**NOAA *Ocean Exploration***

**MAPPING DATA ACQUISITION AND PROCESSING REPORT**

**CRUISE EX-14-04 Leg III**

Exploring Atlantic Canyons and Seamounts (ROV and Mapping)

September 16 to October 7, 2014

Baltimore, MD – N. Kingston, RI

Report Contributors:

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November 10, 2015

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# Introduction

**NOAA Ship *Okeanos Explorer***

Commissioned in August 2008, the NOAA Ship *Okeanos Explorer* is the nation’s only federal vessel dedicated to ocean exploration. With 95% of the world’s oceans left unexplored, the ship’s combination of scientific and technological tools uniquely positions it to systematically explore new areas of our largely unknown ocean. These exploration cruises are explicitly designed in collaboration with the broad science community to provide a foundation of publicly accessible baseline data and information to support science and management needs. This baseline information often leads to further, more detailed, investigations by other parties.

The unique combination of mission capabilities including a high-resolution multibeam sonar, deep water remotely operated vehicles, telepresence technology, and integrated data management system quicken the scientific discovery and dissemination process. These systems enable us to identify new targets in real time, dive on those targets shortly after initial detection, and then send this information back to shore for immediate near-real-time collaboration with scientists and experts at Exploration Command Centers around the world. The integrated data management system provide for the quick dissemination of information-rich products to the scientific community. This ensures that discoveries are immediately available to experts in relevant disciplines for research and analysis.

Through the operation and maintenance of the mission capabilities, NOAA’s Office of Ocean Exploration and Research (OER) provides the nation with unparalleled capacity to discover and investigate new oceanic regions and phenomena, conduct baseline research required to document discoveries, and seamlessly disseminate data and information-rich products to a multitude of users. OER strives to develop technological solutions and innovative applications to critical problems in undersea exploration and to provide resources for developing, testing, and transitioning solutions to meet these needs.

***Okeanos Explorer* Management – a unique partnership within NOAA**

The *Okeanos Explorer* combines the capabilities of a NOAA research shipwith shore-based high speed networks and infrastructure to conduct systematic telepresence-enabled exploration of the world ocean. The ship is operated, managed and maintained by NOAA’s Office of Marine and Aviation Operations, which includes commissioned officers of the NOAA Corps and civilian wage mariners. OER owns and is responsible for operating and managing the cutting-edge ocean exploration systems on the vessel (ROV, mapping and telepresence) and ashore including Exploration Command Centers and terrestrial high speed networks. The ship and shore-based infrastructure combine to be the only federal program dedicated to systematic telepresence-enabled exploration of the planet’s largely unknown ocean.

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# Report Purpose

The purpose of this report is to briefly describe the mapping data collection and processing methods, and to report the results of the mapping portion of the cruise. For a detailed description of *Okeanos Explorer* mapping capabilities, see the appendices section 'Kongsberg EM 302 Multibeam Sonar Desciption and Operational Specifications' and the ship’s readiness report, which can be obtained by contacting the Okeanos Explorer Mapping Team (oar.oer.exmappingteam@noaa.gov ).

This report focuses on the mapping exploration of EX-14-04 Leg III. The cruise was a combined ROV exploration and mapping of the Atlantic Canyons and New England Seamounts.

# Cruise Objectives

The cruise objectives for EX-14-04 Leg III were defined in EX-14-04 Leg III Project Instructions. EX-14-04 Leg III operations focused on the Atlantic Canyons and New England Seamount Chain. The primary goals for this cruise included collecting baseline-characterization data of poorly known areas along the New England Seamount Chain and U.S. northeast continental shelf canyons including ROV observations and seafloor bathymetry (Figure 1). The mapping specific objectives included the following.

## Mapping Objectives

a. Collect high resolution mapping data using available sonars

b. Support ROV operations with mapping products and expertise

c. Conduct mapping operations during transit, with possible further development of

exploration targets

d. Collect XBT cast at regular intervals during mapping operations

e. Create daily standard mapping products

f. Collect sun photometer measurements

All objectives were achieved except objectives f and g.

Overall Data Collection Objectives  
During EX 14-04 Leg III, ROV operations were conducted during the day light hours. Mapping operations were conducted during night time, during inclement weather when ROV operations were suspended and while transiting between ROV dive locations. Transits between the dive target sites were primarily over previously mapped seafloor carried out during *Okeanos Explorer* cruises EX-11-06, EX-12-01, EX-12-04, EX-12-05 Leg II, EX-12-06, EX-13-01, EX-13-03, EX-14-01, and EX-14-04 Leg I. Transit mapping focused on filling in any holidays in the existing datasets. Multibeam, single beam, and sub-bottom profile data was generally collected for 12 hours during overnight transits between dive target sites. Expendable bathythermograph (XBT) casts were conducted at an interval defined by prevailing oceanographic conditions, generally every two to three hours. All multibeam sonar data were fully processed according to established onboard procedures. All multibeam data along with ancillary sonar datasets have been archived at National Centers for Environmental Information (NCEI) formerly known as National Oceanographic Data Center or the National Geophysical Data Center.

During inclement weather mapping operations were conducted along the continental slope focused primarily on collecting Knudson sub-bottom profile lines along various canyon axes (Figures 2,3) and collecting EK60 lines across the head of Ryan canyon to observe biomass migrations. The Knudsen data were provided to USGS (Dr. Jason Chayder) while EK 60 data has been provided to University of Connecticut researchers (Dr. Peter Auster) for further analysis. Repeat multibeam survey lines were collected along the southern portion of the head of Hudson Canyon and across Gosnold and Sheldrake Seamounts to supplement data collected during EX-14-01.

# Participating Mapping Personnel

|  |  |  |
| --- | --- | --- |
| **NAME** | **ROLE** | **AFFILIATION** |
| CDR Ricardo Ramos | Commanding Officer | NOAA Corps |
| LT Emily Rose | Field Operations Officer | NOAA Corps |
| LT Brian Kennedy | Expedition Coordinator | NOOA Corps |
| Lindsay McKenna | Mapping Team Lead | NOAA OER (ERT Inc.) |
| James Miller | Watch Lead | NOAA AHB |

# 

# Summary of Major Findings

## Cruise Map

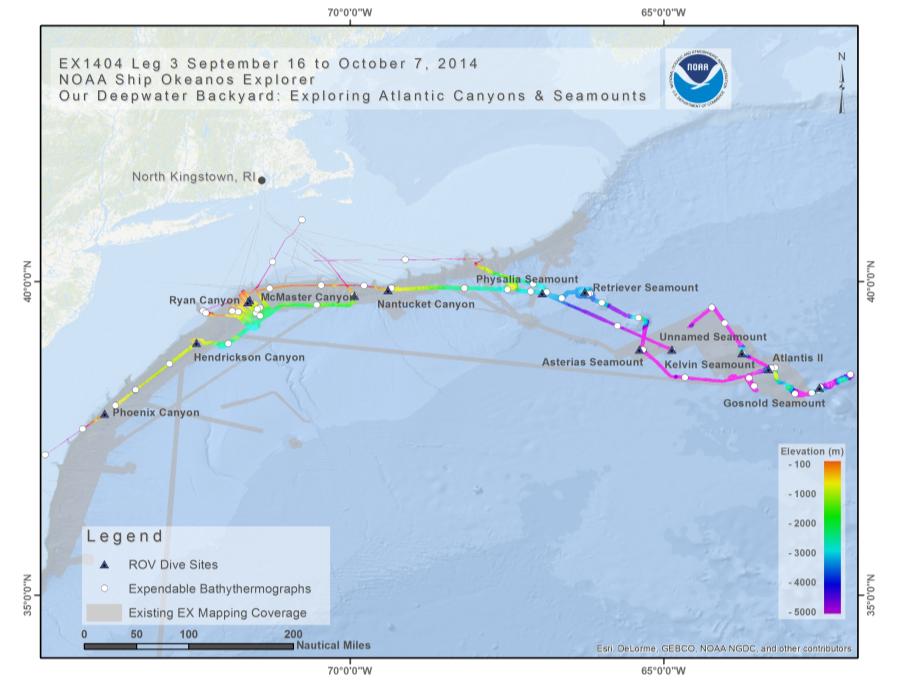
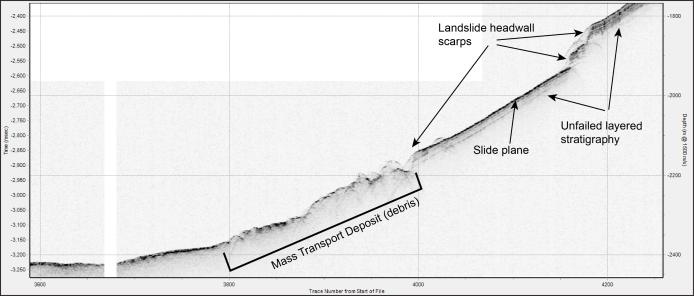


Figure 1. Cruise map made in ArcMap 10.2 showing overall cruise track and key operational areas.

## Features of Interest

### Subbottom Profile Features

Subbottom profile lines were run along canyon axis in and around McMaster Canyon. The data were sent to USGS for further processing. Several landslide headwall scarps and mass transport deposits were identified by Dr. Jason Chaytor at the US Geological Survey (Figure 2).



**Figure 2. Knudson sub-bottom profile data from McMaster Canyon, processed by Dr. Jason Chaytor (USGS).**

Between Picket and Balanus Seamounts, Dr. Chaytor identified a mass-transport deposit from the Munson-Nygren-Retriever Landslide Complex that can be seen adjacent to layered stratigraphy (Figure 3).

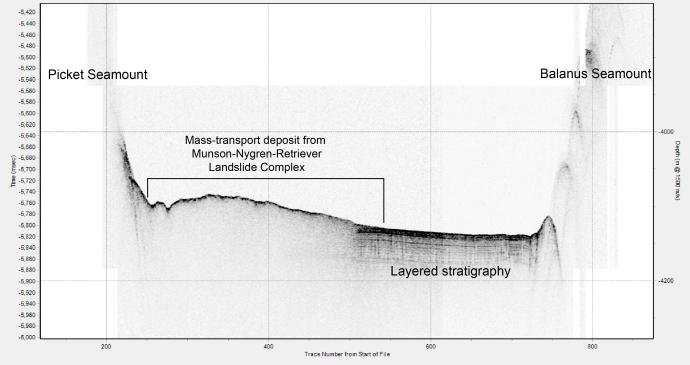


Figure 3. Image of Knudson sub-bottom profile data between Picket and Balanus Seamounts processed by Dr. Jason Chaytor (USGS).

### Hudson Canyon

The southern portion of the head of Hudson Canyon was mapped using the high resolution multibeam sonar to support a requested from the NOAA Center for Tsunami Research.

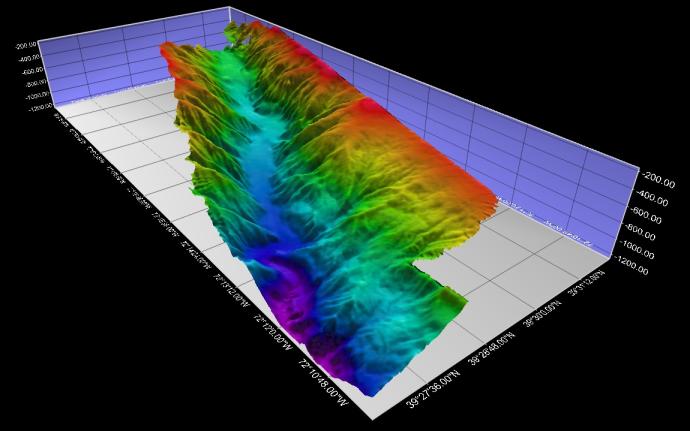


Figure 4. Hudson Canyon. EM 302 multibeam data gridded to 30 meters in Fledermaus v7. 4.1., x3 vertical exaggeration.

*Retriever Seamount*

Multibeam mapping of Retriever Seamount was conducted to add to the multibeam data in vicinity of the seamount. The Retriever seamount summit was observed to rise ~ 1900 m above the adjacent seafloor (Figure 5).

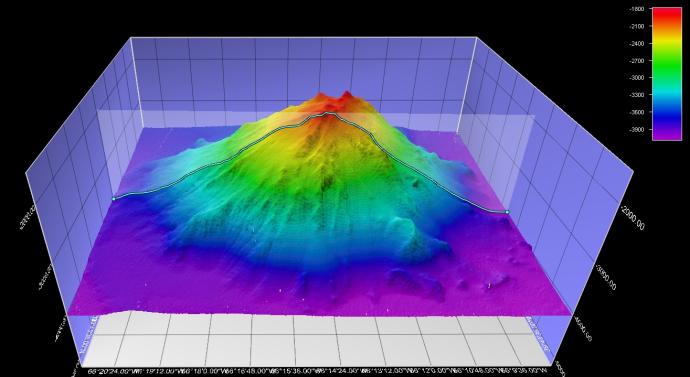




Figure 5. Retriever Seamount. EM 302 multibeam data gridded to 30 meters in Fledermaus v7. 4.1(top), x3 vertical exaggeration. East-west profile over the entire seamount (bottom).

# Mapping Statistics

|  |  |
| --- | --- |
| Dates | September 16 – October 7, 2014 |
| Days lost to weather | 2.7 days |
| Total mapping days | 9.8 days |
| Total non-mapping days | 8.6 days |
| Line kilometers of survey | 3800.5 km |
| Square kilometers mapped | 14,700 km2 |
| Number / Data Volume of EM 302 raw bathymetric / bottom backscatter multibeam files | 639 files / 28 GB |
| Number / Data Volume of EM 302 water column multibeam files | 639 files / 83 GB |
| Number / Data Volume of EK 60 water column singlebeam files | 141 files / 6 GB |
| Number / Data Volume of subbottom sonar files | 160 files / 2 GB |
| Number of XBT casts | 55 |
| Number of CTD casts (including test casts) | 0 |
| Number of ROV dives conducted | 13 |
| Beginning draft | Forward: 15'; Aft: 13'8” |
| Ending draft | Forward: 13'; Aft: 14'7.5" |
| Average ship speed for survey | 8.47 kts |
|  |  |

# Mapping Sonar Setup

The NOAA Ship *Okeanos Explorer* is equipped with a 30 kHz Kongsberg EM 302 multibeam sonar capable of mapping the seafloor in 0 to 8000 meters of water. The system generates a 150° beam fan containing up to 432 soundings per ping in waters deeper than 3000 meters. In waters less than 3000 meters, the system is operated in multiping, or dual swath mode, and obtains up to 864 soundings per ping, by generating two swaths per ping cycle. Appendix D contains a detailed description of sonar system functionality and technical specifications, including crosstrack and alongtrack data resolutions.

The ship is also equipped with a Kongsberg EK 60 singlebeam fisheries sonar. The transducer operates at 18 kHz and transmits a 7° beam fan.

Additionally the ship is equipped with a Knudsen 3260 subbottom profiler. The transducers produce a 3.5 kHz chirp signal.

# Data Acquisition Summary

EX-14-04 Leg III operations included EM 302 multibeam, EK 60 singlebeam, and Knudsen subbottom profile data collection. The schedule of operations included 12-hour overnight multibeam, singlebeam, and subbottom data collection, weather permitting. Additionally, mapping operations were conducted during the days when ROV dives were canceled. The multibeam coverage can be seem in Figure 1, while the EK60 and Knudsen tracklines are shown in Figures 6 and 7, respectively.

Expendable bathythermographs were collected every three to six hours to correct multibeam data for changes in sound speed in the water column, and were applied in real time using Seafloor Information Software (SIS). Sound speed at the sonar head was determined using a Reson SVP-70 probe and the thermosalinograph (TSG). Data from these two systems was monitored for consistency throughout the cruise, and whichever was performing better was applied in realtime using SIS. The TSG was secured on October 4 due to air intake, and was not used during the rest of the cruise.

Background data used for operational planning included existing multibeam data collected by *the Okeanos Explorer* and the Extended Continental Shelf project, and Sandwell and Smith satellite altimetry bathymetric data.

Tables listing all sonar files collected and products created during the cruise are provided in the appendices of this report.

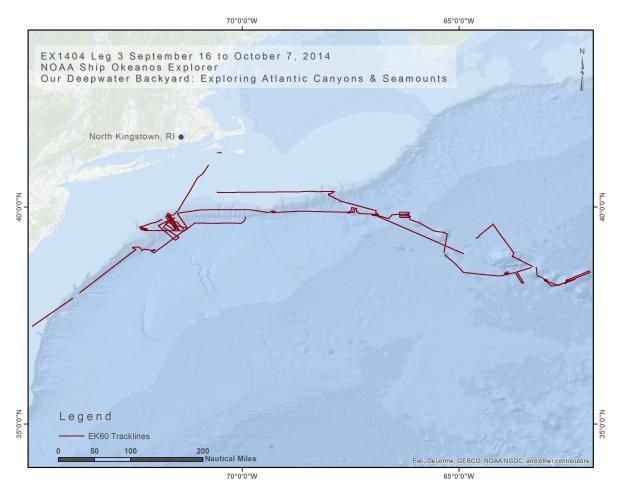


Figure 6. Tracklines of EK 60 singlebeam sonar data collected during EX-14-04 Leg III.

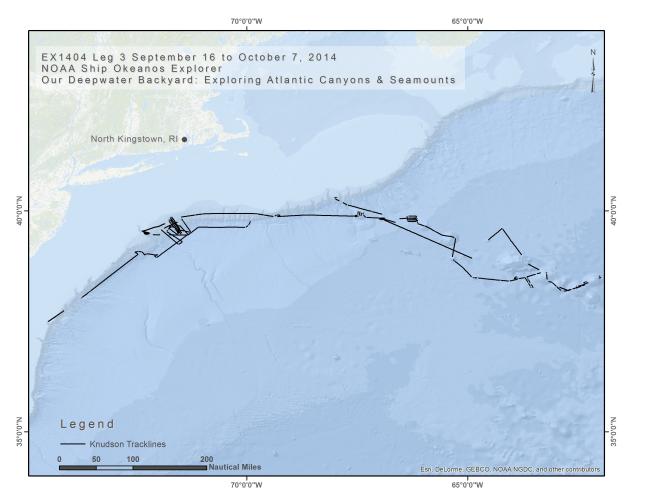


Figure 7. Tracklines of Knudsen subbottom profiler data collected during EX-14-04 Leg III.

# Sonar Data Quality Assessment and Data Processing

Throughout the cruise, multibeam data quality was monitored in realtime by acquisition watchstanders. XBTs were conducted every three to six hours as necessary to maintain data quality. Ship speed was adjusted to maintain data quality as necessary. Line spacing was planned to ensure ¼ to ½ overlap between adjancent lines at all times. Cutoff angles in SIS were generally set between 60° and 70° on both the port and starboard sides.

In very deep water (> 4500 m), the best quality bathymetry data were observed to be collected using Auto Ping and Auto Sector coverage modes. Setting auto ping mode set the system to perform in Very Deep mode, however the quality of outerbeams in the bottom backscatter was degraded due to low SNR. Taking SIS out of Auto Depth mode and forcing the system into Extra Deep ping mode resulted in better quality data in the outerbeams. However, it became apparent that the bathymetry coverage was reduced by operating the system Extra Deep mode (Figure 8). To collect wider swath coverage EM 302 was set to operate in Auto Ping mode and bad bottom detections in outerbeams were manually edited in CARIS during data processing.

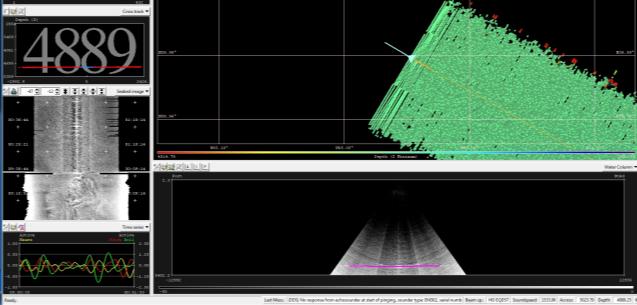


Figure 8. The backscatter seabed image shows the change between Very Deep Ping Mode (bottom, whitewashed portion of the image) and manually selecting Extra Deep Ping Mode (top portion of the seabed image). The bathymetry in Extra Deep Mode is reduced to three sectors and data coverage is compromised compared to Very Deep Ping Mode.

Raw multibeam bathymetry data files were acquired by SIS, and were imported into CARIS. In CARIS, attitude and navigation data stored in each file were checked, and erroneous soundings were removed using CARIS Subset Editor. Once per day, cleaned, gridded bathymetric data were exported to ASCII text files (y,x,z) at 50 meter cell size in WGS84 datum. The ASCII files were then used to create Fledermaus SD objects. These SD objects were then exported to geotiff and Google Earth KMZ, which were copied to the shoreside FTP on a daily basis for analysis by shoreside scientist.

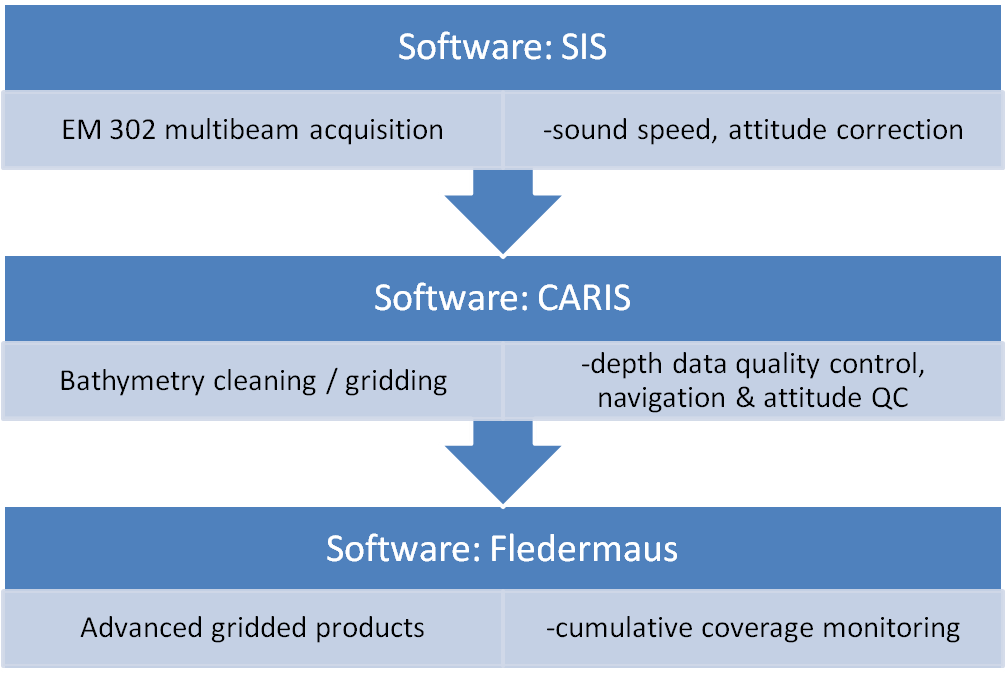


Figure 9. Shipboard multibeam data flow.

The EM302 was only shut down once during the entire cruise, during a 24-hour weather transit to shallow water.

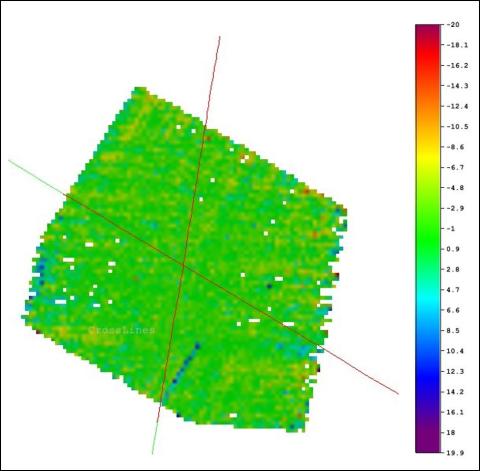
## EM 302 Built In System Tests (BISTs)

Prior to this cruise, while in-port, several BISTs test failed. Four EM302 TRU TX boards (#11, #12, #13 and #24) were replaced with refurbished boards provided by Kongsberg prior to ship’s departure from port. Later BISTs showed all systems working properly throughout the cruise.

Twenty-one built in system tests (BIST) were run during the cruise to monitor the system health of the EM 302 sonar electronics. After the four TX boards were replaced, the sonar appeared to be performing well. A summary table of BIST results and a sample full BIST result is provided in the appendices of this report.

***Cross Lines***

Crossline analysis was conducted using surface differencing in Caris near 39.108 N, 65.317 W, in an average of 4750 m of water. Two reference surfaces were computed, the first surface using multibeam line # 0429, run in the N/S direction. The second surface was computed using line # 0272 oriented E/W, Figure 10. The two surfaces were differenced, and statistics were computed based on the differences. The lines showed good agreement with each other within a mean difference of 1.3 m.



**Figure 10. Cross line analysis results, differences are greater where outerbeams overlap. The colorbar shows differences in meters.**

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**Figure 11. Difference histogram. The water depth of the cross-line analysis ranged from 4739 m to 4839 m. Statistics of the differencing are shown in Table 1.**

**Table 1. Differencing statistics.**

|  |  |
| --- | --- |
| **Differencing Statistics** | |
| Minimum (m) | -19.55 |
| Maximum (m) | 17.29 |
| Mean (m) | -1.3 |
| Standard Deviation (m) | 2.84 |
| Total Count | 5,060 |

# Data Archival Procedures

All mapping data collected by *Okeanos Explorer* are archived and publically available within 90 days of the end of each cruise via the National Centers for Environmental Information (NCEI) formerly known as National Geophysical Data Center’s (NGDC). Data can be accessed via the following website (last accessed 11/09/2015):

* the NGDC Interactive Bathymetry Data Viewer at <http://maps.ngdc.noaa.gov/viewers/bathymetry/>

The complete EX-14-04 Leg III *Okeanos Explorer* data management plan is provided in the appendices of this report.

# Telepresence

A 20 mb/s ship-to-shore connection was available throughout the cruise.

Live video was available throughout the cruise on the Ocean Explorer Website. <http://oceanexplorer.noaa.gov/okeanos/media/exstream/exstream.html>.

# Cruise Calendar.

***All times listed are in UTC. Local ship time was -4 hours from UTC.***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **September/October 2014** | | | | | | |
| Sun | Mon | Tues | Wed | Thur | Fri | Sat |
|  |  |  |  |  |  |  |
| 9/14 | 9/15  Mission personnel arrived on the ship in Baltimore, MD. Replace four EM302 TX boards. | 9/16  Depart Baltimore at 1000. | 9/17  Arrive at MOC-A Norfolk, VA to await ship replacement part. | 9/18  Departed Norfolk,VA.  Started collecting MB data, started TSG. | 9/19  Conducted overnight transit mapping, data quality was poor due to weather. | 9/20  Mapped between Hendrickson and McMaster Canyons with all three sonars. |
| 9/21  Collected overnight transit mapping data, data quality was poor due to weather. | 9/22  Collected EK60 and SBP data throughout day and data from all three sonars overnight. | 9/23  Overnight transit speeds were fast, so overnight mapping data quality suffered. | 9/24  Mapped for 20 hours over Bear, Physalia, and Retriever Seamounts.TSG secured overnight. | 9/25  Overnight transit mapping, data quality suffered due to high transit speed. Ship was re-ballasted and TSG turned back on. | 9/26  Mapped Panulirus and Atlantis II seamount. Suspended XBT operations due to a lighting storm. | 9/27  Mapped over Atlantis II on way to Gosnold Seamount. |
| 9/28  Collected reciprocal backscatter lines over Gosnold Seamount and cross lines over Sheldrake and Gosnold Seamounts. | 9/29  Overnight transit mapping between Kelvin and Kiwi. | 9/30  Overnight transit mapping. Sector coverage and pings modes adjusted in SIS during a long straight transit. | 10/01  Began transit mapping, at 0130 mapping operations were suspended due to rough sea conditions. The ship headed inshore to seek shelter. | 10/02  Seeking shelter from weather between Martha’s Vineyard and Nantucket islands. | 10/03  Offshore weather improves.  Transit mapping in very shallow water with all three sonars. | 10/04  Collected EK60 and SBP. Data quality was poor due to weather. |
| 10/05  Collected MB data in the southern portion of the head of Hudson Canyon, and conducted overnight transit mapping. | 10/06  Collected reciprocal backscatter lines over dive site. Transit mapping back to port. Sonars secured at 70 m. | 10/07  Arrive port North Kingstown, RI. Mission personnel depart ship. |  |  |  |  |

# Daily Cruise Log

***All times listed are local ship time, which was -4 hours from UTC***.

*September 17, 2014*

Ran a successful BIST in the morning started to generate some dive planning products. The XO was unsuccessful at finding an augmenting survey tech that could meet the ship while we were tied up in Norfolk.

*September 18, 2014*

Started logging multibeam about midnight and collected data until we arrived at the dive site. The bridge watch stander assisted the overnight watch stander with the XBTs. We are not securing the multibeam TRU while the ROV is in the water we are just not pinging. The ET and Mapping lead were able to start the TSG shortly after clearing the sea buoy.

*September 19, 2014*

The TRU closet got a little warm overnight. The security watch did a great job notifying the overnight mapping staff when the temperature crossed 80 degree F. The temperature decreased after the sonars were stopped pinging in preparation for the ROV dive. Data quality was poor to moderate overnight due to weather.

*September 20, 2014*

Mapped between Hendrickson and McMaster Canyons. Overnight data quality was good. The temperature in the TRU rooms was normal throughout the night.

*September 21, 2014*

Collected data overnight on all three sonars. Data quality was moderate to poor due to the weather.

*September 22, 2014*

Collected SBP and EK60 data through the day. Collected data from all three sonars overnight with moderate to good quality.

*September 23, 2014*

Overnight data quality was moderate. The ship was making best speed to make it to the dive site so the mapping data quality suffered. During the night the ship transited over several known seep locations. All the seeps were confirmed in EM 302 data. The POS MV heading l dropped out several times a day and the mapping lead has noticed some noise issue in the nadir of the multibeam over the last couple days.

*September 24, 2014*

Mapped for approximately 20 hours Sept 24 into the morning of Sept 25. Collected data with all three sonar systems. Ran survey lines over Bear, Physalia, and Retriever Seamounts. Data quality over the seamounts was good, however during transits between seamounts, data quality was poor to moderate because of wind and swell direction. TSG is currently secured because the pump was losing suction due to air in the line. CET and CME have requested permission to re-ballast the ship to bring the bow down in order to reduce the number of bubbles introduced into the system.

*September 25, 2014*

Overnight mapping was conducted with all three sonars. Data quality was fair due to deepwater and required transit speeds to make the next dive site. The ship re-ballasted allowing the TSG to be turned on again.

*September 26, 2014*

Mapping coverage included Panulirus Seamount, extending the coverage around Atlantis II seamount and running sub bottom profiles for USGS. We missed one XBT overnight due to a lighting storm. Data quality over night was good.

*September 27, 2014*

Mapped over Atlantis II on way to Gosnold Seamount. Ran all three sonars continuously. Data quality was fair to good. Night watch stander noticed that in auto ping mode the EM302 was picking ping modes that washed out the outerbeams in the backscatter, and caused deep false returns in near nadir. Switching to manual mode and selecting an appropriate ping depth helped alleviate these issues. As we continue to transit through the Gulf Stream surface sound speeds are changing quickly, but this does not appear to adversely affect the data.

*September 28, 2014*

After the ROVs were secured from the dive at Gosnold, we mapped over the dive site collecting backscatter data. ~1 km long lines were run over the dive site from various directions. The EM302 had to be set to Very Deep ping mode even though we were only in 1800-2000 m of water. In Deep ping mode the backscatter was over-saturated. After the test we steamed to the eastern edge of Sheldrake Seamount and transited west, collecting a long crossline over Sheldrake and Gosnold Seamounts, to compliment data collected during EX1404L1. After the crossline was complete we steamed to the Atlantis II Caldera site. Once on site we collected another series of ~1 km long lines for a backscatter test. At the Caldera site the currents were so strong that the ship was crabbing and had a hard time maintaining a steady survey speed of 8.5 knots.

*September 29, 2014*

Transit mapped between Kelvin and Kiwi seamount with all 3 sonars. We are continuing to run ping mode in manual. Overall data quality was moderate to good.

*September 30, 2014*

Conducted overnight transit mapping between the unnamed seamount and Physalia. Transit speeds were faster than normal survey speed (11-12 knots vs 8.5-9) to get on the dive site by the morning. The mapping team tested a few of the EM302 settings, adjusting the Ping Mode between Very Deep and Extra Deep and the Angular Coverage mode between Manual and Auto. There were noticeable differences between the settings in both the bathymetry and backscatter returns. For the majority of the transit depths were ~4,000 m to 4,500 m, and the Very Deep ping mode and Auto angular coverage results in the best quality data. Screen shots of SIS were taken of the different settings. After mapping in shallower waters and conducting similar tests, the screen shots will be sent to Kongsberg to help them with their evaluation of the EM302.

*October 1, 2014*

Once the ROVs were on deck we commenced transit mapping with all three sonars. At 0130 the seas had built to a level that mapping data quality was poor and ship discontinued mapping operations and started heading towards sheltered waters.

*October 2, 2014*

Catching up on processing and paperwork. The TRU was fully powered down once the seas were too rough to map in.

*October 3, 2014*

Powered up the TRU and let it warm up for 30 minutes and had no problems getting the sonar to start pinging and logging. Started logging multibeam and EK60 at 50 meter started logging SBP at 200 meters. Data quality was good for shallow water.

*October 4, 2014*

Collected 4 EK60 lines at the request of University of Connecticut researchers and SBP lines for USGS. Data quality was moderate to poor due to weather. The TSG was secured due to air intake. The current belief is that because the ship is light on fuel and is riding higher than normal in the bow

*October 5, 2014*

After the dive was called off the ship steamed to Hudson Canyon to map an area 12 km by 5 km for the NOAA Tsunami Group. All three sonars were run, with a focus on the multibeam. At times the EK60 and Knudson were not logging because data quality was so poor due to weather. Data quality in the morning was poor but improved throughout the day as the seas and wind laid down. In the afternoon we began the transit to Nantucket Canyon, extending existing EX multibeam coverage to the south.

*October 6, 2014*

Conducted a short line plan over the dive site to compare backscatter to the ROV video. All three sonars were run until 70 meters water depth then secured.

*October 1, 2014*

Ship alongside in North Kingstown, RI.

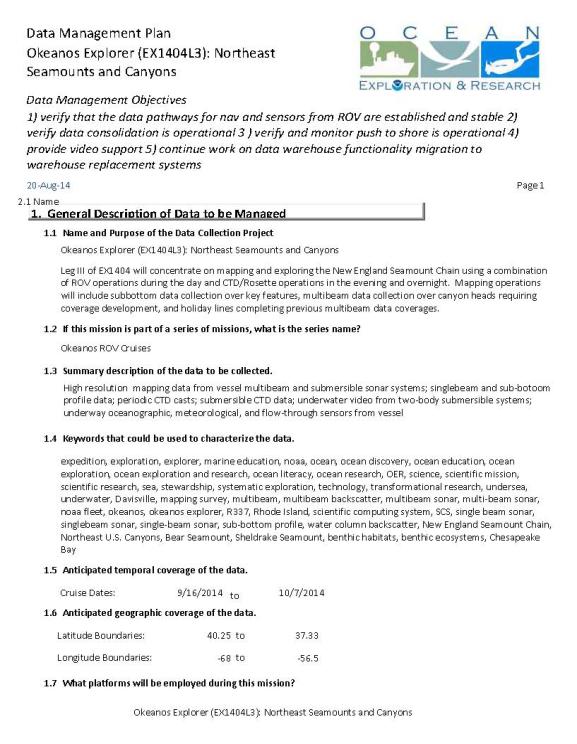
# References

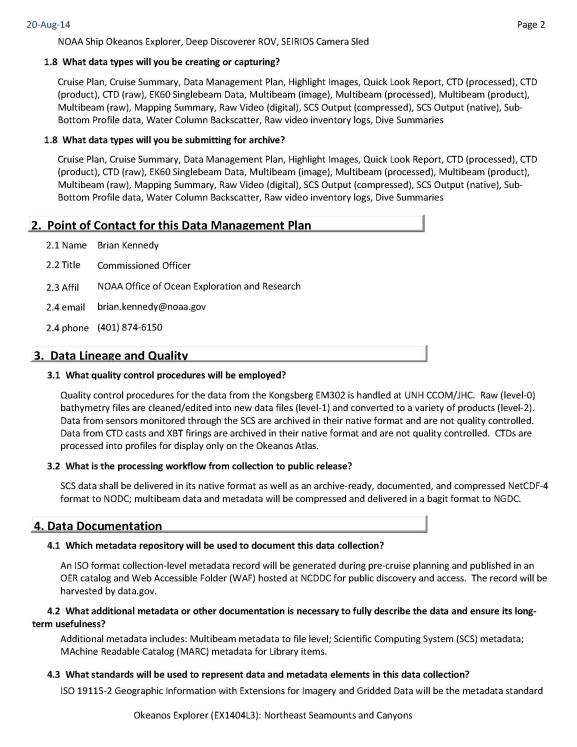
The 2014 Survey Readiness Report can be obtained by contacting NOAA Ship *Okeanos Explorer* at [ops.explorer@noaa.gov](mailto:ops.explorer@noaa.gov).

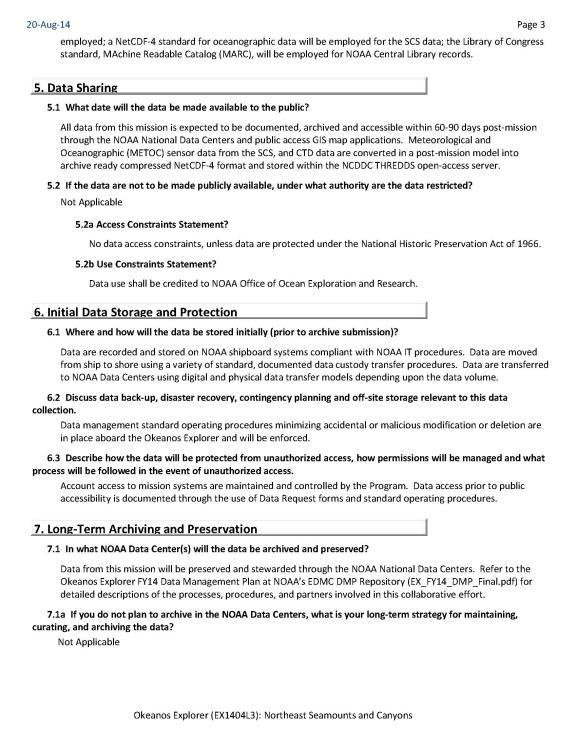
EX-14-04 Leg III Project Instructions can be obtained by contacting NOAA Ship *Okeanos Explorer* at [ops.explorer@noaa.gov](mailto:ops.explorer@noaa.gov).

# 15. Appendices

# Appendix A: EX-14-04 Data Management Plans

****

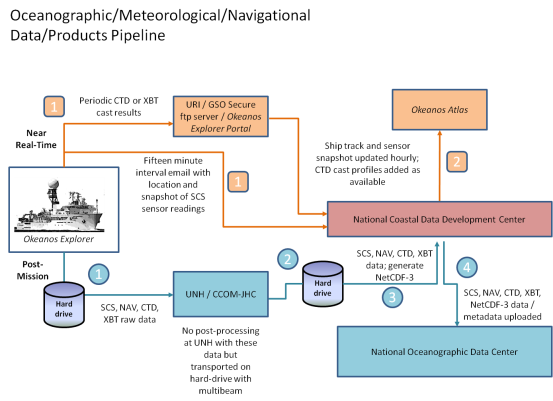
****

****

**Data and Product Pipelines (excerpt from EX\_FY13\_DMP.pdf)**

## Oceanographic/Meteorological/Navigational Data Archive Pipeline

Data from hull-mounted and off-board oceanographic and meteorological (METOC) sensors; integrated oceanographic sensors from the submersibles; and navigational instrumentation on both the vessel and its submersibles are monitored through the ship’s Scientific Computer System (SCS). Some of these data will be used in a near real-time mode to update the *Okeanos Atlas.* All of these data will be archived at the National Oceanographic Data Center (NODC) Marine Data Stewardship Division (MDSD) in Silver Spring, MD. A collection level metadata record describing the data inventory to be archived at the NODC/MDSD will be included with the data submission.



***Fig 1: Oceanographic/Meteorological/Navigational Data Archive Pipeline***

At periodic (currently twenty minutes) intervals, an email from the ship to NCDDC is delivered with the ship’s position and a snapshot of the SCS sensor suite.

1

As CTD or XBT casts are deployed, the results of the cast are included in the hourly synchronizations to the SRS.

2

The GIS team at NCDDC processes CTD cast data into thinned profiles for comparison to World Ocean Atlas historical profiles in the same region and month. The thinned profiles are geo-located on the Okeanos Atlas. Ship track and sensor snapshot readings are geo-located on the Okeanos Atlas.

All SCS data, including navigation and CTD/XBT cast data are saved to a hard-drive. This hard-drive is the same that will hold the multibeam survey raw data and products generated on-board. This hard-drive will be either brought back or shipped to the University of New Hampshire Center for Coastal and Ocean Mapping (UNH CCOM) for post-processing, after which it will be shipped to NCDDC.

The Data Management team will post-process the SCS, NAV, CTD, and XBT raw data files, adding ASCII headers to each file and generating NetCDF-3 formatted files for the entire cruise for both SCS/NAV data and CTD/XBT data. FGDC CSDGM metadata will be generated for the navigational data and for the METOC sensor data.

The ASCII files, and the metadata will be uploaded to the National Oceanographic Data Center (NODC), where they will be accessioned and archived.

The NetCDF3 files will be stored within an NCDDC hosted Thematic Real-time Environmental Distributed Data Services (THREDDS) server for user discoverability and access.

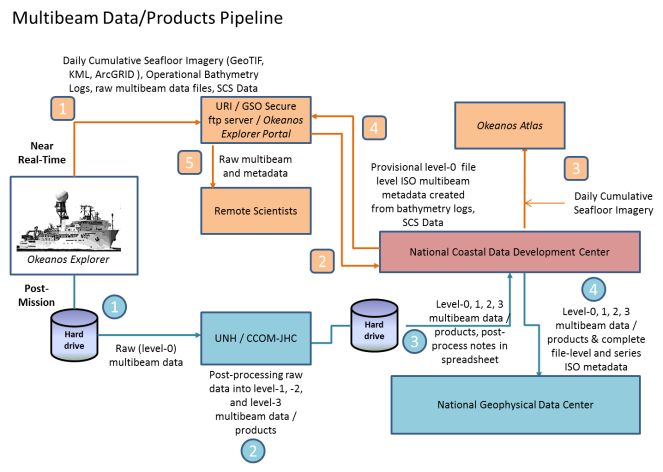
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Data Class** | **Instrument** | **Data Type** | **Format** | **Metadata Granularity** | **Archive Center** |
| **OCN/MET** | All SCS monitored sensors | Meteorological and Oceanographic data sensors | ASCII | 1 meta rec | NODC/MDSD |
| **NAV** | DGPS, CNAV | EX, ROV, and sled navigation | ASCII | 1 meta rec | NODC/MDSD |
| **ALL** | All | Archive Ready | NetCDF-3 | 1 meta rec | NODC/MDSD |

***Table 1: Oceanographic/Meteorological/Navigational Metadata Granularity and Target Archive***

## Multibeam Survey Data Archive Pipeline

The multibeam survey data collected by bottom-looking and complementary sensors, data from the calibration instruments, and the products generated after the data is returned to and post-processed at UNH will be archived at the NGDC. These data will be accompanied with a collection level metadata record for the NGDC as well as individual metadata records for each raw (level-0) file, each edited (level-1) file and each data product (level-2) and report (level-3) generated as a result. In addition, the submission to NGDC will include the following:

* raw (level-0) mapping survey and water column data files,
* CTD and/or XBT profile data used for calibration in multibeam survey,
* post-processed, quality assured, and edited (level-1) data files,
* specific data products (level-2) including cumulative GeoTIF images, gridded bathymetric files, KML files, Fledermaus output files, and an ArcGrid format, and
* comprehensive mapping survey data summary (level-3) report.

****

***Figure 2: Multibeam Survey Data Archive Pipeline***

**Near Real-Time**

The mapping survey team on the EX will include their operational processing spreadsheet in the folder that is targeted for synchronization to the SRS periodically throughout the day. As operational GeoTIFF images are created, these will also be saved to this folder.

1

2

The data management team at NCDDC pulls the GeoTIFF images, operational bathymetry processing spreadsheet and the SCS data streams for near real-time metadata generation and Okeanos Atlas update procedures.

Daily cumulative GeoTIFF images of the seafloor imagery are geo-located on the Okeanos Atlas by the GIS team at NCDDC.

3

Provisional metadata in an ISO format is generated for each raw (level-0) multibeam raw files using the SCS exported data, the operational processing spreadsheet and saved to the SRS.

4

Participating scientists wanting access to the raw multibeam in near real-time can pull the individual files with the metadata that provides operational and provisional processing steps and a disclaimer for non-QC status of the data.

5

**Post-Mission**

All bottom-looking sensor data and complementary data (water column and sound velocity) are saved to a hard-drive. This hard-drive will be either brought back or shipped to the University of New Hampshire Center for Coastal and Ocean Mapping (UNH CCOM) for post-processing.

A full complement of multibeam data from a 30-day EX cruise on which the Kongsberg EM302 multibeam system runs continuously will produce 200-300 Gigabytes of raw multibeam (37.5% of total volume) and water column data (62.5% of total volume). At UNH, the mapping team will post-process the multibeam data through the following steps:

* The raw (level-0) data will be saved to the CCOM file servers, where they will be quality checked and post-processed.
* The edited level-0 data is saved as level-1 data filesin a non-proprietary format – ASCII xyz files (cleaned not gridded).
* The post-processing steps used to produce the level-1 data will be documented.
* Level-2 products will be generated from the level-1 data files.
* The post-processing steps used to produce the level-2 data products will be documented.
* The level-1 data, level-2 products, post-processing steps, and working data processing spreadsheets will be copied to the hard drive in a new folder. A processing spreadsheet for FY12 will contain the temporal and spatial limits of each file and any supplemental information documenting problems or issues that affected the quality of the data in that file.

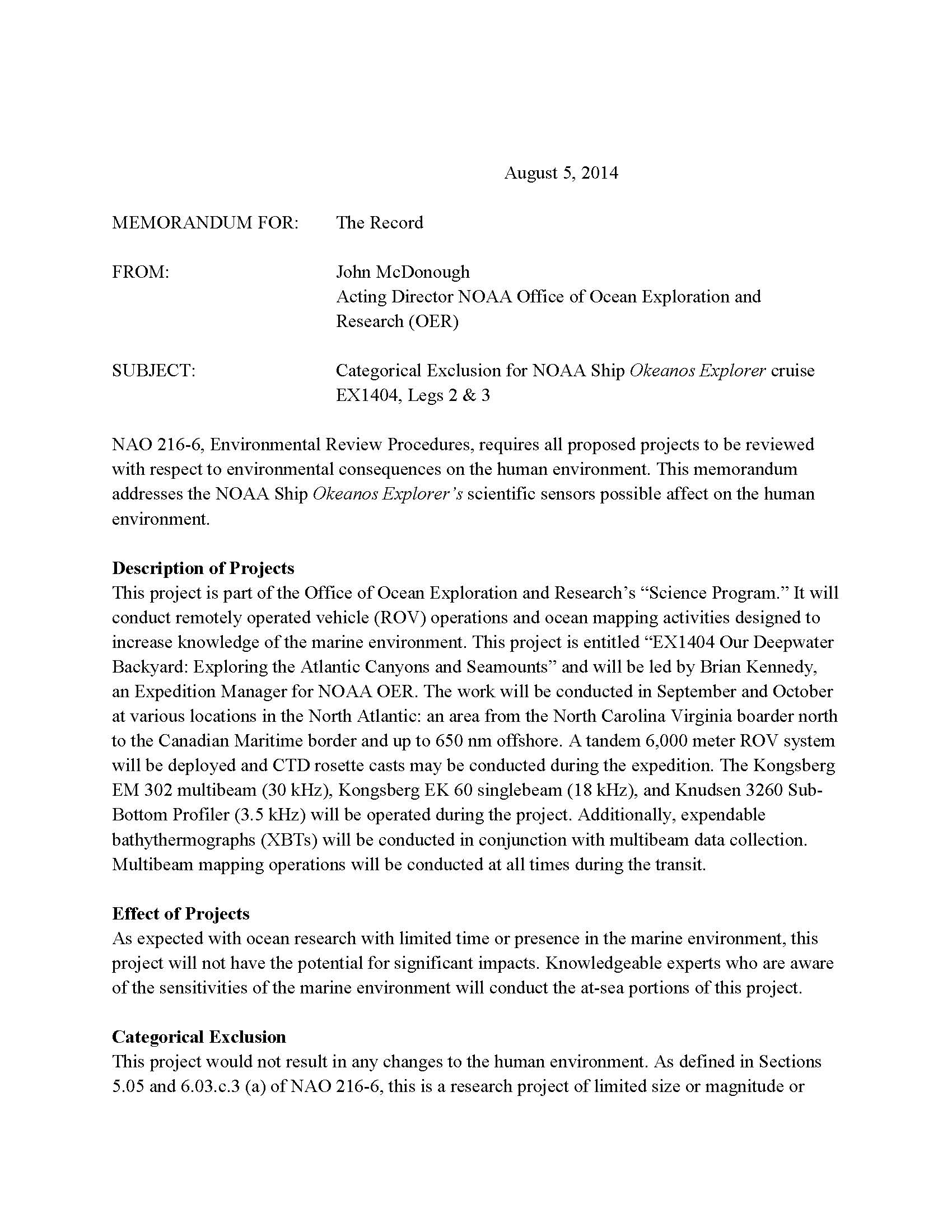
The hard-drive will be shipped to the NCDDC within approximately 3 weeks from cruise end date.

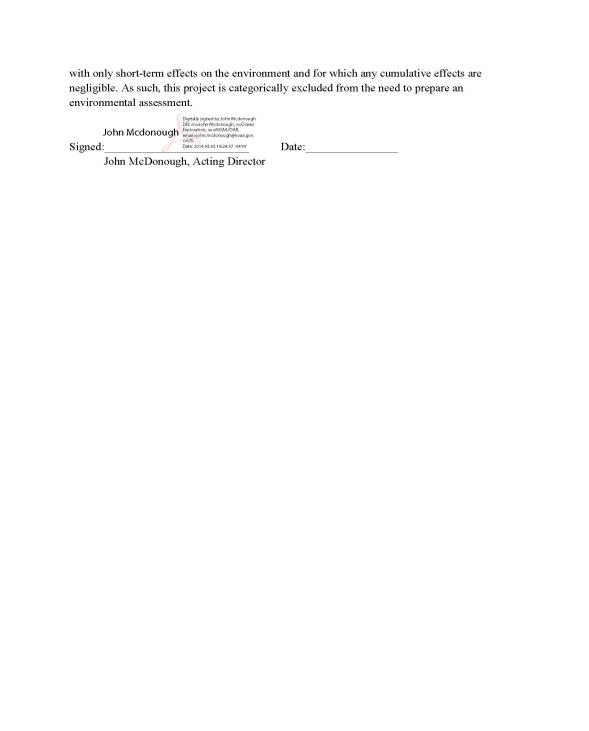
At NCDDC, all multibeam related files will be post-processed through metadata generation procedures. Metadata will be generated for each individual survey track file (level-0 and -1), for accompanying CTD/XBT profile data sets, for composite xyz files, KMLs, GeoTIFs, png images, and Fledermaus output (level-2), and a set of data products and reports (level-3). The metadata will be added to the hard-drive and the hard-drive will be shipped to NGDC.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **NOAA Ship Okeanos Explorer** | | | | | |
| **Data Class** | **Instrument** | **Data Type** | **Format** | **Metadata Granularity** | **Archive Center** |
| **GEO** | Kongsberg EM302 (30 kHz) | Multibeam Bathymetry, Bottom Backscatter, Water Column Backscatter (proprietary format read into MBSystem) | .all, .wcd (proprietary) | 1 meta rec per .all file in Multibeam Data folder and subfolders | NGDC |
| **GEO** | Simrad EK60 | Singlebeam (time,depth) | .txt, (ASCII), .raw (proprietary) | Included in the SCS feed | TBD |
| **GEO** | Knudsen CHIRP 3260 (3.5 kHz) | Sub-bottom profile | .sgy, .kea, .keb (proprietary) | 1 meta rec = Subbottom Profile Data folder | NGDC |
| **OCN** | SeaBird SBE-911plus | CTD Cast | .hex, .con (Proprietary); .cnv, .hdr, .bl, .jpg (processed) | 1 meta rec = CTD folder | NGDC |
| **OCN** | Sippican MK-21 eXpendable BathyThermograph (XBT) | XBT | .edf (ASCII), .rdf (proprietary) | 1 meta rec = XBT folder | NGDC |
| **OCN** | RESON | Sound Velocity (m/s) | TBD | 1 meta rec = RESON folder | NGDC |
| **OCN** | Calculated | Sound Velocity (m/s) | .asvp (ASCII) | 1 meta rec = Profile\_Data/SVP or Profile\_Data/ASVP | NGDC |

***Table 5: Multibeam Survey Metadata Granularity and Target Archive***

# Appendix B: Categorical Exclusion Letter

****

****

# Appendix C: NASA Maritime Aerosols Survey of Opportunity

**Survey or Project Name**

|  |
| --- |
| **Maritime Aerosol Network** |

**Points of Contact (POC)**

|  |  |
| --- | --- |
| *Lead POC or Principle Investigator (PI & Affiliation)* | *Supporting Team Members ashore* |
| **POC: Dr. Alexander Smirnov** | *Supporting Team Members aboard (if required)* |

**Activities Description(s)** *(Include goals, objectives and tasks)*

|  |
| --- |
| **The Maritime Aerosol Network (MAN) component of AERONET provides ship-borne aerosol optical depth measurements from the Microtops II sun photometers. These data provide an alternative to observations from islands as well as establish validation points for satellite and aerosol transport models. Since 2004, these instruments have been deployed periodically on ships of opportunity and research vessels to monitor aerosol properties over the World Oceans.** |

# Appendix D: EM 302 Processing Parameters

#// Database Parameters

#// Seafloor Information System

#// Kongsberg Maritime AS

#// Saved: 2014.10.07 13:06:28

#// Build info:

#\* SIS: [Version: 4.1.3, Build: 14, DBVersion 24.0 CD generated: Fri Dec 13 10:06:08 2013]

[Fox ver = 1.6.47]

[db ver = 24, proc = 24.0]

[OTL = 4.0.-95]

[ACE ver = 5.8.3]

[Coin ver = 2.5.0]

[Simage ver = 1.6.2a]

[Dime ver = DIME v0.9]

[FreeType ver = 2.3.7]

[TIFF ver = 3.9.2]

[GeoTIFF ver = 1250]

[GridEngine ver = 3.1.5]

#\* Language [3] #// Current language, 1-Norwegian, 2-German,3-English, 4-Spanish|Remember to restart SIS after a change.

German is currently not available.

#\* Type [302]

#\* Serial no. [101]

#\* Number of heads [2]

#\* System descriptor [50331650] #// 03000002

#// \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

#// Installation parameters

#{ Input Setup #// All Input setup parameters

#{ COM1 #// Link settings.

