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Temperature and Salinity off Newfoundland:  
Station 27 Annual Cycle and Residuals

by

S. A. Akenhead

Northwest Atlantic Fisheries Centre  
P. O. Box 5667, St. John's, Newfoundland, Canada A1C 5X1

**INTRODUCTION**

Patterns in the ocean climate off St. John's as revealed by sampling at Station 27 have been described previously by Akenhead (1983) and Keeley (1981). Recent work has shown Station 27 to be a valuable ocean climate index, correlated to patterns at Ocean Weather Station Bravo, to discharge of the St. Lawrence River, and to large scale anomalies in sea-surface temperature and sea-level pressure fields (Loucks et al, 1986).

This report updates the Station 27 series reported to NAFO but concentrates on that part of the signal which is left when the long term mean annual cycle is removed. The residual signal has the advantage that interannual and shorter trends of temperature and salinity can be more clearly seen, and gaps in the time series may be more confidently interpolated. Sums of the residual values will differ by only a constant from equivalent sums of the original data.

**MATERIALS AND METHODS**

The data included has been described by Akenhead (1983) and refers to a more restricted region than does Keeley (1981), not exceeding a nautical mile range from 47°38'N 52°37.5'W, near St. John's and Cape Spear. The station depth is nominally 175 m, and 10 standard levels (0, 10, 20, 30, 50, 75, 100, 125, 150, and 175 m) have been sampled since 1964. Previous to 1964, and with values back to 1910, there were seven standard levels (0, 25, 50, 75, 100, 150, and 175 m).

For this analysis, the data was selected from 10 levels corresponding to those sampled recently, with a 5 m tolerance above 100 m and a 10-m tolerance for levels 100 m and deeper. The 25-m level was included with the subsequent 30-m level.

For each of temperature and salinity, and for each of the ten standard depths, a regression of three sine and cosine pairs was fitted:

$$T_j = \bar{T} + \sum_{i=1}^3 \{ s_i \cdot \sin(ibj) + c_i \cos(ibj) \}$$

where  $j$  is the day of the year, 1 to 365, and  $b = 3\pi / 365.25$  radians per day, and  $\bar{T}$ ,  $s_i$  and  $c_i$  are fitted values.

Note that for each harmonic component  $i$ , the amplitude is  $(s_i^2 + c_i^2)^{1/2}$  and the phase is  $b \cdot \arctan(s_i/c_i)$ .

This regression was used to remove the annual cycle to the extent it could be described as a mean and a combination of three harmonics (about 12, 6 and 4 months). The 3 months harmonic was examined but was never a significant factor. Three sine and cosine pairs were used for each regression, i.e. seven parameters each.

After the 20 regressions were first fitted, residual values more than 4 standard deviations away were deleted. The regressions were fitted again to this edited data to yield an accepted mean annual cycle for each standard depth.

Residuals from the annual cycle were combined into monthly values by linear integration of a tabled function, a technique sometimes referred to in oceanography as time averaging. Using this technique, data spanning the end of a month would be used to interpolate the values at the end of that month. When there was no data in the following (leading) month, the last (first) observation in that month was extrapolated. Months without data were treated as missing values to clearly emphasize the existence of a gap. Note that values 60 days apart may not yield a gap in the tables.

This same technique of linear integration was applied to the residuals from each days occupation of Station 27, to generate 0-175 m mean temperatures and salinities. Each such depth averaged profile was then time averaged to a monthly mean.

To check for biases in the results, for each of the 22 matrices of months X years, a table of statistics for the monthly residuals was computed: mean (which should be near zero), standard deviation, minimum, maximum, skewness and kurtosis. The probability that the monthly mean over all years is zero is presented, based upon Student's t-test.

## RESULTS

The twenty mean annual cycles can be reconstructed from the seven parameters of each regression, in Table 1. These annual cycles are presented graphically as Fig. 1 and 2.

The twenty months X years tables of residuals from these annual cycles are presented as Tables 2 and 3. The 0-175 m depth averaged tables of temperature and salinity residuals are in Tables 4 and 5. The accompanying diagnostic statistics accompany the appropriate tables.

No doubt, there are effects from uneven sampling in the regressions, due to fewer samples in the late winter when Station 27 is often inaccessible due to ice. The number of samples per year has varied with time, biasing the results towards the later years. These effects must be quite small however; for salinity, only 1 in 120 means of monthly residuals over years (column means) is nonzero at the 0.05 confidence level using independent t-tests, a result better than expected due to chance. The behavior of the 12 depth averaged means is satisfactory, all are near zero. Temperature results are similar, 3 in 132 means are different from zero at the 0.05 confidence level, although there are values which stray from zero to an unsatisfying extent. These biased means can be traced to remaining outliers which lead to skewed residuals. A more rigorous treatment of outliers in the data set might eliminate this effect, however, the intended uses of the tables, that of correlation to fisheries variables and to other environmental variables, is not compromised.

## DISCUSSION

The standard deviation by months is indicative of the amplitude of the interannual climate signal, plus sampling errors plus high-frequency noise (tidal fluctuations at the thermocline, meteorological effects like coastal upwelling, etc.). Work on partitioning the variance due to these various causes is in progress. For temperature the standard deviation ranges from 0.6 to 1.2 degrees in the surface (0 to 20 m) layer, from 0.5 to 2.2 degrees in the 30 and 50 m layers, and from 0.3 to 0.5 degrees near the bottom. The 0-175 m mean temperature residual has a standard deviation of 0.3 to 0.6 degrees. For salinity, the standard deviation ranges from 0.2 to 0.4 (practical salinity units are dimensionless ratios, but may be thought of as salts in kilograms per cubic meter) in the surface layer, and is similar in the 30 to 50 m layers. This is in contrast to the temperature pattern. The deep (100-175 m) residual salinity standard deviation ranges from 0.1 to 0.2, the same as the 0-175 m mean salinity residual. In summary, the amplitude of interannual variability in temperature (degrees) and salinity (psu) appears to be of the order of 0.5 and 0.2, respectively.

The standard error of the regression, included as the variable named SIGMA in Table 1, is similar to the standard deviation of between years within a month, suggesting that little variance is suppressed by averaging the residuals within a 30-day period, and consequently suggesting that the variance is less due to high-frequency components and to sampling errors, and more due to what might be thought of as ocean climate fluctuations.

The annual cycles portrayed in Fig. 1 and 2 show a progression of the signal from the surface to deeper depths with a progressive phase shift. Temperature reaches a maximum and salinity reaches a minimum at the surface about days 230 and 270, respectively. The equivalent extremes at the 100-175 m levels are about day 365. The downward propagation of temperature and salinity signals are very similar. Interpretation is complicated by remembering that there are important advective effects at Station 27, the magnitude of which is a study in progress.

Tables 2 and 3 are produced as a convenient basis for comparing Station 27 values to other variables, both oceanographic and biological. Table 1 has the value of compressing the 20 mean cycles into seven parameters each, and may be valuable for studies that budget heat and salt, or estimate vertical mixing rates.

Further discussion of the data presented in this report are contained in Petrie, Akenhead, Loder and Lazier (1987, this session), including comparisons to ocean transects and time series from the Grand Bank to Hamilton Bank.

ACKNOWLEDGMENTS

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Table 1. Harmonic regression coefficients by standard depths for annual cycles of temperature and salinity at station 27.

DEPTH	VARIABLE	SIGMA	SAS					INTERCEP	
			C1	S1	C2	S2	C3		S3
0	TEMP	1.07143	-3.5389	-5.8432	-0.2682	1.2196	0.14961	-0.30527	4.6735
0	SALNITY	0.32932	0.0359	0.6666	0.0866	0.0144	-0.03930	-0.03705	31.7341
10	TEMP	1.06438	-3.2719	-5.8726	-0.3433	1.1554	0.20298	-0.20650	4.4414
10	SALNITY	0.30199	-0.0023	0.6978	0.1010	0.0081	-0.02714	-0.05478	31.7540
20	TEMP	1.46969	-1.9536	-5.2209	-0.9279	0.3343	0.14357	0.46794	3.5207
20	SALNITY	0.28286	-0.0911	0.6480	0.1385	0.0637	0.00046	-0.09904	31.8552
30	TEMP	1.69474	-0.5783	-4.1753	-1.1590	-0.5008	-0.22076	0.76309	2.4495
30	SALNITY	0.28693	-0.2023	0.5308	0.1557	0.1296	0.03108	-0.11558	31.9904
50	TEMP	1.21930	0.8303	-2.3163	-0.6657	-1.2124	-0.44341	0.24444	0.7173
50	SALNITY	0.26917	-0.3377	0.3038	0.0960	0.1754	0.05104	-0.04788	32.2574
75	TEMP	0.76301	0.9648	-0.9473	0.1733	-0.8071	-0.06625	-0.25324	-0.3057
75	SALNITY	0.20802	-0.3053	0.0612	-0.0307	0.0942	-0.00381	0.02283	32.5196
100	TEMP	0.55712	0.7836	-0.3557	0.3574	-0.3408	0.15155	-0.14877	-0.8048
100	SALNITY	0.18392	-0.2180	-0.0250	-0.0435	0.0188	-0.03775	0.00694	32.7077
125	TEMP	0.41052	0.5085	-0.0142	0.2851	-0.0456	0.16596	-0.01030	-1.0825
125	SALNITY	0.16503	-0.1247	-0.0583	-0.0399	-0.0089	-0.03874	0.00909	32.8650
150	TEMP	0.38139	0.3028	0.1158	0.1450	0.0647	0.06250	0.06846	-1.0400
150	SALNITY	0.16878	-0.0530	-0.0671	-0.0045	-0.0240	-0.01760	0.00914	33.0223
175	TEMP	0.46271	0.1649	0.1261	0.0331	0.0515	0.01835	0.03391	-0.8430
175	SALNITY	0.17198	-0.0178	-0.0842	-0.0018	-0.0318	-0.01840	-0.00689	33.1809

Table 2. Temperature residuals from the annual cycle, by months x years, for standard depths, with diagnostic statistics.

STATION 27: Monthly TEMPERATURE residuals

-----DEPTH=0-----

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
46	.	.	.	.	.	0.47	-1.12	1.51	1.60	0.29	-0.85	-0.88
47	.	.	-0.20	.	-1.24	-0.94	0.83	.	-0.35	-0.99	.	.
48	.	.	.	-0.71	-0.34	1.39	-0.30	.	.	.	.	.
49	.	.	.	.	.	-0.12	.	-0.17	-0.69	.	.	0.07
50	.	-0.48	0.01	.	.	-0.20	-0.71	-0.28	-0.19	.	0.26	1.06
51	-0.17	0.39	0.69	1.24	1.29	1.77	1.47	-0.95	-0.27	0.74	.	.
52	0.05	.	.	0.67	1.19	0.80	0.24	2.09	0.11	0.62	.	0.21
53	.	1.03	.	0.41	0.77	.	0.67	-0.85	-0.17	0.35	0.26	-0.09
54	-0.42	-0.06	0.48	-0.52	-1.01	-0.81	0.08	-0.69	-1.11	-0.92	-0.75	-0.08
55	0.73	0.89	.	-1.05	-1.98	-1.82	-1.35	-1.39	-1.41	-1.88	-0.35	-0.22
56	0.90	1.00	0.35	-0.28	-0.57	-0.62	-0.62	-0.84	-0.68	-0.53	0.52	0.46
57	-0.53	-0.70	-0.77	-0.94	-1.60	-1.90	0.30	-1.80	-3.19	-1.10	0.14	-0.64
58	0.36	1.02	0.92	1.20	1.08	0.65	0.67	-0.47	-0.42	-0.59	-0.34	-0.92
59	-0.54	-0.46	-0.74	-0.75	-0.50	-1.53	-1.09	0.77	0.09	-0.35	-0.62	-0.08
60	-0.53	.	0.24	-0.09	-0.17	0.95	0.10	0.92	1.16	0.22	0.10	-0.48
61	-0.18	.	-0.44	.	-1.29	0.08	0.96	1.63	-0.15	2.40	1.97	.
62	1.12	0.33	-0.04	.	0.43	-0.97	-0.57	-0.59	-1.08	0.39	0.78	.
63	1.06	0.64	-0.17	-0.41	-0.38	-0.41	0.64	0.00	-0.86	-0.28	0.59	-0.68
64	-0.24	-0.37	-0.54	-0.46	-1.29	0.21	-1.47	-1.44	-0.65	-0.22	-0.38	-0.24
65	.	-0.21	-0.21	0.20	-0.53	-0.26	-0.56	-0.76	0.08	-0.18	-0.25	0.15
66	.	0.79	0.58	0.35	0.18	0.76	-0.15	-0.78	-0.97	-0.58	-0.01	0.77
67	1.06	0.24	-0.48	-1.27	-1.63	-0.63	1.38	2.93	1.45	2.10	2.27	1.05
68	0.91	1.24	0.52	0.33	-0.10	-1.25	-1.35	-1.52	-1.03	-0.06	0.47	0.48
69	0.45	0.86	1.15	0.67	0.60	0.60	-1.25	-1.32	-0.05	-0.51	0.60	1.39
70	0.77	1.06	1.10	0.49	1.48	0.74	1.85	1.37	.	0.19	1.37	0.04
71	-0.69	-0.07	0.33	0.98	1.60	2.14	1.39	1.47	0.04	-0.25	-0.31	-0.31
72	-0.38	-0.42	-0.30	-0.73	-0.32	-0.46	-0.62	-1.49	-1.37	-0.07	-0.75	.
73	-1.36	-0.49	-0.49	-0.91	-1.38	-0.57	0.76	-0.42	0.03	0.51	0.47	0.31
74	-0.14	-0.27	-0.11	-0.07	-0.31	-1.96	-2.09	-1.31	0.62	0.04	-0.53	.
75	-0.37	.	.	.	-0.88	-2.30	0.58	0.98	0.10	-0.61	-0.77	-0.49
76	0.26	0.16	-0.14	0.19	1.20	-0.22	-0.25	.	0.79	-0.43	-1.76	-0.77
77	-0.32	-0.47	-0.33	0.09	0.96	0.88	-0.54	-1.24	-1.06	-0.39	0.25	-0.65
78	0.09	0.48	.	-0.12	0.85	-1.33	-0.24	.	-1.30	-0.98	-1.54	.
79	0.50	0.44	0.05	0.21	-0.15	1.46	1.55	1.90	0.42	0.23	0.13	-0.12
80	-0.62	.	-0.46	0.10	0.46	0.25	-0.66	-0.48	-1.52	-0.54	-1.21	-0.06
81	-0.46	.	0.87	0.24	1.99	1.61	1.41	.	0.39	-0.00	0.43	1.00
82	0.73	0.03	-0.41	-0.20	0.66	0.28	-0.56	.	0.53	0.30	0.44	.
83	.	-0.02	.	1.24	0.89	0.64	1.10	0.13	0.92	1.17	0.78	0.03
84	-0.36	-0.28	.	-0.82	-1.84	-1.89	0.15	1.25	0.57	0.29	-0.48	-0.35
85	-1.09	-0.58	-0.71	-0.57	-0.97	-0.74	0.20	-0.97	-0.32	0.28	-0.68	.
86	-0.45	-0.50	-0.69	-0.20	0.75	0.60	0.25	0.81	0.04	-0.77	-0.51	-1.26

-----DEPTH=10-----

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
46	.	.	.	.	.	-0.45	.	.	.	.	.	.
59	-0.40	-0.39	-0.49	-0.34	-0.55	-1.57	-0.85	0.83	0.09	-0.46	-0.84	-0.23
60	-0.28	.	0.51	0.01	-0.19	0.82	0.27	-0.58	1.26	0.43	-0.04	-0.43
61	-0.20	-0.49	-0.45	.	-1.33	0.37	1.32	0.96	-0.44	1.93	1.88	.
62	1.05	0.30	-0.21	.	0.18	-0.77	-0.81	-0.88	-0.88	-0.02	0.84	.
63	0.95	0.70	-0.00	-0.25	-0.21	0.16	0.30	-0.10	-1.00	-0.48	0.46	-0.12
64	-0.13	-0.07	-0.37	-0.47	-1.27	-0.13	-1.32	-1.39	-0.76	-0.37	-0.63	-0.18
65	0.21	-0.23	-0.09	-0.18	-0.24	-0.08	-0.41	-0.35	.	-0.23	-0.45	0.18
66	.	0.87	0.52	0.34	-0.12	0.20	0.29	-0.57	-0.90	-0.68	0.18	0.80
67	1.07	0.23	-0.45	-1.22	-1.55	-0.25	1.75	3.07	1.55	2.03	2.04	0.98
68	0.97	1.03	0.59	0.58	0.04	-1.12	-1.25	-1.63	-1.10	-0.02	0.44	0.38
69	0.30	0.99	1.12	0.79	0.59	0.77	-0.93	-1.00	-0.52	-0.73	-0.30	1.42
70	0.88	0.97	1.12	0.51	0.99	0.96	1.12	0.94	.	0.03	1.28	0.10
71	-0.70	-0.21	0.23	0.86	1.59	2.32	1.15	1.58	0.21	-0.34	-0.35	-0.24
72	-0.47	-0.56	-0.31	-0.63	-0.50	-0.18	-0.41	-1.43	-1.46	-0.16	-0.81	.
73	-1.45	-0.59	-0.48	-0.81	.	-0.99	1.08	0.04	0.23	0.60	-0.07	-0.18
74	-0.78	-0.63	-0.31	-0.29	-0.28	-1.87	-1.94	-1.12	0.55	0.02	-0.48	.
75	-0.24	-0.39	.	.	-0.82	-1.99	0.59	1.05	-0.76	-0.74	-0.66	-0.55
76	0.09	-0.20	-0.15	0.07	0.37	-0.13	-2.32	-0.88	0.63	-0.40	-1.61	-0.76
77	-0.54	-0.47	-0.12	0.19	0.99	1.16	-0.54	-1.06	-1.04	-0.55	0.10	-0.66
78	-0.01	0.47	0.16	0.01	1.21	-1.11	-0.13	1.81	-0.82	-1.00	-0.98	.
79	0.38	0.07	-0.03	.	-1.20	-0.41	1.42	1.73	0.65	-0.35	0.15	-0.15
80	-0.12	.	-0.31	0.03	0.49	0.32	-0.57	-2.30	-1.96	.	-1.38	-0.06
81	0.04	.	0.50	0.56	1.82	1.63	1.51	.	0.09	-0.11	0.41	0.96
82	0.70	0.15	-0.20	-0.11	0.86	0.78	-0.82	.	0.44	0.47	0.49	.
83	.	0.12	.	1.30	0.99	1.00	1.04	-0.14	0.50	0.65	0.72	0.03
84	-0.51	-0.19	.	-0.78	-1.93	-2.21	-0.42	0.30	0.71	0.29	-0.53	-0.40
85	-1.11	-0.52	-0.46	-0.43	-0.98	-1.03	-0.46	-2.28	-0.24	0.27	-0.76	.
86	-0.51	-0.39	-0.46	-0.16	0.81	1.08	0.82	0.78	0.12	-0.80	-0.46	-1.21

