.266	21.650	50.57
3.0	21.038	31.272	21.679	48.05
4.0	20.894	31.283	21.725	51.17
5.0	20.640	31.287	21.813	53.67
6.0	20.430	31.293	21.862	54.89
7.0	20.200	31.319	21.979	56.72
8.0	19.933	31.325	22.187	58.67
9.0	19.756	31.352	22.203	61.25
10.0	19.600	31.362	22.252	61.07
11.0	19.634	31.368	22.321	58.91
12.0	18.803	31.382	22.339	57.66
13.0	18.735	31.387	22.360	54.43
14.0	18.720	31.389	22.365	52.73
15.0	18.713	31.389	22.367	51.21
16.0	18.708	31.389	22.368	50.25



STATION 24
 LATITUDE 41 39.5 N
 LONGITUDE 70 53.3 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP, C	SALINITY PPT	SIGMA-T	TRANS. Z
1.0	21.570	31.177	21.463	43.13
2.0	21.437	31.189	21.509	41.98
3.0	21.229	31.166	21.547	41.17
4.0	21.074	31.228	21.636	42.69
5.0	20.640	31.238	21.759	40.63
6.0	20.064	31.239	21.948	33.48
7.0	19.949	31.318	22.000	18.30



STATION 25
 LATITUDE 41 36.8 N
 LONGITUDE 70 53.8 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP, C	SALINITY PPT	SIGMA-T	TRANS. Z
1.0	22.370	30.892	21.029	0.00
2.0	22.058	30.968	21.175	0.00
3.0	21.960	30.979	21.207	46.77
4.0	21.677	31.000	21.327	48.05

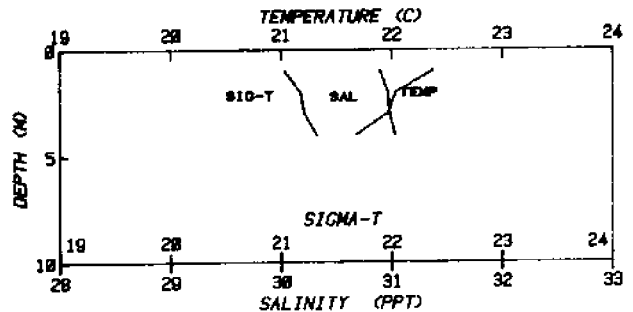
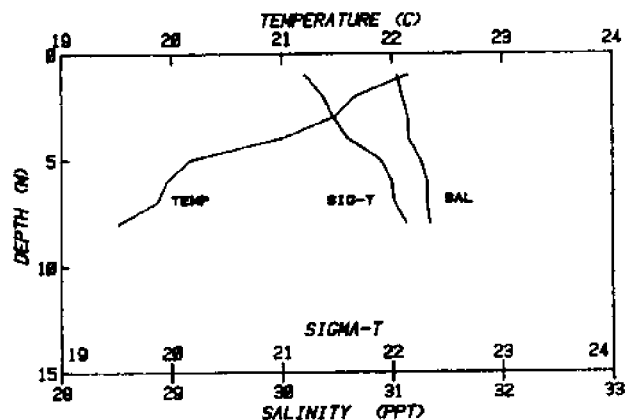


Figure 16

STATION 26
 LATITUDE 41 35.4 N
 LONGITUDE 70 52.7 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

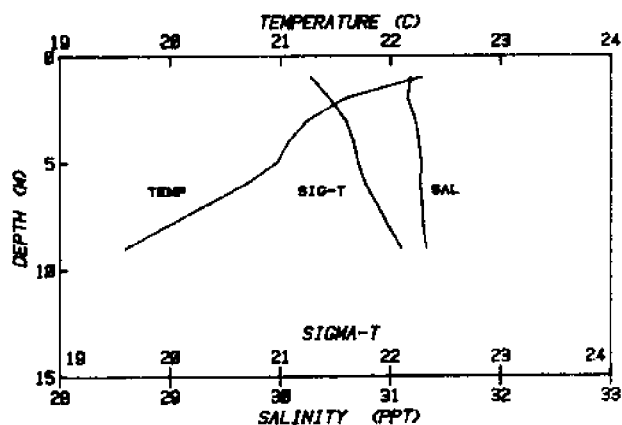
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Z
1.0	22.145	31.048	21.209	49.56
2.0	21.673	31.093	21.372	50.76
3.0	21.471	31.144	21.466	49.97
4.0	20.991	31.151	21.599	49.13
5.0	20.176	31.258	21.895	45.42
6.0	19.959	31.319	21.998	43.65
7.0	19.873	31.321	22.022	44.91
8.0	19.571	31.348	22.132	40.06



STATION 27
 LATITUDE 41 34.1 N
 LONGITUDE 70 52.1 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Z
1.0	22.275	31.180	21.273	45.44
2.0	21.586	31.155	21.442	45.03
3.0	21.248	31.224	21.586	45.06
4.0	21.070	31.259	21.660	46.38
5.0	20.966	31.279	21.703	47.94
6.0	20.682	31.268	21.770	47.94
7.0	20.315	31.289	21.883	49.84
8.0	19.957	31.296	21.981	51.16
9.0	19.593	31.329	22.099	49.20



STATION 28
 LATITUDE 41 32.7 N
 LONGITUDE 70 51.2 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Z
1.0				
2.0	21.410	31.311	21.609	47.24
3.0	21.222	31.243	21.608	48.13
4.0	20.997	31.284	21.699	48.67
5.0	20.829	31.276	21.738	49.91
6.0	20.413	31.295	21.862	51.41
7.0	20.048	31.304	21.964	52.72
8.0	19.644	31.337	22.093	53.10
9.0	19.472	31.350	22.146	54.84
10.0	19.354	31.361	22.185	56.30
11.0	19.135	31.362	22.241	54.49
12.0	19.020	31.373	22.278	44.74

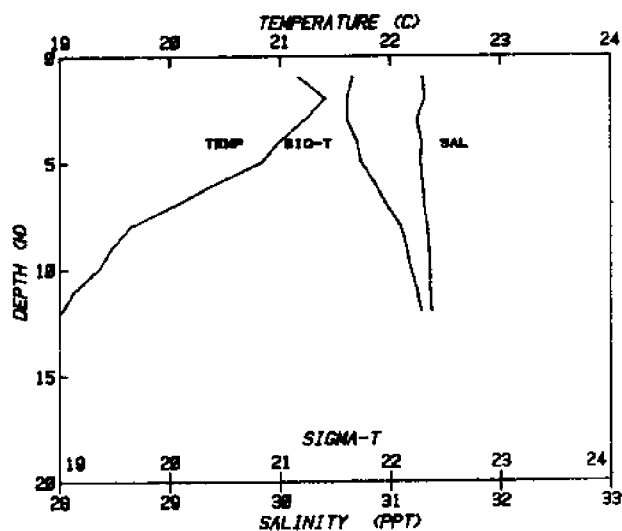
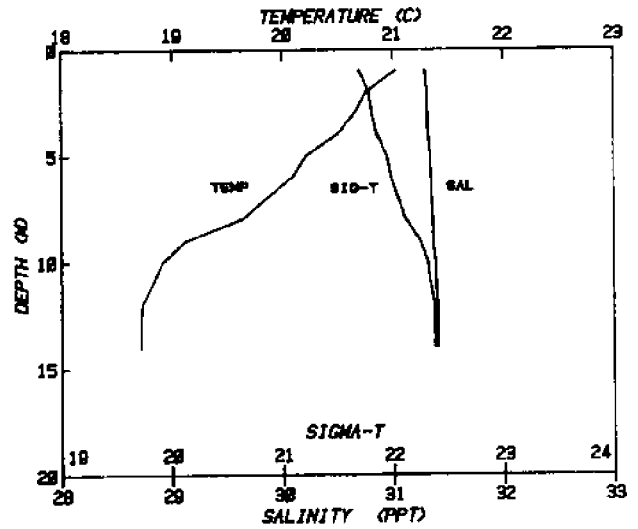


Figure 17

STATION 7K
 LATITUDE 41 31.5 N
 LONGITUDE 70 50.3 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

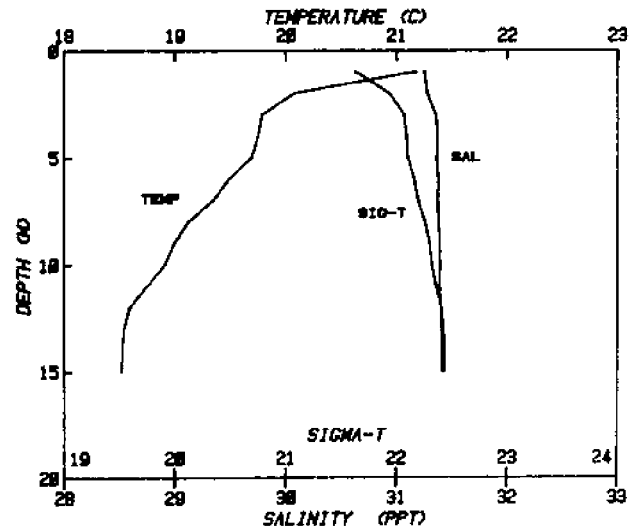
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	21.026	31.295	21.699	65.19
2.0	20.761	31.311	21.782	64.13
3.0	20.657	31.314	21.812	64.25
4.0	20.499	31.320	21.858	65.60
5.0	20.216	31.340	21.947	63.20
6.0	20.093	31.345	21.983	62.29
7.0	19.858	31.351	22.048	60.86
8.0	19.635	31.362	22.114	60.78
9.0	19.421	31.365	22.246	60.47
10.0	18.913	31.384	22.314	61.41
11.0	18.825	31.387	22.338	61.84
12.0	18.727	31.400	22.372	58.73
13.0	18.718	31.403	22.374	57.05
14.0	18.715	31.403	22.377	55.75



STATION 29
 LATITUDE 41 30.2 N
 LONGITUDE 70 49.5 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	21.176	31.254	21.628	67.58
2.0	20.082	31.276	21.933	65.31
3.0	19.787	31.354	22.069	63.32
4.0	19.751	31.370	22.091	62.75
5.0	19.693	31.363	22.100	63.00
6.0	19.490	31.376	22.162	62.50
7.0	19.340	31.370	22.193	61.99
8.0	19.125	31.380	22.257	61.99
9.0	18.995	31.392	22.299	61.58
10.0	18.912	31.394	22.321	62.68
11.0	18.751	31.390	22.359	63.73
12.0	18.592	31.402	22.407	62.92
13.0	18.543	31.411	22.424	60.05
14.0	18.527	31.415	22.433	56.89
15.0	18.521	31.417	22.436	53.28



STATION 30
 LATITUDE 41 28.7 N
 LONGITUDE 70 48.5 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	20.486	31.353	21.886	64.86
2.0	20.303	31.359	21.939	64.41
3.0	19.800	31.285	22.013	63.47
4.0	19.339	31.358	22.179	61.64
5.0	19.284	31.384	22.220	61.41
6.0	19.275	31.384	22.222	61.46
7.0	19.249	31.383	22.228	61.56
8.0	19.056	31.374	22.270	60.26
9.0	18.998	31.383	22.294	56.95
10.0	18.954	31.387	22.305	55.49
11.0	18.865	31.388	22.328	53.13
12.0	18.828	31.392	22.341	49.50

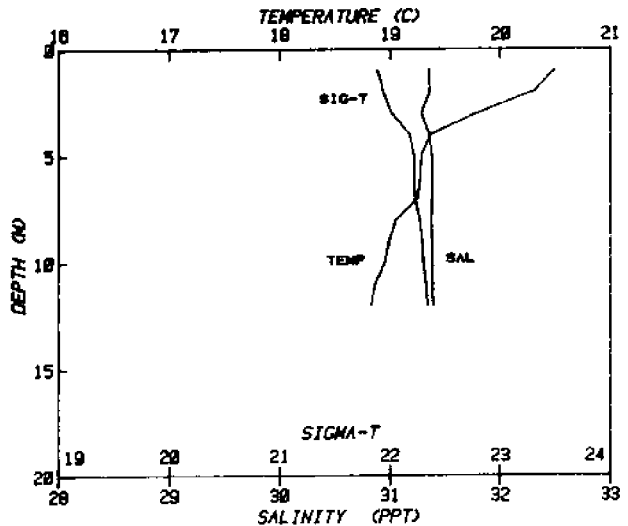
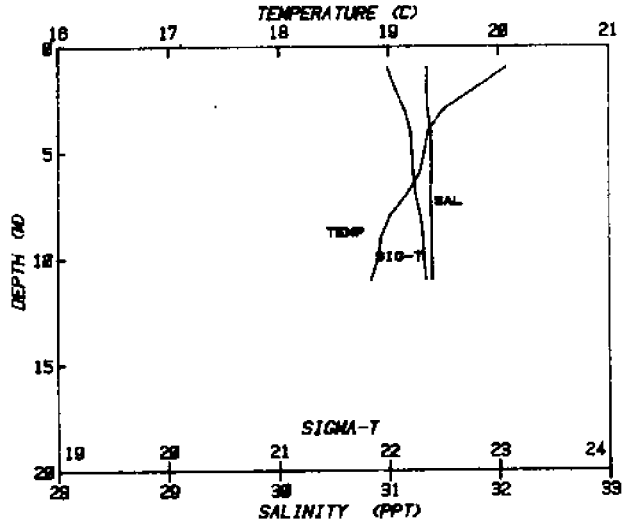


Figure 18

STATION 30C
 LATITUDE 41 28.5 N
 LONGITUDE 70 48.4 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

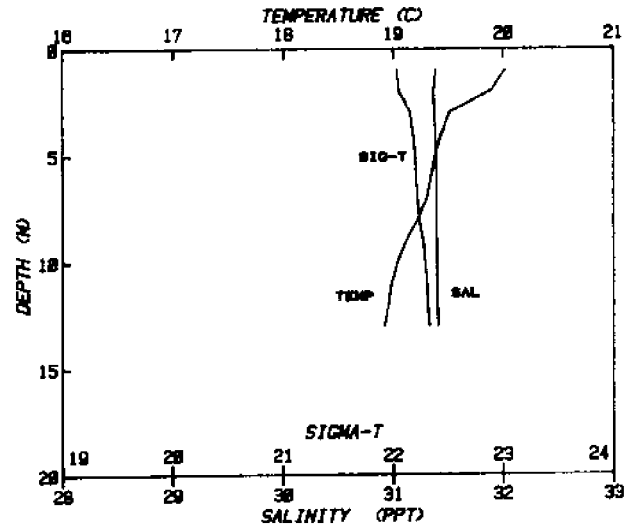
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	20.068	31.349	21.992	63.36
2.0	19.785	31.345	22.062	63.19
3.0	19.495	31.358	22.146	62.99
4.0	19.340	31.386	22.202	62.14
5.0	19.323	31.389	22.214	61.86
6.0	19.283	31.389	22.224	62.17
7.0	19.165	31.381	22.248	62.46
8.0	19.014	31.389	22.292	59.08
9.0	18.931	31.390	22.313	56.25
10.0	18.905	31.392	22.321	54.31
11.0	18.841	31.395	22.340	49.84



STATION 30D
 LATITUDE 41 28.3 N
 LONGITUDE 70 48.3 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	20.018	31.385	22.033	49.45
2.0	19.891	31.364	22.050	62.85
3.0	19.512	31.374	22.156	61.70
4.0	19.441	31.385	22.181	61.21
5.0	19.381	31.390	22.200	61.36
6.0	19.345	31.394	22.212	61.50
7.0	19.309	31.395	22.222	61.85
8.0	19.229	31.392	22.240	62.99
9.0	19.122	31.399	22.273	64.41
10.0	19.041	31.401	22.295	64.52
11.0	18.987	31.404	22.310	64.00
12.0	18.962	31.408	22.319	63.24
13.0	18.923	31.414	22.334	64.15



STATION 31
 LATITUDE 41 32.2 N
 LONGITUDE 70 44.4 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	22.189	31.356	21.430	64.49
2.0	22.137	31.262	21.373	64.66
3.0	21.968	31.241	21.404	64.56
4.0	21.642	31.190	21.454	64.84
5.0	21.123	31.221	21.616	65.91
6.0	20.339	31.228	21.830	66.00
7.0	19.878	31.297	22.015	63.36
8.0	19.598	31.326	22.096	58.85
9.0	19.539	31.339	22.121	57.63
10.0	19.428	31.347	22.156	56.62
11.0	19.373	31.352	22.173	55.27
12.0	19.328	31.357	22.188	53.89
13.0	19.312	31.360	22.195	51.74
14.0	19.304	31.362	22.197	50.13
15.0	19.304	31.362	22.198	48.16

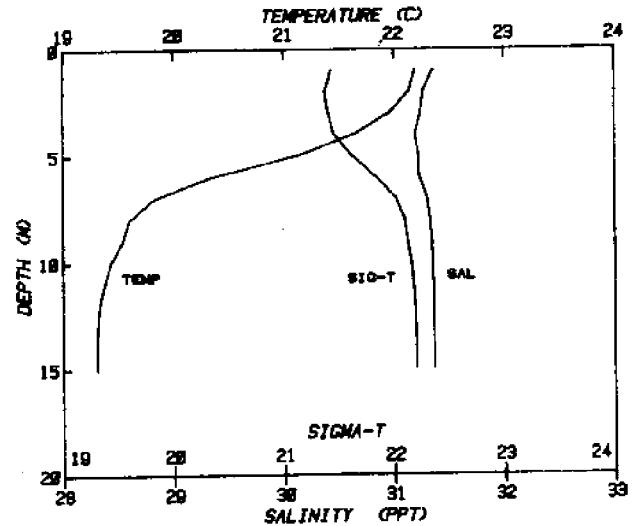
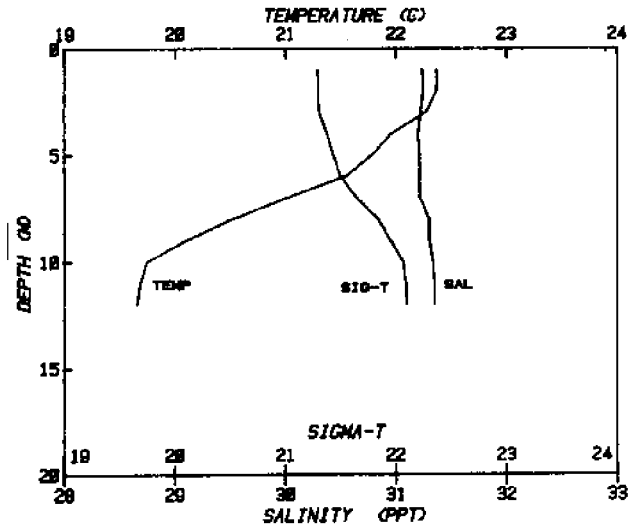


Figure 19

STATION 32
 LATITUDE 41 33.2 N
 LONGITUDE 70 45.1 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

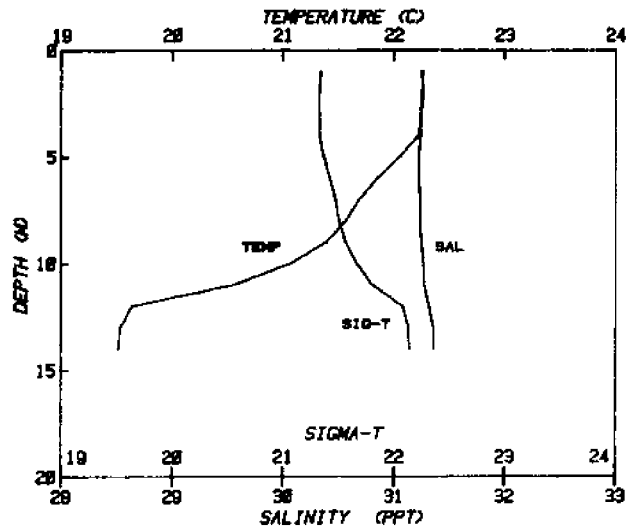
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	22.370	31.238	21.291	65.78
2.0	22.367	31.243	21.295	65.78
3.0	22.273	31.221	21.305	65.89
4.0	21.959	31.199	21.375	66.19
5.0	21.785	31.213	21.432	66.56
6.0	21.548	31.214	21.497	67.32
7.0	21.020	31.214	21.640	67.75
8.0	20.524	31.300	21.837	65.39
9.0	20.103	31.300	21.947	63.47
10.0	19.746	31.335	22.065	55.08
11.0	19.488	31.349	22.090	51.09
12.0	19.459	31.351	22.100	49.81



STATION 5R
 LATITUDE 41 33.9 N
 LONGITUDE 70 45.6 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	22.250	31.261	21.341	63.56
2.0	22.270	31.249	21.327	63.79
3.0	22.240	31.242	21.329	64.00
4.0	22.221	31.239	21.332	64.01
5.0	22.052	31.225	21.369	64.35
6.0	21.859	31.228	21.425	64.44
7.0	21.681	31.234	21.477	64.47
8.0	21.564	31.237	21.510	65.38
9.0	21.392	31.249	21.566	65.33
10.0	21.046	31.271	21.676	63.91
11.0	20.528	31.274	21.815	62.64
12.0	19.634	31.323	22.085	56.39
13.0	19.533	31.357	22.137	51.82
14.0	19.520	31.360	22.142	47.91



STATION 05
 LATITUDE 41 35.4 N
 LONGITUDE 70 46.6 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	22.519	31.298	21.295	58.01
2.0	22.504	31.286	21.281	58.59
3.0	22.519	31.277	21.279	58.66
4.0	22.359	31.247	21.300	58.01
5.0	21.944	31.240	21.409	57.41
6.0	21.792	31.253	21.461	56.23
7.0	21.720	31.261	21.486	56.43
8.0	21.681	31.260	21.496	55.45
9.0	21.531	31.248	21.530	54.48
10.0	21.191	31.251	21.672	50.69
11.0	20.307	31.261	21.843	43.59
12.0	20.049	31.304	21.992	17.71

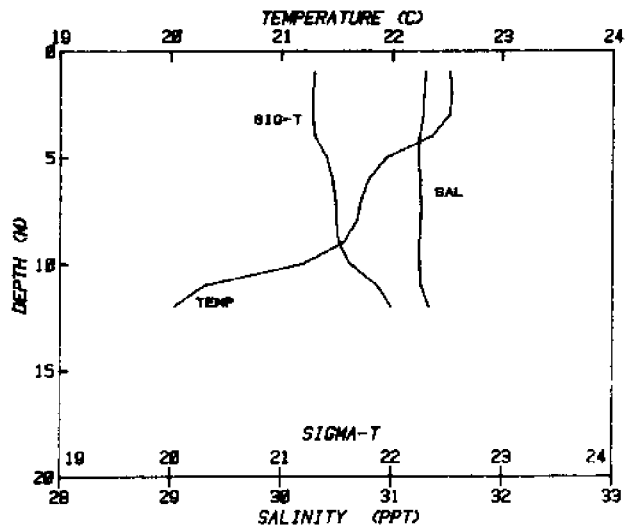
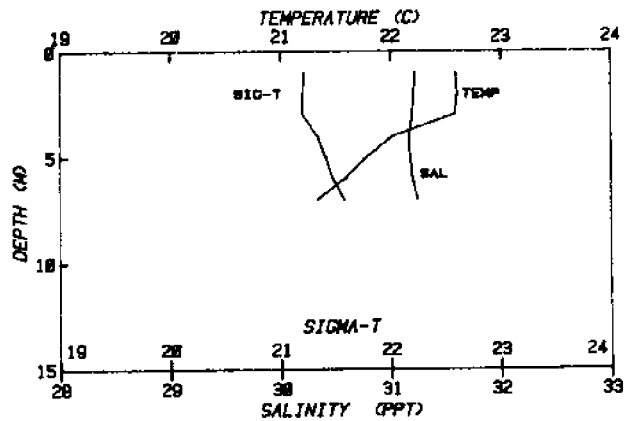


Figure 20

STATION 36
 LATITUDE 41 36.5 N
 LONGITUDE 70 47.3 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

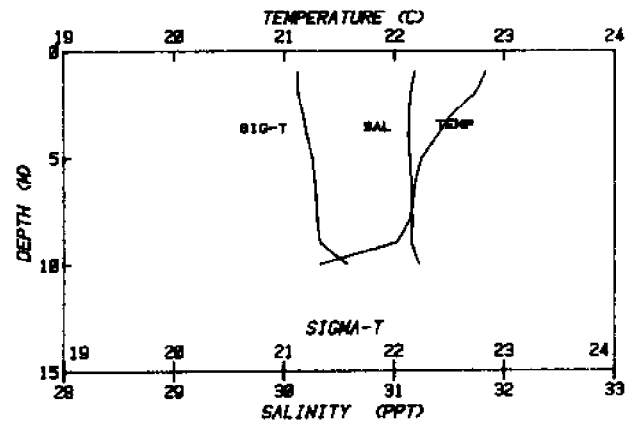
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	22.592	31.220	21.215	48.38
2.0	22.607	31.207	21.201	48.41
3.0	22.581	31.196	21.200	48.88
4.0	22.026	31.169	21.334	50.92
5.0	21.782	31.177	21.406	51.58
6.0	21.590	31.198	21.474	45.87
7.0	21.335	31.245	21.579	34.63



STATION 37
 LATITUDE 41 37.0 N
 LONGITUDE 70 44.9 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

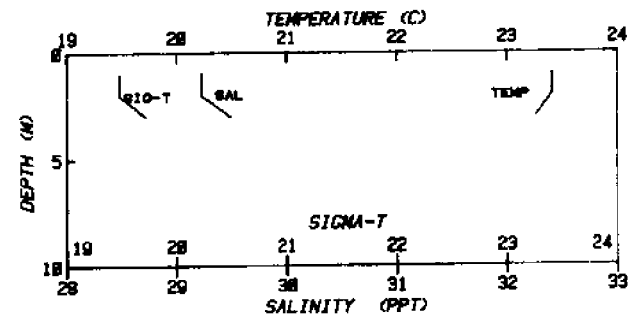
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	22.828	31.180	21.119	54.97
2.0	22.733	31.145	21.119	57.38
3.0	22.515	31.131	21.169	56.63
4.0	22.387	31.130	21.204	56.25
5.0	22.249	31.143	21.252	55.84
6.0	22.197	31.152	21.273	55.31
7.0	22.169	31.160	21.288	55.14
8.0	22.136	31.163	21.299	55.12
9.0	22.022	31.155	21.324	55.33
10.0	21.325	31.227	21.568	25.97



STATION 40
 LATITUDE 41 43.2 N
 LONGITUDE 70 42.3 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

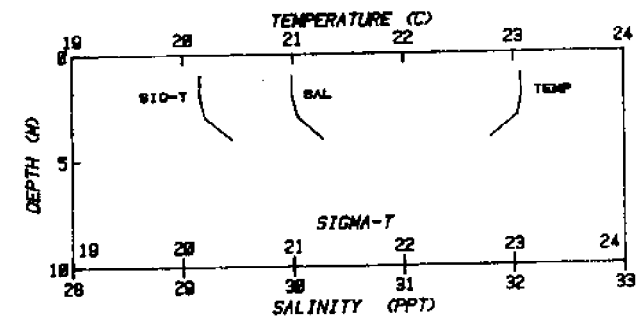
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	23.408	29.226	19.482	46.24
2.0	23.407	29.225	19.481	46.34
3.0	23.263	29.493	19.724	45.94



STATION 1R
 LATITUDE 41 42.2 N
 LONGITUDE 70 40.8 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

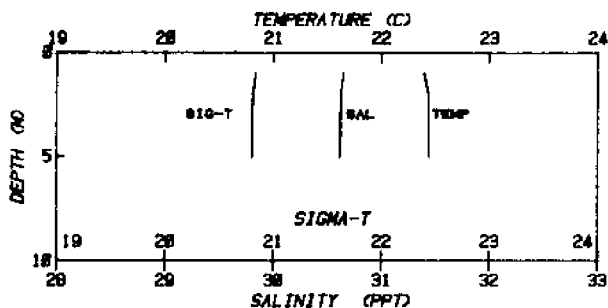
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	23.059	29.989	20.155	46.60
2.0	23.069	29.993	20.155	46.60
3.0	23.033	30.042	20.203	46.44
4.0	22.787	30.272	20.444	45.23



STATION 39
 LATITUDE 41 41.5 N
 LONGITUDE 70 39.7 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

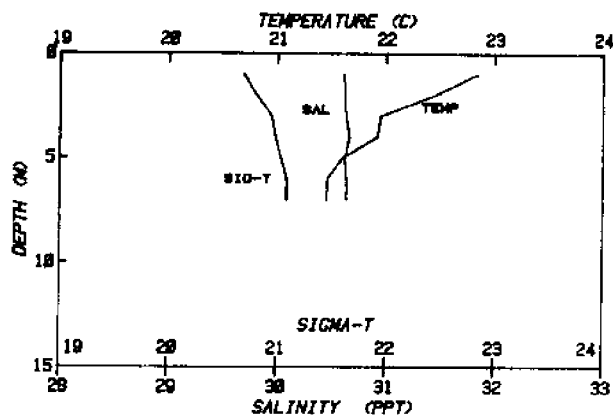
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	22.393	30.647	20.837	41.67
2.0	22.433	30.625	20.810	47.00
3.0	22.436	30.620	20.805	47.22
4.0	22.437	30.619	20.804	47.21
5.0	22.439	30.617	20.802	46.88



STATION 39C
 LATITUDE 41 40.1 N
 LONGITUDE 70 42.0 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	22.836	30.609	20.685	50.55
2.0	22.448	30.620	20.802	49.72
3.0	21.948	30.631	20.948	47.40
4.0	21.918	30.664	20.981	47.25
5.0	21.600	30.618	21.033	44.48
6.0	21.462	30.637	21.084	38.15
7.0	21.454	30.638	21.086	36.43



STATION 41
 LATITUDE 41 37.9 N
 LONGITUDE 70 40.9 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	23.075	31.029	20.936	57.73
2.0	23.081	31.024	20.930	57.88
3.0	23.072	31.018	20.928	58.18
4.0	22.922	30.981	20.942	57.83
5.0	22.630	30.929	20.984	57.17
6.0	22.186	30.933	21.111	55.18
7.0	22.130	30.973	21.156	54.39
8.0	21.938	31.074	21.285	45.00
9.0	21.802	31.126	21.362	37.55
10.0	21.712	31.151	21.405	34.00
11.0	21.662	31.167	21.431	31.41

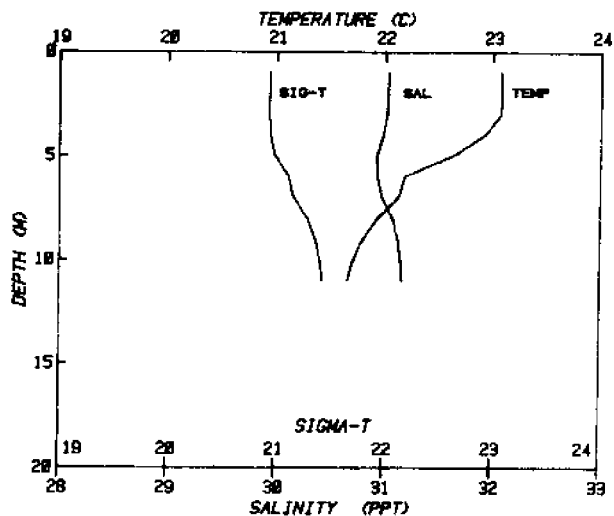
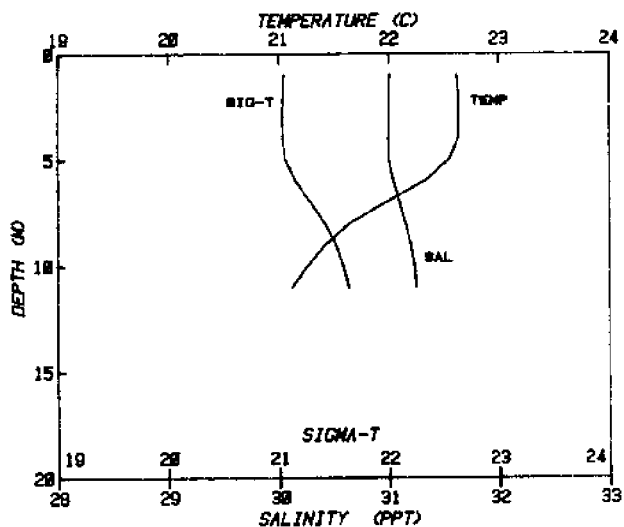


Figure 22

STATION 3R
 LATITUDE 41 36.2 N
 LONGITUDE 70 42.2 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

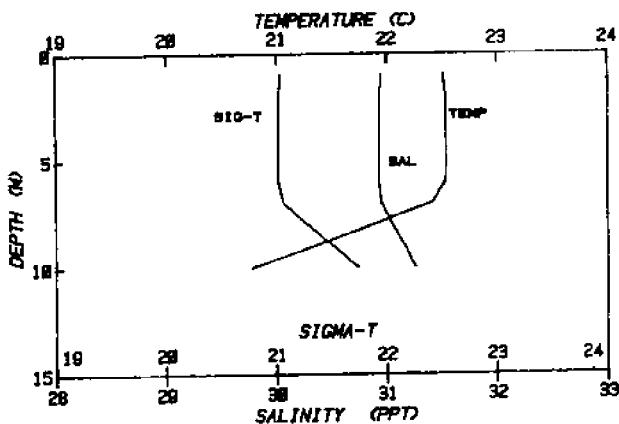
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. X
1.0	22.618	31.009	21.049	58.44
2.0	22.634	30.998	21.036	61.97
3.0	22.633	30.995	21.034	61.63
4.0	22.629	30.995	21.035	61.43
5.0	22.551	31.001	21.061	60.33
6.0	22.336	31.042	21.152	57.47
7.0	21.987	31.098	21.290	52.34
8.0	21.650	31.149	21.421	48.64
9.0	21.429	31.199	21.519	44.94
10.0	21.264	31.232	21.588	40.38
11.0	21.123	31.248	21.638	35.38



STATION 3B
 LATITUDE 41 35.3 N
 LONGITUDE 70 40.5 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. X
1.0	22.514	30.949	21.032	60.90
2.0	22.534	30.936	21.017	62.21
3.0	22.538	30.932	21.013	62.54
4.0	22.540	30.931	21.011	62.61
5.0	22.543	30.931	21.010	62.58
6.0	22.534	30.932	21.014	62.55
7.0	22.416	30.954	21.063	62.32
8.0	21.888	31.050	21.281	62.14
9.0	21.342	31.162	21.514	61.07
10.0	20.773	31.260	21.740	48.39



STATION 41R
 LATITUDE 41 37.9 N
 LONGITUDE 70 40.9 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. X
1.0	23.043	30.886	20.837	37.08
2.0	23.052	30.881	20.831	62.54
3.0	23.057	30.881	20.829	62.97
4.0	23.060	30.880	20.827	63.01
5.0	23.065	30.880	20.826	63.11
6.0	23.061	30.883	20.829	63.17
7.0	22.881	30.940	20.923	61.92
8.0	22.405	31.004	21.104	60.16
9.0	21.992	31.098	21.289	53.62
10.0	21.837	31.139	21.362	45.07
11.0	21.758	31.155	21.396	36.88

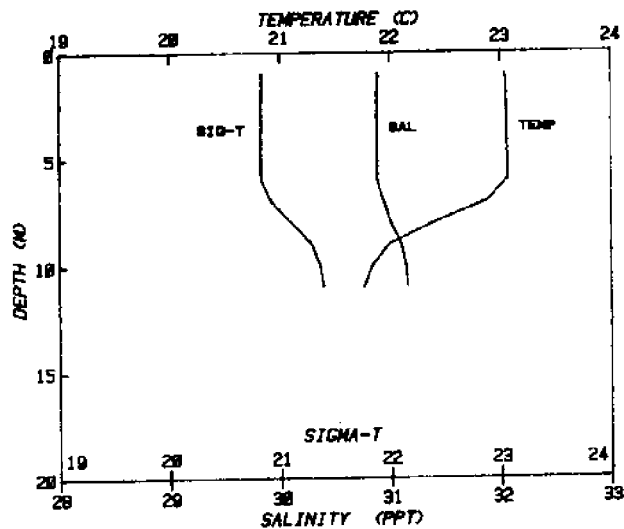


Figure 23

STATION A1
LATITUDE 41 40.1 N
LONGITUDE 70 42.0 W

BUZZARDS BAY
CRUISE 1
JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Σ
1.0	22.366	30.541	20.765	51.22
2.0	22.329	30.543	20.792	51.34
3.0	22.105	30.573	20.861	51.66
4.0	21.962	30.562	20.892	50.05
5.0	21.876	30.564	20.917	48.61
6.0	21.840	30.572	20.933	48.23
7.0	21.773	30.581	20.958	48.86

STATION A2
LATITUDE 41 40.1 N
LONGITUDE 70 42.0 W

BUZZARDS BAY
CRUISE 1
JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Σ
1.0	22.657	30.537	20.681	52.32
2.0	22.588	30.554	20.714	52.86
3.0	22.304	30.561	20.797	51.70
4.0	22.055	30.567	20.870	49.92
5.0	21.917	30.578	20.916	48.88
6.0	21.858	30.579	20.933	48.46
7.0	21.792	30.585	20.956	47.83

STATION A3
LATITUDE 41 40.1 N
LONGITUDE 70 42.0 W

BUZZARDS BAY
CRUISE 1
JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Σ
1.0	22.780	30.546	20.654	50.23
2.0	22.576	30.537	20.704	51.07
3.0	22.085	30.582	20.873	48.63
4.0	22.019	30.590	20.898	48.08
5.0	21.959	30.591	20.915	47.95
6.0	21.808	30.588	20.931	47.95
7.0	21.837	30.583	20.942	48.30

STATION A4
LATITUDE 41 40.1 N
LONGITUDE 70 42.0 W

BUZZARDS BAY
CRUISE 1
JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Σ
1.0	23.155	30.499	20.513	52.53
2.0	22.857	30.509	20.604	53.25
3.0	22.199	30.554	20.821	49.94
4.0	21.946	30.583	20.912	46.52
5.0	21.884	30.601	20.943	45.88
6.0	21.840	30.601	20.955	44.59
7.0	21.800	30.602	20.966	39.18

STATION A5
LATITUDE 41 40.1 N
LONGITUDE 70 42.0 W

BUZZARDS BAY
CRUISE 1
JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Σ
1.0	23.397	30.372	20.349	46.98
2.0	22.516	30.490	20.685	51.41
3.0	21.992	30.586	20.902	50.73
4.0	21.864	30.590	20.940	47.81
5.0	21.828	30.595	20.953	44.91
6.0	21.798	30.593	20.960	43.18
7.0	21.668	30.597	20.998	39.92

STATION A6
LATITUDE 41 40.1 N
LONGITUDE 70 42.0 W

BUZZARDS BAY
CRUISE 1
JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Σ
1.0	23.098	30.444	20.488	43.69
2.0	22.470	30.522	20.722	49.48
3.0	22.144	30.558	20.839	49.53
4.0	22.017	30.584	20.894	49.22
5.0	21.900	30.579	20.922	48.75
6.0	21.779	30.586	20.960	49.98
7.0	21.629	30.604	21.014	41.43

STATION A7
LATITUDE 41 40.1 N
LONGITUDE 70 42.0 W

BUZZARDS BAY
CRUISE 1
JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Σ
1.0	23.180	30.451	20.478	50.63
2.0	22.878	30.456	20.559	51.93
3.0	22.398	30.515	20.737	49.50
4.0	22.073	30.548	20.851	48.74
5.0	21.912	30.573	20.914	49.86
6.0	21.832	30.590	20.949	51.58
7.0	21.733	30.590	20.976	48.10

STATION A8
LATITUDE 41 40.1 N
LONGITUDE 70 42.0 W

BUZZARDS BAY
CRUISE 1
JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Σ
1.0	23.252	30.459	20.455	51.30
2.0	22.929	30.471	20.556	50.81
3.0	22.363	30.555	20.777	49.06
4.0	22.101	30.573	20.862	48.56
5.0	21.976	30.585	20.905	49.84
6.0	21.898	30.587	20.928	50.76
7.0	21.755	30.592	20.971	47.33

STATION A9
LATITUDE 41 40.1 N
LONGITUDE 70 42.0 W

BUZZARDS BAY
CRUISE 1
JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Σ
1.0	23.250	30.590	20.555	43.91
2.0	23.195	30.556	20.545	51.26
3.0	22.467	30.500	20.706	52.11
4.0	22.095	30.571	20.863	51.94
5.0	22.052	30.580	20.881	51.98
6.0	22.000	30.584	20.898	52.37
7.0	21.803	30.590	20.956	49.91
8.0	21.715	30.596	20.985	42.55

STATION A10
LATITUDE 41 40.1 N
LONGITUDE 70 42.0 W

BUZZARDS BAY
CRUISE 1
JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Σ
1.0	23.184	30.694	20.652	54.06
2.0	23.114	30.666	20.651	53.79
3.0	22.527	30.548	20.726	53.22
4.0	22.077	30.565	20.863	51.05
5.0	21.931	30.581	20.942	48.55
6.0	21.722	30.596	20.983	43.55
7.0	21.696	30.601	20.994	39.43

Figure 24

STATION A11
LATITUDE 41 40.1 N
LONGITUDE 70 42.0 W

BUZZARDS BAY
CRUISE 1
JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	22.995	30.705	20.713	52.58
2.0	22.979	30.694	20.710	53.28
3.0	22.978	30.698	20.713	53.28
4.0	22.679	30.633	20.747	53.44
5.0	22.010	30.574	20.888	50.88
6.0	21.762	30.600	20.975	46.19
7.0	21.696	30.602	20.994	40.32
8.0	21.682	30.603	20.999	38.54

STATION A12
LATITUDE 41 40.1 N
LONGITUDE 70 42.0 W

BUZZARDS BAY
CRUISE 1
JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	23.006	30.760	20.752	52.34
2.0	22.990	30.743	20.743	54.88
3.0	22.891	30.730	20.762	54.72
4.0	22.550	30.620	20.773	54.02
5.0	22.006	30.608	20.915	51.45
6.0	21.808	30.624	20.981	45.20
7.0	21.676	30.603	21.001	40.57
8.0	21.653	30.606	21.009	37.17

STATION A13
LATITUDE 41 40.1 N
LONGITUDE 70 42.0 W

BUZZARDS BAY
CRUISE 1
JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	22.837	30.741	20.785	54.22
2.0	22.842	30.736	20.780	54.31
3.0	22.829	30.735	20.782	54.19
4.0	22.721	30.699	20.785	53.98
5.0	22.491	30.652	20.814	53.55
6.0	21.917	30.591	20.926	49.29
7.0	21.655	30.590	20.997	44.77
8.0	21.633	30.596	21.007	43.52

STATION A14
LATITUDE 41 40.1 N
LONGITUDE 70 42.0 W

BUZZARDS BAY
CRUISE 1
JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	22.842	30.733	20.778	51.48
2.0	22.845	30.729	20.774	54.10
3.0	22.835	30.728	20.776	54.19
4.0	22.828	30.727	20.777	54.62
5.0	22.659	30.696	20.801	51.51
6.0	21.946	30.582	20.911	50.51
7.0	21.637	30.592	21.003	43.18

STATION A16
LATITUDE 41 40.1 N
LONGITUDE 71 42.0 W

BUZZARDS BAY
CRUISE 1
JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	23.406	30.733	20.618	52.38
2.0	23.418	30.719	20.605	53.03
3.0	23.295	30.783	20.627	53.10
4.0	22.958	30.667	20.695	53.59
5.0	22.080	30.580	20.873	52.55
6.0	21.643	30.593	21.002	45.72
7.0	21.597	30.606	21.024	39.31

STATION A17
LATITUDE 41 40.1 N
LONGITUDE 70 42.0 W

BUZZARDS BAY
CRUISE 1
JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	22.935	30.713	20.736	53.78
2.0	22.724	30.631	20.733	53.63
3.0	21.945	30.581	20.911	51.03
4.0	21.746	30.597	20.977	49.20
5.0	21.610	30.605	21.020	43.17
6.0	21.589	30.613	21.032	39.59
7.0	21.585	30.613	21.033	35.90

STATION A18
LATITUDE 41 40.1 N
LONGITUDE 70 42.0 W

BUZZARDS BAY
CRUISE 1
JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	22.444	30.675	20.845	52.86
2.0	22.390	30.644	20.836	54.16
3.0	22.191	30.604	20.861	52.67
4.0	21.944	30.603	20.928	50.65
5.0	21.720	30.614	20.997	45.83
6.0	21.681	30.621	21.013	41.33
7.0	21.666	30.620	21.017	38.33

STATION A19
LATITUDE 41 40.1 N
LONGITUDE 70 42.0 W

BUZZARDS BAY
CRUISE 1
JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	22.280	30.673	20.889	54.45
2.0	22.329	30.642	20.852	54.67
3.0	22.331	30.640	20.849	54.45
4.0	22.332	30.639	20.849	54.66
5.0	22.050	30.602	20.898	52.48
6.0	21.704	30.615	21.002	47.37
7.0	21.650	30.628	21.027	44.00

STATION A20
LATITUDE 41 40.1 N
LONGITUDE 70 42.0 W

BUZZARDS BAY
CRUISE 1
JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	22.453	30.667	20.836	54.41
2.0	22.487	30.647	20.812	54.84
3.0	22.495	30.646	20.808	55.00
4.0	22.500	30.643	20.805	54.89
5.0	22.322	30.629	20.844	53.88
6.0	21.912	30.621	20.950	49.03
7.0	21.751	30.626	20.997	44.00

STATION A21
 LATITUDE 41 40.1 N
 LONGITUDE 70 42.0 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Σ
1.0	22.562	30.673	20.811	54.45
2.0	22.605	30.651	20.782	54.94
3.0	22.610	30.648	20.778	55.04
4.0	22.609	30.646	20.777	55.03
5.0	22.529	30.633	20.789	53.73
6.0	22.095	30.612	20.893	46.85
7.0	21.930	30.618	20.943	42.29

STATION A22
 LATITUDE 41 40.1 N
 LONGITUDE 70 42.0 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Σ
1.0	22.679	30.652	20.762	53.49
2.0	22.697	30.642	20.749	54.50
3.0	22.701	30.638	20.745	54.98
4.0	22.668	30.624	20.744	54.51
5.0	22.428	30.612	20.803	51.08
6.0	22.333	30.625	20.837	46.42
7.0	22.273	30.623	20.853	44.05

STATION A23
 LATITUDE 41 40.1 N
 LONGITUDE 70 42.0 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Σ
1.0	22.563	30.693	20.757	53.05
2.0	22.597	30.585	20.734	53.67
3.0	22.605	30.595	20.748	53.46
4.0	22.589	30.594	20.743	53.04
5.0	22.596	30.610	20.754	53.07
6.0	22.489	30.594	20.771	51.86
7.0	22.335	30.615	20.829	45.08

STATION A24
 LATITUDE 41 40.1 N
 LONGITUDE 70 42.0 W

BUZZARDS BAY
 CRUISE 1
 JUL 29-AUG 1, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Σ
1.0	22.318	30.601	20.824	48.95
2.0	22.333	30.585	20.807	49.06
3.0	22.332	30.583	20.806	49.06
4.0	22.328	30.583	20.807	48.88
5.0	22.314	30.586	20.814	48.33
6.0	22.298	30.598	20.829	45.99
7.0	22.292	30.610	20.837	44.22

Figure 26

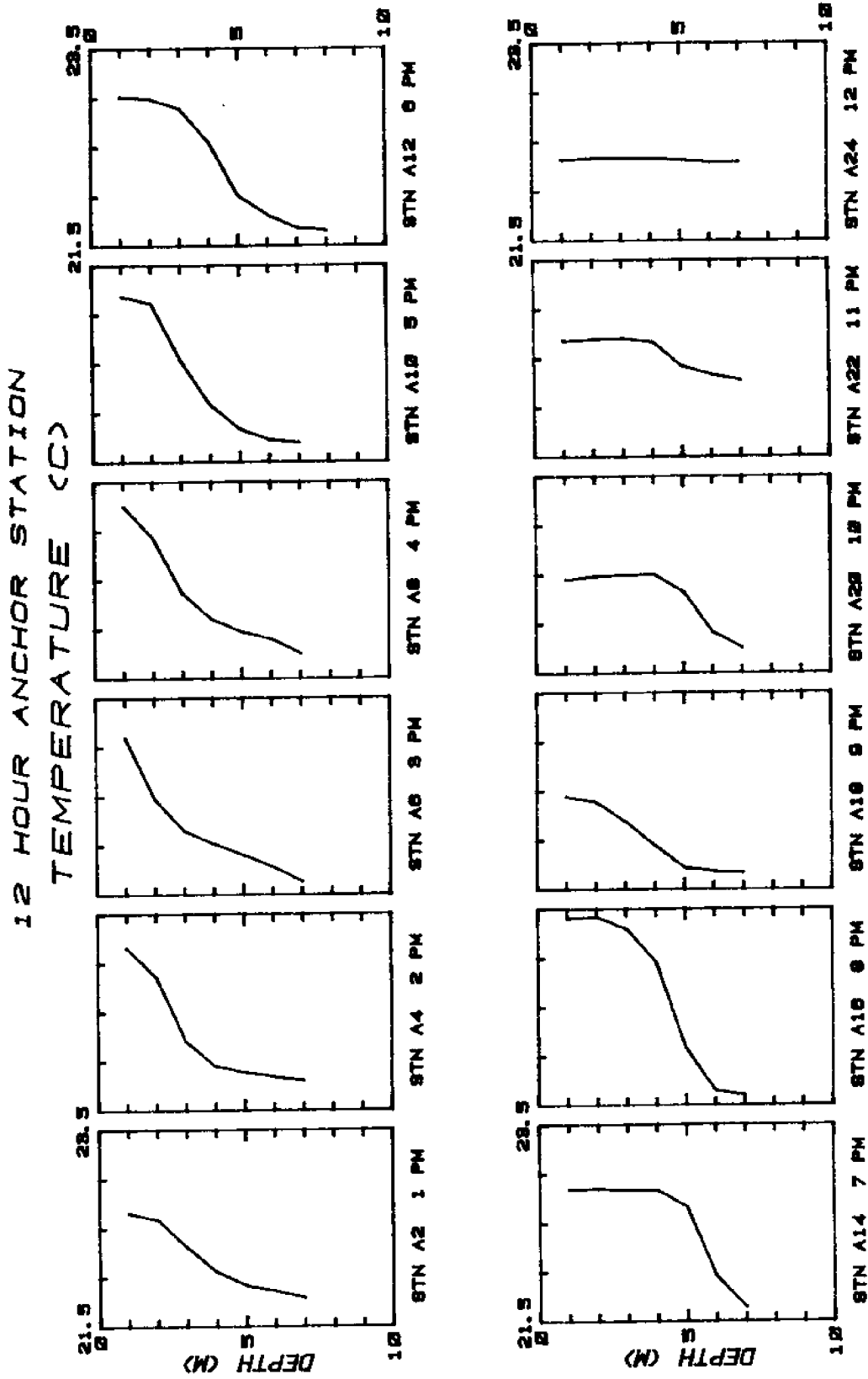


Figure 27: Vertical profile of temperature every hour at anchor station. Times are local daylight-saving time.

12 HOUR ANCHOR STATION
SALINITY (PPT)

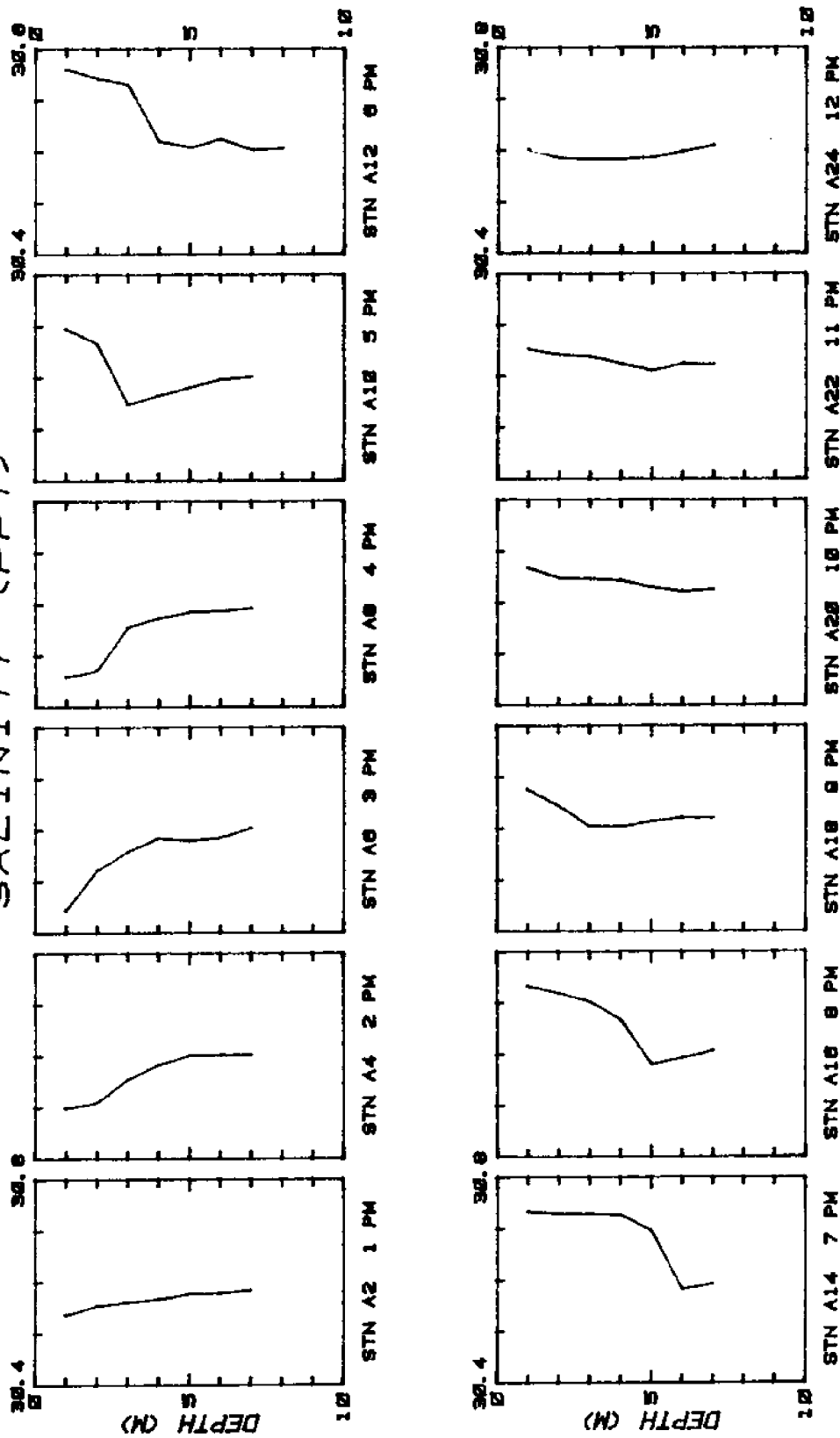


Figure 28: Vertical profile of salinity every hour at anchor station. Times are local daylight-saving time.

12 HOUR ANCHOR STATION

SIGMA-T

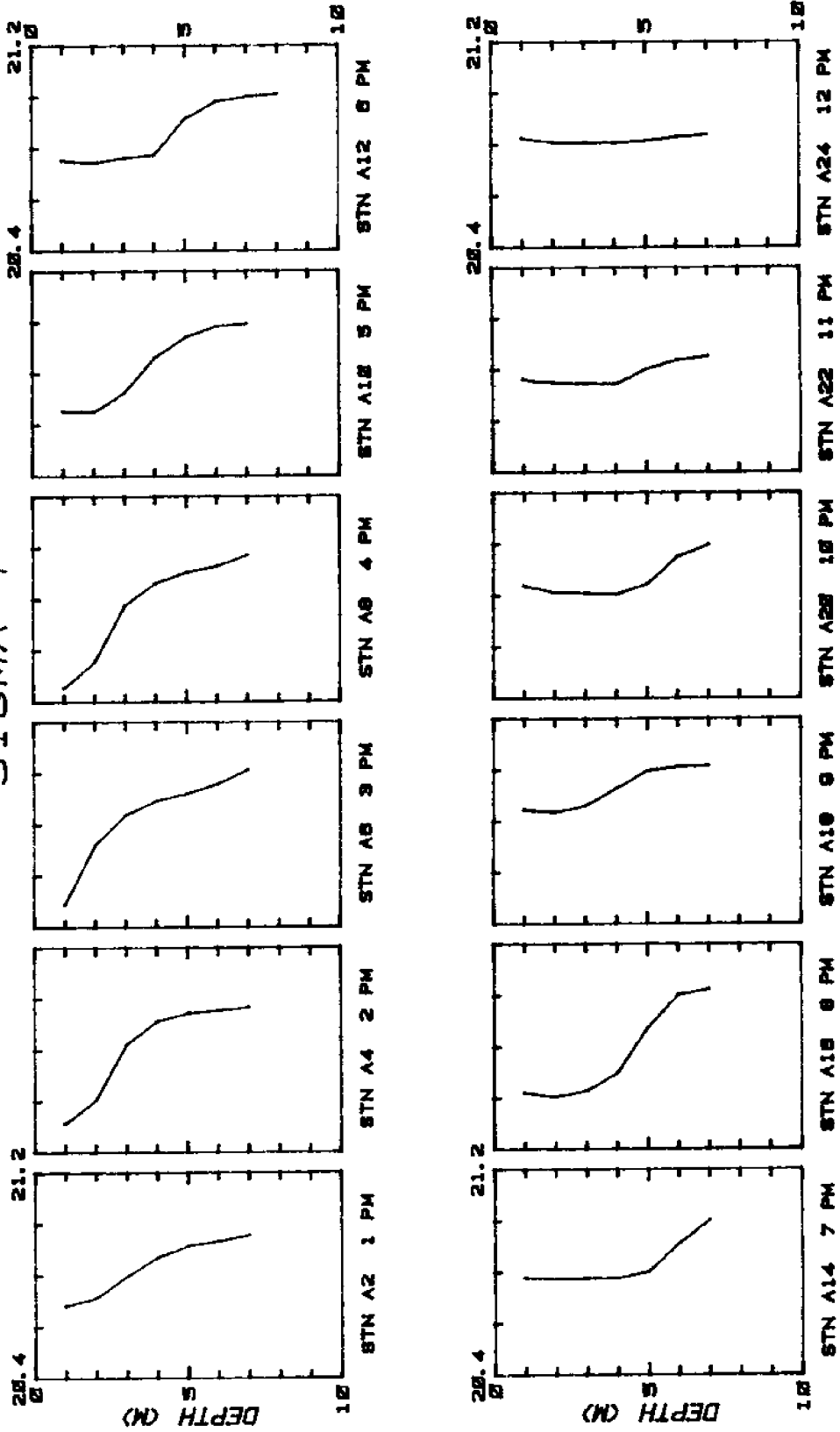


Figure 29: Vertical profile of sigma-t every hour at anchor station. Times are local daylight-saving time.

