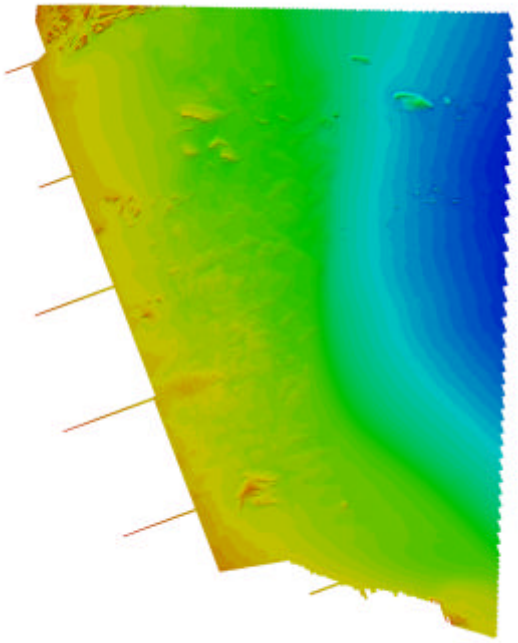
Southern Merrimack Embayment Multibeam Survey

Survey Report

April 30, 2004

Under contract to University of New Hampshire
Contract: 04-855

Prepared For:
U.S. Geological Survey, Woods Hole, MA



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Survey Report

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1. INTRODUCTION

Science Applications International Corporation (SAIC), under contract to the University of New Hampshire, conducted a multibeam survey within the Southern Merrimack Embayment to support the requirements of the US Geological Survey, Woods Hole, MA. This survey acquired bathymetry and imagery with the Reson 8101 multibeam echo sounder on the *R/V OceanExplorer* operated by SAIC. The project area off the north coast of Cape Ann, MA, shown in Figure 1, was surveyed in two phases 1.) the original survey area as presented in the Statement of Work, January 6, 2004, 2.) an additional survey area as agreed on March 5, 2004.

Vessel operation, data acquisition, initial data processing, and on board quality assurance were performed by SAIC. This report documents the field survey and data processing effort.

2. SURVEY PLAN

The survey bounds consisted of a rectangular area approximately 19 km by 25 km in dimension from Halibut Point, Cape Ann, MA to Breaking Rocks nun and out 17.6 km. The survey comprised 328 main scheme lines at 50, 75, 100, 125, 150 and 200-meter spacing and 6 cross lines at 3 kilometer spacing. The survey plan is presented in Figure 1.

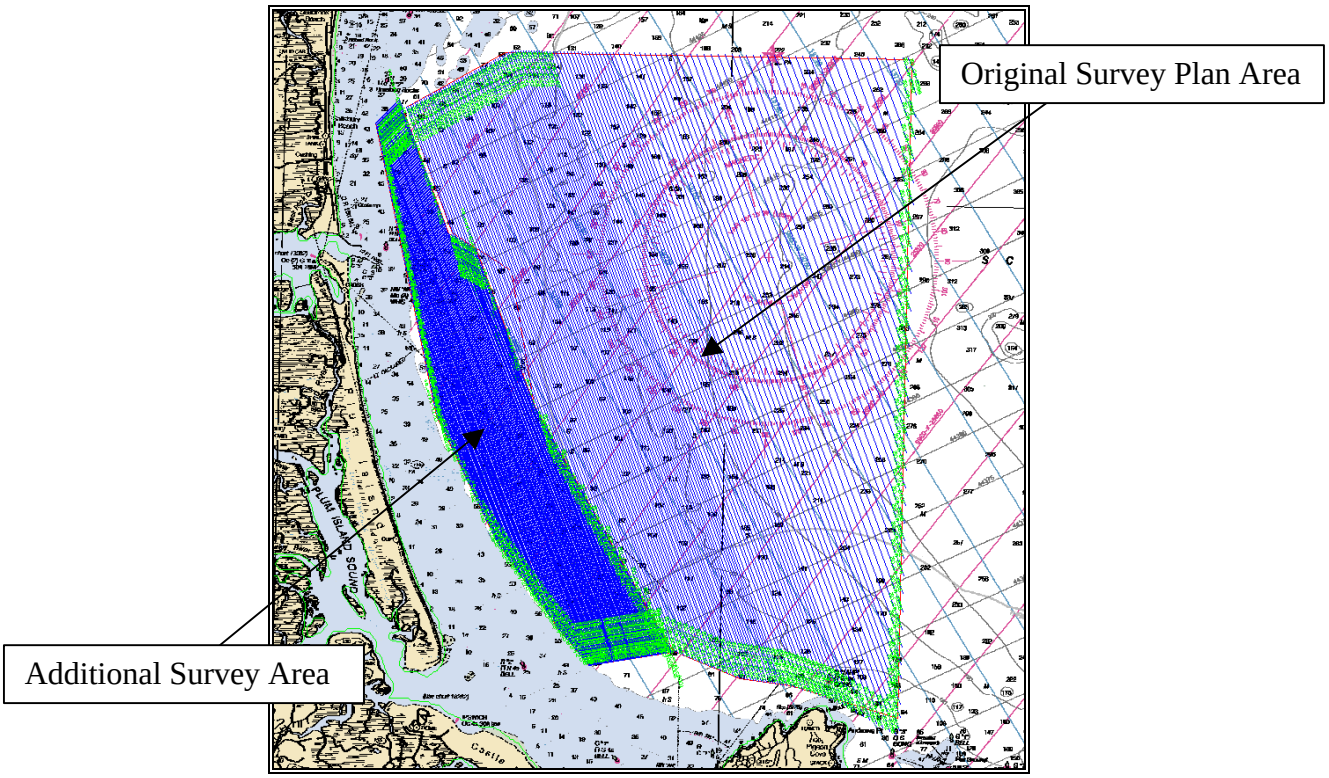

Figure 1. ***Cape Ann Survey Plan***

The area was surveyed with the Reson 8101 with the cutoff angles set at 57° (114° total swath) in order to provide approximately three times the water depth per swath. The area was covered with 100% multibeam coverage. Vessel speed for the survey was nominally 9 knots.

3. OPERATIONS

3.1 The Survey Vessel

SAIC used the *R/V OceanExplorer*, operated by Northeast Marine Services, as the survey vessel during the performance of this survey. Table 1 tabulates the vessel characteristics for the *R/V OceanExplorer* shown in Figure 2.

Table 1. Survey Vessel Characteristics, *R/V OceanExplorer*

Vessel Name	LOA	Beam	Draft	Max Speed	Gross Tonnage	Power (Hp)	Registration Number
R/V Ocean Explorer	60’	16’4”	6’	17 kts	56	1100	US905425

Figure 2. *The R/V OceanExplorer*

The main cabin of the vessel was configured as the data collection center. A POS/MV position and attitude sensor was used to provide vessel position and attitude data, while a Reson 8101 Multibeam Depth Sounder was used to acquire bathymetric and acoustic backscatter data. The Inertial Motion Unit (IMU) was mounted on the vessel centerline just forward and above the Reson 8101 multibeam transducer, below the main deck. The multibeam transducer was mounted on the keel, as shown in Figure 3. A Brooke Ocean Technology Moving Vessel Profiler (MVP) was used to provide sound velocity profiles while underway.

Figure 3. ***Reson 8101 Installation on the R/V OceanExplorer***

3.1.1 Acquisition Systems and Operations

The real time bathymetry/imagery acquisition system used for the USGS/UNH Cape Ann Survey is detailed in Table 2.

Table 2. R/V OceanExplorer Acquisition System

Subsystem	Components
Multibeam Data Acquisition and Display	
Multibeam Sonar	Reson 8101 24 kHz Multibeam Depth Sounder. 81P sonar processor.
Motion Sensor	TSS POS/MV Model 320 Position and Orientation System
Sound Velocity Profiler (SVP)	Brooke Ocean Technology: MVP 30 System and Applied Microsystems Smart Sound Velocity Sensor
Data Acquisition and Display	PC Computer (ISSC) running SAIC ISS2000 Integrated Survey System Software
Daily Log Reporting	PC Laptop Computer running iNavLog Real-Time operations log software.
Uninterrupted Power Supplies (UPS)	Protected the entire system.
Navigation	
Vessel Positioning	TSS POS/MV Model 320 Position and Orientation System
GPS	Trimble 7400 GPS Receiver (Quality Monitoring)
DGPS	Trimble DGPS Beacon Receiver
Integrated Navigation System	SAIC ISS2000
AutoPilot	Robertson AP9 MkII

Data acquisition was carried out using the SAIC ISS2000 system. Real-time navigation, data time tagging and data logging were controlled by the ISS2000 on a Windows 2000 computer. Survey planning, data processing and analysis were performed on LINUX machines using SAIC's SABER software.

Navigation was recorded from both the POS/MV system and the Trimble 4000. Data from the POS/MV was used as the primary navigation and was merged with the multibeam data. Vessel positioning confidence checks were done by comparing data recorded from the POS/MV to data recorded from the Trimble DGPS.

3.1.2 Vessel Configuration Parameters

During SAIC's preparation for the 2003 survey season the acquisition system configuration aboard the *R/V OceanExplorer* was measured in reference to the IMU and converted to be relative to the Reson 8101 transducer, Figure 4.

The SAIC Integrated Survey System (ISS2000) and the Reson 8101 multibeam system utilize different coordinate systems. The ISS2000 considers "z" to be positive down, while both the Reson and POS/MV consider "z" positive up. Both the ISS2000 and POS/MV consider "x" positive forward, the Reson considers "x" as positive athwart ships to starboard. The SAIC ISS2000 considers "y" positive athwart ships to starboard, the POS/MV considers "y" positive athwart ships to port and the Reson considers "y" as positive forward. These differences are fully accounted for in the ISS2000 software.

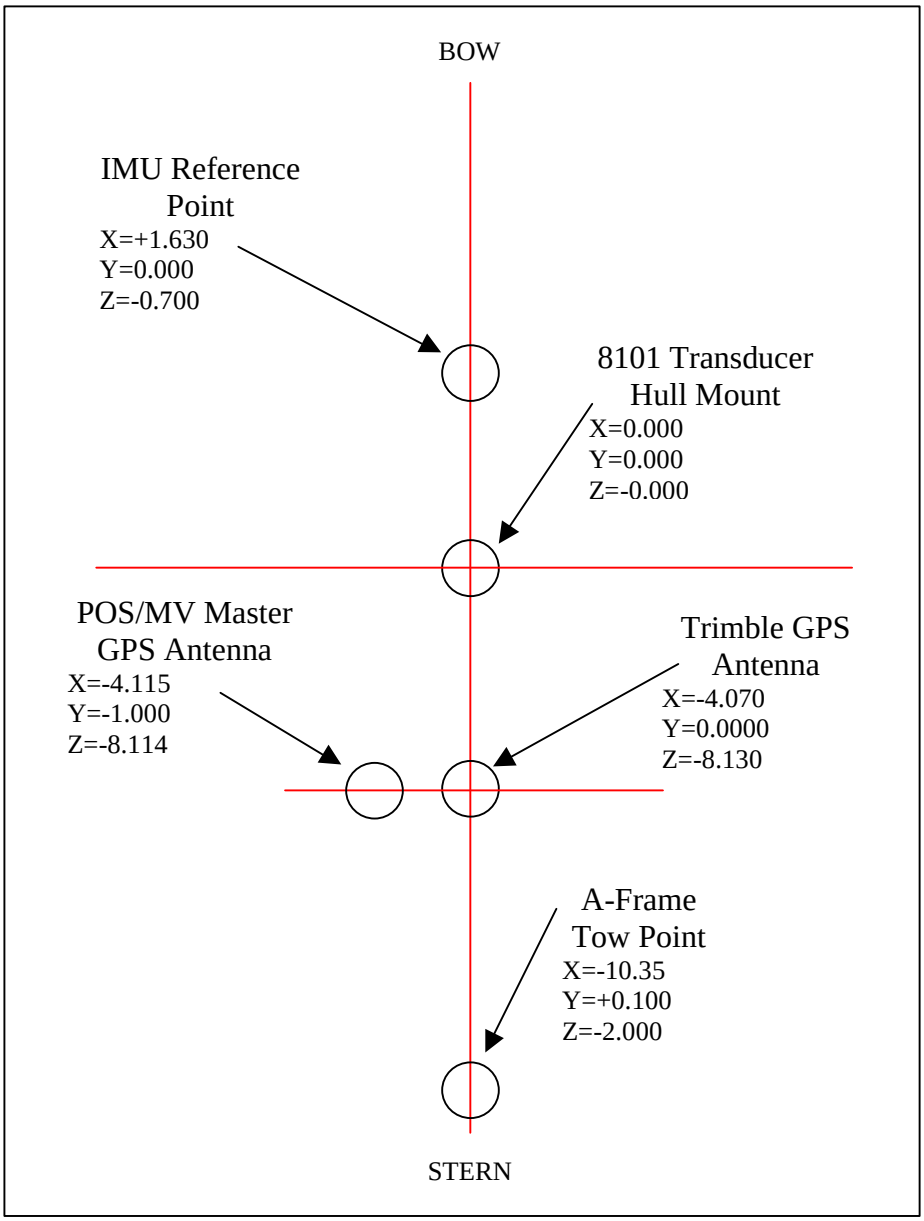

Figure 4. ***Equipment Locations on the R/V OceanExplorer, Meters***

3.1.3 Static and Dynamic Draft Measurements

Figure 5 shows the draft calculations for the *R/V OceanExplorer*. Depth of the transducer below the deck was determined from measurements made while the boat was hauled in May 2000 and confirmed when the vessel was hauled in July 2002. The transducer depth was recorded as 3.07 meters below the vessel's main deck. The distance below the boat deck to the water surface was measured and subtracted from the transducer hull depth to determine the draft of the transducer's electronic center.

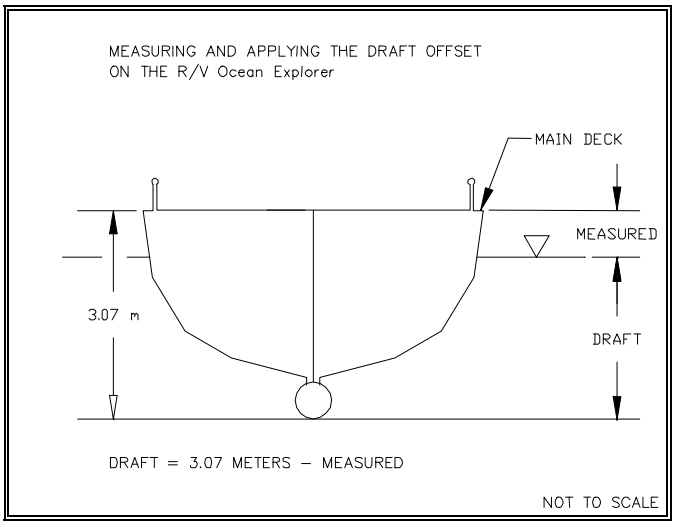

Figure 5. ***R/V OceanExplorer Draft Determination***

The static draft was observed at the beginning and end of each survey leg, by measuring from the main deck to the waterline and subtracting that measurement from the transducer distance below the deck. The measured static draft value was recorded in the real time Watchstander Log, refer to APPENDIX B. If the static draft value changed from the previously noted value, the new value was entered into the ISS2000 system. Draft was interpolated to derive daily correctors, applied during post processing, as discussed in Section 4.1.2.

3.1.4 Sound Velocity Profiles

A Brooke Ocean Technology Ltd. Moving Vessel Profiler (MVP), with an Applied Microsystems, Ltd. Smart Sound Velocity & Pressure sensor was used to determine Sound Velocity Profile (SVP) for corrections to multibeam sonar soundings. Serial numbers and calibration dates for the SVP sensors are presented in Table 3. The system is mounted on the starboard stern of the vessel, as shown in Figure 6.

Table 3. SV&P Sensor Calibrations

Instrument	Serial Number	Calibration Report/Date	Next Cal Due	Comments
Applied Microsystems, Ltd, Smart SV & P Sensor	4880	10/14/03	10/14/04	New Instrument
Applied Microsystems, Ltd, Smart SV & P Sensor	4881	10/14/03	10/14/04	New Instrument

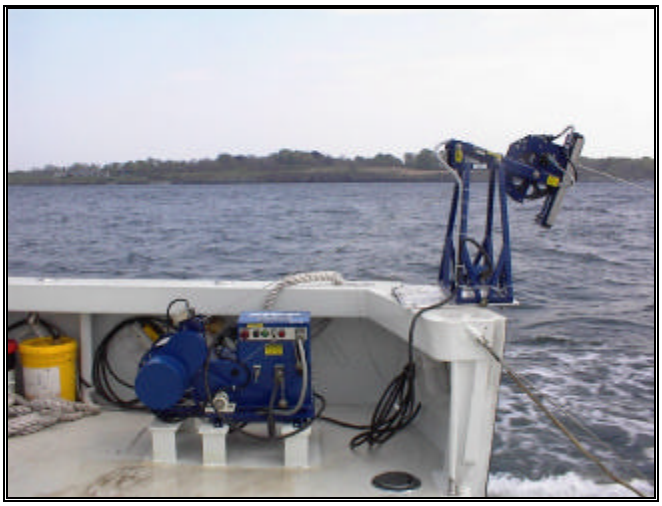

Figure 6. ***MVP Installation on the R/V OceanExplorer***

3.2 Survey Operations

Survey operations were conducted in 3 legs: February 17 to February 18 (JD 048,049), February 23 to March 1 (JD 054 to 061) and March 14 to March 16, 2004 (JD 074 to 076). Prior to the beginning of each leg a Leadline Comparison was conducted. During each leg a SVP Comparison Cast was conducted to verify SVP Sensor accuracy. Draft was recorded at the start and end of each leg.

3.2.1 Leg 1: Patch Test

Upon crew arrival on February 17, 2004, all acquisition and processing machines were powered on and performance checks were conducted. All systems were deemed functional and ready for survey operations to commence February 18, 2004. The Patch Test was conducted on the way to the survey site. Weather deteriorated upon arrival at the survey site and after two hours SAIC halted all survey operations and returned to Cape Ann Marina. Section 3.3.3 presents the Alignment Results obtained on 18 February.

3.2.2 Leg 2: Cape Ann Survey

The survey crew arrived February 22, 2004. All systems were deemed functional and the vessel headed to the survey site on the morning of February 23, 2004. Weather remained favorable for the next 8 days. Upon completion of the main survey lines, defining the Statement of Work (SOW) area on March 1, 2004, the vessel halted survey operations headed to Cape Ann Marina and all systems were shutdown. Data were reviewed for gaps and additional survey lines required to complete the original survey area were defined. Additional survey area coverage was discussed with the USGS and a survey extension of one day was agreed.

3.2.3 Leg 3: Gap Fills and Additional Survey

The survey crew arrived March 13, 2004. All systems were deemed functional and the survey vessel headed to the survey site on the morning of March 14, 2004. There was a narrow weather window for the remaining three days of survey in which the gap fills were completed and

additional survey was conducted an area in-shore of the original SOW area, as shown above in Figure 1.

Survey Logs developed during the course of the survey are provided as appendices to this report, as follows:

APPENDIX A for Daily Reports,
APPENDIX B for Watchstander Logs
APPENDIX C for Sound Velocity Profile (SVP) Log
APPENDIX D for Leadline Comparison Log
APPENDIX E for Times of Hydrography

3.3 Multibeam Bias Calibration Results (Patch Test)

SAIC conducted Settlement, Squat and Alignment calibrations from May 9-20, 2003 prior to the commencement of the survey season. On February 18, 2004 a subsequent alignment was conducted in route to the survey area to ensure the Reson 8101 was not damaged during transit to Gloucester, MA from Newport, RI.

3.3.1 Timing Test

A ping-timing test was completed on May 9, 2003 to verify there were no time latencies occurring in ISS2000. To perform this test, the user logs ping times from an IRIG-B timing card triggered from the Reson 81P ping trigger. A standard multibeam file is logged simultaneously. While logging, the ping rate is slowly increased from 1 ping/sec to 14.9 pings/sec. The times in each file are compared. The difference in like time tags was no more than 3 milliseconds. Timing tests of ISS2000 were successfully completed prior to any other calibration tests.

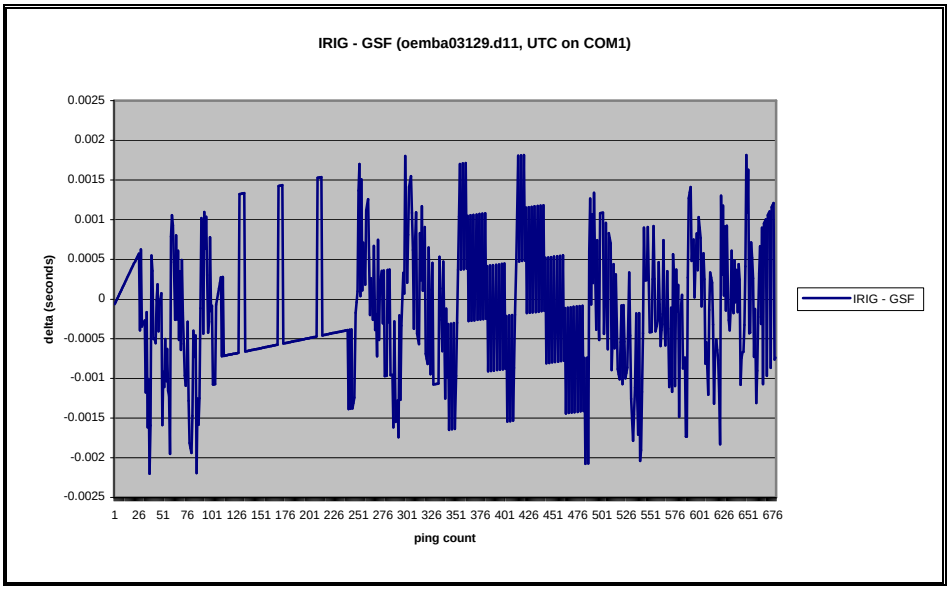

Figure 7. ***Timing Test Results (9 May 2003)***

3.3.2 Settlement and Squat

Settlement and squat of the vessel was conducted May 15-18, 2003, using a land survey level set up at the end of a jetty; drifting, at 600, 800, 1000, 1200, 1600, and 2000 rpm (Table 4). Reference speeds were observed at the rpm setting and recorded.

Table 4. Settlement Results for the *R/V OceanExplorer*

Engine RPM	Speed Knots*	Settlement Meters
0	1	0.00
600	5	–0.03
800	7	–0.02
1000	8	–0.04
1200	9	–0.03
1600	12	–0.08
2000	15	–0.22

*NOTE: The speed in knots listed in Table 4 were not used in the Settlement and Squat Lookup Table, but are given here as approximate average values for reference. In practice, the RPM values are used because they more closely correspond to speed through the water.

3.3.3 Alignment Results

Multibeam alignment calibration operations were conducted on board the *R/V OceanExplorer* on February 18, 2004. These tests were off Cape Ann, Massachusetts over a charted wreck. The calibration tests resulted in no bias changes to the previous values of: Pitch = –1.4°, Roll = +0.47°, and Gyro = +0.8°, presented in Table 6.

Table 5. Alignment Bias Calculated using Swath Alignment Tool

Component	Multibeam files (pairs)		Result
Pitch	oemba04049.d08	oemba04049.d09	–1.4°
Roll	oemba04049.d08	oemba04049.d09	+0.47°
Gyro	oemba04049.d10	oemba04049.d11	+0.8°

3.3.3.1 Roll Alignment

Roll alignment data were collected with +0.47° entered into the acquisition system. Multibeam files oemba04049.d08 and oemba04049.d09 were used for determining roll bias. The following are images of the SABER: Swath Alignment Tool (SAT) depicting data with +0.47° roll bias entered into ISS2000, therefore the indicated bias shown is set to 0.0°.

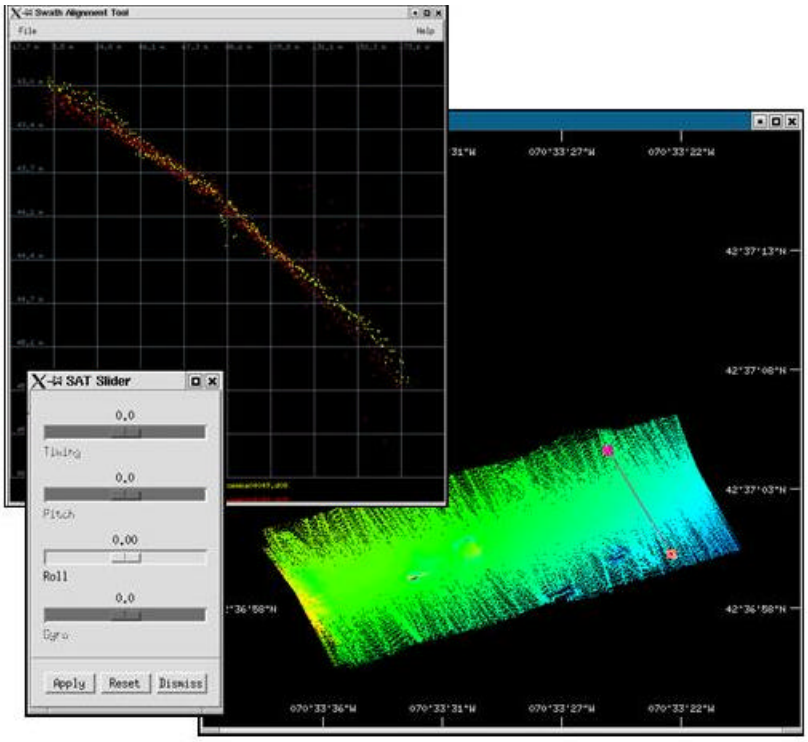

Figure 8. ***Swath Alignment Tool: Roll Bias = +0.47 °***

3.3.3.2 Pitch Alignment

Pitch alignment data were collected with –1.4° entered into the acquisition system. Multibeam files oemba04049.d08 and oemba04049.d09 were used for determining pitch alignments. The following are images of the SABER: Swath Alignment Tool depicting data with –1.4° pitch bias entered into ISS2000, therefore the indicated bias shown is set to 0.0°.

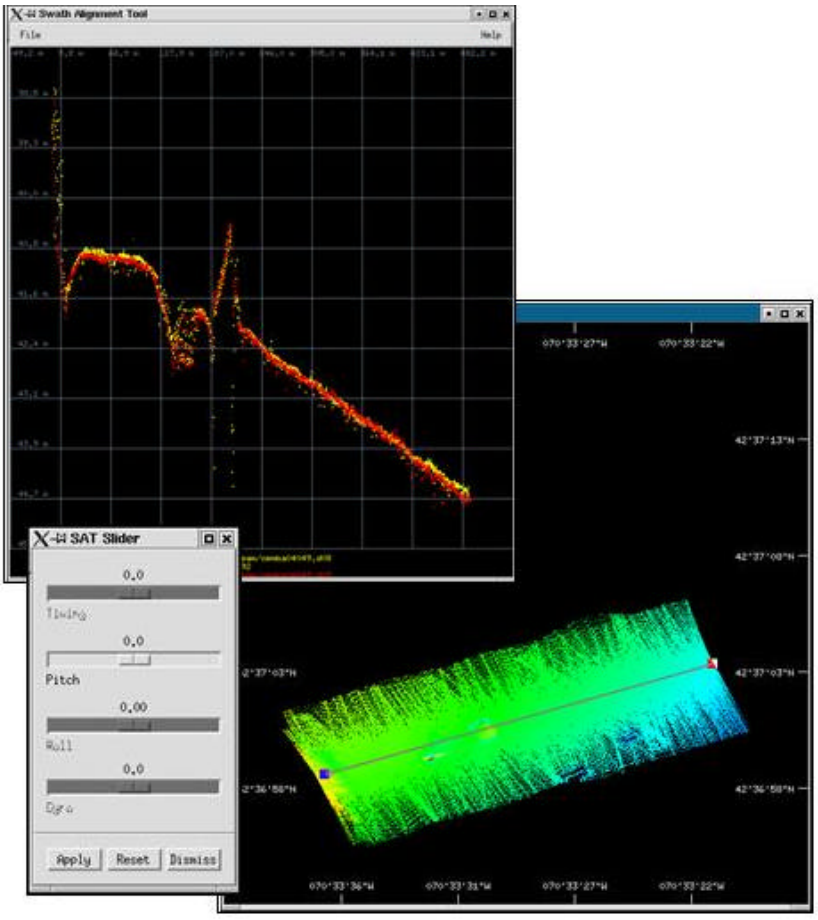

Figure 9. ***Swath Alignment Tool: Pitch Bias = –1.4°***

3.3.3.3 Heading Alignment

Heading alignment data were collected with a +0.8° entered into the acquisition system. Survey lines were run on either side of the wreck in opposite directions. Multibeam files oemba04049.d10 and oemba04049.d11 were used to determine the input bias was correct for gyro. The following are images of the SABER: Swath Alignment Tool depicting data with +0.8° gyro bias entered in the ISS2000 system; therefore the indicated bias shown is set to 0.0°.

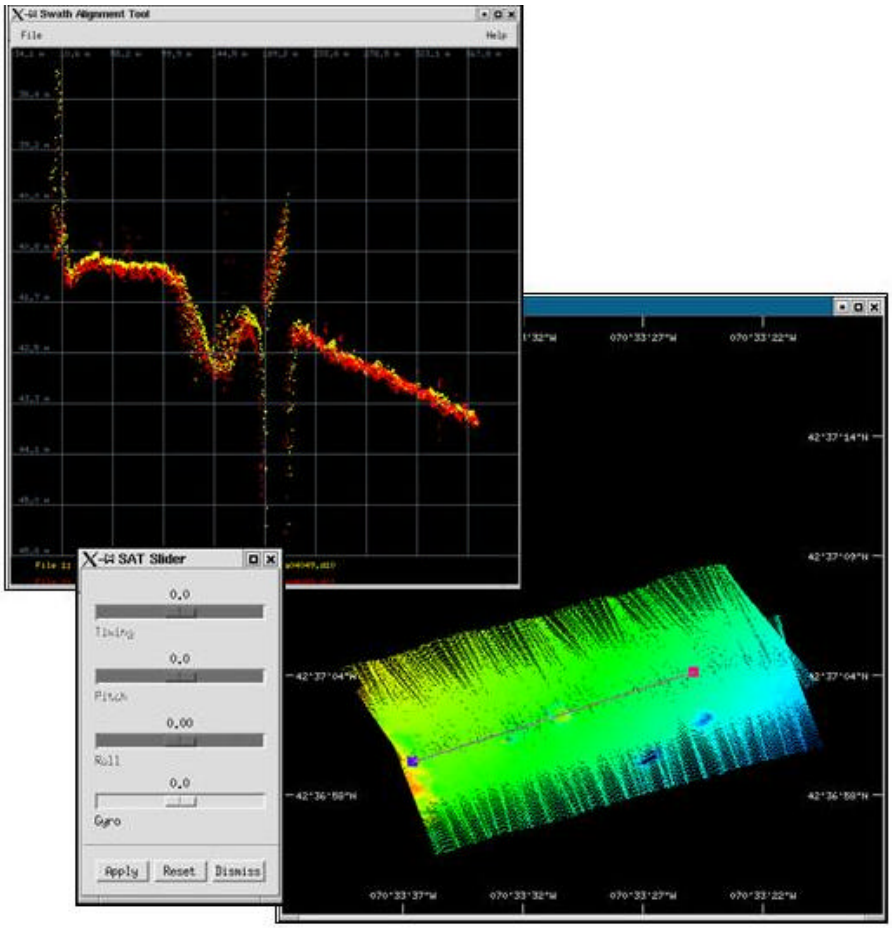

Figure 10. ***Swath Alignment Tool: Gyro Bias = +0.8°***

4. DATA PROCESSING

4.1 Multibeam Bathymetry Data Processing

The majority of the multibeam data were initially edited onboard the vessel, using SAIC's Multi View Editor (MVE) program. This tool is a geo-referenced editor, which allows for both plan and profile views with each beam in its true geographic position and depth. Each data file was edited to remove noise, fish, etc. At the end of each leg, both the raw and processed data were backed up onto 4mm tapes and shipped to the Data Processing Center in Newport, RI.

Once the data were in Newport and had been extracted to local machines, track lines were created by extracting the sounder position from the multibeam data. The tracks were reviewed to confirm that no errors in navigation existed and that the tracks extended to the outermost bounds of the survey area.

After the application of preliminary tides and interpolated draft, multibeam binned-depth grids were generated. A 5-meter Pure File Magic (PFM) grid was generated and edited in area based mode using MVE. The 5-meter projected PFM allowed multiple line editing which enhances visualization and proves efficient in the MVE process to ensure data quality. If any anomalies were

found in the sounding bins, the edited multibeam files were re-examined and re-edited as necessary. When all multibeam files were determined to be satisfactory, the data were binned to a 5-meter and 2-meter cell size, populating the bin with the average of all soundings in the bin and maintaining the position of the center of the bin.

4.1.1 Tides and Water Levels

The NOAA tide station in Portland, ME 8418150 was the source of preliminary water level heights for this Southern Merrimack Embayment Multibeam Survey. Preliminary tide data for this station were downloaded from the NOAA CO-OPS web page (http://www.co-ops.nos.noaa.gov/hydro.html). All tide data were annotated with Coordinated Universal Time (UTC). An alternative tide station Boston Light, MA 8444162 was monitored in case the Portland station was inactive. There were no problems with the Portland, ME data. SAIC created two tide zones for the survey area with the following parameters:

The zoning parameters SAIC created were:

On Portland, ME	(8418150)	+ 8 minutes	ratio 0.964
On Boston Light, MA	(8444162)	+2 minutes	ratio 0.972

All bathymetry data collected during the survey were corrected for water level variations using water level files. Water level files for each tide zone were created from downloaded preliminary NOAA tide data using the SABER Create Water Level Files tool. Water level files contain water level heights that are subtracted algebraically from depths to correct the sounding for tide and water level. These water level files were applied to the multibeam data using the Apply Tides tool within the SABER software.

Comparison of the zoned 6-minute water level heights computed from Boston Light, MA (8444162) to those computed from Portland, ME (8418150) shows an average height difference of 0.009 meters and a standard deviation of 0.042 meters. The maximum and minimum differences were +0.125 meters and -0.078 meters. Because the Portland, ME (8418150) gauge is a NOAA Primary Control Tide Station water level zoned heights from that station were used to correct the soundings.

When the preliminary water level zoned heights file was applied to the GSF files, the program removed the predicted tide corrector and applied the new corrector. Each time a routine was run on the GSF multibeam data file, a history record was written at the end of the GSF file. For quality assurance the Check Tides program was run on all GSF files to confirm that the appropriate water level corrector had been applied to the GSF file.

4.1.2 Draft

Draft was observed at the beginning and the end of each leg and recorded in the Watchstander Log, shown in APPENDIX B, and the ISS2000 system. Applied draft was determined by taking the difference of the draft from the start of the leg and the draft at the end each leg and incremented for the days of the leg. The drafts applied to each necessary multibeam file using Apply Correctors/Offsets in SABER is presented in Table 7.

Table 6. Draft Applied to the Multibeam Files in SABER

Calendar	JD	Recorded Draft	Applied Draft	Notes
02/17/04	048	1.40	1.40	Arrival
02/18/04	049	1.41	1.41	Start & End
02/23/04	054	1.41	1.41	Start Leg
02/24/04	055		1.41	
02/25/04	056		1.41	
02/26/04	057	1.41	1.41	End Leg
02/26/04	057	1.43	1.43	Start Leg
02/27/04	058		1.43	
02/28/04	059		1.43	
02/29/04	060		1.42	
03/01/04	061	1.42	1.42	End Leg
03/14/04	074	1.44	1.44	Start Leg
03/15/04	075		1.44	
03/16/04	076	1.43	1.43	End Leg

4.2 Multibeam Imagery Data Processing

Digital side-scan data were recorded in Extended Triton Format (XTF), in real time, from the Reson 8101. During the first day of acquisition a 1-meter mosaic was generated in SABER to check for data quality; throughout the survey this mosaic was appended to at convenient intervals. At the end of each survey leg the files were copied to 4mm tapes in tar format for transfer to the data processing facility. The XTF data was bottom tracked in Triton ISIS and a 5-meter mosaic was generated.

4.2.1 Imagery Coverage Mosaic

The raw XTF data underwent further processing in order to generate a 5-meter side-scan mosaic. The default extension given to data collected using the ISSC system was *.d* (i.e. *.d03, *.d04, numbered consecutively as files are created), the side-scan XTF data file names were changed to reflect the standard *.xtf extension before further processing was completed. The XTF data was first bottom tracked in Triton ISIS. A time window file, was created for the side scan coverage. These time window files were then used to create track lines to check navigation. A preliminary 5-meter mosaic was created and viewed using the SABER tools to verify swath coverage, bottom tracking, and gain changes by line. After edits were made to the bottom tracking, time windows, and gain settings, the final 5-meter mosaic was generated, quality controlled and exported as a tiff image from SABER.

4.2.2 Imagery Quality

The image quality was good throughout the survey area. The multibeam side-scan data depicts distinct bottom type boundaries as well as small-scale features such as trawl scars and small rocks. Features, such as rock outcrops were clearly delineated out to the deepest areas of the survey.

Three areas of note on the final 5-meter side-scan mosaic include:

1. In the eastern section of the mosaic there are prominent geologic features where the slant range corrections are not correct, despite the accurate application of bottom tracking. This is due to the rapidly changing slope over these features. Mosaic parameters in SABER were set to generate the best possible output.
2. A few highly reflective areas (usually those over prominent geologic features) of the mosaic showed gain changes toward the outer edge of the side-scan swath. Changes to gain and TVG settings were minimized during acquisition and post-processing to create the most consistent image possible. In areas where the bottom type was primarily soft, less reflective bottom with occasional hard, highly reflective features, the TVG settings were optimized for the more prevalent less reflective bottom type. In all cases the highly reflective features are fully delineated.
3. During acquisition, differences in the appearance of multibeam imagery between port and starboard channels were evident. These differences are magnified in the 5-meter mosaic as evidenced by the different textures between the two channels. Both channels clearly show small scale features such as the trawl scars, sediment boundaries, sand waves and other geologic features.

4.3 Annotated Track Lines

Track lines were generated in SABER, exported as a DXF and then brought into AutoCAD to clean and add Line Name Annotations, then exported as a dxf file for delivery. The format of the dxf file was mutually agreed upon by SAIC and USGS.

4.4 Junction Analysis

The Table 8 comparisons of all crossing data in the Southern Merrimack Embayment Multibeam Survey show that 95.80% of comparisons are within 50 centimeters. Comparisons greater than 200 centimeters were located in the northwest area of the survey on steep slopes of prominent geologic features and result from normal small DGPS position fluctuations. Junction Analysis is performed in SABER.