Table 2 (continued)

STATION 27: monthly TEMPERATURE residuals

-----DEPTH=20-----

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
52	.	.	.	.	.	.	.	.	.	-0.13	.	.
54	.	-0.67	.	-0.17	.	.	.	.	.	.	.	.
55	.	.	.	.	-1.68	.	.	-0.98	.	.	.	.
56	.	.	.	.	.	.	.	.	.	-0.33	.	.
57	.	-0.92	.	-0.46	.	-2.71	.	.	.	.	.	.
58	.	.	.	.	.	.	.	.	0.94	.	.	.
59	-0.45	-0.48	-0.28	-0.25	-0.29	-0.34	-1.08	-0.08	1.28	-0.59	-0.74	0.14
60	-0.23	.	0.76	0.19	-0.48	1.41	-1.10	-0.25	2.40	0.28	.	-0.33
61	-0.26	-0.49	-0.25	.	.	-1.27	1.11	-0.99	0.26	1.53	1.84	.
62	1.04	0.20	-0.03	.	0.26	0.49	-2.13	-3.64	0.24	-0.25	0.80	.
63	0.78	0.61	0.18	-0.26	-0.67	0.36	3.38	2.08	0.12	-0.64	0.48	0.19
64	-0.08	-0.02	-0.12	-0.30	-0.97	-0.84	-1.21	0.23	-0.27	-0.63	-0.84	0.07
65	0.17	-0.38	0.10	-0.05	-0.26	0.76	-0.48	-1.84	-2.96	-0.82	-0.28	0.53
66	.	0.77	0.63	0.51	-0.42	0.86	-0.85	-4.03	-0.38	-1.20	0.11	1.02
67	0.99	0.00	-0.22	-1.00	-1.82	0.12	-0.50	0.68	2.29	1.81	1.73	1.27
68	0.92	0.88	0.81	0.53	0.10	-0.37	1.77	-0.38	-0.39	-0.29	0.33	0.75
69	0.32	0.69	1.32	0.85	0.71	0.17	-0.68	1.38	0.78	-0.98	-0.26	1.76
70	0.89	0.72	1.21	0.61	0.30	1.70	2.31	-0.72	.	-0.34	0.94	0.35
71	-0.72	-0.29	0.29	0.76	1.43	2.26	0.83	1.43	1.11	-0.31	-0.29	0.10
72	-0.49	-0.70	-0.19	-0.59	-0.45	-0.17	1.42	0.82	-0.63	-0.37	-0.80	.
73	-1.62	-0.77	-0.31	-0.72	-1.60	-2.00	-0.91	0.93	1.41	0.45	-0.10	0.19
74	-0.79	-0.71	-0.21	-0.22	-0.16	-0.58	-0.88	-2.97	-0.81	-0.31	-0.55	.
75	-0.37	-0.49	.	.	-0.96	-0.54	-0.47	-2.93	-4.29	-1.04	-0.88	-0.22
76	-0.01	.	0.29	0.16	0.12	0.82	-1.14	0.19	1.53	-0.51	-1.48	-0.43
77	-0.62	-0.62	0.06	0.32	0.39	0.67	-0.43	1.61	-0.37	-0.69	-0.14	-0.29
78	-0.01	0.35	0.34	0.03	0.54	-0.69	2.44	4.05	0.22	-1.01	-0.90	.
79	0.31	-0.08	0.14	.	-1.28	-2.18	-0.11	2.72	2.13	-0.00	0.27	0.11
80	0.06	.	-0.01	0.19	0.52	0.75	-2.05	-3.87	-1.65	.	-1.24	0.09
81	0.03	.	0.83	0.67	1.32	1.47	4.66	.	0.24	-0.84	0.34	1.35
82	0.64	0.05	0.02	-0.06	0.52	1.91	-0.40	.	1.55	0.20	0.53	.
83	.	-0.21	.	-1.38	0.44	0.85	0.22	1.12	1.22	0.39	0.70	0.20
84	-0.58	-0.36	.	-0.74	-2.39	-3.60	-1.14	-1.00	-0.16	-0.15	-0.58	-0.18
85	-1.13	-0.64	-0.23	-0.42	-1.11	-0.59	-0.90	-0.75	0.69	0.13	-1.01	.
86	-0.55	-0.53	-0.25	-0.43	0.37	1.74	3.50	-0.83	0.48	-0.92	-0.45	-0.79

-----DEPTH=30-----

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
46	.	.	.	.	.	0.76	5.11	3.05	2.16	1.17	-0.62	-0.16
47	.	.	-0.01	.	0.03	1.98	4.07	.	.	0.55	-0.19	.
48	.	.	-0.41	-0.26	-0.52	0.33	1.31	.	.	.	.	.
49	.	.	.	.	.	3.93	.	1.36	0.90	.	.	0.80
50	0.35	2.79	-0.32	0.08	.	1.79	3.27	0.67	-0.13	.	0.29	1.42
51	0.71	0.35	0.89	1.62	0.20	0.45	0.50	-1.96	2.83	1.66	.	.
52	-0.12	.	.	0.65	0.62	0.08	0.23	-1.11	1.40	1.72	.	1.07
53	.	0.58	.	0.12	0.17	1.39	3.07	3.13	2.47	1.15	0.63	0.44
54	-0.20	-0.22	0.72	.	-0.19	0.78	0.20	-3.51	-3.64	-1.50	-0.89	-0.75
55	0.41	0.51	.	-0.41	.	0.45	3.67	3.25	1.87	-1.54	-0.48	0.28
56	0.93	0.56	0.62	0.14	-0.30	1.40	0.77	-3.24	-0.31	0.24	0.89	0.98
57	-0.29	.	-0.63	.	-0.79	1.29	-0.25	-3.03	-1.00	-0.32	-0.46	-0.21
58	0.44	0.87	1.22	1.41	0.98	2.59	5.25	7.15	.	-0.03	-0.47	-0.44
59	-0.47	-0.70	-0.36	0.07	0.20	0.42	-0.21	-2.19	2.87	-0.30	-0.92	0.26
60	0.03	0.24	0.58	0.38	-0.42	-0.90	-1.99	-2.05	1.56	-0.28	-0.12	-0.26
61	-0.16	-0.81	-0.43	.	-1.62	-2.14	-0.13	-0.32	2.08	2.10	1.56	.
62	1.13	-0.00	-0.21	.	-0.05	0.29	-1.46	-2.92	1.71	-0.09	0.89	.
63	0.84	0.40	0.04	0.02	-0.20	1.26	0.94	3.15	0.78	-0.00	0.37	0.32
64	0.04	-0.24	-0.27	-0.10	-1.17	-2.20	-0.37	0.49	1.16	-1.13	-0.97	0.26
65	0.34	-0.23	0.22	0.06	-0.02	1.53	-1.30	-1.57	-3.75	-0.74	-0.81	0.67
66	.	0.50	0.30	0.61	-0.21	1.36	-0.63	-2.10	1.29	-1.85	-0.18	1.10
67	0.78	-0.21	-0.36	-0.75	-1.85	-0.97	-1.24	-0.79	-0.28	2.01	1.26	1.48
68	1.09	0.68	0.69	0.72	0.12	0.70	3.01	-0.37	0.39	0.25	0.32	0.90
69	0.38	0.71	1.17	0.85	0.83	0.35	0.31	-1.08	-0.52	-0.72	-0.34	1.86
70	0.87	0.43	0.75	0.76	-0.39	1.19	3.22	-0.27	.	0.19	0.87	0.39
71	-0.71	-0.54	0.09	0.91	1.06	0.02	0.40	1.92	-0.51	-1.00	-0.47	0.30
72	-0.47	-0.96	-0.38	-0.58	-0.75	-1.78	0.23	-1.61	-0.14	-0.69	-0.81	.
73	-1.58	-1.03	-0.49	-0.76	-1.86	-1.76	-0.83	1.62	3.46	1.18	-0.43	0.26
74	-0.74	-0.91	-0.35	-0.11	-0.18	0.44	1.42	-2.35	-3.11	-0.68	-0.64	.
75	-0.41	-0.66	.	.	-0.62	0.27	0.37	-2.25	-5.55	-2.94	-0.96	-0.18
76	-0.08	-0.55	-0.04	0.30	-0.18	1.15	0.49	-1.82	-0.15	-0.09	-1.42	-0.29
77	-0.56	-0.96	-0.21	0.31	0.15	0.87	0.43	1.84	0.53	-0.37	-0.60	-0.11
78	0.08	0.06	0.20	0.13	0.37	-1.51	-0.01	-0.55	0.07	-3.00	-1.53	.
79	0.04	.	-0.01	0.47	-0.84	-2.01	-0.66	1.25	4.17	0.43	0.16	0.15
80	0.30	.	-0.16	0.48	0.48	1.15	-1.64	-1.39	0.83	.	-1.25	0.23
81	0.15	.	0.59	0.78	0.43	-0.57	-1.29	.	-2.78	-0.41	0.07	1.52
82	0.69	-0.17	-0.17	0.05	0.00	1.80	-0.48	.	0.34	0.97	0.57	.
83	.	-0.35	.	-1.10	-0.57	-2.32	-1.54	-0.08	1.10	0.85	0.69	0.25
84	-0.59	-0.60	.	-0.40	-1.85	-2.65	-1.36	-2.21	-3.79	-1.92	-0.62	-0.50
85	-1.15	-0.95	-0.42	-0.32	-1.08	-1.65	-1.54	-1.37	1.63	0.58	-1.14	.
86	-0.52	-0.77	-0.36	-0.35	0.23	1.02	2.07	-1.43	0.84	-0.37	-0.69	-0.68

Table 2 (continued)

STATION 27: monthly TEMPERATURE residuals

-----DEPTH=50-----

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
46	.	.	.	.	.	-0.68	2.61	1.88	0.60	2.94	-0.19	-0.21
47	.	.	-0.20	.	0.69	1.83	2.57	.	-2.09	-0.17	0.12	.
48	.	.	-0.35	-0.08	-0.17	1.47	1.65	2.09	.	.	.	.
49	.	.	.	.	.	1.63	.	0.06	0.04	.	.	-0.20
50	.	.	.	-0.34	.	0.19	-0.39	-1.06	-2.03	.	0.01	0.54
51	0.67	0.47	0.39	1.30	0.23	-0.49	-0.32	-0.31	.	-2.94	.	.
52	-0.02	.	.	0.38	-0.13	0.31	-0.50	-0.96	2.05	-0.73	.	0.29
53	.	0.93	.	-0.39	-0.65	0.09	0.85	1.62	1.36	1.93	1.31	0.44
54	0.06	-0.19	0.03	0.09	0.21	0.13	-0.19	-0.47	-2.67	-1.43	0.09	-0.63
55	0.77	0.73	.	-0.44	-0.57	-0.38	0.00	0.95	0.98	-0.01	-0.84	-0.11
56	0.61	0.73	0.50	0.48	-0.07	-0.55	0.12	-0.92	-1.20	0.25	0.81	0.75
57	-0.26	-0.65	-0.37	-0.02	-0.43	-0.73	-0.75	-0.88	-0.84	-1.25	-0.76	-0.38
58	0.71	1.09	1.05	0.90	0.04	-0.17	0.40	0.85	1.70	0.51	-0.23	-0.78
59	-0.27	-0.52	-0.43	0.08	-0.07	0.99	0.88	-0.31	.	0.08	-1.09	0.04
60	0.16	.	0.48	0.37	-0.05	-0.53	-0.50	-0.88	-1.93	-1.78	0.00	-0.54
61	0.10	-0.52	-0.56	.	-0.49	-0.50	-0.08	0.45	0.50	-0.22	1.59	.
62	1.38	0.32	-0.25	.	0.16	-0.03	0.29	-0.25	-0.31	1.52	0.14	.
63	1.15	0.70	-0.02	-0.05	0.44	0.15	-0.11	0.87	-0.06	1.14	-1.43	-0.12
64	0.30	-0.08	-0.42	-0.08	-0.39	-0.86	-0.32	-0.37	0.40	-0.14	-0.46	-0.14
65	0.43	0.10	0.13	-0.25	0.15	0.45	0.33	-0.37	0.63	1.42	-0.25	0.39
66	.	0.71	0.13	0.61	0.38	0.67	0.22	-0.11	-0.13	-0.32	-0.21	0.84
67	1.02	-0.00	-0.42	-0.56	-1.12	-1.12	-0.96	-0.98	0.31	1.55	0.67	1.16
68	1.37	0.84	0.30	0.37	1.28	1.71	1.91	1.62	2.11	3.25	1.25	0.47
69	0.55	0.98	0.95	0.95	1.11	0.74	0.04	-0.91	-0.12	1.91	-0.36	0.33
70	0.44	0.56	0.36	0.62	-0.18	-0.35	0.61	-0.51	.	2.24	0.80	0.14
71	-0.52	-0.25	-0.17	0.56	0.60	0.03	0.22	-0.06	-0.56	0.34	0.03	0.14
72	-0.19	-0.64	-0.54	-0.43	-0.42	-0.95	-0.96	-0.85	-2.14	-3.39	-1.78	.
73	-1.10	-0.58	-0.48	-0.57	-1.09	-1.30	-0.63	0.39	2.13	1.27	-0.26	0.03
74	-0.49	-0.66	-0.49	-0.28	-0.38	0.46	0.88	-0.33	-2.66	-3.64	-0.04	.
75	-0.03	-0.31	.	.	0.39	0.80	1.10	-0.07	-2.62	-2.09	-0.61	-0.62
76	-0.21	-0.38	-0.28	0.42	0.19	1.51	1.47	0.99	-0.16	-0.16	-1.00	-0.26
77	-0.26	-0.53	-0.38	-0.20	-0.14	-1.15	-0.88	-0.53	-0.34	-0.10	-0.40	-0.20
78	0.37	0.24	0.18	-0.16	-0.23	-1.06	-0.70	0.07	2.93	-3.16	-1.74	.
79	0.48	-0.02	-0.15	0.69	0.22	-0.52	-0.04	0.20	1.12	-0.16	-0.02	-0.08
80	0.41	.	-0.18	0.86	0.26	0.75	-0.19	0.32	-0.21	.	.	0.15
81	0.22	.	-0.32	0.49	-0.16	-0.52	-0.30	.	-1.79	0.71	0.54	1.33
82	0.87	0.13	-0.35	-0.19	0.28	0.28	0.10	.	-0.83	1.40	1.52	.
83	.	0.09	.	-0.71	-1.00	-1.31	-0.77	-0.86	-1.46	1.05	1.24	0.05
84	-0.41	-0.42	.	-0.35	-0.97	-1.17	-0.87	0.09	-1.92	-0.74	-0.20	-1.09
85	-1.02	-0.66	-0.56	-0.27	-0.30	-0.77	-0.60	-0.31	-1.73	1.41	-0.61	.
86	-0.33	-0.52	-0.53	-0.26	0.36	0.01	0.58	0.11	.	2.61	0.09	-0.81

-----DEPTH=75-----

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
47	.	.	0.01	.	0.25	0.95	1.22	.	.	.	.	.
48	.	.	-0.20	-0.23	-0.19	-0.10	0.66	1.52	.	.	.	.
49	.	.	.	.	.	0.61	.	0.03	-0.04	.	.	-0.12
50	-0.13	.	-0.39	-0.49	.	-0.31	-0.48	-0.28	0.32	.	0.45	0.50
51	0.49	0.64	0.15	-0.15	-0.03	-0.09	0.00	0.29	1.05	0.05	.	.
52	-0.29	.	.	-0.02	-0.03	0.26	0.03	0.39	1.75	-0.72	.	-0.42
53	.	0.98	.	-0.16	-0.16	-0.17	0.07	1.68	1.24	0.06	1.62	0.24
54	-0.04	0.12	-0.04	0.12	0.27	0.23	-0.05	0.04	-0.54	-0.13	1.12	-0.25
55	0.73	0.82	.	-0.37	-0.22	-0.14	-0.08	0.11	0.32	1.08	0.73	-0.07
56	0.30	0.81	0.59	0.38	0.09	-0.17	-0.03	-0.08	-0.41	-0.45	0.19	-0.40
57	-0.43	-0.54	-0.25	-0.04	-0.36	-0.50	-0.54	-0.49	-0.62	-1.36	-0.55	-0.39
58	0.39	0.96	0.83	0.31	0.13	-0.02	-0.31	-0.14	0.97	0.67	1.18	-0.61
59	-0.45	-0.32	-0.28	0.04	0.13	0.10	0.04	0.09	0.40	-0.82	0.15	-0.29
60	-0.09	0.40	0.51	0.41	0.13	-0.23	-0.28	-0.29	-0.60	-0.83	-0.48	-0.66
61	-0.23	-0.38	-0.41	.	0.14	-0.21	-0.15	0.39	0.52	0.14	0.88	.
62	0.79	0.36	-0.09	.	0.17	0.01	-0.18	-0.28	0.03	-0.24	-1.31	.
63	0.67	0.71	-0.13	-0.09	0.18	-0.04	0.03	0.02	0.35	-0.16	-0.92	-0.35
64	-0.04	0.01	-0.27	-0.21	0.05	-0.13	-0.24	-0.30	-0.32	-0.29	0.97	-0.12
65	0.06	0.22	0.09	-0.32	0.52	0.47	0.03	-0.04	0.45	0.16	0.08	0.13
66	.	0.93	0.37	0.51	0.51	0.63	0.14	0.21	0.29	-0.51	0.20	0.12
67	0.76	0.13	-0.24	-0.39	-0.59	-0.54	-0.59	-0.51	1.36	1.43	0.87	0.84
68	1.11	0.81	0.30	0.14	0.76	1.73	1.23	0.96	0.50	-0.37	1.06	0.27
69	0.19	0.93	0.91	0.89	0.90	0.52	0.01	-0.14	0.28	1.31	-0.36	-0.65
70	-0.03	0.60	0.38	0.44	0.01	0.01	-0.34	-0.50	.	-0.51	-0.92	-0.41
71	-0.57	-0.02	-0.01	-0.14	-0.11	-0.22	0.19	0.42	0.07	2.30	0.01	-0.13
72	-0.35	-0.42	-0.46	-0.45	-0.42	-0.33	-0.48	-0.39	-0.75	-1.50	-0.46	.
73	-1.33	-0.53	-0.39	-0.63	-0.67	-0.66	-0.25	-0.02	0.46	-0.78	-1.32	0.30
74	-0.48	-0.60	-0.41	-0.45	-0.31	-0.31	-0.50	-0.17	-0.58	-1.38	-1.50	.
75	-0.16	-0.25	.	.	0.92	1.37	0.75	0.18	-0.40	0.79	0.46	-0.25
76	-0.07	-0.18	-0.41	-0.23	-0.10	0.54	1.37	0.31	0.81	0.22	0.43	-0.05
77	-0.44	-0.25	-0.43	-0.54	-0.55	-0.46	-0.59	-0.16	-0.34	-0.91	0.09	0.01
78	0.04	0.49	0.24	-0.34	-0.44	-0.62	.	-0.25	0.48	-1.39	-0.57	.
79	0.02	0.09	-0.16	.	0.64	0.06	0.01	-0.05	-0.08	-1.00	0.40	0.02
80	0.07	.	-0.12	0.70	0.09	0.28	-0.23	-0.28	-0.04	.	.	0.14
81	-0.07	.	0.29	0.30	-0.02	0.02	-0.07	.	-0.08	0.25	1.63	0.64
82	0.52	0.18	-0.30	-0.29	-0.17	-0.00	-0.12	.	0.12	1.94	3.11	.
83	.	0.06	.	-0.59	-0.50	-0.48	-0.49	-0.49	-0.73	-0.61	-0.33	0.01
84	-0.51	-0.48	.	-0.26	-0.40	-0.49	-0.58	-0.17	-0.50	-1.15	-0.20	-1.35
85	-1.33	-0.55	-0.39	-0.26	-0.09	-0.21	-0.43	-0.38	0.01	-0.55	-0.36	.
86	-0.76	-0.26	-0.40	-0.31	0.16	-0.39	-0.40	-0.25	0.11	0.82	1.23	-0.50