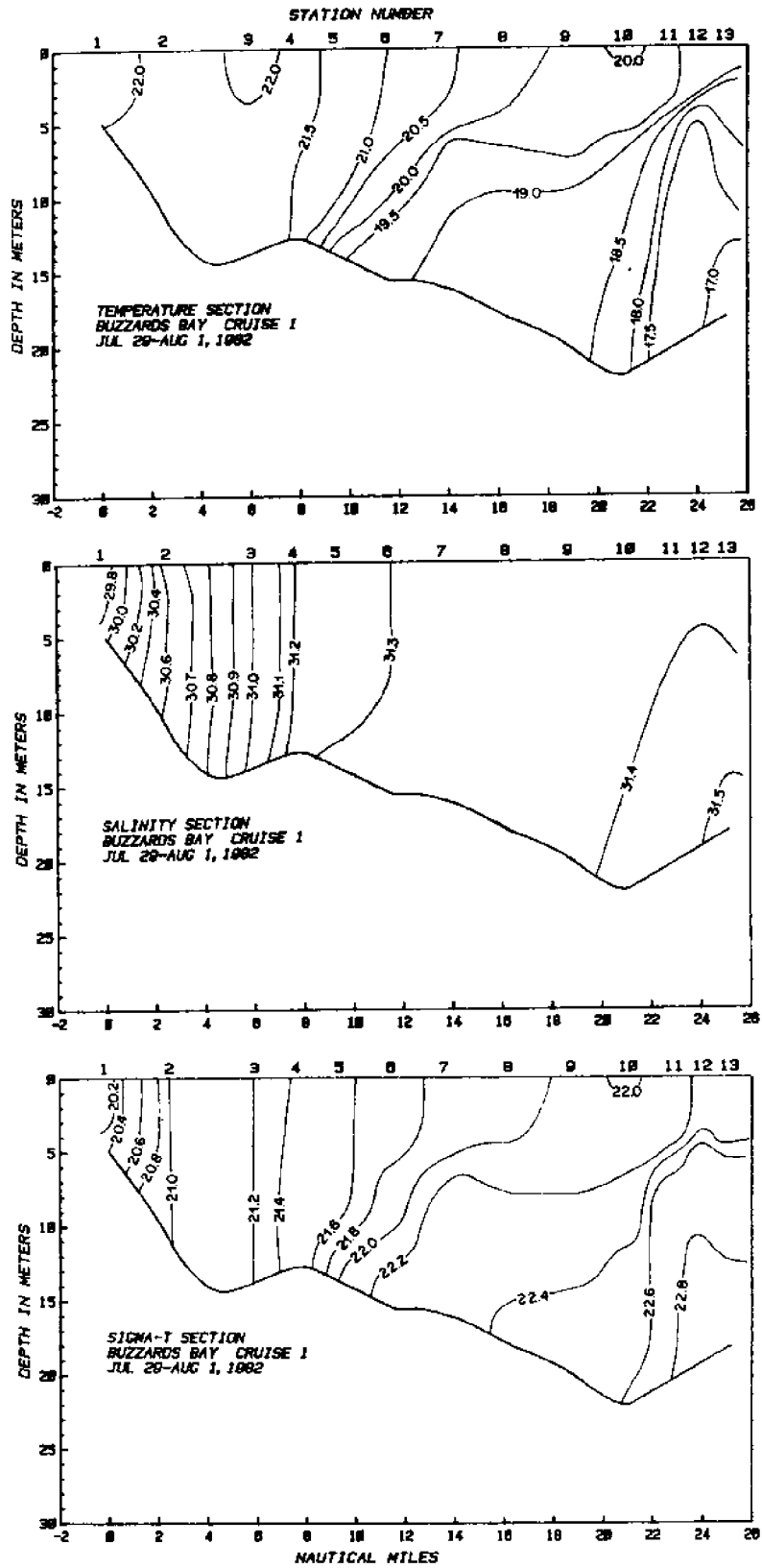


Figure 30

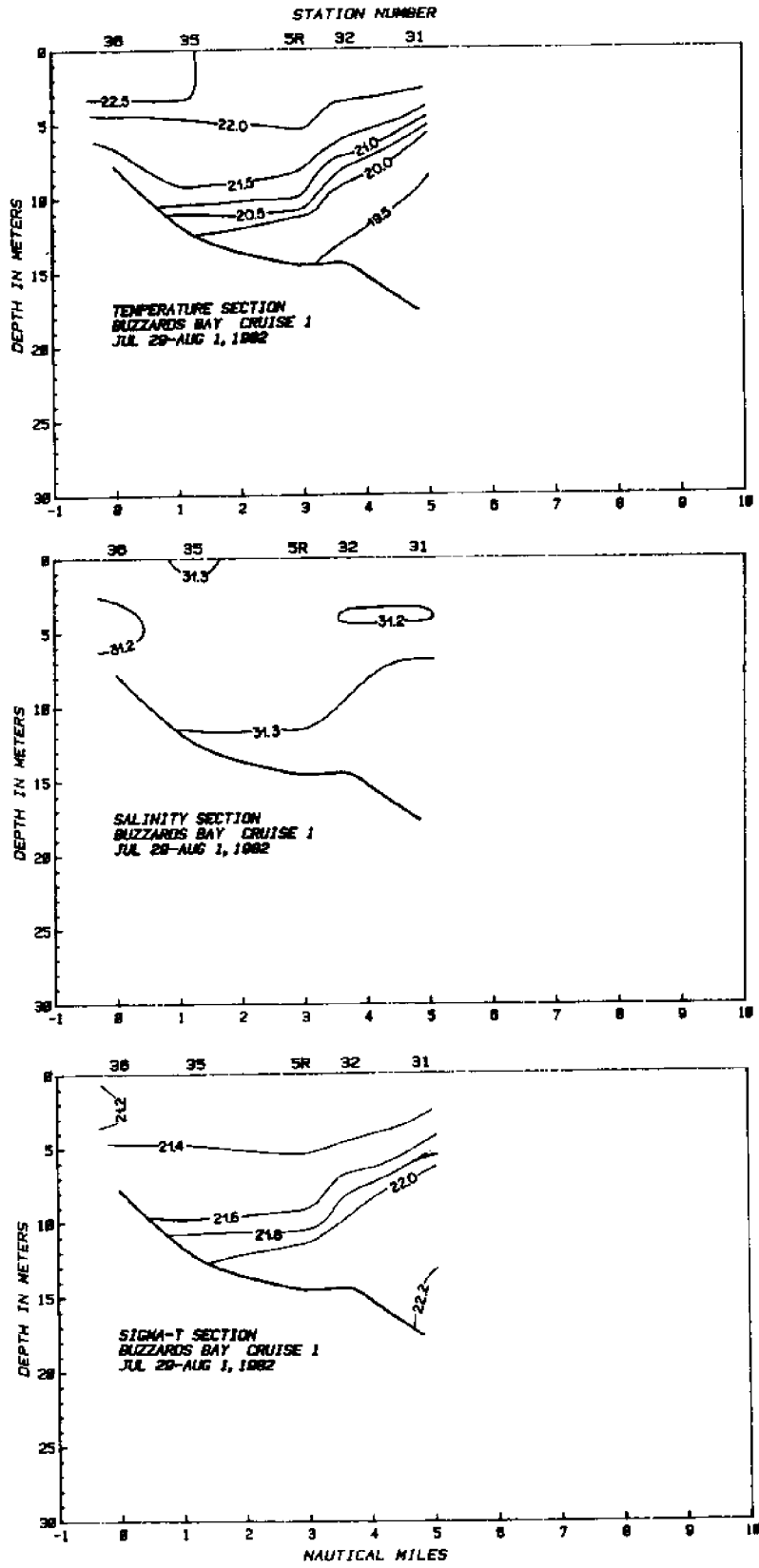


Figure 31

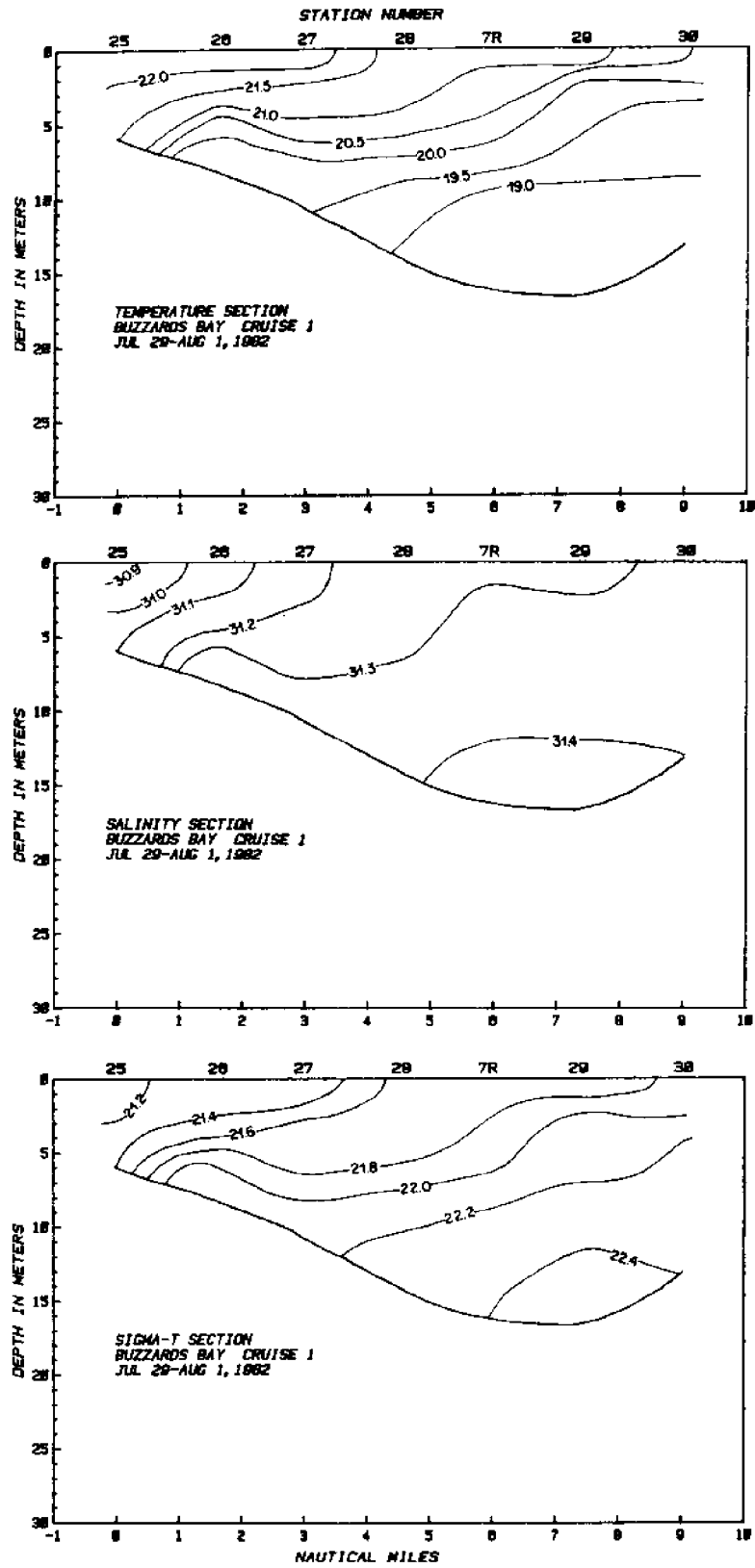


Figure 32

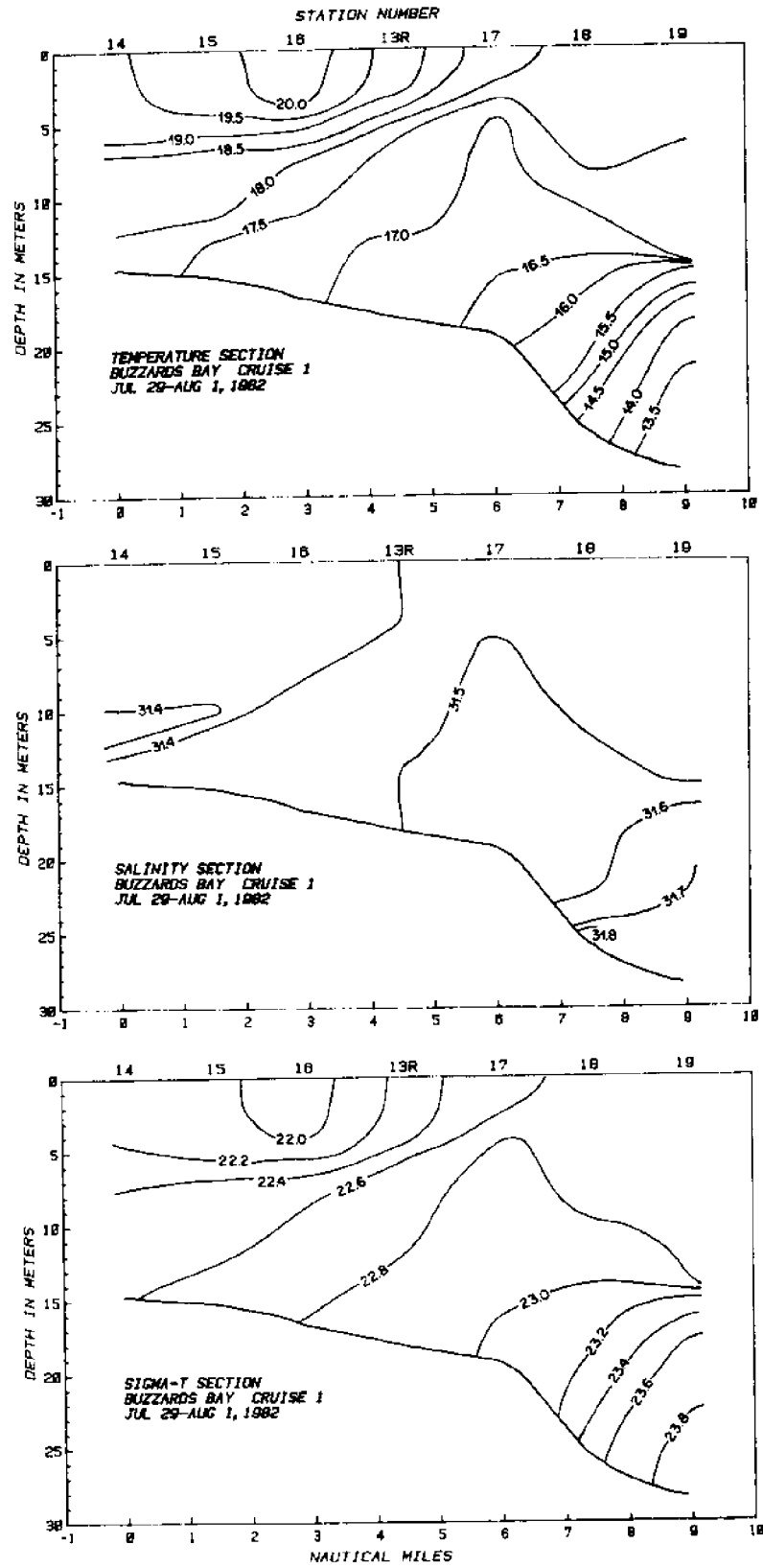


Figure 33

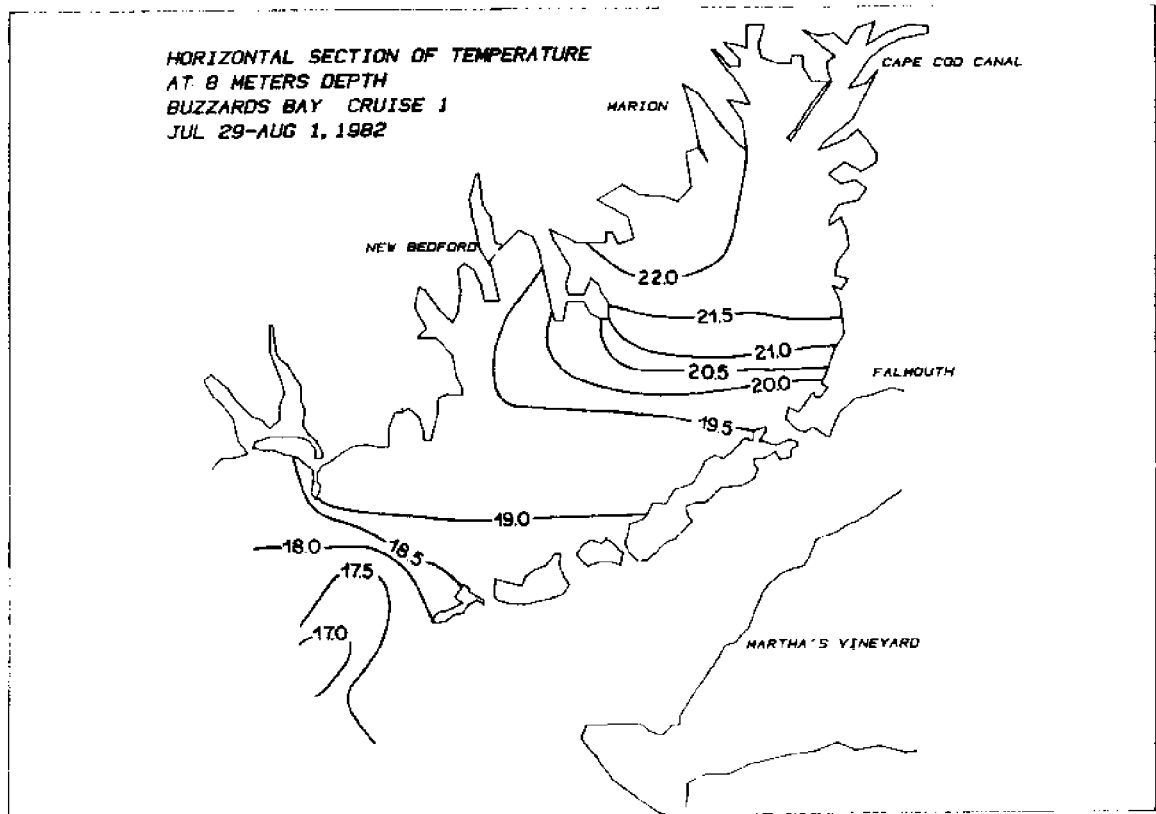
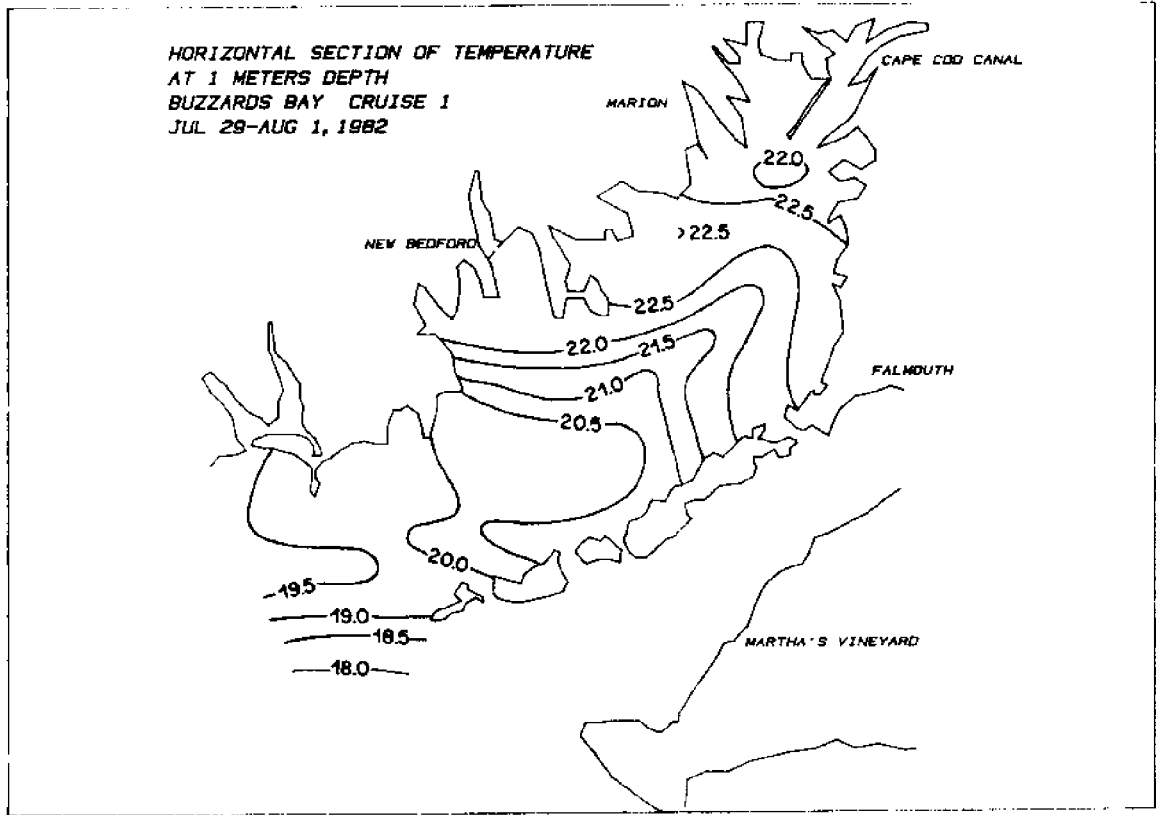


Figure 34

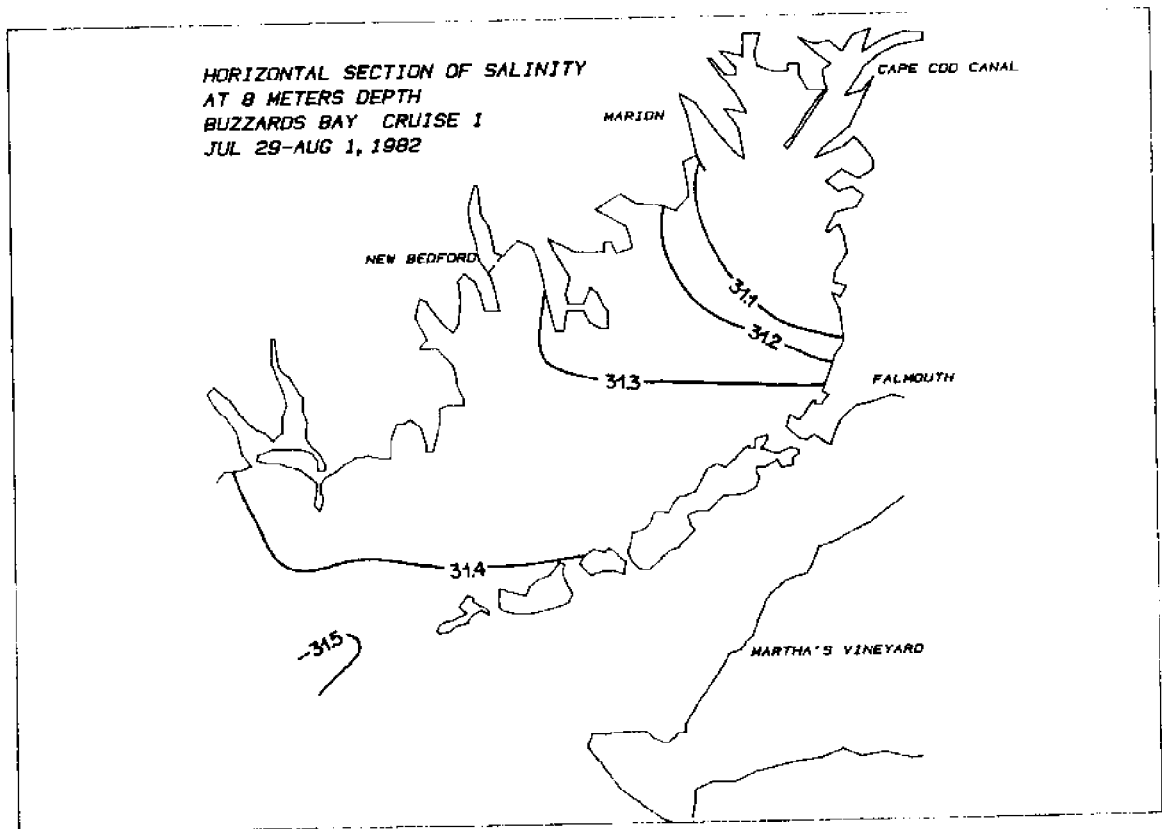
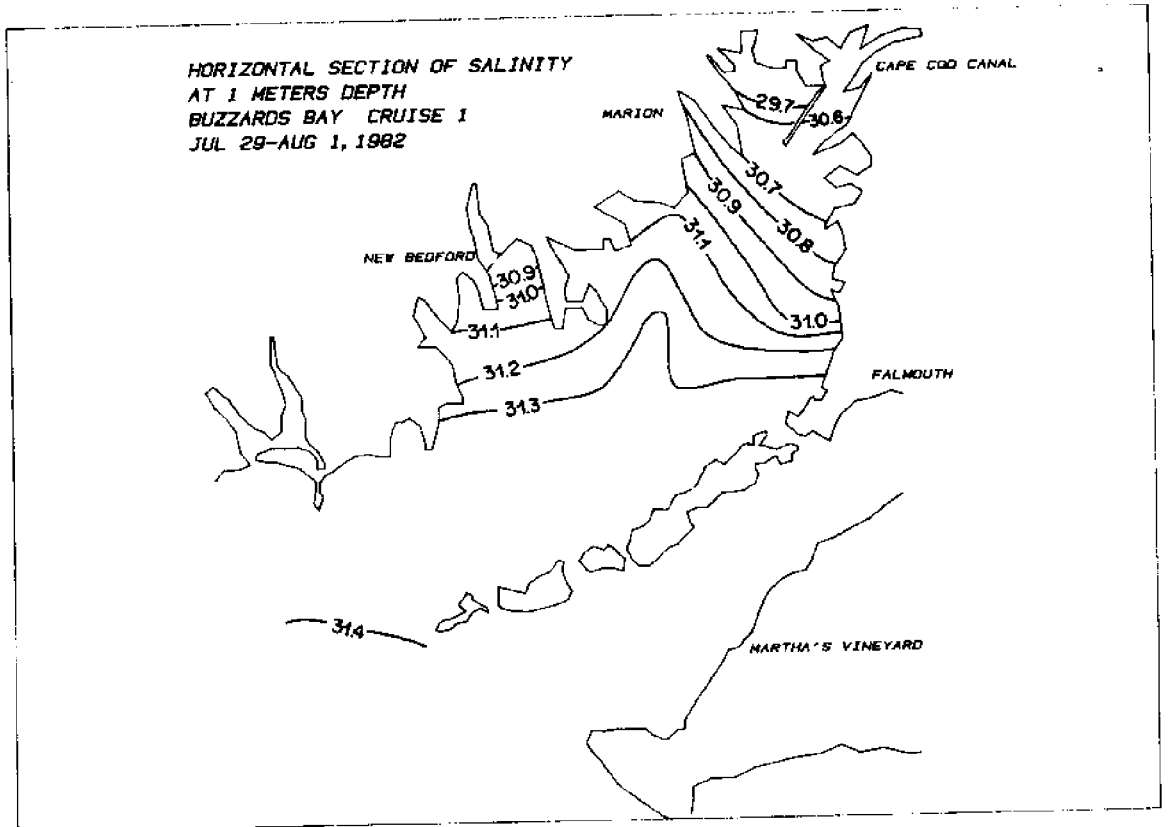


Figure 35

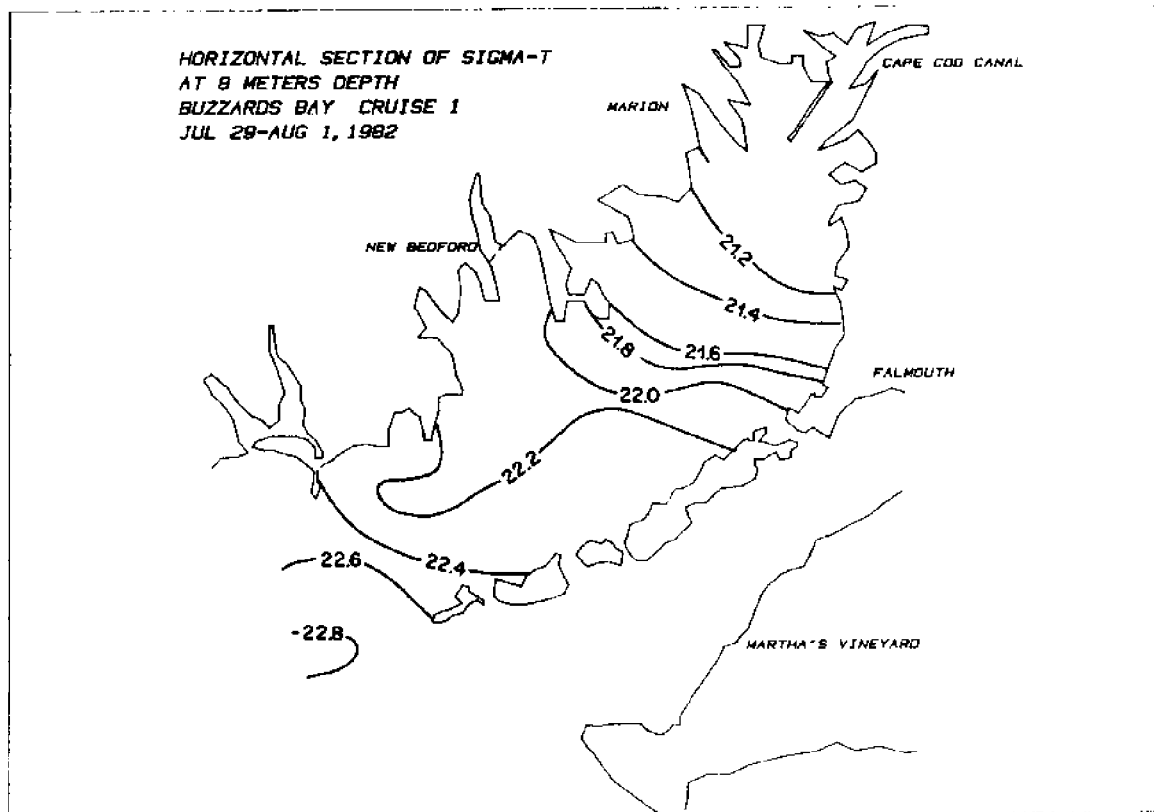
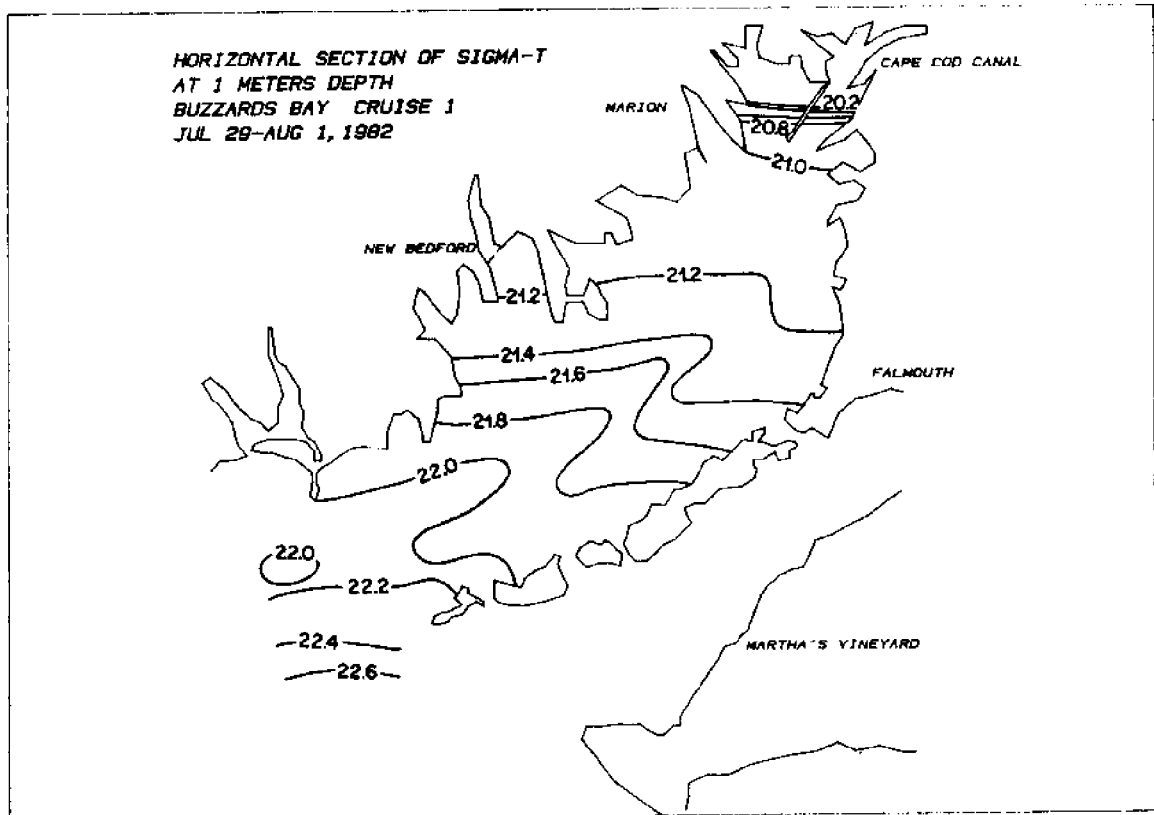


Figure 36

Cruise Two: October 28-29, 1982

We left Woods Hole at 0730 and completed two stations before we experienced equipment malfunction and had to return to port. After correcting the problem, we set out again at 1100 and did the upper part of the along-axis section while the tidal currents were weak. The weather was clear, the seas calm, and the winds light and variable. Flood tide started at 1300 while we were doing some of the other upper bay stations. We started the upper bay cross-section (Stations 36-31R) at 1638 and finished at 1730, still on a flood tide. In the afternoon, the winds picked up to 5-10 kts out of the west, with 1-2 foot waves. On the 29th, the weather was again clear with light winds as we headed down the Bay. At Station 17 the winds were about 5 kts out of the west with 2 foot swell and the tide had just started to ebb. Time constraints prevented us from doing the entire cross-section at the mouth. We worked our way back up the Bay on the ebb tide and started the New Bedford Harbor line (Stations 25-30) just after the tide started to flood. Winds continued to be from the west to southwest at 5-8 kts.

Table 2: Cruise Two Station Times

Station Number	Time*	Station Number	Time*
October 28, 1982		October 29, 1982	
BB2-31	0750	BB2-17	0904
BB2-32	0821	BB2-13	0921
BB2-5	1128	BB2-12	0932
BB2-4	1025	BB2-21	0950
BB2-3	1149	BB2-11	1003
BB2-2	1201	BB2-20	1016
BB2-1	1247	BB2-10	1040
BB2-40	1308	BB2-9	1055
BB2-1R	1407	BB2-8	1119
BB2-10	1430	BB2-7	1138
BB2-39	1543	BB2-6	1156
BB2-41	1523	BB25RR	1214
BB2-38	1550	BB2-4R	1238
BB2-3R	1604	BB2-25	1416
BB2-37	1622	BB2-26	1428
BB2-36	1638	BB2-27	1441
BB2-35	1653	BB2-28	1455
BB2-5R	1707	BB2-7R	1508
BB232R	1712	BB2-29	1520
BB231R	1728	BB2-30	1535

*(Eastern Daylight Saving Time)

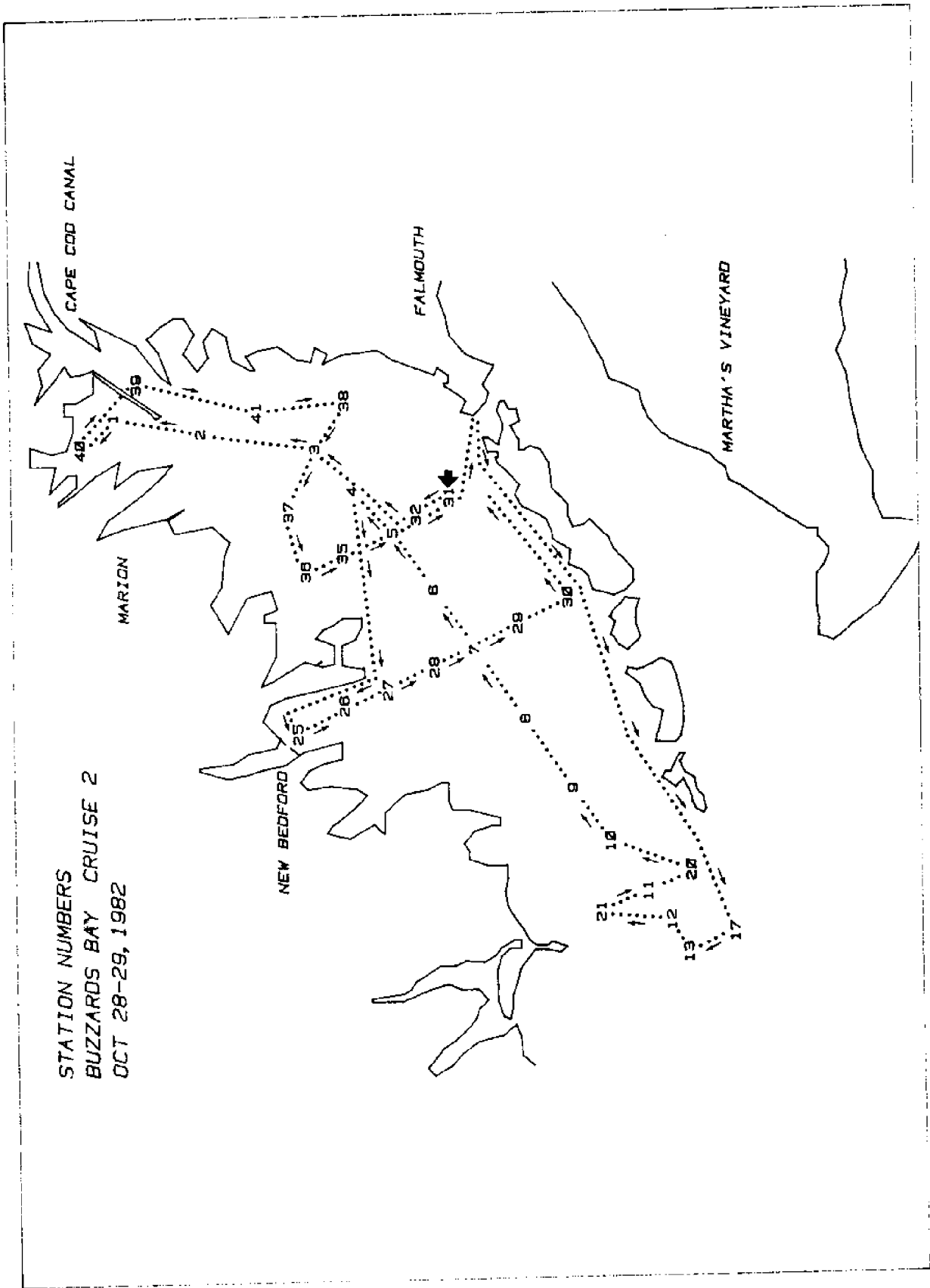
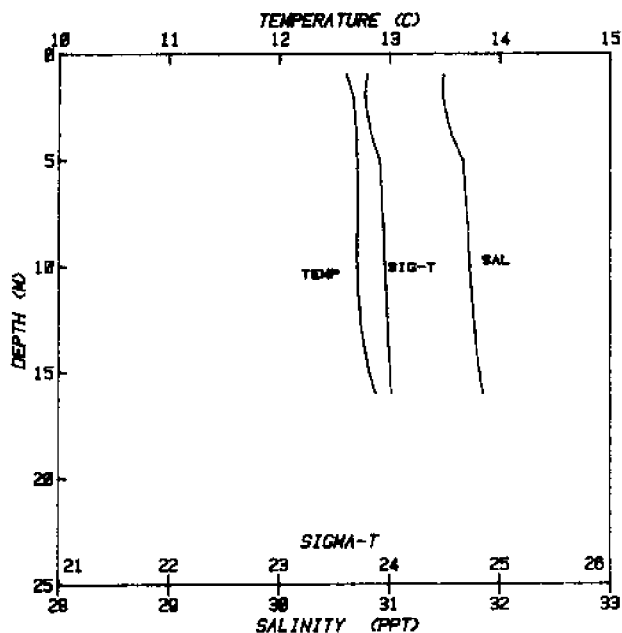


Figure 37: Cruise track and station locations for cruise 2. Bold arrow indicates first station.

STATION 31
 LATITUDE 41 32.2 N
 LONGITUDE 70 44.4 W

BUZZARDS BAY
 CRUISE 2
 OCT 28-29, 1982

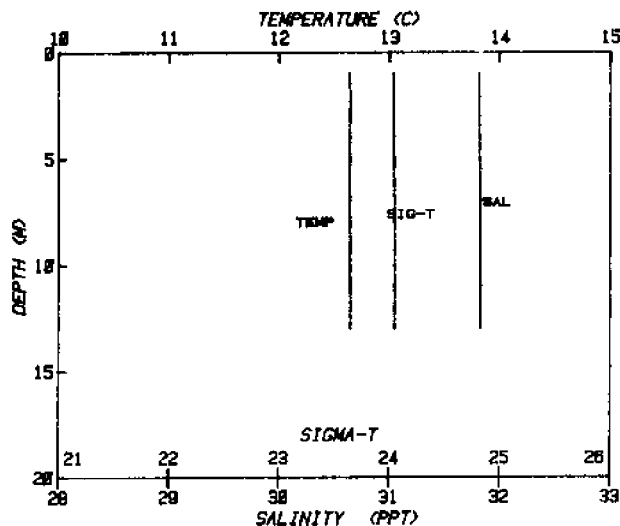
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	12.607	31.487	23.791	65.47
2.0	12.665	31.479	23.774	67.08
3.0	12.688	31.519	23.800	66.91
4.0	12.700	31.575	23.841	66.56
5.0	12.704	31.661	23.907	66.32
6.0	12.706	31.679	23.921	66.41
7.0	12.708	31.692	23.930	66.42
8.0	12.707	31.707	23.942	66.24
9.0	12.704	31.717	23.950	66.38
10.0	12.707	31.729	23.959	66.48
11.0	12.711	31.740	23.966	66.21
12.0	12.728	31.758	23.977	65.98
13.0	12.745	31.772	23.985	65.40
14.0	12.788	31.792	23.993	64.54
15.0	12.816	31.817	24.006	63.92
16.0	12.873	31.849	24.019	60.63



STATION 32
 LATITUDE 41 33.2 N
 LONGITUDE 70 45.1 W

BUZZARDS BAY
 CRUISE 2
 OCT 28-29, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	12.638	31.810	24.035	65.73
2.0	12.643	31.813	24.036	65.60
3.0	12.643	31.814	24.037	65.66
4.0	12.640	31.817	24.039	65.75
5.0	12.640	31.818	24.041	65.84
6.0	12.638	31.820	24.043	65.70
7.0	12.641	31.823	24.044	65.91
8.0	12.643	31.824	24.045	65.76
9.0	12.644	31.826	24.046	65.83
10.0	12.644	31.827	24.047	65.78
11.0	12.645	31.828	24.047	65.92
12.0	12.645	31.830	24.049	65.96
13.0	12.645	31.831	24.050	66.03



STATION 5
 LATITUDE 41 33.9 N
 LONGITUDE 70 45.6 W

BUZZARDS BAY
 CRUISE 2
 OCT 28-29, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	12.669	31.610	23.874	66.23
2.0	12.535	31.629	23.915	63.84
3.0	12.498	31.637	23.928	62.34
4.0	12.472	31.642	23.937	61.48
5.0	12.462	31.646	23.942	62.92
6.0	12.456	31.650	23.946	63.96
7.0	12.456	31.653	23.949	65.11
8.0	12.456	31.658	23.952	66.34
9.0	12.464	31.665	23.956	66.95
10.0	12.482	31.679	23.963	67.12
11.0	12.535	31.716	23.982	66.94
12.0	12.656	31.790	24.016	63.41
13.0	12.724	31.825	24.030	58.35

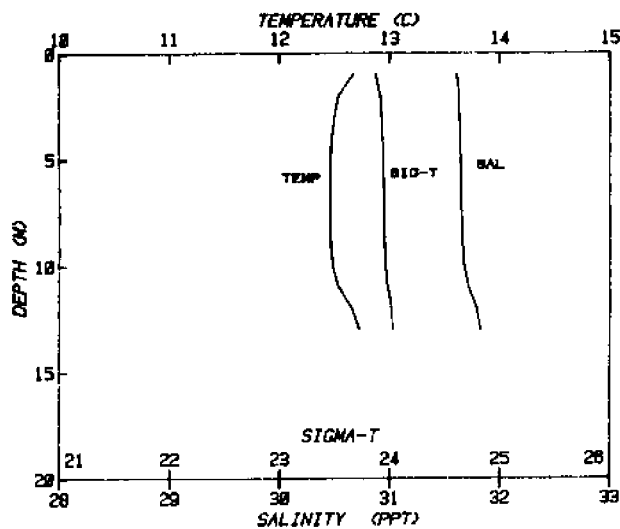
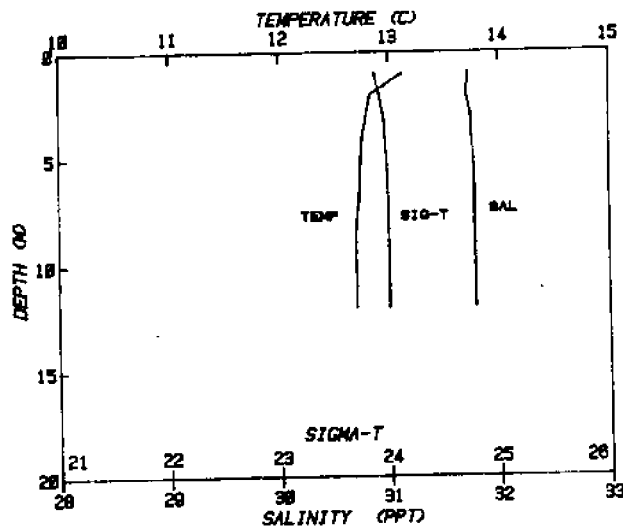


Figure 38

STATION 4
 LATITUDE 41 35.1 N
 LONGITUDE 70 43.9 W

BUZZARDS BAY
 CRUISE 2
 OCT 28-29, 1982

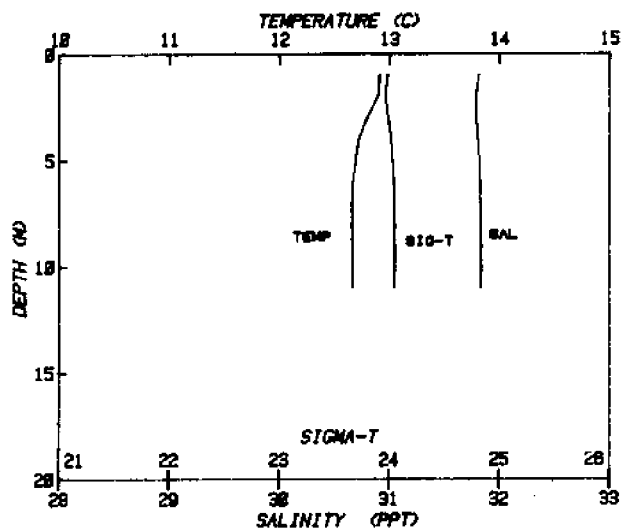
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Σ
1.0	13.132	31.726	23.874	58.94
2.0	12.838	31.712	23.920	60.56
3.0	12.796	31.748	23.956	62.50
4.0	12.762	31.756	23.969	61.33
5.0	12.748	31.770	23.983	63.07
6.0	12.741	31.778	23.990	64.11
7.0	12.728	31.781	23.995	65.20
8.0	12.706	31.779	23.998	64.71
9.0	12.702	31.781	24.000	63.02
10.0	12.702	31.782	24.001	63.72
11.0	12.703	31.782	24.001	63.49
12.0	12.704	31.783	24.001	64.69



STATION 3
 LATITUDE 41 36.2 N
 LONGITUDE 70 42.2 W

BUZZARDS BAY
 CRUISE 2
 OCT 28-29, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Σ
1.0	12.989	31.811	23.983	65.09
2.0	12.896	31.784	23.965	65.34
3.0	12.797	31.787	23.987	63.98
4.0	12.720	31.804	24.014	63.36
5.0	12.694	31.816	24.029	65.18
6.0	12.665	31.823	24.040	67.23
7.0	12.658	31.828	24.045	67.19
8.0	12.659	31.834	24.049	67.45
9.0	12.662	31.838	24.051	68.28
10.0	12.664	31.839	24.052	67.92
11.0	12.666	31.838	24.051	68.14



STATION 2
 LATITUDE 41 39.6 W
 LONGITUDE 70 41.5 E

BUZZARDS BAY
 CRUISE 2
 OCT 28-29, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Σ
1.0	12.437	31.373	23.735	63.54
2.0	12.298	31.362	23.753	61.02
3.0	12.175	31.374	23.784	60.16
4.0	12.154	31.382	23.794	61.72
5.0	12.152	31.388	23.801	62.08
6.0	12.156	31.395	23.804	62.84
7.0	12.167	31.410	23.815	62.90
8.0	12.205	31.448	23.837	63.16
9.0	12.223	31.459	23.842	63.53
10.0	12.265	31.499	23.866	63.19
11.0	12.307	31.527	23.879	59.77

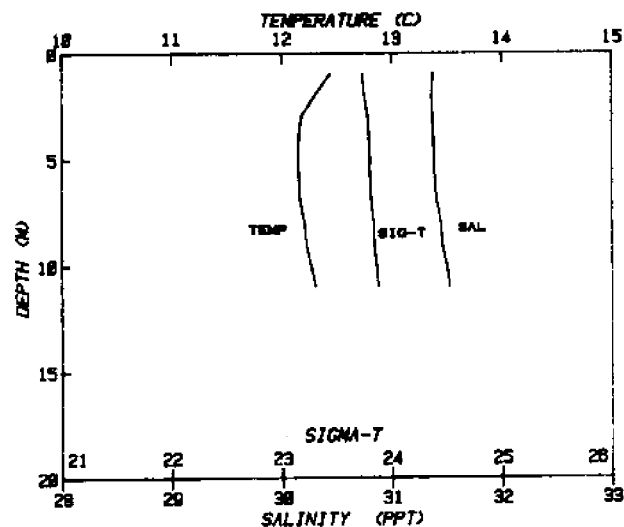
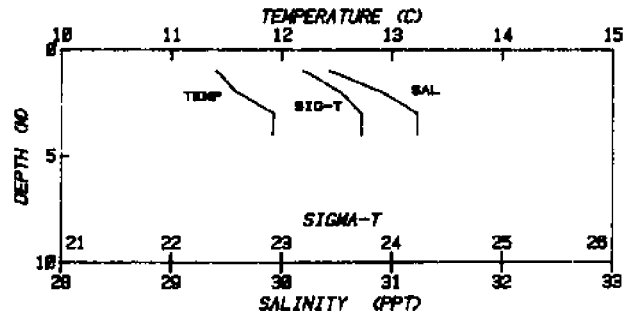


Figure 39

STATION 1
 LATITUDE 41 42.2 N
 LONGITUDE 70 40.8 W

BUZZARDS BAY
 CRUISE 2
 OCT 28-29, 1982

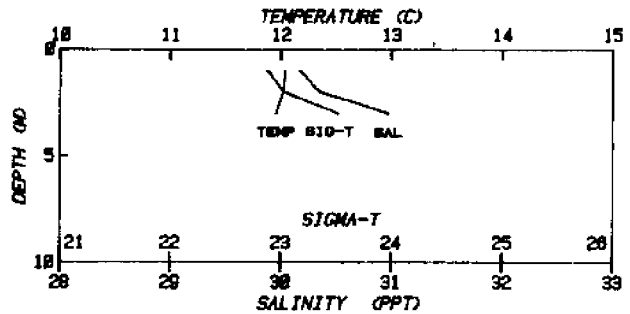
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	11.407	30.432	23.196	66.11
2.0	11.585	30.904	23.530	64.85
3.0	11.926	31.230	23.720	66.88
4.0	11.918	31.231	23.723	66.72



STATION 40
 LATITUDE 41 43.2 N
 LONGITUDE 70 42.3 W

BUZZARDS BAY
 CRUISE 2
 OCT 28-29, 1982

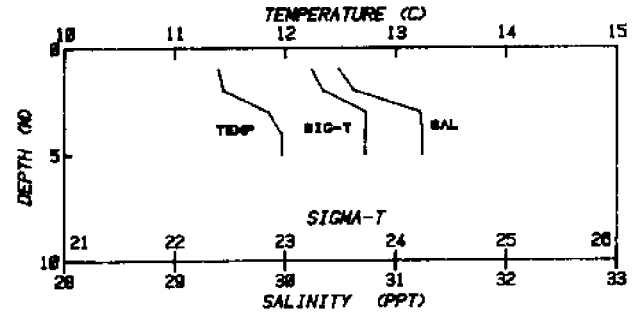
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	12.042	30.173	22.882	66.34
2.0	12.020	30.353	23.025	66.73
3.0	11.959	30.971	23.514	63.63



STATION 1R
 LATITUDE 41 42.2 N
 LONGITUDE 70 40.8 W

BUZZARDS BAY
 CRUISE 2
 OCT 28-29, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	11.397	30.484	23.238	61.07
2.0	11.437	30.622	23.338	65.80
3.0	11.842	31.221	23.729	66.32
4.0	11.965	31.241	23.722	66.15
5.0	11.966	31.241	23.721	66.26



STATION 39
 LATITUDE 41 41.5 N
 LONGITUDE 70 39.7 W

BUZZARDS BAY
 CRUISE 2
 OCT 28-29, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	11.978	31.251	23.727	62.22
2.0	11.992	31.251	23.724	62.36
3.0	12.017	31.266	23.732	62.21
4.0	12.007	31.257	23.726	62.29
5.0	12.005	31.258	23.728	62.32
6.0	12.001	31.254	23.725	62.02

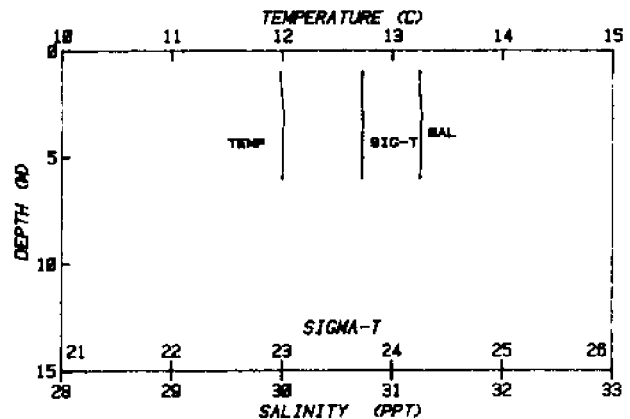
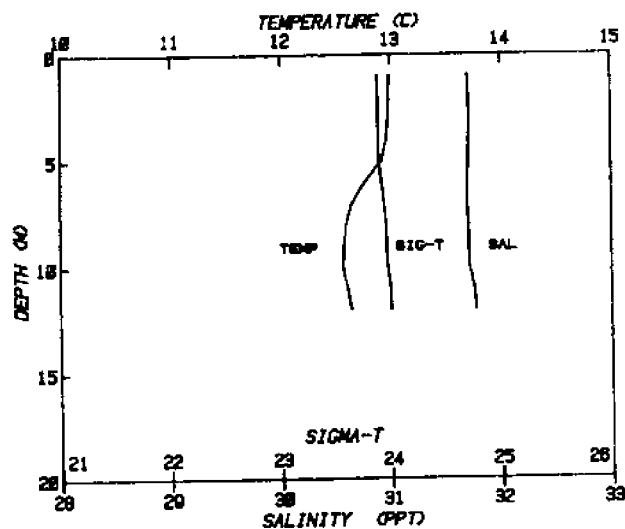


Figure 40

STATION 41
 LATITUDE 41 37.9 N
 LONGITUDE 70 40.9 W

BUZZARDS BAY
 CRUISE 2
 OCT 28-29, 1982

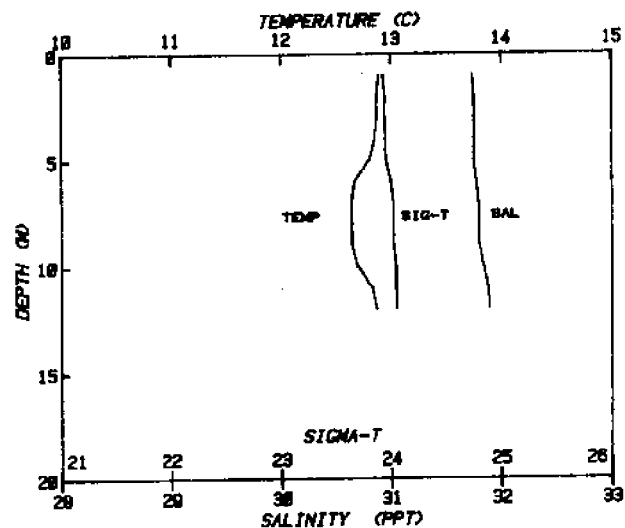
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	12.993	31.702	23.882	51.72
2.0	12.985	31.710	23.890	49.61
3.0	12.983	31.712	23.892	52.34
4.0	12.963	31.707	23.892	55.82
5.0	12.920	31.702	23.897	59.11
6.0	12.769	31.694	23.920	67.53
7.0	12.648	31.695	23.944	68.75
8.0	12.594	31.704	23.962	68.67
9.0	12.576	31.707	23.967	68.84
10.0	12.564	31.715	23.976	69.34
11.0	12.611	31.758	24.000	62.94
12.0	12.643	31.770	24.003	59.77



STATION 38
 LATITUDE 41 35.3 N
 LONGITUDE 70 40.5 W

BUZZARDS BAY
 CRUISE 2
 OCT 28-29, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	12.892	31.740	23.932	64.84
2.0	12.873	31.757	23.949	66.33
3.0	12.873	31.757	23.949	65.90
4.0	12.856	31.758	23.953	66.51
5.0	12.806	31.753	23.959	67.38
6.0	12.670	31.775	24.002	69.55
7.0	12.643	31.796	24.023	69.75
8.0	12.643	31.798	24.025	69.71
9.0	12.648	31.801	24.026	70.21
10.0	12.700	31.842	24.047	67.54
11.0	12.830	31.879	24.051	61.98
12.0	12.872	31.891	24.052	57.97



STATION 3R
 LATITUDE 41 36.2 N
 LONGITUDE 70 42.2 W

BUZZARDS BAY
 CRUISE 2
 OCT 28-29, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	12.959	31.831	23.989	65.41
2.0	12.964	31.827	23.984	66.93
3.0	12.968	31.825	23.982	68.99
4.0	12.953	31.827	23.987	68.88
5.0	12.947	31.826	23.987	67.50
6.0	12.850	31.833	24.011	69.65
7.0	12.771	31.849	24.039	69.92
8.0	12.754	31.857	24.049	68.36
9.0	12.748	31.861	24.055	66.61
10.0	12.728	31.857	24.054	66.08

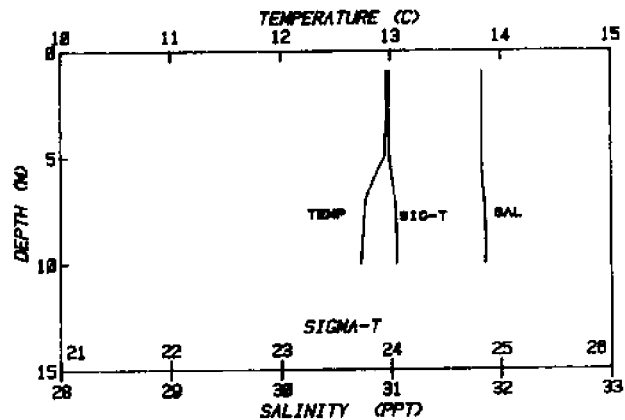
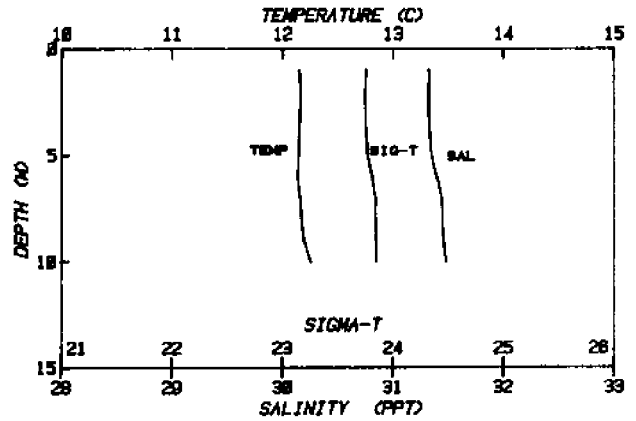