#{ Com. settings #// Serial line parameter settings.

#\* Baud rate: [9600]

#\* Data bits [8]

#\* Stop bits: [1]

#\* Parity: [NONE]

#\* Interface: [RS232]

#} Com. settings

#{ Position #// Position input settings.

#\* None [1] [0]

#\* GGK [1] [0]

#\* GGA [1] [1]

#\* GGA\_RTK [1] [0]

#\* SIMRAD90 [1] [0]

#} Position

#{ Input Formats #// Format input settings.

#\* Attitude [0] [0]

#\* MK39 Mod2 Attitude, [0] [0]

#\* ZDA Clock [1] [1]

#\* HDT Heading [0] [0]

#\* SKR82 Heading [0] [0]

#\* DBS Depth [1] [0]

#\* DPT Depth [1] [0]

#\* EA500 Depth [0] [0]

#\* ROV. depth [0] [0]

#\* Height, special purp [1] [0]

#\* Attitude/Velocity [0] [0]

#} Input Formats

#} COM1

#{ COM2 #// Link settings.

#{ Com. settings #// Serial line parameter settings.

#\* Baud rate: [19200]

#\* Data bits [8]

#\* Stop bits: [1]

#\* Parity: [NONE]

#\* Interface: [RS232]

#} Com. settings

#{ Position #// Position input settings.

#\* None [0] [1]

#\* GGK [0] [0]

#\* GGA [0] [0]

#\* GGA\_RTK [0] [0]

#\* SIMRAD90 [0] [0]

#} Position

#{ Input Formats #// Format input settings.

#\* Attitude [1] [1]

#\* MK39 Mod2 Attitude, [0] [0]

#\* ZDA Clock [0] [0]

#\* HDT Heading [0] [0]

#\* SKR82 Heading [0] [0]

#\* DBS Depth [0] [0]

#\* DPT Depth [0] [0]

#\* EA500 Depth [0] [0]

#\* ROV. depth [0] [0]

#\* Height, special purp [0] [0]

#\* Attitude/Velocity [0] [0]

#} Input Formats

#} COM2

#{ COM3 #// Link settings.

#{ Com. settings #// Serial line parameter settings.

#\* Baud rate: [4800]

#\* Data bits [8]

#\* Stop bits: [1]

#\* Parity: [NONE]

#\* Interface: [RS232]

#} Com. settings

#{ Position #// Position input settings.

#\* None [1] [1]

#\* GGK [1] [0]

#\* GGA [1] [0]

#\* GGA\_RTK [1] [0]

#\* SIMRAD90 [1] [0]

#} Position

#{ Input Formats #// Format input settings.

#\* Attitude [0] [0]

#\* MK39 Mod2 Attitude, [0] [0]

#\* ZDA Clock [0] [0]

#\* HDT Heading [1] [1]

#\* SKR82 Heading [0] [0]

#\* DBS Depth [1] [0]

#\* DPT Depth [1] [0]

#\* EA500 Depth [0] [0]

#\* ROV. depth [0] [0]

#\* Height, special purp [1] [0]

#\* Attitude/Velocity [0] [0]

#} Input Formats

#} COM3

#{ COM4 #// Link settings.

#{ Com. settings #// Serial line parameter settings.

#\* Baud rate: [9600]

#\* Data bits [8]

#\* Stop bits: [1]

#\* Parity: [NONE]

#\* Interface: [RS232]

#} Com. settings

#{ Position #// Position input settings.

#\* None [1] [1]

#\* GGK [1] [0]

#\* GGA [1] [0]

#\* GGA\_RTK [1] [0]

#\* SIMRAD90 [1] [0]

#} Position

#{ Input Formats #// Format input settings.

#\* Attitude [0] [0]

#\* MK39 Mod2 Attitude, [0] [0]

#\* ZDA Clock [0] [0]

#\* HDT Heading [0] [0]

#\* SKR82 Heading [0] [0]

#\* DBS Depth [1] [0]

#\* DPT Depth [1] [0]

#\* EA500 Depth [0] [0]

#\* ROV. depth [0] [0]

#\* Height, special purp [1] [0]

#\* Attitude/Velocity [0] [0]

#} Input Formats

#} COM4

#{ UDP2 #// Link settings.

#{ Com. settings #// Serial line parameter settings.

#// N/A

#} Com. settings

#{ Position #// Position input settings.

#\* None [1] [1]

#\* GGK [1] [0]

#\* GGA [1] [0]

#\* GGA\_RTK [1] [0]

#\* SIMRAD90 [1] [0]

#} Position

#{ Input Formats #// Format input settings.

#\* Attitude [0] [0]

#\* MK39 Mod2 Attitude, [0] [0]

#\* ZDA Clock [0] [0]

#\* HDT Heading [0] [0]

#\* SKR82 Heading [0] [0]

#\* DBS Depth [0] [0]

#\* DPT Depth [0] [0]

#\* EA500 Depth [1] [0]

#\* ROV. depth [0] [0]

#\* Height, special purp [0] [0]

#\* Attitude/Velocity [0] [0]

#} Input Formats

#} UDP2

#{ UDP3 #// Link settings.

#{ Com. settings #// Serial line parameter settings.

#// N/A

#} Com. settings

#{ Position #// Position input settings.

#\* None [0] [1]

#\* GGK [0] [0]

#\* GGA [0] [0]

#\* GGA\_RTK [0] [0]

#\* SIMRAD90 [0] [0]

#} Position

#{ Input Formats #// Format input settings.

#\* Attitude [0] [0]

#\* MK39 Mod2 Attitude, [0] [0]

#\* ZDA Clock [0] [0]

#\* HDT Heading [1] [0]

#\* SKR82 Heading [0] [0]

#\* DBS Depth [1] [0]

#\* DPT Depth [1] [0]

#\* EA500 Depth [0] [0]

#\* ROV. depth [0] [0]

#\* Height, special purp [1] [0]

#\* Attitude/Velocity [0] [0]

#} Input Formats

#} UDP3

#{ UDP4 #// Link settings.

#{ Com. settings #// Serial line parameter settings.

#// N/A

#} Com. settings

#{ Position #// Position input settings.

#\* None [0] [1]

#\* GGK [0] [0]

#\* GGA [0] [0]

#\* GGA\_RTK [0] [0]

#\* SIMRAD90 [0] [0]

#} Position

#{ Input Formats #// Format input settings.

#\* Attitude [1] [0]

#\* MK39 Mod2 Attitude, [0] [0]

#\* ZDA Clock [0] [0]

#\* HDT Heading [1] [0]

#\* SKR82 Heading [0] [0]

#\* DBS Depth [1] [0]

#\* DPT Depth [1] [0]

#\* EA500 Depth [0] [0]

#\* ROV. depth [0] [0]

#\* Height, special purp [1] [0]

#\* Attitude/Velocity [0] [0]

#} Input Formats

#} UDP4

#{ UDP5 #// Link settings.

#{ Com. settings #// Serial line parameter settings.

#// N/A

#} Com. settings

#{ Position #// Position input settings.

#\* None [0] [0]

#\* GGK [0] [0]

#\* GGA [0] [0]

#\* GGA\_RTK [0] [0]

#\* SIMRAD90 [0] [0]

#} Position

#{ Input Formats #// Format input settings.

#\* Attitude [0] [0]

#\* MK39 Mod2 Attitude, [0] [0]

#\* ZDA Clock [0] [0]

#\* HDT Heading [0] [0]

#\* SKR82 Heading [0] [0]

#\* DBS Depth [0] [0]

#\* DPT Depth [0] [0]

#\* EA500 Depth [0] [0]

#\* ROV. depth [0] [0]

#\* Height, special purp [0] [0]

#\* Attitude/Velocity [1] [1]

#} Input Formats

#{ Ethernet Interface Settings #// Only relevant for UDP5 on EM122, EM302, EM710, EM2040 currently

#\* VSU [5602] #// UDP5:

#\* VSE [2] #// 0= Not in use, 1= Use legacy Ethernet, 2=Use Ethernet 2

#\* VSI [192.168.2.20] #// IP addr.:

#\* VSM [255.255.255.0] #// Net mask:

#} Ethernet Interface Settings

#} UDP5

#{ UDP6 #// Link settings.

#{ Com. settings #// Serial line parameter settings.

#// N/A

#} Com. settings

#{ Position #// Position input settings.

#\* None [0] [0]

#\* GGK [0] [0]

#\* GGA [0] [0]

#\* GGA\_RTK [0] [0]

#\* SIMRAD90 [0] [0]

#} Position

#{ Input Formats #// Format input settings.

#\* Attitude [0] [0]

#\* MK39 Mod2 Attitude, [0] [0]

#\* ZDA Clock [0] [0]

#\* HDT Heading [0] [0]

#\* SKR82 Heading [0] [0]

#\* DBS Depth [0] [0]

#\* DPT Depth [0] [0]

#\* EA500 Depth [0] [0]

#\* ROV. depth [0] [0]

#\* Height, special purp [0] [0]

#\* Attitude/Velocity [1] [0]

#} Input Formats

#{ Ethernet Interface Settings #// Only relevant for UDP6 on EM122, EM302, EM710, EM2040 currently

#\* VTU [3000] #// UDP6:

#\* VTE [0] #// 0= Not in use, 1= Use legacy Ethernet, 2=Use Ethernet 2

#\* VSI [192.168.2.20] #// IP addr.:

#\* VSM [255.255.255.0] #// Net mask:

#} Ethernet Interface Settings

#} UDP6

#{ MCAST1 #// Link settings.

#{ Com. settings #// Serial line parameter settings.

#// N/A

#} Com. settings

#{ Position #// Position input settings.

#\* None [1] [1]

#\* GGK [0] [0]

#\* GGA [0] [0]

#\* GGA\_RTK [0] [0]

#\* SIMRAD90 [0] [0]

#} Position

#{ Input Formats #// Format input settings.

#\* Attitude [0] [0]

#\* MK39 Mod2 Attitude, [0] [0]

#\* ZDA Clock [1] [0]

#\* HDT Heading [0] [0]

#\* SKR82 Heading [0] [0]

#\* DBS Depth [0] [0]

#\* DPT Depth [0] [0]

#\* EA500 Depth [0] [0]

#\* ROV. depth [0] [0]

#\* Height, special purp [0] [0]

#\* Attitude/Velocity [1] [0]

#} Input Formats

#} MCAST1

#{ MCAST2 #// Link settings.

#{ Com. settings #// Serial line parameter settings.

#// N/A

#} Com. settings

#{ Position #// Position input settings.

#\* None [1] [1]

#\* GGK [1] [0]

#\* GGA [1] [0]

#\* GGA\_RTK [1] [0]

#\* SIMRAD90 [1] [0]

#} Position

#{ Input Formats #// Format input settings.

#\* Attitude [0] [0]

#\* MK39 Mod2 Attitude, [0] [0]

#\* ZDA Clock [1] [0]

#\* HDT Heading [0] [0]

#\* SKR82 Heading [0] [0]

#\* DBS Depth [0] [0]

#\* DPT Depth [0] [0]

#\* EA500 Depth [0] [0]

#\* ROV. depth [0] [0]

#\* Height, special purp [0] [0]

#\* Attitude/Velocity [1] [0]

#} Input Formats

#} MCAST2

#{ MCAST3 #// Link settings.

#{ Com. settings #// Serial line parameter settings.

#// N/A

#} Com. settings

#{ Position #// Position input settings.

#\* None [1] [1]

#\* GGK [1] [0]

#\* GGA [1] [0]

#\* GGA\_RTK [1] [0]

#\* SIMRAD90 [1] [0]

#} Position

#{ Input Formats #// Format input settings.

#\* Attitude [0] [0]

#\* MK39 Mod2 Attitude, [0] [0]

#\* ZDA Clock [1] [0]

#\* HDT Heading [0] [0]

#\* SKR82 Heading [0] [0]

#\* DBS Depth [0] [0]

#\* DPT Depth [0] [0]

#\* EA500 Depth [0] [0]

#\* ROV. depth [0] [0]

#\* Height, special purp [0] [0]

#\* Attitude/Velocity [1] [0]

#} Input Formats

#} MCAST3

#{ MCAST4 #// Link settings.

#{ Com. settings #// Serial line parameter settings.

#// N/A

#} Com. settings

#{ Position #// Position input settings.

#\* None [0] [1]

#\* GGK [0] [0]

#\* GGA [0] [0]

#\* GGA\_RTK [0] [0]

#\* SIMRAD90 [0] [0]

#} Position

#{ Input Formats #// Format input settings.

#\* Attitude [0] [0]

#\* MK39 Mod2 Attitude, [0] [0]

#\* ZDA Clock [1] [0]

#\* HDT Heading [0] [0]

#\* SKR82 Heading [0] [0]

#\* DBS Depth [0] [0]

#\* DPT Depth [0] [0]

#\* EA500 Depth [0] [0]

#\* ROV. depth [0] [0]

#\* Height, special purp [0] [0]

#\* Attitude/Velocity [1] [0]

#} Input Formats

#} MCAST4

#{ Misc. #// Misc. input settings.

#\* External Trigger [1] [0]

#} Misc.

#} Input Setup

#{ Output Setup #// All Output setup parameters

#\* Log watercolumn to s [1] [1]

#{ Host UDP1 #// Host UDP1 Port: 16100

#{ Datagram subscription #//

#\* Depth [0] [0]

#\* Raw range and beam a [0] [0]

#\* Seabed Image [0] [0]

#\* Central Beams [0] [0]

#\* Position [0] [0]

#\* Attitude [0] [0]

#\* Heading [0] [0]

#\* Height [0] [0]

#\* Clock [0] [0]

#\* Single beam echosoun [0] [0]

#\* Sound Speed Profile [0] [1]

#\* Runtime Parameters [0] [1]

#\* Installation Paramet [0] [1]

#\* BIST Reply [0] [1]

#\* Status parameters [0] [1]

#\* PU Broadcast [0] [0]

#\* Detection quality [0] [0]

#\* Stave Display [0] [0]

#\* Water Column [0] [0]

#\* Internal, Range Data [0] [0]

#\* Internal, Scope Data [0] [0]

#} Datagram subscription

#} Host UDP1

#{ Host UDP2 #// Host UDP2 Port: 16101

#{ Datagram subscription #//

#\* Depth [1] [1]

#\* Raw range and beam a [1] [1]

#\* Seabed Image [1] [1]

#\* Central Beams [1] [0]

#\* Position [1] [1]

#\* Attitude [1] [1]

#\* Heading [1] [1]

#\* Height [1] [1]

#\* Clock [1] [1]

#\* Single beam echosoun [1] [1]

#\* Sound Speed Profile [0] [1]

#\* Runtime Parameters [0] [1]

#\* Installation Paramet [0] [1]

#\* BIST Reply [1] [1]

#\* Status parameters [0] [1]

#\* PU Broadcast [1] [0]

#\* Detection quality [1] [0]

#\* Stave Display [0] [1]

#\* Water Column [0] [1]

#\* Internal, Range Data [1] [0]

#\* Internal, Scope Data [1] [0]

#} Datagram subscription

#} Host UDP2

#{ Host UDP3 #// Host UDP3 Port: 16102

#{ Datagram subscription #//

#\* Depth [0] [1]

#\* Raw range and beam a [0] [0]

#\* Seabed Image [0] [0]

#\* Central Beams [0] [0]

#\* Position [0] [0]

#\* Attitude [0] [1]

#\* Heading [0] [0]

#\* Height [0] [1]

#\* Clock [0] [0]

#\* Single beam echosoun [0] [1]

#\* Sound Speed Profile [0] [1]

#\* Runtime Parameters [0] [0]

#\* Installation Paramet [0] [1]

#\* BIST Reply [0] [0]

#\* Status parameters [0] [0]

#\* PU Broadcast [0] [0]

#\* Detection quality [0] [0]

#\* Stave Display [0] [0]

#\* Water Column [0] [0]

#\* Internal, Range Data [0] [0]

#\* Internal, Scope Data [0] [1]

#} Datagram subscription

#} Host UDP3

#{ Host UDP4 #// Host UDP4 Port 16103

#{ Datagram subscription #//

#\* Depth [1] [1]

#\* Raw range and beam a [1] [0]

#\* Seabed Image [1] [0]

#\* Central Beams [1] [0]

#\* Position [1] [1]

#\* Attitude [1] [0]

#\* Heading [1] [0]

#\* Height [1] [0]

#\* Clock [1] [0]

#\* Single beam echosoun [1] [0]

#\* Sound Speed Profile [1] [1]

#\* Runtime Parameters [1] [1]

#\* Installation Paramet [1] [0]

#\* BIST Reply [1] [0]

#\* Status parameters [1] [0]

#\* PU Broadcast [1] [0]

#\* Detection quality [1] [0]

#\* Stave Display [1] [0]

#\* Water Column [1] [0]

#\* Internal, Range Data [1] [0]

#\* Internal, Scope Data [1] [0]

#} Datagram subscription

#} Host UDP4

#{ Watercolumn #// Host UDP4 Port 16103

#{ Datagram subscription #//

#\* Depth [1] [0]

#\* Raw range and beam a [1] [0]

#\* Seabed Image [1] [0]

#\* Central Beams [1] [0]

#\* Position [1] [1]

#\* Attitude [1] [1]

#\* Heading [1] [1]

#\* Height [1] [0]

#\* Clock [1] [0]

#\* Single beam echosoun [1] [0]

#\* Sound Speed Profile [1] [1]

#\* Runtime Parameters [1] [1]

#\* Installation Paramet [1] [1]

#\* BIST Reply [1] [0]

#\* Status parameters [1] [0]

#\* PU Broadcast [1] [0]

#\* Detection quality [1] [0]

#\* Stave Display [1] [0]

#\* Water Column [1] [1]

#\* Internal, Range Data [1] [0]

#\* Internal, Scope Data [1] [0]

#} Datagram subscription

#} Watercolumn

#} Output Setup

#{ Clock Setup #// All Clock setup parameters

#{ Clock #// All clock settings.

#\* Source: [1] #// External ZDA Clock

#\* 1PPS Clock Synch. [1] #// Falling Edge

#\* Offset (sec.): [0]

#} Clock

#} Clock Setup

#{ Settings #// Sensor setup parameters

#{ Positioning System Settings #// Position related settings.

#{ COM1 #// Positioning System Ports:

#\* P1S [1] #// Serial

#\* P1T [1] #// Datagram

#\* P1M [0] #// Enable position motion correction

#\* P1D [0.000] #// Position delay (sec.):

#\* P1G [WGS84] #// Datum:

#\* P1Q [1] #// Enable

#\* Pos. qual. indicator [] #//

#} COM1

#} Positioning System Settings

#{ Attitude Sensor Settings #// Attitude related settings.

#{ COM2 #// Attitude Sensor Ports:

#\* MRP [RP] #// Rotation (POSMV/MRU)

#\* MSD [0] #// Attitude Delay (msec.):

#\* MAS [1.00] #// Motion Sensor Roll Scaling:

#} COM2

#{ UDP5 #// Attitude Sensor Ports:

#\* MRP [RP] #// Rotation (POSMV/MRU)

#\* MSD [0] #// Attitude Delay (msec.):

#\* MAS [1.00] #// Motion Sensor Roll Scaling:

#} UDP5

#} Attitude Sensor Settings

#{ Active Sensors #//

#\* APS [0] [COM1] #// Position:

#\* ARO [2] [COM2] #// Attitude:

#\* AHE [2] [COM2] #// Attitude:

#\* AHS [2] [COM2] #// Heading:

#\* VSN [1] [UDP5] #// Velocity:

#} Active Sensors

#} Settings

#{ Locations #// All location parameters

#{ Location offset (m) #//

#{ Pos, COM1: #//

#\* P1X [0.00] #// Forward (X)

#\* P1Y [0.00] #// Starboard (Y)

#\* P1Z [0.00] #// Downward (Z)

#} Pos, COM1:

#{ Pos, COM3: #//

#\* P2X [0.00] #// Forward (X)

#\* P2Y [0.00] #// Starboard (Y)

#\* P2Z [0.00] #// Downward (Z)

#} Pos, COM3:

#{ Pos, COM4/UDP2: #//

#\* P3X [0.00] #// Forward (X)

#\* P3Y [0.00] #// Starboard (Y)

#\* P3Z [0.00] #// Downward (Z)

#} Pos, COM4/UDP2:

#{ TX Transducer: #//

#\* S1X [6.147] #// Forward (X)

#\* S1Y [1.822] #// Starboard (Y)

#\* S1Z [6.796] #// Downward (Z)

#} TX Transducer:

#{ RX Transducer: #//

#\* S2X [2.497] #// Forward (X)

#\* S2Y [2.481] #// Starboard (Y)

#\* S2Z [6.790] #// Downward (Z)

#} RX Transducer:

#{ Attitude 1, COM2/UDP5: #//

#\* MSX [0.00] #// Forward (X)

#\* MSY [0.00] #// Starboard (Y)

#\* MSZ [0.00] #// Downward (Z)

#} Attitude 1, COM2/UDP5:

#{ Attitude 2, COM3/UDP6: #//

#\* NSX [0.00] #// Forward (X)

#\* NSY [0.00] #// Starboard (Y)

#\* NSZ [0.00] #// Downward (Z)

#} Attitude 2, COM3/UDP6:

#{ Waterline: #//

#\* WLZ [4.42] #// Downward (Z)

#} Waterline:

#} Location offset (m)

#} Locations

#{ Angular Offsets #// All angular offset parameters

#{ Offset angles (deg.) #//

#{ TX Transducer: #//

#\* S1R [0.00] #// Roll

#\* S1P [0.00] #// Pitch

#\* S1H [359.98] #// Heading

#\* SonarHead1 orient. [1] #// 1=port, 2=starb.

#} TX Transducer:

#{ RX Transducer: #//

#\* S2R [0.00] #// Roll

#\* S2P [0.00] #// Pitch

#\* S2H [0.03] #// Heading

#\* SonarHead2 orient. [1] #// 1=forw., 2=aft

#} RX Transducer:

#{ Attitude 1, COM2/UDP5: #//

#\* MSR [0.00] #// Roll

#\* MSP [-0.725] #// Pitch

#\* MSG [-0.13] #// Heading

#} Attitude 1, COM2/UDP5:

#{ Attitude 2, COM3/UDP6: #//

#\* NSR [0.00] #// Roll

#\* NSP [0.00] #// Pitch

#\* NSG [0.00] #// Heading

#} Attitude 2, COM3/UDP6:

#{ Stand-alone Heading: #//

#\* GCG [0.00] #// Heading

#} Stand-alone Heading:

#} Offset angles (deg.)

#} Angular Offsets

#{ ROV. Specific #// All ROV specific parameters

#{ Depth/Pressure Sensor #//

#\* DSF [1.00] #// Scaling:

#\* DSO [0.00] #// Offset:

#\* DSD [0.00] #// Delay (msec.):

#\* DSH [NI] #// Disable Heave Sensor

#} Depth/Pressure Sensor

#} ROV. Specific

#{ System Parameters #// All system parameters

#{ System Gain Offset #//

#\* GO1 [0.0] #// BS Offset (dB)

#} System Gain Offset

#{ Opening angles #//

#\* S1S [0] #// TX Opening angle: 0.5

#\* S2S [1] #// RX Opening angle: 1

#} Opening angles

#{ Misc. parameters #//

#\* SNL [0] #// Ship's noise level: NORMAL

#} Misc. parameters

#} System Parameters

#// \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

#// Runtime parameters

#{ Sounder Main #//

#{ Sector Coverage #//

#{ Max. angle (deg.): #//

#\* MPA [70] #// Port

#\* MSA [70] #// Starboard

#} Max. angle (deg.):

#{ Max. Coverage (m): #//

#\* MPC [5000] #// Port

#\* MSC [5000] #// Starboard

#} Max. Coverage (m):

#\* ACM [1] #// Angular Coverage mode: AUTO

#\* BSP [2] #// Beam Spacing: HD EQDST

#} Sector Coverage

#{ Depth Settings #//

#\* FDE [390] #// Force Depth (m):

#\* MID [10] #// Min. Depth (m):

#\* MAD [500] #// Max. Depth (m):

#\* DSM [2] #// Dual swath mode: DYNAMIC

#\* PMO [0] #// Ping Mode: AUTO

#\* FME [1] #// FM disable

#} Depth Settings

#{ Stabilization #//

#// For EM 122, EM 302, EM 710, EM 2040, EM 2040C, EM 2040Q this block is now called Transmit Control in SIS GUI.

#\* YPS [1] #// Pitch stabilization

#\* MPK [0.0] #// Min. Swath Dist. (m) Required minimum distance between individual swats. 0 is off.

#\* TXA [0] #// Along Direction (deg.):

#{ Yaw Stabilization #//

#\* YSM [2] #// Mode: REL. MEAN HEADING

#\* YMA [300] #// Heading:

#\* HFI [1] #// Heading filter: MEDIUM

#} Yaw Stabilization

#{ 3D Scanning #//

#\* Enable scanning [1] [0]

#\* SM1 [-5] #// Min. (deg.):

#\* SM2 [5] #// Max. (deg.):

#\* SCS [0.0] #// Step (deg.):

#} 3D Scanning

#} Stabilization

#} Sounder Main

#{ Sound Speed #//

#{ Sound Speed at Transducer #//

#\* SHS [0] #// Source SENSOR

#\* SST [15000] #// Sound Speed (dm/sec.):

#\* Sensor Offset (m/sec [0] #//

#\* Filter (sec.): [4] #//

#} Sound Speed at Transducer

#} Sound Speed

#{ Filter and Gains #//

#{ Filtering #//

#\* SFS [2] #// Spike Filter Strength: MEDIUM

#\* PEF [0] #// Penetration Filter Strength: OFF

#\* RGS [1] #// Range Gate: NORMAL

#\* PHR [1] #// Phase ramp: NORMAL

#\* SLF [0] #// Slope

#\* AEF [0] #// Aeration

#\* STF [0] #// Sector Tracking

#\* IFF [1] #// Interference

#} Filtering

#{ Absorption Coefficient #//

#\* Source: [0] #// Salinity. Note: This is not a PU parameter.

#\* ABS315 [5.738] #// 31.5 kHz

#} Absorption Coefficient

#{ Backscatter Adjustment #//

#\* TCA [6] #// Normal incidence corr. (deg.):

#\* BIC [0] #// Use Lambert's law

#} Backscatter Adjustment

#{ Mammal protection #//

#\* TXP [0] #// TX power level (dB): Max.

#\* SSR [5] #// Soft startup ramp time (min.):

#} Mammal protection

#{ Water Column #//

#\* WCX [30] #// log R

#\* WCO [20] #// dB Offset

#} Water Column

#{ Special Mode #//

#\* SOM [0] #// Sonar

#\* PAM [0] #// Passive

#} Special Mode

#} Filter and Gains

#{ Data Cleaning #//

#\* Number of user rules [1]

#\* User rule 1 [STANDARD] #//

#\* Active rule: [AUTOMATIC1] #//

#{ AUTOMATIC1 #//

#\* PingProc.maxPingCountRadius [10]

#\* PingProc.radiusFactor [0.050000]

#\* PingProc.medianFactor [1.500000]

#\* PingProc.beamNumberRadius [3]

#\* PingProc.sufficientPointCount [40]

#\* PingProc.neighborhoodType [Elliptical]

#\* PingProc.timeRule.use [false]

#\* PingProc.overhangRule.use [false]

#\* PingProc.medianRule.use [false]

#\* PingProc.medianRule.depthFactor [0.050000]

#\* PingProc.medianRule.minPointCount [6]

#\* PingProc.quantileRule.use [false]

#\* PingProc.quantileRule.quantile [0.100000]

#\* PingProc.quantileRule.scaleFactor [6.000000]

#\* PingProc.quantileRule.minPointCount [40]

#\* GridProc.minPoints [8]

#\* GridProc.depthFactor [0.200000]

#\* GridProc.removeTooFewPoints [false]

#\* GridProc.surfaceFitting.surfaceDegree [1]

#\* GridProc.surfaceFitting.tukeyConstant [6.000000]

#\* GridProc.surfaceFitting.maxIteration [10]

#\* GridProc.surfaceFitting.convCriterion [0.010000]

#\* GridProc.surfaceDistanceDepthRule.use [false]

#\* GridProc.surfaceDistanceDepthRule.depthFactor [0.050000]

#\* GridProc.surfaceDistancePointRule.use [false]

#\* GridProc.surfaceDistancePointRule.scaleFactor [1.000000]

#\* GridProc.surfaceDistanceUnitRule.use [false]

#\* GridProc.surfaceDistanceUnitRule.scaleFactor [1.000000]

#\* GridProc.surfaceDistanceStDevRule.use [false]

#\* GridProc.surfaceDistanceStDevRule.scaleFactor [2.000000]

#\* GridProc.surfaceAngleRule.use [false]

#\* GridProc.surfaceAngleRule.minAngle [20.000000]

#\* SonarProc.use [false]

#\* SonarProc.gridSizeFactor [4]

#\* SonarProc.mergerType [Average]

#\* SonarProc.interpolatorType [TopHat]

#\* SonarProc.interpolatorRadius [1]

#\* SonarProc.fillInOnly [true]

#} AUTOMATIC1

#{ STANDARD #//

#\* PingProc.maxPingCountRadius [10]

#\* PingProc.radiusFactor [0.050000]

#\* PingProc.medianFactor [1.500000]

#\* PingProc.beamNumberRadius [3]

#\* PingProc.sufficientPointCount [40]

#\* PingProc.neighborhoodType [Elliptical]

#\* PingProc.timeRule.use [false]

#\* PingProc.overhangRule.use [false]

#\* PingProc.medianRule.use [false]

#\* PingProc.medianRule.depthFactor [0.050000]

#\* PingProc.medianRule.minPointCount [6]

#\* PingProc.quantileRule.use [false]

#\* PingProc.quantileRule.quantile [0.100000]

#\* PingProc.quantileRule.scaleFactor [6.000000]

#\* PingProc.quantileRule.minPointCount [40]

#\* GridProc.minPoints [8]

#\* GridProc.depthFactor [0.200000]

#\* GridProc.removeTooFewPoints [false]

#\* GridProc.surfaceFitting.surfaceDegree [1]

#\* GridProc.surfaceFitting.tukeyConstant [6.000000]

#\* GridProc.surfaceFitting.maxIteration [10]

#\* GridProc.surfaceFitting.convCriterion [0.010000]

#\* GridProc.surfaceDistanceDepthRule.use [false]

#\* GridProc.surfaceDistanceDepthRule.depthFactor [0.050000]

#\* GridProc.surfaceDistancePointRule.use [false]

#\* GridProc.surfaceDistancePointRule.scaleFactor [1.000000]

#\* GridProc.surfaceDistanceUnitRule.use [false]

#\* GridProc.surfaceDistanceUnitRule.scaleFactor [1.000000]

#\* GridProc.surfaceDistanceStDevRule.use [false]

#\* GridProc.surfaceDistanceStDevRule.scaleFactor [2.000000]

#\* GridProc.surfaceAngleRule.use [false]

#\* GridProc.surfaceAngleRule.minAngle [20.000000]

#\* SonarProc.use [false]

#\* SonarProc.gridSizeFactor [4]

#\* SonarProc.mergerType [Average]

#\* SonarProc.interpolatorType [TopHat]

#\* SonarProc.interpolatorRadius [1]

#\* SonarProc.fillInOnly [true]

#} STANDARD

#{ Seabed Image Processing #//

#\* Seabed Image Process [1] [0]

#} Seabed Image Processing

#} Data Cleaning

#{ Advanced param. #//

#} Advanced param.

# Appendix E: EM 302 Built In System Test (BIST) Results

Saved: 2014.10.07 11:52:53

Sounder Type: 302, Serial no.: 101

Date Time Ser. No. BIST Result

------------------------------------------------------------------------------------

2014.10.07 11:46:33.639 101 0 OK

Number of BSP67B boards: 2

BSP 1 Master 2.2.3 090702 4.3 070913 4.3 070913

BSP 1 Slave 2.2.3 090702 4.4 070911

BSP 1 RXI FPGA 3.6 080821

BSP 1 DSP FPGA A 4.0 070531

BSP 1 DSP FPGA B 4.0 070531

BSP 1 DSP FPGA C 4.0 070531

BSP 1 DSP FPGA D 4.0 070531

BSP 1 PCI TO SLAVE A1 FIFO: ok

BSP 1 PCI TO SLAVE A2 FIFO: ok

BSP 1 PCI TO SLAVE A3 FIFO: ok

BSP 1 PCI TO SLAVE B1 FIFO: ok

BSP 1 PCI TO SLAVE B2 FIFO: ok

BSP 1 PCI TO SLAVE B3 FIFO: ok

BSP 1 PCI TO SLAVE C1 FIFO: ok

BSP 1 PCI TO SLAVE C2 FIFO: ok

BSP 1 PCI TO SLAVE C3 FIFO: ok

BSP 1 PCI TO SLAVE D1 FIFO: ok

BSP 1 PCI TO SLAVE D2 FIFO: ok

BSP 1 PCI TO SLAVE D3 FIFO: ok

BSP 1 PCI TO MASTER A HPI: ok

BSP 1 PCI TO MASTER B HPI: ok

BSP 1 PCI TO MASTER C HPI: ok

BSP 1 PCI TO MASTER D HPI: ok

BSP 1 PCI TO SLAVE A1 HPI: ok

BSP 1 PCI TO SLAVE A2 HPI: ok

BSP 1 PCI TO SLAVE A3 HPI: ok

BSP 1 PCI TO SLAVE B1 HPI: ok

BSP 1 PCI TO SLAVE B2 HPI: ok

BSP 1 PCI TO SLAVE B3 HPI: ok

BSP 1 PCI TO SLAVE C1 HPI: ok

BSP 1 PCI TO SLAVE C2 HPI: ok

BSP 1 PCI TO SLAVE C3 HPI: ok

BSP 1 PCI TO SLAVE D1 HPI: ok

BSP 1 PCI TO SLAVE D2 HPI: ok

BSP 1 PCI TO SLAVE D3 HPI: ok

BSP 2 Master 2.2.3 090702 4.3 070913 4.3 070913

BSP 2 Slave 2.2.3 090702 4.4 070911

BSP 2 RXI FPGA 3.6 080821

BSP 2 DSP FPGA A 4.0 070531

BSP 2 DSP FPGA B 4.0 070531

BSP 2 DSP FPGA C 4.0 070531

BSP 2 DSP FPGA D 4.0 070531

BSP 2 PCI TO SLAVE A1 FIFO: ok

BSP 2 PCI TO SLAVE A2 FIFO: ok

BSP 2 PCI TO SLAVE A3 FIFO: ok

BSP 2 PCI TO SLAVE B1 FIFO: ok

BSP 2 PCI TO SLAVE B2 FIFO: ok

BSP 2 PCI TO SLAVE B3 FIFO: ok

BSP 2 PCI TO SLAVE C1 FIFO: ok

BSP 2 PCI TO SLAVE C2 FIFO: ok

BSP 2 PCI TO SLAVE C3 FIFO: ok

BSP 2 PCI TO SLAVE D1 FIFO: ok

BSP 2 PCI TO SLAVE D2 FIFO: ok

BSP 2 PCI TO SLAVE D3 FIFO: ok

BSP 2 PCI TO MASTER A HPI: ok

BSP 2 PCI TO MASTER B HPI: ok

BSP 2 PCI TO MASTER C HPI: ok

BSP 2 PCI TO MASTER D HPI: ok

BSP 2 PCI TO SLAVE A1 HPI: ok

BSP 2 PCI TO SLAVE A2 HPI: ok

BSP 2 PCI TO SLAVE A3 HPI: ok

BSP 2 PCI TO SLAVE B1 HPI: ok

BSP 2 PCI TO SLAVE B2 HPI: ok

BSP 2 PCI TO SLAVE B3 HPI: ok

BSP 2 PCI TO SLAVE C1 HPI: ok

BSP 2 PCI TO SLAVE C2 HPI: ok

BSP 2 PCI TO SLAVE C3 HPI: ok

BSP 2 PCI TO SLAVE D1 HPI: ok

BSP 2 PCI TO SLAVE D2 HPI: ok

BSP 2 PCI TO SLAVE D3 HPI: ok

Summary:

BSP 1: OK

BSP 2: OK

------------------------------------------------------------------------------------

2014.10.07 11:46:36.523 101 1 OK

High Voltage Br. 1

------------------

TX36 Spec: 90.0 - 145.0

0-1 120.9

0-2 120.9

0-3 120.5

0-4 120.5

0-5 120.5

0-6 120.9

0-7 120.1

0-8 119.3

0-9 120.5

0-10 120.9

0-11 119.7

0-12 120.1

0-13 120.1

0-14 121.3

0-15 120.5

0-16 121.3

0-17 119.7

0-18 120.1

0-19 121.3

0-20 120.5

0-21 120.5

0-22 120.1

0-23 120.9

0-24 119.3

High Voltage Br. 2

------------------

TX36 Spec: 90.0 - 145.0

0-1 121.3

0-2 120.5

0-3 120.5

0-4 120.1

0-5 120.1

0-6 120.1

0-7 120.5

0-8 119.7

0-9 120.9

0-10 120.5

0-11 120.5

0-12 120.5

0-13 119.3

0-14 120.9

0-15 120.9

0-16 120.9

0-17 120.5

0-18 120.5

0-19 120.9

0-20 120.9

0-21 120.5

0-22 120.1

0-23 120.5

0-24 119.3

Input voltage 12V

-----------------

TX36 Spec: 11.0 - 13.0

0-1 12.0

0-2 11.9

0-3 11.9

0-4 11.9

0-5 11.9

0-6 11.9

0-7 11.9

0-8 11.9

0-9 11.9

0-10 11.9

0-11 11.9

0-12 11.9

0-13 11.9

0-14 11.9

0-15 11.9

0-16 12.0

0-17 11.8

0-18 11.9

0-19 11.9

0-20 11.9

0-21 11.9

0-22 11.9

0-23 11.9

0-24 11.9

Digital 3.3V

------------

TX36 Spec: 2.8 - 3.5

0-1 3.3

0-2 3.3

0-3 3.3

0-4 3.3

0-5 3.3

0-6 3.3

0-7 3.3

0-8 3.3

0-9 3.3

0-10 3.3

0-11 3.3

0-12 3.3

0-13 3.3

0-14 3.3

0-15 3.3

0-16 3.3

0-17 3.3

0-18 3.3

0-19 3.3

0-20 3.3

0-21 3.3

0-22 3.3

0-23 3.3

0-24 3.3

Digital 2.5V

------------

TX36 Spec: 2.4 - 2.6

0-1 2.5

0-2 2.5

0-3 2.5

0-4 2.5

0-5 2.5

0-6 2.5

0-7 2.5

0-8 2.5

0-9 2.5

0-10 2.5

0-11 2.5

0-12 2.5

0-13 2.5

0-14 2.5

0-15 2.5

0-16 2.5

0-17 2.5

0-18 2.5

0-19 2.5

0-20 2.5

0-21 2.5

0-22 2.5

0-23 2.5

0-24 2.5

Digital 1.5V

------------

TX36 Spec: 1.4 - 1.6

0-1 1.5

0-2 1.5

0-3 1.5

0-4 1.5

0-5 1.5

0-6 1.5

0-7 1.5

0-8 1.5

0-9 1.5

0-10 1.5

0-11 1.5

0-12 1.5

0-13 1.5

0-14 1.5

0-15 1.5

0-16 1.5

0-17 1.5

0-18 1.5

0-19 1.5

0-20 1.5

0-21 1.5

0-22 1.5

0-23 1.5

0-24 1.5

Temperature

-----------

TX36 Spec: 15.0 - 75.0

0-1 37.2

0-2 35.2

0-3 35.6

0-4 34.8

0-5 35.2

0-6 36.0

0-7 36.4

0-8 36.8

0-9 36.4

0-10 33.6

0-11 33.2

0-12 34.4

0-13 36.8

0-14 35.2

0-15 36.4

0-16 35.6

0-17 36.8

0-18 36.4

0-19 37.2

0-20 37.6

0-21 36.8

0-22 36.0

0-23 37.2

0-24 38.4

Input Current 12V

-----------------

TX36 Spec: 0.3 - 1.5

0-1 0.6

0-2 0.5

0-3 0.5

0-4 0.5

0-5 0.5

0-6 0.6

0-7 0.5

0-8 0.5

0-9 0.5

0-10 0.5

0-11 0.5

0-12 0.5

0-13 0.6

0-14 0.6

0-15 0.6

0-16 0.5

0-17 0.5

0-18 0.8

0-19 0.5

0-20 0.7

0-21 0.6

0-22 0.6

0-23 0.7

0-24 0.5

TX36 power test passed

IO TX PPC Embedded PPC Download

2.11 1.14 Mar 5 2007/1.07 May 7 2013/1.11

TX36 unique firmware test OK

------------------------------------------------------------------------------------

2014.10.07 11:46:36.706 101 2 OK

Input voltage 12V

-----------------

RX32 Spec: 11.0 - 13.0

7-1 11.6

7-2 11.7

7-3 11.7

7-4 11.7

Input voltage 6V

----------------

RX32 Spec: 5.0 - 7.0

7-1 5.7

7-2 5.7

7-3 5.7

7-4 5.7

Digital 3.3V

------------

RX32 Spec: 2.8 - 3.5

7-1 3.3

7-2 3.3

7-3 3.3

7-4 3.3

Digital 2.5V

------------

RX32 Spec: 2.4 - 2.6

7-1 2.5

7-2 2.5

7-3 2.4

7-4 2.5

Digital 1.5V

------------

RX32 Spec: 1.4 - 1.6

7-1 1.5

7-2 1.5

7-3 1.5

7-4 1.5

Temperature

-----------

RX32 Spec: 15.0 - 75.0

7-1 41.0

7-2 42.0

7-3 41.0

7-4 36.0

Input Current 12V

-----------------

RX32 Spec: 0.4 - 1.5

7-1 0.7

7-2 0.7

7-3 0.7

7-4 0.6

Input Current 6V

----------------

RX32 Spec: 2.4 - 3.3

7-1 2.7

7-2 2.8

7-3 2.8

7-4 2.8

RX32 power test passed

IO RX MB Embedded PPC Embedded PPC Download

1.12 1.14 May 5 2006/1.06 May 5 2006/1.07 Feb 18 2010/1.11

RX32 unique firmware test OK

------------------------------------------------------------------------------------

2014.10.07 11:46:36.840 101 3 OK

High Voltage Br. 1

------------------

TX36 Spec: 90.0 - 145.0

0-1 120.9

0-2 120.9

0-3 120.5

0-4 120.5

0-5 120.5

0-6 120.9

0-7 120.1

0-8 119.3

0-9 120.5

0-10 120.9

0-11 119.7

0-12 120.1

0-13 119.7

0-14 121.3

0-15 120.5

0-16 121.3

0-17 119.7

0-18 120.1

0-19 121.3

0-20 120.1

0-21 120.5

0-22 120.1

0-23 120.9

0-24 119.3

High Voltage Br. 2

------------------

TX36 Spec: 90.0 - 145.0

0-1 121.3

0-2 120.5

0-3 120.5

0-4 120.1

0-5 120.1

0-6 120.1

0-7 120.1

0-8 119.7

0-9 120.5

0-10 120.5

0-11 120.5

0-12 120.5

0-13 119.3

0-14 120.9

0-15 120.9

0-16 120.9

0-17 120.5

0-18 120.5

0-19 120.9

0-20 120.9

0-21 120.5

0-22 120.1

0-23 120.5

0-24 119.3

Input voltage 12V

-----------------

TX36 Spec: 11.0 - 13.0

0-1 12.0

0-2 11.9

0-3 11.9

0-4 11.9

0-5 11.9

0-6 11.9

0-7 11.9

0-8 11.9

0-9 11.9

0-10 11.9

0-11 11.9

0-12 11.9

0-13 11.9

0-14 11.9

0-15 11.9

0-16 12.0

0-17 11.8

0-18 11.9

0-19 11.9

0-20 11.9

0-21 11.9

0-22 11.9

0-23 11.9

0-24 11.9

RX32 Spec: 11.0 - 13.0

7-1 11.6

7-2 11.7

7-3 11.7

7-4 11.7

Input voltage 6V

----------------

RX32 Spec: 5.0 - 7.0

7-1 5.7

7-2 5.7

7-3 5.7

7-4 5.7

TRU power test passed

------------------------------------------------------------------------------------

2014.10.07 11:46:36.990 101 4 OK

EM 302 High Voltage Ramp Test

Test Voltage:20.00 Measured Voltage: 19.00 PASSED

Test Voltage:40.00 Measured Voltage: 38.00 PASSED

Test Voltage:60.00 Measured Voltage: 59.00 PASSED

Test Voltage:80.00 Measured Voltage: 79.00 PASSED

Test Voltage:100.00 Measured Voltage: 100.00 PASSED

Test Voltage:120.00 Measured Voltage: 119.00 PASSED

Test Voltage:120.00 Measured Voltage: 119.00 PASSED

Test Voltage:100.00 Measured Voltage: 106.00 PASSED

Test Voltage:80.00 Measured Voltage: 85.00 PASSED

Test Voltage:60.00 Measured Voltage: 65.00 PASSED

Test Voltage:40.00 Measured Voltage: 45.00 PASSED

11 of 11 tests OK

------------------------------------------------------------------------------------

2014.10.07 11:49:10.849 101 5 OK

BSP 1 RXI TO RAW FIFO: ok

BSP 2 RXI TO RAW FIFO: ok

------------------------------------------------------------------------------------

2014.10.07 11:49:16.316 101 6 OK

Receiver impedance limits [600.0 1000.0] ohm

Board 1 2 3 4

1: 843.5 833.6 801.0 853.1

2: 821.9 851.9 804.9 856.9

3: 797.2 833.0 834.3 852.4

4: 830.1 818.4 847.4 849.3

5: 834.0 825.8 783.3 861.8

6: 843.0 839.0 818.3 863.3

7: 820.4 834.4 814.3 867.1

8: 828.3 824.8 839.2 843.0

9: 360.7\* 828.3 810.3 836.1

10: 802.8 847.3 772.9 851.2

11: 825.1 818.8 820.8 834.9

12: 831.4 808.9 839.5 849.7

13: 828.1 817.4 801.0 848.7

14: 809.4 820.8 840.7 852.4

15: 806.7 836.3 835.8 846.4

16: 836.9 809.0 836.7 842.3

17: 810.1 899.6 841.0 848.9

18: 833.5 810.0 842.1 858.1

19: 797.5 819.8 830.4 843.9

20: 812.4 861.9 832.4 850.9

21: 843.7 825.2 865.1 856.0

22: 860.7 837.1 815.3 856.0

23: 852.0 852.5 837.3 855.8

24: 866.3 879.0 856.9 866.5

25: 826.3 821.1 828.3 856.7

26: 828.2 810.0 836.6 851.6

27: 808.4 822.6 827.4 853.2

28: 797.3 822.7 799.2 852.1

29: 798.3 833.2 821.7 852.0

30: 840.0 810.9 835.9 853.7

31: 812.3 809.2 834.7 842.2

32: 836.6 864.3 847.6 856.6

Transducer impedance limits [250.0 2000.0] ohm

Board 1 2 3 4

1: 328.5 355.5 349.8 361.9

2: 343.1 351.8 356.0 359.2

3: 330.8 338.1 362.3 344.2

4: 336.8 351.4 366.3 349.3

5: 325.4 361.3 362.0 338.5

6: 319.9 341.6 346.4 350.0

7: 332.3 344.6 382.2 353.3

8: 323.0 336.7 356.2 355.2

9: 151.4\* 353.7 371.5 353.3

10: 353.5 345.3 369.7 353.1

11: 323.5 356.4 358.4 356.9

12: 335.9 360.4 354.0 343.8

13: 330.6 343.2 375.8 344.3

14: 359.8 344.2 370.4 339.5

15: 324.7 337.2 362.4 335.2

16: 326.8 355.3 371.3 340.3

17: 325.6 363.8 346.2 351.6

18: 335.5 347.2 357.8 353.4

19: 344.9 352.3 351.9 358.6

20: 344.8 337.6 350.9 338.5

21: 338.0 346.7 354.1 353.0

22: 349.4 353.8 371.5 344.8

23: 352.5 337.4 358.0 354.0

24: 350.5 352.7 345.6 334.3

25: 335.2 360.6 355.0 346.3

26: 344.1 370.0 357.2 352.6

27: 335.2 351.3 364.3 352.1

28: 352.3 363.6 363.3 336.0

29: 345.8 356.1 375.2 354.2

30: 327.3 345.5 344.5 361.1

31: 343.5 361.2 358.8 349.4

32: 335.0 353.3 356.4 358.9

Receiver Phase limits [-50.0 20.0] deg

Board 1 2 3 4

1: -2.0 2.4 4.9 2.2

2: 0.3 -5.3 4.1 0.9

3: 4.0 -1.8 -0.4 0.1

4: -1.2 2.0 -2.8 0.4

5: -1.4 1.3 5.3 -0.9

6: -3.7 -2.3 0.5 -1.6

7: 1.6 0.1 3.8 -0.7

8: -1.7 0.8 -3.3 0.9

9: 0.2 2.4 3.4 1.9

10: 3.1 -3.6 6.8 -0.1

11: -2.4 2.2 -0.8 3.2

12: -0.9 2.2 -4.0 -0.9

13: 0.5 1.7 4.5 -0.7

14: 2.4 0.4 -0.3 -1.5

15: 1.3 -4.4 -1.5 0.4

16: -2.4 3.4 -1.6 -1.4

17: 0.7 -4.9 -2.9 1.7

18: -3.2 4.7 -2.6 -1.9

19: 2.6 2.8 -3.5 2.6

20: 2.2 -4.2 -0.5 1.0

21: -0.5 2.8 -4.5 -1.8

22: -1.9 -1.8 2.2 -1.5

23: 0.2 -3.5 0.1 -2.0

24: -2.8 -5.4 -3.4 -3.1

25: -0.5 2.4 1.6 0.4

26: -0.9 5.0 -3.1 -0.3

27: 2.2 -0.8 0.4 -0.5

28: 5.6 -0.9 2.6 -1.4

29: 2.8 1.9 1.1 0.3

30: -2.8 2.0 -1.9 1.6

31: 1.4 2.8 -0.9 3.2

32: -2.8 -4.6 -3.2 -0.4

Transducer Phase limits [-100.0 0.0] deg

Board 1 2 3 4

1: -37.8 -40.5 -37.0 -35.1

2: -39.2 -42.1 -34.2 -39.7

3: -33.7 -44.5 -36.8 -37.4

4: -40.6 -38.1 -40.9 -30.7

5: -40.7 -42.7 -40.8 -33.4

6: -39.4 -37.4 -37.7 -33.2

7: -36.8 -42.2 -37.5 -34.2

8: -39.5 -42.3 -43.9 -33.5

9: -40.3 -38.3 -37.1 -35.2

10: -44.1 -41.0 -31.1 -29.7

11: -40.7 -40.4 -44.3 -33.1

12: -38.0 -38.6 -47.3 -34.1

13: -38.3 -44.2 -35.1 -37.6

14: -39.6 -45.7 -37.7 -34.5

15: -33.5 -48.8 -39.9 -26.4

16: -40.9 -41.2 -37.0 -33.1

17: -31.8 -39.1 -43.4 -31.5

18: -36.1 -36.3 -41.5 -34.6

19: -38.4 -38.6 -39.4 -33.5

20: -35.9 -43.2 -43.6 -33.3

21: -36.2 -40.1 -39.3 -33.5

22: -38.8 -42.7 -35.3 -33.0

23: -38.9 -45.6 -36.9 -31.9

24: -39.4 -42.7 -42.3 -28.0

25: -32.9 -37.6 -39.1 -32.7

26: -43.6 -38.6 -37.0 -36.0

27: -34.6 -39.8 -38.6 -35.0

28: -38.8 -40.6 -35.6 -32.1

29: -39.7 -42.8 -41.4 -31.4

30: -36.9 -40.4 -41.6 -28.3

31: -42.6 -42.4 -37.2 -25.8

32: -41.5 -42.6 -38.7 -35.8

Rx Channels test passed

------------------------------------------------------------------------------------

2014.10.07 11:49:44.484 101 7 OK

Tx Channels test passed

------------------------------------------------------------------------------------

2014.10.07 11:52:25.477 101 8 OK

RX NOISE LEVEL

Board No: 1 2 3 4

0: 60.3 61.0 60.6 64.8 dB

1: 59.8 62.3 62.3 63.3 dB

2: 60.8 60.3 62.7 62.4 dB

3: 61.3 61.0 60.7 61.5 dB

4: 59.9 61.6 61.9 60.7 dB

5: 60.8 61.0 62.8 60.5 dB

6: 62.8 61.3 62.1 61.3 dB

7: 61.3 60.4 61.7 60.9 dB

8: 57.1 59.9 62.1 60.4 dB

9: 60.9 60.1 63.2 60.8 dB

10: 59.9 61.5 61.5 60.8 dB

11: 60.2 61.0 61.8 62.8 dB

12: 60.1 59.4 61.3 62.4 dB

13: 60.7 60.5 62.3 63.5 dB

14: 61.1 59.8 61.7 62.6 dB

15: 62.5 61.7 61.2 63.9 dB

16: 61.9 61.4 60.3 62.8 dB

17: 61.9 62.2 60.6 62.6 dB

18: 61.1 61.5 60.3 60.8 dB

19: 62.3 63.7 60.8 60.5 dB

20: 62.4 62.3 62.1 61.8 dB

21: 63.9 62.0 61.9 62.5 dB

22: 63.2 61.1 61.7 63.0 dB

23: 64.4 60.5 62.5 61.3 dB

24: 63.4 60.3 60.6 62.0 dB

25: 63.4 61.3 60.9 61.3 dB

26: 64.3 60.5 61.9 61.7 dB

27: 61.5 61.2 62.5 63.8 dB

28: 60.9 61.4 62.9 64.9 dB

29: 60.0 59.7 61.0 61.9 dB

30: 60.5 62.0 60.8 63.6 dB

31: 60.9 62.6 62.2 62.8 dB

Maximum noise at Board 4 Channel 28 Level: 64.9 dB

Broadband noise test

------------------

Average noise at Board 1 61.7 dB OK

Average noise at Board 2 61.2 dB OK

Average noise at Board 3 61.7 dB OK

Average noise at Board 4 62.4 dB OK

------------------------------------------------------------------------------------

