H12634

U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Ocean Survey

DESCRIPTIVE REPORT

Type of Survey:	Basic Hydrographic Survey
Registry Number:	H12634

LOCALITY

State(s):	Louisiana
General Locality:	Approaches to Barataria Bay to Southwest Pass, LA
Sub-locality:	Approaches to Southwest Pass

2014

CHIEF OF PARTY
Tara Levy

LIBRARY & ARCHIVES

Date:

U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	REGISTRY NUMBER:
HYDROGRAPHIC TITLE SHEET	**H12634**

INSTRUCTIONS: The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

State(s):	**Louisiana**
General Locality:	**Approaches to Barataria Bay to Southwest Pass, LA**
Sub-Locality:	**Approaches to Southwest Pass**
Scale:	**40000**
Dates of Survey:	**11/09/2014 to 05/13/2015**
Instructions Dated:	**12 FEB 2014**
Project Number:	**OPR-K339-KR-14**
Field Unit:	**C & C Technologies, Inc.**
Chief of Party:	**Tara Levy**
Soundings by:	**Kongsberg EM2040C and EM3002 MBES**
Imagery by:	**EdgeTech 4200-HF**
Verification by:	**Atlantic Hydrographic Branch**
Soundings Acquired in:	**meters at Mean Lower Low Water**

Remarks:

NAD83, UTM Zone 16, Meters, Times are UTC. The purpose of this contract is to provide NOAA with modern, accurate hydrographic survey data with which to update nautical charts of the assigned area.

The purpose of this survey is to provide contemporary surveys to update National Ocean Service (NOS) nautical charts. All separates are filed with the hydrographic data. Any revisions to the Descriptive Report (DR) generated during office processing are shown in bold red italic text. The processing branch maintains the DR as a field unit product, therefore, all information and recommendations within the body of the DR are considered preliminary unless otherwise noted. The final disposition of surveyed features is represented in the OCS nautical chart update products. All pertinent records for this survey, including the DR, are archived at the National Centers for Environmental Information (NCEI) and can be retrieved via https://www.ncei.noaa.gov/.

Descriptive Report to Accompany Survey H12634

Project: OPR-K339-KR-14

Locality: Approaches to Barataria Bay to Southwest Pass, LA

Sublocality: Approaches to Southwest Pass

Scale: 1:40000

November 2014 – May 2015

R/V *Sea Scout* and R/V *C-Ghost*

Chief of Party: Tara Levy

A. Area Surveyed

The survey area is located at the Approaches to Southwest Pass, Louisiana, USA.

A.1. Survey Limits

Data was acquired within the following survey limits:

Northeast Limit	Southwest Limit
28.972 N 89.350 W	28.798 N 89.487 W

Table 1: Survey Limits

Survey limits were designed as outlined in the Project Instructions and the HSSD.

A.2. Survey Purpose

Survey H12634 covers 38.8 square nautical miles (SNM) in a high commercial traffic area with a high concentration of platforms and pipelines in the Gulf of Mexico. The purpose of this survey is to provide a contemporary survey to update National Ocean Service (NOS) nautical charting products. A significant portion of the SNM for the OPR-K339-KR-14 project is considered 'priority 1' as designated in the NOAA Hydrographic Survey Priorities, 2012 edition.

A.3. Survey Quality

The entire survey is adequate to supersede previous data.

A.4. Survey Coverage

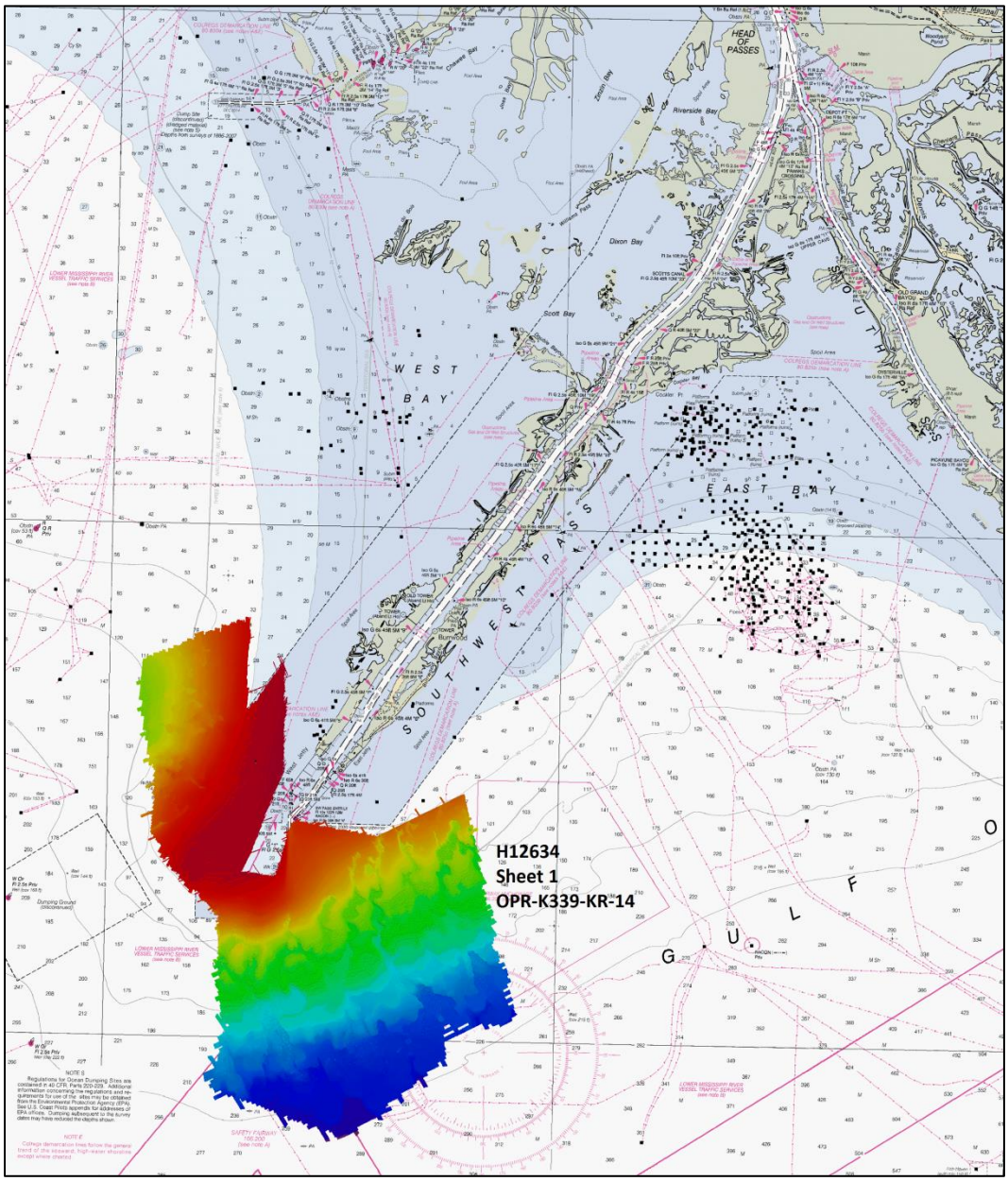

Figure 1. H12634 Survey Coverage

Survey coverage for H12634 (Figure 1) was in accordance with the requirements of the Project Instructions and HSSD. Object Detection MBES with backscatter data was acquired in the survey area. Fill-in lines were collected to ensure that the requirements for Object Detection MBES were met whenever possible; all lines are included in the MBES processing log. Side scan sonar data was collected only for feature investigations; a mosaic was not generated but all data (raw and processed) are included with survey deliverables.