Figure 41

STATION 37
 LATITUDE 41 37 N
 LONGITUDE 70 44.9 W

BUZZARDS BAY
 CRUISE 2
 OCT 28-29, 1982

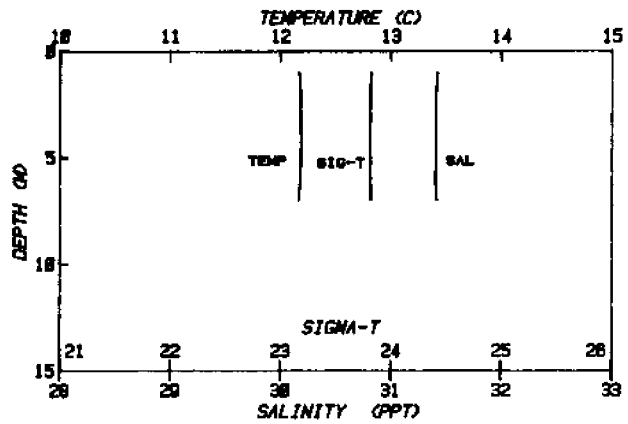
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	12.153	31.328	23.754	56.15
2.0	12.163	31.319	23.745	56.80
3.0	12.160	31.323	23.749	59.22
4.0	12.154	31.331	23.756	61.50
5.0	12.146	31.348	23.771	63.13
6.0	12.137	31.396	23.810	65.83
7.0	12.162	31.442	23.841	66.88
8.0	12.174	31.447	23.842	67.50
9.0	12.195	31.461	23.849	66.46
10.0	12.258	31.483	23.854	63.75



STATION 36
 LATITUDE 41 36.5 N
 LONGITUDE 70 47.3 W

BUZZARDS BAY
 CRUISE 2
 OCT 28-29, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	12.169	31.419	23.822	61.02
2.0	12.182	31.407	23.810	61.66
3.0	12.181	31.406	23.809	61.77
4.0	12.186	31.405	23.808	61.80
5.0	12.184	31.405	23.808	62.05
6.0	12.176	31.404	23.809	62.37
7.0	12.165	31.411	23.816	63.04



STATION 35
 LATITUDE 41 35.4 N
 LONGITUDE 70 46.6 W

BUZZARDS BAY
 CRUISE 2
 OCT 28-29, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	12.556	31.557	23.855	57.66
2.0	12.564	31.548	23.846	59.06
3.0	12.563	31.550	23.848	59.50
4.0	12.548	31.556	23.856	61.20
5.0	12.506	31.571	23.875	64.24
6.0	12.442	31.602	23.912	65.81
7.0	12.404	31.626	23.937	65.44
8.0	12.400	31.630	23.942	65.21
9.0	12.399	31.630	23.942	64.95
10.0	12.399	31.631	23.942	64.97
11.0	12.398	31.631	23.942	64.90
12.0	12.398	31.631	23.942	64.56

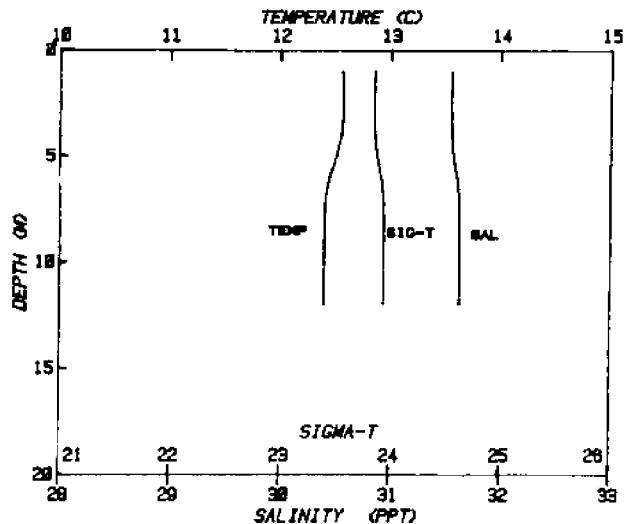
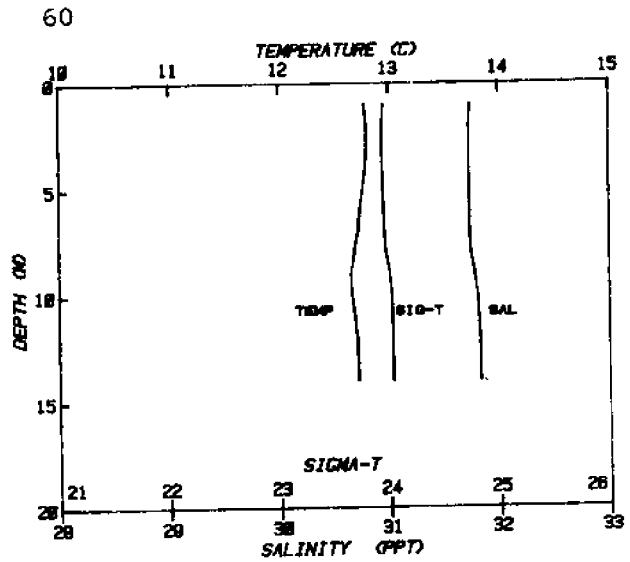


Figure 42

STATION 5R
 LATITUDE 41 33.9 N
 LONGITUDE 70 43.6 W

BUZZARDS BAY
 CRUISE 2
 OCT 28-29, 1982

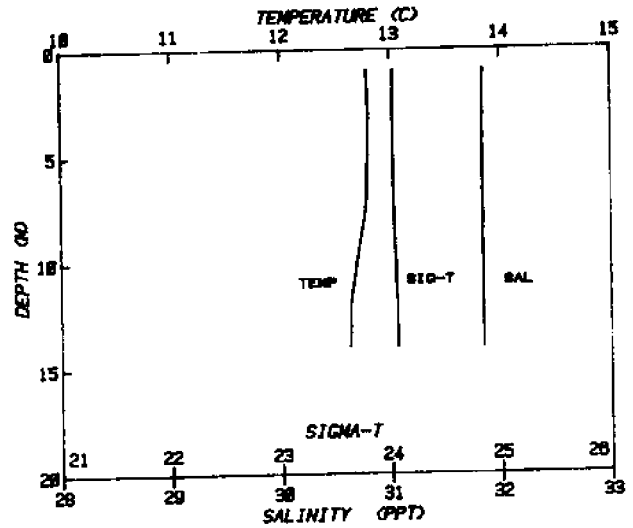
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Σ
1.0	12.784	31.745	23.956	62.86
2.0	12.802	31.732	23.943	65.23
3.0	12.802	31.731	23.942	65.31
4.0	12.790	31.730	23.943	66.07
5.0	12.764	31.732	23.951	67.11
6.0	12.734	31.735	23.958	67.34
7.0	12.719	31.737	23.963	66.94
8.0	12.685	31.750	23.979	67.03
9.0	12.654	31.782	24.010	66.33
10.0	12.664	31.807	24.020	64.81
11.0	12.691	31.820	24.033	63.15
12.0	12.708	31.827	24.034	61.51
13.0	12.715	31.829	24.035	59.97
14.0	12.719	31.830	24.034	52.27



STATION 32R
 LATITUDE 41 33.2 N
 LONGITUDE 70 45.1 W

BUZZARDS BAY
 CRUISE 2
 OCT 28-29, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Σ
1.0	12.792	31.844	24.032	0.00
2.0	12.795	31.841	24.028	62.41
3.0	12.800	31.839	24.026	63.25
4.0	12.796	31.838	24.026	64.53
5.0	12.795	31.839	24.027	63.80
6.0	12.785	31.838	24.028	63.52
7.0	12.782	31.838	24.029	64.32
8.0	12.762	31.838	24.033	65.29
9.0	12.725	31.835	24.037	65.29
10.0	12.692	31.848	24.047	65.25
11.0	12.667	31.838	24.051	64.72
12.0	12.632	31.839	24.058	64.38
13.0	12.633	31.841	24.060	64.43
14.0	12.627	31.839	24.059	47.06



STATION 31R
 LATITUDE 41 32.2 N
 LONGITUDE 70 44.4 W

BUZZARDS BAY
 CRUISE 2
 OCT 28-29, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Σ
1.0	12.981	31.904	24.041	60.23
2.0	12.963	31.890	24.033	62.53
3.0	12.972	31.897	24.037	62.58
4.0	12.978	31.893	24.033	62.89
5.0	12.969	31.893	24.034	62.97
6.0	12.915	31.886	24.039	62.08
7.0	12.924	31.867	24.023	63.28
8.0	12.869	31.881	24.045	64.87
9.0	12.766	31.872	24.058	65.13
10.0	12.739	31.875	24.065	64.79
11.0	12.723	31.875	24.069	63.52
12.0	12.719	31.876	24.070	62.71
13.0	12.718	31.877	24.071	63.39
14.0	12.715	31.876	24.071	62.55
15.0	12.715	31.876	24.071	63.33
16.0	12.715	31.876	24.071	63.11
17.0	12.715	31.876	24.071	63.45

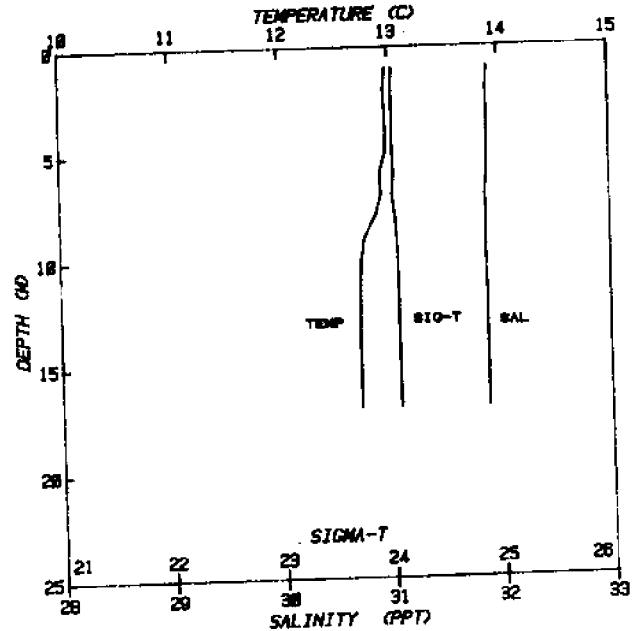
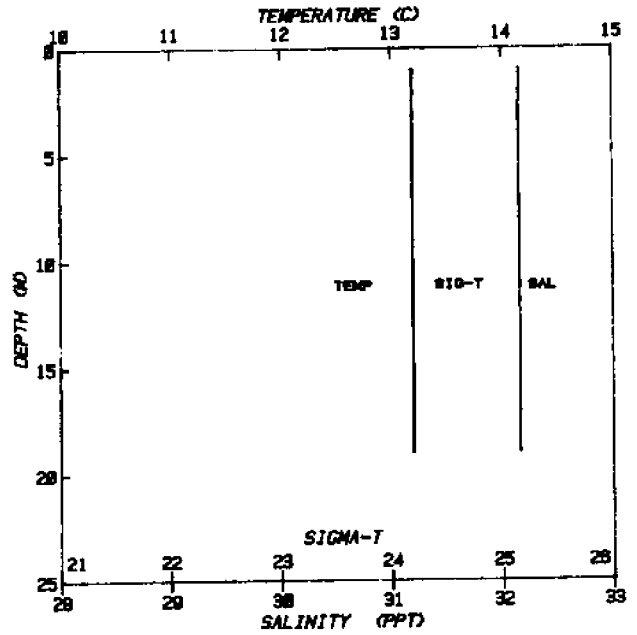


Figure 43

STATION 17
 LATITUDE 41 23.8 N
 LONGITUDE 71 2 W

BUZZARDS BAY
 CRUISE 2
 OCT 28-29, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. X
1.0	13.183	32.161	24.199	66.00
2.0	13.196	32.156	24.193	66.25
3.0	13.190	32.155	24.193	66.34
4.0	13.190	32.155	24.193	66.48
5.0	13.189	32.156	24.194	66.56
6.0	13.193	32.155	24.192	66.56
7.0	13.194	32.155	24.192	66.05
8.0	13.192	32.155	24.192	66.29
9.0	13.192	32.155	24.192	66.35
10.0	13.194	32.155	24.192	66.34
11.0	13.194	32.155	24.192	66.04
12.0	13.194	32.154	24.192	66.19
13.0	13.193	32.155	24.193	66.17
14.0	13.193	32.155	24.192	66.15
15.0	13.195	32.154	24.192	65.70
16.0	13.195	32.155	24.192	65.88
17.0	13.196	32.155	24.192	65.94
18.0	13.196	32.153	24.191	65.56
19.0	13.196	32.155	24.192	65.96



STATION 13
 LATITUDE 41 25.2 N
 LONGITUDE 71 2.8 W

BUZZARDS BAY
 CRUISE 2
 OCT 28-29, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. X
1.0	13.036	32.122	24.198	64.30
2.0	13.038	32.117	24.194	65.99
3.0	13.035	32.117	24.194	66.09
4.0	13.030	32.115	24.194	64.64
5.0	13.032	32.115	24.194	65.08
6.0	13.032	32.114	24.193	65.21
7.0	13.033	32.115	24.193	65.91
8.0	13.036	32.116	24.193	65.47
9.0	13.032	32.115	24.193	66.09
10.0	13.038	32.117	24.194	65.53
11.0	13.040	32.113	24.190	65.63
12.0	13.039	32.116	24.193	65.19
13.0	13.040	32.116	24.193	65.31
14.0	13.041	32.116	24.193	65.75
15.0	13.039	32.116	24.193	64.92
16.0	13.039	32.116	24.193	65.03
17.0	13.040	32.115	24.192	64.92
18.0	13.039	32.116	24.193	65.03

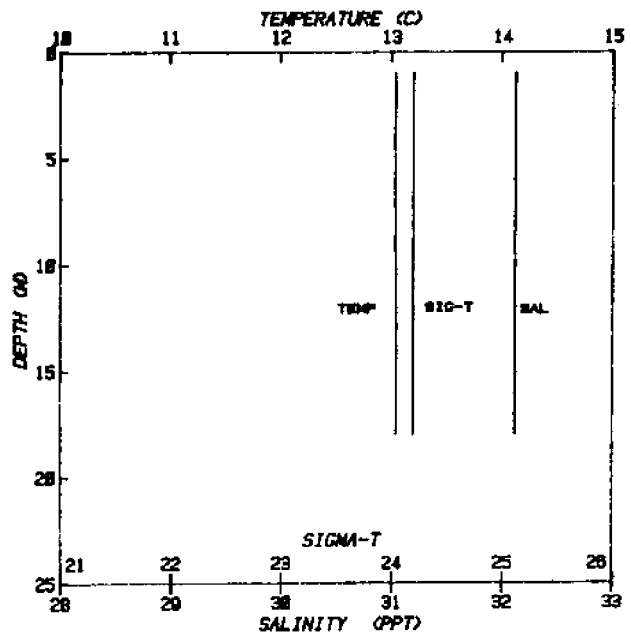
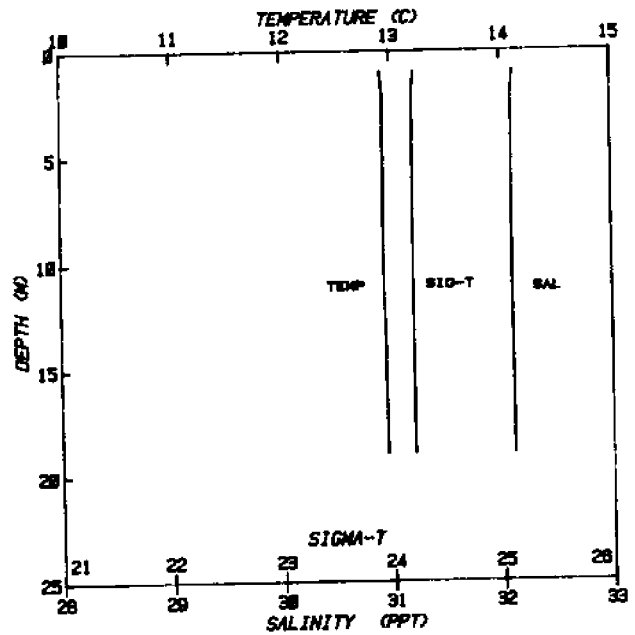


Figure 44

STATION 12
 LATITUDE 41 25.7 N
 LONGITUDE 71 1.5 W

BUZZARDS BAY
 CRUISE 2
 OCT 28-29, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Z
1.0	12.913	32.116	24.218	65.69
2.0	12.932	32.099	24.201	65.90
3.0	12.934	32.097	24.199	65.63
4.0	12.933	32.097	24.199	65.86
5.0	12.934	32.097	24.199	65.83
6.0	12.934	32.097	24.199	65.88
7.0	12.934	32.097	24.199	65.78
8.0	12.933	32.096	24.199	65.69
9.0	12.934	32.098	24.199	65.78
10.0	12.935	32.098	24.199	65.73
11.0	12.936	32.098	24.199	65.57
12.0	12.940	32.099	24.199	65.97
13.0	12.944	32.100	24.199	65.78
14.0	12.948	32.100	24.199	65.78
15.0	12.947	32.100	24.199	65.16
16.0	12.948	32.100	24.198	65.44
17.0	12.949	32.098	24.197	65.16
18.0	12.948	32.100	24.198	65.44
19.0	12.950	32.100	24.198	65.97



STATION 21
 LATITUDE 41 27.8 N
 LONGITUDE 71 1.1 W

BUZZARDS BAY
 CRUISE 2
 OCT 28-29, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Z
1.0	13.014	32.129	24.208	64.92
2.0	13.026	32.116	24.196	65.23
3.0	13.024	32.116	24.196	65.35
4.0	13.024	32.114	24.194	65.23
5.0	13.022	32.115	24.195	65.43
6.0	13.022	32.115	24.195	65.38
7.0	13.018	32.114	24.196	65.42
8.0	13.019	32.114	24.195	65.59
9.0	13.016	32.114	24.196	65.34
10.0	13.014	32.113	24.196	65.78
11.0	13.012	32.113	24.196	65.39
12.0	13.009	32.113	24.197	65.70
13.0	13.004	32.112	24.197	65.22
14.0	13.002	32.111	24.197	65.78
15.0	13.000	32.111	24.197	65.55
16.0	13.001	32.112	24.197	65.70
17.0	13.000	32.112	24.197	65.44

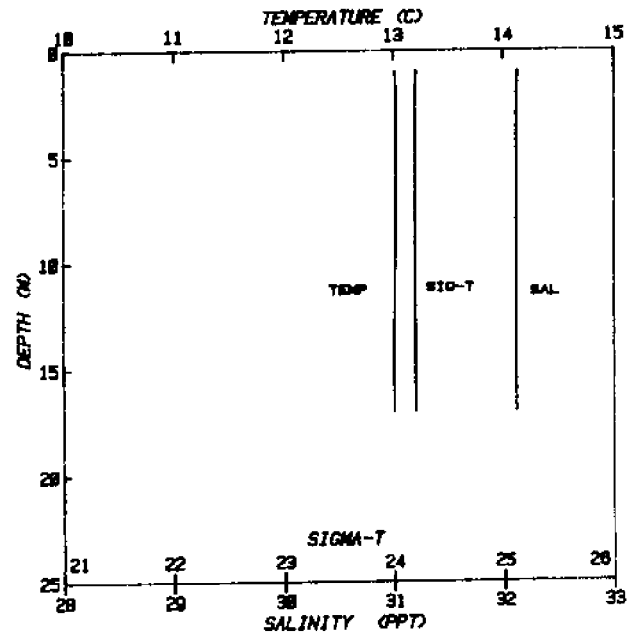
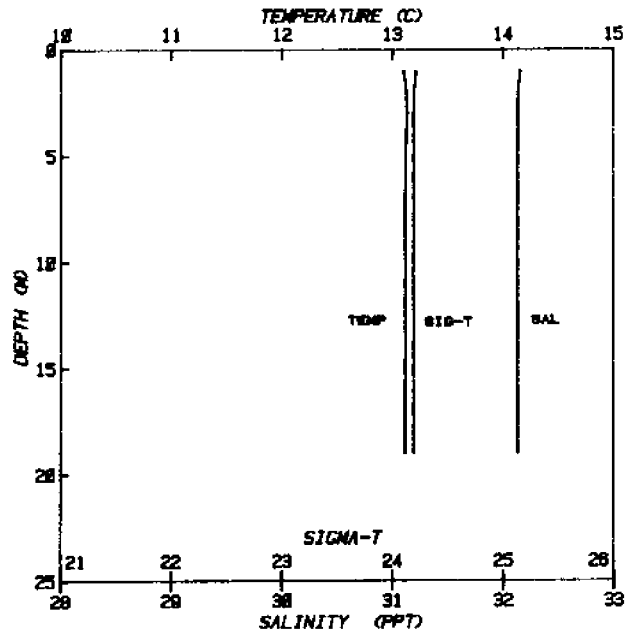


Figure 45

STATION 11
 LATITUDE 41 26.4 N
 LONGITUDE 71 .3 W

BUZZARDS BAY
 CRUISE 2
 OCT 28-29, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Z
1.0	13.101	32.154	24.211	64.79
2.0	13.125	32.137	24.192	65.31
3.0	13.131	32.134	24.189	65.22
4.0	13.125	32.134	24.190	65.00
5.0	13.119	32.132	24.189	65.00
6.0	13.119	32.132	24.190	65.10
7.0	13.114	32.132	24.191	64.74
8.0	13.114	32.132	24.190	65.44
9.0	13.115	32.132	24.190	64.90
10.0	13.117	32.132	24.190	65.09
11.0	13.115	32.132	24.190	65.42
12.0	13.114	32.132	24.190	65.16
13.0	13.115	32.132	24.190	65.52
14.0	13.114	32.132	24.190	65.21
15.0	13.115	32.131	24.190	65.25
16.0	13.113	32.131	24.190	64.61
17.0	13.113	32.132	24.191	64.82
18.0	13.113	32.132	24.191	64.75
19.0	13.113	32.132	24.191	65.08



STATION 20
 LATITUDE 41 25.1 N
 LONGITUDE 70 59.5 W

BUZZARDS BAY
 CRUISE 2
 OCT 28-29, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Z
1.0	13.402	32.208	24.192	64.66
2.0	13.418	32.204	24.186	67.81
3.0	13.411	32.204	24.187	67.42
4.0	13.398	32.203	24.189	67.19
5.0	13.384	32.204	24.192	66.93
6.0	13.384	32.204	24.192	66.80
7.0	13.383	32.204	24.192	67.40
8.0	13.384	32.204	24.192	67.13
9.0	13.385	32.204	24.192	67.19
10.0	13.384	32.204	24.192	67.88
11.0	13.385	32.204	24.192	67.58
12.0	13.384	32.204	24.192	67.19
13.0	13.385	32.204	24.192	66.88
14.0	13.387	32.206	24.193	66.67
15.0	13.388	32.207	24.194	66.25
16.0	13.389	32.206	24.192	66.20
17.0	13.390	32.207	24.193	65.47
18.0	13.390	32.206	24.193	65.78
19.0	13.390	32.207	24.193	65.70
20.0	13.390	32.207	24.193	65.55
21.0	13.390	32.203	24.190	65.78
22.0	13.390	32.207	24.193	66.45
23.0	13.390	32.207	24.193	67.37
24.0	13.390	32.207	24.193	66.67

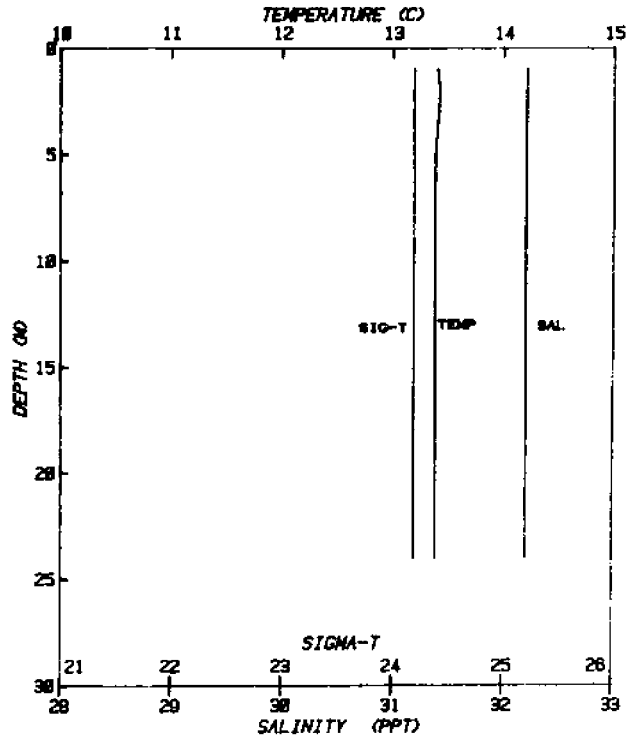
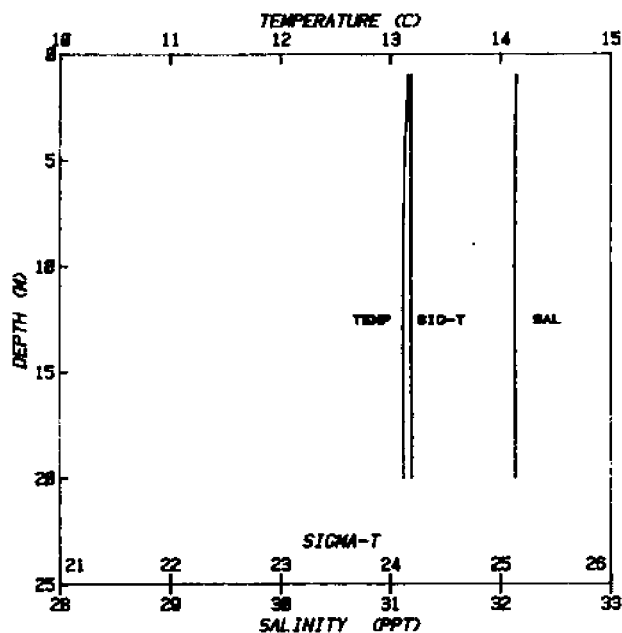


Figure 46

STATION 10
 LATITUDE 41 27.5 N
 LONGITUDE 70 58.3 W

BUZZARDS BAY
 CRUISE 2
 OCT 28-29, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	13.163	32.145	24.191	66.29
2.0	13.157	32.137	24.185	66.05
3.0	13.151	32.135	24.186	66.41
4.0	13.134	32.133	24.187	66.45
5.0	13.131	32.133	24.188	66.91
6.0	13.128	32.134	24.189	66.29
7.0	13.128	32.133	24.189	66.52
8.0	13.120	32.132	24.189	66.17
9.0	13.119	32.133	24.190	66.48
10.0	13.118	32.131	24.189	66.05
11.0	13.116	32.133	24.190	66.33
12.0	13.117	32.133	24.191	66.04
13.0	13.117	32.133	24.191	66.41
14.0	13.117	32.133	24.191	65.36
15.0	13.116	32.132	24.190	66.00
16.0	13.116	32.132	24.190	65.47
17.0	13.115	32.133	24.191	65.47
18.0	13.114	32.132	24.191	65.31
19.0	13.116	32.132	24.190	65.89
20.0	13.117	32.132	24.190	66.11



STATION 9
 LATITUDE 41 28.6 N
 LONGITUDE 70 55.9 W

BUZZARDS BAY
 CRUISE 2
 OCT 28-29, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	13.261	32.134	24.163	66.56
2.0	13.265	32.129	24.158	66.25
3.0	13.241	32.127	24.162	66.38
4.0	13.192	32.124	24.169	65.78
5.0	13.183	32.128	24.174	65.28
6.0	13.178	32.129	24.175	66.20
7.0	13.176	32.130	24.176	65.78
8.0	13.176	32.130	24.176	65.98
9.0	13.175	32.129	24.176	65.55
10.0	13.172	32.131	24.178	66.22
11.0	13.171	32.132	24.179	66.69
12.0	13.171	32.132	24.179	66.50
13.0	13.170	32.133	24.180	66.34
14.0	13.171	32.132	24.179	66.98
15.0	13.171	32.133	24.180	66.52
16.0	13.171	32.133	24.180	66.51
17.0	13.170	32.134	24.181	66.65
18.0	13.170	32.135	24.181	66.39
19.0	13.171	32.135	24.181	65.52

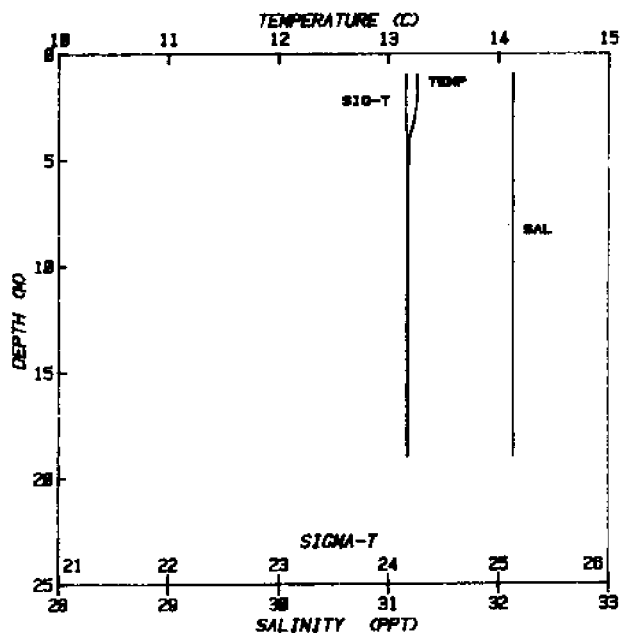
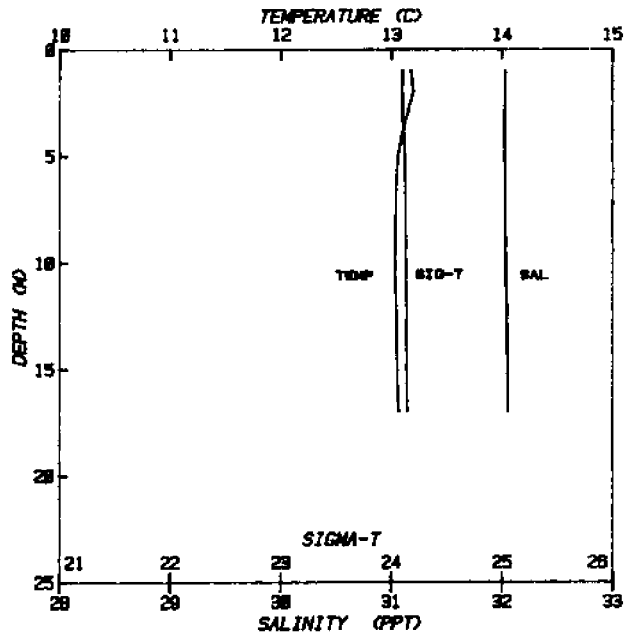


Figure 47

STATION 8
 LATITUDE 41 30 N
 LONGITUDE 70 53.1 W

BUZZARDS BAY
 CRUISE 2
 OCT 28-29, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	13.177	32.034	24.102	63.97
2.0	13.194	32.029	24.095	64.31
3.0	13.147	32.023	24.100	63.91
4.0	13.096	32.022	24.109	62.60
5.0	13.058	32.025	24.119	62.19
6.0	13.044	32.028	24.124	63.83
7.0	13.040	32.029	24.125	64.54
8.0	13.035	32.031	24.128	64.54
9.0	13.039	32.034	24.131	64.64
10.0	13.033	32.034	24.131	65.03
11.0	13.034	32.036	24.132	65.05
12.0	13.043	32.044	24.136	65.27
13.0	13.046	32.043	24.136	65.47
14.0	13.049	32.046	24.137	65.21
15.0	13.053	32.048	24.138	65.42
16.0	13.054	32.050	24.139	65.29
17.0	13.067	32.055	24.140	65.18



STATION 7
 LATITUDE 41 31.5 N
 LONGITUDE 70 50.3 W

BUZZARDS BAY
 CRUISE 2
 OCT 28-29, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	12.346	31.621	23.945	62.50
2.0	12.347	31.641	23.960	64.53
3.0	12.302	31.669	23.990	62.25
4.0	12.390	31.749	24.035	62.11
5.0	12.716	31.908	24.095	64.53
6.0	12.749	31.896	24.080	66.88
7.0	12.858	31.972	24.117	66.56
8.0	12.882	31.970	24.111	65.25
9.0	12.953	31.985	24.109	65.55
10.0	12.970	31.989	24.108	65.05
11.0	12.976	31.990	24.108	65.31
12.0	13.007	32.008	24.116	65.13
13.0	13.022	32.013	24.117	65.16
14.0	13.026	32.014	24.117	65.49
15.0	13.036	32.018	24.118	65.85
16.0	13.039	32.018	24.118	65.16

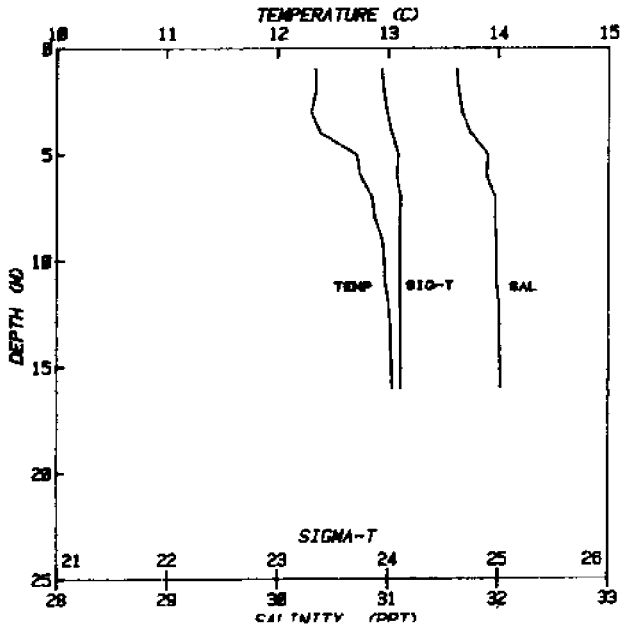
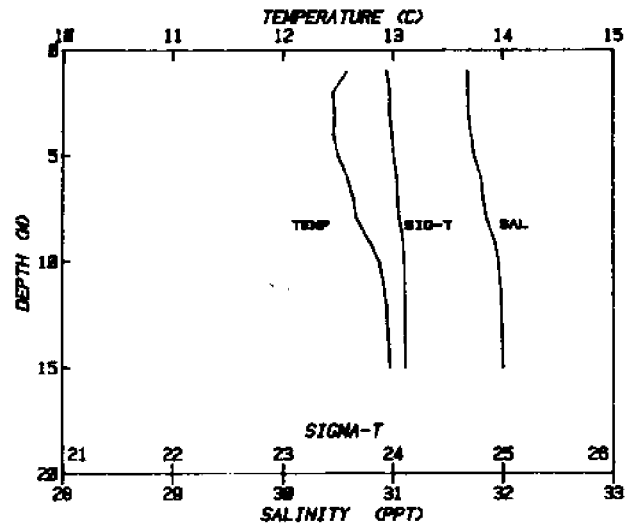


Figure 48

STATION 6
 LATITUDE 41 32.7 N
 LONGITUDE 70 47.9 W

BUZZARDS BAY
 CRUISE 2
 OCT 28-29, 1982

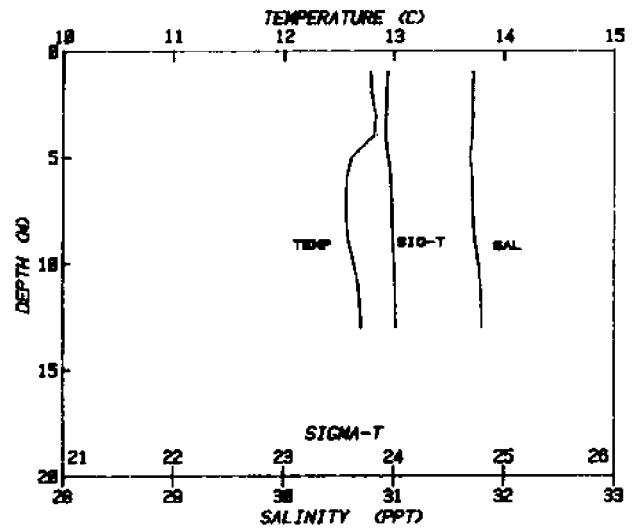
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. X
1.0	12.578	31.676	23.943	54.45
2.0	12.451	31.682	23.972	46.25
3.0	12.469	31.684	23.970	61.45
4.0	12.458	31.711	23.993	57.13
5.0	12.500	31.739	24.007	56.33
6.0	12.585	31.800	24.038	59.84
7.0	12.640	31.822	24.044	62.16
8.0	12.674	31.853	24.061	64.65
9.0	12.786	31.927	24.096	65.25
10.0	12.878	31.968	24.104	64.41
11.0	12.917	31.976	24.109	65.86
12.0	12.946	31.991	24.114	63.34
13.0	12.957	31.994	24.115	63.67
14.0	12.966	32.000	24.117	63.28
15.0	12.978	32.003	24.118	63.13



STATION 5RR
 LATITUDE 41 33.9 N
 LONGITUDE 70 45.6 W

BUZZARDS BAY
 CRUISE 2
 OCT 28-29, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. X
1.0	12.782	31.723	23.940	65.16
2.0	12.791	31.713	23.930	66.16
3.0	12.830	31.715	23.924	66.31
4.0	12.815	31.704	23.919	66.41
5.0	12.612	31.688	23.946	64.00
6.0	12.565	31.788	23.970	63.65
7.0	12.560	31.714	23.976	64.01
8.0	12.566	31.722	23.981	64.86
9.0	12.587	31.737	23.988	63.34
10.0	12.633	31.767	24.003	62.23
11.0	12.674	31.785	24.008	62.36
12.0	12.691	31.793	24.012	62.09
13.0	12.700	31.798	24.014	60.68



STATION 4R
 LATITUDE 41 35.1 N
 LONGITUDE 70 43.9 W

BUZZARDS BAY
 CRUISE 2
 OCT 28-29, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. X
1.0	12.408	31.473	23.819	66.04
2.0	12.312	31.527	23.879	63.50
3.0	12.376	31.615	23.934	45.00
4.0	12.440	31.637	23.939	43.52
5.0	12.439	31.643	23.944	61.80
6.0	12.492	31.698	23.976	65.31
7.0	12.659	31.762	23.994	62.19
8.0	12.717	31.783	23.999	62.83
9.0	12.813	31.816	24.006	62.16
10.0	12.838	31.818	24.002	62.15
11.0	12.851	31.822	24.003	61.76
12.0	12.857	31.824	24.003	60.73

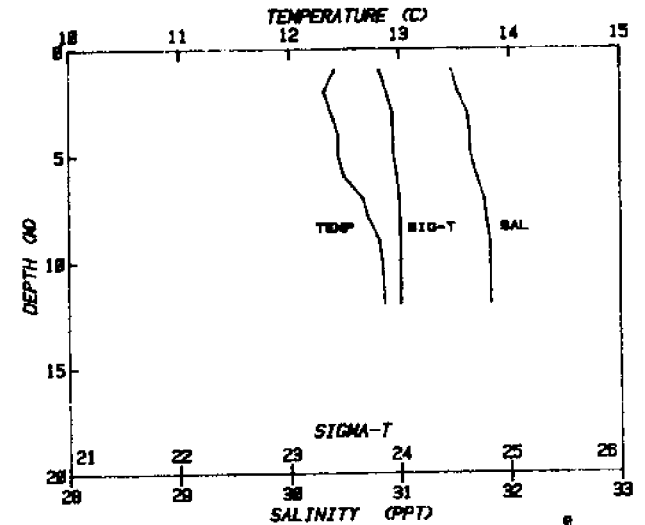
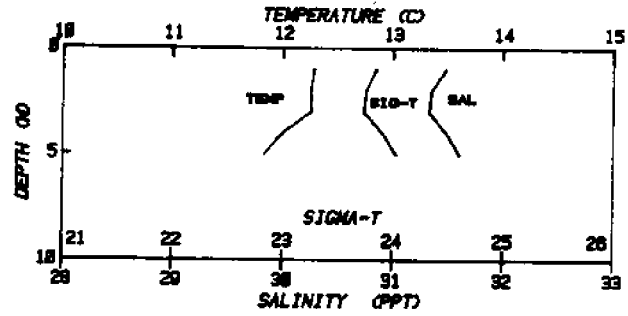


Figure 49

STATION 25
 LATITUDE 41 36.8 N
 LONGITUDE 70 53.8 W

BUZZARDS BAY
 CRUISE 2
 OCT 28-29, 1982

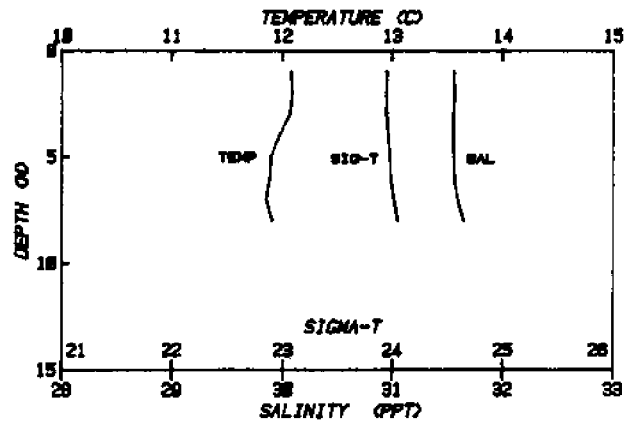
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. X
1.0	12.280	31.475	23.844	58.49
2.0	12.251	31.349	23.752	60.21
3.0	12.255	31.330	23.736	60.73
4.0	11.999	31.486	23.905	66.18
5.0	11.833	31.604	24.027	71.61



STATION 26
 LATITUDE 41 35.4 N
 LONGITUDE 70 52.7 W

BUZZARDS BAY
 CRUISE 2
 OCT 28-29, 1982

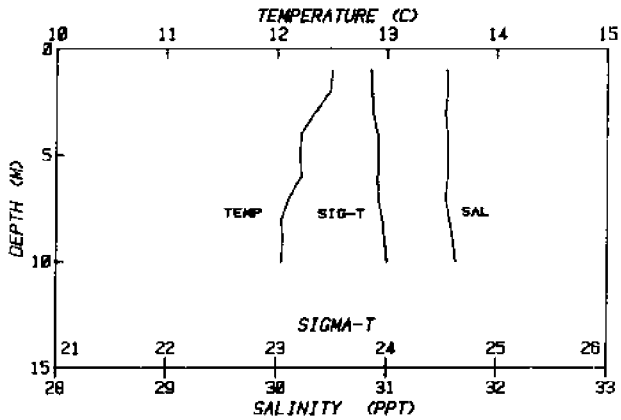
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. X
1.0	12.077	31.556	23.945	65.96
2.0	12.087	31.558	23.945	66.04
3.0	12.067	31.553	23.945	66.04
4.0	11.971	31.551	23.960	65.56
5.0	11.895	31.556	23.979	64.90
6.0	11.886	31.559	23.982	64.71
7.0	11.852	31.589	24.012	64.42
8.0	11.904	31.643	24.045	64.73



STATION 27
 LATITUDE 41 34.1 N
 LONGITUDE 70 52.1 W

BUZZARDS BAY
 CRUISE 2
 OCT 28-29, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. X
1.0	12.500	31.545	23.856	57.34
2.0	12.478	31.549	23.864	57.42
3.0	12.342	31.524	23.872	60.10
4.0	12.215	31.548	23.913	62.38
5.0	12.207	31.556	23.920	62.69
6.0	12.221	31.551	23.914	62.68
7.0	12.111	31.530	23.918	63.66
8.0	12.043	31.569	23.961	64.24
9.0	12.051	31.601	23.984	63.65
10.0	12.042	31.621	24.002	54.84



STATION 28
 LATITUDE 41 32.7 N
 LONGITUDE 70 51.2 W

BUZZARDS BAY
 CRUISE 2
 OCT 28-29, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. X
1.0	12.738	31.713	23.941	61.67
2.0	12.732	31.707	23.937	62.15
3.0	12.629	31.714	23.962	61.25
4.0	12.589	31.718	23.973	63.52
5.0	12.549	31.787	24.034	64.28
6.0	12.565	31.810	24.049	63.85
7.0	12.568	31.816	24.053	63.52
8.0	12.564	31.818	24.055	64.77
9.0	12.559	31.826	24.062	64.61
10.0	12.577	31.839	24.069	62.66
11.0	12.585	31.843	24.071	62.68
12.0	12.581	31.840	24.069	62.73
13.0	12.570	31.838	24.068	62.38
14.0	12.577	31.838	24.068	61.96

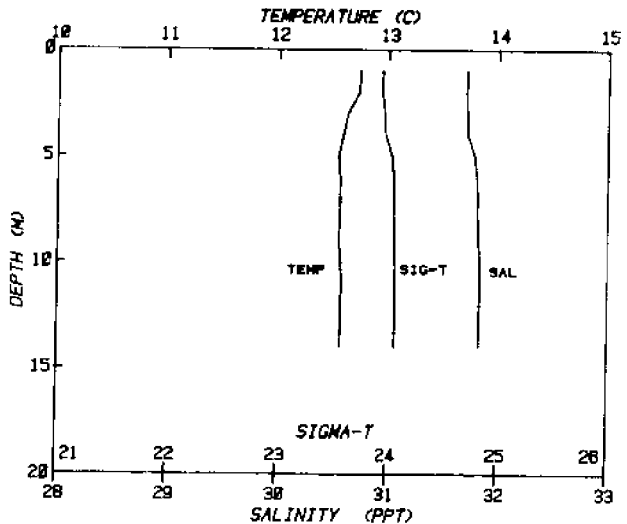
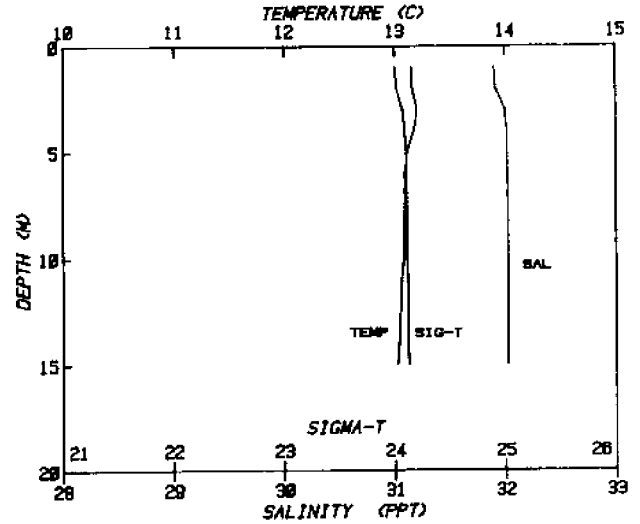


Figure 50

STATION 7R
LATITUDE 41 31.5 N
LONGITUDE 70 50.3 W

BUZZARDS BAY
CRUISE 2
OCT 28-29, 1982

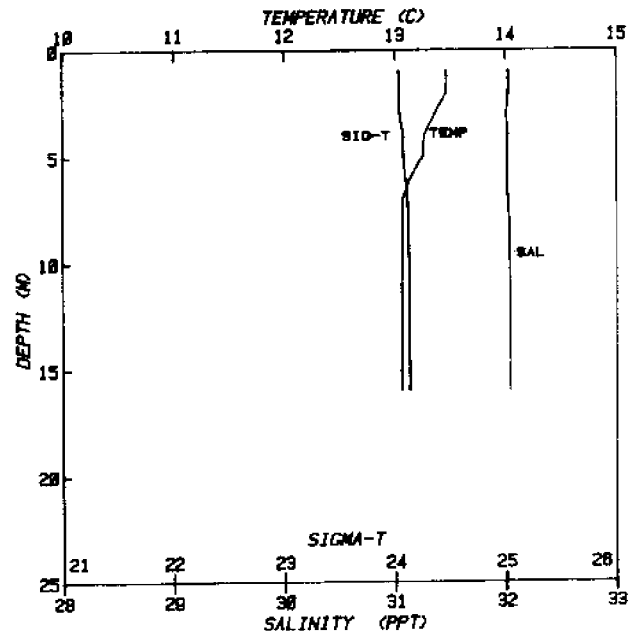
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	13.155	31.901	24.004	62.42
2.0	13.160	31.914	24.019	62.31
3.0	13.202	31.998	24.070	64.38
4.0	13.174	32.016	24.089	66.06
5.0	13.112	32.016	24.101	66.33
6.0	13.091	32.019	24.108	65.59
7.0	13.089	32.020	24.109	65.90
8.0	13.087	32.021	24.110	65.65
9.0	13.084	32.020	24.110	65.70
10.0	13.079	32.020	24.111	65.67
11.0	13.060	32.023	24.117	65.94
12.0	13.053	32.022	24.118	66.25
13.0	13.044	32.020	24.118	66.16
14.0	13.035	32.018	24.118	66.05
15.0	13.022	32.021	24.123	65.04



STATION 29
LATITUDE 41 30.2 N
LONGITUDE 70 49.5 W

BUZZARDS BAY
CRUISE 2
OCT 28-29, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	13.460	32.024	24.037	62.34
2.0	13.466	32.023	24.036	63.09
3.0	13.361	32.005	24.043	64.45
4.0	13.261	32.016	24.072	65.94
5.0	13.250	32.013	24.071	66.41
6.0	13.134	32.010	24.092	63.36
7.0	13.063	32.014	24.110	65.90
8.0	13.060	32.026	24.119	64.03
9.0	13.062	32.026	24.119	64.02
10.0	13.057	32.030	24.123	61.60
11.0	13.055	32.035	24.128	61.16
12.0	13.055	32.036	24.128	60.86
13.0	13.054	32.036	24.128	60.99
14.0	13.054	32.036	24.128	61.25
15.0	13.054	32.037	24.129	60.47
16.0	13.054	32.037	24.129	60.38



STATION 30
LATITUDE 41 28.7 N
LONGITUDE 70 48.5 W

BUZZARDS BAY
CRUISE 2
OCT 28-29, 1982

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	13.284	31.980	24.039	62.03
2.0	13.281	31.979	24.039	61.97
3.0	13.265	31.978	24.042	62.63
4.0	13.231	31.976	24.046	63.13
5.0	13.169	31.980	24.063	62.60
6.0	13.138	31.986	24.073	61.99
7.0	13.119	31.983	24.075	62.14
8.0	13.089	31.986	24.083	61.59
9.0	13.070	31.987	24.085	61.97
10.0	13.062	31.984	24.086	61.88
11.0	13.044	31.986	24.092	61.77
12.0	13.043	31.988	24.093	61.54