2014.10.07 11:52:32.311 101 9 OK

RX NOISE SPECTRUM

Board No: 1 2 3 4

26.1 kHz: 59.4 58.8 58.8 58.9 dB

26.3 kHz: 59.6 59.4 59.2 59.2 dB

26.5 kHz: 59.7 59.4 59.7 59.3 dB

26.7 kHz: 60.0 59.6 59.5 59.6 dB

26.9 kHz: 59.8 59.6 59.2 59.3 dB

27.1 kHz: 59.9 59.7 59.6 59.6 dB

27.3 kHz: 59.8 59.3 59.6 59.6 dB

27.5 kHz: 59.9 58.8 59.3 59.3 dB

27.7 kHz: 59.0 59.1 59.7 59.4 dB

27.9 kHz: 59.7 59.1 59.7 59.8 dB

28.1 kHz: 59.6 59.3 59.4 59.5 dB

28.3 kHz: 59.4 59.3 59.6 59.5 dB

28.5 kHz: 59.5 59.4 59.5 59.9 dB

28.7 kHz: 59.2 58.6 59.3 59.3 dB

28.9 kHz: 59.5 59.0 59.5 59.4 dB

29.1 kHz: 59.2 59.1 59.5 59.4 dB

29.3 kHz: 59.7 59.6 59.6 59.4 dB

29.5 kHz: 59.1 58.8 59.0 59.3 dB

29.7 kHz: 58.9 58.8 59.2 59.1 dB

29.9 kHz: 59.3 59.0 59.0 59.3 dB

30.1 kHz: 58.9 58.0 58.6 58.4 dB

30.3 kHz: 58.3 58.5 58.5 58.7 dB

30.5 kHz: 58.9 58.3 58.9 59.1 dB

30.7 kHz: 59.1 59.3 60.1 59.9 dB

30.9 kHz: 58.6 58.5 58.8 58.8 dB

31.1 kHz: 58.4 58.4 58.2 58.7 dB

31.4 kHz: 58.5 57.8 58.0 58.1 dB

31.6 kHz: 59.0 58.4 58.5 58.9 dB

31.8 kHz: 59.0 58.7 58.1 58.3 dB

32.0 kHz: 58.2 57.9 58.1 58.3 dB

32.2 kHz: 57.9 58.2 58.2 58.2 dB

32.4 kHz: 58.2 58.1 58.3 57.8 dB

32.6 kHz: 58.3 57.7 57.9 58.1 dB

32.8 kHz: 58.0 57.8 57.8 58.0 dB

33.0 kHz: 57.3 56.9 57.1 57.1 dB

33.2 kHz: 56.9 56.7 56.8 56.7 dB

33.4 kHz: 57.1 56.7 56.9 56.4 dB

33.6 kHz: 56.9 56.4 56.8 56.7 dB

33.8 kHz: 56.1 55.9 55.9 55.8 dB

34.0 kHz: 55.2 54.8 55.2 54.7 dB

Maximum noise at Board 3 Frequency 30.7 kHz Level: 60.1 dB

Spectral noise test

------------------

Average noise at Board 1 58.8 dB OK

Average noise at Board 2 58.5 dB OK

Average noise at Board 3 58.7 dB OK

Average noise at Board 4 58.8 dB OK

------------------------------------------------------------------------------------

2014.10.07 11:52:39.145 101 10 OK

CPU: KOM CP6011

Clock 1795 MHz

Die 37 oC (peak: 55 oC @ 2014-10-04 - 23:41:50)

Board 38 oC (peak: 54 oC @ 2014-10-04 - 01:44:20)

Core 1.34 V

3V3 3.28 V

12V 11.98 V

-12V -12.04 V

BATT 0.00 V

Primary network: 157.237.14.60:0xffff0000

Secondary network: 192.168.2.20:0xffffff00

------------------------------------------------------------------------------------

2014.10.07 11:52:39.211 101 15 OK

EM 302

BSP67B Master: 2.2.3 090702

BSP67B Slave: 2.2.3 090702

CPU: 1.5.7 140129

DDS: 3.5.9 130926

DSV: 3.1.6 130104

RX32 version : Feb 18 2010 Rev 1.11

TX36 LC version : May 7 2013 Rev 1.11

VxWorks 5.5.1 Build 1.2/2-IX0100 May 16 2007, 11:31:17

------------------------------------------------------------------------------------