Table 7. Junction Analysis All Main Scheme vs. Cross Lines Near Nadir

Depth Difference Range		All		Positive		Negative		Zero
		Count	Percent	Count	Percent	Count	Percent	Count
0 cm to	5 cm	9110	26.88	4498	21.07	3736	32.01	
5 cm to	10 cm	7058	47.71	4199	40.75	2859	56.51	
10 cm to	15 cm	4611	61.31	2927	54.46	1684	70.94	
15 cm to	20 cm	4107	73.43	2684	67.04	1423	83.14	
20 cm to	25 cm	2601	81.11	1874	75.82	727	89.37	
25 cm to	30 cm	1979	86.95	1488	82.79	491	93.57	
30 cm to	35 cm	1165	90.38	915	87.07	250	95.72	
35 cm to	40 cm	695	92.43	556	89.68	139	96.91	
40 cm to	45 cm	664	94.39	532	92.17	132	98.04	
45 cm to	50 cm	475	95.8	395	94.02	80	98.72	
50 cm to	60 cm	604	97.58	523	96.47	81	99.42	

Depth Difference Range		All		Positive		Negative		Zero
		Count	Percent	Count	Percent	Count	Percent	Count
60 cm to	70 cm	257	98.34	240	97.6	17	99.56	
70 cm to	80 cm	190	98.9	181	98.44	9	99.64	
80 cm to	90 cm	119	99.25	111	98.96	8	99.71	
90 cm to	100 cm	79	99.48	70	99.29	9	99.79	
100 cm to	110 cm	66	99.68	64	99.59	2	99.8	
110 cm to	120 cm	24	99.75	23	99.7	1	99.81	
120 cm to	130 cm	24	99.82	23	99.81	1	99.82	
130 cm to	140 cm	20	99.88	18	99.89	2	99.84	
140 cm to	150 cm	9	99.9	7	99.93	2	99.85	
150 cm to	160 cm	6	99.92	1	99.93	5	99.9	
160 cm to	170 cm	2	99.93	1	99.93	1	99.91	
170 cm to	180 cm	3	99.94	1	99.94	2	99.92	
180 cm to	190 cm	4	99.95	2	99.95	2	99.94	
190 cm to	200 cm	3	99.96	2	99.96	1	99.95	
200 cm to	220 cm	2	99.96	1	99.96	1	99.96	
220 cm to	240 cm	3	99.97	0	99.96	3	99.98	
240 cm to	260 cm	2	99.98	2	99.97	0	99.98	
260 cm to	280 cm	0	99.98	0	99.97	0	99.98	
280 cm to	300 cm	0	99.98	0	99.97	0	99.98	
300 cm to	320 cm	2	99.98	1	99.98	1	99.99	
320 cm to	340 cm	2	99.99	2	99.99	0	99.99	
340 cm to	360 cm	0	99.99	0	99.99	0	99.99	
360 cm to	380 cm	2	99.99	2	100	0	99.99	
380 cm to	400 cm	1	100	0	100	1	100	
400 cm to	420 cm	0	100	0	100	0	100	
420 cm to	440 cm	0	100	0	100	0	100	
440 cm to	460 cm	1	100	1	100	0	100	
	Totals	33890	100%	21344	62.98%	11670	34.43%	876
								2.58%

4.5 Chart Comparison

A display of selected soundings in feet (MLLW), 1:20,000 scale, was generated from a 5 meter average grid in SABER and compared to NOAA Chart 13278_1, 1:80,000 scale 2nd edition March 7, 1998. There are subtle changes along the depth curves and the water depths near the N "2" Breaking Rocks buoy are deeper than charted. Based on the average depths generated from the data collected in this survey, there has not been a great deal of change in the area compared to Chart 13278_1.

4.6 Deliverables

SAIC is delivering on 300 GB Hard-Drive the following:

Multibeam GSF Files:

Raw Multibeam Bathymetry GSF files

- Processed Multibeam Bathymetry GSF files
- Side-Scan XTF Files:
  - Multibeam Side-Scan Imagery XTF files
- ASCII Sound Velocity Profiles:
  - SVP ASCII files
- Tide Corrector Files:
  - NOAA Gauge File
  - Water Level File
- Multibeam XYZ Files:
  - 5 Meter Average Depth (MLLW) XYZ
  - 2 Meter Average Depth (MLLW) XYZ
- Annotated Track Line File:
  - Annotated Track Lines R14 DXF
- Multibeam TIFF Images:
  - 5 Meter Hill-Shaded Along-Track 339° TIFF with TWF
  - 5 Meter Hill-Shaded Cross-Track 249° TIFF with TWF
- Side-Scan TIFF Image:
  - 5 Meter Imagery Mosaic TIFF with TWF
- Survey Report with Appendices:
  - Southern Merrimack Embayment Multibeam Survey Report
    - Daily Reports
    - Watchstander Logs
    - SVP Log
    - Leadline Comparison Log
    - Times of Hydrography

SAIC is delivering a hard-copy version of the following:

- Southern Merrimack Embayment Multibeam Survey Report
  - Daily Reports
  - Watchstander Logs
  - SVP Log
  - Leadline Comparison Log
  - Time of Hydrography

5. ACKNOWLEDGMENTS

Science Applications International Corporation conducted this survey under contract to the United States Geological Survey and the University of New Hampshire. SAIC survey personnel were Pam Clark, Gary Davis, Paul Donaldson, Charles Key and Elizabeth Lobecker. Additional Data Processing personnel were Karen Hart, Rebecca Quintal and Deb Smith. Vessel Captain's were Fredrick Folsom, Steve Lunt and Dick Russell.

DAILY REPORTS: JD 048 through JD 076

To: SAIC, Newport 401-848-4210 Attn.: Gary Parker
From: R/V OceanExplorer
Subject: Cape Ann Survey Daily Progress Report
For period Time: 0000 - 2400 (UTC) Date: 18 February 2004 JD 049

A. Location (UTC)

06:00	12:00	18:00	24:00
Cape Ann Marina	Cape Ann Marina	Cape Ann Site	Cape Ann Marina

B. Weather (UTC)

	06:00	12:00	18:00	24:00
Wind Speed (Kts)	N 10-15	N 15-20	NNE 20-25	N/A
Wave Height (ft)	At Dock	1-3	4-6	At Dock

C. Daily Events

Second Captain arrived 07:30 am
Bill Danforth did not arrive, due to weather and traffic.
Conducted Patch Test, headed to survey site. Attempted to survey, weather too rough. Headed to dock. Caught pot on approach to dock, wrapped line around prop. Captain has called for a driver to inspect.

D. Operational (hours)	Daily	Cumulative
Mobilization	00:00	000:00
Survey	03:00	000:00
Transit	03:45	000:00
Weather Down Time	00:00	000:00
Arrival and Checkout	00:00	000:00
Maintenance	00:00	000:00
Breakdown		
Equipment	00:00	000:00
Vessel	00:00	000:00

E. Work Progress vs. Work Planned

Daily (km)	Cumulative %	Plan % end of day	Deviation %
14	0.64	3.5	-2.86

F. Work Plan for the Next 24 Hours

Shutdown vessel.
Head back to office.

G. Personnel on Board:

SAIC SURVEY CREW: Paul Donaldson and Pam Clark.
Ship's Crew: Fredrick Folsom, Steve Lunt

I. Spares Consumed:
N/A

J. Comments
Will monitor weather carefully for the next possible weather window.
Acushnet beacon will be down 1600Z-1700Z 19 Feb 04.

Signed: *Pam Clark*

To: SAIC, Newport 401-848-4210 Attn.: Gary Parker
From: R/V OceanExplorer
Subject: Cape Ann Survey Daily Progress Report
For period Time: 0000 - 2400 (UTC) Date: 23 February 2004 JD 054

A. Location (UTC)

06:00	12:00	18:00	24:00
Cape Ann Marina	Cape Ann Marina	Cape Ann Marina	Cape Ann Site

B. Weather

	06:00	12:00	18:00	24:00
Wind Speed (Kts)	N/A	N 15-20	N 15-20	N 15-20
Wave Height (ft)	N/A	2-3	2-3	2-3

C. Daily Events

Survey Crew and Ships' Crew arrived in AM, draft recorded and Leadline Comparison conducted prior to departure, left dock for survey site 16:22 UTC; began Cape Ann Survey, started mid-sheet, running mainscheme lines, 2 crosslines.

D. Operational (hours)	Daily	Cumulative
Mobilization	00:00	000:00
Survey	06:18	000:00
Transit	01:22	000:00
Weather Down Time	00:00	000:00
Arrival and Checkout	00:00	006:00
Maintenance	00:00	000:00
Breakdown		
Equipment	00:00	000:00
Vessel	00:00	000:00

E. Work Progress vs. Work Planned

Daily (km)	Cumulative %	Plan % end of day	Deviation %
94.5	4.96	7.50	-2.54

F. Work Plan for the Next 24 Hours

Continue survey and monitor weather conditions.

COASTAL WATERS FROM MERRIMACK RIVER MA TO WATCH HILL RI OUT TO 25 NM
ANZ250-241115-
COASTAL WATERS FROM MERRIMACK RIVER MA OUT 25 NM TO PLYMOUTH MA OUT
40 NM-
936 PM EST MON FEB 23 2004
OVERNIGHT
NW WIND AROUND 15 KT...DIMINISHING TO AROUND 10 KT LATE.
SEAS 2 TO 4 FT.
TUE
NW WIND 5 TO 10 KT. SEAS 2 TO 3 FT.
TUE NIGHT
NW WIND AROUND 10 KT IN THE EVENING...BECOMING N 10 TO
15 KT AFTER MIDNIGHT. SEAS 2 TO 4 FT.
WED

N WIND AROUND 15 KT. SEAS 2 TO 4 FT.
WED NIGHT
N WIND 15 TO 20 KT. SEAS 2 TO 4 FT.
THU
NW WIND 15 TO 20 KT. SEAS 2 TO 4 FT.
THU NIGHT
N WIND AROUND 15 KT. SEAS 2 TO 4 FT.
FRI
N WIND 10 TO 15 KT IN THE MORNING...BECOMING NW 5 TO 10 KT.
SEAS 2 TO 4 FT.
SAT
NW WIND AROUND 10 KT. SEAS 2 TO 3 FT.

G. Personnel on Board:
SAIC SURVEY CREW: Paul Donaldson and Pam Clark.
Ship's Crew: Steve Lunt, Dick Russell

I. Spares Consumed:
N/A

J. Comments

Signed: *Pam Clark*

To: SAIC, Newport 401-848-4210 Attn.: Gary Parker
From: R/V OceanExplorer
Subject: Cape Ann Survey Daily Progress Report
For period Time: 0000 - 2400 (UTC) Date: 24 February 2004 JD 055

A. Location (UTC)

06:00	12:00	18:00	24:00
Cape Ann Site	Cape Ann Site	Cape Ann Site	Cape Ann Site

B. Weather (UTC)

	06:00	12:00	18:00	24:00
Wind Speed (Kts)	NW 15-20	NW 15-20	NW 10-15	NW 10-12
Wave Height (ft)	2-3	2-3	2	2

C. Daily Events

Conducting 24 hr ops, collecting MB and XTF data, working 4-6 hour watches. Conducted a Comparison Cast, started with sensor 4880 and are now using sensor 4881.

D. Operational (hours)	Daily	Cumulative
Mobilization	00:00	000:00
Survey	24:00	030:18
Transit	00:00	001:22
Weather Down Time	00:00	000:00
Arrival and Checkout	00:00	006:00
Maintenance	00:00	000:00
Breakdown		
Equipment	00:00	000:00
Vessel	00:00	000:00

E. Work Progress vs. Work Planned

Daily (km)	Cumulative %	Plan % end of day	Deviation %
373.5	22.04	17.50	4.54

F. Work Plan for the Next 24 Hours

Continue survey and monitor weather conditions.

COASTAL WATERS FROM MERRIMACK RIVER MA OUT 25 NM TO PLYMOUTH MA OUT 40 NM-
315 PM EST TUE FEB 24 2004
SMALL CRAFT ADVISORY FOR SEAS MAY BE REQUIRED WED
TONIGHT
W WIND AROUND 10 KT BECOMING N 15 TO 20 KT. SEAS 2 TO 4 FT.
WED
N WIND 15 TO 20 KT. SEAS 3 TO 5 FT.
WED NIGHT
NW WIND 15 TO 20 KT. SEAS 3 TO 5 FT.
THU
NW WIND 15 TO 20 KT. SEAS 3 TO 5 FT.
THU NIGHT
NW WIND 15 TO 20 KT. SEAS 3 TO 5 FT.
FRI

N WIND AROUND 15 KT UNTIL LATE AFTERNOON...BECOMING NW AROUND 10 KT LATE. SEAS 2 TO 4 FT.
FRI NIGHT
NW WIND AROUND 10 KT. SEAS 2 TO 3 FT.
SAT
NW WIND AROUND 10 KT. SEAS 2 TO 3 FT.
SUN
W WIND 10 TO 15 KT...DIMINISHING AFTER MIDNIGHT. SEAS 2 TO 3 FT.

G. Personnel on Board:
SAIC SURVEY CREW: Paul Donaldson and Pam Clark.
SHIP'S CREW: Steve Lunt, Dick Russell

I. Spares Consumed:
N/A

J. Comments
Have noticed changes with the SVP casts in relation to the mouth of the Merrimack River and corresponding tidal fluxes. The majority of the casts have been very similar; through in the process of conducting the cast have noticed shifts within a short timeframe in localized areas, resulting in conducting more frequent SVP casts.

Weather depending, the Captain's estimate for fuel consumption running 1100 RPMs is that we have enough to run through Saturday; running 1200 RPMs would be sooner i.e. late Friday. In order to maintain 8 to 9 knots we have been running 1100 with the seas and 1200 into them. We will continue to monitor the refueling timeframe.

Signed: *Pam Clark*

To: SAIC, Newport 401-848-4210 Attn.: Gary Parker
From: R/V OceanExplorer
Subject: Cape Ann Survey Daily Progress Report
For period Time: 0000 - 2400 (UTC) Date: 25 February 2004 JD 056

A. Location (UTC)

06:00	12:00	18:00	24:00
Cape Ann Site	Cape Ann Site	Cape Ann Site	Cape Ann Site

B. Weather (UTC)

	06:00	12:00	18:00	24:00
Wind Speed (Kts)	NNW 15-20	N 15	N 15	NW 15-20
Wave Height (ft)	3	3	3	3

C. Daily Events

Conducting 24 hr ops, collecting MB and XTF data, working 4-6 hour watches. Moved inshore due to increasing winds: 2300 hours.

D. Operational (Hours)	Daily	Cumulative
Mobilization	00:00	000:00
Survey	24:00	054:18
Transit	00:00	001:22
Weather Down Time	00:00	000:00
Arrival and Checkout	00:00	006:00
Maintenance	00:00	000:00
Breakdown		
Equipment	00:00	000:00
Vessel	00:00	000:00

E. Work Progress vs. Work Planned

Daily (km)	Cumulative %	Plan % end of day	Deviation %
317.5	36.56	27.5	9.06

F. Work Plan for the Next 24 Hours

Will continue to survey, weather dependent, through the night and break off early in the AM to head to Rose Oil for fuel, maintenance and crew change.

COASTAL WATERS FROM MERRIMACK RIVER MA OUT 25 NM TO PLYMOUTH MA OUT 40 NM-
351 PM EST WED FEB 25 2004
SMALL CRAFT ADVISORY FOR SEAS TONIGHT
WIND VARIABLE 5 TO 10 KT THIS EVENING...THEN BECOMING NW WIND 15 TO 20 KT. SEAS 2 TO 4 FT BUILDING TO 3 TO 5 FT.
THU
NW WIND 15 TO 20 KT. SEAS 3 TO 5 FT.
THU NIGHT
N WIND AROUND 15 KT. SEAS 2 TO 4 FT.
FRI
N WIND 10 TO 15 KT. SEAS 2 TO 4 FT.
FRI NIGHT

NW WIND AROUND 15 KT. SEAS 2 TO 3 FT.
SAT
NW WIND 10 TO 15 KT IN THE MORNING...BECOMING W 5 TO 10 KT IN THE AFTERNOON. SEAS 2 TO 3 FT.
SAT NIGHT
W WIND 10 TO 15 KT IN THE EVENING...BECOMING NW 15 TO 20 KT AFTER MIDNIGHT. SEAS 2 TO 3 FT.

SUN
NW WIND 15 TO 20 KT...DECREASING TO 10 TO 15 KT. SEAS 2 TO 3 FT.
MON
NW WIND AROUND 10 KT...BECOMING SW 5 TO 10 KT. SEAS 2 TO 3 FT. CHANCE OF RAIN AND SNOW LATE.

G. Personnel on Board:
SAIC SURVEY CREW: Paul Donaldson and Pam Clark.
SHIP'S CREW: Steve Lunt, Dick Russell

I. Spares Consumed:
N/A

J. Comments
Seas were rough in the AM, 3' swell with a 3-4 sec period. Seas subsided in the afternoon to 1-2' swell winds picked up in the evening forcing us to move inshore.

Gary Davis and Meme Lobecker are scheduled to relieve P. Donaldson and P. Clark Thursday mid-morning.

Signed: *Pam Clark*

To: SAIC, Newport 401-848-4210 Attn.: Gary Parker
From: R/V OceanExplorer
Subject: Cape Ann Survey Daily Progress Report
For period Time: 0000 - 2400 (UTC) Date: 26 February 2004 JD 057

A. Location (UTC)

06:00	12:00	18:00	24:00
Cape Ann Site	Gloucester	Gloucester	Cape Ann Site

B. Weather (UTC)

	06:00	12:00	18:00	24:00
Wind Speed (Kts)	NW 15-20	NA	NA	N 15
Wave Height (ft)	3	NA	NA	3

C. Daily Events

Conducting 24 hr ops, collecting MB and XTF data. Surveyed trough 1000 hours. Arrived Gloucester 1200. Departed for survey area at 2000 and commenced survey operations at 2100.Lead line and comparison cast made.

D. Operational (Hours)	Daily	Cumulative
Mobilization	00:00	000:00
Survey	13:00	067:18
Transit	03:00	006:02
Weather Down Time	00:00	000:00
Arrival and Checkout	00:00	006:00
Maintenance	08:00	008:00
Breakdown		
Equipment	00:00	000:00
Vessel	00:00	000:00

E. Work Progress vs. Work Planned

Daily (km)	Cumulative %	Plan % end of day	Deviation %
193	45.38	33.0	12.38

F. Work Plan for the Next 24 Hours

Continue Cape Ann Survey weather permitting.

TONIGHT
VARIABLE MAINLY N WIND AROUND 10 KT THIS EVENING. BECOMING N AROUND 20 KT WITH A FEW GUSTS TO 25 KT DURING THE NIGHT. SEAS 3 TO 5 FT.
FRI
NW WIND 15 TO 20 KT. SEAS 3 TO 5 FT.
FRI NIGHT
NW WIND 15 TO 20 KT IN THE EVENING...BECOMING N 10 TO 15 KT AFTER MIDNIGHT. SEAS 2 TO 4 FT.
SAT
NW WIND 10 TO 15 KT. SEAS 2 TO 4 FT.
SAT NIGHT
W WIND 10 TO 15 KT IN THE EVENING...DECREASING TO 5 TO 10 KT AFTER MIDNIGHT. SEAS 2 TO 3 FT.
SUN
W WIND 5 TO 10 KT. SEAS 2 TO 3 FT.
SUN NIGHT

W WIND AROUND 10 KT EARLY IN THE EVENING...BECOMING NW 5 TO 10 KT LATE IN THE EVENING...THEN BECOMING N AROUND 5 KT AFTER MIDNIGHT...BECOMING W LATE. SEAS AROUND 2 FT IN THE EVENING...THEN 1 FOOT OR LESS AFTER MIDNIGHT.

MON

SW WIND 5 TO 10 KT...INCREASING TO 20 TO 25 KT. SEAS 1 FOOT OR LESS...THEN 2 TO 3 FT.

TUE

SW WIND AROUND 25 KT...BECOMING W 15 TO 20 KT AFTER MIDNIGHT. SEAS 2 TO 4 FT. A CHANCE OF RAIN. VSBY 1 TO 3 NM.

G. Personnel on Board:

SAIC SURVEY CREW: Paul Donaldson, Pam Clark, Gary R. Davis and Elizabeth Lobecker.

SHIP'S CREW: Steve Lunt, Dick Russell

I. Spares Consumed:

N/A

J. Comments

Took on Fuel, water and provisions.

Oil change completed

Fresh water system repaired. Running water available for showers, cleaning and cooking.

Crew change and pass off notes occurred: G. Davis and M. Lobecker relieved P. Donaldson and P. Clark.

Client representatives (Brian Andrews and Bill Danforth) visited the vessel while in Gloucester. Reviewed data and survey status with them. They were impressed with the quality of the preliminary data they saw and left happy.

Signed: *Gary R. Davis*

To: SAIC, Newport 401-848-4210 Attn.: Gary Parker
From: R/V OceanExplorer
Subject: Cape Ann Survey Daily Progress Report
For period Time: 0000 - 2400 (UTC) Date: 27 February 2004 JD 058

A. Location (UTC)

06:00	12:00	18:00	24:00
Cape Ann Site	Cape Ann Site	Cape Ann Site	Cape Ann Site

B. Weather (UTC)

	06:00	12:00	18:00	24:00
Wind Speed (Kts)	N 15-20	NW 10-15	NW 10	NW 5
Wave Height (ft)	3-4	3	2-3	1-2

C. Daily Events

Conducting 24 hr ops, collecting MB and XTF data.

D. Operational (Hours)	Daily	Cumulative
Mobilization	00:00	000:00
Survey	24:00	091:18
Transit	00:00	006:02
Weather Down Time	00:00	000:00
Arrival and Checkout	00:00	006:00
Maintenance	00:00	008:00
Breakdown		
Equipment	00:00	000:00
Vessel	00:00	000:00

E. Work Progress vs. Work Planned

Daily (km)	Cumulative %	Plan % end of day	Deviation %
328	60.38	43.0	17.38

F. Work Plan for the Next 24 Hours

Continue Cape Ann Survey weather permitting.

TONIGHT
VARIABLE WIND 10 TO 15 KT EARLY IN THE EVENING ESPECIALLY FROM BOSTON HARBOR NORTH TO MERRIMACK RIVER...BECOMING N 15 TO 20 KT IN THE LATE EVENING AND EARLY MORNING...THEN DECREASING TO 10 TO 15 KT LATE. SEAS 3 TO 5 FT IN LEFTOVER SWELL FROM RECENT OCEAN STORMS.
SAT
NW WIND 10 TO 15 KT UNTIL LATE AFTERNOON...DECREASING TO 5 TO 10 KT LATE. SEAS 2 TO 4 FT.
SAT NIGHT
NW WIND 5 TO 10 KT. SEAS 2 TO 4 FT.
SUN
SW WIND AROUND 5 KT IN THE MORNING...BECOMING SE 5 TO 10 KT IN THE AFTERNOON. SEAS 2 TO 3 FT IN THE MORNING...SUBSIDING TO 1 TO 2 FT IN THE AFTERNOON.
SUN NIGHT
S WIND 10 TO 15 KT EARLY IN THE EVENING...BECOMING W IN THE LATE EVENING AND OVERNIGHT. SEAS 1 FOOT OR LESS.
MON
NW WIND AROUND 10 KT EARLY IN THE MORNING...BECOMING SE 5 TO 10 KT IN THE AFTERNOON. SEAS 1 TO 2 FT.

MON NIGHT
SE WIND AROUND 5 KT...BECOMING S 10 TO 15 KT. SEAS 1 FOOT OR LESS IN THE EVENING...THEN 2 TO 3 FT AFTER MIDNIGHT.
TUE
S WIND 15 TO 20 KT IN THE MORNING...BECOMING SW 25 TO 30 KT WITH GUSTS UP TO 40 KT POSSIBLE IN THE AFTERNOON AND EVENING...THEN BECOMING W 20 TO 25 KT AFTER MIDNIGHT. SEAS 2 TO 3 FT IN THE MORNING...BUILDING TO 3 TO 5 FT. A CHANCE OF RAIN. VSBY 1 TO 3 NM.
WED
W WIND 20 TO 25 KT...BECOMING NW 10 TO 15 KT. SEAS 2 TO 4 FT.

G. Personnel on Board:
SAIC SURVEY CREW: Gary R. Davis and Elizabeth Lobecker.
SHIP'S CREW: Steve Lunt, Dick Russell

I. Spares Consumed:
N/A

J. Comments
None

Signed: *Gary R. Davis*

To: SAIC, Newport 401-848-4210 Attn.: Gary Parker
From: R/V OceanExplorer
Subject: Cape Ann Survey Daily Progress Report
For period Time: 0000 - 2400 (UTC) Date: 28 February 2004 JD 059

A. Location (UTC)

06:00	12:00	18:00	24:00
Cape Ann Site	Cape Ann Site	Cape Ann Site	Cape Ann Site

B. Weather (UTC)

	06:00	12:00	18:00	24:00
Wind Speed (Kts)	NW 5-10	NW 5-10	NW 5	NW10-15
Wave Height (ft)	1-2	1-2	1	2

C. Daily Events

Conducting 24 hr ops, collecting MB and XTF data.
Shut down at 2355 (UTC) for GPS week roll over.

D. Operational (Hours)	Daily	Cumulative
Mobilization	00:00	000:00
Survey	24:00	115:18
Transit	00:00	006:02
Weather Down Time	00:00	000:00
Arrival and Checkout	00:00	006:00
Maintenance	00:00	008:00
Breakdown		
Equipment	00:00	000:00
Vessel	00:00	000:00

E. Work Progress vs. Work Planned

Daily (km)	Cumulative %	Plan % end of day	Deviation %
335	75.7	53.0	22.70

F. Work Plan for the Next 24 Hours

Continue Cape Ann Survey weather permitting.

TONIGHT
NW WIND AROUND 15 KT EARLY...BECOMING N 5 TO 10 KT. SEAS 2 TO 3 FT.
SUN
NW WIND 5 TO 10 KT...BECOMING SW AROUND 10 KT IN THE AFTERNOON. SEAS 1 TO 3 FT.
SUN NIGHT
SW WIND AROUND 10 KT...BECOMING NW 10 TO 15 KT AFTER MIDNIGHT. SEAS 1 TO 2 FT.
MON
NW WIND 10 TO 15 KT EARLY...BECOMING N 5 TO 10 KT AROUND MIDDAY...THEN SE AROUND 10 KT LATE. SEAS 1 TO 2 FT.
MON NIGHT
SE WIND AROUND 10 KT...BECOMING S AROUND 15 KT AFTER MIDNIGHT. SEAS 1 TO 3 FT.
TUE
S WIND 15 TO 20 KT...BECOMING SW AROUND 25 KT IN THE AFTERNOON. SEAS 2 TO 3 FT...BUILDING TO 3 TO 5 FT LATE. A CHANCE OF SHOWERS. VSBY 2 TO 3 NM.

TUE NIGHT
SW WIND AROUND 25 KT EARLY...BECOMING W. SEAS 3 TO 5 FT. A CHANCE OF SHOWERS EARLY. VSBY NEAR 3 NM.
WED
W WIND 20 TO 25 KT...DECREASING TO 10 TO 15 KT AT NIGHT. SEAS 3 TO 5 FT.
THU
W WIND AROUND 10 KT...BECOMING SE 10 TO 15 KT AFTER MIDNIGHT. SEAS 2 TO 3 FT. A CHANCE OF RAIN. VSBY 1 TO 3 NM.

G. Personnel on Board:
SAIC SURVEY CREW: Gary R. Davis and Elizabeth Lobecker.
SHIP'S CREW: Steve Lunt, Dick Russell

I. Spares Consumed:
N/A

J. Comments
In looking at the weather forecast for Tuesday and Wednesday, both Dick and Steve have offered to continue surveying until Tuesday morning around 0800 EST. They discussed the situation with Fred and all were in agreement that it makes sense to stay out as long as the weather and fuel allow. They offered and if the weather holds, I am planning to take advantage of the offer and stay on site into Tuesday morning.

Signed: *Gary R. Davis*

To: SAIC, Newport 401-848-4210 Attn.: Gary Parker
From: R/V OceanExplorer
Subject: Cape Ann Survey Daily Progress Report
For period Time: 0000 - 2400 (UTC) Date: 29 February 2004 JD 060

A. Location (UTC)

06:00	12:00	18:00	24:00
Cape Ann Site	Cape Ann Site	Cape Ann Site	Cape Ann Site

B. Weather (UTC)

	06:00	12:00	18:00	24:00
Wind Speed (Kts)	Lt. & Var.	W Light	Lt. & Var.	Lt. & Var.
Wave Height (ft)	Calm	Calm	Calm	Calm

C. Daily Events

Conducting 24 hr ops, collecting MB and XTF data.

D. Operational (Hours)	Daily	Cumulative
Mobilization	00:00	000:00
Survey	24:00	139:18
Transit	00:00	006:02
Weather Down Time	00:00	000:00
Arrival and Checkout	00:00	006:00
Maintenance	00:00	008:00
Breakdown		
Equipment	00:00	000:00
Vessel	00:00	000:00

E. Work Progress vs. Work Planned

Daily (km)	Cumulative %	Plan % end of day	Deviation %
344	91.43	63.0	28.43

F. Work Plan for the Next 24 Hours

Continue Cape Ann Survey weather permitting. Return to Gloucester late afternoon.

TONIGHT
SW WIND 10 TO 15 KT BECOMING NW AROUND 10 KT. SEAS 1 TO 2 FT.
MON
N WIND 10 TO 15 KT EARLY IN THE MORNING...BECOMING NE 5 TO 10 KT IN THE LATE MORNING AND AFTERNOON. SEAS 1 TO 2 FT.
MON NIGHT
E WIND AROUND 5 KT IN THE EVENING...BECOMING SE 5 TO 10 KT AFTER MIDNIGHT. SEAS 1 TO 2 FT. A CHANCE OF RAIN AFTER MIDNIGHT WITH VSBY 1 TO 3 NM.
TUE
SE WIND AROUND 10 KT...BECOMING S 10 TO 15 KT LATE. SEAS 2 TO 4 FT. A CHANCE OF RAIN WITH VSBY 1 TO 3 NM.
TUE NIGHT
SW WIND 10 TO 15 KT. SEAS 2 TO 4 FT. A CHANCE OF RAIN. VSBY 1 TO 3 NM.
WED
W WIND 15 TO 20 KT. SEAS 2 TO 4 FT.
WED NIGHT
NW WIND AROUND 15 KT. SEAS 2 TO 4 FT.

THU
NW WIND 5 TO 10 KT IN THE MORNING...BECOMING SW IN THE AFTERNOON...THEN BECOMING S 10 TO 15 KT IN THE EVENING...INCREASING TO 15 TO 20 KT AFTER MIDNIGHT. SEAS 2 TO 4 FT. A CHANCE OF RAIN. VSBY 1 TO 3 NM.
FRI
SW WIND 20 TO 30 KT...BECOMING W IN THE EVENING...THEN BECOMING NW 15 TO 20 KT AFTER MIDNIGHT. SEAS BUILDING TO 4 TO 7 FT. A CHANCE OF RAIN. VSBY 1 TO 3 NM.

G. Personnel on Board:
SAIC SURVEY CREW: Gary R. Davis and Elizabeth Lobecker.
SHIP'S CREW: Steve Lunt, Dick Russell

I. Spares Consumed:
N/A

J. Comments
Yesterday (JD059) we backed up JD056 and 057 multibeam and XTF files from the F: drive to tape. Deleted these files from the F: drive to make room for additional data. We are collecting approximately 12-13 gB of data every 24 hours (depths 90-100 ft with 7Hz ping rate) and we were down to 13.5 gB free.

Today we backed up JD058 on tape and started to delete these files. While deleting one file at a time started to get ping drops. Deleted remaining files only in turns. This will leave 28.5 gB free which is enough to continue surveying to Monday afternoon.

Northwest corner of survey area is a rocky bottom and is littered with lobster pots.

We are planning to return to Gloucester tomorrow (Monday) around 1700, will confirm tomorrow. I estimate that at that point we will have used 9 days of survey (2/18, 2/23 – 3/1). This will allow us to review the data, discuss options with USGS, and perform data backup and maintenance on the hard drives, before the final 1-2 day push to complete the survey.

Signed: *Gary R. Davis*

To: SAIC, Newport 401-848-4210 Attn.: Gary Parker
From: R/V OceanExplorer
Subject: Cape Ann Survey Daily Progress Report
For period Time: 0000 - 2400 (UTC) Date: 1 March 2004 JD 061

A. Location (UTC)

06:00	12:00	18:00	24:00
Cape Ann Site	Cape Ann Site	Cape Ann Site	Gloucester

B. Weather (UTC)

	06:00	12:00	18:00	24:00	
Wind Speed (Kts)	Calm	Calm	SE 5-10	NA	
Wave Height (ft)	Calm	Calm	1	NA	

C. Daily Events

Surveyed until 19:45 then returned to Gloucester at 2110. Completed all main scheme and cross lines within the area defined in the Statement of Work. This leaves approximately 24 hours of gap fill survey. Additional areas beyond the SOW boundary were surveyed in the northwest, southeast and west.

D. Operational (Hours)	Daily	Cumulative
Mobilization	00:00	000:00
Survey	19:45	159:03
Transit	01:30	007:32
Weather Down Time	00:00	000:00
Arrival and Checkout	00:00	006:00
Maintenance	00:00	008:00
Breakdown		
Equipment	00:00	000:00
Vessel	00:00	000:00

E. Work Progress vs. Work Planned

Daily (km)	Cumulative %	Plan % end of day	Deviation %
299	105.1	71.20	33.90

F. Work Plan for the Next 24 Hours

Back up all raw and processed data and deliver to Newport. No survey operations planned for next 24 hours.

TONIGHT
SE WIND 5 TO 10 KT THIS EVENING...BECOMING S AFTER MIDNIGHT...THEN INCREASING TO 10 TO 15 KT LATE. SEAS 1 FOOT OR LESS THIS EVENING...THEN 1 TO 2 FT AFTER MIDNIGHT.
TUE
S WIND 10 TO 15 KT UNTIL LATE AFTERNOON...BECOMING SW LATE. SEAS 2 TO 4 FT. A CHANCE OF SHOWERS IN THE MORNING...THEN SHOWERS LIKELY IN THE AFTERNOON. VSBY 1 TO 3 NM.
TUE NIGHT
SW WIND 10 TO 15 KT EARLY IN THE EVENING...BECOMING W 15 TO 20 KT IN THE LATE EVENING AND OVERNIGHT. SEAS 2 TO 4 FT. A CHANCE OF SHOWERS IN THE EVENING WITH VSBY 1 TO 3 NM.
WED
W WIND 15 TO 20 KT. SEAS 2 TO 4 FT.

WED NIGHT
NW WIND 15 TO 20 KT...DECREASING TO 5 TO 10 KT. SEAS 2 TO 3 FT IN THE EVENING...SUBSIDING TO 1 TO 2 FT AFTER MIDNIGHT.
THU
W WIND AROUND 5 KT EARLY IN THE MORNING...BECOMING SW 5 TO 10 KT IN THE LATE MORNING AND EARLY AFTERNOON...THEN INCREASING TO 10 TO 15 KT LATE. SEAS 1 TO 2 FT. A CHANCE OF RAIN IN THE AFTERNOON WITH VSBY 1 TO 3 NM.
THU NIGHT
SW WIND 5 TO 10 KT EARLY IN THE EVENING...INCREASING TO 10 TO 15 KT IN THE LATE EVENING AND OVERNIGHT. SEAS 2 TO 3 FT. A CHANCE OF RAIN WITH VSBY 1 TO 3 NM.

FRI
SW WIND 15 TO 20 KT IN THE MORNING...INCREASING TO 25 TO 30 KT WITH GUSTS UP TO 40 KT IN THE AFTERNOON AND EVENING...THEN BECOMING W 20 TO 25 KT WITH GUSTS UP TO 35 KT AFTER MIDNIGHT. SEAS 3 TO 5 FT...BUILDING TO 4 TO 7 FT. A CHANCE OF RAIN WITH VSBY 1 TO 3 NM.
SAT
W WIND 20 TO 25 KT IN THE MORNING...BECOMING S 10 TO 15 KT IN THE AFTERNOON...THEN BECOMING SE. SEAS 3 TO 5 FT. A CHANCE OF RAIN AFTER MIDNIGHT WITH VSBY 1 TO 3 NM AFTER MIDNIGHT.

G. Personnel on Board:
SAIC SURVEY CREW: Gary R. Davis and Elizabeth Lobecker.
SHIP'S CREW: Steve Lunt, Dick Russell

I. Spares Consumed:
N/A

J. Comments
Backed up raw ISSC data to tape, processed data to LTO, and Inav data to CD.

Signed: *Gary R. Davis*

To: SAIC, Newport 401-848-4210 Attn.: Gary Parker
From: R/V OceanExplorer
Subject: Cape Ann Survey Daily Progress Report
For period Time: 0000 - 2400 (UTC) Date: 13 March 2004 JD 073

A. Location (UTC)

06:00	12:00	18:00	24:00
Gloucester	Gloucester	Gloucester	Gloucester

B. Weather (UTC)

	06:00	12:00	18:00	24:00
Wind Speed (Kts)	N/A	N/A	W 15 -20	W 15-20
Wave Height (ft)	N/A	N/A	N/A	NA

C. Daily Events

Survey crew arrived, turned on systems, took draft, conducted leadline.

D. Operational (Hours)	Daily	Cumulative
Mobilization	00:00	000:00
Survey	19:45	159:03
Transit	01:30	007:32
Weather Down Time	00:00	000:00
Arrival and Checkout	00:00	006:00
Maintenance	00:00	008:00
Breakdown		
Equipment	00:00	000:00
Vessel	00:00	000:00

E. Work Progress vs. Work Planned

Daily (km)	Cumulative %	Plan % end of day	Deviation %
0	105.1	71.20	33.90

F. Work Plan for the Next 24 Hours

Head to survey site begin gap fills and add on survey area. Will monitor weather for next 24 hours.

TONIGHT
NW WIND 20 TO 25 KT...DECREASING TO 15 TO 20 KT LATE.
SEAS 3 TO 5 FT.

SUN
NW WIND 10 TO 15 KT BECOMING S IN THE AFTERNOON. SEAS SUBSIDING TO 2 TO 4 FT.

