

*Oceanography Branch CTD DATA REPORT
Winter Groundfish Survey – DEL0302*

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Date: March 11, 2003

Northeast Fisheries Science Center
Woods Hole Laboratory
Woods Hole, Ma 02543

March 11, 2003

MEMORANDUM FOR: David Mountain
Linda Despres
Pete Chase

FROM: Cristina Bascuñán (ext. 2243)

SUBJECT: Winter Groundfish Survey - DEL0302

CTD data from the Winter groundfish survey have been processed and are now available. There were 103 casts done, including 27 for calibrations.

Hydrographic data for this cruise may be found in the following locations:

whsun2: /ftp/pub/hydro/del0302.dat (NODC file)
del0302.lst (a copy of this is attached; contains sfc & btm temperature, salinity
and station information)

Please call if you have any questions.

Areal average surface and bottom temp / salt and anomalies for Winter Bottom Trawl DEL0302.

CRUISE	CD	SURFACE					BOTTOM				
		#obs	T / S	Anomaly	SDV1	SDV2	#obs	T / S	Anomaly	SDV1	SDV2
Mid-Atlantic Bight North											
DE0302	57	25	4.61	-0.36	0.37	.86*	17	3.78	-0.89	0.42	1.94*
DE0302	57	14	33.3	0.44	0.2	.49*	17	33.39	0.07	0.14	.62*
Mid-Atlantic Bight South											
DE0302	44	57	6.9	0.57	0.26	1.8	45	6.74	0.39	0.31	1.91
DE0302	44	35	34.1	0.38	0.2	0.53	45	34.21	0.49	0.11	0.44

(1) "CRUISE": the code name for a cruise; "CD": the calendar mid-date of all the stations within a region for a cruise; "# obs": the number of observations included in each average; "T /S": the areal average temp / salt anomaly; "Anomaly": the areal average temp /salt anomaly; "SDV1": the standard deviation associated with the average temp/salt anomaly; "SDV2": the standard deviation of the individual anomalies from which the average anomaly wa derived.

(*) A true areal average could not be calculated due to poor station coverage. The average values listed were derived from a simple average of the observations within the region.

DEL0302
Winter Groundfish Survey
6 February - 1 March 2003

Cast #	Station #	Lat	Lon	Day	Mo	Time	Btm Depth	Sfc Temp	Sfc Salt	Btm Temp	Btm Salt	Meters from Btm
1	1	3828.6	7321.0	6	2	14:48	118	10.0	34.46	10.7	35.34	6
2	2	3825.3	7324.9	6	2	17:17	120	9.9	34.59	10.5	34.92	5
3	3	3814.3	7339.0	6	2	20:23	342	10.7	34.99	6.5	35.07	5
4	4	3821.2	7336.8	7	2	0:00	125	9.9	34.65	10.1	34.91	6
5	5	3822.8	7347.9	7	2	2:05	74	9.4	34.73	9.3	34.75	7
6	6	3811.6	7353.4	7	2	4:11	111	10.7	35.01	9.8	34.98	9
7	7	3809.8	7403.2	7	2	6:05	70	10.1	34.93	7.9	34.62	5
8	8	3804.7	7352.0	7	2	8:11	146	9.7	34.85	9.5	34.97	6
9	9	3751.7	7420.7	7	2	13:48	64	9.7	34.95	9.8	34.97	8
10	10	3750.3	7420.7	8	2	1:53	67	9.8	35.00	9.9	35.01	9
11	11	3800.0	7354.4	8	2	5:41	264	11.0	35.05	8.7	35.01	8
12	12	3739.6	7414.5	8	2	10:00	158	11.4	35.23	11.7	35.40	6
13	13	3734.2	7424.8	8	2	12:23	91	10.4	35.06	10.1	35.05	10
14	14	3730.8	7419.7	8	2	15:06	259	10.5	35.12	8.8	35.20	2
15	15	3722.5	7429.1	8	2	18:06	140	10.1	34.85	10.8	35.18	7