Table 2 (continued)

STATION 27: monthly TEMPERATURE residuals

-----DEPTH=100-----												
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
46	.	.	.	.	.	-0.07	-0.09	0.12	0.56	0.48	0.43	0.13
47	.	.	0.10	.	-0.01	0.31	0.61	.	0.84	0.50	1.98	.
48	.	.	-0.19	-0.37	-0.19	0.17	0.18	0.33	.	.	.	.
49	.	.	.	.	.	0.07	.	0.12	-0.04	.	.	0.29
50	-0.10	.	-0.09	-0.28	.	-0.05	-0.20	-0.24	0.28	.	0.37	0.28
51	0.27	0.38	0.26	0.35	0.10	0.16	0.01	0.24	0.87	0.56	.	.
52	-0.24	.	.	0.25	0.34	0.36	0.05	0.36	0.25	-0.16	.	0.10
53	.	0.77	.	0.17	0.30	0.00	0.14	0.65	1.59	0.57	0.59	0.34
54	0.15	-0.05	-0.21	-0.00	0.20	0.51	0.01	-0.12	-0.03	0.19	1.28	0.63
55	0.84	0.73	.	0.02	0.04	0.09	0.12	0.07	0.13	1.64	1.39	0.38
56	0.44	0.70	0.70	0.25	0.13	0.06	0.05	-0.02	0.05	0.19	0.72	0.39
57	-0.28	-0.57	-0.30	-0.25	-0.30	-0.24	-0.26	-0.15	-0.13	-0.42	0.46	-0.46
58	0.34	0.62	0.88	0.69	0.14	0.14	0.05	-0.28	-0.19	0.71	1.11	0.09
59	-0.53	-0.31	-0.18	-0.19	0.02	0.16	0.09	0.09	0.39	-0.50	-0.42	0.15
60	-0.02	0.22	0.59	0.28	-0.12	0.03	-0.04	-0.13	-0.22	-0.49	-0.72	-0.15
61	-0.32	-0.48	-0.34	.	-0.09	0.04	0.05	0.14	0.15	0.42	0.01	.
62	0.75	0.52	-0.02	.	-0.01	0.32	0.12	-0.12	0.15	-0.17	-0.77	.
63	0.32	0.59	-0.14	-0.25	-0.10	0.05	0.00	-0.01	0.11	-0.18	-0.56	-0.17
64	-0.08	-0.07	-0.16	-0.26	0.04	0.06	-0.08	-0.24	-0.19	-0.26	1.67	0.35
65	0.01	0.13	0.29	-0.11	-0.14	-0.00	-0.04	0.02	0.16	0.04	0.00	0.12
66	.	0.82	0.70	0.66	0.56	0.71	0.52	0.46	0.54	0.19	-0.51	0.03
67	0.53	0.06	-0.21	-0.18	-0.34	-0.22	-0.26	-0.14	0.71	0.97	0.46	1.05
68	0.94	0.79	0.53	0.08	0.23	0.61	0.30	0.23	0.22	0.05	-0.33	0.48
69	0.29	0.81	1.02	1.00	0.58	0.36	0.26	0.02	-0.11	0.25	-0.42	-1.12
70	-0.30	0.44	0.44	0.27	-0.11	0.08	-0.10	-0.24	.	-0.60	-1.31	-0.34
71	-0.54	-0.02	0.14	-0.22	-0.12	-0.18	-0.06	0.08	0.08	.	-0.41	0.15
72	-0.31	-0.09	-0.33	-0.26	-0.23	-0.13	-0.28	-0.38	-0.27	-0.08	0.80	.
73	-1.48	-0.67	-0.32	-0.41	-0.46	-0.34	-0.27	-0.25	-0.03	-0.58	-1.20	-0.00
74	-0.68	-0.66	-0.37	-0.38	-0.35	-0.23	-0.34	-0.39	-0.40	-0.55	-1.05	.
75	-0.34	-0.31	.	.	0.78	0.82	0.44	0.12	-0.03	1.66	1.43	0.49
76	-0.08	-0.12	-0.19	-0.31	-0.23	0.14	0.42	0.09	0.54	-0.09	-0.11	0.13
77	-0.52	-0.57	-0.36	-0.39	-0.19	-0.22	-0.28	-0.20	-0.08	-0.54	-1.03	0.35
78	0.18	0.43	0.32	-0.13	-0.26	-0.18	.	-0.16	0.40	-0.19	0.81	.
79	-0.18	0.07	-0.05	0.81	0.24	0.00	0.05	-0.10	-0.05	-0.46	-0.81	0.25
80	-0.34	.	-0.25	-0.15	-0.04	0.01	-0.25	-0.25	-0.12	.	0.63	-0.27
81	-0.06	.	0.46	0.35	0.08	0.23	0.12	.	0.13	-0.11	0.70	0.96
82	0.43	0.14	-0.24	-0.14	-0.17	-0.03	-0.10	.	0.33	-0.14	.	.
83	.	-0.01	.	-0.36	-0.32	-0.09	-0.24	0.10	-0.18	-0.32	-0.94	0.42
84	0.24	-0.56	.	-0.22	-0.26	-0.19	-0.23	-0.27	-0.38	-0.79	-0.48	-0.66
85	-1.32	-0.67	-0.33	-0.30	-0.30	-0.17	-0.28	-0.32	-0.37	-0.69	-0.91	.
86	-0.71	-0.45	-0.31	-0.21	-0.23	.	-0.21	-0.36	-0.14	-0.15	-0.36	0.17

-----DEPTH=125-----												
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
47	.	.	.	.	.	.	.	.	0.66	0.59	.	.
50	.	.	.	.	.	.	.	.	0.04	.	.	0.36
51	.	.	.	.	.	0.08	.	.	.	.	.	.
57	.	.	.	-0.34	.	.	.	.	.	.	.	.
64	.	.	-0.03	-0.31	0.00	-0.09	.	-0.07	-0.12	0.13	0.48	.
65	0.14	0.00	0.20	-0.11	-0.23	-0.03	0.14	0.18	0.56	0.18	0.00	-0.32
66	.	0.69	0.74	0.68	0.26	0.56	0.73	0.55	0.68	0.77	0.34	0.43
67	0.52	0.10	-0.07	-0.07	-0.22	-0.10	-0.11	-0.11	0.20	0.35	0.01	0.24
68	1.01	0.79	0.92	0.37	0.34	0.33	0.16	0.03	0.23	0.24	-0.24	0.45
69	0.68	0.84	0.82	0.79	0.52	0.49	0.45	0.18	0.13	0.15	-0.06	-0.43
70	0.05	0.41	0.39	0.10	0.08	0.21	0.24	-0.12	.	-0.16	-0.66	0.03
71	-0.35	-0.02	0.25	-0.11	-0.12	0.04	-0.04	-0.03	-0.05	0.37	-0.13	0.84
72	0.25	0.20	-0.19	-0.19	-0.17	0.06	-0.20	-0.30	-0.18	-0.16	0.55	.
73	-1.30	-0.74	-0.42	-0.37	-0.37	-0.21	-0.18	-0.32	-0.25	-0.33	-0.57	0.19
74	-0.43	-0.73	-0.38	-0.36	-0.36	-0.26	-0.25	-0.30	-0.27	-0.30	-0.47	.
75	-0.22	-0.46	.	.	-0.03	-0.06	0.04	0.00	0.10	0.80	0.78	1.09
76	0.37	0.24	-0.10	-0.23	-0.06	0.30	0.31	-0.01	-0.00	-0.13	-0.39	-0.57
77	-0.40	-0.50	-0.40	-0.22	-0.22	-0.07	-0.18	-0.21	-0.19	-0.28	-0.52	0.16
78	0.27	0.62	0.42	0.04	0.05	-0.09	0.07	0.20	0.04	.	0.97	.
79	0.02	0.16	.	1.09	0.36	0.01	0.16	-0.06	0.04	0.11	-0.05	0.10
80	-0.15	.	-0.23	-0.12	0.15	0.01	-0.09	-0.17	-0.17	.	-0.29	-0.46
81	-0.27	.	0.57	0.30	0.10	0.28	0.23	.	0.15	0.16	-0.05	0.02
82	0.40	0.34	-0.24	-0.10	-0.18	0.00	-0.04	.	0.25	0.28	-0.22	.
83	.	-0.04	.	.	-0.17	.	-0.12	-0.21	-0.19	-0.22	-0.55	0.42
84	-0.00	-0.24	.	-0.16	-0.25	-0.08	-0.06	-0.18	-0.23	-0.23	-0.46	0.00
85	-1.05	-0.80	-0.40	-0.30	-0.30	-0.22	-0.20	-0.24	-0.24	-0.05	-0.53	.
86	-0.36	-0.31	-0.27	-0.18	-0.27	-0.13	-0.14	-0.13	0.10	0.11	0.32	0.44

Table 2 (continued)

STATION 27: monthly TEMPERATURE residuals

DEPTH=150

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
46	.	.	.	.	.	-0.14	-0.14	-0.02	-0.03	0.25	0.74	.
47	.	.	-0.24	.	-0.13	-0.02	0.86	0.41	0.27	0.37	.	.
48	.	.	-0.38	-0.31	-0.26	-0.18	-0.07	-0.17	.	.	.	.
49	.	.	.	.	.	-0.09	.	0.05	0.16	.	.	-0.04
50	0.02	.	-0.62	-0.45	.	-0.39	-0.33	-0.26	-0.31	.	-0.30	0.17
51	0.79	0.39	0.27	0.35	0.23	0.07	0.06	0.12	0.53	0.29	.	.
52	-0.27	.	.	0.11	0.57	0.60	0.26	0.03	-0.00	0.28	.	0.31
53	.	0.48	.	0.93	0.47	0.10	-0.04	-0.01	0.26	0.20	0.03	0.36
54	0.21	0.22	-0.04	-0.07	-0.19	-0.03	-0.13	-0.20	-0.13	0.06	0.07	0.08
55	0.64	0.54	.	0.37	0.05	0.16	0.13	0.01	0.13	0.18	0.08	0.22
56	0.31	0.66	0.78	0.56	0.23	-0.04	0.03	0.00	-0.10	-0.08	0.02	0.64
57	.	-0.19	-0.54	-0.33	-0.10	-0.28	-0.26	-0.14	0.02	0.15	-0.11	-0.22
58	-0.09	0.09	0.34	0.48	0.43	0.28	0.24	0.17	-0.02	0.21	0.08	0.86
59	0.60	-0.39	-0.44	-0.30	-0.30	-0.29	-0.14	-0.14	-0.20	-0.17	-0.29	-0.17
60	0.25	0.13	0.33	0.35	-0.01	-0.02	0.15	-0.05	0.16	0.14	-0.11	-0.13
61	-0.11	-0.43	-0.38	.	-0.28	-0.14	0.01	-0.07	-0.02	0.05	0.00	.
62	0.90	0.81	-0.10	.	0.11	0.17	0.31	0.13	0.05	0.33	0.30	.
63	0.30	0.45	0.33	-0.20	-0.06	0.09	0.06	0.09	-0.02	0.08	0.05	0.11
64	.	-0.34	-0.28	-0.40	-0.25	-0.20	-0.06	-0.09	-0.09	-0.10	0.16	-0.06
65	0.09	-0.14	0.12	-0.10	-0.34	-0.14	0.18	0.23	0.08	0.54	0.23	0.46
66	.	0.75	0.92	0.68	0.29	0.75	0.92	0.78	1.20	0.96	0.75	0.54
67	0.49	0.38	-0.01	-0.14	-0.11	-0.18	-0.11	-0.23	-0.08	0.05	0.19	0.38
68	0.86	0.78	0.83	0.71	0.91	0.31	0.25	0.19	0.16	0.12	0.06	-0.08
69	-0.19	0.58	0.59	0.72	0.65	0.58	0.48	0.50	0.35	0.28	0.09	-0.19
70	0.11	0.11	0.38	0.47	0.50	0.38	0.84	0.11	.	-0.04	-0.31	0.08
71	-0.09	-0.01	0.28	0.04	-0.15	-0.04	-0.01	-0.09	0.27	0.06	0.02	0.90
72	0.37	-0.09	-0.36	-0.23	-0.23	-0.22	-0.30	-0.33	-0.34	-0.30	-0.09	.
73	-1.01	-0.87	-0.54	-0.40	-0.41	-0.37	-0.27	-0.41	-0.42	-0.26	-0.33	-0.17
74	-0.41	-0.77	-0.61	-0.51	-0.40	-0.43	-0.44	-0.41	-0.35	-0.35	-0.40	.
75	0.01	-0.25	.	.	-0.27	-0.25	-0.20	0.05	0.30	0.21	0.18	0.54
76	0.53	0.35	0.06	0.14	0.24	0.22	0.12	-0.05	-0.16	-0.18	.	-0.42
77	-0.36	-0.38	-0.21	0.07	-0.18	0.07	.	-0.29	-0.27	-0.14	-0.36	-0.38
78	-0.35	0.26	.	0.05	0.16	0.42	0.04	.	0.02	0.08	0.38	.
79	0.26	-0.05	-0.01	0.30	-0.16	-0.18	0.13	-0.05	0.04	0.42	0.04	0.01
80	0.22	.	0.19	0.06	0.12	0.33	-0.04	0.05	0.02	.	-0.06	-0.25
81	-0.36	.	0.38	0.33	0.28	0.37	0.06	.	0.23	0.12	0.03	0.08
82	0.14	0.12	-0.36	-0.08	-0.11	-0.06	-0.02	.	-0.02	0.11	-0.04	.
83	.	-0.01	.	-0.27	-0.29	-0.19	-0.23	-0.18	-0.18	-0.29	-0.45	-0.14
84	-0.27	-0.42	.	-0.28	-0.29	-0.10	-0.09	-0.25	-0.14	-0.21	-0.39	-0.30
85	-0.66	-0.97	-0.60	-0.43	-0.39	-0.45	-0.33	-0.35	-0.37	-0.36	-0.45	.
86	-0.31	-0.40	-0.37	-0.31	-0.37	-0.14	-0.14	0.02	0.06	0.34	0.27	-0.02

DEPTH=175

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
46	.	.	.	.	.	.	.	.	.	.	1.10	0.02
47	.	.	-0.62	.	.	-0.09	0.02	.	0.91	1.04	0.71	.
48	.	.	-0.78	-0.35	-0.23	-0.23	-0.07	0.06	.	.	.	.
49	.	.	.	.	.	0.09	0.17	0.14	-0.14	-0.22	.	.
50	0.08	-0.65	-0.76	-0.72	.	.	-0.52	.	.	.	.	.
51	1.17	.	.	0.06	0.12	0.16	0.21	-0.03	.	0.16	.	.
52	-0.19	.	.	0.48	0.76	0.63	0.15	-0.08	-0.12	-0.39	.	-0.24
53	.	0.40	.	0.82	0.42	.	-0.15	0.00	-0.01	-0.01	-0.15	0.02
54	.	.	0.24	.	-0.04	0.16	0.03	.	.	-0.17	-0.19	-0.16
55	0.13	.	.	0.16	.	.	.	.	-0.09	-0.11	-0.21	-0.08
56	.	0.76	0.51	0.20	-0.21	-0.07	-0.13	-0.25	.	.	.	-0.23
57	.	.	-0.61	.	-0.28	-0.08	-0.28	.	-0.17	0.06	-0.07	-0.19
58	-0.19	-0.08	0.11	0.19	0.28	0.40	0.27	0.10	0.15	0.32	-0.01	0.76
59	0.67	.	-0.55	-0.43	.	-0.49	-0.45	-0.39	-0.37	-0.34	-0.43	-0.40
60	-0.27	0.02	0.06	0.39	0.58	0.57	0.35	0.02	0.18	0.11	0.10	-0.14
61	-0.06	-0.28	-0.36	.	-0.43	-0.28	-0.15	-0.25	-0.18	.	0.06	.
62	0.77	0.76	-0.04	0.07	-0.05	0.07	0.21	0.09	-0.07	0.28	0.26	.
63	0.04	.	0.19	-0.25	-0.12	0.35	0.36	-0.01	-0.06	-0.12	-0.01	0.10
64	.	.	-0.19	-0.45	-0.51	-0.35	-0.23	-0.31	-0.32	-0.12	0.22	-0.06
65	-0.04	0.01	0.08	-0.07	-0.31	-0.08	0.27	0.19	-0.02	.	0.19	0.48
66	.	0.86	1.01	0.66	0.54	1.30	1.29	1.34	1.37	1.43	0.86	0.56
67	0.64	0.38	0.34	-0.18	-0.04	-0.19	-0.23	-0.33	-0.14	0.31	.	0.27
68	0.68	0.70	0.72	0.98	0.73	0.33	0.68	0.47	0.11	0.13	-0.11	-0.13
69	-0.20	0.25	0.33	0.41	0.43	0.55	0.59	0.66	0.43	0.29	0.09	-0.06
70	0.11	0.01	0.22	0.43	0.61	0.55	0.83	0.52	.	0.21	-0.07	.
71	-0.14	0.05	0.34	0.23	0.08	-0.09	.	0.03	0.18	-0.13	.	-0.05
72	0.05	0.02	-0.18	-0.47	-0.28	-0.44	-0.45	-0.50	-0.58	-0.51	-0.48	.
73	-0.81	-0.89	-0.75	-0.71	-0.64	-0.64	-0.53	-0.62	-0.54	-0.53	-0.35	-0.48
74	-0.40	-0.72	-0.76	-0.77	-0.63	-0.58	-0.65	-0.57	-0.48	-0.48	-0.52	.
75	-0.33	-0.34	.	0.11	-0.53	-0.41	-0.35	-0.19	0.25	0.12	0.13	0.36
76	0.60	0.41	0.12	0.10	-0.07	0.07	-0.02	-0.21	-0.34	-0.42	-0.43	-0.33
77	-0.25	-0.23	-0.14	-0.06	-0.12	-0.02	-0.07	-0.43	-0.32	-0.14	-0.24	0.10
78	-0.40	0.23	0.15	0.19	0.62	.	-0.15	.	0.19	.	0.29	.
79	0.38	0.22	0.52	0.48	-0.01	0.19	-0.11	0.07	0.13	0.46	0.33	0.20
80	.	.	0.14	0.07	0.04	0.33	-0.06	0.23	0.42	.	.	-0.17
81	-0.19	.	0.07	0.19	0.05	0.11	0.21	.	0.21	.	0.42	0.41
82	0.39	0.04	0.13	0.05	0.01	-0.23	-0.19	.	.	.	.	.
83	.	0.03	.	-0.43	.	-0.35	-0.37	.	-0.45	-0.54	-0.59	-0.66
84	-0.73	-0.59	.	.	-0.32	-0.19	0.07	.	-0.34	-0.37	-0.51	-0.66
85	-0.87	-0.95	-0.77	-0.73	-0.66	-0.55	-0.52	-0.58	-0.51	-0.51	.	.
86	-0.36	-0.35	-0.60	.	-0.56	-0.29	-0.09	0.17	0.12	.	.	.