A.5. Survey Statistics

The following table lists the mainscheme and crossline acquisition mileage for this survey. Note that MBES Mainscheme includes all fill-in lines acquired to fulfill the Object Detection coverage requirement.

	Hull ID	1237094	JQN00023E707	Total
LNM	**SBES Mainscheme**	0	0	0
	MBES Mainscheme	1508.62	2.06	1510.68
	SSS Mainscheme	0	0	0
	SBES/MBES Combo Mainscheme	0	0	0
	SBES/SSS Combo Mainscheme	0	0	0
	MBES/SSS Combo Mainscheme	0	0	0
	SBES/MBES Combo Crosslines	87.66	0	87.66
	Lidar Crosslines	0	0	0
Number of Bottom Samples		8	0	8
Number of DPs		117	7	124
Number of Items Investigated by Dive OPs		0	0	0
Total Number of SNM		38.7	0.1	38.8

Table 2: Hydrographic Survey Statistics

The following table lists the specific dates of data acquisition for this survey:

Survey Dates
11/09/2014
11/11/2014
11/12/2014
11/13/2014
11/15/2014
11/16/2014
11/19/2014
11/20/2014
11/21/2014
11/30/2014
12/01/2014
12/02/2014
12/08/2014
12/09/2014
12/10/2014
12/11/2014
12/14/2014
12/15/2014
12/16/2014
12/19/2014
12/20/2014
12/21/2014
12/22/2014
12/23/2014
12/25/2014
12/26/2014
12/27/2014
12/28/2014
12/29/2014
12/30/2014
01/09/2015
01/10/2015
01/11/2015
01/12/2015
01/13/2015
01/14/2015
01/21/2015
01/22/2015
01/25/2015
01/26/2015
01/27/2015
01/28/2015
01/29/2015

01/30/2015
02/24/2015
02/25/2015
03/04/2015
03/19/2015
03/22/2015
03/24/2015
04/30/2015
05/13/2015

Table 3: Dates of Hydrography

B. Data Acquisition and Processing

B.1. Equipment and Vessels

Refer to the OPR-K339-KR-14 Data Acquisition and Processing Report (DAPR) for additional information regarding survey systems as well as operational, processing and quality control procedures. A summary of the equipment and vessels used for this survey is provided below.

B.1.1. Vessels

The following vessels were used for data acquisition during this survey:

Hull ID	1237094	JQN00023E707
LOA	40.84 meters	9.14 meters
Draft	1.98 meters	0.76 meters

Table 4: Vessels Used

B.1.2. Equipment

The following major systems were used for data acquisition during this survey:

Manufacturer	**Model**	**Type**
Kongsberg	EM2040	MBES
Kongsberg	EM3002	MBES
Klein	5000 V2	SSS
EdgeTech	4200 P	SSS
Coda Octopus	F180	Attitude and Positioning System
C-Nav	3050	Positioning System
C-Nav	2050	Positioning System
YSI Electronics	600R-BCR-C-T	Sound Speed System
Sea-Bird Electronics, Inc.	SBE 19 and SBE 19 Plus	Sound Speed System

Table 5: Major Systems Used

B.2. Quality Control

B.2.1. Crosslines

Crosslines were run perpendicular to mainscheme lines so that quality control statistics could be performed on the data after completion of mainscheme survey lines. The total crossline miles were 87.66 NM and the total mainline miles were 1510.68 NM. Investigation lines were not included in mainline totals but fill-in lines are included because they were acquired to fulfill the Object Detection coverage requirement. The crosslines comprise 5.8 percent of the total main line miles which fulfills the crossline requirement of 4%, as outlined in section 5.2.4.3 of the HSSD (2014).

Mainlines were compared to crosslines for which there was overlapping data using C & C's proprietary Hydromap software. The graphs generated from the comparison show the mean difference, RMS difference and confidence interval for each beam. Refer to the DAPR for additional information and Separates II Digital Data for sample graphical documentation.

The surface difference tool in CARIS HIPS was used to evaluate crossline and mainscheme line agreement; investigations were not included in the comparisons. The mainline BASE surface was used as Surface 1 and the crossline BASE surface as Surface 2. Statistical information about the difference surface was generated using the compute statistics tool (Figure 2). The majority of depth difference values found to be greater than ±0.5 m are generally either located on the outer edges of overlap, associated with features that do not line up exactly from mainline to crossline, or associated with features that appear to either be present or not present after some time has passed. One such area is at the intersection of TIE106-2 and 6166FILL-1 in a mudflow feature (Figure 3). The most extreme positive difference value of 1.03 m is located outside the assigned survey bounds associated with the overlap of outer beams of mainline 8122-2 with Tie-110-2. The intersection of Tie-117-1 collected with the R/V *Sea Scout* and mainlines collected with the R/V *C-Ghost* generally show good agreement except in the northernmost section of overlap. The most extreme negative difference value of -1.23 m is located at the intersection of TIE-117-1 and mainline 8001-1. This intersection is within Southwest Pass channel and it appears that the data collected with the R/V *C-Ghost* sometimes shows both the channel bottom and overlying 'fluff' and sometimes just the 'fluff'. This may account for the difference in depths and is further described in section D.2.8.

The analysis shows that 99% of depth difference values are between -0.30 and 0.30 m. This is well within the maximum allowable TVU for the depths of the comparison area (4.58 – 82.27 m) which ranges from ±0.504 – ±1.181 m.

Statistical crossline information was also generated by comparing each of the crosslines to the depth layer of the 1-m BASE surface of the mainscheme survey lines using the CARIS QC report utility. In general, greater than 99% of crossline soundings were considered to meet IHO (S-44 Ed. 4) survey Order 1a standards, as stated in the CARIS User Manual. Crossline comparisons generated with the CARIS QC report utility as well as the difference BASE surface

are shown in the Separates II Digital Data\Checkpoint Summary & Crossline Comparisons folder.

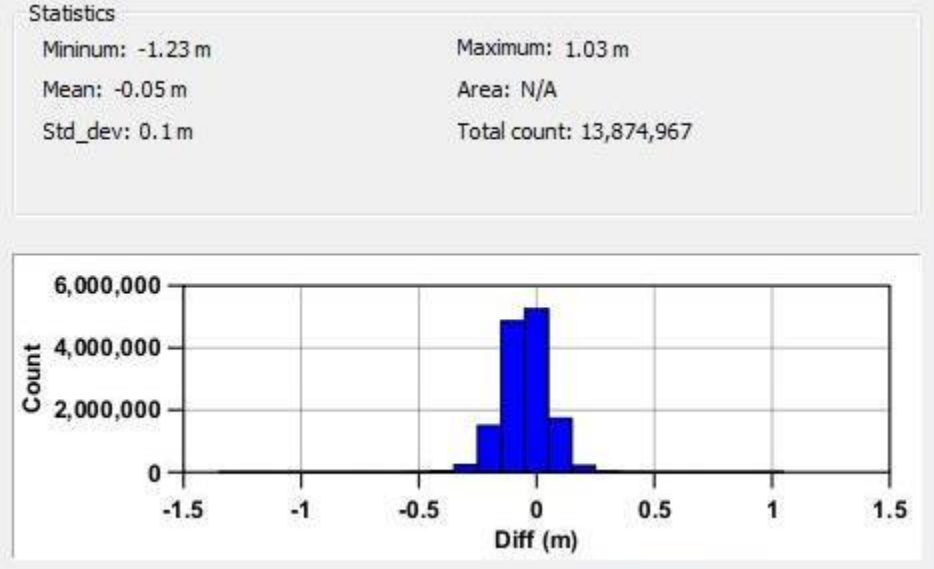

Figure 2. Crossline comparison statistical information and histogram output from CARIS compute statistics tool.