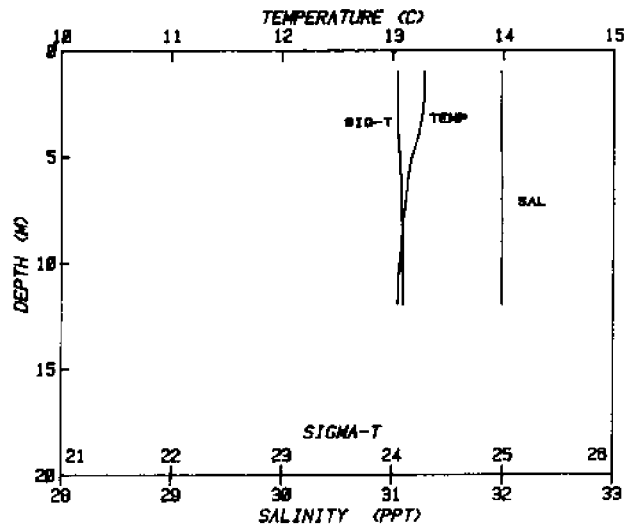


Figure 51

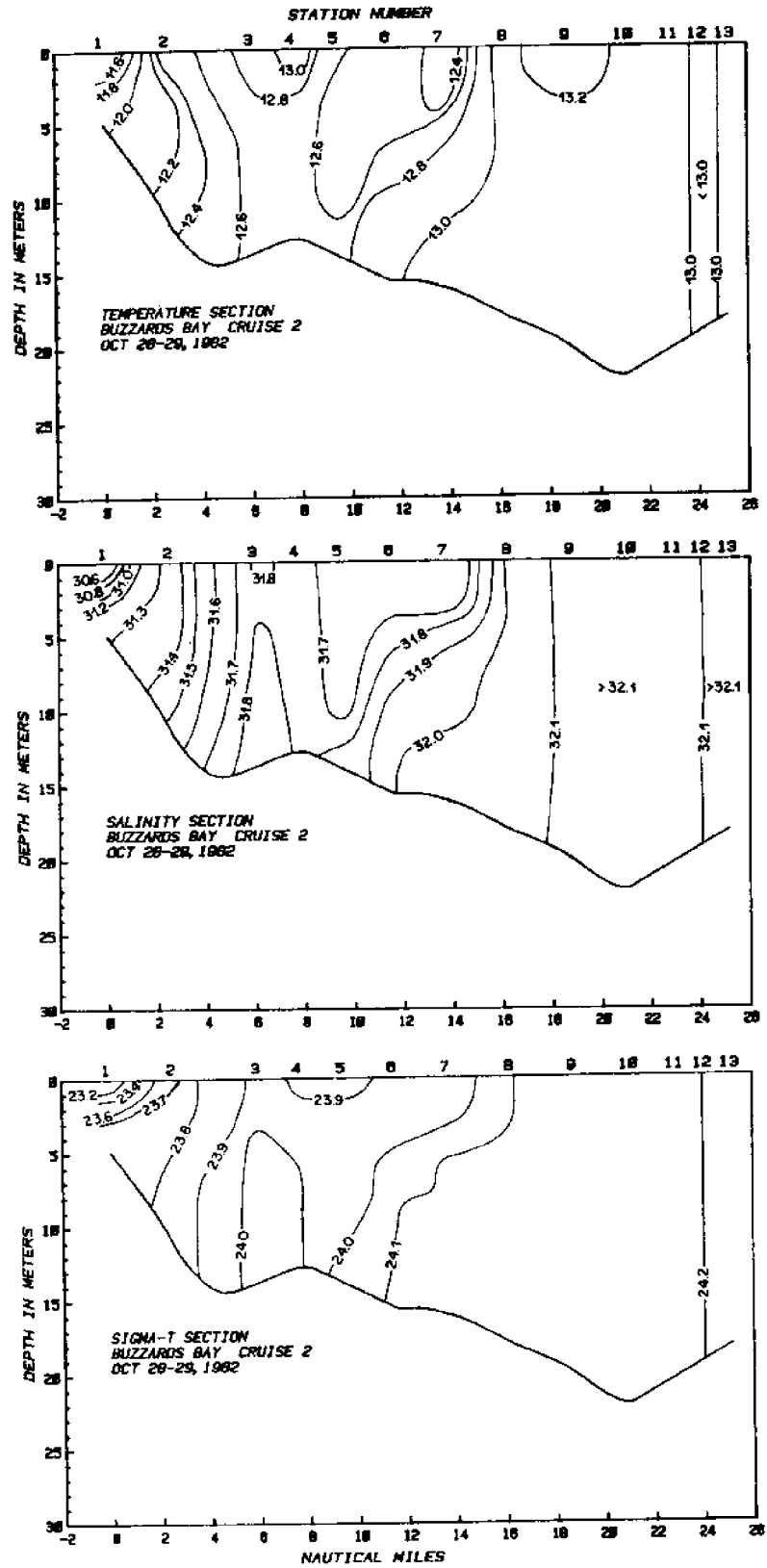


Figure 52

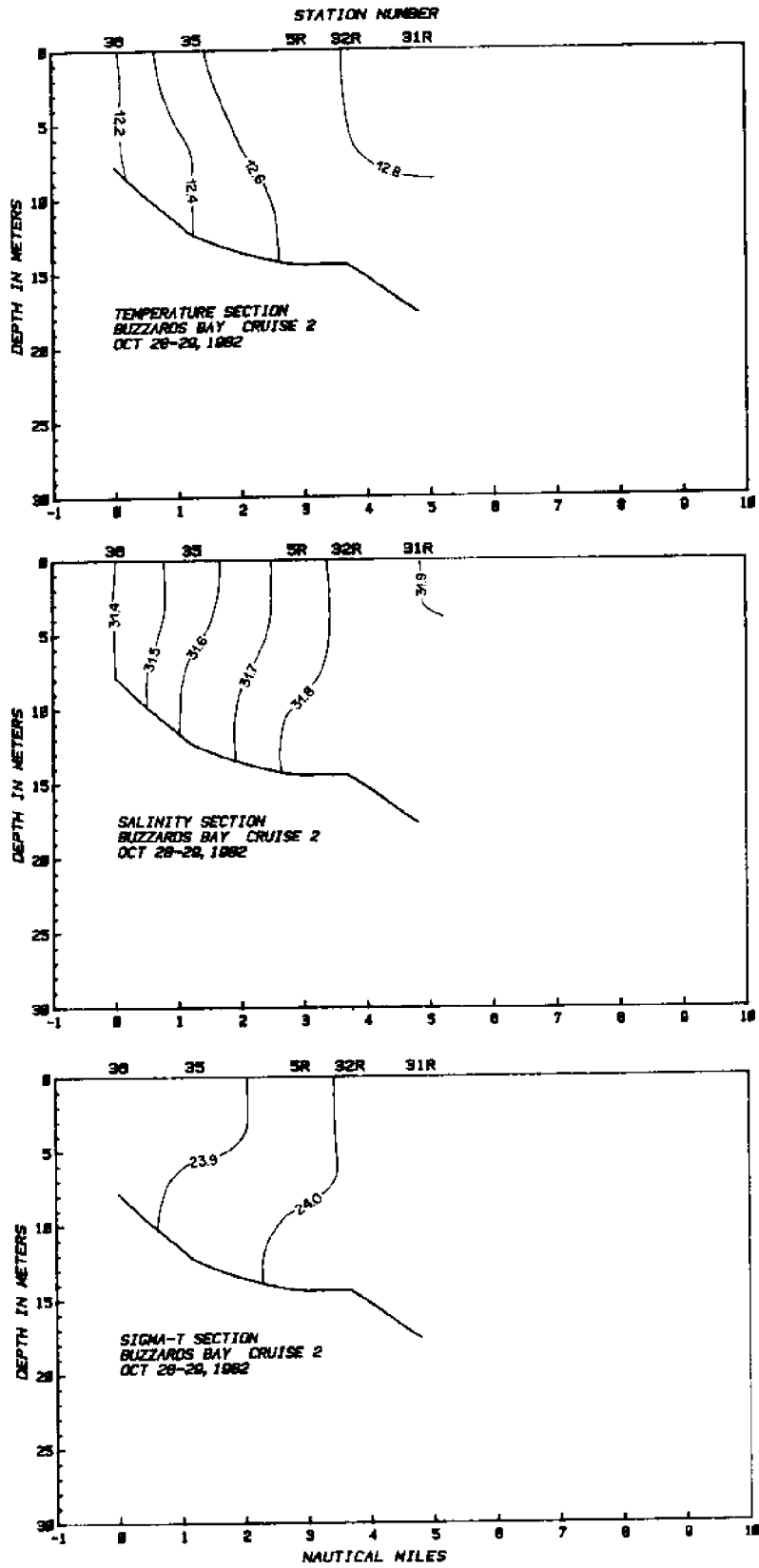


Figure 53

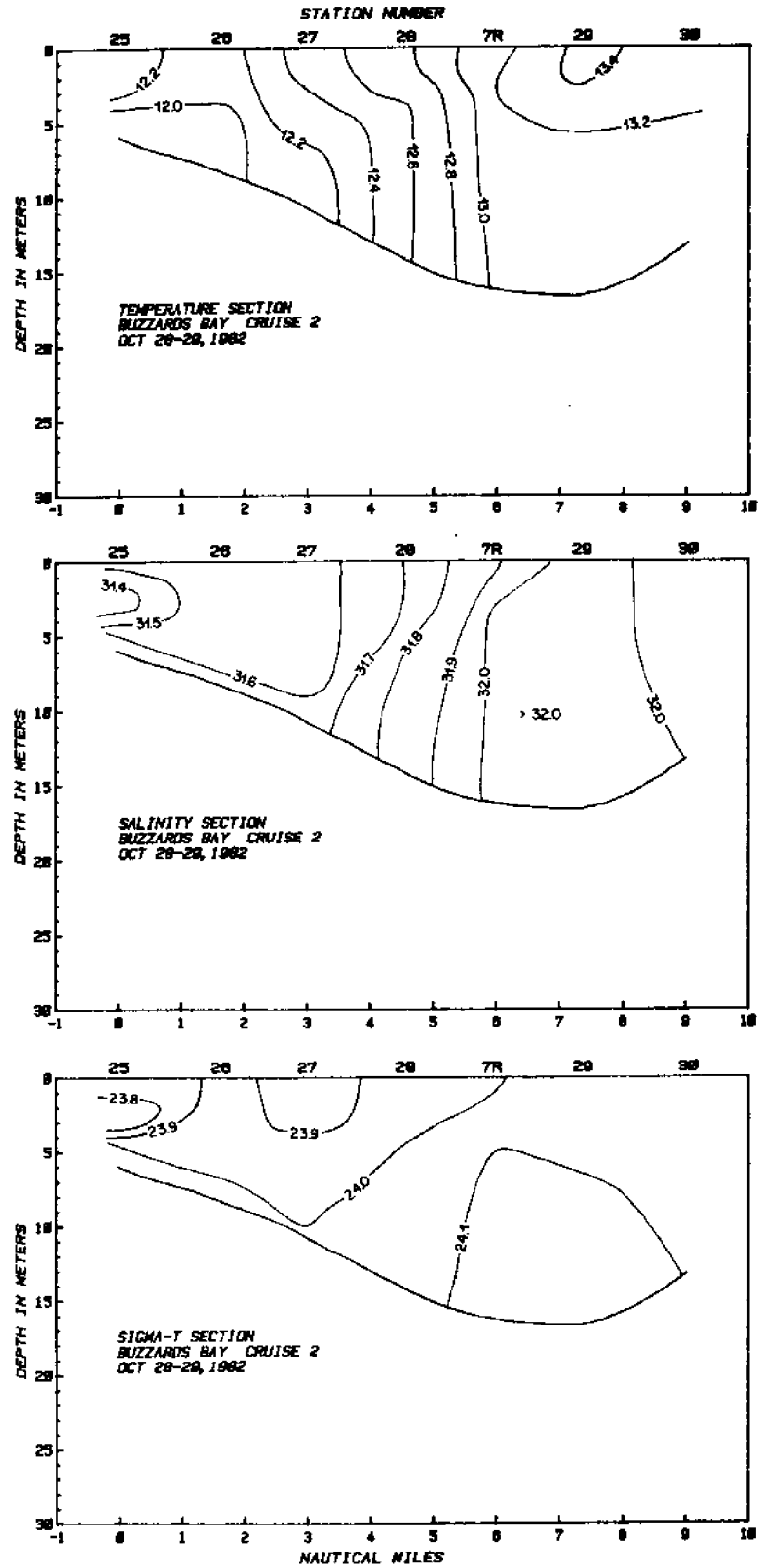


Figure 54

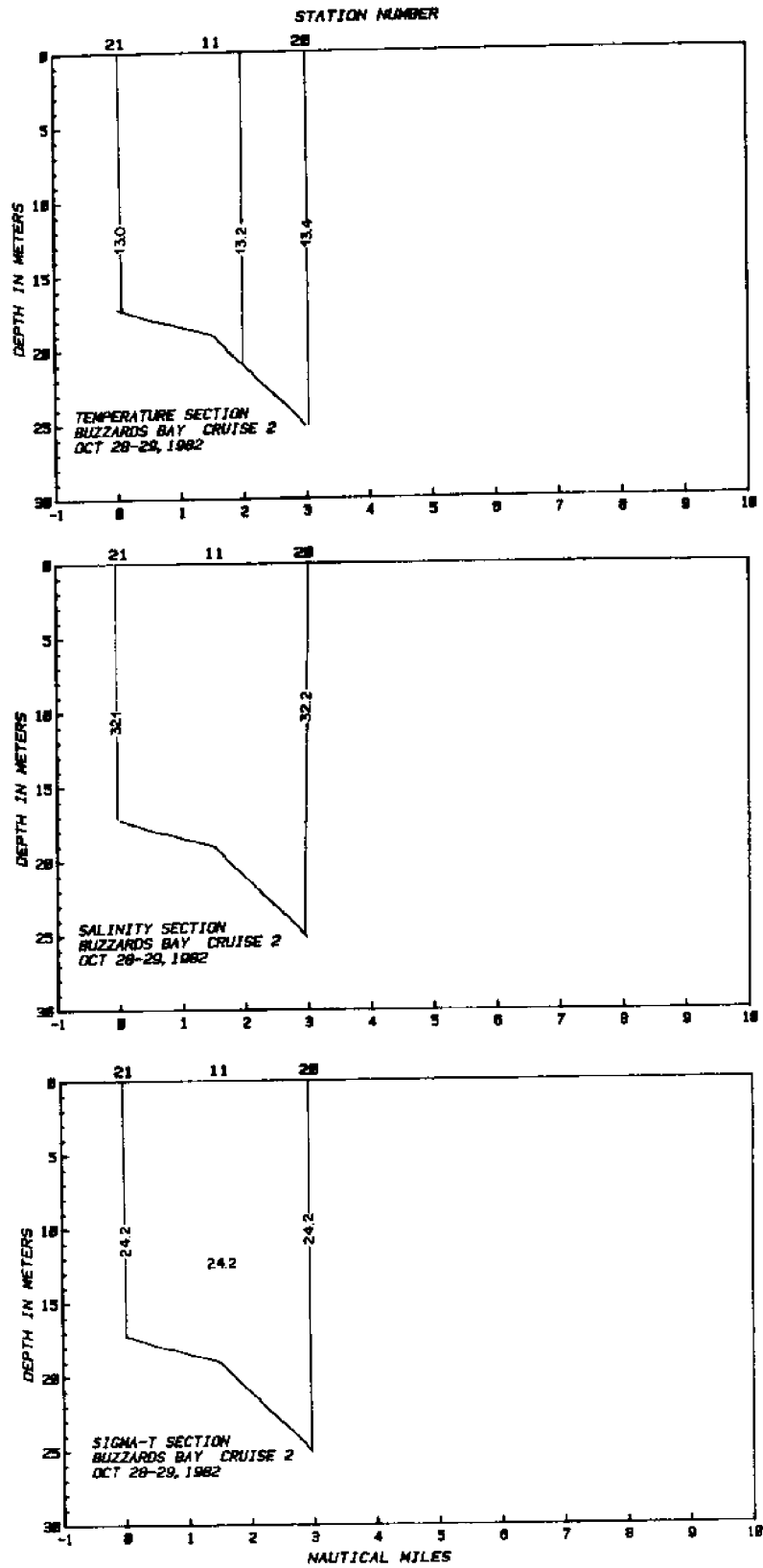


Figure 55

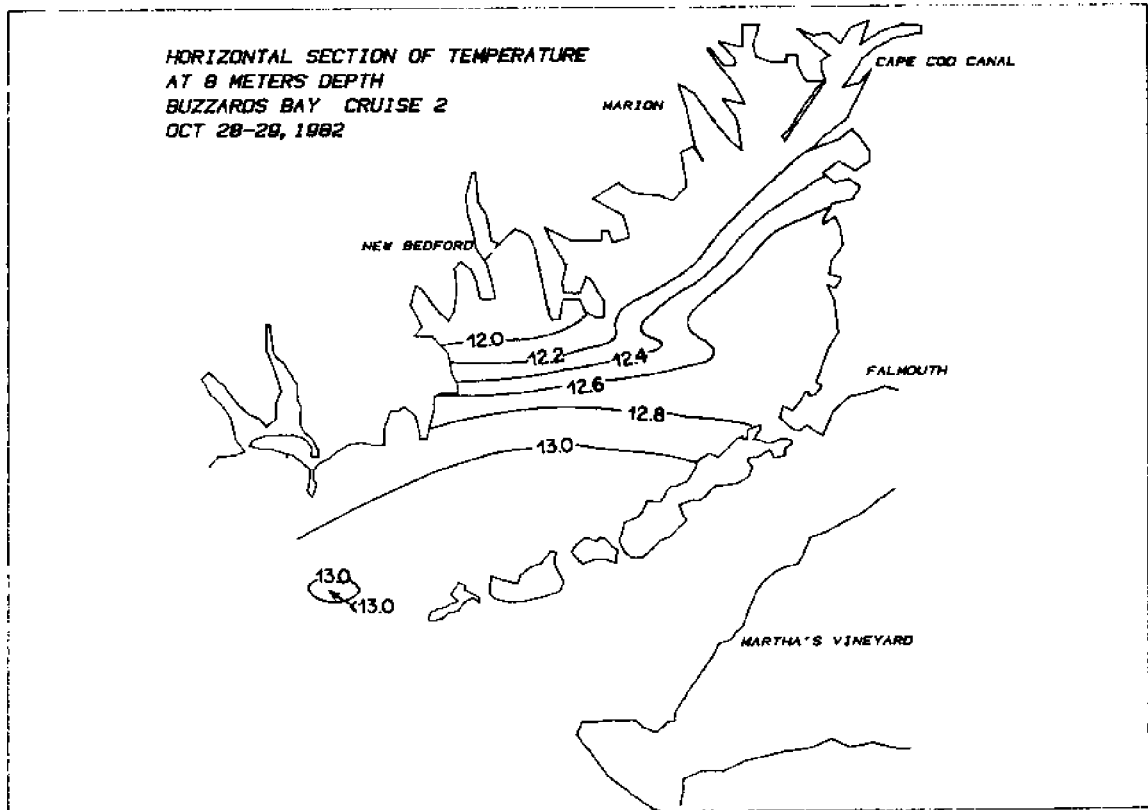
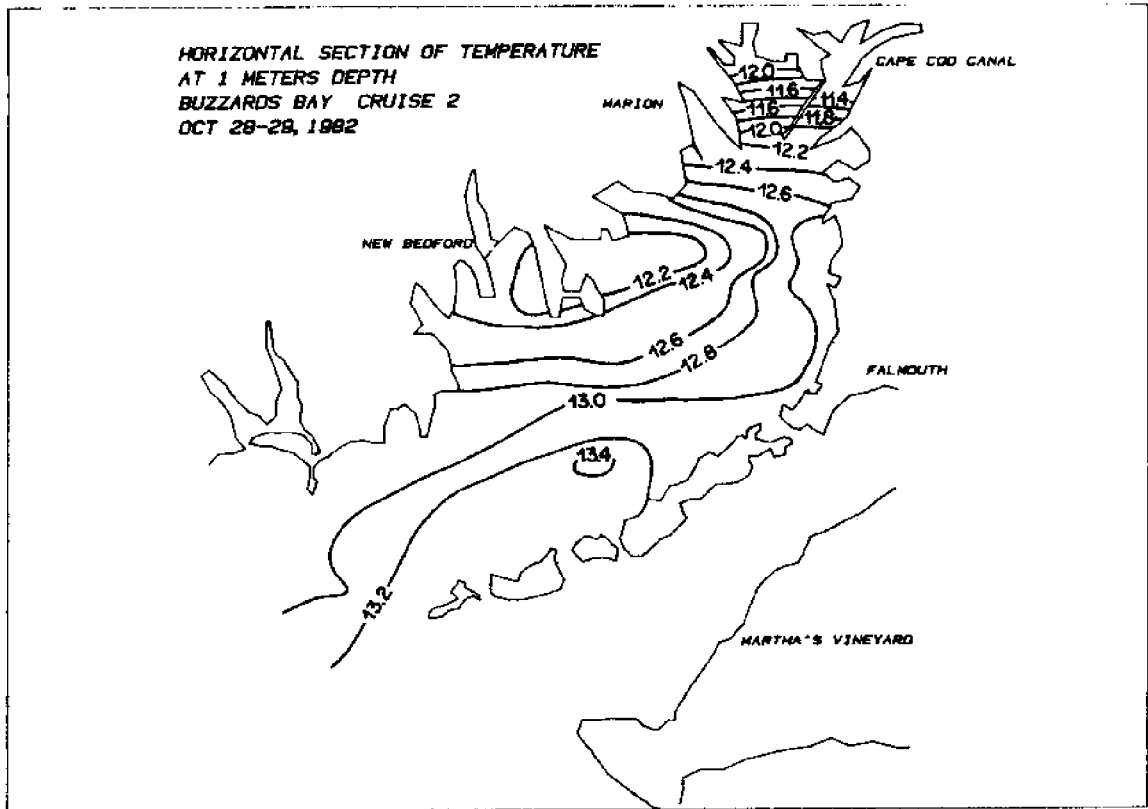


Figure 56

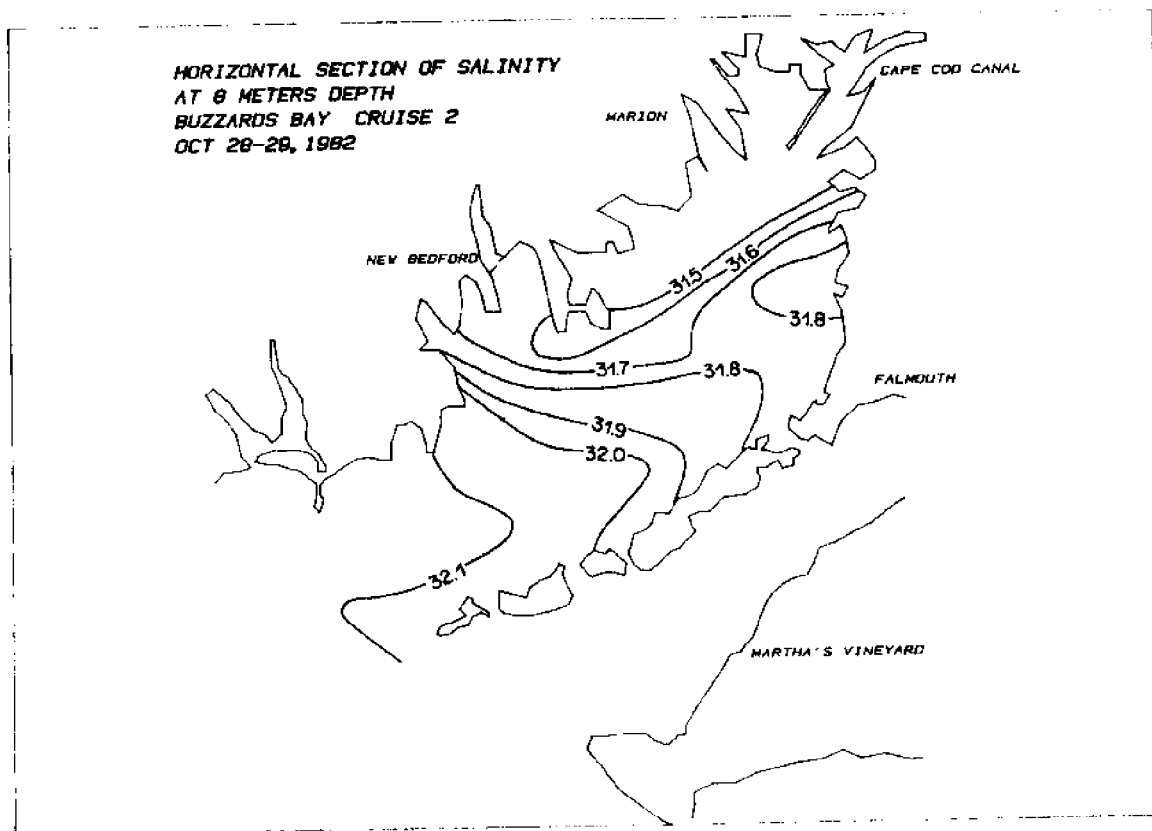
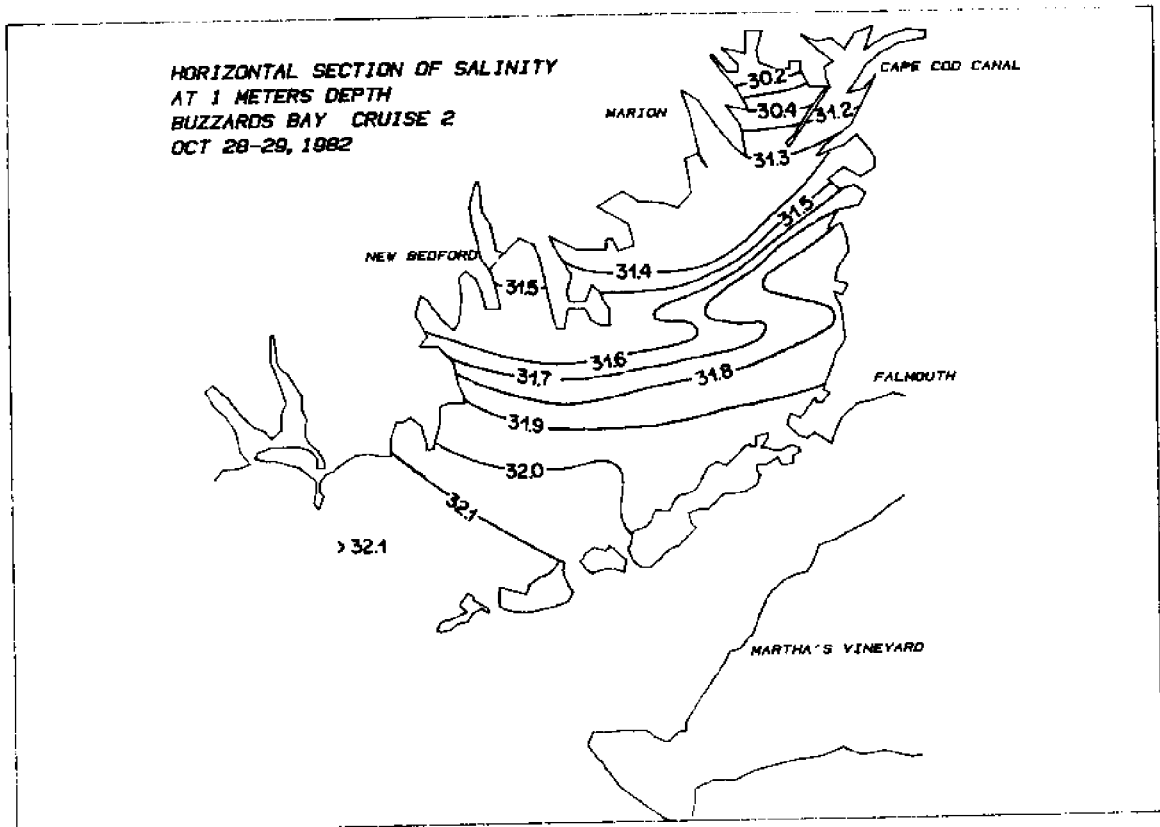


Figure 57

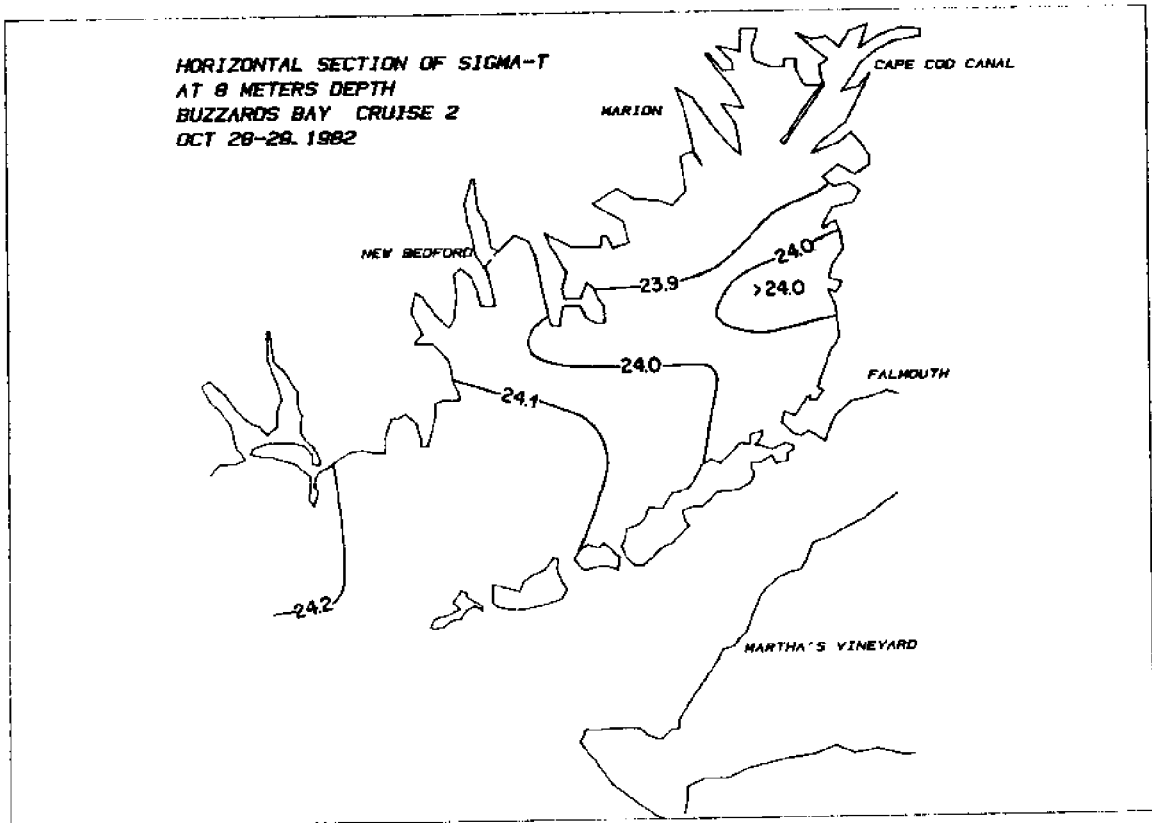
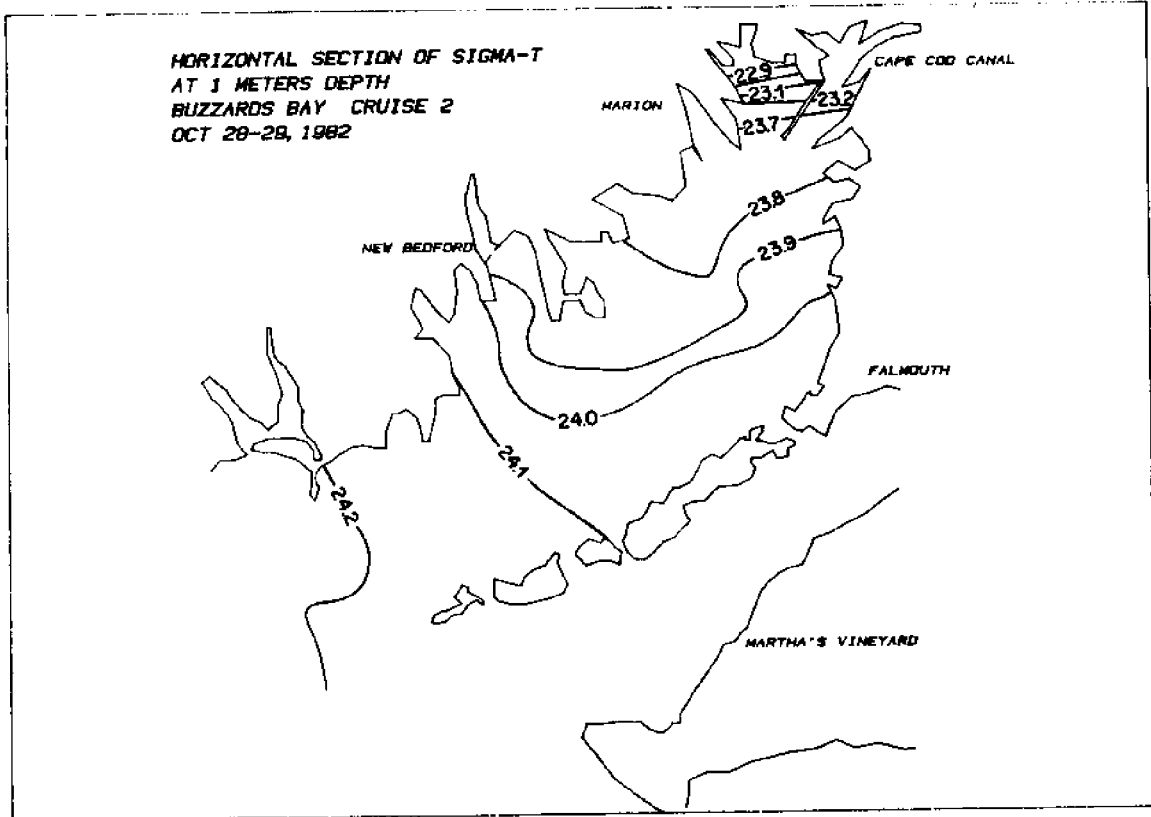


Figure 58

Cruise Three: January 13-14, 1983

On the third cruise, samples were taken by W. Curry of WHOI for oxygen isotope analysis. This data will be reported on at a later time. In an effort to see if the different endmembers of the various water types that might be present in Buzzards Bay could be distinguished by this method, the cruise track was extended into neighboring bodies of water, i.e. Cape Cod Bay and Vineyard Sound. Every effort was made to coordinate sampling times so that we caught inflow into Buzzards Bay from the surrounding waters.

On January 13, the sky was clear, the air temperature ranged from 0-2°C, and the wind was 8-10 kts varying from west to northwest. The sea surface temperature was in the range 3-6°C. We observed an anomalous near-surface spike in salinity believed to be caused by lowering the CTD from warmer air to colder water. Most of this effect is eliminated in the averaged data because it starts at 0.5 m. On the second day of this cruise, we let the CTD soak just under the surface before starting to acquire data to do away with this problem.

On the 13th, we started Stations 31-36 at 0832 just as the tide began to ebb and then continued to Stations 25-30, completing the line three and a half hours later. The Quicks Hole and Vineyard Sound stations were completed next. Although an ebb tide in Buzzards Bay means flow is out of the mouth, at the same time there is transport into the Bay from Vineyard Sound through the Holes between the Elizabeth Islands. In Vineyard Sound there was a 2-3 foot swell with a slight chop, so casts were stopped when the cage was a meter or two off the bottom. The section

across the mouth (Stations 19-14) was started at 1410 and the tide turned to flood 30 minutes later. We then returned to Woods Hole, doing stations along the axis of the Bay.

On January 14, the skies were again clear with the winds at 7 kts out of the northwest. We worked the upper part of the Bay where there was one foot chop. The tide was ebbing (flow was into Buzzards Bay from Cape Cod Bay) as we went through the Cape Cod Canal. Stations BB342C and BB3-42 were done next to each other with 42C being in the channel and 42 just to the side of it. 43C and 43 were situated similarly. The Canal and Cape Cod Bay stations are shown on separate maps from the rest of the stations. In some cases they are also contoured on a finer interval. No casts were made on our way back through the Canal to Buzzards Bay. The tide turned to flood at 1453 as we made our way down the Bay doing Stations 1A-5. The winds were out of the northeast at 5-10 kts and the seas almost calm.

Table 3: Cruise Three Station Times

Station Number	Time*	Station Number	Time*
	January 13, 1982		January 14, 1983
BB3-31	0832	BB3-40	0850
BB3-32	0845	BB3-1	0915
BB3-5	0905	BB3-39	0936
BB3-35	0920	BB342C	0958
BB3-36	0941	BB3-42	1005
BB3-25	1037	BB3-43	1020
BB3-26	1053	BB343C	1031
BB3-27	1109	BB3-44	1051
BB3-28	1122	BB3-45	1107
BB3-7	1135	BB3-46	1133
BB3-29	1148	BB3-47	1153
BB3-30	1200	BB3-48	1215
BB3-QH	1223	BB3-49	1236
BB3VS1	1236	BB3-50	1250
BB3VS2	1330	BB3-51	1308
BB3VS3	1350	BB3-1A	1444
BB3-19	1410	BB3-2	1455
BB3-18	1425	BB3-41	1509
BB3-17	1440	BB3-3	1522
BB3-13	1453	BB3-4	1535
BB3-16	1505	BB3-5	1547
BB3-15	1517		
BB3-14	1530		
BB3-10	1605		
BB3-8	1635		
BB3-6	1704		

*(Eastern Standard Time)

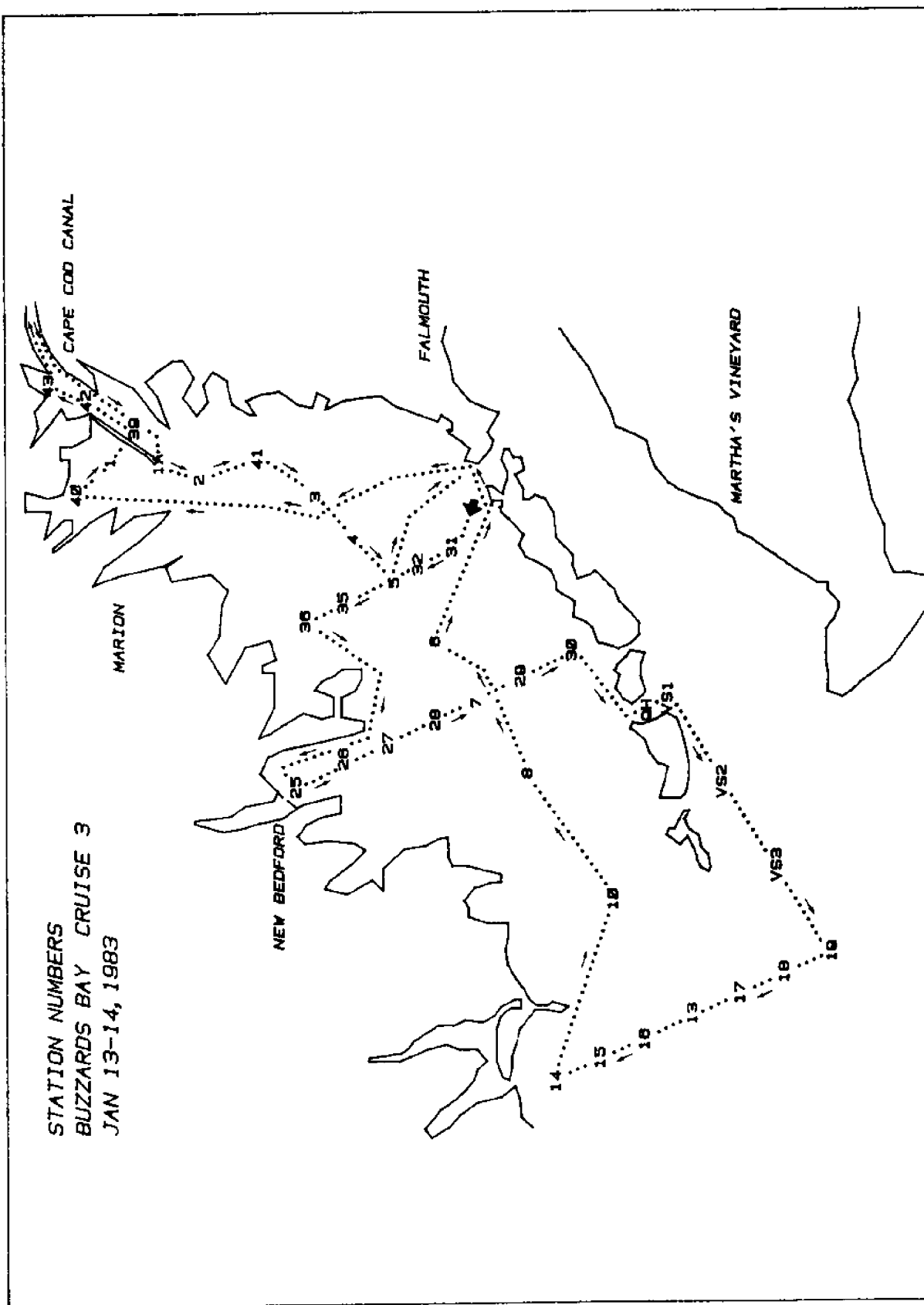


Figure 59: Cruise track and station locations for Buzzards Bay portion of cruise 3. Bold arrow indicates first station.

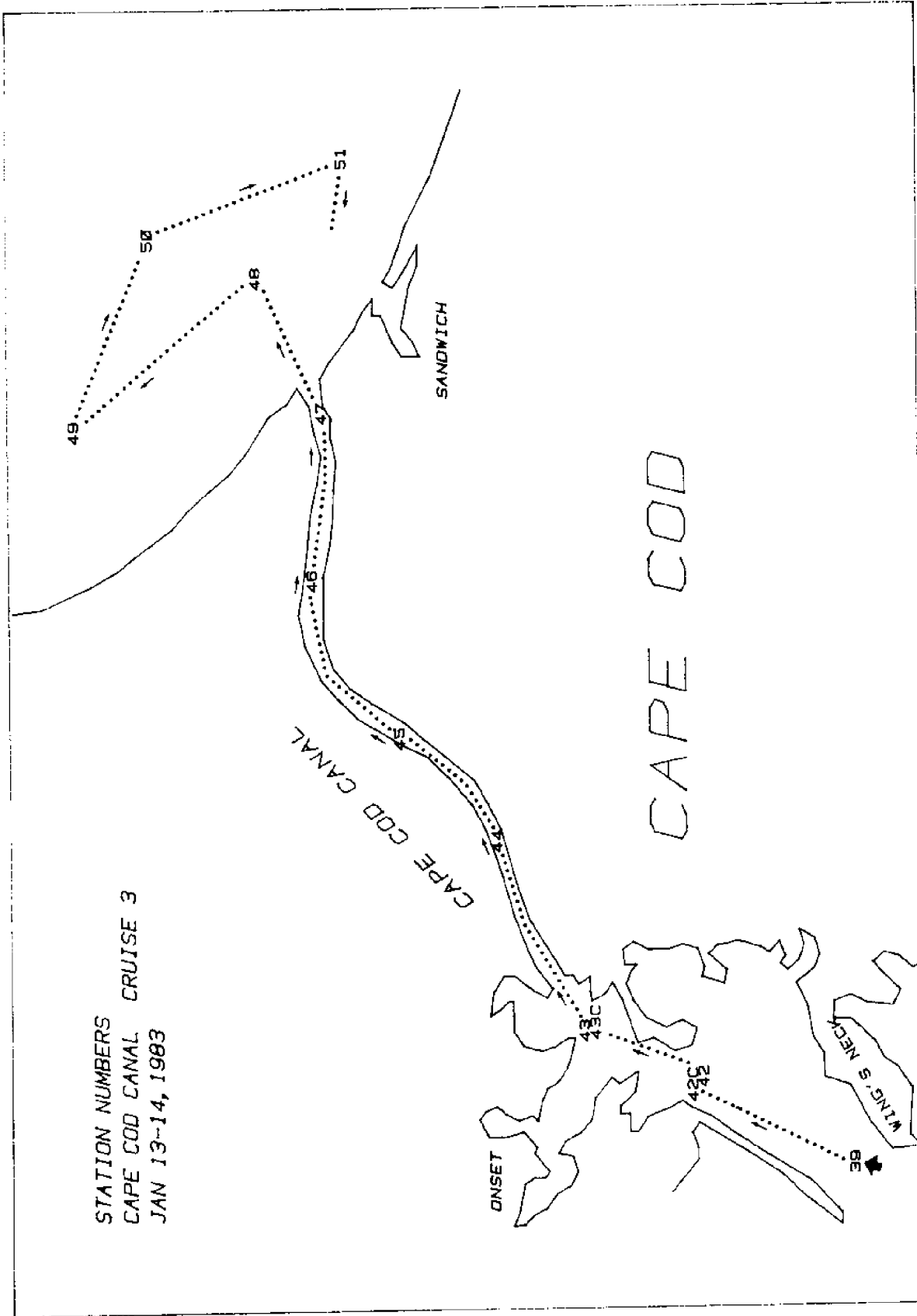
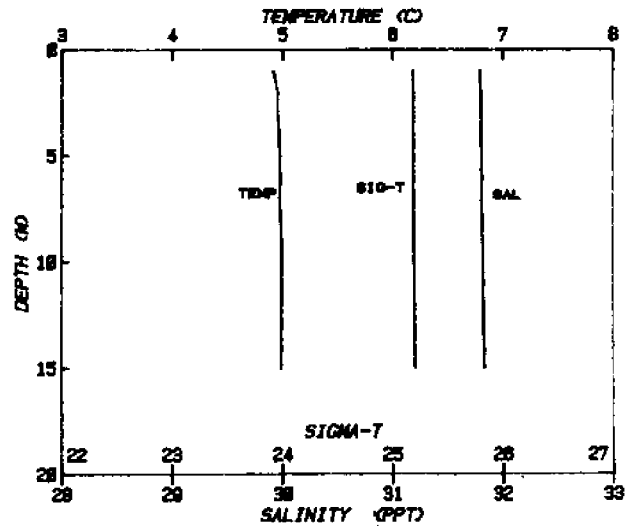


Figure 60: Cruise track and station locations for Cape Cod Canal and Cape Cod Bay portion of cruise 3. Stations were occupied during eastward passage through Canal. Return track has been omitted.

STATION 31
 LATITUDE 41 32.2 N
 LONGITUDE 70 44.4 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

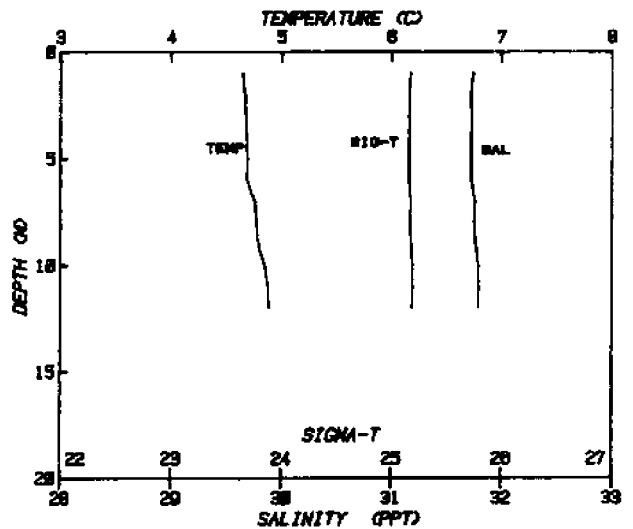
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	4.915	31.792	25.185	57.34
2.0	4.958	31.803	25.189	59.91
3.0	4.956	31.804	25.190	60.00
4.0	4.971	31.805	25.189	60.18
5.0	4.977	31.807	25.190	60.39
6.0	4.980	31.809	25.192	60.39
7.0	4.976	31.809	25.191	60.42
8.0	4.986	31.813	25.194	59.92
9.0	4.994	31.818	25.196	60.36
10.0	4.995	31.820	25.199	60.81
11.0	4.997	31.821	25.199	60.39
12.0	4.995	31.823	25.201	60.35
13.0	4.995	31.826	25.203	60.21
14.0	4.994	31.829	25.205	60.25
15.0	4.994	31.831	25.207	60.05



STATION 32
 LATITUDE 41 33.2 N
 LONGITUDE 70 45.1 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	4.650	31.739	25.171	62.42
2.0	4.664	31.723	25.156	64.00
3.0	4.673	31.729	25.160	64.17
4.0	4.684	31.727	25.157	64.16
5.0	4.690	31.724	25.154	64.31
6.0	4.689	31.725	25.156	64.09
7.0	4.754	31.756	25.173	63.23
8.0	4.770	31.751	25.167	63.39
9.0	4.787	31.764	25.176	62.81
10.0	4.845	31.789	25.190	62.16
11.0	4.876	31.794	25.190	60.98
12.0	4.886	31.791	25.187	60.97



STATION 5
 LATITUDE 41 33.9 N
 LONGITUDE 70 45.6 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	4.444	31.656	25.125	66.09
2.0	4.485	31.623	25.095	66.09
3.0	4.494	31.614	25.087	66.09
4.0	4.532	31.616	25.088	66.00
5.0	4.521	31.619	25.088	65.88
6.0	4.530	31.619	25.087	66.00
7.0	4.545	31.625	25.091	65.91
8.0	4.540	31.616	25.084	65.94
9.0	4.575	31.635	25.096	65.84
10.0	4.632	31.649	25.104	65.63
11.0	4.660	31.686	25.127	65.25
12.0	4.895	31.785	25.162	62.69

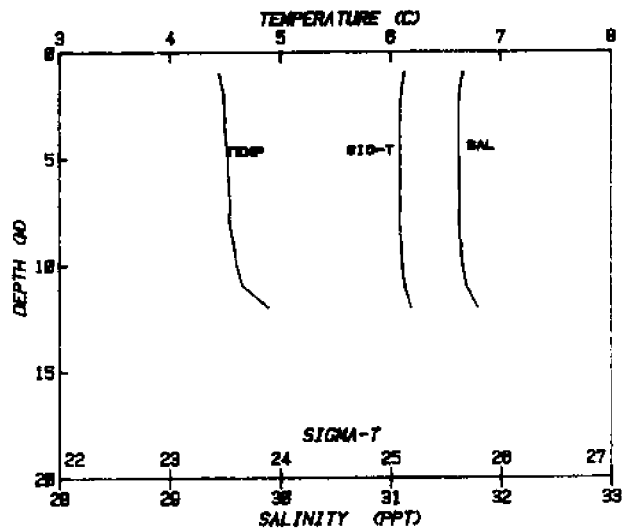
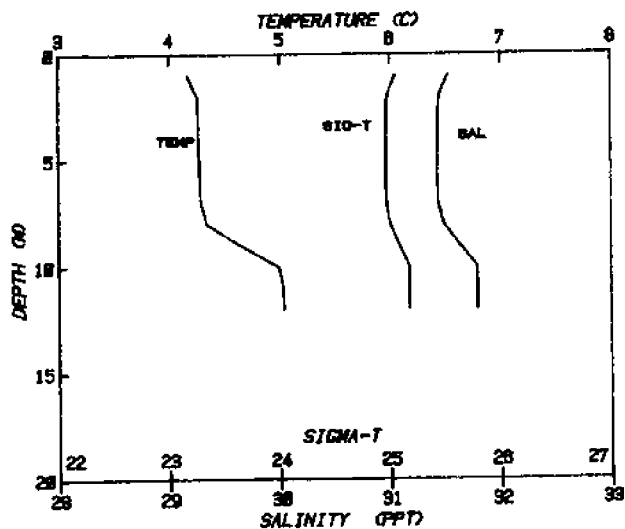


Figure 61

STATION 35
 LATITUDE 41 35.4 N
 LONGITUDE 70 46.6 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

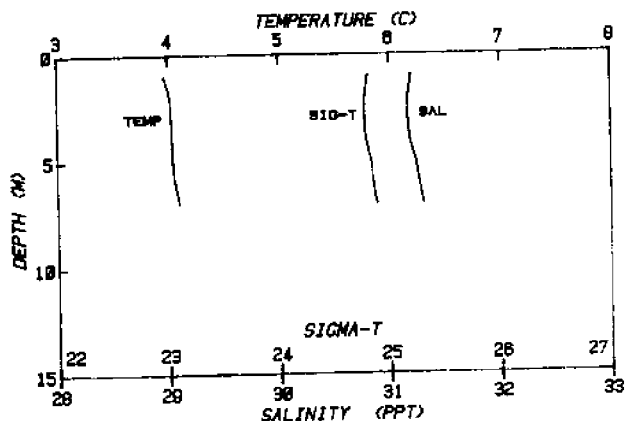
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. X
1.0	4.171	31.526	25.049	63.98
2.0	4.256	31.443	24.975	64.43
3.0	4.266	31.434	24.967	64.47
4.0	4.269	31.433	24.965	64.47
5.0	4.273	31.430	24.963	64.32
6.0	4.281	31.431	24.963	64.61
7.0	4.289	31.438	24.968	64.45
8.0	4.342	31.483	24.998	64.25
9.0	4.649	31.626	25.081	59.90
10.0	4.990	31.785	25.171	50.11
11.0	5.030	31.792	25.172	44.38
12.0	5.035	31.791	25.171	41.73



STATION 36
 LATITUDE 41 36.5 N
 LONGITUDE 70 47.3 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

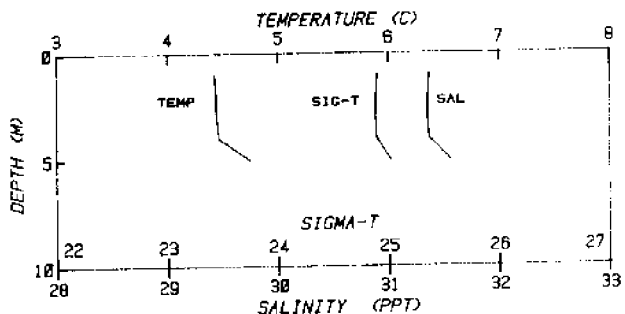
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. X
1.0	3.972	31.201	24.810	39.69
2.0	4.022	31.171	24.781	37.81
3.0	4.031	31.169	24.779	42.45
4.0	4.036	31.186	24.792	43.41
5.0	4.044	31.240	24.835	45.38
6.0	4.062	31.268	24.854	44.38
7.0	4.098	31.308	24.883	43.40



STATION 25
 LATITUDE 41 36.8 N
 LONGITUDE 70 53.8 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. X
1.0	4.425	31.349	24.900	37.58
2.0	4.439	31.354	24.886	37.98
3.0	4.443	31.352	24.885	38.44
4.0	4.465	31.368	24.895	38.67
5.0	4.746	31.559	25.010	37.16



STATION 26
 LATITUDE 41 35.4 N
 LONGITUDE 70 52.7 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. X
1.0	4.204	31.051	24.669	38.16
2.0	4.285	31.138	24.731	37.53
3.0	4.416	31.347	24.883	40.73
4.0	4.451	31.378	24.905	41.74
5.0	4.497	31.410	24.925	42.25
6.0	4.530	31.429	24.937	42.52
7.0	4.591	31.491	24.980	43.01
8.0	4.950	31.922	25.284	46.09

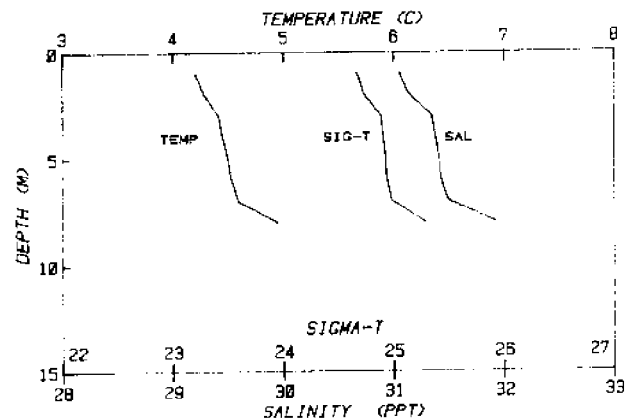
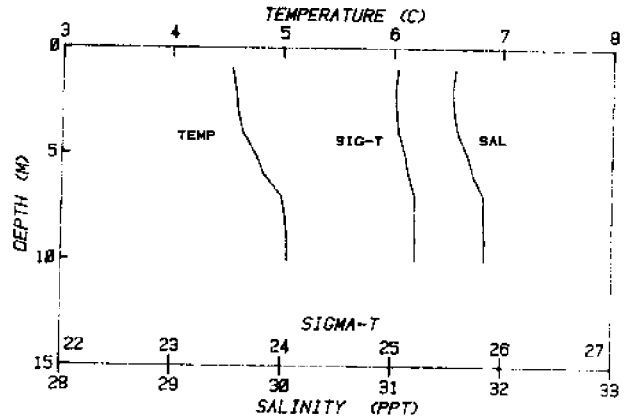


Figure 62

STATION 27
 LATITUDE 41 34.1 N
 LONGITUDE 70 52.1 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

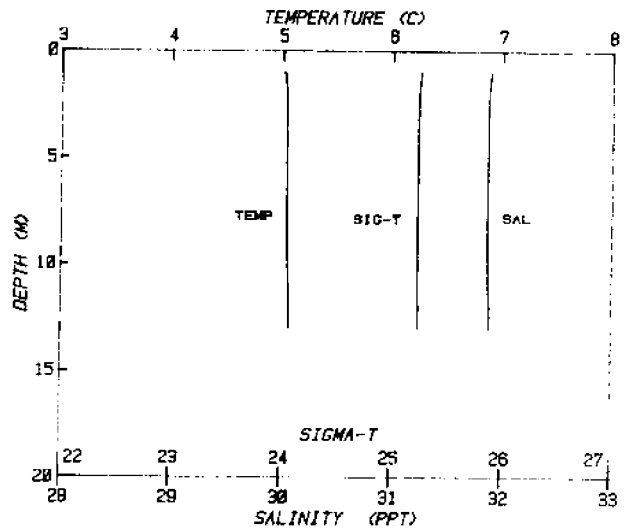
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	4.536	31.562	25.042	39.84
2.0	4.571	31.537	25.019	39.38
3.0	4.587	31.555	25.031	40.78
4.0	4.636	31.589	25.053	44.06
5.0	4.751	31.676	25.110	47.66
6.0	4.834	31.734	25.148	49.97
7.0	4.996	31.830	25.206	54.32
8.0	5.029	31.830	25.203	56.67
9.0	5.049	31.843	25.211	57.57
10.0	5.053	31.843	25.210	57.60



STATION 28
 LATITUDE 41 32.7 N
 LONGITUDE 70 51.2 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	5.011	31.894	25.255	60.50
2.0	5.034	31.872	25.235	60.56
3.0	5.034	31.866	25.231	60.47
4.0	5.035	31.867	25.231	60.35
5.0	5.033	31.868	25.233	60.44
6.0	5.036	31.865	25.230	60.44
7.0	5.037	31.867	25.231	60.34
8.0	5.040	31.868	25.231	60.49
9.0	5.042	31.870	25.233	60.25
10.0	5.048	31.875	25.236	60.57
11.0	5.059	31.879	25.238	60.39
12.0	5.066	31.886	25.243	60.51
13.0	5.072	31.888	25.244	60.54



STATION 7
 LATITUDE 41 31.5 N
 LONGITUDE 70 50.3 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	5.310	31.994	25.301	39.31
2.0	5.321	31.975	25.285	52.04
3.0	5.331	31.974	25.284	57.81
4.0	5.344	31.990	25.295	60.08
5.0	5.360	31.993	25.295	61.67
6.0	5.374	32.000	25.299	62.11
7.0	5.400	32.014	25.307	62.40
8.0	5.415	32.033	25.320	62.73
9.0	5.425	32.028	25.315	62.92
10.0	5.437	32.033	25.318	62.85
11.0	5.445	32.034	25.318	63.07
12.0	5.458	32.042	25.323	62.93
13.0	5.462	32.043	25.324	63.07
14.0	5.467	32.044	25.323	63.16
15.0	5.471	32.046	25.324	63.13

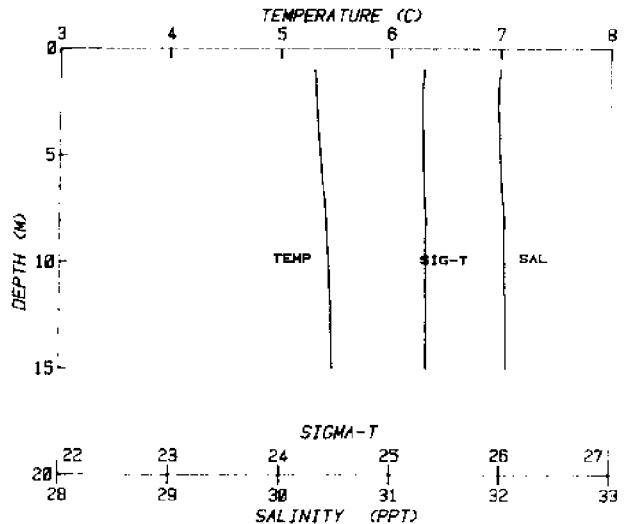
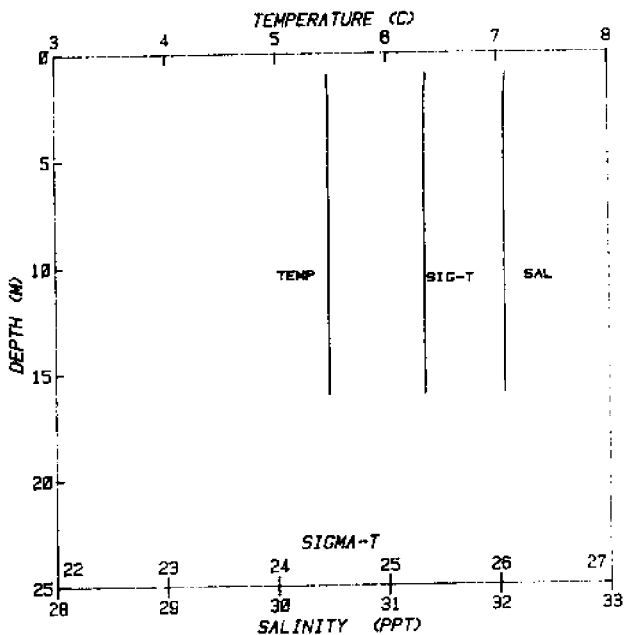


Figure 63

STATION 29
 LATITUDE 41 30.2 N
 LONGITUDE 70 49.5 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

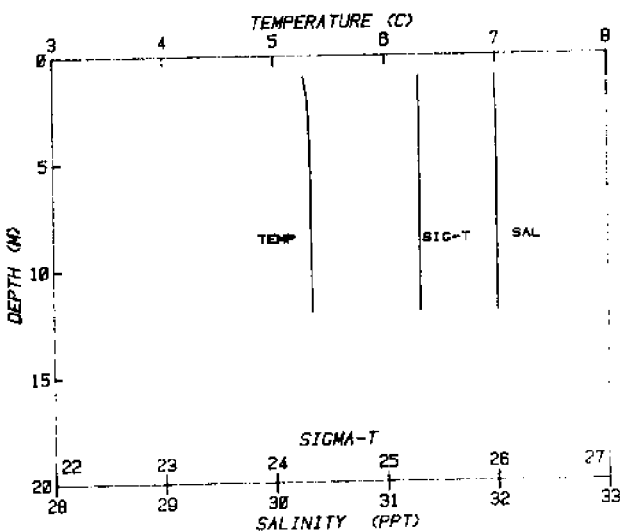
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Z
1.0	5.461	32.080	25.352	64.48
2.0	5.472	32.061	25.336	64.45
3.0	5.471	32.060	25.335	64.18
4.0	5.472	32.058	25.334	63.96
5.0	5.469	32.057	25.333	63.85
6.0	5.468	32.057	25.334	64.10
7.0	5.470	32.055	25.332	64.11
8.0	5.469	32.058	25.334	64.17
9.0	5.467	32.056	25.333	63.80
10.0	5.467	32.056	25.333	63.98
11.0	5.466	32.055	25.332	64.01
12.0	5.467	32.055	25.332	63.79
13.0	5.467	32.055	25.333	63.98
14.0	5.467	32.056	25.333	63.53
15.0	5.467	32.055	25.332	63.83
16.0	5.468	32.056	25.332	64.15



STATION 30
 LATITUDE 41 28.7 N
 LONGITUDE 70 48.5 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Z
1.0	5.270	31.992	25.304	60.38
2.0	5.303	31.995	25.303	60.49
3.0	5.314	32.004	25.309	60.12
4.0	5.318	32.001	25.306	60.04
5.0	5.323	32.002	25.306	59.49
6.0	5.325	32.003	25.307	59.53
7.0	5.326	32.003	25.307	59.84
8.0	5.325	32.003	25.307	59.58
9.0	5.331	32.005	25.308	59.38
10.0	5.331	32.004	25.307	59.90
11.0	5.334	32.005	25.308	59.69
12.0	5.333	32.004	25.307	59.80



STATION 0H
 LATITUDE 41 26.5 N
 LONGITUDE 70 50.9 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Z
1.0	5.484	32.067	25.339	57.68
2.0	5.507	32.074	25.342	63.79
3.0	5.508	32.071	25.340	63.83
4.0	5.476	32.058	25.333	63.77
5.0	5.456	32.053	25.332	63.44
6.0	5.449	32.052	25.332	63.40
7.0	5.459	32.057	25.334	63.47
8.0	5.451	32.051	25.330	63.47

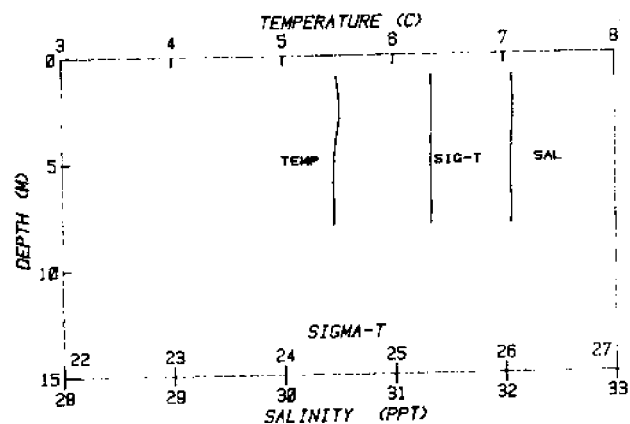
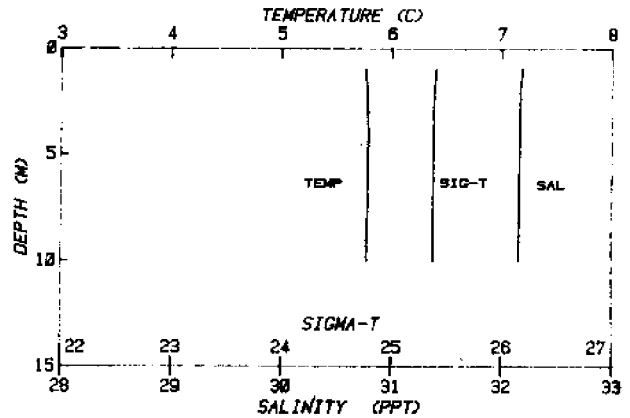


Figure 64

STATION VS1
 LATITUDE 41 25.9 N
 LONGITUDE 70 50.4 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