# Appendix F: Data Tables

| **MB LINE FILENAME (from Log)** | **SVP FILE APPLIED** | **SOG (kt)** | **HDG** | **DATE (UTC)** | **MIN LONG (dec min)** | **MAX LONG (dec min)** | **MIN LAT (dec min)** | **MAX LAT (dec min)** | **MIN TIME (UTC)** | **MAX TIME (UTC)** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 0000\_20140919\_042340\_EX1404L3\_MB | EX1404L3\_XBT002\_140919 | 10.4 | 49 | 09/19/14 | 074.840077W | 074.755814W | 37.250430N | 37.309292N | 2014-09-19 04:23:40.194 | 2014-09-19 04:53:50.200 |
| 0001\_20140919\_045340\_EX1404L3\_MB | EX1404L3\_XBT002\_140919 | 10.5 | 49 | 09/19/14 | 074.757685W | 074.672450W | 37.307500N | 37.366904N | 2014-09-19 04:53:31.199 | 2014-09-19 05:23:50.210 |
| 0002\_20140919\_052340\_EX1404L3\_MB | EX1404L3\_XBT002\_140919 | 10.5 | 49 | 09/19/14 | 074.674770W | 074.589355W | 37.364910N | 37.424599N | 2014-09-19 05:23:30.709 | 2014-09-19 05:53:40.216 |
| 0003\_20140919\_055340\_EX1404L3\_MB | EX1404L3\_XBT002\_140919 | 10.5 | 49 | 09/19/14 | 074.591922W | 074.501501W | 37.422171N | 37.483473N | 2014-09-19 05:53:30.716 | 2014-09-19 06:23:50.724 |
| 0004\_20140919\_062340\_EX1404L3\_MB | EX1404L3\_XBT002\_140919 | 10.4 | 49 | 09/19/14 | 074.510506W | 074.422906W | 37.475856N | 37.539888N | 2014-09-19 06:23:31.724 | 2014-09-19 06:53:49.233 |
| 0005\_20140919\_065340\_EX1404L3\_MB | EX1404L3\_XBT002\_140919 | 10.5 | 49 | 09/19/14 | 074.426691W | 074.339304W | 37.536275N | 37.597502N | 2014-09-19 06:53:30.233 | 2014-09-19 07:23:40.242 |
| 0006\_20140919\_072340\_EX1404L3\_MB | EX1404L3\_XBT002\_140919, EX1404L3\_XBT003\_140919 | 10.7 | 49 | 09/19/14 | 074.343211W | 074.253979W | 37.593874N | 37.656339N | 2014-09-19 07:23:30.741 | 2014-09-19 07:53:50.247 |
| 0007\_20140919\_075340\_EX1404L3\_MB | EX1404L3\_XBT003\_140919 | 10.7 | 49 | 09/19/14 | 074.259403W | 074.163441W | 37.651413N | 37.718394N | 2014-09-19 07:53:30.747 | 2014-09-19 08:23:50.255 |
| 0008\_20140919\_082340\_EX1404L3\_MB | EX1404L3\_XBT003\_140919 | 10.5 | 49 | 09/19/14 | 074.179208W | 074.079759W | 37.704279N | 37.776784N | 2014-09-19 08:23:30.758 | 2014-09-19 08:53:51.765 |
| 0009\_20140919\_085342\_EX1404L3\_MB | EX1404L3\_XBT003\_140919 | 10.5 | 48 | 09/19/14 | 074.097330W | 073.992280W | 37.760274N | 37.834704N | 2014-09-19 08:53:33.263 | 2014-09-19 09:23:51.272 |
| 0010\_20140919\_092341\_EX1404L3\_MB | EX1404L3\_XBT003\_140919 | 9.5 | 48 | 09/19/14 | 074.015671W | 073.916265W | 37.814339N | 37.887769N | 2014-09-19 09:23:32.271 | 2014-09-19 09:53:40.278 |
| 0011\_20140919\_095340\_EX1404L3\_MB | EX1404L3\_XBT003\_140919 | 3.3 | 50 | 09/19/14 | 073.940754W | 073.879483W | 37.865525N | 37.914359N | 2014-09-19 09:53:30.781 | 2014-09-19 10:20:07.786 |
| 0012\_20140919\_221903\_EX1404L3\_MB | EX1404L3\_XBT004\_140919 | 9.3 | 45 | 09/19/14 | 073.740520W | 073.636766W | 38.020777N | 38.107131N | 2014-09-19 22:19:03.980 | 2014-09-19 22:49:11.983 |
| 0013\_20140919\_224902\_EX1404L3\_MB | EX1404L3\_XBT004\_140919 | 9.0 | 45 | 09/19/14 | 073.665478W | 073.563535W | 38.078133N | 38.164183N | 2014-09-19 22:48:52.488 | 2014-09-19 23:19:11.996 |
| 0014\_20140919\_231902\_EX1404L3\_MB | EX1404L3\_XBT004\_140919 | 6.5 | 44 | 09/19/14 | 073.603004W | 073.546986W | 38.126676N | 38.176589N | 2014-09-19 23:18:52.994 | 2014-09-19 23:28:41.996 |
| 0015\_20140919\_235856\_EX1404L3\_MB | EX1404L3\_XBT004\_140919 | 7.6 | 45 | 09/20/14 | 073.585571W | 073.497435W | 38.141467N | 38.211246N | 2014-09-19 23:58:56.004 | 2014-09-20 00:29:07.511 |
| 0016\_20140920\_002857\_EX1404L3\_MB | EX1404L3\_XBT004\_140919 | 7.6 | 44 | 09/20/14 | 073.521112W | 073.440869W | 38.190304N | 38.257667N | 2014-09-20 00:28:48.515 | 2014-09-20 00:59:07.520 |
| 0017\_20140920\_005857\_EX1404L3\_MB | EX1404L3\_XBT004\_140919, EX1404L3\_XBT006\_140920 | 7.3 | 45 | 09/20/14 | 073.465637W | 073.384692W | 38.235418N | 38.300150N | 2014-09-20 00:58:48.520 | 2014-09-20 01:29:06.529 |
| 0018\_20140920\_012857\_EX1404L3\_MB | EX1404L3\_XBT006\_140920 | 7.3 | 44 | 09/20/14 | 073.412748W | 073.333972W | 38.275741N | 38.340762N | 2014-09-20 01:28:47.531 | 2014-09-20 01:59:12.035 |
| 0019\_20140920\_015902\_EX1404L3\_MB | EX1404L3\_XBT006\_140920 | 7.5 | 45 | 09/20/14 | 073.356219W | 073.275666W | 38.320203N | 38.385231N | 2014-09-20 01:58:52.536 | 2014-09-20 02:29:07.545 |
| 0020\_20140920\_022858\_EX1404L3\_MB | EX1404L3\_XBT006\_140920 | 7.3 | 44 | 09/20/14 | 073.300280W | 073.218582W | 38.362877N | 38.429354N | 2014-09-20 02:28:48.044 | 2014-09-20 02:58:56.553 |
| 0021\_20140920\_025856\_EX1404L3\_MB | EX1404L3\_XBT006\_140920 | 7.4 | 45 | 09/20/14 | 073.248055W | 073.163093W | 38.403827N | 38.471814N | 2014-09-20 02:58:47.053 | 2014-09-20 03:28:58.059 |
| 0022\_20140920\_032858\_EX1404L3\_MB | EX1404L3\_XBT006\_140920 | 7.7 | 44 | 09/20/14 | 073.190606W | 073.104674W | 38.447317N | 38.516147N | 2014-09-20 03:28:48.561 | 2014-09-20 03:59:05.567 |
| 0023\_20140920\_035855\_EX1404L3\_MB | EX1404L3\_XBT006\_140920 | 7.9 | 44 | 09/20/14 | 073.133191W | 073.045770W | 38.492202N | 38.562070N | 2014-09-20 03:58:46.069 | 2014-09-20 04:29:06.579 |
| 0024\_20140920\_042857\_EX1404L3\_MB | EX1404L3\_XBT006\_140920 | 7.9 | 44 | 09/20/14 | 073.073186W | 072.984974W | 38.539063N | 38.609099N | 2014-09-20 04:28:47.580 | 2014-09-20 04:58:58.087 |
| 0025\_20140920\_045858\_EX1404L3\_MB | EX1404L3\_XBT006\_140920 | 7.9 | 44 | 09/20/14 | 073.014431W | 072.926240W | 38.583324N | 38.654219N | 2014-09-20 04:58:49.084 | 2014-09-20 05:29:06.594 |
| 0026\_20140920\_052857\_EX1404L3\_MB | EX1404L3\_XBT006\_140920 | 8.0 | 44 | 09/20/14 | 072.953005W | 072.865580W | 38.631485N | 38.701578N | 2014-09-20 05:28:47.593 | 2014-09-20 05:59:05.102 |
| 0027\_20140920\_055855\_EX1404L3\_MB | EX1404L3\_XBT006\_140920, EX1404L3\_XBT007\_140920 | 8.0 | 44 | 09/20/14 | 072.893796W | 072.797175W | 38.678169N | 38.753648N | 2014-09-20 05:58:45.604 | 2014-09-20 06:28:57.608 |
| 0028\_20140920\_062857\_EX1404L3\_MB | EX1404L3\_XBT007\_140920 | 8.1 | 44 | 09/20/14 | 072.837739W | 072.735282W | 38.716613N | 38.800837N | 2014-09-20 06:28:48.144 | 2014-09-20 06:59:06.142 |
| 0029\_20140920\_065856\_EX1404L3\_MB | EX1404L3\_XBT007\_140920 | 8.2 | 44 | 09/20/14 | 072.774498W | 072.673998W | 38.763924N | 38.848474N | 2014-09-20 06:58:46.621 | 2014-09-20 07:29:07.141 |
| 0030\_20140920\_072857\_EX1404L3\_MB | EX1404L3\_XBT007\_140920 | 6.8 | 44 | 09/20/14 | 072.711751W | 072.623829W | 38.814091N | 38.886809N | 2014-09-20 07:28:48.138 | 2014-09-20 07:58:55.630 |
| 0031\_20140920\_075855\_EX1404L3\_MB | EX1404L3\_XBT007\_140920 | 6.6 | 44 | 09/20/14 | 072.657265W | 072.568302W | 38.855365N | 38.931160N | 2014-09-20 07:58:46.146 | 2014-09-20 08:29:07.141 |
| 0032\_20140920\_082858\_EX1404L3\_MB | EX1404L3\_XBT007\_140920 | 6.7 | 44 | 09/20/14 | 072.613330W | 072.520299W | 38.888457N | 38.966957N | 2014-09-20 08:28:48.141 | 2014-09-20 08:58:56.649 |
| 0033\_20140920\_085857\_EX1404L3\_MB | EX1404L3\_XBT007\_140920 | 6.6 | 44 | 09/20/14 | 072.558394W | 072.467993W | 38.930319N | 39.010447N | 2014-09-20 08:58:47.647 | 2014-09-20 09:29:07.658 |
| 0034\_20140920\_092858\_EX1404L3\_MB | EX1404L3\_XBT007\_140920 | 5.8 | 42 | 09/20/14 | 072.514707W | 072.431419W | 38.967867N | 39.033576N | 2014-09-20 09:28:48.657 | 2014-09-20 09:54:04.663 |
| 0035\_20140920\_211959\_EX1404L3\_MB | EX1404L3\_XBT008\_140920 | 8.1 | 303 | 09/20/14 | 072.547494W | 072.443862W | 39.004626N | 39.080468N | 2014-09-20 21:19:59.347 | 2014-09-20 21:50:10.855 |
| 0036\_20140920\_215001\_EX1404L3\_MB | EX1404L3\_XBT008\_140920 | 4.5 | 93 | 09/20/14 | 072.559175W | 072.511296W | 39.034370N | 39.076554N | 2014-09-20 21:49:51.854 | 2014-09-20 21:59:37.857 |
| 0037\_20140920\_215928\_EX1404L3\_MB | EX1404L3\_XBT008\_140920 | 7.2 | 71 | 09/20/14 | 072.529823W | 072.466096W | 39.039717N | 39.093477N | 2014-09-20 21:59:18.358 | 2014-09-20 22:23:06.361 |
| 0038\_20140920\_222256\_EX1404L3\_MB | EX1404L3\_XBT008\_140920 | 8.4 | 91 | 09/20/14 | 072.468993W | 072.374800W | 39.050296N | 39.095294N | 2014-09-20 22:22:46.867 | 2014-09-20 22:53:04.874 |
| 0039\_20140920\_225255\_EX1404L3\_MB | EX1404L3\_XBT008\_140920 | 8.4 | 97 | 09/20/14 | 072.377868W | 072.365737W | 39.048705N | 39.094594N | 2014-09-20 22:52:45.874 | 2014-09-20 22:54:39.874 |
| 0040\_20140920\_225430\_EX1404L3\_MB | EX1404L3\_XBT008\_140920 | 8.2 | 144 | 09/20/14 | 072.389592W | 072.293071W | 39.001056N | 39.093175N | 2014-09-20 22:54:20.375 | 2014-09-20 23:24:35.880 |
| 0041\_20140920\_232426\_EX1404L3\_MB | EX1404L3\_XBT008\_140920 | 7.9 | 153 | 09/20/14 | 072.350730W | 072.275436W | 38.985179N | 39.030956N | 2014-09-20 23:24:16.879 | 2014-09-20 23:34:02.884 |
| 0042\_20140920\_233353\_EX1404L3\_MB | EX1404L3\_XBT008\_140920 | 7.8 | 316 | 09/20/14 | 072.349037W | 072.277006W | 38.969694N | 39.023688N | 2014-09-20 23:33:43.882 | 2014-09-20 23:39:35.881 |
| 0043\_20140920\_233926\_EX1404L3\_MB | EX1404L3\_XBT008\_140920 | 8.6 | 54 | 09/20/14 | 072.333586W | 072.244171W | 38.976458N | 39.054415N | 2014-09-20 23:39:16.883 | 2014-09-21 00:00:53.892 |
| 0044\_20140921\_000044\_EX1404L3\_MB | EX1404L3\_XBT008\_140920 | 8.1 | 100 | 09/21/14 | 072.267177W | 072.168170W | 38.985459N | 39.056227N | 2014-09-21 00:00:34.892 | 2014-09-21 00:30:53.902 |
| 0045\_20140921\_003044\_EX1404L3\_MB | EX1404L3\_XBT008\_140920 | 8.4 | 100 | 09/21/14 | 072.186903W | 072.080113W | 38.971578N | 39.042959N | 2014-09-21 00:30:35.400 | 2014-09-21 01:00:54.406 |
| 0046\_20140921\_010044\_EX1404L3\_MB | EX1404L3\_XBT008\_140920 | 7.9 | 91 | 09/21/14 | 072.099425W | 072.014718W | 38.963753N | 39.030770N | 2014-09-21 01:00:34.909 | 2014-09-21 01:23:45.411 |
| 0047\_20140921\_012345\_EX1404L3\_MB | EX1404L3\_XBT008\_140920 | 7.9 | 332 | 09/21/14 | 072.063847W | 071.971275W | 38.968726N | 39.051985N | 2014-09-21 01:23:36.411 | 2014-09-21 01:44:22.918 |
| 0048\_20140921\_014413\_EX1404L3\_MB | EX1404L3\_XBT008\_140920 | 8.8 | 230 | 09/21/14 | 072.117358W | 072.005997W | 38.957742N | 39.036616N | 2014-09-21 01:44:03.920 | 2014-09-21 02:06:24.424 |
| 0049\_20140921\_020614\_EX1404L3\_MB | EX1404L3\_XBT008\_140920 | 4.4 | 145 | 09/21/14 | 072.125034W | 072.052853W | 38.953278N | 39.002196N | 2014-09-21 02:06:05.422 | 2014-09-21 02:09:15.923 |
| 0050\_20140921\_020906\_EX1404L3\_MB | EX1404L3\_XBT008\_140920 | 7.8 | 130 | 09/21/14 | 072.111108W | 072.008396W | 38.918543N | 39.001700N | 2014-09-21 02:08:56.926 | 2014-09-21 02:33:55.932 |
| 0051\_20140921\_023346\_EX1404L3\_MB | EX1404L3\_XBT008\_140920 | 4.6 | 60 | 09/21/14 | 072.054195W | 072.013742W | 38.914339N | 38.971175N | 2014-09-21 02:33:36.930 | 2014-09-21 02:36:30.930 |
| 0052\_20140921\_023621\_EX1404L3\_MB | EX1404L3\_XBT008\_140920 | 9.2 | 45 | 09/21/14 | 072.057116W | 071.936816W | 38.918785N | 39.017333N | 2014-09-21 02:36:11.929 | 2014-09-21 03:06:23.439 |
| 0053\_20140921\_030623\_EX1404L3\_MB | EX1404L3\_XBT008\_140920, EX1404L3\_XBT009\_140921 | 9.5 | 44 | 09/21/14 | 071.987933W | 071.861242W | 38.973895N | 39.073063N | 2014-09-21 03:06:14.436 | 2014-09-21 03:36:27.948 |
| 0054\_20140921\_033628\_EX1404L3\_MB | EX1404L3\_XBT009\_140921 | 9.6 | 45 | 09/21/14 | 071.913739W | 071.787454W | 39.026819N | 39.128416N | 2014-09-21 03:36:18.946 | 2014-09-21 04:06:30.953 |
| 0055\_20140921\_040621\_EX1404L3\_MB | EX1404L3\_XBT009\_140921 | 9.0 | 44 | 09/21/14 | 071.838652W | 071.718278W | 39.082505N | 39.179010N | 2014-09-21 04:06:12.452 | 2014-09-21 04:36:36.463 |
| 0056\_20140921\_043627\_EX1404L3\_MB | EX1404L3\_XBT009\_140921 | 8.8 | 44 | 09/21/14 | 071.769640W | 071.649497W | 39.137014N | 39.230536N | 2014-09-21 04:36:17.466 | 2014-09-21 05:06:33.969 |
| 0057\_20140921\_050624\_EX1404L3\_MB | EX1404L3\_XBT009\_140921 | 8.8 | 44 | 09/21/14 | 071.701878W | 071.579126W | 39.186127N | 39.280932N | 2014-09-21 05:06:14.968 | 2014-09-21 05:36:29.980 |
| 0058\_20140921\_053620\_EX1404L3\_MB | EX1404L3\_XBT009\_140921 | 9.3 | 44 | 09/21/14 | 071.634330W | 071.506225W | 39.234585N | 39.333593N | 2014-09-21 05:36:11.477 | 2014-09-21 06:06:32.486 |
| 0059\_20140921\_060622\_EX1404L3\_MB | EX1404L3\_XBT009\_140921 | 9.1 | 44 | 09/21/14 | 071.561274W | 071.437088W | 39.288899N | 39.387442N | 2014-09-21 06:06:12.987 | 2014-09-21 06:36:31.992 |
| 0060\_20140921\_063622\_EX1404L3\_MB | EX1404L3\_XBT009\_140921 | 9.1 | 44 | 09/21/14 | 071.488756W | 071.365073W | 39.339509N | 39.438906N | 2014-09-21 06:36:12.493 | 2014-09-21 07:06:37.501 |
| 0061\_20140921\_070628\_EX1404L3\_MB | EX1404L3\_XBT009\_140921 | 8.8 | 44 | 09/21/14 | 071.417311W | 071.301434W | 39.392824N | 39.488213N | 2014-09-21 07:06:18.501 | 2014-09-21 07:34:35.509 |
| 0062\_20140921\_073425\_EX1404L3\_MB | EX1404L3\_XBT009\_140921 | 6.0 | 350 | 09/21/14 | 071.367004W | 071.288347W | 39.444286N | 39.484549N | 2014-09-21 07:34:16.011 | 2014-09-21 07:36:39.012 |
| 0063\_20140921\_073639\_EX1404L3\_MB | EX1404L3\_XBT009\_140921 | 8.7 | 321 | 09/21/14 | 071.418219W | 071.293860W | 39.449143N | 39.542152N | 2014-09-21 07:36:30.009 | 2014-09-21 08:06:52.017 |
| 0064\_20140921\_080642\_EX1404L3\_MB | EX1404L3\_XBT009\_140921 | 8.7 | 322 | 09/21/14 | 071.470915W | 071.349644W | 39.508993N | 39.599986N | 2014-09-21 08:06:33.018 | 2014-09-21 08:36:41.526 |
| 0065\_20140921\_083641\_EX1404L3\_MB | EX1404L3\_XBT009\_140921, EX1404L3\_XBT010\_140921 | 8.6 | 322 | 09/21/14 | 071.523116W | 071.406156W | 39.567733N | 39.656056N | 2014-09-21 08:36:32.026 | 2014-09-21 09:06:51.536 |
| 0066\_20140921\_090642\_EX1404L3\_MB | EX1404L3\_XBT010\_140921 | 8.6 | 296 | 09/21/14 | 071.537899W | 071.464452W | 39.627451N | 39.681036N | 2014-09-21 09:06:32.535 | 2014-09-21 09:22:58.038 |
| 0067\_20140921\_092248\_EX1404L3\_MB | EX1404L3\_XBT010\_140921 | 8.7 | 276 | 09/21/14 | 071.582312W | 071.528810W | 39.630625N | 39.685796N | 2014-09-21 09:22:39.037 | 2014-09-21 09:36:48.543 |
| 0068\_20140921\_093648\_EX1404L3\_MB | EX1404L3\_XBT010\_140921 | 6.9 | 331 | 09/21/14 | 071.621094W | 071.550677W | 39.638066N | 39.707930N | 2014-09-21 09:36:39.044 | 2014-09-21 09:58:37.046 |
| 0069\_20140921\_212015\_EX1404L3\_MB | EX1404L3\_XBT010\_140921 | 8.7 | 338 | 09/21/14 | 071.624931W | 071.576922W | 39.699495N | 39.715769N | 2014-09-21 21:20:15.225 | 2014-09-21 21:24:21.226 |
| 0070\_20140921\_212412\_EX1404L3\_MB | EX1404L3\_XBT011\_140921 | 8.3 | 334 | 09/21/14 | 071.658471W | 071.584196W | 39.703156N | 39.778990N | 2014-09-21 21:24:02.226 | 2014-09-21 21:54:21.735 |
| 0071\_20140921\_215412\_EX1404L3\_MB | EX1404L3\_XBT011\_140921 | 8.5 | 334 | 09/21/14 | 071.693511W | 071.621426W | 39.767449N | 39.841227N | 2014-09-21 21:54:03.237 | 2014-09-21 22:24:21.742 |
| 0072\_20140921\_222412\_EX1404L3\_MB | EX1404L3\_XBT011\_140921 | 8.6 | 328 | 09/21/14 | 071.700373W | 071.665625W | 39.832091N | 39.862987N | 2014-09-21 22:24:02.245 | 2014-09-21 22:33:05.244 |
| 0073\_20140921\_223255\_EX1404L3\_MB | EX1404L3\_XBT011\_140921 | 8.4 | 246 | 09/21/14 | 071.733353W | 071.687882W | 39.836026N | 39.863886N | 2014-09-21 22:32:46.245 | 2014-09-21 22:45:48.746 |
| 0074\_20140921\_224539\_EX1404L3\_MB | EX1404L3\_XBT011\_140921 | 7.6 | 171 | 09/21/14 | 071.738214W | 071.717356W | 39.834783N | 39.848664N | 2014-09-21 22:45:29.746 | 2014-09-21 22:48:21.250 |
| 0075\_20140921\_224811\_EX1404L3\_MB | EX1404L3\_XBT011\_140921 | 8.4 | 148 | 09/21/14 | 071.737565W | 071.666374W | 39.771822N | 39.842865N | 2014-09-21 22:48:01.750 | 2014-09-21 23:18:21.258 |
| 0076\_20140921\_231812\_EX1404L3\_MB | EX1404L3\_XBT011\_140921 | 8.1 | 147 | 09/21/14 | 071.697039W | 071.609192W | 39.710037N | 39.785171N | 2014-09-21 23:18:02.256 | 2014-09-21 23:48:26.766 |
| 0077\_20140921\_234817\_EX1404L3\_MB | EX1404L3\_XBT011\_140921 | 8.2 | 148 | 09/22/14 | 071.656757W | 071.563550W | 39.646265N | 39.734346N | 2014-09-21 23:48:07.762 | 2014-09-22 00:18:17.769 |
| 0078\_20140922\_001817\_EX1404L3\_MB | EX1404L3\_XBT011\_140921 | 8.1 | 147 | 09/22/14 | 071.619928W | 071.515476W | 39.587179N | 39.675465N | 2014-09-22 00:18:08.769 | 2014-09-22 00:48:22.277 |
| 0079\_20140922\_004813\_EX1404L3\_MB | EX1404L3\_XBT011\_140921 | 8.1 | 148 | 09/22/14 | 071.579464W | 071.471534W | 39.527894N | 39.618910N | 2014-09-22 00:48:03.279 | 2014-09-22 01:18:27.787 |
| 0080\_20140922\_011818\_EX1404L3\_MB | EX1404L3\_XBT011\_140921 | 8.1 | 147 | 09/22/14 | 071.535736W | 071.399252W | 39.470685N | 39.560489N | 2014-09-22 01:18:08.784 | 2014-09-22 01:48:26.295 |
| 0081\_20140922\_014816\_EX1404L3\_MB | EX1404L3\_XBT011\_140921 | 8.1 | 148 | 09/22/14 | 071.493170W | 071.422685W | 39.460726N | 39.503572N | 2014-09-22 01:48:07.295 | 2014-09-22 01:52:30.795 |
| 0082\_20140922\_015220\_EX1404L3\_MB | EX1404L3\_XBT011\_140921 | 8.5 | 207 | 09/22/14 | 071.491877W | 071.422256W | 39.452183N | 39.494806N | 2014-09-22 01:52:11.795 | 2014-09-22 01:55:57.798 |
| 0083\_20140922\_015548\_EX1404L3\_MB | EX1404L3\_XBT011\_140921 | 8.7 | 267 | 09/22/14 | 071.514016W | 071.437151W | 39.440542N | 39.498379N | 2014-09-22 01:55:39.294 | 2014-09-22 02:05:40.799 |
| 0084\_20140922\_020531\_EX1404L3\_MB | EX1404L3\_XBT011\_140921 | 8.3 | 327 | 09/22/14 | 071.549026W | 071.453483W | 39.450196N | 39.524379N | 2014-09-22 02:05:22.298 | 2014-09-22 02:24:55.302 |
| 0085\_20140922\_022455\_EX1404L3\_MB | EX1404L3\_XBT012\_140922 | 8.3 | 327 | 09/22/14 | 071.592266W | 071.478332W | 39.495171N | 39.582843N | 2014-09-22 02:24:46.301 | 2014-09-22 02:54:59.310 |
| 0086\_20140922\_025449\_EX1404L3\_MB | EX1404L3\_XBT012\_140922 | 8.0 | 327 | 09/22/14 | 071.632770W | 071.526799W | 39.554836N | 39.640282N | 2014-09-22 02:54:40.312 | 2014-09-22 03:24:57.816 |
| 0087\_20140922\_032448\_EX1404L3\_MB | EX1404L3\_XBT012\_140922 | 8.3 | 327 | 09/22/14 | 071.673129W | 071.571790W | 39.613540N | 39.697419N | 2014-09-22 03:24:38.318 | 2014-09-22 03:54:54.328 |
| 0088\_20140922\_035445\_EX1404L3\_MB | EX1404L3\_XBT012\_140922 | 8.5 | 327 | 09/22/14 | 071.714890W | 071.622637W | 39.674568N | 39.755997N | 2014-09-22 03:54:35.825 | 2014-09-22 04:24:51.334 |
| 0089\_20140922\_042442\_EX1404L3\_MB | EX1404L3\_XBT012\_140922 | 8.6 | 327 | 09/22/14 | 071.752200W | 071.676466W | 39.738078N | 39.807856N | 2014-09-22 04:24:32.832 | 2014-09-22 04:51:03.338 |
| 0090\_20140922\_045053\_EX1404L3\_MB | EX1404L3\_XBT012\_140922 | 8.1 | 239 | 09/22/14 | 071.761441W | 071.723402W | 39.787831N | 39.815331N | 2014-09-22 04:50:43.839 | 2014-09-22 04:56:25.342 |
| 0091\_20140922\_045615\_EX1404L3\_MB | EX1404L3\_XBT012\_140922 | 8.2 | 202 | 09/22/14 | 071.774876W | 071.728675W | 39.769110N | 39.802100N | 2014-09-22 04:56:05.841 | 2014-09-22 05:08:30.345 |
| 0092\_20140922\_050820\_EX1404L3\_MB | EX1404L3\_XBT012\_140922 | 7.6 | 153 | 09/22/14 | 071.774939W | 071.744026W | 39.759397N | 39.773096N | 2014-09-22 05:08:10.845 | 2014-09-22 05:12:12.347 |
| 0093\_20140922\_051212\_EX1404L3\_MB | EX1404L3\_XBT012\_140922 | 8.3 | 144 | 09/22/14 | 071.770239W | 071.688678W | 39.699062N | 39.770675N | 2014-09-22 05:12:03.345 | 2014-09-22 05:42:28.353 |
| 0094\_20140922\_054218\_EX1404L3\_MB | EX1404L3\_XBT012\_140922 | 8.4 | 144 | 09/22/14 | 071.725006W | 071.630545W | 39.640287N | 39.714112N | 2014-09-22 05:42:08.856 | 2014-09-22 06:12:22.365 |
| 0095\_20140922\_061213\_EX1404L3\_MB | EX1404L3\_XBT012\_140922 | 8.5 | 144 | 09/22/14 | 071.676572W | 071.590227W | 39.583693N | 39.660902N | 2014-09-22 06:12:03.364 | 2014-09-22 06:42:24.869 |
| 0096\_20140922\_064214\_EX1404L3\_MB | EX1404L3\_XBT012\_140922 | 8.5 | 144 | 09/22/14 | 071.623132W | 071.539814W | 39.525975N | 39.598235N | 2014-09-22 06:42:05.867 | 2014-09-22 07:12:22.878 |
| 0097\_20140922\_071213\_EX1404L3\_MB | EX1404L3\_XBT012\_140922 | 8.5 | 145 | 09/22/14 | 071.573781W | 071.512441W | 39.497802N | 39.540190N | 2014-09-22 07:12:04.374 | 2014-09-22 07:26:18.383 |
| 0098\_20140922\_072609\_EX1404L3\_MB | EX1404L3\_XBT012\_140922 | 8.3 | 195 | 09/22/14 | 071.553764W | 071.505443W | 39.484393N | 39.515298N | 2014-09-22 07:25:59.380 | 2014-09-22 07:30:22.882 |
| 0099\_20140922\_073013\_EX1404L3\_MB | EX1404L3\_XBT012\_140922 | 8.5 | 222 | 09/22/14 | 071.584671W | 071.515665W | 39.451605N | 39.509822N | 2014-09-22 07:30:03.881 | 2014-09-22 07:47:42.382 |
| 0100\_20140922\_074733\_EX1404L3\_MB | EX1404L3\_XBT012\_140922 | 8.8 | 288 | 09/22/14 | 071.596678W | 071.554243W | 39.445564N | 39.483401N | 2014-09-22 07:47:23.387 | 2014-09-22 07:51:51.889 |
| 0101\_20140922\_075152\_EX1404L3\_MB | EX1404L3\_XBT012\_140922 | 8.3 | 313 | 09/22/14 | 071.668735W | 071.566165W | 39.453744N | 39.540313N | 2014-09-22 07:51:42.885 | 2014-09-22 08:22:08.394 |
| 0102\_20140922\_082158\_EX1404L3\_MB | EX1404L3\_XBT012\_140922 | 8.5 | 312 | 09/22/14 | 071.733980W | 071.624319W | 39.498077N | 39.587053N | 2014-09-22 08:21:48.894 | 2014-09-22 08:52:03.899 |
| 0103\_20140922\_085154\_EX1404L3\_MB | EX1404L3\_XBT012\_140922 | 8.5 | 313 | 09/22/14 | 071.778872W | 071.691678W | 39.549097N | 39.619666N | 2014-09-22 08:51:44.404 | 2014-09-22 09:14:37.408 |
| 0104\_20140922\_091427\_EX1404L3\_MB | EX1404L3\_XBT012\_140922 | 8.8 | 21 | 09/22/14 | 071.789129W | 071.731511W | 39.591160N | 39.628160N | 2014-09-22 09:14:18.407 | 2014-09-22 09:18:49.406 |
| 0105\_20140922\_091849\_EX1404L3\_MB | EX1404L3\_XBT012\_140922 | 8.2 | 67 | 09/22/14 | 071.768081W | 071.673639W | 39.590515N | 39.658149N | 2014-09-22 09:18:40.404 | 2014-09-22 09:49:00.416 |
| 0106\_20140922\_094850\_EX1404L3\_MB | EX1404L3\_XBT012\_140922 | 7.9 | 127 | 09/22/14 | 071.687710W | 071.635769W | 39.613842N | 39.658045N | 2014-09-22 09:48:41.413 | 2014-09-22 09:57:54.419 |
| 0107\_20140922\_095754\_EX1404L3\_MB | EX1404L3\_XBT012\_140922 | 7.8 | 139 | 09/22/14 | 071.679769W | 071.629165W | 39.605976N | 39.639137N | 2014-09-22 09:57:45.419 | 2014-09-22 10:03:31.916 |
| 0109\_20140922\_164045\_EX1404L3\_MB | EX1404L3\_XBT013\_140922 | 8.6 | 107 | 09/22/14 | 071.465762W | 071.393940W | 39.510286N | 39.579846N | 2014-09-22 16:40:45.518 | 2014-09-22 17:00:38.021 |
| 0110\_20140922\_170028\_EX1404L3\_MB | EX1404L3\_XBT013\_140922 | 8.0 | 109 | 09/22/14 | 071.407755W | 071.392820W | 39.509994N | 39.569737N | 2014-09-22 17:00:19.023 | 2014-09-22 17:00:43.021 |
| 0111\_20140922\_172625\_EX1404L3\_MB | EX1404L3\_XBT013\_140922 | 8.4 | 107 | 09/22/14 | 071.407669W | 071.302135W | 39.489899N | 39.568702N | 2014-09-22 17:26:26.030 | 2014-09-22 17:56:41.538 |
| 0112\_20140922\_175631\_EX1404L3\_MB | EX1404L3\_XBT013\_140922 | 8.4 | 106 | 09/22/14 | 071.322837W | 071.266773W | 39.481535N | 39.552262N | 2014-09-22 17:56:22.540 | 2014-09-22 18:10:14.537 |
| 0113\_20140922\_181005\_EX1404L3\_MB | EX1404L3\_XBT013\_140922 | 7.9 | 340 | 09/22/14 | 071.338911W | 071.232369W | 39.483472N | 39.584494N | 2014-09-22 18:09:55.039 | 2014-09-22 18:40:14.546 |
| 0114\_20140922\_184004\_EX1404L3\_MB | EX1404L3\_XBT013\_140922 | 8.2 | 333 | 09/22/14 | 071.374447W | 071.266356W | 39.557903N | 39.642826N | 2014-09-22 18:39:55.050 | 2014-09-22 19:10:12.056 |
| 0115\_20140922\_191002\_EX1404L3\_MB | EX1404L3\_XBT013\_140922 | 8.2 | 333 | 09/22/14 | 071.410720W | 071.313263W | 39.619285N | 39.701406N | 2014-09-22 19:09:53.054 | 2014-09-22 19:40:10.062 |
| 0116\_20140922\_194000\_EX1404L3\_MB | EX1404L3\_XBT013\_140922 | 8.3 | 334 | 09/22/14 | 071.445831W | 071.361402W | 39.681377N | 39.760774N | 2014-09-22 19:39:51.063 | 2014-09-22 20:10:13.070 |
| 0117\_20140922\_201003\_EX1404L3\_MB | EX1404L3\_XBT013\_140922 | 8.5 | 333 | 09/22/14 | 071.482532W | 071.408832W | 39.744714N | 39.819955N | 2014-09-22 20:09:54.069 | 2014-09-22 20:40:10.077 |
| 0118\_20140922\_204000\_EX1404L3\_MB | EX1404L3\_XBT013\_140922 | 8.6 | 333 | 09/22/14 | 071.500160W | 071.460312W | 39.810443N | 39.847997N | 2014-09-22 20:39:50.577 | 2014-09-22 20:53:53.582 |
| 0119\_20140922\_205344\_EX1404L3\_MB | EX1404L3\_XBT013\_140922 | 8.5 | 30 | 09/22/14 | 071.502637W | 071.475627W | 39.840457N | 39.864255N | 2014-09-22 20:53:35.080 | 2014-09-22 21:00:42.583 |
| 0120\_20140922\_210033\_EX1404L3\_MB | EX1404L3\_XBT013\_140922 | 8.4 | 81 | 09/22/14 | 071.485988W | 071.389527W | 39.849929N | 39.880508N | 2014-09-22 21:00:24.081 | 2014-09-22 21:30:42.587 |
| 0121\_20140922\_213033\_EX1404L3\_MB | EX1404L3\_XBT013\_140922 | 8.4 | 81 | 09/22/14 | 071.395756W | 071.300723W | 39.858099N | 39.893887N | 2014-09-22 21:30:23.586 | 2014-09-22 22:00:42.597 |
| 0122\_20140922\_220033\_EX1404L3\_MB | EX1404L3\_XBT013\_140922 | 8.2 | 80 | 09/22/14 | 071.306902W | 071.262966W | 39.871078N | 39.899668N | 2014-09-22 22:00:24.094 | 2014-09-22 22:13:37.600 |
| 0123\_20140922\_221328\_EX1404L3\_MB | EX1404L3\_XBT014\_140922 | 8.2 | 81 | 09/22/14 | 071.269318W | 071.175426W | 39.877158N | 39.912069N | 2014-09-22 22:13:19.098 | 2014-09-22 22:43:37.608 |
| 0124\_20140922\_224328\_EX1404L3\_MB | EX1404L3\_XBT014\_140922 | 7.9 | 81 | 09/22/14 | 071.182456W | 071.091368W | 39.889101N | 39.924449N | 2014-09-22 22:43:19.141 | 2014-09-22 23:13:37.614 |
| 0125\_20140922\_231328\_EX1404L3\_MB | EX1404L3\_XBT014\_140922 | 7.8 | 80 | 09/22/14 | 071.098637W | 071.009838W | 39.901616N | 39.937215N | 2014-09-22 23:13:19.139 | 2014-09-22 23:43:38.141 |
| 0126\_20140922\_234328\_EX1404L3\_MB | EX1404L3\_XBT014\_140922 | 7.7 | 81 | 09/22/14 | 071.015596W | 070.991920W | 39.914372N | 39.938875N | 2014-09-22 23:43:18.623 | 2014-09-22 23:50:29.622 |
| 0127\_20140922\_235020\_EX1404L3\_MB | EX1404L3\_XBT014\_140922 | 7.7 | 88 | 09/22/14 | 070.996015W | 070.957110W | 39.918066N | 39.939984N | 2014-09-22 23:50:10.138 | 2014-09-23 00:03:29.144 |
| 0128\_20140923\_000320\_EX1404L3\_MB | EX1404L3\_XBT014\_140922 | 7.7 | 87 | 09/23/14 | 070.958805W | 070.873630W | 39.920298N | 39.944015N | 2014-09-23 00:03:10.145 | 2014-09-23 00:33:29.142 |
| 0129\_20140923\_003319\_EX1404L3\_MB | EX1404L3\_XBT014\_140922 | 7.7 | 89 | 09/23/14 | 070.875304W | 070.868959W | 39.924772N | 39.944255N | 2014-09-23 00:33:10.633 | 2014-09-23 00:35:21.634 |
| 0130\_20140923\_003511\_EX1404L3\_MB | EX1404L3\_XBT014\_140922 | 7.6 | 91 | 09/23/14 | 070.869599W | 070.787213W | 39.922919N | 39.945245N | 2014-09-23 00:35:02.139 | 2014-09-23 01:05:21.644 |
| 0131\_20140923\_010511\_EX1404L3\_MB | EX1404L3\_XBT014\_140922 | 8.0 | 91 | 09/23/14 | 070.787405W | 070.700914W | 39.925132N | 39.944942N | 2014-09-23 01:05:02.642 | 2014-09-23 01:35:21.648 |
| 0132\_20140923\_013511\_EX1404L3\_MB | EX1404L3\_XBT014\_140922 | 7.8 | 91 | 09/23/14 | 070.701292W | 070.617045W | 39.926015N | 39.944290N | 2014-09-23 01:35:02.150 | 2014-09-23 02:05:20.659 |
| 0133\_20140923\_020511\_EX1404L3\_MB | EX1404L3\_XBT014\_140922 | 7.7 | 91 | 09/23/14 | 070.617054W | 070.533233W | 39.923988N | 39.947146N | 2014-09-23 02:05:02.155 | 2014-09-23 02:35:21.165 |
| 0134\_20140923\_023512\_EX1404L3\_MB | EX1404L3\_XBT014\_140922 | 7.7 | 90 | 09/23/14 | 070.533192W | 070.449903W | 39.916075N | 39.953521N | 2014-09-23 02:35:02.166 | 2014-09-23 03:05:19.671 |
| 0135\_20140923\_030509\_EX1404L3\_MB | EX1404L3\_XBT014\_140922 | 7.7 | 89 | 09/23/14 | 070.450151W | 070.446935W | 39.926401N | 39.945651N | 2014-09-23 03:05:00.673 | 2014-09-23 03:06:13.171 |
| 0136\_20140923\_030613\_EX1404L3\_MB | EX1404L3\_XBT015\_140923 | 7.7 | 91 | 09/23/14 | 070.447164W | 070.363117W | 39.924849N | 39.946219N | 2014-09-23 03:06:04.171 | 2014-09-23 03:36:23.180 |
| 0137\_20140923\_033613\_EX1404L3\_MB | EX1404L3\_XBT015\_140923 | 7.8 | 90 | 09/23/14 | 070.363422W | 070.278778W | 39.921841N | 39.951127N | 2014-09-23 03:36:04.679 | 2014-09-23 04:06:24.187 |
| 0138\_20140923\_040614\_EX1404L3\_MB | EX1404L3\_XBT015\_140923 | 7.8 | 91 | 09/23/14 | 070.279253W | 070.194292W | 39.916617N | 39.954085N | 2014-09-23 04:06:05.186 | 2014-09-23 04:36:14.694 |
| 0139\_20140923\_043615\_EX1404L3\_MB | EX1404L3\_XBT015\_140923 | 7.4 | 91 | 09/23/14 | 070.195272W | 070.113963W | 39.926252N | 39.945812N | 2014-09-23 04:36:05.194 | 2014-09-23 05:06:24.203 |
| 0140\_20140923\_050614\_EX1404L3\_MB | EX1404L3\_XBT015\_140923 | 7.4 | 90 | 09/23/14 | 070.115062W | 070.033455W | 39.927680N | 39.945224N | 2014-09-23 05:06:05.202 | 2014-09-23 05:36:23.714 |
| 0141\_20140923\_053614\_EX1404L3\_MB | EX1404L3\_XBT015\_140923 | 7.4 | 90 | 09/23/14 | 070.034663W | 069.953858W | 39.927400N | 39.944849N | 2014-09-23 05:36:04.712 | 2014-09-23 06:06:23.717 |
| 0142\_20140923\_060613\_EX1404L3\_MB | EX1404L3\_XBT015\_140923 | 7.5 | 90 | 09/23/14 | 069.954717W | 069.872893W | 39.927227N | 39.945519N | 2014-09-23 06:06:04.718 | 2014-09-23 06:36:23.227 |
| 0143\_20140923\_063613\_EX1404L3\_MB | EX1404L3\_XBT015\_140923 | 7.6 | 96 | 09/23/14 | 069.873565W | 069.791217W | 39.927348N | 39.942650N | 2014-09-23 06:36:04.227 | 2014-09-23 07:06:22.232 |
| 0144\_20140923\_070612\_EX1404L3\_MB | EX1404L3\_XBT015\_140923 | 6.9 | 96 | 09/23/14 | 069.791642W | 069.767058W | 39.925977N | 39.936843N | 2014-09-23 07:06:03.233 | 2014-09-23 07:15:56.237 |
| 0145\_20140923\_071556\_EX1404L3\_MB | EX1404L3\_XBT016\_140923 | 7.0 | 102 | 09/23/14 | 069.767285W | 069.692073W | 39.912279N | 39.934710N | 2014-09-23 07:15:46.739 | 2014-09-23 07:46:06.242 |
| 0146\_20140923\_074556\_EX1404L3\_MB | EX1404L3\_XBT016\_140923 | 7.1 | 102 | 09/23/14 | 069.694681W | 069.614866W | 39.894023N | 39.923743N | 2014-09-23 07:45:47.244 | 2014-09-23 08:16:06.752 |
| 0147\_20140923\_081556\_EX1404L3\_MB | EX1404L3\_XBT016\_140923 | 7.2 | 102 | 09/23/14 | 069.621532W | 069.539830W | 39.882354N | 39.922674N | 2014-09-23 08:15:47.252 | 2014-09-23 08:45:56.258 |
| 0148\_20140923\_084556\_EX1404L3\_MB | EX1404L3\_XBT016\_140923 | 7.1 | 102 | 09/23/14 | 069.544247W | 069.463513W | 39.862515N | 39.904226N | 2014-09-23 08:45:46.763 | 2014-09-23 09:15:56.766 |
| 0149\_20140923\_091556\_EX1404L3\_MB | EX1404L3\_XBT016\_140923 | 6.9 | 102 | 09/23/14 | 069.471743W | 069.388991W | 39.843604N | 39.897248N | 2014-09-23 09:15:47.270 | 2014-09-23 09:45:46.775 |
| 0150\_20140923\_225336\_EX1404L3\_MB | EX1404L3\_XBT016\_140923 | 5.2 | 71 | 09/23/14 | NaNW | NaNW | NaNS | NaNS | 2014-09-23 22:53:36.466 | 2014-09-23 22:54:15.963 |
| 0151\_20140923\_225914\_EX1404L3\_MB | EX1404L3\_XBT016\_140923 | 8.4 | 64 | 09/23/14 | 069.368622W | 069.308465W | 39.863140N | 39.910915N | 2014-09-23 22:59:14.963 | 2014-09-23 23:11:57.967 |
| 0152\_20140923\_231148\_EX1404L3\_MB | EX1404L3\_XBT017\_140923 | 8.4 | 67 | 09/23/14 | 069.333951W | 069.283335W | 39.874443N | 39.922083N | 2014-09-23 23:11:38.470 | 2014-09-23 23:21:46.971 |
| 0153\_20140923\_232137\_EX1404L3\_MB | EX1404L3\_XBT017\_140923 | 8.5 | 91 | 09/23/14 | 069.300946W | 069.273414W | 39.879373N | 39.925446N | 2014-09-23 23:21:27.472 | 2014-09-23 23:28:59.973 |
| 0154\_20140923\_232850\_EX1404L3\_MB | EX1404L3\_XBT017\_140923 | 8.3 | 106 | 09/23/14 | 069.281000W | 069.228556W | 39.874956N | 39.925528N | 2014-09-23 23:28:40.975 | 2014-09-23 23:40:41.978 |
| 0155\_20140923\_234033\_EX1404L3\_MB | EX1404L3\_XBT017\_140923 | 4.2 | 163 | 09/23/14 | 069.272775W | 069.205461W | 39.880032N | 39.918883N | 2014-09-23 23:40:22.978 | 2014-09-23 23:42:40.477 |
| 0156\_20140923\_234230\_EX1404L3\_MB | EX1404L3\_XBT017\_140923 | 7.6 | 195 | 09/23/14 | 069.273902W | 069.205788W | 39.873335N | 39.906782N | 2014-09-23 23:42:20.980 | 2014-09-23 23:49:28.480 |
| 0157\_20140923\_234918\_EX1404L3\_MB | EX1404L3\_XBT017\_140923 | 5.9 | 244 | 09/23/14 | 069.273930W | 069.215164W | 39.856538N | 39.907070N | 2014-09-23 23:49:08.981 | 2014-09-23 23:51:10.481 |
| 0158\_20140923\_235101\_EX1404L3\_MB | EX1404L3\_XBT017\_140923 | 7.8 | 268 | 09/23/14 | 069.287778W | 069.242882W | 39.852995N | 39.906011N | 2014-09-23 23:50:50.982 | 2014-09-24 00:05:08.483 |
| 0159\_20140924\_000458\_EX1404L3\_MB | EX1404L3\_XBT017\_140923 | 8.2 | 269 | 09/24/14 | 069.310576W | 069.285248W | 39.852603N | 39.903432N | 2014-09-24 00:04:48.985 | 2014-09-24 00:12:39.987 |
| 0160\_20140924\_001230\_EX1404L3\_MB | EX1404L3\_XBT017\_140923 | 8.0 | 208 | 09/24/14 | 069.344143W | 069.281836W | 39.855100N | 39.902766N | 2014-09-24 00:12:21.484 | 2014-09-24 00:15:23.484 |
| 0161\_20140924\_001513\_EX1404L3\_MB | EX1404L3\_XBT017\_140923 | 8.6 | 175 | 09/24/14 | 069.344073W | 069.276519W | 39.869311N | 39.880107N | 2014-09-24 00:15:03.984 | 2014-09-24 00:17:54.484 |
| 0162\_20140924\_001744\_EX1404L3\_MB | EX1404L3\_XBT017\_140923 | 7.8 | 118 | 09/24/14 | 069.343220W | 069.279714W | 39.839674N | 39.893619N | 2014-09-24 00:17:35.486 | 2014-09-24 00:19:29.984 |
| 0163\_20140924\_001930\_EX1404L3\_MB | EX1404L3\_XBT017\_140923 | 8.8 | 86 | 09/24/14 | 069.312433W | 069.211859W | 39.838930N | 39.901156N | 2014-09-24 00:19:20.985 | 2014-09-24 00:49:29.994 |
| 0164\_20140924\_004930\_EX1404L3\_MB | EX1404L3\_XBT017\_140923 | 9.3 | 86 | 09/24/14 | 069.215591W | 069.111508W | 39.844917N | 39.906423N | 2014-09-24 00:49:20.493 | 2014-09-24 01:19:42.498 |
| 0165\_20140924\_011933\_EX1404L3\_MB | EX1404L3\_XBT017\_140923 | 9.4 | 86 | 09/24/14 | 069.113892W | 069.010729W | 39.851528N | 39.913768N | 2014-09-24 01:19:22.998 | 2014-09-24 01:49:44.504 |
| 0166\_20140924\_014934\_EX1404L3\_MB | EX1404L3\_XBT017\_140923 | 9.1 | 86 | 09/24/14 | 069.012790W | 068.911001W | 39.854319N | 39.920789N | 2014-09-24 01:49:25.008 | 2014-09-24 02:19:47.512 |
| 0167\_20140924\_021937\_EX1404L3\_MB | EX1404L3\_XBT017\_140923 | 9.3 | 86 | 09/24/14 | 068.914489W | 068.809961W | 39.860504N | 39.924696N | 2014-09-24 02:19:28.511 | 2014-09-24 02:49:41.019 |
| 0168\_20140924\_024931\_EX1404L3\_MB | EX1404L3\_XBT017\_140923 | 9.3 | 86 | 09/24/14 | 068.815779W | 068.706165W | 39.865512N | 39.932551N | 2014-09-24 02:49:21.521 | 2014-09-24 03:19:47.026 |
| 0169\_20140924\_031937\_EX1404L3\_MB | EX1404L3\_XBT017\_140923 | 9.2 | 89 | 09/24/14 | 068.717378W | 068.611059W | 39.869790N | 39.935568N | 2014-09-24 03:19:27.527 | 2014-09-24 03:49:42.535 |
| 0170\_20140924\_034933\_EX1404L3\_MB | EX1404L3\_XBT017\_140923 | 9.0 | 90 | 09/24/14 | 068.614608W | 068.511574W | 39.869281N | 39.935976N | 2014-09-24 03:49:24.034 | 2014-09-24 04:19:47.042 |
| 0171\_20140924\_041937\_EX1404L3\_MB | EX1404L3\_XBT017\_140923 | 9.0 | 92 | 09/24/14 | 068.518399W | 068.417701W | 39.867065N | 39.936638N | 2014-09-24 04:19:27.543 | 2014-09-24 04:49:43.548 |
| 0172\_20140924\_044933\_EX1404L3\_MB | EX1404L3\_XBT017\_140923 | 9.0 | 93 | 09/24/14 | 068.417710W | 068.315812W | 39.862392N | 39.933672N | 2014-09-24 04:49:24.549 | 2014-09-24 05:19:45.556 |
| 0173\_20140924\_051936\_EX1404L3\_MB | EX1404L3\_XBT017\_140923 | 8.8 | 91 | 09/24/14 | 068.324885W | 068.219256W | 39.860721N | 39.928206N | 2014-09-24 05:19:26.056 | 2014-09-24 05:49:46.564 |
| 0174\_20140924\_054937\_EX1404L3\_MB | EX1404L3\_XBT017\_140923 | 8.4 | 91 | 09/24/14 | 068.230495W | 068.156343W | 39.858991N | 39.925839N | 2014-09-24 05:49:27.563 | 2014-09-24 06:10:35.568 |
| 0175\_20140924\_061026\_EX1404L3\_MB | EX1404L3\_XBT018\_140924 | 8.4 | 91 | 09/24/14 | 068.167792W | 068.068186W | 39.857268N | 39.925223N | 2014-09-24 06:10:16.569 | 2014-09-24 06:40:22.576 |
| 0176\_20140924\_064013\_EX1404L3\_MB | EX1404L3\_XBT018\_140924 | 8.6 | 91 | 09/24/14 | 068.075027W | 067.975095W | 39.855015N | 39.924417N | 2014-09-24 06:40:03.574 | 2014-09-24 07:10:28.582 |
| 0177\_20140924\_071019\_EX1404L3\_MB | EX1404L3\_XBT018\_140924 | 8.5 | 91 | 09/24/14 | 067.981919W | 067.884976W | 39.852697N | 39.921858N | 2014-09-24 07:10:09.082 | 2014-09-24 07:40:25.089 |
| 0178\_20140924\_074015\_EX1404L3\_MB | EX1404L3\_XBT018\_140924 | 8.4 | 91 | 09/24/14 | 067.888935W | 067.796173W | 39.851545N | 39.920508N | 2014-09-24 07:40:06.090 | 2014-09-24 08:10:12.098 |
| 0179\_20140924\_081012\_EX1404L3\_MB | EX1404L3\_XBT018\_140924 | 8.3 | 92 | 09/24/14 | 067.795620W | 067.704811W | 39.850178N | 39.916346N | 2014-09-24 08:10:02.597 | 2014-09-24 08:40:12.139 |
| 0180\_20140924\_084012\_EX1404L3\_MB | EX1404L3\_XBT018\_140924 | 8.0 | 89 | 09/24/14 | 067.707452W | 067.616923W | 39.847864N | 39.913709N | 2014-09-24 08:40:02.604 | 2014-09-24 09:10:18.141 |
| 0181\_20140924\_091018\_EX1404L3\_MB | EX1404L3\_XBT018\_140924 | 8.0 | 91 | 09/24/14 | 067.620680W | 067.530511W | 39.846568N | 39.913045N | 2014-09-24 09:10:08.611 | 2014-09-24 09:40:18.617 |
| 0182\_20140924\_094008\_EX1404L3\_MB | EX1404L3\_XBT018\_140924 | 7.5 | 91 | 09/24/14 | 067.534738W | 067.459243W | 39.846914N | 39.908143N | 2014-09-24 09:39:59.138 | 2014-09-24 10:06:27.625 |
| 0183\_20140924\_161559\_EX1404L3\_MB | EX1404L3\_XBT019\_140924 | 9.0 | 264 | 09/24/14 | 067.575056W | 067.501431W | 39.831455N | 39.901867N | 2014-09-24 16:15:59.215 | 2014-09-24 16:35:49.722 |
| 0184\_20140924\_163539\_EX1404L3\_MB | EX1404L3\_XBT019\_140924 | 9.1 | 29 | 09/24/14 | 067.612294W | 067.527068W | 39.838286N | 39.907501N | 2014-09-24 16:35:30.723 | 2014-09-24 16:44:39.223 |
| 0185\_20140924\_164429\_EX1404L3\_MB | EX1404L3\_XBT019\_140924 | 8.3 | 57 | 09/24/14 | 067.580283W | 067.457486W | 39.850089N | 39.932300N | 2014-09-24 16:44:19.724 | 2014-09-24 17:13:57.231 |
| 0186\_20140924\_171347\_EX1404L3\_MB | EX1404L3\_XBT019\_140924 | 9.1 | 5.8 | 09/24/14 | 067.525777W | 067.433424W | 39.906829N | 39.987453N | 2014-09-24 17:13:38.228 | 2014-09-24 17:42:38.237 |
| 0187\_20140924\_174228\_EX1404L3\_MB | EX1404L3\_XBT019\_140924 | 9.1 | 96 | 09/24/14 | 067.506593W | 067.392773W | 39.955008N | 40.020737N | 2014-09-24 17:42:18.737 | 2014-09-24 17:56:48.242 |
| 0188\_20140924\_175648\_EX1404L3\_MB | EX1404L3\_XBT019\_140924 | 8.2 | 186 | 09/24/14 | 067.482193W | 067.393498W | 39.909062N | 39.982384N | 2014-09-24 17:56:39.241 | 2014-09-24 18:27:00.249 |
| 0189\_20140924\_182650\_EX1404L3\_MB | EX1404L3\_XBT019\_140924 | 8.5 | 184 | 09/24/14 | 067.487231W | 067.418660W | 39.881191N | 39.917477N | 2014-09-24 18:26:41.251 | 2014-09-24 18:40:45.752 |
| 0190\_20140924\_184036\_EX1404L3\_MB | EX1404L3\_XBT019\_140924 | 8.8 | 87 | 09/24/14 | 067.482323W | 067.382202W | 39.847824N | 39.897837N | 2014-09-24 18:40:26.753 | 2014-09-24 18:54:25.252 |
| 0191\_20140924\_185415\_EX1404L3\_MB | EX1404L3\_XBT019\_140924 | 8.3 | 7.3 | 09/24/14 | 067.443429W | 067.362485W | 39.876147N | 39.953728N | 2014-09-24 18:54:05.752 | 2014-09-24 19:24:23.265 |
| 0192\_20140924\_192414\_EX1404L3\_MB | EX1404L3\_XBT019\_140924 | 8.2 | 9.7 | 09/24/14 | 067.440025W | 067.354565W | 39.946803N | 39.984387N | 2014-09-24 19:24:04.261 | 2014-09-24 19:33:55.766 |
| 0193\_20140924\_193355\_EX1404L3\_MB | EX1404L3\_XBT019\_140924 | 7.1 | 118 | 09/24/14 | 067.421930W | 067.320199W | 39.941737N | 40.004683N | 2014-09-24 19:33:46.265 | 2014-09-24 19:52:21.772 |
| 0194\_20140924\_195212\_EX1404L3\_MB | EX1404L3\_XBT019\_140924 | 7.5 | 181 | 09/24/14 | 067.404641W | 067.321496W | 39.900040N | 39.959073N | 2014-09-24 19:52:02.770 | 2014-09-24 20:20:02.276 |
| 0195\_20140924\_201952\_EX1404L3\_MB | EX1404L3\_XBT019\_140924 | 7.9 | 130 | 09/24/14 | 067.392812W | 067.331491W | 39.876948N | 39.919323N | 2014-09-24 20:19:42.778 | 2014-09-24 20:23:18.277 |
| 0196\_20140924\_202308\_EX1404L3\_MB | EX1404L3\_XBT019\_140924 | 8.2 | 131 | 09/24/14 | 067.380211W | 067.270119W | 39.819781N | 39.916612N | 2014-09-24 20:22:59.277 | 2014-09-24 20:53:10.782 |
| 0197\_20140924\_205301\_EX1404L3\_MB | EX1404L3\_XBT019\_140924 | 8.4 | 93 | 09/24/14 | 067.302909W | 067.197420W | 39.812220N | 39.879906N | 2014-09-24 20:52:51.284 | 2014-09-24 21:23:12.290 |
| 0198\_20140924\_212302\_EX1404L3\_MB | EX1404L3\_XBT019\_140924 | 8.4 | 92 | 09/24/14 | 067.210188W | 067.109359W | 39.805488N | 39.876787N | 2014-09-24 21:22:52.789 | 2014-09-24 21:53:08.298 |
| 0199\_20140924\_215258\_EX1404L3\_MB | EX1404L3\_XBT019\_140924 | 8.4 | 93 | 09/24/14 | 067.118532W | 067.097153W | 39.805543N | 39.874515N | 2014-09-24 21:52:48.800 | 2014-09-24 21:56:46.797 |
| 0200\_20140924\_215636\_EX1404L3\_MB | EX1404L3\_XBT020\_140924 | 8.4 | 91 | 09/24/14 | 067.108769W | 067.005769W | 39.801560N | 39.874651N | 2014-09-24 21:56:27.797 | 2014-09-24 22:26:49.805 |
| 0201\_20140924\_222640\_EX1404L3\_MB | EX1404L3\_XBT020\_140924 | 8.1 | 90 | 09/24/14 | 067.017958W | 066.918403W | 39.801139N | 39.870310N | 2014-09-24 22:26:30.308 | 2014-09-24 22:56:37.313 |
| 0202\_20140924\_225637\_EX1404L3\_MB | EX1404L3\_XBT020\_140924 | 8.0 | 90 | 09/24/14 | 066.930066W | 066.865858W | 39.796161N | 39.869760N | 2014-09-24 22:56:27.813 | 2014-09-24 23:15:59.819 |
| 0203\_20140924\_231549\_EX1404L3\_MB | EX1404L3\_XBT020\_140924 | 6.2 | 125 | 09/24/14 | 066.898309W | 066.815028W | 39.799855N | 39.863310N | 2014-09-24 23:15:40.818 | 2014-09-24 23:20:23.821 |
| 0204\_20140924\_232013\_EX1404L3\_MB | EX1404L3\_XBT020\_140924 | 6.0 | 170 | 09/24/14 | 066.898878W | 066.812171W | 39.811998N | 39.832551N | 2014-09-24 23:20:04.820 | 2014-09-24 23:28:28.823 |
| 0205\_20140924\_232819\_EX1404L3\_MB | EX1404L3\_XBT020\_140924 | 5.7 | 252 | 09/24/14 | 066.896950W | 066.817524W | 39.780161N | 39.850901N | 2014-09-24 23:28:09.326 | 2014-09-24 23:31:05.324 |
| 0206\_20140924\_233105\_EX1404L3\_MB | EX1404L3\_XBT020\_140924 | 7.6 | 270 | 09/24/14 | 066.947054W | 066.856268W | 39.779381N | 39.851004N | 2014-09-24 23:30:55.825 | 2014-09-25 00:01:13.836 |
| 0207\_20140925\_000104\_EX1404L3\_MB | EX1404L3\_XBT020\_140924 | 8.0 | 271 | 09/25/14 | 066.975404W | 066.943448W | 39.782829N | 39.851267N | 2014-09-25 00:00:54.832 | 2014-09-25 00:10:46.834 |
| 0208\_20140925\_001036\_EX1404L3\_MB | EX1404L3\_XBT020\_140924 | 7.9 | 272 | 09/25/14 | 067.003450W | 066.970749W | 39.783706N | 39.856461N | 2014-09-25 00:10:27.836 | 2014-09-25 00:21:02.837 |
| 0209\_20140925\_002053\_EX1404L3\_MB | EX1404L3\_XBT020\_140924 | 5.5 | 204 | 09/25/14 | 067.047137W | 066.962898W | 39.787300N | 39.852149N | 2014-09-25 00:20:43.839 | 2014-09-25 00:23:51.338 |
| 0210\_20140925\_002341\_EX1404L3\_MB | EX1404L3\_XBT020\_140924 | 6.4 | 171 | 09/25/14 | 067.044787W | 066.961732W | 39.807917N | 39.819749N | 2014-09-25 00:23:31.837 | 2014-09-25 00:28:40.339 |
| 0211\_20140925\_002830\_EX1404L3\_MB | EX1404L3\_XBT020\_140924 | 6.9 | 103 | 09/25/14 | 067.027033W | 066.963741W | 39.775773N | 39.844997N | 2014-09-25 00:28:21.338 | 2014-09-25 00:31:30.337 |
| 0212\_20140925\_003120\_EX1404L3\_MB | EX1404L3\_XBT020\_140924 | 7.4 | 92 | 09/25/14 | 066.999036W | 066.916269W | 39.767950N | 39.840656N | 2014-09-25 00:31:10.838 | 2014-09-25 01:01:34.845 |
| 0213\_20140925\_010125\_EX1404L3\_MB | EX1404L3\_XBT020\_140924 | 7.5 | 97 | 09/25/14 | 066.917921W | 066.822485W | 39.765360N | 39.837682N | 2014-09-25 01:01:16.345 | 2014-09-25 01:31:19.855 |
| 0214\_20140925\_013120\_EX1404L3\_MB | EX1404L3\_XBT020\_140924 | 9.0 | 109 | 09/25/14 | 066.853273W | 066.731464W | 39.738245N | 39.827580N | 2014-09-25 01:31:10.854 | 2014-09-25 02:01:28.862 |
| 0215\_20140925\_020119\_EX1404L3\_MB | EX1404L3\_XBT020\_140924 | 9.3 | 109 | 09/25/14 | 066.761006W | 066.638254W | 39.709884N | 39.800844N | 2014-09-25 02:01:09.862 | 2014-09-25 02:31:27.870 |
| 0216\_20140925\_023117\_EX1404L3\_MB | EX1404L3\_XBT020\_140924 | 8.0 | 110 | 09/25/14 | 066.666876W | 066.611901W | 39.704760N | 39.777301N | 2014-09-25 02:31:08.370 | 2014-09-25 02:42:36.370 |
| 0217\_20140925\_024226\_EX1404L3\_MB | EX1404L3\_XBT020\_140924 | 6.2 | 66 | 09/25/14 | 066.647936W | 066.592499W | 39.702308N | 39.766983N | 2014-09-25 02:42:16.871 | 2014-09-25 02:47:08.874 |
| 0218\_20140925\_024659\_EX1404L3\_MB | EX1404L3\_XBT021\_140925 | 8.5 | 34 | 09/25/14 | 066.649904W | 066.526316W | 39.721612N | 39.806697N | 2014-09-25 02:46:50.372 | 2014-09-25 03:16:55.881 |
| 0219\_20140925\_031656\_EX1404L3\_MB | EX1404L3\_XBT021\_140925 | 8.1 | 21 | 09/25/14 | 066.602319W | 066.512899W | 39.782059N | 39.823521N | 2014-09-25 03:16:46.880 | 2014-09-25 03:28:59.885 |
| 0220\_20140925\_032850\_EX1404L3\_MB | EX1404L3\_XBT021\_140925 | 10.0 | 80 | 09/25/14 | 066.581349W | 066.513437W | 39.789153N | 39.855211N | 2014-09-25 03:28:40.883 | 2014-09-25 03:34:36.885 |
| 0221\_20140925\_033437\_EX1404L3\_MB | EX1404L3\_XBT021\_140925 | 8.6 | 83 | 09/25/14 | 066.533206W | 066.425118W | 39.789646N | 39.862707N | 2014-09-25 03:34:27.385 | 2014-09-25 04:04:53.891 |
| 0222\_20140925\_040444\_EX1404L3\_MB | EX1404L3\_XBT021\_140925 | 8.3 | 83 | 09/25/14 | 066.445014W | 066.339313W | 39.793014N | 39.866770N | 2014-09-25 04:04:34.393 | 2014-09-25 04:34:48.899 |
| 0223\_20140925\_043439\_EX1404L3\_MB | EX1404L3\_XBT021\_140925 | 7.1 | 88 | 09/25/14 | 066.351812W | 066.261128W | 39.797053N | 39.871202N | 2014-09-25 04:34:29.900 | 2014-09-25 05:04:53.409 |
| 0224\_20140925\_050444\_EX1404L3\_MB | EX1404L3\_XBT021\_140925 | 7.3 | 87 | 09/25/14 | 066.277677W | 066.183351W | 39.799478N | 39.870086N | 2014-09-25 05:04:34.408 | 2014-09-25 05:34:52.916 |
| 0225\_20140925\_053443\_EX1404L3\_MB | EX1404L3\_XBT021\_140925 | 7.3 | 86 | 09/25/14 | 066.196621W | 066.148332W | 39.798406N | 39.871524N | 2014-09-25 05:34:34.416 | 2014-09-25 05:47:50.921 |
| 0226\_20140925\_054741\_EX1404L3\_MB | EX1404L3\_XBT021\_140925 | 8.1 | 146 | 09/25/14 | 066.192409W | 066.107734W | 39.800796N | 39.867358N | 2014-09-25 05:47:32.419 | 2014-09-25 05:51:00.420 |
| 0227\_20140925\_055050\_EX1404L3\_MB | EX1404L3\_XBT021\_140925 | 7.7 | 167 | 09/25/14 | 066.192544W | 066.100656W | 39.802023N | 39.840625N | 2014-09-25 05:50:40.920 | 2014-09-25 06:01:09.425 |
| 0228\_20140925\_060100\_EX1404L3\_MB | EX1404L3\_XBT021\_140925 | 6.5 | 244 | 09/25/14 | 066.193864W | 066.105264W | 39.769912N | 39.843889N | 2014-09-25 06:00:50.425 | 2014-09-25 06:07:37.924 |
| 0229\_20140925\_060728\_EX1404L3\_MB | EX1404L3\_XBT021\_140925 | 7.2 | 270 | 09/25/14 | 066.193424W | 066.147575W | 39.766528N | 39.843753N | 2014-09-25 06:07:18.427 | 2014-09-25 06:18:56.929 |
| 0230\_20140925\_061857\_EX1404L3\_MB | EX1404L3\_XBT022\_140925 | 7.1 | 268 | 09/25/14 | 066.269136W | 066.180300W | 39.767203N | 39.840502N | 2014-09-25 06:18:47.927 | 2014-09-25 06:48:51.435 |
| 0231\_20140925\_064841\_EX1404L3\_MB | EX1404L3\_XBT022\_140925 | 7.1 | 269 | 09/25/14 | 066.344754W | 066.255825W | 39.770947N | 39.842237N | 2014-09-25 06:48:32.435 | 2014-09-25 07:18:51.443 |
| 0232\_20140925\_071841\_EX1404L3\_MB | EX1404L3\_XBT022\_140925 | 7.3 | 269 | 09/25/14 | 066.361135W | 066.330319W | 39.770217N | 39.841977N | 2014-09-25 07:18:32.442 | 2014-09-25 07:24:47.944 |
| 0233\_20140925\_072438\_EX1404L3\_MB | EX1404L3\_XBT022\_140925 | 7.6 | 208 | 09/25/14 | 066.403643W | 066.310954W | 39.773635N | 39.842093N | 2014-09-25 07:24:28.943 | 2014-09-25 07:29:00.945 |
| 0234\_20140925\_072851\_EX1404L3\_MB | EX1404L3\_XBT022\_140925 | 7.3 | 179 | 09/25/14 | 066.405300W | 066.309491W | 39.770895N | 39.801319N | 2014-09-25 07:28:41.445 | 2014-09-25 07:43:36.948 |
| 0235\_20140925\_074327\_EX1404L3\_MB | EX1404L3\_XBT022\_140925 | 6.0 | 131 | 09/25/14 | 066.398386W | 066.315141W | 39.737018N | 39.803244N | 2014-09-25 07:43:17.448 | 2014-09-25 07:46:15.950 |
| 0236\_20140925\_074616\_EX1404L3\_MB | EX1404L3\_XBT022\_140925 | 7.3 | 87 | 09/25/14 | 066.359684W | 066.270453W | 39.733968N | 39.806492N | 2014-09-25 07:46:06.949 | 2014-09-25 08:16:25.457 |
| 0237\_20140925\_081615\_EX1404L3\_MB | EX1404L3\_XBT022\_140925 | 7.2 | 88 | 09/25/14 | 066.282677W | 066.190653W | 39.733322N | 39.801164N | 2014-09-25 08:16:05.956 | 2014-09-25 08:46:17.964 |
| 0238\_20140925\_084618\_EX1404L3\_MB | EX1404L3\_XBT022\_140925 | 7.7 | 87 | 09/25/14 | 066.207838W | 066.116868W | 39.732932N | 39.808104N | 2014-09-25 08:46:08.965 | 2014-09-25 09:13:46.969 |
| 0239\_20140925\_091337\_EX1404L3\_MB | EX1404L3\_XBT022\_140925 | 7.2 | 354 | 09/25/14 | 066.166838W | 066.079750W | 39.740511N | 39.802746N | 2014-09-25 09:13:27.471 | 2014-09-25 09:18:00.974 |
| 0240\_20140925\_091801\_EX1404L3\_MB | EX1404L3\_XBT022\_140925 | 8.4 | 305 | 09/25/14 | 066.223780W | 066.093594W | 39.749945N | 39.844017N | 2014-09-25 09:17:51.972 | 2014-09-25 09:48:13.979 |
| 0241\_20140925\_094804\_EX1404L3\_MB | EX1404L3\_XBT022\_140925 | 8.6 | 304 | 09/25/14 | 066.246732W | 066.166922W | 39.795912N | 39.861901N | 2014-09-25 09:47:54.482 | 2014-09-25 10:02:02.486 |
| 0242\_20140925\_220840\_EX1404L3\_MB | EX1404L3\_XBT023\_140925 | 8.9 | 26 | 09/25/14 | 066.217830W | 066.105615W | 39.807965N | 39.887370N | 2014-09-25 22:08:40.168 | 2014-09-25 22:35:26.675 |
| 0243\_20140925\_223517\_EX1404L3\_MB | EX1404L3\_XBT023\_140925 | 6.9 | 288 | 09/25/14 | 066.190487W | 066.111886W | 39.842571N | 39.910870N | 2014-09-25 22:35:07.675 | 2014-09-25 22:38:34.179 |
| 0244\_20140925\_223824\_EX1404L3\_MB | EX1404L3\_XBT023\_140925 | 8.5 | 271 | 09/25/14 | 066.249949W | 066.148466W | 39.840235N | 39.915848N | 2014-09-25 22:38:15.678 | 2014-09-25 23:08:39.186 |
| 0245\_20140925\_230829\_EX1404L3\_MB | EX1404L3\_XBT023\_140925 | 8.5 | 270 | 09/25/14 | 066.342113W | 066.241816W | 39.845581N | 39.918407N | 2014-09-25 23:08:20.185 | 2014-09-25 23:38:32.195 |
| 0246\_20140925\_233822\_EX1404L3\_MB | EX1404L3\_XBT023\_140925 | 9.8 | 269 | 09/25/14 | 066.362842W | 066.333690W | 39.847189N | 39.916898N | 2014-09-25 23:38:13.195 | 2014-09-25 23:44:34.696 |
| 0247\_20140925\_234425\_EX1404L3\_MB | EX1404L3\_XBT023\_140925 | 10.1 | 218 | 09/25/14 | 066.408936W | 066.327883W | 39.848109N | 39.914316N | 2014-09-25 23:44:15.696 | 2014-09-25 23:48:28.697 |
| 0248\_20140925\_234819\_EX1404L3\_MB | EX1404L3\_XBT023\_140925 | 9.4 | 177 | 09/26/14 | 066.414627W | 066.316282W | 39.791557N | 39.881071N | 2014-09-25 23:48:10.193 | 2014-09-26 00:18:20.703 |
| 0249\_20140926\_001810\_EX1404L3\_MB | EX1404L3\_XBT023\_140925 | 9.3 | 181 | 09/26/14 | 066.409155W | 066.315443W | 39.764139N | 39.801405N | 2014-09-26 00:18:01.702 | 2014-09-26 00:30:08.704 |
| 0250\_20140926\_002959\_EX1404L3\_MB | EX1404L3\_XBT023\_140925 | 9.0 | 130 | 09/26/14 | 066.407187W | 066.319402W | 39.730953N | 39.793780N | 2014-09-26 00:29:49.704 | 2014-09-26 00:34:26.706 |
| 0251\_20140926\_003417\_EX1404L3\_MB | EX1404L3\_XBT023\_140925 | 9.5 | 88 | 09/26/14 | 066.362005W | 066.253876W | 39.726718N | 39.795932N | 2014-09-26 00:34:08.207 | 2014-09-26 01:04:27.712 |
| 0252\_20140926\_010417\_EX1404L3\_MB | EX1404L3\_XBT023\_140925 | 10.2 | 90 | 09/26/14 | 066.255954W | 066.142571W | 39.722380N | 39.795500N | 2014-09-26 01:04:08.216 | 2014-09-26 01:34:22.220 |
| 0253\_20140926\_013412\_EX1404L3\_MB | EX1404L3\_XBT023\_140925 | 9.4 | 93 | 09/26/14 | 066.147602W | 066.133408W | 39.720678N | 39.791675N | 2014-09-26 01:34:03.220 | 2014-09-26 01:37:32.224 |
| 0254\_20140926\_013722\_EX1404L3\_MB | EX1404L3\_XBT023\_140925 | 8.0 | 163 | 09/26/14 | 066.178321W | 066.087449W | 39.724279N | 39.781995N | 2014-09-26 01:37:13.223 | 2014-09-26 01:40:58.224 |
| 0255\_20140926\_014048\_EX1404L3\_MB | EX1404L3\_XBT023\_140925 | 10.0 | 181 | 09/26/14 | 066.179599W | 066.080042W | 39.713053N | 39.751611N | 2014-09-26 01:40:38.726 | 2014-09-26 01:53:56.226 |
| 0256\_20140926\_015347\_EX1404L3\_MB | EX1404L3\_XBT023\_140925 | 9.3 | 140 | 09/26/14 | 066.172563W | 066.086229W | 39.683418N | 39.738919N | 2014-09-26 01:53:37.229 | 2014-09-26 01:56:15.232 |
| 0257\_20140926\_015605\_EX1404L3\_MB | EX1404L3\_XBT023\_140925 | 8.6 | 112 | 09/26/14 | 066.148793W | 066.032606W | 39.651405N | 39.740790N | 2014-09-26 01:55:56.229 | 2014-09-26 02:26:20.737 |
| 0258\_20140926\_022611\_EX1404L3\_MB | EX1404L3\_XBT023\_140925 | 7.9 | 112 | 09/26/14 | 066.056379W | 065.966519W | 39.629137N | 39.712041N | 2014-09-26 02:26:01.236 | 2014-09-26 02:53:12.743 |
| 0259\_20140926\_025313\_EX1404L3\_MB | EX1404L3\_XBT024\_140926 | 8.4 | 116 | 09/26/14 | 065.983926W | 065.880036W | 39.594231N | 39.683718N | 2014-09-26 02:53:03.246 | 2014-09-26 03:23:17.252 |
| 0260\_20140926\_032307\_EX1404L3\_MB | EX1404L3\_XBT024\_140926 | 10.2 | 124 | 09/26/14 | 065.910851W | 065.788766W | 39.547285N | 39.653496N | 2014-09-26 03:22:58.251 | 2014-09-26 03:53:07.262 |
| 0261\_20140926\_035307\_EX1404L3\_MB | EX1404L3\_XBT024\_140926 | 10.6 | 124 | 09/26/14 | 065.826333W | 065.696889W | 39.495660N | 39.598227N | 2014-09-26 03:52:58.259 | 2014-09-26 04:23:15.766 |
| 0262\_20140926\_042305\_EX1404L3\_MB | EX1404L3\_XBT024\_140926 | 10.4 | 123 | 09/26/14 | 065.731634W | 065.603206W | 39.446723N | 39.548792N | 2014-09-26 04:22:56.266 | 2014-09-26 04:53:19.271 |
| 0263\_20140926\_045309\_EX1404L3\_MB | EX1404L3\_XBT024\_140926 | 9.6 | 111 | 09/26/14 | 065.642205W | 065.525050W | 39.407434N | 39.495814N | 2014-09-26 04:52:59.775 | 2014-09-26 05:23:16.279 |
| 0264\_20140926\_052306\_EX1404L3\_MB | EX1404L3\_XBT024\_140926 | 8.2 | 100 | 09/26/14 | 065.534625W | 065.439984W | 39.397435N | 39.474802N | 2014-09-26 05:22:57.279 | 2014-09-26 05:53:10.786 |
| 0265\_20140926\_055301\_EX1404L3\_MB | EX1404L3\_XBT024\_140926 | 8.0 | 96 | 09/26/14 | 065.447331W | 065.386786W | 39.399537N | 39.451536N | 2014-09-26 05:52:51.789 | 2014-09-26 06:12:03.793 |
| 0266\_20140926\_061154\_EX1404L3\_MB | EX1404L3\_XBT025\_140926 | 8.2 | 110 | 09/26/14 | 065.392758W | 065.293595W | 39.367980N | 39.440797N | 2014-09-26 06:11:44.795 | 2014-09-26 06:41:59.802 |
| 0267\_20140926\_064150\_EX1404L3\_MB | EX1404L3\_XBT025\_140926 | 8.7 | 114 | 09/26/14 | 065.323977W | 065.258882W | 39.352489N | 39.423601N | 2014-09-26 06:41:40.801 | 2014-09-26 06:53:49.805 |
| 0268\_20140926\_065340\_EX1404L3\_MB | EX1404L3\_XBT025\_140926 | 9.4 | 158 | 09/26/14 | 065.314240W | 065.229243W | 39.353646N | 39.409466N | 2014-09-26 06:53:30.305 | 2014-09-26 06:57:57.305 |
| 0269\_20140926\_065747\_EX1404L3\_MB | EX1404L3\_XBT025\_140926 | 8.1 | 185 | 09/26/14 | 065.326105W | 065.228560W | 39.305489N | 39.372944N | 2014-09-26 06:57:37.807 | 2014-09-26 07:27:57.815 |
| 0270\_20140926\_072748\_EX1404L3\_MB | EX1404L3\_XBT025\_140926 | 9.1 | 185 | 09/26/14 | 065.336723W | 065.243069W | 39.227816N | 39.306485N | 2014-09-26 07:27:38.814 | 2014-09-26 07:57:47.321 |
| 0271\_20140926\_075747\_EX1404L3\_MB | EX1404L3\_XBT025\_140926 | 9.0 | 185 | 09/26/14 | 065.339333W | 065.259772W | 39.154866N | 39.234556N | 2014-09-26 07:57:38.322 | 2014-09-26 08:28:03.328 |
| 0272\_20140926\_082754\_EX1404L3\_MB | EX1404L3\_XBT025\_140926 | 9.0 | 185 | 09/26/14 | 065.352137W | 065.276304W | 39.080882N | 39.158043N | 2014-09-26 08:27:44.329 | 2014-09-26 08:57:47.334 |
| 0273\_20140926\_085747\_EX1404L3\_MB | EX1404L3\_XBT025\_140926 | 9.2 | 185 | 09/26/14 | 065.365117W | 065.290102W | 39.005793N | 39.083020N | 2014-09-26 08:57:37.835 | 2014-09-26 09:27:50.345 |
| 0274\_20140926\_092750\_EX1404L3\_MB | EX1404L3\_XBT025\_140926 | 9.1 | 185 | 09/26/14 | 065.380351W | 065.304072W | 38.940394N | 39.005578N | 2014-09-26 09:27:40.845 | 2014-09-26 09:53:48.351 |
| 0275\_20140926\_161510\_EX1404L3\_MB | EX1404L3\_XBT026\_140926 | 8.7 | 142 | 09/26/14 | 065.359387W | 065.240275W | 38.824510N | 38.913501N | 2014-09-26 16:15:10.947 | 2014-09-26 16:45:15.954 |
| 0276\_20140926\_164506\_EX1404L3\_MB | EX1404L3\_XBT026\_140926 | 7.9 | 132 | 09/26/14 | 065.290017W | 065.181199W | 38.779834N | 38.856709N | 2014-09-26 16:44:56.459 | 2014-09-26 17:15:16.966 |
| 0277\_20140926\_171507\_EX1404L3\_MB | EX1404L3\_XBT026\_140926 | 8.4 | 134 | 09/26/14 | 065.230128W | 065.121937W | 38.730237N | 38.810457N | 2014-09-26 17:14:57.964 | 2014-09-26 17:45:11.971 |
| 0278\_20140926\_174502\_EX1404L3\_MB | EX1404L3\_XBT026\_140926 | 8.6 | 137 | 09/26/14 | 065.165533W | 065.060721W | 38.678876N | 38.758322N | 2014-09-26 17:44:52.471 | 2014-09-26 18:15:07.482 |
| 0279\_20140926\_181508\_EX1404L3\_MB | EX1404L3\_XBT026\_140926 | 8.8 | 141 | 09/26/14 | 065.108807W | 065.003503W | 38.620942N | 38.701040N | 2014-09-26 18:14:58.479 | 2014-09-26 18:45:10.485 |
| 0280\_20140926\_184500\_EX1404L3\_MB | EX1404L3\_XBT026\_140926 | 9.0 | 140 | 09/26/14 | 065.054789W | 064.947080W | 38.560904N | 38.643124N | 2014-09-26 18:44:50.988 | 2014-09-26 19:15:11.494 |
| 0281\_20140926\_191502\_EX1404L3\_MB | EX1404L3\_XBT026\_140926 | 9.0 | 141 | 09/26/14 | 064.995402W | 064.890599W | 38.500618N | 38.582506N | 2014-09-26 19:14:52.492 | 2014-09-26 19:45:12.499 |
| 0282\_20140926\_194502\_EX1404L3\_MB | EX1404L3\_XBT026\_140926 | 8.7 | 142 | 09/26/14 | 064.938367W | 064.867670W | 38.478322N | 38.521680N | 2014-09-26 19:44:53.003 | 2014-09-26 19:57:03.005 |
| 0283\_20140926\_195653\_EX1404L3\_MB | EX1404L3\_XBT026\_140926 | 9.4 | 101 | 09/26/14 | 064.911250W | 064.870945W | 38.464362N | 38.510937N | 2014-09-26 19:56:44.501 | 2014-09-26 19:59:57.003 |
| 0284\_20140926\_195947\_EX1404L3\_MB | EX1404L3\_XBT026\_140926 | 8.3 | 91 | 09/26/14 | 064.892475W | 064.788800W | 38.447697N | 38.513656N | 2014-09-26 19:59:37.507 | 2014-09-26 20:30:04.013 |
| 0285\_20140926\_202954\_EX1404L3\_MB | EX1404L3\_XBT026\_140926 | 8.7 | 93 | 09/26/14 | 064.804126W | 064.753713W | 38.447935N | 38.511057N | 2014-09-26 20:29:44.513 | 2014-09-26 20:42:19.015 |
| 0286\_20140926\_204209\_EX1404L3\_MB | EX1404L3\_XBT026\_140926 | 8.7 | 96 | 09/26/14 | 064.763973W | 064.661642W | 38.442705N | 38.501134N | 2014-09-26 20:42:00.015 | 2014-09-26 21:12:17.523 |
| 0287\_20140926\_211207\_EX1404L3\_MB | EX1404L3\_XBT026\_140926 | 9.0 | 95 | 09/26/14 | 064.673592W | 064.632516W | 38.440711N | 38.490013N | 2014-09-26 21:11:58.024 | 2014-09-26 21:21:07.026 |
| 0288\_20140926\_212057\_EX1404L3\_MB | EX1404L3\_XBT027\_140926 | 8.9 | 95 | 09/26/14 | 064.646695W | 064.539998W | 38.428883N | 38.487399N | 2014-09-26 21:20:48.027 | 2014-09-26 21:51:10.531 |
| 0289\_20140926\_215100\_EX1404L3\_MB | EX1404L3\_XBT027\_140926 | 8.9 | 94 | 09/26/14 | 064.551656W | 064.445502W | 38.422658N | 38.477466N | 2014-09-26 21:50:51.534 | 2014-09-26 22:21:11.542 |
| 0290\_20140926\_222102\_EX1404L3\_MB | EX1404L3\_XBT027\_140926 | 8.1 | 94 | 09/26/14 | 064.457563W | 064.360647W | 38.414670N | 38.467893N | 2014-09-26 22:20:52.540 | 2014-09-26 22:51:14.548 |
| 0291\_20140926\_225104\_EX1404L3\_MB | EX1404L3\_XBT027\_140926 | 8.3 | 94 | 09/26/14 | 064.370641W | 064.269726W | 38.404673N | 38.463136N | 2014-09-26 22:50:55.547 | 2014-09-26 23:21:00.554 |
| 0292\_20140926\_232101\_EX1404L3\_MB | EX1404L3\_XBT027\_140926 | 8.8 | 94 | 09/26/14 | 064.287290W | 064.179886W | 38.395817N | 38.455325N | 2014-09-26 23:20:51.557 | 2014-09-26 23:51:13.563 |
| 0293\_20140926\_235104\_EX1404L3\_MB | EX1404L3\_XBT027\_140926 | 8.8 | 94 | 09/27/14 | 064.192780W | 064.087560W | 38.386915N | 38.446764N | 2014-09-26 23:50:54.562 | 2014-09-27 00:21:12.070 |
| 0294\_20140927\_002102\_EX1404L3\_MB | EX1404L3\_XBT027\_140926 | 9.0 | 87 | 09/27/14 | 064.099386W | 064.041649W | 38.384828N | 38.435749N | 2014-09-27 00:20:53.070 | 2014-09-27 00:36:02.070 |
| 0295\_20140927\_003552\_EX1404L3\_MB | EX1404L3\_XBT027\_140926 | 9.1 | 73 | 09/27/14 | 064.051346W | 063.947951W | 38.387664N | 38.453446N | 2014-09-27 00:35:42.573 | 2014-09-27 01:06:05.083 |
| 0296\_20140927\_010555\_EX1404L3\_MB | EX1404L3\_XBT027\_140926 | 9.0 | 72 | 09/27/14 | 063.959492W | 063.855602W | 38.408342N | 38.470974N | 2014-09-27 01:05:46.077 | 2014-09-27 01:35:58.585 |
| 0297\_20140927\_013549\_EX1404L3\_MB | EX1404L3\_XBT027\_140926 | 8.8 | 45 | 09/27/14 | 063.880371W | 063.835053W | 38.425956N | 38.471506N | 2014-09-27 01:35:40.085 | 2014-09-27 01:37:31.086 |
| 0298\_20140927\_013721\_EX1404L3\_MB | EX1404L3\_XBT027\_140926 | 8.7 | 356 | 09/27/14 | 063.888127W | 063.825819W | 38.440456N | 38.463893N | 2014-09-27 01:37:12.085 | 2014-09-27 01:41:48.091 |
| 0299\_20140927\_014138\_EX1404L3\_MB | EX1404L3\_XBT027\_140926 | 9.1 | 351 | 09/27/14 | 063.892369W | 063.824735W | 38.458356N | 38.504570N | 2014-09-27 01:41:28.590 | 2014-09-27 01:55:36.592 |
| 0300\_20140927\_015526\_EX1404L3\_MB | EX1404L3\_XBT027\_140926 | 8.2 | 295 | 09/27/14 | 063.889939W | 063.835138W | 38.480438N | 38.527884N | 2014-09-27 01:55:17.092 | 2014-09-27 02:02:37.094 |
| 0301\_20140927\_020227\_EX1404L3\_MB | EX1404L3\_XBT027\_140926 | 9.0 | 233 | 09/27/14 | 063.974698W | 063.875124W | 38.447681N | 38.526802N | 2014-09-27 02:02:18.093 | 2014-09-27 02:31:40.101 |
| 0302\_20140927\_023130\_EX1404L3\_MB | EX1404L3\_XBT027\_140926 | 7.3 | 116 | 09/27/14 | 063.981818W | 063.926709W | 38.437037N | 38.483435N | 2014-09-27 02:31:20.602 | 2014-09-27 02:35:25.101 |
| 0303\_20140927\_023516\_EX1404L3\_MB | EX1404L3\_XBT027\_140926 | 9.1 | 79 | 09/27/14 | 063.952235W | 063.880234W | 38.436507N | 38.492676N | 2014-09-27 02:35:06.104 | 2014-09-27 02:56:06.609 |
| 0304\_20140927\_025557\_EX1404L3\_MB | EX1404L3\_XBT027\_140926 | 9.2 | 97 | 09/27/14 | 063.891961W | 063.830613W | 38.434720N | 38.489937N | 2014-09-27 02:55:47.607 | 2014-09-27 03:11:09.612 |
| 0305\_20140927\_031059\_EX1404L3\_MB | EX1404L3\_XBT027\_140926 | 8.8 | 73 | 09/27/14 | 063.842146W | 063.739913W | 38.438016N | 38.501921N | 2014-09-27 03:10:50.611 | 2014-09-27 03:41:12.146 |
| 0306\_20140927\_034102\_EX1404L3\_MB | EX1404L3\_XBT027\_140926 | 9.0 | 73 | 09/27/14 | 063.752349W | 063.697615W | 38.456444N | 38.513615N | 2014-09-27 03:40:53.144 | 2014-09-27 03:55:13.141 |
| 0307\_20140927\_035503\_EX1404L3\_MB | EX1404L3\_XBT027\_140926 | 8.0 | 124 | 09/27/14 | 063.724797W | 063.669816W | 38.466587N | 38.510424N | 2014-09-27 03:54:53.624 | 2014-09-27 03:57:57.621 |
| 0308\_20140927\_035747\_EX1404L3\_MB | EX1404L3\_XBT027\_140926 | 8.5 | 151 | 09/27/14 | 063.725276W | 063.626798W | 38.415266N | 38.494068N | 2014-09-27 03:57:38.145 | 2014-09-27 04:27:42.143 |
| 0309\_20140927\_042742\_EX1404L3\_MB | EX1404L3\_XBT027\_140926 | 8.4 | 151 | 09/27/14 | 063.686896W | 063.589326W | 38.355914N | 38.427243N | 2014-09-27 04:27:33.142 | 2014-09-27 04:57:55.638 |
| 0310\_20140927\_045745\_EX1404L3\_MB | EX1404L3\_XBT027\_140926 | 8.1 | 151 | 09/27/14 | 063.648133W | 063.550262W | 38.297941N | 38.360367N | 2014-09-27 04:57:36.145 | 2014-09-27 05:27:51.648 |
| 0311\_20140927\_052742\_EX1404L3\_MB | EX1404L3\_XBT027\_140926 | 8.4 | 150 | 09/27/14 | 063.611105W | 063.520471W | 38.246538N | 38.297556N | 2014-09-27 05:27:33.144 | 2014-09-27 05:51:57.157 |
| 0312\_20140927\_055148\_EX1404L3\_MB | EX1404L3\_XBT027\_140926 | 10.4 | 85 | 09/27/14 | 063.576337W | 063.519684W | 38.222588N | 38.273546N | 2014-09-27 05:51:38.151 | 2014-09-27 05:57:12.154 |
| 0313\_20140927\_055702\_EX1404L3\_MB | EX1404L3\_XBT027\_140926 | 9.5 | 62 | 09/27/14 | 063.544639W | 063.501021W | 38.221161N | 38.275934N | 2014-09-27 05:56:53.150 | 2014-09-27 06:03:19.650 |
| 0314\_20140927\_060310\_EX1404L3\_MB | EX1404L3\_XBT027\_140926 | 7.7 | 349 | 09/27/14 | 063.537400W | 063.483968W | 38.236151N | 38.286038N | 2014-09-27 06:03:00.653 | 2014-09-27 06:08:36.155 |
| 0315\_20140927\_060826\_EX1404L3\_MB | EX1404L3\_XBT027\_140926 | 8.3 | 331 | 09/27/14 | 063.572934W | 063.496792W | 38.243109N | 38.348261N | 2014-09-27 06:08:17.154 | 2014-09-27 06:38:39.164 |
| 0316\_20140927\_063829\_EX1404L3\_MB | EX1404L3\_XBT027\_140926 | 8.6 | 329 | 09/27/14 | 063.584088W | 063.532450W | 38.307478N | 38.365661N | 2014-09-27 06:38:20.162 | 2014-09-27 06:46:57.663 |
| 0317\_20140927\_064648\_EX1404L3\_MB | EX1404L3\_XBT028\_140927 | 8.9 | 331 | 09/27/14 | 063.628731W | 063.543455W | 38.324987N | 38.428579N | 2014-09-27 06:46:38.666 | 2014-09-27 07:16:45.173 |
| 0318\_20140927\_071635\_EX1404L3\_MB | EX1404L3\_XBT028\_140927 | 8.7 | 331 | 09/27/14 | 063.668578W | 063.577562W | 38.394700N | 38.480208N | 2014-09-27 07:16:26.172 | 2014-09-27 07:43:17.177 |
| 0319\_20140927\_074317\_EX1404L3\_MB | EX1404L3\_XBT029\_140927 | 8.6 | 332 | 09/27/14 | 063.685888W | 063.615533W | 38.456357N | 38.512518N | 2014-09-27 07:43:07.677 | 2014-09-27 07:58:19.681 |
| 0320\_20140927\_075809\_EX1404L3\_MB | EX1404L3\_XBT029\_140927 | 6.4 | 28 | 09/27/14 | 063.692446W | 063.626705W | 38.481690N | 38.534752N | 2014-09-27 07:58:00.184 | 2014-09-27 08:02:36.184 |
| 0321\_20140927\_080236\_EX1404L3\_MB | EX1404L3\_XBT029\_140927 | 8.5 | 67 | 09/27/14 | 063.665427W | 063.562113W | 38.480384N | 38.553695N | 2014-09-27 08:02:27.183 | 2014-09-27 08:32:43.690 |
| 0322\_20140927\_083234\_EX1404L3\_MB | EX1404L3\_XBT029\_140927 | 8.9 | 66 | 09/27/14 | 063.580691W | 063.474836W | 38.503204N | 38.582184N | 2014-09-27 08:32:24.690 | 2014-09-27 09:02:36.195 |
| 0323\_20140927\_090236\_EX1404L3\_MB | EX1404L3\_XBT029\_140927 | 9.0 | 65 | 09/27/14 | 063.495332W | 063.382636W | 38.523726N | 38.618413N | 2014-09-27 09:02:26.700 | 2014-09-27 09:32:48.203 |
| 0324\_20140927\_093238\_EX1404L3\_MB | EX1404L3\_XBT029\_140927 | 8.7 | 66 | 09/27/14 | 063.409109W | 063.329942W | 38.547300N | 38.630828N | 2014-09-27 09:32:29.207 | 2014-09-27 09:52:29.708 |
| 0325\_20140928\_003214\_EX1404L3\_MB | EX1404L3\_XBT030\_140928 | 8.3 | 171 | 09/28/14 | 063.255811W | 063.170970W | 38.535082N | 38.615955N | 2014-09-28 00:32:14.936 | 2014-09-28 01:02:29.939 |
| 0326\_20140928\_010220\_EX1404L3\_MB | EX1404L3\_XBT030\_140928 | 8.2 | 171 | 09/28/14 | 063.239041W | 063.169029W | 38.466664N | 38.544680N | 2014-09-28 01:02:10.443 | 2014-09-28 01:32:26.449 |
| 0327\_20140928\_013217\_EX1404L3\_MB | EX1404L3\_XBT030\_140928 | 8.3 | 172 | 09/28/14 | 063.237632W | 063.156300W | 38.416429N | 38.477573N | 2014-09-28 01:32:07.448 | 2014-09-28 01:55:35.956 |
| 0328\_20140928\_015526\_EX1404L3\_MB | EX1404L3\_XBT030\_140928 | 10.0 | 126 | 09/28/14 | 063.222222W | 063.148395W | 38.385942N | 38.429569N | 2014-09-28 01:55:17.456 | 2014-09-28 02:04:45.956 |
| 0329\_20140928\_020436\_EX1404L3\_MB | EX1404L3\_XBT030\_140928 | 8.8 | 109 | 09/28/14 | 063.192778W | 063.049943W | 38.358089N | 38.422040N | 2014-09-28 02:04:27.456 | 2014-09-28 02:34:46.467 |
| 0330\_20140928\_023437\_EX1404L3\_MB | EX1404L3\_XBT030\_140928 | 8.0 | 131 | 09/28/14 | 063.121971W | 063.046075W | 38.360767N | 38.390493N | 2014-09-28 02:34:27.466 | 2014-09-28 02:35:30.963 |
| 0331\_20140928\_023521\_EX1404L3\_MB | EX1404L3\_XBT030\_140928 | 8.9 | 135 | 09/28/14 | 063.120864W | 062.995290W | 38.309285N | 38.387835N | 2014-09-28 02:35:11.469 | 2014-09-28 03:05:30.970 |
| 0332\_20140928\_030521\_EX1404L3\_MB | EX1404L3\_XBT030\_140928 | 9.0 | 135 | 09/28/14 | 063.057514W | 062.925175W | 38.249690N | 38.327065N | 2014-09-28 03:05:11.473 | 2014-09-28 03:35:41.983 |
| 0333\_20140928\_033532\_EX1404L3\_MB | EX1404L3\_XBT030\_140928 | 8.6 | 136 | 09/28/14 | 063.000051W | 062.867784W | 38.192619N | 38.274279N | 2014-09-28 03:35:22.979 | 2014-09-28 04:05:40.989 |
| 0334\_20140928\_040531\_EX1404L3\_MB | EX1404L3\_XBT030\_140928 | 8.7 | 134 | 09/28/14 | 062.936523W | 062.858783W | 38.183605N | 38.224637N | 2014-09-28 04:05:21.986 | 2014-09-28 04:11:20.489 |
| 0335\_20140928\_041120\_EX1404L3\_MB | EX1404L3\_XBT031\_140928 | 8.2 | 136 | 09/28/14 | 062.920493W | 062.838874W | 38.169811N | 38.211137N | 2014-09-28 04:11:11.488 | 2014-09-28 04:21:51.491 |
| 0336\_20140928\_042141\_EX1404L3\_MB | EX1404L3\_XBT031\_140928 | 8.5 | 95 | 09/28/14 | 062.894916W | 062.841131W | 38.153807N | 38.206695N | 2014-09-28 04:21:31.991 | 2014-09-28 04:24:23.993 |
| 0337\_20140928\_042414\_EX1404L3\_MB | EX1404L3\_XBT031\_140928 | 8.5 | 80 | 09/28/14 | 062.864995W | 062.765007W | 38.152844N | 38.213858N | 2014-09-28 04:24:04.989 | 2014-09-28 04:54:25.997 |
| 0338\_20140928\_045416\_EX1404L3\_MB | EX1404L3\_XBT031\_140928 | 8.5 | 66 | 09/28/14 | 062.782769W | 062.681447W | 38.161959N | 38.239588N | 2014-09-28 04:54:06.500 | 2014-09-28 05:24:34.005 |
| 0339\_20140928\_052424\_EX1404L3\_MB | EX1404L3\_XBT031\_140928 | 8.3 | 66 | 09/28/14 | 062.696002W | 062.597000W | 38.182246N | 38.271811N | 2014-09-28 05:24:14.507 | 2014-09-28 05:54:28.015 |
| 0340\_20140928\_055418\_EX1404L3\_MB | EX1404L3\_XBT031\_140928 | 8.2 | 66 | 09/28/14 | 062.619429W | 062.521777W | 38.201585N | 38.280058N | 2014-09-28 05:54:09.011 | 2014-09-28 06:22:02.525 |
| 0341\_20140928\_062153\_EX1404L3\_MB | EX1404L3\_XBT031\_140928 | 7.1 | 93 | 09/28/14 | 062.554355W | 062.484264W | 38.219881N | 38.289435N | 2014-09-28 06:21:43.519 | 2014-09-28 06:26:33.025 |
| 0342\_20140928\_062623\_EX1404L3\_MB | EX1404L3\_XBT031\_140928 | 6.5 | 149 | 09/28/14 | 062.554112W | 062.479686W | 38.242209N | 38.269420N | 2014-09-28 06:26:14.021 | 2014-09-28 06:30:00.527 |
| 0343\_20140928\_062951\_EX1404L3\_MB | EX1404L3\_XBT031\_140928 | 6.0 | 210 | 09/28/14 | 062.557444W | 062.484502W | 38.227080N | 38.267812N | 2014-09-28 06:29:41.526 | 2014-09-28 06:32:29.025 |
| 0344\_20140928\_063219\_EX1404L3\_MB | EX1404L3\_XBT031\_140928 | 7.3 | 239 | 09/28/14 | 062.570642W | 062.501396W | 38.209699N | 38.267562N | 2014-09-28 06:32:10.025 | 2014-09-28 06:44:47.527 |
| 0345\_20140928\_064437\_EX1404L3\_MB | EX1404L3\_XBT031\_140928 | 7.6 | 4.5 | 09/28/14 | 062.586873W | 062.514002W | 38.209929N | 38.274100N | 2014-09-28 06:44:28.029 | 2014-09-28 06:51:42.026 |
| 0346\_20140928\_065132\_EX1404L3\_MB | EX1404L3\_XBT031\_140928 | 8.6 | 60 | 09/28/14 | 062.560025W | 062.499354W | 38.210356N | 38.282153N | 2014-09-28 06:51:22.528 | 2014-09-28 07:04:59.032 |
| 0347\_20140928\_070459\_EX1404L3\_MB | EX1404L3\_XBT032\_140928 | 8.7 | 60 | 09/28/14 | 062.522918W | 062.415376W | 38.235519N | 38.318581N | 2014-09-28 07:04:49.532 | 2014-09-28 07:35:05.038 |
| 0348\_20140928\_073505\_EX1404L3\_MB | EX1404L3\_XBT032\_140928 | 8.7 | 60 | 09/28/14 | 062.441534W | 062.329643W | 38.261908N | 38.349426N | 2014-09-28 07:34:56.040 | 2014-09-28 08:05:16.046 |
| 0349\_20140928\_080506\_EX1404L3\_MB | EX1404L3\_XBT032\_140928 | 7.6 | 54 | 09/28/14 | 062.360731W | 062.284838W | 38.289253N | 38.363172N | 2014-09-28 08:04:57.047 | 2014-09-28 08:16:31.552 |
| 0350\_20140928\_081621\_EX1404L3\_MB | EX1404L3\_XBT032\_140928 | 6.0 | 279 | 09/28/14 | 062.360662W | 062.284914W | 38.300389N | 38.373849N | 2014-09-28 08:16:12.552 | 2014-09-28 08:25:10.055 |
| 0351\_20140928\_082500\_EX1404L3\_MB | EX1404L3\_XBT032\_140928 | 8.3 | 245 | 09/28/14 | 062.429085W | 062.319423W | 38.286052N | 38.364083N | 2014-09-28 08:24:51.555 | 2014-09-28 08:55:10.562 |
| 0352\_20140928\_085500\_EX1404L3\_MB | EX1404L3\_XBT032\_140928 | 8.4 | 246 | 09/28/14 | 062.512023W | 062.401294W | 38.261528N | 38.343049N | 2014-09-28 08:54:51.562 | 2014-09-28 09:25:07.570 |
| 0353\_20140928\_092458\_EX1404L3\_MB | EX1404L3\_XBT032\_140928 | 8.4 | 248 | 09/28/14 | 062.532769W | 062.484853W | 38.259525N | 38.314639N | 2014-09-28 09:24:49.069 | 2014-09-28 09:31:56.071 |
| 0354\_20140928\_093147\_EX1404L3\_MB | EX1404L3\_XBT032\_140928 | 8.3 | 319 | 09/28/14 | 062.557736W | 062.495252W | 38.258199N | 38.312508N | 2014-09-28 09:31:37.071 | 2014-09-28 09:35:30.074 |
| 0355\_20140928\_093530\_EX1404L3\_MB | EX1404L3\_XBT032\_140928 | 5.9 | 349 | 09/28/14 | 062.565224W | 062.489338W | 38.284987N | 38.314423N | 2014-09-28 09:35:21.073 | 2014-09-28 09:46:30.075 |
| 0356\_20140928\_214020\_EX1404L3\_MB | EX1404L3\_XBT033\_140928 | 7.6 | 157 | 09/28/14 | 062.559652W | 062.481741W | 38.286774N | 38.314269N | 2014-09-28 21:40:20.755 | 2014-09-28 21:47:12.256 |
| 0357\_20140928\_214703\_EX1404L3\_MB | EX1404L3\_XBT033\_140928 | 7.9 | 143 | 09/28/14 | 062.536835W | 062.476356W | 38.283672N | 38.304498N | 2014-09-28 21:46:53.258 | 2014-09-28 21:48:46.256 |
| 0358\_20140928\_214836\_EX1404L3\_MB | EX1404L3\_XBT033\_140928 | 7.7 | 308 | 09/28/14 | 062.533189W | 062.456551W | 38.262087N | 38.326067N | 2014-09-28 21:48:27.257 | 2014-09-28 22:03:44.264 |
| 0359\_20140928\_220334\_EX1404L3\_MB | EX1404L3\_XBT033\_140928 | 8.4 | 307 | 09/28/14 | 062.539841W | 062.500348W | 38.282492N | 38.330403N | 2014-09-28 22:03:25.760 | 2014-09-28 22:06:40.262 |
| 0360\_20140928\_220630\_EX1404L3\_MB | EX1404L3\_XBT033\_140928 | 7.2 | 180 | 09/28/14 | 062.566906W | 062.499469W | 38.276287N | 38.334577N | 2014-09-28 22:06:21.261 | 2014-09-28 22:14:08.762 |
| 0361\_20140928\_221359\_EX1404L3\_MB | EX1404L3\_XBT033\_140928 | 9.1 | 68 | 09/28/14 | 062.531068W | 062.505144W | 38.275930N | 38.336710N | 2014-09-28 22:13:50.261 | 2014-09-28 22:21:06.268 |
| 0362\_20140928\_222056\_EX1404L3\_MB | EX1404L3\_XBT033\_140928 | 5.8 | 27 | 09/28/14 | 062.539637W | 062.458344W | 38.270117N | 38.337172N | 2014-09-28 22:20:47.265 | 2014-09-28 22:30:04.768 |
| 0363\_20140928\_222955\_EX1404L3\_MB | EX1404L3\_XBT033\_140928 | 7.1 | 228 | 09/28/14 | 062.546943W | 062.470257W | 38.272940N | 38.323838N | 2014-09-28 22:29:45.769 | 2014-09-28 22:39:08.273 |
| 0364\_20140928\_223858\_EX1404L3\_MB | EX1404L3\_XBT033\_140928 | 6.7 | 218 | 09/28/14 | 062.560530W | 062.496219W | 38.269341N | 38.326089N | 2014-09-28 22:38:49.769 | 2014-09-28 22:48:08.771 |
| 0365\_20140928\_224759\_EX1404L3\_MB | EX1404L3\_XBT033\_140928 | 8.8 | 25 | 09/28/14 | 062.554244W | 062.484548W | 38.269917N | 38.323644N | 2014-09-28 22:47:49.770 | 2014-09-28 22:55:42.273 |
| 0366\_20140928\_225533\_EX1404L3\_MB | EX1404L3\_XBT033\_140928 | 10.8 | 56 | 09/28/14 | 062.544126W | 062.428661W | 38.281990N | 38.370863N | 2014-09-28 22:55:23.274 | 2014-09-28 23:17:49.782 |
| 0367\_20140928\_231750\_EX1404L3\_MB | EX1404L3\_XBT033\_140928 | 11.3 | 58 | 09/28/14 | 062.457564W | 062.325573W | 38.310653N | 38.407687N | 2014-09-28 23:17:40.779 | 2014-09-28 23:48:00.289 |
| 0368\_20140928\_234750\_EX1404L3\_MB | EX1404L3\_XBT033\_140928 | 11.2 | 57 | 09/28/14 | 062.348326W | 062.281662W | 38.358598N | 38.424892N | 2014-09-28 23:47:41.786 | 2014-09-29 00:00:09.290 |
| 0369\_20140929\_000009\_EX1404L3\_MB | EX1404L3\_XBT033\_140928 | 11.2 | 58 | 09/29/14 | 062.306986W | 062.176920W | 38.375827N | 38.474401N | 2014-09-28 23:59:59.791 | 2014-09-29 00:30:27.797 |
| 0370\_20140929\_003018\_EX1404L3\_MB | EX1404L3\_XBT033\_140928 | 11.0 | 57 | 09/29/14 | 062.204737W | 062.071201W | 38.421191N | 38.519070N | 2014-09-29 00:30:08.297 | 2014-09-29 01:00:17.805 |
| 0371\_20140929\_010008\_EX1404L3\_MB | EX1404L3\_XBT033\_140928 | 10.8 | 59 | 09/29/14 | 062.103322W | 061.993329W | 38.455172N | 38.551068N | 2014-09-29 00:59:58.307 | 2014-09-29 01:25:55.819 |
| 0372\_20140929\_012546\_EX1404L3\_MB | EX1404L3\_XBT034\_140929 | 8.9 | 144 | 09/29/14 | 062.023974W | 061.945585W | 38.486371N | 38.550343N | 2014-09-29 01:25:36.316 | 2014-09-29 01:40:31.319 |
| 0373\_20140929\_014021\_EX1404L3\_MB | EX1404L3\_XBT034\_140929 | 8.8 | 217 | 09/29/14 | 062.010711W | 061.945807W | 38.472853N | 38.513552N | 2014-09-29 01:40:11.820 | 2014-09-29 01:41:42.817 |
| 0374\_20140929\_014143\_EX1404L3\_MB | EX1404L3\_XBT034\_140929 | 8.7 | 238 | 09/29/14 | 062.088428W | 061.963739W | 38.426565N | 38.515393N | 2014-09-29 01:41:33.320 | 2014-09-29 02:11:53.826 |
| 0375\_20140929\_021144\_EX1404L3\_MB | EX1404L3\_XBT034\_140929 | 8.3 | 238 | 09/29/14 | 062.159059W | 062.029756W | 38.400653N | 38.488641N | 2014-09-29 02:11:34.828 | 2014-09-29 02:41:48.335 |
| 0376\_20140929\_024138\_EX1404L3\_MB | EX1404L3\_XBT034\_140929 | 8.3 | 238 | 09/29/14 | 062.238088W | 062.119054W | 38.364219N | 38.455099N | 2014-09-29 02:41:28.838 | 2014-09-29 03:11:49.340 |
| 0377\_20140929\_031139\_EX1404L3\_MB | EX1404L3\_XBT034\_140929 | 8.8 | 238 | 09/29/14 | 062.317913W | 062.189894W | 38.340514N | 38.425510N | 2014-09-29 03:11:29.840 | 2014-09-29 03:41:52.847 |
| 0378\_20140929\_034143\_EX1404L3\_MB | EX1404L3\_XBT034\_140929 | 9.1 | 238 | 09/29/14 | 062.402478W | 062.280262W | 38.306299N | 38.381941N | 2014-09-29 03:41:33.350 | 2014-09-29 04:11:41.356 |
| 0379\_20140929\_041141\_EX1404L3\_MB | EX1404L3\_XBT034\_140929 | 9.5 | 239 | 09/29/14 | 062.495722W | 062.368811W | 38.265575N | 38.350751N | 2014-09-29 04:11:32.354 | 2014-09-29 04:41:52.363 |
| 0380\_20140929\_044143\_EX1404L3\_MB | EX1404L3\_XBT034\_140929 | 9.4 | 239 | 09/29/14 | 062.578319W | 062.451245W | 38.226588N | 38.316456N | 2014-09-29 04:41:33.362 | 2014-09-29 05:11:47.870 |
| 0381\_20140929\_051138\_EX1404L3\_MB | EX1404L3\_XBT034\_140929 | 9.0 | 239 | 09/29/14 | 062.668482W | 062.540593W | 38.188826N | 38.277854N | 2014-09-29 05:11:28.871 | 2014-09-29 05:41:58.379 |
| 0382\_20140929\_054148\_EX1404L3\_MB | EX1404L3\_XBT034\_140929 | 8.4 | 238 | 09/29/14 | 062.672555W | 062.622718W | 38.185466N | 38.250241N | 2014-09-29 05:41:38.881 | 2014-09-29 05:44:24.378 |
| 0383\_20140929\_054424\_EX1404L3\_MB | EX1404L3\_XBT035\_140929 | 8.5 | 239 | 09/29/14 | 062.731023W | 062.628992W | 38.165507N | 38.245942N | 2014-09-29 05:44:14.878 | 2014-09-29 06:08:16.390 |
| 0384\_20140929\_060807\_EX1404L3\_MB | EX1404L3\_XBT035\_140929 | 9.0 | 278 | 09/29/14 | 062.731809W | 062.701110W | 38.166382N | 38.219367N | 2014-09-29 06:07:57.387 | 2014-09-29 06:10:39.885 |
| 0385\_20140929\_061030\_EX1404L3\_MB | EX1404L3\_XBT035\_140929 | 8.1 | 293 | 09/29/14 | 062.809129W | 062.710265W | 38.167931N | 38.244453N | 2014-09-29 06:10:20.386 | 2014-09-29 06:40:33.894 |
| 0386\_20140929\_064034\_EX1404L3\_MB | EX1404L3\_XBT035\_140929 | 8.0 | 293 | 09/29/14 | 062.882548W | 062.788322W | 38.197108N | 38.278104N | 2014-09-29 06:40:24.893 | 2014-09-29 07:10:38.900 |
| 0387\_20140929\_071029\_EX1404L3\_MB | EX1404L3\_XBT035\_140929 | 6.8 | 293 | 09/29/14 | 062.941030W | 062.864592W | 38.222913N | 38.312678N | 2014-09-29 07:10:19.905 | 2014-09-29 07:40:35.410 |
| 0388\_20140929\_074025\_EX1404L3\_MB | EX1404L3\_XBT035\_140929 | 6.5 | 289 | 09/29/14 | 063.013375W | 062.932231W | 38.239509N | 38.324371N | 2014-09-29 07:40:15.912 | 2014-09-29 08:07:39.918 |
| 0389\_20140929\_080740\_EX1404L3\_MB | EX1404L3\_XBT035\_140929 | 7.4 | 323 | 09/29/14 | 063.038446W | 062.975958W | 38.268632N | 38.353573N | 2014-09-29 08:07:30.418 | 2014-09-29 08:25:43.422 |
| 0390\_20140929\_082533\_EX1404L3\_MB | EX1404L3\_XBT035\_140929 | 7.1 | 86 | 09/29/14 | 063.061961W | 062.952546W | 38.304130N | 38.374590N | 2014-09-29 08:25:23.922 | 2014-09-29 08:42:57.928 |
| 0391\_20140929\_084248\_EX1404L3\_MB | EX1404L3\_XBT035\_140929 | 7.1 | 197 | 09/29/14 | 063.050922W | 062.964990W | 38.276387N | 38.342514N | 2014-09-29 08:42:38.924 | 2014-09-29 09:01:50.932 |
| 0392\_20140929\_090141\_EX1404L3\_MB | EX1404L3\_XBT035\_140929 | 7.1 | 336 | 09/29/14 | 063.065882W | 062.987909W | 38.259600N | 38.343528N | 2014-09-29 09:01:31.932 | 2014-09-29 09:16:29.433 |
| 0393\_20140929\_091620\_EX1404L3\_MB | EX1404L3\_XBT035\_140929 | 9.0 | 85 | 09/29/14 | 063.039258W | 062.978999W | 38.280394N | 38.342552N | 2014-09-29 09:16:10.436 | 2014-09-29 09:28:00.937 |
| 0394\_20140929\_092801\_EX1404L3\_MB | EX1404L3\_XBT035\_140929 | 8.0 | 74 | 09/29/14 | 062.996508W | 062.918380W | 38.280494N | 38.350003N | 2014-09-29 09:27:51.435 | 2014-09-29 09:40:14.939 |
| 0395\_20140929\_094005\_EX1404L3\_MB | EX1404L3\_XBT035\_140929 | 6.0 | 262 | 09/29/14 | 062.992525W | 062.917839W | 38.285647N | 38.352868N | 2014-09-29 09:39:55.939 | 2014-09-29 09:51:11.942 |
| 0396\_20140929\_130154\_EX1404L3\_MB | EX1404L3\_XBT036\_140929 | 9.9 | 301 | 09/29/14 | 063.396579W | 063.282882W | 38.598772N | 38.691080N | 2014-09-29 13:01:54.992 | 2014-09-29 13:32:12.999 |
| 0397\_20140929\_133203\_EX1404L3\_MB | EX1404L3\_XBT036\_140929 | 10.5 | 299 | 09/29/14 | 063.491858W | 063.370983W | 38.642489N | 38.736110N | 2014-09-29 13:31:54.497 | 2014-09-29 14:02:05.006 |
| 0398\_20140929\_140156\_EX1404L3\_MB | EX1404L3\_XBT036\_140929 | 10.8 | 299 | 09/29/14 | 063.588143W | 063.462931W | 38.691747N | 38.784752N | 2014-09-29 14:01:46.005 | 2014-09-29 14:32:06.512 |
| 0399\_20140929\_143157\_EX1404L3\_MB | EX1404L3\_XBT036\_140929 | 10.9 | 299 | 09/29/14 | 063.689150W | 063.558248W | 38.743347N | 38.833047N | 2014-09-29 14:31:47.513 | 2014-09-29 15:02:06.021 |
| 0400\_20140929\_150156\_EX1404L3\_MB | EX1404L3\_XBT036\_140929 | 9.9 | 303 | 09/29/14 | 063.763861W | 063.656047W | 38.789022N | 38.868768N | 2014-09-29 15:01:46.522 | 2014-09-29 15:30:29.528 |
| 0401\_20140930\_002901\_EX1404L3\_MB | EX1404L3\_XBT037\_140930 | 9.1 | 269 | 09/30/14 | 063.767315W | 063.759788W | 38.823428N | 38.866244N | 2014-09-30 00:29:01.665 | 2014-09-30 00:31:15.169 |
| 0402\_20140930\_003105\_EX1404L3\_MB | EX1404L3\_XBT037\_140930 | 7.6 | 356 | 09/30/14 | 063.802532W | 063.740947W | 38.826821N | 38.872574N | 2014-09-30 00:30:56.167 | 2014-09-30 00:41:07.668 |
| 0403\_20140930\_004058\_EX1404L3\_MB | EX1404L3\_XBT037\_140930 | 8.8 | 16 | 09/30/14 | 063.798283W | 063.699798W | 38.851856N | 38.944946N | 2014-09-30 00:40:48.667 | 2014-09-30 01:11:09.175 |
| 0404\_20140930\_011059\_EX1404L3\_MB | EX1404L3\_XBT037\_140930 | 9.1 | 343 | 09/30/14 | 063.782514W | 063.695326W | 38.920422N | 38.962445N | 2014-09-30 01:10:49.677 | 2014-09-30 01:17:39.180 |
| 0405\_20140930\_011739\_EX1404L3\_MB | EX1404L3\_XBT037\_140930 | 8.9 | 327 | 09/30/14 | 063.821170W | 063.702666W | 38.935718N | 39.020474N | 2014-09-30 01:17:30.179 | 2014-09-30 01:47:48.687 |
| 0406\_20140930\_014739\_EX1404L3\_MB | EX1404L3\_XBT037\_140930 | 8.9 | 327 | 09/30/14 | 063.865725W | 063.759673W | 39.003687N | 39.084136N | 2014-09-30 01:47:30.188 | 2014-09-30 02:17:52.195 |
| 0407\_20140930\_021742\_EX1404L3\_MB | EX1404L3\_XBT037\_140930 | 8.9 | 327 | 09/30/14 | 063.910309W | 063.804135W | 39.071292N | 39.148962N | 2014-09-30 02:17:33.196 | 2014-09-30 02:47:48.203 |
| 0408\_20140930\_024738\_EX1404L3\_MB | EX1404L3\_XBT037\_140930 | 8.9 | 327 | 09/30/14 | 063.958658W | 063.853824W | 39.134615N | 39.209188N | 2014-09-30 02:47:29.701 | 2014-09-30 03:17:51.210 |
| 0409\_20140930\_031741\_EX1404L3\_MB | EX1404L3\_XBT037\_140930 | 8.7 | 328 | 09/30/14 | 064.004911W | 063.899321W | 39.202896N | 39.271683N | 2014-09-30 03:17:31.711 | 2014-09-30 03:47:51.216 |
| 0410\_20140930\_034741\_EX1404L3\_MB | EX1404L3\_XBT037\_140930 | 8.6 | 328 | 09/30/14 | 064.020604W | 063.945257W | 39.267046N | 39.294314N | 2014-09-30 03:47:31.718 | 2014-09-30 03:57:43.718 |
| 0411\_20140930\_035733\_EX1404L3\_MB | EX1404L3\_XBT037\_140930 | 8.9 | 322 | 09/30/14 | 064.057055W | 063.960187W | 39.282066N | 39.334083N | 2014-09-30 03:57:24.219 | 2014-09-30 04:17:53.223 |
| 0412\_20140930\_041743\_EX1404L3\_MB | EX1404L3\_XBT037\_140930 | 8.6 | 330 | 09/30/14 | 064.071957W | 063.990954W | 39.328396N | 39.358508N | 2014-09-30 04:17:33.726 | 2014-09-30 04:28:39.729 |
| 0413\_20140930\_042830\_EX1404L3\_MB | EX1404L3\_XBT038\_140930 | 8.6 | 328 | 09/30/14 | 064.114742W | 064.004416W | 39.350193N | 39.421392N | 2014-09-30 04:28:20.229 | 2014-09-30 04:58:15.237 |
| 0414\_20140930\_045815\_EX1404L3\_MB | EX1404L3\_XBT038\_140930 | 8.7 | 328 | 09/30/14 | 064.160452W | 064.050162W | 39.411320N | 39.486710N | 2014-09-30 04:58:05.737 | 2014-09-30 05:28:18.742 |
| 0415\_20140930\_052809\_EX1404L3\_MB | EX1404L3\_XBT038\_140930 | 9.1 | 328 | 09/30/14 | 064.205898W | 064.095768W | 39.473560N | 39.556043N | 2014-09-30 05:27:59.744 | 2014-09-30 05:58:23.749 |
| 0416\_20140930\_055813\_EX1404L3\_MB | EX1404L3\_XBT038\_140930 | 8.8 | 328 | 09/30/14 | 064.244365W | 064.143255W | 39.537773N | 39.607335N | 2014-09-30 05:58:04.750 | 2014-09-30 06:22:52.759 |
| 0417\_20140930\_062243\_EX1404L3\_MB | EX1404L3\_XBT038\_140930 | 6.8 | 357 | 09/30/14 | 064.246744W | 064.174838W | 39.582527N | 39.631830N | 2014-09-30 06:22:34.258 | 2014-09-30 06:33:15.759 |
| 0418\_20140930\_063306\_EX1404L3\_MB | EX1404L3\_XBT038\_140930 | 7.8 | 220 | 09/30/14 | 064.268656W | 064.182527W | 39.562844N | 39.611863N | 2014-09-30 06:32:56.259 | 2014-09-30 06:48:54.763 |
| 0419\_20140930\_064855\_EX1404L3\_MB | EX1404L3\_XBT039\_140930 | 8.8 | 221 | 09/30/14 | 064.335177W | 064.215704W | 39.510622N | 39.587304N | 2014-09-30 06:48:45.264 | 2014-09-30 07:18:56.771 |
| 0420\_20140930\_071847\_EX1404L3\_MB | EX1404L3\_XBT039\_140930 | 9.5 | 221 | 09/30/14 | 064.402816W | 064.280452W | 39.453579N | 39.535635N | 2014-09-30 07:18:37.769 | 2014-09-30 07:48:57.278 |
| 0421\_20140930\_074847\_EX1404L3\_MB | EX1404L3\_XBT039\_140930 | 9.6 | 221 | 09/30/14 | 064.478555W | 064.351576W | 39.398495N | 39.478187N | 2014-09-30 07:48:38.280 | 2014-09-30 08:19:00.785 |
| 0422\_20140930\_081851\_EX1404L3\_MB | EX1404L3\_XBT039\_140930 | 9.4 | 221 | 09/30/14 | 064.547576W | 064.422179W | 39.342823N | 39.419859N | 2014-09-30 08:18:41.785 | 2014-09-30 08:49:00.794 |
| 0423\_20140930\_084851\_EX1404L3\_MB | EX1404L3\_XBT039\_140930 | 8.8 | 209 | 09/30/14 | 064.603951W | 064.492212W | 39.283877N | 39.361889N | 2014-09-30 08:48:41.792 | 2014-09-30 09:18:58.303 |
| 0424\_20140930\_091848\_EX1404L3\_MB | EX1404L3\_XBT039\_140930 | 8.9 | 209 | 09/30/14 | 064.606398W | 064.527975W | 39.280591N | 39.296402N | 2014-09-30 09:18:38.803 | 2014-09-30 09:20:42.802 |
| 0425\_20140930\_092032\_EX1404L3\_MB | EX1404L3\_XBT039\_140930 | 10.3 | 280 | 09/30/14 | 064.628264W | 064.535952W | 39.253331N | 39.320055N | 2014-09-30 09:20:23.304 | 2014-09-30 09:32:14.804 |
| 0426\_20141001\_001858\_EX1404L3\_MB | EX1404L3\_XBT040\_140930 | 11.6 | 297 | 10/01/14 | 065.030611W | 064.892472W | 38.907249N | 38.994235N | 2014-10-01 00:18:58.530 | 2014-10-01 00:49:09.040 |
| 0427\_20141001\_004859\_EX1404L3\_MB | EX1404L3\_XBT040\_140930 | 11.6 | 297 | 10/01/14 | 065.137131W | 065.001627W | 38.954710N | 39.040275N | 2014-10-01 00:48:50.038 | 2014-10-01 01:19:14.548 |
| 0428\_20141001\_011905\_EX1404L3\_MB | EX1404L3\_XBT040\_140930 | 11.7 | 297 | 10/01/14 | 065.246129W | 065.109074W | 39.004922N | 39.089313N | 2014-10-01 01:18:55.546 | 2014-10-01 01:49:10.052 |
| 0429\_20141001\_014900\_EX1404L3\_MB | EX1404L3\_XBT040\_140930 | 11.7 | 297 | 10/01/14 | 065.355525W | 065.217604W | 39.052458N | 39.137102N | 2014-10-01 01:48:50.557 | 2014-10-01 02:19:10.064 |
| 0430\_20141001\_021900\_EX1404L3\_MB | EX1404L3\_XBT040\_140930 | 11.5 | 297 | 10/01/14 | 065.462444W | 065.327794W | 39.100248N | 39.184395N | 2014-10-01 02:18:51.061 | 2014-10-01 02:49:11.068 |
| 0431\_20141001\_024901\_EX1404L3\_MB | EX1404L3\_XBT040\_140930 | 11.4 | 297 | 10/01/14 | 065.569544W | 065.435645W | 39.146860N | 39.230878N | 2014-10-01 02:48:51.569 | 2014-10-01 03:19:15.577 |
| 0432\_20141001\_031906\_EX1404L3\_MB | EX1404L3\_XBT040\_140930 | 11.0 | 297 | 10/01/14 | 065.672653W | 065.541646W | 39.193470N | 39.275230N | 2014-10-01 03:18:56.575 | 2014-10-01 03:49:08.585 |
| 0433\_20141001\_034859\_EX1404L3\_MB | EX1404L3\_XBT040\_140930 | 10.8 | 297 | 10/01/14 | 065.767606W | 065.644048W | 39.238908N | 39.315998N | 2014-10-01 03:48:50.086 | 2014-10-01 04:17:01.593 |
| 0434\_20141001\_041651\_EX1404L3\_MB | EX1404L3\_XBT041\_141001 | 10.6 | 297 | 10/01/14 | 065.866802W | 065.737421W | 39.280234N | 39.359235N | 2014-10-01 04:16:42.095 | 2014-10-01 04:46:53.600 |
| 0435\_20141001\_044644\_EX1404L3\_MB | EX1404L3\_XBT041\_141001 | 10.4 | 297 | 10/01/14 | 065.968891W | 065.836181W | 39.323545N | 39.405753N | 2014-10-01 04:46:34.599 | 2014-10-01 05:17:01.605 |
| 0436\_20141001\_051651\_EX1404L3\_MB | EX1404L3\_XBT041\_141001 | 10.7 | 298 | 10/01/14 | 066.069684W | 065.930906W | 39.361962N | 39.451035N | 2014-10-01 05:16:42.144 | 2014-10-01 05:46:56.146 |
| 0437\_20141001\_054646\_EX1404L3\_MB | EX1404L3\_XBT041\_141001 | 10.6 | 297 | 10/01/14 | 066.168197W | 066.027586W | 39.406296N | 39.494947N | 2014-10-01 05:46:36.616 | 2014-10-01 06:17:03.143 |
| 0438\_20141001\_061653\_EX1404L3\_MB | EX1404L3\_XBT041\_141001 | 10.4 | 298 | 10/01/14 | 066.263819W | 066.126886W | 39.450150N | 39.538648N | 2014-10-01 06:16:43.624 | 2014-10-01 06:46:54.145 |
| 0439\_20141001\_064644\_EX1404L3\_MB | EX1404L3\_XBT041\_141001 | 10.4 | 298 | 10/01/14 | 066.324374W | 066.224794W | 39.492368N | 39.558639N | 2014-10-01 06:46:35.145 | 2014-10-01 07:06:16.635 |
| 0440\_20141001\_070607\_EX1404L3\_MB | EX1404L3\_XBT042\_141001 | 10.3 | 298 | 10/01/14 | 066.420142W | 066.295333W | 39.522719N | 39.600594N | 2014-10-01 07:05:57.145 | 2014-10-01 07:35:55.642 |
| 0441\_20141001\_073555\_EX1404L3\_MB | EX1404L3\_XBT042\_141001 | 10.3 | 298 | 10/01/14 | 066.517031W | 066.390803W | 39.564343N | 39.642832N | 2014-10-01 07:35:46.644 | 2014-10-01 08:06:13.649 |
| 0442\_20141001\_080603\_EX1404L3\_MB | EX1404L3\_XBT042\_141001 | 9.8 | 298 | 10/01/14 | 066.608907W | 066.488067W | 39.606387N | 39.683124N | 2014-10-01 08:05:54.151 | 2014-10-01 08:36:08.158 |
| 0443\_20141001\_083558\_EX1404L3\_MB | EX1404L3\_XBT042\_141001 | 10.0 | 298 | 10/01/14 | 066.703262W | 066.580910W | 39.646356N | 39.724256N | 2014-10-01 08:35:49.156 | 2014-10-01 09:06:02.668 |
| 0444\_20141001\_090602\_EX1404L3\_MB | EX1404L3\_XBT042\_141001 | 9.7 | 298 | 10/01/14 | 066.794239W | 066.675702W | 39.687253N | 39.763898N | 2014-10-01 09:05:53.666 | 2014-10-01 09:36:05.174 |
| 0445\_20141001\_093555\_EX1404L3\_MB | EX1404L3\_XBT042\_141001 | 9.6 | 298 | 10/01/14 | 066.884776W | 066.767399W | 39.726653N | 39.803266N | 2014-10-01 09:35:46.175 | 2014-10-01 10:06:09.678 |
| 0446\_20141001\_100559\_EX1404L3\_MB | EX1404L3\_XBT042\_141001 | 9.7 | 298 | 10/01/14 | 066.907238W | 066.858127W | 39.766034N | 39.813087N | 2014-10-01 10:05:50.679 | 2014-10-01 10:13:19.680 |
| 0447\_20141001\_201823\_EX1404L3\_MB | EX1404L3\_XBT043\_141001 | 8.4 | 317 | 10/01/14 | 066.948139W | 066.862869W | 39.823212N | 39.882569N | 2014-10-01 20:18:23.837 | 2014-10-01 20:38:25.838 |
| 0448\_20141001\_203816\_EX1404L3\_MB | EX1404L3\_XBT043\_141001 | 8.4 | 6 | 10/01/14 | 066.959572W | 066.865368W | 39.870460N | 39.924727N | 2014-10-01 20:38:07.334 | 2014-10-01 20:56:53.845 |
| 0449\_20141001\_205644\_EX1404L3\_MB | EX1404L3\_XBT043\_141001 | 8.6 | 288 | 10/01/14 | 067.011347W | 066.881040W | 39.885284N | 39.970132N | 2014-10-01 20:56:34.843 | 2014-10-01 21:26:50.349 |
| 0450\_20141001\_212640\_EX1404L3\_MB | EX1404L3\_XBT043\_141001 | 8.3 | 288 | 10/01/14 | 067.094470W | 066.985425W | 39.908011N | 39.993384N | 2014-10-01 21:26:30.852 | 2014-10-01 21:56:53.859 |
| 0451\_20141001\_215644\_EX1404L3\_MB | EX1404L3\_XBT043\_141001 | 8.0 | 288 | 10/01/14 | 067.103493W | 067.075216W | 39.932416N | 39.993725N | 2014-10-01 21:56:34.861 | 2014-10-01 22:00:03.361 |
| 0452\_20141001\_215953\_EX1404L3\_MB | EX1404L3\_XBT044\_141001 | 8.7 | 288 | 10/01/14 | 067.194307W | 067.079593W | 39.936032N | 40.015883N | 2014-10-01 21:59:44.361 | 2014-10-01 22:30:00.369 |
| 0453\_20141001\_222951\_EX1404L3\_MB | EX1404L3\_XBT044\_141001 | 8.9 | 288 | 10/01/14 | 067.282502W | 067.167781W | 39.958404N | 40.038149N | 2014-10-01 22:29:41.367 | 2014-10-01 22:59:59.876 |
| 0454\_20141001\_225950\_EX1404L3\_MB | EX1404L3\_XBT044\_141001 | 8.8 | 288 | 10/01/14 | 067.372936W | 067.259840W | 39.986840N | 40.058181N | 2014-10-01 22:59:40.875 | 2014-10-01 23:29:58.383 |
| 0455\_20141001\_232948\_EX1404L3\_MB | EX1404L3\_XBT044\_141001 | 9.1 | 289 | 10/01/14 | 067.466340W | 067.350029W | 40.014702N | 40.082293N | 2014-10-01 23:29:38.886 | 2014-10-01 23:59:59.391 |
| 0456\_20141001\_235949\_EX1404L3\_MB | EX1404L3\_XBT044\_141001 | 8.8 | 289 | 10/01/14 | 067.467397W | 067.442583W | 40.039664N | 40.082634N | 2014-10-01 23:59:39.893 | 2014-10-02 00:00:14.392 |
| 0457\_20141002\_000014\_EX1404L3\_MB | EX1404L3\_XBT044\_141001 | 8.5 | 289 | 10/02/14 | 067.558282W | 067.444327W | 40.039933N | 40.104759N | 2014-10-02 00:00:14.894 | 2014-10-02 00:30:25.400 |
| 0458\_20141002\_003016\_EX1404L3\_MB | EX1404L3\_XBT044\_141001 | 8.8 | 288 | 10/02/14 | 067.647623W | 067.528409W | 40.062722N | 40.132199N | 2014-10-02 00:30:06.397 | 2014-10-02 01:00:21.407 |
| 0459\_20141002\_010011\_EX1404L3\_MB | EX1404L3\_XBT044\_141001 | 8.7 | 286 | 10/02/14 | 067.734849W | 067.617373W | 40.085520N | 40.150650N | 2014-10-02 01:00:02.405 | 2014-10-02 01:30:23.917 |
| 0460\_20141002\_013014\_EX1404L3\_MB | EX1404L3\_XBT044\_141001 | 8.6 | 305 | 10/02/14 | 067.817829W | 067.709323W | 40.110209N | 40.193533N | 2014-10-02 01:30:05.411 | 2014-10-02 02:00:22.924 |
| 0461\_20141002\_020013\_EX1404L3\_MB | EX1404L3\_XBT044\_141001 | 9.0 | 302 | 10/02/14 | 067.899535W | 067.776933W | 40.150937N | 40.237138N | 2014-10-02 02:00:03.919 | 2014-10-02 02:30:26.426 |
| 0462\_20141002\_023016\_EX1404L3\_MB | EX1404L3\_XBT044\_141001 | 9.1 | 302 | 10/02/14 | 067.977280W | 067.856532W | 40.192691N | 40.268025N | 2014-10-02 02:30:07.428 | 2014-10-02 03:00:21.938 |
| 0463\_20141002\_030012\_EX1404L3\_MB | EX1404L3\_XBT044\_141001 | 9.0 | 302 | 10/02/14 | 068.012625W | 067.949679W | 40.238871N | 40.280562N | 2014-10-02 03:00:03.436 | 2014-10-02 03:16:13.939 |
| 0464\_20141002\_031604\_EX1404L3\_MB | EX1404L3\_XBT044\_141001 | 7.9 | 341 | 10/02/14 | 068.016671W | 067.998780W | 40.270559N | 40.280453N | 2014-10-02 03:15:54.441 | 2014-10-02 03:18:15.442 |
| 0465\_20141002\_031806\_EX1404L3\_MB | EX1404L3\_XBT044\_141001 | 7.4 | 355 | 10/02/14 | 068.017424W | 067.999466W | 40.279150N | 40.302374N | 2014-10-02 03:17:56.435 | 2014-10-02 03:29:26.942 |
| 0466\_20141002\_032917\_EX1404L3\_MB | EX1404L3\_XBT044\_141001 | 6.7 | 65 | 10/02/14 | 068.015698W | 067.997417W | 40.300722N | 40.311998N | 2014-10-02 03:29:08.440 | 2014-10-02 03:37:15.947 |
| 0467\_20141002\_033707\_EX1404L3\_MB | EX1404L3\_XBT044\_141001 | 8.4 | 178 | 10/02/14 | 068.010887W | 067.993320W | 40.278476N | 40.306281N | 2014-10-02 03:36:56.946 | 2014-10-02 03:48:17.448 |
| 0468\_20141002\_034808\_EX1404L3\_MB | EX1404L3\_XBT044\_141001 | 6.1 | 52 | 10/02/14 | 068.009445W | 067.982837W | 40.271169N | 40.286198N | 2014-10-02 03:47:58.448 | 2014-10-02 03:57:17.947 |
| 0469\_20141002\_035708\_EX1404L3\_MB | EX1404L3\_XBT044\_141001 | 7.1 | 356 | 10/02/14 | 068.000348W | 067.983134W | 40.282958N | 40.298059N | 2014-10-02 03:56:58.945 | 2014-10-02 04:03:45.951 |
| 0470\_20141002\_040336\_EX1404L3\_MB | EX1404L3\_XBT044\_141001 | 6.3 | 78 | 10/02/14 | 067.996225W | 067.967776W | 40.292612N | 40.305517N | 2014-10-02 04:03:27.449 | 2014-10-02 04:14:51.949 |
| 0471\_20141002\_041442\_EX1404L3\_MB | EX1404L3\_XBT044\_141001 | 5.9 | 55 | 10/02/14 | 067.976095W | 067.916071W | 40.296038N | 40.330610N | 2014-10-02 04:14:32.452 | 2014-10-02 04:44:51.457 |
| 0472\_20141002\_044442\_EX1404L3\_MB | EX1404L3\_XBT044\_141001 | 5.5 | 51 | 10/02/14 | 067.921882W | 067.894411W | 40.324240N | 40.344038N | 2014-10-02 04:44:32.459 | 2014-10-02 04:59:37.964 |
| 0473\_20141002\_045928\_EX1404L3\_MB | EX1404L3\_XBT044\_141001 | 5.4 | 58 | 10/02/14 | 067.896447W | 067.864942W | 40.338432N | 40.360238N | 2014-10-02 04:59:18.965 | 2014-10-02 05:17:17.968 |
| 0474\_20141002\_053212\_EX1404L3\_MB | EX1404L3\_XBT044\_141001 | 11.1 | 267 | 10/02/14 | 068.025256W | 067.903719W | 40.356242N | 40.363822N | 2014-10-02 05:32:12.472 | 2014-10-02 06:02:20.982 |
| 0475\_20141002\_060212\_EX1404L3\_MB | EX1404L3\_XBT044\_141001 | 11.5 | 269 | 10/02/14 | 068.149362W | 068.024986W | 40.346760N | 40.365258N | 2014-10-02 06:02:01.980 | 2014-10-02 06:32:23.486 |
| 0476\_20141002\_063213\_EX1404L3\_MB | EX1404L3\_XBT044\_141001 | 11.2 | 267 | 10/02/14 | 068.271109W | 068.149016W | 40.348204N | 40.364584N | 2014-10-02 06:32:03.987 | 2014-10-02 07:02:21.496 |
| 0477\_20141002\_070212\_EX1404L3\_MB | EX1404L3\_XBT044\_141001 | 10.9 | 277 | 10/02/14 | 068.389526W | 068.270937W | 40.349425N | 40.366877N | 2014-10-02 07:02:02.496 | 2014-10-02 07:32:22.001 |
| 0478\_20141002\_073212\_EX1404L3\_MB | EX1404L3\_XBT044\_141001 | 10.9 | 266 | 10/02/14 | 068.507824W | 068.388771W | 40.356870N | 40.367204N | 2014-10-02 07:32:02.500 | 2014-10-02 08:02:12.010 |
| 0479\_20141002\_080212\_EX1404L3\_MB | EX1404L3\_XBT044\_141001 | 10.8 | 266 | 10/02/14 | 068.625554W | 068.507432W | 40.351086N | 40.361567N | 2014-10-02 08:02:03.011 | 2014-10-02 08:32:21.018 |
| 0480\_20141002\_083212\_EX1404L3\_MB | EX1404L3\_XBT044\_141001 | 10.5 | 267 | 10/02/14 | 068.740043W | 068.625096W | 40.347506N | 40.355178N | 2014-10-02 08:32:02.018 | 2014-10-02 09:02:21.519 |
| 0481\_20141002\_090212\_EX1404L3\_MB | EX1404L3\_XBT044\_141001 | 10.2 | 269 | 10/02/14 | 068.851114W | 068.739886W | 40.346729N | 40.351495N | 2014-10-02 09:02:02.524 | 2014-10-02 09:32:21.530 |
| 0482\_20141002\_093212\_EX1404L3\_MB | EX1404L3\_XBT044\_141001 | 10.1 | 269 | 10/02/14 | 068.961389W | 068.850898W | 40.346007N | 40.350941N | 2014-10-02 09:32:02.030 | 2014-10-02 10:02:22.036 |
| 0483\_20141002\_100212\_EX1404L3\_MB | EX1404L3\_XBT044\_141001 | 10.1 | 269 | 10/02/14 | 069.071755W | 068.961248W | 40.345076N | 40.350091N | 2014-10-02 10:02:02.539 | 2014-10-02 10:32:22.043 |
| 0484\_20141002\_103212\_EX1404L3\_MB | EX1404L3\_XBT044\_141001 | 10.5 | 270 | 10/02/14 | 069.133055W | 069.071613W | 40.344929N | 40.349372N | 2014-10-02 10:32:02.546 | 2014-10-02 10:48:27.051 |
| 0485\_20141002\_104817\_EX1404L3\_MB | EX1404L3\_XBT045\_141002 | 10.6 | 269 | 10/02/14 | 069.248715W | 069.132974W | 40.343852N | 40.349045N | 2014-10-02 10:48:08.546 | 2014-10-02 11:18:17.555 |
| 0486\_20141002\_111817\_EX1404L3\_MB | EX1404L3\_XBT045\_141002 | 10.4 | 270 | 10/02/14 | 069.361879W | 069.248386W | 40.342949N | 40.347786N | 2014-10-02 11:18:08.056 | 2014-10-02 11:48:27.062 |
| 0487\_20141002\_114817\_EX1404L3\_MB | EX1404L3\_XBT045\_141002 | 10.7 | 270 | 10/02/14 | 069.478291W | 069.361745W | 40.341923N | 40.346563N | 2014-10-02 11:48:07.564 | 2014-10-02 12:18:27.068 |
| 0488\_20141002\_121817\_EX1404L3\_MB | EX1404L3\_XBT045\_141002 | 10.7 | 270 | 10/02/14 | 069.594920W | 069.478011W | 40.340906N | 40.345318N | 2014-10-02 12:18:08.071 | 2014-10-02 12:48:27.574 |
| 0489\_20141002\_124817\_EX1404L3\_MB | EX1404L3\_XBT045\_141002 | 10.8 | 270 | 10/02/14 | 069.712073W | 069.594579W | 40.339618N | 40.344323N | 2014-10-02 12:48:08.574 | 2014-10-02 13:18:27.085 |
| 0490\_20141002\_131817\_EX1404L3\_MB | EX1404L3\_XBT045\_141002 | 10.9 | 270 | 10/02/14 | 069.830303W | 069.711806W | 40.338434N | 40.343104N | 2014-10-02 13:18:07.582 | 2014-10-02 13:48:27.091 |
| 0491\_20141002\_134817\_EX1404L3\_MB | EX1404L3\_XBT045\_141002 | 10.9 | 270 | 10/02/14 | 069.949308W | 069.830036W | 40.337217N | 40.342194N | 2014-10-02 13:48:08.091 | 2014-10-02 14:18:26.597 |
| 0492\_20141002\_141817\_EX1404L3\_MB | EX1404L3\_XBT045\_141002 | 11.0 | 270 | 10/02/14 | 070.068705W | 069.949066W | 40.335917N | 40.341059N | 2014-10-02 14:18:07.595 | 2014-10-02 14:48:27.106 |
| 0493\_20141002\_144817\_EX1404L3\_MB | EX1404L3\_XBT045\_141002 | 10.9 | 270 | 10/02/14 | 070.187575W | 070.068553W | 40.334788N | 40.339895N | 2014-10-02 14:48:08.106 | 2014-10-02 15:18:27.612 |
| 0494\_20141002\_151817\_EX1404L3\_MB | EX1404L3\_XBT045\_141002 | 11.1 | 270 | 10/02/14 | 070.308133W | 070.187478W | 40.333494N | 40.338742N | 2014-10-02 15:18:08.614 | 2014-10-02 15:48:27.617 |
| 0495\_20141002\_154817\_EX1404L3\_MB | EX1404L3\_XBT045\_141002 | 11.1 | 270 | 10/02/14 | 070.429050W | 070.307905W | 40.332190N | 40.337573N | 2014-10-02 15:48:08.617 | 2014-10-02 16:18:27.625 |
| 0496\_20141002\_161818\_EX1404L3\_MB | EX1404L3\_XBT045\_141002 | 11.0 | 270 | 10/02/14 | 070.549343W | 070.428795W | 40.331024N | 40.336603N | 2014-10-02 16:18:08.148 | 2014-10-02 16:48:27.631 |
| 0497\_20141002\_164817\_EX1404L3\_MB | EX1404L3\_XBT045\_141002 | 10.7 | 272 | 10/02/14 | 070.574362W | 070.549142W | 40.330697N | 40.335474N | 2014-10-02 16:48:08.144 | 2014-10-02 16:54:43.145 |
| 0498\_20141002\_165433\_EX1404L3\_MB | EX1404L3\_XBT045\_141002 | 7.0 | 8.7 | 10/02/14 | 070.579617W | 070.569508W | 40.331259N | 40.342486N | 2014-10-02 16:54:24.146 | 2014-10-02 17:00:08.637 |
| 0499\_20141003\_233735\_EX1404L3\_MB | EX1404L3\_XBT046\_141003 | 9.1 | 207 | 10/03/14 | 070.821040W | 070.773827W | 40.898173N | 40.967491N | 2014-10-03 23:37:36.046 | 2014-10-04 00:07:35.549 |
| 0500\_20141004\_000735\_EX1404L3\_MB | EX1404L3\_XBT046\_141003 | 9.1 | 207 | 10/04/14 | 070.865379W | 070.818232W | 40.829889N | 40.899225N | 2014-10-04 00:07:36.050 | 2014-10-04 00:37:45.554 |
| 0501\_20141004\_003736\_EX1404L3\_MB | EX1404L3\_XBT046\_141003 | 9.2 | 211 | 10/04/14 | 070.914683W | 070.862386W | 40.762742N | 40.831026N | 2014-10-04 00:37:26.056 | 2014-10-04 01:07:45.564 |
| 0502\_20141004\_010736\_EX1404L3\_MB | EX1404L3\_XBT046\_141003 | 9.5 | 225 | 10/04/14 | 070.986442W | 070.911800W | 40.705601N | 40.764301N | 2014-10-04 01:07:26.562 | 2014-10-04 01:37:45.571 |
| 0503\_20141004\_013736\_EX1404L3\_MB | EX1404L3\_XBT046\_141003 | 9.4 | 219 | 10/04/14 | 071.048161W | 070.983880W | 40.644815N | 40.707604N | 2014-10-04 01:37:27.066 | 2014-10-04 02:07:45.575 |
| 0504\_20141004\_020736\_EX1404L3\_MB | EX1404L3\_XBT046\_141003 | 9.3 | 204 | 10/04/14 | 071.087585W | 071.044398W | 40.573772N | 40.645877N | 2014-10-04 02:07:26.574 | 2014-10-04 02:37:46.084 |
| 0505\_20141004\_023736\_EX1404L3\_MB | EX1404L3\_XBT046\_141003 | 9.7 | 205 | 10/04/14 | 071.130458W | 071.083626W | 40.499698N | 40.574918N | 2014-10-04 02:37:27.081 | 2014-10-04 03:07:46.089 |
| 0506\_20141004\_030736\_EX1404L3\_MB | EX1404L3\_XBT046\_141003 | 9.6 | 205 | 10/04/14 | 071.173287W | 071.126215W | 40.426652N | 40.500877N | 2014-10-04 03:07:27.089 | 2014-10-04 03:37:46.094 |
| 0507\_20141004\_033736\_EX1404L3\_MB | EX1404L3\_XBT046\_141003 | 9.4 | 205 | 10/04/14 | 071.214404W | 071.168609W | 40.354613N | 40.427675N | 2014-10-04 03:37:26.597 | 2014-10-04 04:07:45.601 |
| 0508\_20141004\_040736\_EX1404L3\_MB | EX1404L3\_XBT046\_141003 | 9.4 | 206 | 10/04/14 | 071.246813W | 071.209449W | 40.300980N | 40.355883N | 2014-10-04 04:07:26.600 | 2014-10-04 04:30:07.606 |
| 0509\_20141004\_043008\_EX1404L3\_MB | EX1404L3\_XBT047\_141004 | 9.1 | 207 | 10/04/14 | 071.288719W | 071.241882W | 40.232392N | 40.302443N | 2014-10-04 04:29:58.606 | 2014-10-04 05:00:17.145 |
| 0510\_20141004\_050007\_EX1404L3\_MB | EX1404L3\_XBT047\_141004 | 9.1 | 207 | 10/04/14 | 071.330601W | 071.283680W | 40.163702N | 40.233909N | 2014-10-04 04:59:58.147 | 2014-10-04 05:30:17.140 |
| 0511\_20141004\_053008\_EX1404L3\_MB | EX1404L3\_XBT047\_141004 | 9.1 | 207 | 10/04/14 | 071.372446W | 071.325652W | 40.095144N | 40.165287N | 2014-10-04 05:29:58.139 | 2014-10-04 06:00:17.628 |
| 0512\_20141004\_060008\_EX1404L3\_MB | EX1404L3\_XBT047\_141004 | 9.0 | 207 | 10/04/14 | 071.414382W | 071.367355W | 40.026903N | 40.096733N | 2014-10-04 05:59:58.626 | 2014-10-04 06:30:17.145 |
| 0513\_20141004\_063008\_EX1404L3\_MB | EX1404L3\_XBT047\_141004 | 9.1 | 206 | 10/04/14 | 071.456222W | 071.408434W | 39.958277N | 40.028572N | 2014-10-04 06:29:58.632 | 2014-10-04 07:00:08.140 |
| 0514\_20141004\_070008\_EX1404L3\_MB | EX1404L3\_XBT047\_141004 | 9.2 | 211 | 10/04/14 | 071.507430W | 071.447701W | 39.889183N | 39.959821N | 2014-10-04 06:59:58.641 | 2014-10-04 07:30:19.148 |
| 0515\_20141004\_073009\_EX1404L3\_MB | EX1404L3\_XBT047\_141004 | 9.2 | 220 | 10/04/14 | 071.572537W | 071.491369W | 39.826874N | 39.897962N | 2014-10-04 07:29:59.648 | 2014-10-04 08:00:09.154 |
| 0516\_20141004\_080009\_EX1404L3\_MB | EX1404L3\_XBT047\_141004 | 8.9 | 253 | 10/04/14 | 071.649612W | 071.549991W | 39.793804N | 39.839302N | 2014-10-04 08:00:00.152 | 2014-10-04 08:30:20.160 |
| 0517\_20141004\_083010\_EX1404L3\_MB | EX1404L3\_XBT047\_141004 | 8.7 | 265 | 10/04/14 | 071.723743W | 071.646719W | 39.793433N | 39.823989N | 2014-10-04 08:30:01.165 | 2014-10-04 08:51:21.165 |
| 0518\_20141004\_085112\_EX1404L3\_MB | EX1404L3\_XBT047\_141004 | 7.7 | 155 | 10/04/14 | 071.726242W | 071.696693W | 39.788432N | 39.809236N | 2014-10-04 08:51:02.164 | 2014-10-04 08:56:26.664 |
| 0519\_20141004\_085627\_EX1404L3\_MB | EX1404L3\_XBT047\_141004 | 8.1 | 146 | 10/04/14 | 071.718241W | 071.637503W | 39.731626N | 39.801739N | 2014-10-04 08:56:17.166 | 2014-10-04 09:26:36.172 |
| 0520\_20141004\_092626\_EX1404L3\_MB | EX1404L3\_XBT047\_141004 | 8.0 | 148 | 10/04/14 | 071.672040W | 071.624364W | 39.718623N | 39.752845N | 2014-10-04 09:26:16.676 | 2014-10-04 09:33:29.673 |
| 0521\_20141004\_093330\_EX1404L3\_MB | EX1404L3\_XBT047\_141004 | 8.4 | 169 | 10/04/14 | 071.666095W | 071.607122W | 39.686696N | 39.738391N | 2014-10-04 09:33:20.674 | 2014-10-04 09:49:39.179 |
| 0522\_20141004\_183423\_EX1404L3\_MB | EX1404L3\_XBT048\_141004 | 9.2 | 281 | 10/04/14 | 071.726295W | 071.640877W | 39.655141N | 39.703495N | 2014-10-04 18:34:23.802 | 2014-10-04 18:59:22.309 |
| 0523\_20141004\_185912\_EX1404L3\_MB | EX1404L3\_XBT048\_141004 | 8.3 | 63 | 10/04/14 | 071.708684W | 071.614590W | 39.671593N | 39.735081N | 2014-10-04 18:59:03.309 | 2014-10-04 19:29:20.817 |
| 0524\_20141004\_192911\_EX1404L3\_MB | EX1404L3\_XBT048\_141004 | 8.4 | 63 | 10/04/14 | 071.630848W | 071.574536W | 39.699285N | 39.749816N | 2014-10-04 19:29:01.816 | 2014-10-04 19:44:19.323 |
| 0525\_20141004\_195345\_EX1404L3\_MB | EX1404L3\_XBT048\_141004 | 7.6 | 242 | 10/04/14 | 071.667660W | 071.568316W | 39.687324N | 39.746837N | 2014-10-04 19:53:45.321 | 2014-10-04 20:23:54.829 |
| 0526\_20141004\_202344\_EX1404L3\_MB | EX1404L3\_XBT048\_141004 | 8.0 | 243 | 10/04/14 | 071.739449W | 071.636910W | 39.661022N | 39.721611N | 2014-10-04 20:23:35.829 | 2014-10-04 20:53:55.339 |
| 0527\_20141004\_205345\_EX1404L3\_MB | EX1404L3\_XBT048\_141004 | 8.1 | 240 | 10/04/14 | 071.815098W | 071.718029W | 39.624038N | 39.681983N | 2014-10-04 20:53:35.836 | 2014-10-04 21:23:54.847 |
| 0528\_20141004\_212345\_EX1404L3\_MB | EX1404L3\_XBT048\_141004 | 7.8 | 239 | 10/04/14 | 071.885644W | 071.789624W | 39.590701N | 39.647594N | 2014-10-04 21:23:36.344 | 2014-10-04 21:53:55.852 |
| 0529\_20141004\_215346\_EX1404L3\_MB | EX1404L3\_XBT048\_141004 | 7.8 | 240 | 10/04/14 | 071.938995W | 071.864050W | 39.565954N | 39.610960N | 2014-10-04 21:53:36.851 | 2014-10-04 22:18:02.358 |
| 0530\_20141004\_221752\_EX1404L3\_MB | EX1404L3\_XBT048\_141004 | 6.1 | 178 | 10/04/14 | 071.944455W | 071.921701W | 39.564879N | 39.581144N | 2014-10-04 22:17:42.859 | 2014-10-04 22:22:52.361 |
| 0531\_20141004\_222242\_EX1404L3\_MB | EX1404L3\_XBT048\_141004 | 7.3 | 139 | 10/04/14 | 071.943117W | 071.865662W | 39.515540N | 39.571495N | 2014-10-04 22:22:32.864 | 2014-10-04 22:52:54.367 |
| 0532\_20141004\_225244\_EX1404L3\_MB | EX1404L3\_XBT048\_141004 | 6.4 | 143 | 10/04/14 | 071.895426W | 071.859428W | 39.510979N | 39.532488N | 2014-10-04 22:52:35.366 | 2014-10-04 22:55:26.370 |
| 0533\_20141004\_225517\_EX1404L3\_MB | EX1404L3\_XBT049\_141004 | 8.0 | 139 | 10/04/14 | 071.893352W | 071.798881W | 39.457135N | 39.529489N | 2014-10-04 22:55:07.866 | 2014-10-04 23:25:14.379 |
| 0534\_20141004\_232514\_EX1404L3\_MB | EX1404L3\_XBT049\_141004 | 8.3 | 139 | 10/04/14 | 071.842336W | 071.732150W | 39.402899N | 39.486847N | 2014-10-04 23:25:05.377 | 2014-10-04 23:55:24.884 |
| 0535\_20141004\_235515\_EX1404L3\_MB | EX1404L3\_XBT049\_141004 | 8.5 | 139 | 10/04/14 | 071.785767W | 071.722403W | 39.392760N | 39.437158N | 2014-10-04 23:55:05.881 | 2014-10-05 00:00:23.383 |
| 0536\_20141005\_000023\_EX1404L3\_MB | EX1404L3\_XBT049\_141004 | 8.6 | 139 | 10/05/14 | 071.776493W | 071.660326W | 39.339732N | 39.430427N | 2014-10-05 00:00:23.883 | 2014-10-05 00:30:35.396 |
| 0537\_20141005\_003026\_EX1404L3\_MB | EX1404L3\_XBT049\_141004 | 8.4 | 139 | 10/05/14 | 071.715695W | 071.600157W | 39.287219N | 39.378678N | 2014-10-05 00:30:16.893 | 2014-10-05 01:00:29.400 |
| 0538\_20141005\_010019\_EX1404L3\_MB | EX1404L3\_XBT049\_141004 | 8.5 | 139 | 10/05/14 | 071.655862W | 071.537081W | 39.233991N | 39.327617N | 2014-10-05 01:00:09.902 | 2014-10-05 01:30:33.906 |
| 0539\_20141005\_013024\_EX1404L3\_MB | EX1404L3\_XBT049\_141004 | 8.6 | 139 | 10/05/14 | 071.594856W | 071.518271W | 39.221351N | 39.275869N | 2014-10-05 01:30:14.408 | 2014-10-05 01:38:16.411 |
| 0540\_20141005\_013807\_EX1404L3\_MB | EX1404L3\_XBT049\_141004 | 8.0 | 98 | 10/05/14 | 071.579603W | 071.509383W | 39.209564N | 39.268074N | 2014-10-05 01:37:57.409 | 2014-10-05 01:43:35.907 |
| 0541\_20141005\_014326\_EX1404L3\_MB | EX1404L3\_XBT049\_141004 | 8.0 | 48 | 10/05/14 | 071.566492W | 071.444935W | 39.214796N | 39.302929N | 2014-10-05 01:43:16.910 | 2014-10-05 02:13:37.414 |
| 0542\_20141005\_021327\_EX1404L3\_MB | EX1404L3\_XBT049\_141004 | 7.6 | 35 | 10/05/14 | 071.506427W | 071.424672W | 39.259718N | 39.318221N | 2014-10-05 02:13:17.915 | 2014-10-05 02:24:26.420 |
| 0543\_20141005\_022417\_EX1404L3\_MB | EX1404L3\_XBT049\_141004 | 8.2 | 311 | 10/05/14 | 071.547487W | 071.430473W | 39.273369N | 39.365731N | 2014-10-05 02:24:07.420 | 2014-10-05 02:54:27.429 |
| 0544\_20141005\_025417\_EX1404L3\_MB | EX1404L3\_XBT049\_141004 | 8.2 | 311 | 10/05/14 | 071.616072W | 071.495296W | 39.319964N | 39.407885N | 2014-10-05 02:54:07.928 | 2014-10-05 03:24:32.438 |
| 0545\_20141005\_032423\_EX1404L3\_MB | EX1404L3\_XBT049\_141004 | 7.8 | 311 | 10/05/14 | 071.680296W | 071.562435W | 39.365038N | 39.448604N | 2014-10-05 03:24:13.434 | 2014-10-05 03:54:30.944 |
| 0546\_20141005\_035421\_EX1404L3\_MB | EX1404L3\_XBT049\_141004 | 7.5 | 311 | 10/05/14 | 071.741907W | 071.627938W | 39.407006N | 39.486257N | 2014-10-05 03:54:11.943 | 2014-10-05 04:24:32.452 |
| 0547\_20141005\_042422\_EX1404L3\_MB | EX1404L3\_XBT049\_141004 | 7.4 | 311 | 10/05/14 | 071.801732W | 071.694219W | 39.447929N | 39.522806N | 2014-10-05 04:24:13.451 | 2014-10-05 04:54:31.456 |
| 0548\_20141005\_045421\_EX1404L3\_MB | EX1404L3\_XBT049\_141004 | 7.0 | 312 | 10/05/14 | 071.812941W | 071.758217W | 39.490904N | 39.529703N | 2014-10-05 04:54:12.459 | 2014-10-05 05:01:07.964 |
| 0549\_20141005\_050058\_EX1404L3\_MB | EX1404L3\_XBT050\_141005 | 6.7 | 312 | 10/05/14 | 071.828044W | 071.773539W | 39.500095N | 39.544717N | 2014-10-05 05:00:48.960 | 2014-10-05 05:10:11.462 |
| 0550\_20141005\_051001\_EX1404L3\_MB | EX1404L3\_XBT050\_141005 | 7.0 | 10 | 10/05/14 | 071.835178W | 071.781293W | 39.511608N | 39.544627N | 2014-10-05 05:09:52.461 | 2014-10-05 05:14:30.460 |
| 0551\_20141005\_051420\_EX1404L3\_MB | EX1404L3\_XBT050\_141005 | 8.0 | 30 | 10/05/14 | 071.830475W | 071.743967W | 39.527597N | 39.601534N | 2014-10-05 05:14:10.964 | 2014-10-05 05:44:29.467 |
| 0552\_20141005\_054419\_EX1404L3\_MB | EX1404L3\_XBT050\_141005 | 8.1 | 30 | 10/05/14 | 071.789594W | 071.706502W | 39.585989N | 39.658891N | 2014-10-05 05:44:09.968 | 2014-10-05 06:14:29.979 |
| 0553\_20141005\_061420\_EX1404L3\_MB | EX1404L3\_XBT050\_141005 | 8.1 | 31 | 10/05/14 | 071.743454W | 071.685488W | 39.648021N | 39.693062N | 2014-10-05 06:14:11.475 | 2014-10-05 06:30:36.981 |
| 0554\_20141005\_063027\_EX1404L3\_MB | EX1404L3\_XBT050\_141005 | 5.2 | 141 | 10/05/14 | 071.721142W | 071.686855W | 39.669409N | 39.697320N | 2014-10-05 06:30:17.480 | 2014-10-05 06:34:56.981 |
| 0555\_20141005\_063457\_EX1404L3\_MB | EX1404L3\_XBT050\_141005 | 8.5 | 63 | 10/05/14 | 071.718925W | 071.611163W | 39.672077N | 39.729100N | 2014-10-05 06:34:47.480 | 2014-10-05 07:05:05.987 |
| 0556\_20141005\_070456\_EX1404L3\_MB | EX1404L3\_XBT050\_141005 | 8.5 | 61 | 10/05/14 | 071.633451W | 071.547385W | 39.699443N | 39.759329N | 2014-10-05 07:04:46.486 | 2014-10-05 07:29:04.495 |
| 0557\_20141005\_072854\_EX1404L3\_MB | EX1404L3\_XBT050\_141005 | 6.8 | 252 | 10/05/14 | 071.580501W | 071.548045W | 39.732080N | 39.758391N | 2014-10-05 07:28:44.996 | 2014-10-05 07:35:09.999 |
| 0558\_20141005\_073500\_EX1404L3\_MB | EX1404L3\_XBT050\_141005 | 6.3 | 239 | 10/05/14 | 071.625258W | 071.557436W | 39.705483N | 39.756792N | 2014-10-05 07:34:50.999 | 2014-10-05 08:05:10.006 |
| 0559\_20141005\_080500\_EX1404L3\_MB | EX1404L3\_XBT050\_141005 | 5.8 | 245 | 10/05/14 | 071.626393W | 071.619259W | 39.705802N | 39.730237N | 2014-10-05 08:04:51.007 | 2014-10-05 08:06:43.006 |
| 0560\_20141005\_102257\_EX1404L3\_MB | EX1404L3\_XBT050\_141005 | 7.6 | 242 | 10/05/14 | 071.921599W | 071.843822W | 39.672935N | 39.719167N | 2014-10-05 10:22:58.038 | 2014-10-05 10:53:08.048 |
| 0561\_20141005\_105258\_EX1404L3\_MB | EX1404L3\_XBT050\_141005 | 7.8 | 241 | 10/05/14 | 071.991763W | 071.912892W | 39.641332N | 39.685913N | 2014-10-05 10:52:49.048 | 2014-10-05 11:23:06.555 |
| 0562\_20141005\_112257\_EX1404L3\_MB | EX1404L3\_XBT050\_141005 | 7.4 | 257 | 10/05/14 | 072.066707W | 071.986935W | 39.626952N | 39.650803N | 2014-10-05 11:22:47.553 | 2014-10-05 11:53:06.561 |
| 0563\_20141005\_115257\_EX1404L3\_MB | EX1404L3\_XBT050\_141005 | 7.5 | 251 | 10/05/14 | 072.142427W | 072.065560W | 39.604494N | 39.633850N | 2014-10-05 11:52:47.560 | 2014-10-05 12:23:06.570 |
| 0564\_20141005\_122257\_EX1404L3\_MB | EX1404L3\_XBT050\_141005 | 7.7 | 247 | 10/05/14 | 072.217076W | 072.139723W | 39.578363N | 39.611046N | 2014-10-05 12:22:47.569 | 2014-10-05 12:53:07.076 |
| 0565\_20141005\_125257\_EX1404L3\_MB | EX1404L3\_XBT050\_141005 | 7.5 | 249 | 10/05/14 | 072.291211W | 072.215241W | 39.554030N | 39.583242N | 2014-10-05 12:52:48.076 | 2014-10-05 13:23:07.582 |
| 0566\_20141005\_132257\_EX1404L3\_MB | EX1404L3\_XBT050\_141005 | 7.2 | 255 | 10/05/14 | 072.364107W | 072.289769W | 39.532655N | 39.559218N | 2014-10-05 13:22:48.082 | 2014-10-05 13:53:07.089 |
| 0567\_20141005\_135257\_EX1404L3\_MB | EX1404L3\_XBT050\_141005 | 5.5 | 129 | 10/05/14 | 072.374430W | 072.357034W | 39.525793N | 39.543983N | 2014-10-05 13:52:47.591 | 2014-10-05 13:59:33.590 |
| 0568\_20141005\_135923\_EX1404L3\_MB | EX1404L3\_XBT050\_141005 | 8.9 | 109 | 10/05/14 | 072.362203W | 072.334143W | 39.519565N | 39.541456N | 2014-10-05 13:59:14.091 | 2014-10-05 14:06:59.090 |
| 0569\_20141005\_140659\_EX1404L3\_MB | EX1404L3\_XBT051\_141005 | 8.8 | 110 | 10/05/14 | 072.339494W | 072.243178W | 39.498027N | 39.534635N | 2014-10-05 14:06:49.592 | 2014-10-05 14:37:07.599 |
| 0570\_20141005\_143657\_EX1404L3\_MB | EX1404L3\_XBT051\_141005 | 8.3 | 110 | 10/05/14 | 072.247640W | 072.183416W | 39.484536N | 39.511892N | 2014-10-05 14:36:48.102 | 2014-10-05 14:57:51.103 |
| 0571\_20141005\_145741\_EX1404L3\_MB | EX1404L3\_XBT051\_141005 | 7.2 | 221 | 10/05/14 | 072.201144W | 072.177142W | 39.471783N | 39.497470N | 2014-10-05 14:57:31.603 | 2014-10-05 15:04:49.105 |
| 0572\_20141005\_150439\_EX1404L3\_MB | EX1404L3\_XBT051\_141005 | 7.0 | 291 | 10/05/14 | 072.270434W | 072.192679W | 39.474038N | 39.511291N | 2014-10-05 15:04:30.105 | 2014-10-05 15:34:49.612 |
| 0573\_20141005\_153439\_EX1404L3\_MB | EX1404L3\_XBT051\_141005 | 7.3 | 291 | 10/05/14 | 072.345413W | 072.262841W | 39.490344N | 39.529353N | 2014-10-05 15:34:30.611 | 2014-10-05 16:02:56.618 |
| 0574\_20141005\_160246\_EX1404L3\_MB | EX1404L3\_XBT051\_141005 | 8.6 | 112 | 10/05/14 | 072.335246W | 072.238337W | 39.484474N | 39.527127N | 2014-10-05 16:02:37.143 | 2014-10-05 16:32:56.143 |
| 0575\_20141005\_163246\_EX1404L3\_MB | EX1404L3\_XBT051\_141005 | 8.7 | 113 | 10/05/14 | 072.244742W | 072.191856W | 39.469818N | 39.500777N | 2014-10-05 16:32:36.624 | 2014-10-05 16:48:01.144 |
| 0576\_20141005\_164751\_EX1404L3\_MB | EX1404L3\_XBT051\_141005 | 7.3 | 233 | 10/05/14 | 072.208879W | 072.180546W | 39.464348N | 39.490460N | 2014-10-05 16:47:42.144 | 2014-10-05 16:53:17.146 |
| 0577\_20141005\_165308\_EX1404L3\_MB | EX1404L3\_XBT051\_141005 | 7.8 | 291 | 10/05/14 | 072.287597W | 072.201167W | 39.465455N | 39.508304N | 2014-10-05 16:52:58.629 | 2014-10-05 17:23:17.140 |
| 0578\_20141005\_172307\_EX1404L3\_MB | EX1404L3\_XBT051\_141005 | 7.8 | 292 | 10/05/14 | 072.338414W | 072.277774W | 39.485602N | 39.522758N | 2014-10-05 17:22:58.141 | 2014-10-05 17:42:52.638 |
| 0579\_20141005\_174242\_EX1404L3\_MB | EX1404L3\_XBT051\_141005 | 8.0 | 218 | 10/05/14 | 072.355379W | 072.322357W | 39.499477N | 39.525268N | 2014-10-05 17:42:33.146 | 2014-10-05 17:46:52.641 |
| 0580\_20141005\_174652\_EX1404L3\_MB | EX1404L3\_XBT051\_141005 | 8.2 | 114 | 10/05/14 | 072.343938W | 072.271855W | 39.477567N | 39.520651N | 2014-10-05 17:46:43.639 | 2014-10-05 18:09:15.646 |
| 0581\_20141005\_180905\_EX1404L3\_MB | EX1404L3\_XBT052\_141005 | 8.4 | 112 | 10/05/14 | 072.282962W | 072.201316W | 39.450078N | 39.502336N | 2014-10-05 18:08:56.147 | 2014-10-05 18:34:46.651 |
| 0582\_20141005\_183437\_EX1404L3\_MB | EX1404L3\_XBT052\_141005 | 7.9 | 273 | 10/05/14 | 072.263413W | 072.175434W | 39.437026N | 39.484926N | 2014-10-05 18:34:27.653 | 2014-10-05 19:04:49.660 |
| 0583\_20141005\_190439\_EX1404L3\_MB | EX1404L3\_XBT052\_141005 | 8.3 | 291 | 10/05/14 | 072.338294W | 072.252915W | 39.461497N | 39.502869N | 2014-10-05 19:04:30.660 | 2014-10-05 19:32:32.164 |
| 0584\_20141005\_193222\_EX1404L3\_MB | EX1404L3\_XBT052\_141005 | 8.7 | 117 | 10/05/14 | 072.347873W | 072.249890W | 39.454620N | 39.501956N | 2014-10-05 19:32:13.163 | 2014-10-05 20:02:33.673 |
| 0585\_20141005\_200224\_EX1404L3\_MB | EX1404L3\_XBT052\_141005 | 8.5 | 108 | 10/05/14 | 072.260435W | 072.238795W | 39.445394N | 39.479504N | 2014-10-05 20:02:15.172 | 2014-10-05 20:07:35.172 |
| 0586\_20141005\_200725\_EX1404L3\_MB | EX1404L3\_XBT052\_141005 | 8.6 | 95 | 10/05/14 | 072.242375W | 072.226725W | 39.441746N | 39.476119N | 2014-10-05 20:07:15.671 | 2014-10-05 20:12:39.172 |
| 0587\_20141005\_201229\_EX1404L3\_MB | EX1404L3\_XBT052\_141005 | 9.3 | 93 | 10/05/14 | 072.226925W | 072.126676W | 39.435038N | 39.475348N | 2014-10-05 20:12:20.173 | 2014-10-05 20:42:40.178 |
| 0588\_20141005\_204230\_EX1404L3\_MB | EX1404L3\_XBT052\_141005 | 9.5 | 93 | 10/05/14 | 072.127740W | 072.025036W | 39.444225N | 39.468822N | 2014-10-05 20:42:20.679 | 2014-10-05 21:12:38.686 |
| 0589\_20141005\_211229\_EX1404L3\_MB | EX1404L3\_XBT052\_141005 | 9.3 | 93 | 10/05/14 | 072.026088W | 071.924614W | 39.433976N | 39.478255N | 2014-10-05 21:12:19.187 | 2014-10-05 21:42:42.194 |
| 0590\_20141005\_214232\_EX1404L3\_MB | EX1404L3\_XBT052\_141005 | 9.5 | 93 | 10/05/14 | 071.925892W | 071.822176W | 39.427612N | 39.479403N | 2014-10-05 21:42:23.193 | 2014-10-05 22:12:43.700 |
| 0591\_20141005\_221234\_EX1404L3\_MB | EX1404L3\_XBT052\_141005 | 9.4 | 93 | 10/05/14 | 071.824776W | 071.722371W | 39.424390N | 39.482468N | 2014-10-05 22:12:24.200 | 2014-10-05 22:42:32.207 |
| 0592\_20141005\_224232\_EX1404L3\_MB | EX1404L3\_XBT052\_141005 | 9.4 | 92 | 10/05/14 | 071.722522W | 071.620726W | 39.421008N | 39.485183N | 2014-10-05 22:42:23.204 | 2014-10-05 23:12:45.214 |
| 0593\_20141005\_231235\_EX1404L3\_MB | EX1404L3\_XBT052\_141005 | 9.4 | 92 | 10/05/14 | 071.621264W | 071.518625W | 39.420475N | 39.484217N | 2014-10-05 23:12:25.713 | 2014-10-05 23:42:44.721 |
| 0594\_20141005\_234235\_EX1404L3\_MB | EX1404L3\_XBT052\_141005 | 9.1 | 92 | 10/05/14 | 071.521864W | 071.461327W | 39.421252N | 39.483494N | 2014-10-05 23:42:25.223 | 2014-10-06 00:00:04.226 |
| 0595\_20141006\_000004\_EX1404L3\_MB | EX1404L3\_XBT052\_141005 | 9.0 | 92 | 10/06/14 | 071.463589W | 071.416918W | 39.418196N | 39.483673N | 2014-10-06 00:00:04.725 | 2014-10-06 00:14:16.725 |
| 0596\_20141006\_001407\_EX1404L3\_MB | EX1404L3\_XBT053\_141006 | 9.2 | 92 | 10/06/14 | 071.418374W | 071.328434W | 39.417165N | 39.482758N | 2014-10-06 00:13:57.728 | 2014-10-06 00:41:11.230 |
| 0597\_20141006\_004101\_EX1404L3\_MB | EX1404L3\_XBT053\_141006 | 8.8 | 49 | 10/06/14 | 071.354779W | 071.298271W | 39.424385N | 39.476137N | 2014-10-06 00:40:52.231 | 2014-10-06 00:42:43.233 |
| 0598\_20141006\_004233\_EX1404L3\_MB | EX1404L3\_XBT053\_141006 | 9.2 | 47 | 10/06/14 | 071.354693W | 071.227857W | 39.430933N | 39.527434N | 2014-10-06 00:42:24.732 | 2014-10-06 01:12:43.740 |
| 0599\_20141006\_011234\_EX1404L3\_MB | EX1404L3\_XBT053\_141006 | 9.4 | 47 | 10/06/14 | 071.283322W | 071.154570W | 39.485016N | 39.582629N | 2014-10-06 01:12:24.738 | 2014-10-06 01:42:44.248 |
| 0600\_20141006\_014234\_EX1404L3\_MB | EX1404L3\_XBT053\_141006 | 9.4 | 47 | 10/06/14 | 071.210916W | 071.083349W | 39.539029N | 39.637365N | 2014-10-06 01:42:25.744 | 2014-10-06 02:12:45.757 |
| 0601\_20141006\_021236\_EX1404L3\_MB | EX1404L3\_XBT053\_141006 | 9.2 | 47 | 10/06/14 | 071.137154W | 071.064458W | 39.595198N | 39.649971N | 2014-10-06 02:12:26.754 | 2014-10-06 02:19:46.754 |
| 0602\_20141006\_021937\_EX1404L3\_MB | EX1404L3\_XBT053\_141006 | 5.7 | 73 | 10/06/14 | 071.120280W | 071.063650W | 39.598725N | 39.660727N | 2014-10-06 02:19:27.758 | 2014-10-06 02:22:21.756 |
| 0603\_20141006\_022212\_EX1404L3\_MB | EX1404L3\_XBT053\_141006 | 9.3 | 93 | 10/06/14 | 071.090740W | 070.987274W | 39.597138N | 39.660787N | 2014-10-06 02:22:02.755 | 2014-10-06 02:52:25.760 |
| 0604\_20141006\_025216\_EX1404L3\_MB | EX1404L3\_XBT053\_141006 | 9.4 | 92 | 10/06/14 | 070.988914W | 070.886215W | 39.596154N | 39.659567N | 2014-10-06 02:52:06.764 | 2014-10-06 03:22:26.769 |
| 0605\_20141006\_032217\_EX1404L3\_MB | EX1404L3\_XBT053\_141006 | 9.2 | 93 | 10/06/14 | 070.887176W | 070.787722W | 39.593575N | 39.658028N | 2014-10-06 03:22:07.770 | 2014-10-06 03:52:25.278 |
| 0606\_20141006\_035215\_EX1404L3\_MB | EX1404L3\_XBT053\_141006 | 8.5 | 92 | 10/06/14 | 070.788105W | 070.694967W | 39.592434N | 39.657324N | 2014-10-06 03:52:06.277 | 2014-10-06 04:22:26.785 |
| 0607\_20141006\_042217\_EX1404L3\_MB | EX1404L3\_XBT053\_141006 | 8.6 | 92 | 10/06/14 | 070.697936W | 070.602411W | 39.590827N | 39.655395N | 2014-10-06 04:22:07.783 | 2014-10-06 04:52:23.289 |
| 0608\_20141006\_045213\_EX1404L3\_MB | EX1404L3\_XBT053\_141006 | 8.6 | 88 | 10/06/14 | 070.606193W | 070.517272W | 39.590771N | 39.657712N | 2014-10-06 04:52:04.288 | 2014-10-06 05:20:10.794 |
| 0609\_20141006\_052001\_EX1404L3\_MB | EX1404L3\_XBT054\_141006 | 7.6 | 89 | 10/06/14 | 070.519527W | 070.436088W | 39.594058N | 39.659954N | 2014-10-06 05:19:51.799 | 2014-10-06 05:50:02.805 |
| 0610\_20141006\_054953\_EX1404L3\_MB | EX1404L3\_XBT054\_141006 | 7.3 | 90 | 10/06/14 | 070.437803W | 070.356461W | 39.595889N | 39.661664N | 2014-10-06 05:49:43.802 | 2014-10-06 06:20:04.311 |
| 0611\_20141006\_061955\_EX1404L3\_MB | EX1404L3\_XBT054\_141006 | 7.5 | 91 | 10/06/14 | 070.360233W | 070.275393W | 39.597009N | 39.662552N | 2014-10-06 06:19:45.310 | 2014-10-06 06:50:05.316 |
| 0612\_20141006\_064955\_EX1404L3\_MB | EX1404L3\_XBT054\_141006 | 8.5 | 93 | 10/06/14 | 070.278918W | 070.184811W | 39.595669N | 39.661713N | 2014-10-06 06:49:45.818 | 2014-10-06 07:19:49.825 |
| 0613\_20141006\_071950\_EX1404L3\_MB | EX1404L3\_XBT054\_141006 | 8.5 | 93 | 10/06/14 | 070.187590W | 070.093533W | 39.593246N | 39.659498N | 2014-10-06 07:19:40.822 | 2014-10-06 07:50:04.831 |
| 0614\_20141006\_074955\_EX1404L3\_MB | EX1404L3\_XBT054\_141006 | 8.7 | 93 | 10/06/14 | 070.094174W | 070.021482W | 39.590827N | 39.656351N | 2014-10-06 07:49:45.832 | 2014-10-06 08:13:14.837 |
| 0615\_20141006\_081305\_EX1404L3\_MB | EX1404L3\_XBT054\_141006 | 7.7 | 45 | 10/06/14 | 070.046446W | 069.934013W | 39.591062N | 39.689297N | 2014-10-06 08:12:55.338 | 2014-10-06 08:43:15.344 |
| 0616\_20141006\_084305\_EX1404L3\_MB | EX1404L3\_XBT054\_141006 | 7.6 | 36 | 10/06/14 | 069.994789W | 069.913859W | 39.646581N | 39.696120N | 2014-10-06 08:42:56.345 | 2014-10-06 08:49:39.843 |
| 0617\_20141006\_084930\_EX1404L3\_MB | EX1404L3\_XBT054\_141006 | 6.8 | 23 | 10/06/14 | 069.994690W | 069.889363W | 39.673082N | 39.741670N | 2014-10-06 08:49:20.840 | 2014-10-06 09:19:39.849 |
| 0618\_20141006\_091930\_EX1404L3\_MB | EX1404L3\_XBT054\_141006 | 6.8 | 23 | 10/06/14 | 069.963497W | 069.882816W | 39.721084N | 39.753728N | 2014-10-06 09:19:20.854 | 2014-10-06 09:27:43.854 |
| 0619\_20141006\_092734\_EX1404L3\_MB | EX1404L3\_XBT054\_141006 | 5.7 | 350 | 10/06/14 | 069.954372W | 069.885864W | 39.740150N | 39.755160N | 2014-10-06 09:27:24.355 | 2014-10-06 09:29:12.857 |
| 0620\_20141006\_092913\_EX1404L3\_MB | EX1404L3\_XBT054\_141006 | 3.2 | 342 | 10/06/14 | 069.956696W | 069.884801W | 39.739585N | 39.788514N | 2014-10-06 09:29:03.860 | 2014-10-06 09:54:58.863 |
| 0621\_20141006\_215938\_EX1404L3\_MB | EX1404L3\_XBT054\_141006 | 8.4 | 141 | 10/06/14 | 069.968280W | 069.899657W | 39.753051N | 39.795151N | 2014-10-06 21:59:39.035 | 2014-10-06 22:03:58.539 |
| 0622\_20141006\_220349\_EX1404L3\_MB | EX1404L3\_XBT055\_141006 | 8.1 | 148 | 10/06/14 | 069.956903W | 069.896088W | 39.751976N | 39.787545N | 2014-10-06 22:03:40.038 | 2014-10-06 22:05:13.039 |
| 0623\_20141006\_220503\_EX1404L3\_MB | EX1404L3\_XBT055\_141006 | 7.4 | 285 | 10/06/14 | 069.965069W | 069.891602W | 39.735665N | 39.796561N | 2014-10-06 22:04:54.040 | 2014-10-06 22:09:48.540 |
| 0624\_20141006\_220938\_EX1404L3\_MB | EX1404L3\_XBT055\_141006 | 8.3 | 5.6 | 10/06/14 | 069.971133W | 069.892135W | 39.759099N | 39.780677N | 2014-10-06 22:09:29.040 | 2014-10-06 22:14:28.539 |
| 0625\_20141006\_221418\_EX1404L3\_MB | EX1404L3\_XBT055\_141006 | 7.5 | 120 | 10/06/14 | 069.967361W | 069.887626W | 39.751085N | 39.809861N | 2014-10-06 22:14:09.536 | 2014-10-06 22:19:41.543 |
| 0626\_20141006\_221931\_EX1404L3\_MB | EX1404L3\_XBT055\_141006 | 7.7 | 231 | 10/06/14 | 069.960937W | 069.896969W | 39.747001N | 39.797996N | 2014-10-06 22:19:22.042 | 2014-10-06 22:25:20.545 |
| 0627\_20141006\_222511\_EX1404L3\_MB | EX1404L3\_XBT055\_141006 | 7.5 | 0.4 | 10/06/14 | 069.975776W | 069.903819W | 39.741379N | 39.801184N | 2014-10-06 22:25:01.043 | 2014-10-06 22:30:00.545 |
| 0628\_20141006\_222951\_EX1404L3\_MB | EX1404L3\_XBT055\_141006 | 8.3 | 95 | 10/06/14 | 069.942134W | 069.920621W | 39.740689N | 39.805508N | 2014-10-06 22:29:41.543 | 2014-10-06 22:35:06.043 |
| 0629\_20141006\_223456\_EX1404L3\_MB | EX1404L3\_XBT055\_141006 | 9.5 | 326 | 10/06/14 | 069.963276W | 069.885172W | 39.741557N | 39.812957N | 2014-10-06 22:34:47.043 | 2014-10-06 22:45:34.051 |
| 0630\_20141006\_224525\_EX1404L3\_MB | EX1404L3\_XBT055\_141006 | 10.8 | 329 | 10/06/14 | 070.018939W | 069.915054W | 39.771508N | 39.875943N | 2014-10-06 22:45:15.047 | 2014-10-06 23:15:34.056 |
| 0631\_20141006\_231524\_EX1404L3\_MB | EX1404L3\_XBT055\_141006 | 10.7 | 330 | 10/06/14 | 070.068744W | 069.988004W | 39.860967N | 39.948783N | 2014-10-06 23:15:15.053 | 2014-10-06 23:45:22.063 |
| 0632\_20141006\_234522\_EX1404L3\_MB | EX1404L3\_XBT055\_141006 | 10.9 | 330 | 10/07/14 | 070.126859W | 070.055414W | 39.942118N | 40.025292N | 2014-10-06 23:45:22.563 | 2014-10-07 00:15:31.571 |
| 0633\_20141007\_001522\_EX1404L3\_MB | EX1404L3\_XBT055\_141006 | 11.3 | 331 | 10/07/14 | 070.186953W | 070.118145W | 40.021014N | 40.106211N | 2014-10-07 00:15:12.571 | 2014-10-07 00:45:31.577 |
| 0634\_20141007\_004522\_EX1404L3\_MB | EX1404L3\_XBT055\_141006 | 11.1 | 328 | 10/07/14 | 070.250484W | 070.178897W | 40.103484N | 40.184461N | 2014-10-07 00:45:12.577 | 2014-10-07 01:15:22.082 |
| 0635\_20141007\_011522\_EX1404L3\_MB | EX1404L3\_XBT055\_141006 | 11.0 | 330 | 10/07/14 | 070.311691W | 070.245133W | 40.181963N | 40.262803N | 2014-10-07 01:15:12.586 | 2014-10-07 01:45:32.090 |
| 0636\_20141007\_014522\_EX1404L3\_MB | EX1404L3\_XBT055\_141006 | 10.8 | 328 | 10/07/14 | 070.374713W | 070.306820W | 40.260517N | 40.338923N | 2014-10-07 01:45:13.093 | 2014-10-07 02:15:32.097 |
| 0637\_20141007\_021522\_EX1404L3\_MB | EX1404L3\_XBT055\_141006 | 10.8 | 315 | 10/07/14 | 070.458376W | 070.370596W | 40.336403N | 40.401916N | 2014-10-07 02:15:12.601 | 2014-10-07 02:45:31.142 |
| 0638\_20141007\_024521\_EX1404L3\_MB | EX1404L3\_XBT055\_141006 | 10.7 | 316 | 10/07/14 | 070.540835W | 070.455166W | 40.399254N | 40.464937N | 2014-10-07 02:45:12.143 | 2014-10-07 03:15:32.143 |
| 0639\_20141007\_031522\_EX1404L3\_MB | EX1404L3\_XBT055\_141006 | 10.5 | 317 | 10/07/14 | 070.607752W | 070.537712W | 40.462601N | 40.517254N | 2014-10-07 03:15:12.617 | 2014-10-07 03:40:27.619 |

