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The findings and conclusion on this report are those of the authors and do not necessarily represent the views of the funding agency.

Contents

List of Figures

List of Tables

Abstract

This report summarizes the Florida Current data collected along 27°N during calendar year 2013 as part of the NOAA-funded Western Boundary Time Series project. This includes the daily Florida Current volume transport values estimated from one-minute voltage data on an out-of-service telephone cable, as well as observations collected on cruises on R/V Walton Smith (i.e. full-water-column conductivity-temperature-depth, CTD, and shipboard and lowered acoustic Doppler current profiler, SADCP and LADCP, profiles). The report also includes dropsonde and expendable bathythermograph (XBT) data collected on small boat cruises. The data presented herein are in final processed and quality controlled form. The report also documents where the electronic files for these data can be obtained.

1 Introduction

The Florida Current is perhaps one of the most well observed oceanic flows in the world. This warm surface current flows northward through the Straits of Florida from the Gulf of Mexico to 27°N, where it exits the Straits and becomes the Gulf Stream. Along the way the Florida Current forms both the western boundary current of the subtropical gyre and the upper limb of the Meridional Overturning Circulation. Modern observation of the Florida Current at 27°N began in 1982, when the National Oceanic and Atmospheric Administration (NOAA) began funding a project to measure the volume transport and hydrographic structure of the flow between Florida and Grand Bahama Island. The project changed names several times over the next 20 years, and since the year 2000 the Florida Current observations have been a component of the Western Boundary Time Series (WBTS) project, with funding from the NOAA Climate Program Office - Climate Observations Division. The nominal locations where data are collected are shown in Figure 1 and Table 1.

This data report details all of the WBTS observations collected in the Florida Current over the calendar year. These data come in two categories:

1. Continuous time series observations made via an unused submarine telephone cable.

2. Ship-based observations made several times per year on either research vessels or small chartered boats.

Data presented in this report are organized by collection platform - either cable, research vessel, or small charter boat. Data are reported both graphically and via tables; a later section in the report provides web links to the electronic data files themselves. Further information about these data can be obtained either on the project web page (www.aoml.noaa.gov/phod/floridacurrent/) or from the contact personnel listed on that web page.

Station	Latitude	Longitude	Depth
0	27°00.00' N	79°55.80' W	139
1	27°00.00' N	79°52.00' W	261
2	27°00.00' N	79°47.00' W	389
3	27°00.00' N	79°41.00' W	540
4	27°00.00' N	79°37.00' W	661
5	27°00.00' N	79°30.00' W	783
6	27°00.00' N	79°23.00' W	708
7	27°00.00' N	79°17.00' W	624
8	27°00.00' N	79°12.00' W	485

Table 1: Nominal locations and depths (m) for the dropsonde/XBT and CTD/LADCP data collected in the Straits of Florida.

1.1 Continuous observations

Basic electromagnetic theory indicates that when charged particles move through a magnetic field, an electric field is created perpendicular to the motion of the particles. The continuous measurements of the Florida Current volume transport made as part of the WBTS project take advantage of this basic physics, as the charged salt ions in seawater move northward in the Florida Current through the magnetic field of the Earth and create an east-west electric field. This electric field can be measured as a voltage on an out-of-use submarine telephone cable between Florida and Grand Bahama Island (see Figure 1). The technique used to estimate transport from voltage will be briefly presented in Section 2.

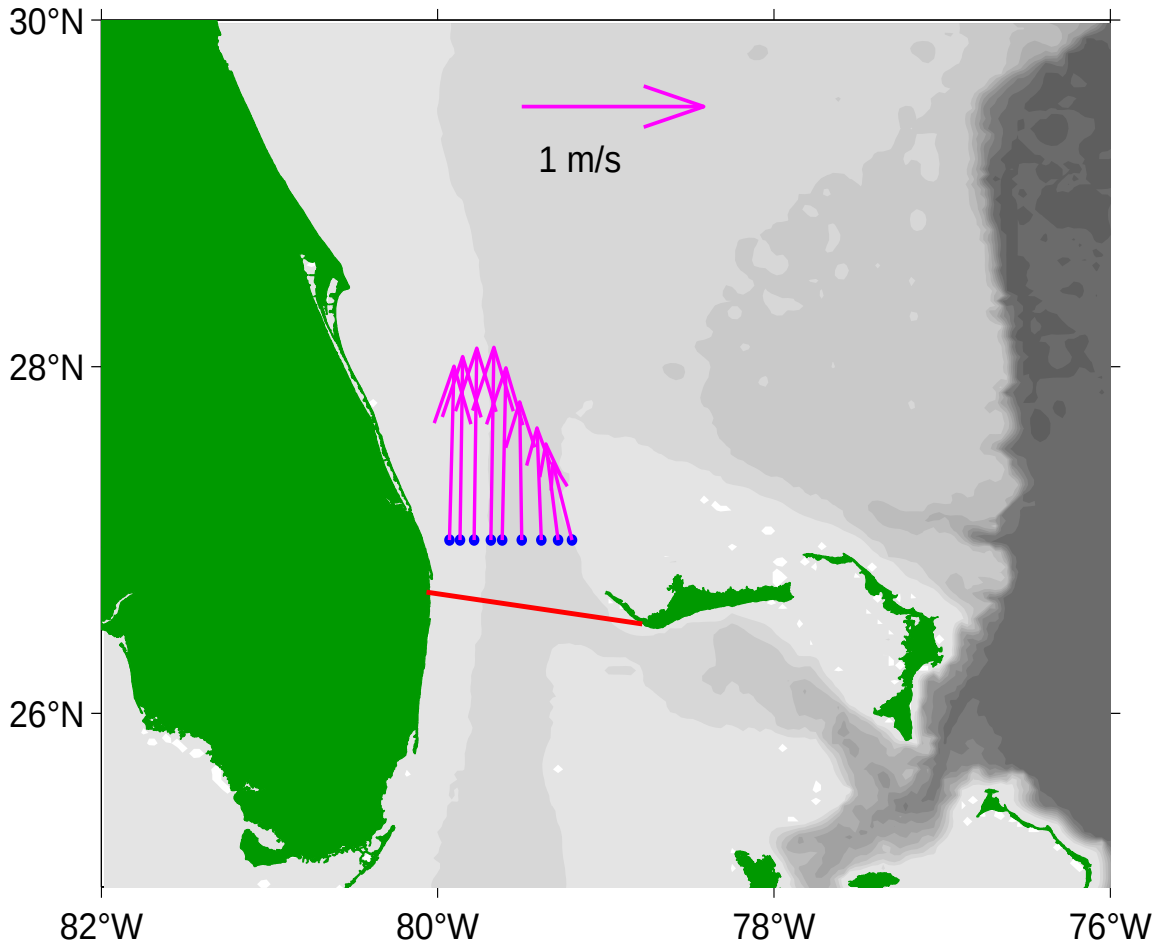

Figure 1: Map of the Straits of Florida study area. Blue dots indicate the locations of dropsonde, XBT and CTD/LADCP stations. Red line shows the approximate location of the telephone cable used for the voltage measurements. Magenta vectors illustrate the time mean vertically-averaged horizontal velocities from all dropsonde data collected between 1994 and 2014 to indicate observation locations relative to the Florida Current position.

1.2 Shipboard measurements

Ship sections collected in the Straits of Florida along 27°N as part of the WBTS project are used to calibrate the cable observations, and they also collect additional data sets that provide information about water properties and the velocity structure. Data are collected at nine stations along 27°N, and the same nine stations have been in use since the mid-1980s (see Figure 1 and Table 1). Two different types of ship sections are collected as part of the WBTS project: CTD/LADCP sections are collected via the R/V Walton Smith, and dropsonde/XBT sections are collected via small chartered boats. For more detail on how the data collected in these sections are used to calculate volume transport, please see Garcia and Meinen (2010).

2 Cable observations

As discussed in the Introduction, voltages induced on a submarine cable by the Florida Current have been shown to be proportional to the total current transport. These voltages are calibrated into volume transport using calibration coefficients originally derived in comparison to ship sections in the 1980s (e.g. Larsen and Sanford, 1985; Larsen, 1992), and the resulting calibrated volume transports are routinely verified by regular ship sections collected each year (see next section). Voltages are measured on the cable each minute by a voltmeter and computer; these voltages are then processed with a low-pass filter (2nd order Butterworth, passed both forward and backward to eliminate phase shifting) with a 3-day cut-off period to remove ionospheric noise from the record. The resulting volume transports are reported in units of Sverdrups (1 Sv = 10^6 m^3 s^{-1}). For further details on the cable observations and processing, please see Meinen et al., (2010).

Cable voltages have been monitored and daily total transport values obtained since 1982. A table listing the daily cable transport values is presented in Appendix A. The annual time series is presented graphically as Figure 2, with the estimated 'error bar' on each daily value indicated by the gray shading. Details on the estimation of the volume transport accuracy, i.e. the 'error bar', can be found in Garcia and Meinen (2014).

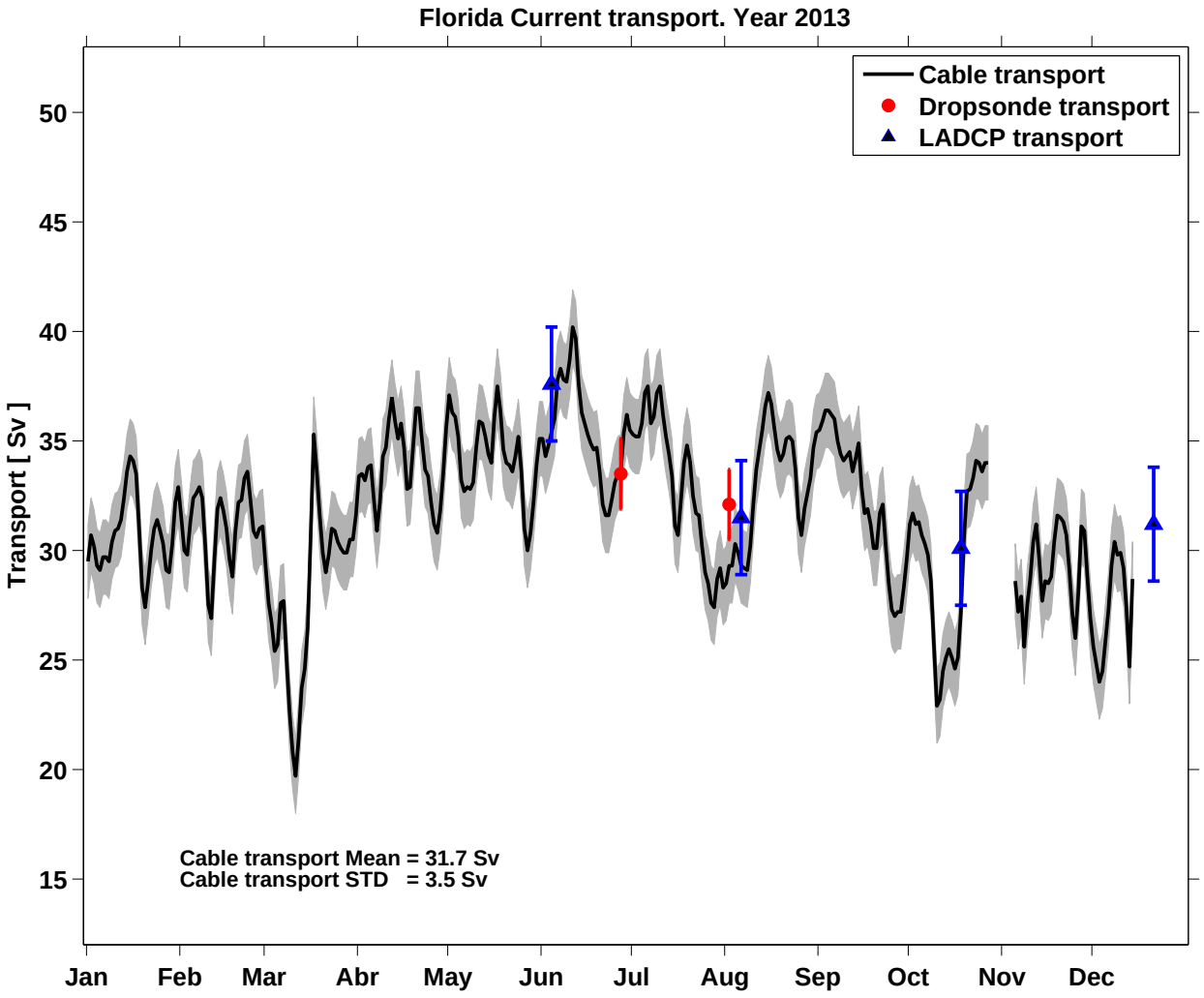

Figure 2: Observed Florida Current volume transports measured by cable voltage (black line), dropsonde sections (red dots) and LADCP sections (blue triangles). For each measurement system the estimated error bar is also shown. The annual mean and standard deviation (STD) from the cable voltage estimates are shown in the figure at lower left.

3 Dropsonde - XBT cruises

This section presents data collected on small boat charter cruises performed during the calendar year in the Straits of Florida at 27°N. These cruises involve the collection of measurements of vertically-averaged horizontal velocity, using dropsonde floats, and temperature profiles, using expendable bathythermographs (XBTs).

A dropsonde is a free-falling float that is deployed from a boat. Once deployed, it sinks to the bottom, drops a weight, and then rises back to the surface under its own buoyancy. Knowing the initial and final position of the dropsonde on the ocean surface at the start and end of the cast, and the elapsed time to complete the cast, it is possible to calculate the vertically-averaged horizontal velocity as the total distance traveled divided by the time required for the cast. For more detail on how the data are collected and used to estimate the volume transport of the Florida Current, please see Garcia and Meinen (2014).

The dates of the dropsonde/XBT cruises during the year, and the resulting estimated transports values, are shown in Table 2. The transport values are also plotted in Figure 2, where the corresponding error bars, as estimated by Garcia and Meinen (2014), are also shown. The individual dropsonde velocity measurements are listed in table form in Appendix B.

The XBT probes are launched at each of the same nine stations to obtain temperature profiles through the full water column (because the maximum depth along 27°N is roughly 750 m). Plots of the XBT temperature sections are shown in Figure 3 . The temperature profile data, organized by cruise, are shown in tabular form in Appendix C. Methods for the XBT processing and quality control can be found in Daneshzadeh et al. (1994).

Cruise No.	Year	Month	Day	Hour mean	Transport	Transport detided
1	2013	5	24	16	NaN	NaN
2	2013	6	27	19	34.0	33.5
3	2013	8	2	16	34.1	32.1
4	2013	8	30	16	NaN	NaN

Table 2: Dropsonde/XBT cruise information: cruise number, cruise date, and transport values estimated with and without the tide signals. NaN indicates insuficient data to estimate transport.

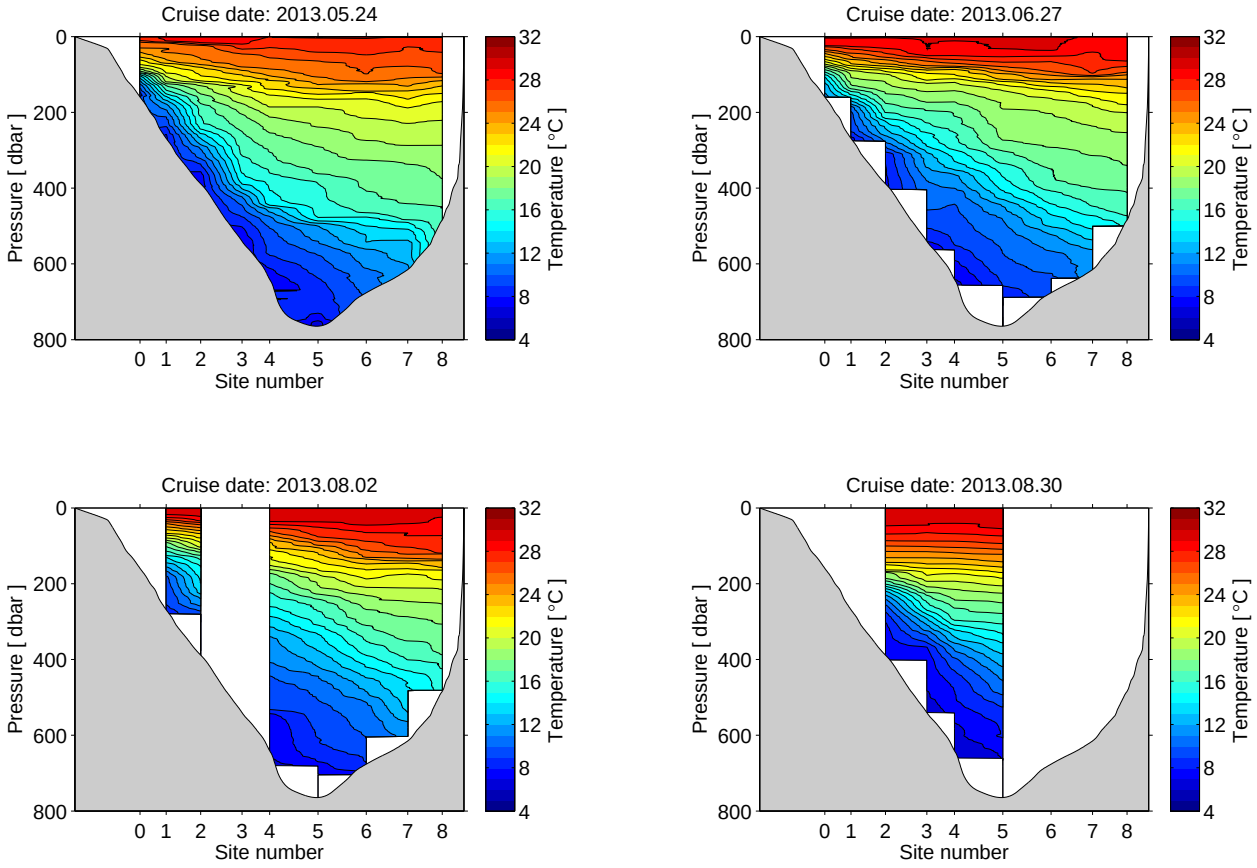

Figure 3: Temperature sections measured with XBT on the indicated dates. Date format is year, month, and day.