SUN NIGHT
S WIND 15 TO 20 KT IN THE EVENING...BECOMING SW 20 TO 25 KT IN THE LATE EVENING AND OVERNIGHT. SEAS 2 TO 4 FT BUILDING TO 3 TO 5 FT. A CHANCE OF SHOWERS. VSBY 1 TO 3 NM AFTER MIDNIGHT.

MON
SW WIND 20 TO 25 KT IN THE MORNING...BECOMING W AROUND 20 KT

IN THE AFTERNOON. SEAS 3 TO 5 FT. A CHANCE OF SHOWERS.

MON NIGHT
W WIND 20 TO 25 KT...DECREASING TO 5 TO 10 KT. SEAS 2 TO 4 FT.

TUE
W WIND 10 TO 15 KT BECOMING S AROUND 10 KT LATE. SEAS 1 TO 3 FT.

TUE NIGHT
SE WIND 5 TO 10 KT BECOMING NE 15 TO 20 KT AFTER MIDNIGHT. SEAS 1 TO 3 FT...BUILDING TO 3 TO 5 FT AFTER MIDNIGHT.

WED
NE WIND 20 TO 25 KT...BECOMING E 25 TO 30 KT AFTER MIDNIGHT. SEAS 4 TO 7 FT...BUILDING TO 7 TO 10 FT. A CHANCE OF SNOW. VSBY 1 TO 3 NM.

THU
E WIND 25 TO 35 KT IN THE MORNING...BECOMING SE 25 TO 30 KT IN THE AFTERNOON...THEN BECOMING SW 15 TO 20 KT. SEAS 8 TO 11 FT...SUBSIDING TO 4 TO 7 FT. A CHANCE OF SNOW SLEET OR RAIN WITH VSBY 1 TO 3 NM.

G. Personnel on Board:
SAIC SURVEY CREW: Pam Clark and Chuck Key
SHIP'S CREW: Fred Folsom

I. Spares Consumed:
N/A

J. Comments
Will begin gap fills and monitor weather for Monday, the forecast does not look good though Tuesday looks better, yet Wednesday looks terrible.

Signed: *Pam Clark*

To: SAIC, Newport 401-848-4210 Attn.: Gary Parker
From: R/V OceanExplorer
Subject: Cape Ann Survey Daily Progress Report
For period Time: 0000 - 2400 (UTC) Date: 14 March 2004 JD 074

A. Location (UTC)

06:00	12:00	18:00	24:00
Gloucester	Gloucester	Cape Ann Site	Cape Ann Site

B. Weather (UTC)

	06:00	12:00	18:00	24:00
Wind Speed (Kts)	N/A	W 10-12	W 12-15	S 15-20
Wave Height (ft)	N/A	1-2	1-2, Choppy	2-3

C. Daily Events

Second Captain arrived departed dock at 1300hrs headed for survey site. Conducted comparison cast.

D. Operational (Hours)	Daily	Cumulative
Mobilization	00:00	000:00
Survey	11:00	170:03
Transit	01:30	009:02
Weather Down Time	00:00	000:00
Arrival and Checkout	00:00	006:00
Maintenance	00:00	008:00
Breakdown		
Equipment	00:00	000:00
Vessel	00:00	000:00

E. Work Progress vs. Work Planned

Daily (km)	Cumulative %	Plan % end of day	Deviation %
94.68	109.43	76.20	33.23

F. Work Plan for the Next 24 Hours

Continue to survey. Will monitor weather for next 24 hours.

TONIGHT
S WIND 10 TO 15 KT...INCREASING TO 20 TO 25 KT AFTER MIDNIGHT. SEAS 1 TO 3 FT BUILDING TO 3 TO 5 FT. RAIN AND SNOW LATE THIS EVENING. RAIN AFTER MIDNIGHT. VSBY BRIEFLY LOWERING TO 1 TO 3 NM AFTER MIDNIGHT.

MON
SW WIND 15 TO 20 KT EARLY IN THE MORNING...BECOMING W 20 TO 25 KT IN THE LATE MORNING AND AFTERNOON. SEAS 3 TO 5 FT. A CHANCE OF RAIN IN THE MORNING.

MON NIGHT
W WIND 20 TO 25 KT...DIMINISHING AND BECOMING NW 5 TO 10 KT. SEAS SUBSIDING TO 2 TO 4 FT.

TUE
N WIND AROUND 5 KT IN THE MORNING...BECOMING NE 10 TO 15 KT EARLY IN THE AFTERNOON...THEN INCREASING TO 15 TO 20 KT LATE. SEAS 2 TO 4 FT. A CHANCE OF SNOW IN THE MORNING. SNOW LIKELY IN THE AFTERNOON. VSBY 1 TO 3 NM.

TUE NIGHT
NE WIND 15 TO 20 KT EARLY IN THE EVENING...INCREASING TO 20 TO 25 KT IN THE LATE EVENING AND OVERNIGHT. SEAS 3 TO 5 FT IN THE EVENING...BUILDING TO 4 TO 7 FT AFTER MIDNIGHT. SNOW. VSBY 1 TO 3 NM.

WED
NE WIND 25 TO 30 KT EARLY IN THE MORNING...DECREASING TO 20 TO 25 KT IN THE LATE MORNING AND AFTERNOON. SEAS 6 TO 9 FT. A CHANCE OF SNOW IN THE MORNING WITH VSBY 1 TO 3 NM.

WED NIGHT
NE WIND AROUND 20 KT. SEAS 6 TO 9 FT. A CHANCE OF SNOW. VSBY 1 TO 3 NM.

THU
NE WIND 20 TO 25 KT...DIMINISHING AND BECOMING E 5 TO 10 KT. SEAS 6 TO 9 FT. A CHANCE OF SNOW OR RAIN. VSBY 1 TO 3 NM.

FRI
SE WIND 5 TO 10 KT IN THE MORNING...BECOMING NE IN THE AFTERNOON...THEN BECOMING NW 10 TO 15 KT AFTER MIDNIGHT. SEAS 4 TO 6 FT...SUBSIDING TO 2 TO 4 FT AFTER MIDNIGHT. A CHANCE OF SNOW OR RAIN SHOWERS WITH VSBY 1 TO 3 NM.

G. Personnel on Board:
SAIC SURVEY CREW: Pam Clark and Chuck Key
SHIP'S CREW: Fred Folsom and Steve Lunt

I. Spares Consumed:
MVP Fish tow body

J. Comments
Wind continued to build in the afternoon. With a south wind the near-shore areas should be accessible in higher winds.

Weld on the MVP tow fish let go, swapped tow fish bodies.

Signed: *Pam Clark*

To: SAIC, Newport 401-848-4210 Attn.: Gary Parker
From: R/V OceanExplorer
Subject: Cape Ann Survey Daily Progress Report
For period Time: 0000 - 2400 (UTC) Date: 15 March 2004 JD 075

A. Location (UTC)

06:00	12:00	18:00	24:00
Cape Ann Site	Cape Ann Site	Cape Ann Site	Cape Ann Site

B. Weather (UTC)

	06:00	12:00	18:00	24:00
Wind Speed (Kts)	S 15-20	S 10-15	NW 20-25	W 15-20
Wave Height (ft)	2-4	1-3	2-4	1-3

C. Daily Events

Completed gap fills, began additional survey area lines. Weather was rough in the AM, gusts over 30 kts, resulting in running lines with the seas, south, for about 6 hours. Weather calmed and seas state is following suit.

D. Operational (Hours)	Daily	Cumulative
Mobilization	00:00	000:00
Survey	24:00	194:03
Transit	00:00	009:02
Weather Down Time	00:00	000:00
Arrival and Checkout	00:00	006:00
Maintenance	00:00	008:00
Breakdown		
Equipment	00:00	000:00
Vessel	00:00	000:00

E. Work Progress vs. Work Planned

Daily (km)	Cumulative %	Plan % end of day	Deviation %
192	118.21	86.20	32.01

F. Work Plan for the Next 24 Hours

Continue to survey until weather permits on Tuesday at which point we will head into Gloucester and proceed to shut-down the vessel. Tape the data and collect sensors, laptops, etc. to bring back to Newport.

TONIGHT
W WIND 15 TO 20 KT WITH GUSTS UP TO 30 KT OVER THE FAR NORTHERN PORTION EARLY THIS EVENING. SEAS 2 TO 4 FT.

TUE
N WIND 10 TO 15 KT EARLY IN THE MORNING...BECOMING NE AND INCREASING TO 15 TO 20 KT WITH GUSTS UP TO 25 KT LATE. SEAS 2 TO 4 FT. SNOW IN THE AFTERNOON. VSBY 1 NM OR LESS.

TUE NIGHT
NE WIND 15 TO 20 KT WITH GUSTS UP TO 30 KT...INCREASING

TO 25 TO 30 KT WITH GUSTS UP TO 45 KT. SEAS 3 TO 5 FT IN THE EVENING...BUILDING TO 8 TO 13 FT AFTER MIDNIGHT. HEAVY SNOW IN THE EVENING...CHANGING TO SLEET. VSBY 1 NM OR LESS.

WED
NE WIND 25 TO 30 KT IN THE MORNING...BECOMING N 20 TO 25 KT IN THE AFTERNOON. GUSTS UP TO 40 KT. SEAS 12 TO 17 FT. SNOW AND SLEET. VSBY 1 NM TO 3 NM. COASTAL FLOODING EXPECTED AT THE TIME OF HIGH TIDE IN THE EARLY MORNING.

WED NIGHT
N WIND 20 TO 25 KT IN THE EVENING...BECOMING NW 15 TO 20 KT AFTER MIDNIGHT. SEAS 8 TO 13 FT. A CHANCE OF SNOW IN THE EVENING. VSBY 1 NM OR LESS.

THU
NW WIND 10 TO 15 KT. SEAS 4 TO 7 FT IN THE MORNING...SUBSIDING TO 3 TO 5 FT IN THE AFTERNOON.

THU NIGHT
W WIND 10 TO 15 KT EARLY IN THE EVENING...DECREASING TO 5 TO 10 KT LATE IN THE EVENING...BECOMING S 10 TO 15 KT LATE. SEAS 2 TO 3 FT. A CHANCE OF SNOW AFTER MIDNIGHT. VSBY 1 NM OR LESS LATE.

FRI
SE WIND 20 TO 25 KT IN THE MORNING...THEN BECOMING NE 15 TO 20 KT IN THE EVENING...BECOMING NW 20 TO 25 KT AFTER MIDNIGHT. GUSTS UP TO 35 KT IN THE AFTERNOON. SEAS AROUND 2 FT IN THE MORNING...BUILDING TO 4 TO 7 FT. SNOW LIKELY....CHANGING TO RAIN. VSBY 1 NM TO 3 NM.

SAT
NW WIND AROUND 20 KT...BECOMING W 15 TO 20 KT. GUSTS UP TO 30 KT. SEAS 4 TO 7 FT.

G. Personnel on Board:

SAIC SURVEY CREW: Pam Clark and Chuck Key
SHIP'S CREW: Fred Folsom and Steve Lunt

I. Spares Consumed:

N/A

J. Comments

Weather was very rough in the AM into mid-day. Monitored the conditions carefully morning, relieved when weather subsided in the early evening.

Signed: *Pam Clark*

To: SAIC, Newport 401-848-4210 Attn.: Gary Parker
From: R/V OceanExplorer
Subject: Cape Ann Survey Daily Progress Report
For period Time: 0000 - 2400 (UTC) Date: 16 March 2004 JD 076

A. Location (UTC)

06:00	12:00	18:00	24:00
Cape Ann Site	Cape Ann Site	Cape Ann Site	Gloucester

B. Weather (UTC)

	06:00	12:00	18:00	24:00
Wind Speed (Kts)	NW 10-15	N 15	NNE 15-20	NE 20-25
Wave Height (ft)	1-2	1-2	2-4	4-6+

C. Daily Events

Continued running additional survey lines. Winds began building, 1200hrs UTC, and continued throughout the day. Left survey site, 2000 hrs, sea state was 4-6' winds over 20 kts, and snowing. Arrived at Cape Ann Marina 2200 hrs.

D. Operational (Hours)	Daily	Cumulative
Mobilization	00:00	000:00
Survey	20:35	214:38
Transit	01:25	010:27
Weather Down Time	00:00	000:00
Arrival and Checkout	00:00	006:00
Maintenance	00:00	008:00
Breakdown		
Equipment	00:00	000:00
Vessel	00:00	000:00

E. Work Progress vs. Work Planned

Daily (km)	Cumulative %	Plan % end of day	Deviation %
332	133.42	94.70	32.01

F. Work Plan for the Next 24 Hours

Make back-up tapes of jd073-jd076 shutdown all systems.

TONIGHT
NE WIND INCREASING TO 20 TO 30 KT. GUSTS UP TO 40 KT. SEAS
4 TO 6 FT IN THE EVENING...BUILDING TO 8 TO 13 FT AFTER MIDNIGHT.
HEAVY SNOW IN THE EVENING. SNOW AND SLEET AFTER MIDNIGHT. VSBY 1 NM
OR LESS AT TIMES.

WED
N WIND 25 TO 30 KT WITH GUSTS UP TO 40 KT. SEAS 10 TO 15 FT.
SNOW. VSBY 1 NM OR LESS. MINOR COASTAL FLOODING AT THE TIME OF
HIGH TIDE EARLY IN THE MORNING.

WED NIGHT
NE WIND 20 TO 25 KT UNTIL EARLY MORNING...BECOMING N 15
TO 20 KT LATE. SEAS 8 TO 11 FT IN THE EVENING...SUBSIDING TO 6 TO 9

FT AFTER MIDNIGHT. SNOW LIKELY. VSBY 1 TO 3 NM..

THU
N WIND 15 TO 20 KT WITH GUSTS UP TO 25 KT EARLY IN THE MORNING...THEN BECOMING NW 5 TO 10 KT LATE. SEAS 5 TO 8 FT. A CHANCE OF SNOW IN THE MORNING. VSBY 1 TO 3 NM.

THU NIGHT
SW WIND AROUND 5 KT UNTIL EARLY MORNING...BECOMING S 5 TO 10 KT LATE. SEAS 3 TO 4 FT. A CHANCE OF SNOW. VSBY 1 TO 3 NM..

FRI
E WIND 10 TO 15 KT IN THE MORNING...BECOMING NE IN THE AFTERNOON. SEAS 3 TO 4 FT. SNOW LIKELY. VSBY 1 NM OR LESS.

FRI NIGHT
N WIND 10 TO 15 KT IN THE EVENING...BECOMING NW 5 TO 10 KT AFTER MIDNIGHT. SEAS 2 TO 4 FT. A CHANCE OF SNOW. VSBY 1 TO 3 NM.

SAT
W WIND 10 TO 15 KT IN THE MORNING...BECOMING SW IN THE AFTERNOON...THEN INCREASING TO 15 TO 20 KT WITH GUSTS UP TO 30 KT. SEAS 2 TO 4 FT. A CHANCE OF RAIN SHOWERS AT NIGHT. VSBY 1 TO 3 NM.

SUN
W WIND 15 TO 20 KT WITH GUSTS UP TO 25 KT...DECREASING TO 10 TO 15 KT AFTER MIDNIGHT. SEAS 2 TO 4 FT.

G. Personnel on Board:
SAIC SURVEY CREW: Pam Clark and Chuck Key
SHIP'S CREW: Fred Folsom and Steve Lunt

I. Spares Consumed:
N/A

J. Comments
TAIM program timed out and iNavLog crashed. Restarted both programs and were up and running again.

Signed: *Pam Clark*

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
14:39:13			OEMBA04048.D06				MB FILE CHANGE
17:37:59			OEMBA04048.D07				MB FILE CHANGE
17:46:19							SVP OESVP04048.D01 TAKEN
17:46:44							SVP OESVP04048.D01 APPLIED
17:48:57							DRAFT CHANGED TO 1.400000 METERS
17:58:15			OEMBA04048.D08				MB FILE CHANGE
18:08:50							LEAD LINE: OEHMBA04048.D07
23:27:56				1100			RPM CHANGE
23:29:49							TESTING FORCE ACQUIRE AND ABORT LINE FUNCTIONS
23:29:50	LB	CA_PT-8	OEMBA04048.D08	1100			FORCE ACQUIRED
23:29:56	LE	CA_PT-8					
23:30:09			OEMBA04048.D09				MB FILE CHANGE
23:34:46							SVP OESVP04048.D02 TAKEN: SENSOR ID # 4881. COMPARISON CAST WITH OEMBA04048.D03
23:35:01							SVP OESVP04048.D02 APPLIED
23:42:13							SVP OESVP04048.D03 TAKEN: SENSOR ID # 4880. COMPARISON CAST WITH OEMBA04048.D02
23:43:17							SVP OESVP04048.D03 APPLIED
23:43:31			OEMBA04048.D10				MB FILE CHANGE
23:56:25							SVP COMPARISON CAST TAKEN OEMBA04048.D02 AND OEMBA04048.D03

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
00:19:41			OEMBA04049.D01		OEXTF04049.D01		MB FILE CHANGE
00:19:41							SVP OESVP04048.D03 APPLIED
00:37:51			OEMBA04049.D02		OEXTF04049.D02		MB FILE CHANGE
00:43:54			OEMBA04049.D03		OEXTF04049.D03		MB FILE CHANGE
00:43:54							SVP OESVP04048.D03 APPLIED
01:46:40			OEMBA04049.D04		OEXTF04049.D04		MB FILE CHANGE
01:46:40							SVP OESVP04048.D03 APPLIED
12:11:57							DRAFT TAKEN 1.41 ENTERED IN ISSC
12:22:39							SVP OESVP04048.D03 APPLIED
12:23:45							DRAFT CHANGED TO 1.410000 METERS
12:41:00							DEPARTED FROM DOCK
12:41:18	LB	CA_PT-7	OEMBA04049.D04	1100	OEXTF04049.D04	N/A	MAIN: FORCE ACQUIRED: LOGGING DATA DURING TRANSIT FROM DOCK THROUGH CHANNEL
12:50:08	LE	CA_PT-7					ABORT LINE: STOPPED LOGGING OF DATA THROUGH CHANNEL
12:50:19			OEMBA04049.D05		OEXTF04049.D05		MB FILE CHANGE
13:14:50			OEMBA04049.D06		OEXTF04049.D06		MB FILE CHANGE
13:37:12							POS HEADING WAS OUT OF SPEC. STARTED FIGURE 8S AND SET GAMS THRESHOLD TO 3.0. POS ACQUIRED HEADING. RESET GAMS HEADING THRESHOLD TO 1.0 AND STARTED FOR PATCH TEST SITE.
13:38:59							WIND 10-15 KNOTS, DIRECTION NNE, WAVE HEIGHT 1-3 FEET, VISIBILITY 5 NMI
13:51:33							SVP OESVP04049.D01 TAKEN: SENSOR ID # 4880
13:51:53							SVP OESVP04049.D01 APPLIED
13:55:32	LB	CA_PT-8	OEMBA04049.D07	600	OEXTF04049.D07	69	MAIN: FORCE ACQUIRED: ROLL/PITCH LINE
14:00:33	LE	CA_PT-8					
14:03:48	LB	CA_PT-8	OEMBA04049.D08	800	OEXTF04049.D08	249	MAIN: ROLL/PITCH LINE
14:06:09	LE	CA_PT-8					
14:09:47	LB	CA_PT-8	OEMBA04049.D09	800	OEXTF04049.D09	69	MAIN: FORCE ACQUIRED: ROLL/PITCH LINE
14:13:20	LE	CA_PT-8					
14:16:37	LB	CA_PT-6	OEMBA04049.D10	800	OEXTF04049.D10	249	MAIN: GYROLINE
14:19:00	LE	CA_PT-6					
14:21:47	LB	CA_PT-10	OEMBA04049.D11	800	OEXTF04049.D11	69	MAIN: GYRO LINE
14:25:13	LE	CA_PT-10					
14:53:46							NO CHANGES TO THE ROLL, PITCH OR GYRO WERE MADE. ROLL = 0.47, PITCH = -1.4, GYRO = 0.8
14:56:58							CLASS 1 RESET TO 5 DEGREES AND CLASS 2 SET TO 57 DEGREES
15:35:57							SVP OESVP04049.D02 TAKEN: SENSOR ID # 4880
15:36:32							SVP OESVP04049.D02 APPLIED
15:41:12	LB	CA-2400	OEMBA04049.D12	1100	OEXTF04049.D12	339	MAIN: FORCE ACQUIRED:

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
15:43:31	LE	CA-2400					ABORT LINE: LINE AZIMUTH INCORRECT HAD TO ABORT LINE AND CHANGE DIRECTION
15:43:41	LB	CA-2400		1100		339	MAIN: FORCE ACQUIRED:
15:44:23							ARRIVE AT SITE
15:46:59				1000			RPM CHANGE
15:53:09							WIND 15-20 KNOTS, DIRECTION NNE, WAVE HEIGHT 3-5 FEET, VISIBILITY 5 NMI
15:55:03							TIME WINDOW ON 1543-1544 LINE AZIMUTH ENTERED IN THE WRONG DIRECTION
16:00:27							DECREASED RPM TO 1000 TO TRY AND GET BETTER DATA.
16:05:45							UPPED THE AUTO PILOT GAIN TO 25
16:11:25	LE	CA-2400					ABORT LINE: ABORT LINE TO HEAD IN THE OTHER DIRECTION
16:12:41	LB	CA-2404	OEMBA04049.D13	1000	OEXTF04049.D13	159	MAIN: FORCE ACQUIRED:
16:12:48	LE	CA-2404					ABORT LINE: CHANGE AZIMUTH
16:12:58	LB	CA-2404		1000		159	MAIN: FORCE ACQUIRED:
16:24:51	LE	CA-2404					ABORT LINE: HEADING ERROR NOT RESOLVED IN POS
16:27:39							HEADING ON POS WENT TO AN ACCURACY OF 0.3
16:51:31							GOT POS TO RE ESTABLISH CARRIER PHASE AND HEADING IS NOW 0.02 IN ACCURACY
16:51:48	LB	CA-2404	OEMBA04049.D14	1000	OEXTF04049.D14	159	MAIN: FORCE ACQUIRED: PICKED UP LINE 2404 FROM WHERE THE ORIGINAL START WAS TO RE-RUN ALL OF PREVIOUSLY COLLECTED DATA
17:07:54							SVP OESVP04049.D03 TAKEN: SENSOR ID # 4880
17:07:59							WIND 15-20 KNOTS, DIRECTION NNE, WAVE HEIGHT 4-5 FEET, VISIBILITY 5 NMI
17:08:03							SVP OESVP04049.D03 APPLIED
17:18:06	LE	CA-2404					ABORT LINE: ABORT LINE AT THE 30M SURVEY BOUNDS
17:30:40							DEPART SURVEY AREA FOR THE MARINA
17:31:01							WIND 20-25 KNOTS, DIRECTION NNE, WAVE HEIGHT 4-6 FEET, VISIBILITY 4 NMI
18:49:51	LB	CA-2404	OEMBA04049.D15	1000	OEXTF04049.D15		MAIN: FORCE ACQUIRED: TO GATHER DATA IN CANAL BUT LINE WAS INCORRECT TO DO SO
18:49:52	LE	CA-2404					
18:50:05	LB	CA-2404		1000			MAIN: FORCE ACQUIRED: ACQUIRED TO COLLECT DATA IN CANAL BUT LINE WAS INCORRECT TO DO SO
18:50:06	LE	CA-2404					
18:50:14	LB	CA-2400		1000			MAIN: FORCE ACQUIRED: GATHERING DATA IN CANAL
19:09:23	LE	CA-2400					ABORT LINE

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
19:10:47							CAUGHT POT COMING INTO DOCK. KILLED ENGINE. CAUGHT IN CURRENT AND WIND GOING DOWN CANAL SIDEWAYS, DROPPED ANCHOR TO TURN BOAT BEFORE BRIDGE. GOT BACK TO DOCK.
19:20:04			OEMBA04049.D16		OEXTF04049.D16		MB FILE CHANGE
19:20:30			OEMBA04049.D17		OEXTF04049.D17		MB FILE CHANGE
19:25:36							ARRIVED AT DOCK

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
12:47:40			OEMBA04054.D01		OEXTF04054.D01		MB FILE CHANGE
12:47:40							SVP OESVP04049.D03 APPLIED
13:08:13							DRAFT TAKEN 1.41 ENTERED IN RESON DTC
13:09:28							WIND 15-20 KNOTS, DIRECTION NW, WAVE HEIGHT N/A FEET, VISIBILITY 4 NMI
13:15:23							SVP OESVP04054.D01 TAKEN: SENSOR ID # 4880
13:16:11							SVP OESVP04054.D01 APPLIED
13:20:09							TIDE CORRECT DISABLED IN RESON DTC
13:25:20			OEMBA04054.D02		OEXTF04054.D02		MB FILE CHANGE
13:36:40							LEAD LINE: MB FILE 054.D01
16:22:36							DEPARTED FROM DOCK: HEADING TO SURVEY SITE.
16:57:32							HEADING ACCURACY ON POS IS OUT OF RANGE HAVE SLOWED THE SPEED TO 800 RPM AND RUNNING FIGURE 8S.
17:08:51							HEADING IN POS HAS SETTLED. BUMPED THE GAMS PARAMETERS TO 5 AND AS THE HEADING ACCURACY BECAME GOOD SET THE GAMS PARAMETER TO THE DEFAULT 3.
17:27:08			OEMBA04054.D03		OEXTF04054.D03		MB FILE CHANGE
17:40:00							ARRIVE AT SURVEY SITE
17:40:36							SVP OESVP04054.D02 TAKEN: SENSOR ID # 4880
17:40:41							SVP OESVP04054.D02 APPLIED
17:42:20	LB	CA-2400	OEMBA04054.D03	1100	OEXTF04054.D03	159	FORCE ACQUIRED
18:03:36				1200			RPM CHANGE
18:05:20				1000			RPM CHANGE
18:05:41				800			RPM CHANGE
18:06:14				600			RPM CHANGE
18:07:20				800			RPM CHANGE
18:08:43				1000			RPM CHANGE
18:10:06							SVP OESVP04054.D03 TAKEN
18:10:26				1200			RPM CHANGE
18:10:30							SVP OESVP04054.D03 APPLIED
18:26:58			OEMBA04054.D04		OEXTF04054.D04	339	MB FILE CHANGE
18:27:00							MULTIBEAM FILE NAME WAS CHANGED TO 054.D04
18:35:21							WIND 15-20 KNOTS, DIRECTION NW, WAVE HEIGHT 2-3 FEET, VISIBILITY 5 NMI
18:41:26				1000			RPM CHANGE
18:41:53				800			RPM CHANGE
18:42:18				600			RPM CHANGE
18:43:41				800			RPM CHANGE
18:44:24				1000			RPM CHANGE
18:46:23							SVP OESVP04054.D04 TAKEN

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
18:46:26				1200			RPM CHANGE
18:46:37							SVP OESVP04054.D04 APPLIED
19:05:23	LE	CA-2400					
19:07:03	LB	CA-2396	OEMBA04054.D05	1200	OEXTF04054.D05	159	MAIN:
19:07:05				1100			RPM CHANGE
20:14:11				1000			RPM CHANGE
20:14:29				800			RPM CHANGE
20:14:55				600			RPM CHANGE
20:16:22				800			RPM CHANGE
20:16:49				1000			RPM CHANGE
20:17:21				1100			RPM CHANGE
20:18:36							SVP OESVP04054.D05 TAKEN
20:18:45							SVP OESVP04054.D05 APPLIED
20:27:01	LE	CA-2396					ABORT LINE: ABORT LINE AT BID SURVEY AREA BOUNDARY
20:28:47	LB	CA-2392	OEMBA04054.D06	1200	OEXTF04054.D06	339	MAIN: FORCE ACQUIRED: AT BID SURVEY BOUNDARY
21:23:36				1000			RPM CHANGE
21:23:46				800			RPM CHANGE
21:24:11				600			RPM CHANGE
21:25:18				800			RPM CHANGE
21:25:43				1000			RPM CHANGE
21:26:36				1200			RPM CHANGE
21:27:43							SVP OESVP04054.D06 TAKEN
21:27:51							SVP OESVP04054.D06 APPLIED
21:36:26	LE	CA-2392					ABORT LINE: ABORTING MAIN SCHEME LINE TO PICK UP CROSSLINE
21:39:16	LB	30_C-9002	OEMBA04054.D07	1200	OEXTF04054.D07	249	CROSS: FORCE ACQUIRED:
21:39:17							FORCE ACQUIRED CROSSLINE
21:52:33				1000			RPM CHANGE
21:57:22							SVP OESVP04054.D07 TAKEN
21:57:37							SVP OESVP04054.D06 APPLIED
21:57:41							SVP OESVP04054.D06 APPLIED
22:01:10							SVP OESVP04054.D08 TAKEN
22:01:28							SVP OESVP04054.D08 APPLIED
22:08:52	LE	30_C-9002					ABORT LINE: ABORTING CROSSLINE: BECOMING SHOAL.
22:22:00	LB	30_C-9003	OEMBA04054.D08	1000	OEXTF04054.D08	069	CROSS: FORCE ACQUIRED: CROSSLINE
22:25:55							SVP OESVP04054.D09 TAKEN
22:26:59				1200			RPM CHANGE
22:39:47				1000			RPM CHANGE
22:45:05							SVP OESVP04054.D10 TAKEN
22:47:03							SVP OESVP04054.D10 APPLIED

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
22:58:29				1200			RPM CHANGE
23:00:34							SVP OESVP04054.D06 APPLIED
23:09:18							WIND 15-20 KNOTS, DIRECTION NW, WAVE HEIGHT 2-3 FEET, VISIBILITY NIGHT NMI
23:12:31				1100			RPM CHANGE
23:13:27				800			RPM CHANGE
23:13:59				600			RPM CHANGE
23:19:10							SVP OESVP04054.D11 TAKEN
23:19:20							SVP OESVP04054.D11 APPLIED
23:19:43				800			RPM CHANGE
23:20:16				1000			RPM CHANGE
23:20:57				1200			RPM CHANGE
23:30:22	LE	30_C-9003					
23:45:42	LB	30_C-9002	OEMBA04054.D09	1200	OEXTF04054.D09	248	CROSS:

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
00:00:01							FILE NAME CHANGE AT THE START OF A NEW DAY OEMBA04055.D01
00:00:01			OEMBA04055.D01		OEXTF04055.D01		MB FILE CHANGE
00:08:59							MOTION CORRECT FAILURE AT THE START OF AN AUTO ARCHIVE
00:22:26	LE	30_C-9002					ABORT LINE: ABORT PARTIAL CROSSLINE TO PICK UP PARTIAL MAINSCHEME
00:25:38	LB	CA-2392	OEMBA04055.D02	600	OEXTF04055.D02	339	MAIN: FORCE ACQUIRED: PICKED MAIN BACK UP WHERE WE BROKE EARLIER
00:27:28				800			RPM CHANGE
00:28:07				1000			RPM CHANGE
00:29:41							SVP OESVP04055.D01 TAKEN
00:29:59							SVP OESVP04055.D01 APPLIED
00:30:04				1200			RPM CHANGE
00:42:11	LE	CA-2392					
00:43:06							WIND 15-20 KNOTS, DIRECTION NW, WAVE HEIGHT 2-3 FEET, VISIBILITY NIGHT NMI
00:44:04	LB	CA-2388	OEMBA04055.D03	800	OEXTF04055.D03	159	MAIN:
00:44:30				600			RPM CHANGE
00:46:41				800			RPM CHANGE
00:47:28				1000			RPM CHANGE
00:48:33							SVP OESVP04055.D02 TAKEN
00:48:44							SVP OESVP04055.D02 APPLIED
00:49:03				1100			RPM CHANGE
01:00:55							SVP OESVP04055.D01 APPLIED
01:01:01							REAPLY OESVP04055.D01
02:06:55	LE	CA-2388					ABORT LINE: ABORTING LINE: BID SURVEY AREA
02:08:23	LB	CA-2384	OEMBA04055.D04	1100	OEXTF04055.D04	339	MAIN: FORCE ACQUIRED: FORCE ACQUIRED AT BID SURVEY AREA
02:09:21				1200			RPM CHANGE
02:17:37							WIND 15-20 KNOTS, DIRECTION NW, WAVE HEIGHT 2-3 FEET, VISIBILITY NIGHT NMI
02:29:10				1100			RPM CHANGE
02:29:35				800			RPM CHANGE
02:31:22				600			RPM CHANGE
02:35:12							SVP OESVP04055.D03 TAKEN
02:35:38							SVP OESVP04055.D03 APPLIED
02:36:08				800			RPM CHANGE
02:38:38				1200			RPM CHANGE
03:32:58	LE	CA-2384					

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
03:34:57	LB	CA-2380	OEMBA04055.D05	1100	OEXTF04055.D05	159	MAIN:
03:35:44				1000			RPM CHANGE
03:35:59				800			RPM CHANGE
03:36:05				600			RPM CHANGE
03:41:50							SVP OESVP04055.D04 TAKEN
03:42:11				800			RPM CHANGE
03:42:25							SVP OESVP04055.D04 APPLIED
03:42:54				1100			RPM CHANGE
04:27:18				900			RPM CHANGE
04:27:57				600			RPM CHANGE
04:30:45				800			RPM CHANGE
04:31:28				1000			RPM CHANGE
04:32:01				1100			RPM CHANGE
04:33:49							SVP OESVP04055.D05 TAKEN
04:34:01							SVP OESVP04055.D05 APPLIED
05:00:12	LE	CA-2380					ABORT LINE: ABORT AT SOW SURVEY AREA BOUNDARY
05:02:24	LB	CA-2376	OEMBA04055.D06	1100	OEXTF04055.D06	339	MAIN: FORCE ACQUIRED: START LINE AT SOW SURVEY AREA BOUNDARY
05:03:22				1200			RPM CHANGE
05:52:13				1000			RPM CHANGE
05:52:34				800			RPM CHANGE
05:52:57				600			RPM CHANGE
05:55:34				800			RPM CHANGE
05:56:04				1000			RPM CHANGE
05:56:43				1200			RPM CHANGE
05:58:46							SVP OESVP04055.D06 TAKEN
06:23:59	LE	CA-2376					
06:25:38	LB	CA-2372	OEMBA04055.D07	1100	OEXTF04055.D07	159	MAIN:
07:14:25				800			RPM CHANGE
07:14:57				600			RPM CHANGE
07:17:33				800			RPM CHANGE
07:18:16				1000			RPM CHANGE
07:18:51				1100			RPM CHANGE
07:21:24							SVP OESVP04055.D07 TAKEN
07:21:37							SVP OESVP04055.D07 APPLIED
07:47:47	LE	CA-2372					ABORT LINE: BROKE LINE AT THE SOW SURVEY AREA BOUNDARY
07:49:50	LB	CA-2368	OEMBA04055.D08	1200	OEXTF04055.D08	339	MAIN: FORCE ACQUIRED:
08:36:13				1000			RPM CHANGE
08:37:06				600			RPM CHANGE

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
08:43:14							SVP OESVP04055.D08 TAKEN
08:43:34							SVP OESVP04055.D08 APPLIED
08:43:50				1000			RPM CHANGE
08:44:16				1200			RPM CHANGE
09:12:35	LE	CA-2368					
09:14:30	LB	CA-2364	OEMBA04055.D09	1200	OEXTF04055.D09	159	MAIN:
09:17:15				1100			RPM CHANGE
09:28:50				1000			RPM CHANGE
09:28:58				800			RPM CHANGE
09:35:37							SVP OESVP04055.D09 TAKEN
09:35:54							SVP OESVP04055.D09 APPLIED
09:36:21				1100			RPM CHANGE
10:02:18				800			RPM CHANGE
10:02:27				600			RPM CHANGE
10:04:47							WIND 15-20 KNOTS, DIRECTION NW, WAVE HEIGHT 2-3 FEET, VISIBILITY NIGHT NMI
10:09:11				800			RPM CHANGE
10:09:17				1100			RPM CHANGE
10:09:21							SVP OESVP04055.D10 TAKEN
10:09:55							SVP OESVP04055.D10 APPLIED
10:40:19	LE	CA-2364					ABORT LINE: ABORTING LINE TO MEET SOW BID AREA. FORCE ACQUIRE THE NEXT LINE.
10:41:54	LB	CA-2359	OEMBA04055.D10	1100	OEXTF04055.D10	339	MAIN: FORCE ACQUIRED: CHOPPY SEAS AT START OF LINE, MB AND XTF LOOK GOOD.
10:42:34				1200			RPM CHANGE
11:26:31							WIND 15-20 KNOTS, DIRECTION NW, WAVE HEIGHT 2-3 FEET, VISIBILITY SUNRISE NMI
11:34:01				1000			RPM CHANGE
11:34:07				800			RPM CHANGE
11:34:14				600			RPM CHANGE
11:40:18							SVP OESVP04055.D11 TAKEN
11:40:28				1000			RPM CHANGE
11:40:48				1200			RPM CHANGE
11:41:00							SVP OESVP04055.D11 APPLIED
12:04:27	LE	CA-2359					
12:08:29	LB	CA-2354	OEMBA04055.D11	1100	OEXTF04055.D11	159	MAIN:
12:48:06				800			RPM CHANGE
12:48:39				600			RPM CHANGE
12:55:30				800			RPM CHANGE
12:55:44							SVP OESVP04055.D12 TAKEN

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
12:55:51							SVP OESVP04055.D12 APPLIED
12:56:02				1000			RPM CHANGE
12:56:19				1100			RPM CHANGE
13:31:07							BUOY 1 AHP PORT SIDE 50 METERS
13:35:50	LE	CA-2354					ABORT LINE
13:38:37	LB	CA-2349	OEMBA04055.D12	1200	OEXTF04055.D12	339	MAIN:
13:57:50							WIND 15 KNOTS, DIRECTION NW, WAVE HEIGHT 2-3 FEET, VISIBILITY 4 NMI
14:34:12				800			RPM CHANGE
14:34:41				600			RPM CHANGE
14:39:04				800			RPM CHANGE
14:39:21				1000			RPM CHANGE
14:39:45				1200			RPM CHANGE
14:41:17							SVP OESVP04055.D13 TAKEN
14:41:25							SVP OESVP04055.D13 APPLIED
15:00:57	LE	CA-2349					
15:02:39	LB	CA-2344	OEMBA04055.D13	1200	OEXTF04055.D13	159	MAIN:
15:02:42				1100			RPM CHANGE
15:06:32							WIND 10-15 KNOTS, DIRECTION NNW, WAVE HEIGHT 2 FEET, VISIBILITY 4 NMI
15:49:08				800			RPM CHANGE
15:49:36				600			RPM CHANGE
15:51:53				800			RPM CHANGE
15:53:02				1000			RPM CHANGE
15:53:44				1100			RPM CHANGE
15:55:50							SVP OESVP04055.D14 TAKEN
15:55:59							SVP OESVP04055.D14 APPLIED
16:27:44	LE	CA-2344					
16:29:20	LB	CA-2339	OEMBA04055.D14	1100	OEXTF04055.D14	339	MAIN:
17:05:36				800			RPM CHANGE
17:06:12				600			RPM CHANGE
17:08:51				800			RPM CHANGE
17:09:30				1000			RPM CHANGE
17:10:22				1100			RPM CHANGE
17:11:35							SVP OESVP04055.D15 TAKEN
17:11:47							SVP OESVP04055.D15 APPLIED
17:14:04							WIND 5-10 KNOTS, DIRECTION NNW, WAVE HEIGHT 1 FEET, VISIBILITY 4 NMI
17:36:47				800			RPM CHANGE
17:37:11				600			RPM CHANGE