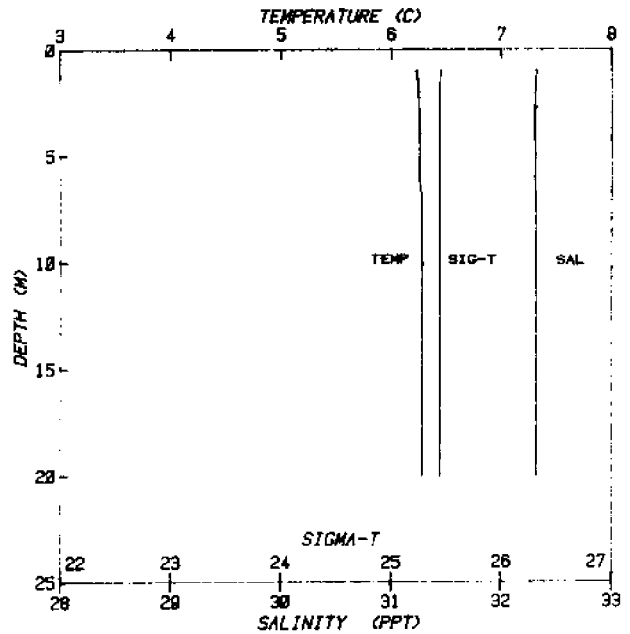
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Σ
1.0	5.760	32.184	25.400	66.41
2.0	5.779	32.166	25.384	66.53
3.0	5.784	32.163	25.381	66.29
4.0	5.787	32.163	25.380	66.41
5.0	5.786	32.161	25.379	66.37
6.0	5.782	32.160	25.378	66.02
7.0	5.783	32.160	25.378	66.22
8.0	5.783	32.159	25.378	66.52
9.0	5.776	32.157	25.377	66.02
10.0	5.778	32.157	25.377	66.13



STATION VS2
 LATITUDE 41 24.3 N
 LONGITUDE 70 53.7 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Σ
1.0	6.230	32.316	25.448	69.03
2.0	6.245	32.304	25.436	69.48
3.0	6.249	32.301	25.434	69.45
4.0	6.254	32.302	25.434	69.27
5.0	6.257	32.306	25.437	68.49
6.0	6.251	32.305	25.436	68.71
7.0	6.276	32.311	25.438	68.39
8.0	6.280	32.315	25.441	68.23
9.0	6.279	32.314	25.440	68.36
10.0	6.281	32.317	25.442	68.44
11.0	6.282	32.317	25.442	68.02
12.0	6.283	32.317	25.442	67.97
13.0	6.283	32.317	25.442	68.13
14.0	6.283	32.316	25.441	67.81
15.0	6.283	32.317	25.442	67.81
16.0	6.281	32.317	25.443	68.31
17.0	6.281	32.317	25.442	68.28
18.0	6.281	32.317	25.442	68.24
19.0	6.281	32.317	25.442	68.23
20.0	6.280	32.317	25.443	68.46



STATION VS3
 LATITUDE 41 22.7 N
 LONGITUDE 70 57.0 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Σ
1.0	6.269	32.341	25.463	69.18
2.0	6.278	32.333	25.456	69.09
3.0	6.279	32.329	25.452	69.22
4.0	6.277	32.326	25.450	68.49
5.0	6.275	32.324	25.448	68.75
6.0	6.263	32.322	25.448	67.92
7.0	6.260	32.319	25.447	68.24
8.0	6.263	32.319	25.446	67.81
9.0	6.262	32.319	25.446	68.18
10.0	6.264	32.320	25.447	67.81
11.0	6.266	32.320	25.447	67.88
12.0	6.267	32.320	25.446	68.28
13.0	6.265	32.319	25.445	67.27
14.0	6.263	32.319	25.446	68.00

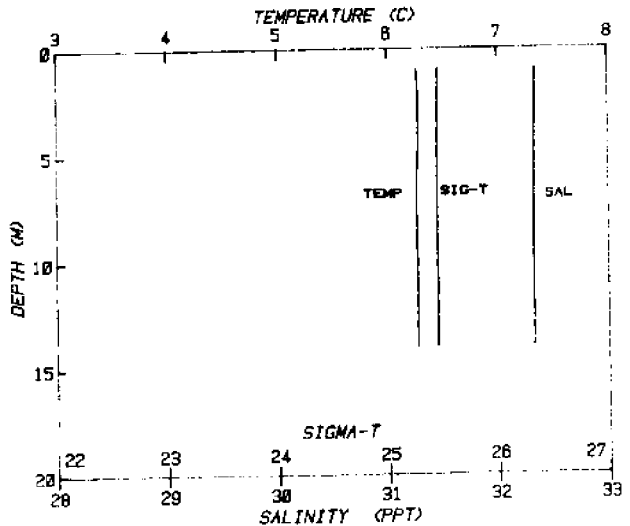
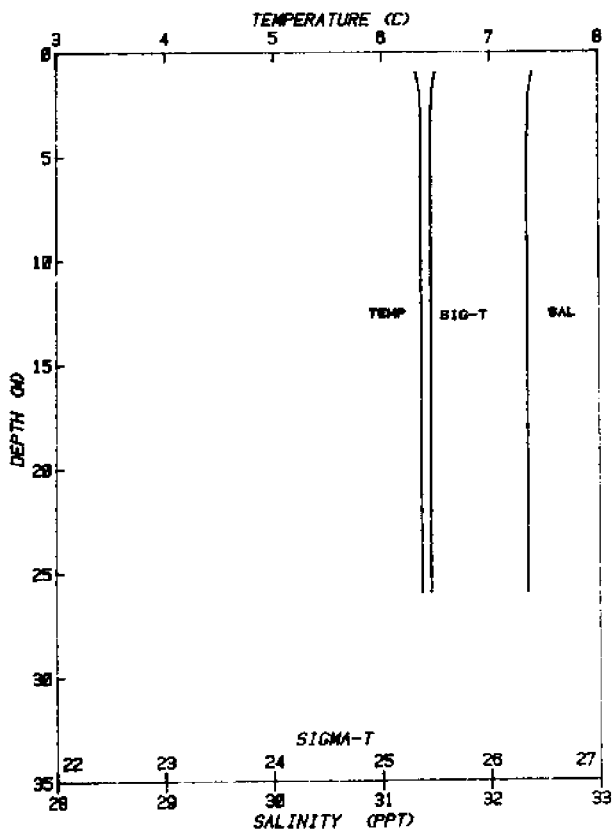


Figure 65

STATION 19
 LATITUDE 41 21.1 N
 LONGITUDE 71 .4 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Z
1.0	6.320	32.390	25.495	59.61
2.0	6.357	32.357	25.464	60.12
3.0	6.363	32.350	25.458	60.36
4.0	6.366	32.347	25.455	59.45
5.0	6.364	32.345	25.454	60.28
6.0	6.359	32.344	25.454	58.85
7.0	6.361	32.344	25.453	58.18
8.0	6.361	32.343	25.453	58.91
9.0	6.362	32.343	25.452	56.88
10.0	6.362	32.342	25.452	56.88
11.0	6.362	32.342	25.452	57.77
12.0	6.363	32.343	25.452	57.45
13.0	6.364	32.342	25.452	54.84
14.0	6.364	32.342	25.452	56.43
15.0	6.364	32.342	25.452	53.44
16.0	6.364	32.343	25.452	54.22
17.0	6.365	32.342	25.452	54.95
18.0	6.365	32.343	25.452	52.74
19.0	6.365	32.343	25.452	53.39
20.0	6.366	32.342	25.451	52.19
21.0	6.366	32.342	25.451	50.94
22.0	6.366	32.342	25.452	53.88
23.0	6.367	32.342	25.452	52.78
24.0	6.367	32.342	25.451	51.84
25.0	6.367	32.342	25.451	45.84
26.0	6.369	32.342	25.451	46.44



STATION 18
 LATITUDE 41 22.5 N
 LONGITUDE 71 1.2 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Z
1.0	6.158	32.373	25.502	63.46
2.0	6.266	32.323	25.449	63.24
3.0	6.277	32.319	25.444	60.78
4.0	6.279	32.319	25.444	60.60
5.0	6.283	32.316	25.441	60.21
6.0	6.285	32.316	25.441	60.39
7.0	6.288	32.315	25.440	60.08
8.0	6.288	32.315	25.439	60.47
9.0	6.283	32.313	25.439	60.12
10.0	6.271	32.310	25.438	59.66
11.0	6.254	32.309	25.439	56.80
12.0	6.246	32.309	25.440	54.95
13.0	6.248	32.312	25.442	54.69
14.0	6.254	32.310	25.440	55.94
15.0	6.253	32.310	25.440	55.75
16.0	6.247	32.308	25.440	57.34
17.0	6.235	32.305	25.439	55.47
18.0	6.231	32.304	25.440	54.48
19.0	6.231	32.308	25.441	52.97
20.0	6.230	32.305	25.439	52.66
21.0	6.227	32.305	25.440	48.75
22.0	6.228	32.304	25.440	47.27
23.0	6.228	32.306	25.440	46.46
24.0	6.227	32.305	25.439	45.42

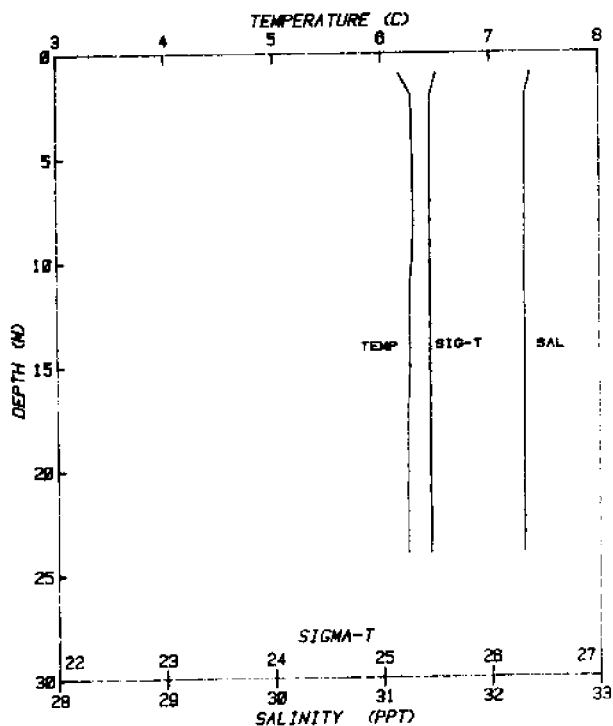
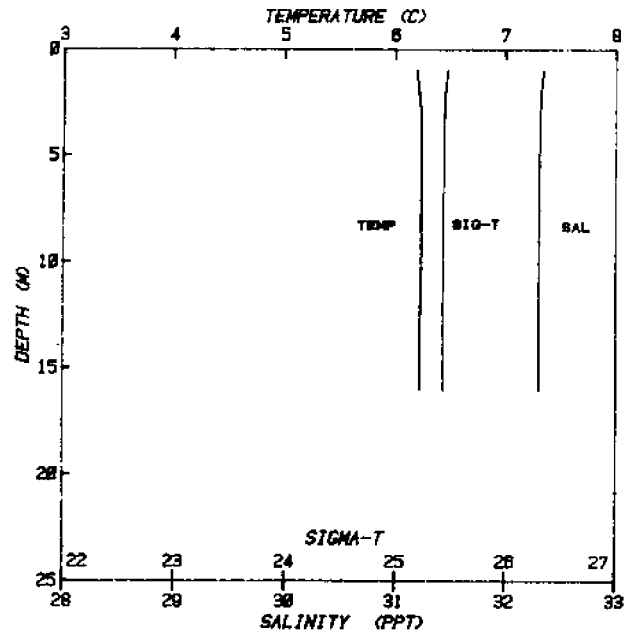


Figure 66

STATION 17
 LATITUDE 41 23.8 N
 LONGITUDE 71 2.0 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	6.196	32.341	25.472	59.64
2.0	6.212	32.320	25.453	60.29
3.0	6.233	32.312	25.444	59.38
4.0	6.234	32.310	25.442	59.94
5.0	6.236	32.309	25.441	58.85
6.0	6.237	32.308	25.441	59.16
7.0	6.238	32.307	25.440	58.91
8.0	6.236	32.308	25.441	58.34
9.0	6.240	32.307	25.439	58.78
10.0	6.239	32.308	25.440	57.77
11.0	6.237	32.307	25.440	57.76
12.0	6.232	32.304	25.438	58.15
13.0	6.230	32.304	25.438	57.50
14.0	6.229	32.305	25.439	56.75
15.0	6.224	32.384	25.439	54.95
16.0	6.229	32.384	25.439	57.60



STATION 13
 LATITUDE 41 25.2 N
 LONGITUDE 71 2.8 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	5.734	32.232	25.441	62.17
2.0	5.784	32.186	25.399	62.73
3.0	5.788	32.182	25.395	63.16
4.0	5.798	32.188	25.394	62.75
5.0	5.791	32.179	25.393	62.97
6.0	5.792	32.178	25.392	62.88
7.0	5.794	32.176	25.390	62.81
8.0	5.792	32.177	25.391	62.53
9.0	5.789	32.176	25.390	63.13
10.0	5.798	32.174	25.390	61.88
11.0	5.789	32.175	25.389	62.30
12.0	5.788	32.174	25.389	61.52
13.0	5.789	32.174	25.389	61.91
14.0	5.789	32.174	25.389	61.25
15.0	5.791	32.176	25.390	61.88
16.0	5.791	32.176	25.390	61.88
17.0	5.790	32.174	25.389	61.85

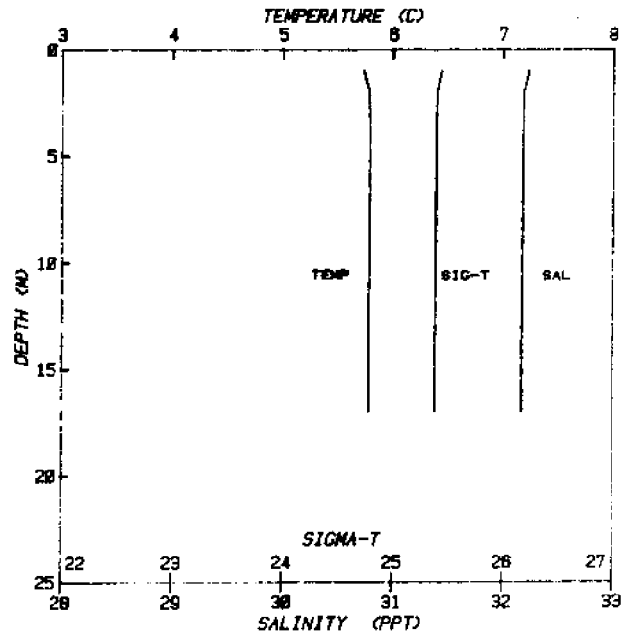
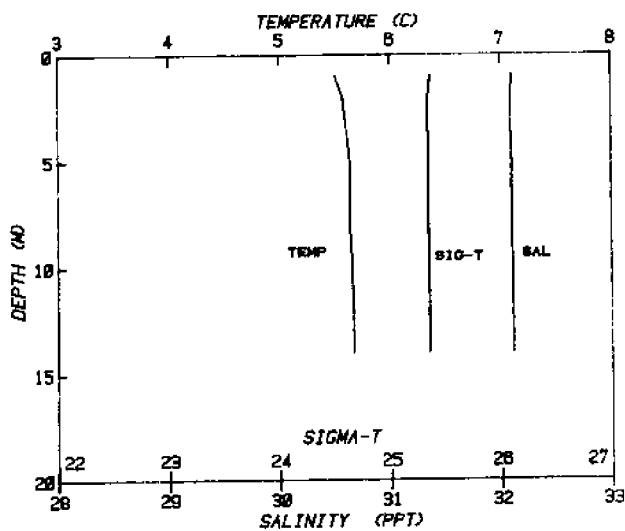


Figure 67

STATION 16
 LATITUDE 41 26.6 N
 LONGITUDE 71 3.8 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

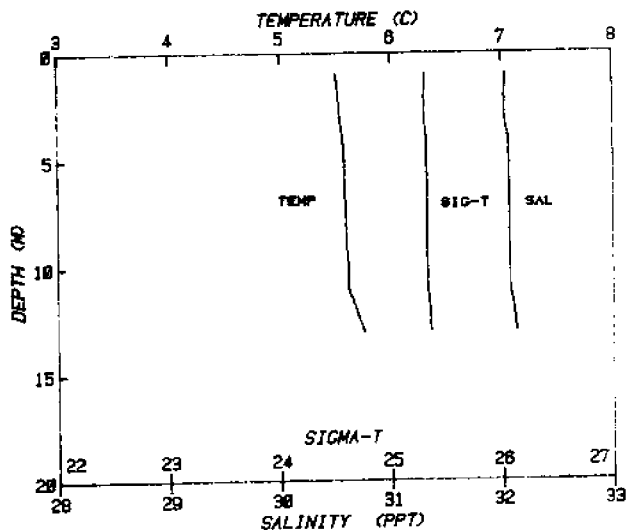
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. X
1.0	5.508	32.105	25.367	56.89
2.0	5.574	32.087	25.345	57.81
3.0	5.595	32.086	25.342	57.22
4.0	5.620	32.098	25.348	56.94
5.0	5.637	32.102	25.350	53.13
6.0	5.638	32.100	25.348	51.22
7.0	5.637	32.098	25.347	48.63
8.0	5.637	32.096	25.345	48.63
9.0	5.645	32.102	25.349	47.73
10.0	5.655	32.106	25.351	46.46
11.0	5.658	32.105	25.350	45.36
12.0	5.665	32.107	25.350	42.73
13.0	5.666	32.106	25.350	41.56
14.0	5.664	32.105	25.349	38.78



STATION 15
 LATITUDE 41 27.9 N
 LONGITUDE 71 4.5 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. X
1.0	5.589	32.039	25.315	54.30
2.0	5.530	32.026	25.302	54.84
3.0	5.543	32.025	25.300	55.34
4.0	5.568	32.055	25.321	55.55
5.0	5.578	32.060	25.323	55.86
6.0	5.578	32.060	25.323	55.71
7.0	5.586	32.061	25.324	55.52
8.0	5.591	32.061	25.323	55.58
9.0	5.598	32.064	25.324	54.88
10.0	5.613	32.067	25.325	55.38
11.0	5.612	32.070	25.327	55.13
12.0	5.684	32.105	25.346	54.53
13.0	5.750	32.121	25.352	54.56



STATION 14
 LATITUDE 41 29.2 N
 LONGITUDE 71 5.4 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. X
1.0	5.596	32.091	25.346	53.95
2.0	5.605	32.088	25.343	55.20
3.0	5.633	32.089	25.339	54.92
4.0	5.654	32.093	25.341	55.55
5.0	5.739	32.128	25.359	55.68
6.0	5.827	32.167	25.379	55.12
7.0	5.816	32.173	25.385	55.06
8.0	5.822	32.177	25.388	54.48
9.0	5.853	32.189	25.386	52.97
10.0	5.899	32.195	25.393	51.80
11.0	5.938	32.203	25.394	50.14
12.0	5.905	32.190	25.387	46.34

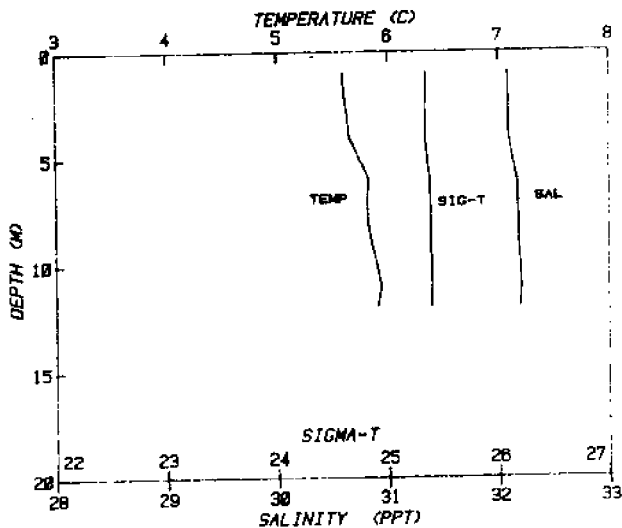
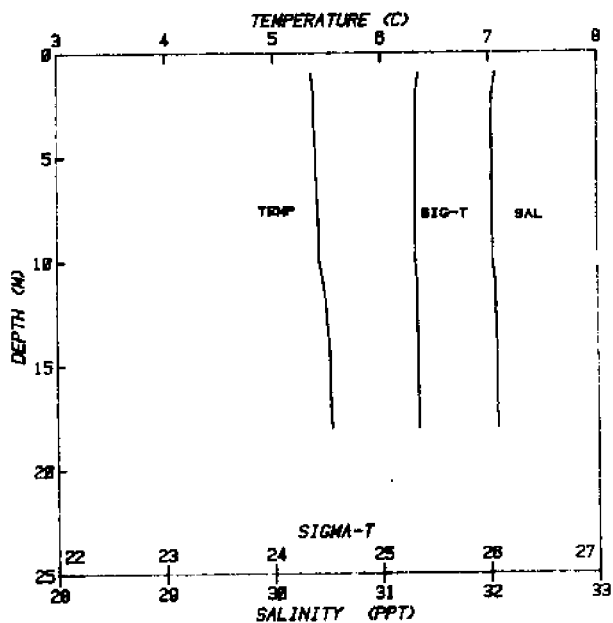


Figure 68

STATION 10
 LATITUDE 41 27.5 N
 LONGITUDE 70 58.3 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Σ
1.0	5.351	32.057	25.347	63.36
2.0	5.374	32.031	25.324	63.44
3.0	5.374	32.028	25.321	63.83
4.0	5.384	32.028	25.320	63.72
5.0	5.397	32.029	25.319	63.91
6.0	5.400	32.027	25.317	63.63
7.0	5.408	32.029	25.318	63.62
8.0	5.419	32.031	25.319	63.59
9.0	5.427	32.033	25.319	63.28
10.0	5.427	32.032	25.319	63.38
11.0	5.459	32.055	25.333	63.44
12.0	5.486	32.059	25.333	63.55
13.0	5.497	32.059	25.332	63.72
14.0	5.517	32.067	25.336	64.11
15.0	5.520	32.066	25.334	63.84
16.0	5.521	32.065	25.334	64.12
17.0	5.524	32.067	25.335	63.67
18.0	5.533	32.070	25.337	63.96



STATION 8
 LATITUDE 41 30.0 N
 LONGITUDE 70 53.1 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Σ
1.0	5.346	32.077	25.363	63.57
2.0	5.376	32.041	25.331	63.78
3.0	5.379	32.037	25.328	63.47
4.0	5.405	32.044	25.330	63.28
5.0	5.407	32.031	25.320	63.13
6.0	5.402	32.027	25.317	63.40
7.0	5.414	32.043	25.328	63.24
8.0	5.504	32.062	25.334	63.89
9.0	5.514	32.058	25.330	63.02
10.0	5.515	32.060	25.330	62.84
11.0	5.517	32.060	25.331	62.93
12.0	5.517	32.060	25.331	63.40
13.0	5.516	32.060	25.331	63.44
14.0	5.512	32.061	25.332	63.74
15.0	5.508	32.060	25.331	63.44
16.0	5.505	32.060	25.332	63.21

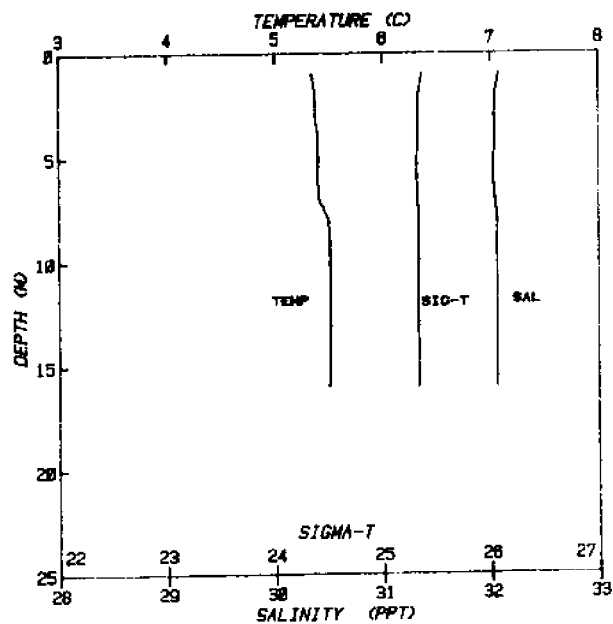
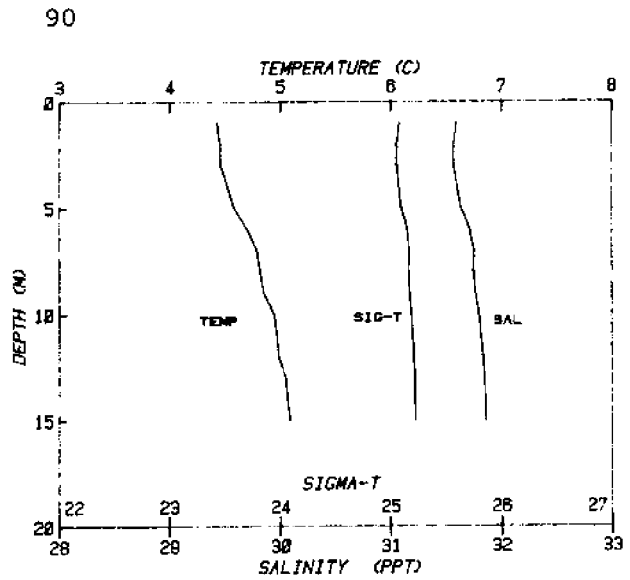


Figure 69

STATION 6
 LATITUDE 41 32.7 N
 LONGITUDE 70 47.9 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

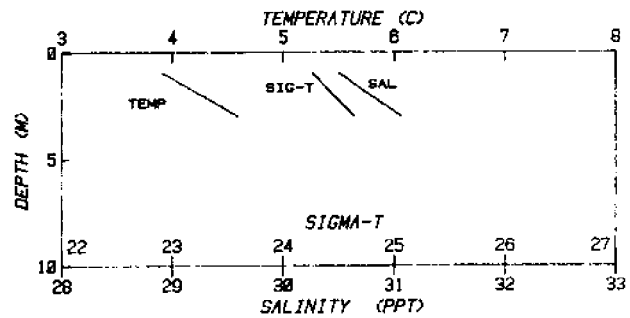
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	4.430	31.590	25.074	45.66
2.0	4.455	31.564	25.052	66.07
3.0	4.461	31.565	25.052	66.25
4.0	4.524	31.598	25.071	66.31
5.0	4.580	31.633	25.094	66.50
6.0	4.699	31.714	25.145	66.98
7.0	4.786	31.747	25.162	65.34
8.0	4.817	31.745	25.157	63.75
9.0	4.850	31.765	25.170	62.16
10.0	4.944	31.797	25.186	58.33
11.0	4.970	31.814	25.196	58.18
12.0	4.984	31.829	25.207	58.75
13.0	5.047	31.846	25.213	57.14
14.0	5.067	31.853	25.217	57.41
15.0	5.084	31.859	25.220	56.40



STATION 40
 LATITUDE 41 43.2 N
 LONGITUDE 70 42.3 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

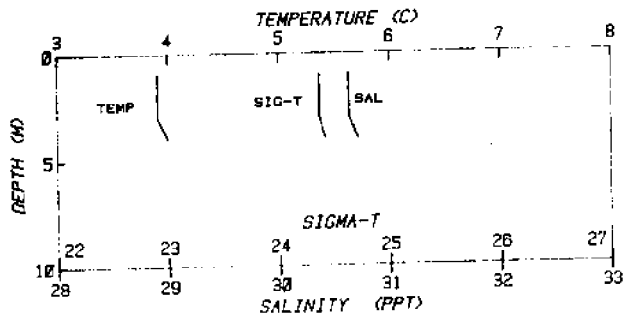
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	3.919	30.508	24.265	52.10
2.0	4.255	30.775	24.445	51.32
3.0	4.588	31.061	24.640	55.63



STATION 1
 LATITUDE 41 42.2 N
 LONGITUDE 70 40.8 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	3.909	30.631	24.364	52.45
2.0	3.907	30.631	24.364	52.44
3.0	3.910	30.635	24.366	52.41
4.0	4.004	30.713	24.419	52.76



STATION 39
 LATITUDE 41 41.5 N
 LONGITUDE 70 39.7 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	4.241	31.265	24.835	52.85
2.0	4.242	31.266	24.836	53.48
3.0	4.246	31.267	24.836	53.53
4.0	4.249	31.268	24.837	53.53
5.0	4.247	31.269	24.838	53.69

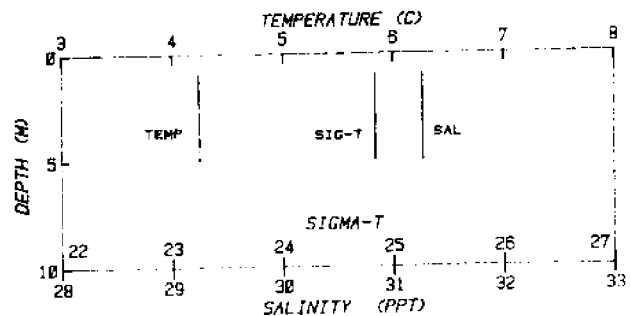
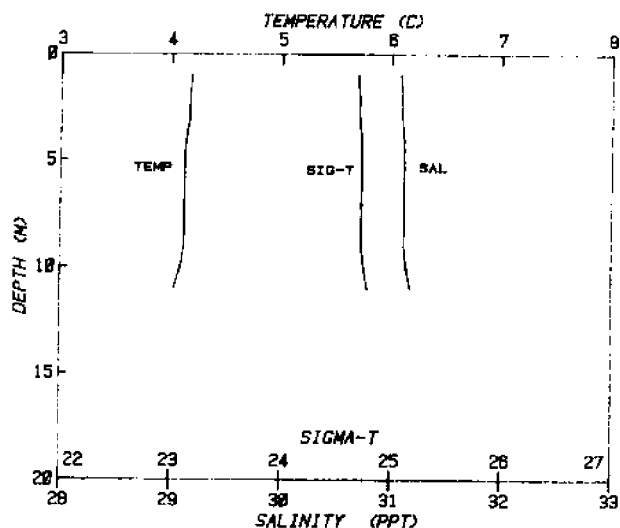


Figure 70

STATION 42C
 LATITUDE 41 43.0 N
 LONGITUDE 70 38.7 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

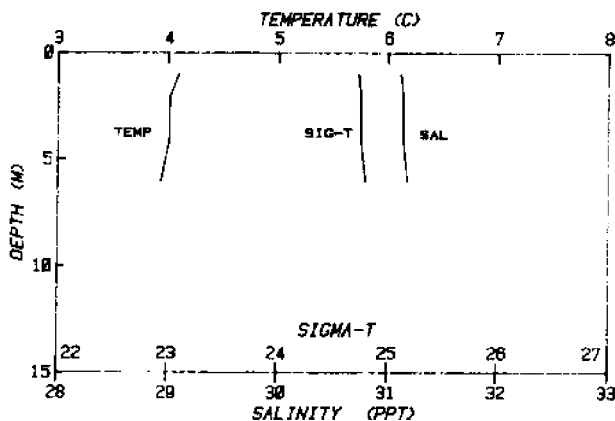
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	4.181	31.078	24.693	58.59
2.0	4.165	31.091	24.705	58.83
3.0	4.162	31.093	24.707	57.75
4.0	4.133	31.112	24.724	57.66
5.0	4.123	31.116	24.729	57.71
6.0	4.123	31.117	24.729	57.50
7.0	4.124	31.116	24.728	57.79
8.0	4.121	31.118	24.730	57.68
9.0	4.123	31.116	24.728	57.72
10.0	4.086	31.140	24.751	57.68
11.0	4.034	31.178	24.786	57.77



STATION 42
 LATITUDE 41 42.9 N
 LONGITUDE 70 38.6 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	4.093	31.113	24.729	58.81
2.0	4.016	31.134	24.753	58.97
3.0	4.013	31.137	24.755	59.33
4.0	4.016	31.135	24.753	59.16
5.0	3.976	31.155	24.773	59.14
6.0	3.936	31.179	24.796	58.88



STATION 43
 LATITUDE 41 44.0 N
 LONGITUDE 70 38.0 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	4.256	31.149	24.742	62.02
2.0	4.257	31.149	24.742	61.99
3.0	4.259	31.150	24.743	62.05

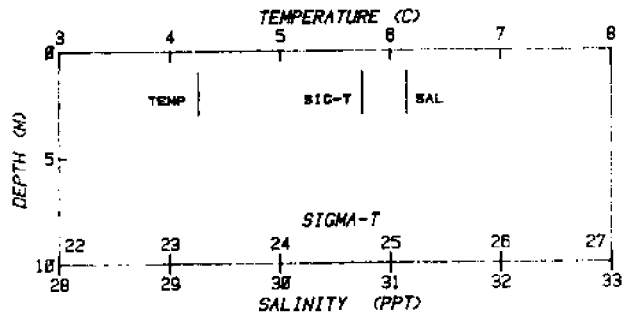
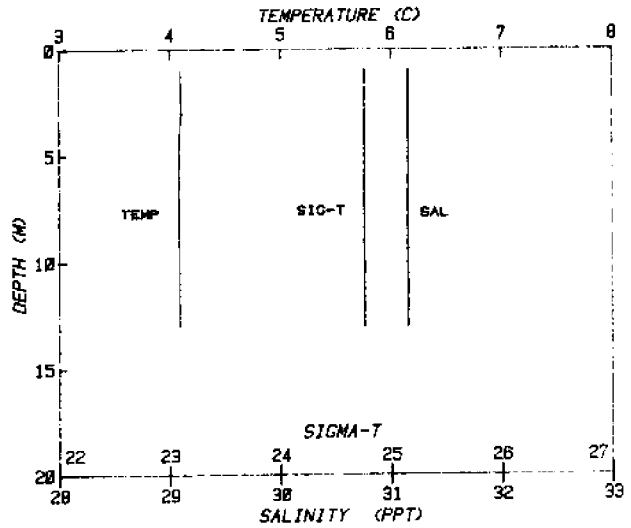


Figure 71

STATION 43C
 LATITUDE 41 43.9 N
 LONGITUDE 70 37.9 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

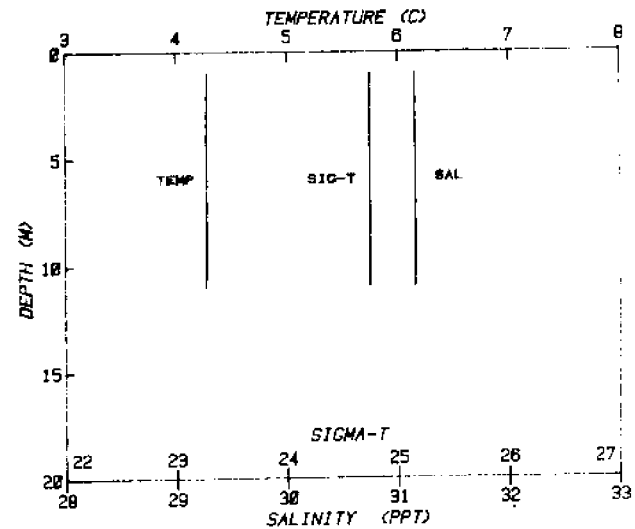
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	4.097	31.154	24.761	63.28
2.0	4.101	31.154	24.760	63.31
3.0	4.105	31.152	24.759	63.26
4.0	4.090	31.154	24.761	63.26
5.0	4.083	31.154	24.762	63.20
6.0	4.082	31.153	24.761	63.00
7.0	4.081	31.149	24.759	62.71
8.0	4.083	31.151	24.760	62.63
9.0	4.085	31.150	24.759	62.81
10.0	4.087	31.151	24.760	62.89
11.0	4.086	31.150	24.759	62.96
12.0	4.086	31.149	24.758	62.82
13.0	4.086	31.149	24.758	62.42



STATION 44
 LATITUDE 41 44.8 N
 LONGITUDE 70 35.6 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	4.280	31.156	24.745	67.66
2.0	4.277	31.154	24.744	68.39
3.0	4.274	31.154	24.744	68.26
4.0	4.272	31.154	24.744	68.24
5.0	4.274	31.155	24.745	68.36
6.0	4.275	31.154	24.744	68.37
7.0	4.274	31.154	24.744	68.13
8.0	4.274	31.155	24.745	68.28
9.0	4.275	31.154	24.744	68.31
10.0	4.274	31.154	24.744	68.22
11.0	4.268	31.152	24.743	68.34



STATION 45
 LATITUDE 41 45.7 N
 LONGITUDE 70 34.3 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	4.469	31.309	24.848	72.19
2.0	4.469	31.309	24.848	72.22
3.0	4.469	31.308	24.848	72.45
4.0	4.469	31.308	24.847	72.46
5.0	4.469	31.309	24.848	72.59
6.0	4.470	31.309	24.848	72.63
7.0	4.469	31.308	24.847	72.61
8.0	4.470	31.308	24.848	72.62
9.0	4.469	31.309	24.848	72.79
10.0	4.469	31.309	24.848	72.75
11.0	4.470	31.309	24.848	72.70
12.0	4.470	31.308	24.847	72.66
13.0	4.471	31.308	24.847	72.77
14.0	4.471	31.308	24.847	72.72

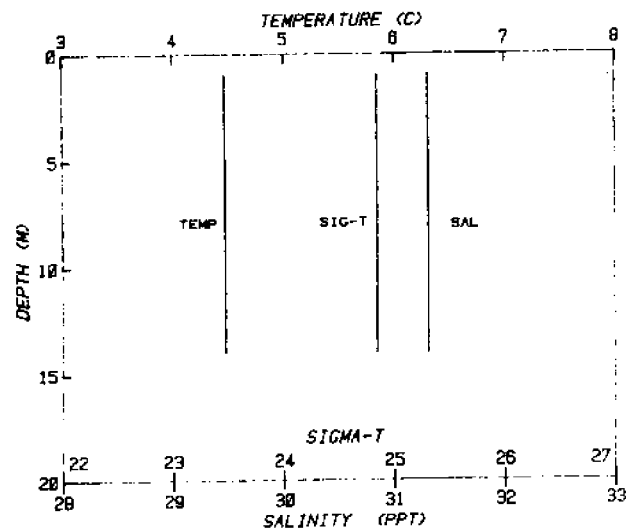
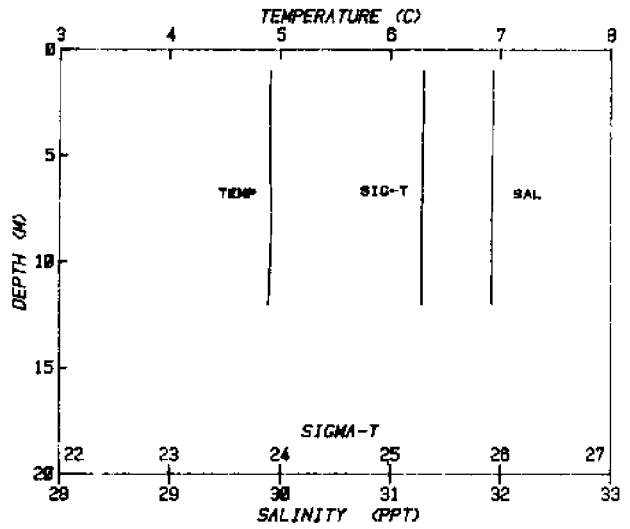


Figure 72

STATION 46
 LATITUDE 41 46.5 N
 LONGITUDE 70 32.3 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

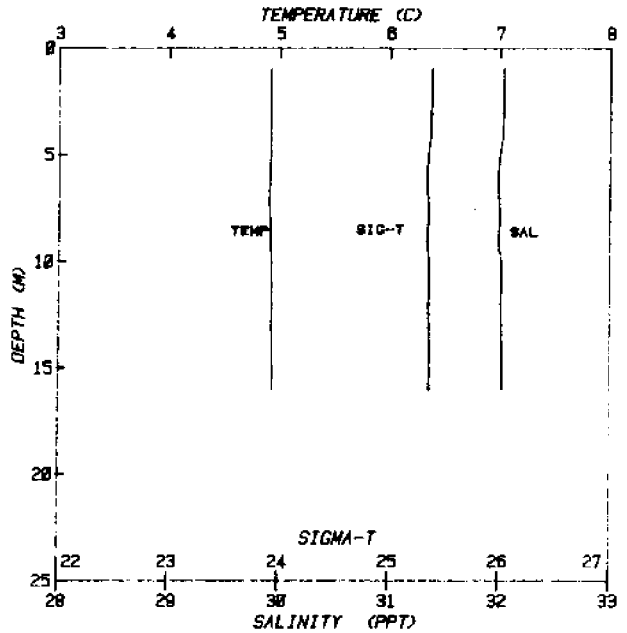
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	4.908	31.930	25.295	70.29
2.0	4.900	31.930	25.295	70.49
3.0	4.901	31.931	25.296	70.52
4.0	4.906	31.928	25.293	70.63
5.0	4.907	31.926	25.292	70.84
6.0	4.908	31.926	25.291	70.96
7.0	4.920	31.925	25.289	70.83
8.0	4.926	31.921	25.286	70.81
9.0	4.915	31.922	25.287	71.03
10.0	4.909	31.924	25.290	71.02
11.0	4.903	31.921	25.288	71.43
12.0	4.896	31.923	25.290	71.53



STATION 47
 LATITUDE 41 46.1 N
 LONGITUDE 70 30.2 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	4.914	32.032	25.375	70.36
2.0	4.911	32.034	25.377	70.28
3.0	4.913	32.026	25.370	69.31
4.0	4.910	32.026	25.370	70.28
5.0	4.911	31.994	25.345	70.70
6.0	4.904	31.979	25.334	70.70
7.0	4.898	31.991	25.344	70.53
8.0	4.908	31.997	25.348	70.56
9.0	4.916	31.986	25.338	70.88
10.0	4.920	32.009	25.356	70.81
11.0	4.924	32.014	25.360	70.73
12.0	4.927	32.006	25.352	70.84
13.0	4.926	32.011	25.357	70.94
14.0	4.930	32.018	25.362	70.97
15.0	4.937	32.019	25.362	70.89
16.0	4.937	32.024	25.366	69.34



STATION 48
 LATITUDE 41 47.0 N
 LONGITUDE 70 28.5 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	5.026	32.045	25.373	71.13
2.0	5.043	32.032	25.361	72.19
3.0	5.046	32.029	25.358	72.50
4.0	5.043	32.020	25.358	72.60
5.0	5.044	32.029	25.358	72.55
6.0	5.046	32.020	25.357	72.59
7.0	5.047	32.020	25.357	72.63
8.0	5.045	32.020	25.357	72.63
9.0	5.046	32.027	25.357	72.41
10.0	5.041	32.027	25.357	72.40
11.0	5.042	32.028	25.357	72.42
12.0	5.040	32.027	25.357	72.29

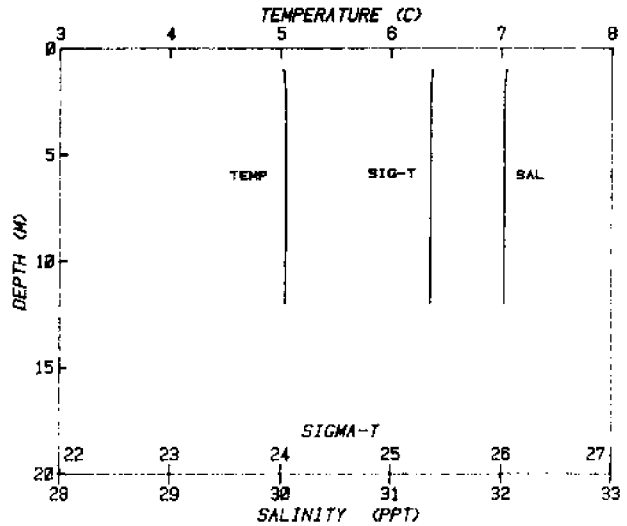
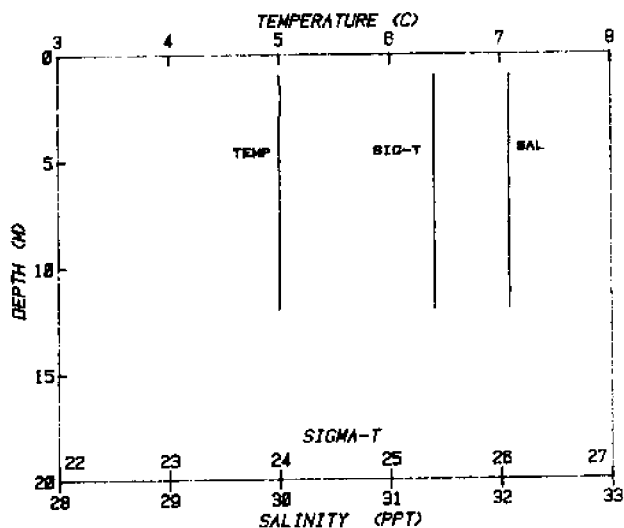


Figure 73

STATION 49
 LATITUDE 41 48.7 N
 LONGITUDE 70 30.4 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

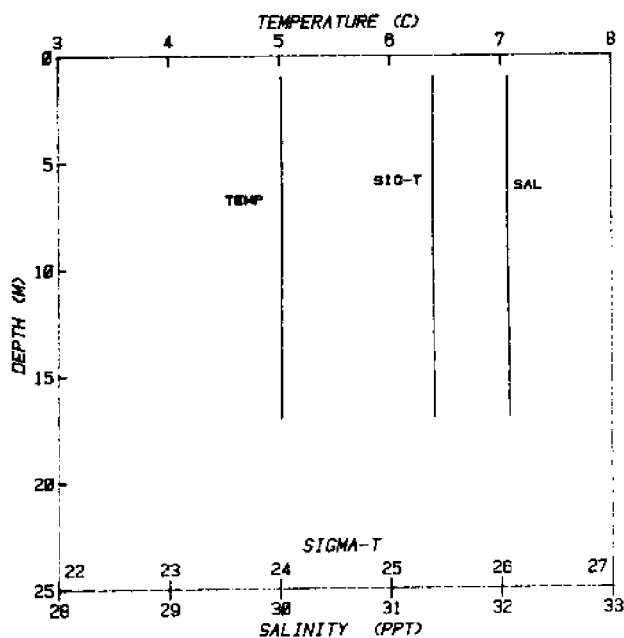
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	5.000	32.086	25.408	71.85
2.0	5.017	32.077	25.399	72.37
3.0	5.001	32.076	25.400	72.14
4.0	5.000	32.078	25.402	72.27
5.0	5.001	32.076	25.400	72.34
6.0	5.001	32.077	25.401	72.15
7.0	5.004	32.076	25.400	71.95
8.0	5.003	32.076	25.400	72.11
9.0	5.003	32.076	25.400	72.11
10.0	5.000	32.076	25.400	72.03
11.0	4.994	32.078	25.403	72.19
12.0	4.994	32.079	25.403	72.56



STATION 50
 LATITUDE 41 48.0 N
 LONGITUDE 70 28.0 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	5.018	32.063	25.388	72.46
2.0	5.022	32.059	25.385	72.58
3.0	5.020	32.059	25.385	72.76
4.0	5.024	32.059	25.384	72.46
5.0	5.024	32.059	25.384	72.49
6.0	5.024	32.059	25.385	72.58
7.0	5.025	32.058	25.383	72.53
8.0	5.024	32.059	25.384	72.66
9.0	5.023	32.059	25.384	72.53
10.0	5.022	32.061	25.386	72.66
11.0	5.017	32.065	25.390	72.62
12.0	5.016	32.068	25.392	72.58
13.0	5.016	32.070	25.393	72.66
14.0	5.016	32.071	25.394	72.81
15.0	5.016	32.070	25.394	72.68
16.0	5.016	32.072	25.396	72.73
17.0	5.017	32.073	25.396	72.50



STATION 51
 LATITUDE 41 46.2 N
 LONGITUDE 70 27.0 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	5.019	31.881	25.244	73.55
2.0	5.022	31.880	25.243	73.52
3.0	5.014	31.889	25.251	73.59
4.0	4.996	31.912	25.271	73.57
5.0	4.991	31.930	25.286	73.50
6.0	5.001	31.941	25.293	73.44
7.0	5.010	31.947	25.297	73.53
8.0	5.016	31.947	25.297	73.67
9.0	5.019	31.949	25.298	73.44
10.0	5.021	31.951	25.299	73.13
11.0	5.023	31.965	25.310	73.33
12.0	5.022	31.991	25.330	73.26

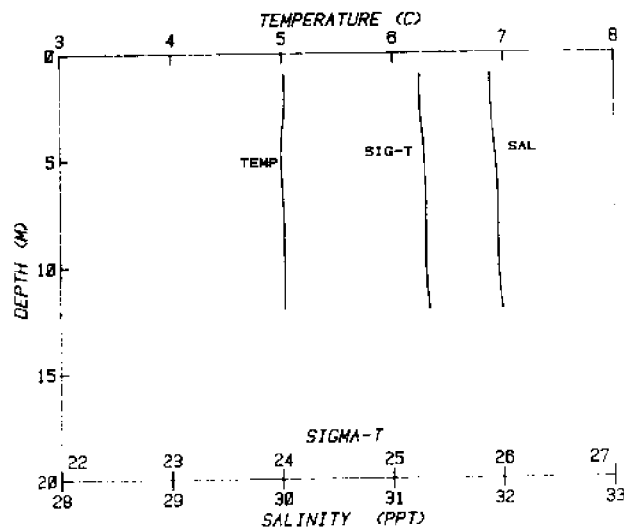
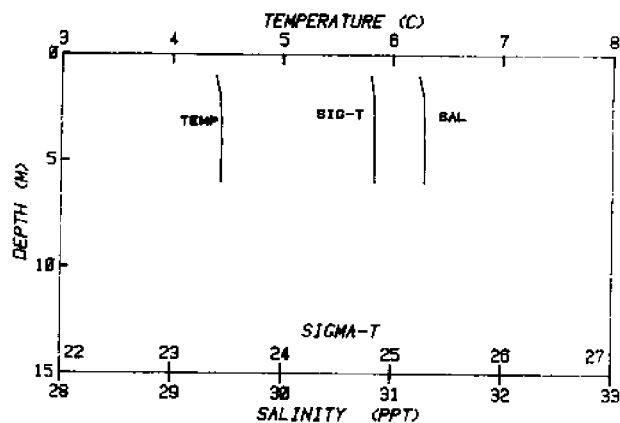


Figure 74

STATION 1A
 LATITUDE 41 40.8 N
 LONGITUDE 70 41.1 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

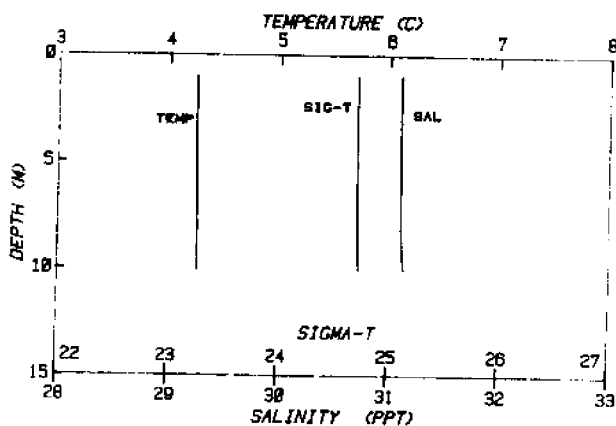
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	4.395	31.243	24.803	65.47
2.0	4.434	31.282	24.830	67.97
3.0	4.440	31.286	24.833	68.16
4.0	4.444	31.289	24.835	68.28
5.0	4.445	31.291	24.836	68.40
6.0	4.446	31.291	24.836	68.26



STATION 2
 LATITUDE 41 39.6 N
 LONGITUDE 70 41.5 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	4.247	31.102	24.706	54.58
2.0	4.248	31.103	24.706	54.06
3.0	4.248	31.102	24.706	53.79
4.0	4.247	31.103	24.707	53.70
5.0	4.251	31.107	24.709	53.66
6.0	4.256	31.109	24.711	53.54
7.0	4.260	31.111	24.711	53.24
8.0	4.262	31.114	24.713	53.26
9.0	4.264	31.123	24.721	52.25
10.0	4.265	31.136	24.731	51.11



STATION 41
 LATITUDE 41 37.9 N
 LONGITUDE 70 40.9 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	4.245	31.332	24.888	54.95
2.0	4.250	31.329	24.885	54.40
3.0	4.247	31.330	24.886	54.09
4.0	4.235	31.330	24.887	52.97
5.0	4.229	31.333	24.891	53.75
6.0	4.216	31.333	24.892	53.42
7.0	4.207	31.336	24.895	53.41
8.0	4.210	31.342	24.899	53.28
9.0	4.225	31.353	24.907	53.72
10.0	4.228	31.368	24.919	51.31
11.0	4.287	31.424	24.957	41.08

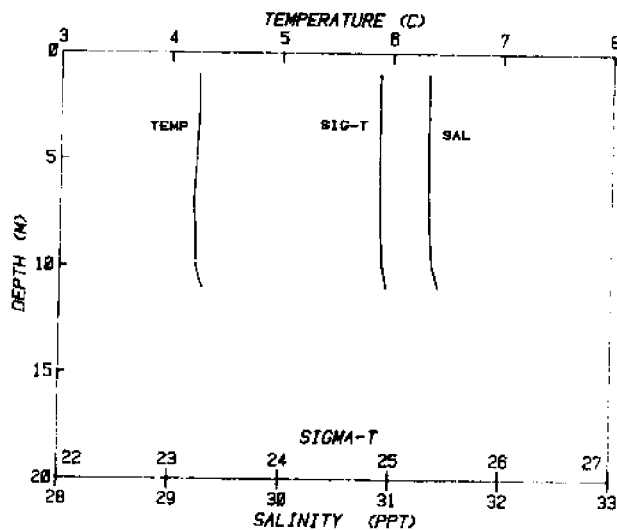
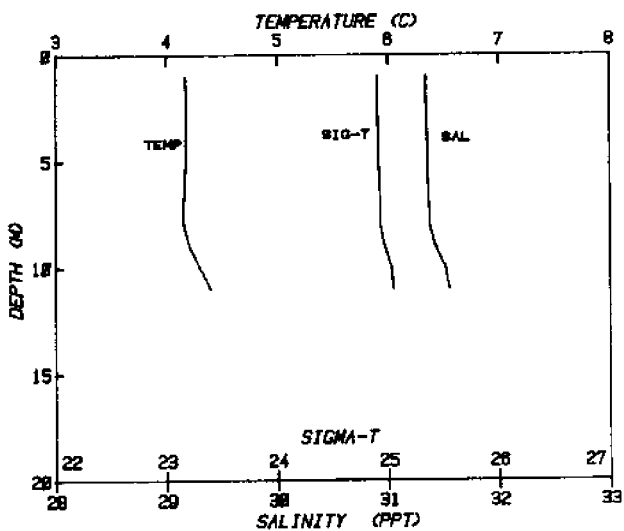


Figure 75

STATION 3
 LATITUDE 41 36.2 N
 LONGITUDE 70 42.2 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

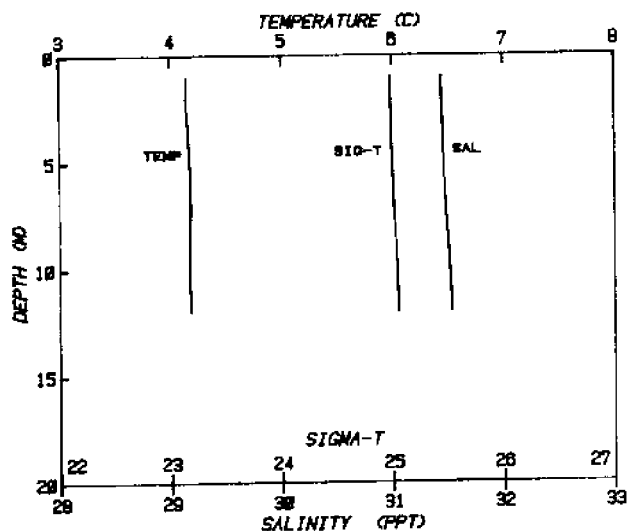
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Σ
1.0	4.171	31.343	24.984	54.44
2.0	4.177	31.343	24.903	54.20
3.0	4.178	31.348	24.907	53.80
4.0	4.173	31.353	24.911	54.43
5.0	4.174	31.353	24.911	54.64
6.0	4.163	31.360	24.918	54.84
7.0	4.153	31.370	24.927	55.55
8.0	4.153	31.372	24.929	55.18
9.0	4.205	31.422	24.964	54.77
10.0	4.298	31.513	25.027	51.11
11.0	4.396	31.549	25.046	42.46



STATION 4
 LATITUDE 41 35.1 N
 LONGITUDE 70 43.9 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Σ
1.0	4.145	31.445	24.987	56.81
2.0	4.141	31.446	24.988	60.57
3.0	4.155	31.451	24.991	60.42
4.0	4.166	31.455	24.993	60.23
5.0	4.174	31.463	24.999	60.34
6.0	4.180	31.470	25.004	60.26
7.0	4.181	31.479	25.011	60.39
8.0	4.178	31.491	25.021	60.29
9.0	4.172	31.504	25.031	59.88
10.0	4.173	31.515	25.040	59.79
11.0	4.174	31.524	25.047	58.13
12.0	4.184	31.526	25.048	43.42



STATION 5A
 LATITUDE 41 33.9 N
 LONGITUDE 70 45.6 W

BUZZARDS BAY
 CRUISE 3
 JAN 13-14, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Σ
1.0	4.352	31.614	25.101	58.99
2.0	4.372	31.610	25.096	58.85
3.0	4.375	31.609	25.095	58.84
4.0	4.377	31.609	25.095	58.81
5.0	4.375	31.614	25.099	58.52
6.0	4.379	31.613	25.098	58.54
7.0	4.381	31.616	25.100	58.41
8.0	4.382	31.616	25.100	58.31
9.0	4.384	31.619	25.102	58.13
10.0	4.410	31.641	25.117	57.75
11.0	4.630	31.739	25.172	56.00
12.0	4.771	31.792	25.200	59.01
13.0	4.944	31.876	25.248	59.85