4 CTD - LADCP - SADCP cruises

This section includes data from cruises on the R/V Walton Smith. Each cruise collects CTD/LADCP profiles at the nine stations given in Table 1. Transports from these cruises are estimated by first vertically-averaging the LADCP profiles, and the resulting vertical mean velocities are horizontally-integrated in the same manner as the dropsonde observations - see Garcia and Meinen (2014) for more detail.

The cruise dates and the estimated section transports, are shown in Table 3, and are plotted in Figure 2 with the corresponding error bars. For each cruise the horizontal vertically-mean LADCP velocity measurements are listed in Appendix D.

Vertical property sections (temperature, salinity, dissolved oxygen, zonal and meridional velocity) for each cruise are shown in the figures in this section of the report, beginning with Figure 4. Tables listing the data profiles for each station on each cruise are presented in Appendix E. Details of the processing and quality control of the CTD data follow the methods shown in Hooper and Baringer (2015). The LADCP processing incorporates CTD and SADCP data when possible and follows the methods presented in Visbeck (2002) and Thurnherr (2010); the SADCP processing used the methods shown in Firing et al. (2012).

Cruise ID	Year	Month	Day	Hour mean	Transport	Transport detided
ws1306	2013	6	4	2	36.8	37.6
ws1311	2013	8	6	6	30.1	31.5
ws1315	2013	10	18	4	30.8	30.1
ws1316	2013	12	21	6	32.1	31.2

Table 3: CTD/LADCP/SADCP cruise information: cruise identification, cruise date, and transport values estimated using LADCP data, with and without the tide signals. Values of NaN indicate transport can not be estimated.

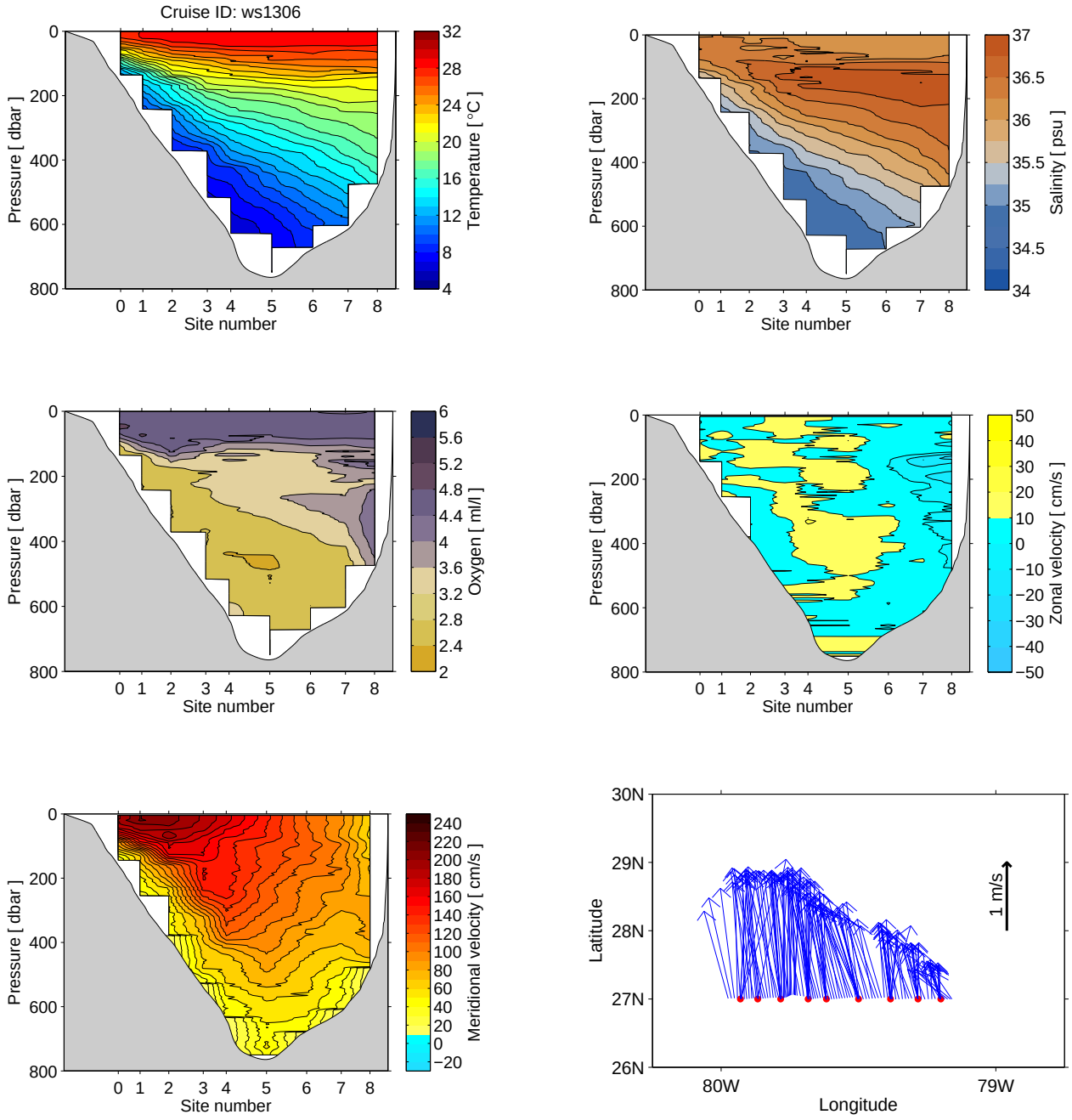

Figure 4: Sections of temperature, salinity, dissolved oxygen (all from CTD), velocity profile (LADCP) and vector velocity map at 50m (SADCP) collected by research vessel. Cruise ID noted above the temperature panel; cruise date are shown in Table 3.

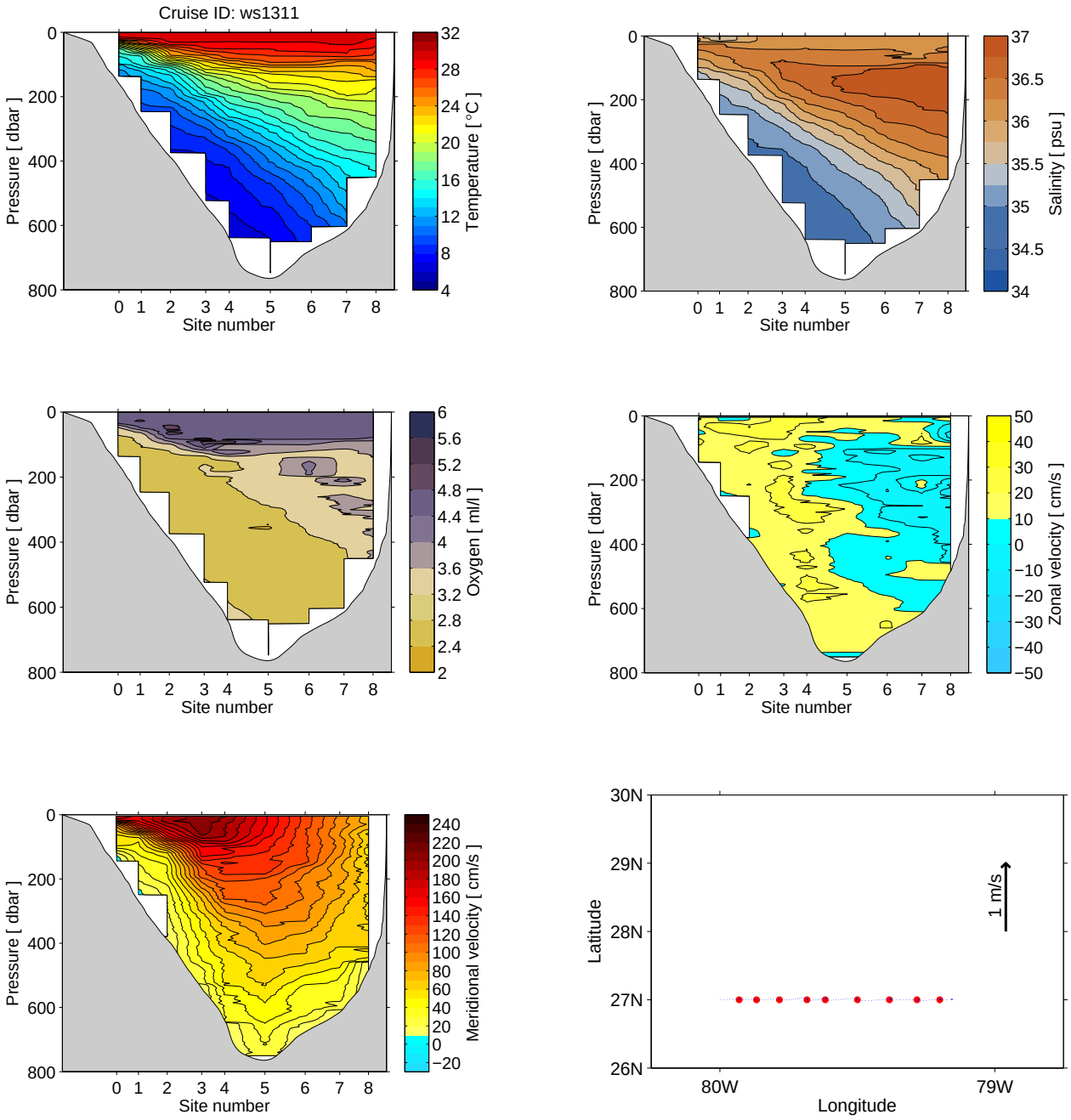

Figure 5: Same as Figure 4 for the data collected on the cruise ID indicated above the temperature panel.

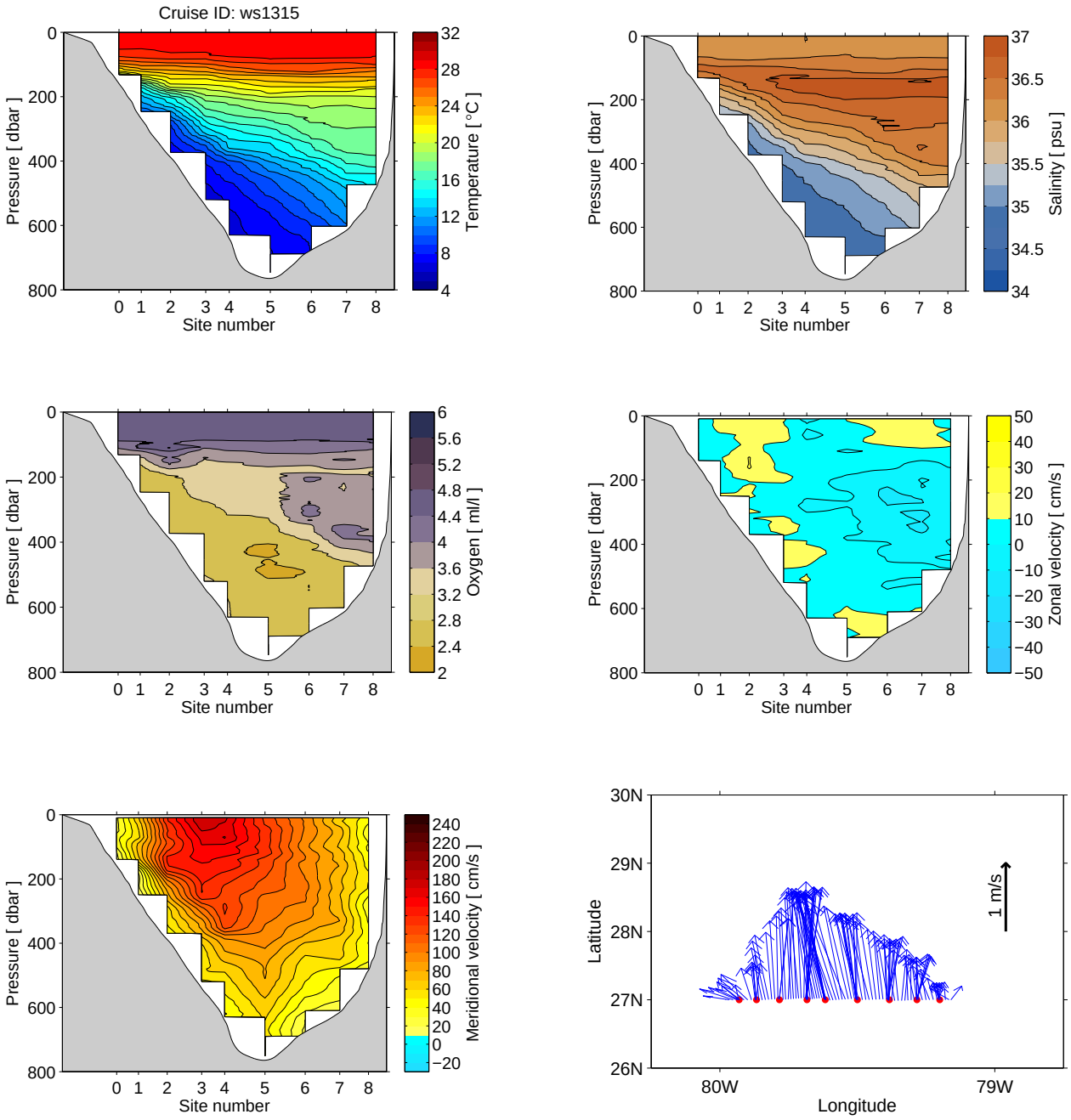

Figure 6: Same as Figure 4 for the data collected on the cruise ID indicated above the temperature panel.

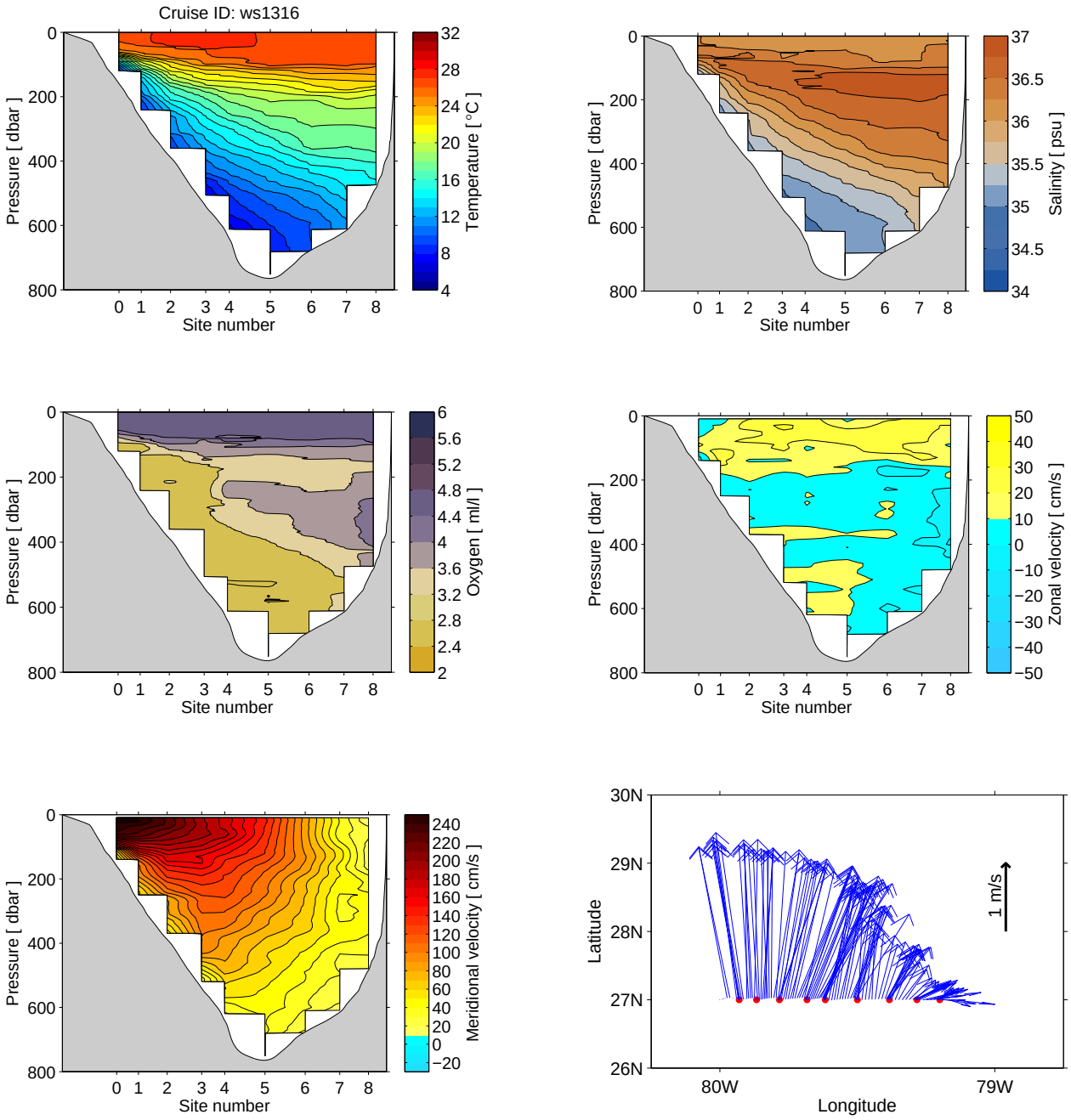

Figure 7: Same as Figure 4 for the data collected on the cruise ID indicated above the temperature panel.