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
17:38:51				800			RPM CHANGE
17:39:43				1000			RPM CHANGE
17:40:58				1200			RPM CHANGE
17:45:05				1000			RPM CHANGE
17:45:26				800			RPM CHANGE
17:45:42				600			RPM CHANGE
17:47:02				800			RPM CHANGE
17:47:42				1000			RPM CHANGE
17:48:17				1200			RPM CHANGE
17:50:03							SVP OESVP04055.D16 TAKEN
17:50:20							SVP OESVP04055.D16 APPLIED
17:58:21	LE	CA-2339					
18:00:01	LB	CA-2334	OEMBA04055.D15	1200	OEXTF04055.D15	159	MAIN:
18:12:49				1100			RPM CHANGE
18:33:47							FILTER TOO LOW, CLIPPED DATA. WILL BE A DATA GAP
18:49:00				800			RPM CHANGE
18:55:06				1100			RPM CHANGE
18:55:09							SVP OESVP04055.D17 TAKEN
18:55:42							SVP OESVP04055.D17 APPLIED
19:24:26	LE	CA-2334					
19:26:24	LB	CA-2329	OEMBA04055.D16	1100	OEXTF04055.D16	338	MAIN:
19:58:06				1000			RPM CHANGE
19:58:26				800			RPM CHANGE
20:04:07				1100			RPM CHANGE
20:04:42							SVP OESVP04055.D18 TAKEN
20:05:10							SVP OESVP04055.D18 APPLIED
20:05:51				1200			RPM CHANGE
20:15:36							WIND 5-10 KNOTS, DIRECTION NW, WAVE HEIGHT 1 FEET, VISIBILITY 4 NMI
20:33:30				1000			RPM CHANGE
20:33:41				800			RPM CHANGE
20:33:47				600			RPM CHANGE
20:35:57				800			RPM CHANGE
20:37:11				1000			RPM CHANGE
20:38:48				1200			RPM CHANGE
20:39:34							SVP OESVP04055.D19 TAKEN
20:39:54							SVP OESVP04055.D19 APPLIED
20:50:38	LE	CA-2329					
20:52:22	LB	CA-2324	OEMBA04055.D17	1200	OEXTF04055.D17	159	MAIN:
20:56:29				1100			RPM CHANGE

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
21:12:40				1000			RPM CHANGE
21:13:04				800			RPM CHANGE
21:13:20				600			RPM CHANGE
21:18:05							SVP OESVP04055.D20 TAKEN: SENSOR ID # 4880 COMPARISON CAST TO SENSOR ID # 4881
21:18:23							SVP OESVP04055.D20 APPLIED
21:21:55				800			RPM CHANGE
21:24:09							WIND 10-12 KNOTS, DIRECTION NW, WAVE HEIGHT 2 FEET, VISIBILITY 4 NMI
21:25:27				600			RPM CHANGE
21:30:09							SVP OESVP04055.D21 TAKEN: SENSOR ID # 4881 COMPARISON CAST, APPLIED BUT DOES NOT MATCH PREVIOUS CAST WILL TRY 4880 AGAIN
21:30:30							SVP OESVP04055.D21 APPLIED
21:37:36							SVP OESVP04055.D22 TAKEN: SENSOR ID # 4880 COMPARISON CAST, WILL TRY ANOTHER CAST WITH #4881 TO SEE IF THEY ARE SIMILAR
21:37:55							SVP OESVP04055.D22 APPLIED
21:44:23							SVP OESVP04055.D23 TAKEN: COMPARISON CAST SENSOR ID # 4881 TAKE AND APPLIED.
21:44:47							SVP OESVP04055.D23 APPLIED
21:45:04				800			RPM CHANGE
21:45:22				1000			RPM CHANGE
21:45:52				1100			RPM CHANGE
22:27:01	LE	CA-2324					
22:28:51	LB	CA-2319	OEMBA04055.D18	1100	OEXTF04055.D18	338	MAIN:
23:08:12				900			RPM CHANGE
23:08:43				600			RPM CHANGE
23:12:09				800			RPM CHANGE
23:12:39				1000			RPM CHANGE
23:13:16				1200			RPM CHANGE
23:16:36							SVP CAST TAKEN BUT DID NOT SEND TO ISSC. THERE WAS NO DIFFERENCE IN CAST SO DID NOT SLOW DOWN AGAIN TO TAKE ANOTHER CAST.
23:31:24				1000			RPM CHANGE
23:31:49				800			RPM CHANGE
23:32:11				600			RPM CHANGE
23:35:03				800			RPM CHANGE
23:35:36				1000			RPM CHANGE
23:37:58				800			RPM CHANGE

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
23:39:24				1000			RPM CHANGE
23:43:12							SVP OESVP04055.D24 TAKEN
23:44:07							SVP OESVP04055.D24 APPLIED
23:44:20				1200			RPM CHANGE
23:51:48				1000			RPM CHANGE
23:52:08				800			RPM CHANGE
23:52:27				600			RPM CHANGE
23:54:16				800			RPM CHANGE
23:54:54				1000			RPM CHANGE
23:56:48							SVP OESVP04055.D25 TAKEN
23:57:37				1200			RPM CHANGE
23:57:42							SVP OESVP04055.D25 APPLIED

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
00:00:02			OEMBA04056.D01		OEXTF04056.D01		MB FILE CHANGE
00:00:05	LE	CA-2319					
00:02:13	LB	CA-2313	OEMBA04056.D02	1200	OEXTF04056.D02	159	MAIN:
00:16:55				1000			RPM CHANGE
00:17:35				800			RPM CHANGE
00:18:02				600			RPM CHANGE
00:20:25				800			RPM CHANGE
00:21:17				1000			RPM CHANGE
00:23:12							SVP OESVP04056.D01 TAKEN
00:23:41							SVP OESVP04056.D01 APPLIED
00:23:52				1100			RPM CHANGE
00:45:15				800			RPM CHANGE
00:45:53				600			RPM CHANGE
00:48:19				800			RPM CHANGE
00:49:20				1000			RPM CHANGE
00:50:07				1100			RPM CHANGE
00:51:00							SVP OESVP04056.D02 TAKEN
00:51:30							SVP OESVP04056.D02 APPLIED
01:28:54	LE	CA-2313					
01:30:47	LB	CA-2307	OEMBA04056.D03	1100	OEXTF04056.D03	338	MAIN:
01:55:27				800			RPM CHANGE
01:55:54				600			RPM CHANGE
01:58:56				800			RPM CHANGE
02:00:22				1000			RPM CHANGE
02:01:22				1100			RPM CHANGE
02:01:34							SVP OESVP04056.D03 TAKEN
02:01:45							SVP OESVP04056.D03 APPLIED
02:29:24				800			RPM CHANGE
02:29:51				600			RPM CHANGE
02:31:59				800			RPM CHANGE
02:33:05				1000			RPM CHANGE
02:33:51				1100			RPM CHANGE
02:35:05							SVP OESVP04056.D04 TAKEN
02:35:36							SVP OESVP04056.D04 APPLIED
03:01:54	LE	CA-2307					
03:03:49	LB	CA-2301	OEMBA04056.D04	1100	OEXTF04056.D04	159	MAIN:
03:13:56				800			RPM CHANGE
03:14:22				600			RPM CHANGE
03:16:14				800			RPM CHANGE
03:17:41				1000			RPM CHANGE

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
03:18:39				1100			RPM CHANGE
03:20:08							SVP OESVP04056.D05 TAKEN
03:20:16							SVP OESVP04056.D05 APPLIED
03:41:47				800			RPM CHANGE
03:42:17				600			RPM CHANGE
03:44:24				800			RPM CHANGE
03:45:30				1000			RPM CHANGE
03:47:51				1100			RPM CHANGE
03:48:03							SVP OESVP04056.D06 TAKEN
03:48:15							SVP OESVP04056.D06 APPLIED
03:48:27							SVP OESVP04056.D06 APPLIED
04:21:54				1050			RPM CHANGE
04:22:20				1025			RPM CHANGE
04:30:18	LE	CA-2301					
04:32:45	LB	CA-2295	OEMBA04056.D05	1100	OEXTF04056.D05	339	MAIN:
04:42:25							WIND 10-12 KNOTS, DIRECTION NNW, WAVE HEIGHT 3 FEET, VISIBILITY NIGHT TIME NMI
05:00:55				800			RPM CHANGE
05:01:16				600			RPM CHANGE
05:04:43				800			RPM CHANGE
05:05:52				1000			RPM CHANGE
05:07:32				1200			RPM CHANGE
05:07:43							SVP OESVP04056.D07 TAKEN
05:07:52							SVP OESVP04056.D07 APPLIED
05:33:33				1000			RPM CHANGE
05:33:56				800			RPM CHANGE
05:34:11				600			RPM CHANGE
05:36:24				800			RPM CHANGE
05:37:35				1000			RPM CHANGE
05:40:10							SVP OESVP04056.D08 TAKEN
05:40:32							SVP OESVP04056.D08 APPLIED
05:43:54				1200			RPM CHANGE
06:02:17	LE	CA-2295					
06:04:06	LB	CA-2289	OEMBA04056.D06	1200	OEXTF04056.D06	159	MAIN:
06:11:02				1100			RPM CHANGE
06:37:18				900			RPM CHANGE
06:37:37				600			RPM CHANGE
06:40:46				800			RPM CHANGE
06:44:45							SVP OESVP04056.D09 TAKEN
06:45:10							SVP OESVP04056.D09 APPLIED

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
06:45:22				1100			RPM CHANGE
06:45:37							WIND 10-12 KNOTS, DIRECTION NNW, WAVE HEIGHT 3 SWELL FEET, VISIBILITY NIGHT TIME NMI
07:28:32	LE	CA-2289					
07:31:46	LB	CA-2283	OEMBA04056.D07	1200	OEXTF04056.D07	339	MAIN:
07:33:40				1100			RPM CHANGE
08:08:50				1000			RPM CHANGE
08:23:48							WIND 12-15 KNOTS, DIRECTION N, WAVE HEIGHT 3 FEET, VISIBILITY NIGHT TIME NMI
08:43:12				800			RPM CHANGE
08:43:18				600			RPM CHANGE
08:46:28				800			RPM CHANGE
08:50:54				600			RPM CHANGE
09:00:21							HAVING DIFFICULTY GETTING SVP FILES FROM MVP CONTROLLER TO ISSC
09:03:10							SVP OESVP04056.D10 TAKEN
09:04:49							SVP OESVP04056.D10 APPLIED
09:05:18				800			RPM CHANGE
09:05:23				1000			RPM CHANGE
09:05:32							MUST HAVE TAKEN FOUR SVP CASTS BEFORE THE FILE WAS SENT. I SHUT DOWN THE PROGRAM AND RE-STARTED, HAD TO TURN LOGGING ON, AND RESTART THE DECK UNIT. ALL THAT AND THERE WAS JUST A METER SHIFT.
09:13:48	LE	CA-2283					
09:16:04	LB	CA-2277	OEMBA04056.D08	1000	OEXTF04056.D08	159	MAIN:
09:26:36				1100			RPM CHANGE
09:52:28				800			RPM CHANGE
09:52:42				600			RPM CHANGE
09:58:42							SVP OESVP04056.D11 TAKEN
09:59:22							SVP OESVP04056.D11 APPLIED
09:59:34				800			RPM CHANGE
10:00:31				1000			RPM CHANGE
10:02:20				1100			RPM CHANGE
10:05:02				1000			RPM CHANGE
10:31:38							INAVLOG COMPUTER CRASHED. PHYSICAL MEMORY DUMP.
10:40:51	LE	CA-2277					
10:45:20	LB	CA-2271	OEMBA04056.D09	1000	OEXTF04056.D09	339	MAIN: FORCE ACQUIRED:
11:20:57							WIND 15 KNOTS, DIRECTION N, WAVE HEIGHT 3 FEET, VISIBILITY 4 NMI
11:21:54				800			RPM CHANGE

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
11:22:27				600			RPM CHANGE
11:25:40				800			RPM CHANGE
11:26:35				1000			RPM CHANGE
11:28:53				1100			RPM CHANGE
11:29:02							SVP OESVP04056.D12 TAKEN
11:30:27							SVP OESVP04056.D12 APPLIED
11:54:02							VESSEL DRAGGING TO STBD 75 M
12:14:21	LE	CA-2271					
12:34:05							MOVING OFF SHORE TO PICK UP NORTHERN MOST LINES
12:41:33							SVP OESVP04056.D13 TAKEN
12:41:42							SVP OESVP04056.D13 APPLIED
12:43:45	LB	CA-2001	OEMBA04056.D10	1000	OEXTF04056.D10	159	MAIN:
12:46:04	LE	CA-2001					
12:49:22	LB	CA-2007	OEMBA04056.D11	1100	OEXTF04056.D11	339	MAIN:
12:53:19	LE	CA-2007					
12:55:43	LB	CA-2015	OEMBA04056.D12	1100	OEXTF04056.D12	159	MAIN:
13:01:44	LE	CA-2015					
13:05:22	LB	CA-2023	OEMBA04056.D13	1100	OEXTF04056.D13	339	MAIN:
13:14:21	LE	CA-2023					
13:16:39							NAV MANAGER HAD TO BE RESTARTED. THE LINE SCHEDULER DISAPPEARED WHILE EDITING THE SCHEDULE
13:18:11	LB	CA-2031	OEMBA04056.D14	1100	OEXTF04056.D14	159	MAIN:
13:28:55	LE	CA-2031					
13:32:01	LB	CA-2037		1100		339	MAIN:
13:44:34	LE	CA-2037					
13:46:40	LB	CA-2045	OEMBA04056.D15	1100	OEXTF04056.D15	159	MAIN:
13:47:03				1000			RPM CHANGE
14:02:28	LE	CA-2045					
14:06:14	LB	CA-2053	OEMBA04056.D16	1000	OEXTF04056.D16	339	MAIN:
14:23:47	LE	CA-2053					
14:26:06	LB	CA-2061	OEMBA04056.D17	1000	OEXTF04056.D17	159	MAIN:
14:27:13				800			RPM CHANGE
14:27:41				600			RPM CHANGE
14:30:09				800			RPM CHANGE
14:34:06							SVP OESVP04056.D14 TAKEN
14:35:33				1000			RPM CHANGE
14:49:21	LE	CA-2061					
14:54:20	LB	CA-2069	OEMBA04056.D18	1000	OEXTF04056.D18	339	MAIN: FORCE ACQUIRED: TIME WINDOW 145410 TO 145425
15:16:45	LE	CA-2069					

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
15:19:30	LB	CA-2077	OEMBA04056.D19	1000	OEXTF04056.D19	159	MAIN: FORCE ACQUIRED: TIME WINDOW ON FROM 151915 TO 151935
15:23:31							WIND 15 KNOTS, DIRECTION N, WAVE HEIGHT 3 SWELL FEET, VISIBILITY 4 NMI
15:43:33	LE	CA-2077					
15:47:17	LB	CA-2085	OEMBA04056.D20	1000	OEXTF04056.D20	339	MAIN:
16:14:11	LE	CA-2085					
16:16:24	LB	CA-2093	OEMBA04056.D21	1000	OEXTF04056.D21	159	MAIN:
16:17:28				800			RPM CHANGE
16:17:39				600			RPM CHANGE
16:19:53				800			RPM CHANGE
16:23:55							SVP OESVP04056.D15 TAKEN
16:24:19							SVP OESVP04056.D15 APPLIED
16:48:42	LE	CA-2093					
16:52:37	LB	CA-2101	OEMBA04056.D22	1200	OEXTF04056.D22	339	MAIN:
16:52:43				1100			RPM CHANGE
16:53:07							WIND 15 KNOTS, DIRECTION N, WAVE HEIGHT 3 SWELL FEET, VISIBILITY 4 NMI
17:24:43	LE	CA-2101					
17:27:03	LB	CA-2110	OEMBA04056.D23	1100	OEXTF04056.D23	159	MAIN:
17:32:12				900			RPM CHANGE
17:32:20				600			RPM CHANGE
17:34:25				800			RPM CHANGE
17:37:53							SVP OESVP04056.D16 TAKEN
17:39:14				1000			RPM CHANGE
17:39:34							SVP OESVP04056.D16 APPLIED
17:45:46				1100			RPM CHANGE
18:02:20	LE	CA-2110					
18:05:49	LB	CA-2118	OEMBA04056.D24	1200	OEXTF04056.D24	339	MAIN:
18:10:53							WIND 10 KNOTS, DIRECTION N, WAVE HEIGHT 2 SWELL FEET, VISIBILITY 4 NMI
18:39:45	LE	CA-2118					
18:41:41	LB	CA-2127	OEMBA04056.D25	1200	OEXTF04056.D25	159	MAIN:
18:42:40				1100			RPM CHANGE
19:00:31				900			RPM CHANGE
19:00:45				600			RPM CHANGE
19:04:45				900			RPM CHANGE
19:06:55							SVP OESVP04056.D17 TAKEN: APPLIED SENSOR 4880
19:07:16							SVP OESVP04056.D17 APPLIED
19:07:47				1100			RPM CHANGE

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
19:20:58	LE	CA-2127					
19:24:33	LB	CA-2135	OEMBA04056.D26	1100	OEXTF04056.D26	339	MAIN:
19:25:01				1200			RPM CHANGE
20:02:43	LE	CA-2135					
20:04:37	LB	CA-2142	OEMBA04056.D27	1100	OEXTF04056.D27	159	MAIN:
20:45:27	LE	CA-2142					
20:49:17	LB	CA-2150	OEMBA04056.D28	600	OEXTF04056.D28	339	MAIN:
20:51:35				800			RPM CHANGE
20:52:53				1000			RPM CHANGE
20:55:00				1200			RPM CHANGE
20:55:06							SVP OESVP04056.D18 TAKEN
20:55:13							SVP OESVP04056.D18 APPLIED
21:22:10							AVOIDING LOBSTER POT
21:34:31	LE	CA-2150					
21:36:40	LB	CA-2157	OEMBA04056.D29	1100	OEXTF04056.D29	159	MAIN:
21:41:48				800			RPM CHANGE
21:42:08				600			RPM CHANGE
21:44:17				800			RPM CHANGE
21:45:44				1000			RPM CHANGE
21:47:47				1100			RPM CHANGE
21:47:54							SVP OESVP04056.D19 TAKEN
21:48:03							SVP OESVP04056.D19 APPLIED
21:50:12							AVOIDING LOBSTER GEAR
22:10:07				800			RPM CHANGE
22:10:36				600			RPM CHANGE
22:13:14				800			RPM CHANGE
22:14:19				1000			RPM CHANGE
22:16:21				1100			RPM CHANGE
22:16:25							SVP OESVP04056.D20 TAKEN
22:16:34							SVP OESVP04056.D20 APPLIED
22:20:09				1000			RPM CHANGE
22:25:04	LE	CA-2157					
22:28:22	LB	CA-2163	OEMBA04056.D30	1100	OEXTF04056.D30	339	MAIN:
22:30:01				1200			RPM CHANGE
22:58:01				1000			RPM CHANGE
22:58:30				800			RPM CHANGE
22:58:54				600			RPM CHANGE
23:02:18				800			RPM CHANGE
23:02:56				1000			RPM CHANGE
23:04:56							SVP OESVP04056.D21 TAKEN

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
23:05:04							SVP OESVP04056.D21 APPLIED
23:13:49							WIND 15-20 KNOTS, DIRECTION NW, WAVE HEIGHT 3 FEET, VISIBILITY NIGHT TIME NMI
23:21:34	LE	CA-2163					
23:24:08							MOVING CLOSER TO SHORE DUE TO INCREASE IN WIND AND SEAS
23:44:00							SVP OESVP04056.D22 TAKEN
23:44:09							SVP OESVP04056.D22 APPLIED
23:45:52	LB	CA-2404	OEMBA04056.D31	1000	OEXTF04056.D31	159	MAIN:
23:48:40				1050			RPM CHANGE

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
00:00:03			OEMBA04057.D01		OEXTF04057.D01		MB FILE CHANGE
00:31:29				800			RPM CHANGE
00:32:01				600			RPM CHANGE
00:33:51				800			RPM CHANGE
00:34:43				1050			RPM CHANGE
00:37:01							SVP OESVP04057.D01 TAKEN
00:37:10							SVP OESVP04057.D01 APPLIED
00:56:18				800			RPM CHANGE
00:56:43				600			RPM CHANGE
00:58:58				800			RPM CHANGE
01:00:43							SVP OESVP04057.D02 TAKEN
01:01:06				1000			RPM CHANGE
01:09:54	LE	CA-2404					ABORT LINE: ABORTING LINE TO MEET SOW AREA
01:11:02	LB	CA-2408	OEMBA04057.D01	1000	OEXTF04057.D01	339	MAIN: FORCE ACQUIRED: LINE AT SOW AREA
01:11:03							CHANGED FILE NAMES JUST AFTER THE START BEFORE ENTERING THE SOW AREA. FILE IS OEMBA04057.D02
01:11:51				1100			RPM CHANGE
01:12:05			OEMBA04057.D02		OEXTF04057.D02		MB FILE CHANGE
01:12:52				1000			RPM CHANGE
01:21:56				900			RPM CHANGE
01:49:15							SVP OESVP04057.D03 TAKEN
01:51:39							SVP OESVP04057.D03 APPLIED
02:09:53							WIND 15-20 KNOTS, DIRECTION NW, WAVE HEIGHT 3 FEET, VISIBILITY NIGHT TIME NMI
02:18:37				600			RPM CHANGE
02:22:31							SVP OESVP04057.D04 TAKEN
02:22:50							SVP OESVP04057.D04 APPLIED
02:23:51				900			RPM CHANGE
02:41:27				600			RPM CHANGE
02:45:26							SVP OESVP04057.D05 TAKEN
02:45:41							SVP OESVP04057.D05 APPLIED
02:46:41				900			RPM CHANGE
03:03:35	LE	CA-2408					
03:05:52	LB	CA-2412	OEMBA04057.D03	900	OEXTF04057.D03	159	MAIN:
03:06:03				1100			RPM CHANGE
03:18:40				900			RPM CHANGE
03:18:54				600			RPM CHANGE
03:23:49							SVP OESVP04057.D06 TAKEN
03:25:08				1100			RPM CHANGE
03:39:30				900			RPM CHANGE

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
03:39:40				600			RPM CHANGE
03:41:53				900			RPM CHANGE
03:43:53							SVP OESVP04057.D07 TAKEN
03:44:05							SVP OESVP04057.D07 APPLIED
03:45:08				1100			RPM CHANGE
03:46:22							WIND 15-20 KNOTS, DIRECTION NW, WAVE HEIGHT 3 FEET, VISIBILITY NIGHT TIME NMI
04:05:12				900			RPM CHANGE
04:05:24				600			RPM CHANGE
04:07:34				900			RPM CHANGE
04:09:55							SVP OESVP04057.D08 TAKEN
04:11:04				1100			RPM CHANGE
04:11:10							SVP OESVP04057.D08 APPLIED
04:29:32	LE	CA-2412					ABORT LINE: ABORTLINE TO MEET SOW AREA
04:30:59	LB	CA-2416	OEMBA04057.D04	1100	OEXTF04057.D04	339	MAIN: FORCE ACQUIRED:
04:31:00							NO GOOD DATA ON THIS LINE.
04:33:07	LE	CA-2416					ABORT LINE: ABORTED LINE. CAPTAIN WAS HAVING SOME PROBLEMS
04:33:40	LB	CA-2416	OEMBA04057.D05	1100	OEXTF04057.D05	339	MAIN: FORCE ACQUIRED:
04:50:20				900			RPM CHANGE
05:04:49				600			RPM CHANGE
05:08:54							SVP OESVP04057.D09 TAKEN
05:09:09							SVP OESVP04057.D09 APPLIED
05:09:30				900			RPM CHANGE
05:38:20				600			RPM CHANGE
05:40:37				900			RPM CHANGE
05:43:17							SVP OESVP04057.D10 TAKEN
05:43:26							SVP OESVP04057.D10 APPLIED
06:04:14				600			RPM CHANGE
06:07:24				900			RPM CHANGE
06:10:09							SVP OESVP04057.D11 TAKEN
06:10:18							SVP OESVP04057.D11 APPLIED
06:22:12	LE	CA-2416					
06:24:28	LB	CA-2420	OEMBA04057.D06	1000	OEXTF04057.D06	159	MAIN:
06:41:14				800			RPM CHANGE
06:41:41				600			RPM CHANGE
06:43:46				800			RPM CHANGE
06:46:56				1000			RPM CHANGE
06:47:24							SVP OESVP04057.D12 TAKEN
06:47:37							SVP OESVP04057.D12 APPLIED

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
06:59:47				800			RPM CHANGE
07:00:08				600			RPM CHANGE
07:02:01				800			RPM CHANGE
07:04:37							SVP OESVP04057.D13 TAKEN
07:05:30				1000			RPM CHANGE
07:05:38							SVP OESVP04057.D13 APPLIED
07:21:46				800			RPM CHANGE
07:22:07				600			RPM CHANGE
07:24:19				800			RPM CHANGE
07:27:02				1000			RPM CHANGE
07:27:05							SVP OESVP04057.D14 TAKEN
07:27:12							SVP OESVP04057.D14 APPLIED
07:52:31	LE	CA-2420					ABORT LINE: AT END OF SOW AREA BOUNDARY
07:58:20	LB	CA-2424	OEMBA04057.D07	900	OEXTF04057.D07	339	MAIN: FORCE ACQUIRED:
08:01:19			OEMBA04057.D08		OEXTF04057.D08		MB FILE CHANGE
08:01:19							SVP OESVP04049.D03 APPLIED
08:05:06							SVP OESVP04057.D14 APPLIED
08:07:10			OEMBA04057.D09		OEXTF04057.D09		MB FILE CHANGE
08:07:57							ISSC CRASH ON AUTO ARCHIVE
08:09:15	LB	CA-2424	OEMBA04057.D09	900	OEXTF04057.D09	339	MAIN: FORCE ACQUIRED:
08:37:45				600			RPM CHANGE
08:41:22				900			RPM CHANGE
08:43:35							SVP OESVP04057.D15 TAKEN
08:43:46							SVP OESVP04057.D15 APPLIED
09:13:18	LE	CA-2424					ABORT LINE: BREAK LINE TO HEAD SOUTH AND THEN BACK TO THE MARINA
09:15:07	LB	CA-2428	OEMBA04057.D10	1000	OEXTF04057.D10	159	MAIN: FORCE ACQUIRED: PICKED UP LINE AT MID SHEET
10:05:26	LE	CA-2428					ABORT LINE: BROKE LINE AT SOW AREA BOUNDARY
10:05:44			OEMBA04057.D11		OEXTF04057.D11		MB FILE CHANGE
10:06:45							HEADING TO ROSE OIL TO FUEL AND PROVISION
11:45:29							ARRIVED AT DOCK: ARRIVE AT ROSE OIL FOR FUEL
11:46:46							DRAFT TAKEN 1.41 OBSERVED
							7 HOURS OF VESSEL MAINTENANCE, CREW ROTATION
19:15:20							DRAFT CHANGED TO 1.430000 METERS
19:15:51							LEAD LINE: DRAFT 1.43 ENTERED. TIDES OFF, RPM 0
19:18:08							SVP OESVP04057.D16 TAKEN: APPLIED FOR LEAD LINE
19:18:16							SVP OESVP04057.D16 APPLIED
19:30:09			OEMBA04057.D12		OEXTF04057.D12		MB FILE CHANGE
20:07:13							DEPARTED FROM DOCK: DEPART FROM CAPE ANN MARINA
21:15:55							AT SURVEY AREA COMPARISON CAST TAKEN

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
21:17:38							SVP OESVP04057.D17 TAKEN: APPLIED, SENSOR ID 4881 COMPARISON WITH CAST OESVO04057.D18 WITH SENSOR 4880
21:17:45							SVP OESVP04057.D17 APPLIED
21:24:40							SVP OESVP04057.D18 TAKEN: APPLIED, SENSOR 4880, COMPARISON WITH PREVIOUS CAST OESVP04057.D17
21:24:52							SVP OESVP04057.D18 APPLIED
21:30:58	LB	CA-2265	OEMBA04057.D12	1100	OEXTF04057.D12	339	MAIN:
21:32:32				1200			RPM CHANGE
22:00:28							WIND 15 KNOTS, DIRECTION N, WAVE HEIGHT 2-3 FEET, VISIBILITY UNLIMITED NMI
22:20:38				1000			RPM CHANGE
22:21:02				800			RPM CHANGE
22:21:31				600			RPM CHANGE
22:27:03							SVP OESVP04057.D19 TAKEN: APPLIED, SENSOR 48800
22:27:38				800			RPM CHANGE
22:28:54				1000			RPM CHANGE
22:29:55							SVP OESVP04057.D19 APPLIED
22:30:05				1200			RPM CHANGE
22:52:17	LE	CA-2265					
22:54:16	LB	CA-2259	OEMBA04057.D13	1200	OEXTF04057.D13	159	MAIN:
22:55:38				1000			RPM CHANGE
22:57:01				1100			RPM CHANGE
23:37:10				900			RPM CHANGE
23:37:43				600			RPM CHANGE
23:40:58				800			RPM CHANGE
23:43:25				1000			RPM CHANGE
23:44:06				1100			RPM CHANGE
23:48:40				800			RPM CHANGE
23:49:11				600			RPM CHANGE
23:52:14				800			RPM CHANGE
23:54:38							SVP OESVP04057.D20 TAKEN: APPLIED, SENSOR 4880
23:55:11				1000			RPM CHANGE
23:55:16							SVP OESVP04057.D20 APPLIED
23:56:48				1100			RPM CHANGE

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
00:00:00			OEMBA04058.D01		OEXTF04058.D01		MB FILE CHANGE
00:14:23	LE	CA-2259					
00:17:57	LB	CA-2253	OEMBA04058.D02	1200	OEXTF04058.D02	339	MAIN:
01:11:20				1000			RPM CHANGE
01:11:52				800			RPM CHANGE
01:12:17				600			RPM CHANGE
01:18:10							SVP OESVP04058.D01 TAKEN: APPLIED, SENSOR 4880
01:19:09				800			RPM CHANGE
01:20:38				1000			RPM CHANGE
01:20:55							SVP OESVP04058.D01 APPLIED
01:21:14				1200			RPM CHANGE
01:37:35	LE	CA-2253					
01:39:26	LB	CA-2247	OEMBA04058.D03	1200	OEXTF04058.D03	159	MAIN:
01:39:53				1100			RPM CHANGE
02:36:17							WIND 10 KNOTS, DIRECTION N, WAVE HEIGHT 2-3 FEET, VISIBILITY NA NMI
02:37:14				900			RPM CHANGE
02:37:41				600			RPM CHANGE
02:43:07							SVP OESVP04058.D02 TAKEN: APPLIED SENSOR 4880
02:44:21				800			RPM CHANGE
02:44:27							SVP OESVP04058.D02 APPLIED
02:44:59				1000			RPM CHANGE
02:45:43				1100			RPM CHANGE
02:55:01	LE	CA-2247					
02:58:33	LB	CA-2241	OEMBA04058.D04	1200	OEXTF04058.D04	339	MAIN:
03:01:44				1100			RPM CHANGE
03:10:27							WIND 15 KNOTS, DIRECTION N, WAVE HEIGHT 3-4 FEET, VISIBILITY NA NMI
03:10:49							WINDS AND SEAS PICKING UP SLOWED RPMS TO MAINTAIN GOOD QUALITY DATA.
03:16:27				1000			RPM CHANGE
04:32:10	LE	CA-2241					
04:34:20	LB	CA-2235		1000		159	MAIN:
04:36:26			OEMBA04058.D05		OEXTF04058.D05		MB FILE CHANGE
04:40:59				800			RPM CHANGE
04:41:55				600			RPM CHANGE
04:48:01							SVP OESVP04058.D03 TAKEN: APPLIED SENSOR 4880
04:48:16							SVP OESVP04058.D03 APPLIED
04:48:32				800			RPM CHANGE
04:50:00				1000			RPM CHANGE

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
05:39:27				800			RPM CHANGE
05:39:43				600			RPM CHANGE
05:54:14							SVP OESVP04058.D04 TAKEN: APPLIED SENSOR 4880
05:54:28							SVP OESVP04058.D04 APPLIED
05:55:50				800			RPM CHANGE
05:56:10				1000			RPM CHANGE
06:00:22	LE	CA-2235					
06:04:31	LB	CA-2229	OEMBA04058.D06	1000	OEXTF04058.D06	339	MAIN:
07:04:09				800			RPM CHANGE
07:04:23				600			RPM CHANGE
07:10:58							SVP OESVP04058.D05 TAKEN: APPLIED SENSOR 4880
07:11:08							SVP OESVP04058.D05 APPLIED
07:12:50				800			RPM CHANGE
07:13:08				1000			RPM CHANGE
07:31:29	LE	CA-2229					
07:33:36	LB	CA-2223	OEMBA04058.D07	1000	OEXTF04058.D07	159	MAIN:
08:02:16				800			RPM CHANGE
08:02:33				600			RPM CHANGE
08:08:31							SVP OESVP04058.D06 TAKEN: APPLIED SENSOR 4880
08:08:42							SVP OESVP04058.D06 APPLIED
08:10:27				800			RPM CHANGE
08:10:50				1000			RPM CHANGE
08:48:17	LE	CA-2223					
08:52:20	LB	CA-2217		1000		339	MAIN:
08:52:49			OEMBA04058.D08		OEXTF04058.D08		MB FILE CHANGE
08:58:52				800			RPM CHANGE
08:59:12				600			RPM CHANGE
09:22:03	LE	CA-2217					ABORT LINE: ABORTED LINE DUE TO PROBLEM RECOVERING MVP
09:22:25			OEMBA04058.D09		OEXTF04058.D09		MB FILE CHANGE
09:23:10							SVP OESVP04058.D07 TAKEN: APPLIED SENSOR 4880
09:23:29							SVP OESVP04058.D07 APPLIED
09:24:17							WILL HAVE TO TIME WINDOW OFF LINE DATA AT THE END OF 058.D05 AFTER REVIEW OF DATA
09:25:15							SVP OESVP04058.D06 APPLIED
09:26:34	LB	CA-2217	OEMBA04058.D09	1000	OEXTF04058.D09	339	MAIN: FORCE ACQUIRED: MAIN SCHEME LINE. FORCE ACQUIRE DUE TO MVP MALFUNCTION.
09:28:11				800			RPM CHANGE
09:28:24				600			RPM CHANGE
09:34:37							SVP OESVP04058.D08 TAKEN: APPLIED SENSOR 4880

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
09:35:00							SVP OESVP04058.D08 APPLIED
09:36:48				800			RPM CHANGE
09:37:22				1000			RPM CHANGE
10:10:08				999			RPM CHANGE
10:10:31				1000			RPM CHANGE
10:13:25				800			RPM CHANGE
10:13:46				600			RPM CHANGE
10:26:21	LE	CA-2217					ABORT LINE: PROBLEM WITH MVP RECOVERY
10:33:55							SVP OESVP04058.D09 TAKEN: APPLIED SENSOR 4880
10:34:21							SVP OESVP04058.D09 APPLIED
10:37:52	LB	CA-2217	OEMBA04058.D10	600	OEXTF04058.D10	339	MAIN: FORCE ACQUIRED:AFTER ABORTING DUE TO MVP MALFUNCTION
10:43:57							JUST SET RPM BACK TO 1000. WERE AT 600. SHOULD BE 1000 FOR ENTIRE FILE OEMBA04158.D10
10:44:00				1000			RPM CHANGE
10:55:36	LE	CA-2217					
10:59:10	LB	CA-2211	OEMBA04058.D11	1000	OEXTF04058.D11	159	MAIN:
11:16:10							WIND 10-15 KNOTS, DIRECTION NW, WAVE HEIGHT 3 FEET, VISIBILITY UNLIMITED NMI
12:06:14	LE	CA-2211					
12:10:08	LB	CA-2205	OEMBA04058.D12	1000	OEXTF04058.D12	339	MAIN:
12:15:22				800			RPM CHANGE
12:16:04				600			RPM CHANGE
12:22:11							SVP OESVP04058.D10 TAKEN: APPLIED SENSOR 4880
12:22:22							SVP OESVP04058.D10 APPLIED
12:23:29				800			RPM CHANGE
12:24:10				1000			RPM CHANGE
12:25:04				1200			RPM CHANGE
12:30:52							WIND 15-20 KNOTS, DIRECTION N, WAVE HEIGHT 3-4 FEET, VISIBILITY UNLIMITED NMI
13:00:42				1000			RPM CHANGE
13:01:10				800			RPM CHANGE
13:01:38				600			RPM CHANGE
13:07:36				800			RPM CHANGE
13:08:20							SVP OESVP04058.D11 TAKEN: APPLIED SENSOR 4880
13:08:22				1000			RPM CHANGE
13:08:27							SVP OESVP04058.D11 APPLIED
13:08:47				1200			RPM CHANGE
13:18:51	LE	CA-2205					
13:20:48	LB	CA-2199	OEMBA04058.D13	1200	OEXTF04058.D13	159	MAIN:

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
13:25:38				1100			RPM CHANGE
14:03:13				900			RPM CHANGE
14:03:51				600			RPM CHANGE
14:10:46				800			RPM CHANGE
14:11:19				1000			RPM CHANGE
14:12:31				1100			RPM CHANGE
14:12:37							SVP OESVP04058.D12 TAKEN: APPLIED SENSOR 4880
14:12:51							SVP OESVP04058.D12 APPLIED
14:23:36	LE	CA-2199					
14:26:56	LB	CA-2193	OEMBA04058.D14	1200	OEXTF04058.D14	339	MAIN:
14:27:02							WIND 15 KNOTS, DIRECTION N, WAVE HEIGHT 3-4 FEET, VISIBILITY UNLIMITED NMI
15:09:05				1000			RPM CHANGE
15:09:36				800			RPM CHANGE
15:10:11				600			RPM CHANGE
15:16:41				800			RPM CHANGE
15:17:17							SVP OESVP04058.D13 TAKEN: APPLIED SENSOR 4880
15:17:37				1000			RPM CHANGE
15:17:42							SVP OESVP04058.D13 APPLIED
15:18:39				1100			RPM CHANGE
15:26:31	LE	CA-2193					
15:29:18	LB	CA-2187	OEMBA04058.D15	1100	OEXTF04058.D15	159	MAIN: FORCE ACQUIRED:
16:13:03				800			RPM CHANGE
16:13:33				600			RPM CHANGE
16:19:20				900			RPM CHANGE
16:19:56							SVP OESVP04058.D14 TAKEN: SENSOR 4880
16:20:08							SVP OESVP04058.D14 APPLIED
16:20:10				1100			RPM CHANGE
16:22:54							WIND 10 KNOTS, DIRECTION NW, WAVE HEIGHT 3 SWELL FROM NE FEET, VISIBILITY UNLIMITED NMI
16:28:32	LE	CA-2187					
16:32:00	LB	CA-2181	OEMBA04058.D16	1100	OEXTF04058.D16	339	MAIN:
17:10:24				800			RPM CHANGE
17:10:38				600			RPM CHANGE
17:16:28							SVP OESVP04058.D15 TAKEN: APPLIED SENSOR 4880
17:16:36							SVP OESVP04058.D15 APPLIED
17:17:37				800			RPM CHANGE
17:17:58				1100			RPM CHANGE
17:30:35	LE	CA-2181					
17:32:41	LB	CA-2175	OEMBA04058.D17	1100	OEXTF04058.D17	159	MAIN:

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
18:06:13				800			RPM CHANGE
18:06:28				600			RPM CHANGE
18:12:28							SVP OESVP04058.D16 TAKEN: APPLIED SENSOR 4880
18:12:38							SVP OESVP04058.D16 APPLIED
18:13:44				800			RPM CHANGE
18:14:08				1100			RPM CHANGE
18:29:00	LE	CA-2175					
18:32:20	LB	CA-2169	OEMBA04058.D18	1100	OEXTF04058.D18	339	MAIN:
19:00:37				800			RPM CHANGE
19:00:49				600			RPM CHANGE
19:06:05							SVP OESVP04058.D17 TAKEN: APPLIED SENSOR 4880
19:06:11							SVP OESVP04058.D17 APPLIED
19:07:22				800			RPM CHANGE
19:07:42				1100			RPM CHANGE
19:26:26	LE	CA-2169					
19:51:08							SVP OESVP04058.D18 TAKEN: APPLIED. SENSOR 4880.
19:51:29							SVP OESVP04058.D18 APPLIED
19:53:57	LB	CA-2424	OEMBA04058.D19	1100	OEXTF04058.D19	159	MAIN: MAINSCHEME. COMPLETING A PARTIAL FROM PREVIOUS DAY.
20:29:11	LE	CA-2424					ABORT LINE: ABORTED LINE (MAIN) TO PICK UP ADJACENT PARTIAL FROM PREVIOUS DAY.
20:31:24	LB	CA-2428	OEMBA04058.D20	1100	OEXTF04058.D20	338	MAIN: FORCE ACQUIRED: ABORTED LINE TO PICK UP PARTIAL FROM PREVIOUS DAY.
20:32:53				800			RPM CHANGE
20:33:14				600			RPM CHANGE
20:36:56							SVP OESVP04058.D19 TAKEN: APPLIED. SENSOR 4880.
20:37:02							SVP OESVP04058.D19 APPLIED
20:38:11				800			RPM CHANGE
20:38:38				1100			RPM CHANGE
20:48:25							WIND 10 KNOTS, DIRECTION NW, WAVE HEIGHT 3 SWELL FROM NE FEET, VISIBILITY UNLIMITED NMI
21:01:33				800			RPM CHANGE
21:01:47				600			RPM CHANGE
21:05:29							SVP OESVP04058.D20 TAKEN: APPLIED. SENSOR 4880.
21:05:37							SVP OESVP04058.D20 APPLIED
21:06:36				800			RPM CHANGE
21:07:05				1100			RPM CHANGE
21:11:38	LE	CA-2428					
21:11:55							WIND 5-10 KNOTS, DIRECTION NW, WAVE HEIGHT 3 SWELL FROM NE FEET, VISIBILITY UNLIMITED NMI

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
21:13:17	LB	CA-2432	OEMBA04058.D21	1100	OEXTF04058.D21	159	MAIN: MAIN
22:05:12				800			RPM CHANGE
22:05:26				600			RPM CHANGE
22:09:17							SVP OESVP04058.D21 TAKEN: APPLIED. SENSOR 4880.
22:09:23							SVP OESVP04058.D21 APPLIED
22:10:31				800			RPM CHANGE
22:10:49				1100			RPM CHANGE
22:36:35	LE	CA-2432					ABORT LINE: ABORT LINE. CLOSE TO SHORE AND OUTSIDE OF STATEMENT OF WORK.
22:39:07	LB	CA-2436	OEMBA04058.D22	1100	OEXTF04058.D22	338	MAIN: FORCE ACQUIRED: MAIN. FORCE ACQUIRE JUST OUTSIDE OF SOW BOUNDARY.
23:06:43				900			RPM CHANGE
23:07:16				600			RPM CHANGE
23:11:11				900			RPM CHANGE
23:11:39							SVP OESVP04058.D22 TAKEN: APPLIED SENSOR 4880
23:11:49				1100			RPM CHANGE
23:12:47							SVP OESVP04058.D21 APPLIED
23:13:59							WIND 5 KNOTS, DIRECTION NW, WAVE HEIGHT 1-2 FEET, VISIBILITY NA NMI
23:39:20				900			RPM CHANGE
23:39:48				600			RPM CHANGE
23:44:16				900			RPM CHANGE
23:44:43							SVP OESVP04058.D23 TAKEN: APPLIED SENSOR 4880
23:44:55				1100			RPM CHANGE
23:45:02							SVP OESVP04058.D23 APPLIED

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
00:00:01			OEMBA04059.D01		OEXTF04059.D01		MB FILE CHANGE
00:09:50	LE	CA-2436					
00:14:50	LB	CA-2440	OEMBA04059.D02	1100	OEXTF04059.D02	158	MAIN:
00:45:43				800			RPM CHANGE
00:46:07				600			RPM CHANGE
00:50:31				900			RPM CHANGE
00:50:55							SVP OESVP04059.D01 TAKEN: APPLIED SENSOR 4880
00:51:15				1100			RPM CHANGE
00:51:21							SVP OESVP04059.D01 APPLIED
01:02:55	LE	CA-2440					ABORT LINE: ABORTED TO RUN CROSSLINES
01:04:40	LB	30_C-9004	OEMBA04059.D03	1100	OEXTF04059.D03	249	MAIN: FORCE ACQUIRED:
01:15:54				900			RPM CHANGE
01:16:28				600			RPM CHANGE
01:19:15							SVP OESVP04059.D02 TAKEN: APPLIED SENSOR 4880
01:20:09							SVP OESVP04059.D02 APPLIED
01:20:20				900			RPM CHANGE
01:20:50				1100			RPM CHANGE
01:38:34	LE	30_C-9004					
01:52:21	LB	30_C-9005	OEMBA04059.D04	600	OEXTF04059.D04	69	CROSS:
01:54:43				800			RPM CHANGE
01:55:01							SVP OESVP04059.D03 TAKEN: NOT APPLIED. NO CHANGE, PREVIOUS DEEPER. SENSOR 4880
01:55:24				1000			RPM CHANGE
01:56:10				1100			RPM CHANGE
02:12:59				900			RPM CHANGE
02:13:31				600			RPM CHANGE
02:17:21				800			RPM CHANGE
02:18:12							SVP OESVP04059.D04 TAKEN: APPLIED SENSOR 4880
02:18:23							SVP OESVP04059.D04 APPLIED
02:18:33				1100			RPM CHANGE
02:20:29							WIND 5-10 KNOTS, DIRECTION NW, WAVE HEIGHT 2 FEET, VISIBILITY NA NMI
02:37:07				900			RPM CHANGE
02:37:34				600			RPM CHANGE
02:42:57							SVP OESVP04059.D05 TAKEN: APPLIED SENSOR 4880
02:43:35				800			RPM CHANGE
02:43:42							SVP OESVP04059.D05 APPLIED
02:44:25				1100			RPM CHANGE
02:53:08	LE	30_C-9005					
03:09:02	LB	30_C-9004	OEMBA04059.D05	1100	OEXTF04059.D05	249	CROSS:

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
03:32:11				900			RPM CHANGE
03:32:35				600			RPM CHANGE
03:38:00							SVP OESVP04059.D06 TAKEN
03:38:29				800			RPM CHANGE
03:38:35							SVP OESVP04059.D06 APPLIED
03:39:27				1100			RPM CHANGE
03:44:26	LE	30_C-9004					ABORT LINE: END OF CROSS LINE OVERLAPS WITH 059.D03.
03:47:11	LB	CA-2440	OEMBA04059.D06	1100	OEXTF04059.D06	159	MAIN: FORCE ACQUIRED:
04:02:51							WIND 10 KNOTS, DIRECTION NW, WAVE HEIGHT 1-2 FEET, VISIBILITY NA NMI
04:20:05	LE	CA-2440					ABORT LINE: ABORT JUST SOUTH OF SOW BOUNDARY
04:21:29	LB	CA-2444	OEMBA04059.D07	1100	OEXTF04059.D07	338	MAIN: FORCE ACQUIRED: JUST SOUTH OF SOW BOUNDARY
04:29:43				900			RPM CHANGE
04:30:11				600			RPM CHANGE
04:33:59							SVP OESVP04059.D07 TAKEN: APPLIED SENSOR 4880
04:34:54				800			RPM CHANGE
04:34:59							SVP OESVP04059.D07 APPLIED
04:35:36				1100			RPM CHANGE
05:26:35				800			RPM CHANGE
05:26:58				600			RPM CHANGE
05:31:53							SVP OESVP04059.D08 TAKEN: APPLIED. SENSOR 4880.
05:31:59							SVP OESVP04059.D08 APPLIED
05:33:10				800			RPM CHANGE
05:33:23				1100			RPM CHANGE
05:51:33	LE	CA-2444					
05:53:25	LB	CA-2447	OEMBA04059.D08	1100	OEXTF04059.D08	159	MAIN: FORCE ACQUIRED: MAIN
05:54:49				900			RPM CHANGE
05:55:09				600			RPM CHANGE
05:59:38							SVP OESVP04059.D09 TAKEN: APPLIED. SENSOR 4880.
05:59:46							SVP OESVP04059.D09 APPLIED
06:01:01				800			RPM CHANGE
06:01:22				1100			RPM CHANGE
06:51:04				900			RPM CHANGE
06:51:52				600			RPM CHANGE
06:56:03							SVP OESVP04059.D10 TAKEN: APPLIED. SENSOR 4880.
06:56:11							SVP OESVP04059.D10 APPLIED
06:57:38				800			RPM CHANGE
06:57:53				1100			RPM CHANGE
07:19:37	LE	CA-2447					ABORT LINE: ABORTED LINE OUTSIDE OF SOW AREA.
07:22:10	LB	CA-2450	OEMBA04059.D09	1100	OEXTF04059.D09	339	MAIN: FORCE ACQUIRED: MAIN

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
07:23:30				800			RPM CHANGE
07:23:45				600			RPM CHANGE
07:27:26							SVP OESVP04059.D11 TAKEN: APPLIED. SENSOR 4880.
07:28:17							SVP OESVP04059.D11 APPLIED
07:29:38				800			RPM CHANGE
07:29:49				1100			RPM CHANGE
07:46:33				800			RPM CHANGE
07:46:48				600			RPM CHANGE
07:50:46							SVP OESVP04059.D12 TAKEN: APPLIED. SENSOR 4880.
07:50:52							SVP OESVP04059.D12 APPLIED
07:52:15				800			RPM CHANGE
07:52:44				1100			RPM CHANGE
08:14:47							WIND 5 KNOTS, DIRECTION NW, WAVE HEIGHT 1-2 FEET, VISIBILITY NA NMI
08:26:29				800			RPM CHANGE
08:26:48				600			RPM CHANGE
08:31:06							SVP OESVP04059.D13 TAKEN: APPLIED. SENSOR 4880.
08:31:13							SVP OESVP04059.D13 APPLIED
08:32:32				800			RPM CHANGE
08:33:27				1100			RPM CHANGE
08:55:24	LE	CA-2450					
08:57:02	LB	CA-2453	OEMBA04059.D10	1100	OEXTF04059.D10	159	MAIN: MAIN
09:05:51				800			RPM CHANGE
09:06:05				600			RPM CHANGE
09:10:40							SVP OESVP04059.D14 TAKEN: APPLIED. SENSOR 4880.
09:11:58				800			RPM CHANGE
09:12:03							SVP OESVP04059.D14 APPLIED
09:12:20				1100			RPM CHANGE
09:45:25				800			RPM CHANGE
09:45:47				600			RPM CHANGE
09:50:06							SVP OESVP04059.D15 TAKEN: APPLIED. SENSOR 4880.
09:50:17							SVP OESVP04059.D15 APPLIED
09:51:32				800			RPM CHANGE
09:51:47				1100			RPM CHANGE
10:20:49	LE	CA-2453					ABORT LINE: ABORT LINE OUTSIDE OF SOW AREA.
10:23:05	LB	CA-2456	OEMBA04059.D11	1100	OEXTF04059.D11	339	MAIN: FORCE ACQUIRED: MAIN
10:24:37	LE	CA-2456					ABORT LINE: ABORT LINE. REVERSED AZIMUTH IN SCHEDULE. RESTART
10:26:51	LB	CA-2456	OEMBA04059.D12	1100	OEXTF04059.D12	339	MAIN: FORCE ACQUIRED: MAIN. FORCE ACQUIRE OUTSIDE OF SOW.

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
10:32:43				900			RPM CHANGE
10:33:02				600			RPM CHANGE
10:37:13							SVP OESVP04059.D16 TAKEN: APPLIED SENSOR 4880
10:37:22							SVP OESVP04059.D16 APPLIED
10:38:56				800			RPM CHANGE
10:39:38				1100			RPM CHANGE
11:26:04				800			RPM CHANGE
11:26:25				600			RPM CHANGE
11:30:32							SVP OESVP04059.D17 TAKEN: APPLIED. SENSOR 4880
11:30:37							SVP OESVP04059.D17 APPLIED
11:31:57				800			RPM CHANGE
11:32:33				1100			RPM CHANGE
11:47:22							WIND 5 KNOTS, DIRECTION NW, WAVE HEIGHT 1-2 FEET, VISIBILITY NA NMI
11:55:30	LE	CA-2456					
11:57:11	LB	CA-2459	OEMBA04059.D13	1100	OEXTF04059.D13	159	MAIN:
12:29:04				900			RPM CHANGE
12:29:25				600			RPM CHANGE
12:33:47				900			RPM CHANGE
12:34:16							SVP OESVP04059.D18 TAKEN: APPLIED SENSOR 4880
12:34:30				1100			RPM CHANGE
12:34:35							SVP OESVP04059.D18 APPLIED
13:01:22				900			RPM CHANGE
13:01:50				600			RPM CHANGE
13:05:51				900			RPM CHANGE
13:06:36				1100			RPM CHANGE
13:08:35							SVP OESVP04059.D19 TAKEN: APPLIED SENSOR 4880
13:08:44							SVP OESVP04059.D19 APPLIED
13:19:19	LE	CA-2459					ABORT LINE: ABORT LINE OUTSIDE SOW BOUNDARY
13:21:01	LB	CA-2462	OEMBA04059.D14	1100	OEXTF04059.D14	339	MAIN: FORCE ACQUIRED: ACQUIRE LINE OUTSIDE SOW AREA
14:11:43				900			RPM CHANGE
14:12:19				600			RPM CHANGE
14:16:21							SVP OESVP04059.D20 TAKEN: APPLIED SENSOR 4880
14:17:14				800			RPM CHANGE
14:17:20							SVP OESVP04059.D20 APPLIED
14:17:54				1000			RPM CHANGE
14:18:26				1200			RPM CHANGE
14:44:38	LE	CA-2462					
14:46:21	LB	CA-2465	OEMBA04059.D15	1200	OEXTF04059.D15	159	MAIN:
14:46:27				1100			RPM CHANGE

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
14:48:54				900			RPM CHANGE
14:49:14				600			RPM CHANGE
14:53:03				900			RPM CHANGE
14:53:27							SVP OESVP04059.D21 TAKEN: APPLIED SENSOR 4880
14:53:37							SVP OESVP04059.D21 APPLIED
14:53:49				1100			RPM CHANGE
15:39:49				900			RPM CHANGE
15:40:08				600			RPM CHANGE
15:44:24				900			RPM CHANGE
15:45:20				1100			RPM CHANGE
15:45:47							SVP OESVP04059.D22 TAKEN: APPLIED SENSOR 4880
15:45:58							SVP OESVP04059.D22 APPLIED
15:52:18							WIND 5-10 KNOTS, DIRECTION NW, WAVE HEIGHT 1 FEET, VISIBILITY UNLIMITED NMI
16:07:48	LE	CA-2465					ABORT LINE: ABORTED OUTSIDE SOW BOUNDARY
16:09:22	LB	CA-2468	OEMBA04059.D16	1200	OEXTF04059.D16	339	MAIN: FORCE ACQUIRED: OUTSIDE SOW BOUNDARY
16:30:56							WIND 5 KNOTS, DIRECTION NW, WAVE HEIGHT <1 FEET, VISIBILITY UNLIMITED NMI
16:46:06				1000			RPM CHANGE
16:46:28				800			RPM CHANGE
16:46:53				600			RPM CHANGE
16:50:40							SVP OESVP04059.D23 TAKEN: APPLIED SENSOR 4880
16:51:14				800			RPM CHANGE
16:51:21							SVP OESVP04059.D23 APPLIED
16:51:53				1000			RPM CHANGE
16:52:19				1200			RPM CHANGE
17:17:31				1000			RPM CHANGE
17:17:44				800			RPM CHANGE
17:17:54				600			RPM CHANGE
17:21:38							SVP OESVP04059.D24 TAKEN: APPLIED. SENSOR 4880.
17:21:47							SVP OESVP04059.D24 APPLIED
17:22:46				800			RPM CHANGE
17:23:00				1000			RPM CHANGE
17:23:17				1200			RPM CHANGE
17:30:47	LE	CA-2468					
17:32:20	LB	CA-2471	OEMBA04059.D17	1100	OEXTF04059.D17	159	MAIN: MAIN
17:57:37				1000			RPM CHANGE
17:57:49				800			RPM CHANGE
17:57:59				600			RPM CHANGE
18:02:07							SVP OESVP04059.D25 TAKEN: APPLIED. SENSOR 4880.

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
18:02:17							SVP OESVP04059.D25 APPLIED
18:03:16				800			RPM CHANGE
18:03:33				1100			RPM CHANGE
18:36:39				900			RPM CHANGE
18:36:54				600			RPM CHANGE
18:40:34							SVP OESVP04059.D26 TAKEN: APPLIED. SENSOR 4880
18:40:42							SVP OESVP04059.D26 APPLIED
18:41:58				800			RPM CHANGE
18:42:13				1100			RPM CHANGE
18:53:30	LE	CA-2471					ABORT LINE: ABORTED LINE OUTSIDE OF SOW AREA.
18:55:01	LB	CA-2474	OEMBA04059.D18	1100	OEXTF04059.D18	338	MAIN: FORCE ACQUIRED: OUTSIDE OF SOW AREA.
18:55:25				1200			RPM CHANGE
18:59:06				1150			RPM CHANGE
19:35:41				800			RPM CHANGE
19:35:53				600			RPM CHANGE
19:39:52							SVP OESVP04059.D27 TAKEN: APPLIED. SENSOR 4880.
19:40:04							SVP OESVP04059.D27 APPLIED
19:40:10				800			RPM CHANGE
19:40:22				1150			RPM CHANGE
20:05:18				800			RPM CHANGE
20:05:29				600			RPM CHANGE
20:14:15							SVP OESVP04059.D28 TAKEN: APPLIED. SENSOR 4880.
20:14:21							SVP OESVP04059.D28 APPLIED
20:15:18				800			RPM CHANGE
20:15:34				1150			RPM CHANGE
20:21:58	LE	CA-2474					
20:23:34	LB	CA-2477	OEMBA04059.D19	1150	OEXTF04059.D19	159	MAIN: MAIN
20:58:57				800			RPM CHANGE
20:59:09				600			RPM CHANGE
21:03:56							SVP OESVP04059.D29 TAKEN: APPLIED. SENSOR 4880.
21:04:03							SVP OESVP04059.D29 APPLIED
21:05:12				800			RPM CHANGE
21:05:33				1150			RPM CHANGE
21:08:00				1100			RPM CHANGE
21:40:51	LE	CA-2477					ABORT LINE: ABORT LINE OUTSIDE OF SOW AREA.
21:42:17	LB	CA-2480		1150		339	MAIN: FORCE ACQUIRED: OUTSIDE OF SOW AREA.
21:43:16				800			RPM CHANGE
21:43:27				600			RPM CHANGE
21:47:13							SVP OESVP04059.D30 TAKEN: APPLIED. SENSOR 4880.
21:47:21							SVP OESVP04059.D30 APPLIED

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
21:48:22				800			RPM CHANGE
21:48:35				1150			RPM CHANGE
21:54:40				1200			RPM CHANGE
22:28:53				1000			RPM CHANGE
22:29:03				800			RPM CHANGE
22:29:12				600			RPM CHANGE
22:35:55							SVP OESVP04059.D31 TAKEN: APPLIED. SENSOR 4880.
22:36:04							SVP OESVP04059.D31 APPLIED
22:36:47				800			RPM CHANGE
22:37:21				1000			RPM CHANGE
22:38:05				1200			RPM CHANGE
23:06:09	LE	CA-2480					
23:07:38	LB	CA-2483	OEMBA04059.D20	1200	OEXTF04059.D20	159	MAIN:
23:11:43				1100			RPM CHANGE
23:15:07				900			RPM CHANGE
23:15:32				600			RPM CHANGE
23:19:18							SVP OESVP04059.D32 TAKEN: APPLIED SENSOR 4880
23:19:59				900			RPM CHANGE
23:20:04							SVP OESVP04059.D32 APPLIED
23:20:34				1100			RPM CHANGE
23:32:40							WIND 10 KNOTS, DIRECTION NW, WAVE HEIGHT 2 FEET, VISIBILITY NA NMI
23:56:43	LE	CA-2483					ABORT LINE: SHUT DOWN SYSTEM FOR GPS WEEK ROLL OVER
23:57:01			OEMBA04059.D21		OEXTF04059.D21		MB FILE CHANGE

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
00:02:02			OEMBA04060.D01		OEXTF04060.D01		MB FILE CHANGE
00:02:02							SVP OESVP04049.D03 APPLIED
00:06:50							DRAFT CHANGED TO 1.430000 METERS
00:06:57			OEMBA04060.D02		OEXTF04060.D02		MB FILE CHANGE
00:07:17							SVP OESVP04059.D32 APPLIED
00:07:22							SYSTEM BACK UP AND RUNNING. SVP CAST THEN RE-START SURVEYING
00:11:15							SVP OESVP04060.D01 TAKEN: APPLIED SENSOR 4880
00:11:21							SVP OESVP04060.D01 APPLIED
00:16:47	LB	CA-2483	OEMBA04060.D02	1100	OEXTF04060.D02	159	MAIN: FORCE ACQUIRED: RESTART SURVEY AFTER SHUT DOWN FOR GPS WEEK ROLL OVER
00:45:15	LE	CA-2483					ABORT LINE: ABORT LINE OUTSIDE SOW BOUNDARY
00:46:31	LB	CA-2486		1100		159	MAIN: FORCE ACQUIRED: FORCE ACQUIRE OUTSIDE SOW BOUNDARY
00:46:51			OEMBA04060.D03		OEXTF04060.D03		MB FILE CHANGE
00:48:05							CHANGED ALL FILE NAMES AFTER START OF LINE. NOW LOGGING TO OEMBAO4060.D03
01:14:13							WIND 5 KNOTS, DIRECTION NW, WAVE HEIGHT 1 FEET, VISIBILITY NA NMI
01:19:42				900			RPM CHANGE
01:20:08				600			RPM CHANGE
01:23:42							SVP OESVP04060.D02 TAKEN: APPLIED SENSOR 4880
01:24:25				800			RPM CHANGE
01:24:30							SVP OESVP04060.D02 APPLIED
01:24:53				1000			RPM CHANGE
01:25:19				1200			RPM CHANGE
02:08:06	LE	CA-2486					
02:09:49	LB	CA-2489	OEMBA04060.D04	1100	OEXTF04060.D04	339	MAIN:
02:19:22				900			RPM CHANGE
02:19:46				600			RPM CHANGE
02:23:41				900			RPM CHANGE
02:24:11				1100			RPM CHANGE
02:25:23							SVP OESVP04060.D03 TAKEN: APPLIED SENSOR 4880
02:25:39							SVP OESVP04060.D03 APPLIED
02:28:31							WIND LT KNOTS, DIRECTION VARIABLE, WAVE HEIGHT CALM FEET, VISIBILITY NA NMI
03:05:27							BRIEF ONE SECOND ETHERNET TIME OUT ON RESON ABOUT 030500
03:12:39				900			RPM CHANGE
03:13:05				600			RPM CHANGE

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
03:16:52							SVP OESVP04060.D04 TAKEN: APPLIED SENSOR 4880
03:17:33				900			RPM CHANGE
03:17:38							SVP OESVP04060.D04 APPLIED
03:18:05				1100			RPM CHANGE
03:29:53	LE	CA-2489					ABORT LINE: ABORT OUTSIDE SOW BOUNDARY
03:31:17	LB	CA-2492	OEMBA04060.D05	1100	OEXTF04060.D05	339	MAIN: FORCE ACQUIRED: OUTSIDE SOW BOUNDARY
03:32:15				1200			RPM CHANGE
04:31:59				1000			RPM CHANGE
04:32:20				800			RPM CHANGE
04:32:46				600			RPM CHANGE
04:36:17							SVP OESVP04060.D05 TAKEN: APPLIED SENSOR 4880
04:36:55				800			RPM CHANGE
04:37:01							SVP OESVP04060.D05 APPLIED
04:37:26				1000			RPM CHANGE
04:37:50				1200			RPM CHANGE
04:49:08	LE	CA-2492					
04:50:52	LB	CA-2495	OEMBA04060.D06	1200	OEXTF04060.D06	159	MAIN:
05:45:15				1000			RPM CHANGE
05:45:30				800			RPM CHANGE
05:45:38				600			RPM CHANGE
05:49:58							SVP OESVP04060.D06 TAKEN: APPLIED. SENSOR 4880.
05:50:05							SVP OESVP04060.D06 APPLIED
05:53:17				800			RPM CHANGE
05:53:51				1000			RPM CHANGE
05:54:05				1200			RPM CHANGE
05:56:21				1150			RPM CHANGE
06:06:50	LE	CA-2495					ABORT LINE: ABORT LINE OUTSIDE OF SOW AREA AT SOUTH EDGE.
06:07:49	LB	CA-2498	OEMBA04060.D07	1150	OEXTF04060.D07	339	MAIN: FORCE ACQUIRED: OUTSIDE OF SOW AREA.
06:56:51				900			RPM CHANGE
06:57:08				600			RPM CHANGE
07:02:43							SVP OESVP04060.D07 TAKEN: APPLIED. SENSOR 4880.
07:02:52							SVP OESVP04060.D07 APPLIED
07:04:12				900			RPM CHANGE
07:04:29				1150			RPM CHANGE
07:08:04							WIND LT KNOTS, DIRECTION VARIABLE, WAVE HEIGHT CALM FEET, VISIBILITY NA NMI
07:29:54	LE	CA-2498					
07:31:27	LB	CA-2501	OEMBA04060.D08	1150	OEXTF04060.D08	159	MAIN: MAIN
08:06:10				1100			RPM CHANGE

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
08:15:16				900			RPM CHANGE
08:15:24				600			RPM CHANGE
08:21:40							SVP OESVP04060.D08 TAKEN: APPLIED. SENSOR 4880.
08:21:50							SVP OESVP04060.D08 APPLIED
08:23:26				900			RPM CHANGE
08:23:45				1100			RPM CHANGE
08:48:17	LE	CA-2501					ABORT LINE: ABORTED LINE OUTSIDE OF SOW AREA AT SOUTH END.
08:49:44	LB	CA-2504	OEMBA04060.D09	1100	OEXTF04060.D09	339	MAIN: FORCE ACQUIRED: MAIN
08:51:21				1150			RPM CHANGE
09:25:45				900			RPM CHANGE
09:25:58				600			RPM CHANGE
09:35:48							SVP OESVP04060.D09 TAKEN: APPLIED. SENSOR 4880.
09:36:16							SVP OESVP04060.D09 APPLIED
09:38:06				900			RPM CHANGE
09:38:26				1100			RPM CHANGE
09:38:46				1150			RPM CHANGE
10:12:30	LE	CA-2504					
10:14:20	LB	CA-2507	OEMBA04060.D10	1150	OEXTF04060.D10	159	MAIN: MAIN
10:46:11				900			RPM CHANGE
10:46:39				600			RPM CHANGE
10:50:43							SVP OESVP04060.D10 TAKEN: APPLIED SENSOR 4880
10:51:27				800			RPM CHANGE
10:52:15				1150			RPM CHANGE
10:53:58							SVP OESVP04060.D10 APPLIED
11:08:45							WIND LT KNOTS, DIRECTION W, WAVE HEIGHT CALM FEET, VISIBILITY UNLIMITED NMI
11:29:22	LE	CA-2507					ABORT LINE: ABORT OUTSIDE SOW BOUNDARY
11:30:44	LB	CA-2510	OEMBA04060.D11	1150	OEXTF04060.D11	339	MAIN: FORCE ACQUIRED: OUTSIDE SOW BOUNDARY
11:31:48				1200			RPM CHANGE
11:35:22							MEME HAD BACKED UP JD058 MULTIBEAM AND XTF FILE FROM F: TO TAPE. STARTED TO DELETE THESE FILES FROM THE F; DRIVE TO FREE UP SPACE. GETTING PING DROPS WHILE DELETING ONE FILE AT A TIME. WILL CONTINUE DELETING ONLY IN TURNS.
12:20:39				1000			RPM CHANGE
12:21:00				800			RPM CHANGE
12:21:22				600			RPM CHANGE
12:25:00							SVP OESVP04060.D11 TAKEN: APPLIED SENSOR 4880
12:25:37				800			RPM CHANGE

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
12:25:46							SVP OESVP04060.D11 APPLIED
12:26:13				1000			RPM CHANGE
12:26:33				1200			RPM CHANGE
12:46:30	LE	CA-2510					
12:48:01	LB	CA-2513	OEMBA04060.D12	1200	OEXTF04060.D12	159	MAIN:
12:48:16				1100			RPM CHANGE
13:25:44				900			RPM CHANGE
13:26:13				600			RPM CHANGE
13:30:04				800			RPM CHANGE
13:30:29							SVP OESVP04060.D12 TAKEN: APPLIED SENSOR 4880
13:30:42							SVP OESVP04060.D12 APPLIED
13:30:51				1100			RPM CHANGE
14:05:04	LE	CA-2513					ABORT LINE: ABORT OUTSIDE SOW BOUNDARY
14:06:14	LB	CA-2516	OEMBA04060.D13	1100	OEXTF04060.D13	339	MAIN: FORCE ACQUIRED: OUTSIDE SOW BOUNDARY
14:07:49				900			RPM CHANGE
14:08:08				600			RPM CHANGE
14:11:33				800			RPM CHANGE
14:11:54							SVP OESVP04060.D13 TAKEN: APPLIED SENSOR 4880
14:12:04				1000			RPM CHANGE
14:12:08							SVP OESVP04060.D13 APPLIED
14:12:27				1200			RPM CHANGE
14:46:37							WIND LT KNOTS, DIRECTION W, WAVE HEIGHT CALM FEET, VISIBILITY UNLIMITED NMI
15:00:58				1000			RPM CHANGE
15:01:24				800			RPM CHANGE
15:01:43				600			RPM CHANGE
15:05:00							SVP OESVP04060.D14 TAKEN: APPLIED SENSOR 4880
15:05:52				800			RPM CHANGE
15:05:56							SVP OESVP04060.D14 APPLIED
15:06:21				1000			RPM CHANGE
15:06:40				1200			RPM CHANGE
15:24:55	LE	CA-2516					
15:36:44							SVP OESVP04060.D15 TAKEN: APPLIED SENSOR 4880
15:37:20							SVP OESVP04060.D15 APPLIED
15:39:51	LB	30_C-9001	OEMBA04060.D14	1100	OEXTF04060.D14	249	CROSS:
15:56:14				900			RPM CHANGE
15:56:33				600			RPM CHANGE
15:59:07							SVP OESVP04060.D16 TAKEN: APPLIED. SENSOR 4880.
15:59:46				800			RPM CHANGE
15:59:50							SVP OESVP04060.D16 APPLIED

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
16:00:17				1100			RPM CHANGE
16:06:27	LE	30_C-9001					
16:15:06							RE-APPLIED SVP CAST OESVP04060.D14
16:15:08							SVP OESVP04060.D14 APPLIED
16:19:28	LB	CA-2522	OEMBA04060.D15	1100	OEXTF04060.D15	159	MAIN:
16:34:54							WIND LT KNOTS, DIRECTION VARIABLE, WAVE HEIGHT CALM FEET, VISIBILITY UNLIMITED NMI
16:50:16				900			RPM CHANGE
16:50:37				600			RPM CHANGE
16:55:17							SVP OESVP04060.D17 TAKEN: APPLIED. SENSOR 4880.
16:55:50							SVP OESVP04060.D17 APPLIED
16:56:36				900			RPM CHANGE
16:57:05				1100			RPM CHANGE
17:31:17				900			RPM CHANGE
17:31:33				600			RPM CHANGE
17:34:47							SVP OESVP04060.D18 TAKEN: APPLIED. SENSOR 4880.
17:34:57							SVP OESVP04060.D18 APPLIED
17:36:03				900			RPM CHANGE
17:36:17				1100			RPM CHANGE
17:38:54	LE	CA-2522					ABORT LINE: ABORT LINE OUTSIDE OF SOW AREA SOUTH END.
17:40:15	LB	CA-2525	OEMBA04060.D16	1100	OEXTF04060.D16	338	MAIN: FORCE ACQUIRED: OUTSIDE OF SOW AREA SOUTH END.
17:40:30				1150			RPM CHANGE
18:13:51				900			RPM CHANGE
18:14:08				600			RPM CHANGE
18:17:27							SVP OESVP04060.D19 TAKEN: APPLIED. SENSOR 4880.
18:17:36							SVP OESVP04060.D19 APPLIED
18:18:40				900			RPM CHANGE
18:19:01							ENTERING A TIDAL ZONE WITH ICE CHUNKS IN IT. TOOK AN SVP CAST.
18:19:03				1150			RPM CHANGE
18:39:23				900			RPM CHANGE
18:39:31				600			RPM CHANGE
18:42:54							SVP OESVP04060.D20 TAKEN: APPLIED. SENSOR 4880.
18:43:02							SVP OESVP04060.D20 APPLIED
18:44:05				900			RPM CHANGE
18:44:21				1150			RPM CHANGE
19:01:51	LE	CA-2525					
19:03:25	LB	CA-2528	OEMBA04060.D17	1150	OEXTF04060.D17	159	MAIN: MAIN
19:34:48				900			RPM CHANGE
19:34:59				600			RPM CHANGE

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
19:41:19							SVP OESVP04060.D21 TAKEN: APPLIED. SENSOR 4880.
19:41:31							SVP OESVP04060.D21 APPLIED
19:42:29				900			RPM CHANGE
19:42:44				1150			RPM CHANGE
19:43:32				1100			RPM CHANGE
20:15:44	LE	CA-2528					ABORT LINE: ABORTED LINE OUTSIDE OF SOW AREA AT SOUTH END.
20:17:12	LB	CA-2531		1150		339	MAIN: FORCE ACQUIRED: OUTSIDE OF SOW AREA AT SOUTH END.
20:21:02				1200			RPM CHANGE
20:26:50				900			RPM CHANGE
20:27:04				600			RPM CHANGE
20:30:24							SVP OESVP04060.D22 TAKEN: APPLIED. SENSOR 4880.
20:30:31							SVP OESVP04060.D22 APPLIED
20:31:45				900			RPM CHANGE
20:32:02				1200			RPM CHANGE
21:12:26				1000			RPM CHANGE
21:15:42				1200			RPM CHANGE
21:16:27							SVP OESVP04060.D23 TAKEN: APPLIED. SENSOR 4880.
21:17:48							SVP OESVP04060.D23 APPLIED
21:32:57	LE	CA-2531					
21:34:45	LB	CA-2534	OEMBA04060.D18	1200	OEXTF04060.D18	159	MAIN: MAIN
21:34:51				1150			RPM CHANGE
22:08:27							WIND LT KNOTS, DIRECTION VARIABLE, WAVE HEIGHT CALM FEET, VISIBILITY UNLIMITED NMI
22:19:57				900			RPM CHANGE
22:20:19				600			RPM CHANGE
22:23:48							SVP OESVP04060.D24 TAKEN: APPLIED SENSOR 4880
22:24:24				900			RPM CHANGE
22:24:30							SVP OESVP04060.D24 APPLIED
22:24:57				1100			RPM CHANGE
22:43:16	LE	CA-2534					ABORT LINE: ABORT LINE OUTSIDE SOW BOUNDARY
22:45:17	LB	CA-2537	OEMBA04060.D19	1200	OEXTF04060.D19	339	MAIN: FORCE ACQUIRED: LINE OUTSIDE SOW BOUNDARY
23:27:14				1000			RPM CHANGE
23:27:36				800			RPM CHANGE
23:28:03				600			RPM CHANGE
23:31:28							SVP OESVP04060.D25 TAKEN
23:32:07				800			RPM CHANGE
23:32:11							SVP OESVP04060.D25 APPLIED
23:32:27				1000			RPM CHANGE

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
23:32:46				1200			RPM CHANGE
23:55:11	LE	CA-2537					
23:56:49	LB	CA-2540	OEMBA04060.D20	1100	OEXTF04060.D20	159	MAIN:

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
00:00:01			OEMBA04061.D01		OEXTF04061.D01		MB FILE CHANGE
00:06:55							WIND LT KNOTS, DIRECTION VARIABLE, WAVE HEIGHT CALM FEET, VISIBILITY NA NMI
00:39:52				800			RPM CHANGE
00:40:11				600			RPM CHANGE
00:44:03				900			RPM CHANGE
00:44:26							SVP OESVP04061.D01 TAKEN: APPLIED SENSOR 4880
00:44:28				1100			RPM CHANGE
00:44:37							SVP OESVP04061.D01 APPLIED
01:05:23	LE	CA-2540					ABORT LINE: ABORT LINE OUTSIDE SOW BOUNDARY
01:07:55	LB	CA-2543	OEMBA04061.D02	1200	OEXTF04061.D02	339	MAIN: FORCE ACQUIRED: OUTSIDE SOW BOUNDARY
01:54:12				1000			RPM CHANGE
01:54:31				800			RPM CHANGE
01:54:44				600			RPM CHANGE
01:58:14							SVP OESVP04061.D02 TAKEN: APPLIED SENSOR 4880
01:58:50				900			RPM CHANGE
01:58:57							SVP OESVP04061.D02 APPLIED
01:59:19				1200			RPM CHANGE
02:17:04	LE	CA-2543					
02:18:48	LB	CA-2546	OEMBA04061.D03	1200	OEXTF04061.D03	159	MAIN:
02:54:37				1000			RPM CHANGE
02:54:58				600			RPM CHANGE
02:58:33							SVP OESVP04061.D03 TAKEN: APPLIED SENSOR 4880
02:59:08				1000			RPM CHANGE
02:59:12							SVP OESVP04061.D03 APPLIED
02:59:41				1200			RPM CHANGE
03:01:09							WIND 5 KNOTS, DIRECTION SW, WAVE HEIGHT <1 FEET, VISIBILITY NA NMI
03:23:23	LE	CA-2546					ABORT LINE: ABORT OUTSIDE SOW BOUNDARY
03:24:23	LB	CA-2549	OEMBA04061.D04	1200	OEXTF04061.D04	339	MAIN: FORCE ACQUIRED: OUTSIDE SOW BOUNDARY
04:11:09				900			RPM CHANGE
04:11:32				600			RPM CHANGE
04:15:13				900			RPM CHANGE
04:15:32							SVP OESVP04061.D04 TAKEN: APPLIED SENSOR 4880
04:15:37				1200			RPM CHANGE
04:15:41							SVP OESVP04061.D04 APPLIED
04:30:38	LE	CA-2549					
04:32:15	LB	CA-2552	OEMBA04061.D05	1200	OEXTF04061.D05	159	MAIN:
04:32:21				1100			RPM CHANGE

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
04:46:46							WIND CALM KNOTS, DIRECTION VARIABLE, WAVE HEIGHT 0 (FLAT) FEET, VISIBILITY NA NMI
05:20:14				900			RPM CHANGE
05:20:29				600			RPM CHANGE
05:25:18							SVP OESVP04061.D05 TAKEN: APPLIED. SENSOR 4880.
05:25:25							SVP OESVP04061.D05 APPLIED
05:28:05				900			RPM CHANGE
05:30:03				1050			RPM CHANGE
05:33:10				1100			RPM CHANGE
05:38:15	LE	CA-2552					ABORT LINE: ABORT LINE SOUTH OF SOW AREA BOUNDARY.
05:38:30							SLIGHT PAUSE IN DATA COLLECTION WHILE CAPTAINS CHECK OIL IN ONE ENGINE.
05:45:53	LB	CA-2555	OEMBA04061.D06	1200	OEXTF04061.D06	339	MAIN: FORCE ACQUIRED: MAIN. FORCE ACQUIRE OUTSIDE OF SOW AREA BOUNDARY TO THE SOUTH.
06:02:54							WIND CALM KNOTS, DIRECTION VARIABLE, WAVE HEIGHT 0 (FLAT) FEET, VISIBILITY NA NMI
06:29:10				900			RPM CHANGE
06:29:24				600			RPM CHANGE
06:32:38							SVP OESVP04061.D06 TAKEN: APPLIED. SENSOR 4880.
06:32:45							SVP OESVP04061.D06 APPLIED
06:34:00				900			RPM CHANGE
06:34:33				1200			RPM CHANGE
06:49:50	LE	CA-2555					
06:51:21	LB	CA-2558	OEMBA04061.D07	1100	OEXTF04061.D07	159	MAIN: MAIN
07:30:26				900			RPM CHANGE
07:30:41				600			RPM CHANGE
07:34:17							SVP OESVP04061.D07 TAKEN: APPLIED. SENSOR 4880.
07:34:23							SVP OESVP04061.D07 APPLIED
07:35:45				900			RPM CHANGE
07:36:06				1100			RPM CHANGE
07:51:10	LE	CA-2558					ABORT LINE: ABORTED LINE OUTSIDE OF SOW SOUTHERN BOUNDARY.
07:52:43	LB	CA-2561		1200		339	MAIN: FORCE ACQUIRED: MAIN
08:30:14				900			RPM CHANGE
08:30:28				600			RPM CHANGE
08:36:54							SVP OESVP04061.D08 TAKEN: APPLIED. SENSOR 4880.
08:37:02							SVP OESVP04061.D08 APPLIED
08:38:16				900			RPM CHANGE
08:38:28				1200			RPM CHANGE
08:56:25	LE	CA-2561					

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
08:57:57	LB	CA-2564	OEMBA04061.D08	1100	OEXTF04061.D08	159	MAIN: MAIN
08:58:28				1150			RPM CHANGE
09:32:34				1100			RPM CHANGE
09:40:01				900			RPM CHANGE
09:40:19				600			RPM CHANGE
09:43:59							SVP OESVP04061.D09 TAKEN: APPLIED. SENSOR 4880.
09:44:10							SVP OESVP04061.D09 APPLIED
09:45:35				900			RPM CHANGE
09:45:52				1100			RPM CHANGE
09:53:52	LE	CA-2564					ABORT LINE: ABORT LINE OUTSIDE OF SOW AREA SOUTHERN BOUNDARY.
09:55:18	LB	CA-2567	OEMBA04061.D09	1100	OEXTF04061.D09	339	MAIN: FORCE ACQUIRED: OUTSIDE SOW AREA SOUTHERN BOUNDARY.
09:58:44							RPM PARAMETERS JUST CHANGED TO 1200 FROM 1100. ACTUAL RPMS HAS BEEN 1200 SINCE START OF THIS LINE.
09:59:02				1200			RPM CHANGE
10:32:23				900			RPM CHANGE
10:32:45				600			RPM CHANGE
10:36:18							SVP OESVP04061.D10 TAKEN: APPLIED SENSOR 4880
10:36:28							SVP OESVP04061.D10 APPLIED
10:37:46				900			RPM CHANGE
10:38:15				1200			RPM CHANGE
10:55:16	LE	CA-2567					
10:56:53	LB	CA-2570	OEMBA04061.D10	1200	OEXTF04061.D10	159	MAIN:
10:57:20				1100			RPM CHANGE
11:02:42							WIND CALM KNOTS, DIRECTION VARIABLE, WAVE HEIGHT 0 (FLAT) FEET, VISIBILITY NA NMI
11:37:18				900			RPM CHANGE
11:37:41				600			RPM CHANGE
11:41:10							SVP OESVP04061.D11 TAKEN: APPLIED SENSOR 4880
11:41:47				900			RPM CHANGE
11:41:50							SVP OESVP04061.D11 APPLIED
11:42:23				1100			RPM CHANGE
11:49:53	LE	CA-2570					ABORT LINE: ABORT LINE OUTSIDE SOW BOUNDARY
11:51:06	LB	CA-2573	OEMBA04061.D11	1100	OEXTF04061.D11	339	MAIN: FORCE ACQUIRED: OUTSIDE SOW BOUNDARY
12:18:08				1200			RPM CHANGE
12:26:07				900			RPM CHANGE
12:26:29				600			RPM CHANGE
12:29:52				900			RPM CHANGE
12:30:14							SVP OESVP04061.D12 TAKEN: APPLIED SENSOR 4880

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
12:30:26				1200			RPM CHANGE
12:30:30							SVP OESVP04061.D12 APPLIED
12:46:21	LE	CA-2573					
12:47:58	LB	CA-2576	OEMBA04061.D12	1200	OEXTF04061.D12	159	MAIN:
12:48:00				1100			RPM CHANGE
13:26:51				900			RPM CHANGE
13:27:15				600			RPM CHANGE
13:30:38							SVP OESVP04061.D13 TAKEN: APPLIED SENSOR 4880
13:31:14				900			RPM CHANGE
13:31:20							SVP OESVP04061.D13 APPLIED
13:31:45				1100			RPM CHANGE
13:36:56	LE	CA-2576					ABORT LINE: ABORT OUTSIDE SOW BOUNDARY
13:38:12	LB	CA-2579	OEMBA04061.D13	1100	OEXTF04061.D13	339	MAIN: FORCE ACQUIRED: OUTSIDE SOW BOUNDARY
13:39:26				1200			RPM CHANGE
14:11:11				1000			RPM CHANGE
14:11:32				600			RPM CHANGE
14:12:12							WIND CALM KNOTS, DIRECTION VARIABLE, WAVE HEIGHT 0 (FLAT) FEET, VISIBILITY NA NMI
14:15:24							SVP OESVP04061.D14 TAKEN: APPLIED SENSOR 4880
14:15:53				900			RPM CHANGE
14:15:57							SVP OESVP04061.D14 APPLIED
14:16:23				1200			RPM CHANGE
14:26:48	LE	CA-2579					
14:28:21	LB	CA-2582	OEMBA04061.D14	1200	OEXTF04061.D14	159	MAIN:
14:28:30				1100			RPM CHANGE
14:52:49	LE	CA-2582					ABORT LINE: ABORT LINE OUTSIDE SOW BOUNDARY
14:53:52	LB	CA-2585	OEMBA04061.D15	1200	OEXTF04061.D15	339	MAIN: FORCE ACQUIRED: FORCE ACQUIRE LINE OUTSIDE SOW BOUNDARY
15:17:30	LE	CA-2585					
15:19:05	LB	CA-2588	OEMBA04061.D16	1200	OEXTF04061.D16	159	MAIN:
15:19:24				1100			RPM CHANGE
15:30:17				900			RPM CHANGE
15:30:39				600			RPM CHANGE
15:33:24							SVP OESVP04061.D15 TAKEN: APPLIED SENSOR 4880
15:34:06				900			RPM CHANGE
15:34:10							SVP OESVP04061.D15 APPLIED
15:34:32				1100			RPM CHANGE
15:44:16	LE	CA-2588					ABORT LINE: ABORT LINE OUTSIDE SOW BOUNDARY
15:45:00	LB	CA-2591	OEMBA04061.D17	1200	OEXTF04061.D17	339	MAIN: FORCE ACQUIRED: LINE OUTSIDE SOW BOUNDARY
16:07:55	LE	CA-2591					

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
16:09:29	LB	CA-2594	OEMBA04061.D18	1200	OEXTF04061.D18	159	MAIN:
16:10:53				1100			RPM CHANGE
16:33:06	LE	CA-2594					ABORT LINE: ABORT LINE OUTSIDE SOW BOUNDARY
16:34:33	LB	CA-2597	OEMBA04061.D19	1200	OEXTF04061.D19	339	MAIN: FORCE ACQUIRED: FORCE ACQUIRE OUTSIDE SOW AREA
16:37:25				900			RPM CHANGE
16:37:33				600			RPM CHANGE
16:40:58							SVP OESVP04061.D16 TAKEN: APPLIED SENSOR 4880
16:41:07							SVP OESVP04061.D16 APPLIED
16:42:08				900			RPM CHANGE
16:42:28				1200			RPM CHANGE
16:58:48	LE	CA-2597					
17:00:51	LB	CA-2600	OEMBA04061.D20	1100	OEXTF04061.D20	159	MAIN: MAIN
17:22:53	LE	CA-2600					ABORT LINE: ABORTED LINE OUTSIDE OF SOW AREA SOUTHERN BOUNDARY.
17:24:31	LB	CA-2603	OEMBA04061.D21	1100	OEXTF04061.D21	339	MAIN: FORCE ACQUIRED: MAIN
17:46:18	LE	CA-2603					
17:46:51			OEMBA04061.D22		OEXTF04061.D22		MB FILE CHANGE
17:54:46							SVP OESVP04061.D17 TAKEN: APPLIED. SENSOR 4880.
17:54:52							SVP OESVP04061.D17 APPLIED
17:57:03	LB	CA-2519	OEMBA04061.D22	1100	OEXTF04061.D22	159	MAIN: MAIN
18:12:44				1150			RPM CHANGE
18:34:01				900			RPM CHANGE
18:34:15				600			RPM CHANGE
18:37:38							SVP OESVP04061.D18 TAKEN: APPLIED. SENSOR 4880.
18:37:44							SVP OESVP04061.D18 APPLIED
18:38:50				900			RPM CHANGE
18:39:11				1150			RPM CHANGE
19:14:37	LE	CA-2519					ABORT LINE: ABORT LINE OUTSIDE OF SOW AREA SOUTHERN BOUNDARY.
19:20:00	LB	30_C-9006	OEMBA04061.D23	1150	OEXTF04061.D23	69	CROSS: FORCE ACQUIRED:
19:34:28				900			RPM CHANGE
19:34:43				600			RPM CHANGE
19:35:33							WIND 5-10 KNOTS, DIRECTION SE, WAVE HEIGHT < 1 FT. FEET, VISIBILITY UNLIMITED NMI
19:38:37							SVP OESVP04061.D19 TAKEN: APPLIED SENSOR 4880
19:39:22				900			RPM CHANGE
19:39:35				1150			RPM CHANGE
19:40:13							SVP OESVP04061.D19 APPLIED
19:46:41	LE	30_C-9006					
19:47:01			OEMBA04061.D24		OEXTF04061.D24		MB FILE CHANGE

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
19:58:14							END OF SURVEY LEG. TRANSITING TO GLOUCESTER.
21:08:40							ARRIVE ROSE OIL, GLOUCESTER. BACKUP ALL DATA AND SHUT DOWN AL SYSTEMS.
21:21:51							DRAFT 1.42 PRIOR TO TAKING ON FUEL

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
20:25:17			OEMBA04073.D01		OEXTF04073.D01		MB FILE CHANGE
20:25:17							SVP OESVP04049.D03 APPLIED
20:31:36							SVP OESVP04049.D03 APPLIED
20:54:35							SURVEY CREW ARRIVED AND STARTED ALL SYSTEMS.
21:26:51							DRAFT CHANGED TO 1.430000 METERS
21:55:52							SVP OESVP04073.D01 TAKEN: TESTING MVP FOR RESTATING SURVEY
21:56:07							SVP OESVP04073.D01 APPLIED
22:12:17							SVP OESVP04073.D01 APPLIED
22:36:47			OEMBA04073.D02		OEXTF04073.D02		MB FILE CHANGE
22:36:47							SVP OESVP04049.D03 APPLIED
22:56:48							DRAFT CHANGED TO 1.430000 METERS
23:01:14							SVP OESVP04073.D02 TAKEN
23:01:22							SVP OESVP04073.D02 APPLIED
23:27:51			OEMBA04073.D03		OEXTF04073.D03		MB FILE CHANGE
23:46:46				0			LEADLINE CONDUCTED OEMBA04073.D02

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
00:00:01			OEMBA04074.D01		OEXTF04074.D01		MB FILE CHANGE
12:22:40							DRAFT CHANGED TO 1.440000 METERS
12:29:00							DRAFT 1.44 TAKEN AND ENTERED IN THE RESON
13:00:00							DEPARTED FROM DOCK: SECOND CAPTAIN ARRIVED, DEPARTED DOCK FOR CAPE ANN SURVEY SITE
13:55:53							WIND 10-12 KNOTS, DIRECTION NW, WAVE HEIGHT 1-2 FEET, VISIBILITY UNLIMITED NMI
14:19:27			OEMBA04074.D02		OEXTF04074.D02		MB FILE CHANGE
14:22:25							SVP OESVP04074.D01 TAKEN: SENSOR # 4880 COMPARISON CAST
14:22:39							SVP OESVP04074.D01 APPLIED
14:28:38							SVP OESVP04074.D02 TAKEN: SENSOR # 4881 COMPARISON CAST
14:29:07							SVP OESVP04074.D02 APPLIED
14:35:36	LB	G_SW-5000	OEMBA04074.D03	1100	OEXTF04074.D03	339	GAP:
14:37:25				1200			RPM CHANGE
14:39:07	LE	G_SW-5000					
14:42:50	LB	G_SW-5001	OEMBA04074.D04	1200	OEXTF04074.D04	159	GAP: GAP FILL
14:47:36	LE	G_SW-5001					
14:51:56	LB	G_SW-5002	OEMBA04074.D05	1200	OEXTF04074.D05	339	GAP:
14:52:29				1000			RPM CHANGE
14:52:48				800			RPM CHANGE
14:55:00				1000			RPM CHANGE
14:56:58							SVP OESVP04074.D03 TAKEN: SENSOR # 4881
14:57:08							SVP OESVP04074.D03 APPLIED
15:00:48				1200			RPM CHANGE
15:01:22	LE	G_SW-5002					
15:05:19	LB	G_SW-5003	OEMBA04074.D06	1200	OEXTF04074.D06	159	GAP: GAP FILL
15:15:34	LE	G_SW-5003					
15:22:33	LB	G_SW-5004	OEMBA04074.D07	1200	OEXTF04074.D07	339	GAP:
15:24:05				1000			RPM CHANGE
15:24:23				800			RPM CHANGE
15:24:41				600			RPM CHANGE
15:25:56				800			RPM CHANGE
15:26:14				1000			RPM CHANGE
15:27:21				1200			RPM CHANGE
15:28:11							SVP OESVP04074.D04 TAKEN
15:28:21							SVP OESVP04074.D04 APPLIED
15:36:56	LE	G_SW-5004					
15:42:56	LB	G_SW-5005	OEMBA04074.D08	1200	OEXTF04074.D08	158	GAP: GAP FILL
15:46:41				1000			RPM CHANGE
15:47:09				800			RPM CHANGE
15:47:29				600			RPM CHANGE

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
15:49:34				800			RPM CHANGE
15:50:03				1000			RPM CHANGE
15:50:14							WELD ON SVP FISH BODY BROKE, SWAPPED WITH SPARE
15:51:29				1200			RPM CHANGE
15:51:43							SVP OESVP04074.D05 TAKEN
15:51:55							SVP OESVP04074.D05 APPLIED
15:54:59							WIND 12 KNOTS, DIRECTION NW, WAVE HEIGHT 1-2 FEET, VISIBILITY UNLIMITED NMI
15:59:32	LE	G_SW-5005					
16:03:40	LB	G_SW-5006	OEMBA04074.D09	1200	OEXTF04074.D09	339	GAP:
16:12:01				1000			RPM CHANGE
16:12:20				800			RPM CHANGE
16:12:41				600			RPM CHANGE
16:14:30				800			RPM CHANGE
16:14:54				1000			RPM CHANGE
16:16:41							SVP OESVP04074.D06 TAKEN
16:17:09							SVP OESVP04074.D06 APPLIED
16:17:16				1200			RPM CHANGE
16:23:19	LE	G_SW-5006					
16:28:00	LB	G_SW-5007	OEMBA04074.D10	1200	OEXTF04074.D10	159	GAP:
16:29:24				1100			RPM CHANGE
16:41:11				1150			RPM CHANGE
16:48:50	LE	G_SW-5007					
16:52:13	LB	G_SW-5008	OEMBA04074.D11	1200	OEXTF04074.D11	339	GAP:
17:02:23				1000			RPM CHANGE
17:02:38				800			RPM CHANGE
17:02:51				600			RPM CHANGE
17:04:11				800			RPM CHANGE
17:04:37				1000			RPM CHANGE
17:05:17							WIND 12-15 KNOTS, DIRECTION NW, WAVE HEIGHT 1-2 FEET, VISIBILITY UNLIMITED NMI
17:06:42							SVP OESVP04074.D07 TAKEN
17:06:50							SVP OESVP04074.D07 APPLIED
17:08:20				1200			RPM CHANGE
17:14:06	LE	G_SW-5008					
17:17:33	LB	G_SW-5009	OEMBA04074.D12	1200	OEXTF04074.D12	159	GAP:
17:38:22	LE	G_SW-5009					
17:41:41	LB	G_SW-5010	OEMBA04074.D13	1200	OEXTF04074.D13	339	GAP:
17:51:56	LE	G_SW-5010					
17:55:03							WIND 12-15 KNOTS, DIRECTION S, WAVE HEIGHT 1-2 FEET, VISIBILITY UNLIMITED NMI

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
17:57:51	LB	G_SW-5011	OEMBA04074.D14	1200	OEXTF04074.D14	159	GAP:
18:11:06	LE	G_SW-5011					
18:14:09	LB	G_SW-5012	OEMBA04074.D15	1200	OEXTF04074.D15	339	GAP:
18:23:56	LE	G_SW-5012					
18:30:54	LB	G_SW-5013	OEMBA04074.D16	1200	OEXTF04074.D16	159	GAP:
18:31:04				1000			RPM CHANGE
18:31:28				800			RPM CHANGE
18:31:51				600			RPM CHANGE
18:33:23				800			RPM CHANGE
18:33:47				1000			RPM CHANGE
18:34:13				1200			RPM CHANGE
18:35:32							SVP OESVP04074.D08 TAKEN
18:35:44							SVP OESVP04074.D08 APPLIED
18:46:15	LE	G_SW-5013					
18:49:21	LB	G_SW-5014	OEMBA04074.D17	1200	OEXTF04074.D17	339	GAP:
19:03:57	LE	G_SW-5014					
19:11:15	LB	G_SW-5015	OEMBA04074.D18	1200	OEXTF04074.D18	159	GAP:
19:31:22	LE	G_SW-5015					
19:35:35	LB	G_SW-5016	OEMBA04074.D19	1200	OEXTF04074.D19	339	GAP:
19:36:57				1000			RPM CHANGE
19:37:17				800			RPM CHANGE
19:37:37				600			RPM CHANGE
19:39:25				800			RPM CHANGE
19:39:55				1000			RPM CHANGE
19:40:53				1200			RPM CHANGE
19:42:22							SVP OESVP04074.D09 TAKEN
19:42:39							SVP OESVP04074.D09 APPLIED
19:55:08	LE	G_SW-5016					
19:58:54	LB	G_SW-5017	OEMBA04074.D20	1200	OEXTF04074.D20	159	GAP:
19:59:48				1000			RPM CHANGE
20:00:05				800			RPM CHANGE
20:00:16				600			RPM CHANGE
20:02:05				800			RPM CHANGE
20:02:54				1000			RPM CHANGE
20:03:59							SVP OESVP04074.D10 TAKEN
20:04:17							SVP OESVP04074.D10 APPLIED
20:04:30				1200			RPM CHANGE
20:04:54							WIND 15 KNOTS, DIRECTION S, WAVE HEIGHT 1-2, CHOPPY FEET, VISIBILITY UNLIMITED NMI
20:17:46	LE	G_SW-5017					
20:21:05	LB	G_SW-5018	OEMBA04074.D21	1200	OEXTF04074.D21	339	GAP:

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
20:22:08				1000			RPM CHANGE
20:22:21	LE	G_SW-5018					ABORT LINE: DATA GAP WILL RESTART LINE
20:24:52	LB	G_SW-5018	OEMBA04074.D22	1000	OEXTF04074.D22	339	GAP: RESTARTING LAST LINE
20:25:23				800			RPM CHANGE
20:25:37				600			RPM CHANGE
20:26:58				800			RPM CHANGE
20:27:16				1000			RPM CHANGE
20:28:59				1200			RPM CHANGE
20:29:22							SVP OESVP04074.D11 TAKEN
20:29:35							SVP OESVP04074.D11 APPLIED
20:42:48	LE	G_SW-5018					
20:56:45	LB	G_SW-5019	OEMBA04074.D23	1200	OEXTF04074.D23	159	GAP:
20:59:46	LE	G_SW-5019					
21:02:46	LB	G_SW-5020	OEMBA04074.D24	1200	OEXTF04074.D24	339	GAP:
21:05:21	LE	G_SW-5020					
21:08:28	LB	G_SW-5021	OEMBA04074.D25	1200	OEXTF04074.D25	159	GAP:
21:10:49	LE	G_SW-5021					
21:13:50	LB	G_SW-5022	OEMBA04074.D26	1200	OEXTF04074.D26	339	GAP:
21:14:04				1000			RPM CHANGE
21:14:21				800			RPM CHANGE
21:14:35				600			RPM CHANGE
21:15:47				800			RPM CHANGE
21:16:03				1000			RPM CHANGE
21:16:51	LE	G_SW-5022					
21:17:48							SVP OESVP04074.D12 TAKEN
21:17:55							SVP OESVP04074.D12 APPLIED
21:20:33	LB	G_SW-5023		1200		159	GAP:
21:23:01	LE	G_SW-5023					
21:26:01	LB	G_SW-5024	OEMBA04074.D27	1200	OEXTF04074.D27	339	GAP:
21:28:37	LE	G_SW-5024					
21:31:44	LB	G_SW-5025	OEMBA04074.D28	1200	OEXTF04074.D28	159	GAP:
21:34:03	LE	G_SW-5025					
21:37:01	LB	G_SW-5026	OEMBA04074.D29	1200	OEXTF04074.D29	339	GAP:
21:38:59							WIND 15 KNOTS, DIRECTION S, WAVE HEIGHT 1-2, CHOPPY FEET, VISIBILITY UNLIMITED NMI
21:39:40	LE	G_SW-5026					
21:43:49	LB	G_SW-5027	OEMBA04074.D30	1200	OEXTF04074.D30	159	GAP:
21:47:20	LE	G_SW-5027					
21:50:16	LB	G_SW-5028	OEMBA04074.D31	1200	OEXTF04074.D31	339	GAP:
21:53:26	LE	G_SW-5028					
21:56:31	LB	G_SW-5029	OEMBA04074.D32	1200	OEXTF04074.D32	159	GAP:

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
21:59:52	LE	G_SW-5029					
22:03:05	LB	G_SW-5030	OEMBA04074.D33	1000	OEXTF04074.D33	339	GAP:
22:03:20				800			RPM CHANGE
22:03:29				600			RPM CHANGE
22:05:48				800			RPM CHANGE
22:05:52				1000			RPM CHANGE
22:07:08	LE	G_SW-5030					
22:07:53							SVP OESVP04074.D13 TAKEN
22:08:07							SVP OESVP04074.D13 APPLIED
22:10:14	LB	G_SW-5031	OEMBA04074.D34	1200	OEXTF04074.D34	159	GAP:
22:13:16	LE	G_SW-5031					
22:16:15	LB	G_SW-5032	OEMBA04074.D35	1200	OEXTF04074.D35	339	GAP:
22:18:52	LE	G_SW-5032					
22:23:08	LB	G_SW-5033	OEMBA04074.D36	1200	OEXTF04074.D36	159	GAP:
22:25:52	LE	G_SW-5033					
22:28:55	LB	G_SW-5034	OEMBA04074.D37	1200	OEXTF04074.D37	339	GAP:
22:31:02	LE	G_SW-5034					
22:34:41	LB	G_SW-5035	OEMBA04074.D38	1200	OEXTF04074.D38	159	GAP:
22:37:39	LE	G_SW-5035					
22:40:36	LB	G_SW-5036	OEMBA04074.D39	1200	OEXTF04074.D39	339	GAP:
22:43:46	LE	G_SW-5036					
22:47:59	LB	G_SW-5037	OEMBA04074.D40	1200	OEXTF04074.D40	159	GAP:
22:52:31	LE	G_SW-5037					
22:57:28	LB	G_SW-5039	OEMBA04074.D41	1200	OEXTF04074.D41	339	GAP:
22:57:57	LE	G_SW-5039					
23:03:30	LB	G_SW-5038	OEMBA04074.D42	1200	OEXTF04074.D42	159	GAP:
23:07:52				1000			RPM CHANGE
23:08:10				800			RPM CHANGE
23:08:22				600			RPM CHANGE
23:10:01				800			RPM CHANGE
23:10:32				1000			RPM CHANGE
23:12:52							SVP OESVP04074.D14 TAKEN
23:13:04							SVP OESVP04074.D14 APPLIED
23:16:26	LE	G_SW-5038					
23:20:06	LB	G_SW-5041	OEMBA04074.D43	1000	OEXTF04074.D43	339	GAP:
23:21:51	LE	G_SW-5041					
23:24:57	LB	G_SW-5042	OEMBA04074.D44	1000	OEXTF04074.D44	159	MAIN:
23:26:50	LE	G_SW-5042					
23:27:56			OEMBA04074.D45		OEXTF04074.D45		MB FILE CHANGE
23:47:45			OEMBA04074.D46		OEXTF04074.D46		MB FILE CHANGE
23:51:02							SVP OESVP04074.D15 TAKEN

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
23:52:23							SVP OESVP04074.D15 APPLIED
23:52:51	LB	G_M-5224	OEMBA04074.D46	600	OEXTF04074.D46	339	MAIN:
23:53:45				800			RPM CHANGE
23:54:13				1000			RPM CHANGE
23:54:46				1200			RPM CHANGE
23:57:12	LE	G_M-5224					
23:58:39			OEMBA04074.D47		OEXTF04074.D47		MB FILE CHANGE

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
00:13:23			OEMBA04075.D01		OEXTF04075.D01		MB FILE CHANGE
00:20:47							SVP OESVP04075.D01 TAKEN
00:20:55							SVP OESVP04075.D01 APPLIED
00:21:26	LB	G_M-5222	OEMBA04075.D01	800	OEXTF04075.D01	339	GAP: GAP FILL
00:22:30				100			RPM CHANGE
00:22:35				1200			RPM CHANGE
00:24:14	LE	G_M-5222					
00:27:43	LB	G_M-5221	OEMBA04075.D02	1000	OEXTF04075.D02	159	GAP:
00:30:17	LE	G_M-5221					
00:30:31							WIND 15-20 KNOTS, DIRECTION S, WAVE HEIGHT 2-4, CHOPPY FEET, VISIBILITY UNLIMITED NMI
00:46:45	LB	G_M-5218	OEMBA04075.D03	1000	OEXTF04075.D03	339	GAP: GAP FILL
00:46:54				1100			RPM CHANGE
00:47:56				1000			RPM CHANGE
00:48:09				800			RPM CHANGE
00:48:22				600			RPM CHANGE
00:53:53							SVP OESVP04075.D02 TAKEN
00:54:01							SVP OESVP04075.D02 APPLIED
00:54:16				800			RPM CHANGE
00:55:16				1100			RPM CHANGE
00:57:41				1000			RPM CHANGE
01:00:07							WIND 15-20 KNOTS, DIRECTION S, WAVE HEIGHT 2-4, CHOPPY WITH SWELLS FEET, VISIBILITY UNLIMITED NMI
01:05:41	LE	G_M-5218					
01:14:09	LB	G_M-5219	OEMBA04075.D04	1000	OEXTF04075.D04	159	GAP: GAP FILL
01:16:55	LE	G_M-5219					
01:27:52	LB	G_M-5217	OEMBA04075.D05	1000	OEXTF04075.D05	159	GAP: GAP FILL
01:48:05	LE	G_M-5217					
01:52:26	LB	G_M-5216	OEMBA04075.D06	1000	OEXTF04075.D06	339	GAP: GAP FILL
02:10:13	LE	G_M-5216					
02:17:39	LB	G_M-5220	OEMBA04075.D07	1000	OEXTF04075.D07	159	GAP: GAP FILL
02:19:55				900			RPM CHANGE
02:35:03	LE	G_M-5220					
02:49:02	LB	G_M-5223		1200		339	GAP: GAP FILL
02:50:57	LE	G_M-5223					
02:56:50	LB	G_M-5215		600		159	GAP: GAP FILL
02:57:04							SVP OESVP04075.D03 TAKEN
02:57:11				800			RPM CHANGE
02:57:17							SVP OESVP04075.D03 APPLIED
02:59:34	LE	G_M-5215					

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
03:04:01	LB	G_M-5214	OEMBA04075.D08	1000	OEXTF04075.D08	159	GAP: FORCE ACQUIRED: GAP FILL
03:06:55	LE	G_M-5214					
03:11:55	LB	G_M-5223	OEMBA04075.D09	1000	OEXTF04075.D09	159	GAP: GAP FILL
03:14:25	LE	G_M-5223					
03:22:50	LB	G_M-5213	OEMBA04075.D10	1100	OEXTF04075.D10	339	GAP: GAP FILL
03:26:14	LE	G_M-5213					
03:29:54	LB	G_M-5212	OEMBA04075.D11	1000	OEXTF04075.D11	159	GAP: GAP FILL
03:33:34	LE	G_M-5212					
03:35:01							WIND 15-20 KNOTS, DIRECTION S, WAVE HEIGHT 2-4, CHOPPY WITH SWELLS FEET, VISIBILITY UNLIMITED NMI
03:38:19	LB	G_M-5226	OEMBA04075.D12	1000	OEXTF04075.D12	339	GAP: GAP FILL
03:38:42	LE	G_M-5226					
03:52:39							SVP OESVP04075.D04 TAKEN
03:52:47							SVP OESVP04075.D04 APPLIED
03:54:42	LB	G_NW-5148	OEMBA04075.D13	1000	OEXTF04075.D13	339	GAP: GAP FILL
03:55:25	LE	G_NW-5148					
04:00:53	LB	G_NW-5147	OEMBA04075.D14	1100	OEXTF04075.D14	159	GAP: GAP FILL
04:01:53	LE	G_NW-5147					
04:05:47	LB	G_NW-5146	OEMBA04075.D15	1100	OEXTF04075.D15	339	GAP: GAP FILL
04:07:13	LE	G_NW-5146					
04:10:38	LB	G_NW-5145	OEMBA04075.D16	1100	OEXTF04075.D16	159	GAP: GAP FILL
04:11:52	LE	G_NW-5145					
04:15:19	LB	G_NW-5144	OEMBA04075.D17	1100	OEXTF04075.D17	339	GAP: GAP FILL
04:16:30	LE	G_NW-5144					
04:19:56	LB	G_NW-5143	OEMBA04075.D18	1100	OEXTF04075.D18	159	GAP: GAP FILL
04:21:13	LE	G_NW-5143					
04:24:32	LB	G_NW-5142	OEMBA04075.D19	1100	OEXTF04075.D19	339	GAP: GAP FILL
04:25:56	LE	G_NW-5142					
04:29:24	LB	G_NW-5141	OEMBA04075.D20	1200	OEXTF04075.D20	159	GAP: GAP FILL
04:30:46	LE	G_NW-5141					
04:33:49	LB	G_NW-5140	OEMBA04075.D21	1200	OEXTF04075.D21	339	GAP: GAP FILL
04:35:00				1150			RPM CHANGE
04:35:17	LE	G_NW-5140					
04:38:26	LB	G_NW-5139	OEMBA04075.D22	1150	OEXTF04075.D22	159	GAP: GAP FILL
04:40:14	LE	G_NW-5139					
04:43:21	LB	G_NW-5138	OEMBA04075.D23	1150	OEXTF04075.D23	339	GAP: GAP FILL
04:45:19	LE	G_NW-5138					
04:48:28	LB	G_NW-5137	OEMBA04075.D24	1150	OEXTF04075.D24	159	GAP: GAP FILL
04:50:39	LE	G_NW-5137					
04:53:47	LB	G_NW-5136	OEMBA04075.D25	1100	OEXTF04075.D25	339	GAP: GAP FILL

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
04:55:52	LE	G_NW-5136					
04:59:14	LB	G_NW-5135	OEMBA04075.D26	1100	OEXTF04075.D26	159	GAP: GAP FILL
05:01:22	LE	G_NW-5135					
05:04:30	LB	G_NW-5134	OEMBA04075.D27	1100	OEXTF04075.D27	339	GAP: GAP FILL
05:06:29	LE	G_NW-5134					
05:09:48	LB	G_NW-5133	OEMBA04075.D28	1100	OEXTF04075.D28	159	GAP: GAP FILL
05:12:14	LE	G_NW-5133					
05:15:43	LB	G_NW-5132	OEMBA04075.D29	1100	OEXTF04075.D29	339	GAP:
05:18:27	LE	G_NW-5132					
05:21:48	LB	G_NW-5131	OEMBA04075.D30	1100	OEXTF04075.D30	159	GAP:
05:25:01	LE	G_NW-5131					
05:28:09	LB	G_NW-5130	OEMBA04075.D31	1100	OEXTF04075.D31	339	GAP:
05:31:14	LE	G_NW-5130					
05:34:31	LB	G_NW-5129	OEMBA04075.D32	1100	OEXTF04075.D32	159	GAP:
05:38:11	LE	G_NW-5129					
05:41:18	LB	G_NW-5128	OEMBA04075.D33	1100	OEXTF04075.D33	339	GAP:
05:44:47	LE	G_NW-5128					
05:48:05	LB	G_NW-5127	OEMBA04075.D34	1100	OEXTF04075.D34	159	GAP:
05:52:12	LE	G_NW-5127					
05:55:48	LB	G_NW-5126		600		339	GAP:
05:57:50							SVP OESVP04075.D05 TAKEN
05:58:09							SVP OESVP04075.D05 APPLIED
05:59:29				800			RPM CHANGE
05:59:38				1000			RPM CHANGE
05:59:40							WIND 15-20 KNOTS, DIRECTION S, WAVE HEIGHT 2-4, CHOPPY WITH SWELLS FEET, VISIBILITY NIGHT TIME NMI
06:00:40				1100			RPM CHANGE
06:01:09	LE	G_NW-5126					
06:04:24	LB	G_NW-5125		1100		159	GAP:
06:08:46	LE	G_NW-5125					
06:11:48	LB	G_NW-5124	OEMBA04075.D35	1100	OEXTF04075.D35	339	GAP:
06:15:49	LE	G_NW-5124					
06:19:11	LB	G_NW-5123		1100		159	GAP:
06:23:46	LE	G_NW-5123					
06:27:08	LB	G_NW-5122		1100		339	GAP:
06:31:05	LE	G_NW-5122					
06:34:24	LB	G_NW-5121		1100		159	GAP:
06:37:07	LE	G_NW-5121					

