

Oceanography Branch CTD Data Report
CTD_REPORT_2012006PC

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DATE: March 19, 2013

Oceanography Branch CTD Data Report

CTD_REPORT_2012006PC

NOAA Fisheries Service
Northeast Fisheries Science Center
Woods Hole, MA 02543

PC 12-06
Atlantic Herring Acoustic Survey
Data Coverage: September 14 – October 18, 2012
Georges Bank, Gulf of Maine

This report presents a summary of surface and bottom temperature and salinity data collected during the Northeast Fisheries Science Center's PC1206 Atlantic Herring Acoustic Survey aboard the NOAA FSV *Pisces*. Data was obtained with a Seabird Electronics SBE Model 9/11+ profiling CTD (s/n 0912). Sea water samples were taken for the purpose of correcting salinity values. No salinity correction was necessary. This CTD was outfitted with an SBE43 dissolved oxygen sensor and a Wetlabs Wetstar fluorometer. Dissolved oxygen (mg/L) and chlorophyll-a concentration (mg/m³) is included in the data files, but is not presented in this report. Water samples were not taken for calibrating these additional sensors.

Data presented here have been audited, however, corrections and/or updates may be applied at a later time.

The most recent and complete station data can be found in an NODC formatted ASCII file at:
<ftp://ftp.nefsc.noaa.gov/pub/hydro/PC1206.dat>

This report may be viewed on the Oceanography Branch website at:
<http://www.nefsc.noaa.gov/HydroAtlas/>

choose: **2012 Cruises**
SEP_ACOUSTIC_PC1206
CTD_REPORT_2012006PC.pdf

Revised: March 19, 2013

**Areal average surface and bottom temperature/salinity and temperature/salinity anomalies for the 2012
PC1206 Atlantic Herring Acoustic Survey**

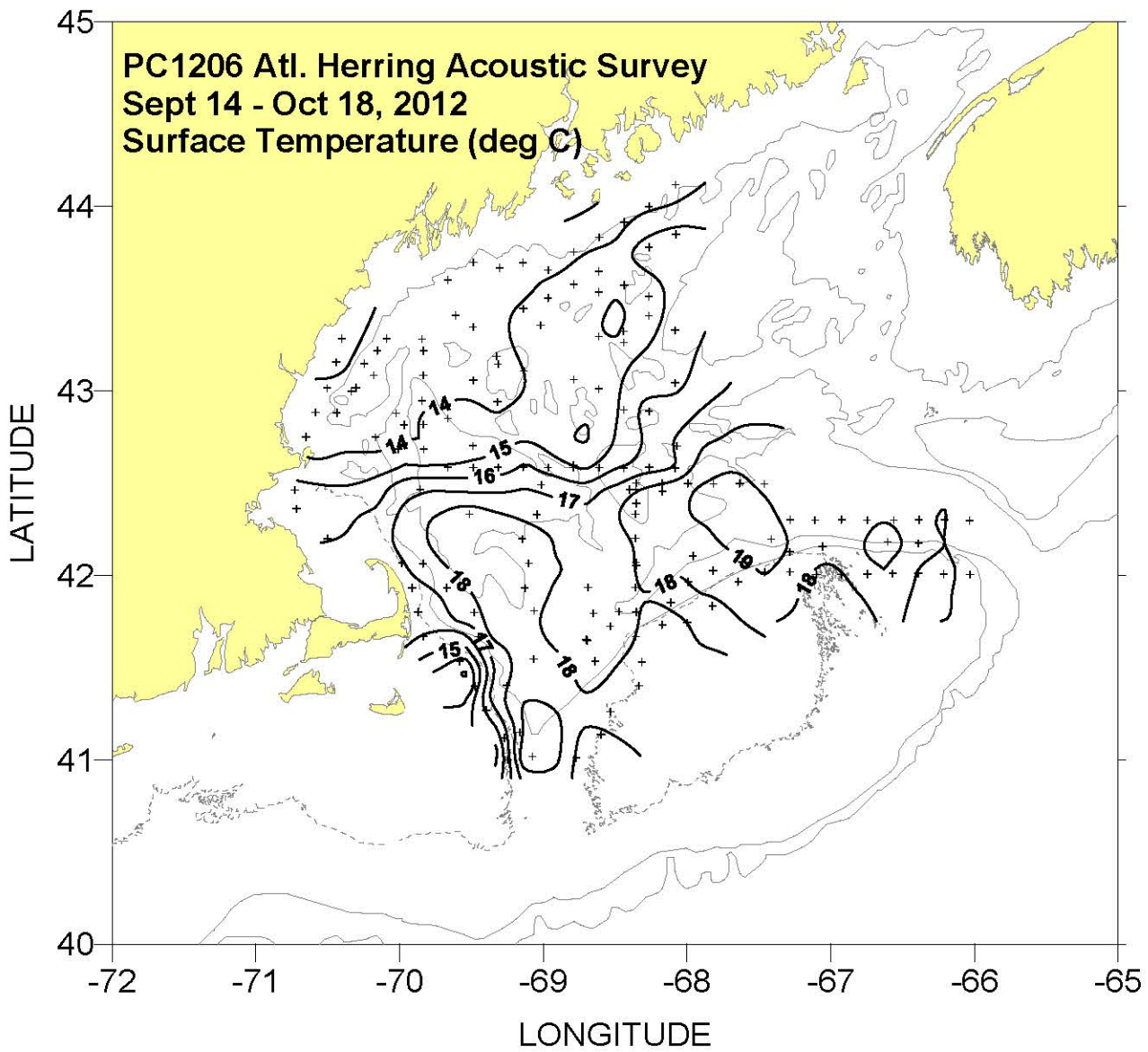
CRUISE	CD	SURFACE						BOTTOM						Purpose
		#obs	T/S	Anomaly	SDV1	SDV2	Flag	#obs	T/S	Anomaly	SDV1	SDV2	Flag	
Western Gulf of Maine														
PC1206	277	104	15.68	2.00	0.11	1.05	0	105	8.72	1.67	0.09	1.16	0	16
PC1206	277	104	32.60	0.23	0.07	0.38	0	105	34.00	0.36	0.05	0.28	0	16
Eastern Gulf of Maine														
PC1206	259	22	18.70	3.19	0.22	2.79	1	22	8.82	0.16	0.20	3.21	1	16
PC1206	259	22	32.36	-0.05	0.14	0.98	1	22	34.66	0.19	0.11	0.74	1	16
Georges Bank														
PC1206	260	20	18.23	2.78	0.21	1.49	1	20	14.71	1.47	0.21	2.68	1	16
PC1206	260	20	32.61	0.10	0.12	0.46	1	20	32.86	0.16	0.12	0.33	1	16