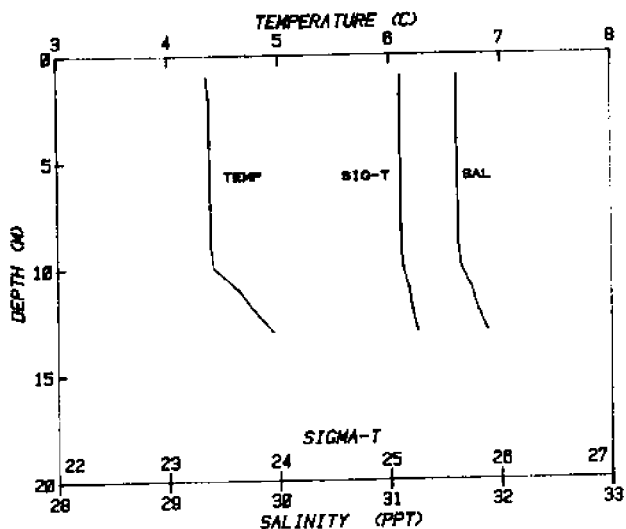


Figure 76

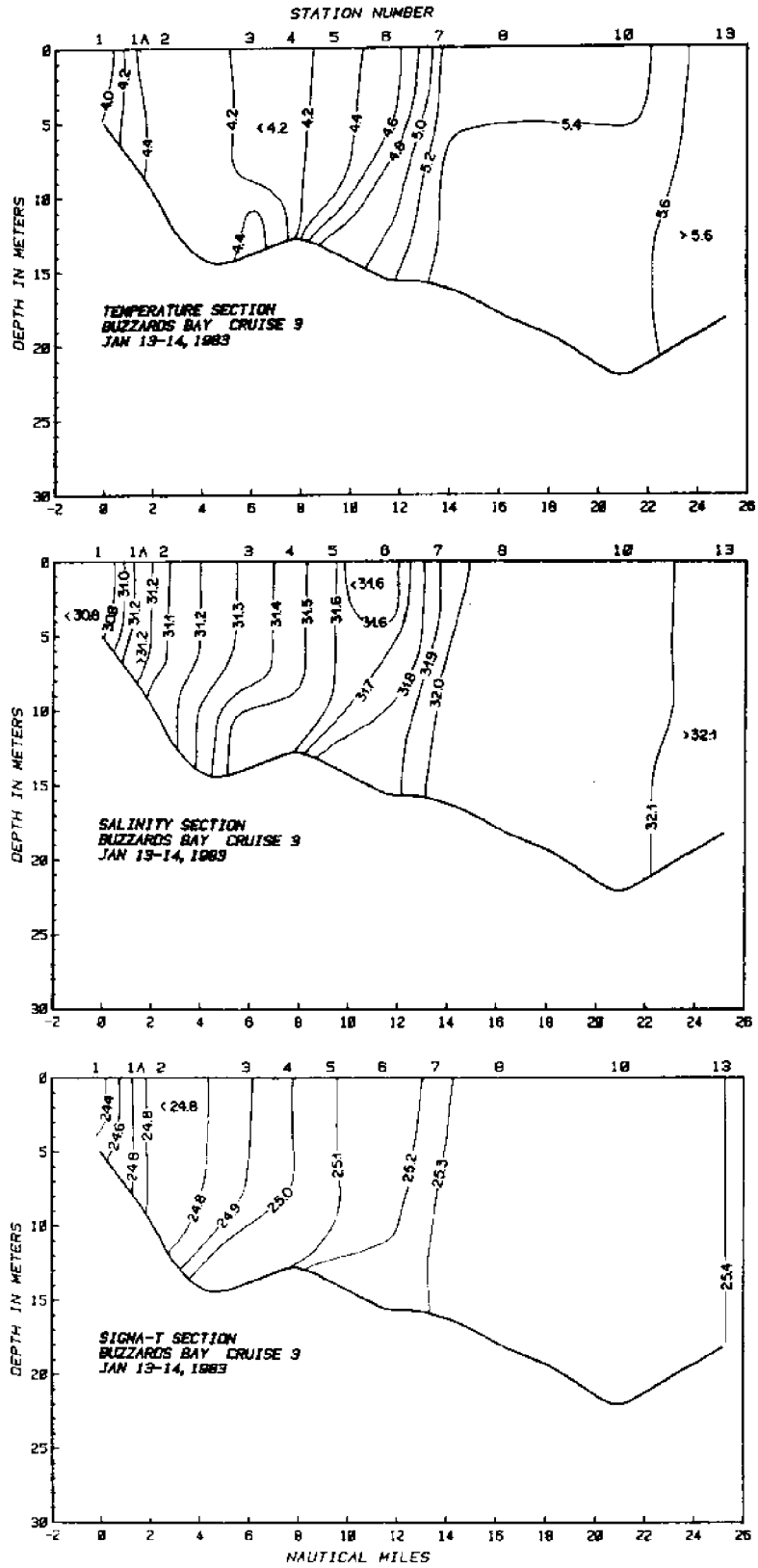


Figure 77

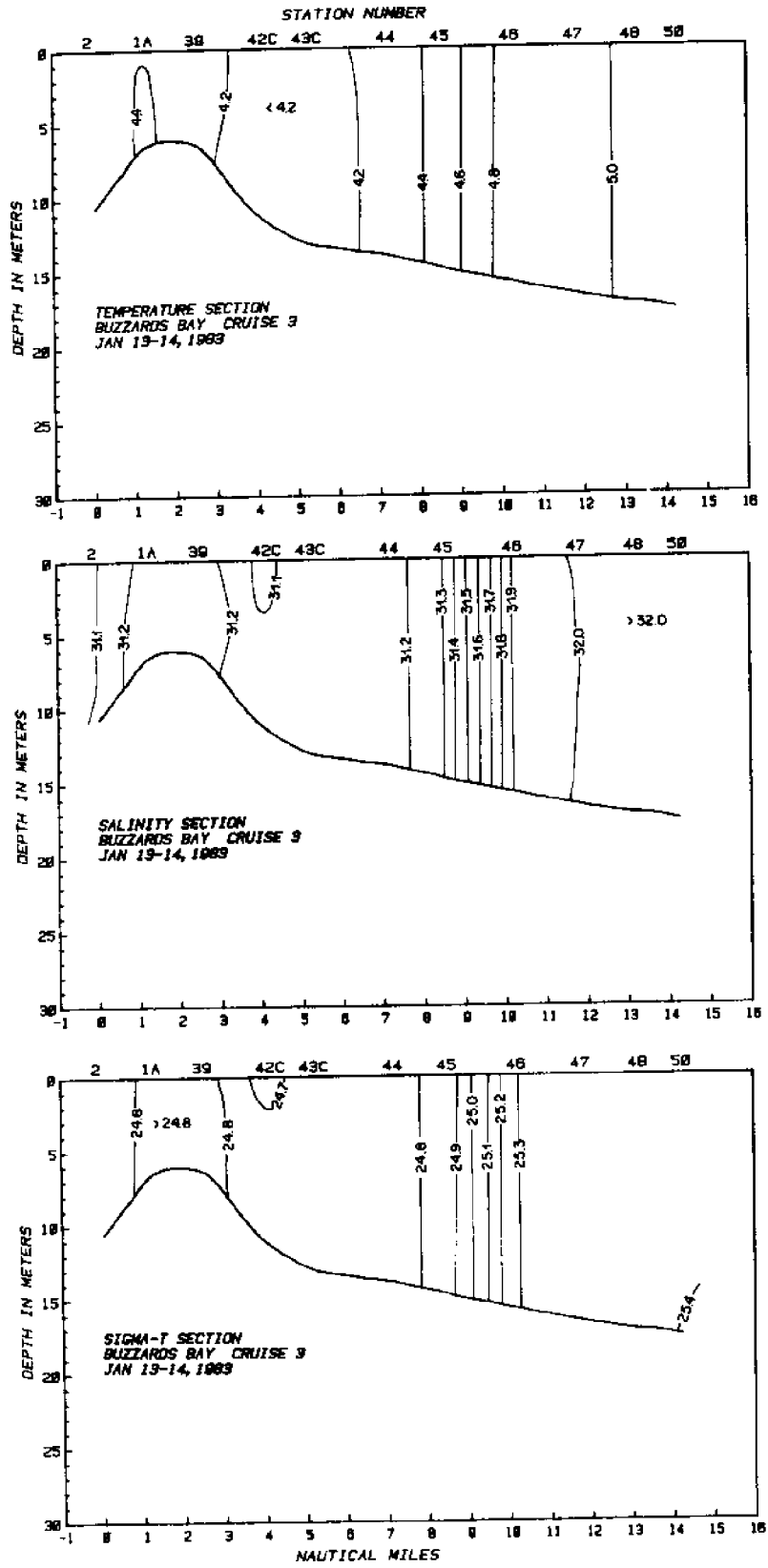


Figure 78

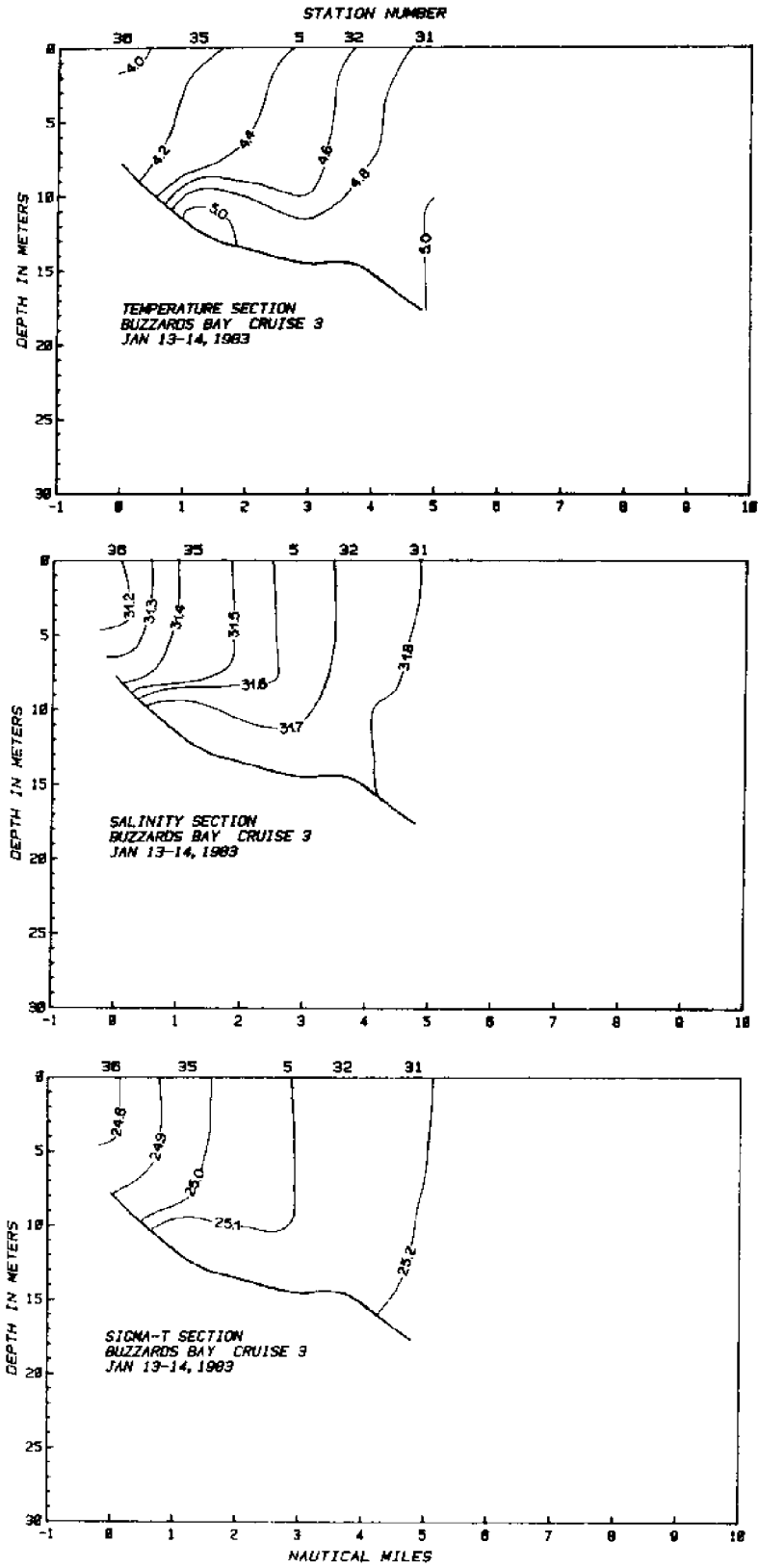


Figure 79

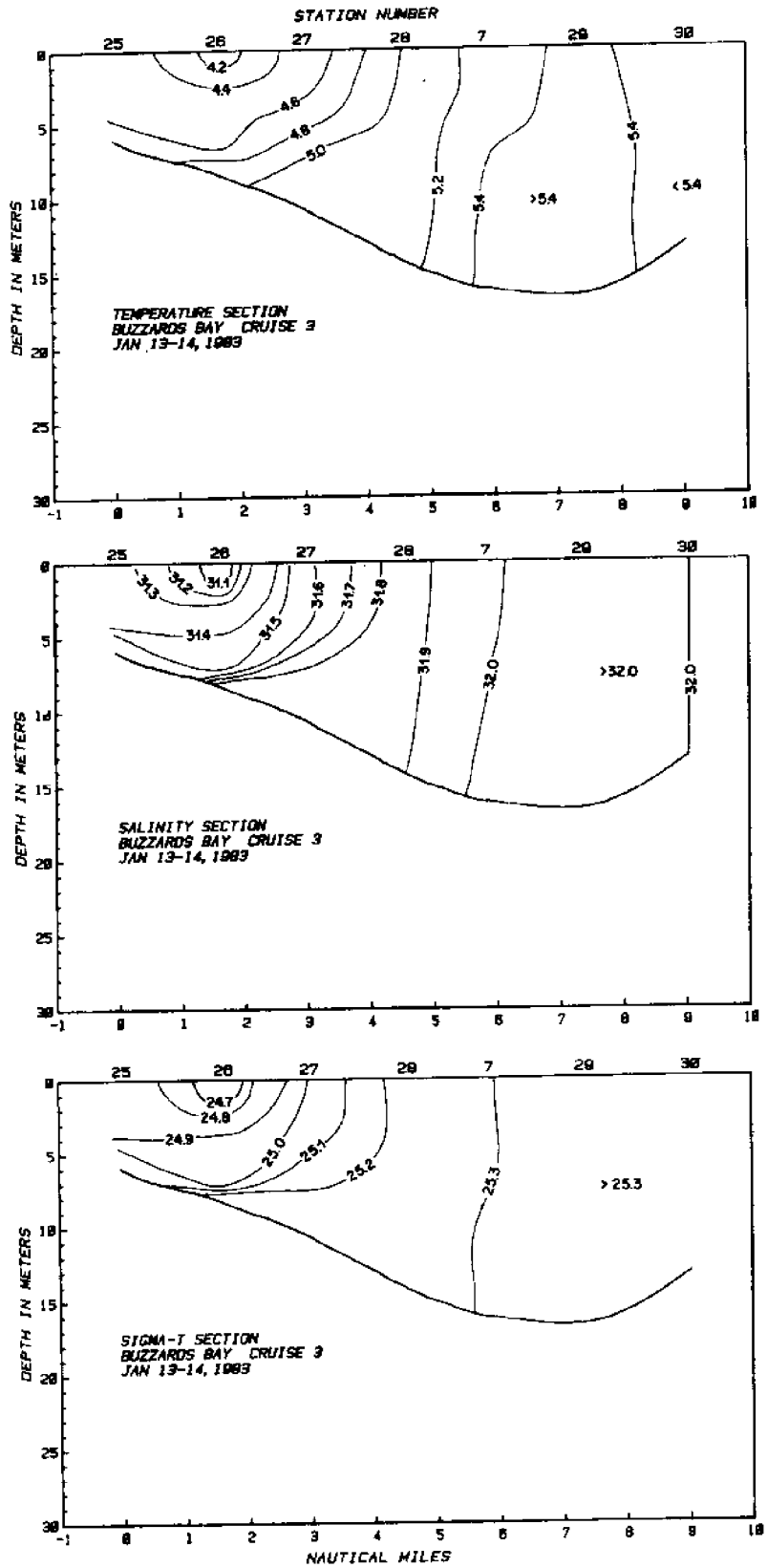


Figure 80

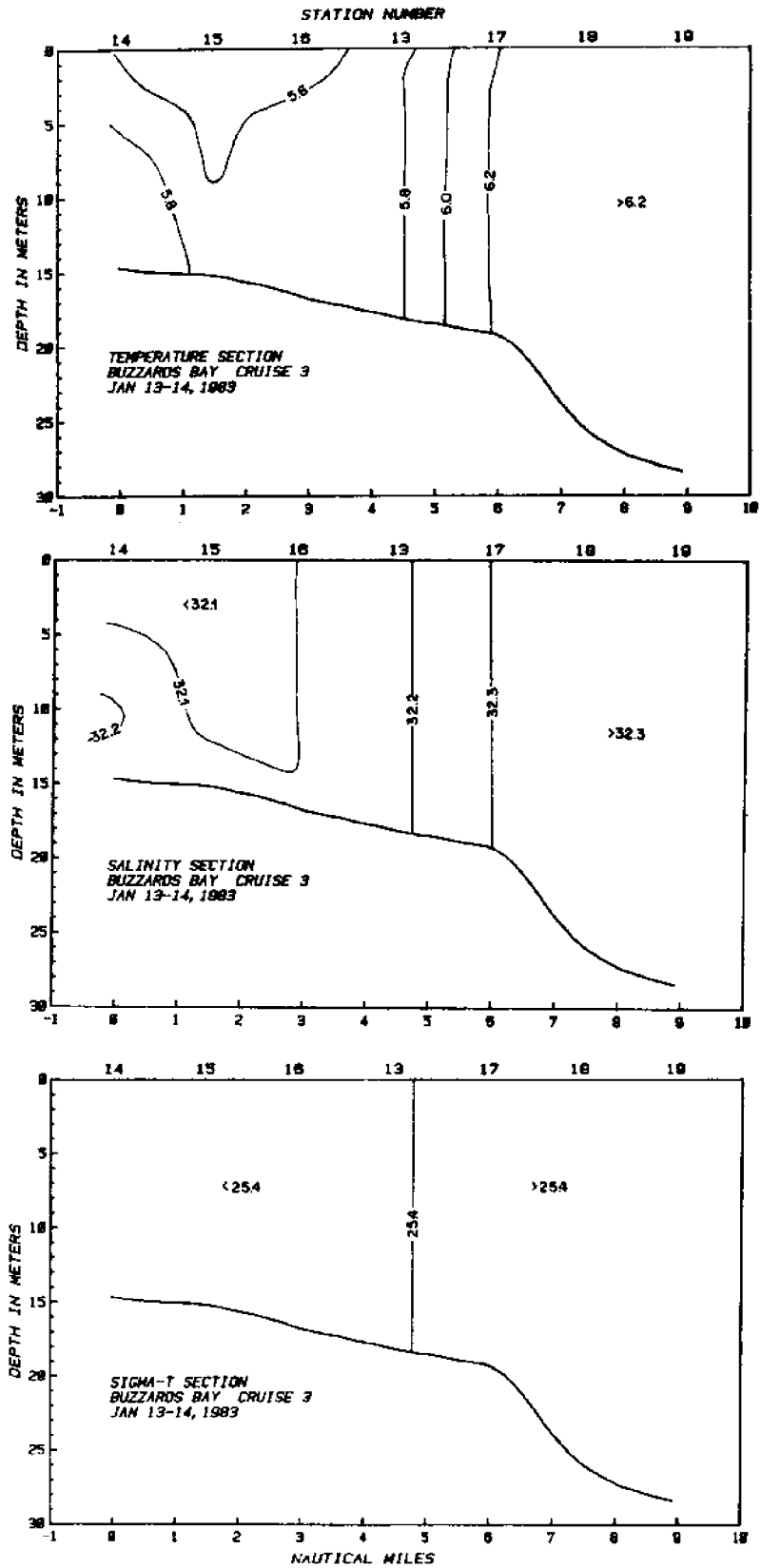


Figure 81

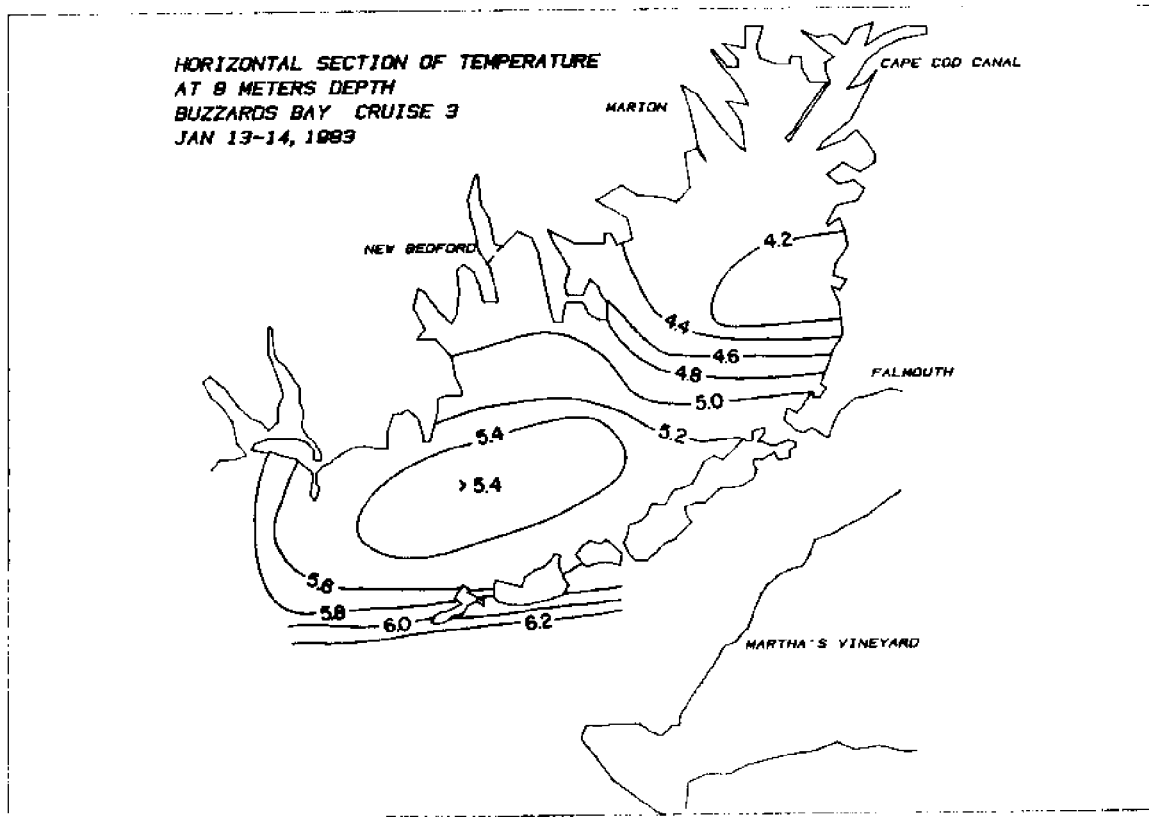
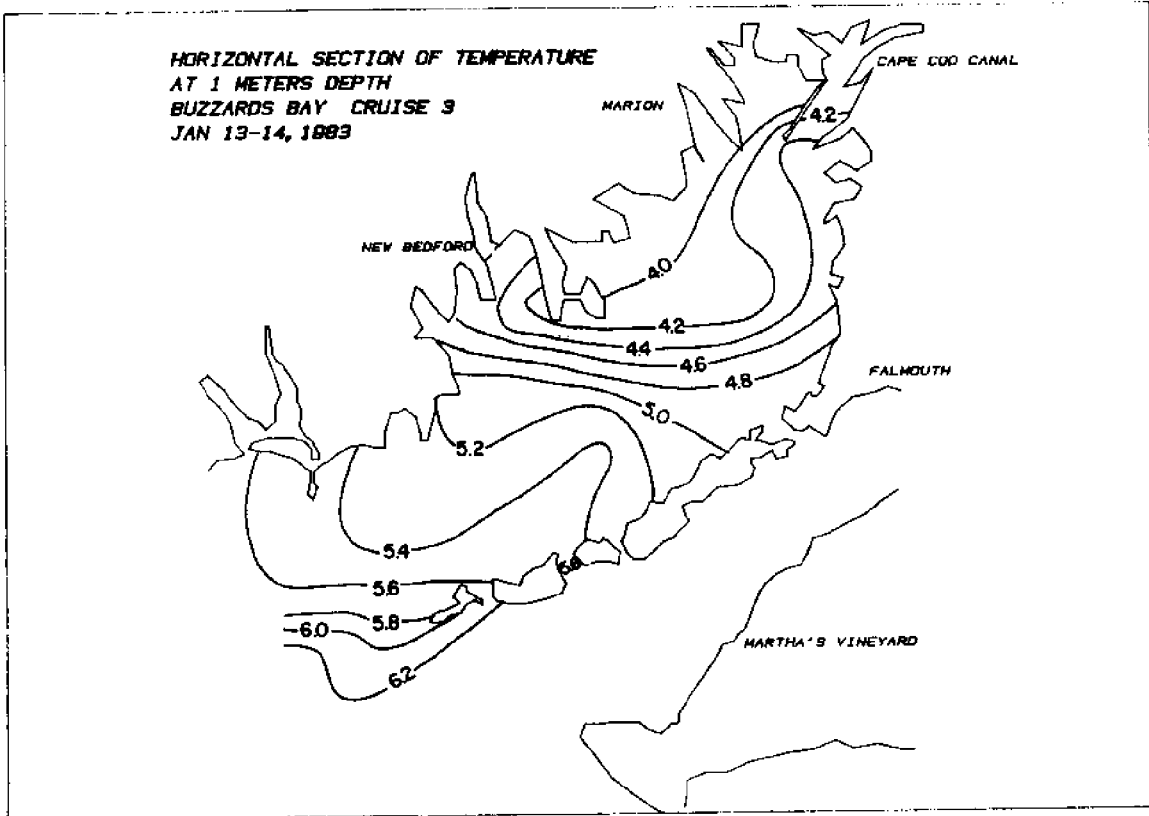


Figure 82

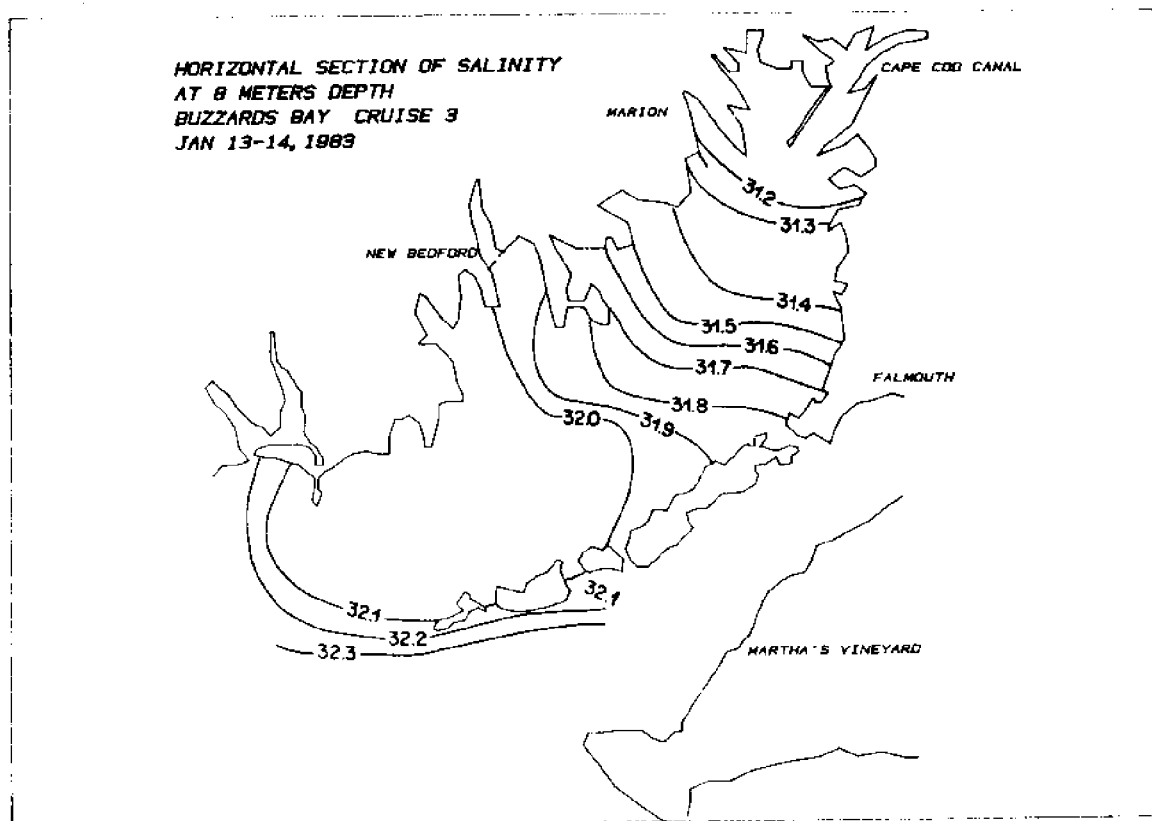
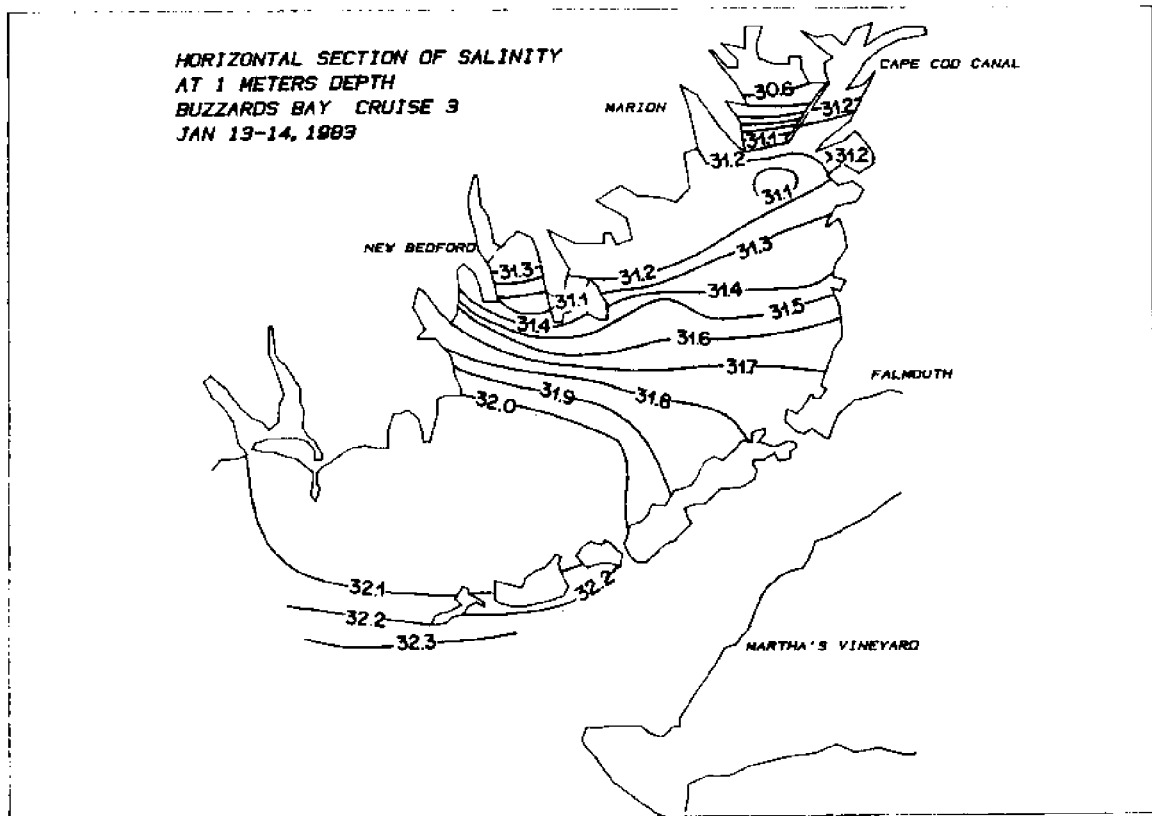


Figure 83

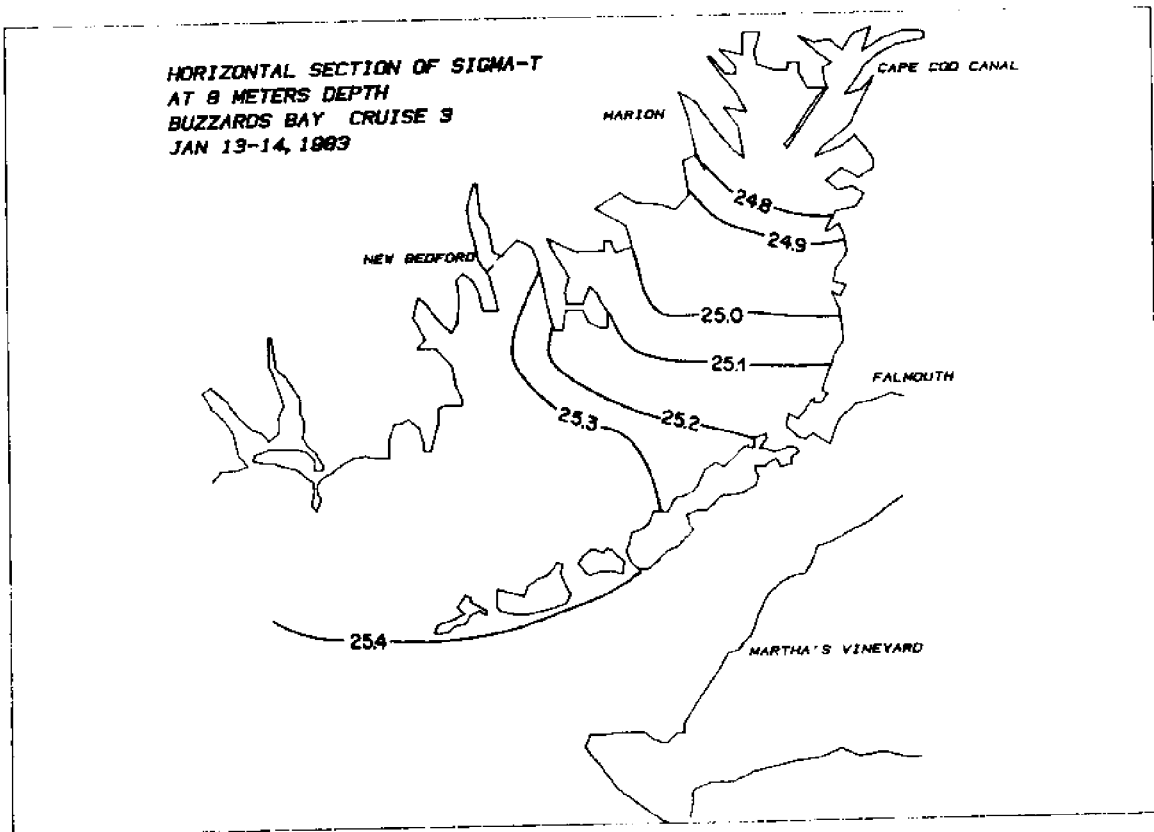
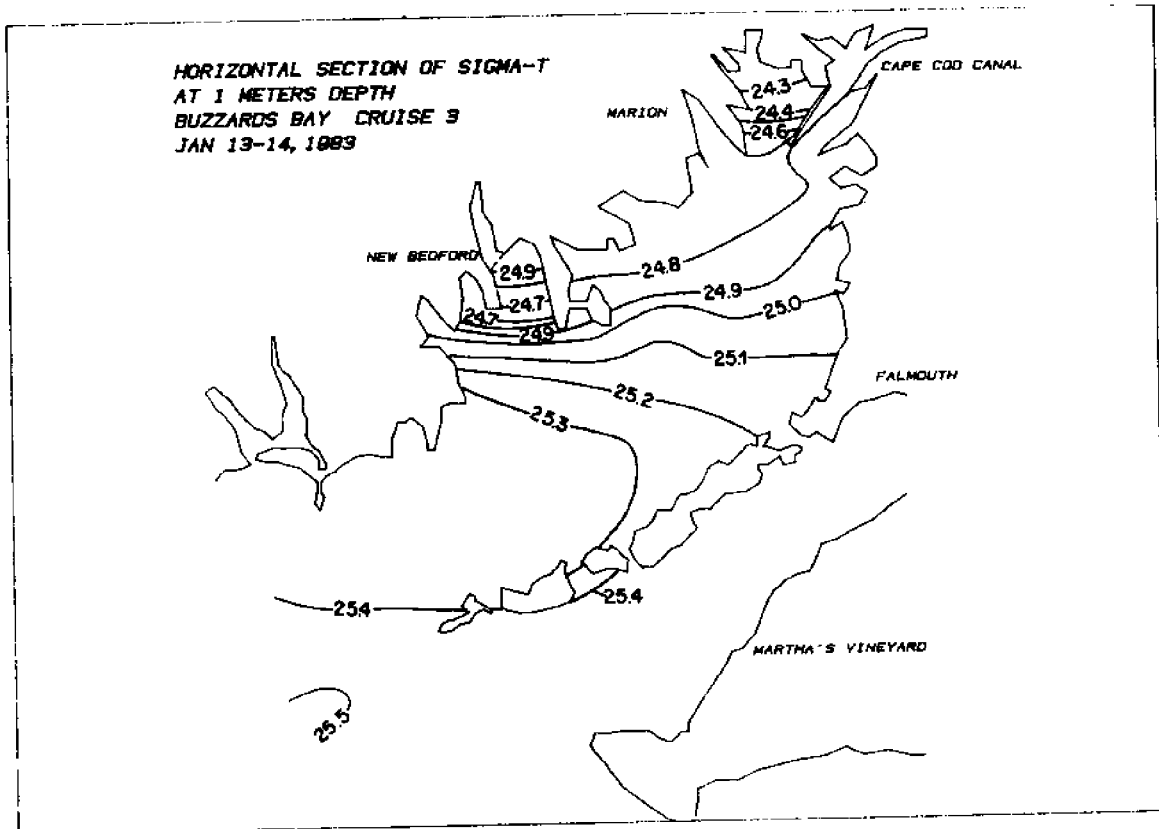


Figure 84

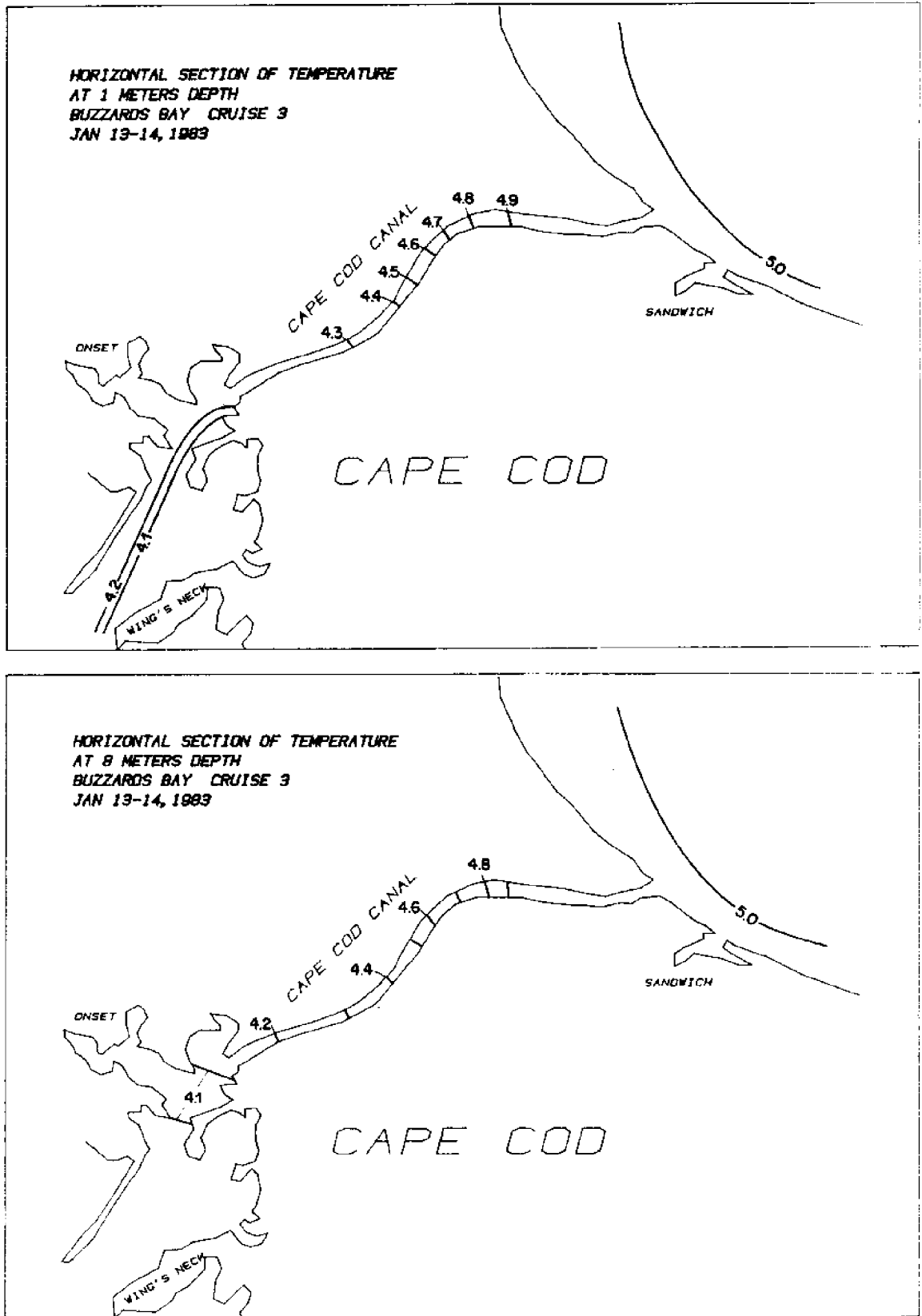


Figure 85

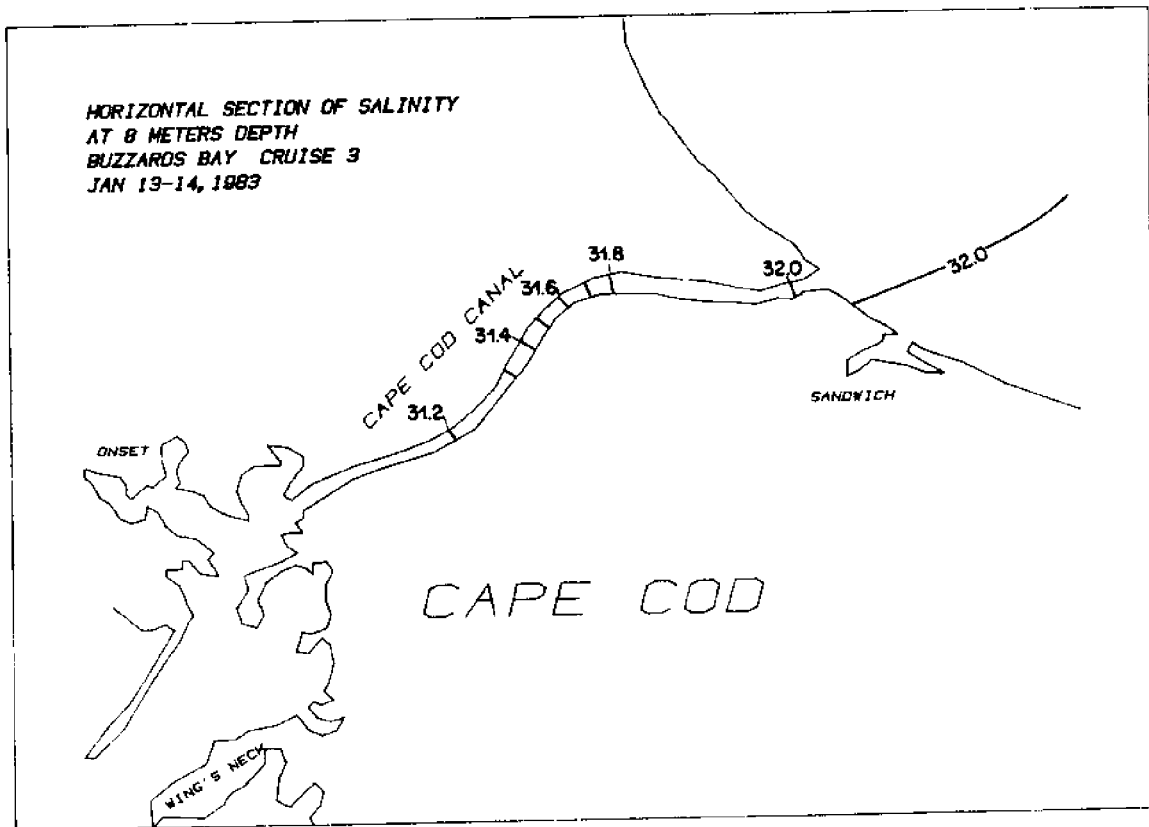
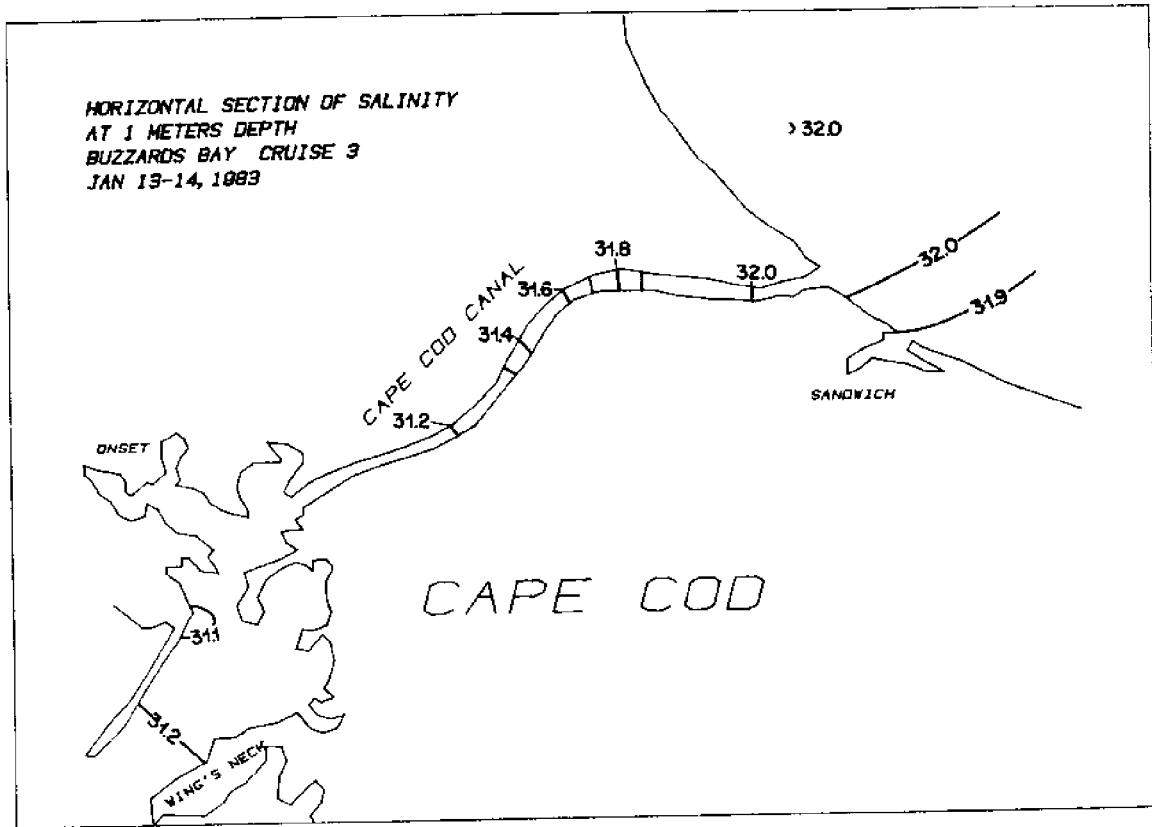


Figure 86

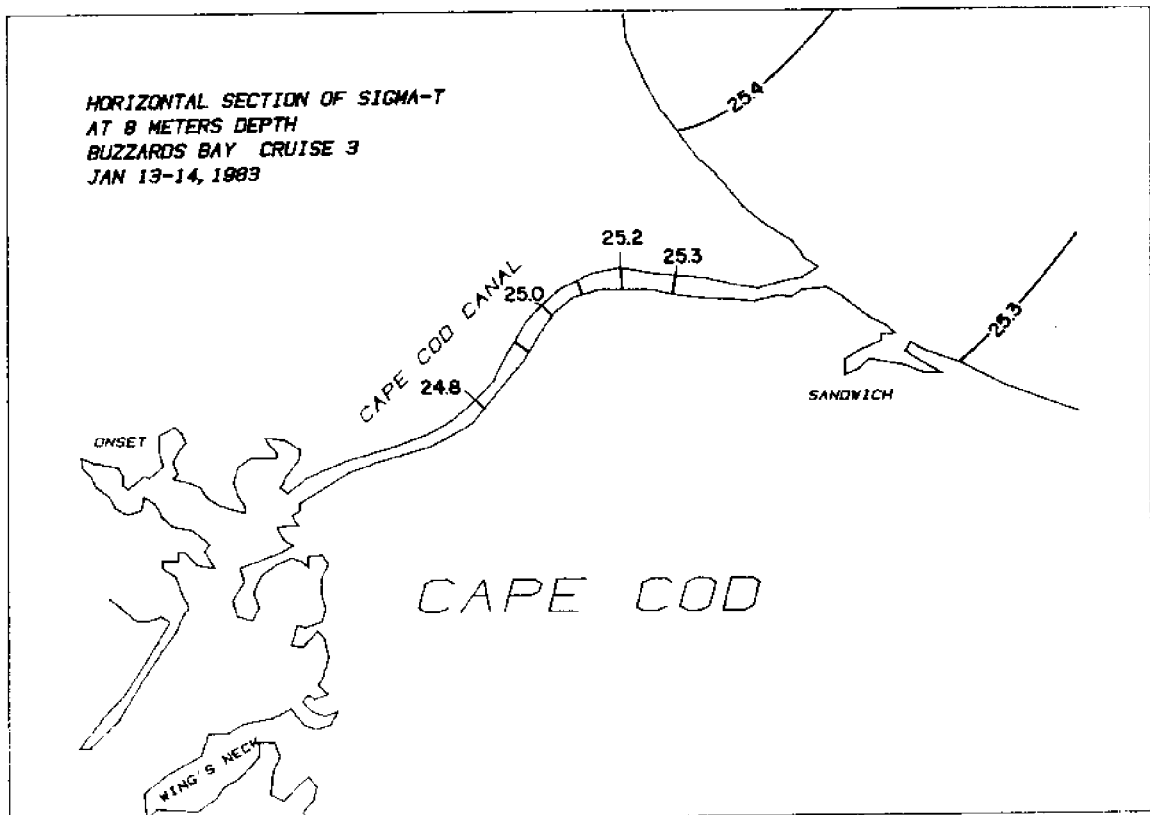
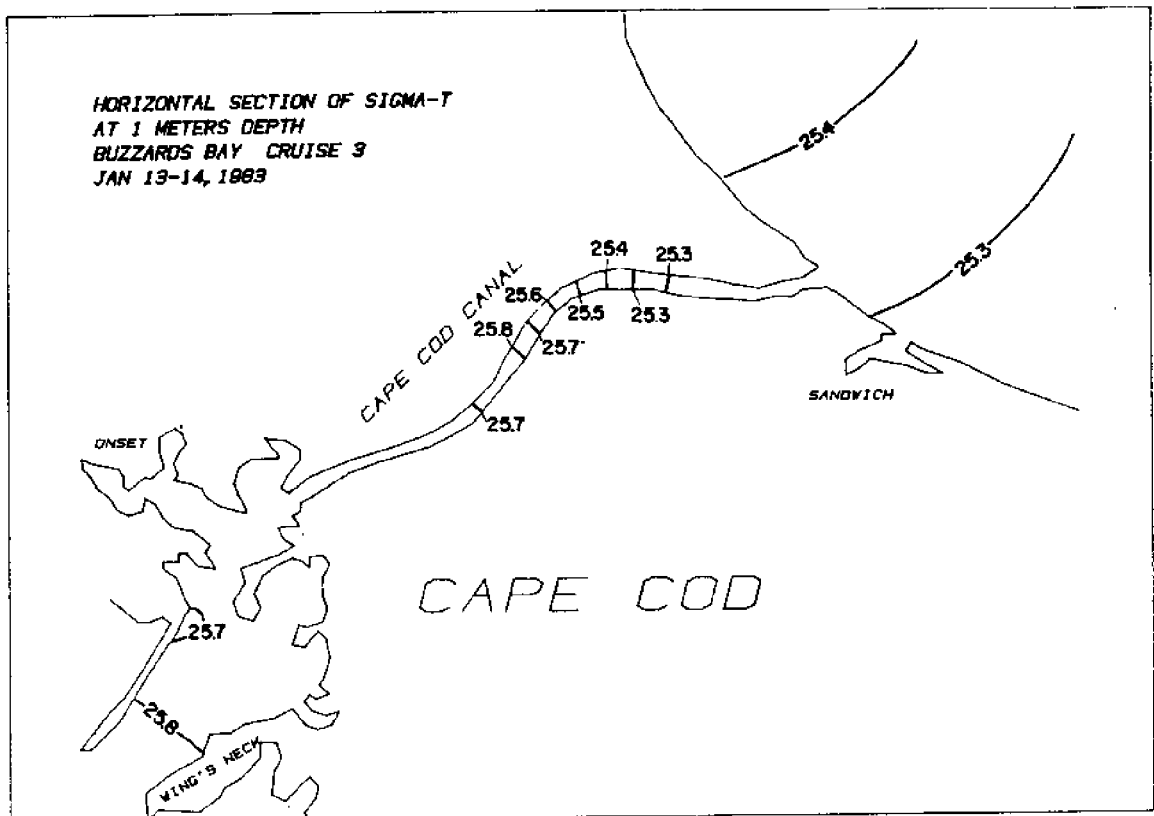


Figure 87

Cruise Four: May 5-6, 1983

On May 5, the skies were clear and the winds out of the west at 7-10 kts with 1-2 foot seas. For the three days previous to this the winds had been out of the southwest at about 20 kts. Air temperature was 15°-17°C. The tidal currents were weak and variable as we occupied Stations 31-36. The tide turned to flood at 1013 as we did the upper bay stations. The winds dropped to 3-5 kts and become southerly. The wind and seas picked up slightly in the afternoon and wind direction varied between south and west.

On May 6, the winds were blowing 10 kts out of the northwest. We did the New Bedford Harbor line while the tidal currents were weak, and then headed down toward the mouth of the Bay. Stations 19-14 were started just after the tide turned to flood, and completed an hour and a half later. The rest of the stations were completed on the flood tide. Seas were 1-2 feet.

Table 4: Cruise Four Station Times

Station Number	Time*	Station Number	Time*
May 5, 1983		May 6, 1983	
BB4-31	0832	BB4-24	0821
BB4-32	0845	BB4-25	0902
BB4-5	0905	BB4-26	0918
BB4-35	0920	BB4-27	0931
BB4-36	0941	BB4-28	0946
BB4-37	1037	BB4-7	1000
BB439C	1053	BB4-29	1012
BB4-40	1109	BB4-30	1021
BB4-1	1122	BB4-19	1137
BB4-39	1135	BB4-18	1151
BB442C	1148	BB4-17	1205
BB443C	1200	BB4-13	1219
BB4-1A	1223	BB4-16	1234
BB4-2	1236	BB4-15	1245
BB4-2A	1330	BB4-14	1301
BB4-41	1350	BB4-21	1327
BB4GW1	1410	BB4-11	1343
BB4GW5	1425	BB4-20	1355
BB4GW6	1440	BB4-10	1419
BB4GW2	1453	BB4-23	1527
BB4-38	1505	BB4-9	1544
BB4-3	1517	BB4-22	1556
BB437R	1530	BB4-8	1615
BB436R	1605		
BB4-4	1635		

*(Eastern Daylight-Saving Time)

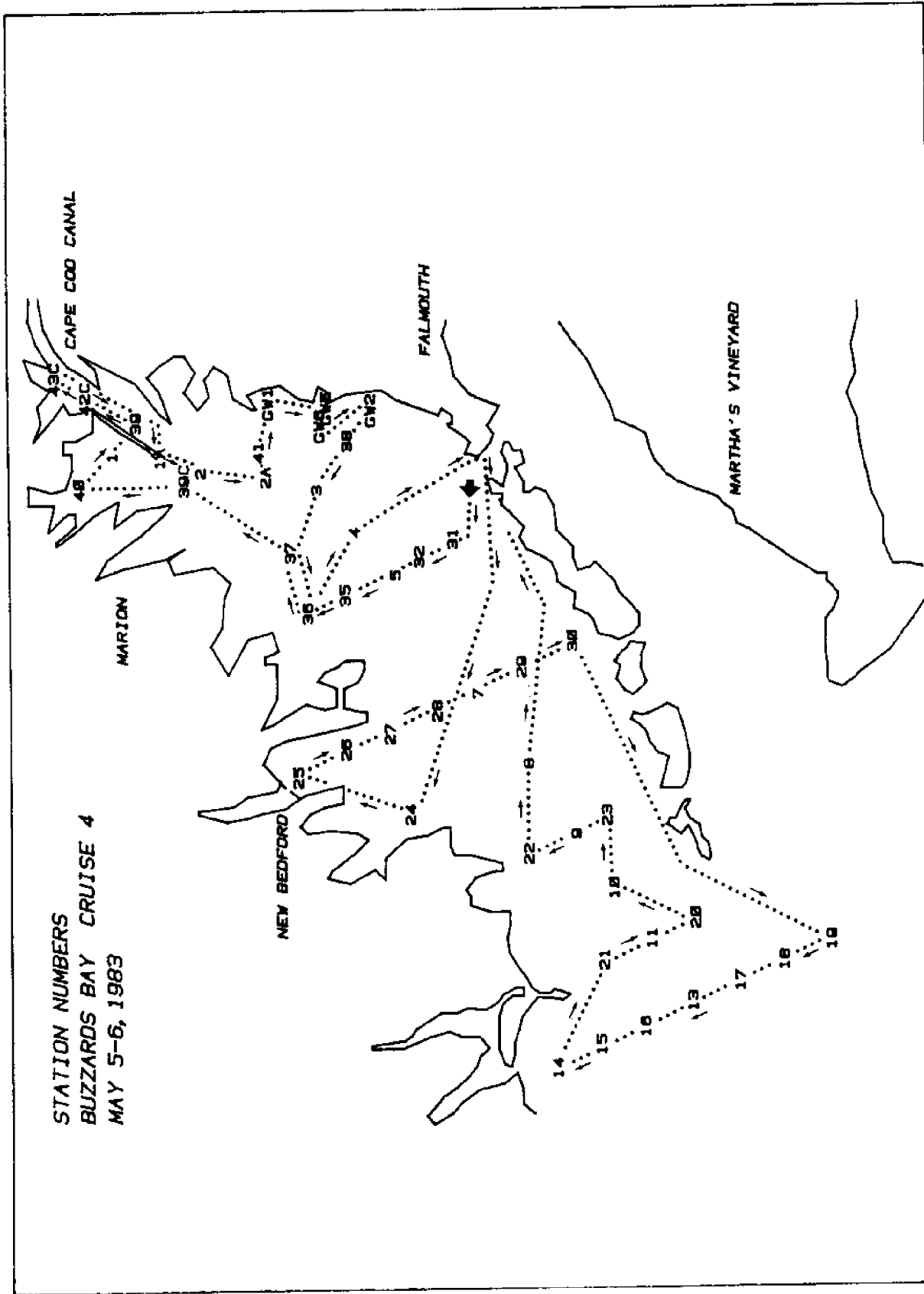
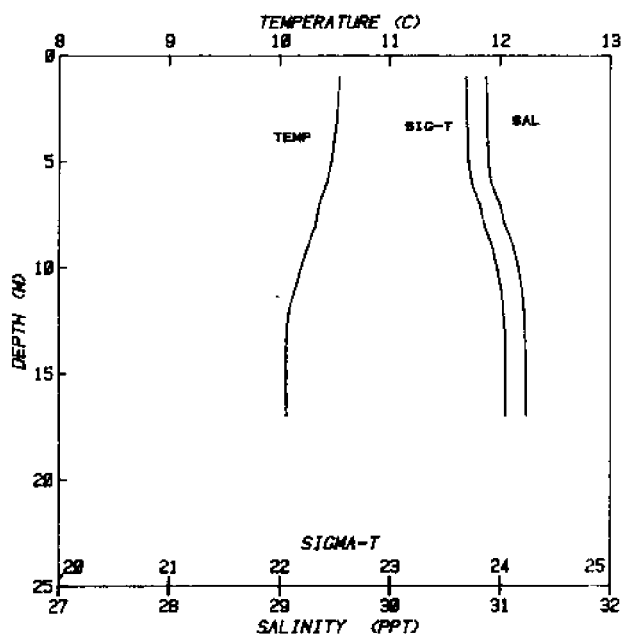


Figure 88: Cruise track and station location for cruise 4. Bold arrow indicates first station.