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
06:40:03	LB	G_NW-5120	OEMBA04075.D36	1100	OEXTF04075.D36	339	GAP:
06:41:12	LE	G_NW-5120					
06:44:30	LB	G_NW-5119		1100		159	GAP:
06:47:39	LE	G_NW-5119					
06:51:33	LB	G_NW-5118	OEMBA04075.D37	1100	OEXTF04075.D37	339	GAP:
06:57:02	LE	G_NW-5118					
07:00:19	LB	G_NW-5117		1100		339	GAP:
07:06:37	LE	G_NW-5117					
07:09:43	LB	G_NW-5116		1100		159	GAP:
07:15:36	LE	G_NW-5116					
07:18:52	LB	G_NW-5115	OEMBA04075.D38	1100	OEXTF04075.D38	159	GAP:
07:25:20	LE	G_NW-5115					
07:28:30	LB	G_NW-5114		1100		339	GAP:
07:34:36	LE	G_NW-5114					
07:37:50	LB	G_NW-5113		1100		159	GAP:
07:44:39	LE	G_NW-5113					
07:45:14			OEMBA04075.D39		OEXTF04075.D39		MB FILE CHANGE
07:46:26			OEMBA04075.D40		OEXTF04075.D40		MB FILE CHANGE
07:46:26							SVP OESVP04049.D03 APPLIED
07:46:57							SVP OESVP04075.D05 APPLIED
07:55:04	LB	G_NW-5112	OEMBA04075.D41	1100	OEXTF04075.D41	339	GAP: FORCE ACQUIRED:
07:55:32							ISS2000 CRASHED ON AUTO ARCHIVE.
08:00:14	LE	G_NW-5112					
08:03:28	LB	G_NW-5111		1100		159	GAP:
08:09:24	LE	G_NW-5111					
08:12:51	LB	G_NW-5110		1100		339	GAP:
08:18:48	LE	G_NW-5110					
08:22:05	LB	G_NW-5109		1100		159	GAP:
08:25:34							WIND 15-20 KNOTS, DIRECTION S, WAVE HEIGHT 2-4, CHOPPY WITH SWELLS FEET, VISIBILITY NIGHT TIME NMI
08:28:40	LE	G_NW-5109					
08:29:23			OEMBA04075.D42		OEXTF04075.D42		MB FILE CHANGE
08:32:28	LB	ADDT0001	OEMBA04075.D42	1100	OEXTF04075.D42	339	GAP:
08:33:15	LE	ADDT0001					
08:38:06	LB	G_NW-5108	OEMBA04075.D43	1100	OEXTF04075.D43	339	GAP:
08:42:32	LE	G_NW-5108					
08:45:55	LB	G_NW-5107		1100		159	GAP:
08:52:59	LE	G_NW-5107					
08:56:11	LB	G_NW-5106		1100		339	GAP: GAP FILL

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
09:02:51	LE	G_NW-5106					
09:06:09	LB	G_NW-5105	OEMBA04075.D44	1100	OEXTF04075.D44	159	GAP: GAP FILL
09:13:31	LE	G_NW-5105					
09:16:39	LB	G_NW-5104	OEMBA04075.D45	1100	OEXTF04075.D45	339	GAP: GAP FILL
09:23:33	LE	G_NW-5104					
09:26:51	LB	G_NW-5103	OEMBA04075.D46	1100	OEXTF04075.D46	159	GAP: GAP FILL
09:34:31	LE	G_NW-5103					
09:37:43	LB	G_NW-5102	OEMBA04075.D47	1100	OEXTF04075.D47	339	GAP: GAP FILL
09:39:13				800			RPM CHANGE
09:39:37				600			RPM CHANGE
09:44:36							SVP OESVP04075.D06 TAKEN
09:44:41				800			RPM CHANGE
09:44:49							SVP OESVP04075.D06 APPLIED
09:44:58				1000			RPM CHANGE
09:46:43	LE	G_NW-5102					
09:51:07	LB	G_NW-5101	OEMBA04075.D48	1000	OEXTF04075.D48	159	GAP: GAP FILL
09:58:26	LE	G_NW-5101					
10:08:35	LB	G_NW-5100	OEMBA04075.D49	1100	OEXTF04075.D49	159	GAP: GAP FILL
10:24:04	LE	G_NW-5100					
10:28:01	LB	G_M-5211	OEMBA04075.D50	1100	OEXTF04075.D50	339	GAP: GAP FILL
10:34:35	LE	G_M-5211					
10:38:03	LB	G_M-5228	OEMBA04075.D51	1100	OEXTF04075.D51	159	GAP: GAP FILL
10:41:22	LE	G_M-5228					
10:44:51	LB	G_M-5227	OEMBA04075.D52	1100	OEXTF04075.D52	339	GAP: GAP FILL
10:48:09	LE	G_M-5227					
10:59:27							SVP OESVP04075.D07 TAKEN
10:59:36							SVP OESVP04075.D07 APPLIED
10:59:49			OEMBA04075.D53		OEXTF04075.D53		MB FILE CHANGE
11:00:33							HELM DISPLAY ERROR WHILE SWITCHING FROM NIGHT MODE TO DAY MODE
11:01:12			OEMBA04075.D54		OEXTF04075.D54		MB FILE CHANGE
11:01:12							SVP OESVP04049.D03 APPLIED
11:01:24							SVP OESVP04075.D07 APPLIED
11:04:08							RESTARTED SYSTEM, HELM DISPLAY OPERATING NORMALLY
11:07:30							DRAFT CHANGED TO 1.440000 METERS
11:07:37	LB	G_NW-5149	OEMBA04075.D54	1100	OEXTF04075.D54	159	GAP: FORCE ACQUIRED: GAP FILL
11:08:17				1100			RPM CHANGE
11:12:13	LE	G_NW-5149					
11:13:28			OEMBA04075.D55		OEXTF04075.D55		MB FILE CHANGE
11:16:49	LB	G_M-5203	OEMBA04075.D55	1100	OEXTF04075.D55	159	GAP: GAP FILL

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
11:19:18	LE	G_M-5203					
11:20:31			OEMBA04075.D56		OEXTF04075.D56		MB FILE CHANGE
11:23:12	LB	G_M-5204	OEMBA04075.D56	1100	OEXTF04075.D56	339	GAP: GAP FILL
11:25:45	LE	G_M-5204					
11:29:02	LB	G_M-5205		1100		159	GAP: GAP FILL
11:31:46	LE	G_M-5205					
11:33:04			OEMBA04075.D57		OEXTF04075.D57		MB FILE CHANGE
11:34:14							WIND 10-15 KNOTS, DIRECTION S, WAVE HEIGHT 1-3, CHOPPY FEET, VISIBILITY UNLIMITED NMI
11:35:17	LB	G_M-5206	OEMBA04075.D57	1100	OEXTF04075.D57	339	GAP: GAP FILL
11:36:53	LE	G_M-5206					
11:41:25	LB	G_M-5207	OEMBA04075.D58	1100	OEXTF04075.D58	339	GAP: GAP FILL
11:42:24	LE	G_M-5207					
11:43:04	LB	G_M-5208	OEMBA04075.D59	1100	OEXTF04075.D59	159	GAP: GAP FILL
11:44:38	LE	G_M-5208					
11:48:00	LB	G_M-5209		1100		339	GAP: GAP FILL
11:49:18	LE	G_M-5209					
11:52:55	LB	G_M-5210	OEMBA04075.D60	1100	OEXTF04075.D60	159	GAP: GAP FILL
11:53:34	LE	G_M-5210					
12:03:30							SVP OESVP04075.D08 TAKEN
12:03:39							SVP OESVP04075.D08 APPLIED
12:05:44	LB	G_M-5202	OEMBA04075.D61	1100	OEXTF04075.D61	159	GAP: GAP FILL
12:06:51	LE	G_M-5202					
12:15:52	LB	G_M-5225	OEMBA04075.D62	1100	OEXTF04075.D62	159	GAP: GAP FILL
12:17:03	LE	G_M-5225					
12:20:35	LB	G_M-5201	OEMBA04075.D63	1100	OEXTF04075.D63	339	GAP: GAP FILL
12:22:28	LE	G_M-5201					
12:26:05	LB	G_M-5200	OEMBA04075.D64	1100	OEXTF04075.D64	159	GAP: GAP FILL
12:28:22	LE	G_M-5200					
12:39:53							SVP OESVP04075.D09 TAKEN
12:39:59							SVP OESVP04075.D09 APPLIED
12:41:40	LB	G_SW-5053	OEMBA04075.D65	1100	OEXTF04075.D65	339	GAP: GAP FILL
12:43:08	LE	G_SW-5053					
12:47:01	LB	G_SW-5054	OEMBA04075.D66	1100	OEXTF04075.D66	339	GAP: GAP FILL
12:48:28	LE	G_SW-5054					
12:53:58	LB	G_SW-5052		1100		159	GAP: GAP FILL
12:55:59	LE	G_SW-5052					
12:59:07	LB	G_SW-5051		1100		339	GAP: GAP FILL
13:01:19	LE	G_SW-5051					
13:04:23	LB	G_SW-5050	OEMBA04075.D67	1100	OEXTF04075.D67	159	GAP:

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
13:06:29	LE	G_SW-5050					
13:09:42	LB	G_SW-5049		1100		339	GAP:
13:11:26	LE	G_SW-5049					
13:14:41	LB	G_SW-5048		1100		159	GAP:
13:16:45	LE	G_SW-5048					
13:20:59	LB	G_SW-5045		1100		339	GAP:
13:25:24	LE	G_SW-5045					
13:30:12	LB	G_SW-5046		1100		339	GAP:
13:32:41	LE	G_SW-5046					
13:35:54	LB	G_SW-5047		1100		159	GAP:
13:38:25	LE	G_SW-5047					
13:44:26	LB	G_SW-5044	OEMBA04075.D68	1100	OEXTF04075.D68	159	GAP:
13:45:15	LE	G_SW-5044					
13:49:45	LB	G_SW-5040		1100		159	GAP:
13:50:11	LE	G_SW-5040					
13:55:51	LB	CA_WEST-4003	OEMBA04075.D69	1200	OEXTF04075.D69	339	MAIN:
13:57:59	LE	CA_WEST-4003					
14:00:46	LB	CA_WEST-4006	OEMBA04075.D70	1200	OEXTF04075.D70	158	MAIN:
14:04:41	LE	CA_WEST-4006					
14:07:40	LB	CA_WEST-4009	OEMBA04075.D71	1200	OEXTF04075.D71	338	MAIN:
14:13:38	LE	CA_WEST-4009					
14:16:31	LB	CA_WEST-4012	OEMBA04075.D72	1200	OEXTF04075.D72	157	MAIN:
14:24:01	LE	CA_WEST-4012					
14:26:57	LB	CA_WEST-4015	OEMBA04075.D73	1200	OEXTF04075.D73	338	MAIN:
14:27:15				1000			RPM CHANGE
14:27:31				800			RPM CHANGE
14:27:39				600			RPM CHANGE
14:29:49				800			RPM CHANGE
14:30:09				1000			RPM CHANGE
14:31:31							SVP OESVP04075.D10 TAKEN
14:33:39							SVP OESVP04075.D10 APPLIED
14:37:40							WIND 15-20 KNOTS, DIRECTION W, WAVE HEIGHT 1-3, CHOPPY FEET, VISIBILITY UNLIMITED NMI
14:39:09	LE	CA_WEST-4015					
14:40:20	LB	CA_WEST-4018	OEMBA04075.D74	1000	OEXTF04075.D74	1158	MAIN: FORCE ACQUIRED: ADD ON SURVEY AREA
14:51:23	LE	CA_WEST-4018					
14:54:46	LB	CA_WEST-4021	OEMBA04075.D75	1000	OEXTF04075.D75	338	MAIN:
14:56:21				1100			RPM CHANGE
15:01:57				1000			RPM CHANGE

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
15:04:12							WIND 20-25 KNOTS, DIRECTION NW, WAVE HEIGHT 2-4 FEET, VISIBILITY UNLIMITED NMI
15:07:06				900			RPM CHANGE
15:11:08	LE	CA_WEST-4021					
15:12:37	LB	CA_WEST-4024		900		158	MAIN: FORCE ACQUIRED:
15:13:27				1000			RPM CHANGE
15:13:50				1100			RPM CHANGE
15:22:41				900			RPM CHANGE
15:22:50				600			RPM CHANGE
15:26:14							SVP OESVP04075.D11 TAKEN
15:28:26							SVP OESVP04075.D11 APPLIED
15:29:01	LE	CA_WEST-4024					
15:30:50			OEMBA04075.D76		OEXTF04075.D76		MB FILE CHANGE
15:34:37			OEMBA04075.D77		OEXTF04075.D77		MB FILE CHANGE
16:19:28			OEMBA04075.D78		OEXTF04075.D78		MB FILE CHANGE
16:21:30	LB	CA_WEST-4051	OEMBA04075.D78	1000	OEXTF04075.D78	158	MAIN: FORCE ACQUIRED:
16:22:01				1100			RPM CHANGE
16:23:23	LE	CA_WEST-4051					ABORT LINE: AUTOPILOT IS HAVING DIFFICULTY HOLDING COURSE, ABORTING TRYING AGAIN.
16:27:32	LB	CA_WEST-4051	OEMBA04075.D79	1200	OEXTF04075.D79	158	MAIN:
16:28:45				1000			RPM CHANGE
16:29:15				600			RPM CHANGE
16:30:25				800			RPM CHANGE
16:32:20							SVP OESVP04075.D12 TAKEN
16:32:26				1000			RPM CHANGE
16:32:32							SVP OESVP04075.D12 APPLIED
16:33:05				1100			RPM CHANGE
16:45:57							WIND 20-25 KNOTS, DIRECTION NW, WAVE HEIGHT 2-4 FEET, VISIBILITY UNLIMITED NMI
16:46:05							RUNNING LINES SOUTH HOPING FOR THE WINDS TO SUBSIDE. DATA LOOKS GOOD.
17:20:15	LE	CA_WEST-4051					
17:38:54	LB	CA_WEST-4027	OEMBA04075.D80	1100	OEXTF04075.D80	158	MAIN:
17:56:59	LE	CA_WEST-4027					
18:45:30	LB	CA_WEST-4054	OEMBA04075.D81	1100	OEXTF04075.D81	158	MAIN:
18:47:37				1000			RPM CHANGE
18:50:05				800			RPM CHANGE
18:50:16				600			RPM CHANGE
18:51:44				800			RPM CHANGE
18:52:11				1000			RPM CHANGE

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
18:53:14							SVP OESVP04075.D13 TAKEN
18:53:24							SVP OESVP04075.D13 APPLIED
18:53:47				1050			RPM CHANGE
18:54:18							WIND 20-25 KNOTS, DIRECTION NW, WAVE HEIGHT 3-4 FEET, VISIBILITY UNLIMITED NMI
18:59:50							DURING POST PROCESSING CHECK DRAFT, WHEN WE RE-ENABLED LOGGING WE NOTICED THE DRAFT HAD REVERTED TO AND OLDER DRAFT.
19:29:15				800			RPM CHANGE
19:29:33				600			RPM CHANGE
19:31:13				800			RPM CHANGE
19:32:41				1050			RPM CHANGE
19:33:18							SVP OESVP04075.D14 TAKEN
19:33:27							SVP OESVP04075.D14 APPLIED
19:39:38	LE	CA_WEST-4054					
20:08:50	LB	CA_WEST-4045	OEMBA04075.D82	1100	OEXTF04075.D82	158	MAIN:
20:38:29	LE	CA_WEST-4045					
20:42:01	LB	CA_WEST-4042	OEMBA04075.D83	1000	OEXTF04075.D83	338	MAIN: FIRST LINE GOING NORTH, WINDS HAVE CALMED SEAS ARE LESSENING.
21:07:44				800			RPM CHANGE
21:08:03				600			RPM CHANGE
21:09:49				800			RPM CHANGE
21:10:18				1000			RPM CHANGE
21:11:32							SVP OESVP04075.D15 TAKEN
21:12:28							SVP OESVP04075.D15 APPLIED
21:15:25	LE	CA_WEST-4042					ABORT LINE
21:17:39	LB	ADDT0003	OEMBA04075.D84	1000	OEXTF04075.D84	158	MAIN:
21:20:10	LE	ADDT0003					
21:22:46	LB	ADDT0004		1000		338	MAIN:
21:26:16	LE	ADDT0004					
21:31:02	LB	ADDT0008	OEMBA04075.D85	1100	OEXTF04075.D85	157	MAIN:
21:32:08	LE	ADDT0008					
21:34:14	LB	CA_WEST-4039		1100		157	MAIN: FORCE ACQUIRED:
21:54:01	LE	CA_WEST-4039					
21:57:12	LB	CA_WEST-4036	OEMBA04075.D86	1100	OEXTF04075.D86	337	MAIN:
22:17:51	LE	CA_WEST-4036					ABORT LINE
22:20:21	LB	CA_WEST-4033	OEMBA04075.D87	1100	OEXTF04075.D87	157	MAIN: FORCE ACQUIRED:
22:21:32				800			RPM CHANGE
22:22:16				600			RPM CHANGE

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
22:24:10							WIND 15-20 KNOTS, DIRECTION NW, WAVE HEIGHT 1-2 FEET, VISIBILITY UNLIMITED NMI
22:25:33							SVP OESVP04075.D16 TAKEN
22:25:46				800			RPM CHANGE
22:25:54							SVP OESVP04075.D16 APPLIED
22:26:16				1000			RPM CHANGE
22:26:34				1100			RPM CHANGE
22:38:14	LE	CA_WEST-4033					
22:42:06	LB	ADDT0005	OEMBA04075.D88	1000	OEXTF04075.D88	157	MAIN: GAP IN ADD AREA
22:44:21	LE	ADDT0005					
22:48:20	LB	ADDT0006		1100		157	MAIN: GAP
22:52:26	LE	ADDT0006					
22:56:36	LB	ADDT0011		1000		157	GAP: GAP FILL
22:57:47	LE	ADDT0011					
23:01:00	LB	ADDT0012		1100		337	GAP: GAP FILL
23:03:47	LE	ADDT0012					
23:06:11	LB	ADDT0007		1000		157	GAP: GAP FILL
23:09:24	LE	ADDT0007					
23:16:55	LB	CA_WEST-4030	OEMBA04075.D89	1000	OEXTF04075.D89	337	MAIN:
23:20:36				1100			RPM CHANGE
23:28:56	LE	CA_WEST-4030					ABORT LINE: ABORT TO PICK UP GAPS
23:30:11	LB	ADDT0002		1100		337	MAIN: FORCE ACQUIRED: GAP FILL
23:32:14	LE	ADDT0002					ABORT LINE: GAP LINES
23:34:49	LB	ADDT0013		1100		337	MAIN: GAP
23:36:08	LE	ADDT0013					
23:38:32	LB	ADDT0010		1100		337	MAIN: GAP FILL
23:40:02	LE	ADDT0010					
23:42:33	LB	ADDT0009		1100		337	MAIN: GAP FILL
23:43:15	LE	ADDT0009					
23:47:07	LB	ADDT0014		1100		337	MAIN: MAIN
23:48:29	LE	ADDT0014					
23:49:11	LB	CA_WEST-4030	OEMBA04075.D90	1100	OEXTF04075.D90	337	MAIN: FORCE ACQUIRED: MAIN
23:54:46	LE	CA_WEST-4030					ABORT LINE
23:57:12	LB	CA_WEST-4057	OEMBA04075.D91	1100	OEXTF04075.D91	337	MAIN: FORCE ACQUIRED:

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
00:00:01			OEMBA04076.D01		OEXTF04076.D01		MB FILE CHANGE
00:17:07				800			RPM CHANGE
00:17:27				600			RPM CHANGE
00:19:38				800			RPM CHANGE
00:20:07				1000			RPM CHANGE
00:20:29							SVP OESVP04076.D01 TAKEN
00:20:56				1100			RPM CHANGE
00:22:12							SVP OESVP04076.D01 APPLIED
00:37:42	LE	CA_WEST-4057					
00:43:07	LB	CA_WEST-4060	OEMBA04076.D02	1100	OEXTF04076.D02	157	MAIN: MAIN
00:58:09							SEEING PING DROPS IN THE RESON XTF DATA
01:11:45				800			RPM CHANGE
01:12:11				600			RPM CHANGE
01:14:21				800			RPM CHANGE
01:14:43				1000			RPM CHANGE
01:16:03							SVP OESVP04076.D02 TAKEN
01:16:15							SVP OESVP04076.D02 APPLIED
01:16:39				1100			RPM CHANGE
01:34:46	LE	CA_WEST-4060					
01:37:50	LB	CA_WEST-4063	OEMBA04076.D03	1100	OEXTF04076.D03	338	MAIN:
02:06:58				1150			RPM CHANGE
02:08:20				1200			RPM CHANGE
02:16:09				1000			RPM CHANGE
02:16:24				800			RPM CHANGE
02:16:35				600			RPM CHANGE
02:20:20				800			RPM CHANGE
02:20:43				1000			RPM CHANGE
02:20:44							SVP OESVP04076.D03 TAKEN
02:20:55							SVP OESVP04076.D03 APPLIED
02:21:04				1200			RPM CHANGE
02:32:21	LE	CA_WEST-4063					
02:35:31	LB	CA_WEST-4066	OEMBA04076.D04	1100	OEXTF04076.D04	338	MAIN: FORCE ACQUIRE AFTER RESTATING ISS2000 STARTUP AND SYSTEM CONTROL
02:50:41	LE	CA_WEST-4066					ABORT LINE: TAIM PROGRAM TIME OUT. ABORTED LINE TO CORRECT ERROR.
02:50:50			OEMBA04076.D05		OEXTF04076.D05		MB FILE CHANGE
02:57:41			OEMBA04076.D06		OEXTF04076.D06		MB FILE CHANGE
02:57:41							SVP OESVP04049.D03 APPLIED
03:04:08			OEMBA04076.D07		OEXTF04076.D07		MB FILE CHANGE
03:04:08							SVP OESVP04049.D03 APPLIED

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
03:11:03							DRAFT CHANGED TO 1.440000 METERS
03:12:53							SVP OESVP04076.D03 APPLIED
03:15:00	LB	CA_WEST-4066	OEMBA04076.D07	1100	OEXTF04076.D07	157	MAIN: FORCE ACQUIRED:
03:34:53				800			RPM CHANGE
03:35:11				600			RPM CHANGE
03:39:23				800			RPM CHANGE
03:39:44				1100			RPM CHANGE
03:39:51							SVP OESVP04076.D04 TAKEN
03:39:58							SVP OESVP04076.D04 APPLIED
03:55:42	LE	CA_WEST-4066					
03:58:46	LB	CA_WEST-4069	OEMBA04076.D08	1100	OEXTF04076.D08	338	MAIN:
04:15:36							NEED TO CORRECT TIMING OF ENTRIES IN REFERENCE TO TAIM TIME OUT AND INAVLOG FAILURE. INAVLOG FROZE WHEN TAIM TIMED OUT. NOT SURE HOW I TROUBLE SHOOTED TO GET INAVLOG GOING AGAIN BUT IT TOOK MORE THAN 45 MIN.
04:17:44							RE-INSERTED MESSAGE FILES FROM BACK-UP FOLDER, BACKED UP THE DATABASE, AND VALIDATED THE DATABASE. INAVLOG STARTED UPDATING AGAIN.
04:55:19	LE	CA_WEST-4069					
04:57:32	LB	CA_WEST-4075	OEMBA04076.D09	1100	OEXTF04076.D09	157	MAIN:
05:02:10	LE	CA_WEST-4075					ABORT LINE: ABORTED LINE TO DO SOME GAP FILES
05:04:12	LB	ADDT0020	OEMBA04076.D10	1100	OEXTF04076.D10	337	MAIN: SPLIT
05:05:52	LE	ADDT0020					
05:07:53	LB	ADDT0019		1100		157	MAIN: SPLIT
05:09:01	LE	ADDT0019					
05:11:27	LB	ADDT0018		1100		337	MAIN: SPLIT
05:12:49	LE	ADDT0018					
05:14:10							SINGLE PING DROPS (3) OVER ABOUT AN HOUR, IN THE BACKSCATTER DATA, LOOKS ELECTRICAL. ATTEMPTING TO DETERMINE SOURCE.
05:15:07	LB	ADDT0017		1100		157	MAIN: SPLIT
05:18:24	LE	ADDT0017					
05:20:33	LB	ADDT0016		1100		337	MAIN: SPLIT
05:23:57	LE	ADDT0016					
05:26:22	LB	CA_WEST-4075	OEMBA04076.D11	1100	OEXTF04076.D11	337	MAIN: FORCE ACQUIRED: AFTER GAP FILLS
05:28:41				800			RPM CHANGE
05:28:59				600			RPM CHANGE
05:30:54				800			RPM CHANGE
05:33:07							SVP OESVP04076.D05 TAKEN

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
05:33:09				1100			RPM CHANGE
05:33:16							SVP OESVP04076.D05 APPLIED
05:43:52	LE	CA_WEST-4075					ABORT LINE: ABORTED FOR GAP FILLS
05:46:29	LB	ADDT0024	OEMBA04076.D12	1100	OEXTF04076.D12	337	MAIN: SPLIT
05:48:08	LE	ADDT0024					
05:50:58	LB	ADDT0021		1100		157	MAIN: SPLIT
05:53:03	LE	ADDT0021					
05:55:24	LB	ADDT0022		1100		337	MAIN: SPLIT
05:57:13	LE	ADDT0022					
05:59:22	LB	ADDT0025		1100		157	MAIN: SPLIT
05:59:50	LE	ADDT0025					
06:00:40	LB	CA_WEST-4075		1100		157	MAIN: FORCE ACQUIRED: AFTER GAP FILLS
06:04:26				1150			RPM CHANGE
06:11:51				1000			RPM CHANGE
06:12:00				800			RPM CHANGE
06:12:17				600			RPM CHANGE
06:15:27				800			RPM CHANGE
06:16:22							SVP OESVP04076.D06 TAKEN
06:16:23				1150			RPM CHANGE
06:16:32							SVP OESVP04076.D06 APPLIED
06:20:02							STILL GETTING SINGLE PING DROP IN THE BACKSCATTER ABOUT ONCE EVERY 45 MINS
06:35:18	LE	CA_WEST-4075					
06:37:42	LB	ADDT0026	OEMBA04076.D13	1150	OEXTF04076.D13	337	MAIN: SPLIT
06:43:18	LE	ADDT0026					
06:45:44	LB	ADDT0028		1150		157	MAIN: SPLIT
06:49:39	LE	ADDT0028					
06:52:33	LB	CA_WEST-4079		1150		337	MAIN:
07:05:09				800			RPM CHANGE
07:05:24				600			RPM CHANGE
07:08:21				800			RPM CHANGE
07:09:14							SVP OESVP04076.D07 TAKEN
07:09:33							SVP OESVP04076.D07 APPLIED
07:09:44				1100			RPM CHANGE
07:30:53				800			RPM CHANGE
07:31:11				600			RPM CHANGE
07:33:01				800			RPM CHANGE
07:34:41				1000			RPM CHANGE
07:35:06							SVP OESVP04076.D08 TAKEN
07:35:13				1150			RPM CHANGE

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
07:35:16							SVP OESVP04076.D08 APPLIED
07:46:17				1200			RPM CHANGE
07:52:10				1000			RPM CHANGE
07:52:34				800			RPM CHANGE
07:52:49				600			RPM CHANGE
07:54:25				800			RPM CHANGE
07:58:17							SVP OESVP04076.D09 TAKEN
07:58:28							SVP OESVP04076.D09 APPLIED
08:07:38	LE	CA_WEST-4079					
08:10:44	LB	CA_WEST-4077	OEMBA04076.D14	800	OEXTF04076.D14	157	MAIN:
08:30:38	LE	CA_WEST-4077					ABORT LINE: FILLING IN SPLITS
08:32:15	LB	ADDT0030	OEMBA04076.D15	800	OEXTF04076.D15	338	MAIN:
08:34:52	LE	ADDT0030					
08:36:51	LB	ADDT0029		800		338	MAIN: FILLING IN SPLITS
08:38:12	LE	ADDT0029					
08:41:50	LB	CA_WEST-4074	OEMBA04076.D16	800	OEXTF04076.D16	338	MAIN:
08:52:33	LE	CA_WEST-4074					
08:56:00	LB	CA_WEST-4082	OEMBA04076.D17	800	OEXTF04076.D17	338	MAIN: MAIN
09:03:13				1000			RPM CHANGE
09:03:18				800			RPM CHANGE
09:03:22				600			RPM CHANGE
09:08:33							SVP OESVP04076.D10 TAKEN
09:08:56							SVP OESVP04076.D10 APPLIED
09:09:12				800			RPM CHANGE
09:09:16				1100			RPM CHANGE
09:09:35				1150			RPM CHANGE
09:35:53				1000			RPM CHANGE
09:36:01				800			RPM CHANGE
09:36:06				600			RPM CHANGE
09:37:51				800			RPM CHANGE
09:38:36				1000			RPM CHANGE
09:41:03							SVP OESVP04076.D11 TAKEN
09:41:21							SVP OESVP04076.D11 APPLIED
09:42:00				1100			RPM CHANGE
09:42:42							WIND 10-15 KNOTS, DIRECTION NW, WAVE HEIGHT 1-2 FEET, VISIBILITY NIGHT TIME NMI
10:07:33	LE	CA_WEST-4082					
10:12:03	LB	CA_WEST-4057	OEMBA04076.D18	1200	OEXTF04076.D18	338	MAIN: PARTIAL LINE
10:28:17	LE	CA_WEST-4057					ABORT LINE: ABORT PARTIAL LINE
10:35:36	LB	ADDT0031	OEMBA04076.D19	1200	OEXTF04076.D19	338	MAIN: SPLIT

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
10:35:44				1100			RPM CHANGE
10:43:48	LE	ADDT0031					
10:46:38	LB	CA_WEST-4085	OEMBA04076.D20	1100	OEXTF04076.D20	338	MAIN:
10:47:06				1200			RPM CHANGE
11:05:30				900			RPM CHANGE
11:05:39				600			RPM CHANGE
11:07:19				900			RPM CHANGE
11:09:32				1200			RPM CHANGE
11:09:33							SVP OESVP04076.D12 TAKEN
11:10:08							SVP OESVP04076.D12 APPLIED
11:15:18							WIND 10-15 KNOTS, DIRECTION N, WAVE HEIGHT 1-2 FEET, VISIBILITY UNLIMITED NMI
11:35:20				900			RPM CHANGE
11:35:25				600			RPM CHANGE
11:39:29							SVP OESVP04076.D13 TAKEN
11:41:39							SVP OESVP04076.D13 APPLIED
11:41:50				900			RPM CHANGE
11:42:00				1200			RPM CHANGE
11:59:20	LE	CA_WEST-4085					
12:02:16	LB	CA_WEST-4088	OEMBA04076.D21	1200	OEXTF04076.D21	158	MAIN:
12:21:47				1000			RPM CHANGE
12:21:57				800			RPM CHANGE
12:22:01				600			RPM CHANGE
12:23:38				800			RPM CHANGE
12:25:07							SVP OESVP04076.D14 TAKEN
12:26:17				1000			RPM CHANGE
12:26:26							SVP OESVP04076.D14 APPLIED
12:26:38				1100			RPM CHANGE
12:28:29							WIND 15 KNOTS, DIRECTION N, WAVE HEIGHT 1-2 FEET, VISIBILITY UNLIMITED NMI
12:43:12				800			RPM CHANGE
12:43:17				600			RPM CHANGE
12:44:47				900			RPM CHANGE
12:47:34				1100			RPM CHANGE
12:47:58							SVP OESVP04076.D15 TAKEN
12:48:10							WIND 15 KNOTS, DIRECTION N, WAVE HEIGHT 1-2 FEET, VISIBILITY UNLIMITED NMI
12:48:13							SVP OESVP04076.D15 APPLIED
13:10:31	LE	CA_WEST-4088					
13:13:45	LB	CA_WEST-4091	OEMBA04076.D22	1100	OEXTF04076.D22	338	MAIN:

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
13:28:07				800			RPM CHANGE
13:28:27				600			RPM CHANGE
13:32:19							SVP OESVP04076.D16 TAKEN
13:32:29							SVP OESVP04076.D16 APPLIED
13:33:15				800			RPM CHANGE
13:33:37				1000			RPM CHANGE
13:33:53				1100			RPM CHANGE
13:46:09				1200			RPM CHANGE
14:05:52				1000			RPM CHANGE
14:06:03				800			RPM CHANGE
14:06:19				600			RPM CHANGE
14:07:55				800			RPM CHANGE
14:08:19				1000			RPM CHANGE
14:10:06							SVP OESVP04076.D17 TAKEN
14:10:07				1200			RPM CHANGE
14:10:21							SVP OESVP04076.D17 APPLIED
14:22:35				1150			RPM CHANGE
14:27:44	LE	CA_WEST-4091					
14:34:10							OEMBA04076.D21 FAILED TO OPEN IN MVE GSF ERROR: UNRECOGNIZED RECORD ID... RENAMED FILE AS OEMBA04076_OLD_.D21 AND RE-AUTO-ARCHIVED. THE FILE IS NOW VALID.
14:35:46	LB	CA_WEST-4094	OEMBA04076.D23	1100	OEXTF04076.D23	158	MAIN:
14:41:32				1150			RPM CHANGE
14:58:49				1000			RPM CHANGE
14:59:04				800			RPM CHANGE
14:59:20				600			RPM CHANGE
15:01:25				800			RPM CHANGE
15:02:51							SVP OESVP04076.D18 TAKEN
15:02:54				1000			RPM CHANGE
15:02:59							SVP OESVP04076.D18 APPLIED
15:03:10				1150			RPM CHANGE
15:23:55				1000			RPM CHANGE
15:24:03				800			RPM CHANGE
15:24:12				600			RPM CHANGE
15:26:27				800			RPM CHANGE
15:28:21							SVP OESVP04076.D19 TAKEN
15:28:27				1000			RPM CHANGE
15:28:39							SVP OESVP04076.D19 APPLIED
15:28:45				1150			RPM CHANGE

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
15:45:55	LE	CA_WEST-4094					
15:48:58							WIND 15-20 KNOTS, DIRECTION N, WAVE HEIGHT 2-3 FEET, VISIBILITY UNLIMITED NMI
15:48:58	LB	CA_WEST-4097	OEMBA04076.D24	1100	OEXTF04076.D24	338	MAIN:
16:19:17							WIND 15-20 KNOTS, DIRECTION NE, WAVE HEIGHT 2-3 FEET, VISIBILITY UNLIMITED NMI
16:39:19				900			RPM CHANGE
16:39:30				600			RPM CHANGE
16:41:49				900			RPM CHANGE
16:43:16							SVP OESVP04076.D20 TAKEN
16:43:47				1100			RPM CHANGE
16:43:53							SVP OESVP04076.D20 APPLIED
16:44:13							WIND 15-20 KNOTS, DIRECTION NNE, WAVE HEIGHT 2-3 FEET, VISIBILITY UNLIMITED NMI
16:48:17				1000			RPM CHANGE
17:02:36	LE	CA_WEST-4097					
17:06:08	LB	CA_WEST-4099	OEMBA04076.D25	1000	OEXTF04076.D25	157	MAIN:
17:26:58				800			RPM CHANGE
17:27:03				600			RPM CHANGE
17:28:39				800			RPM CHANGE
17:30:00							RPM CHANGE 1000, DID NOT CHANGE ISSC INTENDED RPM
17:30:55							SVP OESVP04076.D21 TAKEN
17:32:42							SVP OESVP04076.D21 APPLIED
17:35:31							WIND 15-20 KNOTS, DIRECTION NNE, WAVE HEIGHT 2-3 FEET, VISIBILITY UNLIMITED NMI
18:01:49				600			RPM CHANGE
18:04:11				800			RPM CHANGE
18:04:57							WIND 15-20 KNOTS, DIRECTION NNE, WAVE HEIGHT 2-4 FEET, VISIBILITY UNLIMITED NMI
18:05:15							SVP OESVP04076.D22 TAKEN
18:05:26							SVP OESVP04076.D22 APPLIED
18:05:37				1000			RPM CHANGE
18:23:34	LE	CA_WEST-4099					
18:26:54	LB	CA_WEST-4101	OEMBA04076.D26	1000	OEXTF04076.D26	338	MAIN:
18:31:28				900			RPM CHANGE
18:38:43							B1 FROZE WHILE PANNING THROUGH GRID TO LOOK FOR GAPS.
18:55:38	LE	CA_WEST-4101					ABORT LINE: ABORT LINE TO HEAD SOUTH ON OUR WAY BACK TO THE DOCK DUE TO INCLEMENT WEATHER.
18:57:51	LB	CA_WEST-4103		900		157	MAIN: FORCE ACQUIRED: LINE HEADING SOUTH
19:00:25				600			RPM CHANGE

UTC TIME	LB/LE	SURVEY LINE	MB FILE	RPM	SS FILE	SURVEY LINE AZ.	NOTES
19:01:40				800			RPM CHANGE
19:02:50							SVP OESVP04076.D23 TAKEN
19:02:58							SVP OESVP04076.D23 APPLIED
19:03:35				900			RPM CHANGE
19:13:51							WIND 15-20 KNOTS, DIRECTION NNE, WAVE HEIGHT 2-4 FEET, VISIBILITY UNLIMITED, CLOUD COVER NMI
19:27:46	LE	CA_WEST-4103					
19:31:46	LB	CA_WEST-4096	OEMBA04076.D27	900	OEXTF04076.D27	337	MAIN: SPLIT HEADING NORTH BEFORE HEADING IN.
19:45:41	LE	CA_WEST-4096					ABORT LINE: ABORTED PARTIAL LINE
20:03:57							WIND 20 KNOTS, DIRECTION NNE, WAVE HEIGHT 3-5 FEET, VISIBILITY 3 + NMI
20:23:43							WIND 20-25 KNOTS, DIRECTION NNE, WAVE HEIGHT 4-6 FEET, VISIBILITY 1.5 MILES NMI
20:26:20							SVP OESVP04076.D24 TAKEN
20:26:33							SVP OESVP04076.D24 APPLIED
20:28:25	LB	ADDT0032	OEMBA04076.D28	1000	OEXTF04076.D28	159	GAP: SLIVER GAP FILL SE CORNER.
20:34:34	LE	ADDT0032					
20:35:00							LEAVING SURVEY SITE HEADING FOR CAPE ANN MARINA
21:02:15							WIND 20-25 KNOTS, DIRECTION NNE, SNOWING, WAVE HEIGHT 4-6 FEET, VISIBILITY 1.5 MILES NMI
21:59:10							ARRIVED AT DOCK
22:01:09							DRAFT CHANGED TO 1.430000 METERS