| **EX1404 Leg 3 EM 302 Water Column Data Log** | | | |
| --- | --- | --- | --- |
| **File Name** | **File Size (bytes)** | **Collection Date (Local)** | **Comments** |
| 0000\_20140919\_042340\_EX1404L3\_MB.wcd | 442,031,736 | 9/19/2014 |  |
| 0001\_20140919\_045340\_EX1404L3\_MB.wcd | 477,376,992 | 9/19/2014 |  |
| 0002\_20140919\_052340\_EX1404L3\_MB.wcd | 482,189,498 | 9/19/2014 |  |
| 0003\_20140919\_055340\_EX1404L3\_MB.wcd | 478,854,658 | 9/19/2014 |  |
| 0004\_20140919\_062340\_EX1404L3\_MB.wcd | 488,479,402 | 9/19/2014 |  |
| 0005\_20140919\_065340\_EX1404L3\_MB.wcd | 477,225,270 | 9/19/2014 |  |
| 0006\_20140919\_072340\_EX1404L3\_MB.wcd | 479,727,132 | 9/19/2014 |  |
| 0007\_20140919\_075340\_EX1404L3\_MB.wcd | 485,264,996 | 9/19/2014 |  |
| 0008\_20140919\_082340\_EX1404L3\_MB.wcd | 435,697,132 | 9/19/2014 |  |
| 0009\_20140919\_085342\_EX1404L3\_MB.wcd | 195,290,586 | 9/19/2014 |  |
| 0010\_20140919\_092341\_EX1404L3\_MB.wcd | 132,153,492 | 9/19/2014 |  |
| 0011\_20140919\_095340\_EX1404L3\_MB.wcd | 135,005,686 | 9/19/2014 |  |
| 0012\_20140919\_221903\_EX1404L3\_MB.wcd | 155,202,154 | 9/19/2014 |  |
| 0013\_20140919\_224902\_EX1404L3\_MB.wcd | 161,333,084 | 9/19/2014 |  |
| 0014\_20140919\_231902\_EX1404L3\_MB.wcd | 54,054,640 | 9/19/2014 |  |
| 0015\_20140919\_235856\_EX1404L3\_MB.wcd | 182,404,720 | 9/19/2014 |  |
| 0016\_20140920\_002857\_EX1404L3\_MB.wcd | 200,085,256 | 9/19/2014 |  |
| 0017\_20140920\_005857\_EX1404L3\_MB.wcd | 210,017,900 | 9/19/2014 |  |
| 0018\_20140920\_012857\_EX1404L3\_MB.wcd | 204,000,458 | 9/19/2014 |  |
| 0019\_20140920\_015902\_EX1404L3\_MB.wcd | 205,007,620 | 9/19/2014 |  |
| 0020\_20140920\_022858\_EX1404L3\_MB.wcd | 216,766,750 | 9/19/2014 |  |
| 0021\_20140920\_025856\_EX1404L3\_MB.wcd | 213,966,518 | 9/19/2014 |  |
| 0022\_20140920\_032858\_EX1404L3\_MB.wcd | 214,089,918 | 9/19/2014 |  |
| 0023\_20140920\_035855\_EX1404L3\_MB.wcd | 205,155,558 | 9/20/2014 |  |
| 0024\_20140920\_042857\_EX1404L3\_MB.wcd | 210,267,788 | 9/20/2014 |  |
| 0025\_20140920\_045858\_EX1404L3\_MB.wcd | 203,422,860 | 9/20/2014 |  |
| 0026\_20140920\_052857\_EX1404L3\_MB.wcd | 196,336,062 | 9/20/2014 |  |
| 0027\_20140920\_055855\_EX1404L3\_MB.wcd | 179,020,118 | 9/20/2014 |  |
| 0028\_20140920\_062857\_EX1404L3\_MB.wcd | 164,182,496 | 9/20/2014 |  |
| 0029\_20140920\_065856\_EX1404L3\_MB.wcd | 164,599,438 | 9/20/2014 |  |
| 0030\_20140920\_072857\_EX1404L3\_MB.wcd | 161,228,994 | 9/20/2014 |  |
| 0031\_20140920\_075855\_EX1404L3\_MB.wcd | 159,239,164 | 9/20/2014 |  |
| 0032\_20140920\_082858\_EX1404L3\_MB.wcd | 163,263,688 | 9/20/2014 |  |
| 0033\_20140920\_085857\_EX1404L3\_MB.wcd | 155,400,770 | 9/20/2014 |  |
| 0034\_20140920\_092858\_EX1404L3\_MB.wcd | 127,619,546 | 9/20/2014 |  |
| 0035\_20140920\_211959\_EX1404L3\_MB.wcd | 146,888,794 | 9/20/2014 |  |
| 0036\_20140920\_215001\_EX1404L3\_MB.wcd | 43,337,992 | 9/20/2014 |  |
| 0037\_20140920\_215928\_EX1404L3\_MB.wcd | 123,546,070 | 9/20/2014 |  |
| 0038\_20140920\_222256\_EX1404L3\_MB.wcd | 153,428,584 | 9/20/2014 |  |
| 0039\_20140920\_225255\_EX1404L3\_MB.wcd | 9,584,100 | 9/20/2014 |  |
| 0040\_20140920\_225430\_EX1404L3\_MB.wcd | 181,835,322 | 9/20/2014 |  |
| 0041\_20140920\_232426\_EX1404L3\_MB.wcd | 54,863,020 | 9/20/2014 |  |
| 0042\_20140920\_233353\_EX1404L3\_MB.wcd | 27,976,288 | 9/20/2014 |  |
| 0043\_20140920\_233926\_EX1404L3\_MB.wcd | 113,575,906 | 9/20/2014 |  |
| 0044\_20140921\_000044\_EX1404L3\_MB.wcd | 153,275,540 | 9/20/2014 |  |
| 0045\_20140921\_003044\_EX1404L3\_MB.wcd | 162,784,436 | 9/20/2014 |  |
| 0046\_20140921\_010044\_EX1404L3\_MB.wcd | 124,164,874 | 9/20/2014 |  |
| 0047\_20140921\_012345\_EX1404L3\_MB.wcd | 106,339,098 | 9/20/2014 |  |
| 0048\_20140921\_014413\_EX1404L3\_MB.wcd | 118,096,984 | 9/20/2014 |  |
| 0049\_20140921\_020614\_EX1404L3\_MB.wcd | 14,710,692 | 9/20/2014 |  |
| 0050\_20140921\_020906\_EX1404L3\_MB.wcd | 135,759,248 | 9/20/2014 |  |
| 0051\_20140921\_023346\_EX1404L3\_MB.wcd | 12,321,252 | 9/20/2014 |  |
| 0052\_20140921\_023621\_EX1404L3\_MB.wcd | 162,664,350 | 9/20/2014 |  |
| 0053\_20140921\_030623\_EX1404L3\_MB.wcd | 162,281,686 | 9/20/2014 |  |
| 0054\_20140921\_033628\_EX1404L3\_MB.wcd | 159,932,712 | 9/21/2014 |  |
| 0055\_20140921\_040621\_EX1404L3\_MB.wcd | 164,249,894 | 9/21/2014 |  |
| 0056\_20140921\_043627\_EX1404L3\_MB.wcd | 158,023,706 | 9/21/2014 |  |
| 0057\_20140921\_050624\_EX1404L3\_MB.wcd | 159,395,094 | 9/21/2014 |  |
| 0058\_20140921\_053620\_EX1404L3\_MB.wcd | 160,996,244 | 9/21/2014 |  |
| 0059\_20140921\_060622\_EX1404L3\_MB.wcd | 159,062,662 | 9/21/2014 |  |
| 0060\_20140921\_063622\_EX1404L3\_MB.wcd | 164,178,518 | 9/21/2014 |  |
| 0061\_20140921\_070628\_EX1404L3\_MB.wcd | 151,252,420 | 9/21/2014 |  |
| 0062\_20140921\_073425\_EX1404L3\_MB.wcd | 10,490,972 | 9/21/2014 |  |
| 0063\_20140921\_073639\_EX1404L3\_MB.wcd | 164,349,892 | 9/21/2014 |  |
| 0064\_20140921\_080642\_EX1404L3\_MB.wcd | 166,299,362 | 9/21/2014 |  |
| 0065\_20140921\_083641\_EX1404L3\_MB.wcd | 162,929,002 | 9/21/2014 |  |
| 0066\_20140921\_090642\_EX1404L3\_MB.wcd | 81,398,612 | 9/21/2014 |  |
| 0067\_20140921\_092248\_EX1404L3\_MB.wcd | 77,883,926 | 9/21/2014 |  |
| 0068\_20140921\_093648\_EX1404L3\_MB.wcd | 139,189,226 | 9/21/2014 |  |
| 0069\_20140921\_212015\_EX1404L3\_MB.wcd | 25,134,564 | 9/21/2014 |  |
| 0070\_20140921\_212412\_EX1404L3\_MB.wcd | 178,250,052 | 9/21/2014 |  |
| 0071\_20140921\_215412\_EX1404L3\_MB.wcd | 135,497,194 | 9/21/2014 |  |
| 0072\_20140921\_222412\_EX1404L3\_MB.wcd | 25,047,760 | 9/21/2014 |  |
| 0073\_20140921\_223255\_EX1404L3\_MB.wcd | 28,116,722 | 9/21/2014 |  |
| 0074\_20140921\_224539\_EX1404L3\_MB.wcd | 5,503,084 | 9/21/2014 |  |
| 0075\_20140921\_224811\_EX1404L3\_MB.wcd | 83,539,058 | 9/21/2014 |  |
| 0076\_20140921\_231812\_EX1404L3\_MB.wcd | 113,487,804 | 9/21/2014 |  |
| 0077\_20140921\_234817\_EX1404L3\_MB.wcd | 128,769,594 | 9/21/2014 |  |
| 0078\_20140922\_001817\_EX1404L3\_MB.wcd | 168,097,586 | 9/21/2014 |  |
| 0079\_20140922\_004813\_EX1404L3\_MB.wcd | 158,226,112 | 9/21/2014 |  |
| 0080\_20140922\_011818\_EX1404L3\_MB.wcd | 122,953,498 | 9/21/2014 |  |
| 0081\_20140922\_014816\_EX1404L3\_MB.wcd | 15,082,070 | 9/21/2014 |  |
| 0082\_20140922\_015220\_EX1404L3\_MB.wcd | 11,501,084 | 9/21/2014 |  |
| 0083\_20140922\_015548\_EX1404L3\_MB.wcd | 31,320,490 | 9/21/2014 |  |
| 0084\_20140922\_020531\_EX1404L3\_MB.wcd | 75,430,252 | 9/21/2014 |  |
| 0085\_20140922\_022455\_EX1404L3\_MB.wcd | 144,715,108 | 9/21/2014 |  |
| 0086\_20140922\_025449\_EX1404L3\_MB.wcd | 163,569,622 | 9/21/2014 |  |
| 0087\_20140922\_032448\_EX1404L3\_MB.wcd | 171,322,838 | 9/21/2014 |  |
| 0088\_20140922\_035445\_EX1404L3\_MB.wcd | 180,939,280 | 9/22/2014 |  |
| 0089\_20140922\_042442\_EX1404L3\_MB.wcd | 120,209,258 | 9/22/2014 |  |
| 0090\_20140922\_045053\_EX1404L3\_MB.wcd | 19,234,270 | 9/22/2014 |  |
| 0091\_20140922\_045615\_EX1404L3\_MB.wcd | 40,077,320 | 9/22/2014 |  |
| 0092\_20140922\_050820\_EX1404L3\_MB.wcd | 10,393,204 | 9/22/2014 |  |
| 0093\_20140922\_051212\_EX1404L3\_MB.wcd | 98,643,252 | 9/22/2014 |  |
| 0094\_20140922\_054218\_EX1404L3\_MB.wcd | 131,230,824 | 9/22/2014 |  |
| 0095\_20140922\_061213\_EX1404L3\_MB.wcd | 171,425,090 | 9/22/2014 |  |
| 0096\_20140922\_064214\_EX1404L3\_MB.wcd | 207,000,026 | 9/22/2014 |  |
| 0097\_20140922\_071213\_EX1404L3\_MB.wcd | 103,570,320 | 9/22/2014 |  |
| 0098\_20140922\_072609\_EX1404L3\_MB.wcd | 31,368,174 | 9/22/2014 |  |
| 0099\_20140922\_073013\_EX1404L3\_MB.wcd | 126,021,544 | 9/22/2014 |  |
| 0100\_20140922\_074733\_EX1404L3\_MB.wcd | 32,807,482 | 9/22/2014 |  |
| 0101\_20140922\_075152\_EX1404L3\_MB.wcd | 177,930,998 | 9/22/2014 |  |
| 0102\_20140922\_082158\_EX1404L3\_MB.wcd | 169,871,846 | 9/22/2014 |  |
| 0103\_20140922\_085154\_EX1404L3\_MB.wcd | 137,025,742 | 9/22/2014 |  |
| 0104\_20140922\_091427\_EX1404L3\_MB.wcd | 22,358,662 | 9/22/2014 |  |
| 0105\_20140922\_091849\_EX1404L3\_MB.wcd | 135,743,418 | 9/22/2014 |  |
| 0106\_20140922\_094850\_EX1404L3\_MB.wcd | 44,014,184 | 9/22/2014 |  |
| 0107\_20140922\_095754\_EX1404L3\_MB.wcd | 29,203,194 | 9/22/2014 |  |
| 0109\_20140922\_164045\_EX1404L3\_MB.wcd | 112,273,658 | 9/22/2014 |  |
| 0110\_20140922\_170028\_EX1404L3\_MB.wcd | 1,444,000 | 9/22/2014 |  |
| 0111\_20140922\_172625\_EX1404L3\_MB.wcd | 174,707,414 | 9/22/2014 |  |
| 0112\_20140922\_175631\_EX1404L3\_MB.wcd | 78,612,490 | 9/22/2014 |  |
| 0113\_20140922\_181005\_EX1404L3\_MB.wcd | 178,251,092 | 9/22/2014 |  |
| 0114\_20140922\_184004\_EX1404L3\_MB.wcd | 180,436,622 | 9/22/2014 |  |
| 0115\_20140922\_191002\_EX1404L3\_MB.wcd | 170,096,274 | 9/22/2014 |  |
| 0116\_20140922\_194000\_EX1404L3\_MB.wcd | 169,128,580 | 9/22/2014 |  |
| 0117\_20140922\_201003\_EX1404L3\_MB.wcd | 138,843,646 | 9/22/2014 |  |
| 0118\_20140922\_204000\_EX1404L3\_MB.wcd | 42,626,836 | 9/22/2014 |  |
| 0119\_20140922\_205344\_EX1404L3\_MB.wcd | 18,031,322 | 9/22/2014 |  |
| 0120\_20140922\_210033\_EX1404L3\_MB.wcd | 86,111,208 | 9/22/2014 |  |
| 0121\_20140922\_213033\_EX1404L3\_MB.wcd | 96,185,578 | 9/22/2014 |  |
| 0122\_20140922\_220033\_EX1404L3\_MB.wcd | 46,441,604 | 9/22/2014 |  |
| 0123\_20140922\_221328\_EX1404L3\_MB.wcd | 99,393,044 | 9/22/2014 |  |
| 0124\_20140922\_224328\_EX1404L3\_MB.wcd | 99,026,302 | 9/22/2014 |  |
| 0125\_20140922\_231328\_EX1404L3\_MB.wcd | 96,762,958 | 9/22/2014 |  |
| 0126\_20140922\_234328\_EX1404L3\_MB.wcd | 20,434,366 | 9/22/2014 |  |
| 0127\_20140922\_235020\_EX1404L3\_MB.wcd | 36,112,672 | 9/22/2014 |  |
| 0128\_20140923\_000320\_EX1404L3\_MB.wcd | 81,200,482 | 9/22/2014 |  |
| 0129\_20140923\_003319\_EX1404L3\_MB.wcd | 5,034,508 | 9/22/2014 |  |
| 0130\_20140923\_003511\_EX1404L3\_MB.wcd | 86,329,632 | 9/22/2014 |  |
| 0131\_20140923\_010511\_EX1404L3\_MB.wcd | 77,268,450 | 9/22/2014 |  |
| 0132\_20140923\_013511\_EX1404L3\_MB.wcd | 72,069,530 | 9/22/2014 |  |
| 0133\_20140923\_020511\_EX1404L3\_MB.wcd | 73,549,296 | 9/22/2014 |  |
| 0134\_20140923\_023512\_EX1404L3\_MB.wcd | 113,812,914 | 9/22/2014 |  |
| 0135\_20140923\_030509\_EX1404L3\_MB.wcd | 2,870,748 | 9/22/2014 |  |
| 0136\_20140923\_030613\_EX1404L3\_MB.wcd | 77,124,390 | 9/22/2014 |  |
| 0137\_20140923\_033613\_EX1404L3\_MB.wcd | 87,283,100 | 9/23/2014 |  |
| 0138\_20140923\_040614\_EX1404L3\_MB.wcd | 123,734,498 | 9/23/2014 |  |
| 0139\_20140923\_043615\_EX1404L3\_MB.wcd | 73,995,950 | 9/23/2014 |  |
| 0140\_20140923\_050614\_EX1404L3\_MB.wcd | 59,073,948 | 9/23/2014 |  |
| 0141\_20140923\_053614\_EX1404L3\_MB.wcd | 59,859,004 | 9/23/2014 |  |
| 0142\_20140923\_060613\_EX1404L3\_MB.wcd | 57,106,072 | 9/23/2014 |  |
| 0143\_20140923\_063613\_EX1404L3\_MB.wcd | 147,577,584 | 9/23/2014 |  |
| 0144\_20140923\_070612\_EX1404L3\_MB.wcd | 131,591,316 | 9/23/2014 |  |
| 0145\_20140923\_071556\_EX1404L3\_MB.wcd | 483,160,882 | 9/23/2014 |  |
| 0146\_20140923\_074556\_EX1404L3\_MB.wcd | 504,531,592 | 9/23/2014 |  |
| 0147\_20140923\_081556\_EX1404L3\_MB.wcd | 564,972,966 | 9/23/2014 |  |
| 0148\_20140923\_084556\_EX1404L3\_MB.wcd | 270,883,074 | 9/23/2014 |  |
| 0149\_20140923\_091556\_EX1404L3\_MB.wcd | 131,769,644 | 9/23/2014 |  |
| 0150\_20140923\_225336\_EX1404L3\_MB.wcd | 1,615,988 | 9/23/2014 |  |
| 0151\_20140923\_225914\_EX1404L3\_MB.wcd | 57,637,872 | 9/23/2014 |  |
| 0152\_20140923\_231148\_EX1404L3\_MB.wcd | 43,997,956 | 9/23/2014 |  |
| 0153\_20140923\_232137\_EX1404L3\_MB.wcd | 31,810,962 | 9/23/2014 |  |
| 0154\_20140923\_232850\_EX1404L3\_MB.wcd | 54,528,014 | 9/23/2014 |  |
| 0155\_20140923\_234033\_EX1404L3\_MB.wcd | 8,927,340 | 9/23/2014 |  |
| 0156\_20140923\_234230\_EX1404L3\_MB.wcd | 34,397,984 | 9/23/2014 |  |
| 0157\_20140923\_234918\_EX1404L3\_MB.wcd | 7,381,688 | 9/23/2014 |  |
| 0158\_20140923\_235101\_EX1404L3\_MB.wcd | 65,612,604 | 9/23/2014 |  |
| 0159\_20140924\_000458\_EX1404L3\_MB.wcd | 35,954,126 | 9/23/2014 |  |
| 0160\_20140924\_001230\_EX1404L3\_MB.wcd | 12,880,072 | 9/23/2014 |  |
| 0161\_20140924\_001513\_EX1404L3\_MB.wcd | 13,241,918 | 9/23/2014 |  |
| 0162\_20140924\_001744\_EX1404L3\_MB.wcd | 8,332,356 | 9/23/2014 |  |
| 0163\_20140924\_001930\_EX1404L3\_MB.wcd | 142,610,836 | 9/23/2014 |  |
| 0164\_20140924\_004930\_EX1404L3\_MB.wcd | 142,185,774 | 9/23/2014 |  |
| 0165\_20140924\_011933\_EX1404L3\_MB.wcd | 151,282,494 | 9/23/2014 |  |
| 0166\_20140924\_014934\_EX1404L3\_MB.wcd | 139,345,622 | 9/23/2014 |  |
| 0167\_20140924\_021937\_EX1404L3\_MB.wcd | 139,584,654 | 9/23/2014 |  |
| 0168\_20140924\_024931\_EX1404L3\_MB.wcd | 148,071,484 | 9/23/2014 |  |
| 0169\_20140924\_031937\_EX1404L3\_MB.wcd | 139,324,590 | 9/23/2014 |  |
| 0170\_20140924\_034933\_EX1404L3\_MB.wcd | 141,763,798 | 9/24/2014 |  |
| 0171\_20140924\_041937\_EX1404L3\_MB.wcd | 136,342,276 | 9/24/2014 |  |
| 0172\_20140924\_044933\_EX1404L3\_MB.wcd | 125,911,024 | 9/24/2014 |  |
| 0173\_20140924\_051936\_EX1404L3\_MB.wcd | 119,474,336 | 9/24/2014 |  |
| 0174\_20140924\_054937\_EX1404L3\_MB.wcd | 85,859,742 | 9/24/2014 |  |
| 0175\_20140924\_061026\_EX1404L3\_MB.wcd | 121,654,400 | 9/24/2014 |  |
| 0176\_20140924\_064013\_EX1404L3\_MB.wcd | 129,949,990 | 9/24/2014 |  |
| 0177\_20140924\_071019\_EX1404L3\_MB.wcd | 123,676,612 | 9/24/2014 |  |
| 0178\_20140924\_074015\_EX1404L3\_MB.wcd | 111,808,454 | 9/24/2014 |  |
| 0179\_20140924\_081012\_EX1404L3\_MB.wcd | 114,484,694 | 9/24/2014 |  |
| 0180\_20140924\_084012\_EX1404L3\_MB.wcd | 110,862,138 | 9/24/2014 |  |
| 0181\_20140924\_091018\_EX1404L3\_MB.wcd | 102,539,038 | 9/24/2014 |  |
| 0182\_20140924\_094008\_EX1404L3\_MB.wcd | 82,019,298 | 9/24/2014 |  |
| 0183\_20140924\_161559\_EX1404L3\_MB.wcd | 83,708,514 | 9/24/2014 |  |
| 0184\_20140924\_163539\_EX1404L3\_MB.wcd | 57,805,296 | 9/24/2014 |  |
| 0185\_20140924\_164429\_EX1404L3\_MB.wcd | 171,668,772 | 9/24/2014 |  |
| 0186\_20140924\_171347\_EX1404L3\_MB.wcd | 146,251,246 | 9/24/2014 |  |
| 0187\_20140924\_174228\_EX1404L3\_MB.wcd | 75,236,700 | 9/24/2014 |  |
| 0188\_20140924\_175648\_EX1404L3\_MB.wcd | 148,816,236 | 9/24/2014 |  |
| 0189\_20140924\_182650\_EX1404L3\_MB.wcd | 63,846,138 | 9/24/2014 |  |
| 0190\_20140924\_184036\_EX1404L3\_MB.wcd | 49,676,464 | 9/24/2014 |  |
| 0191\_20140924\_185415\_EX1404L3\_MB.wcd | 150,965,788 | 9/24/2014 |  |
| 0192\_20140924\_192414\_EX1404L3\_MB.wcd | 50,607,294 | 9/24/2014 |  |
| 0193\_20140924\_193355\_EX1404L3\_MB.wcd | 92,362,910 | 9/24/2014 |  |
| 0194\_20140924\_195212\_EX1404L3\_MB.wcd | 81,013,682 | 9/24/2014 |  |
| 0195\_20140924\_201952\_EX1404L3\_MB.wcd | 8,637,166 | 9/24/2014 |  |
| 0196\_20140924\_202308\_EX1404L3\_MB.wcd | 97,973,132 | 9/24/2014 |  |
| 0197\_20140924\_205301\_EX1404L3\_MB.wcd | 97,757,720 | 9/24/2014 |  |
| 0198\_20140924\_212302\_EX1404L3\_MB.wcd | 98,735,714 | 9/24/2014 |  |
| 0199\_20140924\_215258\_EX1404L3\_MB.wcd | 12,157,508 | 9/24/2014 |  |
| 0200\_20140924\_215636\_EX1404L3\_MB.wcd | 98,630,948 | 9/24/2014 |  |
| 0201\_20140924\_222640\_EX1404L3\_MB.wcd | 95,228,126 | 9/24/2014 |  |
| 0202\_20140924\_225637\_EX1404L3\_MB.wcd | 60,244,136 | 9/24/2014 |  |
| 0203\_20140924\_231549\_EX1404L3\_MB.wcd | 16,038,824 | 9/24/2014 |  |
| 0204\_20140924\_232013\_EX1404L3\_MB.wcd | 26,998,978 | 9/24/2014 |  |
| 0205\_20140924\_232819\_EX1404L3\_MB.wcd | 9,007,690 | 9/24/2014 |  |
| 0206\_20140924\_233105\_EX1404L3\_MB.wcd | 94,314,366 | 9/24/2014 |  |
| 0207\_20140925\_000104\_EX1404L3\_MB.wcd | 29,116,418 | 9/24/2014 |  |
| 0208\_20140925\_001036\_EX1404L3\_MB.wcd | 33,477,008 | 9/24/2014 |  |
| 0209\_20140925\_002053\_EX1404L3\_MB.wcd | 9,127,198 | 9/24/2014 |  |
| 0210\_20140925\_002341\_EX1404L3\_MB.wcd | 15,950,792 | 9/24/2014 |  |
| 0211\_20140925\_002830\_EX1404L3\_MB.wcd | 9,364,544 | 9/24/2014 |  |
| 0212\_20140925\_003120\_EX1404L3\_MB.wcd | 99,500,130 | 9/24/2014 |  |
| 0213\_20140925\_010125\_EX1404L3\_MB.wcd | 108,159,150 | 9/24/2014 |  |
| 0214\_20140925\_013120\_EX1404L3\_MB.wcd | 101,460,600 | 9/24/2014 |  |
| 0215\_20140925\_020119\_EX1404L3\_MB.wcd | 106,149,720 | 9/24/2014 |  |
| 0216\_20140925\_023117\_EX1404L3\_MB.wcd | 38,517,086 | 9/24/2014 |  |
| 0217\_20140925\_024226\_EX1404L3\_MB.wcd | 16,898,950 | 9/24/2014 |  |
| 0218\_20140925\_024659\_EX1404L3\_MB.wcd | 102,296,076 | 9/24/2014 |  |
| 0219\_20140925\_031656\_EX1404L3\_MB.wcd | 40,363,960 | 9/24/2014 |  |
| 0220\_20140925\_032850\_EX1404L3\_MB.wcd | 19,170,252 | 9/24/2014 |  |
| 0221\_20140925\_033437\_EX1404L3\_MB.wcd | 100,899,470 | 9/25/2014 |  |
| 0222\_20140925\_040444\_EX1404L3\_MB.wcd | 100,637,486 | 9/25/2014 |  |
| 0223\_20140925\_043439\_EX1404L3\_MB.wcd | 96,151,592 | 9/25/2014 |  |
| 0224\_20140925\_050444\_EX1404L3\_MB.wcd | 95,639,216 | 9/25/2014 |  |
| 0225\_20140925\_053443\_EX1404L3\_MB.wcd | 42,862,100 | 9/25/2014 |  |
| 0226\_20140925\_054741\_EX1404L3\_MB.wcd | 10,823,580 | 9/25/2014 |  |
| 0227\_20140925\_055050\_EX1404L3\_MB.wcd | 34,876,498 | 9/25/2014 |  |
| 0228\_20140925\_060100\_EX1404L3\_MB.wcd | 22,565,170 | 9/25/2014 |  |
| 0229\_20140925\_060728\_EX1404L3\_MB.wcd | 38,986,706 | 9/25/2014 |  |
| 0230\_20140925\_061857\_EX1404L3\_MB.wcd | 91,938,452 | 9/25/2014 |  |
| 0231\_20140925\_064841\_EX1404L3\_MB.wcd | 95,189,482 | 9/25/2014 |  |
| 0232\_20140925\_071841\_EX1404L3\_MB.wcd | 19,989,842 | 9/25/2014 |  |
| 0233\_20140925\_072438\_EX1404L3\_MB.wcd | 14,397,696 | 9/25/2014 |  |
| 0234\_20140925\_072851\_EX1404L3\_MB.wcd | 49,499,784 | 9/25/2014 |  |
| 0235\_20140925\_074327\_EX1404L3\_MB.wcd | 9,347,916 | 9/25/2014 |  |
| 0236\_20140925\_074616\_EX1404L3\_MB.wcd | 96,719,842 | 9/25/2014 |  |
| 0237\_20140925\_081615\_EX1404L3\_MB.wcd | 98,274,184 | 9/25/2014 |  |
| 0238\_20140925\_084618\_EX1404L3\_MB.wcd | 90,173,444 | 9/25/2014 |  |
| 0239\_20140925\_091337\_EX1404L3\_MB.wcd | 14,219,162 | 9/25/2014 |  |
| 0240\_20140925\_091801\_EX1404L3\_MB.wcd | 99,004,780 | 9/25/2014 |  |
| 0241\_20140925\_094804\_EX1404L3\_MB.wcd | 42,513,326 | 9/25/2014 |  |
| 0242\_20140925\_220840\_EX1404L3\_MB.wcd | 87,686,084 | 9/25/2014 |  |
| 0243\_20140925\_223517\_EX1404L3\_MB.wcd | 10,207,120 | 9/25/2014 |  |
| 0244\_20140925\_223824\_EX1404L3\_MB.wcd | 99,925,060 | 9/25/2014 |  |
| 0245\_20140925\_230829\_EX1404L3\_MB.wcd | 99,875,864 | 9/25/2014 |  |
| 0246\_20140925\_233822\_EX1404L3\_MB.wcd | 20,112,778 | 9/25/2014 |  |
| 0247\_20140925\_234425\_EX1404L3\_MB.wcd | 12,783,264 | 9/25/2014 |  |
| 0248\_20140925\_234819\_EX1404L3\_MB.wcd | 101,052,772 | 9/25/2014 |  |
| 0249\_20140926\_001810\_EX1404L3\_MB.wcd | 39,886,926 | 9/25/2014 |  |
| 0250\_20140926\_002959\_EX1404L3\_MB.wcd | 14,114,218 | 9/25/2014 |  |
| 0251\_20140926\_003417\_EX1404L3\_MB.wcd | 96,640,828 | 9/25/2014 |  |
| 0252\_20140926\_010417\_EX1404L3\_MB.wcd | 98,538,226 | 9/25/2014 |  |
| 0253\_20140926\_013412\_EX1404L3\_MB.wcd | 10,475,628 | 9/25/2014 |  |
| 0254\_20140926\_013722\_EX1404L3\_MB.wcd | 11,194,782 | 9/25/2014 |  |
| 0255\_20140926\_014048\_EX1404L3\_MB.wcd | 43,253,288 | 9/25/2014 |  |
| 0256\_20140926\_015347\_EX1404L3\_MB.wcd | 7,565,200 | 9/25/2014 |  |
| 0257\_20140926\_015605\_EX1404L3\_MB.wcd | 97,009,764 | 9/25/2014 |  |
| 0258\_20140926\_022611\_EX1404L3\_MB.wcd | 80,870,106 | 9/25/2014 |  |
| 0259\_20140926\_025313\_EX1404L3\_MB.wcd | 96,083,022 | 9/25/2014 |  |
| 0260\_20140926\_032307\_EX1404L3\_MB.wcd | 100,123,592 | 9/25/2014 |  |
| 0261\_20140926\_035307\_EX1404L3\_MB.wcd | 100,867,888 | 9/26/2014 |  |
| 0262\_20140926\_042305\_EX1404L3\_MB.wcd | 115,876,468 | 9/26/2014 |  |
| 0263\_20140926\_045309\_EX1404L3\_MB.wcd | 102,346,584 | 9/26/2014 |  |
| 0264\_20140926\_052306\_EX1404L3\_MB.wcd | 101,033,182 | 9/26/2014 |  |
| 0265\_20140926\_055301\_EX1404L3\_MB.wcd | 66,182,460 | 9/26/2014 |  |
| 0266\_20140926\_061154\_EX1404L3\_MB.wcd | 97,635,568 | 9/26/2014 |  |
| 0267\_20140926\_064150\_EX1404L3\_MB.wcd | 37,445,486 | 9/26/2014 |  |
| 0268\_20140926\_065340\_EX1404L3\_MB.wcd | 13,649,374 | 9/26/2014 |  |
| 0269\_20140926\_065747\_EX1404L3\_MB.wcd | 101,173,090 | 9/26/2014 |  |
| 0270\_20140926\_072748\_EX1404L3\_MB.wcd | 111,079,736 | 9/26/2014 |  |
| 0271\_20140926\_075747\_EX1404L3\_MB.wcd | 117,110,228 | 9/26/2014 |  |
| 0272\_20140926\_082754\_EX1404L3\_MB.wcd | 124,390,998 | 9/26/2014 |  |
| 0273\_20140926\_085747\_EX1404L3\_MB.wcd | 126,373,960 | 9/26/2014 |  |
| 0274\_20140926\_092750\_EX1404L3\_MB.wcd | 106,927,070 | 9/26/2014 |  |
| 0275\_20140926\_161510\_EX1404L3\_MB.wcd | 102,414,308 | 9/26/2014 |  |
| 0276\_20140926\_164506\_EX1404L3\_MB.wcd | 117,322,742 | 9/26/2014 |  |
| 0277\_20140926\_171507\_EX1404L3\_MB.wcd | 119,136,842 | 9/26/2014 |  |
| 0278\_20140926\_174502\_EX1404L3\_MB.wcd | 121,341,716 | 9/26/2014 |  |
| 0279\_20140926\_181508\_EX1404L3\_MB.wcd | 120,497,962 | 9/26/2014 |  |
| 0280\_20140926\_184500\_EX1404L3\_MB.wcd | 121,178,734 | 9/26/2014 |  |
| 0281\_20140926\_191502\_EX1404L3\_MB.wcd | 121,145,274 | 9/26/2014 |  |
| 0282\_20140926\_194502\_EX1404L3\_MB.wcd | 48,001,634 | 9/26/2014 |  |
| 0283\_20140926\_195653\_EX1404L3\_MB.wcd | 11,578,062 | 9/26/2014 |  |
| 0284\_20140926\_195947\_EX1404L3\_MB.wcd | 112,801,424 | 9/26/2014 |  |
| 0285\_20140926\_202954\_EX1404L3\_MB.wcd | 45,709,620 | 9/26/2014 |  |
| 0286\_20140926\_204209\_EX1404L3\_MB.wcd | 121,759,546 | 9/26/2014 |  |
| 0287\_20140926\_211207\_EX1404L3\_MB.wcd | 35,472,550 | 9/26/2014 |  |
| 0288\_20140926\_212057\_EX1404L3\_MB.wcd | 121,578,312 | 9/26/2014 |  |
| 0289\_20140926\_215100\_EX1404L3\_MB.wcd | 120,422,402 | 9/26/2014 |  |
| 0290\_20140926\_222102\_EX1404L3\_MB.wcd | 120,399,060 | 9/26/2014 |  |
| 0291\_20140926\_225104\_EX1404L3\_MB.wcd | 120,409,812 | 9/26/2014 |  |
| 0292\_20140926\_232101\_EX1404L3\_MB.wcd | 121,165,228 | 9/26/2014 |  |
| 0293\_20140926\_235104\_EX1404L3\_MB.wcd | 121,027,332 | 9/26/2014 |  |
| 0294\_20140927\_002102\_EX1404L3\_MB.wcd | 59,715,900 | 9/26/2014 |  |
| 0295\_20140927\_003552\_EX1404L3\_MB.wcd | 121,111,694 | 9/26/2014 |  |
| 0296\_20140927\_010555\_EX1404L3\_MB.wcd | 120,713,142 | 9/26/2014 |  |
| 0297\_20140927\_013549\_EX1404L3\_MB.wcd | 6,212,662 | 9/26/2014 |  |
| 0298\_20140927\_013721\_EX1404L3\_MB.wcd | 17,190,772 | 9/26/2014 |  |
| 0299\_20140927\_014138\_EX1404L3\_MB.wcd | 55,742,790 | 9/26/2014 |  |
| 0300\_20140927\_015526\_EX1404L3\_MB.wcd | 28,195,176 | 9/26/2014 |  |
| 0301\_20140927\_020227\_EX1404L3\_MB.wcd | 117,026,782 | 9/26/2014 |  |
| 0302\_20140927\_023130\_EX1404L3\_MB.wcd | 15,154,192 | 9/26/2014 |  |
| 0303\_20140927\_023516\_EX1404L3\_MB.wcd | 83,169,470 | 9/26/2014 |  |
| 0304\_20140927\_025557\_EX1404L3\_MB.wcd | 60,614,400 | 9/26/2014 |  |
| 0305\_20140927\_031059\_EX1404L3\_MB.wcd | 120,838,494 | 9/26/2014 |  |
| 0306\_20140927\_034102\_EX1404L3\_MB.wcd | 56,441,664 | 9/26/2014 |  |
| 0307\_20140927\_035503\_EX1404L3\_MB.wcd | 11,031,700 | 9/26/2014 |  |
| 0308\_20140927\_035747\_EX1404L3\_MB.wcd | 120,311,952 | 9/27/2014 |  |
| 0309\_20140927\_042742\_EX1404L3\_MB.wcd | 121,048,748 | 9/27/2014 |  |
| 0310\_20140927\_045745\_EX1404L3\_MB.wcd | 120,962,548 | 9/27/2014 |  |
| 0311\_20140927\_052742\_EX1404L3\_MB.wcd | 98,145,154 | 9/27/2014 |  |
| 0312\_20140927\_055148\_EX1404L3\_MB.wcd | 21,386,610 | 9/27/2014 |  |
| 0313\_20140927\_055702\_EX1404L3\_MB.wcd | 25,057,154 | 9/27/2014 |  |
| 0314\_20140927\_060310\_EX1404L3\_MB.wcd | 21,383,248 | 9/27/2014 |  |
| 0315\_20140927\_060826\_EX1404L3\_MB.wcd | 121,580,574 | 9/27/2014 |  |
| 0316\_20140927\_063829\_EX1404L3\_MB.wcd | 33,639,142 | 9/27/2014 |  |
| 0317\_20140927\_064648\_EX1404L3\_MB.wcd | 120,470,600 | 9/27/2014 |  |
| 0318\_20140927\_071635\_EX1404L3\_MB.wcd | 107,816,800 | 9/27/2014 |  |
| 0319\_20140927\_074317\_EX1404L3\_MB.wcd | 59,800,704 | 9/27/2014 |  |
| 0320\_20140927\_075809\_EX1404L3\_MB.wcd | 17,959,930 | 9/27/2014 |  |
| 0321\_20140927\_080236\_EX1404L3\_MB.wcd | 120,849,618 | 9/27/2014 |  |
| 0322\_20140927\_083234\_EX1404L3\_MB.wcd | 120,528,980 | 9/27/2014 |  |
| 0323\_20140927\_090236\_EX1404L3\_MB.wcd | 100,541,838 | 9/27/2014 |  |
| 0324\_20140927\_093238\_EX1404L3\_MB.wcd | 61,707,410 | 9/27/2014 |  |
| 0325\_20140928\_003214\_EX1404L3\_MB.wcd | 156,478,464 | 9/27/2014 |  |
| 0326\_20140928\_010220\_EX1404L3\_MB.wcd | 160,541,924 | 9/27/2014 |  |
| 0327\_20140928\_013217\_EX1404L3\_MB.wcd | 115,447,128 | 9/27/2014 |  |
| 0328\_20140928\_015526\_EX1404L3\_MB.wcd | 37,085,672 | 9/27/2014 |  |
| 0329\_20140928\_020436\_EX1404L3\_MB.wcd | 100,568,244 | 9/27/2014 |  |
| 0330\_20140928\_023437\_EX1404L3\_MB.wcd | 2,390,858 | 9/27/2014 |  |
| 0331\_20140928\_023521\_EX1404L3\_MB.wcd | 112,188,880 | 9/27/2014 |  |
| 0332\_20140928\_030521\_EX1404L3\_MB.wcd | 98,939,926 | 9/27/2014 |  |
| 0333\_20140928\_033532\_EX1404L3\_MB.wcd | 98,197,416 | 9/28/2014 |  |
| 0334\_20140928\_040531\_EX1404L3\_MB.wcd | 22,342,316 | 9/28/2014 |  |
| 0335\_20140928\_041120\_EX1404L3\_MB.wcd | 42,106,050 | 9/28/2014 |  |
| 0336\_20140928\_042141\_EX1404L3\_MB.wcd | 10,414,610 | 9/28/2014 |  |
| 0337\_20140928\_042414\_EX1404L3\_MB.wcd | 122,164,328 | 9/28/2014 |  |
| 0338\_20140928\_045416\_EX1404L3\_MB.wcd | 122,555,792 | 9/28/2014 |  |
| 0339\_20140928\_052424\_EX1404L3\_MB.wcd | 104,688,378 | 9/28/2014 |  |
| 0340\_20140928\_055418\_EX1404L3\_MB.wcd | 101,767,168 | 9/28/2014 |  |
| 0341\_20140928\_062153\_EX1404L3\_MB.wcd | 22,375,402 | 9/28/2014 |  |
| 0342\_20140928\_062623\_EX1404L3\_MB.wcd | 9,819,826 | 9/28/2014 |  |
| 0343\_20140928\_062951\_EX1404L3\_MB.wcd | 10,304,864 | 9/28/2014 |  |
| 0344\_20140928\_063219\_EX1404L3\_MB.wcd | 82,208,786 | 9/28/2014 |  |
| 0345\_20140928\_064437\_EX1404L3\_MB.wcd | 30,493,590 | 9/28/2014 |  |
| 0346\_20140928\_065132\_EX1404L3\_MB.wcd | 75,853,686 | 9/28/2014 |  |
| 0347\_20140928\_070459\_EX1404L3\_MB.wcd | 171,924,648 | 9/28/2014 |  |
| 0348\_20140928\_073505\_EX1404L3\_MB.wcd | 101,463,048 | 9/28/2014 |  |
| 0349\_20140928\_080506\_EX1404L3\_MB.wcd | 37,948,100 | 9/28/2014 |  |
| 0350\_20140928\_081621\_EX1404L3\_MB.wcd | 29,542,224 | 9/28/2014 |  |
| 0351\_20140928\_082500\_EX1404L3\_MB.wcd | 103,455,462 | 9/28/2014 |  |
| 0352\_20140928\_085500\_EX1404L3\_MB.wcd | 120,830,546 | 9/28/2014 |  |
| 0353\_20140928\_092458\_EX1404L3\_MB.wcd | 28,085,110 | 9/28/2014 |  |
| 0354\_20140928\_093147\_EX1404L3\_MB.wcd | 17,028,088 | 9/28/2014 |  |
| 0355\_20140928\_093530\_EX1404L3\_MB.wcd | 54,200,780 | 9/28/2014 |  |
| 0356\_20140928\_214020\_EX1404L3\_MB.wcd | 27,048,730 | 9/28/2014 |  |
| 0357\_20140928\_214703\_EX1404L3\_MB.wcd | 4,579,570 | 9/28/2014 |  |
| 0358\_20140928\_214836\_EX1404L3\_MB.wcd | 44,817,560 | 9/28/2014 |  |
| 0359\_20140928\_220334\_EX1404L3\_MB.wcd | 9,706,822 | 9/28/2014 |  |
| 0360\_20140928\_220630\_EX1404L3\_MB.wcd | 21,984,328 | 9/28/2014 |  |
| 0361\_20140928\_221359\_EX1404L3\_MB.wcd | 21,349,284 | 9/28/2014 |  |
| 0362\_20140928\_222056\_EX1404L3\_MB.wcd | 26,824,996 | 9/28/2014 |  |
| 0363\_20140928\_222955\_EX1404L3\_MB.wcd | 28,608,892 | 9/28/2014 |  |
| 0364\_20140928\_223858\_EX1404L3\_MB.wcd | 26,730,434 | 9/28/2014 |  |
| 0365\_20140928\_224759\_EX1404L3\_MB.wcd | 23,359,710 | 9/28/2014 |  |
| 0366\_20140928\_225533\_EX1404L3\_MB.wcd | 69,838,838 | 9/28/2014 |  |
| 0367\_20140928\_231750\_EX1404L3\_MB.wcd | 106,068,560 | 9/28/2014 |  |
| 0368\_20140928\_234750\_EX1404L3\_MB.wcd | 50,027,814 | 9/28/2014 |  |
| 0369\_20140929\_000009\_EX1404L3\_MB.wcd | 104,041,402 | 9/28/2014 |  |
| 0370\_20140929\_003018\_EX1404L3\_MB.wcd | 93,729,256 | 9/28/2014 |  |
| 0371\_20140929\_010008\_EX1404L3\_MB.wcd | 100,446,654 | 9/28/2014 |  |
| 0372\_20140929\_012546\_EX1404L3\_MB.wcd | 59,582,234 | 9/28/2014 |  |
| 0373\_20140929\_014021\_EX1404L3\_MB.wcd | 5,576,490 | 9/28/2014 |  |
| 0374\_20140929\_014143\_EX1404L3\_MB.wcd | 118,447,854 | 9/28/2014 |  |
| 0375\_20140929\_021144\_EX1404L3\_MB.wcd | 90,249,034 | 9/28/2014 |  |
| 0376\_20140929\_024138\_EX1404L3\_MB.wcd | 91,156,552 | 9/28/2014 |  |
| 0377\_20140929\_031139\_EX1404L3\_MB.wcd | 109,942,844 | 9/28/2014 |  |
| 0378\_20140929\_034143\_EX1404L3\_MB.wcd | 119,117,536 | 9/29/2014 |  |
| 0379\_20140929\_041141\_EX1404L3\_MB.wcd | 110,847,358 | 9/29/2014 |  |
| 0380\_20140929\_044143\_EX1404L3\_MB.wcd | 108,708,290 | 9/29/2014 |  |
| 0381\_20140929\_051138\_EX1404L3\_MB.wcd | 98,778,448 | 9/29/2014 |  |
| 0382\_20140929\_054148\_EX1404L3\_MB.wcd | 8,431,498 | 9/29/2014 |  |
| 0383\_20140929\_054424\_EX1404L3\_MB.wcd | 94,771,392 | 9/29/2014 |  |
| 0384\_20140929\_060807\_EX1404L3\_MB.wcd | 9,717,620 | 9/29/2014 |  |
| 0385\_20140929\_061030\_EX1404L3\_MB.wcd | 122,253,074 | 9/29/2014 |  |
| 0386\_20140929\_064034\_EX1404L3\_MB.wcd | 122,262,378 | 9/29/2014 |  |
| 0387\_20140929\_071029\_EX1404L3\_MB.wcd | 113,688,826 | 9/29/2014 |  |
| 0388\_20140929\_074025\_EX1404L3\_MB.wcd | 86,070,900 | 9/29/2014 |  |
| 0389\_20140929\_080740\_EX1404L3\_MB.wcd | 54,499,114 | 9/29/2014 |  |
| 0390\_20140929\_082533\_EX1404L3\_MB.wcd | 53,521,304 | 9/29/2014 |  |
| 0391\_20140929\_084248\_EX1404L3\_MB.wcd | 59,614,958 | 9/29/2014 |  |
| 0392\_20140929\_090141\_EX1404L3\_MB.wcd | 44,544,338 | 9/29/2014 |  |
| 0393\_20140929\_091620\_EX1404L3\_MB.wcd | 36,479,032 | 9/29/2014 |  |
| 0394\_20140929\_092801\_EX1404L3\_MB.wcd | 39,149,390 | 9/29/2014 |  |
| 0395\_20140929\_094005\_EX1404L3\_MB.wcd | 34,491,718 | 9/29/2014 |  |
| 0396\_20140929\_130154\_EX1404L3\_MB.wcd | 100,100,944 | 9/29/2014 |  |
| 0397\_20140929\_133203\_EX1404L3\_MB.wcd | 119,968,564 | 9/29/2014 |  |
| 0398\_20140929\_140156\_EX1404L3\_MB.wcd | 121,249,278 | 9/29/2014 |  |
| 0399\_20140929\_143157\_EX1404L3\_MB.wcd | 120,850,834 | 9/29/2014 |  |
| 0400\_20140929\_150156\_EX1404L3\_MB.wcd | 112,417,286 | 9/29/2014 |  |
| 0401\_20140930\_002901\_EX1404L3\_MB.wcd | 6,251,978 | 9/29/2014 |  |
| 0402\_20140930\_003105\_EX1404L3\_MB.wcd | 31,788,684 | 9/29/2014 |  |
| 0403\_20140930\_004058\_EX1404L3\_MB.wcd | 97,084,406 | 9/29/2014 |  |
| 0404\_20140930\_011059\_EX1404L3\_MB.wcd | 20,453,948 | 9/29/2014 |  |
| 0405\_20140930\_011739\_EX1404L3\_MB.wcd | 102,936,550 | 9/29/2014 |  |
| 0406\_20140930\_014739\_EX1404L3\_MB.wcd | 121,300,906 | 9/29/2014 |  |
| 0407\_20140930\_021742\_EX1404L3\_MB.wcd | 120,603,478 | 9/29/2014 |  |
| 0408\_20140930\_024738\_EX1404L3\_MB.wcd | 120,868,994 | 9/29/2014 |  |
| 0409\_20140930\_031741\_EX1404L3\_MB.wcd | 121,364,896 | 9/29/2014 |  |
| 0410\_20140930\_034741\_EX1404L3\_MB.wcd | 37,182,672 | 9/29/2014 |  |
| 0411\_20140930\_035733\_EX1404L3\_MB.wcd | 70,798,538 | 9/30/2014 |  |
| 0412\_20140930\_041743\_EX1404L3\_MB.wcd | 37,455,454 | 9/30/2014 |  |
| 0413\_20140930\_042830\_EX1404L3\_MB.wcd | 103,370,068 | 9/30/2014 |  |
| 0414\_20140930\_045815\_EX1404L3\_MB.wcd | 103,243,934 | 9/30/2014 |  |
| 0415\_20140930\_052809\_EX1404L3\_MB.wcd | 105,584,368 | 9/30/2014 |  |
| 0416\_20140930\_055813\_EX1404L3\_MB.wcd | 84,935,984 | 9/30/2014 |  |
| 0417\_20140930\_062243\_EX1404L3\_MB.wcd | 41,411,062 | 9/30/2014 |  |
| 0418\_20140930\_063306\_EX1404L3\_MB.wcd | 63,283,706 | 9/30/2014 |  |
| 0419\_20140930\_064855\_EX1404L3\_MB.wcd | 120,106,388 | 9/30/2014 |  |
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| 0424\_20140930\_091848\_EX1404L3\_MB.wcd | 5,886,942 | 9/30/2014 |  |
| 0425\_20140930\_092032\_EX1404L3\_MB.wcd | 40,047,746 | 9/30/2014 |  |
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| 0429\_20141001\_014900\_EX1404L3\_MB.wcd | 126,503,174 | 9/30/2014 |  |
| 0430\_20141001\_021900\_EX1404L3\_MB.wcd | 126,230,968 | 9/30/2014 |  |
| 0431\_20141001\_024901\_EX1404L3\_MB.wcd | 126,233,930 | 9/30/2014 |  |
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| 0434\_20141001\_041651\_EX1404L3\_MB.wcd | 124,748,898 | 10/1/2014 |  |
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| 0436\_20141001\_051651\_EX1404L3\_MB.wcd | 99,036,566 | 10/1/2014 |  |
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| 0438\_20141001\_061653\_EX1404L3\_MB.wcd | 99,770,700 | 10/1/2014 |  |
| 0439\_20141001\_064644\_EX1404L3\_MB.wcd | 70,379,904 | 10/1/2014 |  |
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| 0632\_20141006\_234522\_EX1404L3\_MB.wcd | 446,084,674 | 10/6/2014 |  |
| 0633\_20141007\_001522\_EX1404L3\_MB.wcd | 504,192,618 | 10/6/2014 |  |
| 0634\_20141007\_004522\_EX1404L3\_MB.wcd | 499,221,280 | 10/6/2014 |  |
| 0635\_20141007\_011522\_EX1404L3\_MB.wcd | 500,662,690 | 10/6/2014 |  |
| 0636\_20141007\_014522\_EX1404L3\_MB.wcd | 503,326,890 | 10/6/2014 |  |
| 0637\_20141007\_021522\_EX1404L3\_MB.wcd | 501,452,206 | 10/6/2014 |  |
| 0638\_20141007\_024521\_EX1404L3\_MB.wcd | 497,252,710 | 10/6/2014 |  |
| 0639\_20141007\_031522\_EX1404L3\_MB.wcd | 411,981,320 | 10/6/2014 |  |