Cast #	Station #	Lat	Lon	Day	Mo	Time	Btm Depth	Sfc Temp	Sfc Salt	Btm Temp	Btm Salt	Meters from Btm
16	16	3720.9	7444.7	8	2	22:36	52	10.3	35.01	10.3	35.13	6
17	18	3722.1	7455.7	9	2	1:17	43	7.6	34.32	7.7	34.36	6
18	19	3709.1	7445.9	9	2	4:00	73	11.2	34.96	12.1	35.52	7
19	20	3708.2	7434.6	9	2	6:05	117	11.4	35.22	12.0	35.31	6
20	21	3700.6	7438.0	9	2	8:18	132	11.3	35.07	12.3	35.52	7
21	22	3701.8	7449.5	9	2	11:41	57	12.2	35.64	12.0	35.50	5
22	23	3700.1	7444.7	9	2	14:53	85	11.0	35.27	11.2	35.29	9
23	24	3650.3	7440.3	9	2	17:06	100	13.0	35.73	12.3	35.58	8
24	25	3638.4	7442.2	9	2	20:17	240	16.6	36.06	10.9	35.42	38
25	25	3638.1	7442.3	9	2	20:42	243	16.5	35.90	9.6	35.26	2
26	26	3619.3	7500.0	10	2	0:48	44	12.2	35.67	12.2	35.60	4
27	27	3609.5	7446.5	10	2	3:24	285	9.8	34.06	8.1	35.16	6
28	28	3610.9	7447.5	10	2	6:35	146	9.9	33.78	12.0	35.50	5
29	29	3604.6	7448.5	10	2	9:30	120	10.4	33.88	11.7	35.53	1
30	30	3556.7	7449.6	10	2	12:30	115	9.6	33.63	13.0	35.65	8
31	31	3547.6	7454.0	10	2	15:06	81	13.1	34.89	12.1	35.49	7
32	32	3543.9	7449.7	10	2	21:30	174	17.4	36.21	11.9	35.46	7
33	33	3543.4	7504.2	11	2	4:00	41	16.9	36.15	16.2	36.28	7
34	34	3537.2	7449.4	11	2	7:35	88	15.1	35.44	11.3	35.41	6
35	35	3536.9	7449.2	11	2	10:23	120	14.5	35.13	11.1	35.32	6
36	36	3548.2	7452.9	11	2	14:53	90	14.1	34.30	14.0	35.62	11
37	37	3605.8	7507.8	11	2	20:42	36	5.8	99.99	9.9	34.46	6
38	38	3608.4	7457.5	11	2	23:12	41	7.6	33.98	10.1	34.98	8
39	39	3622.9	7522.5	12	2	2:42	28	6.8	34.15	6.8	34.15	7
40	40	3628.6	7526.1	12	2	4:18	26	6.3	99.99	6.3	33.90	5

Cast #	Station #	Lat	Lon	Day	Mo	Time	Btm Depth	Sfc Temp	Sfc Salt	Btm Temp	Btm Salt	Meters from Btm
41	41	3627.8	7508.7	12	2	6:35	35	8.3	99.99	8.4	34.74	8
42	42	3634.1	7506.9	12	2	8:11	28	7.7	34.46	7.8	34.50	6
43	43	3635.4	7518.1	12	2	10:23	32	5.9	99.99	7.3	34.18	6
44	44	3648.9	7532.2	12	2	12:53	21	5.0	33.10	5.0	33.10	9
45	45	3647.4	7550.9	12	2	15:36	26	5.8	99.99	6.4	33.78	4
46	46	3700.3	7504.4	12	2	17:53	37	7.2	99.99	8.5	34.70	6
47	47	3713.1	7505.8	12	2	20:12	33	6.1	33.63	7.8	34.40	8
48	48	3721.1	7513.5	12	2	22:00	28	5.1	33.08	5.3	33.22	7
49	49	3720.7	7525.4	12	2	23:47	21	4.3	32.65	4.4	32.67	8
50	50	3932.1	7241.2	20	2	13:11	74	7.4	34.20	7.5	34.26	8
51	51	3912.1	7234.0	20	2	16:47	140	9.5	99.99	9.1	34.66	7
52	52	3909.0	7243.1	20	2	19:17	124	9.3	99.99	9.0	34.58	4
53	53	3911.8	7247.2	20	2	21:42	95	8.0	99.99	7.8	34.32	8
54	54	3847.1	7304.3	21	2	1:23	131	9.4	34.11	9.5	34.68	6
55	55	3839.2	7307.5	21	2	3:35	221	10.0	99.99	9.8	34.88	21
56	55	3838.6	7308.0	21	2	4:05	238	10.0	99.99	10.4	35.06	6
57	56	3840.1	7311.1	21	2	7:24	128	10.0	34.78	8.8	34.67	6
58	57	3847.2	7307.6	21	2	9:48	90	9.4	34.60	9.1	34.65	6
59	58	3848.2	7433.2	21	2	17:47	22	3.2	33.33	2.8	33.43	6
60	59	3859.6	7420.7	21	2	20:23	31	2.5	33.09	2.3	33.29	8
61	60	3852.8	7419.6	21	2	21:53	30	3.2	99.99	3.1	33.62	7
62	61	3827.0	7437.4	22	2	1:30	24	3.5	33.27	2.9	33.32	8
63	62	3819.1	7435.7	22	2	3:17	37	3.6	33.38	3.2	33.51	6
64	63	3838.3	7359.7	22	2	7:35	50	8.2	34.70	8.2	34.72	6
65	64	3850.9	7330.5	22	2	11:36	58	7.5	99.99	7.0	34.51	5