Julian Day	Cast File Number	Cast Time (UTC)	Depth (M)	Position (NAD83)		Notes
				Latitude (N)	Longitude (W)	
048	OESVP04048.D01	17:46:19	2.05	42.614000	070.679333	APPLIED, SENSOR ID # 4881
	OESVP04048.D02	23:34:46	3.12	42.614000	070.679333	APPLIED, SENSOR ID # 4881. COMPARISON CAST WITH OEMBA04048.D03
	OESVP04048.D03	23:42:13	3.55	42.614000	070.679333	APPLIED, SENSOR ID # 4880 COMPARISON CAST WITH OEMBA04048.D02
049	OESVP04049.D01	13:51:33	41.31	42.617500	070.564167	APPLIED, SENSOR ID # 4880
	OESVP04049.D02	15:35:57	30.21	42.698333	070.635500	APPLIED, SENSOR ID # 4880
	OESVP04049.D03	17:07:54	37.44	42.729500	070.656667	APPLIED, SENSOR ID # 4880
054	OESVP04054.D01	13:15:23	9.82	42.599833	070.672833	APPLIED, SENSOR ID # 4880
	OESVP04054.D02	17:40:36	28.91	42.697500	070.637500	APPLIED, SENSOR ID # 4880
	OESVP04054.D03	18:10:06	42.11	42.749000	070.665500	APPLIED, SENSOR ID # 4880
	OESVP04054.D04	18:46:23	44.71	42.825667	070.705833	APPLIED, SENSOR ID # 4880
	OESVP04054.D05	20:18:36	37.19	42.722500	070.650333	APPLIED, SENSOR ID # 4880
	OESVP04054.D06	21:27:43	41.28	42.818000	070.699167	APPLIED, SENSOR ID # 4880
	OESVP04054.D07	21:57:22	28.43	42.829500	070.755333	NOT APPLIED
	OESVP04054.D08	22:01:10	26.13	42.826833	070.765000	APPLIED, SENSOR ID # 4880
	OESVP04054.D09	22:25:55	13.06	42.781833	070.787167	NOT APPLIED
	OESVP04054.D10	22:45:05	28.21	42.796833	070.734833	APPLIED, SENSOR ID # 4880
	OESVP04054.D11	23:19:10	50.99	42.824167	070.638667	APPLIED, SENSOR ID # 4880
055	OESVP04055.D01	00:29:41	40.05	42.841333	070.711500	APPLIED, SENSOR ID # 4880
	OESVP04055.D02	00:48:33	37.13	42.872167	070.726333	APPLIED, SENSOR ID # 4880
	OESVP04055.D03	02:35:12	41.47	42.744833	070.658167	APPLIED, SENSOR ID # 4880
	OESVP04055.D04	03:41:50	40.33	42.870000	070.722500	APPLIED, SENSOR ID # 4880
	OESVP04055.D05	04:33:49	47.24	42.763167	070.666500	APPLIED, SENSOR ID # 4880
	OESVP04055.D06	05:58:46	45.78	42.809000	070.689167	NOT APPLIED
	OESVP04055.D07	07:21:24	46.75	42.764167	070.664333	APPLIED, SENSOR ID # 4880
	OESVP04055.D08	08:43:14	48.31	42.803333	070.683667	APPLIED, SENSOR ID # 4880
	OESVP04055.D09	09:35:37	46.14	42.839000	070.701000	APPLIED, SENSOR ID # 4880
	OESVP04055.D10	10:09:21	52.11	42.771833	070.665833	APPLIED, SENSOR ID # 4880
	OESVP04055.D11	11:40:18	42.49	42.814167	070.686333	APPLIED, SENSOR ID # 4880
	OESVP04055.D12	12:55:44	56.02	42.785167	070.669500	APPLIED, SENSOR ID # 4880
	OESVP04055.D13	14:41:17	44.94	42.820833	070.686667	APPLIED, SENSOR ID # 4880
	OESVP04055.D14	15:55:50	50.50	42.769167	070.657833	APPLIED, SENSOR ID # 4880
	OESVP04055.D15	17:11:35	51.61	42.767333	070.655333	APPLIED, SENSOR ID # 4880
	OESVP04055.D16	17:50:03	47.18	42.847333	070.697333	APPLIED, SENSOR ID # 4880
	OESVP04055.D17	18:55:09	51.48	42.761833	070.650833	APPLIED, SENSOR ID # 4880
	OESVP04055.D18	20:04:42	51.15	42.763500	070.650000	APPLIED, SENSOR ID # 4880
	OESVP04055.D19	20:39:34	46.01	42.840833	070.690500	APPLIED, SENSOR ID # 4880
	OESVP04055.D20	21:18:05	49.59	42.825667	070.681000	APPLIED, SENSOR ID # 4880 COMPARISON CAST TO SENSOR ID # 4881
	OESVP04055.D21	21:30:09	51.66	42.808000	070.671667	APPLIED, SENSOR ID # 4881 COMPARISON CAST, APPLIED BUT DOES NOT MATCH PREVIOUS CAST WILL TRY 4880 AGAIN
	OESVP04055.D22	21:37:36	51.84	42.798333	070.666667	APPLIED, SENSOR ID # 4880 COMPARISON CAST, WILL TRY ANOTHER CAST WITH #4881 TO SEE IF THEY ARE SIMILAR
	OESVP04055.D23	21:44:23	52.88	42.788667	070.661500	APPLIED, COMPARISON CAST SENSOR ID # 4881 TAKE AND APPLIED.
	OESVP04055.D24	23:43:12	49.67	42.830667	070.682000	APPLIED, SENSOR ID # 4881
	OESVP04055.D25	23:56:48	44.52	42.861167	070.698000	APPLIED, SENSOR ID # 4881

Julian Day	Cast File Number	Cast Time (UTC)	Depth (M)	Position (NAD83)		Notes
				Latitude (N)	Longitude (W)	
056	OESVP04056.D01	00:23:12	48.31	42.836000	070.682833	APPLIED, SENSOR ID # 4881
	OESVP04056.D02	00:51:00	51.00	42.777167	070.652000	APPLIED, SENSOR ID # 4881
	OESVP04056.D03	02:01:34	53.37	42.741500	070.631333	APPLIED, SENSOR ID # 4881
	OESVP04056.D04	02:35:05	53.48	42.810833	070.667500	APPLIED, SENSOR ID # 4881
	OESVP04056.D05	03:20:08	50.03	42.849333	070.685833	APPLIED, SENSOR ID # 4881
	OESVP04056.D06	03:48:03	51.56	42.788500	070.654000	APPLIED, SENSOR ID # 4881
	OESVP04056.D07	05:07:43	56.50	42.748333	070.630833	APPLIED, SENSOR ID # 4881
	OESVP04056.D08	05:40:10	55.73	42.817000	070.666833	APPLIED, SENSOR ID # 4881
	OESVP04056.D09	06:44:45	50.17	42.796500	070.654167	APPLIED, SENSOR ID # 4881
	OESVP04056.D10	09:03:10	51.50	42.851500	070.681167	APPLIED, SENSOR ID # 4881
	OESVP04056.D11	09:58:42	54.69	42.793000	070.648500	APPLIED, SENSOR ID # 4881
	OESVP04056.D12	11:29:02	55.30	42.774333	070.636667	APPLIED, SENSOR ID # 4881
	OESVP04056.D13	12:41:33	70.87	42.876333	070.608333	APPLIED, SENSOR ID # 4881
	OESVP04056.D14	14:34:06	50.30	42.869167	070.617500	NOT APPLIED
	OESVP04056.D15	16:23:55	52.30	42.870500	070.628833	APPLIED, SENSOR ID # 4881
	OESVP04056.D16	17:37:53	51.23	42.861667	070.629667	APPLIED, SENSOR ID # 4881
	OESVP04056.D17	19:06:55	53.06	42.830667	070.619000	APPLIED, SENSOR ID # 4881
	OESVP04056.D18	20:55:06	55.16	42.778833	070.599333	APPLIED, SENSOR ID # 4881
	OESVP04056.D19	21:47:54	52.54	42.861167	070.644833	APPLIED, SENSOR ID # 4881
	OESVP04056.D20	22:16:25	50.62	42.800833	070.613167	APPLIED, SENSOR ID # 4881
	OESVP04056.D21	23:04:56	57.61	42.835833	070.633500	APPLIED, SENSOR ID # 4881
	OESVP04056.D22	23:44:00	38.88	42.876167	070.728000	APPLIED, SENSOR ID # 4881
057	OESVP04057.D01	00:37:01	39.60	42.773500	070.679833	APPLIED, SENSOR ID # 4881
	OESVP04057.D02	01:00:43	35.24	42.721333	070.652333	NOT APPLIED
	OESVP04057.D03	01:49:15	39.45	42.754500	070.671167	APPLIED, SENSOR ID # 4881
	OESVP04057.D04	02:22:31	39.35	42.806000	070.698167	APPLIED, SENSOR ID # 4881
	OESVP04057.D05	02:45:26	36.05	42.841833	070.717000	APPLIED, SENSOR ID # 4881
	OESVP04057.D06	03:23:49	33.75	42.842833	070.718833	NOT APPLIED
	OESVP04057.D07	03:43:53	36.42	42.802333	070.697500	APPLIED, SENSOR ID # 4881
	OESVP04057.D08	04:09:55	38.86	42.747833	070.669000	APPLIED, SENSOR ID # 4881
	OESVP04057.D09	05:08:54	39.13	42.752833	070.672833	APPLIED, SENSOR ID # 4881
	OESVP04057.D10	05:43:17	40.41	42.805167	070.700333	APPLIED, SENSOR ID # 4881
	OESVP04057.D11	06:10:09	39.30	42.846333	070.722000	APPLIED, SENSOR ID # 4881
	OESVP04057.D12	06:47:24	44.06	42.836667	070.718333	APPLIED, SENSOR ID # 4881
	OESVP04057.D13	07:04:37	37.39	42.800667	070.699333	APPLIED, SENSOR ID # 4881
	OESVP04057.D14	07:27:05	39.57	42.757667	070.676667	APPLIED, SENSOR ID # 4881
	OESVP04057.D15	08:43:35	39.16	42.749500	070.673667	APPLIED, SENSOR ID # 4881
	OESVP04057.D16	19:18:08	5.69	42.609667	070.662167	APPLIED FOR LEAD LINE
	OESVP04057.D17	21:17:38	40.71	42.703333	070.596333	APPLIED, SENSOR ID 4881 COMPARISON WITH CAST OESVO04057.D18 WITH SENSOR 4880
	OESVP04057.D18	21:24:40	40.52	42.702167	070.592833	APPLIED, SENSOR 4880, COMPARISON WITH PREVIOUS CAST OESVP04057.D17
	OESVP04057.D19	22:27:03	57.16	42.815833	070.656500	APPLIED, SENSOR ID # 4880
	OESVP04057.D20	23:54:38	54.55	42.758333	070.624333	APPLIED, SENSOR ID # 4880

Julian Day	Cast File Number	Cast Time (UTC)	Depth (M)	Position (NAD83)		Notes
				Latitude (N)	Longitude (W)	
058	OESVP04058.D01	01:18:10	63.11	42.829833	070.660000	APPLIED, SENSOR ID # 4880
	OESVP04058.D02	02:43:07	51.68	42.747500	070.614833	APPLIED, SENSOR ID # 4880
	OESVP04058.D03	04:48:01	53.16	42.858667	070.669167	APPLIED, SENSOR ID # 4880
	OESVP04058.D04	05:54:14	56.15	42.741167	070.607500	APPLIED, SENSOR ID # 4880
	OESVP04058.D05	07:10:58	58.57	42.833500	070.654000	APPLIED, SENSOR ID # 4880
	OESVP04058.D06	08:08:31	53.65	42.815500	070.642500	APPLIED, SENSOR ID # 4880
	OESVP04058.D07	09:23:10	70.87	42.876333	070.608333	APPLIED, SENSOR ID # 4880
	OESVP04058.D08	09:34:37	63.49	42.762333	070.612667	APPLIED, SENSOR ID # 4880
	OESVP04058.D09	10:33:55	70.31	42.843333	070.654833	APPLIED, SENSOR ID # 4880
	OESVP04058.D10	12:22:11	59.79	42.755333	070.605000	APPLIED, SENSOR ID # 4880
	OESVP04058.D11	13:08:20	58.25	42.845333	070.652167	APPLIED, SENSOR ID # 4880
	OESVP04058.D12	14:12:37	52.39	42.781667	070.616833	APPLIED, SENSOR ID # 4880
	OESVP04058.D13	15:17:17	54.40	42.849167	070.650333	APPLIED, SENSOR ID # 4880
	OESVP04058.D14	16:19:56	54.49	42.780167	070.612167	APPLIED, SENSOR ID # 4880
	OESVP04058.D15	17:16:28	57.55	42.840333	070.641833	APPLIED, SENSOR ID # 4880
	OESVP04058.D16	18:12:28	55.43	42.801500	070.619500	APPLIED, SENSOR ID # 4880
	OESVP04058.D17	19:06:05	56.34	42.827000	070.631000	APPLIED, SENSOR ID # 4880
	OESVP04058.D18	19:51:08	32.25	42.877167	070.739500	APPLIED, SENSOR ID # 4880
	OESVP04058.D19	20:36:56	38.51	42.804000	070.703667	APPLIED, SENSOR ID # 4880
	OESVP04058.D20	21:05:29	37.16	42.859833	070.733000	APPLIED, SENSOR ID # 4880
	OESVP04058.D21	22:09:17	36.58	42.759667	070.681667	APPLIED, SENSOR ID # 4880
	OESVP04058.D22	23:11:39	35.75	42.757167	070.681667	NOT APPLIED SENSOR 4880
	OESVP04058.D23	23:44:43	40.23	42.818333	070.713833	APPLIED, SENSOR ID # 4880
059	OESVP04059.D01	00:50:55	36.50	42.803000	070.707000	APPLIED, SENSOR ID # 4880
	OESVP04059.D02	01:19:15	24.32	42.761000	070.724667	APPLIED, SENSOR ID # 4880
	OESVP04059.D03	01:55:01	7.21	42.714333	070.753000	NOT APPLIED, NO CHANGE, PREVIOUS DEEPER. SENSOR 4880
	OESVP04059.D04	02:18:12	27.36	42.730667	070.695500	APPLIED, SENSOR ID # 4880
	OESVP04059.D05	02:42:57	58.81	42.748333	070.633500	APPLIED, SENSOR ID # 4880
	OESVP04059.D06	03:38:00	57.06	42.777500	070.666667	APPLIED, SENSOR ID # 4880
	OESVP04059.D07	04:33:59	32.93	42.718333	070.664000	APPLIED, SENSOR ID # 4880
	OESVP04059.D08	05:31:53	42.81	42.830667	070.723000	APPLIED, SENSOR ID # 4880
	OESVP04059.D09	05:59:38	34.15	42.868500	070.743833	APPLIED, SENSOR ID # 4880
	OESVP04059.D10	06:56:03	36.83	42.749833	070.681500	APPLIED, SENSOR ID # 4880
	OESVP04059.D11	07:27:26	28.44	42.702333	070.657500	APPLIED, SENSOR ID # 4880
	OESVP04059.D12	07:50:46	37.45	42.742833	070.678667	APPLIED, SENSOR ID # 4880
	OESVP04059.D13	08:31:06	40.65	42.820500	070.719500	APPLIED, SENSOR ID # 4880
	OESVP04059.D14	09:10:40	38.59	42.852333	070.737167	APPLIED, SENSOR ID # 4880
	OESVP04059.D15	09:50:06	37.86	42.769000	070.693500	APPLIED, SENSOR ID # 4880
	OESVP04059.D16	10:37:13	33.70	42.713667	070.665333	APPLIED, SENSOR ID # 4880
	OESVP04059.D17	11:30:32	40.24	42.819167	070.720667	APPLIED, SENSOR ID # 4880
	OESVP04059.D18	12:34:16	35.56	42.801500	070.712500	APPLIED, SENSOR ID # 4880
	OESVP04059.D19	13:08:35	33.42	42.733167	070.676667	APPLIED, SENSOR ID # 4880
	OESVP04059.D20	14:16:21	38.03	42.806333	070.716000	APPLIED, SENSOR ID # 4880
	OESVP04059.D21	14:53:27	32.95	42.866833	070.748833	APPLIED, SENSOR ID # 4880
	OESVP04059.D22	15:45:47	32.21	42.756667	070.691000	APPLIED, SENSOR ID # 4880
	OESVP04059.D23	16:50:40	35.10	42.785333	070.706833	APPLIED, SENSOR ID # 4880
	OESVP04059.D24	17:21:38	35.34	42.851500	070.741833	APPLIED, SENSOR ID # 4880
	OESVP04059.D25	18:02:07	38.68	42.815667	070.724000	APPLIED, SENSOR ID # 4880
	OESVP04059.D26	18:40:34	33.55	42.731833	070.679833	APPLIED, SENSOR ID # 4880
	OESVP04059.D27	19:39:52	34.14	42.790000	070.711333	APPLIED, SENSOR ID # 4880
	OESVP04059.D28	20:14:15	35.78	42.855833	070.746167	APPLIED, SENSOR ID # 4880
	OESVP04059.D29	21:03:56	33.64	42.787833	070.711167	APPLIED, SENSOR ID # 4880
	OESVP04059.D30	21:47:13	29.75	42.706333	070.669500	APPLIED, SENSOR ID # 4880
	OESVP04059.D31	22:35:55	36.34	42.804500	070.721000	APPLIED, SENSOR ID # 4880
	OESVP04059.D32	23:19:18	35.14	42.854667	070.748333	APPLIED, SENSOR ID # 4880

Julian Day	Cast File Number	Cast Time (UTC)	Depth (M)	Position (NAD83)		Notes
				Latitude (N)	Longitude (W)	
060	OESVP04060.D01	00:11:15	35.13	42.763167	070.701167	APPLIED, SENSOR ID # 4880
	OESVP04060.D02	01:23:42	32.73	42.771333	070.705500	APPLIED, SENSOR ID # 4880
	OESVP04060.D03	02:25:23	32.87	42.851333	070.748667	APPLIED, SENSOR ID # 4880
	OESVP04060.D04	03:16:52	32.35	42.735833	070.687833	APPLIED, SENSOR ID # 4880
	OESVP04060.D05	04:36:17	32.39	42.842667	070.745000	APPLIED, SENSOR ID # 4880
	OESVP04060.D06	05:49:58	31.04	42.742667	070.693333	APPLIED, SENSOR ID # 4880
	OESVP04060.D07	07:02:43	35.49	42.811667	070.730667	APPLIED, SENSOR ID # 4880
	OESVP04060.D08	08:21:40	32.12	42.766667	070.708000	APPLIED, SENSOR ID # 4880
	OESVP04060.D09	09:35:48	31.59	42.792000	070.722333	APPLIED, SENSOR ID # 4880
	OESVP04060.D10	10:50:43	32.52	42.798167	070.726500	APPLIED, SENSOR ID # 4880
	OESVP04060.D11	12:25:00	33.80	42.822667	070.740333	APPLIED, SENSOR ID # 4880
	OESVP04060.D12	13:30:29	32.26	42.788667	070.723500	APPLIED, SENSOR ID # 4880
	OESVP04060.D13	14:11:54	28.32	42.711167	070.683667	APPLIED, SENSOR ID # 4880
	OESVP04060.D14	15:05:00	31.43	42.827500	070.744833	APPLIED, SENSOR ID # 4880
	OESVP04060.D15	15:36:44	36.61	42.875667	070.732333	APPLIED, SENSOR ID # 4880
	OESVP04060.D16	15:59:07	24.21	42.860000	070.784000	APPLIED, SENSOR ID # 4880
	OESVP04060.D17	16:55:17	29.15	42.804833	070.735000	APPLIED, SENSOR ID # 4880
	OESVP04060.D18	17:34:47	28.76	42.718000	070.689333	APPLIED, SENSOR ID # 4880
	OESVP04060.D19	18:17:27	31.49	42.781667	070.723667	APPLIED, SENSOR ID # 4880
	OESVP04060.D20	18:42:54	30.31	42.830833	070.749667	APPLIED, SENSOR ID # 4880
	OESVP04060.D21	19:41:19	31.08	42.794000	070.731167	APPLIED, SENSOR ID # 4880
	OESVP04060.D22	20:30:24	31.66	42.734833	070.701000	APPLIED, SENSOR ID # 4880
	OESVP04060.D23	21:16:27	31.03	42.822167	070.747000	APPLIED, SENSOR ID # 4880
	OESVP04060.D24	22:23:48	28.95	42.765333	070.718000	APPLIED, SENSOR ID # 4880
	OESVP04060.D25	23:31:28	31.28	42.817500	070.746500	APPLIED, SENSOR ID # 4880
061	OESVP04061.D01	00:44:26	31.57	42.774667	070.725000	APPLIED, SENSOR ID # 4880
	OESVP04061.D02	01:58:14	30.15	42.829167	070.754667	APPLIED, SENSOR ID # 4880
	OESVP04061.D03	02:58:33	32.39	42.787833	070.733833	APPLIED, SENSOR ID # 4880
	OESVP04061.D04	04:15:32	28.96	42.835333	070.759833	APPLIED, SENSOR ID # 4880
	OESVP04061.D05	05:25:18	24.36	42.761333	070.721833	APPLIED, SENSOR ID # 4880
	OESVP04061.D06	06:32:38	28.51	42.833500	070.760833	APPLIED, SENSOR ID # 4880
	OESVP04061.D07	07:34:17	30.12	42.781667	070.734667	APPLIED, SENSOR ID # 4880
	OESVP04061.D08	08:36:54	28.81	42.829000	070.760333	APPLIED, SENSOR ID # 4880
	OESVP04061.D09	09:43:59	28.79	42.771167	070.731000	APPLIED, SENSOR ID # 4880
	OESVP04061.D10	10:36:18	29.21	42.830500	070.763167	APPLIED, SENSOR ID # 4880
	OESVP04061.D11	11:41:10	30.97	42.779833	070.737500	APPLIED, SENSOR ID # 4880
	OESVP04061.D12	12:30:14	28.53	42.833333	070.766667	APPLIED, SENSOR ID # 4880
	OESVP04061.D13	13:30:38	30.13	42.783833	070.741667	APPLIED, SENSOR ID # 4880
	OESVP04061.D14	14:15:24	27.35	42.845000	070.774833	APPLIED, SENSOR ID # 4880
	OESVP04061.D15	15:33:24	25.63	42.846500	070.778500	APPLIED, SENSOR ID # 4880
	OESVP04061.D16	16:40:58	25.72	42.829833	070.772667	APPLIED, SENSOR ID # 4880
	OESVP04061.D17	17:54:46	22.09	42.876333	070.772000	APPLIED, SENSOR ID # 4880
	OESVP04061.D18	18:37:38	32.03	42.790167	070.726333	APPLIED, SENSOR ID # 4880
	OESVP04061.D19	19:38:37	38.70	42.711000	070.629667	APPLIED, SENSOR ID # 4880
073	OESVP04073.D01	21:55:52	3.97	42.614000	070.679167	APPLIED, TESTING MVP FOR RESTATING SURVEY
	OESVP04073.D02	23:01:14	3.69	42.613833	070.679167	APPLIED

Julian Day	Cast File Number	Cast Time (UTC)	Depth (M)	Position (NAD83)		Notes
				Latitude (N)	Longitude (W)	
074	OESVP04074.D01	14:22:25	38.06	42.701500	070.592167	APPLIED, SENSOR # 4880 COMPARISON CAST
	OESVP04074.D02	14:28:38	39.21	42.701167	070.589333	APPLIED, SENSOR # 4881 COMPARISON CAST
	OESVP04074.D03	14:56:58	36.30	42.704000	070.600667	APPLIED, SENSOR ID # 4881
	OESVP04074.D04	15:28:11	28.97	42.698333	070.601833	APPLIED, SENSOR ID # 4881
	OESVP04074.D05	15:51:43	40.28	42.715167	070.612333	APPLIED, SENSOR ID # 4881
	OESVP04074.D06	16:16:41	38.38	42.707667	070.610500	APPLIED, SENSOR ID # 4881
	OESVP04074.D07	17:06:42	39.51	42.711333	070.616500	APPLIED, SENSOR ID # 4881
	OESVP04074.D08	18:35:32	38.46	42.718333	070.628667	APPLIED, SENSOR ID # 4881
	OESVP04074.D09	19:42:22	26.35	42.696667	070.622333	APPLIED, SENSOR ID # 4881
	OESVP04074.D10	20:03:59	40.43	42.732500	070.642667	APPLIED, SENSOR ID # 4881
	OESVP04074.D11	20:29:22	30.38	42.698667	070.626667	APPLIED, SENSOR ID # 4881
	OESVP04074.D12	21:17:48	30.59	42.699500	070.632333	APPLIED, SENSOR ID # 4881
	OESVP04074.D13	22:07:53	30.69	42.701167	070.643667	APPLIED, SENSOR ID # 4881
	OESVP04074.D14	23:12:52	32.90	42.712000	070.660000	APPLIED, SENSOR ID # 4881
	OESVP04074.D15	23:51:02	57.69	42.790333	070.666333	APPLIED, SENSOR ID # 4881
075	OESVP04075.D01	00:20:47	53.56	42.836833	070.632000	APPLIED, SENSOR ID # 4881
	OESVP04075.D02	00:53:53	49.40	42.845833	070.685000	APPLIED, SENSOR ID # 4881
	OESVP04075.D03	02:57:04	42.92	42.836500	070.720667	APPLIED, SENSOR ID # 4881
	OESVP04075.D04	03:52:39	32.91	42.865667	070.741167	APPLIED, SENSOR ID # 4881
	OESVP04075.D05	05:57:50	19.33	42.866500	070.768000	APPLIED, SENSOR ID # 4881
	OESVP04075.D06	09:44:36	23.86	42.865333	070.791000	APPLIED, SENSOR ID # 4881
	OESVP04075.D07	10:59:27	27.99	42.835167	070.774333	APPLIED, SENSOR ID # 4881
	OESVP04075.D08	12:03:30	30.42	42.792500	070.745333	APPLIED, SENSOR ID # 4881
	OESVP04075.D09	12:39:53	32.19	42.736833	070.700000	APPLIED, SENSOR ID # 4881
	OESVP04075.D10	14:31:31	26.31	42.709833	070.690667	APPLIED, SENSOR ID # 4881
	OESVP04075.D11	15:26:14	26.23	42.714000	070.696000	APPLIED, SENSOR ID # 4881
	OESVP04075.D12	16:32:20	25.04	42.814667	070.759500	APPLIED, SENSOR ID # 4881
	OESVP04075.D13	18:53:14	27.08	42.808167	070.756833	APPLIED, SENSOR ID # 4881
	OESVP04075.D14	19:33:18	27.94	42.723833	070.710333	APPLIED, SENSOR ID # 4881
	OESVP04075.D15	21:11:32	28.00	42.754667	070.724333	APPLIED, SENSOR ID # 4881
	OESVP04075.D16	22:25:33	22.36	42.737667	070.712000	APPLIED, SENSOR ID # 4881
076	OESVP04076.D01	00:20:29	26.45	42.781500	070.743167	APPLIED, SENSOR ID # 4881
	OESVP04076.D02	01:16:03	27.76	42.753667	070.728833	APPLIED, SENSOR ID # 4881
	OESVP04076.D03	02:20:44	27.98	42.790333	070.750167	APPLIED, SENSOR ID # 4881
	OESVP04076.D04	03:39:51	25.77	42.745667	070.726333	APPLIED, SENSOR ID # 4881
	OESVP04076.D05	05:33:07	25.00	42.806167	070.761833	APPLIED, SENSOR ID # 4881
	OESVP04076.D06	06:16:22	26.85	42.750833	070.731333	APPLIED, SENSOR ID # 4881
	OESVP04076.D07	07:09:14	25.52	42.734667	070.723333	APPLIED, SENSOR ID # 4881
	OESVP04076.D08	07:35:06	26.24	42.787167	070.752333	APPLIED, SENSOR ID # 4881
	OESVP04076.D09	07:58:17	24.69	42.831167	070.776667	APPLIED, SENSOR ID # 4881
	OESVP04076.D10	09:08:33	24.88	42.839000	070.782000	APPLIED, SENSOR ID # 4881
	OESVP04076.D11	09:41:03	26.83	42.770667	070.744167	APPLIED, SENSOR ID # 4881
	OESVP04076.D12	11:09:33	28.26	42.748000	070.732667	APPLIED, SENSOR ID # 4881
	OESVP04076.D13	11:39:29	26.30	42.810333	070.767167	APPLIED, SENSOR ID # 4881
	OESVP04076.D14	12:25:07	25.21	42.809000	070.767333	APPLIED, SENSOR ID # 4881
	OESVP04076.D15	12:47:58	27.56	42.762667	070.741833	APPLIED, SENSOR ID # 4881
	OESVP04076.D16	13:32:19	26.52	42.735833	070.728000	APPLIED, SENSOR ID # 4881
	OESVP04076.D17	14:10:06	24.92	42.810833	070.769333	APPLIED, SENSOR ID # 4881
	OESVP04076.D18	15:02:51	26.01	42.802167	070.765667	APPLIED, SENSOR ID # 4881
	OESVP04076.D19	15:28:21	25.35	42.747500	070.735333	APPLIED, SENSOR ID # 4881
	OESVP04076.D20	16:43:16	22.27	42.812500	070.772333	APPLIED, SENSOR ID # 4881
	OESVP04076.D21	17:30:55	21.93	42.813500	070.773500	APPLIED, SENSOR ID # 4881
	OESVP04076.D22	18:05:15	23.76	42.744667	070.735500	APPLIED, SENSOR ID # 4881
	OESVP04076.D23	19:02:50	22.65	42.751000	070.740167	APPLIED, SENSOR ID # 4881
	OESVP04076.D24	20:26:20	34.46	42.703000	070.606667	APPLIED, SENSOR ID # 4881

LEADLINE SUMMARY CAPE ANN SURVEY [MARCH 2004]					
		PORT	PORT	STBD	STBD
		SIGNED	STD	SIGNED	STD
DAY	DATE	MEAN	DEV	MEAN	DEV
MEAN OF SETS =		0.011		-0.016	
48	2/17/2004	-0.041	0.016	-0.034	0.020
54	2/23/2004	0.038	0.013	-0.060	0.012
57	2/26/2004	0.008	0.027	-0.016	0.037
73	3/13/2004	0.041	0.019	0.045	0.032

LEADLINE COMPARISON

DAY 48

DATE 02/17/04

DRAFT ENTERED IN COMPUTER = 1.40

DRAFT ON HULL = 1.40

SQUAT CORRECTOR LEFT IN = 0

DRAFT CORRECTOR = 0

DECK TO WATER SURFACE = 1.67 0 <=TIDE CORRECTOR LEFT IN

files

port OEMBA04048.D07

stbd OEMBA04048.D08

cast #	time taken port UTC	port deck to bottom meters	port cast depth meters	multibeam depth port	corrected multibeam depth port	time taken starboard UTC	stbd deck to bottom meters	stbd cast depth meters	multibeam depth starboard	corrected multibeam depth stbd	port difference meters	starboard difference meters
1	17:53:00	5.1	3.43	3.50	3.50	17:55:45	4.89	3.22	3.27	3.27	-0.070	-0.050
2	17:53:05	5.1	3.43	3.48	3.48	17:55:50	4.89	3.22	3.28	3.28	-0.050	-0.060
3	17:53:10	5.11	3.44	3.47	3.47	17:55:55	4.88	3.21	3.25	3.25	-0.030	-0.040
4	17:53:15	5.1	3.43	3.49	3.49	17:56:00	4.89	3.22	3.24	3.24	-0.060	-0.020
5	17:53:20	5.11	3.44	3.48	3.48	17:56:05	4.89	3.22	3.24	3.24	-0.040	-0.020
6	17:53:25	5.11	3.44	3.48	3.48	17:56:10	4.88	3.21	3.23	3.23	-0.040	-0.020
7	17:53:30	5.11	3.44	3.46	3.46	17:56:15	4.89	3.22	3.23	3.23	-0.020	-0.010
8	17:53:35	5.1	3.43	3.47	3.47	17:56:20	4.88	3.21	3.22	3.22	-0.040	-0.010
9	17:53:40	5.1	3.43	3.45	3.45	17:56:25	4.84	3.17	3.22	3.22	-0.020	-0.050
10	17:53:45	5.1	3.43	3.47	3.47	17:56:30	4.85	3.18	3.24	3.24	-0.040	-0.060
										Mean	-0.041	-0.034
										StdDev	0.016	0.020

LEADLINE COMPARISON

DAY 54

DATE 02/23/04

DRAFT ENTERED IN COMPUTER = 1.41

DRAFT ON HULL = 1.41

SQUAT CORRECTOR LEFT IN = 0

DRAFT CORRECTOR = 0

DECK TO WATER SURFACE = 1.66 0 <=TIDE CORRECTOR LEFT IN

files

port OEMBA04054.D01

stbd OEMBA04054.D01

cast #	time taken port UTC	port deck to bottom meters	port cast depth meters	multibeam depth port	corrected multibeam depth port	time taken starboard UTC	stbd deck to bottom meters	stbd cast depth meters	multibeam depth starboard	corrected multibeam depth stbd	port difference meters	starboard difference meters
1	13:19:10	5.11	3.45	3.43	3.43	13:22:40	5.2	3.54	3.60	3.60	0.020	-0.060
2	13:19:15	5.11	3.45	3.43	3.43	13:22:45	5.2	3.54	3.62	3.62	0.020	-0.080
3	13:19:20	5.12	3.46	3.43	3.43	13:22:50	5.2	3.54	3.60	3.60	0.030	-0.060
4	13:19:25	5.12	3.46	3.43	3.43	13:22:55	5.2	3.54	3.58	3.58	0.030	-0.040
5	13:19:30	5.12	3.46	3.42	3.42	13:23:00	5.2	3.54	3.61	3.61	0.040	-0.070
6	13:19:35	5.12	3.46	3.41	3.41	13:23:05	5.2	3.54	3.59	3.59	0.050	-0.050
7	13:19:40	5.12	3.46	3.42	3.42	13:23:10	5.21	3.55	3.62	3.62	0.040	-0.070
8	13:19:45	5.12	3.46	3.42	3.42	13:23:15	5.21	3.55	3.60	3.60	0.040	-0.050
9	13:19:50	5.13	3.47	3.42	3.42	13:23:20	5.21	3.55	3.61	3.61	0.050	-0.060
10	13:19:55	5.13	3.47	3.41	3.41	13:23:25	5.21	3.55	3.61	3.61	0.060	-0.060
										Mean	0.038	-0.060
										StdDev	0.013	0.012

LEADLINE COMPARISON

DAY 57

DATE 02/26/04

DRAFT ENTERED IN COMPUTER = 1.43

DRAFT ON HULL = 1.43

SQUAT CORRECTOR LEFT IN = 0

DRAFT CORRECTOR = 0

DECK TO WATER SURFACE = 1.64 0 <=TIDE CORRECTOR LEFT IN

files

port OEMBA04057.D11

stbd OEMBA04057.D11

cast #	time taken port UTC	port deck to bottom meters	port cast depth meters	multibeam depth port	corrected multibeam depth port	time taken starboard UTC	stbd deck to bottom meters	stbd cast depth meters	multibeam depth starboard	corrected multibeam depth stbd	port difference meters	starboard difference meters
1	19:25:30	9.19	7.55	7.54	7.54	19:28:30	6.7	5.06	5.14	5.14	0.010	-0.080
2	19:25:35	9.17	7.53	7.56	7.56	19:28:35	6.69	5.05	5.09	5.09	-0.030	-0.040
3	19:25:40	9.2	7.56	7.55	7.55	19:28:40	6.72	5.08	5.09	5.09	0.010	-0.010
4	19:25:45	9.17	7.53	7.53	7.53	19:28:45	6.7	5.06	5.09	5.09	0.000	-0.030
5	19:25:50	9.19	7.55	7.50	7.50	19:28:50	6.75	5.11	5.10	5.10	0.050	0.010
6	19:25:55	9.18	7.54	7.52	7.52	19:28:55	6.72	5.08	5.11	5.11	0.020	-0.030
7	19:26:00	9.18	7.54	7.53	7.53	19:29:00	6.74	5.10	5.06	5.06	0.010	0.040
8	19:26:05	9.18	7.54	7.52	7.52	19:29:05	6.72	5.08	5.13	5.13	0.020	-0.050
9	19:26:10	9.15	7.51	7.55	7.55	19:29:10	6.75	5.11	5.10	5.10	-0.040	0.010
10	19:26:35	9.2	7.56	7.53	7.53	19:29:15	6.77	5.13	5.11	5.11	0.030	0.020
										Mean	0.008	-0.016
										StdDev	0.027	0.037

LEADLINE COMPARISON

DAY 73

DATE 03/13/04

DRAFT ENTERED IN COMPUTER = 1.43

DRAFT ON HULL = 1.425

SQUAT CORRECTOR LEFT IN = 0

DRAFT CORRECTOR = 0

DECK TO WATER SURFACE = 1.645 0 <=TIDE CORRECTOR LEFT IN

files

port OEMBA04073.d02

stbd OEMBA04073.d03

cast #	time taken port UTC	port deck to bottom meters	port cast depth meters	multibeam depth port	corrected multibeam depth port	time taken starboard UTC	stbd deck to bottom meters	stbd cast depth meters	multibeam depth starboard	corrected multibeam depth stbd	port difference meters	starboard difference meters
1	23:22:00	6.95	5.31	5.30	5.30	23:26:20	6.9	5.26	5.22	5.22	0.005	0.035
2	23:22:05	6.95	5.31	5.26	5.26	23:26:25	6.91	5.27	5.22	5.22	0.045	0.045
3	23:22:10	6.96	5.32	5.26	5.26	23:26:30	6.9	5.26	5.20	5.20	0.055	0.055
4	23:22:15	6.96	5.32	5.30	5.30	23:26:35	6.9	5.26	5.24	5.24	0.015	0.015
5	23:22:20	6.95	5.31	5.25	5.25	23:26:40	6.91	5.27	5.20	5.20	0.055	0.065
6	23:22:25	6.95	5.31	5.26	5.26	23:26:45	6.91	5.27	5.25	5.25	0.045	0.015
7	23:22:30	6.96	5.32	5.26	5.26	23:26:50	6.9	5.26	5.24	5.24	0.055	0.015
8	23:22:35	6.95	5.31	5.27	5.27	23:26:55	6.91	5.27	5.24	5.24	0.035	0.025
9	23:22:40	6.95	5.31	5.27	5.27	23:27:00	6.91	5.27	5.20	5.20	0.035	0.065
10	23:22:45	6.95	5.31	5.24	5.24	23:27:05	6.91	5.27	5.15	5.15	0.065	0.115
										Mean	0.041	0.045
										StdDev	0.019	0.032

Cape Ann Times of Hydrography

The on-line times for acquisition of valid hydrographic data are presented in the following Table Abstract of Times of Hydrography, Cape Ann.

Abstract Times of Hydrography, Cape Ann

Julian Day	Begin Time UTC	End Time UTC	Year
054 -057	17:42:20	10:05:26	2004
057 - 061	21:30:58	19:46:41	2004
074 - 076	14:19:27	20:35:57	2004