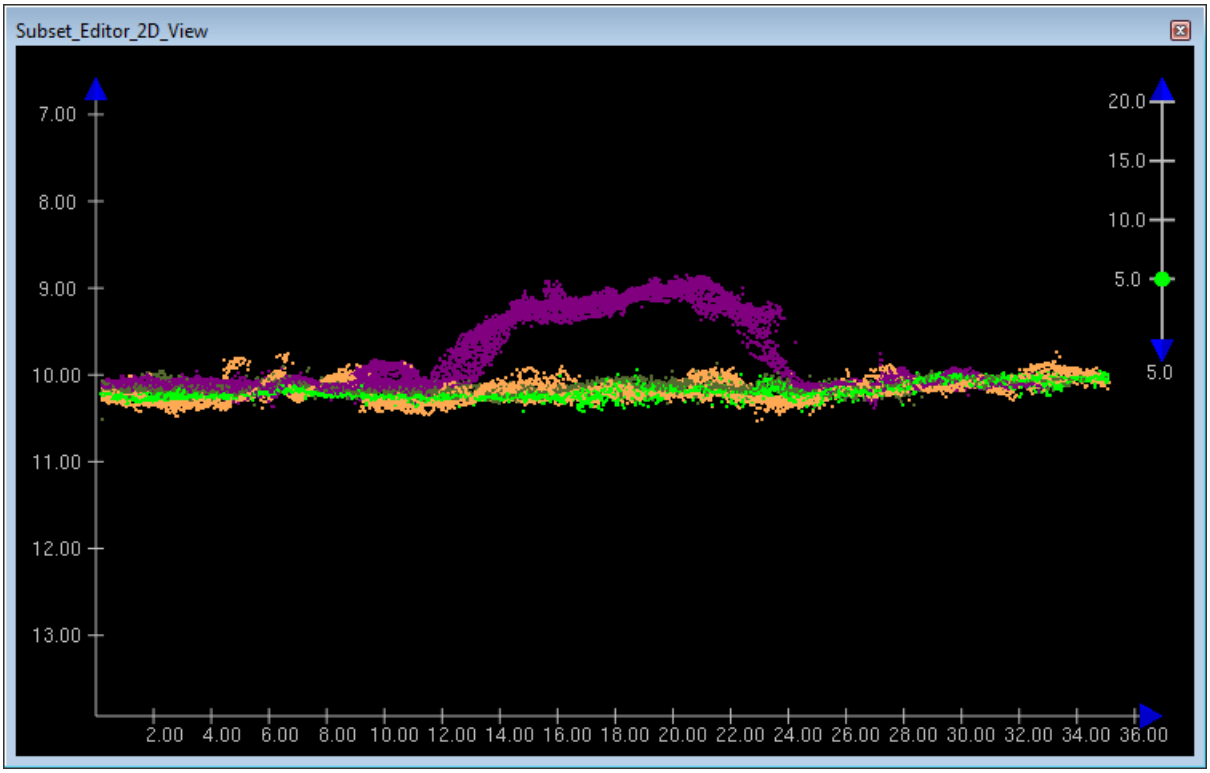

Figure 3. Data in dark green, light green and orange represent data collected on November 9 and 11 and December 1, 2014. The dark green line is H12634-TIE-106-1 and the light green line is H12634-TIE-106-2. The purple line (6166FILL-1) was collected on December 12, 2014 and shows a feature not present in previously collected data. Horizontal and vertical axes are in meters.

B.2.2. Uncertainty

Uncertainty of all components of the sounding measurement are included in the CARIS vessel file and detailed in the DAPR.

The following survey specific parameters were used for this survey:

Measured	Zoning
0.0337 m	0.0673 m

Table 6: Survey specific tide TPU values

Hull ID	Measured - CTD	Measured - MVP	Surface
1237094	2.00 m/s	n/a	0.8 m/s
JQN00023E707	2.00 m/s	n/a	0.8 m/s

Table 7: Survey specific sound speed TPU values

CARIS HIPS was used to compute the Total Propagated Uncertainty (TPU) for each sounding. An Uncertainty layer child layer is generated during BASE surface creation that shows the uncertainty at each node of the surface. For additional review and quality control, two new layers were generated for each BASE surface that would become a finalized BASE surface. The two (2) new layers were generated for the H12634_MB_50cm_MLLW_1of2, H12634_MB_50cm_MLLW_2of2, H12634_MB_1m_MLLW, H12634_MB_2m_MLLW, and H12634_MB_4m_MLLW BASE surfaces. The first layer was named <TVU_Maximum> and shows the maximum TVU at each node. The following formula was used during layer creation:

$$\sqrt{(0.5^2) + (0.013 * Depth)^2}$$

The second layer generated was named <Uncertainty_QC> and defined as the difference between the TVU_Maximum and Uncertainty layers. Positive values indicate that the uncertainty is less than the maximum TVU and that the data meet specifications, while negative values indicate that the uncertainty is greater than the maximum TVU and that the data do not meet specifications. The two (2) layers could have been combined into one (1) layer for the Uncertainty_QC, as shown below for the finalized surfaces, but the TVU_Maximum layer also aided in determining the designation or examination status of critical soundings.

The uncertainty for the H12634_MB_50cm_MLLW_1of2 BASE surface ranges from 0.22 – 0.46 meters and the uncertainty for the H12634_MB_50cm_MLLW_2of2 BASE surface ranges from 0.22 – 0.24 meters. The uncertainty for the H12634_MB_1m_MLLW BASE surface, H12634_MB_2m_MLLW BASE surface and H12634_MB_4m_MLLW BASE surface ranges from 0.22 – 0.46 meters. The Uncertainty_QC layers of all five BASE surfaces show all positive values, which demonstrates that all uncertainty values are less than the maximum TVU for each node.

An Uncertainty_QC_Final layer was also generated for all finalized surfaces, defined by the equation below:

$$\sqrt{(0.5^2) + (0.013 * Depth)^2} - Uncertainty$$

The uncertainty for the H12634_MB_50cm_MLLW_1of2_Final BASE surface ranges from 0.22 to 4.74 meters and the uncertainty for the H12634_MB_50cm_MLLW_2of2_Final BASE surface ranges from 0.22 to 0.67 meters. The uncertainty for the H12634_MB_1m_MLLW_Final BASE surface ranges from 0.22 to 2.55 meters, the uncertainty for the H12634_MB_2m_MLLW_Final ranges from 0.22 to 10.86 meters and the uncertainty for the H12634_MB_4m_MLLW_Final BASE surface ranges from 0.22 to 2.20 meters.

Text files were exported from CARIS and run through a python script to determine the percentage of Uncertainty_QC_Final values that are less than zero, which indicates that the uncertainty values at those nodes exceed specifications.