5 Issues during the year

This section of the report is designed to list any issues or problems with the data collection during this calendar year which may affect data quality. This information is provided so that users of the data are aware of any limitations or issues with the data. In most years, data from all of these systems is collected successfully with few or no problems, so in most cases this section will be brief. The section is organized following the same order of data systems as in the body of the report.

5.1 Cable observations

The cable voltage recording system did not record data during October 28-November 4 due to a power failure that occurred for unknown reasons. Additionally, the cable voltage recording system suffered a total failure on December 15, 2013 that resulted in no data being collected for the rest of the year. A new recording system was installed on January 3, 2014. As a result, during eight days from October 28 to November 4 and for those seventeen days in December (December 15-31), no estimates for the Florida Current volume transport are available from the cable. Data are available for all other days throughout the year.

5.2 Dropsonde - XBT cruises

Several problems arose during the year involving both the dropsonde and XBT systems.

The dropsonde floats used during the May 24, 2013 and the August 30, 2013 cruises were lost, so no cruise transport estimates were made. The dropsonde float used during the August 2, 2013 cruise failed to record any data during one station; the Florida Current transport was estimated after interpolating the velocity for that missing station.

During the cruise on August 2, 2013, the XBT computer failed to record during two stations. During the cruise on August 30, 2013, the XBT computer failed to record during several stations.

5.3 CTD - LADCP - SADCP cruises

Several problems arose during the year involving the SADCP systems (which also impact the LADCP data).

During cruise ws1311, the ship's primary SADCP, a Teledyne RD Instruments 75 kHz Ocean Surveyor ADCP, malfunctioned. As a result, the ws1311 SADCP data set used in this analysis was produced from the ships secondary SADCP, a Teledyne RD Instruments 600 kHz Broadband ADCP. No SADCP data is available at 50 m from the 600 kHz ADCP, so no SADCP velocities are shown in Figure 5. Additionally, during cruises ws1311, ws1315, and ws1316, both of the ships SADCPs received no secondary heading information (i.e. the Applanix POS MV direction GPS failed). After careful review of the SADCP data collected during these cruises, it was determined

that the instrument's primary heading source (an SG Brown Gyrocompass) was sufficient to produce final SADCP data with a quality suitable for scientific analysis.

The final LADCP velocity profile product generated and described in this document incorporates concurrent SADCP data. Therefore, LADCP velocity profiles produced for ws1311, ws1315, and ws1316 utilize the single heading source SADCP data. However, as with the final SADCP data, we find these LADCP velocity profiles to be suitable for scientific analysis.

6 Data availability

The electronic files for the data presented in this report can be obtained from the following sources:

Raw 1-minute voltage data can be obtained from the NOAA National Centers for Environmental Information (NCEI - formerly the NOAA National Oceanographic Data Center). See this web address (http://accession.nodc.noaa.gov/0115895).

The processed daily cable transports, and the dropsonde and LADCP section transports, can be obtained from the project web page (www.aoml.noaa.gov/phod/floridacurrent). See the "Data Access" subpage.

The processed CTD profile, LADCP profile, and SADCP profile data sets can be obtained from the WBTS project web page (www.aoml.noaa.gov/phod/wbts/) under the "Data and Results" subpage. The raw dropsonde observations and the XBT profiles at full vertical resolution can be found via the same page.

Other raw data are available upon request - please email/call the contact people listed on the www.aoml.noaa.gov/phod/floridacurrent web page.

7 Acknowledgements

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Appendix A:

Daily Florida Current transport data

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	29.5	31.5	29.3	33.4	37.1	35.1	35.3	28.5	35.5	31.2	NaN	25.6
2	30.7	30.0	27.6	33.5	36.3	34.3	35.2	29.3	35.9	31.7	NaN	24.8
3	30.2	29.8	26.7	33.2	36.1	34.8	35.2	29.3	36.4	31.2	NaN	24.0
4	29.3	31.3	25.4	33.8	35.2	35.4	35.8	30.3	36.4	31.3	NaN	24.5
5	29.1	32.4	25.7	33.9	33.2	36.0	37.2	29.9	36.2	30.7	28.6	25.9
6	29.7	32.6	27.6	32.3	32.7	37.8	37.5	29.3	36.0	30.3	27.2	27.3
7	29.7	32.9	27.7	30.9	32.9	38.3	35.8	29.2	35.0	29.8	27.9	29.3
8	29.5	32.4	25.0	32.2	32.8	37.8	36.1	29.1	34.4	28.6	25.6	30.4
9	30.4	30.2	22.6	34.3	33.1	37.7	37.2	30.2	34.1	25.7	27.5	29.8
10	30.9	27.5	20.8	34.7	34.7	38.7	37.5	32.1	34.3	22.9	28.7	29.9
11	31.0	26.9	19.7	36.0	35.9	40.2	36.2	33.7	34.5	23.2	30.4	29.2
12	31.4	29.5	21.4	37.0	35.8	39.7	35.2	34.6	33.6	24.5	31.2	27.3
13	32.4	31.9	23.7	35.9	35.2	37.6	34.4	35.5	34.2	25.1	29.6	24.7
14	33.6	32.4	24.6	35.1	34.4	36.3	33.4	36.6	34.9	25.5	27.7	28.7
15	34.3	31.8	26.5	35.8	34.0	35.8	31.1	37.2	32.9	25.1	28.6	NaN
16	34.1	31.0	30.8	34.7	36.1	35.3	30.7	36.7	31.7	24.6	28.5	NaN
17	33.5	29.6	35.3	32.8	37.5	34.9	32.3	35.6	31.9	25.1	28.8	NaN
18	31.0	28.8	33.6	32.9	36.4	34.6	34.0	34.6	31.2	27.2	30.4	NaN
19	28.3	30.9	31.6	34.7	34.6	34.7	34.8	34.1	30.1	30.5	31.6	NaN
20	27.4	32.2	29.9	36.5	34.0	33.6	34.1	34.4	30.1	32.7	31.5	NaN
21	28.6	32.3	29.0	36.5	33.9	32.1	32.5	35.1	31.7	32.8	31.3	NaN
22	30.0	33.3	29.8	35.0	33.6	31.6	31.7	35.2	32.1	33.3	30.7	NaN
23	31.0	33.6	31.0	33.7	34.3	31.6	31.6	35.0	30.2	34.1	29.1	NaN
24	31.4	32.3	30.9	33.4	35.2	32.3	30.2	33.7	28.5	34.0	27.1	NaN
25	30.9	30.9	30.4	32.2	33.6	33.1	29.0	31.5	27.3	33.6	26.0	NaN
26	30.3	30.6	30.1	31.2	31.0	33.5	28.5	30.7	27.0	34.0	28.1	NaN
27	29.1	31.0	29.9	30.8	30.0	33.6	27.6	31.9	27.2	34.0	31.1	NaN
28	29.0	31.1	29.9	31.8	30.8	35.4	27.4	32.6	27.2	NaN	30.9	NaN
29	30.3	–	30.5	33.5	32.2	36.2	28.7	33.3	28.3	NaN	28.8	NaN
30	32.2	–	30.5	35.6	33.9	35.5	29.2	34.7	29.6	NaN	26.9	NaN
31	32.9	–	31.6	–	35.1	–	28.3	35.4	–	NaN	–	NaN

Table 4: Florida Current daily transport estimated using voltage measurements on a telephone cable. Units are Sverdrups (1 Sv = 10^6 m^3 s^{-1}). NaN values indicate no data is available on that day; dashes indicate that day does not exist in that month/year. Table oriented such that each row is the day of the month and each column is the month.

Appendix B:

Dropsonde vertical mean velocities

Sta	Deployed			Surfaced			Mean Velocities	
	Time (GMT)	Lon	Lat	Time (GMT)	Lon	Lat	U cm/s	V cm/s
Cruise date: 2013.06.27								
0	21:54:18	-79.9301	27.0005	22: 1:35	-79.9299	27.0031	5.64	63.73
1	21:25: 4	-79.8665	27.0010	21:37:49	-79.8658	27.0075	10.72	91.93
2	20:48:27	-79.7840	27.0010	21:10:43	-79.7822	27.0176	17.62	134.81
3	20: 2:23	-79.6834	27.0006	20:28:26	-79.6821	27.0169	9.74	114.62
4	19:13:55	-79.6168	27.0008	19:44:15	-79.6159	27.0169	4.25	96.67
5	18:14:55	-79.5002	27.0007	18:50:24	-79.5003	27.0151	0.07	74.41
6	17:16: 9	-79.3832	27.0005	17:49:32	-79.3844	27.0119	-6.41	63.81
7	16:21:58	-79.2833	27.0005	16:52:39	-79.2846	27.0089	-6.84	49.49
8	15:39:48	-79.2002	27.0010	16: 2: 2	-79.2016	27.0057	-10.78	38.81
Cruise date: 2013.08.02								
0	13:16:38	-79.9293	27.0016	13:24:26	-79.9288	27.0051	10.11	80.75
1	13:45:39	-79.8665	27.0011	13:58:41	-79.8655	27.0070	12.52	81.26
2	14:18:38	-79.7821	27.0005	14:36:22	-79.7809	27.0092	10.24	90.23
3	15: 3:12	-79.6831	27.0009	15:28: 4	-79.6817	27.0134	8.79	91.40
4	15:52:25	-79.6162	27.0005	16:25: 5	-79.6148	27.0165	6.69	89.03
5	16:56:38	-79.5000	27.0007	17:31:49	-79.5007	27.0149	-4.67	73.69
6	–	–	–	–	–	–	NaN	NaN
7	19:18:38	-79.2834	27.0016	19:50:36	-79.2853	27.0146	-9.58	74.95
8	20:13: 0	-79.1995	27.0007	20:37: 0	-79.2015	27.0090	-14.88	64.36

Table 5: Tables of dropsonde floats measurements made during the cruises on the indicated dates. Station numbers in left column are as shown in Table 1. Tables include information on where the dropsonde floats were deployed, where they surfaced, and the resulting estimated zonal (U) and meridional (V) vertically averaged velocity. NaN indicates no observation at that station.

Appendix C:

XBT temperature profiles

Cruise date: 2013.05.24									
Depth	Sta. 0	Sta. 1	Sta. 2	Sta. 3	Sta. 4	Sta. 5	Sta. 6	Sta. 7	Sta. 8
0	27.74	28.05	28.08	28.69	27.95	29.05	28.50	28.16	28.12
10	27.05	28.06	28.21	28.44	27.46	27.56	27.51	27.11	27.12
20	25.57	25.38	27.17	28.01	27.09	27.36	27.29	27.06	27.07
30	25.02	25.03	25.35	27.27	26.96	27.24	27.27	26.97	27.06
40	24.09	25.20	25.26	26.36	26.55	27.09	27.22	26.90	27.04
50	23.46	24.55	25.12	25.71	26.12	26.42	26.83	26.60	26.62
60	22.12	24.03	24.97	25.43	25.94	26.12	26.33	26.29	26.40
70	21.26	23.19	24.57	25.34	25.74	25.87	26.10	26.10	26.31
80	20.19	21.65	23.22	25.02	25.33	25.78	26.12	25.86	26.25
90	18.45	21.27	22.22	23.88	24.75	25.45	26.14	25.27	26.29
100	14.92	20.44	22.07	23.11	24.21	25.34	25.94	25.25	25.68
110	12.88	19.77	21.64	22.39	23.53	24.85	25.57	24.96	24.38
120	11.59	18.87	20.27	21.87	22.12	24.34	24.91	24.50	23.67
130	10.34	16.96	18.97	20.38	22.55	23.76	23.55	24.06	23.03
140	–	16.14	18.35	20.64	21.84	22.80	23.46	23.36	22.47
150	–	15.13	18.06	20.31	21.14	22.35	21.85	22.53	22.00
160	–	13.86	17.33	19.75	20.56	21.47	21.36	22.18	21.29
170	–	12.75	17.38	19.40	20.45	20.79	20.65	21.69	21.05
180	–	11.83	16.82	18.85	20.19	20.11	20.37	21.35	20.56
190	–	11.24	16.35	18.48	19.79	19.93	20.27	20.89	20.42
200	–	10.72	16.36	18.14	19.40	19.77	20.19	20.68	20.27
210	–	10.23	16.05	17.84	19.07	19.73	20.07	20.42	20.15
220	–	9.63	15.92	17.65	18.68	19.55	19.92	20.09	20.02
230	–	9.51	15.87	17.47	18.37	19.12	19.73	19.97	19.87
240	–	8.79	15.27	17.33	18.21	18.93	19.51	19.70	19.81
250	–	8.46	14.52	17.02	18.11	18.61	19.35	19.43	19.81
260	–	7.92	13.58	16.85	17.94	18.35	19.25	19.29	19.61
270	–	–	12.94	16.64	17.70	18.35	19.17	19.20	19.40
280	–	–	12.34	16.62	17.41	18.29	18.92	19.10	19.21
290	–	–	11.41	16.37	17.21	18.03	18.89	18.92	18.94
300	–	–	10.86	16.29	17.04	17.84	18.76	18.75	18.84
350	–	–	8.30	15.31	16.06	17.20	17.43	17.70	18.17
400	–	–	–	13.11	15.06	15.85	17.12	17.30	17.63
450	–	–	–	9.85	13.28	15.35	16.54	16.81	16.98
500	–	–	–	8.07	10.18	12.02	13.99	14.56	–
550	–	–	–	–	9.34	10.72	12.61	12.47	–
600	–	–	–	–	8.27	9.56	11.18	12.04	–
650	–	–	–	–	7.24	8.74	10.47	–	–
700	–	–	–	–	–	8.38	10.22	–	–
750	–	–	–	–	–	7.05	–	–	–

Table 6: Expendable bathythermograph (XBT) temperature profile data collected during the cruise on the date indicated at the top. Left column indicates the estimated depth in meters from the fall rate. Temperature units are degrees Celsius. NaN indicates missing values due to instrument failure, and dashes indicates depths below bottom for each station.

Cruise date: 2013.06.27									
Depth	Sta. 0	Sta. 1	Sta. 2	Sta. 3	Sta. 4	Sta. 5	Sta. 6	Sta. 7	Sta. 8
0	28.98	29.03	29.08	29.20	29.23	29.05	28.97	28.91	28.85
10	28.93	28.88	28.79	29.03	29.00	29.06	29.14	28.78	28.57
20	28.82	28.63	28.71	29.01	28.94	29.04	29.14	28.61	28.54
30	26.23	27.37	28.10	29.00	28.92	29.03	29.13	28.33	28.54
40	24.91	26.64	27.10	28.93	28.89	28.82	28.71	28.06	28.56
50	23.46	25.11	26.45	28.06	28.01	28.16	28.20	27.83	28.58
60	21.96	24.06	25.26	26.64	27.12	27.66	27.42	27.80	28.42
70	20.35	23.05	24.27	25.71	26.06	26.88	26.86	27.59	27.74
80	18.28	21.63	22.52	24.49	24.51	25.95	26.47	27.27	26.92
90	16.49	20.02	21.11	22.88	22.37	24.99	26.21	27.12	26.35
100	15.05	19.14	19.86	21.87	22.00	23.57	25.27	26.74	25.25
110	13.72	18.94	19.39	21.38	21.14	23.34	24.55	24.33	24.20
120	13.04	18.22	19.00	20.44	20.04	21.57	23.19	23.40	23.36
130	12.24	17.84	18.85	19.86	19.53	20.81	22.36	22.71	23.18
140	–	16.73	18.44	19.18	19.10	20.12	21.19	22.28	22.81
150	–	15.25	18.03	18.68	18.71	19.78	20.45	21.56	21.93
160	–	14.20	17.63	18.25	18.44	19.37	20.23	21.02	21.59
170	–	12.94	17.27	18.13	18.08	19.17	19.58	20.56	21.45
180	–	11.71	16.76	17.81	17.79	19.07	19.42	20.04	21.00
190	–	10.38	16.53	17.13	17.35	19.04	19.14	19.85	20.57
200	–	9.82	16.09	16.79	17.02	18.87	19.03	19.56	20.06
210	–	9.60	15.64	16.45	17.01	18.77	18.95	19.59	19.71
220	–	9.53	14.39	16.22	16.71	18.67	18.75	19.30	19.54
230	–	9.46	13.84	15.90	16.75	18.53	18.70	19.12	19.38
240	–	9.24	13.10	15.68	16.34	18.34	18.70	18.96	19.27
250	–	9.12	12.77	15.39	16.05	18.28	18.57	18.78	19.18
260	–	8.37	12.20	14.68	15.81	18.25	18.42	18.65	18.79
270	–	–	11.42	14.57	15.84	18.09	18.29	18.29	18.77
280	–	–	10.93	14.36	15.77	17.88	18.17	18.33	18.69
290	–	–	10.02	13.98	15.46	17.64	18.05	18.25	18.44
300	–	–	9.32	13.20	14.93	17.13	17.80	18.14	18.32
350	–	–	7.90	11.85	13.08	15.35	16.98	17.65	17.92
400	–	–	–	10.77	11.03	14.27	16.46	17.02	17.31
450	–	–	–	10.22	9.89	11.92	14.77	15.89	16.60
500	–	–	–	9.10	9.52	10.78	13.17	14.28	–
550	–	–	–	–	9.00	10.14	11.36	12.52	–
600	–	–	–	–	7.78	9.81	10.38	11.55	–
650	–	–	–	–	6.69	9.06	9.61	–	–
700	–	–	–	–	–	8.14	NaN	–	–
750	–	–	–	–	–	7.55	–	–	–

Table 7: Same as Table 6 for the cruise on the indicated date.