Table 2 (continued)

STATION 27: monthly TEMPERATURE residuals									
VARIABLE	N	MEAN	STANDARD DEVIATION	STD ERROR OF MEAN	MINIMUM VALUE	MAXIMUM VALUE	PR> T	SKEWNESS	KURTOSIS
-----DEPTH=0-----									
JAN	32	0.005	0.658	0.116	-1.358	1.117	0.9661	0.155	-0.793
FEB	30	0.190	0.594	0.109	-0.696	1.242	0.0913	0.250	-1.322
MAR	31	-0.013	0.571	0.103	-0.771	1.150	0.8988	0.612	-0.756
APR	35	-0.041	0.665	0.112	-1.266	1.243	0.7147	0.241	-0.528
MAY	38	-0.055	1.072	0.174	-1.977	1.992	0.7543	-0.037	-1.046
JUN	40	-0.117	1.124	0.178	-2.301	2.140	0.5149	-0.081	-0.686
JUL	40	0.028	0.968	0.153	-2.089	1.854	0.8556	-0.029	-0.709
AUG	35	-0.057	1.247	0.211	-1.799	2.932	0.7891	0.625	-0.667
SEP	39	-0.255	0.926	0.148	-3.189	1.602	0.0941	-0.520	1.488
OCT	38	-0.056	0.807	0.131	-1.885	2.400	0.6693	0.937	2.453
NOV	36	-0.033	0.847	0.141	-1.764	2.270	0.8142	0.601	1.154
DEC	31	-0.041	0.638	0.115	-1.256	1.395	0.7231	0.441	-0.143
-----DEPTH=10-----									
JAN	26	-0.031	0.677	0.133	-1.453	1.074	0.8186	0.063	-0.493
FEB	25	0.024	0.542	0.108	-0.629	1.033	0.8290	0.694	-0.789
MAR	25	-0.005	0.482	0.096	-0.493	1.123	0.9569	1.117	0.445
APR	24	-0.018	0.590	0.120	-1.218	1.298	0.8633	0.220	0.020
MAY	27	-0.009	0.995	0.191	-1.927	1.819	0.9610	-0.078	-0.792
JUN	29	-0.094	1.115	0.207	-2.211	2.318	0.6529	-0.045	-0.398
JUL	28	-0.018	1.086	0.205	-2.322	1.747	0.9291	-0.167	-0.751
AUG	26	-0.101	1.343	0.263	-2.303	3.071	0.7040	0.396	-0.268
SEP	26	-0.187	0.860	0.169	-1.964	1.553	0.2785	0.020	-0.516
OCT	27	-0.027	0.727	0.140	-0.999	2.031	0.8481	1.538	2.743
NOV	28	-0.048	0.876	0.166	-1.606	2.038	0.7754	0.663	0.427
DEC	21	-0.015	0.636	0.139	-1.213	1.420	0.9148	0.595	0.334
-----DEPTH=20-----									
JAN	26	-0.067	0.680	0.133	-1.616	1.039	0.6199	-0.091	-0.282
FEB	26	-0.150	0.555	0.109	-0.918	0.890	0.1811	0.677	-0.759
MAR	25	0.195	0.475	0.095	-0.314	1.323	0.0513	1.051	0.206
APR	26	-0.086	0.561	0.110	-1.376	0.853	0.4416	-0.237	-0.270
MAY	28	-0.269	0.946	0.179	-2.392	1.429	0.1436	-0.383	-0.309
JUN	29	0.016	1.415	0.263	-3.598	2.257	0.9516	-0.723	0.352
JUL	28	-0.185	1.750	0.331	-2.126	4.659	0.5804	1.077	0.372
AUG	27	-0.297	2.017	0.388	-4.028	4.054	0.4518	-0.151	-0.163
SEP	28	0.250	1.475	0.279	-4.288	2.401	0.3785	-1.265	2.561
OCT	29	-0.260	0.694	0.129	-1.202	1.809	0.0527	1.447	2.658
NOV	27	-0.092	0.839	0.162	-1.484	1.836	0.5748	0.624	0.068
DEC	21	0.280	0.640	0.140	-0.792	1.764	0.0583	0.788	0.296
-----DEPTH=30-----									
JAN	34	0.045	0.646	0.111	-1.585	1.131	0.6895	-0.322	-0.125
FEB	32	-0.067	0.786	0.139	-1.027	2.794	0.6311	1.497	4.197
MAR	33	0.076	0.513	0.089	-0.632	1.222	0.4035	0.765	-0.520
APR	33	0.175	0.608	0.106	-1.096	1.619	0.1071	0.227	0.144
MAY	37	-0.264	0.751	0.123	-1.860	1.062	0.0393	-0.588	0.083
JUN	41	0.258	1.493	0.233	-2.653	3.932	0.2753	-0.227	-0.211
JUL	40	0.586	1.912	0.302	-1.989	5.247	0.0599	0.943	0.107
AUG	38	-0.327	2.276	0.369	-3.510	7.145	0.3809	1.149	1.657
SEP	37	0.293	2.176	0.358	-5.555	4.171	0.4186	-0.870	0.625
OCT	37	-0.134	1.231	0.202	-2.997	2.095	0.5133	-0.333	0.114
NOV	37	-0.228	0.770	0.127	-1.529	1.560	0.0797	0.497	-0.479
DEC	31	-0.363	0.677	0.122	-0.748	1.862	0.0056	0.452	-0.456
-----DEPTH=50-----									
JAN	33	0.210	0.614	0.107	-1.099	1.381	0.0581	-0.054	-0.242
FEB	32	0.051	0.570	0.101	-0.662	1.087	0.6147	0.330	-1.291
MAR	32	-0.072	0.435	0.077	-0.565	1.050	0.3554	0.981	0.347
APR	35	0.101	0.507	0.086	-0.713	1.301	0.2458	0.490	-0.655
MAY	38	-0.053	0.543	0.088	-1.121	1.278	0.5514	0.096	0.380
JUN	41	-0.024	0.877	0.137	-1.310	1.829	0.8643	0.518	-0.542
JUL	40	0.169	0.910	0.144	-0.964	2.611	0.2460	1.127	0.955
AUG	38	0.007	0.843	0.137	-1.064	2.094	0.9619	0.919	0.202
SEP	36	-0.304	1.513	0.252	-2.667	2.931	0.2360	0.201	-0.753
OCT	37	0.140	1.747	0.287	-3.641	3.350	0.6279	-0.463	-0.162
NOV	36	-0.052	0.844	0.141	-1.776	1.587	0.7146	0.061	-0.102
DEC	31	0.030	0.560	0.101	-1.094	1.331	0.7689	0.307	0.159
-----DEPTH=75-----									
JAN	34	-0.049	0.550	0.094	-1.334	1.106	0.6038	-0.222	0.481
FEB	33	0.165	0.522	0.091	-0.597	0.976	0.0786	0.149	-1.342
MAR	33	-0.034	0.380	0.066	-0.461	0.910	0.6109	0.952	0.101
APR	34	-0.080	0.381	0.065	-0.630	0.886	0.2287	0.798	-0.035
MAY	38	0.018	0.393	0.064	-0.670	0.919	0.7802	0.514	0.083
JUN	40	0.024	0.515	0.081	-0.662	1.731	0.7684	1.478	2.642
JUL	38	-0.043	0.495	0.080	-0.589	1.368	0.5975	1.564	2.232
AUG	37	0.026	0.493	0.081	-0.510	1.679	0.7511	1.946	4.359
SEP	37	0.159	0.609	0.100	-0.750	1.752	0.1222	0.614	0.127
OCT	35	-0.127	0.949	0.160	-1.499	2.302	0.4340	0.796	0.229
NOV	34	0.222	0.974	0.167	-1.500	3.106	0.1922	0.564	0.980
DEC	30	-0.127	0.436	0.080	-1.351	0.845	0.1225	-0.242	1.319

Table 2 (continued)

STATION 27: monthly TEMPERATURE residuals

VARIABLE	N	MEAN	STANDARD DEVIATION	STD ERROR OF MEAN	MINIMUM VALUE	MAXIMUM VALUE	PR> T	SKEWNESS	KURTOSIS
----- DEPTH=100 -----									
JAN	34	-0.081	0.538	0.092	-1.480	0.942	0.3885	-0.473	0.755
FEB	33	0.080	0.499	0.087	-0.671	0.823	0.3617	-0.003	-1.271
MAR	33	0.056	0.406	0.071	-0.367	1.024	0.4299	0.887	-0.402
APR	35	-0.005	0.371	0.063	-0.408	1.003	0.9370	1.176	0.640
MAY	38	-0.021	0.279	0.045	-0.464	0.779	0.6525	0.995	0.891
JUN	40	0.079	0.264	0.042	-0.343	0.824	0.0654	1.004	0.979
JUL	39	-0.001	0.237	0.038	-0.343	0.611	0.9885	0.765	0.211
AUG	38	-0.029	0.244	0.040	-0.389	0.653	0.4692	0.712	0.321
SEP	39	0.141	0.400	0.064	-0.403	1.588	0.0335	1.480	3.282
OCT	36	0.027	0.584	0.097	-0.788	1.660	0.7846	1.210	1.577
NOV	36	0.070	0.887	0.148	-1.310	1.983	0.6406	0.366	-0.855
DEC	31	0.147	0.429	0.077	-1.116	1.048	0.0663	-0.668	1.932
----- DEPTH=125 -----									
JAN	20	-0.041	0.547	0.122	-1.297	1.008	0.7403	-0.452	0.692
FEB	20	0.028	0.509	0.114	-0.797	0.840	0.8107	-0.081	-0.938
MAR	19	0.083	0.445	0.102	-0.420	0.922	0.4282	0.606	-0.980
APR	22	0.009	0.399	0.085	-0.368	1.093	0.9123	1.543	1.703
MAY	23	-0.046	0.246	0.051	-0.369	0.525	0.3846	0.780	-0.190
JUN	23	0.045	0.219	0.046	-0.261	0.564	0.3315	0.953	0.295
JUL	22	0.042	0.245	0.052	-0.255	0.734	0.4346	1.230	1.609
AUG	21	-0.063	0.209	0.046	-0.319	0.551	0.1825	1.343	2.441
SEP	24	0.053	0.276	0.056	-0.272	0.682	0.3557	1.013	0.515
OCT	22	0.109	0.331	0.071	-0.331	0.804	0.1375	0.631	-0.217
NOV	23	-0.076	0.457	0.095	-0.664	0.973	0.4361	0.811	-0.149
DEC	18	0.165	0.436	0.103	-0.574	1.089	0.1263	0.149	0.071
----- DEPTH=150 -----									
JAN	32	0.081	0.445	0.079	-1.006	0.896	0.3088	-0.138	-0.074
FEB	33	0.042	0.474	0.082	-0.969	0.806	0.6174	-0.275	-0.546
MAR	32	-0.009	0.444	0.078	-0.620	0.921	0.9048	0.429	-0.739
APR	35	0.056	0.394	0.067	-0.509	0.932	0.4105	0.488	-0.806
MAY	38	-0.002	0.333	0.054	-0.406	0.906	0.9778	0.887	0.076
JUN	40	0.011	0.292	0.046	-0.445	0.749	0.8184	0.658	-0.072
JUL	39	0.046	0.312	0.050	-0.441	0.920	0.3630	1.322	2.014
AUG	37	-0.037	0.236	0.039	-0.414	0.778	0.3504	1.184	3.110
SEP	39	0.031	0.293	0.047	-0.424	1.200	0.5103	1.651	5.641
OCT	37	0.082	0.269	0.044	-0.360	0.962	0.0720	0.746	1.906
NOV	36	0.000	0.268	0.045	-0.452	0.748	0.9964	0.230	0.423
DEC	31	0.113	0.341	0.061	-0.417	0.860	0.0737	0.503	-0.656
----- DEPTH=175 -----									
JAN	29	0.010	0.493	0.092	-0.866	1.171	0.9166	0.390	-0.106
FEB	27	0.002	0.495	0.095	-0.949	0.858	0.9805	-0.174	-0.496
MAR	32	-0.057	0.480	0.085	-0.783	1.014	0.5091	-0.025	-0.650
APR	33	0.020	0.449	0.078	-0.773	0.985	0.7983	-0.038	-0.416
MAY	34	-0.022	0.417	0.072	-0.664	0.762	0.7579	0.332	-0.795
JUN	36	0.006	0.411	0.068	-0.635	1.297	0.9359	0.867	1.305
JUL	38	-0.002	0.401	0.065	-0.645	1.286	0.9777	1.044	1.798
AUG	30	-0.022	0.412	0.075	-0.615	1.340	0.7743	1.222	2.934
SEP	33	-0.018	0.409	0.071	-0.583	1.373	0.8006	1.428	3.359
OCT	30	-0.005	0.449	0.082	-0.536	1.426	0.9473	1.401	2.830
NOV	29	0.013	0.414	0.077	-0.590	1.098	0.8629	0.799	0.633
DEC	27	-0.028	0.348	0.067	-0.663	0.758	0.6829	0.300	0.021

Table 3. Salinity residuals from the annual cycle, by months x years, for standard depths, with diagnostic statistics.

STATION 27: monthly salinity residuals												
-----DEPTH=0-----												
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
46	.	.	.	.	.	0.37	-0.05	-0.13	-0.01	0.05	0.17	0.11
47	.	.	0.13	.	0.09	0.08	0.15	.	0.33	0.20	.	.
48	.	.	0.34	0.25	0.02	0.17	0.03	.	.	.	.	.
49	.	.	.	.	.	0.14	.	-0.13	0.34	.	.	0.39
50	.	.	-0.03	-0.30	.	0.28	-0.01	0.02	0.20	.	0.16	-0.01
51	0.02	-0.15	-0.43	-0.67	-0.49	-0.40	-0.20	0.40	0.42	0.15	.	.
52	-0.06	.	.	-0.15	0.00	0.02	-0.18	-0.95	-0.47	-0.29	.	-0.01
53	.	-0.20	.	-0.79	-0.36	.	-0.23	0.35	0.42	0.40	0.13	0.28
54	0.20	-0.15	-0.29	-0.01	0.29	0.29	0.02	0.34	0.50	0.38	0.36	0.28
55	0.18	0.13	.	-0.21	-0.25	-0.16	0.05	0.01	0.23	0.29	0.02	0.14
56	-0.09	-0.19	-0.09	-0.03	0.08	-0.04	0.20	0.52	0.48	0.31	0.24	0.10
57	0.10	0.19	0.14	0.16	-0.22	-0.49	-0.59	-0.09	-0.05	-0.25	-0.41	0.00
58	-0.16	-0.34	-0.37	-0.29	-0.05	-0.02	-0.12	0.07	0.12	0.08	-0.27	0.13
59	0.15	0.31	0.34	0.39	0.24	0.13	-0.14	-0.11	0.05	0.01	0.03	-0.05
60	-0.07	.	-0.21	-0.07	-0.17	-0.14	0.14	-0.10	-0.13	0.15	0.07	0.09
61	0.02	.	0.02	.	-1.04	-0.25	0.05	0.19	0.27	0.17	0.07	.
62	0.02	0.10	-0.13	.	0.10	0.07	-0.22	0.15	0.32	0.09	-0.29	.
63	-0.13	0.03	0.17	0.26	0.23	0.23	0.25	0.47	0.26	0.09	0.00	0.12
64	-0.12	0.14	0.27	0.34	0.26	0.15	0.55	0.25	0.08	0.27	0.26	0.21
65	.	0.22	-0.03	-0.01	0.15	-0.31	-0.02	0.48	0.70	0.51	0.47	0.45
66	.	0.08	-0.01	-0.08	-0.02	0.13	0.26	0.50	0.41	0.52	0.31	-0.05
67	-0.29	-0.15	0.01	-0.11	-0.53	-0.06	0.18	0.47	0.44	0.40	0.35	0.36
68	0.29	0.03	-0.01	0.01	0.14	0.14	0.10	0.20	0.02	-0.02	0.01	0.07
69	0.14	-0.23	-0.17	-0.07	0.01	-0.08	0.12	0.25	0.23	0.17	0.11	-0.04
70	-0.12	-0.40	-0.54	-0.27	-0.30	-0.50	-0.25	-0.61	.	-0.43	-0.67	-0.45
71	-0.08	-0.44	-0.34	-0.11	-0.05	-0.06	-0.17	-0.35	-0.26	-0.04	-0.06	0.04
72	-0.02	0.11	0.16	0.29	0.28	0.22	0.17	-0.51	-0.33	-0.16	0.06	.
73	0.06	-0.05	-0.01	-0.51	-1.06	-0.67	-0.48	-0.25	0.02	-0.03	0.22	0.11
74	0.04	0.08	0.15	0.33	0.45	-0.14	-0.37	-0.93	-1.11	-0.85	-0.54	.
75	-0.08	.	.	.	0.13	0.32	0.04	-0.14	-0.28	-0.06	0.04	0.13
76	0.05	-0.10	0.11	0.19	0.29	0.43	0.45	.	0.17	0.24	0.40	0.36
77	0.34	0.33	0.21	0.17	0.31	0.00	-0.17	-0.52	-0.47	-0.39	-0.19	0.08
78	-0.05	0.02	.	-0.06	0.19	0.37	0.20	.	-0.05	0.28	0.21	.
79	0.20	0.04	0.06	0.23	0.04	0.10	0.21	0.08	0.21	0.38	0.08	0.06
80	0.14	.	0.03	0.07	.	0.03	0.14	0.09	0.17	.	.	.
81	0.16	.	-0.01	.	0.05	0.13	0.09	.	-0.07	.	-0.10	0.09
82	0.13	.	0.37	.	0.36	0.36	0.43	.	0.10	0.10	-0.25	.
83	.	-0.11	.	-0.69	-0.70	-0.31	-0.49	.	-0.16	.	-0.26	-0.25
84	-0.27	-0.21	.	-0.58	-0.94	-0.60	-0.64	-0.83	-0.64	-0.59	-0.38	-0.22
85	0.09	.	.	0.19	0.19	0.30	0.24	.	-0.43	-0.37	-0.17	.
86	0.15	.	-0.04	0.04	0.11	0.05	.	0.19	.	0.21	0.10	0.27