STATION 31
 LATITUDE 41 32.2 N
 LONGITUDE 70 44.4 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

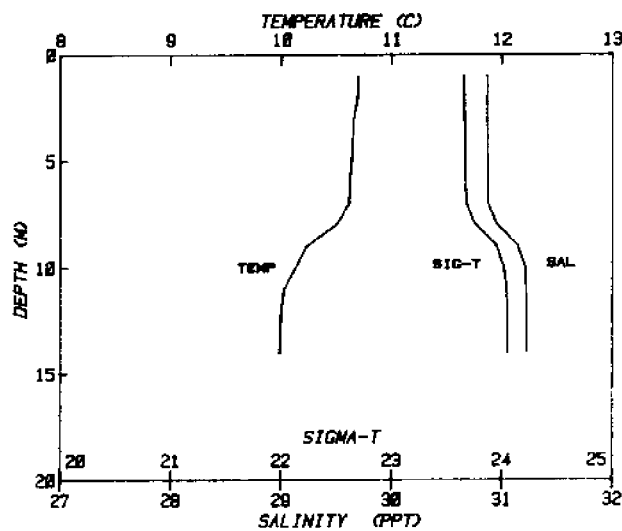
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	10.544	30.877	23.691	68.13
2.0	10.526	30.878	23.695	71.50
3.0	10.518	30.884	23.700	72.40
4.0	10.493	30.887	23.707	72.45
5.0	10.471	30.891	23.714	72.50
6.0	10.429	30.918	23.742	72.34
7.0	10.359	30.996	23.815	72.28
8.0	10.325	31.044	23.858	72.41
9.0	10.254	31.123	23.931	71.67
10.0	10.194	31.165	23.974	70.59
11.0	10.138	31.200	24.009	70.59
12.0	10.086	31.218	24.032	70.22
13.0	10.063	31.228	24.044	68.93
14.0	10.061	31.231	24.047	68.20
15.0	10.060	31.233	24.048	67.84
16.0	10.061	31.235	24.049	67.53
17.0	10.061	31.236	24.050	67.42



STATION 32
 LATITUDE 41 33.2 N
 LONGITUDE 70 45.1 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	10.700	30.866	23.656	54.17
2.0	10.492	30.866	23.657	64.98
3.0	10.659	30.867	23.664	70.94
4.0	10.648	30.869	23.667	71.50
5.0	10.637	30.871	23.670	72.12
6.0	10.621	30.872	23.674	72.08
7.0	10.617	30.874	23.676	71.04
8.0	10.502	30.955	23.758	70.66
9.0	10.229	31.146	23.953	70.08
10.0	10.132	31.212	24.020	70.60
11.0	10.025	31.220	24.044	69.77
12.0	10.000	31.225	24.052	69.52
13.0	9.991	31.228	24.056	68.76
14.0	9.990	31.227	24.055	68.67



STATION 5
 LATITUDE 41 33.9 N
 LONGITUDE 70 45.6 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	10.921	30.778	23.550	71.80
2.0	10.925	30.772	23.544	73.07
3.0	10.832	30.771	23.560	72.84
4.0	10.779	30.784	23.580	72.32
5.0	10.751	30.793	23.590	71.91
6.0	10.736	30.807	23.604	71.98
7.0	10.718	30.824	23.620	72.06
8.0	10.492	30.840	23.637	71.77
9.0	10.458	30.860	23.658	72.08
10.0	10.220	31.089	23.910	72.25
11.0	10.018	31.215	24.041	71.20
12.0	9.997	31.232	24.058	69.17
13.0	9.992	31.237	24.062	68.43

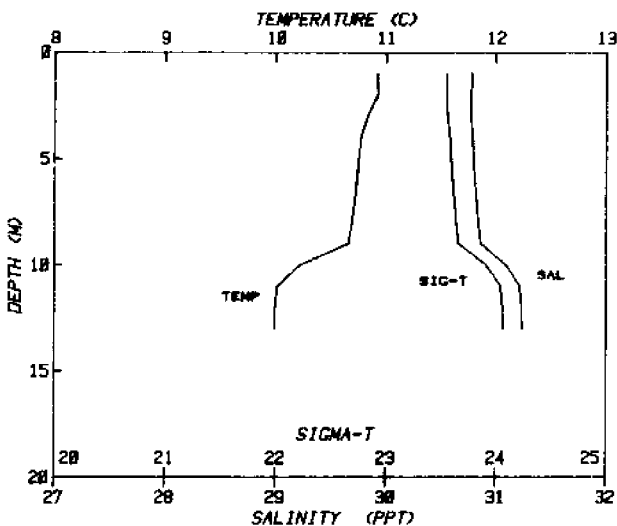
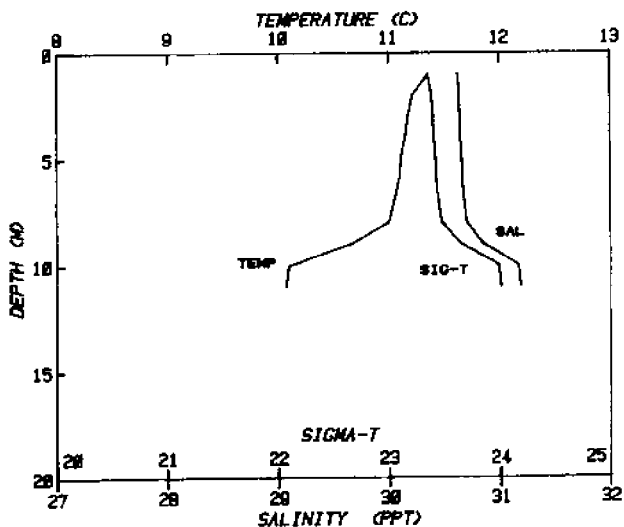


Figure 89

STATION 35
 LATITUDE 41 35.4 N
 LONGITUDE 70 46.6 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

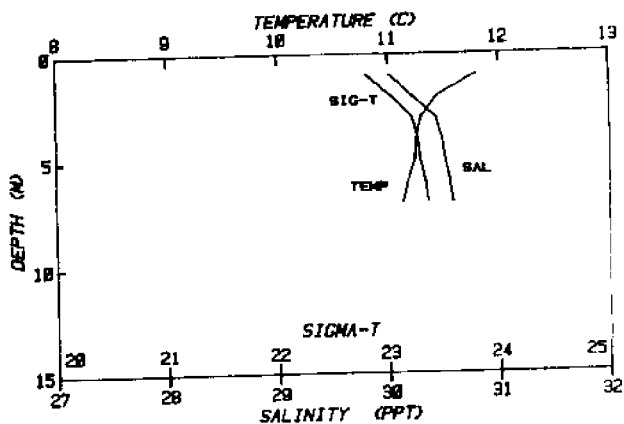
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Z
1.0	11.364	30.626	23.354	70.78
2.0	11.218	30.641	23.391	70.68
3.0	11.176	30.646	23.403	70.55
4.0	11.149	30.650	23.411	70.63
5.0	11.115	30.661	23.425	71.00
6.0	11.094	30.666	23.433	71.45
7.0	11.049	30.684	23.454	71.64
8.0	11.001	30.705	23.479	71.56
9.0	10.659	30.846	23.647	71.28
10.0	10.093	31.166	23.991	69.33
11.0	10.071	31.184	24.009	67.95



STATION 36
 LATITUDE 41 36.5 N
 LONGITUDE 70 47.3 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Z
1.0	11.792	30.013	22.803	66.67
2.0	11.439	30.215	23.022	67.73
3.0	11.294	30.429	23.214	67.25
4.0	11.248	30.486	23.266	66.60
5.0	11.235	30.513	23.289	66.09
6.0	11.176	30.557	23.334	66.41
7.0	11.133	30.583	23.361	66.71



STATION 37
 LATITUDE 41 37.0 N
 LONGITUDE 70 44.9 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Z
1.0	11.628	30.259	23.022	58.36
2.0	11.409	30.345	23.128	66.95
3.0	11.314	30.391	23.181	68.13
4.0	11.285	30.449	23.231	68.71
5.0	11.288	30.512	23.279	69.06
6.0	11.143	30.704	23.455	69.72
7.0	11.069	30.758	23.509	71.37
8.0	10.999	30.789	23.545	71.02
9.0	10.091	30.869	23.625	62.14
10.0	10.068	30.886	23.647	60.27

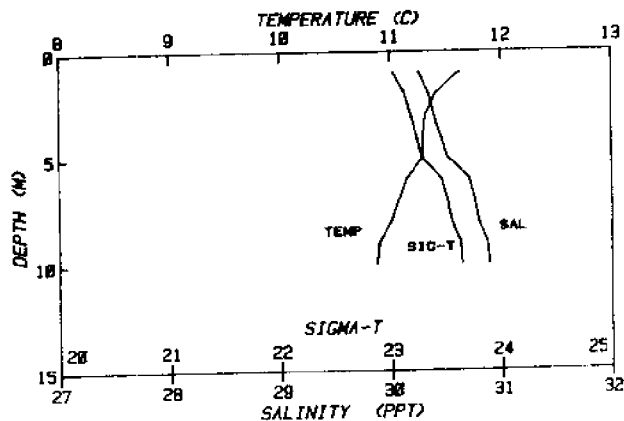
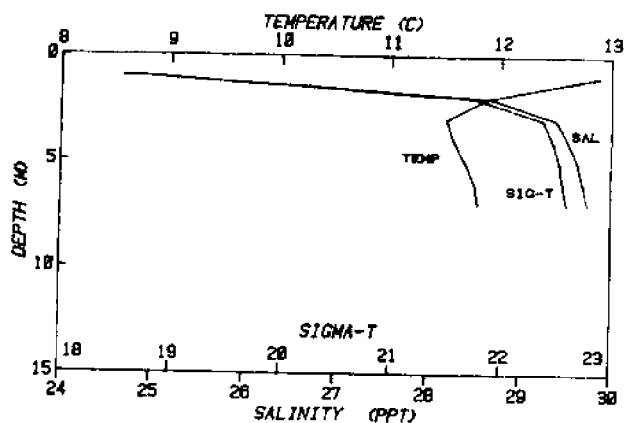


Figure 90

STATION 39C
 LATITUDE 41 40.1 N
 LONGITUDE 70 42.0 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

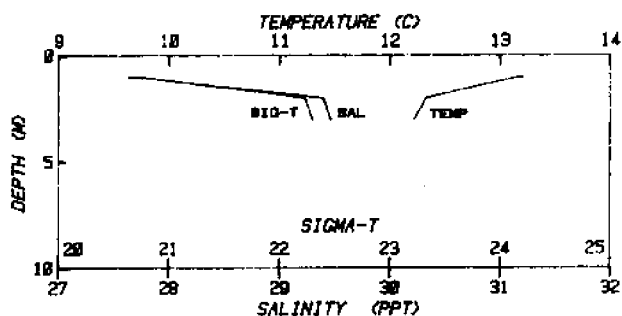
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	12.881	24.781	18.569	54.66
2.0	11.873	28.684	21.760	47.58
3.0	11.505	29.399	22.379	62.50
4.0	11.570	29.528	22.468	65.25
5.0	11.672	29.634	22.531	62.79
6.0	11.759	29.690	22.559	59.61
7.0	11.787	29.745	22.597	58.54



STATION 40
 LATITUDE 41 43.2 N
 LONGITUDE 70 42.3 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

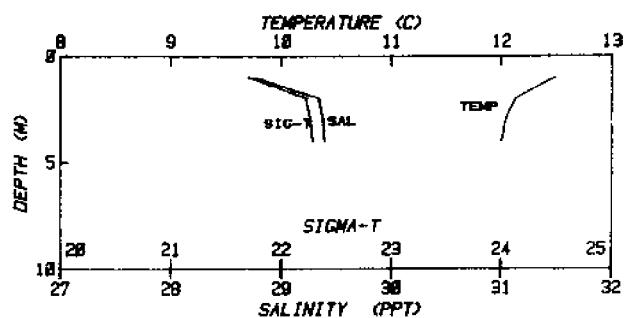
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	13.200	27.634	20.706	54.29
2.0	12.328	29.393	22.226	52.11
3.0	12.223	29.465	22.301	48.98



STATION 1
 LATITUDE 41 42.2 N
 LONGITUDE 70 40.8 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	12.490	28.746	21.697	48.58
2.0	12.130	29.343	22.224	56.09
3.0	12.038	29.379	22.268	55.07
4.0	12.003	29.394	22.287	51.36



STATION 39
 LATITUDE 41 41.5 N
 LONGITUDE 70 39.7 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	12.145	29.241	22.142	58.59
2.0	11.758	29.377	22.317	61.72
3.0	10.963	29.718	22.713	65.31

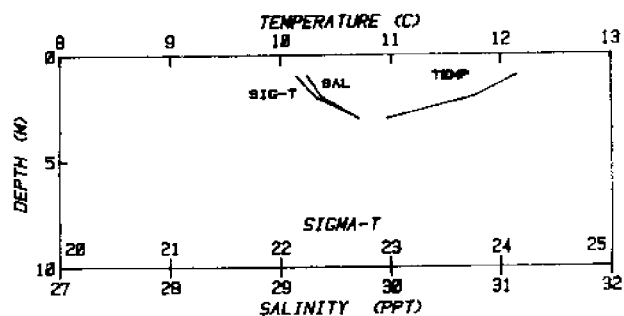
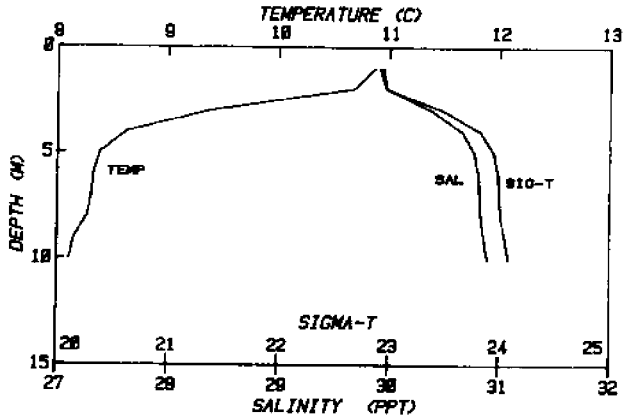


Figure 91

STATION 42C
 LATITUDE 41 43.0 N
 LONGITUDE 70 38.7 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

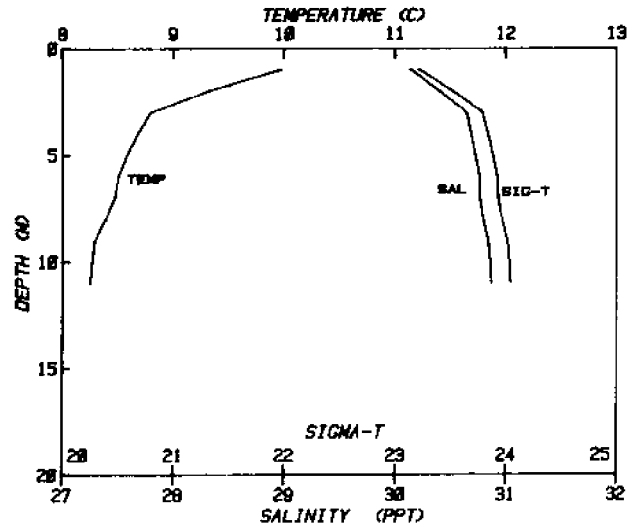
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	10.870	29.941	22.909	68.91
2.0	10.674	29.975	22.968	68.39
3.0	9.408	30.380	23.488	69.46
4.0	8.633	30.661	23.825	72.72
5.0	8.383	30.770	23.946	73.54
6.0	8.324	30.809	23.985	73.67
7.0	8.309	30.819	23.995	73.73
8.0	8.272	30.829	24.008	73.59
9.0	8.156	30.859	24.048	74.22
10.0	8.111	30.894	24.082	74.67



STATION 43C
 LATITUDE 41 43.9 N
 LONGITUDE 70 37.9 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	9.970	30.144	23.215	64.61
2.0	9.326	30.394	23.511	70.97
3.0	8.796	30.645	23.788	72.59
4.0	8.679	30.685	23.837	73.28
5.0	8.585	30.725	23.882	73.64
6.0	8.504	30.762	23.922	73.88
7.0	8.471	30.763	23.928	73.94
8.0	8.391	30.795	23.964	74.22
9.0	8.292	30.839	24.014	74.76
10.0	8.270	30.857	24.030	74.79
11.0	8.253	30.867	24.040	74.94



STATION 1A
 LATITUDE 41 40.8 N
 LONGITUDE 70 41.1 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	12.583	28.533	21.515	58.70
2.0	12.285	28.924	21.886	60.91
3.0	11.701	29.336	22.295	63.22
4.0	11.297	29.555	22.536	65.83
5.0	10.507	29.826	22.681	69.16
6.0	10.423	29.871	22.929	70.36

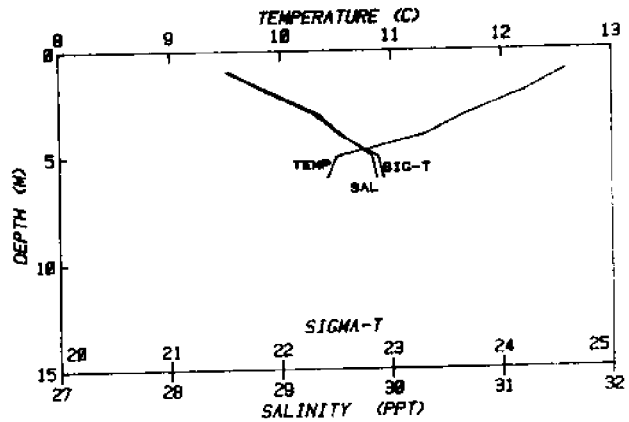
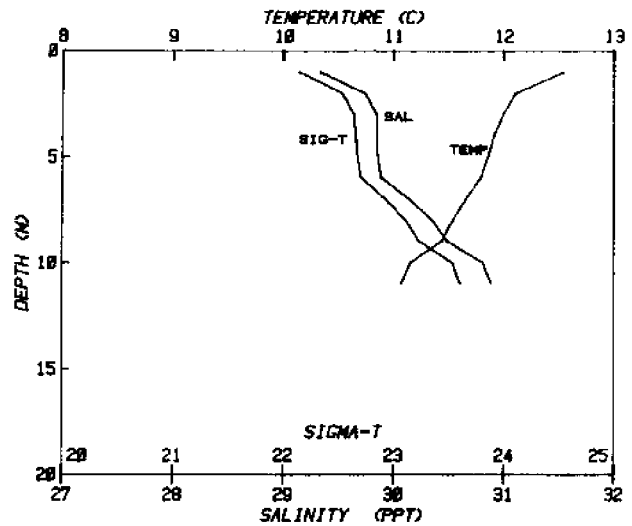


Figure 92

STATION 2
 LATITUDE 41 39.6 N
 LONGITUDE 70 41.5 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

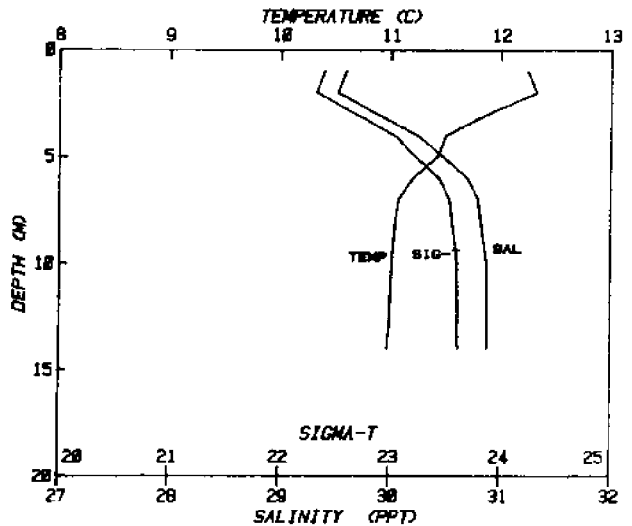
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	12.544	29.331	22.138	53.26
2.0	12.105	29.739	22.534	58.44
3.0	11.994	29.845	22.637	54.58
4.0	11.910	29.849	22.655	55.21
5.0	11.856	29.860	22.673	56.67
6.0	11.790	29.889	22.708	57.71
7.0	11.657	30.140	22.924	57.93
8.0	11.541	30.352	23.110	55.91
9.0	11.440	30.489	23.235	55.07
10.0	11.161	30.812	23.534	58.88
11.0	11.077	30.890	23.609	56.38



STATION 2A
 LATITUDE 41 37.7 N
 LONGITUDE 70 41.9 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	12.240	29.586	22.392	55.53
2.0	12.322	29.513	22.320	57.29
3.0	11.881	29.865	22.672	58.13
4.0	11.499	30.239	23.031	63.31
5.0	11.426	30.471	23.223	68.57
6.0	11.204	30.698	23.438	70.64
7.0	11.077	30.797	23.537	71.67
8.0	11.046	30.818	23.559	71.84
9.0	11.029	30.849	23.586	68.34
10.0	11.017	30.878	23.610	63.73
11.0	11.014	30.882	23.614	62.87
12.0	11.003	30.883	23.617	62.28
13.0	10.997	30.882	23.617	62.42
14.0	10.980	30.883	23.621	61.89



STATION 41
 LATITUDE 41 37.9 N
 LONGITUDE 70 40.9 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	12.755	29.542	22.261	58.95
2.0	12.390	29.630	22.398	61.28
3.0	11.848	29.959	22.751	62.37
4.0	11.696	30.087	22.878	60.45
5.0	11.541	30.271	23.048	60.23
6.0	11.338	30.515	23.273	64.53
7.0	11.098	30.811	23.545	67.46
8.0	11.003	30.870	23.607	67.81
9.0	10.981	30.890	23.626	67.43
10.0	10.943	30.912	23.646	67.54
11.0	10.905	30.978	23.707	66.17
12.0	10.886	31.001	23.728	64.56

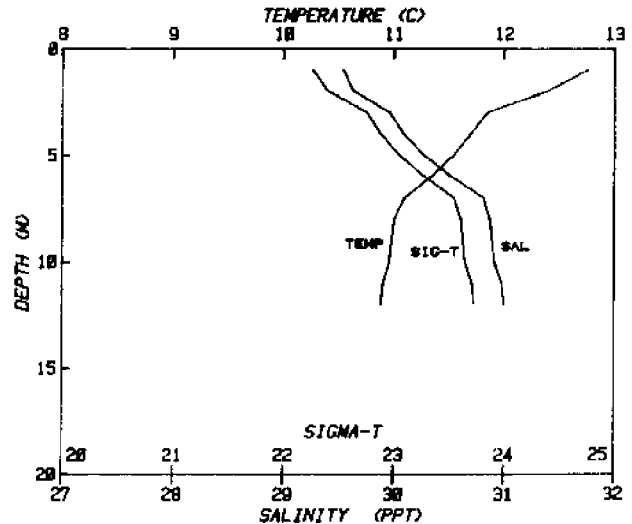
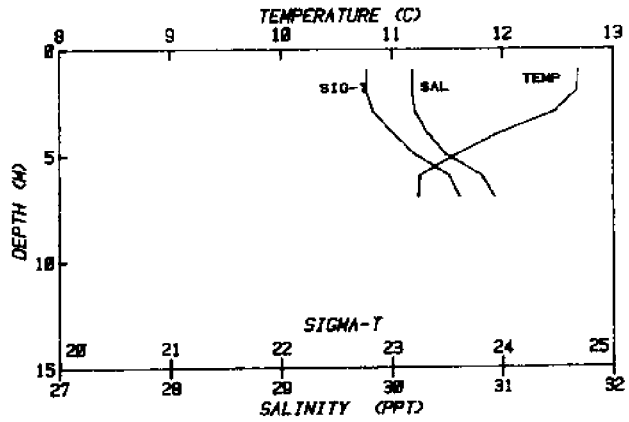


Figure 93

STATION GW1
 LATITUDE 41 37.6 N
 LONGITUDE 70 39.0 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

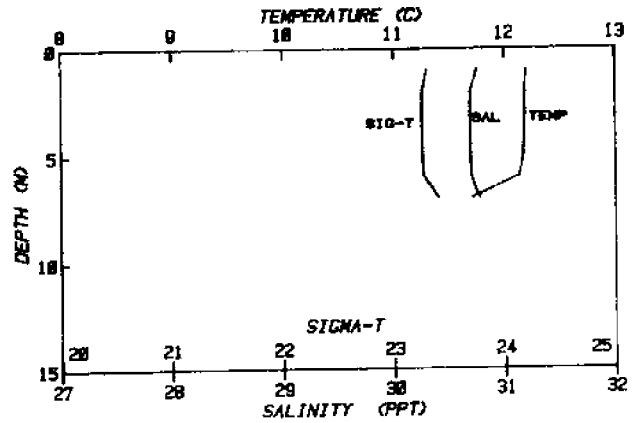
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Z
1.0	12.681	30.188	22.774	64.09
2.0	12.669	30.182	22.772	65.52
3.0	12.460	30.211	22.834	67.03
4.0	11.973	30.322	23.009	68.70
5.0	11.589	30.489	23.208	70.07
6.0	11.272	30.811	23.518	71.18
7.0	11.209	30.927	23.610	70.83



STATION GW5
 LATITUDE 41 35.9 N
 LONGITUDE 70 39.2 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Z
1.0	12.193	30.754	23.302	65.94
2.0	12.186	30.695	23.259	70.94
3.0	12.187	30.692	23.256	70.66
4.0	12.178	30.692	23.258	71.88
5.0	12.171	30.694	23.261	72.06
6.0	12.132	30.701	23.274	72.33
7.0	11.715	30.774	23.486	72.24



STATION GW6
 LATITUDE 41 36.1 N
 LONGITUDE 70 39.9 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Z
1.0	12.246	30.478	23.080	69.43
2.0	12.236	30.466	23.072	69.71
3.0	11.681	30.657	23.336	71.14
4.0	11.162	30.806	23.529	72.50
5.0	11.003	30.874	23.609	72.89
6.0	10.977	30.898	23.633	72.47
7.0	10.941	30.916	23.653	72.71
8.0	10.918	30.948	23.682	72.81
9.0	10.871	30.992	23.724	72.07
10.0	10.865	31.010	23.739	72.58
11.0	10.857	31.029	23.756	72.19

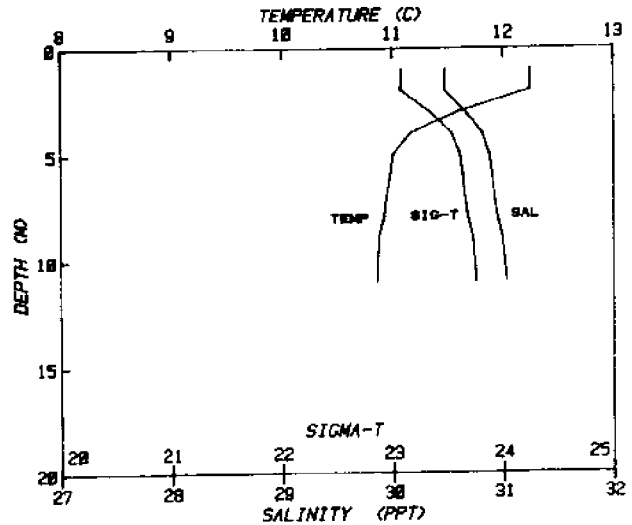
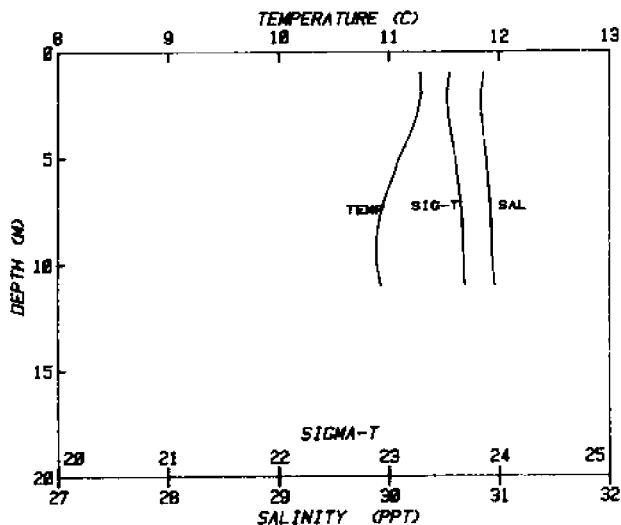


Figure 94

STATION CW2
 LATITUDE 41 34.6 N
 LONGITUDE 70 39.3 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

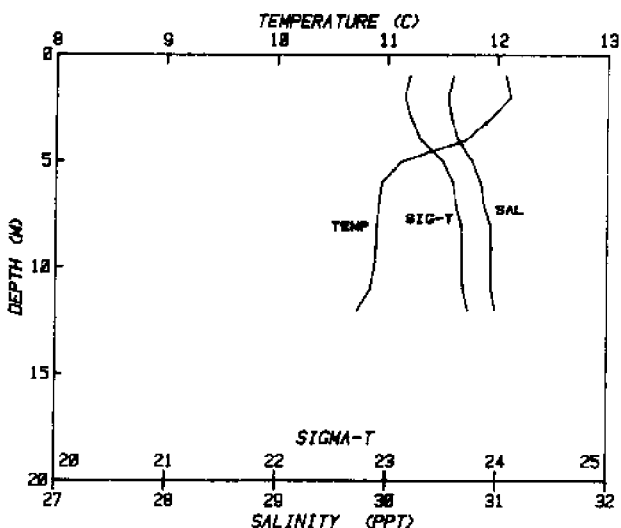
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	11.286	30.857	23.547	72.34
2.0	11.293	30.833	23.527	73.09
3.0	11.254	30.839	23.538	73.16
4.0	11.185	30.860	23.567	73.24
5.0	11.096	30.884	23.602	73.20
6.0	11.032	30.900	23.625	73.32
7.0	10.958	30.917	23.651	73.33
8.0	10.912	30.925	23.665	72.50
9.0	10.885	30.930	23.674	71.28
10.0	10.899	30.943	23.682	70.39
11.0	10.930	30.962	23.691	68.95



STATION 38
 LATITUDE 41 35.3 N
 LONGITUDE 70 40.5 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	12.074	30.594	23.201	67.34
2.0	12.116	30.550	23.160	70.08
3.0	11.939	30.584	23.210	70.60
4.0	11.714	30.645	23.306	70.94
5.0	11.136	30.773	23.500	71.59
6.0	10.958	30.854	23.603	72.75
7.0	10.934	30.881	23.627	72.60
8.0	10.914	30.941	23.678	72.99
9.0	10.907	30.950	23.685	73.26
10.0	10.893	30.946	23.685	74.11
11.0	10.857	30.949	23.693	74.10
12.0	10.737	30.984	23.741	72.81



STATION 3
 LATITUDE 41 36.2 N
 LONGITUDE 70 42.2 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	12.278	30.181	22.845	60.94
2.0	12.329	30.178	22.851	63.80
3.0	12.185	30.193	22.871	64.53
4.0	12.042	30.237	22.931	65.22
5.0	11.647	30.300	23.120	66.88
6.0	11.329	30.556	23.307	69.61
7.0	11.245	30.639	23.382	71.68
8.0	10.974	30.781	23.547	71.68
9.0	10.873	30.841	23.607	70.50
10.0	10.839	30.876	23.640	68.57
11.0	10.817	30.900	23.662	67.79

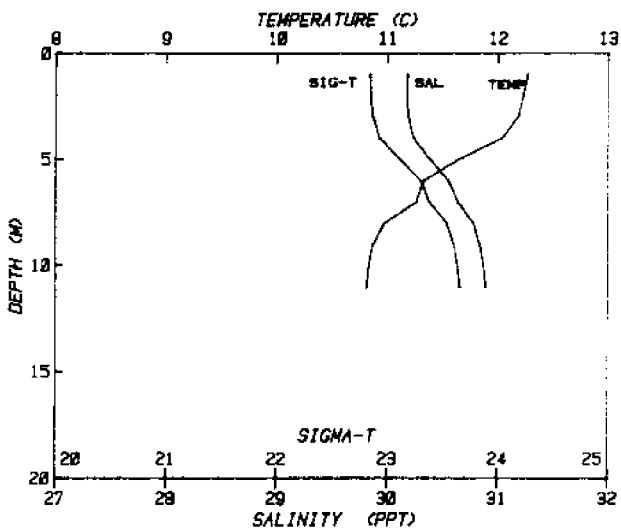
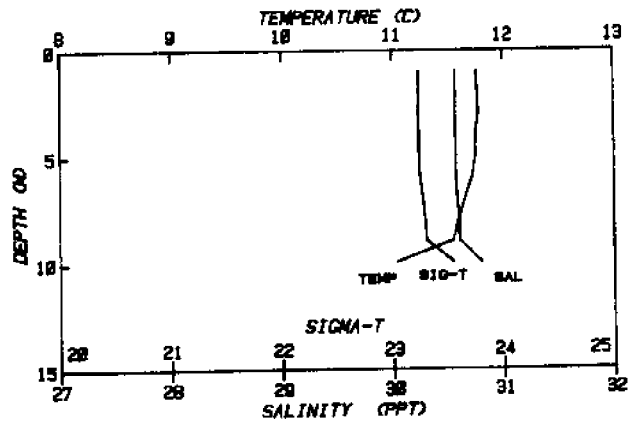


Figure 95

STATION 37R
 LATITUDE 41 37.0 N
 LONGITUDE 70 44.9 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

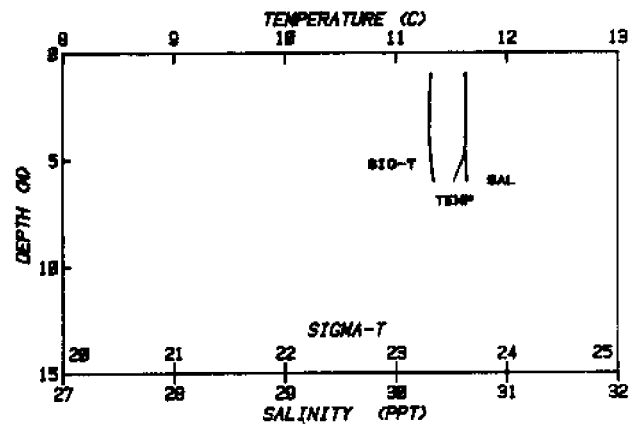
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. X
1.0	11.763	30.574	23.242	68.00
2.0	11.772	30.572	23.239	69.32
3.0	11.779	30.570	23.236	69.53
4.0	11.750	30.569	23.241	69.38
5.0	11.749	30.572	23.244	69.38
6.0	11.716	30.574	23.251	69.38
7.0	11.654	30.586	23.272	69.38
8.0	11.594	30.601	23.294	69.38
9.0	11.546	30.605	23.305	69.22
10.0	11.031	30.799	23.547	66.64



STATION 36R
 LATITUDE 41 36.5 N
 LONGITUDE 70 47.3 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

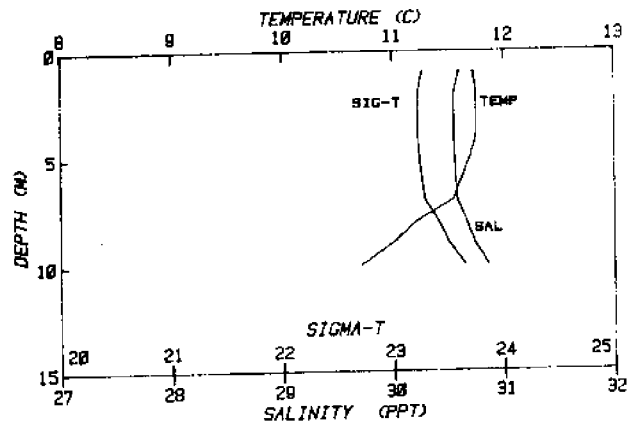
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. X
1.0	11.620	30.637	23.317	61.41
2.0	11.634	30.622	23.302	63.13
3.0	11.634	30.622	23.303	64.71
4.0	11.634	30.621	23.302	65.00
5.0	11.599	30.630	23.315	64.52
6.0	11.523	30.638	23.335	63.88



STATION 4
 LATITUDE 41 35.1 N
 LONGITUDE 70 43.9 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. X
1.0	11.728	30.681	23.270	66.88
2.0	11.751	30.550	23.226	69.56
3.0	11.754	30.549	23.225	69.77
4.0	11.748	30.549	23.226	69.92
5.0	11.697	30.557	23.241	70.16
6.0	11.617	30.565	23.262	70.47
7.0	11.542	30.580	23.287	70.59
8.0	11.208	30.663	23.410	71.88
9.0	10.993	30.734	23.503	73.13
10.0	10.715	30.855	23.644	71.97



STATION 24
 LATITUDE 41 33.5 N
 LONGITUDE 70 55.3 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. X
1.0	10.750	30.718	23.533	57.72
2.0	10.754	30.718	23.532	58.26
3.0	10.750	30.720	23.534	58.41
4.0	10.736	30.720	23.536	58.53
5.0	10.724	30.724	23.541	58.66
6.0	10.705	30.730	23.549	58.84
7.0	10.699	30.733	23.553	58.97

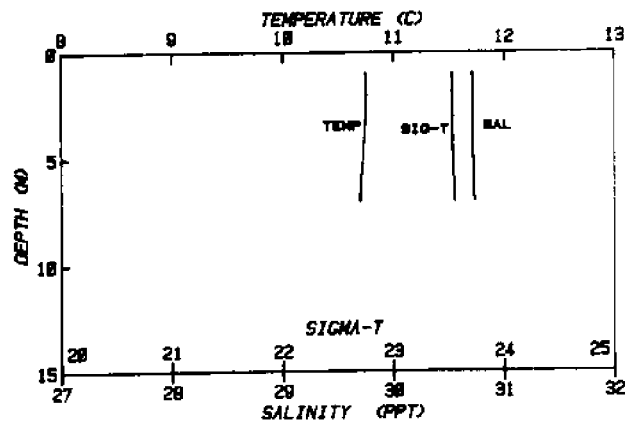
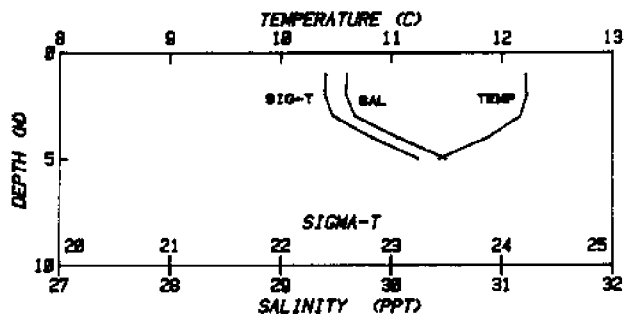


Figure 96

STATION 25
 LATITUDE 41 36.8 N
 LONGITUDE 70 53.8 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

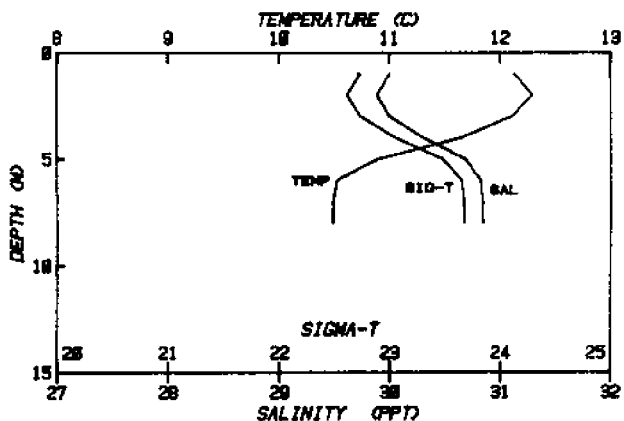
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Σ
1.0	12.213	29.597	22.405	57.81
2.0	12.223	29.588	22.396	58.97
3.0	12.165	29.671	22.471	58.93
4.0	11.870	30.054	22.821	57.55
5.0	11.425	30.495	23.242	59.90



STATION 26
 LATITUDE 41 35.4 N
 LONGITUDE 70 52.7 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

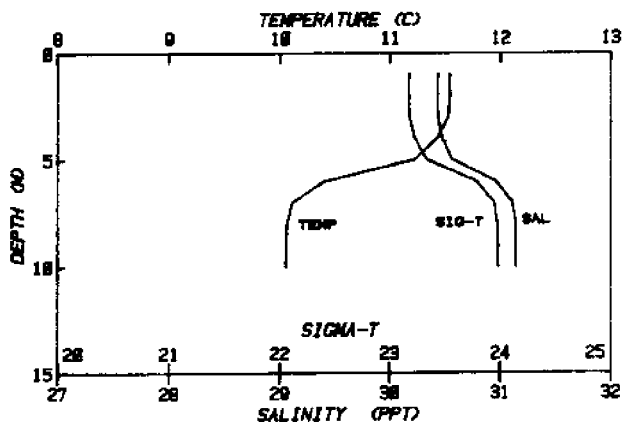
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Σ
1.0	12.129	30.001	22.732	58.13
2.0	12.290	29.887	22.615	58.33
3.0	12.103	30.001	22.738	58.18
4.0	11.643	30.304	23.056	57.64
5.0	10.892	30.682	23.480	58.04
6.0	10.522	30.821	23.651	56.09
7.0	10.498	30.840	23.671	55.14
8.0	10.487	30.842	23.673	55.61



STATION 27
 LATITUDE 41 34.1 N
 LONGITUDE 70 52.1 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Σ
1.0	11.541	30.431	23.172	59.57
2.0	11.538	30.426	23.169	60.09
3.0	11.526	30.432	23.175	60.31
4.0	11.423	30.470	23.223	60.49
5.0	11.213	30.563	23.332	61.22
6.0	10.398	30.955	23.776	65.65
7.0	10.109	31.108	23.943	69.29
8.0	10.045	31.141	23.976	68.80
9.0	10.058	31.144	23.980	68.46
10.0	10.055	31.146	23.981	67.75



STATION 28
 LATITUDE 41 32.7 N
 LONGITUDE 70 51.2 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Σ
1.0	10.984	30.710	23.492	61.48
2.0	10.984	30.722	23.495	63.83
3.0	10.973	30.719	23.495	64.26
4.0	10.959	30.720	23.498	64.22
5.0	10.924	30.727	23.509	64.10
6.0	10.882	30.742	23.528	64.51
7.0	10.861	30.753	23.540	64.81
8.0	10.820	30.774	23.564	65.03
9.0	10.662	30.856	23.654	66.27
10.0	10.332	31.045	23.857	68.67
11.0	9.890	31.252	24.091	72.25
12.0	9.779	31.313	24.156	73.03
13.0	9.727	31.343	24.188	71.81
14.0	9.717	31.348	24.194	69.84

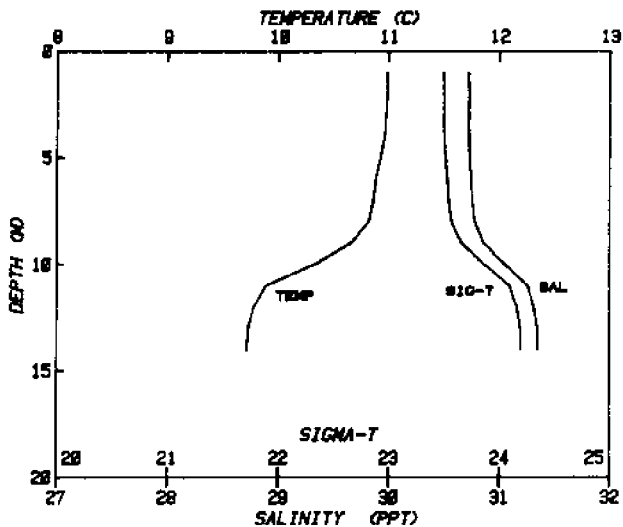
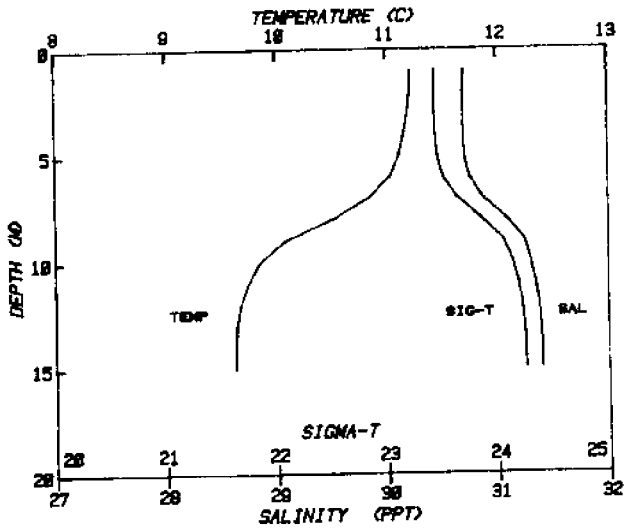


Figure 97

STATION 7
 LATITUDE 41 31.5 N
 LONGITUDE 70 50.3 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

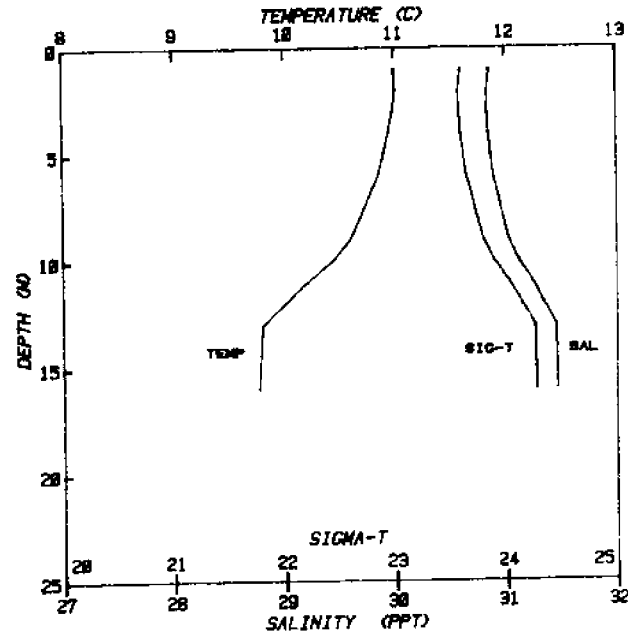
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	11.222	30.707	23.442	65.31
2.0	11.219	30.694	23.433	65.56
3.0	11.197	30.699	23.440	65.91
4.0	11.160	30.701	23.449	65.18
5.0	11.117	30.710	23.463	65.66
6.0	11.030	30.749	23.508	65.16
7.0	10.834	30.868	23.634	66.91
8.0	10.511	31.081	23.855	70.08
9.0	10.076	31.244	24.054	70.94
10.0	9.844	31.299	24.135	70.94
11.0	9.741	31.340	24.184	70.78
12.0	9.667	31.370	24.219	70.26
13.0	9.632	31.386	24.237	70.69
14.0	9.623	31.396	24.246	70.89
15.0	9.622	31.396	24.246	71.23



STATION 29
 LATITUDE 41 30.2 N
 LONGITUDE 70 49.5 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	11.002	30.860	23.599	66.09
2.0	11.007	30.839	23.582	68.39
3.0	10.984	30.839	23.586	68.39
4.0	10.946	30.847	23.599	69.20
5.0	10.899	30.867	23.622	69.44
6.0	10.851	30.891	23.649	70.06
7.0	10.763	30.936	23.699	70.41
8.0	10.685	30.979	23.746	70.39
9.0	10.594	31.025	23.797	70.44
10.0	10.431	31.115	23.894	70.41
11.0	10.202	31.239	24.029	70.86
12.0	9.998	31.339	24.141	71.12
13.0	9.798	31.444	24.255	71.41
14.0	9.788	31.451	24.262	71.81
15.0	9.773	31.455	24.268	71.15
16.0	9.764	31.459	24.272	70.20



STATION 30
 LATITUDE 41 28.7 N
 LONGITUDE 70 48.5 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	10.919	30.976	23.704	70.90
2.0	10.914	30.963	23.694	72.27
3.0	10.857	30.969	23.708	73.28
4.0	10.803	30.982	23.728	73.22
5.0	10.740	31.004	23.756	73.16
6.0	10.696	31.016	23.773	72.97
7.0	10.644	31.034	23.796	72.71
8.0	10.603	31.050	23.815	72.55
9.0	10.562	31.066	23.835	72.28
10.0	10.388	31.178	23.951	71.48
11.0	10.177	31.286	24.070	70.22
12.0	10.039	31.344	24.138	62.68

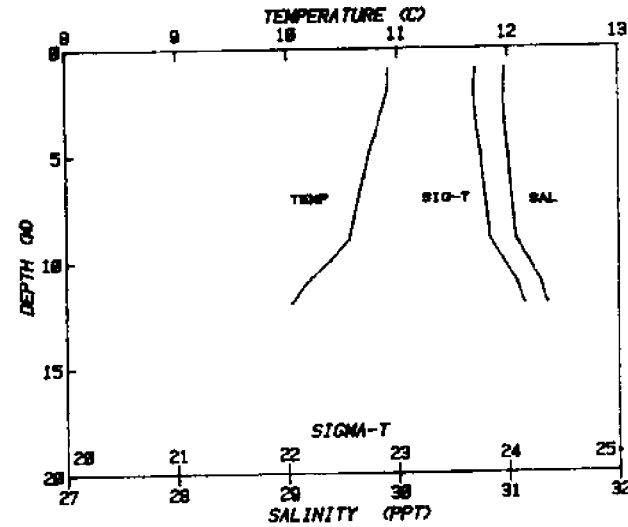
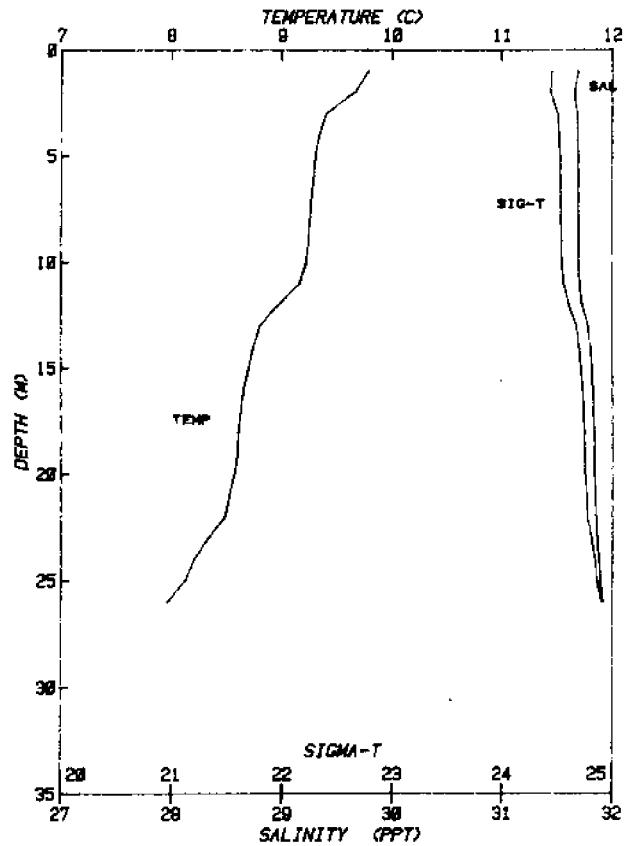


Figure 98

STATION 19
 LATITUDE 41 21.1 N
 LONGITUDE 71 .4 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. X
1.0	9.786	31.692	24.450	70.27
2.0	9.662	31.655	24.442	71.25
3.0	9.400	31.683	24.505	70.27
4.0	9.337	31.687	24.518	69.69
5.0	9.301	31.693	24.528	69.92
6.0	9.286	31.694	24.532	69.90
7.0	9.267	31.696	24.536	70.08
8.0	9.254	31.697	24.539	70.36
9.0	9.243	31.699	24.542	71.02
10.0	9.219	31.697	24.545	71.14
11.0	9.161	31.706	24.560	71.91
12.0	8.967	31.727	24.607	73.40
13.0	8.799	31.783	24.676	74.96
14.0	8.742	31.803	24.700	75.63
15.0	8.698	31.814	24.716	75.57
16.0	8.655	31.822	24.728	75.63
17.0	8.630	31.827	24.736	75.51
18.0	8.605	31.833	24.744	74.97
19.0	8.597	31.835	24.747	74.82
20.0	8.570	31.837	24.753	74.75
21.0	8.521	31.848	24.769	74.06
22.0	8.484	31.852	24.778	73.56
23.0	8.331	31.865	24.810	70.78
24.0	8.203	31.884	24.844	67.84
25.0	8.123	31.893	24.862	66.17
26.0	7.960	31.917	24.904	64.16



STATION 18
 LATITUDE 41 22.5 N
 LONGITUDE 71 1.2 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. X
1.0	9.987	31.659	24.392	71.81
2.0	9.934	31.663	24.403	71.72
3.0	9.875	31.668	24.417	71.67
4.0	9.781	31.698	24.417	71.12
5.0	9.324	31.660	24.499	70.27
6.0	9.274	31.667	24.513	70.25
7.0	9.259	31.672	24.519	70.28
8.0	9.242	31.674	24.523	70.23
9.0	9.238	31.673	24.522	70.42
10.0	9.221	31.674	24.526	70.83
11.0	9.204	31.679	24.533	71.69
12.0	9.191	31.680	24.536	72.03
13.0	9.166	31.686	24.544	72.81
14.0	8.973	31.711	24.593	73.65
15.0	8.799	31.761	24.659	74.57
16.0	8.737	31.777	24.681	74.90
17.0	8.624	31.804	24.719	74.43
18.0	8.512	31.826	24.753	73.15
19.0	8.426	31.840	24.776	71.88
20.0	8.322	31.866	24.813	69.30
21.0	8.306	31.870	24.818	66.28
22.0	8.297	31.872	24.821	66.13
23.0	8.288	31.874	24.823	67.86
24.0	8.288	31.874	24.823	67.81

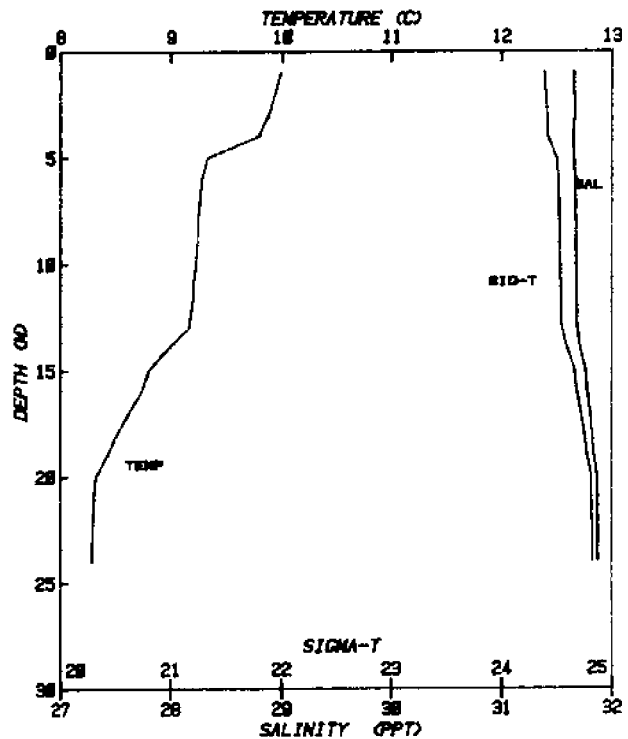
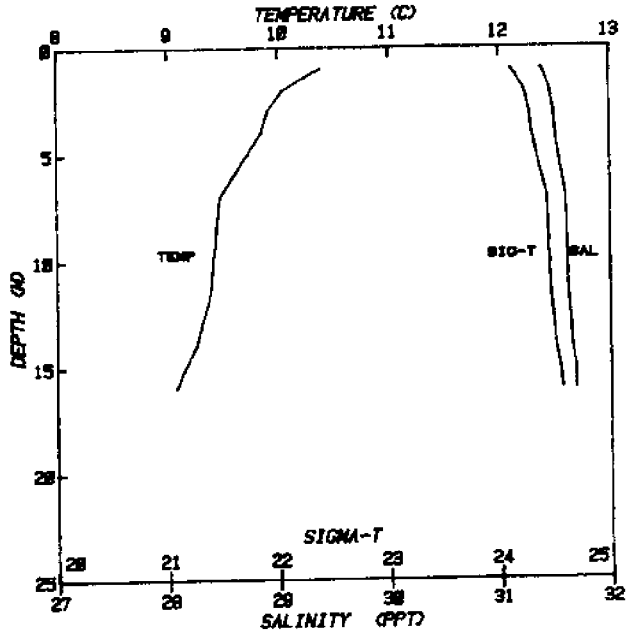


Figure 99

STATION 17
 LATITUDE 41 23.8 N
 LONGITUDE 71 2.0 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	10.387	31.388	24.114	68.96
2.0	10.046	31.463	24.229	67.54
3.0	9.908	31.495	24.277	67.79
4.0	9.848	31.510	24.298	68.30
5.0	9.725	31.535	24.338	68.65
6.0	9.599	31.566	24.383	68.95
7.0	9.473	31.600	24.428	69.51
8.0	9.449	31.607	24.438	69.65
9.0	9.432	31.612	24.445	69.84
10.0	9.408	31.617	24.453	70.04
11.0	9.401	31.621	24.456	70.18
12.0	9.360	31.630	24.470	70.13
13.0	9.302	31.642	24.489	70.56
14.0	9.249	31.654	24.504	70.86
15.0	9.153	31.683	24.544	71.95
16.0	9.073	31.687	24.559	73.11



STATION 13
 LATITUDE 41 25.2 N
 LONGITUDE 71 2.8 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	10.802	31.251	23.937	66.33
2.0	10.486	31.230	23.975	66.61
3.0	10.271	31.243	24.021	65.10
4.0	10.059	31.267	24.075	64.88
5.0	9.913	31.347	24.161	65.55
6.0	9.872	31.388	24.199	65.60
7.0	9.793	31.419	24.237	65.53
8.0	9.664	31.462	24.291	66.06
9.0	9.621	31.479	24.311	67.19
10.0	9.538	31.512	24.350	67.89
11.0	9.413	31.557	24.405	68.56
12.0	9.168	31.644	24.511	71.16
13.0	9.038	31.688	24.565	72.47
14.0	9.011	31.694	24.576	73.85
15.0	9.005	31.699	24.579	72.77
16.0	9.000	31.700	24.581	72.62