Cruise date: 2013.08.02									
Depth	Sta. 0	Sta. 1	Sta. 2	Sta. 3	Sta. 4	Sta. 5	Sta. 6	Sta. 7	Sta. 8
0	NaN	29.02	29.16	NaN	29.17	29.10	29.31	29.16	28.87
10	NaN	29.37	29.27	NaN	29.36	29.34	29.34	29.37	29.10
20	NaN	28.62	29.16	NaN	29.35	29.34	29.36	29.35	29.12
30	NaN	27.20	28.27	NaN	29.37	29.34	29.36	29.34	28.85
40	NaN	25.24	26.79	NaN	28.37	28.55	29.38	29.23	28.56
50	NaN	23.95	25.32	NaN	27.33	28.08	28.64	28.53	28.36
60	NaN	22.51	23.96	NaN	26.05	27.54	28.19	28.37	28.19
70	NaN	21.34	22.78	NaN	25.49	27.28	27.85	28.00	28.06
80	NaN	19.76	21.87	NaN	24.33	26.60	27.61	27.79	27.99
90	NaN	18.10	21.12	NaN	23.16	25.47	26.82	27.61	27.94
100	NaN	17.11	20.39	NaN	22.84	24.69	26.50	27.36	27.84
110	NaN	16.34	19.03	NaN	22.18	23.72	26.22	26.51	27.36
120	NaN	15.48	17.71	NaN	21.38	23.00	25.40	26.18	26.91
130	NaN	14.02	16.41	NaN	20.91	22.47	25.04	25.26	25.27
140	–	13.49	15.75	NaN	20.83	22.03	23.60	23.97	23.91
150	–	12.24	15.18	NaN	20.15	21.71	22.70	22.65	23.44
160	–	11.59	14.94	NaN	19.24	21.11	22.24	22.02	22.69
170	–	10.66	14.70	NaN	18.26	20.42	21.71	21.26	21.37
180	–	9.93	14.33	NaN	17.56	19.86	21.30	20.61	21.32
190	–	9.63	14.11	NaN	17.18	19.38	20.86	20.54	21.01
200	–	9.48	13.96	NaN	16.97	19.03	20.52	20.45	20.55
210	–	9.31	13.78	NaN	16.48	18.94	19.98	20.06	20.21
220	–	9.10	13.46	NaN	16.10	18.34	19.62	19.77	19.80
230	–	9.02	12.80	NaN	15.78	17.79	19.04	19.34	19.64
240	–	9.02	12.01	NaN	15.55	17.09	18.87	19.24	19.28
250	–	9.00	11.84	NaN	15.14	16.57	18.64	18.92	19.04
260	–	8.85	10.94	NaN	15.05	16.17	18.21	18.64	18.77
270	–	–	10.15	NaN	14.60	16.04	17.90	18.29	18.56
280	–	–	9.79	NaN	14.32	15.79	17.88	18.09	18.38
290	–	–	9.48	NaN	13.70	15.62	17.72	17.96	18.12
300	–	–	9.08	NaN	13.29	15.26	17.45	17.86	18.06
350	–	–	8.33	NaN	11.66	13.65	16.04	17.08	17.29
400	–	–	–	NaN	11.14	12.30	14.60	16.04	16.54
450	–	–	–	NaN	9.89	10.97	12.82	14.23	15.43
500	–	–	–	NaN	9.48	10.02	11.45	13.58	–
550	–	–	–	–	7.59	9.47	10.47	12.75	–
600	–	–	–	–	7.09	9.10	10.06	11.40	–
650	–	–	–	–	7.02	8.52	9.26	–	–
700	–	–	–	–	–	7.09	7.98	–	–
750	–	–	–	–	–	6.42	–	–	–

Table 8: Same as Table 6 for the cruise on the indicated date.

Cruise date: 2013.08.30									
Depth	Sta. 0	Sta. 1	Sta. 2	Sta. 3	Sta. 4	Sta. 5	Sta. 6	Sta. 7	Sta. 8
0	NaN	NaN	29.14	29.21	29.44	30.22	NaN	NaN	NaN
10	NaN	NaN	29.12	29.15	29.31	29.37	NaN	NaN	NaN
20	NaN	NaN	29.08	29.12	29.29	29.33	NaN	NaN	NaN
30	NaN	NaN	29.08	29.11	29.27	29.28	NaN	NaN	NaN
40	NaN	NaN	29.05	29.05	29.08	29.27	NaN	NaN	NaN
50	NaN	NaN	28.76	28.75	28.86	29.13	NaN	NaN	NaN
60	NaN	NaN	28.55	28.14	28.38	28.79	NaN	NaN	NaN
70	NaN	NaN	27.94	27.92	27.59	28.46	NaN	NaN	NaN
80	NaN	NaN	27.49	27.47	27.19	27.75	NaN	NaN	NaN
90	NaN	NaN	26.68	26.68	26.79	27.27	NaN	NaN	NaN
100	NaN	NaN	26.06	26.11	26.45	26.48	NaN	NaN	NaN
110	NaN	NaN	25.34	25.45	25.59	25.95	NaN	NaN	NaN
120	NaN	NaN	24.31	24.66	24.95	25.18	NaN	NaN	NaN
130	NaN	NaN	24.01	24.11	24.37	24.59	NaN	NaN	NaN
140	–	NaN	23.34	23.33	23.73	24.11	NaN	NaN	NaN
150	–	NaN	21.98	22.73	22.78	23.41	NaN	NaN	NaN
160	–	NaN	21.46	21.91	22.05	22.77	NaN	NaN	NaN
170	–	NaN	18.98	21.20	21.35	22.06	NaN	NaN	NaN
180	–	NaN	18.21	20.86	20.50	21.33	NaN	NaN	NaN
190	–	NaN	17.48	20.20	20.12	20.72	NaN	NaN	NaN
200	–	NaN	16.27	19.60	19.66	20.31	NaN	NaN	NaN
210	–	NaN	14.45	18.84	19.23	19.71	NaN	NaN	NaN
220	–	NaN	12.93	18.23	18.86	19.20	NaN	NaN	NaN
230	–	NaN	11.95	17.09	18.55	18.89	NaN	NaN	NaN
240	–	NaN	11.01	16.62	18.08	18.42	NaN	NaN	NaN
250	–	NaN	10.37	15.98	17.54	18.03	NaN	NaN	NaN
260	–	NaN	9.69	15.64	17.15	17.62	NaN	NaN	NaN
270	–	–	9.14	15.00	16.84	17.38	NaN	NaN	NaN
280	–	–	8.70	14.06	16.58	16.95	NaN	NaN	NaN
290	–	–	8.31	13.18	16.44	16.69	NaN	NaN	NaN
300	–	–	8.04	12.52	15.79	16.21	NaN	NaN	NaN
350	–	–	7.55	9.28	12.70	14.21	NaN	NaN	NaN
400	–	–	–	7.45	9.79	12.72	NaN	NaN	NaN
450	–	–	–	7.17	8.47	11.18	NaN	NaN	NaN
500	–	–	–	6.86	7.94	9.75	NaN	NaN	–
550	–	–	–	–	7.28	8.51	NaN	NaN	–
600	–	–	–	–	6.71	8.19	NaN	NaN	–
650	–	–	–	–	6.37	7.07	NaN	–	–
700	–	–	–	–	–	6.75	NaN	–	–
750	–	–	–	–	–	6.40	–	–	–

Table 9: Same as Table 6 for the cruise on the indicated date.

Appendix D:

LADCP vertical mean velocities

Sta	Deployed			Surfaced			Mean Velocities	
	Time (GMT)	Lon	Lat	Time (GMT)	Lon	Lat	U cm/s	V cm/s
Cruise date: 2013.06.04								
0	9:34:39	-79.9294	27.0010	9:44:29	-79.9304	27.0080	-0.61	108.95
1	8:34: 1	-79.8674	27.0023	8:48:19	-79.8686	27.0124	-1.97	96.55
2	7:13:44	-79.7843	26.9982	7:33:40	-79.7851	27.0126	-2.07	99.94
3	4:53:21	-79.6833	26.9992	5:20:35	-79.6826	27.0215	0.07	105.68
4	3:29: 2	-79.6183	26.9952	3:59:51	-79.6186	27.0178	1.48	100.33
5	1:37: 0	-79.5011	26.9973	2:13: 9	-79.4985	27.0226	1.28	84.50
6	23:55:43	-79.3825	27.0003	0:30:50	-79.3859	27.0171	-3.62	74.42
7	22:28:47	-79.2835	27.0007	22:58:31	-79.2852	27.0073	-7.76	64.80
8	21:18:39	-79.2012	26.9980	21:43:51	-79.2026	27.0027	-13.73	62.00
Cruise date: 2013.08.06								
0	11:50:49	-79.9302	27.0013	12: 2:30	-79.9288	27.0078	5.87	55.44
1	10:52:41	-79.8685	26.9959	11: 8:55	-79.8696	27.0047	5.52	46.39
2	9:39: 8	-79.7848	26.9968	10: 0: 9	-79.7852	27.0106	4.75	53.99
3	7:47:39	-79.6817	26.9921	8:19:30	-79.6823	27.0174	9.03	85.27
4	5:57:17	-79.6151	26.9999	6:32:59	-79.6108	27.0283	7.40	85.61
5	4: 1:49	-79.5016	26.9962	4:38:26	-79.5031	27.0189	-0.61	79.54
6	1:50:52	-79.3814	27.0007	2:35:41	-79.3746	27.0226	-4.95	70.67
7	0: 2:18	-79.2822	26.9869	0:43:52	-79.2757	27.0002	-5.10	58.50
8	22:26:28	-79.2002	27.0015	23: 3:28	-79.1957	27.0104	-14.63	51.06
Cruise date: 2013.10.18								
0	8:11:38	-79.9318	26.9983	8:20:27	-79.9327	26.9994	-5.16	17.12
1	7:28:17	-79.8681	26.9949	7:41: 1	-79.8686	26.9985	-2.11	37.17
2	6:27:48	-79.7839	26.9976	6:45: 6	-79.7839	27.0086	2.65	89.65
3	5: 2: 8	-79.6850	27.0006	5:27:16	-79.6877	27.0199	-0.79	104.23
4	3:41: 8	-79.6162	26.9988	4: 9:25	-79.6207	27.0194	-4.55	99.23
5	2:10:15	-79.5014	26.9962	2:43:58	-79.5057	27.0159	-5.05	84.71
6	0:40:41	-79.3861	26.9906	1:13:47	-79.3909	27.0038	-8.28	62.01
7	23:23:48	-79.2843	26.9971	23:47:56	-79.2841	27.0041	-9.30	52.49
8	22:19:57	-79.2026	26.9990	22:42:20	-79.2038	27.0032	-9.69	30.92

Table 10: Tables of vertically averaged velocity determined from lowered acoustic Doppler current profiler (LADCP) data collected during the indicated dates (see Table 3). Station numbers in left column are as shown in Table 1. Tables include information on where the LADCP cast was started ("Deployed"), where it ended ("Surfaced"), and the resulting estimated zonal (U) and meridional (V) vertically average velocity.

Sta	Deployed			Surfaced			Mean Velocities	
	Time (GMT)	Lon	Lat	Time (GMT)	Lon	Lat	U cm/s	V cm/s
Cruise date: 2013.12.21								
0	11:49:44	-79.9319	27.0025	12: 0: 3	-79.9333	27.0156	-1.36	159.84
1	10:33: 3	-79.8683	26.9995	10:50:34	-79.8689	27.0198	3.26	136.80
2	9: 2:57	-79.7863	27.0002	9:23:60	-79.7869	27.0233	2.41	125.03
3	7:23:41	-79.6880	27.0015	7:50: 7	-79.6874	27.0257	1.66	113.83
4	6: 0:46	-79.6203	26.9984	6:28:49	-79.6250	27.0235	1.77	98.26
5	4:15:47	-79.5021	26.9990	4:50:47	-79.5077	27.0216	-0.94	70.04
6	2:48:10	-79.3857	27.0008	3:20: 5	-79.3923	27.0148	-1.75	49.01
7	1:33:19	-79.2858	26.9998	2: 0:58	-79.2899	27.0043	-3.17	26.80
8	0:25:38	-79.2042	27.0004	0:49:51	-79.2078	27.0019	-4.18	19.77

Table 11: Same as Table 10 for LADCP data collected on the indicated dates.

Appendix E:

CTD and LADCP profiles

Cruise ID: ws1306. Station: 0					
Pressure	Temperature	Salinity	Oxygen	U speed	V speed
[db]	[deg. C]	[psu]	[ml/l]	[cm/s]	[cm/s]
1	27.57	36.25	4.54	NaN	NaN
10	27.59	36.29	4.54	-5.6	178.2
20	27.25	36.30	4.59	-10.3	183.8
30	26.07	36.35	4.70	-5.7	179.2
40	24.70	36.25	4.84	-3.1	171.7
50	23.83	36.27	4.85	-3.6	156.6
60	21.41	36.38	4.75	-4.6	140.5
70	21.02	36.34	4.39	-2.6	121.7
80	18.85	36.20	4.12	0.6	94.1
90	16.80	36.10	3.69	0.4	72.4
100	15.75	36.02	3.30	4.8	67.9
110	14.82	35.94	3.07	6.3	60.4
120	12.66	35.60	3.03	6.8	45.3
130	12.08	35.52	2.96	2.7	29.9
140	NaN	NaN	NaN	-0.0	21.0

Table 12: Profiles of temperature, salinity, dissolved oxygen, zonal (U) and meridional (V) velocity observed during the cruise ID and station indicated with the combined CTD and LADCP. NaN indicates missing values.

Cruise ID: ws1306. Station: 1					
Pressure	Temperature	Salinity	Oxygen	U speed	V speed
[db]	[deg. C]	[psu]	[ml/l]	[cm/s]	[cm/s]
1	28.08	36.25	4.49	NaN	NaN
10	28.09	36.28	4.50	-4.6	200.2
20	28.08	36.28	4.51	-5.2	201.2
30	27.06	36.33	4.60	-5.1	192.3
40	26.22	36.33	4.68	-8.9	184.6
50	24.85	36.38	4.71	0.2	180.6
60	24.07	36.46	4.62	4.9	170.9
70	22.97	36.39	4.81	1.6	158.9
80	22.48	36.40	4.78	-1.1	144.9
90	21.12	36.35	4.55	-8.4	133.1
100	19.49	36.27	4.17	-9.7	113.4
110	18.09	36.14	3.98	-0.5	91.8
120	16.63	36.05	3.73	-1.5	72.2
130	14.68	35.88	3.20	-3.7	60.4
140	14.18	35.85	3.01	-2.5	58.4
150	13.86	35.80	2.98	-3.4	58.8
160	13.10	35.67	2.96	-4.4	54.9
170	12.62	35.59	2.95	-4.3	52.7
180	12.28	35.54	2.93	-3.0	45.2
190	11.80	35.46	2.91	-0.4	40.6
200	11.10	35.35	2.87	-0.5	36.5
210	10.62	35.28	2.84	0.4	35.5
220	10.36	35.24	2.81	-2.1	32.9
230	10.03	35.19	2.79	-2.7	33.6
240	9.68	35.15	2.80	2.8	31.7
250	NaN	NaN	NaN	7.7	23.1

Table 13: Same as Table 12 for the cruise ID and the station number indicated.

Cruise ID: ws1306. Station: 2					
Pressure	Temperature	Salinity	Oxygen	U speed	V speed
[db]	[deg. C]	[psu]	[ml/l]	[cm/s]	[cm/s]
1	28.27	36.21	4.49	NaN	NaN
10	28.33	36.24	4.50	-3.6	194.9
20	28.32	36.24	4.51	-3.0	195.1
30	28.16	36.26	4.53	-0.4	192.8
40	27.41	36.21	4.59	3.3	188.8
50	26.68	36.26	4.64	-2.5	179.6
60	25.95	36.37	4.61	-9.7	181.9
70	25.05	36.41	4.50	-4.0	185.9
80	24.08	36.52	4.47	5.5	175.6
90	23.06	36.53	4.66	5.7	160.5
100	22.44	36.51	4.71	2.3	159.8
110	21.66	36.51	4.57	1.8	159.5
120	21.09	36.48	4.46	1.4	155.7
130	20.26	36.48	4.15	1.1	144.7
140	19.15	36.41	3.88	2.7	127.9
150	17.28	36.12	3.65	8.6	113.2
160	16.24	35.98	3.57	4.7	93.8
170	15.02	35.92	3.28	-1.6	88.0
180	15.00	35.97	3.09	-3.3	85.3
190	14.59	35.91	3.06	1.6	82.9
200	14.37	35.88	3.03	1.8	75.1
210	14.00	35.81	2.99	2.9	70.2
220	13.47	35.72	2.98	1.2	63.1
230	12.61	35.59	2.96	-3.6	50.8
240	11.74	35.44	2.92	-8.3	48.6
250	11.29	35.37	2.90	-7.6	49.8
260	11.00	35.33	2.87	-6.5	43.3
270	10.66	35.28	2.83	-8.4	44.0
280	10.40	35.24	2.82	-7.1	40.4
290	10.29	35.22	2.79	-7.8	38.0
300	10.02	35.18	2.80	-7.4	38.5
350	8.54	35.00	2.82	-4.4	33.8

Table 14: Same as Table 12 for the cruise ID and the station number indicated.