-----DEPTH=10-----												
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
46	.	.	.	.	.	0.41	.	.	.	.	.	.
49	0.14	0.33	0.41	0.36	0.24	0.08	-0.13	-0.05	0.11	0.08	0.07	-0.05
60	-0.07	.	-0.20	-0.10	-0.22	-0.20	0.09	-0.01	-0.11	0.22	0.11	0.11
61	0.05	0.06	-0.01	.	-1.12	-0.33	0.07	0.18	0.29	0.21	0.10	.
62	0.03	0.12	-0.09	.	0.04	0.00	-0.27	0.16	0.32	0.17	-0.10	.
63	-0.11	0.03	0.15	0.17	0.15	0.14	0.17	0.45	0.28	0.14	0.03	0.10
64	-0.11	0.06	0.21	0.28	0.32	0.09	0.52	0.22	0.16	0.33	0.30	0.17
65	0.10	0.12	-0.09	-0.03	0.03	-0.35	-0.01	0.48	.	0.56	0.52	0.42
66	.	0.19	-0.04	-0.15	0.02	0.07	0.21	0.47	0.45	0.51	0.26	-0.06
67	-0.37	-0.24	0.01	-0.10	-0.27	-0.06	0.14	0.42	0.45	0.36	0.34	0.38
68	0.27	0.00	-0.08	-0.07	0.07	0.11	0.07	0.16	0.04	0.01	0.03	0.06
69	0.21	-0.03	-0.18	-0.13	-0.03	-0.10	0.07	0.14	0.15	0.23	0.15	-0.02
70	-0.11	-0.41	-0.51	-0.33	-0.40	-0.56	-0.26	-0.62	.	-0.31	-0.64	-0.38
71	-0.06	-0.41	-0.33	-0.15	-0.10	-0.11	-0.20	-0.35	-0.32	-0.07	0.04	0.06
72	0.01	0.10	0.17	0.29	0.21	0.21	0.14	-0.57	-0.32	-0.16	0.08	.
73	0.04	0.01	0.03	-0.09	.	-0.67	-0.56	-0.28	-0.06	0.08	0.25	0.16
74	0.05	0.05	0.13	0.31	0.35	-0.21	-0.43	-0.75	-1.03	-0.84	-0.58	.
75	-0.09	0.11	.	.	0.11	0.26	0.10	-0.13	-0.22	0.01	0.13	0.15
76	0.06	0.00	0.01	0.19	0.23	0.34	0.40	0.40	0.22	0.24	0.39	0.23
77	0.19	0.23	0.01	0.10	0.27	-0.04	0.13	-0.32	-0.45	-0.33	-0.16	0.08
78	0.02	0.01	-0.10	-0.08	-0.01	0.29	0.21	0.08	0.01	0.36	0.46	.
79	0.19	0.11	0.06	.	0.06	0.10	0.28	0.09	0.19	0.33	0.10	0.03
80	0.11	.	0.02	.	.	.	0.13	0.20	0.18	.	.	.
81	-0.00	.	-0.10	-0.13	-0.03	0.07	0.07	.	-0.06	-0.02	-0.10	-0.07
82	0.18	0.25	0.27	0.28	0.29	0.28	0.42	.	0.13	0.10	-0.22	.
83	.	0.07	.	-0.58	-0.76	-0.37	-0.37	-0.19	-0.21	-0.25	-0.25	-0.23
84	-0.18	-0.20	.	-0.27	-0.58	-0.49	-0.74	-0.60	-0.61	-0.54	-0.35	-0.20
85	0.06	.	.	0.14	0.25	0.30	0.19	.	-0.41	-0.32	-0.08	.
86	0.11	.	0.02	-0.02	0.05	0.00	.	0.23	0.43	0.27	0.12	0.27

Table 3 (continued)

STATION 27: monthly salinity residuals

-----DEPTH=20-----

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
52	.	.	.	.	.	.	.	.	.	-0.16	.	.
54	.	-0.00	.	-0.21	.	.	.	.	.	.	.	.
55	.	.	.	.	-0.20	.	.	-0.11	.	.	.	.
56	.	.	.	.	.	.	.	.	.	.	.	.
57	.	0.21	.	0.28	.	-0.63	.	.	.	0.39	.	.
58	.	.	.	.	.	.	.	.	0.05	.	.	.
59	0.25	0.35	0.33	0.33	0.18	-0.04	-0.13	-0.12	-0.04	0.05	0.09	-0.09
60	-0.11	.	-0.20	-0.17	-0.24	-0.28	0.11	-0.08	-0.21	0.23	.	0.06
61	0.04	0.08	-0.02	.	.	-0.10	0.02	0.17	0.21	0.26	0.07	.
62	-0.02	0.13	-0.02	.	0.00	-0.06	-0.17	0.44	0.30	0.22	-0.04	.
63	-0.02	0.07	0.13	0.12	0.13	0.09	-0.09	0.26	0.22	0.13	0.02	0.04
64	-0.16	0.06	0.18	0.25	0.17	0.22	0.45	0.27	0.11	0.33	0.41	0.15
65	0.05	0.11	-0.10	-0.09	0.02	-0.29	-0.02	0.54	0.82	0.54	0.45	0.35
66	.	0.18	0.00	-0.17	0.08	-0.07	0.20	0.48	0.34	0.51	0.22	-0.14
67	-0.40	-0.21	-0.07	-0.04	-0.03	-0.10	0.06	0.48	0.39	0.35	0.36	0.31
68	0.22	-0.00	-0.09	-0.10	0.02	0.04	-0.15	0.01	-0.09	0.03	0.08	-0.01
69	0.17	-0.04	-0.18	-0.18	-0.10	-0.07	0.02	-0.12	0.01	-0.10	0.19	-0.07
70	-0.15	-0.28	-0.47	-0.37	-0.37	-0.62	-0.48	-0.63	.	-0.32	-0.65	-0.38
71	-0.04	-0.37	-0.30	-0.20	-0.16	-0.16	-0.30	-0.45	-0.44	-0.11	0.01	0.01
72	-0.02	0.10	0.14	0.23	0.20	0.11	0.02	-0.71	-0.41	-0.18	0.09	.
73	0.12	0.03	0.03	-0.05	-0.53	-0.08	-0.18	-0.20	-0.20	-0.58	0.24	0.09
74	0.01	0.05	0.10	0.25	0.31	-0.32	-0.41	-0.17	-0.74	-0.85	-0.53	.
75	-0.07	0.06	.	.	0.14	0.24	0.18	0.28	0.24	0.09	0.14	0.09
76	0.04	.	-0.02	0.09	0.18	0.23	0.19	0.14	0.09	0.23	0.37	0.21
77	0.23	0.22	-0.01	0.07	0.28	-0.02	0.18	-0.17	-0.16	-0.34	-0.09	0.05
78	0.03	0.00	-0.11	-0.07	-0.01	0.16	-0.01	-0.23	-0.16	-0.32	0.42	.
79	0.21	0.10	0.03	.	0.03	0.25	0.33	0.06	0.04	0.31	0.06	0.25
80	0.77	.	-0.07	-0.02	.	-0.20	0.19	0.23	0.07	.	.	.
81	-0.14	.	-0.12	-0.15	0.03	0.11	-0.16	.	-0.11	0.07	-0.10	-0.13
82	0.20	0.24	0.24	0.26	0.28	0.18	0.34	.	0.02	0.07	-0.13	.
83	.	0.05	.	-0.46	-0.63	-0.35	-0.27	-0.30	-0.28	-0.25	-0.30	-0.26
84	-0.22	-0.20	.	-0.20	-0.23	-0.01	-0.55	-0.45	-0.50	-0.52	-0.35	-0.23
85	0.03	.	.	0.12	0.26	0.25	0.43	0.04	-0.45	-0.33	0.02	.
86	0.08	.	0.03	-0.01	.	-0.18	.	0.16	0.15	0.24	0.09	0.20

STATION 27: monthly salinity residuals

-----DEPTH=30-----

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
46	.	.	.	.	.	0.10	-0.25	-0.64	-0.27	-0.04	0.16	0.15
47	.	.	0.19	.	0.01	-0.15	-0.35	.	.	0.16	0.48	.
48	.	.	0.55	0.26	0.22	0.05	-0.06	0.16	.	.	.	.
49	.	.	.	.	.	-0.08	.	-0.10	0.16	.	.	0.30
50	0.73	-0.18	0.28	0.37	.	-0.00	-0.08	0.08	0.11	.	0.13	-0.05
51	0.01	-0.13	-0.38	-0.50	-0.41	-0.22	-0.07	0.22	0.06	0.05	.	.
52	0.08	.	.	-0.04	-0.02	0.14	-0.06	0.06	-0.46	-0.28	.	-0.09
53	.	-0.17	.	-0.34	-0.27	-0.24	-0.35	-0.02	0.01	0.32	0.16	0.12
54	0.18	-0.05	-0.29	.	0.17	0.05	-0.05	0.47	0.64	0.46	0.34	0.37
55	0.17	0.24	.	-0.35	.	-0.22	-0.33	-0.38	-0.21	0.25	0.13	0.05
56	-0.12	-0.11	-0.14	-0.16	-0.05	-0.14	0.03	0.48	0.37	0.18	0.13	-0.04
57	-0.06	.	0.22	.	-0.38	-0.60	-0.52	0.23	-0.13	-0.28	-0.16	-0.03
58	-0.03	-0.10	-0.30	-0.34	-0.15	-0.20	-0.53	-0.66	.	-0.02	-0.04	0.10
59	0.23	0.35	0.34	0.30	0.11	-0.16	-0.13	-0.12	-0.30	-0.05	0.05	-0.11
60	-0.15	-0.24	-0.20	-0.20	-0.23	-0.09	0.08	0.17	-0.38	0.17	0.03	0.02
61	0.00	0.07	0.00	.	-0.50	0.15	0.08	0.08	0.04	0.14	0.01	.
62	-0.07	0.12	-0.01	.	-0.05	-0.06	0.02	0.36	0.10	0.15	-0.06	.
63	-0.03	0.09	0.13	0.10	0.13	0.05	0.07	0.42	0.11	-0.01	-0.03	-0.01
64	-0.17	0.09	0.19	0.22	0.27	0.34	0.41	0.08	-0.07	0.46	0.41	0.14
65	0.05	0.10	-0.10	-0.12	-0.04	-0.37	0.10	0.42	0.72	0.44	0.49	0.29
66	.	0.18	0.02	-0.17	0.06	-0.14	0.06	0.27	0.16	0.59	0.27	-0.14
67	-0.38	-0.18	-0.02	-0.05	-0.02	-0.05	0.10	0.39	0.39	0.29	0.37	0.25
68	0.15	-0.00	-0.08	-0.14	-0.00	0.06	-0.32	-0.12	-0.17	-0.06	0.04	-0.02
69	0.13	-0.05	-0.17	-0.20	-0.11	-0.10	-0.08	0.15	0.14	0.22	0.30	-0.04
70	-0.12	-0.30	-0.41	-0.39	-0.31	-0.49	-0.55	-0.51	.	-0.28	-0.68	-0.41
71	-0.07	-0.27	-0.22	-0.22	-0.16	-0.09	-0.21	-0.49	-0.40	-0.18	0.01	-0.06
72	-0.07	0.09	0.14	0.20	0.14	0.14	0.09	-0.40	-0.23	-0.09	0.03	.
73	0.09	0.02	0.05	0.06	-0.10	0.04	-0.05	-0.16	-0.42	-0.07	0.28	0.03
74	-0.03	0.10	0.16	0.23	0.32	-0.32	-0.47	0.08	-0.41	-0.82	-0.57	.
75	-0.11	0.07	.	.	0.11	0.18	0.03	0.23	0.73	0.35	0.13	0.10
76	0.02	-0.02	-0.01	0.08	0.19	0.10	-0.05	-0.03	0.02	0.10	0.29	0.14
77	0.18	0.26	0.06	0.10	0.28	-0.06	0.09	-0.32	-0.06	-0.44	-0.07	0.01
78	0.03	0.07	-0.08	-0.02	-0.01	0.43	0.25	0.10	-0.19	0.87	0.52	.
79	0.21	.	0.06	0.15	-0.02	0.20	0.31	0.18	-0.16	0.18	0.02	-0.05
80	-0.05	.	-0.07	0.04	.	0.04	0.22	0.09	-0.15	.	.	.
81	-0.15	.	-0.09	-0.14	0.09	0.13	0.19	.	0.12	-0.03	-0.05	-0.19
82	0.18	0.24	0.27	0.26	0.32	0.11	0.36	.	0.36	0.05	-0.17	.
83	.	0.03	.	0.03	-0.01	0.36	0.02	-0.04	-0.12	-0.36	-0.33	-0.29
84	-0.25	-0.20	.	-0.20	-0.09	0.01	-0.30	-0.21	-0.03	-0.40	-0.40	-0.15
85	0.01	.	.	0.09	0.27	0.28	0.27	0.35	-0.45	-0.47	0.00	.
86	0.04	.	0.05	-0.01	0.03	-0.21	.	0.13	0.02	0.12	0.10	0.17

Table 3 (continued)

STATION 27: monthly salinity residuals

-----DEPTH=50-----

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
46	.	.	.	.	.	0.06	-0.17	-0.42	-0.02	-0.16	0.20	0.22
47	.	.	0.21	.	-0.03	-0.06	-0.32	.	-0.32	-0.34	0.35	.
48	.	.	.	0.24	0.10	0.18	-0.04	0.04	.	.	.	.
49	.	.	.	.	.	-0.18	.	0.22	0.16	.	.	0.25
50	.	.	.	0.36	.	0.08	0.26	0.23	0.06	.	0.29	0.15
51	0.12	-0.18	-0.26	-0.34	-0.36	-0.00	0.46	-0.02	.	0.61	.	.
52	0.17	.	.	0.00	0.17	0.28	0.19	0.05	-0.07	0.06	.	-0.09
53	.	-0.20	.	-0.05	0.19	0.15	-0.05	-0.05	-0.15	-0.02	-0.00	0.15
54	0.08	-0.05	-0.20	-0.15	0.02	0.09	0.10	0.37	0.73	0.45	0.15	0.35
55	0.13	0.21	.	-0.34	-0.10	0.12	0.18	0.01	-0.04	0.13	0.25	0.16
56	0.09	-0.06	-0.16	-0.13	-0.01	0.09	0.04	0.19	0.25	0.16	0.05	-0.08
57	-0.06	0.10	0.15	0.17	-0.13	-0.52	-0.25	0.19	0.08	0.10	0.08	-0.06
58	-0.23	-0.10	-0.28	-0.29	-0.09	-0.13	-0.23	-0.21	-0.18	-0.06	-0.06	0.13
59	0.45	0.38	0.32	0.28	0.12	-0.16	-0.20	-0.17	.	-0.04	0.04	-0.20
60	-0.21	.	-0.18	-0.16	-0.11	-0.16	-0.18	-0.10	0.00	0.26	-0.07	0.08
61	-0.08	-0.01	-0.00	.	-0.19	0.08	-0.03	-0.07	-0.13	0.16	0.03	.
62	-0.15	0.07	-0.00	.	-0.12	-0.03	-0.07	0.16	0.12	0.29	0.15	.
63	-0.05	0.04	0.10	0.08	0.07	0.15	0.12	0.15	0.24	-0.18	0.28	0.01
64	-0.27	0.02	0.15	0.20	0.14	0.26	0.28	0.25	0.24	0.42	0.30	0.30
65	0.02	0.02	-0.13	-0.04	-0.09	-0.18	-0.01	0.22	0.26	0.23	0.39	0.23
66	.	0.24	0.04	-0.19	-0.01	-0.23	-0.11	0.06	0.18	0.34	0.08	-0.26
67	-0.36	-0.06	-0.04	-0.08	0.03	0.05	0.09	0.16	0.20	0.36	0.53	0.28
68	0.07	-0.07	-0.07	-0.14	-0.16	-0.14	-0.31	-0.22	-0.22	-0.56	-0.22	-0.02
69	0.07	-0.14	-0.18	-0.24	-0.18	-0.17	-0.19	0.03	0.06	-0.13	0.23	0.35
70	0.09	-0.13	-0.30	-0.41	-0.27	-0.23	-0.15	0.00	.	-0.76	-0.64	-0.46
71	-0.04	-0.29	-0.15	-0.26	-0.15	-0.14	-0.36	-0.39	-0.21	-0.32	-0.09	-0.12
72	-0.17	0.02	0.18	0.14	0.04	0.04	0.05	0.10	0.17	0.51	0.22	.
73	0.13	0.03	0.02	0.05	0.00	0.06	-0.06	-0.04	-0.43	0.01	0.44	-0.05
74	-0.13	0.05	0.12	0.16	0.19	-0.01	-0.06	0.15	0.25	-0.59	-0.51	.
75	-0.04	0.10	.	.	-0.01	-0.07	-0.10	0.11	0.63	0.25	0.19	0.17
76	0.09	-0.05	-0.03	0.11	0.08	-0.05	-0.13	-0.07	0.04	-0.13	0.15	0.06
77	0.13	0.18	0.07	0.06	0.27	0.16	0.02	-0.09	0.26	0.05	-0.05	-0.00
78	-0.03	0.07	0.20	0.06	0.07	0.29	0.04	-0.03	-0.50	0.76	0.46	.
79	0.09	0.20	0.08	0.10	-0.11	0.13	0.14	-0.25	-0.38	0.26	0.01	-0.09
80	-0.09	.	-0.04	0.03	.	-0.07	0.05	-0.04	0.05	.	.	.
81	-0.17	.	-0.04	-0.05	0.07	0.00	-0.02	.	0.15	-0.20	-0.10	-0.17
82	0.20	0.17	0.27	0.29	0.26	0.23	.	.	0.32	-0.06	-0.38	.
83	.	-0.07	.	0.15	0.01	0.26	0.10	0.11	0.23	-0.49	-0.37	-0.28
84	-0.25	-0.16	.	-0.29	-0.11	0.05	0.07	-0.31	-0.08	-0.53	-0.39	0.06
85	0.03	.	.	0.06	0.14	0.14	0.13	0.20	0.31	-0.55	-0.04	.
86	0.03	.	0.07	-0.03	-0.12	.	.	-0.07	.	-0.30	-0.05	0.12