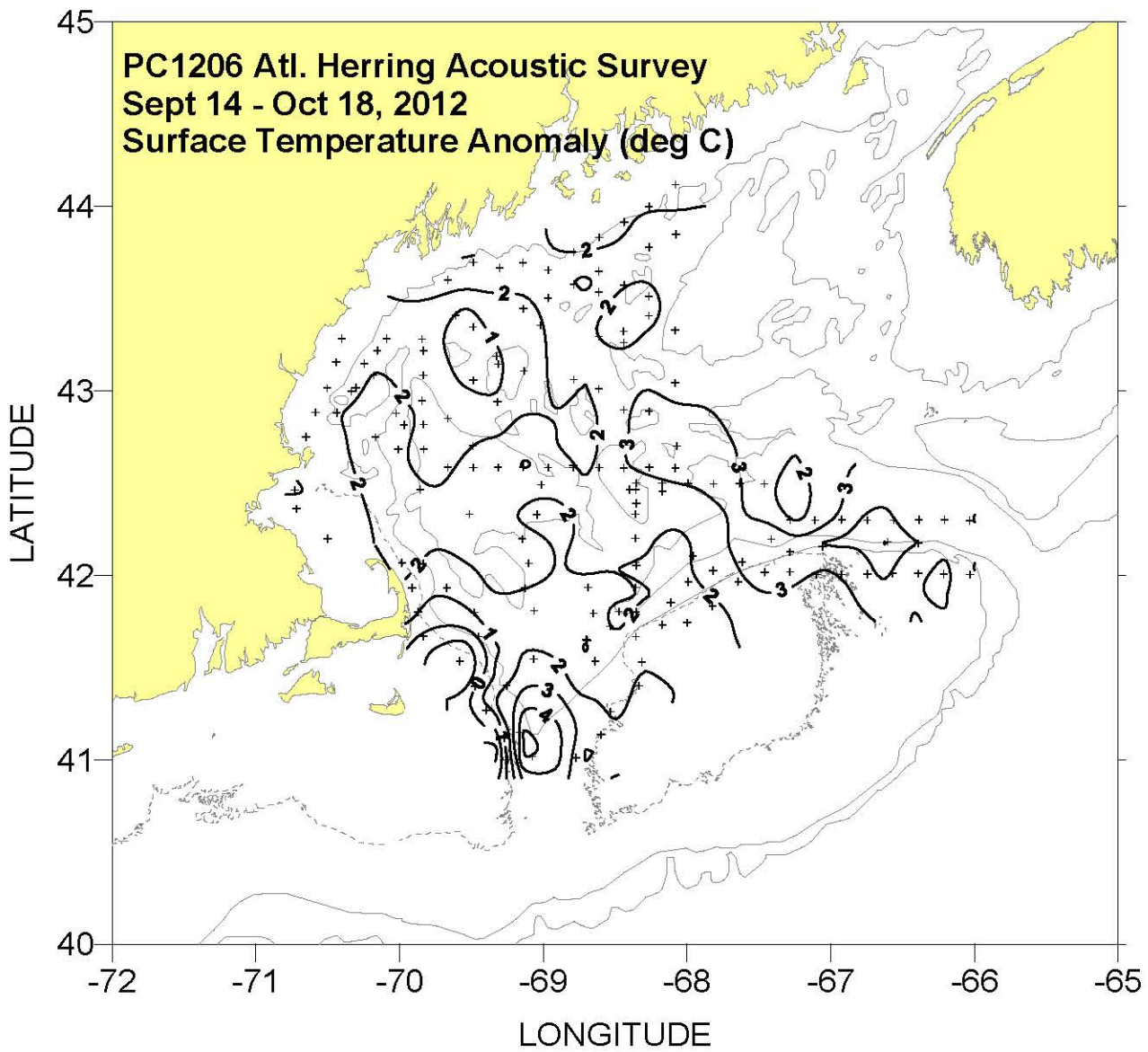
"CRUISE", the code name for a cruise: "CD", the calendar mid-date of all the stations within a region for a cruise:

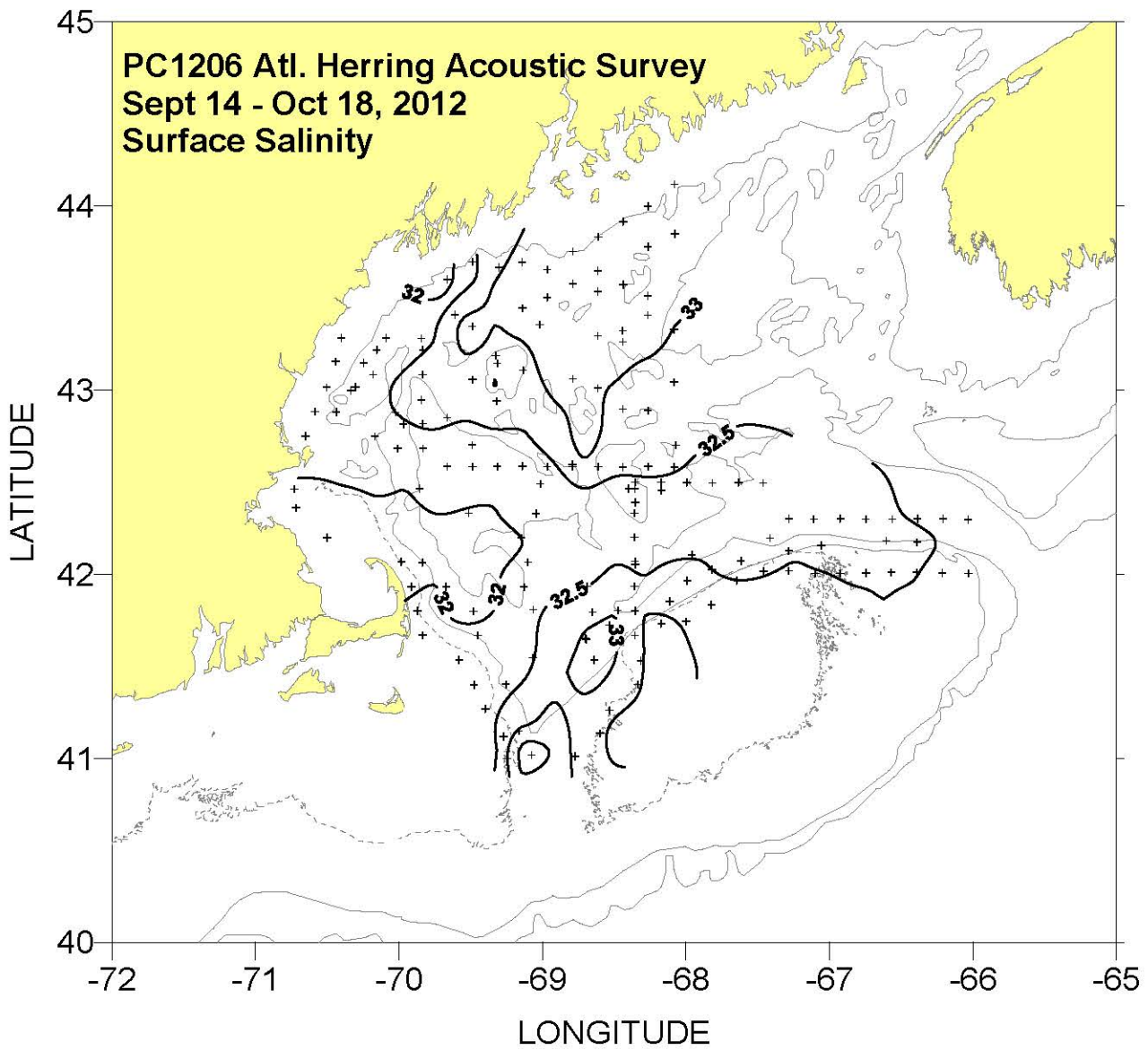
"#obs", the number of observations include in each average: "T/S", the areal average temp/salt: "Anomaly", the areal average temp/salt anomaly:

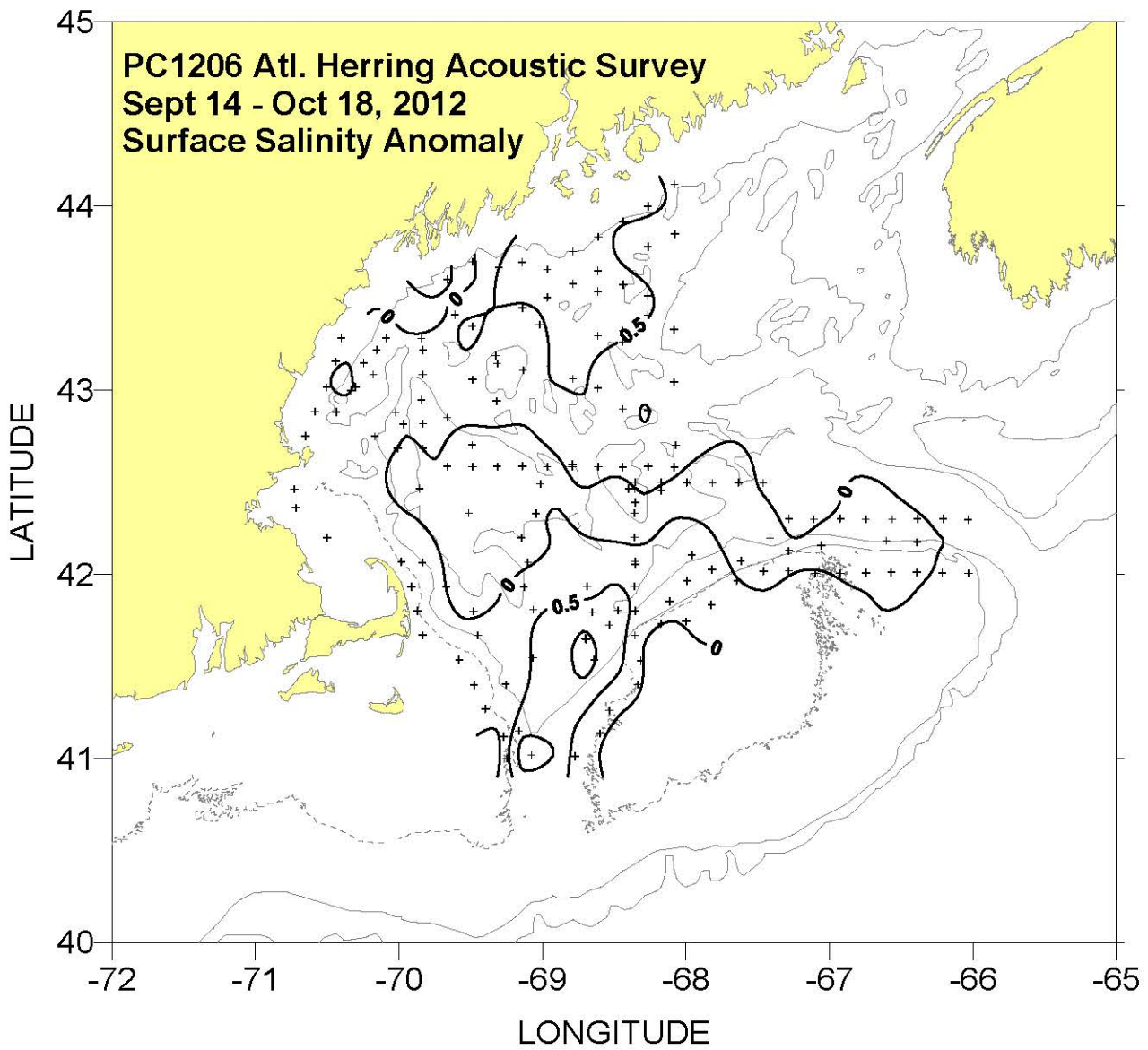
"SDV1", the standard deviation associated with the average temp/salt anomaly: "SDV2", the standard deviation of the individual anomalies from which the average anomaly was derived
"Flag", a value of "1" indicates that a true areal average could not be calculated due to poor station coverage. The areal averages listed were derived from a simple average of the observations within the region.