Cruise ID: ws1306. Station: 3					
Pressure	Temperature	Salinity	Oxygen	U speed	V speed
[db]	[deg. C]	[psu]	[ml/l]	[cm/s]	[cm/s]
1	28.41	36.18	4.51	NaN	NaN
10	28.48	36.23	4.51	5.2	178.1
20	28.43	36.27	4.51	4.4	178.0
30	28.39	36.26	4.51	3.1	175.2
40	27.93	36.25	4.57	6.4	175.8
50	27.21	36.31	4.58	6.3	172.2
60	26.47	36.37	4.46	5.1	165.1
70	25.45	36.21	4.70	4.5	158.7
80	25.20	36.41	4.57	-2.6	155.4
90	24.00	36.61	4.15	1.7	156.6
100	23.22	36.67	4.32	7.6	152.9
110	22.67	36.72	4.03	5.0	150.5
120	21.92	36.67	4.01	1.9	149.6
130	21.67	36.84	3.52	6.3	150.0
140	21.13	36.77	3.49	8.8	145.3
150	20.46	36.69	3.41	8.0	138.9
160	20.13	36.68	3.34	1.8	138.8
170	19.56	36.65	3.28	-5.1	140.6
180	19.05	36.58	3.30	-6.3	140.0
190	17.73	36.41	3.24	-5.0	140.4
200	17.26	36.34	3.17	-5.8	140.5
210	16.92	36.30	3.24	-0.4	137.0
220	16.55	36.25	3.36	4.1	135.7
230	16.21	36.19	3.33	6.0	132.2
240	15.83	36.11	3.16	2.6	127.7
250	15.31	36.03	3.11	4.1	125.3
260	14.81	35.94	3.13	3.7	116.6
270	14.55	35.89	3.11	4.1	111.9
280	13.93	35.79	3.10	5.7	105.2
290	13.18	35.67	3.07	4.0	95.8
300	12.91	35.63	3.02	4.5	85.8
350	10.08	35.20	2.85	-3.7	67.7
400	8.72	35.01	2.80	-3.3	59.5
450	7.98	34.93	2.85	-7.4	50.5
500	6.97	34.87	3.08	-3.0	35.8

Table 15: Same as Table 12 for the cruise ID and the station number indicated.

Cruise ID: ws1306. Station: 4					
Pressure	Temperature	Salinity	Oxygen	U speed	V speed
[db]	[deg. C]	[psu]	[ml/l]	[cm/s]	[cm/s]
1	28.47	36.19	4.50	NaN	NaN
10	28.47	36.19	4.51	3.0	163.9
20	28.50	36.20	4.51	-0.6	163.5
30	28.50	36.23	4.51	-0.6	160.9
40	28.50	36.27	4.51	2.9	154.4
50	27.43	36.21	4.65	3.2	148.1
60	26.95	36.25	4.56	0.9	148.2
70	26.43	36.42	4.46	-1.1	143.4
80	25.46	36.27	4.55	-0.5	134.9
90	24.99	36.39	4.51	1.2	132.5
100	24.49	36.74	3.82	1.3	135.0
110	23.57	36.82	3.71	-2.9	134.4
120	23.04	36.88	3.52	-2.3	135.2
130	22.17	36.76	3.66	-0.5	134.0
140	21.72	36.80	3.45	2.1	134.8
150	20.75	36.68	3.68	2.3	134.5
160	20.56	36.78	3.38	1.6	136.1
170	19.94	36.71	3.39	3.6	136.1
180	19.61	36.67	3.35	4.3	133.9
190	18.96	36.60	3.34	3.2	133.6
200	18.42	36.54	3.42	1.4	135.9
210	17.85	36.46	3.52	2.9	136.9
220	17.48	36.40	3.50	-0.7	134.8
230	17.22	36.36	3.45	-1.9	132.4
240	16.94	36.31	3.43	-0.3	136.7
250	16.69	36.28	3.49	1.9	135.4
260	16.27	36.20	3.46	3.2	131.9
270	15.60	36.08	3.37	0.2	128.7
280	15.04	35.98	3.28	2.2	124.6
290	14.55	35.89	3.20	2.7	123.5
300	14.36	35.86	3.15	4.6	121.2
350	12.62	35.56	2.97	8.6	110.0
400	10.91	35.31	2.87	4.9	82.8
450	8.34	34.97	2.82	3.1	56.1
500	7.76	34.91	2.89	-2.4	52.9
550	7.24	34.89	3.03	3.3	43.7
600	6.29	34.84	3.30	-1.1	35.2

Table 16: Same as Table 12 for the cruise ID and the station number indicated.

Cruise ID: ws1306. Station: 5					
Pressure	Temperature	Salinity	Oxygen	U speed	V speed
[db]	[deg. C]	[psu]	[ml/l]	[cm/s]	[cm/s]
1	28.58	36.22	4.52	NaN	NaN
10	28.56	36.21	4.51	-2.0	133.3
20	28.47	36.22	4.53	-2.0	132.2
30	28.38	36.23	4.53	-0.4	130.8
40	28.32	36.22	4.55	-0.1	129.4
50	27.76	36.15	4.63	-0.8	129.2
60	27.09	36.31	4.62	1.3	129.8
70	26.25	36.27	4.46	4.8	129.9
80	26.08	36.35	4.35	10.1	125.4
90	26.04	36.52	4.32	7.0	119.9
100	25.05	36.72	3.90	2.6	116.2
110	24.46	36.76	3.67	3.0	114.8
120	23.68	36.87	3.59	-0.1	115.1
130	23.18	36.89	3.56	1.1	115.5
140	22.57	36.91	3.53	1.8	117.0
150	21.53	36.88	3.50	2.5	114.9
160	21.09	36.84	3.42	5.0	116.2
170	20.39	36.79	3.42	9.9	116.4
180	19.76	36.73	3.44	8.1	115.4
190	19.15	36.65	3.43	5.4	113.5
200	18.71	36.60	3.48	4.1	111.0
210	18.46	36.57	3.53	5.4	108.4
220	18.04	36.50	3.52	6.9	104.1
230	17.61	36.43	3.53	5.6	103.4
240	17.32	36.39	3.55	0.9	103.5
250	17.23	36.37	3.53	-0.7	104.6
260	17.10	36.36	3.58	-1.6	105.4
270	16.73	36.29	3.57	-2.2	105.1
280	16.45	36.24	3.49	-5.6	102.2
290	15.93	36.14	3.43	-7.7	101.1
300	15.76	36.11	3.36	-6.4	99.6
350	14.14	35.81	3.12	2.5	89.8
400	12.55	35.54	2.94	3.2	87.8
450	10.79	35.28	2.77	7.2	76.0
500	9.59	35.09	2.81	0.1	68.9
550	8.21	34.94	2.83	1.7	56.0
600	7.44	34.87	2.92	-1.9	46.1
650	7.13	34.85	3.00	-2.2	40.1
700	6.55	34.83	3.18	0.9	36.1
750	NaN	NaN	NaN	1.0	33.2

Table 17: Same as Table 12 for the cruise ID and the station number indicated.

Cruise ID: ws1306. Station: 6					
Pressure	Temperature	Salinity	Oxygen	U speed	V speed
[db]	[deg. C]	[psu]	[ml/l]	[cm/s]	[cm/s]
1	28.56	36.04	4.51	NaN	NaN
10	28.45	36.12	4.52	-1.1	99.4
20	28.38	36.14	4.54	-1.1	99.6
30	28.40	36.20	4.53	1.4	101.7
40	28.28	36.19	4.55	-0.2	100.6
50	27.63	36.12	4.64	-2.4	102.1
60	27.24	36.17	4.64	-4.4	104.9
70	27.01	36.20	4.61	-6.5	104.5
80	26.69	36.39	4.53	-8.4	103.6
90	25.89	36.57	4.24	-8.9	107.0
100	25.61	36.63	4.13	-7.2	108.3
110	24.88	36.75	3.90	-5.7	105.6
120	24.32	36.82	3.68	-6.0	102.1
130	23.82	36.86	3.58	-4.1	101.5
140	23.21	36.89	3.51	-8.9	105.4
150	22.65	36.91	3.54	-9.4	103.7
160	21.84	36.90	3.52	-10.7	96.6
170	21.25	36.86	3.50	-9.8	94.7
180	20.76	36.82	3.41	-7.3	94.0
190	20.34	36.79	3.42	-3.9	95.6
200	19.89	36.74	3.44	-2.2	90.4
210	19.40	36.69	3.43	-7.7	86.8
220	19.13	36.66	3.49	-8.1	87.8
230	18.77	36.61	3.47	-6.6	86.5
240	18.45	36.57	3.54	-5.7	87.7
250	18.30	36.55	3.57	-3.3	86.1
260	18.09	36.52	3.63	-2.7	86.9
270	17.88	36.49	3.65	0.1	86.5
280	17.51	36.43	3.68	1.9	86.1
290	17.32	36.39	3.64	-2.0	86.9
300	17.14	36.36	3.62	-1.1	87.0
350	15.39	36.05	3.38	2.7	74.5
400	14.07	35.81	3.14	2.2	66.1
450	12.89	35.60	3.03	-1.9	59.2
500	11.54	35.37	2.90	-2.2	53.6
550	10.37	35.21	2.83	-5.5	51.0
600	9.64	35.11	2.80	-7.1	45.9
650	8.76	35.01	2.86	-8.3	33.7

Table 18: Same as Table 12 for the cruise ID and the station number indicated.

Cruise ID: ws1306. Station: 7					
Pressure	Temperature	Salinity	Oxygen	U speed	V speed
[db]	[deg. C]	[psu]	[ml/l]	[cm/s]	[cm/s]
1	28.40	36.06	3.99	NaN	NaN
10	28.32	36.08	4.47	-1.5	83.0
20	28.28	36.10	4.52	-1.8	82.4
30	28.14	36.12	4.53	-2.1	83.2
40	28.07	36.12	4.54	-2.4	81.2
50	27.73	36.11	4.58	-1.7	78.7
60	26.92	36.17	4.64	-1.4	78.4
70	26.33	36.15	4.57	-6.1	77.8
80	26.39	36.40	4.45	-6.3	82.3
90	26.00	36.56	4.26	-6.4	89.0
100	25.45	36.68	4.05	-8.1	89.6
110	25.00	36.75	3.90	-7.1	87.9
120	23.84	36.66	3.88	-7.9	87.5
130	23.64	36.82	3.70	-20.9	86.2
140	22.54	36.81	4.05	-30.0	85.9
150	21.82	36.75	4.29	-27.3	85.6
160	21.39	36.81	4.11	-21.0	84.9
170	21.01	36.82	3.90	-16.5	90.7
180	20.94	36.82	3.73	-16.8	89.0
190	20.84	36.82	3.77	-19.2	88.6
200	20.74	36.81	3.60	-16.3	84.7
210	20.62	36.80	3.65	-9.9	82.2
220	20.16	36.77	3.56	-6.9	80.3
230	19.59	36.72	3.48	-9.0	81.7
240	19.25	36.68	3.54	-12.4	79.4
250	19.04	36.66	3.57	-10.3	72.8
260	18.75	36.62	3.60	-10.8	70.4
270	18.48	36.58	3.61	-9.6	72.0
280	18.18	36.54	3.65	-8.1	73.0
290	17.99	36.51	3.69	-8.7	73.0
300	17.80	36.48	3.67	-8.1	70.2
350	16.81	36.30	3.58	-8.2	63.1
400	15.53	36.06	3.36	-2.3	61.7
450	14.38	35.86	3.07	0.5	49.4
500	13.18	35.65	2.91	-8.7	40.0
550	11.91	35.46	2.95	-8.0	34.0
600	10.83	35.33	2.97	-4.6	27.7

Table 19: Same as Table 12 for the cruise ID and the station number indicated.

Cruise ID: ws1306. Station: 8					
Pressure	Temperature	Salinity	Oxygen	U speed	V speed
[db]	[deg. C]	[psu]	[ml/l]	[cm/s]	[cm/s]
1	28.33	36.10	4.54	NaN	NaN
10	28.18	36.09	4.55	-9.2	52.0
20	28.06	36.10	4.58	-10.6	51.8
30	28.03	36.10	4.60	-10.5	51.2
40	28.03	36.11	4.59	-7.2	49.4
50	27.73	36.14	4.59	-0.3	49.1
60	27.26	36.23	4.61	-0.3	47.6
70	26.81	36.35	4.51	4.0	47.9
80	26.65	36.41	4.44	-7.0	51.6
90	25.77	36.54	4.23	-15.2	55.4
100	25.52	36.58	4.17	-7.3	55.2
110	25.16	36.65	4.10	-3.3	55.9
120	24.62	36.70	3.93	-17.8	52.3
130	23.03	36.80	3.81	-32.9	49.9
140	22.19	36.86	3.81	-28.2	59.2
150	21.63	36.78	4.09	-19.9	61.7
160	21.31	36.75	4.48	-16.3	59.7
170	21.12	36.76	4.36	-18.5	58.1
180	21.08	36.84	3.84	-21.9	59.7
190	20.75	36.81	3.59	-28.5	60.5
200	20.42	36.78	3.73	-27.2	62.7
210	20.30	36.78	3.55	-23.5	62.4
220	19.85	36.74	3.54	-19.8	63.0
230	19.61	36.71	3.69	-18.6	62.2
240	19.46	36.70	4.02	-20.7	64.3
250	19.06	36.71	4.12	-16.2	67.2
260	18.96	36.70	4.15	-11.2	71.0
270	18.74	36.68	4.18	-10.5	72.5
280	18.66	36.67	4.20	-9.7	72.0
290	18.56	36.66	4.23	-9.3	72.8
300	18.50	36.65	4.24	-10.1	73.9
350	17.61	36.51	4.33	-13.4	71.4
400	16.90	36.37	4.21	-10.2	69.3
450	15.70	36.15	4.00	-11.8	57.8

Table 20: Same as Table 12 for the cruise ID and the station number indicated.

Cruise ID: ws1311. Station: 0					
Pressure	Temperature	Salinity	Oxygen	U speed	V speed
[db]	[deg. C]	[psu]	[ml/l]	[cm/s]	[cm/s]
1	29.45	35.84	4.45	NaN	NaN
10	29.39	36.06	4.51	11.4	161.8
20	27.97	36.03	4.66	9.7	132.8
30	23.64	36.29	4.61	7.5	85.9
40	19.74	36.29	4.01	2.3	67.1
50	16.97	36.09	3.51	-4.6	59.5
60	16.03	36.09	3.25	1.7	52.5
70	15.47	36.02	3.22	9.9	46.7
80	14.67	35.89	3.14	12.6	47.9
90	14.31	35.84	3.09	10.8	46.5
100	13.46	35.69	3.08	7.5	35.3
110	12.21	35.49	2.93	7.8	22.6
120	11.67	35.42	2.92	5.7	9.7
130	11.52	35.40	2.91	1.6	-1.7
140	NaN	NaN	NaN	1.1	-5.9

Table 21: Same as Table 12 for the cruise ID and the station number indicated.

Cruise ID: ws1311. Station: 1					
Pressure	Temperature	Salinity	Oxygen	U speed	V speed
[db]	[deg. C]	[psu]	[ml/l]	[cm/s]	[cm/s]
1	29.71	35.49	4.51	NaN	NaN
10	29.70	35.49	4.52	-1.3	156.6
20	28.53	36.10	4.74	9.4	149.7
30	26.42	36.29	4.77	15.3	138.0
40	23.71	36.38	4.71	17.8	120.5
50	21.49	36.40	4.32	13.5	95.4
60	19.03	36.28	3.78	6.4	66.3
70	16.68	36.13	3.35	3.0	52.0
80	15.75	36.08	3.24	2.0	41.0
90	15.57	36.06	3.23	3.7	38.7
100	15.23	36.00	3.20	5.5	37.7
110	14.26	35.84	3.16	6.9	35.0
120	13.07	35.64	2.99	3.9	31.7
130	12.76	35.60	3.02	0.6	28.5
140	12.32	35.53	3.04	0.6	25.8
150	11.85	35.45	2.95	3.4	21.5
160	11.49	35.39	2.90	4.7	18.9
170	11.25	35.36	2.88	7.1	17.7
180	10.74	35.27	2.87	9.5	16.7
190	10.28	35.21	2.85	9.3	14.5
200	10.06	35.18	2.84	7.7	11.6
210	10.06	35.18	2.83	7.6	7.9
220	10.00	35.18	2.83	5.9	4.5
230	9.79	35.16	2.85	3.4	0.8
240	9.42	35.11	2.87	-0.9	-1.7
250	NaN	NaN	NaN	-5.7	-3.8

Table 22: Same as Table 12 for the cruise ID and the station number indicated.