Analysis of the Uncertainty_QC_Final layer for the H12634_MB_50cm_MLLW_1of2_Final BASE surface indicates that 0.0002% of nodes have an uncertainty greater than the maximum allowable TVU. Analysis of the Uncertainty_QC_Final layer for the H12634_MB_50cm_MLLW_2of2_Final BASE surface indicates that 0.0001% of nodes have an uncertainty greater than the maximum allowable TVU. Analysis of the Uncertainty_QC_Final layer for the H12634_MB_1m_MLLW_Final BASE surface indicates that 0.0003% of nodes have an uncertainty greater than the maximum allowable TVU. Analysis of the Uncertainty_QC_Final layer for the H12634_MB_2m_MLLW_Final BASE surface indicates that 0.005% of nodes have an uncertainty greater than the maximum allowable TVU. Analysis of the Uncertainty_QC_Final layer for the H12634_MB_4m_MLLW_Final BASE surface indicates that 0.004% of nodes have an uncertainty greater than the maximum allowable TVU.

The reason all uncertainty values are within IHO specifications for the un-finalized surfaces, but contain a small portion of values that are out of specifications when finalized is likely due to the finalization parameter where the uncertainty is defined as the greater of either the standard deviation or uncertainty for a particular node.

Note that when the surfaces are finalized, the TVU_Maximum and Uncertainty_QC layers are retained but Uncertainty_QC layer does not reflect the new Uncertainty values of the finalized surface. These layers can be removed, but if the finalized BASE surface is recomputed, it appears that these layers will be regenerated (after closing and re-opening the project). For this reason, the layers were not removed from the finalized surfaces.

B.2.3. Junctions

Registry Number	Scale	Year	Field Unit	Relative Location
H11833	10000	2008	David Evans and Associates	N
H11684	10000	2007	David Evans and Associates	NW
H12635	40000	2014	C & C Technologies	NW
H12636	40000	2014	C & C Technologies	NE

Table 8. Junctioning Surveys

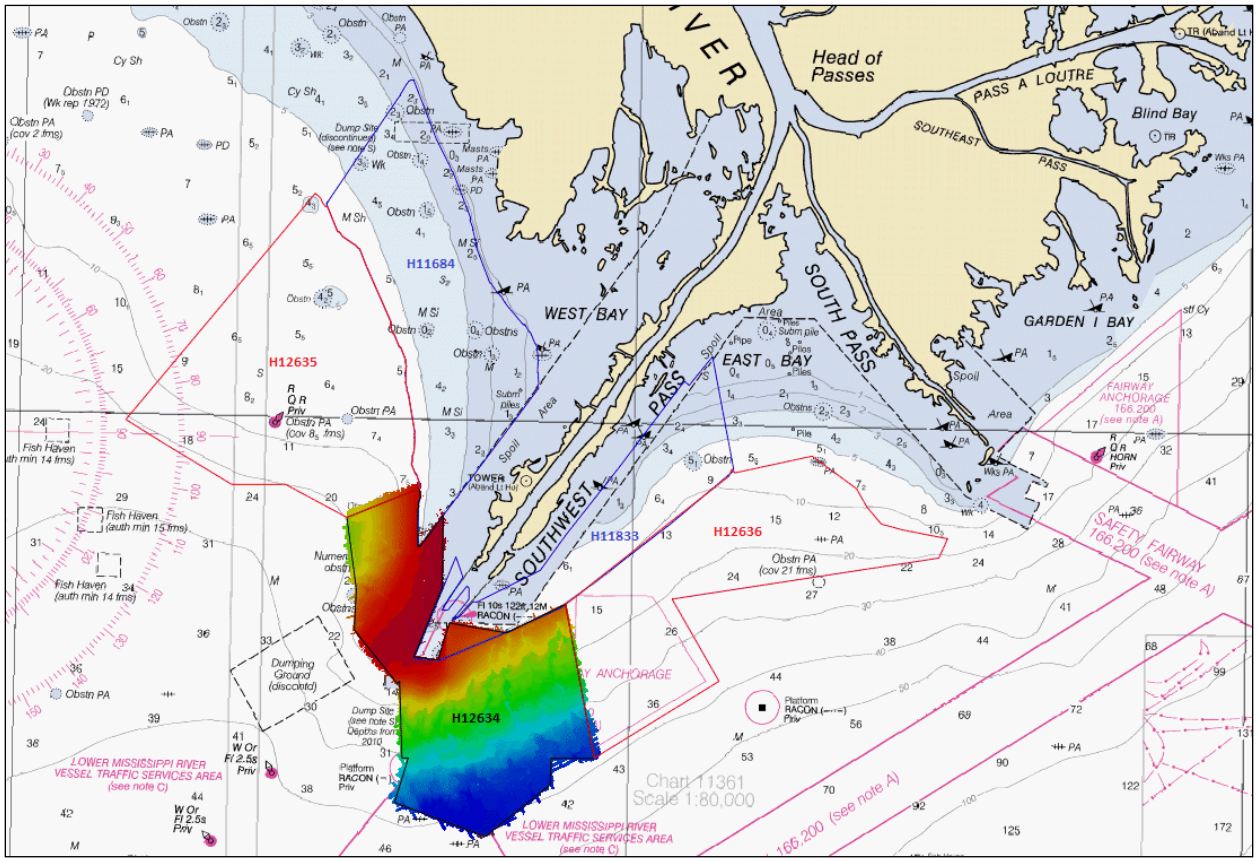

Figure 4. H12634 Junctions.

The areas of overlap between sheets (Figure 4) were evaluated using the CARIS Difference Tool to ensure general agreement of depths. If necessary, data was further reviewed in Subset Editor. Junction analyses were conducted between all sheets using 2 meter BASE surfaces.

H11833

The north margin of H12634 borders the southwestern margin of H11833. Figure 5 shows statistical information for the junction generated with the CARIS compute statistics tool. It is evident that 88% of depth difference values are between -0.534 and 0.566 m. Several concentrated areas of higher depth difference values exist (Figure 6). These include areas in and around the mudflow features in the northeast portion of the survey area; an area of hummocky seafloor in the eastern portion of the spoil area; and an area to the east of the channel. The more extreme difference of 2.58 m exists in the overlap in the eastern portion of spoil area. Surveyed soundings from the contemporary survey in these areas are deeper than those of H11833 (red rectangles in Figure 6). In addition, there are higher depth difference values in and around the Southwest Pass channel proper. The more extreme difference of -3.44 m is located in this area and surveyed soundings from the contemporary survey are shallower than those of H11833 (blue rectangle in Figure 6).