-----DEPTH=75-----

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
47	.	.	0.04	.	-0.00	-0.12	-0.30	.	.	.	.	.
48	.	.	.	0.18	0.12	0.13	-0.04	-0.07	.	.	.	.
49	.	.	.	.	.	0.09	.	0.13	0.06	.	.	0.21
50	.	.	0.25	0.26	.	0.15	0.34	0.36	0.10	.	0.16	0.15
51	0.11	-0.20	-0.23	-0.22	-0.21	-0.03	-0.01	-0.06	0.01	0.03	.	.
52	0.25	.	.	0.10	0.24	0.33	0.27	0.14	-0.02	0.26	.	0.11
53	.	-0.03	.	0.07	0.16	0.10	-0.03	-0.22	-0.45	-0.21	-0.31	0.12
54	0.13	-0.16	-0.19	-0.22	-0.06	-0.01	0.17	0.24	0.32	0.18	-0.08	0.24
55	0.09	0.14	.	-0.25	-0.09	0.05	0.22	0.17	0.04	-0.06	0.07	0.11
56	0.19	-0.03	-0.11	-0.12	-0.06	0.09	0.08	0.05	0.07	0.03	0.01	0.29
57	0.08	0.04	0.04	-0.04	0.05	-0.00	-0.13	0.13	0.05	0.20	0.08	0.06
58	-0.12	-0.07	-0.19	-0.15	-0.06	-0.05	-0.14	-0.15	-0.29	-0.14	-0.23	-0.07
59	0.27	0.26	0.24	0.22	0.07	-0.07	-0.04	-0.08	-0.26	-0.01	-0.30	-0.22
60	-0.18	-0.23	-0.21	-0.20	-0.17	-0.20	-0.18	-0.16	-0.02	-0.02	-0.06	0.18
61	0.06	-0.09	-0.07	.	-0.06	0.02	0.03	-0.14	-0.32	-0.14	0.00	.
62	0.14	0.06	-0.04	.	-0.09	0.06	0.02	0.12	0.11	0.18	0.32	.
63	0.04	-0.03	0.04	0.04	0.05	0.05	0.06	0.07	-0.01	-0.06	0.18	0.13
64	-0.30	0.08	0.09	0.18	0.08	0.18	0.28	0.25	0.28	0.22	-0.05	0.41
65	0.20	-0.06	-0.12	0.07	-0.03	-0.18	0.04	0.10	0.08	0.14	0.29	0.16
66	.	0.15	0.05	-0.16	-0.01	-0.26	-0.04	0.01	0.06	0.19	0.11	-0.02
67	-0.25	-0.07	-0.05	-0.09	0.08	0.00	0.03	0.07	-0.09	-0.02	0.25	0.16
68	-0.01	-0.03	0.00	-0.12	-0.18	-0.27	-0.28	-0.17	-0.15	0.06	-0.12	-0.07
69	0.07	-0.12	-0.14	-0.23	-0.18	-0.19	-0.13	-0.08	0.02	0.05	0.18	0.37
70	0.04	-0.09	-0.18	-0.36	-0.27	-0.25	-0.10	-0.09	.	-0.59	-0.22	-0.35
71	-0.00	-0.08	0.00	-0.06	-0.13	-0.20	-0.21	-0.39	-0.34	-0.67	-0.00	-0.15
72	-0.26	-0.08	0.16	0.09	-0.03	0.02	0.15	0.08	0.15	0.03	0.00	.
73	0.17	0.01	0.02	0.10	0.12	0.01	0.02	0.04	-0.17	0.16	0.42	-0.05
74	-0.21	0.01	0.09	0.22	0.19	0.17	0.08	0.16	0.18	0.28	0.21	.
75	-0.08	0.02	.	.	-0.12	-0.18	-0.08	0.00	0.14	-0.16	0.02	0.10
76	0.11	-0.11	-0.04	0.06	0.03	-0.05	-0.15	-0.15	-0.21	-0.12	-0.22	-0.11
77	0.05	0.14	0.01	0.04	0.20	0.12	0.18	0.01	0.11	0.08	0.03	-0.15
78	0.01	0.03	0.09	-0.02	0.09	0.15	.	0.08	-0.09	0.42	0.35	.
79	0.29	0.33	0.15	.	0.29	0.12	-0.08	0.09	0.15	0.33	0.03	-0.22
80	-0.26	.	-0.01	0.02	.	-0.15	0.04	0.00	.	.	.	.
81	0.15	.	-0.02	-0.07	0.07	-0.01	-0.08	.	-0.08	-0.19	-0.12	0.03
82	0.26	0.09	0.23	0.27	0.22	0.19	.	.	0.06	-0.17	-0.59	.
83	.	-0.12	.	0.18	0.05	0.17	0.12	0.11	0.15	0.09	0.01	-0.31
84	-0.27	-0.08	.	-0.33	-0.05	0.06	0.12	-0.10	-0.02	0.01	-0.24	0.05
85	-0.03	.	.	0.01	0.08	0.06	0.08	.	0.18	0.07	0.03	.
86	-0.00	.	0.02	-0.08	-0.08	-0.16	.	-0.17	.	-0.34	-0.38	-0.02

Table 3 (continued)

STATION 27: monthly salinity residuals

-----DEPTH=100-----

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
46	.	.	.	.	.	0.02	-0.14	-0.09	-0.08	-0.04	-0.21	-0.34
47	.	.	-0.10	.	-0.03	-0.15	-0.27	.	-0.32	-0.14	0.02	.
48	.	.	.	0.10	0.11	0.26	0.05	0.03	.	.	.	.
49	.	.	.	.	.	0.06	.	0.17	0.18	.	.	0.22
50	.	.	0.18	0.35	.	0.20	0.32	0.32	0.12	.	-0.00	0.17
51	0.16	-0.14	-0.23	-0.14	-0.05	-0.02	0.00	-0.30	-0.04	-0.04	.	.
52	0.24	.	.	0.05	0.36	0.54	0.33	0.20	-0.25	-0.16	.	0.10
53	.	0.01	.	0.17	0.18	-0.48	-0.01	-0.15	-0.38	0.04	-0.03	0.05
54	0.28	0.00	-0.11	-0.12	-0.10	0.07	0.24	0.23	0.16	0.03	-0.00	0.14
55	-0.04	0.05	.	-0.07	-0.06	0.04	0.17	0.20	0.13	-0.52	0.02	0.01
56	0.05	0.04	-0.16	-0.10	-0.06	0.08	0.05	0.05	0.04	-0.06	-0.13	0.00
57	-0.02	0.02	0.02	0.12	0.14	0.03	-0.06	0.15	-0.02	0.01	0.06	0.02
58	-0.20	-0.08	-0.14	-0.08	0.00	-0.08	-0.10	-0.12	-0.19	-0.26	-0.16	-0.02
59	0.23	0.22	0.18	0.13	0.07	-0.03	-0.09	-0.03	-0.07	0.09	0.06	-0.26
60	-0.18	-0.24	-0.23	-0.19	-0.19	-0.31	-0.21	-0.18	-0.05	-0.09	-0.04	-0.06
61	-0.12	-0.14	-0.20	.	-0.03	-0.00	0.02	-0.11	-0.19	-0.20	-0.07	.
62	0.19	0.04	-0.16	.	0.05	0.08	0.04	0.09	-0.08	0.12	0.18	.
63	0.14	-0.12	-0.07	-0.03	0.04	0.05	0.05	0.03	-0.00	-0.02	0.04	-0.00
64	-0.45	-0.01	0.11	0.15	0.07	0.13	0.21	0.26	0.25	-0.16	0.24	0.21
65	0.29	-0.09	-0.18	0.01	-0.04	-0.02	0.06	0.06	0.06	0.06	0.19	0.45
66	.	0.05	0.04	0.01	0.01	-0.12	-0.02	0.01	-0.03	0.00	0.15	0.02
67	-0.21	-0.14	-0.04	-0.07	0.06	-0.02	-0.04	-0.03	-0.11	-0.06	0.08	0.04
68	-0.10	-0.05	-0.00	-0.11	-0.08	-0.12	-0.13	-0.11	-0.11	0.02	0.13	0.02
69	0.10	-0.13	-0.03	-0.25	-0.17	-0.22	-0.14	-0.10	-0.09	-0.12	0.07	0.28
70	-0.03	0.04	-0.11	-0.18	-0.19	-0.22	-0.12	-0.14	.	-0.21	-0.14	-0.46
71	-0.14	0.04	0.04	-0.01	-0.12	-0.21	-0.19	-0.25	-0.33	.	-0.02	-0.22
72	-0.20	-0.02	0.05	-0.02	-0.02	-0.04	0.08	0.12	0.06	-0.19	-0.23	.
73	0.06	0.10	0.04	0.07	0.04	-0.02	0.07	0.11	-0.05	0.12	-0.33	0.07
74	-0.26	0.00	0.05	0.17	0.19	0.12	0.18	0.16	0.20	0.10	0.27	.
75	-0.05	0.02	.	.	-0.19	-0.24	-0.09	0.04	0.13	-0.25	-0.11	-0.18
76	0.04	-0.07	-0.06	-0.00	-0.06	-0.03	-0.11	-0.06	-0.09	0.11	0.04	-0.05
77	0.23	0.28	-0.02	0.02	0.17	0.04	0.15	0.01	0.00	0.03	0.17	-0.11
78	-0.00	0.08	-0.06	0.05	0.07	0.14	.	0.06	-0.02	0.37	0.19	.
79	0.36	0.36	0.19	0.13	-0.03	0.12	0.09	0.09	0.15	0.21	0.28	-0.11
80	-0.08	.	0.13	0.12	.	-0.01	0.02	0.03	0.02	.	.	.
81	0.21	.	-0.10	-0.07	0.06	-0.02	-0.10	.	-0.10	-0.20	-0.17	0.14
82	0.28	0.04	0.14	0.17	0.18	0.12	0.12	.	-0.01	0.09	.	.
83	.	-0.12	.	0.16	0.00	0.16	0.09	0.08	0.15	0.07	0.16	-0.31
84	-0.22	-0.09	.	-0.22	0.07	0.08	0.11	0.01	0.11	0.12	-0.16	-0.11
85	-0.04	.	.	-0.00	0.07	0.00	0.05	0.09	0.11	0.10	0.13	.
86	0.01	.	-0.03	-0.13	-0.13	-0.22	.	-0.20	-0.08	-0.08	0.04	-0.14

STATION 27: monthly salinity residuals

-----DEPTH=125-----

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
47	.	.	.	.	.	.	.	.	-0.28	-0.23	.	.
50	.	.	.	.	.	.	.	.	0.07	.	.	0.00
51	.	.	.	.	.	0.07	.	.	.	.	.	.
57	.	.	.	0.00	.	.	.	.	.	.	.	.
64	.	.	0.17	0.18	0.09	0.15	.	0.23	0.17	0.18	0.24	.
65	0.18	0.00	-0.00	0.06	-0.03	-0.04	0.06	0.08	0.00	0.02	0.10	0.32
66	.	0.10	0.00	0.06	0.03	-0.07	0.02	0.01	-0.01	0.06	0.16	0.00
67	-0.05	-0.13	0.05	-0.10	0.04	-0.04	-0.02	-0.05	-0.14	-0.09	0.08	0.07
68	-0.15	-0.11	-0.00	-0.08	0.02	-0.06	-0.01	-0.00	0.01	0.07	0.20	0.05
69	0.14	0.07	0.02	-0.25	-0.15	-0.13	-0.15	-0.09	-0.00	-0.02	-0.09	0.14
70	-0.10	0.10	-0.11	-0.21	-0.13	-0.20	-0.08	-0.17	.	-0.25	-0.25	-0.48
71	-0.23	0.00	0.03	-0.05	-0.17	-0.21	-0.18	-0.22	-0.31	-0.41	-0.01	-0.31
72	-0.21	0.04	0.00	-0.01	0.03	0.03	0.07	0.08	-0.01	-0.19	-0.18	.
73	-0.01	0.01	0.03	0.06	0.03	0.03	0.10	0.13	0.02	0.08	0.17	-0.07
74	-0.20	-0.13	-0.05	0.10	0.17	0.15	0.14	0.12	0.10	0.06	0.14	.
75	-0.08	0.03	.	.	-0.16	-0.15	-0.07	0.06	0.19	-0.18	-0.03	-0.19
76	0.04	-0.07	-0.12	-0.05	-0.03	0.01	-0.03	0.02	0.02	0.11	0.17	0.21
77	0.26	0.09	-0.02	0.06	0.15	0.07	0.09	0.01	-0.05	0.26	0.21	-0.03
78	0.09	0.14	0.08	0.03	0.08	0.11	-0.05	0.05	-0.02	.	0.02	.
79	0.33	0.31	.	0.25	0.06	0.13	0.10	0.09	0.14	0.24	0.26	0.06
80	-0.09	.	0.09	0.06	.	-0.01	0.04	0.04	0.02	.	.	.
81	0.26	.	-0.31	-0.04	0.05	-0.00	-0.11	.	-0.16	-0.24	-0.12	0.12
82	0.22	0.15	0.07	0.09	0.15	0.14	.	.	-0.03	-0.01	-0.53	.
83	.	-0.20	.	.	.	.	0.08	0.08	0.19	-0.07	0.10	-0.24
84	-0.18	-0.05	.	-0.25	0.07	0.08	0.11	0.03	0.15	0.08	0.04	-0.23
85	-0.20	.	.	-0.02	0.09	0.05	0.05	.	0.03	-0.07	0.09	.
86	0.02	.	-0.12	-0.20	-0.21	-0.25	.	-0.20	-0.01	-0.00	0.06	-0.10

Table 3 (continued)

STATION 27: monthly salinity residuals

-----DEPTH=150-----

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
46	.	.	.	.	.	.	-0.09	0.05	-0.07	-0.03	-0.24	-0.13
47	.	.	-0.33	.	-0.13	-0.17	-0.38	.	-0.31	-0.15	-0.01	.
48	.	.	0.13	0.10	0.04	0.09	0.06	0.12	.	.	.	.
49	.	.	.	.	.	-0.09	.	0.09	0.11	.	.	0.12
50	.	.	0.08	0.21	.	0.18	0.26	0.25	0.25	.	0.26	-0.05
51	-0.03	-0.07	-0.19	-0.08	0.01	0.12	0.17	-0.02	0.18	-0.08	.	.
52	0.28	.	.	0.15	0.28	0.38	0.14	0.12	-0.06	-0.20	.	-0.14
53	.	-0.05	.	0.39	0.30	0.15	0.10	-0.06	-0.22	-0.02	0.03	-0.14
54	0.10	-0.01	-0.03	0.00	-0.07	0.08	0.22	0.14	0.08	0.03	0.11	0.06
55	-0.43	-0.09	.	0.13	0.00	0.01	0.16	0.09	0.10	-0.43	0.03	-0.01
56	-0.06	0.11	0.02	.	-0.25	0.05	0.04	-0.05	-0.15	-0.16	-0.01	-0.14
57	.	0.05	-0.01	0.09	0.19	0.03	-0.01	0.12	0.01	0.15	0.09	0.09
58	0.16	0.24	0.07	0.04	-0.00	-0.07	-0.12	-0.12	-0.21	-0.14	-0.09	-0.23
59	0.01	-0.06	0.06	0.02	-0.03	-0.09	-0.11	-0.11	-0.06	-0.06	-0.06	-0.12
60	-0.23	-0.33	-0.18	-0.08	-0.21	-0.26	-0.18	-0.27	0.04	-0.16	-0.12	-0.28
61	-0.35	-0.29	-0.26	.	0.01	0.02	-0.02	-0.06	-0.27	-0.03	-0.03	.
62	0.27	0.06	-0.20	.	0.09	0.09	0.09	0.08	-0.09	0.16	0.20	.
63	-0.02	0.17	-0.04	-0.09	0.09	0.07	-0.01	-0.07	-0.08	-0.05	0.05	-0.08
64	.	0.03	0.13	0.17	0.01	0.10	0.08	0.15	0.08	0.10	0.29	0.38
65	0.11	-0.12	0.12	0.04	-0.07	-0.09	0.01	0.05	-0.03	0.01	0.08	0.14
66	.	0.17	0.08	0.04	0.01	0.02	0.11	0.10	0.25	0.12	0.16	-0.00
67	0.04	0.24	0.14	-0.11	-0.02	-0.03	-0.06	-0.06	-0.14	0.02	0.10	0.03
68	-0.12	-0.05	-0.00	-0.03	0.07	-0.01	0.03	0.02	0.09	0.10	0.20	0.26
69	0.27	-0.05	0.06	0.01	-0.05	-0.14	-0.09	-0.01	0.08	0.05	-0.14	0.01
70	-0.16	0.08	-0.07	-0.21	-0.08	-0.17	0.06	-0.14	.	-0.25	-0.29	-0.50
71	-0.20	-0.01	0.07	-0.12	-0.23	-0.21	-0.12	-0.22	-0.12	-0.35	-0.05	-0.13
72	-0.08	0.10	-0.00	-0.03	-0.03	-0.07	0.05	0.05	-0.03	-0.13	-0.06	.
73	-0.26	-0.08	0.03	0.05	0.00	-0.00	0.05	0.06	-0.03	0.09	0.07	-0.21
74	-0.38	-0.20	-0.08	-0.01	0.09	0.07	0.12	0.05	0.07	0.03	0.07	.
75	-0.22	0.13	.	.	-0.23	-0.12	-0.00	0.12	0.25	-0.14	0.05	0.07
76	0.11	-0.10	-0.14	-0.07	-0.04	0.08	0.00	-0.02	0.03	0.03	.	0.10
77	0.17	0.09	0.06	0.03	0.13	0.06	.	-0.19	-0.09	0.00	0.03	0.02
78	0.12	0.02	.	-0.03	0.06	0.09	-0.13	.	0.01	0.21	0.02	.
79	0.16	0.17	0.20	0.26	0.06	0.07	0.12	0.10	0.13	0.27	0.22	0.24
80	0.42	.	0.20	0.13	0.10	.	0.03	0.10	0.10	.	.	.
81	0.27	.	-0.02	0.04	0.12	0.04	-0.10	.	0.00	-0.14	-0.07	0.25
82	0.27	0.19	0.05	0.08	0.11	0.09	0.14	.	0.04	-0.01	-0.23	.
83	.	-0.27	.	0.02	-0.05	0.02	.	.	0.11	-0.02	0.04	-0.16
84	-0.16	-0.11	.	-0.19	0.00	0.08	-0.01	0.08	0.19	0.09	0.05	-0.17
85	-0.06	.	.	-0.07	0.05	0.02	0.04	0.01	0.03	-0.02	0.03	.
86	-0.06	.	-0.16	-0.23	-0.26	-0.27	.	-0.18	0.05	0.06	-0.22	0.02