Cruise ID: ws1311. Station: 2					
Pressure	Temperature	Salinity	Oxygen	U speed	V speed
[db]	[deg. C]	[psu]	[ml/l]	[cm/s]	[cm/s]
1	29.61	35.92	4.46	NaN	NaN
10	29.62	35.91	4.47	-0.2	183.8
20	29.49	35.98	4.53	6.1	188.0
30	29.09	36.12	4.61	10.3	175.9
40	27.67	36.24	4.80	10.3	166.5
50	25.67	36.33	4.88	14.6	156.4
60	24.65	36.46	4.73	13.0	146.1
70	24.07	36.44	4.74	9.4	134.2
80	22.15	36.42	4.53	10.2	115.0
90	20.21	36.35	4.00	12.0	97.5
100	18.12	36.29	3.49	14.2	79.8
110	16.13	36.08	3.31	11.5	62.7
120	15.25	35.98	3.20	9.7	47.8
130	14.27	35.85	3.14	7.5	42.5
140	13.69	35.77	3.07	6.7	36.7
150	13.42	35.72	3.03	4.9	32.6
160	12.84	35.63	3.00	3.7	29.9
170	12.21	35.53	2.95	3.8	29.9
180	11.63	35.44	2.93	2.1	30.5
190	11.42	35.42	2.89	1.7	27.9
200	11.34	35.40	2.88	0.3	27.3
210	11.07	35.35	2.87	0.3	23.2
220	10.61	35.28	2.87	2.6	19.8
230	10.19	35.22	2.86	4.6	15.3
240	9.73	35.15	2.85	4.1	14.7
250	9.51	35.12	2.83	3.3	13.1
260	9.39	35.10	2.83	5.0	12.1
270	9.18	35.08	2.83	3.7	10.8
280	9.08	35.07	2.83	2.7	12.3
290	8.96	35.05	2.83	1.5	10.6
300	8.73	35.02	2.84	0.4	10.4
350	8.32	34.99	2.92	-0.2	2.1

Table 23: Same as Table 12 for the cruise ID and the station number indicated.

Cruise ID: ws1311. Station: 3					
Pressure	Temperature	Salinity	Oxygen	U speed	V speed
[db]	[deg. C]	[psu]	[ml/l]	[cm/s]	[cm/s]
1	29.61	36.24	4.42	NaN	NaN
10	29.62	36.24	4.45	16.4	195.3
20	29.60	36.24	4.45	14.7	198.6
30	29.01	36.22	4.52	17.2	196.4
40	28.28	36.21	4.63	16.3	197.4
50	27.94	36.29	4.60	11.5	196.0
60	26.70	36.37	4.57	12.0	192.4
70	25.64	36.44	4.54	11.8	184.2
80	24.47	36.51	4.84	9.6	172.4
90	23.11	36.54	4.72	8.3	157.1
100	22.36	36.54	4.85	1.8	150.5
110	21.64	36.53	4.46	-4.7	146.1
120	20.29	36.52	3.85	-4.7	143.8
130	19.42	36.51	3.44	4.3	141.0
140	18.42	36.47	3.14	9.8	133.3
150	17.69	36.40	3.13	14.4	121.9
160	17.40	36.37	3.18	13.9	112.7
170	17.05	36.31	3.24	9.6	108.6
180	16.44	36.21	3.22	9.1	106.1
190	15.91	36.12	3.20	11.8	105.6
200	14.64	35.91	3.19	14.0	95.8
210	13.66	35.76	3.07	13.8	90.3
220	13.12	35.68	3.00	18.0	85.0
230	12.82	35.64	2.99	15.8	79.1
240	12.53	35.59	2.97	13.4	71.5
250	12.00	35.51	2.92	14.3	66.5
260	11.46	35.42	2.90	13.3	60.4
270	10.96	35.35	2.89	12.9	57.9
280	10.49	35.29	2.87	12.4	56.6
290	10.22	35.25	2.86	11.4	54.7
300	9.86	35.20	2.86	11.6	52.2
350	8.48	35.01	2.86	6.4	41.9
400	7.92	34.95	2.90	8.3	32.6
450	7.56	34.93	2.99	6.7	30.1
500	7.00	34.89	3.15	1.1	16.0

Table 24: Same as Table 12 for the cruise ID and the station number indicated.

Cruise ID: ws1311. Station: 4					
Pressure	Temperature	Salinity	Oxygen	U speed	V speed
[db]	[deg. C]	[psu]	[ml/l]	[cm/s]	[cm/s]
1	29.58	36.21	4.44	NaN	NaN
10	29.58	36.21	4.45	12.2	188.8
20	29.57	36.21	4.46	13.0	187.5
30	28.94	36.20	4.57	6.3	180.7
40	28.61	36.25	4.56	3.7	181.6
50	28.21	36.30	4.59	-0.2	180.0
60	27.31	36.33	4.63	1.7	179.5
70	26.70	36.41	4.49	-6.3	178.5
80	26.12	36.45	4.45	-0.5	173.8
90	24.51	36.52	4.91	12.0	162.0
100	23.55	36.64	3.93	14.0	144.4
110	22.62	36.73	3.68	2.6	141.1
120	21.24	36.57	4.28	6.1	142.7
130	20.45	36.57	4.05	5.5	132.5
140	19.73	36.58	3.44	5.7	126.9
150	19.11	36.54	3.20	-0.4	131.7
160	18.52	36.51	3.13	1.5	126.6
170	18.17	36.47	3.12	-2.0	124.6
180	17.88	36.45	3.14	0.9	124.2
190	17.46	36.41	3.35	7.4	117.0
200	16.75	36.29	3.19	3.7	117.9
210	16.51	36.25	3.19	1.2	107.6
220	15.96	36.16	3.20	0.6	109.7
230	15.45	36.07	3.17	-1.9	100.0
240	14.85	35.98	3.14	-3.4	103.9
250	14.51	35.92	3.11	1.3	104.1
260	14.17	35.87	3.08	6.1	103.6
270	13.35	35.73	3.05	8.9	97.5
280	12.51	35.59	2.97	14.0	88.3
290	12.16	35.54	2.93	16.7	83.9
300	11.79	35.49	2.90	10.8	80.6
350	9.55	35.16	2.87	9.5	58.9
400	8.33	35.01	2.87	6.8	56.5
450	7.87	34.96	2.92	11.3	41.1
500	7.50	34.93	2.98	10.5	42.8
550	7.16	34.91	3.08	9.5	31.8
600	6.67	34.88	3.24	4.5	22.0

Table 25: Same as Table 12 for the cruise ID and the station number indicated.

Cruise ID: ws1311. Station: 5					
Pressure	Temperature	Salinity	Oxygen	U speed	V speed
[db]	[deg. C]	[psu]	[ml/l]	[cm/s]	[cm/s]
1	29.95	36.22	4.43	NaN	NaN
10	29.95	36.22	4.43	4.3	151.7
20	29.68	36.22	4.46	5.9	152.1
30	29.05	36.17	4.53	4.4	151.6
40	28.45	36.19	4.64	-0.7	149.2
50	28.23	36.32	4.57	-1.2	148.5
60	27.67	36.28	4.56	3.3	147.1
70	27.12	36.28	4.57	2.7	141.6
80	26.75	36.34	4.47	-2.1	137.0
90	26.25	36.42	4.29	-5.8	135.1
100	25.28	36.61	4.00	-7.7	132.8
110	23.77	36.65	3.85	-11.3	132.5
120	23.23	36.67	3.74	-10.9	128.0
130	21.97	36.84	3.52	-8.6	121.9
140	21.55	36.82	3.44	-10.4	120.9
150	21.25	36.85	3.41	-8.2	126.6
160	20.50	36.78	3.40	-4.3	128.6
170	20.17	36.78	3.37	-2.5	125.8
180	19.57	36.70	3.39	-0.6	122.4
190	18.76	36.62	3.43	-0.2	114.5
200	18.34	36.55	3.42	-2.4	108.2
210	17.95	36.49	3.41	-9.0	108.3
220	17.43	36.41	3.40	-11.5	109.7
230	17.11	36.37	3.39	-6.7	106.8
240	16.51	36.27	3.38	-2.6	101.8
250	16.32	36.24	3.36	-4.0	102.9
260	15.98	36.18	3.34	-2.6	104.4
270	15.52	36.10	3.29	1.6	102.4
280	15.38	36.08	3.26	5.6	100.7
290	14.75	35.98	3.19	9.6	97.2
300	14.20	35.88	2.99	7.4	92.6
350	12.44	35.60	2.83	2.1	79.7
400	11.13	35.39	2.83	-6.9	71.2
450	9.51	35.15	2.84	-5.7	59.2
500	8.45	35.03	2.87	-2.1	55.7
550	7.83	34.97	2.92	8.8	46.9
600	7.40	34.93	3.00	2.4	38.0
650	6.98	34.90	3.11	3.7	29.9
700	6.73	34.89	3.23	2.3	22.8
750	NaN	NaN	NaN	-3.3	18.6

Table 26: Same as Table 12 for the cruise ID and the station number indicated.

Cruise ID: ws1311. Station: 6					
Pressure	Temperature	Salinity	Oxygen	U speed	V speed
[db]	[deg. C]	[psu]	[ml/l]	[cm/s]	[cm/s]
1	29.78	36.16	4.46	NaN	NaN
10	29.78	36.16	4.45	2.5	115.5
20	29.64	36.15	4.48	0.8	116.2
30	28.99	36.17	4.62	3.4	115.0
40	28.82	36.24	4.61	3.8	114.3
50	28.58	36.29	4.56	2.9	111.4
60	28.05	36.26	4.60	-4.3	110.1
70	27.22	36.26	4.56	-7.4	112.4
80	26.75	36.33	4.45	-2.8	111.9
90	26.18	36.43	4.31	-1.6	111.2
100	25.36	36.62	4.01	-9.7	112.3
110	23.84	36.86	3.71	-8.2	111.3
120	23.18	36.91	3.59	-10.3	110.9
130	22.33	36.94	3.49	-19.0	111.7
140	21.90	36.91	3.75	-18.1	113.2
150	21.65	36.91	3.99	-12.6	110.3
160	21.23	36.90	4.12	-8.4	101.5
170	20.77	36.89	4.10	-6.8	94.5
180	20.28	36.86	4.05	-12.7	91.8
190	19.75	36.81	4.06	-13.4	88.5
200	19.05	36.66	3.54	-13.6	87.9
210	18.85	36.64	3.47	-16.9	83.5
220	18.61	36.61	3.49	-18.5	85.7
230	18.55	36.60	3.46	-20.4	88.0
240	18.40	36.58	3.46	-19.0	87.4
250	18.30	36.58	3.52	-16.3	88.9
260	18.03	36.54	3.59	-14.3	89.4
270	17.80	36.50	3.57	-11.3	86.2
280	17.42	36.44	3.52	-8.9	84.1
290	16.98	36.37	3.54	-13.3	84.7
300	16.83	36.35	3.53	-12.5	82.3
350	15.19	36.06	3.31	-0.4	75.7
400	13.37	35.74	3.09	-1.6	62.3
450	11.82	35.50	2.94	-0.3	56.0
500	10.59	35.30	2.87	-1.0	40.1
550	9.91	35.22	2.85	-3.7	24.5
600	9.02	35.10	2.88	2.2	25.4
650	8.57	35.04	2.90	11.4	8.0

Table 27: Same as Table 12 for the cruise ID and the station number indicated.

Cruise ID: ws1311. Station: 7					
Pressure	Temperature	Salinity	Oxygen	U speed	V speed
[db]	[deg. C]	[psu]	[ml/l]	[cm/s]	[cm/s]
1	29.94	36.19	4.44	NaN	NaN
10	29.71	36.19	4.46	-3.9	87.1
20	29.63	36.18	4.48	1.4	85.0
30	29.51	36.19	4.51	5.1	86.2
40	28.90	36.21	4.59	0.7	85.3
50	28.74	36.22	4.59	5.4	82.3
60	28.07	36.24	4.64	9.6	80.5
70	27.76	36.22	4.66	11.8	82.1
80	26.53	36.37	4.46	15.4	86.5
90	24.86	36.75	3.98	8.4	84.8
100	24.03	36.83	3.68	-7.1	87.3
110	23.66	36.85	3.62	-15.7	84.9
120	23.08	36.91	3.53	-11.0	83.7
130	22.45	36.92	3.52	-6.0	80.4
140	22.32	36.92	3.47	-9.8	75.0
150	22.16	36.92	3.47	-16.8	73.7
160	21.92	36.91	3.46	-17.1	71.8
170	21.84	36.90	3.46	-15.5	72.1
180	21.62	36.89	3.48	-11.4	76.0
190	21.42	36.87	3.44	-8.0	77.4
200	20.89	36.84	3.60	0.7	75.4
210	20.01	36.77	4.17	3.3	72.7
220	19.79	36.76	3.70	3.9	68.8
230	19.56	36.75	3.57	-2.2	68.9
240	18.97	36.68	3.49	-9.6	73.6
250	18.50	36.64	3.56	-10.8	70.9
260	18.15	36.59	3.62	-13.1	69.3
270	17.98	36.56	3.62	-12.6	65.0
280	17.75	36.53	3.62	-9.8	63.4
290	17.52	36.49	3.64	-11.7	62.5
300	17.42	36.47	3.61	-15.3	62.2
350	16.41	36.29	3.48	-7.3	54.4
400	14.82	36.01	3.25	-6.2	51.6
450	13.91	35.85	3.12	-0.1	46.3
500	12.93	35.69	3.06	4.4	31.0
550	12.07	35.53	2.97	-8.8	23.7
600	10.91	35.36	2.90	-9.1	15.8

Table 28: Same as Table 12 for the cruise ID and the station number indicated.

Cruise ID: ws1311. Station: 8					
Pressure	Temperature	Salinity	Oxygen	U speed	V speed
[db]	[deg. C]	[psu]	[ml/l]	[cm/s]	[cm/s]
1	29.85	36.20	4.45	NaN	NaN
10	29.49	36.19	4.50	6.9	62.9
20	28.92	36.18	4.61	-5.8	62.7
30	28.57	36.20	4.64	-15.2	68.7
40	28.29	36.27	4.55	-16.8	61.1
50	27.77	36.24	4.60	-21.7	54.6
60	27.02	36.32	4.51	-24.3	47.0
70	26.92	36.33	4.46	-20.1	49.7
80	26.60	36.39	4.38	-8.3	53.4
90	25.10	36.71	3.93	1.2	50.6
100	24.48	36.80	3.81	-7.9	51.8
110	24.19	36.83	3.68	-12.6	44.0
120	24.04	36.84	3.67	-14.1	44.4
130	23.59	36.88	3.62	-11.2	54.3
140	22.89	36.92	3.58	-13.9	50.0
150	21.81	36.92	3.48	-17.9	46.0
160	21.25	36.90	3.41	-9.9	47.6
170	21.05	36.89	3.53	-15.1	55.9
180	20.91	36.87	3.57	-10.5	56.5
190	20.82	36.86	3.55	-9.3	53.3
200	20.76	36.86	3.49	-13.7	51.9
210	20.39	36.84	3.40	-15.7	55.2
220	19.78	36.79	3.41	-20.5	53.4
230	19.54	36.76	3.45	-26.5	55.2
240	19.46	36.75	3.47	-25.8	52.4
250	19.25	36.74	3.49	-19.8	46.4
260	18.90	36.71	3.55	-17.5	46.0
270	18.69	36.68	3.60	-19.6	47.0
280	18.60	36.67	3.61	-17.1	48.6
290	18.50	36.64	3.60	-18.4	46.9
300	18.13	36.60	3.58	-15.7	48.8
350	16.56	36.33	3.52	-15.1	49.2
400	15.55	36.18	3.53	-9.6	51.8
450	14.79	36.07	3.71	-15.7	35.6

Table 29: Same as Table 12 for the cruise ID and the station number indicated.

Cruise ID: ws1315. Station: 0					
Pressure	Temperature	Salinity	Oxygen	U speed	V speed
[db]	[deg. C]	[psu]	[ml/l]	[cm/s]	[cm/s]
1	28.22	36.15	4.50	NaN	NaN
10	28.22	36.15	4.50	-2.6	17.6
20	28.22	36.15	4.51	-3.1	17.4
30	28.22	36.15	4.51	-4.6	16.8
40	28.18	36.15	4.52	-6.1	17.1
50	28.06	36.16	4.52	-6.8	16.5
60	27.85	36.21	4.53	-4.2	20.9
70	27.47	36.28	4.52	-4.5	26.5
80	26.61	36.42	4.50	-5.2	26.5
90	25.62	36.52	4.39	-2.7	23.3
100	24.62	36.59	4.22	-2.8	20.8
110	23.22	36.52	4.02	-5.7	15.6
120	22.14	36.49	3.73	-9.4	8.7
130	19.80	36.39	3.66	-9.0	7.0
140	NaN	NaN	NaN	-5.5	5.0

Table 30: Same as Table 12 for the cruise ID and the station number indicated.

Cruise ID: ws1315. Station: 1					
Pressure	Temperature	Salinity	Oxygen	U speed	V speed
[db]	[deg. C]	[psu]	[ml/l]	[cm/s]	[cm/s]
1	28.12	36.16	4.51	NaN	NaN
10	28.12	36.16	4.52	1.4	58.9
20	28.13	36.17	4.50	1.5	56.6
30	28.10	36.17	4.51	2.6	52.5
40	28.08	36.17	4.51	2.5	51.0
50	28.03	36.18	4.52	1.1	49.1
60	27.78	36.21	4.51	-2.1	48.0
70	27.51	36.24	4.49	-4.0	46.6
80	26.92	36.33	4.44	-5.2	54.3
90	26.16	36.42	4.40	-7.0	61.3
100	25.25	36.53	4.41	-5.8	63.3
110	24.36	36.56	4.48	-3.7	63.2
120	23.14	36.50	4.00	-3.4	61.8
130	22.14	36.48	3.81	-0.7	59.5
140	20.47	36.40	3.56	-0.9	55.4
150	18.66	36.27	3.39	-2.3	46.7
160	16.41	36.07	3.24	-1.7	34.2
170	15.16	35.94	3.10	-4.2	18.8
180	14.10	35.81	3.05	-5.1	10.4
190	13.59	35.75	3.01	-3.0	6.6
200	12.77	35.62	2.97	-3.2	6.1
210	12.16	35.52	2.94	-6.1	7.2
220	11.76	35.46	2.92	-4.2	8.6
230	11.25	35.39	2.90	-2.2	7.4
240	10.50	35.30	2.91	-0.6	2.6
250	NaN	NaN	NaN	3.5	-1.1

Table 31: Same as Table 12 for the cruise ID and the station number indicated.