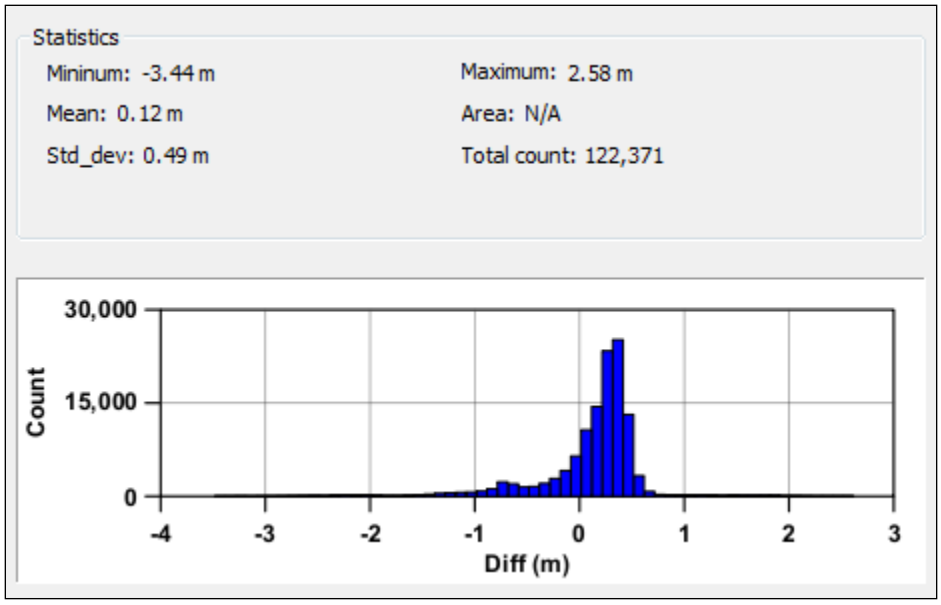

Figure 5. Statistical information and histogram output from CARIS Compute Statistics tool for the difference surface generated between H12634 and H11833.

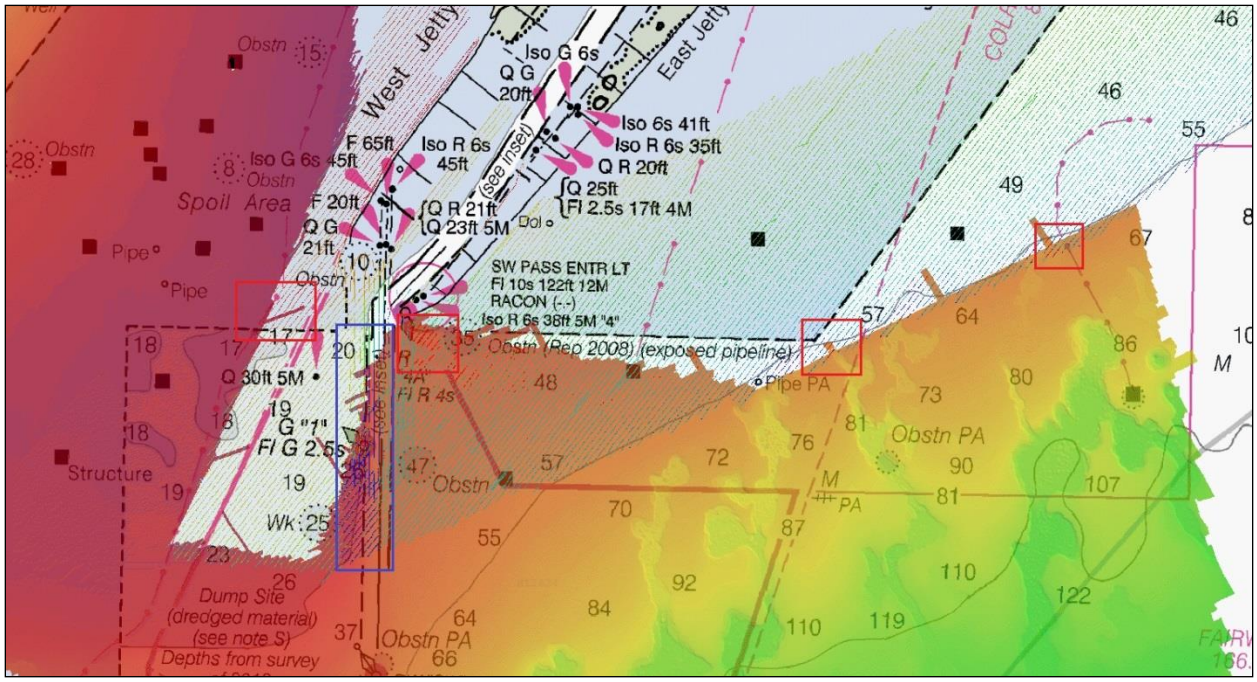

Figure 6. Areas of higher depth difference values between H12634 and H11833. Surveyed soundings from H12634 are deeper than those of H11833 in the red rectangles and surveyed soundings from H12634 are shallower than those of H11833 in the blue rectangle.

H11684

There is a small corner of overlap between the northern margin of H12634 and the southern margin of H11684. Figure 7 shows statistical information of the junction difference surface generated with the CARIS compute statistics tool. The difference values show that the depths agree well between the sheets with 100% of depth differences between -0.32 and 0.33 m.

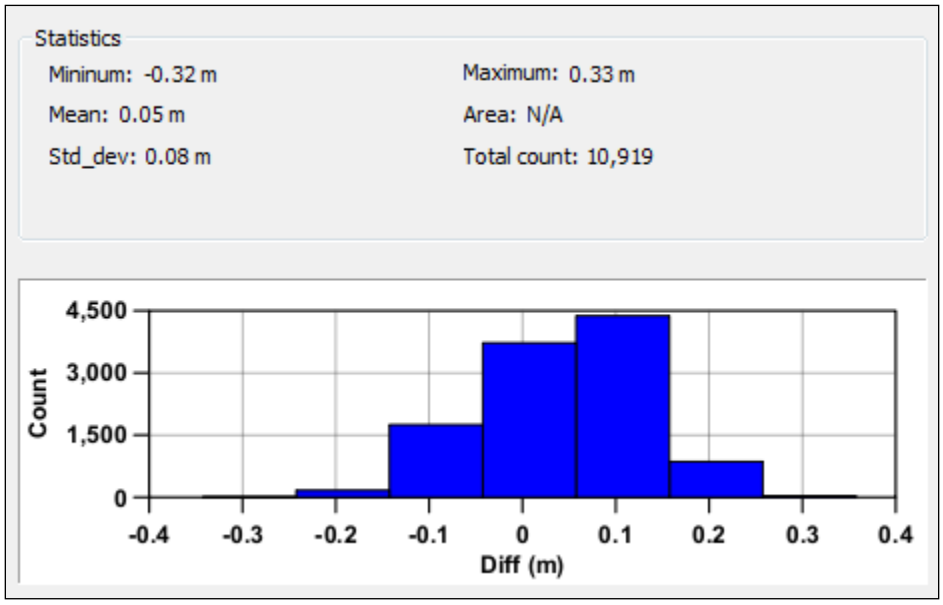

Figure 7. Statistical information and histogram output from CARIS Compute Statistics tool for the difference surface generated between H12634 and H11684.

H12635

The northwestern margin of H12634 borders the southeastern margin of H12635. Figure 8 shows statistical information for the junction generated with the CARIS compute statistics tool. The difference values show that the depths agree well between the sheets with greater than 99% of depth difference values between -0.294 and 0.206 m.