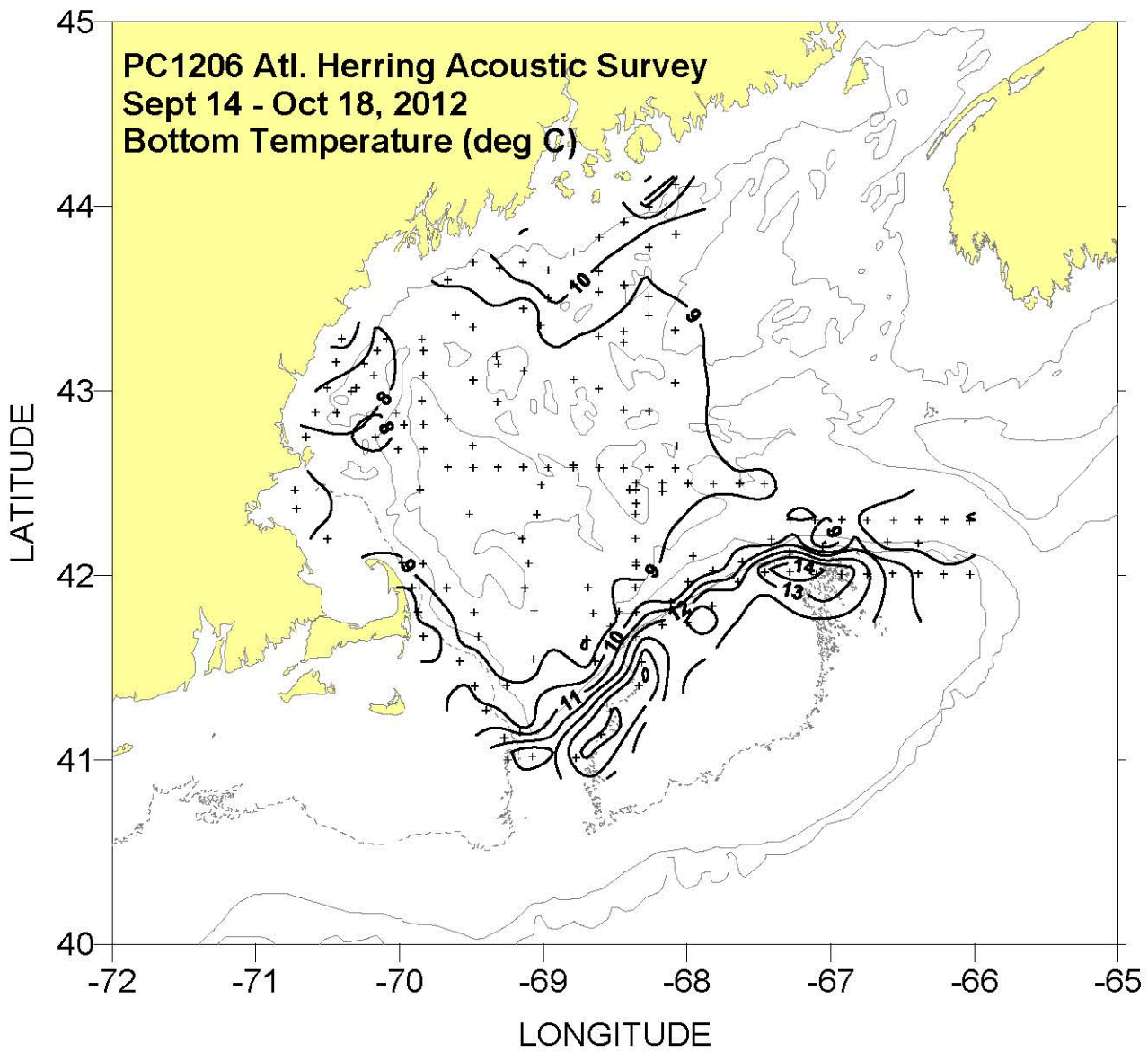
"Purpose", 2 digit code assigned by DMS to identify a unique NEFSC program survey.