Cruise ID: ws1315. Station: 2					
Pressure	Temperature	Salinity	Oxygen	U speed	V speed
[db]	[deg. C]	[psu]	[ml/l]	[cm/s]	[cm/s]
1	28.40	36.14	4.47	NaN	NaN
10	28.40	36.14	4.49	7.9	129.6
20	28.29	36.14	4.49	7.6	128.9
30	28.19	36.15	4.51	5.2	123.1
40	28.14	36.15	4.51	2.6	120.7
50	28.13	36.16	4.50	2.1	118.9
60	28.09	36.17	4.51	1.8	120.8
70	27.87	36.20	4.45	4.6	119.2
80	27.53	36.32	4.57	3.7	113.0
90	26.27	36.48	4.45	3.0	111.5
100	25.42	36.56	4.46	4.9	114.7
110	24.77	36.54	4.82	6.2	118.6
120	23.73	36.60	4.46	8.1	124.1
130	22.99	36.62	4.18	10.5	130.7
140	22.21	36.61	4.05	10.4	131.1
150	21.62	36.53	4.20	10.3	129.9
160	21.09	36.51	4.02	10.9	129.5
170	20.15	36.45	3.78	9.2	124.9
180	18.58	36.26	3.53	7.4	115.6
190	16.84	36.09	3.25	4.3	104.0
200	15.44	35.99	3.17	0.4	93.3
210	14.43	35.86	3.05	-0.4	85.3
220	14.03	35.82	3.05	1.2	79.3
230	13.45	35.72	2.99	1.2	73.3
240	12.35	35.56	2.94	0.7	69.8
250	11.59	35.45	2.91	1.2	66.8
260	11.07	35.37	2.90	-0.7	63.3
270	10.29	35.27	2.89	-3.0	58.5
280	9.41	35.15	2.89	-2.7	52.3
290	8.89	35.08	2.89	0.0	47.1
300	8.67	35.06	2.87	0.3	44.5
350	7.80	34.96	2.94	-3.4	38.3

Table 32: Same as Table 12 for the cruise ID and the station number indicated.

Cruise ID: ws1315. Station: 3					
Pressure	Temperature	Salinity	Oxygen	U speed	V speed
[db]	[deg. C]	[psu]	[ml/l]	[cm/s]	[cm/s]
1	28.86	36.13	4.45	NaN	NaN
10	28.87	36.13	4.46	1.6	170.0
20	28.84	36.13	4.47	-0.1	169.4
30	28.83	36.13	4.47	0.4	166.5
40	28.65	36.11	4.48	2.3	164.0
50	28.41	36.16	4.51	3.0	160.3
60	28.07	36.14	4.53	4.1	156.2
70	27.93	36.23	4.54	4.2	153.3
80	27.15	36.30	4.51	1.0	151.6
90	26.55	36.48	4.34	-4.0	150.7
100	25.70	36.55	4.27	-7.3	148.7
110	24.91	36.67	4.11	-8.3	146.5
120	24.30	36.73	3.83	-6.1	145.9
130	23.32	36.82	3.76	-5.9	144.9
140	22.62	36.85	3.59	-4.7	142.7
150	21.53	36.79	3.57	-3.5	140.1
160	21.20	36.80	3.50	-4.2	139.3
170	20.37	36.70	3.39	-2.9	137.8
180	19.88	36.67	3.37	0.5	137.2
190	19.37	36.62	3.37	2.3	136.0
200	18.65	36.54	3.36	1.8	133.8
210	18.13	36.48	3.42	-0.2	131.2
220	17.76	36.43	3.45	-5.0	130.1
230	17.33	36.36	3.47	-7.4	130.0
240	16.90	36.30	3.46	-7.8	130.4
250	16.54	36.23	3.46	-5.5	128.5
260	16.09	36.16	3.40	-4.7	123.6
270	15.38	36.04	3.25	-2.9	114.4
280	14.93	35.96	3.12	-2.4	106.9
290	14.54	35.89	3.08	-0.8	98.5
300	13.84	35.78	3.00	-0.6	93.1
350	10.10	35.22	2.88	2.3	72.5
400	8.27	35.01	2.87	1.1	50.7
450	7.40	34.93	3.00	2.2	43.7
500	6.67	34.91	3.20	-1.3	48.3

Table 33: Same as Table 12 for the cruise ID and the station number indicated.

Cruise ID: ws1315. Station: 4					
Pressure	Temperature	Salinity	Oxygen	U speed	V speed
[db]	[deg. C]	[psu]	[ml/l]	[cm/s]	[cm/s]
1	28.77	36.00	4.47	NaN	NaN
10	28.78	36.00	4.47	-15.0	162.9
20	28.78	36.00	4.47	-10.5	161.0
30	28.80	36.02	4.47	-9.3	157.7
40	28.79	36.02	4.49	-9.9	157.4
50	28.79	36.02	4.49	-11.4	157.2
60	28.81	36.08	4.50	-13.4	157.9
70	28.29	36.27	4.51	-11.3	160.6
80	27.80	36.33	4.45	-8.1	159.1
90	27.13	36.41	4.38	-5.2	151.1
100	26.61	36.46	4.27	-5.5	146.1
110	25.88	36.59	4.12	-4.0	148.2
120	25.04	36.71	3.95	-2.9	147.5
130	24.11	36.73	3.80	-4.8	140.1
140	23.27	36.83	3.67	-9.8	136.5
150	22.46	36.82	3.65	-9.9	139.0
160	21.47	36.82	3.54	-6.7	138.5
170	20.93	36.82	3.54	-4.8	134.1
180	20.33	36.74	3.47	-4.2	129.1
190	19.85	36.66	3.34	-3.5	126.1
200	19.09	36.60	3.37	-4.0	123.9
210	18.58	36.54	3.42	-5.1	121.8
220	18.03	36.46	3.44	-5.1	119.6
230	17.76	36.43	3.46	-5.5	118.5
240	17.47	36.38	3.48	-6.8	118.2
250	17.13	36.33	3.42	-8.1	117.5
260	16.85	36.29	3.44	-10.6	117.6
270	16.58	36.24	3.44	-11.7	118.4
280	16.06	36.15	3.41	-14.6	121.0
290	15.55	36.06	3.33	-12.7	121.6
300	14.97	35.97	3.25	-10.1	120.8
350	13.29	35.68	3.05	-1.4	114.1
400	9.75	35.18	2.89	-0.0	75.3
450	8.33	35.01	2.88	1.6	63.6
500	7.37	34.94	3.03	0.2	48.4
550	6.98	34.92	3.12	-1.3	41.2
600	6.72	34.91	3.22	-3.7	31.7

Table 34: Same as Table 12 for the cruise ID and the station number indicated.

Cruise ID: ws1315. Station: 5					
Pressure	Temperature	Salinity	Oxygen	U speed	V speed
[db]	[deg. C]	[psu]	[ml/l]	[cm/s]	[cm/s]
1	28.76	36.03	4.48	NaN	NaN
10	28.77	36.03	4.49	0.6	117.3
20	28.77	36.03	4.50	-0.3	118.4
30	28.77	36.04	4.50	-2.1	119.3
40	28.74	36.07	4.51	-3.8	124.0
50	28.71	36.10	4.50	-5.4	126.2
60	28.79	36.27	4.59	-5.1	125.1
70	28.54	36.29	4.56	-4.8	125.2
80	28.05	36.29	4.46	-4.2	125.7
90	27.51	36.30	4.40	-4.4	125.4
100	26.88	36.42	4.20	-8.5	124.6
110	26.33	36.51	4.15	-12.0	126.2
120	25.92	36.61	4.07	-8.1	126.6
130	24.66	36.72	3.93	-3.3	120.8
140	23.57	36.83	3.74	-4.0	116.2
150	23.16	36.90	3.62	-6.6	116.6
160	22.70	36.88	3.70	-7.2	116.3
170	21.95	36.88	3.58	-8.6	114.5
180	21.37	36.86	3.54	-9.3	112.4
190	20.98	36.83	3.50	-11.1	110.9
200	20.18	36.75	3.41	-14.3	109.2
210	19.53	36.64	3.39	-14.3	107.4
220	18.94	36.59	3.42	-13.1	107.0
230	18.64	36.55	3.43	-11.5	106.6
240	18.34	36.51	3.45	-8.6	103.4
250	17.94	36.45	3.47	-7.1	98.4
260	17.44	36.38	3.48	-8.4	96.7
270	17.05	36.31	3.45	-11.0	95.9
280	16.86	36.28	3.40	-10.5	95.3
290	16.27	36.18	3.37	-8.9	94.9
300	15.90	36.12	3.32	-8.7	94.3
350	13.90	35.78	3.11	-7.9	89.2
400	12.13	35.51	2.84	-6.5	83.7
450	10.18	35.22	2.81	-5.6	73.1
500	9.30	35.11	2.75	-8.9	70.7
550	8.18	34.98	2.88	-2.4	63.9
600	7.68	34.95	2.95	0.4	56.2
650	7.19	34.92	3.05	3.0	45.9
700	6.87	34.91	3.16	1.6	48.4
750	NaN	NaN	NaN	1.2	37.6

Table 35: Same as Table 12 for the cruise ID and the station number indicated.

Cruise ID: ws1315. Station: 6					
Pressure	Temperature	Salinity	Oxygen	U speed	V speed
[db]	[deg. C]	[psu]	[ml/l]	[cm/s]	[cm/s]
1	28.81	36.11	4.46	NaN	NaN
10	28.79	36.10	4.47	1.6	87.2
20	28.75	36.10	4.49	2.9	88.8
30	28.74	36.10	4.49	2.7	88.4
40	28.74	36.10	4.49	2.3	89.0
50	28.74	36.10	4.49	2.3	88.3
60	28.74	36.11	4.49	3.0	87.5
70	28.50	36.24	4.53	6.6	86.7
80	28.06	36.30	4.48	6.5	85.8
90	27.45	36.33	4.38	0.8	83.2
100	26.87	36.38	4.23	-2.0	82.7
110	26.67	36.43	4.19	-6.8	84.6
120	26.23	36.56	4.12	-8.2	88.3
130	25.04	36.67	3.95	-7.6	90.3
140	23.86	36.81	3.75	-6.4	89.8
150	23.33	36.87	3.67	-6.6	85.2
160	22.81	36.89	3.66	-7.6	85.1
170	21.93	36.82	3.54	-10.6	86.7
180	21.26	36.80	3.46	-12.2	88.1
190	20.52	36.77	3.82	-15.0	89.5
200	19.89	36.70	4.01	-17.1	90.0
210	19.49	36.67	4.08	-18.1	92.3
220	19.23	36.64	3.83	-19.7	93.2
230	19.03	36.61	3.80	-22.1	93.0
240	18.84	36.62	3.82	-23.2	91.5
250	18.50	36.57	3.90	-23.6	90.5
260	18.39	36.56	3.73	-22.0	91.0
270	18.20	36.54	3.88	-20.5	90.2
280	18.04	36.52	4.01	-19.9	87.7
290	17.81	36.51	4.10	-19.1	84.8
300	17.71	36.49	4.14	-19.1	84.6
350	15.99	36.15	3.52	-15.6	73.0
400	14.03	35.80	3.15	-9.5	59.0
450	12.07	35.49	2.93	-10.1	47.3
500	10.98	35.33	2.81	-9.7	42.0
550	10.14	35.21	2.80	-9.0	35.4
600	9.02	35.07	2.82	-4.6	23.8
650	8.10	34.98	2.91	6.5	9.7

Table 36: Same as Table 12 for the cruise ID and the station number indicated.

Cruise ID: ws1315. Station: 7					
Pressure	Temperature	Salinity	Oxygen	U speed	V speed
[db]	[deg. C]	[psu]	[ml/l]	[cm/s]	[cm/s]
1	28.78	36.08	4.47	NaN	NaN
10	28.69	36.08	4.49	5.7	54.5
20	28.64	36.07	4.50	3.6	51.7
30	28.58	36.06	4.50	3.1	55.4
40	28.54	36.11	4.50	1.8	62.1
50	28.56	36.17	4.48	1.5	64.9
60	28.50	36.15	4.48	3.9	65.2
70	28.15	36.28	4.47	5.6	63.3
80	27.93	36.31	4.46	4.6	60.5
90	27.47	36.33	4.40	4.4	59.3
100	26.74	36.44	4.17	0.3	58.4
110	26.37	36.57	4.13	-3.0	61.8
120	25.52	36.63	4.01	-3.3	65.3
130	24.48	36.73	3.90	-5.4	65.4
140	23.82	36.74	3.83	-10.3	64.8
150	23.17	36.82	3.93	-13.6	68.6
160	22.73	36.83	3.76	-14.4	69.6
170	22.12	36.84	3.73	-12.4	67.2
180	21.24	36.80	3.52	-12.1	65.1
190	20.70	36.77	3.53	-10.5	62.8
200	19.87	36.70	3.89	-9.2	61.7
210	19.21	36.61	3.72	-10.0	61.5
220	19.09	36.60	3.60	-9.7	62.6
230	18.94	36.58	3.58	-10.4	63.2
240	18.70	36.56	3.59	-13.5	61.7
250	18.60	36.55	3.62	-18.4	60.3
260	18.47	36.54	3.62	-20.0	61.3
270	18.29	36.52	3.63	-20.3	62.5
280	18.23	36.51	3.66	-18.6	63.1
290	18.16	36.50	3.65	-19.1	63.5
300	17.99	36.47	3.61	-21.5	64.5
350	17.73	36.51	4.21	-22.4	65.2
400	16.16	36.23	3.93	-14.1	54.0
450	14.48	35.89	3.32	-11.6	50.4
500	12.60	35.57	3.01	-9.5	30.8
550	11.82	35.46	2.92	-4.8	24.9
600	10.87	35.32	2.80	1.1	13.7

Table 37: Same as Table 12 for the cruise ID and the station number indicated.

Cruise ID: ws1315. Station: 8					
Pressure	Temperature	Salinity	Oxygen	U speed	V speed
[db]	[deg. C]	[psu]	[ml/l]	[cm/s]	[cm/s]
1	28.70	36.15	4.49	NaN	NaN
10	28.56	36.14	4.48	-7.9	33.8
20	28.53	36.15	4.49	-5.3	32.5
30	28.53	36.17	4.50	-3.5	29.5
40	28.47	36.20	4.48	0.1	25.9
50	28.35	36.21	4.50	-0.5	22.9
60	28.25	36.23	4.46	-3.5	22.0
70	28.09	36.26	4.45	-2.0	24.8
80	27.84	36.31	4.42	-0.3	28.5
90	27.65	36.34	4.43	0.8	30.0
100	27.03	36.41	4.29	-0.7	27.8
110	25.98	36.54	4.12	-5.2	28.1
120	25.01	36.67	3.96	-8.1	31.7
130	24.22	36.76	3.84	-8.7	33.9
140	23.77	36.79	3.82	-8.3	34.7
150	22.94	36.82	3.76	-8.4	35.4
160	22.81	36.83	3.74	-9.5	35.4
170	21.93	36.82	3.60	-12.7	38.4
180	20.51	36.76	3.56	-12.9	41.0
190	20.38	36.76	3.62	-12.1	41.2
200	20.01	36.73	3.66	-12.3	41.0
210	19.69	36.69	3.94	-12.3	39.9
220	19.37	36.65	3.96	-11.7	39.4
230	19.23	36.65	3.92	-11.4	39.2
240	18.77	36.59	3.92	-12.9	35.5
250	18.61	36.58	3.83	-14.5	31.0
260	18.61	36.59	3.82	-14.9	28.1
270	18.44	36.56	3.85	-16.1	24.4
280	18.10	36.49	3.69	-16.7	21.9
290	18.07	36.49	3.68	-16.0	22.6
300	17.83	36.45	3.66	-15.1	25.1
350	17.59	36.44	3.79	-12.2	31.3
400	16.53	36.30	4.00	-9.7	29.5
450	14.57	35.92	3.26	-10.0	31.7

Table 38: Same as Table 12 for the cruise ID and the station number indicated.

Cruise ID: ws1316. Station: 0					
Pressure	Temperature	Salinity	Oxygen	U speed	V speed
[db]	[deg. C]	[psu]	[ml/l]	[cm/s]	[cm/s]
1	26.51	36.25	4.56	NaN	NaN
10	26.51	36.25	4.57	-4.1	251.0
20	26.49	36.25	4.57	-1.8	249.3
30	25.91	36.25	4.57	-0.9	231.0
40	25.35	36.34	4.57	-5.2	234.6
50	25.09	36.40	4.56	-3.7	231.4
60	24.27	36.49	4.27	-2.3	223.3
70	21.34	36.47	3.84	1.2	202.5
80	17.32	36.15	3.54	8.7	172.1
90	15.55	35.97	3.22	11.1	144.7
100	12.79	35.65	3.10	9.3	113.3
110	10.64	35.38	2.99	2.0	63.4
120	9.50	35.23	2.95	-7.3	49.6
130	NaN	NaN	NaN	-12.8	40.7
140	NaN	NaN	NaN	-13.2	30.9

Table 39: Same as Table 12 for the cruise ID and the station number indicated.