-----DEPTH=175-----

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
46	.	.	.	.	.	.	.	.	.	.	-0.38	-0.27
47	.	.	-0.60	.	.	-0.21	-0.31	.	-0.14	0.32	0.30	.
48	.	.	-0.33	-0.08	-0.05	-0.13	0.08	0.29	.	.	.	.
49	.	.	.	.	.	0.09	.	0.16	0.06	.	.	.
50	0.34	-0.04	-0.05	0.05	.	.	0.19	.	.	.	.	.
51	-0.70	.	.	-0.00	-0.10	0.00	0.05	-0.08	.	-0.03	.	.
52	0.22	.	.	0.20	.	0.36	0.14	0.09	.	0.11	.	-0.19
53	.	-0.23	.	0.27	0.16	.	0.18	-0.04	-0.02	0.04	-0.02	-0.01
54	.	.	-0.01	.	0.03	0.15	0.20	.	.	0.13	0.12	0.20
55	0.19	.	.	-0.10	.	.	.	.	-0.29	-0.04	0.02	-0.06
56	.	0.25	-0.04	.	-0.15	0.01	-0.02	-0.09	.	.	.	0.01
57	.	.	-0.19	.	0.14	0.18	0.06	.	-0.13	0.12	0.07	0.10
58	0.13	0.20	0.07	0.00	0.08	0.02	-0.14	-0.17	-0.12	0.05	-0.05	-0.24
59	0.08	.	-0.04	-0.03	.	-0.21	-0.19	-0.17	-0.09	-0.10	-0.21	-0.19
60	-0.13	-0.07	-0.23	-0.14	-0.03	-0.14	-0.04	-0.18	0.06	-0.10	0.04	-0.08
61	-0.19	-0.32	-0.24	.	-0.01	-0.04	-0.04	-0.12	-0.10	.	-0.08	.
62	0.11	-0.00	-0.22	.	0.06	0.11	0.08	0.03	-0.09	0.15	0.12	.
63	0.19	.	0.03	-0.09	0.03	0.05	-0.02	-0.08	-0.06	-0.12	-0.05	-0.24
64	.	.	0.06	0.07	0.02	0.10	0.09	0.07	0.03	0.17	0.32	0.18
65	-0.01	-0.11	0.12	0.04	-0.08	-0.03	0.04	0.01	-0.10	.	-0.01	-0.04
66	.	0.07	0.19	0.13	0.05	0.09	0.19	0.21	0.29	0.31	0.27	0.12
67	0.27	0.08	0.05	-0.20	-0.05	-0.07	-0.09	-0.10	-0.08	0.10	.	-0.10
68	-0.15	0.12	-0.01	0.11	0.10	-0.12	0.07	0.08	0.07	0.07	0.06	0.11
69	0.23	-0.05	-0.06	-0.08	-0.10	-0.13	-0.11	0.03	0.12	0.07	-0.13	0.00
70	0.21	0.07	.	-0.15	-0.07	-0.14	0.03	-0.00	.	-0.14	-0.15	.
71	-0.19	-0.03	0.10	-0.06	-0.20	-0.30	.	-0.19	-0.15	-0.30	.	-0.08
72	0.03	0.08	-0.04	-0.14	-0.04	-0.08	-0.08	-0.07	-0.12	-0.17	-0.08	.
73	-0.04	-0.14	-0.02	-0.08	-0.07	-0.06	0.01	0.03	0.00	0.03	0.11	-0.18
74	-0.38	-0.15	-0.11	-0.05	-0.03	0.12	0.05	0.10	0.06	0.02	0.18	.
75	-0.11	0.03	.	-0.30	-0.03	-0.21	-0.03	0.04	0.15	-0.18	-0.01	0.05
76	0.12	-0.05	-0.14	0.09	-0.06	-0.01	0.04	-0.08	-0.10	-0.07	0.33	0.18
77	0.14	0.07	-0.05	0.00	0.11	-0.00	.	-0.23	.	-0.11	-0.09	-0.08
78	0.00	0.14	0.44	-0.02	0.18	.	-0.25	.	0.00	.	-0.04	.
79	0.19	0.10	0.30	0.26	0.17	0.32	0.10	0.21	0.17	0.32	0.12	-0.11
80	.	.	0.24	0.09	.	0.02	0.02	0.15	0.26	.	.	.
81	0.13	.	0.06	.	0.01	-0.11	-0.02	.	-0.00	.	0.15	0.22
82	0.26	0.08	0.14	0.15	.	0.04	0.05	.	.	.	.	.
83	.	-0.20	.	-0.12	.	-0.01	-0.00	.	-0.01	-0.09	-0.17	-0.15
84	-0.09	-0.19	.	.	0.06	0.04	0.17	.	0.04	-0.05	-0.11	-0.16
85	-0.10	.	-0.20	-0.20	-0.08	-0.03	-0.06	-0.09	-0.03	-0.07	.	.
86	0.14	.	-0.21	.	.	-0.31	.	0.02	.	.	.	.

Table 3 (continued)

STATION 27: monthly salinity residuals									
VARIABLE	N	MEAN	STANDARD DEVIATION	STD ERROR OF MEAN	MINIMUM VALUE	MAXIMUM VALUE	PR> T	SKEWNESS	KURTOSIS
-----DEPTH=0-----									
JAN	32	0.03	0.15	0.03	-0.29	0.34	0.2718	-0.13	-0.24
FEB	27	-0.03	0.20	0.04	-0.44	0.33	0.3924	-0.19	-0.53
MAR	31	-0.01	0.23	0.04	-0.54	0.37	0.8842	-0.50	-0.04
APR	33	-0.06	0.31	0.05	-0.79	0.39	0.2579	-0.76	-0.02
MAY	37	-0.06	0.39	0.06	-1.06	0.45	0.3644	-1.33	1.19
JUN	40	0.01	0.28	0.04	-0.67	0.43	0.8892	-0.76	0.02
JUL	39	-0.01	0.27	0.04	-0.64	0.55	0.8759	-0.44	0.06
AUG	33	-0.02	0.41	0.07	-0.95	0.52	0.7998	-0.80	-0.03
SEP	38	0.05	0.36	0.06	-1.11	0.70	0.3747	-1.01	1.56
OCT	35	0.06	0.31	0.05	-0.85	0.52	0.2995	-0.96	0.83
NOV	35	0.01	0.27	0.05	-0.67	0.47	0.8504	-0.61	-0.01
DEC	30	0.09	0.19	0.04	-0.45	0.45	0.0126	-0.57	1.18
-----DEPTH=10-----									
JAN	26	0.03	0.14	0.03	-0.37	0.27	0.3341	-0.74	1.22
FEB	23	0.02	0.19	0.04	-0.41	0.33	0.5391	-1.09	1.20
MAR	24	-0.01	0.19	0.04	-0.51	0.41	0.7802	-0.36	1.48
APR	23	-0.01	0.23	0.05	-0.58	0.36	0.9184	-0.35	0.12
MAY	26	-0.03	0.35	0.07	-1.12	0.35	0.6477	-1.66	2.88
JUN	28	-0.03	0.28	0.05	-0.67	0.41	0.6307	-0.62	-0.32
JUL	27	0.02	0.30	0.06	-0.74	0.52	0.7705	-0.82	0.46
AUG	25	-0.01	0.37	0.07	-0.75	0.48	0.9189	-0.55	-0.70
SEP	26	-0.02	0.36	0.07	-1.03	0.45	0.8225	-1.02	1.18
OCT	27	0.05	0.32	0.06	-0.84	0.56	0.4320	-0.90	0.88
NOV	27	0.04	0.28	0.05	-0.64	0.52	0.4960	-0.64	0.52
DEC	20	0.06	0.20	0.04	-0.38	0.42	0.1826	-0.28	0.34
-----DEPTH=20-----									
JAN	26	0.04	0.21	0.04	-0.40	0.77	0.3465	1.24	4.61
FEB	24	0.04	0.17	0.03	-0.37	0.35	0.2570	-0.77	0.79
MAR	24	-0.02	0.17	0.03	-0.47	0.33	0.5172	-0.35	1.20
APR	26	-0.02	0.21	0.04	-0.46	0.33	0.6415	-0.08	-0.55
MAY	26	-0.01	0.24	0.05	-0.63	0.31	0.8717	-0.99	0.65
JUN	29	-0.06	0.24	0.04	-0.63	0.25	0.1942	-0.75	0.35
JUL	27	-0.01	0.26	0.05	-0.55	0.45	0.8818	-0.21	-0.42
AUG	27	-0.01	0.33	0.06	-0.71	0.54	0.9209	-0.28	-0.45
SEP	28	-0.03	0.32	0.06	-0.74	0.82	0.6735	0.12	0.83
OCT	29	0.05	0.32	0.06	-0.85	0.54	0.3649	-0.92	0.84
NOV	26	0.04	0.28	0.05	-0.65	0.45	0.4243	-0.80	0.71
DEC	20	0.02	0.19	0.04	-0.38	0.35	0.5778	-0.27	-0.35
-----DEPTH=30-----									
JAN	34	0.02	0.19	0.03	-0.38	0.73	0.5834	1.43	5.64
FEB	30	0.00	0.17	0.03	-0.30	0.35	0.8947	0.01	-0.62
MAR	32	0.00	0.21	0.04	-0.41	0.55	0.9119	0.19	0.24
APR	33	-0.03	0.22	0.04	-0.50	0.37	0.3866	-0.14	-0.72
MAY	36	-0.02	0.21	0.03	-0.50	0.32	0.8672	-0.48	-0.07
JUN	41	-0.01	0.22	0.03	-0.60	0.43	0.4662	-0.33	0.48
JUL	39	-0.05	0.25	0.04	-0.55	0.41	0.1982	-0.35	-0.43
AUG	38	0.03	0.30	0.05	-0.66	0.48	0.5924	-0.65	-0.22
SEP	37	-0.01	0.31	0.05	-0.46	0.73	0.8629	0.73	0.32
OCT	37	0.05	0.33	0.05	-0.82	0.87	0.4079	-0.13	0.75
NOV	36	0.06	0.27	0.05	-0.68	0.52	0.1648	-0.72	0.96
DEC	30	0.02	0.17	0.03	-0.41	0.37	0.5569	-0.17	0.43
-----DEPTH=50-----									
JAN	33	-0.01	0.17	0.03	-0.36	0.45	0.7358	0.15	0.62
FEB	30	0.01	0.15	0.03	-0.29	0.38	0.7005	0.34	0.20
MAR	30	-0.00	0.17	0.03	-0.30	0.32	0.9250	-0.01	-0.78
APR	35	-0.02	0.20	0.03	-0.41	0.36	0.5723	-0.16	-0.76
MAY	37	-0.01	0.14	0.02	-0.36	0.27	0.6610	-0.08	-0.25
JUN	40	0.01	0.17	0.03	-0.52	0.29	0.6904	-0.62	0.90
JUL	38	-0.02	0.18	0.03	-0.36	0.46	0.5095	0.28	0.25
AUG	38	0.01	0.18	0.03	-0.42	0.37	0.6781	-0.52	-0.05
SEP	36	0.06	0.26	0.04	-0.50	0.73	0.1597	0.08	0.59
OCT	37	-0.00	0.36	0.06	-0.76	0.76	0.9918	-0.13	-0.48
NOV	36	0.05	0.27	0.05	-0.64	0.53	0.2477	-0.64	0.25
DEC	30	0.04	0.20	0.04	-0.46	0.35	0.2812	-0.46	-0.13
-----DEPTH=75-----									
JAN	33	0.02	0.17	0.03	-0.30	0.29	0.4606	-0.46	-0.75
FEB	31	-0.01	0.12	0.02	-0.23	0.33	0.6754	0.84	0.90
MAR	31	-0.00	0.13	0.02	-0.23	0.25	0.9305	0.12	-0.43
APR	34	-0.02	0.17	0.03	-0.36	0.27	0.5433	-0.13	-0.82
MAY	37	0.01	0.13	0.02	-0.27	0.29	0.6917	0.09	-0.49
JUN	40	-0.00	0.15	0.02	-0.27	0.33	0.9476	-0.19	-0.63
JUL	36	0.01	0.15	0.03	-0.30	0.34	0.7326	0.10	-0.19
AUG	36	0.01	0.15	0.03	-0.39	0.36	0.6757	-0.18	0.31
SEP	36	-0.01	0.18	0.03	-0.45	0.32	0.8485	-0.67	0.19
OCT	35	0.00	0.23	0.04	-0.67	0.42	0.9381	-1.02	1.83
NOV	34	-0.01	0.22	0.04	-0.59	0.42	0.8773	-0.38	0.30
DEC	29	0.04	0.19	0.04	-0.35	0.41	0.2671	-0.18	-0.31



Table 3 (continued)

STATION 27: monthly salinity residuals									
VARIABLE	N	MEAN	STANDARD DEVIATION	STD ERROR OF MEAN	MINIMUM VALUE	MAXIMUM VALUE	PR >  T	SKEWNESS	KURTOSIS
----- DEPTH=100 -----									
JAN	33	0.02	0.19	0.03	-0.45	0.36	0.6433	-0.16	-0.49
FEB	31	-0.00	0.13	0.02	-0.24	0.36	0.9201	0.95	1.65
MAR	31	-0.03	0.12	0.02	-0.23	0.19	0.2025	0.16	-0.82
APR	35	0.01	0.13	0.02	-0.25	0.35	0.8221	0.19	-0.19
MAY	37	0.01	0.12	0.02	-0.19	0.36	0.5914	0.47	0.71
JUN	41	-0.01	0.17	0.03	-0.48	0.54	0.8448	0.09	2.50
JUL	38	0.02	0.14	0.02	-0.27	0.33	0.4319	0.21	-0.21
AUG	38	0.02	0.14	0.02	-0.30	0.32	0.4220	-0.17	-0.35
SEP	39	-0.02	0.15	0.02	-0.38	0.25	0.4285	-0.51	0.09
OCT	36	-0.02	0.17	0.03	-0.52	0.37	0.4839	-0.47	1.33
NOV	35	0.03	0.15	0.02	-0.23	0.33	0.2809	0.09	-0.72
DEC	30	-0.01	0.19	0.04	-0.46	0.45	0.7166	-0.05	0.47
----- DEPTH=125 -----									
JAN	20	0.00	0.18	0.04	-0.25	0.33	0.9887	0.36	-1.14
FEB	18	0.02	0.12	0.03	-0.20	0.31	0.4998	0.31	0.47
MAR	18	-0.01	0.11	0.03	-0.31	0.17	0.6808	-1.27	2.88
APR	22	-0.01	0.13	0.03	-0.25	0.25	0.6016	-0.26	-0.14
MAY	21	0.01	0.11	0.02	-0.21	0.17	0.7138	-0.65	-0.59
JUN	23	-0.01	0.12	0.02	-0.25	0.15	0.7950	-0.56	-0.59
JUL	20	0.01	0.09	0.02	-0.18	0.14	0.7161	-0.53	-0.73
AUG	20	0.01	0.11	0.03	-0.22	0.23	0.5724	-0.68	0.41
SEP	24	0.00	0.13	0.03	-0.31	0.19	0.9005	-0.82	0.85
OCT	22	-0.03	0.17	0.04	-0.41	0.26	0.4586	-0.37	-0.20
NOV	22	0.04	0.19	0.04	-0.53	0.26	0.3458	-1.53	2.96
DEC	17	-0.04	0.20	0.05	-0.48	0.32	0.4350	-0.42	0.15
----- DEPTH=150 -----									
JAN	31	-0.00	0.22	0.04	-0.43	0.42	0.9681	-0.13	-0.70
FEB	31	-0.00	0.15	0.03	-0.33	0.24	0.9702	-0.37	-0.27
MAR	31	-0.01	0.13	0.02	-0.33	0.20	0.7803	-0.67	-0.07
APR	34	0.02	0.13	0.02	-0.23	0.39	0.3788	0.49	0.94
MAY	38	0.00	0.13	0.02	-0.26	0.30	0.9790	-0.08	0.43
JUN	39	0.01	0.13	0.02	-0.27	0.38	0.7547	-0.01	1.27
JUL	37	0.02	0.12	0.02	-0.38	0.26	0.4015	-0.75	1.67
AUG	36	0.01	0.12	0.02	-0.27	0.25	0.6047	-0.55	-0.18
SEP	39	0.01	0.14	0.02	-0.31	0.25	0.7233	-0.31	-0.08
OCT	37	-0.03	0.15	0.02	-0.43	0.27	0.2434	-0.55	0.75
NOV	35	0.02	0.14	0.02	-0.29	0.29	0.4897	-0.22	-0.01
DEC	30	-0.02	0.18	0.03	-0.50	0.38	0.4745	-0.08	0.68
----- DEPTH=175 -----									
JAN	29	0.03	0.22	0.04	-0.70	0.34	0.4468	-1.44	3.03
FEB	25	-0.01	0.14	0.03	-0.32	0.25	0.6865	-0.33	-0.35
MAR	31	-0.03	0.20	0.04	-0.60	0.44	0.3860	-0.28	1.51
APR	29	-0.00	0.13	0.02	-0.20	0.27	0.8985	0.54	-0.35
MAY	30	-0.01	0.11	0.02	-0.30	0.18	0.7284	-0.35	0.42
JUN	36	-0.02	0.15	0.02	-0.31	0.36	0.4743	0.35	0.60
JUL	35	0.01	0.12	0.02	-0.31	0.20	0.5179	-0.67	0.67
AUG	30	-0.01	0.13	0.02	-0.23	0.29	0.7992	0.36	-0.43
SEP	31	-0.01	0.13	0.02	-0.29	0.29	0.7407	0.42	0.46
OCT	29	0.01	0.15	0.03	-0.30	0.32	0.7432	0.45	-0.01
NOV	29	0.02	0.17	0.03	-0.38	0.33	0.4929	0.00	0.07
DEC	26	-0.04	0.15	0.03	-0.27	0.22	0.1955	0.27	-1.01

Table 4. Mean temperature residuals, 0-175 m, by months x years, with diagnostic statistics.