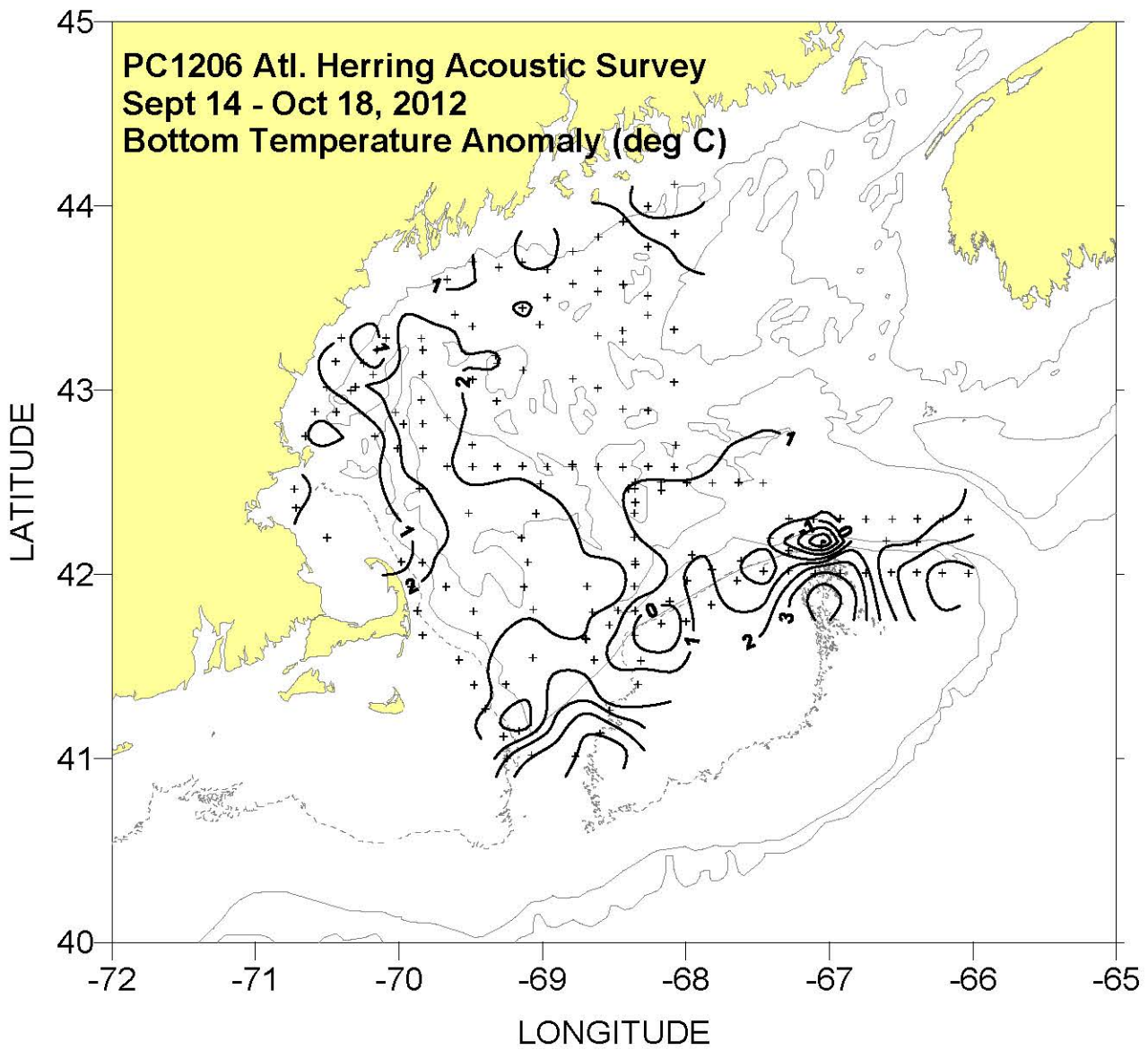


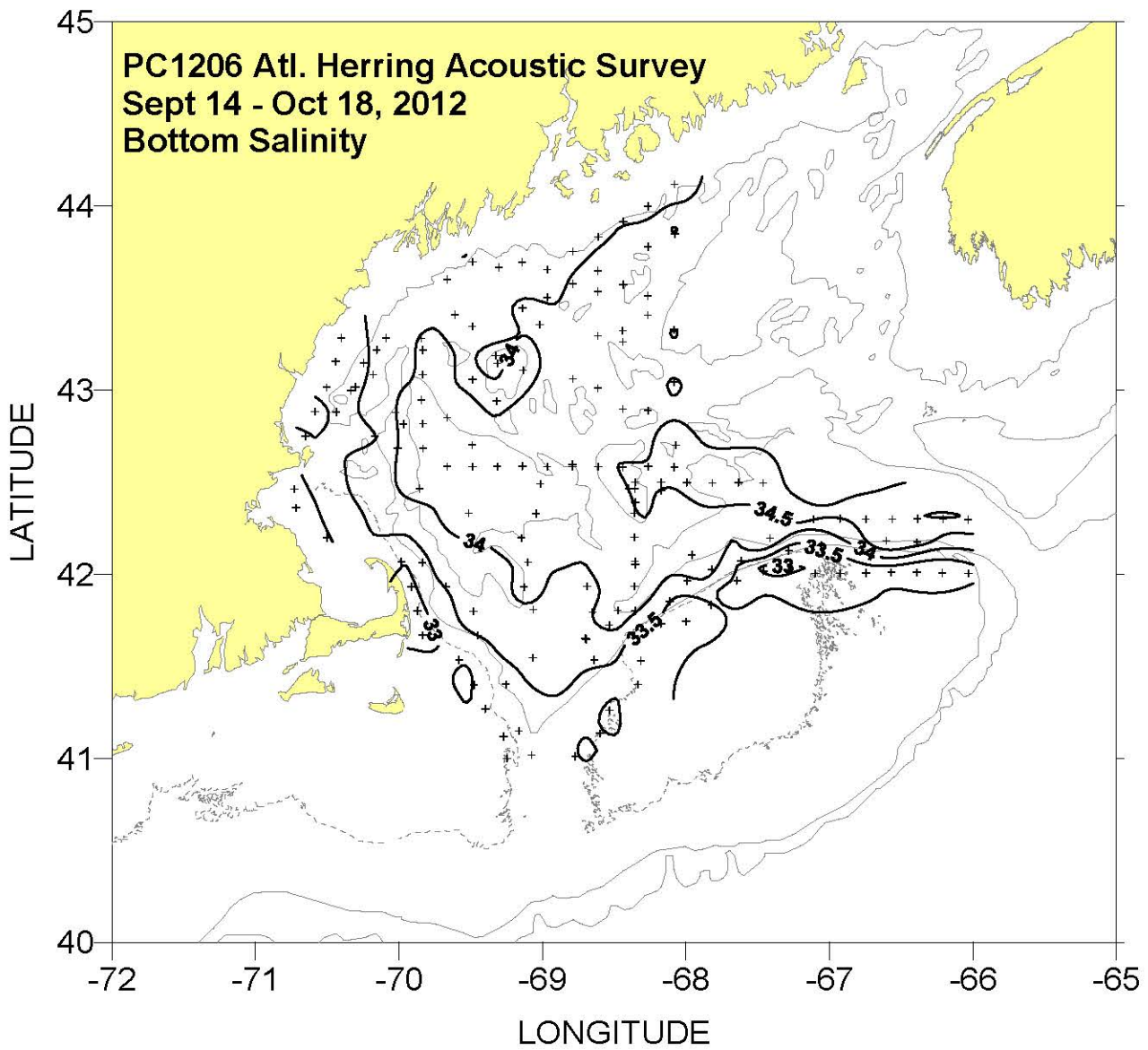


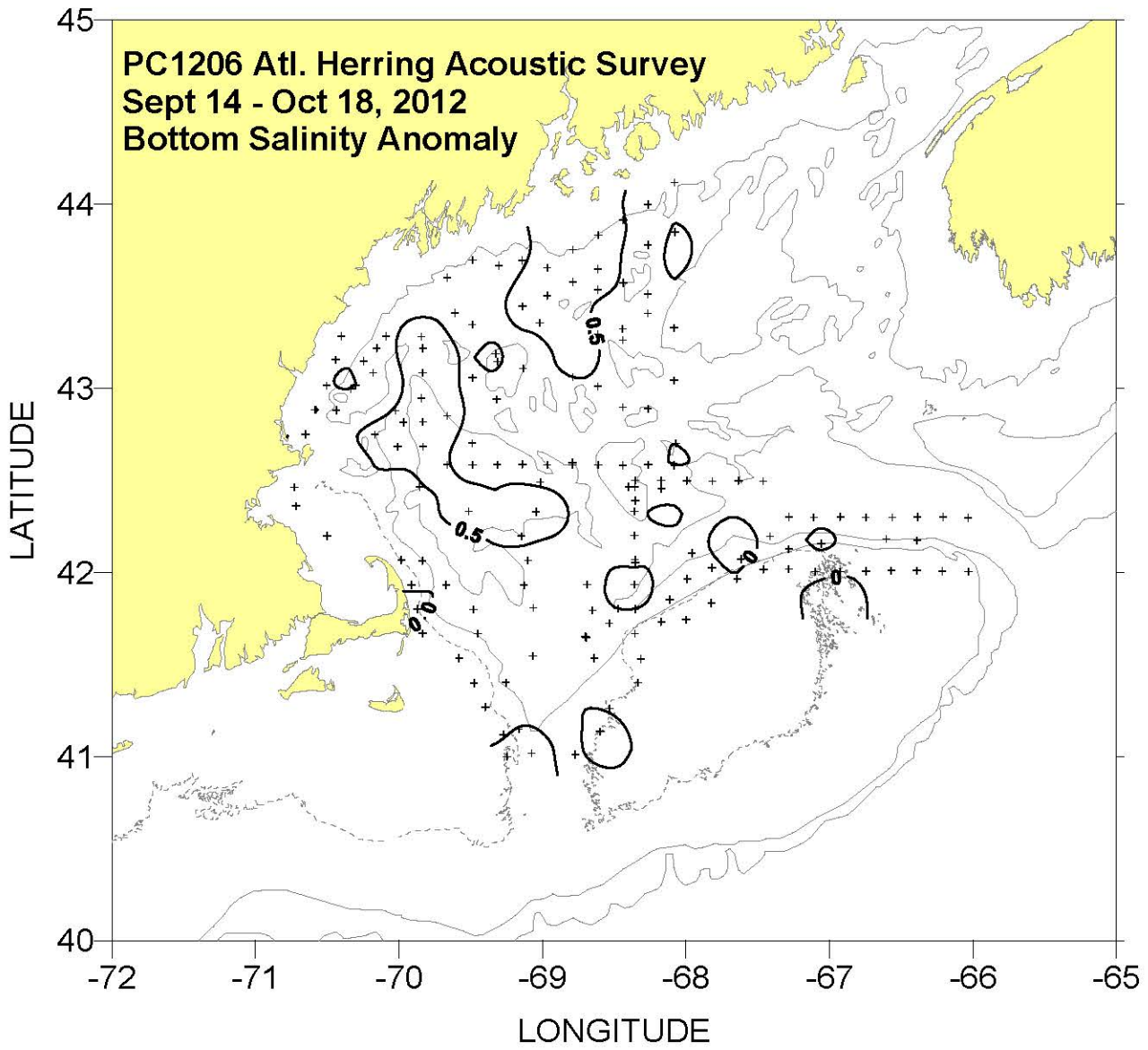












**PC1206 Atlantic Herring Acoustic Survey
Sept 14 - Oct 18, 2012**

Cast #	Sta #	Lat (deg N)	Long (deg W)	Day	Mo	Year	Time (GMT)	Btm Depth (m)	Sfc Temp (deg C)	Sfc Salt	Deepest Observed Temp (deg C)	Deepest Observed Salt	Meters from Bottom	Method of Deployment
2	2	4200.2	6601.9	14	9	2012	4:41	93	18.81	32.56	9.29	33.24	1	V
3	3	4217.8	6602.1	14	9	2012	6:43	252	18.68	32.61	7.67	35.08	1	V
4	4	4218.0	6612.5	14	9	2012	7:58	230	17.93	32.60	8.29	35.09	1	V
5	5	4200.4	6612.9	14	9	2012	10:11	86	17.41	32.61	8.98	33.01	1	V
6	6	4200.6	6623.5	14	9	2012	11:19	85	17.82	32.50	9.89	32.92	2	V
7	7	4210.4	6623.4	14	9	2012	12:36	193	18.52	32.31	8.59	34.89	1	V
9	9	4218.0	6623.2	14	9	2012	16:12	258	17.97	32.58	8.19	35.07	1	W
10	10	4217.9	6633.7	14	9	2012	17:19	274	18.78	32.45	8.23	35.07	1	V
11	11	4210.9	6636.3	14	9	2012	19:00	203	19.49	32.13	8.46	34.99	1	V
12	12	4200.6	6634.2	14	9	2012	21:36	79	18.56	32.42	10.98	32.89	1	V
13	13	4200.4	6644.7	14	9	2012	22:38	71	19.15	32.37	13.95	32.77	1	V
14	14	4217.9	6644.8	15	9	2012	1:19	293	18.73	32.23	8.31	35.05	1	W
15	15	4218.1	6655.4	15	9	2012	2:31	295	18.60	32.23	8.36	35.08	1	V
16	16	4200.2	6655.5	15	9	2012	4:41	65	17.05	32.55	17.05	32.55	2	W
17	17	4200.2	6705.9	15	9	2012	5:56	54	17.63	32.59	17.54	32.58	3	V
18	18	4209.3	6703.4	15	9	2012	7:52	83	19.08	32.12	7.47	33.52	2	V