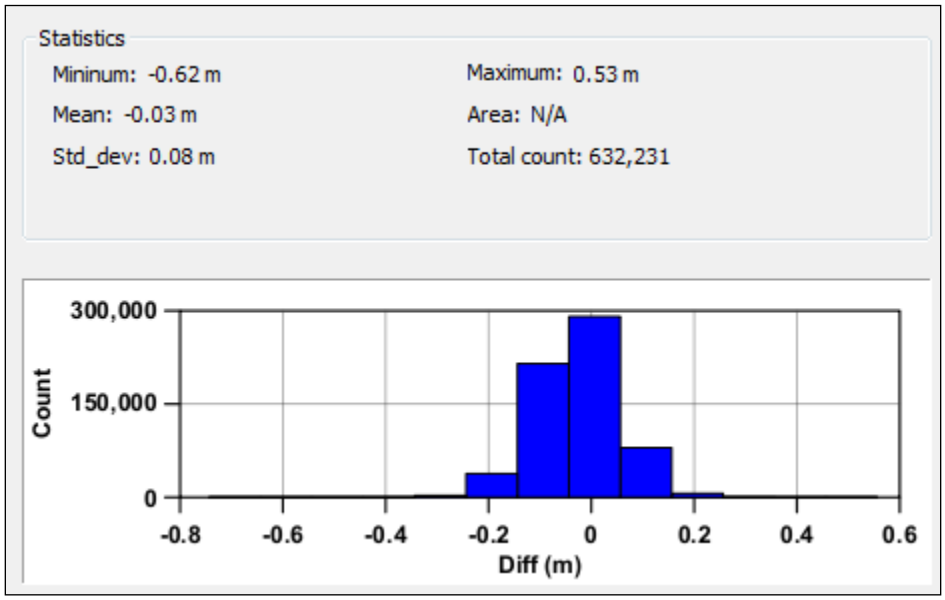

Figure 8. Statistical information and histogram output from CARIS Compute Statistics tool for the difference surface generated between H12634 and H12635.

H12636

The northeastern margin of H12634 borders the southwestern margin of H12636. Statistical information for the junction generated with the CARIS compute statistics tool is shown in Figure 9. There are some isolated larger depth difference values mainly along the edges of overlap and associated with mudflow features; the most extreme difference of 1.73 m is associated with outer edge overlap along the slope of a mudflow feature although the difference between lines (overlap with line 8100-3) appears subtle. In general, the depth difference values show that the depths between the sheets agree well with greater than 99% of depth difference values between -0.311 and 0.289 m.

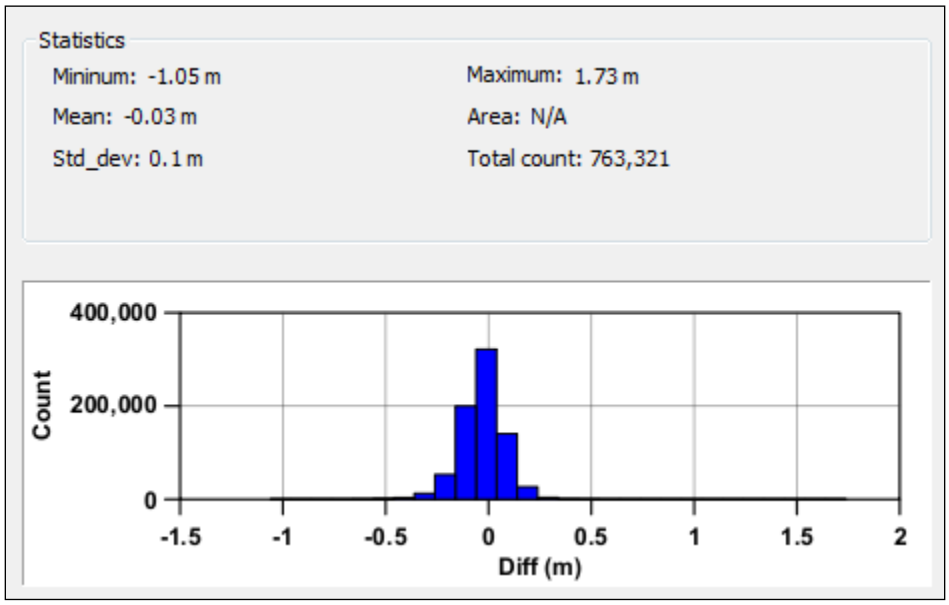

Figure 9. Statistical information and histogram output from CARIS Compute Statistics tool for the difference surface generated between H12634 and H12636.

B.2.4. Sonar QC Checks

Odom single beam echosounders were continuously operated and monitored during the survey as an independent check on the multibeam bottom-detect. The R/V *Sea Scout* (Hull ID 1237094) is equipped with an ODOM Echotrac MK III and the R/V *C-Ghost* (Hull ID JQN00023E707) is equipped with an ODOM CV100.

B.2.5. Equipment Effectiveness

If necessary, the angle of the multibeam sonars was modified in order to moderate the effects of factors such as increased sea state or to increase coverage; any changes are documented in the acquisition logs. In addition, the line plan was modified to accommodate a change to Object Detection MBES coverage when it was observed that surface noise, marine life, and organic matter in the water column made side scan sonar operations unpredictable.

B.2.6. Factors Affecting Soundings

Weather, sea state, water column sound speed, thermoclines, and fish/marine life were all temporary factors that affected the data periodically throughout the duration of the survey; these are noted in the acquisition and processing logs.

B.2.7. Sound Speed Methods

Sea Bird Electronics SBE19 CTDs were used for speed of sound measurements. Casts were conducted at least twice daily on board the R/V *Sea Scout*, at least once daily on board the R/V *C-Ghost* and more often as needed. The multibeam data was corrected for the water column sound speed in real-time using the SIS control software. Endeco YSI sondes were used to determine the sound speed at the transducers. The sound speed data and confidence checks are located in Separates II Digital Data\Sound Speed Data Summary.

B.2.8. Coverage Equipment and Methods

Object Detection MBES with backscatter was acquired in the survey area in accordance with the requirements stated in the project instructions for this survey. Main survey lines were oriented in a variety of directions to expedite data collection. MBES and backscatter data were acquired with a Kongsberg EM2040C echosounder on board the R/V *Sea Scout* and with a Kongsberg EM3002 echosounder on board the R/V *C-Ghost*. In addition to MBES and backscatter data, water column and side scan sonar data were acquired over investigation items whenever possible. A Klein 5000 V2 side scan sonar was used aboard the R/V *Sea Scout* and an EdgeTech 4200 side scan sonar was used aboard the R/V *C-Ghost*.

B.2.9. Density

According to sections 5.2.2.1 and 5.2.2.2 of the HSSD (2014) for Object Detection and Complete Multibeam coverage, at least 95% of all nodes on the surface shall be populated with at least 5 soundings. The Compute Statistics tool in CARIS HIPS was used to generate statistics about the density child layer of the following surfaces: H12634_MB_50cm_MLLW_1of2_Final (Figure 10), H12634_MB_50cm_MLLW_2of2_Final (Figure 11), H12634_MB_1m_MLLW_Final (Figure 12), H12634_MB_2m_MLLW_Final (Figure 13) and H12634_MB_4m_MLLW_Final (Figure 14). A bin size of 1 was used and the data exported in ASCII format. The number of nodes in the first 4 bins were added together to determine the number of nodes that contain less than 5 soundings.

The H12634_MB_50cm_MLLW_Final_1of2 surface contains a total of 163,269,117 nodes and 163,194,966 nodes contain at least 5 soundings. Therefore, greater than 99% of all nodes on the surface contain at least 5 soundings.

The H12634_MB_50cm_MLLW_Final_2of2 surface contains a total of 326,989 nodes and 325,079 nodes contain at least 5 soundings. Therefore, greater than 99% of all nodes on the surface contain at least 5 soundings.