Cruise ID: ws1316. Station: 1					
Pressure	Temperature	Salinity	Oxygen	U speed	V speed
[db]	[deg. C]	[psu]	[ml/l]	[cm/s]	[cm/s]
1	26.91	36.24	4.52	NaN	NaN
10	26.91	36.24	4.54	-3.6	238.2
20	26.91	36.24	4.53	-3.0	241.2
30	26.89	36.24	4.54	0.5	233.1
40	26.22	36.29	4.57	2.5	224.9
50	25.49	36.40	4.63	4.3	222.1
60	25.20	36.43	4.63	6.6	218.3
70	24.32	36.49	4.35	7.5	208.9
80	22.76	36.62	3.96	7.9	192.9
90	20.60	36.48	3.68	5.3	179.6
100	19.29	36.51	3.08	7.3	168.7
110	17.93	36.37	2.97	17.3	152.6
120	16.06	36.15	3.12	17.2	134.0
130	14.77	35.97	3.20	15.5	115.9
140	13.77	35.81	3.11	12.8	102.3
150	13.00	35.70	3.04	12.2	92.6
160	12.55	35.64	3.02	8.1	87.4
170	12.16	35.59	3.00	3.1	87.6
180	11.98	35.56	2.99	0.1	85.6
190	11.75	35.53	2.98	-4.1	82.4
200	10.62	35.37	2.96	-8.4	74.4
210	9.89	35.26	2.91	-6.1	67.9
220	9.49	35.21	2.88	-4.4	60.2
230	9.18	35.18	2.86	-3.2	53.0
240	9.00	35.15	2.85	-5.3	48.3
250	NaN	NaN	NaN	-8.5	48.1

Table 40: Same as Table 12 for the cruise ID and the station number indicated.

Cruise ID: ws1316. Station: 2					
Pressure	Temperature	Salinity	Oxygen	U speed	V speed
[db]	[deg. C]	[psu]	[ml/l]	[cm/s]	[cm/s]
1	27.18	36.22	4.50	NaN	NaN
10	27.18	36.22	4.50	9.6	217.2
20	27.18	36.22	4.52	14.2	218.3
30	27.18	36.22	4.50	15.3	218.1
40	27.15	36.22	4.51	13.8	213.4
50	25.80	36.47	4.60	5.0	203.6
60	25.54	36.53	4.61	7.0	199.5
70	25.36	36.51	4.63	10.3	195.4
80	24.86	36.60	4.30	12.1	189.4
90	23.31	36.60	4.39	6.0	182.4
100	22.33	36.63	3.98	3.5	177.3
110	21.82	36.64	3.70	1.1	171.0
120	21.06	36.62	3.54	1.8	164.2
130	20.13	36.54	3.23	1.8	155.0
140	19.52	36.53	2.98	-1.6	153.6
150	18.64	36.47	2.90	3.1	147.0
160	17.67	36.37	2.88	9.6	137.7
170	16.76	36.26	2.91	9.6	131.3
180	16.23	36.19	3.00	6.2	126.4
190	15.83	36.13	3.02	3.7	122.6
200	15.43	36.07	2.95	1.6	117.4
210	15.02	36.01	3.18	-2.1	109.8
220	14.12	35.86	3.20	-6.9	104.8
230	13.54	35.77	3.13	-10.2	100.0
240	13.14	35.71	3.09	-8.5	94.4
250	12.54	35.62	3.05	-6.5	82.4
260	11.91	35.53	3.02	-6.8	72.8
270	11.50	35.48	2.98	-5.0	68.5
280	11.49	35.48	2.98	-3.3	68.4
290	11.47	35.48	2.98	-3.2	69.0
300	11.47	35.47	2.97	-2.9	68.4
350	9.54	35.20	2.87	0.4	43.0

Table 41: Same as Table 12 for the cruise ID and the station number indicated.

Cruise ID: ws1316. Station: 3					
Pressure	Temperature	Salinity	Oxygen	U speed	V speed
[db]	[deg. C]	[psu]	[ml/l]	[cm/s]	[cm/s]
1	27.23	36.20	4.49	NaN	NaN
10	27.23	36.20	4.50	14.0	181.9
20	27.24	36.20	4.51	14.4	181.9
30	27.24	36.20	4.51	22.0	184.7
40	27.24	36.20	4.51	21.1	183.4
50	27.22	36.21	4.51	18.6	183.3
60	25.99	36.24	4.58	15.1	183.8
70	25.87	36.25	4.58	15.4	181.2
80	25.76	36.53	4.48	11.9	176.8
90	25.26	36.67	3.92	11.6	173.5
100	24.97	36.70	3.88	13.7	168.3
110	23.50	36.73	3.72	9.7	159.6
120	22.72	36.69	3.72	3.3	153.3
130	22.01	36.64	3.68	0.5	149.0
140	21.76	36.67	3.60	-0.7	150.7
150	20.83	36.57	3.59	3.2	150.8
160	20.12	36.57	3.24	4.3	147.0
170	19.24	36.51	3.05	3.5	139.0
180	18.28	36.44	2.91	-2.7	134.0
190	17.64	36.37	2.91	-5.7	130.1
200	17.16	36.30	2.90	-8.6	127.6
210	16.85	36.27	2.89	-8.0	123.7
220	16.46	36.22	2.92	-5.1	119.4
230	16.18	36.18	2.95	-6.6	118.0
240	15.73	36.11	2.98	-7.2	116.2
250	15.33	36.05	2.98	-6.1	110.8
260	15.02	36.00	2.97	-3.7	106.1
270	14.80	35.96	2.94	-4.1	104.1
280	14.60	35.93	2.98	-5.3	104.7
290	14.23	35.87	3.18	-4.8	103.8
300	13.92	35.82	3.19	-5.6	101.5
350	12.41	35.57	3.04	1.7	94.7
400	10.91	35.35	2.84	0.5	89.8
450	9.22	35.14	2.85	-8.4	66.0
500	7.25	34.97	2.99	1.2	24.3

Table 42: Same as Table 12 for the cruise ID and the station number indicated.

Cruise ID: ws1316. Station: 4					
Pressure	Temperature	Salinity	Oxygen	U speed	V speed
[db]	[deg. C]	[psu]	[ml/l]	[cm/s]	[cm/s]
1	27.18	36.20	4.49	NaN	NaN
10	27.19	36.20	4.50	16.1	166.1
20	27.19	36.20	4.50	17.3	166.2
30	27.19	36.20	4.50	17.1	165.3
40	27.19	36.20	4.50	18.2	166.4
50	26.83	36.25	4.51	14.9	171.8
60	26.84	36.26	4.49	12.2	174.8
70	26.74	36.31	4.44	12.5	170.4
80	25.75	36.31	4.39	7.6	162.5
90	25.56	36.50	4.48	1.3	155.3
100	24.68	36.65	3.91	-1.8	150.3
110	23.94	36.77	3.89	0.3	145.2
120	22.89	36.68	3.74	0.4	142.0
130	22.23	36.67	3.66	0.2	135.9
140	21.86	36.82	3.51	1.4	130.5
150	21.22	36.84	3.51	1.9	128.9
160	20.57	36.74	3.36	1.0	127.3
170	20.09	36.68	3.36	2.0	125.9
180	19.66	36.68	3.36	1.5	124.0
190	18.97	36.60	3.38	0.2	119.3
200	18.54	36.56	3.41	-1.0	119.4
210	18.22	36.53	3.56	-1.7	118.0
220	17.83	36.49	3.69	-2.3	116.9
230	17.58	36.45	3.77	-1.2	115.5
240	17.37	36.42	3.80	0.2	114.5
250	17.15	36.38	3.75	0.5	112.4
260	16.75	36.30	3.70	-0.5	109.6
270	16.14	36.18	3.33	0.5	108.7
280	15.64	36.10	3.28	-0.1	106.5
290	15.40	36.06	3.26	-0.4	103.6
300	14.91	35.98	3.22	-1.7	100.2
350	13.81	35.80	3.21	0.6	90.8
400	12.03	35.51	2.98	-4.1	76.4
450	10.63	35.29	2.87	-0.6	71.1
500	9.13	35.10	2.81	4.2	57.9
550	8.33	35.02	2.83	-0.1	49.6
600	6.94	34.95	3.06	-0.2	25.2

Table 43: Same as Table 12 for the cruise ID and the station number indicated.

Cruise ID: ws1316. Station: 5					
Pressure	Temperature	Salinity	Oxygen	U speed	V speed
[db]	[deg. C]	[psu]	[ml/l]	[cm/s]	[cm/s]
1	26.89	36.22	4.51	NaN	NaN
10	26.90	36.22	4.51	-2.3	131.9
20	26.90	36.22	4.52	0.4	133.3
30	26.90	36.23	4.51	5.1	131.0
40	26.89	36.24	4.49	9.6	129.3
50	26.86	36.25	4.48	14.6	128.9
60	26.82	36.27	4.47	15.7	127.7
70	26.77	36.29	4.45	14.4	125.8
80	26.69	36.32	4.40	13.9	124.1
90	26.62	36.35	4.32	10.2	123.6
100	26.18	36.47	4.17	7.6	122.1
110	25.34	36.64	3.91	4.9	119.9
120	23.46	36.85	3.63	5.2	120.0
130	22.91	36.87	3.62	4.1	116.9
140	22.47	36.87	3.52	1.8	113.5
150	21.58	36.86	3.47	0.5	109.5
160	21.15	36.84	3.45	-0.5	104.6
170	20.37	36.77	3.45	2.0	102.0
180	20.09	36.75	3.48	-0.5	98.8
190	19.77	36.72	3.49	-4.3	97.9
200	19.49	36.69	3.53	-5.6	95.8
210	19.09	36.65	3.58	-6.2	94.0
220	18.96	36.63	3.61	-3.9	92.7
230	18.65	36.60	3.64	-3.9	92.0
240	18.44	36.57	3.68	-3.5	92.8
250	18.18	36.54	3.75	-2.1	91.1
260	17.97	36.51	3.77	-3.2	88.6
270	17.66	36.46	3.81	-5.1	87.3
280	17.54	36.46	3.91	-6.1	84.6
290	17.26	36.40	3.94	-5.8	81.4
300	16.97	36.34	3.78	-5.5	76.8
350	15.44	36.07	3.40	-1.3	69.7
400	13.52	35.75	3.19	-0.7	57.2
450	12.18	35.52	3.01	0.4	51.5
500	10.74	35.30	2.91	3.9	45.2
550	9.85	35.20	2.81	0.9	38.0
600	9.00	35.09	2.81	1.9	36.8
650	8.38	35.03	2.84	-9.8	30.4
700	8.36	35.02	2.86	-9.8	29.8
750	8.19	35.01	2.90	-14.5	20.7

Table 44: Same as Table 12 for the cruise ID and the station number indicated.

Cruise ID: ws1316. Station: 6					
Pressure	Temperature	Salinity	Oxygen	U speed	V speed
[db]	[deg. C]	[psu]	[ml/l]	[cm/s]	[cm/s]
1	26.85	36.23	4.49	NaN	NaN
10	26.86	36.23	4.50	8.3	75.4
20	26.86	36.23	4.51	11.4	75.4
30	26.87	36.23	4.51	12.6	74.4
40	26.87	36.23	4.51	12.2	75.2
50	26.87	36.23	4.51	11.5	74.9
60	26.87	36.23	4.50	10.9	74.9
70	26.88	36.23	4.51	10.1	75.3
80	26.88	36.23	4.52	10.5	75.8
90	26.53	36.40	4.24	12.5	76.4
100	25.91	36.52	4.08	16.4	77.0
110	24.99	36.70	3.90	17.8	78.0
120	24.44	36.76	3.74	6.5	79.3
130	23.93	36.80	3.70	2.6	81.0
140	23.23	36.83	3.61	-1.7	80.6
150	22.69	36.87	3.55	-7.1	79.0
160	22.12	36.87	3.49	-12.7	77.5
170	21.73	36.86	3.48	-14.2	76.4
180	21.18	36.84	3.46	-12.7	72.2
190	20.38	36.77	3.45	-9.6	67.6
200	19.56	36.69	3.49	-7.6	63.7
210	19.10	36.64	3.54	-9.2	61.5
220	18.74	36.60	3.57	-9.8	60.7
230	18.68	36.59	3.59	-10.6	61.3
240	18.65	36.59	3.58	-8.2	61.9
250	18.46	36.56	3.61	-5.1	60.1
260	18.33	36.54	3.62	-1.8	59.1
270	18.20	36.53	3.64	1.4	59.0
280	18.15	36.52	3.66	1.2	58.9
290	18.03	36.50	3.67	0.2	57.6
300	17.95	36.49	3.68	1.6	57.8
350	17.41	36.40	3.71	-1.5	54.3
400	15.45	36.07	3.49	-4.7	44.1
450	13.59	35.75	3.18	-4.1	36.0
500	11.87	35.49	2.97	-4.9	30.2
550	10.97	35.35	2.88	-6.2	24.5
600	10.06	35.26	2.94	-12.9	23.2
650	10.00	35.26	3.03	-3.8	14.7

Table 45: Same as Table 12 for the cruise ID and the station number indicated.

Cruise ID: ws1316. Station: 7					
Pressure	Temperature	Salinity	Oxygen	U speed	V speed
[db]	[deg. C]	[psu]	[ml/l]	[cm/s]	[cm/s]
1	26.79	36.23	4.51	NaN	NaN
10	26.79	36.23	4.51	12.4	28.2
20	26.80	36.24	4.52	11.5	29.5
30	26.80	36.24	4.51	10.5	28.8
40	26.80	36.24	4.51	12.2	26.3
50	26.80	36.24	4.52	12.2	24.6
60	26.80	36.25	4.52	12.3	23.7
70	26.81	36.24	4.53	11.7	25.3
80	26.64	36.35	4.49	11.9	28.3
90	26.29	36.47	4.15	6.8	32.7
100	26.16	36.49	4.15	2.3	37.7
110	25.53	36.61	3.97	6.6	43.6
120	24.57	36.73	3.83	12.3	45.3
130	23.86	36.81	3.70	12.0	45.3
140	23.30	36.85	3.63	9.5	43.6
150	22.95	36.86	3.58	3.8	39.8
160	22.56	36.87	3.52	-4.6	36.7
170	22.38	36.87	3.52	-13.3	36.4
180	21.81	36.86	3.52	-12.5	39.6
190	20.71	36.80	3.44	-9.3	40.5
200	20.32	36.77	3.46	-5.5	37.4
210	19.97	36.74	3.49	-6.9	36.5
220	19.55	36.70	3.56	-7.5	34.6
230	19.23	36.66	3.56	-8.6	32.0
240	18.89	36.62	3.60	-8.0	31.2
250	18.67	36.60	3.63	-6.6	29.4
260	18.41	36.56	3.67	-5.9	28.0
270	18.23	36.54	3.72	-5.0	28.4
280	18.15	36.53	3.73	-4.9	27.9
290	17.91	36.49	3.75	-6.4	28.0
300	17.76	36.46	3.74	-6.7	26.9
350	17.12	36.36	3.77	-6.4	33.4
400	15.70	36.14	3.71	-11.9	29.8
450	14.42	35.91	3.38	-5.5	18.3
500	13.87	35.81	3.29	-6.1	20.1
550	12.44	35.59	3.04	-11.4	11.9
600	11.76	35.54	3.37	-5.2	5.9

Table 46: Same as Table 12 for the cruise ID and the station number indicated.

Cruise ID: ws1316. Station: 8					
Pressure	Temperature	Salinity	Oxygen	U speed	V speed
[db]	[deg. C]	[psu]	[ml/l]	[cm/s]	[cm/s]
1	26.93	36.22	4.50	NaN	NaN
10	26.93	36.22	4.52	18.9	1.4
20	26.80	36.24	4.54	18.5	1.1
30	26.57	36.27	4.52	9.7	6.6
40	26.54	36.29	4.52	8.6	12.2
50	26.56	36.29	4.52	7.0	14.5
60	26.57	36.31	4.47	5.2	12.2
70	26.54	36.32	4.47	4.6	10.6
80	26.37	36.34	4.50	2.9	9.3
90	26.20	36.39	4.47	-1.5	6.8
100	25.51	36.62	4.01	0.7	6.0
110	24.85	36.72	3.81	2.7	3.3
120	24.62	36.74	3.78	4.4	3.6
130	24.06	36.80	3.72	8.3	4.0
140	23.83	36.82	3.66	8.1	4.3
150	23.33	36.84	3.63	4.2	5.4
160	22.60	36.87	3.52	-0.4	5.1
170	21.90	36.86	3.50	-0.9	8.4
180	20.72	36.79	3.53	2.6	15.0
190	20.12	36.73	3.93	2.1	21.0
200	19.81	36.71	3.89	-1.8	26.7
210	19.65	36.70	3.90	-5.2	28.6
220	19.52	36.69	3.78	-8.3	28.5
230	19.10	36.65	3.87	-11.9	28.8
240	18.91	36.64	3.88	-13.5	29.9
250	18.80	36.62	3.82	-14.6	30.3
260	18.52	36.59	3.90	-14.5	33.5
270	18.49	36.60	4.16	-14.6	34.4
280	18.28	36.58	4.26	-13.0	34.3
290	18.11	36.56	4.19	-14.0	31.8
300	17.97	36.54	4.21	-15.5	31.6
350	17.41	36.46	4.31	-13.2	31.9
400	16.25	36.26	4.11	-9.7	26.1
450	15.19	36.07	3.83	-5.9	18.1

Table 47: Same as Table 12 for the cruise ID and the station number indicated.


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