21	21	4217.9	6706.6	15	9	2012	13:10	287	18.46	32.48	8.35	35.08	1	V
22	22	4218.1	6716.9	15	9	2012	14:10	285	18.67	32.34	8.47	35.09	1	V
23	23	4207.6	6717.0	15	9	2012	15:45	83	18.88	32.42	10.56	32.98	1	V
25	25	4201.1	6717.0	15	9	2012	19:07	43	18.64	32.55	16.38	32.68	1	W
26	26	4201.0	6727.5	15	9	2012	20:10	35	19.11	32.48	13.97	32.84	1	V
27	27	4211.7	6724.8	15	9	2012	21:55	234	19.52	32.07	8.52	35.06	1	V
29	29	4229.7	6727.7	16	9	2012	1:47	300	18.80	32.32	8.46	35.07	1	V
30	30	4229.9	6738.0	16	9	2012	2:58	197	19.27	32.12	8.58	35.06	1	W
31	31	4204.3	6737.0	16	9	2012	6:01	153	19.04	32.14	7.41	33.67	1	V
33	33	4157.9	6738.6	16	9	2012	8:52	47	18.16	32.63	14.79	32.84	2	V
34	34	4150.0	6749.4	16	9	2012	10:13	37	17.90	32.61	17.87	32.61	2	V
35	35	4201.5	6749.1	16	9	2012	11:45	174	18.69	32.50	8.22	34.56	1	V
37	37	4229.7	6749.0	16	9	2012	16:42	232	19.21	32.11	8.68	35.06	1	W
38	38	4229.9	6759.6	16	9	2012	18:01	210	18.93	32.22	8.69	35.02	1	V
40	40	4206.3	6757.5	16	9	2012	23:10	219	18.20	32.56	8.48	34.93	1	V
42	42	4157.8	6759.5	17	9	2012	3:39	179	17.88	32.58	8.14	34.46	1	V
44	44	4144.6	6760.0	17	9	2012	7:01	34	17.88	32.56	17.87	32.56	2	V
45	45	4143.9	6810.3	17	9	2012	8:10	48	18.39	32.44	13.77	32.89	2	V
46	46	4151.1	6806.8	17	9	2012	9:49	110	17.85	32.62	8.16	33.19	3	V
48	48	4227.3	6810.3	17	9	2012	15:25	166	18.61	32.31	7.98	34.34	1	V
50	50	4230.0	6810.4	17	9	2012	17:31	154	18.52	32.32	7.86	34.12	1	W