The H12634_MB_1m_MLLW_Final surface contains a total of 32,916,979 nodes and 32,899,016 nodes contain at least 5 soundings. Therefore, greater than 99% of all nodes on the surface contain at least 5 soundings.

The H12634_MB_2m_MLLW_Final surface contains a total of 17,363,192 nodes and 17,353,239 nodes contain at least 5 soundings. Therefore, greater than 99% of all nodes on the surface contain at least 5 soundings.

The H12634_MB_4m_MLLW_Final surface contains a total of 363,975 nodes and 363,408 nodes contain at least 5 soundings. Therefore, 99% of all nodes on the surface contain at least 5 soundings.

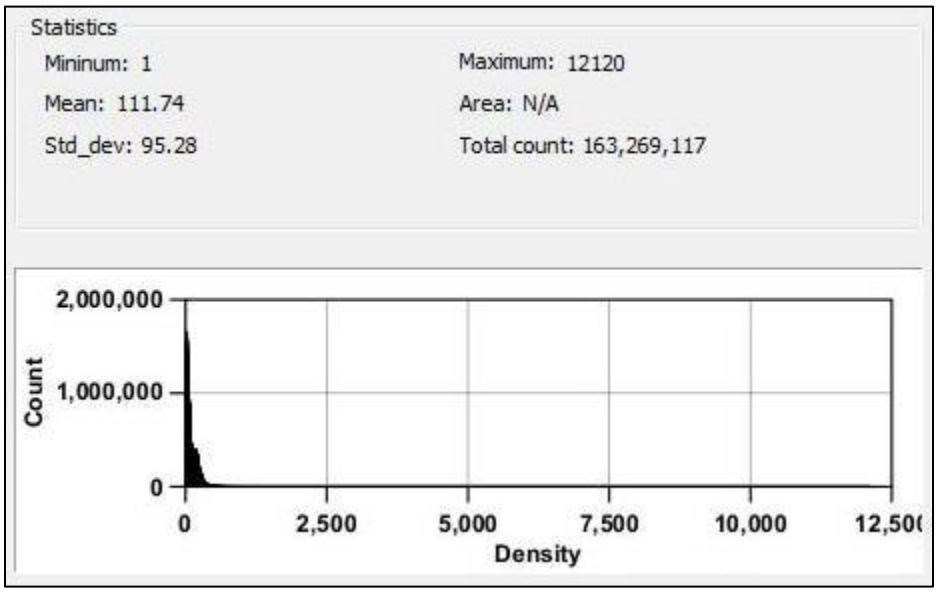

Figure 10. Statistical information about the density child layer of the H12634_ MB_50cm_MLLW_1of2_Final BASE surface, generated from the CARIS Compute Statistics tool.

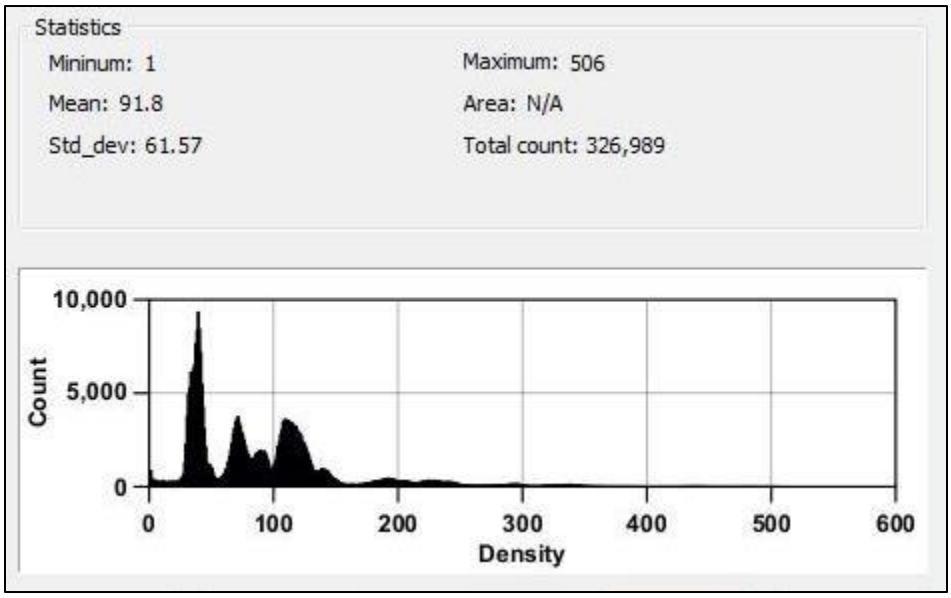

Figure 11. Statistical information about the density child layer of the H12634_ MB_50cm_MLLW_2of2 Final BASE surface, generated from the CARIS Compute Statistics tool.

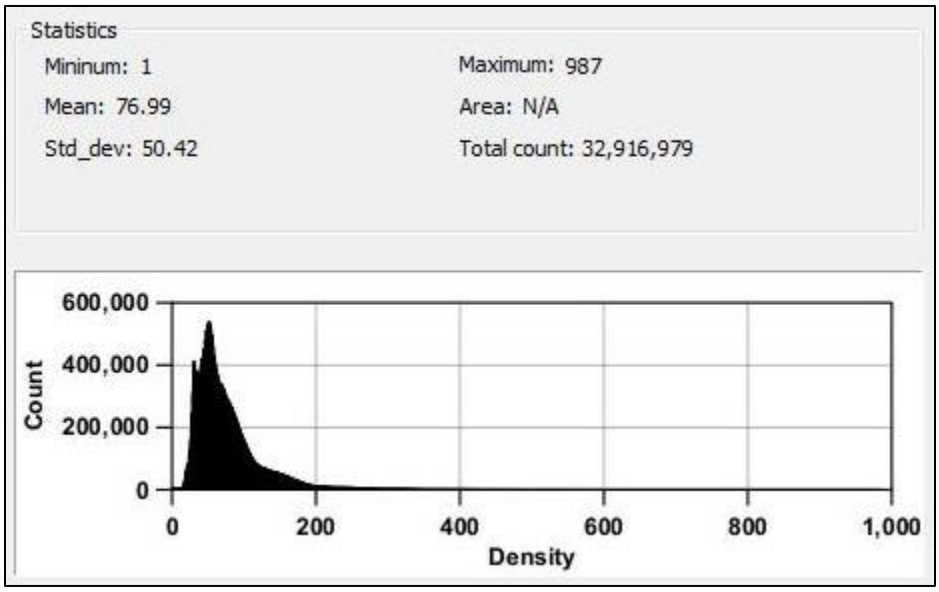

Figure 12. Statistical information about the density child layer of the H12634_ MB_1m_MLLW_Final BASE surface, generated from the CARIS Compute Statistics tool.