STATION 27: 0 - 175 m MONTHLY TEMPERATURE RESIDUALS

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-DEPTH-

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
46	.	.	.	.	.	.	0.72	0.66	0.72	0.91	-0.02	0.08
47	.	.	.	.	-0.02	0.63	1.56	.	0.07	0.41	0.68	.
48	.	.	-0.36	-0.31	-0.26	0.32	0.51	0.58	.	.	.	.
49	.	.	.	.	.	0.85	.	0.37	0.10	.	.	-0.02
50	0.05	1.44	-0.38	-0.31	.	0.09	0.14	-0.23	-0.29	.	0.12	0.56
51	0.54	0.43	0.39	0.64	0.24	0.20	0.18	-0.19	1.11	0.30	.	.
52	-0.18	.	.	0.31	0.41	0.33	0.05	0.04	0.77	0.14	.	0.22
53	.	0.73	.	0.27	0.16	0.33	0.64	1.27	1.96	1.21	0.80	0.30
54	0.01	-0.00	0.09	-0.02	-0.05	0.20	-0.02	-0.70	-1.10	-0.45	0.26	-0.09
55	0.65	0.66	.	-0.19	-0.42	-0.12	0.43	0.26	0.37	0.16	0.20	0.12
56	0.51	0.72	0.62	0.30	-0.03	0.05	0.08	-0.49	.	0.01	0.51	.
57	.	-0.52	-0.49	-0.33	-0.52	-0.48	-0.31	-0.84	-0.65	-0.55	-0.16	-0.35
58	0.28	0.63	0.78	0.73	0.41	0.52	0.89	1.01	0.62	0.33	0.30	-0.07
59	-0.16	-0.41	-0.36	-0.17	-0.13	-0.02	-0.03	-0.15	0.67	-0.37	-0.27	-0.04
60	0.02	0.23	0.45	0.31	-0.05	0.02	-0.27	-0.39	0.04	-0.39	-0.25	-0.31
61	-0.15	-0.48	-0.18	.	.	-0.35	0.12	0.13	0.32	0.54	0.70	.
62	0.95	0.47	-0.11	.	0.18	0.09	-0.19	-0.59	0.10	0.21	-0.08	.
63	0.58	0.53	-0.06	-0.05	-0.03	0.21	0.34	0.51	0.05	0.02	-0.32	-0.08
64	.	-0.19	-0.25	-0.28	-0.37	-0.42	-0.11	-0.26	-0.05	-0.29	0.24	-0.02
65	0.07	-0.01	0.14	-0.13	-0.07	0.26	-0.07	-0.27	-0.29	0.22	-0.08	0.37
66	.	.	0.59	0.60	0.27	0.73	0.35	-0.11	0.62	-0.05	0.18	0.51
67	0.72	0.12	-0.20	-0.42	-0.72	-0.42	-0.29	-0.10	0.56	1.09	0.71	0.88
68	1.03	0.80	0.60	0.43	0.52	0.61	0.82	0.25	0.36	0.52	0.24	0.37
69	0.28	0.79	0.90	0.82	0.72	0.51	0.11	-0.10	0.07	0.38	-0.21	0.08
70	0.24	0.42	0.53	0.44	0.18	0.37	0.75	-0.13	.	0.12	-0.12	-0.00
71	-0.45	-0.12	0.14	0.22	0.31	0.27	0.23	0.43	0.03	0.50	-0.08	0.27
72	.	-0.31	-0.34	-0.39	-0.35	-0.43	-0.27	-0.55	-0.70	-0.86	-0.33	.
73	-1.28	-0.72	-0.46	-0.40	.	-0.78	-0.30	0.05	0.60	0.02	-0.59	0.04
74	-0.54	-0.75	-0.46	-0.37	-0.35	-0.32	-0.25	-0.73	-0.83	-0.78	-0.65	.
75	-0.21	-0.36	.	0.26	0.07	0.16	0.32	-0.24	-1.09	-0.14	0.15	0.14
76	0.13	0.03	-0.14	0.02	0.05	0.50	0.34	-0.02	0.26	-0.15	-0.57	-0.30
77	-0.42	-0.48	-0.29	-0.13	-0.07	-0.03	0.10	0.26	-0.13	-0.40	-0.41	-0.07
78	0.07	0.38	0.25	-0.06	0.12	-0.61	.	0.35	0.48	-1.02	-0.30	.
79	0.17	0.02	0.02	0.64	0.12	-0.25	0.10	0.40	0.68	-0.10	-0.01	0.13
80	0.04	.	-0.11	0.25	0.19	0.35	-0.42	-0.63	-0.14	.	-0.37	-0.12
81	-0.10	.	0.42	0.35	0.32	0.28	0.51	.	-0.36	0.07	0.48	0.73
82	0.49	0.13	-0.26	-0.12	-0.01	0.32	-0.16	.	0.16	0.61	0.83	.
83	.	-0.02	.	-0.40	-0.28	-0.39	-0.31	-0.02	0.39	-0.04	-0.04	0.13
84	-0.30	-0.43	.	-0.32	-0.79	-0.90	-0.46	-0.39	-0.72	-0.61	-0.42	-0.55
85	-1.04	-0.74	-0.44	-0.35	-0.46	-0.54	-0.49	-0.65	-0.24	0.11	-0.60	.
86	-0.49	-0.47	-0.40	-0.27	0.04	0.15	0.41	-0.18	0.35	0.13	0.44	.

VARIABLE	N	MEAN	STANDARD DEVIATION	STD ERROR OF MEAN	MINIMUM VALUE	MAXIMUM VALUE	PR> T	SKEWNESS	KURTOSIS
-DEPTH-									
JAN	31	0.049	0.519	0.093	-1.281	1.033	0.6058	-0.416	0.609
FEB	33	0.076	0.540	0.094	-0.749	1.442	0.4268	0.368	-0.373
MAR	32	0.020	0.412	0.073	-0.485	0.896	0.7813	0.595	-0.913
APR	36	0.044	0.376	0.063	-0.424	0.823	0.4874	0.483	-1.013
MAY	36	-0.019	0.338	0.056	-0.793	0.725	0.7423	-0.283	0.065
JUN	40	0.057	0.426	0.067	-0.904	0.849	0.4004	-0.385	-0.540
JUL	38	0.148	0.439	0.070	-0.491	1.561	0.0424	0.945	1.343
AUG	38	-0.037	0.482	0.078	-0.844	1.266	0.6376	0.608	0.342
SEP	38	0.128	0.611	0.099	-1.095	1.960	0.2037	0.240	1.234
OCT	37	0.050	0.504	0.083	-1.023	1.212	0.5525	0.111	0.204
NOV	37	0.026	0.418	0.069	-0.652	0.828	0.7049	0.316	-0.781
DEC	29	0.100	0.316	0.059	-0.550	0.878	0.0999	0.487	0.591

Table 5. Mean salinity residuals, 0-175 m, by months x years, with diagnostic statistics.

STATION 27: monthly 0-175 m salinity residuals													
OBS	YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	46	.	.	.	.	.	.	-.119	-.184	-.088	-.053	-.024	-.048
2	47	.	.	.	.	-.039	-.121	-.297	.	-.173	-.095	0.183	.
3	48	.	.	0.294	0.173	0.092	0.130	0.014	0.085	.	.	.	.
4	49	.	.	.	.	.	-.009	.	0.089	0.151	.	.	0.260
5	50	0.550	-.108	0.160	0.232	.	0.147	0.206	0.233	0.156	.	0.166	0.047
6	51	0.023	-.144	-.259	-.252	-.189	-.040	0.072	-.012	0.099	0.062	.	.
7	52	0.191	.	.	0.052	0.214	0.339	0.130	0.031	-.178	-.142	.	-.032
8	53	.	-.097	.	0.021	0.058	-.082	-.048	-.075	-.295	-.052	0.033	0.061
9	54	0.161	-.055	-.146	-.090	0.004	0.082	0.143	0.266	0.338	0.205	0.117	0.212
10	55	-.015	0.097	.	-.137	-.091	-.010	0.098	0.056	0.020	-.134	0.078	0.052
11	56	0.004	0.000	-.097	.	-.080	0.030	0.054	0.074	.	0.020	0.018	.
12	57	.	0.077	0.035	0.101	0.015	-.184	-.186	0.133	-.014	0.023	-.001	0.026
13	58	-.064	-.018	-.147	-.140	-.045	-.085	-.192	-.197	-.166	-.105	-.128	-.038
14	59	0.197	0.195	0.205	0.173	0.069	-.080	-.128	-.101	-.129	-.004	-.133	-.172
15	60	-.180	-.245	-.207	-.150	-.176	-.221	-.112	-.138	-.053	0.015	-.033	0.006
16	61	-.048	-.111	0.088	.	.	0.007	0.009	-.040	-.128	-.010	-.005	.
17	62	0.103	0.065	-.110	.	0.011	0.042	-.001	0.146	0.025	0.162	0.144	.
18	63	0.026	0.020	-.120	-.026	0.078	0.079	0.048	0.106	0.054	-.038	0.078	0.042
19	64	.	0.170	0.141	0.188	0.116	0.169	0.210	0.206	0.153	0.250	0.172	0.315
20	65	0.133	-.017	-.056	0.008	-.040	-.147	0.031	0.175	0.218	0.178	0.256	0.362
21	66	.	.	0.050	-.059	0.018	-.069	0.045	0.127	0.136	0.239	0.178	-.033
22	67	-.189	-.079	0.010	-.091	-.007	-.025	0.035	0.109	0.050	0.099	0.229	0.136
23	68	-.013	-.034	-.023	-.085	-.017	-.069	-.120	-.055	-.049	-.048	0.074	0.045
24	69	0.146	-.069	-.079	-.176	-.123	-.151	-.104	-.012	0.045	0.016	0.071	0.149
25	70	-.038	-.043	-.211	-.283	-.212	-.283	-.148	-.221	.	-.367	-.374	-.440
26	71	-.128	-.127	-.056	-.117	-.157	-.175	-.207	-.317	-.281	-.370	-.042	-.181
27	72	.	0.035	0.084	0.068	0.032	0.029	0.077	-.059	-.029	-.047	-.030	.
28	73	0.026	0.002	0.025	0.345	.	-.052	-.033	-.003	-.138	0.071	0.266	-.035
29	74	-.183	0.047	0.063	0.146	0.191	0.018	-.030	0.020	-.058	-.217	-.077	.
30	75	-.094	0.064	.	.	-.096	-.071	-.030	0.073	0.249	-.050	0.046	0.025
31	76	0.072	-.084	-.062	0.037	0.044	0.051	-.012	-.006	-.013	0.041	0.154	0.090
32	77	0.175	0.167	0.021	0.051	0.201	0.057	0.095	-.097	-.086	-.069	0.007	-.036
33	78	0.031	0.065	0.080	-.001	0.061	0.124	.	0.068	-.093	0.420	0.253	.
34	79	0.229	0.224	0.155	0.189	0.082	0.157	0.132	0.061	0.051	0.268	0.126	-.031
35	80	0.065	.	0.062	0.062	0.078	0.043	0.065	0.086	0.035	.	.	.
36	81	0.102	.	-.058	-.055	0.074	0.037	-.061	.	-.031	-.143	-.097	0.045
37	82	0.234	0.150	0.167	0.197	0.207	0.139	0.191	.	0.106	-.008	-.354	.
38	83	.	-.119	.	-.001	-.101	0.052	-.001	0.011	0.021	-.161	-.069	-.251
39	84	-.209	-.124	.	-.226	-.085	0.007	-.065	-.122	-.022	-.145	-.180	-.123
40	85	-.098	-.066	-.022	0.017	0.123	0.100	0.135	0.106	-.014	-.187	0.017	.
41	86	0.006	0.012	-.043	-.115	-.108	-.129	-.187	-.077	0.017	0.039	-.199	.

VARIABLE	N	MEAN	STANDARD DEVIATION	STD ERROR OF MEAN	MINIMUM VALUE	MAXIMUM VALUE	PR> T	SKEWNESS	KURTOSIS
JAN	31	0.039	0.159	0.028	-0.209	0.550	0.1787	0.898	2.176
FEB	33	-0.005	0.110	0.019	-0.245	0.224	0.8124	0.257	-0.306
MAR	32	-0.002	0.129	0.023	-0.259	0.294	0.9419	0.117	-0.254
APR	34	0.002	0.149	0.026	-0.283	0.345	0.9501	0.159	-0.416
MAY	36	0.006	0.114	0.019	-0.212	0.214	0.7674	0.010	-0.607
JUN	40	-0.004	0.123	0.019	-0.283	0.339	0.8348	0.132	0.547
JUL	39	-0.008	0.123	0.020	-0.297	0.210	0.6896	-0.224	-0.466
AUG	38	0.014	0.130	0.021	-0.317	0.266	0.4992	-0.403	0.042
SEP	38	-0.003	0.136	0.022	-0.295	0.338	0.8931	0.157	0.327
OCT	37	-0.009	0.165	0.027	-0.370	0.420	0.7386	0.222	0.695
NOV	36	0.026	0.156	0.026	-0.374	0.266	0.3302	-0.681	0.507
DEC	28	0.016	0.166	0.031	-0.440	0.362	0.6104	-0.328	1.484

### STATION 27 TEMPERATURE CYCLES BY DEPTH

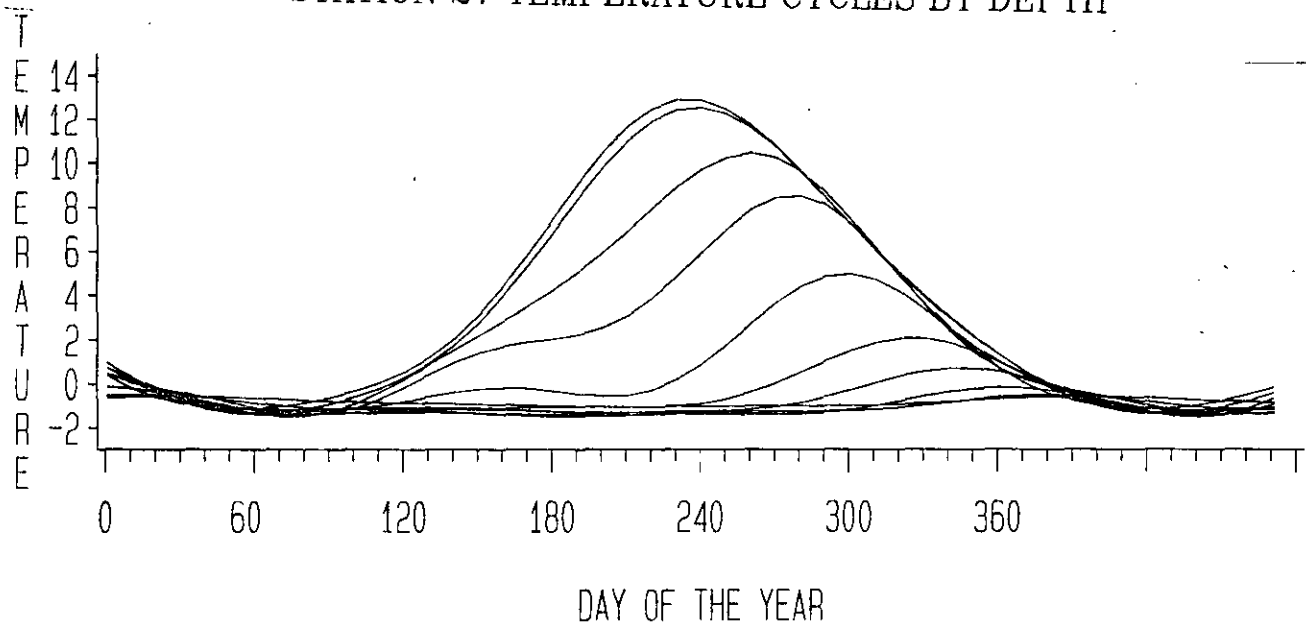


Fig. 1. Mean annual cycles of temperature at station 27 as derived from harmonic regression, by standard depths.

### STATION 27 SALINITY CYCLES BY DEPTH

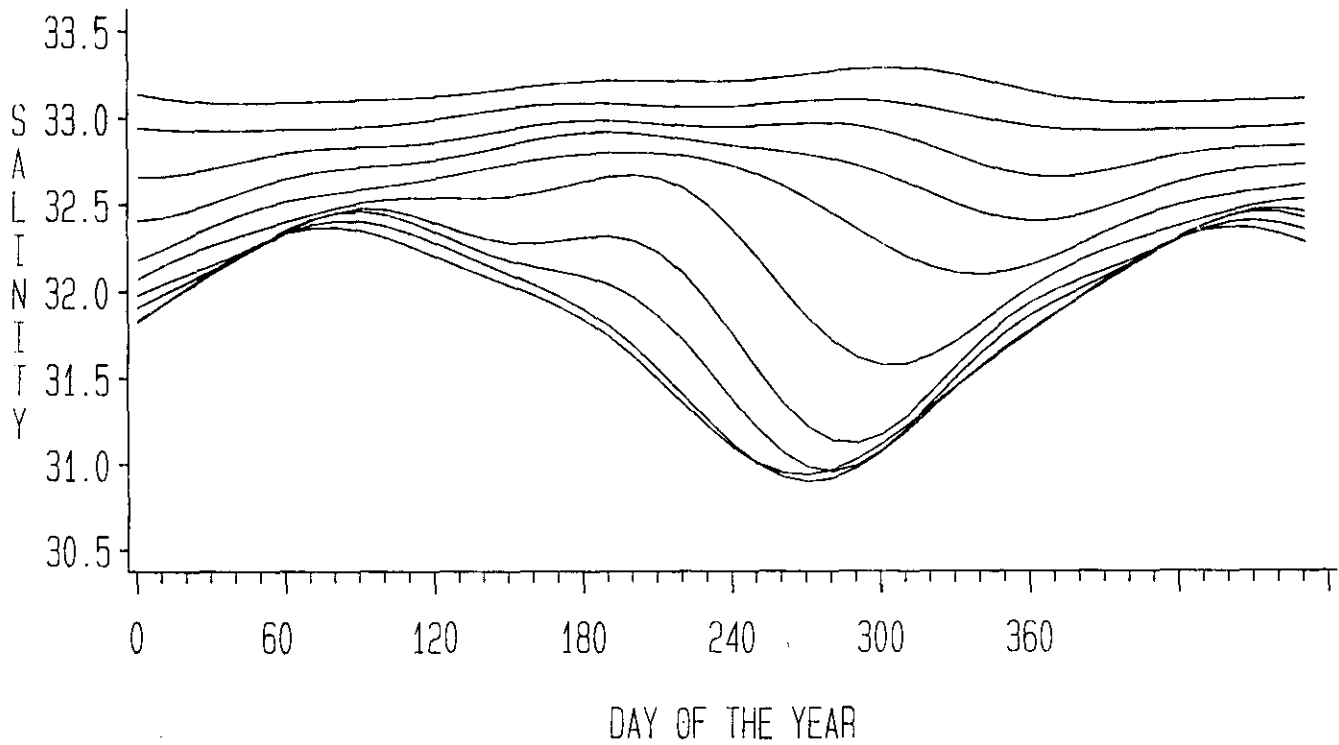


Fig. 2. Mean annual cycles of salinity at station 27 as derived from harmonic regression, by standard depths.