PC1206 Atlantic Herring Acoustic Survey
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Cast #	Sta #	Lat (deg N)	Long (deg W)	Day	Mo	Year	Time (GMT)	Btm Depth (m)	Sfc Temp (deg C)	Sfc Salt	Deepest	Deepest	Meters from Bottom	Method of Deployment
											Observed Temp (deg C)	Observed Salt		
51	51	4230.0	6821.2	17	9	2012	18:31	198	17.85	32.68	8.23	34.63	1	V
52	52	4223.4	6821.2	17	9	2012	19:34	206	18.77	32.28	8.28	34.72	1	V
55	55	4203.2	6821.2	18	9	2012	2:52	172	18.28	32.41	8.13	34.48	1	W
57	57	4140.0	6821.4	18	9	2012	8:07	52	17.53	32.61	15.83	32.76	1	V
58	58	4100.6	6846.3	18	9	2012	14:55	64	17.06	32.66	17.06	32.67	2	V
59	59	4101.0	6904.6	18	9	2012	17:07	81	21.55	34.39	15.27	33.64	1	W
61	61	4059.9	6914.8	18	9	2012	19:30	60	15.35	32.39	14.91	33.15	2	V
62	62	4107.1	6916.3	18	9	2012	20:46	56	14.66	32.64	12.43	33.05	2	V
63	63	4108.9	6909.9	18	9	2012	21:55	88	18.67	32.78	8.31	33.04	2	V
65	65	4108.1	6836.0	19	9	2012	2:25	61	18.00	32.51	18.01	32.51	2	W
66	66	4115.6	6832.0	19	9	2012	3:24	58	18.13	32.52	17.76	32.56	1	V
67	67	4116.1	6923.8	20	9	2012	12:11	47	17.51	32.43	10.13	32.66	3	V
68	68	4123.9	6928.6	20	9	2012	13:15	32	13.51	32.35	11.17	32.47	4	V
69	69	4124.1	6915.3	20	9	2012	14:33	127	18.55	32.30	7.25	33.47	1	V
71	71	4124.0	6820.1	20	9	2012	21:08	58	18.76	32.50	17.38	32.72	2	W
72	72	4131.8	6818.9	20	9	2012	22:10	43	18.54	32.51	17.92	32.63	1	V
73	73	4132.0	6838.4	20	9	2012	23:52	130	17.41	33.52	7.19	33.24	1	V
75	75	4132.7	6904.0	21	9	2012	4:19	157	18.49	32.42	7.22	33.54	2	V
78	78	4132.0	6934.9	21	9	2012	9:04	40	12.18	32.47	9.38	32.71	3	V
79	79	4140.1	6950.1	21	9	2012	10:43	27	16.88	32.03	12.22	32.25	2	V
80	80	4140.0	6927.1	21	9	2012	12:45	135	18.17	31.96	7.50	33.55	2	V
83	83	4138.8	6841.7	21	9	2012	18:13	151	17.13	32.95	7.43	33.53	1	W
84	84	4140.0	6821.4	21	9	2012	21:58	53	17.84	32.54	14.67	33.10	2	V
85	85	4148.0	6821.3	21	9	2012	22:58	195	18.12	32.55	8.25	34.63	1	V
86	86	4148.2	6828.5	21	9	2012	23:53	208	17.64	32.96	8.36	34.79	1	V
88	88	4147.6	6839.1	22	9	2012	4:03	185	17.57	33.05	7.90	34.23	1	V
90	90	4148.4	6903.9	22	9	2012	8:08	175	17.95	32.49	7.50	33.79	1	V
92	92	4147.9	6928.9	22	9	2012	12:30	175	17.96	31.85	7.79	33.85	1	V
94	94	4148.0	6952.3	22	9	2012	17:46	38	16.46	32.06	10.11	32.41	1	W
95	95	4155.9	6954.8	22	9	2012	18:43	36	16.49	31.97	11.32	32.25	2	V
96	96	4155.9	6940.3	22	9	2012	20:01	158	17.12	32.01	7.88	33.63	1	V
97	97	4155.8	6907.7	22	9	2012	22:55	204	18.45	32.18	8.16	34.24	1	V
99	99	4156.0	6821.5	23	9	2012	4:52	184	17.77	32.72	8.38	34.80	1	V
101	101	4204.2	6821.3	23	9	2012	7:50	177	17.67	32.68	8.21	34.57	1	V
102	102	4203.9	6906.1	23	9	2012	11:37	182	18.83	32.13	7.92	34.05	1	V
104	104	4203.8	6950.2	23	9	2012	17:37	150	17.87	31.96	7.98	33.75	2	V
106	106	4204.0	6959.0	23	9	2012	20:08	61	16.94	32.00	8.89	32.77	1	W
107	107	4211.9	7030.1	23	9	2012	22:55	60	16.04	31.71	8.65	32.45	2	V

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											Observed Temp (deg C)	Observed Salt		
108	108	4211.8	6908.8	24	9	2012	5:19	186	18.88	31.94	8.11	34.27	1	V
110	110	4212.0	6821.6	24	9	2012	11:23	189	18.01	32.09	8.00	34.33	2	V
111	111	4219.9	6821.5	24	9	2012	12:28	210	18.56	32.06	8.38	34.76	2	V
113	113	4219.7	6902.7	24	9	2012	17:55	215	17.28	32.33	8.40	34.66	1	W
115	115	4219.9	6930.9	24	9	2012	22:17	232	18.85	31.94	8.29	34.48	1	V
117	117	4221.6	7043.0	25	9	2012	6:00	39	15.72	31.91	9.91	32.38	1	V
118	118	4227.7	7043.8	25	9	2012	6:52	50	15.76	31.95	10.34	32.66	2	V
119	119	4227.9	6951.4	25	9	2012	10:58	224	17.61	31.97	8.31	34.42	1	V
121	121	4229.4	6900.9	25	9	2012	17:10	217	17.09	32.39	8.41	34.58	1	W
123	123	4227.9	6824.0	25	9	2012	22:07	213	18.21	32.17	8.35	34.68	1	V
125	125	4227.9	6821.4	26	9	2012	0:34	196	17.71	32.22	8.24	34.56	1	W
126	126	4156.0	6841.3	26	9	2012	4:18	156	17.61	32.39	7.47	33.64	1	V
135	135	4143.4	6832.1	27	9	2012	4:25	169	18.07	33.16	7.89	34.21	1	V
145	145	4139.1	6842.1	28	9	2012	5:16	149	16.91	32.90	7.49	33.69	2	V
152	152	4234.9	6804.9	5	10	2012	9:43	184	16.99	32.56	8.67	34.94	1	V
153	153	4242.0	6804.3	5	10	2012	10:55	190	17.21	32.94	8.65	34.76	1	V
155	155	4302.6	6805.0	5	10	2012	15:01	182	15.69	32.86	8.38	34.55	1	V
157	157	4319.7	6805.0	5	10	2012	19:40	222	15.54	32.98	8.42	34.55	1	W
159	159	4350.9	6804.6	6	10	2012	0:51	169	15.26	33.17	9.31	34.57	1	V
160	160	4407.0	6804.8	6	10	2012	3:34	93	13.28	33.31	12.39	33.70	1	V
161	161	4359.9	6815.9	6	10	2012	5:01	98	13.69	33.49	12.48	33.67	2	V
162	162	4346.7	6815.9	6	10	2012	6:43	185	15.80	33.08	8.87	34.43	1	V
164	164	4330.7	6816.0	6	10	2012	10:46	170	14.32	33.31	8.43	34.28	1	V
166	166	4324.4	6816.0	6	10	2012	14:07	175	14.68	33.25	8.67	34.42	1	V
168	168	4253.3	6815.9	6	10	2012	19:10	192	16.49	32.52	8.28	34.52	1	V
170	170	4235.1	6815.8	6	10	2012	23:07	185	16.37	32.55	8.26	34.53	1	W
171	171	4234.9	6826.4	7	10	2012	0:15	210	16.03	32.55	8.41	34.62	1	V
173	173	4253.8	6826.4	7	10	2012	4:33	185	15.15	32.91	8.41	34.28	1	V
175	175	4315.7	6826.4	7	10	2012	9:19	173	14.72	33.19	8.52	34.39	1	V
179	179	4334.3	6826.2	7	10	2012	17:17	162	14.09	33.38	8.75	34.22	1	W
182	182	4354.9	6826.2	8	10	2012	0:18	106	13.59	33.16	11.33	33.92	1	V
183	183	4349.9	6836.7	8	10	2012	1:21	106	13.55	33.25	11.53	33.85	1	V
184	184	4338.8	6836.9	8	10	2012	2:52	168	15.19	33.16	9.64	34.20	1	V
185	185	4332.1	6836.8	8	10	2012	3:52	150	14.31	33.33	10.03	34.09	2	V
187	187	4317.7	6836.8	8	10	2012	8:10	177	13.99	33.37	8.50	34.25	2	V
189	189	4300.6	6836.8	8	10	2012	12:04	192	14.50	32.98	8.45	34.32	1	V
192	192	4235.0	6836.7	8	10	2012	18:55	200	15.42	32.84	8.39	34.60	1	W
193	193	4235.0	6847.5	8	10	2012	20:04	183	15.68	32.57	8.39	34.49	1	V