Cast #	Station #	Lat	Lon	Day	Mo	Time	Btm Depth	Sfc Temp	Sfc Salt	Btm Temp	Btm Salt	Meters from Btm
66	65	3858.2	7342.4	22	2	13:53	39	5.1	99.99	5.1	34.23	5
67	66	3903.7	7347.7	22	2	15:41	43	4.1	33.81	4.2	34.07	5
68	67	3911.3	7318.8	22	2	19:12	57	8.0	99.99	6.1	34.35	5
69	68	3924.4	7328.8	22	2	23:36	43	6.3	99.99	6.2	34.45	6
70	69	3928.5	7315.5	23	2	2:35	40	5.4	99.99	5.2	34.14	6
71	70	3943.6	7250.7	23	2	6:35	72	7.1	99.99	6.3	34.32	5
72	71	3951.6	7310.1	23	2	11:18	52	3.9	99.99	4.4	34.10	6
73	72	3954.5	7328.0	23	2	15:18	41	4.0	99.99	4.1	33.83	8
74	73	3958.6	7340.7	23	2	18:23	36	3.8	99.99	3.6	33.70	7
75	74	4012.8	7331.0	24	2	8:23	36	3.1	33.47	3.1	33.57	7
76	75	4021.8	7329.0	24	2	16:12	27	2.1	33.21	2.0	33.21	6
77	76	4004.6	7240.9	24	2	20:42	56	6.4	33.20	6.2	34.18	5
78	77	3939.4	7211.7	25	2	1:00	122	7.0	99.99	8.7	34.36	5
79	78	3930.3	7207.6	25	2	3:24	289	8.7	99.99	12.1	35.48	91
80	78	3930.1	7207.9	25	2	3:54	292	8.7	99.99	8.0	35.13	7
81	79	3943.4	7156.1	25	2	6:30	214	7.4	99.99	11.4	35.31	6
82	80	3949.0	7149.2	25	2	9:53	205	8.0	99.99	11.5	35.37	5
83	81	3957.9	7200.0	25	2	13:36	87	5.6	99.99	6.0	33.64	6
84	82	4011.3	7137.6	25	2	17:17	85	5.8	33.63	5.8	33.64	5
85	83	4003.8	7138.1	25	2	20:30	90	5.7	33.41	8.1	34.15	6
86	84	4005.2	7111.7	25	2	23:36	168	4.5	99.99	11.2	35.26	5
87	85	4001.0	7108.2	26	2	2:17	274	6.0	33.60	8.6	35.33	5
88	86	4013.4	7051.4	26	2	6:48	125	6.0	99.99	9.8	34.70	5
89	87	4025.6	7054.7	26	2	9:36	85	3.4	33.16	3.4	33.17	78
90	90	4105.5	7054.2	26	2	21:17	38	2.1	33.05	2.6	33.16	7

Cast #	Station #	Lat	Lon	Day	Mo	Time	Btm Depth	Sfc Temp	Sfc Salt	Btm Temp	Btm Salt	Meters from Btm
91	91	4039.8	7039.0	27	2	1:06	60	3.5	33.33	3.5	33.20	4
92	92	4024.6	7027.3	27	2	3:47	79	3.7	99.99	3.2	33.19	6
93	97	4001.4	6935.9	27	2	20:30	122	5.4	33.32	7.2	33.96	6
94	98	4002.0	6906.0	28	2	1:12	190	5.3	99.99	9.9	35.23	5
95	99	4035.2	6901.2	28	2	8:23	71	4.3	99.99	4.4	33.32	6
96	100	4036.5	6945.9	28	2	13:30	60	3.3	99.99	3.3	33.31	6
97	101	4033.3	6956.0	28	2	16:00	62	3.1	33.37	3.1	33.27	6
98	102	4044.9	7015.9	28	2	21:06	46	1.7	32.81	1.8	32.96	7
99	103	4055.0	7017.0	1	3	0:18	40	2.1	33.08	2.1	33.07	7
100	104	4048.4	7035.4	1	3	3:24	54	2.6	99.99	2.8	33.01	7
101	105	4058.4	7111.6	1	3	7:54	54	3.4	33.32	3.5	33.34	8
102	106	4057.6	7125.3	1	3	10:11	48	3.6	33.25	3.6	33.41	5
103	107	4057.7	7138.7	1	3	12:00	44	3.6	33.27	3.6	33.29	6

