| **EX-14-04 Leg III Knudsen Subbottom Data Log** | | | |
| --- | --- | --- | --- |
| **File Name** | **File Size (bytes)** | **Collection Date (Local)** | **Comments** |
| EX1404L3\_EK60\_-D20140919-T042405.bot | 13,528 | 9/19/2014 |  |
| EX1404L3\_EK60\_-D20140919-T042405.idx | 23,032 | 9/19/2014 |  |
| EX1404L3\_EK60\_-D20140919-T042405.raw | 52,471,312 | 9/19/2014 |  |
| EX1404L3\_EK60\_-D20140919-T052514.bot | 13,496 | 9/19/2014 |  |
| EX1404L3\_EK60\_-D20140919-T052514.idx | 22,976 | 9/19/2014 |  |
| EX1404L3\_EK60\_-D20140919-T052514.raw | 52,497,116 | 9/19/2014 |  |
| EX1404L3\_EK60\_-D20140919-T062655.bot | 13,496 | 9/19/2014 |  |
| EX1404L3\_EK60\_-D20140919-T062655.idx | 22,976 | 9/19/2014 |  |
| EX1404L3\_EK60\_-D20140919-T062655.raw | 52,508,432 | 9/19/2014 |  |
| EX1404L3\_EK60\_-D20140919-T072846.bot | 13,464 | 9/19/2014 |  |
| EX1404L3\_EK60\_-D20140919-T072846.idx | 22,920 | 9/19/2014 |  |
| EX1404L3\_EK60\_-D20140919-T072846.raw | 52,513,040 | 9/19/2014 |  |
| EX1404L3\_EK60\_-D20140919-T083208.bot | 13,272 | 9/19/2014 |  |
| EX1404L3\_EK60\_-D20140919-T083208.idx | 22,584 | 9/19/2014 |  |
| EX1404L3\_EK60\_-D20140919-T083208.raw | 52,436,656 | 9/19/2014 |  |
| EX1404L3\_EK60\_-D20140919-T094321.bot | 7,096 | 9/19/2014 |  |
| EX1404L3\_EK60\_-D20140919-T094321.idx | 11,776 | 9/19/2014 |  |
| EX1404L3\_EK60\_-D20140919-T094321.raw | 26,391,764 | 9/19/2014 |  |
| EX1404L3\_EK60\_-D20140919-T220900.bot | 13,304 | 9/19/2014 |  |
| EX1404L3\_EK60\_-D20140919-T220900.idx | 22,640 | 9/19/2014 |  |
| EX1404L3\_EK60\_-D20140919-T220900.raw | 52,526,600 | 9/19/2014 |  |
| EX1404L3\_EK60\_-D20140919-T231954.bot | 2,328 | 9/19/2014 |  |
| EX1404L3\_EK60\_-D20140919-T231954.idx | 3,432 | 9/19/2014 |  |
| EX1404L3\_EK60\_-D20140919-T231954.raw | 6,214,392 | 9/19/2014 |  |
| EX1404L3\_EK60\_-D20140919-T235907.bot | 1,432 | 9/19/2014 |  |
| EX1404L3\_EK60\_-D20140919-T235907.idx | 1,864 | 9/19/2014 |  |
| EX1404L3\_EK60\_-D20140919-T235907.raw | 2,372,784 | 9/19/2014 |  |
| EX1404L3\_EK60\_-D20140920-T000357.bot | 34,232 | 9/19/2014 |  |
| EX1404L3\_EK60\_-D20140920-T000357.idx | 59,264 | 9/19/2014 |  |
| EX1404L3\_EK60\_-D20140920-T000357.raw | 52,443,536 | 9/19/2014 |  |
| EX1404L3\_EK60\_-D20140920-T032040.bot | 52,152 | 9/20/2014 |  |
| EX1404L3\_EK60\_-D20140920-T032040.idx | 90,624 | 9/20/2014 |  |
| EX1404L3\_EK60\_-D20140920-T032040.raw | 52,456,688 | 9/20/2014 |  |
| EX1404L3\_EK60\_-D20140920-T081103.bot | 15,960 | 9/20/2014 |  |
| EX1404L3\_EK60\_-D20140920-T081103.idx | 27,288 | 9/20/2014 |  |
| EX1404L3\_EK60\_-D20140920-T081103.raw | 39,929,560 | 9/20/2014 |  |
| EX1404L3\_EK60\_-D20140920-T212037.bot | 20,376 | 9/20/2014 |  |
| EX1404L3\_EK60\_-D20140920-T212037.idx | 35,016 | 9/20/2014 |  |
| EX1404L3\_EK60\_-D20140920-T212037.raw | 52,492,364 | 9/20/2014 |  |
| EX1404L3\_EK60\_-D20140920-T231015.bot | 19,224 | 9/20/2014 |  |
| EX1404L3\_EK60\_-D20140920-T231015.idx | 33,000 | 9/20/2014 |  |
| EX1404L3\_EK60\_-D20140920-T231015.raw | 52,505,472 | 9/20/2014 |  |
| EX1404L3\_EK60\_-D20140921-T013047.bot | 19,992 | 9/20/2014 |  |
| EX1404L3\_EK60\_-D20140921-T013047.idx | 34,344 | 9/20/2014 |  |
| EX1404L3\_EK60\_-D20140921-T013047.raw | 52,481,404 | 9/20/2014 |  |
| EX1404L3\_EK60\_-D20140921-T033007.bot | 19,800 | 9/21/2014 |  |
| EX1404L3\_EK60\_-D20140921-T033007.idx | 34,008 | 9/21/2014 |  |
| EX1404L3\_EK60\_-D20140921-T033007.raw | 52,472,300 | 9/21/2014 |  |
| EX1404L3\_EK60\_-D20140921-T053446.bot | 20,760 | 9/21/2014 |  |
| EX1404L3\_EK60\_-D20140921-T053446.idx | 35,688 | 9/21/2014 |  |
| EX1404L3\_EK60\_-D20140921-T053446.raw | 52,429,348 | 9/21/2014 |  |
| EX1404L3\_EK60\_-D20140921-T071243.bot | 19,544 | 9/21/2014 |  |
| EX1404L3\_EK60\_-D20140921-T071243.idx | 33,560 | 9/21/2014 |  |
| EX1404L3\_EK60\_-D20140921-T071243.raw | 52,440,368 | 9/21/2014 |  |
| EX1404L3\_EK60\_-D20140921-T092337.bot | 6,616 | 9/21/2014 |  |
| EX1404L3\_EK60\_-D20140921-T092337.idx | 10,936 | 9/21/2014 |  |
| EX1404L3\_EK60\_-D20140921-T092337.raw | 15,703,792 | 9/21/2014 |  |
| EX1404L3\_EK60\_-D20140921-T211730.bot | 19,480 | 9/21/2014 |  |
| EX1404L3\_EK60\_-D20140921-T211730.idx | 33,448 | 9/21/2014 |  |
| EX1404L3\_EK60\_-D20140921-T211730.raw | 52,492,316 | 9/21/2014 |  |
| EX1404L3\_EK60\_-D20140921-T231316.bot | 19,704 | 9/21/2014 |  |
| EX1404L3\_EK60\_-D20140921-T231316.idx | 33,840 | 9/21/2014 |  |
| EX1404L3\_EK60\_-D20140921-T231316.raw | 52,461,004 | 9/21/2014 |  |
| EX1404L3\_EK60\_-D20140922-T012017.bot | 19,928 | 9/21/2014 |  |
| EX1404L3\_EK60\_-D20140922-T012017.idx | 34,232 | 9/21/2014 |  |
| EX1404L3\_EK60\_-D20140922-T012017.raw | 52,492,136 | 9/21/2014 |  |
| EX1404L3\_EK60\_-D20140922-T032140.bot | 19,992 | 9/22/2014 |  |
| EX1404L3\_EK60\_-D20140922-T032140.idx | 34,344 | 9/22/2014 |  |
| EX1404L3\_EK60\_-D20140922-T032140.raw | 52,440,880 | 9/22/2014 |  |
| EX1404L3\_EK60\_-D20140922-T052033.bot | 29,720 | 9/22/2014 |  |
| EX1404L3\_EK60\_-D20140922-T052033.idx | 51,368 | 9/22/2014 |  |
| EX1404L3\_EK60\_-D20140922-T052033.raw | 52,452,652 | 9/22/2014 |  |
| EX1404L3\_EK60\_-D20140922-T080941.bot | 19,960 | 9/22/2014 |  |
| EX1404L3\_EK60\_-D20140922-T080941.idx | 34,288 | 9/22/2014 |  |
| EX1404L3\_EK60\_-D20140922-T080941.raw | 52,075,200 | 9/22/2014 |  |
| EX1404L3\_EK60\_-D20140922-T103026.bot | 19,672 | 9/22/2014 |  |
| EX1404L3\_EK60\_-D20140922-T103026.idx | 33,784 | 9/22/2014 |  |
| EX1404L3\_EK60\_-D20140922-T103026.raw | 52,498,948 | 9/22/2014 |  |
| EX1404L3\_EK60\_-D20140922-T123906.bot | 20,024 | 9/22/2014 |  |
| EX1404L3\_EK60\_-D20140922-T123906.idx | 34,400 | 9/22/2014 |  |
| EX1404L3\_EK60\_-D20140922-T123906.raw | 52,443,968 | 9/22/2014 |  |
| EX1404L3\_EK60\_-D20140922-T143718.bot | 19,928 | 9/22/2014 |  |
| EX1404L3\_EK60\_-D20140922-T143718.idx | 34,232 | 9/22/2014 |  |
| EX1404L3\_EK60\_-D20140922-T143718.raw | 52,518,296 | 9/22/2014 |  |
| EX1404L3\_EK60\_-D20140922-T163834.bot | 3,736 | 9/22/2014 |  |
| EX1404L3\_EK60\_-D20140922-T163834.idx | 5,896 | 9/22/2014 |  |
| EX1404L3\_EK60\_-D20140922-T163834.raw | 8,236,012 | 9/22/2014 |  |
| EX1404L3\_EK60\_-D20140922-T172640.bot | 19,288 | 9/22/2014 |  |
| EX1404L3\_EK60\_-D20140922-T172640.idx | 33,112 | 9/22/2014 |  |
| EX1404L3\_EK60\_-D20140922-T172640.raw | 52,465,620 | 9/22/2014 |  |
| EX1404L3\_EK60\_-D20140922-T194504.bot | 20,088 | 9/22/2014 |  |
| EX1404L3\_EK60\_-D20140922-T194504.idx | 34,512 | 9/22/2014 |  |
| EX1404L3\_EK60\_-D20140922-T194504.raw | 52,470,764 | 9/22/2014 |  |
| EX1404L3\_EK60\_-D20140922-T214157.bot | 17,656 | 9/22/2014 |  |
| EX1404L3\_EK60\_-D20140922-T214157.idx | 30,256 | 9/22/2014 |  |
| EX1404L3\_EK60\_-D20140922-T214157.raw | 52,516,184 | 9/22/2014 |  |
| EX1404L3\_EK60\_-D20140922-T232653.bot | 19,992 | 9/22/2014 |  |
| EX1404L3\_EK60\_-D20140922-T232653.idx | 34,344 | 9/22/2014 |  |
| EX1404L3\_EK60\_-D20140922-T232653.raw | 52,447,756 | 9/22/2014 |  |
| EX1404L3\_EK60\_-D20140923-T012629.bot | 19,960 | 9/22/2014 |  |
| EX1404L3\_EK60\_-D20140923-T012629.idx | 34,288 | 9/22/2014 |  |
| EX1404L3\_EK60\_-D20140923-T012629.raw | 52,435,460 | 9/22/2014 |  |
| EX1404L3\_EK60\_-D20140923-T032651.bot | 19,960 | 9/23/2014 |  |
| EX1404L3\_EK60\_-D20140923-T032651.idx | 34,288 | 9/23/2014 |  |
| EX1404L3\_EK60\_-D20140923-T032651.raw | 52,439,316 | 9/23/2014 |  |
| EX1404L3\_EK60\_-D20140923-T052716.bot | 20,184 | 9/23/2014 |  |
| EX1404L3\_EK60\_-D20140923-T052716.idx | 34,680 | 9/23/2014 |  |
| EX1404L3\_EK60\_-D20140923-T052716.raw | 52,497,864 | 9/23/2014 |  |
| EX1404L3\_EK60\_-D20140923-T072221.bot | 20,472 | 9/23/2014 |  |
| EX1404L3\_EK60\_-D20140923-T072221.idx | 35,184 | 9/23/2014 |  |
| EX1404L3\_EK60\_-D20140923-T072221.raw | 52,481,332 | 9/23/2014 |  |
| EX1404L3\_EK60\_-D20140923-T090910.bot | 6,648 | 9/23/2014 |  |
| EX1404L3\_EK60\_-D20140923-T090910.idx | 10,992 | 9/23/2014 |  |
| EX1404L3\_EK60\_-D20140923-T090910.raw | 15,916,044 | 9/23/2014 |  |
| EX1404L3\_EK60\_-D20140923-T225657.bot | 46,104 | 9/23/2014 |  |
| EX1404L3\_EK60\_-D20140923-T225657.idx | 80,040 | 9/23/2014 |  |
| EX1404L3\_EK60\_-D20140923-T225657.raw | 52,439,772 | 9/23/2014 |  |
| EX1404L3\_EK60\_-D20140924-T035940.bot | 50,456 | 9/24/2014 |  |
| EX1404L3\_EK60\_-D20140924-T035940.idx | 87,656 | 9/24/2014 |  |
| EX1404L3\_EK60\_-D20140924-T035940.raw | 52,460,436 | 9/24/2014 |  |
| EX1404L3\_EK60\_-D20140924-T090215.bot | 9,368 | 9/24/2014 |  |
| EX1404L3\_EK60\_-D20140924-T090215.idx | 15,752 | 9/24/2014 |  |
| EX1404L3\_EK60\_-D20140924-T090215.raw | 9,987,668 | 9/24/2014 |  |
| EX1404L3\_EK60\_-D20140924-T161612.bot | 36,600 | 9/24/2014 |  |
| EX1404L3\_EK60\_-D20140924-T161612.idx | 63,408 | 9/24/2014 |  |
| EX1404L3\_EK60\_-D20140924-T161612.raw | 52,447,708 | 9/24/2014 |  |
| EX1404L3\_EK60\_-D20140924-T201754.bot | 32,504 | 9/24/2014 |  |
| EX1404L3\_EK60\_-D20140924-T201754.idx | 56,240 | 9/24/2014 |  |
| EX1404L3\_EK60\_-D20140924-T201754.raw | 52,430,752 | 9/24/2014 |  |
| EX1404L3\_EK60\_-D20140924-T234710.bot | 34,648 | 9/24/2014 |  |
| EX1404L3\_EK60\_-D20140924-T234710.idx | 59,992 | 9/24/2014 |  |
| EX1404L3\_EK60\_-D20140924-T234710.raw | 52,457,948 | 9/24/2014 |  |
| EX1404L3\_EK60\_-D20140925-T024659.bot | 33,976 | 9/25/2014 |  |
| EX1404L3\_EK60\_-D20140925-T024659.idx | 58,816 | 9/25/2014 |  |
| EX1404L3\_EK60\_-D20140925-T024659.raw | 52,473,048 | 9/25/2014 |  |
| EX1404L3\_EK60\_-D20140925-T055637.bot | 34,200 | 9/25/2014 |  |
| EX1404L3\_EK60\_-D20140925-T055637.idx | 59,208 | 9/25/2014 |  |
| EX1404L3\_EK60\_-D20140925-T055637.raw | 52,464,628 | 9/25/2014 |  |
| EX1404L3\_EK60\_-D20140925-T090301.bot | 11,352 | 9/25/2014 |  |
| EX1404L3\_EK60\_-D20140925-T090301.idx | 19,224 | 9/25/2014 |  |
| EX1404L3\_EK60\_-D20140925-T090301.raw | 16,549,220 | 9/25/2014 |  |
| EX1404L3\_EK60\_-D20140925-T220919.bot | 34,232 | 9/25/2014 |  |
| EX1404L3\_EK60\_-D20140925-T220919.idx | 59,264 | 9/25/2014 |  |
| EX1404L3\_EK60\_-D20140925-T220919.raw | 52,467,696 | 9/25/2014 |  |
| EX1404L3\_EK60\_-D20140926-T011411.bot | 33,016 | 9/26/2014 |  |
| EX1404L3\_EK60\_-D20140926-T011411.idx | 57,136 | 9/26/2014 |  |
| EX1404L3\_EK60\_-D20140926-T011411.raw | 52,453,384 | 9/26/2014 |  |
| EX1404L3\_EK60\_-D20140926-T043426.bot | 33,016 | 9/26/2014 |  |
| EX1404L3\_EK60\_-D20140926-T043426.idx | 57,136 | 9/26/2014 |  |
| EX1404L3\_EK60\_-D20140926-T043426.raw | 52,440,656 | 9/26/2014 |  |
| EX1404L3\_EK60\_-D20140926-T075504.bot | 24,056 | 9/26/2014 |  |
| EX1404L3\_EK60\_-D20140926-T075504.idx | 41,456 | 9/26/2014 |  |
| EX1404L3\_EK60\_-D20140926-T075504.raw | 35,632,272 | 9/26/2014 |  |
| EX1404L3\_EK60\_-D20140926-T161558.bot | 34,232 | 9/26/2014 |  |
| EX1404L3\_EK60\_-D20140926-T161558.idx | 59,264 | 9/26/2014 |  |
| EX1404L3\_EK60\_-D20140926-T161558.raw | 52,433,808 | 9/26/2014 |  |
| EX1404L3\_EK60\_-D20140926-T191955.bot | 34,136 | 9/26/2014 |  |
| EX1404L3\_EK60\_-D20140926-T191955.idx | 59,096 | 9/26/2014 |  |
| EX1404L3\_EK60\_-D20140926-T191955.raw | 52,453,152 | 9/26/2014 |  |
| EX1404L3\_EK60\_-D20140926-T222518.bot | 34,488 | 9/26/2014 |  |
| EX1404L3\_EK60\_-D20140926-T222518.idx | 59,712 | 9/26/2014 |  |
| EX1404L3\_EK60\_-D20140926-T222518.raw | 52,476,300 | 9/26/2014 |  |
| EX1404L3\_EK60\_-D20140927-T012625.bot | 34,552 | 9/27/2014 |  |
| EX1404L3\_EK60\_-D20140927-T012625.idx | 59,824 | 9/27/2014 |  |
| EX1404L3\_EK60\_-D20140927-T012625.raw | 52,443,952 | 9/27/2014 |  |
| EX1404L3\_EK60\_-D20140927-T042641.bot | 34,552 | 9/27/2014 |  |
| EX1404L3\_EK60\_-D20140927-T042641.idx | 59,824 | 9/27/2014 |  |
| EX1404L3\_EK60\_-D20140927-T042641.raw | 52,439,812 | 9/27/2014 |  |
| EX1404L3\_EK60\_-D20140927-T072647.bot | 26,392 | 9/27/2014 |  |
| EX1404L3\_EK60\_-D20140927-T072647.idx | 45,544 | 9/27/2014 |  |
| EX1404L3\_EK60\_-D20140927-T072647.raw | 40,422,900 | 9/27/2014 |  |
| EX1404L3\_EK60\_-D20140928-T003214.bot | 17,496 | 9/27/2014 |  |
| EX1404L3\_EK60\_-D20140928-T003214.idx | 29,976 | 9/27/2014 |  |
| EX1404L3\_EK60\_-D20140928-T003214.raw | 52,472,400 | 9/27/2014 |  |
| EX1404L3\_EK60\_-D20140928-T022012.bot | 13,176 | 9/27/2014 |  |
| EX1404L3\_EK60\_-D20140928-T022012.idx | 22,416 | 9/27/2014 |  |
| EX1404L3\_EK60\_-D20140928-T022012.raw | 52,565,368 | 9/27/2014 |  |
| EX1404L3\_EK60\_-D20140928-T033716.bot | 16,568 | 9/28/2014 |  |
| EX1404L3\_EK60\_-D20140928-T033716.idx | 28,352 | 9/28/2014 |  |
| EX1404L3\_EK60\_-D20140928-T033716.raw | 52,443,196 | 9/28/2014 |  |
| EX1404L3\_EK60\_-D20140928-T050707.bot | 20,024 | 9/28/2014 |  |
| EX1404L3\_EK60\_-D20140928-T050707.idx | 34,400 | 9/28/2014 |  |
| EX1404L3\_EK60\_-D20140928-T050707.raw | 52,435,308 | 9/28/2014 |  |
| EX1404L3\_EK60\_-D20140928-T070529.bot | 19,864 | 9/28/2014 |  |
| EX1404L3\_EK60\_-D20140928-T070529.idx | 34,120 | 9/28/2014 |  |
| EX1404L3\_EK60\_-D20140928-T070529.raw | 52,505,568 | 9/28/2014 |  |
| EX1404L3\_EK60\_-D20140928-T090839.bot | 6,232 | 9/28/2014 |  |
| EX1404L3\_EK60\_-D20140928-T090839.idx | 10,264 | 9/28/2014 |  |
| EX1404L3\_EK60\_-D20140928-T090839.raw | 15,052,976 | 9/28/2014 |  |
| EX1404L3\_EK60\_-D20140928-T212719.bot | 19,864 | 9/28/2014 |  |
| EX1404L3\_EK60\_-D20140928-T212719.idx | 34,120 | 9/28/2014 |  |
| EX1404L3\_EK60\_-D20140928-T212719.raw | 52,445,628 | 9/28/2014 |  |
| EX1404L3\_EK60\_-D20140928-T232939.bot | 20,088 | 9/28/2014 |  |
| EX1404L3\_EK60\_-D20140928-T232939.idx | 34,512 | 9/28/2014 |  |
| EX1404L3\_EK60\_-D20140928-T232939.raw | 52,442,492 | 9/28/2014 |  |
| EX1404L3\_EK60\_-D20140929-T012546.bot | 20,248 | 9/28/2014 |  |
| EX1404L3\_EK60\_-D20140929-T012546.idx | 34,792 | 9/28/2014 |  |
| EX1404L3\_EK60\_-D20140929-T012546.raw | 52,447,796 | 9/28/2014 |  |
| EX1404L3\_EK60\_-D20140929-T031748.bot | 20,312 | 9/29/2014 |  |
| EX1404L3\_EK60\_-D20140929-T031748.idx | 34,904 | 9/29/2014 |  |
| EX1404L3\_EK60\_-D20140929-T031748.raw | 52,431,068 | 9/29/2014 |  |
| EX1404L3\_EK60\_-D20140929-T050739.bot | 20,376 | 9/29/2014 |  |
| EX1404L3\_EK60\_-D20140929-T050739.idx | 35,016 | 9/29/2014 |  |
| EX1404L3\_EK60\_-D20140929-T050739.raw | 52,435,108 | 9/29/2014 |  |
| EX1404L3\_EK60\_-D20140929-T065557.bot | 20,184 | 9/29/2014 |  |
| EX1404L3\_EK60\_-D20140929-T065557.idx | 34,680 | 9/29/2014 |  |
| EX1404L3\_EK60\_-D20140929-T065557.raw | 52,470,260 | 9/29/2014 |  |
| EX1404L3\_EK60\_-D20140929-T085022.bot | 10,008 | 9/29/2014 |  |
| EX1404L3\_EK60\_-D20140929-T085022.idx | 16,872 | 9/29/2014 |  |
| EX1404L3\_EK60\_-D20140929-T085022.raw | 25,351,760 | 9/29/2014 |  |
| EX1404L3\_EK60\_-D20140929-T130154.bot | 20,344 | 9/29/2014 |  |
| EX1404L3\_EK60\_-D20140929-T130154.idx | 34,960 | 9/29/2014 |  |
| EX1404L3\_EK60\_-D20140929-T130154.raw | 52,459,264 | 9/29/2014 |  |
| EX1404L3\_EK60\_-D20140929-T145057.bot | 7,064 | 9/29/2014 |  |
| EX1404L3\_EK60\_-D20140929-T145057.idx | 11,720 | 9/29/2014 |  |
| EX1404L3\_EK60\_-D20140929-T145057.raw | 17,115,696 | 9/29/2014 |  |
| EX1404L3\_EK60\_-D20140930-T003054.bot | 32,984 | 9/29/2014 |  |
| EX1404L3\_EK60\_-D20140930-T003054.idx | 57,080 | 9/29/2014 |  |
| EX1404L3\_EK60\_-D20140930-T003054.raw | 52,465,696 | 9/29/2014 |  |
| EX1404L3\_EK60\_-D20140930-T033315.bot | 33,048 | 9/30/2014 |  |
| EX1404L3\_EK60\_-D20140930-T033315.idx | 57,192 | 9/30/2014 |  |
| EX1404L3\_EK60\_-D20140930-T033315.raw | 52,442,368 | 9/30/2014 |  |
| EX1404L3\_EK60\_-D20140930-T065344.bot | 29,688 | 9/30/2014 |  |
| EX1404L3\_EK60\_-D20140930-T065344.idx | 51,312 | 9/30/2014 |  |
| EX1404L3\_EK60\_-D20140930-T065344.raw | 45,120,244 | 9/30/2014 |  |
| EX1404L3\_EK60\_-D20141001-T001604.bot | 31,736 | 9/30/2014 |  |
| EX1404L3\_EK60\_-D20141001-T001604.idx | 54,896 | 9/30/2014 |  |
| EX1404L3\_EK60\_-D20141001-T001604.raw | 52,475,908 | 9/30/2014 |  |
| EX1404L3\_EK60\_-D20141001-T035321.bot | 31,320 | 10/1/2014 |  |
| EX1404L3\_EK60\_-D20141001-T035321.idx | 54,168 | 10/1/2014 |  |
| EX1404L3\_EK60\_-D20141001-T035321.raw | 52,447,684 | 10/1/2014 |  |
| EX1404L3\_EK60\_-D20141001-T073620.bot | 19,960 | 10/1/2014 |  |
| EX1404L3\_EK60\_-D20141001-T073620.idx | 34,288 | 10/1/2014 |  |
| EX1404L3\_EK60\_-D20141001-T073620.raw | 34,275,052 | 10/1/2014 |  |
| EX1404L3\_EK60\_-D20141001-T201852.bot | 15,928 | 10/1/2014 |  |
| EX1404L3\_EK60\_-D20141001-T201852.idx | 27,232 | 10/1/2014 |  |
| EX1404L3\_EK60\_-D20141001-T201852.raw | 27,177,008 | 10/1/2014 |  |
| EX1404L3\_EK60\_-D20141001-T222520.bot | 31,864 | 10/1/2014 |  |
| EX1404L3\_EK60\_-D20141001-T222520.idx | 55,120 | 10/1/2014 |  |
| EX1404L3\_EK60\_-D20141001-T222520.raw | 52,444,032 | 10/1/2014 |  |
| EX1404L3\_EK60\_-D20141002-T020122.bot | 22,040 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T020122.idx | 37,928 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T020122.raw | 52,522,324 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T040227.bot | 13,464 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T040227.idx | 22,920 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T040227.raw | 52,438,568 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T050523.bot | 3,192 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T050523.idx | 4,944 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T050523.raw | 9,728,108 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T053207.bot | 13,880 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T053207.idx | 23,648 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T053207.raw | 52,556,992 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T063635.bot | 13,464 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T063635.idx | 22,920 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T063635.raw | 52,464,832 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T073845.bot | 13,496 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T073845.idx | 22,976 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T073845.raw | 52,557,652 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T084036.bot | 13,496 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T084036.idx | 22,976 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T084036.raw | 52,529,560 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T094210.bot | 13,496 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T094210.idx | 22,976 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T094210.raw | 52,532,244 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T104348.bot | 13,496 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T104348.idx | 22,976 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T104348.raw | 52,524,580 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T114517.bot | 13,496 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T114517.idx | 22,976 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T114517.raw | 52,524,644 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T124644.bot | 13,496 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T124644.idx | 22,976 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T124644.raw | 52,524,144 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T134812.bot | 13,496 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T134812.idx | 22,976 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T134812.raw | 52,525,208 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T144938.bot | 13,496 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T144938.idx | 22,976 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T144938.raw | 52,540,484 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T155116.bot | 13,496 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T155116.idx | 22,976 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T155116.raw | 52,518,544 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T165236.bot | 2,456 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T165236.idx | 3,656 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141002-T165236.raw | 6,642,864 | 10/2/2014 |  |
| EX1404L3\_EK60\_-D20141003-T153630.bot | 920 | 10/3/2014 |  |
| EX1404L3\_EK60\_-D20141003-T153630.idx | 968 | 10/3/2014 |  |
| EX1404L3\_EK60\_-D20141003-T153630.raw | 135,476 | 10/3/2014 |  |
| EX1404L3\_EK60\_-D20141003-T153719.bot | 5,304 | 10/3/2014 |  |
| EX1404L3\_EK60\_-D20141003-T153719.idx | 8,640 | 10/3/2014 |  |
| EX1404L3\_EK60\_-D20141003-T153719.raw | 18,281,164 | 10/3/2014 |  |
| EX1404L3\_EK60\_-D20141003-T160129.bot | 920 | 10/3/2014 |  |
| EX1404L3\_EK60\_-D20141003-T160129.idx | 968 | 10/3/2014 |  |
| EX1404L3\_EK60\_-D20141003-T160129.raw | 139,460 | 10/3/2014 |  |
| EX1404L3\_EK60\_-D20141003-T160339.bot | 6,360 | 10/3/2014 |  |
| EX1404L3\_EK60\_-D20141003-T160339.idx | 10,488 | 10/3/2014 |  |
| EX1404L3\_EK60\_-D20141003-T160339.raw | 22,790,560 | 10/3/2014 |  |
| EX1404L3\_EK60\_-D20141003-T233744.bot | 13,560 | 10/3/2014 |  |
| EX1404L3\_EK60\_-D20141003-T233744.idx | 23,088 | 10/3/2014 |  |
| EX1404L3\_EK60\_-D20141003-T233744.raw | 52,540,432 | 10/3/2014 |  |
| EX1404L3\_EK60\_-D20141004-T003913.bot | 13,496 | 10/3/2014 |  |
| EX1404L3\_EK60\_-D20141004-T003913.idx | 22,976 | 10/3/2014 |  |
| EX1404L3\_EK60\_-D20141004-T003913.raw | 52,471,532 | 10/3/2014 |  |
| EX1404L3\_EK60\_-D20141004-T014022.bot | 13,496 | 10/3/2014 |  |
| EX1404L3\_EK60\_-D20141004-T014022.idx | 22,976 | 10/3/2014 |  |
| EX1404L3\_EK60\_-D20141004-T014022.raw | 52,485,444 | 10/3/2014 |  |
| EX1404L3\_EK60\_-D20141004-T024142.bot | 13,496 | 10/3/2014 |  |
| EX1404L3\_EK60\_-D20141004-T024142.idx | 22,976 | 10/3/2014 |  |
| EX1404L3\_EK60\_-D20141004-T024142.raw | 52,486,092 | 10/3/2014 |  |
| EX1404L3\_EK60\_-D20141004-T034259.bot | 13,496 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141004-T034259.idx | 22,976 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141004-T034259.raw | 52,479,644 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141004-T044414.bot | 13,464 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141004-T044414.idx | 22,920 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141004-T044414.raw | 52,437,068 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141004-T054628.bot | 13,496 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141004-T054628.idx | 22,976 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141004-T054628.raw | 52,504,924 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141004-T064802.bot | 13,432 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141004-T064802.idx | 22,864 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141004-T064802.raw | 52,494,608 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141004-T075222.bot | 13,368 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141004-T075222.idx | 22,752 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141004-T075222.raw | 52,433,048 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141004-T085851.bot | 9,624 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141004-T085851.idx | 16,200 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141004-T085851.raw | 37,049,792 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141004-T183243.bot | 13,272 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141004-T183243.idx | 22,584 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141004-T183243.raw | 52,474,296 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141004-T194458.bot | 1,272 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141004-T194458.idx | 1,584 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141004-T194458.raw | 1,768,692 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141004-T195158.bot | 13,336 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141004-T195158.idx | 22,696 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141004-T195158.raw | 52,537,732 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141004-T210215.bot | 13,304 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141004-T210215.idx | 22,640 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141004-T210215.raw | 52,502,308 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141004-T221259.bot | 13,336 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141004-T221259.idx | 22,696 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141004-T221259.raw | 52,482,028 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141004-T232143.bot | 13,048 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141004-T232143.idx | 22,192 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141004-T232143.raw | 52,480,556 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141005-T004326.bot | 12,728 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141005-T004326.idx | 21,632 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141005-T004326.raw | 52,570,768 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141005-T022108.bot | 12,760 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141005-T022108.idx | 21,688 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141005-T022108.raw | 52,496,036 | 10/4/2014 |  |
| EX1404L3\_EK60\_-D20141005-T035626.bot | 13,144 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T035626.idx | 22,360 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T035626.raw | 52,490,800 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T051416.bot | 13,336 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T051416.idx | 22,696 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T051416.raw | 52,450,316 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T062304.bot | 13,304 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T062304.idx | 22,640 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T062304.raw | 52,523,388 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T073403.bot | 13,208 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T073403.idx | 22,472 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T073403.raw | 52,436,560 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T084811.bot | 4,760 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T084811.idx | 7,688 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T084811.raw | 14,912,564 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T102322.bot | 13,432 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T102322.idx | 22,864 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T102322.raw | 52,461,844 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T112740.bot | 13,464 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T112740.idx | 22,920 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T112740.raw | 52,466,992 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T123015.bot | 5,240 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T123015.idx | 8,528 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T123015.raw | 18,225,860 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T125216.bot | 952 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T125216.idx | 1,024 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T125216.raw | 286,112 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T125321.bot | 13,496 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T125321.idx | 22,976 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T125321.raw | 52,451,384 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T135531.bot | 13,400 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T135531.idx | 22,808 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T135531.raw | 52,471,748 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T150108.bot | 3,736 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T150108.idx | 5,896 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T150108.raw | 12,025,136 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T160254.bot | 13,368 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T160254.idx | 22,752 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T160254.raw | 52,530,492 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T171042.bot | 13,336 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T171042.idx | 22,696 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T171042.raw | 52,443,608 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T181852.bot | 13,272 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T181852.idx | 22,584 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T181852.raw | 52,519,512 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T193056.bot | 13,336 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T193056.idx | 22,696 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T193056.raw | 52,489,364 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T203946.bot | 13,336 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T203946.idx | 22,696 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T203946.raw | 52,527,432 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T214915.bot | 13,112 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T214915.idx | 22,304 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T214915.raw | 52,533,868 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T230905.bot | 12,792 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T230905.idx | 21,744 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141005-T230905.raw | 52,548,672 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141006-T004345.bot | 12,728 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141006-T004345.idx | 21,632 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141006-T004345.raw | 52,458,400 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141006-T022016.bot | 12,760 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141006-T022016.idx | 21,688 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141006-T022016.raw | 52,519,876 | 10/5/2014 |  |
| EX1404L3\_EK60\_-D20141006-T035603.bot | 12,760 | 10/6/2014 |  |
| EX1404L3\_EK60\_-D20141006-T035603.idx | 21,688 | 10/6/2014 |  |
| EX1404L3\_EK60\_-D20141006-T035603.raw | 52,500,240 | 10/6/2014 |  |
| EX1404L3\_EK60\_-D20141006-T053145.bot | 12,760 | 10/6/2014 |  |
| EX1404L3\_EK60\_-D20141006-T053145.idx | 21,688 | 10/6/2014 |  |
| EX1404L3\_EK60\_-D20141006-T053145.raw | 52,544,656 | 10/6/2014 |  |
| EX1404L3\_EK60\_-D20141006-T070809.bot | 12,760 | 10/6/2014 |  |
| EX1404L3\_EK60\_-D20141006-T070809.idx | 21,688 | 10/6/2014 |  |
| EX1404L3\_EK60\_-D20141006-T070809.raw | 52,538,252 | 10/6/2014 |  |
| EX1404L3\_EK60\_-D20141006-T084420.bot | 10,296 | 10/6/2014 |  |
| EX1404L3\_EK60\_-D20141006-T084420.idx | 17,376 | 10/6/2014 |  |
| EX1404L3\_EK60\_-D20141006-T084420.raw | 41,150,672 | 10/6/2014 |  |