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196	196	4303.6	6847.3	9	10	2012	3:07	189	14.31	33.21	8.45	34.34	1	V
199	199	4334.7	6847.3	9	10	2012	11:43	156	15.11	33.15	10.14	34.04	2	V
201	201	4345.1	6847.3	9	10	2012	15:01	106	13.41	33.23	11.71	33.80	1	V
202	202	4339.3	6858.0	9	10	2012	16:13	104	13.58	33.08	11.80	33.77	1	V
203	203	4330.2	6858.0	9	10	2012	17:25	109	13.93	33.30	10.74	33.97	1	W
205	205	4321.3	6901.2	9	10	2012	21:46	157	14.26	33.12	8.83	34.08	1	V
207	207	4235.0	6858.0	10	10	2012	4:07	210	15.97	32.22	8.33	34.36	3	V
208	208	4235.2	6908.4	10	10	2012	5:16	203	16.16	32.05	8.33	34.37	2	V
210	210	4306.4	6908.1	10	10	2012	16:19	168	14.06	32.86	7.82	33.71	1	V
212	212	4326.7	6908.4	10	10	2012	20:34	167	14.11	33.10	8.36	34.08	2	W
214	214	4341.6	6908.5	11	10	2012	0:25	98	13.52	33.11	11.37	33.55	1	V
215	215	4340.0	6918.2	11	10	2012	1:23	104	13.49	33.04	10.54	33.50	1	V
216	216	4311.2	6919.5	11	10	2012	4:39	193	14.09	32.66	8.34	33.87	2	V
217	217	4235.1	6918.9	11	10	2012	10:04	227	15.38	32.17	8.35	34.46	2	V
218	218	4235.0	6929.2	11	10	2012	11:22	250	15.23	32.29	8.35	34.56	2	V
219	219	4341.8	6929.2	11	10	2012	18:28	83	13.68	32.51	10.03	33.33	1	V
220	220	4336.1	6939.8	11	10	2012	19:34	83	13.65	31.35	9.55	33.24	2	W
221	221	4324.5	6936.6	11	10	2012	21:36	152	13.40	32.98	7.63	33.70	1	V
223	223	4251.0	6939.8	12	10	2012	2:43	176	14.81	32.40	8.18	34.27	1	V
225	225	4235.1	6939.8	12	10	2012	9:55	263	14.72	32.50	8.30	34.50	1	V
226	226	4242.1	6929.4	12	10	2012	11:28	243	14.65	32.32	8.31	34.49	1	V
228	228	4256.4	6919.1	12	10	2012	15:19	155	13.73	32.85	7.84	33.81	4	V
230	230	4303.4	6929.2	12	10	2012	18:42	155	13.53	32.89	7.94	33.88	1	W
232	232	4308.7	6918.9	12	10	2012	22:00	206	13.35	33.26	8.31	34.15	1	V
234	234	4320.7	6929.3	13	10	2012	1:25	167	13.35	33.33	7.91	33.83	1	V
237	237	4319.3	6826.5	13	10	2012	11:01	190	13.53	33.44	8.48	34.41	1	V
246	246	4235.8	6847.5	14	10	2012	10:53	174	13.24	33.29	8.35	34.51	1	V
254	254	4317.0	7024.1	15	10	2012	12:13	46	12.53	32.33	9.97	33.01	3	V
255	255	4317.0	7005.4	15	10	2012	13:48	162	13.29	32.53	7.66	33.75	2	V
257	257	4316.8	6950.7	15	10	2012	17:04	186	13.58	32.28	8.23	34.31	1	W
259	259	4313.0	6950.0	15	10	2012	19:47	169	13.23	32.33	8.25	34.35	1	V
261	261	4313.1	7009.3	15	10	2012	23:34	114	13.76	32.51	7.41	33.44	1	V
263	263	4309.3	7026.5	16	10	2012	3:30	63	12.83	32.03	8.91	33.05	2	V
264	264	4308.8	7014.8	16	10	2012	5:04	141	13.08	32.32	7.46	33.53	1	V
266	266	4305.0	6950.1	16	10	2012	9:23	171	13.44	32.54	8.03	34.10	1	V
268	268	4305.0	7010.8	16	10	2012	13:30	175	13.93	32.46	7.51	33.60	1	V
270	270	4300.9	7030.2	16	10	2012	17:57	84	13.29	32.02	8.11	33.03	1	W
271	271	4301.0	7018.2	16	10	2012	19:10	142	13.29	32.11	7.27	33.31	1	V

PC1206 Atlantic Herring Acoustic Survey
Sept 14 - Oct 18, 2012

Cast #	Sta #	Lat (deg N)	Long (deg W)	Day	Mo	Year	Time (GMT)	Btm Depth (m)	Sfc Temp (deg C)	Sfc Salt	Deepest Observed Temp (deg C)	Deepest Observed Salt	Meters from Bottom	Method of Deployment
273	273	4256.8	6950.6	17	10	2012	0:18	222	13.61	32.69	8.26	34.39	1	V
276	276	4259.9	7020.2	17	10	2012	5:28	140	13.37	32.17	7.23	33.23	1	V
278	278	4253.0	7035.1	17	10	2012	9:16	82	13.09	32.13	7.47	32.74	1	V
279	279	4252.8	7026.2	17	10	2012	15:52	134	13.40	32.10	7.15	33.19	1	V
281	281	4252.7	7001.4	17	10	2012	19:46	156	13.88	32.45	7.93	33.97	1	W
283	283	4249.0	6950.0	17	10	2012	23:22	254	13.79	32.61	8.31	34.47	1	V
284	284	4248.9	6958.1	18	10	2012	0:22	213	13.97	32.53	8.28	34.39	1	V
286	286	4245.0	7039.1	18	10	2012	6:13	56	12.76	32.14	8.36	32.73	1	V
287	287	4244.9	7010.1	18	10	2012	8:28	123	13.39	32.19	7.71	33.45	1	V
289	289	4241.0	6949.9	18	10	2012	12:26	247	13.81	32.36	8.30	34.45	1	V
290	290	4241.0	7000.5	18	10	2012	13:34	165	14.06	32.17	8.12	34.21	1	V