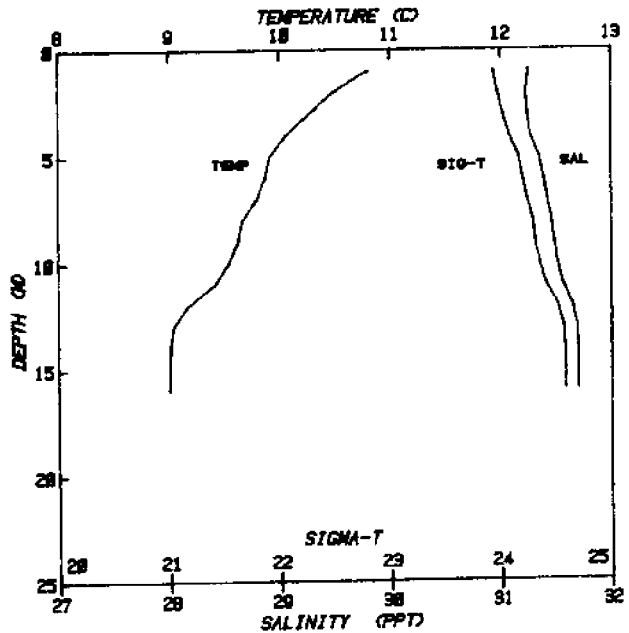
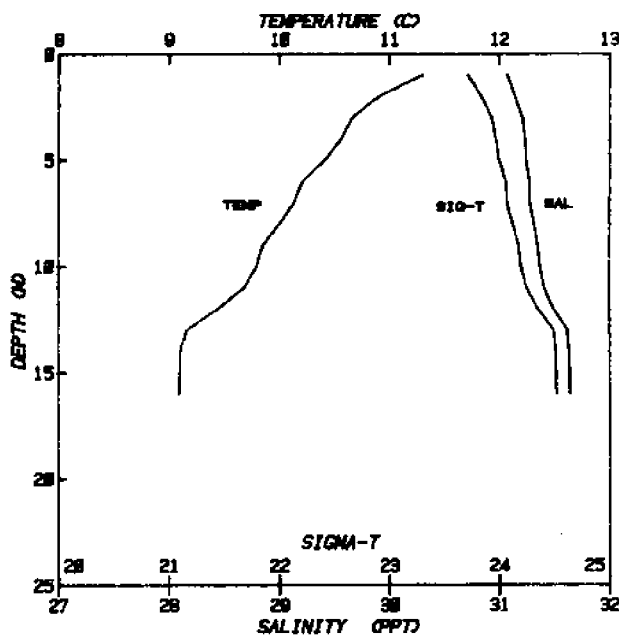


Figure 100

STATION 16
 LATITUDE 41 26.6 N
 LONGITUDE 71 3.8 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

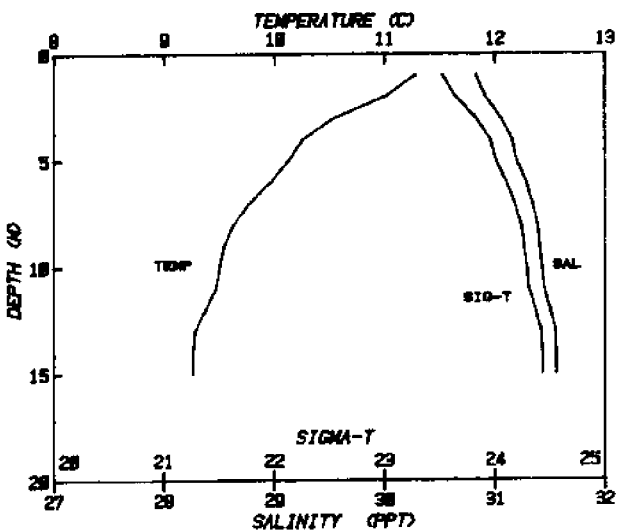
DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Σ
1.0	11.298	31.076	23.714	59.80
2.0	10.902	31.142	23.835	60.00
3.0	10.661	31.209	23.929	60.81
4.0	10.560	31.233	23.965	61.61
5.0	10.412	31.242	23.996	62.12
6.0	10.288	31.274	24.055	62.24
7.0	10.132	31.274	24.068	62.66
8.0	10.001	31.313	24.120	62.86
9.0	9.847	31.351	24.175	63.59
10.0	9.794	31.368	24.197	64.15
11.0	9.681	31.408	24.246	64.87
12.0	9.445	31.490	24.348	65.57
13.0	9.159	31.619	24.493	65.58
14.0	9.184	31.632	24.512	65.05
15.0	9.098	31.639	24.518	62.92
16.0	9.093	31.640	24.519	61.21



STATION 15
 LATITUDE 41 27.9 N
 LONGITUDE 71 4.5 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Σ
1.0	11.280	30.829	23.526	6.00
2.0	11.007	30.912	23.639	54.16
3.0	10.544	31.059	23.827	56.48
4.0	10.256	31.156	23.956	59.98
5.0	10.127	31.199	24.010	58.88
6.0	9.962	31.284	24.104	60.47
7.0	9.768	31.341	24.188	64.34
8.0	9.625	31.389	24.248	63.37
9.0	9.542	31.407	24.267	60.85
10.0	9.506	31.430	24.291	59.89
11.0	9.472	31.448	24.311	56.94
12.0	9.377	31.501	24.367	54.08
13.0	9.283	31.549	24.419	55.45
14.0	9.265	31.559	24.430	48.19
15.0	9.264	31.560	24.430	46.28



STATION 14
 LATITUDE 41 29.2 N
 LONGITUDE 71 5.4 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. Σ
1.0	11.108	30.656	23.423	48.96
2.0	10.538	31.014	23.798	49.88
3.0	10.294	31.131	23.930	52.13
4.0	10.052	31.208	24.030	54.58
5.0	9.992	31.231	24.058	57.37
6.0	9.984	31.242	24.068	58.41
7.0	9.878	31.270	24.106	58.87
8.0	9.714	31.317	24.170	60.36
9.0	9.646	31.348	24.205	58.63
10.0	9.614	31.378	24.233	59.31
11.0	9.493	31.411	24.278	58.85
12.0	9.408	31.450	24.322	54.79
13.0	9.283	31.503	24.383	48.61
14.0	9.270	31.511	24.391	44.90

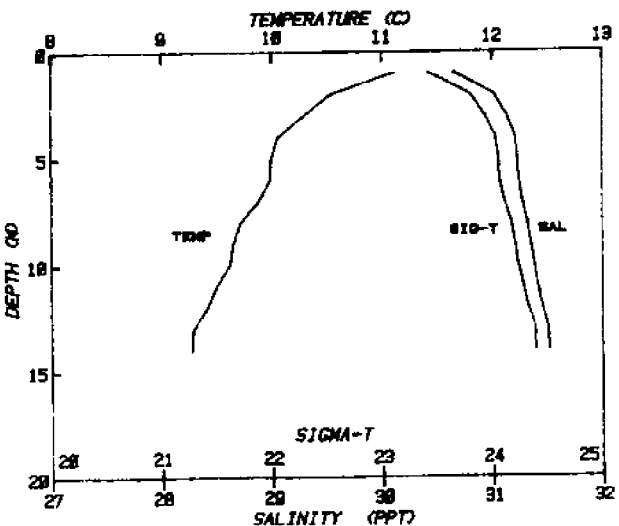
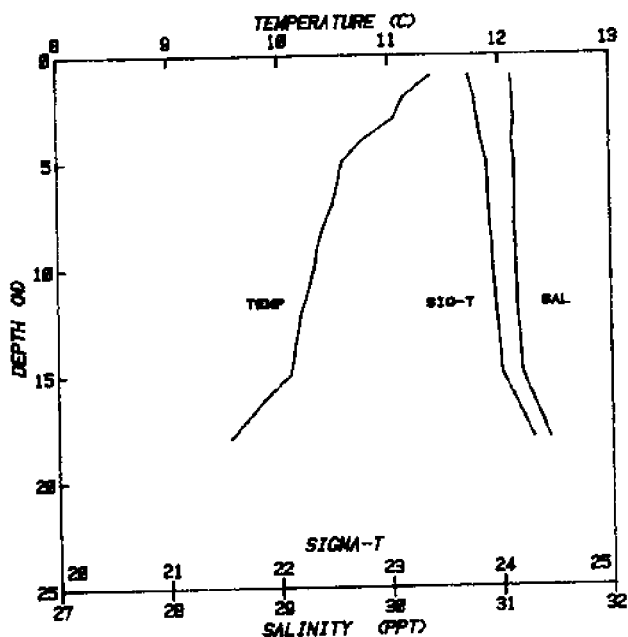


Figure 101

STATION 21
 LATITUDE 41 27.8 N
 LONGITUDE 71 1.1 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	11.381	31.114	23.729	60.78
2.0	11.135	31.125	23.781	60.94
3.0	11.045	31.137	23.806	60.13
4.0	10.764	31.113	23.837	59.46
5.0	10.579	31.134	23.885	58.28
6.0	10.536	31.198	23.895	58.13
7.0	10.489	31.134	23.899	58.78
8.0	10.406	31.131	23.911	58.88
9.0	10.346	31.142	23.930	59.11
10.0	10.317	31.143	23.935	58.88
11.0	10.264	31.151	23.950	59.35
12.0	10.201	31.153	23.963	60.29
13.0	10.164	31.170	23.982	60.84
14.0	10.120	31.181	23.997	60.44
15.0	10.100	31.194	24.013	60.55
16.0	9.892	31.274	24.108	62.72
17.0	9.722	31.356	24.199	65.31
18.0	9.555	31.434	24.286	68.41



STATION 11
 LATITUDE 41 26.4 N
 LONGITUDE 71 .3 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	11.520	31.118	23.788	64.81
2.0	10.962	31.074	23.772	65.68
3.0	10.512	31.137	23.898	63.70
4.0	10.331	31.172	23.956	64.13
5.0	10.195	31.217	24.013	64.45
6.0	10.125	31.257	24.056	64.69
7.0	10.090	31.275	24.076	65.13
8.0	10.048	31.304	24.104	65.49
9.0	9.982	31.344	24.147	65.94
10.0	9.885	31.392	24.201	66.51
11.0	9.644	31.509	24.330	68.39
12.0	9.541	31.560	24.387	69.53
13.0	9.494	31.586	24.414	70.35
14.0	9.441	31.611	24.442	71.03
15.0	9.385	31.630	24.466	71.33
16.0	9.331	31.660	24.498	72.03
17.0	9.285	31.675	24.517	72.58
18.0	9.273	31.677	24.521	72.88
19.0	9.264	31.681	24.525	72.81
20.0	9.261	31.682	24.526	72.73

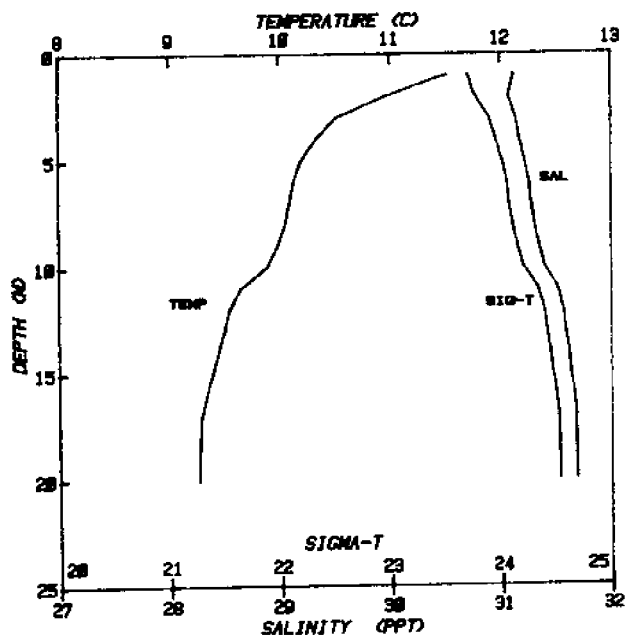
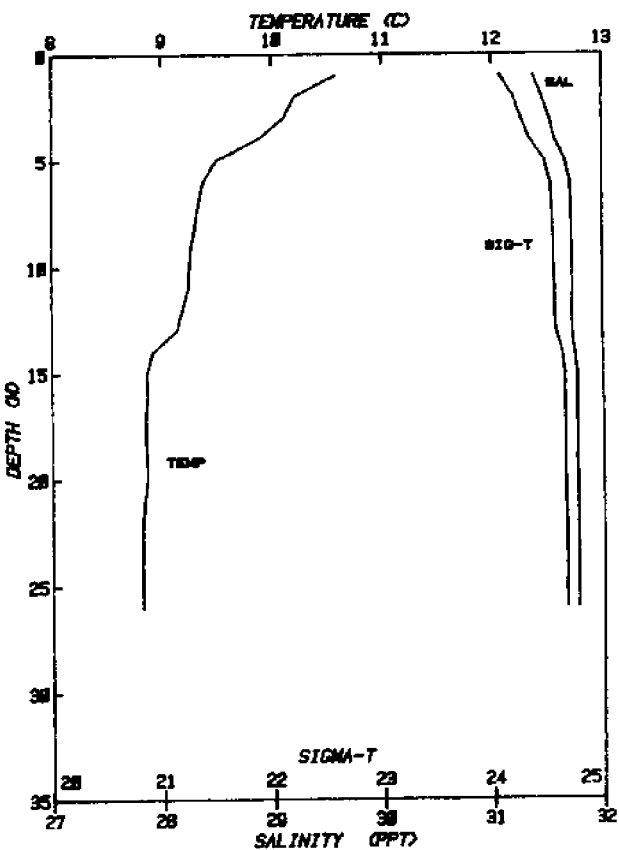


Figure 102

STATION 20
 LATITUDE 41 25.1 N
 LONGITUDE 70 59.5 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. X
1.0	10.584	31.379	24.074	0.00
2.0	10.207	31.454	24.196	68.80
3.0	10.111	31.523	24.265	69.58
4.0	9.873	31.571	24.342	70.98
5.0	9.495	31.663	24.475	72.37
6.0	9.377	31.707	24.527	72.97
7.0	9.336	31.716	24.541	73.21
8.0	9.305	31.720	24.549	73.28
9.0	9.270	31.721	24.555	72.94
10.0	9.252	31.722	24.559	72.62
11.0	9.239	31.726	24.564	72.32
12.0	9.188	31.715	24.563	71.93
13.0	9.136	31.719	24.574	71.81
14.0	8.917	31.742	24.626	70.97
15.0	8.859	31.762	24.650	68.41
16.0	8.868	31.761	24.649	68.95
17.0	8.848	31.760	24.651	68.41
18.0	8.848	31.742	24.652	67.34
19.0	8.857	31.756	24.646	67.50
20.0	8.858	31.762	24.651	67.70
21.0	8.832	31.761	24.654	67.50
22.0	8.814	31.762	24.658	66.41
23.0	8.810	31.764	24.660	66.25
24.0	8.808	31.764	24.660	66.53
25.0	8.812	31.764	24.659	66.59
26.0	8.815	31.763	24.658	66.95



STATION 10
 LATITUDE 41 27.5 N
 LONGITUDE 70 58.3 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. X
1.0	10.870	31.067	23.782	67.78
2.0	10.866	31.060	23.778	68.71
3.0	10.654	31.029	23.798	68.20
4.0	10.234	31.121	23.932	66.20
5.0	10.116	31.184	24.001	66.00
6.0	10.065	31.213	24.032	66.45
7.0	10.055	31.218	24.037	66.61
8.0	10.026	31.225	24.047	66.48
9.0	9.943	31.261	24.089	65.89
10.0	9.914	31.275	24.105	66.67
11.0	9.846	31.312	24.145	67.07
12.0	9.759	31.360	24.196	67.81
13.0	9.620	31.441	24.281	69.58
14.0	9.509	31.503	24.347	70.47
15.0	9.477	31.520	24.366	71.09
16.0	9.353	31.582	24.433	71.88
17.0	9.346	31.584	24.437	72.19
18.0	9.342	31.589	24.441	72.21
19.0	9.338	31.591	24.443	72.24
20.0	9.336	31.594	24.446	72.68
21.0	9.333	31.594	24.446	72.85
22.0	9.334	31.593	24.445	72.97

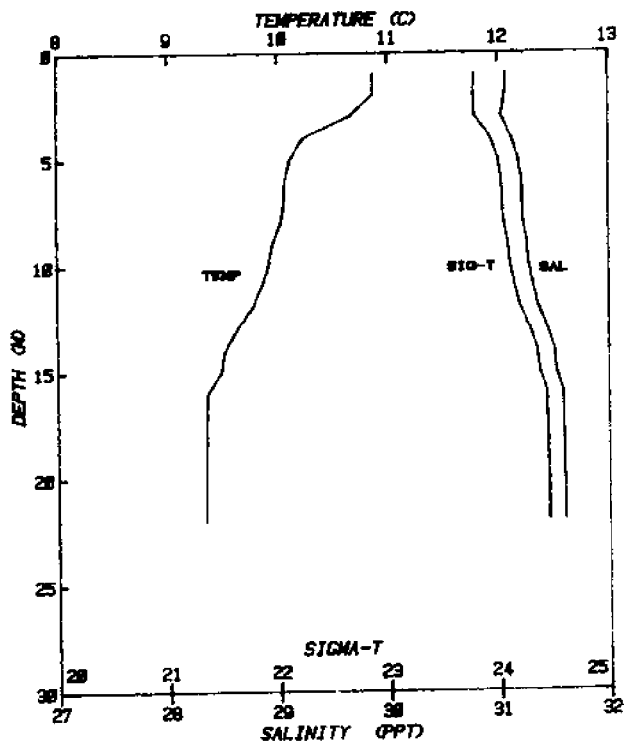
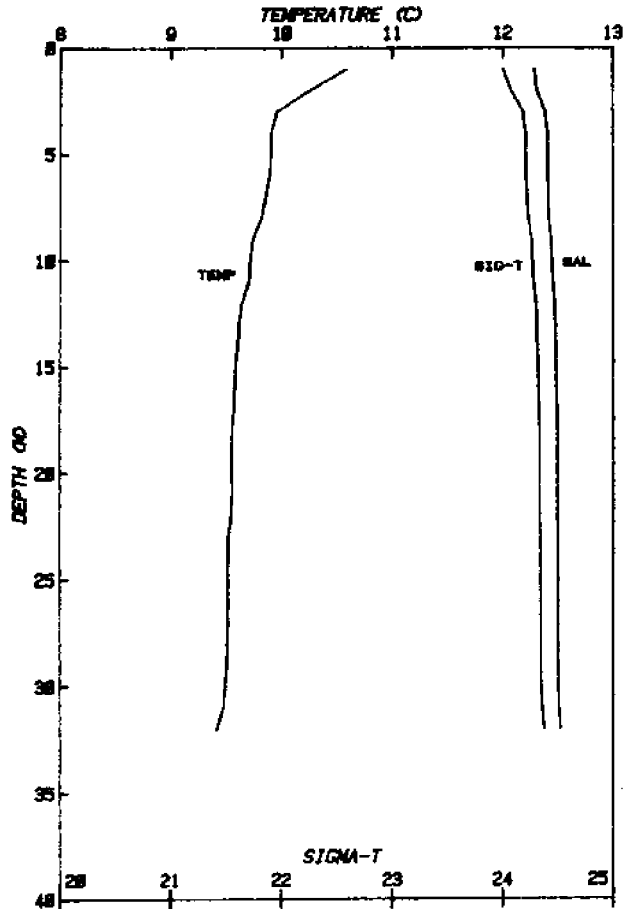


Figure 103

STATION 23
 LATITUDE 41 27.7 N
 LONGITUDE 70 55.4 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. X
1.0	10.583	31.286	24.002	70.47
2.0	10.254	31.306	24.073	70.73
3.0	9.957	31.384	24.183	70.66
4.0	9.905	31.402	24.205	70.78
5.0	9.905	31.404	24.206	70.69
6.0	9.893	31.407	24.211	70.65
7.0	9.857	31.412	24.221	70.90
8.0	9.819	31.420	24.233	71.21
9.0	9.741	31.439	24.261	71.51
10.0	9.719	31.449	24.272	71.72
11.0	9.705	31.456	24.279	71.98
12.0	9.642	31.470	24.301	72.31
13.0	9.615	31.476	24.310	72.45
14.0	9.605	31.479	24.313	72.72
15.0	9.588	31.485	24.321	72.85
16.0	9.578	31.484	24.322	72.81
17.0	9.570	31.489	24.327	73.00
18.0	9.555	31.494	24.333	73.09
19.0	9.549	31.494	24.334	73.02
20.0	9.553	31.492	24.332	73.13
21.0	9.556	31.492	24.331	73.13
22.0	9.545	31.492	24.333	73.09
23.0	9.521	31.496	24.340	73.32
24.0	9.521	31.496	24.340	73.31
25.0	9.518	31.497	24.342	73.28
26.0	9.518	31.497	24.341	73.36
27.0	9.517	31.498	24.342	73.35
28.0	9.512	31.499	24.344	73.42
29.0	9.510	31.500	24.345	73.38
30.0	9.492	31.501	24.349	73.44
31.0	9.476	31.507	24.356	73.53
32.0	9.416	31.520	24.375	74.05



STATION 9
 LATITUDE 41 28.6 N
 LONGITUDE 70 55.9 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. X
1.0	11.448	31.016	23.642	72.50
2.0	11.274	30.997	23.657	72.69
3.0	10.360	31.123	23.912	70.03
4.0	10.129	31.183	23.998	67.92
5.0	9.997	31.252	24.073	67.11
6.0	9.825	31.342	24.171	68.96
7.0	9.689	31.418	24.253	70.42
8.0	9.643	31.441	24.277	71.51
9.0	9.559	31.455	24.302	71.74
10.0	9.461	31.494	24.348	72.34
11.0	9.401	31.510	24.370	72.66
12.0	9.379	31.521	24.382	73.00
13.0	9.374	31.524	24.385	73.59
14.0	9.374	31.525	24.386	73.77
15.0	9.374	31.524	24.385	73.53
16.0	9.376	31.524	24.385	73.86
17.0	9.374	31.526	24.386	73.84

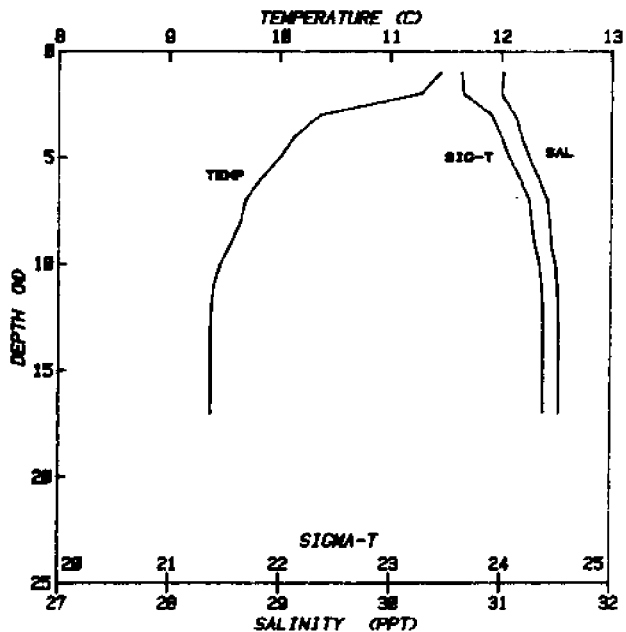
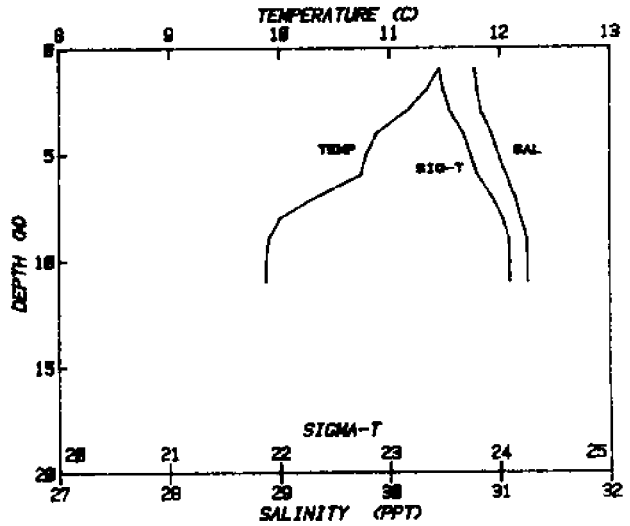


Figure 104

STATION ZZ
 LATITUDE 41 30.0 N
 LONGITUDE 70 56.9 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	11.454	30.776	23.454	57.50
2.0	11.337	30.798	23.492	57.76
3.0	11.156	30.833	23.551	58.03
4.0	10.886	30.924	23.669	58.69
5.0	10.793	30.987	23.734	59.81
6.0	10.739	31.060	23.800	59.92
7.0	10.344	31.140	23.929	60.86
8.0	10.008	31.193	24.026	62.50
9.0	9.698	31.247	24.086	63.70
10.0	9.861	31.252	24.092	64.08
11.0	9.878	31.253	24.094	64.08



STATION B
 LATITUDE 41 30.0 N
 LONGITUDE 70 53.1 W

BUZZARDS BAY
 CRUISE 4
 MAY 5-6, 1983

DEPTH M	TEMP. C	SALINITY PPT	SIGMA-T	TRANS. %
1.0	11.904	30.940	23.500	71.46
2.0	11.899	30.941	23.502	72.55
3.0	11.884	30.941	23.505	73.13
4.0	11.768	30.927	23.515	73.50
5.0	11.626	30.905	23.524	73.54
6.0	11.157	30.893	23.598	73.46
7.0	11.041	30.941	23.655	72.81
8.0	10.949	30.951	23.679	73.13
9.0	10.869	30.963	23.782	72.89
10.0	10.658	30.985	23.755	72.44
11.0	10.384	31.089	23.882	71.08
12.0	9.966	31.212	24.047	70.22
13.0	9.862	31.263	24.104	70.56
14.0	9.678	31.339	24.193	70.84
15.0	9.557	31.402	24.261	69.84
16.0	9.545	31.418	24.275	69.72
17.0	9.544	31.424	24.281	69.80
18.0	9.537	31.436	24.291	70.01

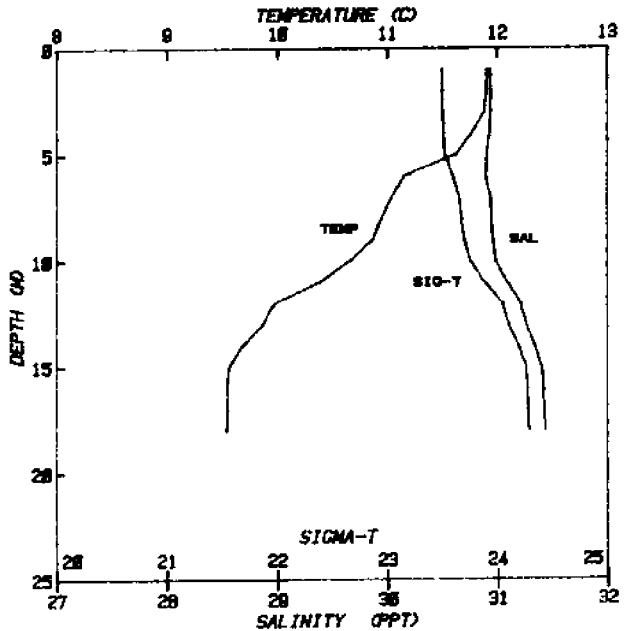


Figure 105

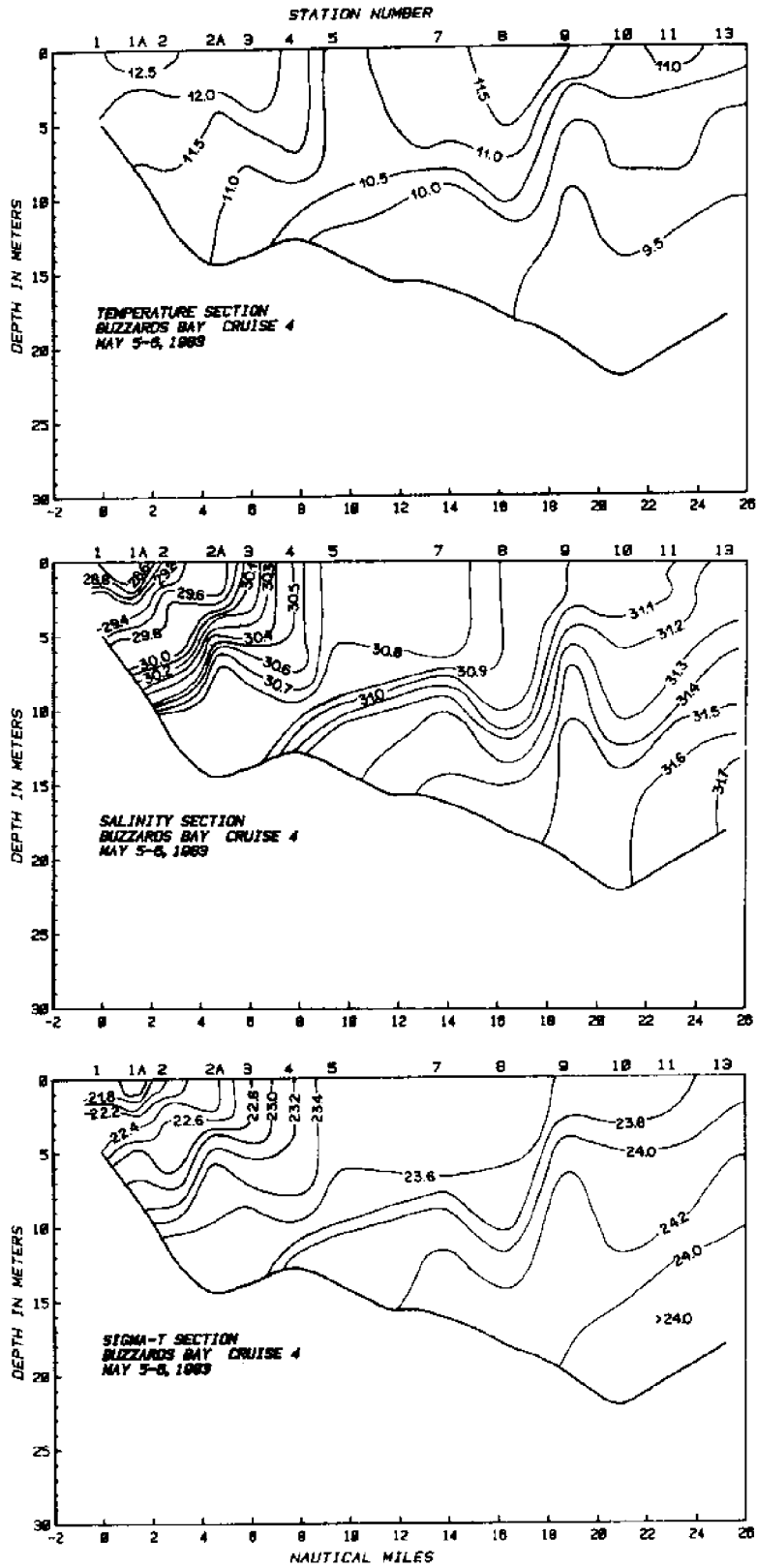


Figure 106

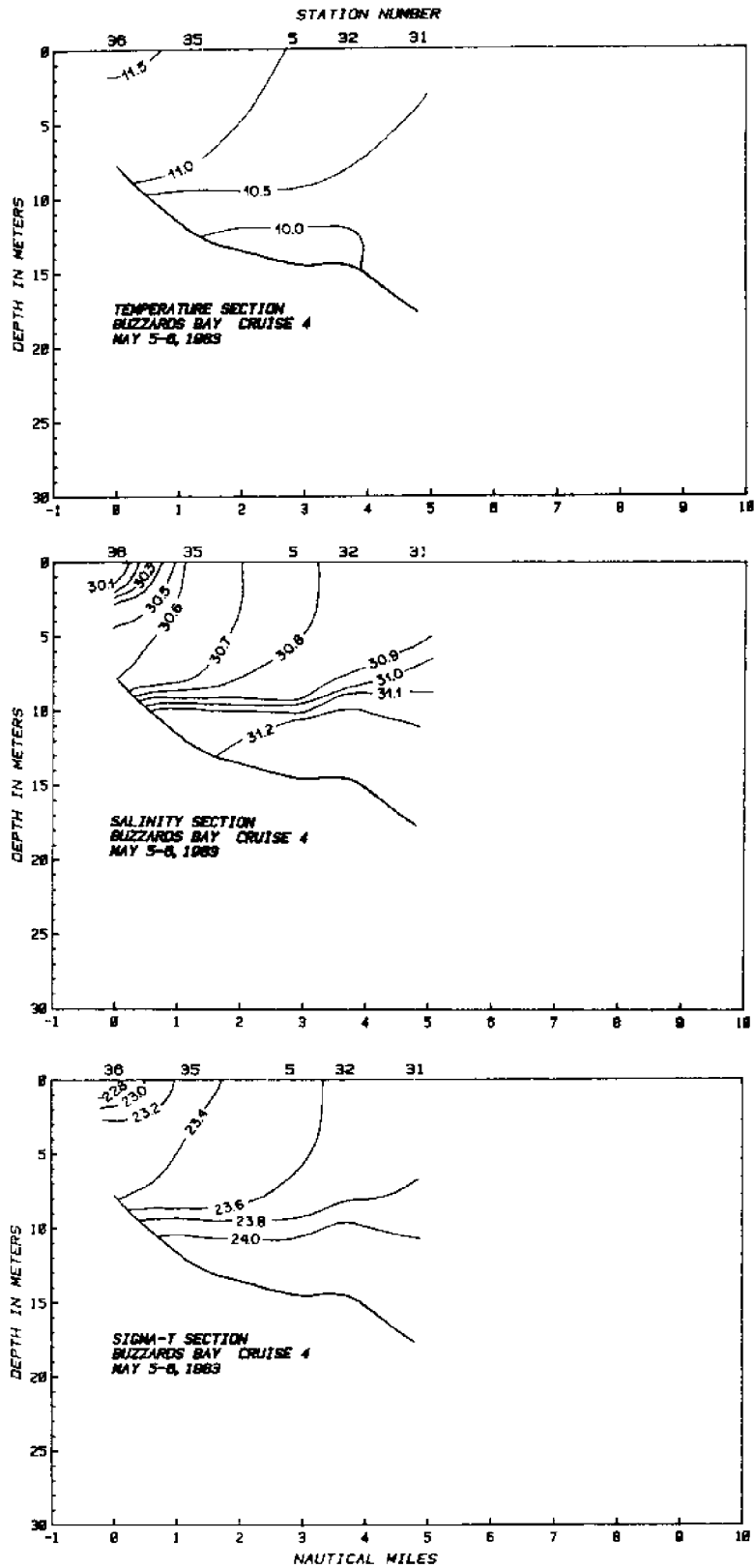


Figure 107

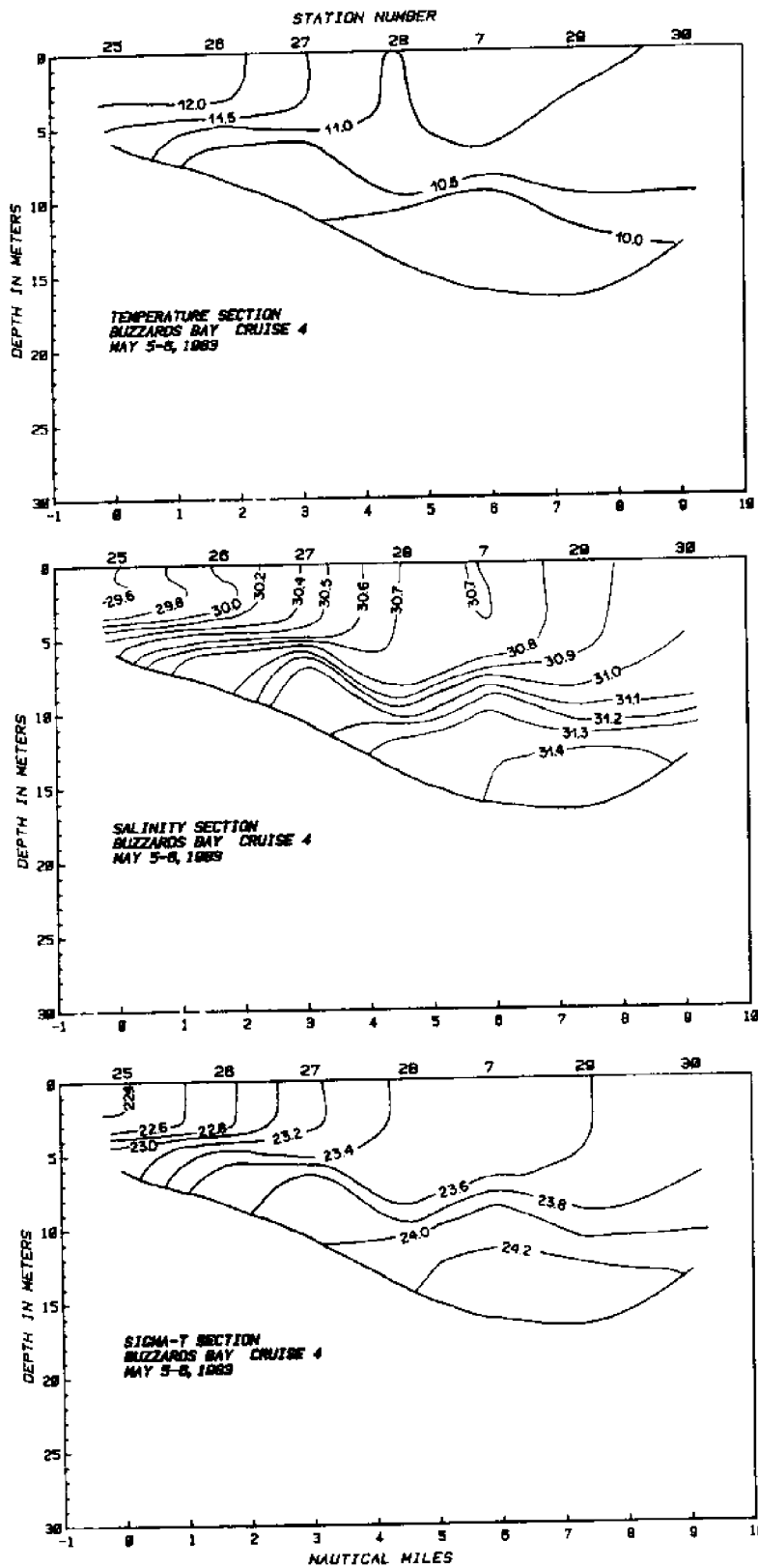


Figure 108

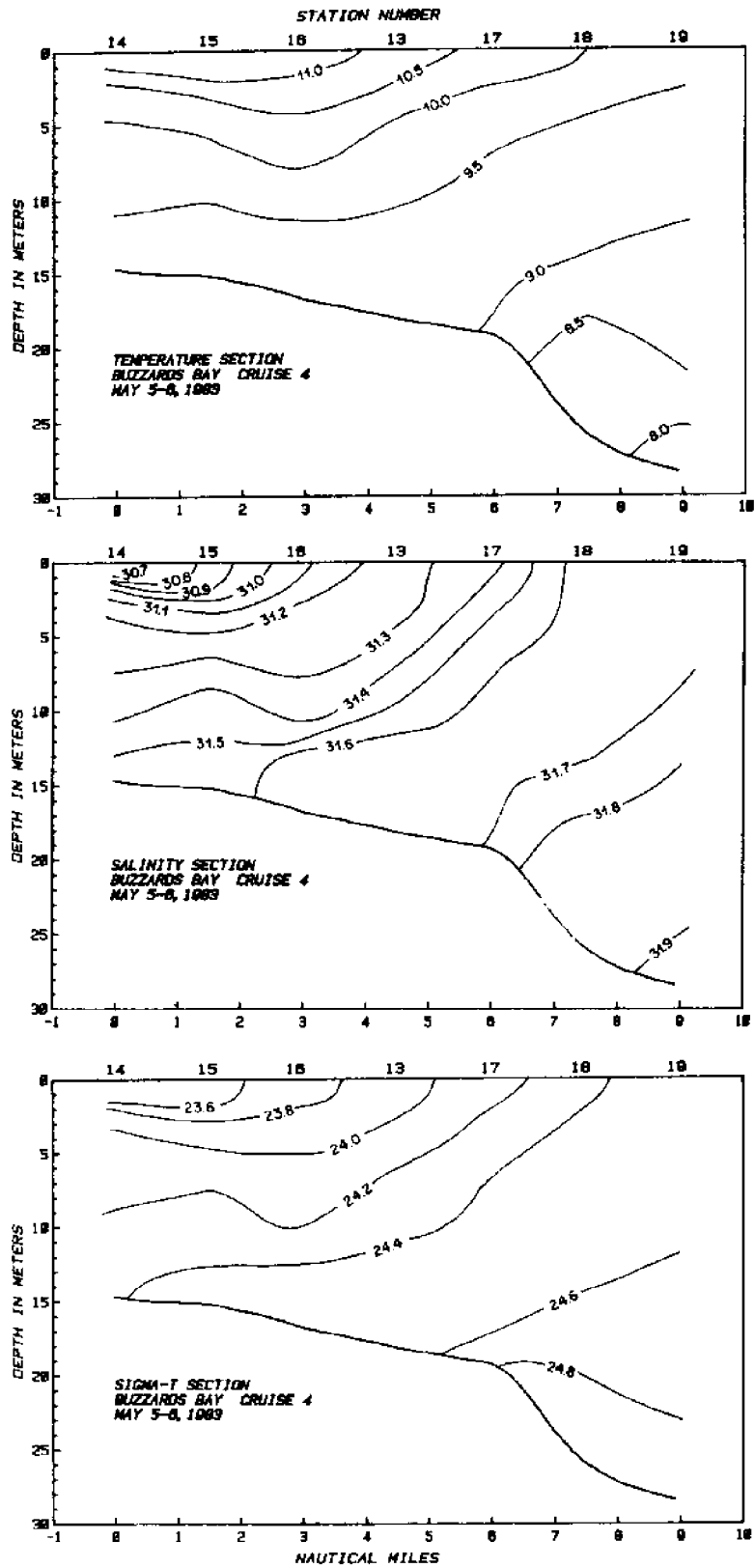


Figure 109

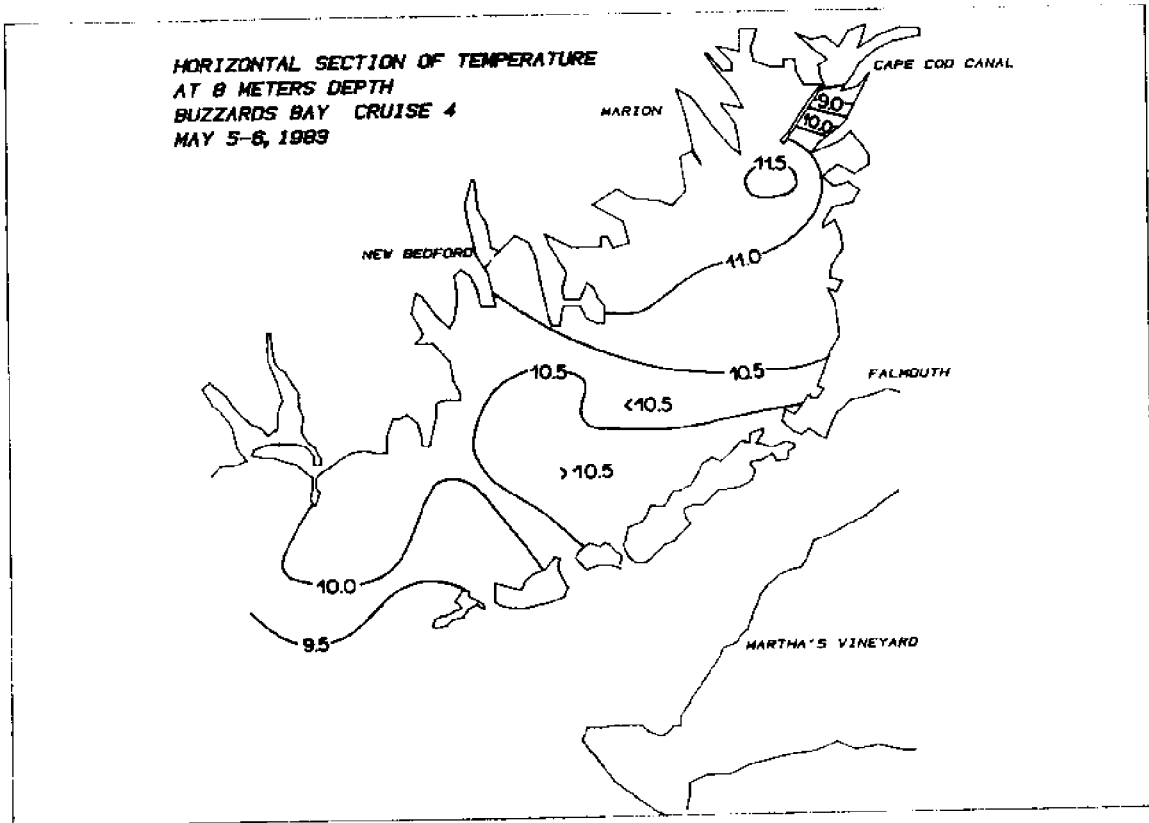
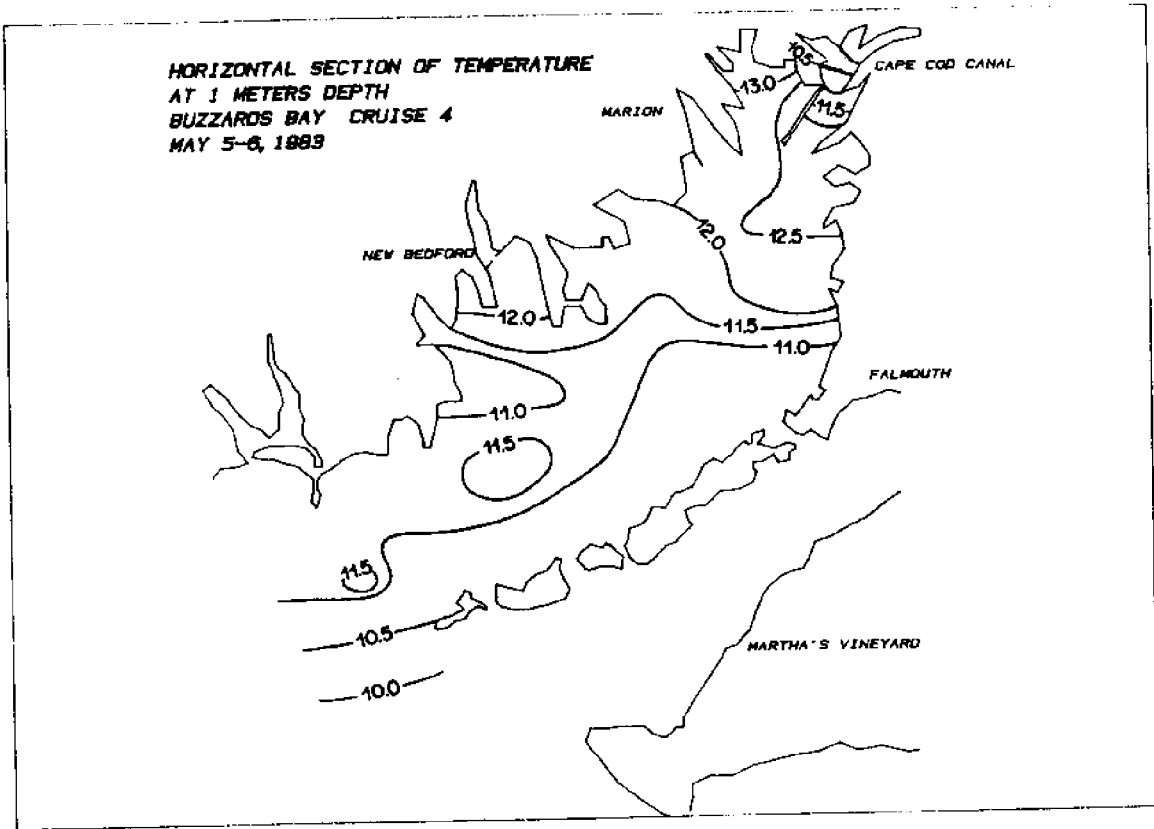


Figure 110

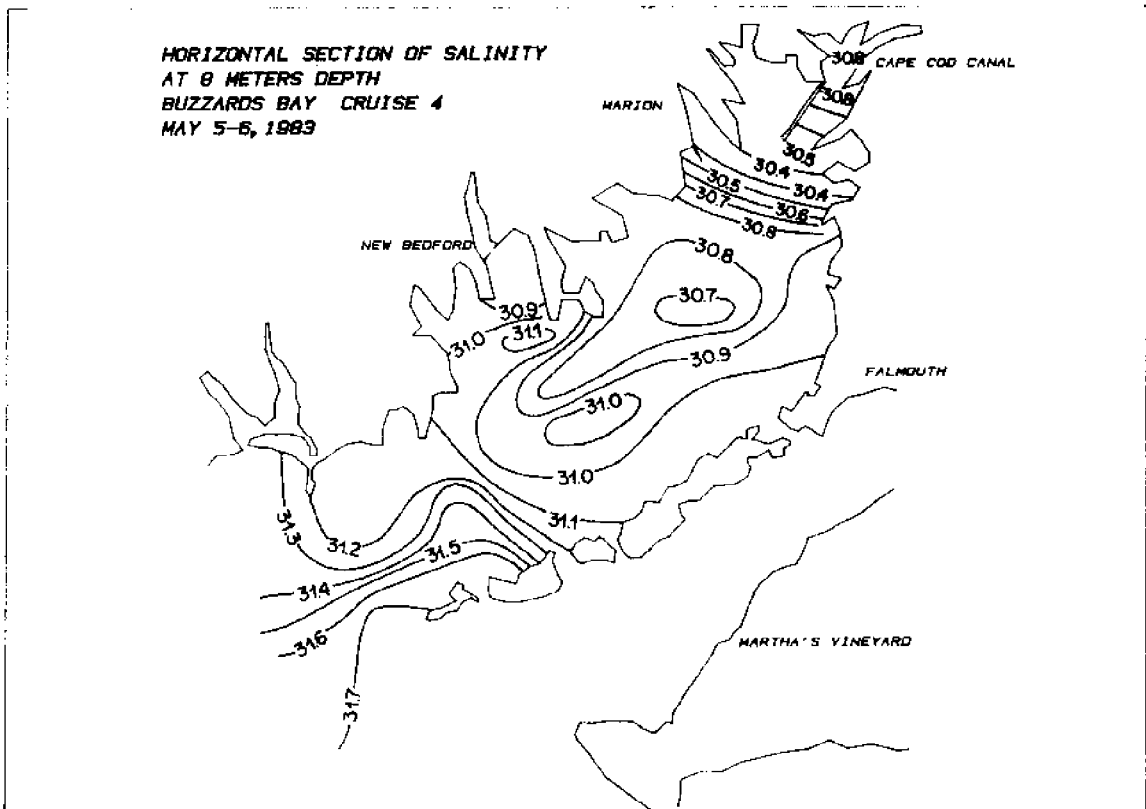
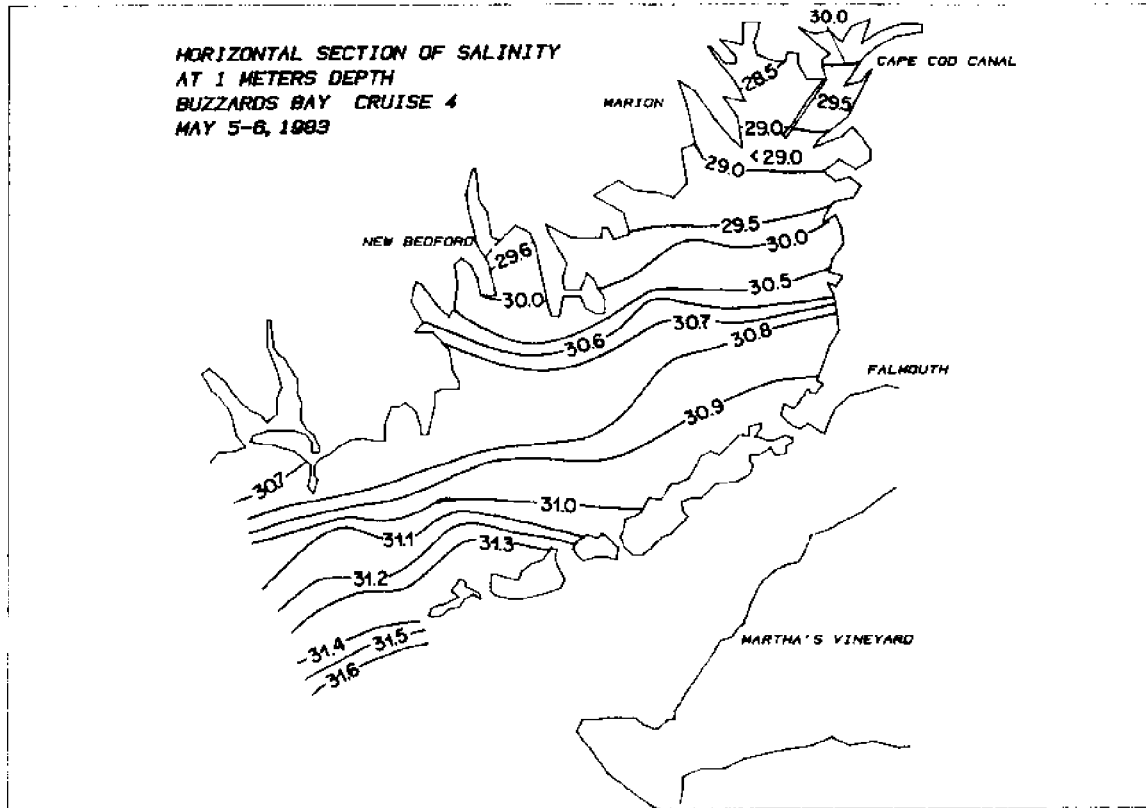


Figure 111

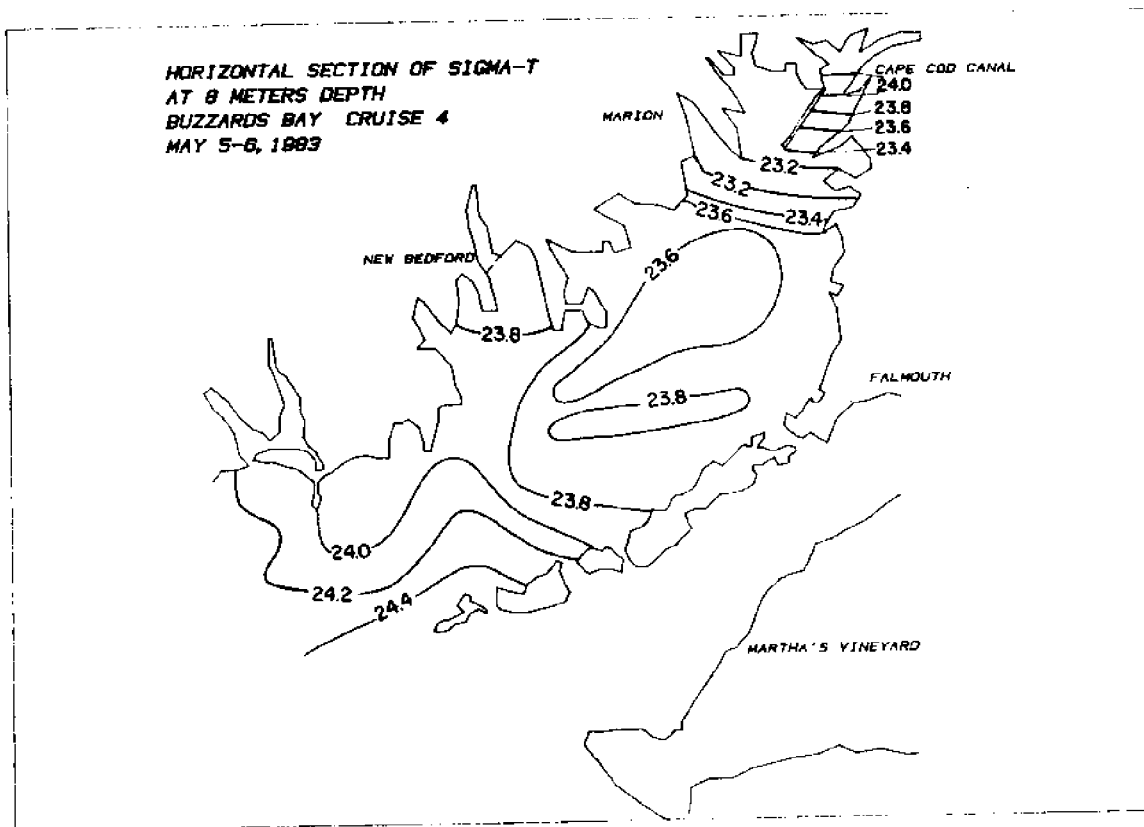
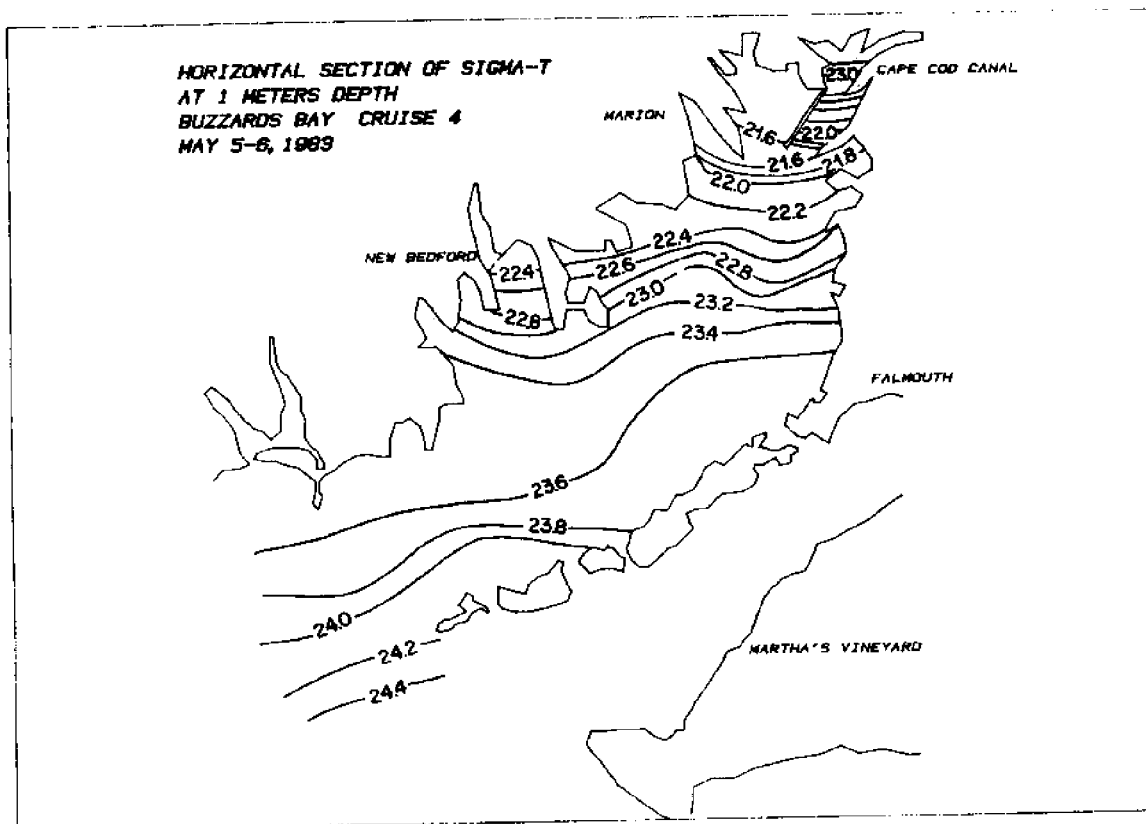


Figure 112

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