| **EX1404L3 SVP LOG** | | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| **DATE (UTC)** | **TIME (UTC)** | **XBT/CTD FILE NAME** | **LAT (WGS84) (dec min)** | **LONG (WGS84) (dec min)** | **PROBE TYPE** | **NOTES** |
| 9/19/2014 | 2:40:17 | EX1404L3\_XBT001\_140919 | 37 3.66089N | 75 6.80029W | Deep Blue |  |
| 9/19/2014 | 04:15:39 | EX1404L3\_XBT002\_140919 | 37 14.16406N | 74 51.66553W | Deep Blue |  |
| 9/19/2014 | 07:50:44 | EX1404L3\_XBT003\_140919 | 37 38.89722N | 74 15.9043W | Deep Blue |  |
| 9/19/2014 | 22:10:00 | EX1404L3\_XBT004\_140919 | 38 1.41797N | 73 44.64014W | Deep Blue |  |
| 9/20/2014 | 1:13:32 | EX1404L3\_XBT005\_140920 | 38 16.09229N | 73 25.58154W | Deep Blue | Error -- redo launch |
| 9/20/2014 | 01:16:33 | EX1404L3\_XBT006\_140920 | 38 16.35791N | 73 25.23584W | Deep Blue |  |
| 9/20/2014 | 05:56:33 | EX1404L3\_XBT007\_140920 | 38 41.28784N | 72 52.94043W | Deep Blue |  |
| 9/20/2014 | 21:11:48 | EX1404L3\_XBT008\_140921 | 39 0.71143N | 72 27.11523W | Deep Blue |  |
| 9/21/2014 | 03:14:15 | EX1404L3\_XBT009\_140921 | 39 0.63062N | 71 56.54004W | Deep Blue |  |
| 9/21/2014 | 08:35:27 | EX1404L3\_XBT010\_140921 | 39 34.91089N | 71 26.21875W | Deep Blue |  |
| 9/21/2014 | 21:19:03 | EX1404L3\_XBT011\_140921 | 39 41.85962N | 71 36.05127W | Deep Blue |  |
| 9/22/2014 | 02:16:49 | EX1404L3\_XBT012\_140922 | 39 29.62769N | 71 30.125W | Deep Blue |  |
| 9/22/2014 | 16:34:13 | EX1404L3\_XBT013\_140922 | 39 33.46509N | 71 28.66455W | Deep Blue |  |
| 9/22/2014 | 22:07:27 | EX1404L3\_XBT014\_140922 | 39 53.1792N | 71 17.02393W | Deep Blue |  |
| 9/23/2014 | 03:01:11 | EX1404L3\_XBT015\_140923 | 39 56.18481N | 70 27.65137W | Deep Blue |  |
| 9/23/2014 | 07:12:50 | EX1404L3\_XBT016\_140923 | 39 55.8623N | 69 46.48828W | Deep Blue |  |
| 9/23/2014 | 23:05:46 | EX1404L3\_XBT017\_140923 | 39 53.47119N | 69 20.42627W | Deep Blue |  |
| 9/24/2014 | 06:05:05 | EX1404L3\_XBT018\_140924 | 39 53.53223N | 68 10.66309W | Deep Blue |  |
| 9/24/2014 | 16:10:41 | EX1404L3\_XBT019\_140924 | 39 52.19458N | 67 29.45264W | Deep Blue |  |
| 9/24/2014 | 21:51:27 | EX1404L3\_XBT020\_140924 | 39 50.45264N | 67 7.06934W | Deep Blue |  |
| 9/25/2014 | 02:42:22 | EX1404L3\_XBT021\_140925 | 39 43.97925N | 66 37.34277W | Deep Blue |  |
| 9/25/2014 | 06:14:24 | EX1404L3\_XBT022\_140925 | 39 48.375N | 66 10.47461W | Deep Blue |  |
| 9/25/2014 | 22:00:38 | EX1404L3\_XBT023\_140925 | 39 47.97583N | 66 12.10645W | Deep Blue |  |
| 9/26/2014 | 02:48:20 | EX1404L3\_XBT024\_140926 | 39 39.61987N | 65 59.23877W | Deep Blue |  |
| 9/26/2014 | 06:07:26 | EX1404L3\_XBT025\_140926 | 39 25.28955N | 65 24.13477W | Deep Blue |  |
| 9/26/2014 | 16:08:47 | EX1404L3\_XBT026\_140926 | 38 54.57251N | 65 19.80029W | Deep Blue |  |
| 9/26/2014 | 21:13:58 | EX1404L3\_XBT027\_140926 | 38 27.99023N | 64 39.66943W | Deep Blue |  |
| 9/27/2014 | 06:41:04 | EX1404L3\_XBT028\_140927 | 38 19.90894N | 63 33.46094W | Deep Blue |  |
| 9/27/2014 | 07:38:36 | EX1404L3\_XBT029\_140927 | 38 27.47583N | 63 38.17969W | Deep Blue |  |
| 9/28/2014 | 00:24:49 | EX1404L3\_XBT030\_140928 | 38 37.53223N | 63 13.15869W | Deep Blue |  |
| 9/28/2014 | 04:04:29 | EX1404L3\_XBT031\_140928 | 38 12.60327N | 62 54.12598W | Deep Blue |  |
| 9/28/2014 | 06:59:42 | EX1404L3\_XBT032\_140928 | 38 15.21948N | 62 31.5415W | Deep Blue |  |
| 9/28/2014 | 21:03:31 | EX1404L3\_XBT033\_140928 | 38 18.76245N | 62 29.8418W | Deep Blue |  |
| 9/29/2014 | 01:19:44 | EX1404L3\_XBT034\_140929 | 38 31.06128N | 62 1.24707W | Deep Blue |  |
| 9/29/2014 | 05:38:32 | EX1404L3\_XBT035\_140929 | 38 13.39819N | 62 38.21875W | Deep Blue |  |
| 9/29/2014 | 12:57:02 | EX1404L3\_XBT036\_140929 | 38 36.89209N | 63 16.92139W | Deep Blue |  |
| 9/30/2014 | 00:21:58 | EX1404L3\_XBT037\_140930 | 38 50.76636N | 63 44.29395W | Deep Blue |  |
| 9/30/2014 | 04:18:45 | EX1404L3\_XBT038\_140930 | 39 20.02588N | 64 1.57324W | Deep Blue |  |
| 9/30/2014 | 06:43:33 | EX1404L3\_XBT039\_140930 | 39 35.03882N | 64 13.95752W | Deep Blue |  |
| 10/1/2014 | 00:06:02 | EX1404L3\_XBT040\_140930 | 38 54.36816N | 64 51.63428W | Deep Blue |  |
| 10/1/2014 | 04:11:55 | EX1404L3\_XBT041\_141001 | 39 17.47021N | 65 44.19238W | Deep Blue |  |
| 10/1/2014 | 07:01:39 | EX1404L3\_XBT042\_141001 | 39 32.08887N | 39 32.08887N | Deep Blue |  |
| 10/1/2014 | 20:12:07 | EX1404L3\_XBT043\_141001 | 39 49.80957N | 66 52.0166W | Deep Blue |  |
| 10/1/2014 | 21:55:10 | EX1404L3\_XBT044\_141001 | 39 57.6416N | 67 4.80566W | Deep Blue |  |
| 10/2/2014 | 10:44:49 | EX1404L3\_XBT045\_141002 | 40 20.82251N | 69 7.18262W | Deep Blue |  |
| 10/3/2014 | 23:31:27 | EX1404L3\_XBT046\_141003 | 40 58.85303N | 70 45.9751W | Deep Blue |  |
| 10/4/2014 | 04:26:18 | EX1404L3\_XBT047\_141004 | 40 18.64111N | 71 14.33008W | Deep Blue |  |
| 10/4/2014 | 18:28:33 | EX1404L3\_XBT048\_141004 | 39 40.63135N | 71 37.46533W | Deep Blue |  |
| 10/4/2014 | 22:50:33 | EX1404L3\_XBT049\_141004 | 39 31.51489N | 71 52.93018W | Deep Blue |  |
| 10/5/2014 | 04:55:44 | EX1404L3\_XBT050\_141005 | 39 30.67627N | 71 46.97461W | Deep Blue |  |
| 10/5/2014 | 14:03:16 | EX1404L3\_XBT051\_141005 | 39 31.98267N | 72 20.77686W | Deep Blue |  |
| 10/5/2014 | 18:01:00 | EX1404L3\_XBT052\_141005 | 39 29.76025N | 72 17.9707W | Deep Blue |  |
| 10/6/2014 | 00:09:09 | EX1404L3\_XBT053\_141006 | 39 27.05737N | 71 25.99805W | Deep Blue |  |
| 10/6/2014 | 05:15:25 | EX1404L3\_XBT054\_141006 | 39 37.521N | 70 31.92529W | Deep Blue |  |
| 10/6/2014 | 22:00:01 | EX1404L3\_XBT055\_141006 | 39 46.62573N | 69 56.11963W | Deep Blue |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **BIST FILE NAME** | **Date (Local)** | **TIME (Local)** | |
|
|
| EX1404L3\_BIST\_01.txt | 9/15/2014 | 6:52 | AM |
| EX1404L3\_BIST\_02.txt | 9/15/2014 | 7:17 | AM |
| EX1404L3\_BIST\_03.txt | 9/15/2014 | 7:28 | AM |
| EX1404L3\_BIST\_04\_Failed.txt | 9/15/2014 | 8:12 | AM |
| EX1404L3\_BIST\_05.txt | 9/15/2014 | 11:25 | AM |
| EX1404L3\_BIST\_06.txt | 9/15/2014 | 11:42 | AM |
| EX1404L3\_BIST\_07.txt | 9/16/2014 | 6:11 | PM |
| EX1404L3\_BIST\_08.txt | 9/18/2014 | 5:47 | PM |
| EX1404L3\_BIST\_09.txt | 9/20/2014 | 5:32 | AM |
| EX1404L3\_BIST\_10.txt | 9/20/2014 | 3:58 | PM |
| EX1404L3\_BIST\_11.txt | 9/21/2014 | 4:00 | PM |
| EX1404L3\_BIST\_12.txt | 9/23/2014 | 4:19 | PM |
| EX1404L3\_BIST\_13.txt | 9/26/2014 | 11:04 | AM |
| EX1404L3\_BIST\_14.txt | 9/27/2014 | 7:09 | PM |
| EX1404L3\_BIST\_15.txt | 9/28/2014 | 4:04 | PM |
| EX1404L3\_BIST\_16.txt | 9/29/2014 | 7:08 | PM |
| EX1404L3\_BIST\_17.txt | 9/30/2014 | 7:09 | PM |
| EX1404L3\_BIST\_18.txt | 10/1/2014 | 3:04 | PM |
| EX1404L3\_BIST\_19.txt | 10/4/2014 | 1:20 | PM |
| EX1404L3\_BIST\_20.txt | 10/6/2014 | 4:26 | PM |
| EX1404L3\_BIST\_21\_Final.txt | 10/7/2014 | 6:52 | AM |
| EX1404L3\_PUparameters.txt | 10/7/2014 | 8:06 | AM |

# Appendix G: Kongsberg EM 302 Multibeam Sonar Description and Operational Specifications

Several features of the *Okeanos Explorer’s* 30 kHz multibeam make it an excellent tool for ocean exploration. The following is a brief description of these features.

**Depth Range**

The system is designed to map the seafloor in water depths of 10 to 7000 meters. This leaves only the deepest parts of the deeper ocean trenches out of the EM 302’s reach. In fact, when the ship transited over the Mariana Trench going to and from Indonesia in 2010, the system was able to detect the bottom at depths of up to 8000 meters.

**High Density Data**

In multibeam data, the denser the data, the finer resolution maps can be produced. In water deptsh 3000 meters and shallower, the system can operate in dual swath, or multiping mode, which results in increased along track data density. This is achieved by detecting two swaths per ping cycle, resulting in up to 864 beams per ping.

The *Okeanos Explorer* mapping team typically operates the multibeam in high density equidistant ping mode, which results in up to 864 evenly spaced soundings on the seafloor per ping.

**Multiple Data Types Collected**

The system collects seafloor backscatter data, which provides information about the character of the seafloor in terms of bottom type.

The system also collects water column backscatter data, which has the ability to detect gaseous plumes in the water column. The full value of this feature is still being realized.

FM chirp mode is utilized in water depths greater than 1000 meters, and allows for the detection of the bottom further out from nadir than with previous 30 kHz systems. This results in wider swath widths, giving a higher likelihood of new discoveries as well as efficiency of survey operations.

**Multibeam Primer**

The area of the seafloor covered, or ensonified, by a single beam within a pulse of sound, or ping, is called the beam footprint. This beam footprint is defined in terms of the across track and along track values. Both of these values are dependent on water depth and the beam width at which the sound pulse is transmitted and received. The across track beam width value is also dependent on the receive angle, or “listening” angle, of the system, and the angle from nadir which it is received. The transmit angle for the transmit transducer is 0.5°, which is the smallest possible angle currently available for the EM302 system. The further out from nadir a sounding occurs, the larger the footprint will be. The receive angle for the receive transducer is 1°. As an example, as seen in Table 1 below, in 2000 meters of water, a beam footprint will have a radius of 18 meters at nadir but 25 meters by the time it hits the seafloor at an angle 140 degrees out from nadir.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Calculated acrosstrack acoustic beam footprint in meters for EM 302  (high density ping mode, 432 soundings/profile)** | | | | |
|
| **Water depth (m)** | **Angle from nadir** | | | |
| 50 | 1 deg RX center | 90 deg | 120 deg | 140 deg |
| 100 | 1 | 0.5 | 1 | 1 |
| 200 | 2 | 1 | 2 | 3 |
| 400 | 4 | 2 | 3 | 5 |
| 1000 | 7 | 4 | 6 | 10 |
| 2000 | 18 | 9 | 16 | 25 |
| 4000 | 35 | 19 | 32 | - |
| 6000 | 70 | 37 | - | - |
| 7000 | 105 | 56 | - | - |

Table 1. Calculated across track EM302 beam footprint. Reference: Kongsberg Product description, Kongsberg document 302675 Rev B, Date 14/06/06, p. 17.

|  |  |  |  |
| --- | --- | --- | --- |
| **Calculated acrosstrack sounding density for EM 302 (high density ping mode, 432 soundings/profile)** | | | |
|
| **Water depth (m)** | **Swath Width** | | |
| 50 | 90 deg | 120 deg | 140 deg |
| 100 | 0.2 | 0.4 | 0.9 |
| 200 | 0.5 | 0.8 | 1.7 |
| 400 | 0.9 | 1.6 | 3.5 |
| 1000 | 1.9 | 3.2 | 6.9 |
| 2000 | 4.6 | 8.1 | 17.4 |
| 4000 | 9.3 | 16.2 | - |

Table 2. Calculated across track EM302 sounding density. Reference: Kongsberg Product description, Kongsberg document 302675 Rev B, Date 14/06/06, p. 17.

Acrosstrack sounding density describes the spacing between individual soundings on the seafloor in the acrosstrack direction. The maximum swath of the EM 302 is 150 degrees. At this swath, the sounding density will be the least dense, since the beams will be spread out over a larger horizontal distance over the seafloor. As the swath angle (width) is decreased, the sounding density will increase, as the same number of beams are now spread out over a smaller horizontal distance over the seafloor.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Calculated ping rate and alongtrack resolution for EM 302** | | | | | |
| **140 deg swath, one profile per ping** | | | | | |
|  |  |  | **Alongtrack distance between profiles (m)** | | |
| **Water depth (m)** | **Swath Width (m)** | **Ping Rate (pings/second)** | **@4 kts** | **@8 kts** | **@12 kts** |
| 50 | 275 | 3.2 | 0.7 | 1.2 | 1.9 |
| 100 | 550 | 1.8 | 1.1 | 2.2 | 3.3 |
| 200 | 1100 | 1 | 2.1 | 4.2 | 6.3 |
| 400 | 2200 | 0.5 | 4.1 | 8.2 | 12.2 |
| 1000 | 5500 | 0.2 | 10 | 20 | 30 |
| 2000 | 8000 | 0.1 | 15.2 | 30.5 | 45.7 |
| 4000 | 8000 | 0.06 | 19.2 | 38.5 | 57.7 |
| 6000 | 8000 | 0.04 | 24.5 | 49 | 73.4 |

Table 3. Calculated ping rate and along track EM302 sounding density, one profile per ping. Reference: Kongsberg Product description, Kongsberg document 302675 Rev B, Date 14/06/06, p. 15.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Calculated ping rate and alongtrack resolution for EM 302** | | | | | |
| **140 deg swath, two profiles per ping** | | | | | |
| **Water depth (m)** | **Swath Width (m)** | **Ping Rate** | **Alongtrack distance between profiles (m)** | | |
| **@4 kts** | **@8 kts** | **@12 kts** |
| 50 | 275 | 3.2 | 0.3 | 0.6 | 0.9 |
| 100 | 550 | 1.8 | 0.6 | 1.1 | 1.7 |
| 200 | 1100 | 1 | 1.1 | 2.1 | 3.2 |
| 400 | 2200 | 0.5 | 2 | 4.1 | 6.1 |
| 1000 | 5500 | 0.2 | 5 | 10 | 15 |
| 2000 | 8000 | 0.1 | 7.6 | 15.2 | 22.8 |

Table 4. Calculated ping rate and along track EM302 sounding density, two profiles per ping. Reference: Kongsberg Product description, Kongsberg document 302675 Rev B, Date 14/06/06, p. 15.

Reference: Kongsberg Product Description: EM 302 multibeam echosounder

# Appendix H: Acronyms

* AERONET – Aerosols Robotic Network
* AHB – Atlantic Hydrographic Branch
* ASCII – American Standard Code for Information Interchange
* BIST – built in system test
* CDR – Commander
* CO – Commanding Officer
* CTD – conductivity, temperature, depth
* dB - decibel
* DNP – do not process
* DP - dynamic position(ing)
* ERT – Earth Resources Technology Inc.
* ET – Electronics Technician
* EX – NOAA Ship *Okeanos Explorer*
* FM – frequency modulated / modulation
* FTP – file transfer protocol
* GB - gigabytes(s)
* KB - kilobytes(s)
* kHz – kilohertz
* km – kilometer
* kts – knots
* LT – Lieutenant
* LSS - light scattering sensor
* m - meters
* MAN – Maritime Aerosols Network
* MB – multibeam sonar
* MB – megabytes(s)
* NASA – National Aeronautics and Space Agency
* NCDDC – National Coastal Data Development Center
* NGDC – National Geophysical Data Center
* NMEA – National Marine Electronics Association
* NOAA – National Oceanic and Atmospheric Administration
* NODC – National Oceanographic Data Center
* OER – NOAA Office of Ocean Exploration and Research
* OMAO – NOAA Office of Marine and Aviation Operations
* OPS – Operations Officer
* ROV – remotely operated vehicle
* SBP – subbottom profiler
* SCS – scientific computer system
* SIS – Seafloor Information System
* SVP – sound velocity profile
* TRU – transceiver unit
* TSG - thermosalinograph
* TX – transmit boards
* USGS – United States Geological Survey
* W - watt
* XBT – expendable bathythermograph
* XO – Executive Officer

# Appendix I: Weather Log

This weather log is provided to give environmental conditions related to multibeam data quality.

| **EX1404 Leg 3 WEATHER LOG** | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **LOCAL DATE** | **LOCAL TIME** | **UTC TIME** | **UTC DATE** | **WIND DIRECTION (deg)** | **WIND SPEED (kt)** | **WAVE HEIGHT (ft)** | **SWELL DIRECTION (deg)** | **SWELL HEIGHT (ft)** | **NOTES** |
| 9/16/2014 | 1800 | 2200 | 9/16/2014 | 353 | 10 | 0-1 |  |  |  |
| 9/19/2014 | 2100 | 0100 | 9/17/2014 | 030 | 8 | 0-1 |  |  |  |
| 9/17/2014 | 0000 | 0400 | 9/17/2014 | 035 | 10 | 0-1 |  |  |  |
| 9/17/2014 | 0600 | 1000 | 9/17/2014 | 55 | 07 | 0-1 |  |  |  |
| 9/17/2014 | 0900 | 1300 | 9/17/2014 | 050 | 4 | 0-1 |  |  |  |
| 9/18/2014 | 1800 | 2200 | 9/18/2014 | 117 | 9 | 0-1 |  |  |  |
| 9/21/2014 | 2100 | 0100 | 9/19/2014 | 060 | 9 | 0-1 |  |  |  |
| 9/19/2014 | 0000 | 0400 | 9/19/2014 | 060 | 7 | 0-1 | 055 | 1-2 |  |
| 9/19/2014 | 0300 | 0700 | 9/19/2014 | 075 | 7 | 0-1 | 055 | 1-2 |  |
| 9/19/2014 | 0600 | 1000 | 9/19/2014 | 356 | 10 | 0-1 | 067 | 1-2 |  |
| 9/19/2014 | 0900 | 1300 | 9/19/2014 | 050 | 10 | <1 | 060 | 0-2 |  |
| 9/19/2014 | 1200 | 1600 | 9/19/2014 |  |  |  |  |  |  |
| 9/19/2014 | 1500 | 1900 | 9/19/2014 | 040 | 8 | 0-1 | 020 | 1-3 |  |
| 9/19/2014 | 1800 | 2200 | 9/19/2014 | 090 | 11 | 1-2 | 030/060 | 2-4 |  |
| 9/19/2014 | 2100 | 0100 | 9/20/2014 | 090 | 22 | 2-4 | 060 | 3-6 |  |
| 9/20/2014 | 0000 | 0400 | 9/20/2014 | 095 | 22 | 2-4 | 60 | 3-6 |  |
| 9/20/2014 | 0300 | 0700 | 9/20/2014 | 105 | 18 | 2-4 | 060 | 3-6 |  |
| 9/20/2014 | 0600 | 1000 | 9/20/2014 | 116 | 17 | 2-4 | 060 | 3-6 |  |
| 9/20/2014 | 0900 | 1300 | 9/20/2014 | 090 | 18 | 1-3 | 100 | 2-4 |  |
| 9/20/2014 | 1200 | 1600 | 9/20/2014 | 115 | 17 | 1-3 | 100/130 | 2-4 |  |
| 9/20/2014 | 1500 | 1900 | 9/20/2014 | 135 | 18 | 1-3 | 100/130 | 2-4 |  |
| 9/20/2014 | 1800 | 2200 | 9/20/2014 | 135 | 22 | 1-3 | 100/130 | 2-4 |  |
| 9/20/2014 | 2100 | 0100 | 9/21/2014 | 140 | 21 | 2-3 | 120 | 4-6 |  |
| 9/21/2014 | 0000 | 0400 | 9/21/2014 | 130 | 20 | 1-3 | 130 | 3-5 |  |
| 9/21/2014 | 0300 | 0700 | 9/21/2014 | 145 | 16 | 3-Jan | 130 | 3-5 |  |
| 9/21/2014 | 0600 | 1000 | 9/21/2014 | 120 | 12 | 1-2 |  | 2-4 |  |
| 9/21/2014 | 0900 | 1300 | 9/21/2014 | 110 | 15 | 1-2 | 130 | 1-3 |  |
| 9/21/2014 | 1200 | 1600 | 9/21/2014 | 165 | 10 | 1-2 | 130/170 | 2-4 |  |
| 9/21/2014 | 1500 | 1900 | 9/21/2014 | 105 | 15 | 1-2 | 130/170 | 2-4 |  |
| 9/21/2014 | 1800 | 2200 | 9/21/2014 | 070 | 13 | 1-2 | 120 | 2-4 |  |
| 9/21/2014 | 2100 | 0100 | 9/22/2014 | 330 | 10 | 0-2 | 150/080 | 2-4 |  |
| 9/22/2014 | 0000 | 0400 | 9/22/2014 | 280 | 17 | 1-2 | 170 | 2-4 |  |
| 9/22/2014 | 0300 | 0700 | 9/22/2014 | 245 | 23 | 1-2 | 160 | 3-5 |  |
| 9/22/2014 | 0600 | 1000 | 9/22/2014 | 277 | 19 | 1-2 | 155 | 5-8 |  |
| 9/22/2014 | 0900 | 1300 | 9/22/2014 | 270 | 21 | 2-4 | 280/175 | 8-10 |  |
| 9/22/2014 | 1200 | 1600 | 9/22/2014 | 285 | 19 | 2-4 | 270/175 | 6-8 |  |
| 9/22/2014 | 1500 | 1900 | 9/22/2014 | 275 | 20 | 2-4 | 270/175 | 6-8 |  |
| 9/22/2014 | 1800 | 2200 | 9/22/2014 | 219 | 20 | 2-4 | 270/17 | 6-8 |  |
| 9/22/2014 | 2100 | 0100 | 9/23/2014 | 300 | 21 | 2-3 | 270/175 | 6-8 |  |
| 9/23/2014 | 0000 | 0400 | 9/23/2014 | 295 | 22 | 2-3 | 175/270 | 5-7 |  |
| 9/23/2014 | 0300 | 0700 | 9/23/2014 | 330 | 10 | 2-3 | 175/270 | 5-7 |  |
| 9/23/2014 | 0600 | 1000 | 9/23/2014 | 005 | 12 | 2-4 | 260/325 | 4-6 |  |
| 9/23/2014 | 0900 | 1300 | 9/23/2014 | 350 | 10 | 2-4 | 320/380 | 3-6 |  |
| 9/23/2014 | 1200 | 1600 | 9/23/2014 | 000 | 12 | 1-3 | 330/350 | 4-6 |  |
| 9/23/2014 | 1500 | 1900 | 9/23/2014 | 355 | 8 | 1-2 | 350 | 2-4 |  |
| 9/23/2014 | 1800 | 2200 | 9/23/2014 | 340 | 8 | 1-2 | 005 | 2-4 |  |
| 9/23/2014 | 2100 | 0100 | 9/24/2014 | 004 | 8 | 0-2 | 010 | 1-3 |  |
| 9/24/2014 | 0000 | 0400 | 9/24/2014 | 030 | 16 | 0-2 | 010 | 1-3 |  |
| 9/24/2014 | 0300 | 0700 | 9/24/2014 | 030 | 20 | 1-2 | 020 | 2-4 |  |
| 9/24/2014 | 0600 | 1000 | 9/24/2014 | 035 | 20 | 1-2 | 060 | 2-4 |  |
| 9/24/2014 | 0900 | 1300 | 9/24/2014 | 050 | 20 | 1-3 | 040 | 2-5 |  |
| 9/24/2014 | 1200 | 1600 | 9/24/2014 | 070 | 24 | 1-3 | 040 | 4-6 |  |
| 9/24/2014 | 1500 | 1900 | 9/24/2014 | 060 | 17 | 1-3 | 060 | 3-5 |  |
| 9/24/2014 | 1800 | 2200 | 9/24/2014 | 040 | 17 | 1-3 | 050/090 | 3-5 |  |
| 9/24/2014 | 2100 | 0100 | 9/25/2014 | 055 | 20 | 1-3 | 050/090 | 3-6 |  |
| 9/25/2014 | 0000 | 0400 | 9/25/2014 | 090 | 21 | 1-3 | 050/090 | 3-6 |  |
| 9/25/2014 | 0300 | 0700 | 9/25/2014 | 095 | 12 | 1-3 | 050/090 | 3-6 |  |
| 9/25/2014 | 0600 | 1000 | 9/25/2014 | 105 | 13 | 1-3 | 100 | 3-5 |  |
| 9/25/2014 | 0900 | 1300 | 9/25/2014 | 120 | 12 | <2 | 075/130 | 2-3 |  |
| 9/25/2014 | 1200 | 1600 | 9/25/2014 | 115 | 15 | 1-2 | 120 | 1-3 |  |
| 9/25/2014 | 1500 | 1900 | 9/25/2014 | 140 | 14 | 1-2 | 120 | 2-3 |  |
| 9/25/2014 | 1800 | 2200 | 9/25/2014 | 130 | 15 | 1-2 | 140 | 2-4 |  |
| 9/25/2014 | 2100 | 0100 | 9/26/2014 | 130 | 20 | 2-3 | 110 | 3-5 |  |
| 9/26/2014 | 0000 | 0400 | 9/26/2014 | 160 | 16 | 1-2 | 120 | 2-4 |  |
| 9/26/2014 | 0300 | 0700 | 9/26/2014 | 120 | 17 | 1-2 | 120 | 2-4 |  |
| 9/26/2014 | 0600 | 1000 | 9/26/2014 | 170 | 20 | 1-2 | 155 | 2-4 |  |
| 9/26/2014 | 0900 | 1300 | 9/26/2014 | 155 | 23 | 1-2 | 155 | 2-4 |  |
| 9/26/2014 | 1200 | 1600 | 9/26/2014 | 165 | 18 | 1-3 | 155 | 4-6 |  |
| 9/26/2014 | 1500 | 1900 | 9/26/2014 | 175 | 17 | 1-3 | 165 | 4-6 |  |
| 9/26/2014 | 1800 | 2200 | 9/26/2014 | 180 | 19 | 1-3 | 160/190 | 3-5 |  |
| 9/26/2014 | 2100 | 0100 | 9/27/2014 | 160 | 18 | 1-3 | 160/190 | 2-4 |  |
| 9/27/2014 | 0000 | 0400 | 9/27/2014 | 195 | 7 | 1-2 | 160 | 2-4 |  |
| 9/27/2014 | 0300 | 0700 | 9/27/2014 | 100 | 5 | 1-2 | 160 | 2-4 |  |
| 9/27/2014 | 0600 | 1000 | 9/27/2014 | 190 | 8 | 1-2 | 060/110 | 2-4 |  |
| 9/27/2014 | 0900 | 1300 | 9/27/2014 | 030 | 10 | <1 | 120/180 | 1-3 |  |
| 9/27/2014 | 1200 | 1600 | 9/27/2014 | 010 | 10 | 0-1 | 110/170 | 1-3 |  |
| 9/27/2014 | 1500 | 1900 | 9/27/2014 | 030 | 10 | 0-1 | 010/110 | 1-3 |  |
| 9/27/2014 | 1800 | 2200 | 9/27/2014 | 040 | 11 | 1-2 | 010/100 | 2-4 |  |
| 9/27/2014 | 2100 | 0100 | 9/28/2014 | 030 | 17 | 1-2 | 000 | 3-5 |  |
| 9/28/2014 | 0000 | 0400 | 9/28/2014 | 045 | 16 | 2-3 | 000 | 3-5 |  |
| 9/28/2014 | 0300 | 0700 | 9/28/2014 | 055 | 14 | 2-3 | 040 | 2-4 |  |
| 9/28/2014 | 0600 | 1000 | 9/28/2014 | 040 | 15 | 1-3 | 045/085 | 2-4 |  |
| 9/28/2014 | 0900 | 1300 | 9/28/2014 | 040 | 9 | 1-3 | 060/100 | 2-4 |  |
| 9/28/2014 | 1200 | 1600 | 9/28/2014 | 050 | 9 | 1-2 | 040/100 | 2-4 |  |
| 9/28/2014 | 1500 | 1900 | 9/28/2014 | 070 | 11 | 1-2 | 070 | 2-3 |  |
| 9/28/2014 | 1800 | 2200 | 9/28/2014 | 080 | 10 | <1 | 070 | 2-3 |  |
| 9/28/2014 | 2100 | 0100 | 9/29/2014 | 115 | 9 | <1 | 070 | 2-3 |  |
| 9/29/2014 | 0000 | 0400 | 9/29/2014 | 150 | 5 | 0-1 | 070 | 1-2 |  |
| 9/29/2014 | 0300 | 0700 | 9/29/2014 | 330 | 2 | 0-1 | 070 | 1-2 |  |
| 9/29/2014 | 0600 | 1000 | 9/29/2014 | 090 | 5 | 0-1 | 110 | 1-2 |  |
| 9/29/2014 | 0900 | 1300 | 9/29/2014 | VAR | LT | <1 | 045 | 1-3 |  |
| 9/29/2014 | 1200 | 1600 | 9/29/2014 | 185 | 5 | 0-1 | 080 | 1-2 |  |
| 9/29/2014 | 1500 | 1900 | 9/29/2014 | 175 | 5 | 0-1 | 080 | 1-2 |  |
| 9/29/2014 | 1800 | 2200 | 9/29/2014 | 150 | 7 | 0-1 | 080 | 1-2 |  |
| 9/29/2014 | 2100 | 0100 | 9/30/2014 | 140 | 10 | <1 | 140 | <2 |  |
| 9/30/2014 | 0000 | 0400 | 9/30/2014 | 145 | 9 | 0-1 | 140 | 0-1 |  |
| 9/30/2014 | 0300 | 0700 | 9/30/2014 | 125 | 12 | 0-1 | 140 | 1-3 |  |
| 9/30/2014 | 0600 | 1000 | 9/30/2014 | 140 | 9 | 0-1 | 235/170 | 1-3 |  |
| 9/30/2014 | 0900 | 1300 | 9/30/2014 | 100 | 12 | 0-1 | 140 | 1-3 |  |
| 9/30/2014 | 1200 | 1600 | 9/30/2014 | 085 | 10 | 0-1 | 140 | 1-3 |  |
| 9/30/2014 | 1500 | 1900 | 9/30/2014 | 135 | 22 | 0-1 | 140 | 1-3 |  |
| 9/30/2014 | 1800 | 2200 | 9/30/2014 |  |  |  |  |  |  |
| 9/30/2014 | 2100 | 0100 | 10/1/2014 | 070 | 14 | 1-2 | 145 | 2-4 |  |
| 10/1/2014 | 0000 | 0400 | 10/1/2014 | 075 | 13 | 0-1 | 070 | 1-3 |  |
| 10/1/2014 | 0300 | 0700 | 10/1/2014 | 065 | 14 | 0-1 | 070 | 1-3 |  |
| 10/1/2014 | 0600 | 1000 | 10/1/2014 | 060 | 16 | 1-3 | 080 | 3-5 |  |
| 10/1/2014 | 0900 | 1300 | 10/1/2014 | 070 | 10 | 1-3 | 040/100 | 3-5 |  |
| 10/1/2014 | 1200 | 1600 | 10/1/2014 | 050 | 20 | 1-3 | 050/110 | 3-4 |  |
| 10/1/2014 | 1500 | 1900 | 10/1/2014 | 030 | 19 | 1-3 | 050/110 | 4-6 |  |
| 10/1/2014 | 1800 | 2200 | 10/1/2014 | 050 | 20 | 2-4 | 050/110 | 4-6 |  |
| 10/1/2014 | 2100 | 0100 | 10/2/2014 | 060 | 25 | 1-3 | 050 | 4-6 |  |
| 10/2/2014 | 0000 | 0400 | 10/2/2014 | 10 | 16 | 0-2 | 045 | 1-3 |  |
| 10/2/2014 | 0300 | 0700 | 10/2/2014 | 015 | 15 | 0-2 | 045 | 1-3 |  |
| 10/2/2014 | 0600 | 1000 | 10/2/2014 | 10 | 24 | 0-2 | 045 | 1-3 |  |
| 10/2/2014 | 0900 | 1300 | 10/2/2014 | 10 | 15 | 0-2 | 030/160 | 1-3 |  |
| 10/2/2014 | 1200 | 1600 | 10/2/2014 | 20 | 19 | 0-2 | 050/130 | 1-3 |  |
| 10/2/2014 | 1500 | 1900 | 10/2/2014 | 10 | 20 | 0-2 | 050/130 | 1-3 |  |
| 10/2/2014 | 1800 | 2200 | 10/2/2014 | 10 | 14 | 0-2 | 050/130 | 1-3 |  |
| 10/2/2014 | 2100 | 0100 | 10/3/2014 | 50 | 13 | 1-2 | 080 | 2-4 |  |
| 10/3/2014 | 0000 | 0400 | 10/3/2014 | 30 | 35 | 2-4 | 050 | 5-7 |  |
| 10/3/2014 | 0300 | 0700 | 10/3/2014 | 45 | 18 | 2-5 | 050 | 6-8 |  |
| 10/3/2014 | 0600 | 1000 | 10/3/2014 | 40 | 30 | 3-6 | 050 | 6-8 |  |
| 10/3/2014 | 0900 | 1300 | 10/3/2014 | 45 | 29 | 3-6 | 040 | 7-9 |  |
| 10/3/2014 | 1200 | 1600 | 10/3/2014 | 35 | 25 | 2-5 | 040 | 6-9 |  |
| 10/3/2014 | 1500 | 1900 | 10/3/2014 | 030 | 30 | 2-5 | 040 | 6-9 |  |
| 10/3/2014 | 1800 | 2200 | 10/3/2014 | 45 | 30 | 4-6 | 050 | 5-7 |  |
| 10/3/2014 | 2100 | 0100 | 10/4/2014 | 005 | 23 | 1-3 | 045 | 2-4 |  |
| 10/4/2014 | 0000 | 0400 | 10/4/2014 | 070 | 13 | 1-2 | 050 | 1-3 |  |
| 10/4/2014 | 0300 | 0700 | 10/4/2014 | 105 | 4 | 1-2 | 050 | 1-3 |  |
| 10/4/2014 | 0600 | 1000 | 10/4/2014 | 180 | 5 | 0-2 | 050 | 2-4 |  |
| 10/4/2014 | 0900 | 1300 | 10/4/2014 | 140 | 11 | 0-2 | 070 | 3-5 |  |
| 10/4/2014 | 1200 | 1600 | 10/4/2014 | 145 | 22 | 2-4 | 090/120 | 3-6 |  |
| 10/4/2014 | 1500 | 1900 | 10/4/2014 | 165 | 30 | 2-4 | 170 | 3-6 |  |
| 10/4/2014 | 1800 | 2200 | 10/4/2014 | 160 | 29 | 3-5 | 190 | 5-7 |  |
| 10/4/2014 | 2100 | 0100 | 10/5/2014 | 290 | 15 | 2-5 | 180 | 5-7 |  |
| 10/5/2014 | 0000 | 0400 | 10/5/2014 | 290 | 27 | 1-3 | 180 | 4-6 |  |
| 10/5/2014 | 0300 | 0700 | 10/5/2014 | 300 | 18 | 1-3 | 300/180 | 4-6 |  |
| 10/5/2014 | 0600 | 1000 | 10/5/2014 | 320 | 21 | 4-6 | 300/180 | 6-9 |  |
| 10/5/2014 | 0900 | 1300 | 10/5/2014 | 320 | 25 | 2-3 | 300 | 4-6 |  |
| 10/5/2014 | 1200 | 1600 | 10/5/2014 | 275 | 13 | 2-4 | 300 | 4-6 |  |
| 10/5/2014 | 1500 | 1900 | 10/5/2014 | 285 | 15 | 2-4 | 300 | 4-6 |  |
| 10/5/2014 | 1800 | 2200 | 10/5/2014 | 270 | 13 | 2-4 | 300 | 3-5 |  |
| 10/5/2014 | 2100 | 0100 | 10/06/2014 | 265 | 15 | 1-3 | 310/350 | 3-5 |  |
| 10/06/2014 | 0000 | 0400 | 10/06/2014 | 180 | 12 | 1-2 | 310/000 | 2-4 |  |
| 10/06/2014 | 0300 | 0700 | 10/06/2014 | 200 | 15 | 1-2 | 310/000 | 2-4 |  |
| 10/06/2014 | 0600 | 1000 | 10/06/2014 | 300 | 14 | 1-2 | 310/000 | 2-4 |  |
| 10/06/2014 | 0900 | 1300 | 10/06/2014 | 270 | 6 | 1-2 | 290 | 2-4 |  |
| 10/06/2014 | 1200 | 1600 | 10/06/2014 | Var | <5 | 0-2 | 290 | 2-4 |  |
| 10/06/2014 | 1500 | 1900 | 10/06/2014 | 095 | 7 | 0-2 | 280 | 2-3 |  |
| 10/06/2014 | 1800 | 2200 | 10/06/2014 |  |  |  |  |  |  |
| 10/06/2014 | 2100 | 0100 | 10/7/2014 | 185 | 12 | 0-1 | 230 | 1-3 |  |

# Appendix J: Software Inventory

| **Velocipy** | **Version** | **Computer** | **License** | **Expiration Date** | **Agreements** | **Hot fix** | **Contract Duration** | **Warranty Expiration** | **Contact** | **Notes** | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **SIS EM 302** | 3.9.2 | Multibeam | Dongle # 6C87FC13 | N/A | N/A | N/A | No info available | No info available | Email:tony.dahlheim@kongsberg.com | purchased & maintained by OER personel |  |
| **Velocipy** | 13.2 (r4476) | CTD | N/A | N/A | N/A | N/A | N/A | N/A | Support email:km.support.lynnwood@kongsberg.com |  |  |
| **POS Controller/Applanix** | 320 MV V4 SN# 2572 Firmware: 4.0.2.0 | EX-Hypack | 998777 | N/A | N/A | N/A | N/A |  | NOAA Internal - HSTP Caryn Arnold - 206.526.4762 (caryn.arnold@noaa.gov) |  |  |
|  |  |
| **Caris HIPS** | 7.1.2 | MBPROC1 | CW9605165 | 12/31/2014 Yearly update via website | Service pack 2 (7.0): Upgrade Protection & Technical support | 5 (7.0) | 5 years for both dongles (2014) |  | Leon Quick at CARIS customer support (leon.quick@caris.com) Downloads: http://support.caris.com |  |  |
| 7.1.2 | MBPROC2 | CW9605164 |  |  |
| build 337507 |  | 2 Dongle ID's |  |  |
| **Fledermaus (IVS 3D)** | 7.3.4c build 371 | MBPROC2 | Dongle ID: 1187753821 | 8/31/2014 |  | N/A | 1 year (09/2015 | 30-Sep-15 | support@ivs3d.com, 1.506.454.4487 License # 1601472614 use dongle ID to download | purchased & maintained by OER personel |  |
| 7.3.4c build 371 | MBPROC3 | Dongle ID: 1181442213 | 8/31/2014 | 1 yr of support w/ dongle | N/A | 1 year (09/2015 |  |
| **Chart Reprojector** | 2.0.6 | Hypack | N/A | N/A | N/A | N/A | N/A |  | NOAA Internal - HSTP Caryn Arnold - 206.526.4762 (caryn.arnold@noaa.gov) |  |  |
| **KAP Converter** | 4.0.0.10 | N/A | N/A | N/A | N/A | N/A | N/A |  | NOAA Internal - HSTP Caryn Arnold - 206.526.4762 (caryn.arnold@noaa.gov) |  |  |
| **MapInfo** | 10.5 (NOT YET INSTALLED) | MBPROC1 & 2 | (SN#) MINWEU0950038973 & MINWEU0950038974 | 2012 | Upgrade protection & Technical support | Release Build 35 | 3 years |  | NOAA Contact - Kyle Ward (official MapInfo contact through HSD) Kyle.Ward@noaa.gov |  |  |
| **Pydro** | 13.2 | MBPROC2 | Python22 | 1/1/2010 | N/A | N/A | N/A |  | NOAA Internal - HSTP Caryn Arnold - 206.526.4762 (caryn.arnold@noaa.gov) |  |  |
| **Hypack ROV** | 11.01.49 | EX-Hypack | Dongle ID: 15682355 | 9/30/2014 | Maintenance | N/A | N/A | 8/30/2012 | Mike Annis (HSTP POC) Michael.J.Annis@noaa.gov |  |  |
| www.hypack.com & http://support.hypack.com/support |  |  |
| **Hypack** | 11.01.49 | EXPlanning | Dongle ID: 15688239 | 2/18/2012 | Maintenance | N/A | N/A | 2/18/2012 |  | purchased & maintained by OER personel |  |
| **DP Line Conversion Utility (Matlab)** | 1.0 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | OER Internal Program - Mashkoor Malik author |  |  |
|  |  |
| **Seasave** | 7.22 | CTD & Hydrophone | N/A | N/A | N/A | www.seabird.com | N/A | N/A | 1.425.643.9954 Sea-Bird Electronics, Bellingham WA |  |  |
| **SCS** | v4.7.0.2430 | SCS-A | N/A | N/A | N/A | N/A | N/A | N/A | EEB - Tom Stepka 240.472.5351 (cell) 301.713.7678 (work) 703.641.0195 (home); tom.stepka@noaa.gov |  |  |
| **Hydro\_MI** | 8.3 | MBPROC1 & 2 | N/A | N/A | N/A | N/A | N/A |  | NOAA Internal - HSTP Caryn Arnold - 206.526.4762 |  |  |
| **C-NAV** | 5.1.18 | N/A | License Code :48F7152A-75FB62D8-7D1DE299-A83896A0 | 7/27/2014 | 3 years | N/A | 3 years |  | CC Technology - 1.337.261.0660 cnav.support@cctechnol.com |  |  |
| **Snagit** | 9.1.2 | MBPROC1 & SURVEY2 | CAWCM-QG4PF-MGYCA-34SNM-P4695 & D494F-5AKSZ-CQ8FV-CHA4U-S4F36 | N/A | N/A | N/A | N/A |  | http://www.techsmith.com |  |  |
| **Knudson SBP, Sounder Suite Echo Control Server and Client** | Client: V.272 Server: V.2.77 | Knudsen SBP | Client Part # D409-04184 Server Part # D409-04185 | N/A | N/A | N/A | N/A |  | Technical Operations Manager - Darren Gibson - 613.267.1165 | Server= V.273 Part# D409-04185 Client=V 2.71 | software updated March 3, 2013 Chirp Firmware 2.85; Client v2.73; Server v2.77 |
| **SonarWiz** | 5.04.0006 | EXSCSCL2 | Dongle ID: SN 2175 | 10-Apr-14 | EMA 05/14/12 | N/A | 3 Years | 7-Feb-14 | Cheasapeake Technologies Inc. Eileen Gann (etgann@chesapeaketech.com) | purchased & maintained by OER personel |  |
| **Geocoder** | 4.1 Level 1 | MBPROC1, 2, 3 | N/A | 9-Dec-09 | CCOM |  | Annual |  | Expires every December. This license is shared by CCOM and cannot be distributed. |  |  |
| **ESRI ArcMap** | 10.1 Build 3035 | EXSCSCL2 | Customer Number: 291779 | 25-Sep-14 | Software Updates | N/A | 1 year |  | http://www.esri.com ESRI - Customer Service Nicholas Twohig (ntwohig@esri.com) 909.793.2853 x2947 | purchased & maintained by OER personel |  |
| **Global Mapper** | 11.01 Build January 11, 2010 | EXSCSCL2 | RegName: mamalik@cisunix.unh.edu RegCode: 3309497171 | 13-Jan-11 | Support | N/A | 1 year |  | support@globalmapper.com |  |  |
|  |  |
| **SIMRAD ER60** | 2.2.1 | EXEK60 | RegName: mamalik@cisunix.unh.edu RegCode: 3309497171 |  |  |  |  |  | Email:tony.dahlheim@kongsberg.com; Support email:km.support.lynnwood@kongsberg.com |  |  |
|  |  |