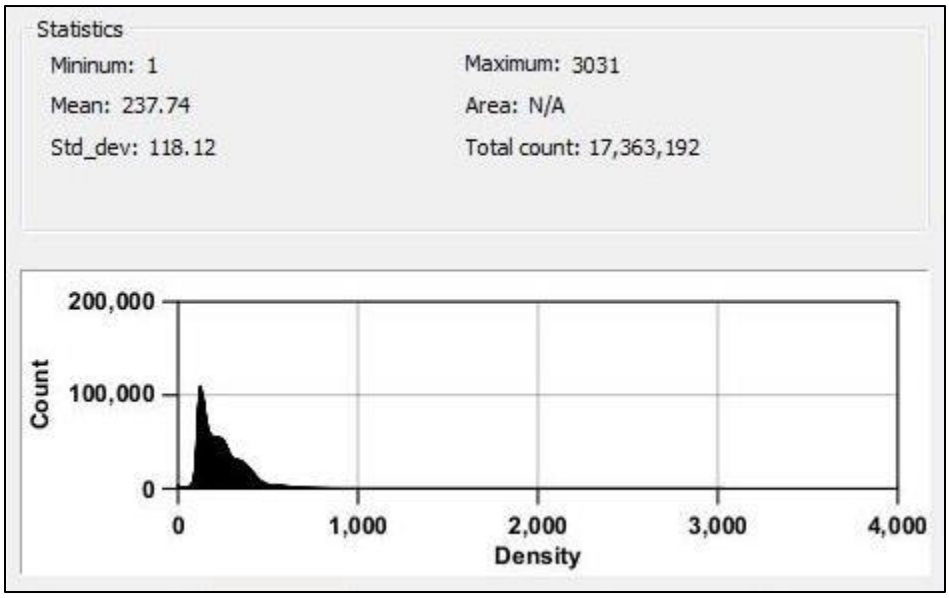

Figure 13. Statistical information about the density child layer of the H12364_ MB_2m_MLLW_Final BASE surface, generated from the CARIS Compute Statistics tool.

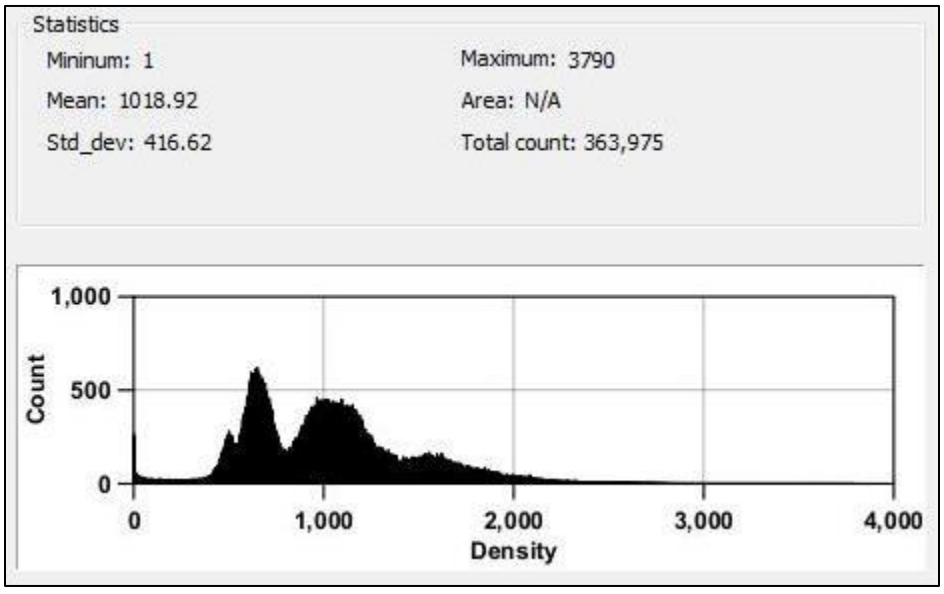

Figure 14. Statistical information about the density child layer of the H12364_ MB_4m_MLLW_Final BASE surface, generated from the CARIS Compute Statistics tool.

B.3. Echo Sounding Corrections

B.3.1. Corrections to Echo Soundings

All corrections to echo sounding (instrument corrections, static and dynamic draft, speed of sound, and attitude corrections) follow the procedures outlined in the accompanying Data Acquisition and Processing Report (DAPR).

It was noted that a 2 cm difference in the WL to CRP value was observed and logged in the R/V *Sea Scout* logs on December 14, 2014 due to using the WL to CRP value for the port head when data was collected with a dual head configuration. This was corrected on December 16, 2014 and because it was a small difference it was not corrected for during final processing.

B.3.2. Calibrations

Prior to initiating survey operations, a standard patch test was performed for each vessel to determine correctors for pitch, roll, and heading; additional calibrations were performed as necessary. Squat and settlement tests were also conducted to determine the dynamic draft of the vessels.

B.4. Backscatter

Backscatter was logged within each raw Kongsberg EM file. This data was imported during CARIS conversion and reviewed when necessary. A backscatter mosaic was generated using C & C Technologies' proprietary Hydromap software and reviewed with the bathymetry to ensure all features were properly examined. The backscatter mosaic(s) are located in the Field Sheets directory.

B.5. Data Processing

B.5.1. Software updates

Software updates are detailed in the DAPR. No further software updates occurred after the submission of the DAPR.

The following Feature Object Catalog was used: NOAA Extended Attribute Files V5_3_2.

B.5.2. Surfaces

The following CARIS surfaces were submitted: 50 cm, 1 m, 2 m and 4 m surfaces were generated to fulfill the Object Detection requirement for this survey. These were each finalized with a separate depth threshold. The main <1of2> 50 cm BASE surface was finalized with the depth threshold of 0 – 22 m, the 1 m BASE surface was finalized with the depth threshold of 19 – 40 m, the 2 m BASE surface was finalized with the depth threshold of 36 – 80 m and the 4 m BASE surface was finalized with the depth threshold of 72 - 160 m. Several of these BASE

surfaces were also used for QC and junction analysis. A 50 cm BASE surface was also generated of several investigations conducted over mudflow features that appear transient and inconsistent with the main BASE surface; refer to the investigation log for additional information. Separate 1 m BASE surfaces were generated for the crosslines and mainlines in order to conduct the crossline comparison analysis.

Data holidays observed are concentrated around platforms where safety concerns precluded the vessels from obtaining full coverage. Several holidays were also observed between survey lines due to the vessel being slightly offline; the majority of these were observed within the charted spoil area.

Surface Name	Surface Type	Resolution	Depth Range	Purpose
H12634_MB_50cm_MLLW_1of2	Uncertainty	50 cm	3.50 m to 82.43 m	Object Detection
H12634_MB_50cm_MLLW_1of2_Final	Uncertainty	50 cm	2.55 m to 22.00 m	Object Detection
H12634_MB_50cm_MLLW_2of2	Uncertainty	50 cm	8.44 m to 16.60 m	Object Detection
H12634_MB_50cm_MLLW_2of2_Final	Uncertainty	50 cm	8.44 m to 16.60 m	Object Detection
H12634_MB_1m_MLLW	Uncertainty	1 m	4.26 m to 82.27 m	Object Detection
H12634_MB_1m_MLLW_Final	Uncertainty	1 m	19.00 m to 40.00 m	Object Detection
H12634_MB_2m_MLLW	Uncertainty	2 m	4.58 m to 82.05 m	Object Detection
H12634_MB_2m_MLLW_Final	Uncertainty	2 m	36.00 m to 80.00 m	Object Detection
H12634_MB_4m_MLLW	Uncertainty	4 m	4.59 m to 82.03 m	Object Detection
H12634_MB_4m_MLLW_Final	Uncertainty	4 m	72.00 m to 82.03 m	Object Detection
H12634_MB_Mainlines_1m_MLLW	Uncertainty	1 m	4.58 m to 81.91 m	QC
H12634_MB_Crosslines_1m_MLLW	Uncertainty	1 m	4.89 m to 82.27 m	QC

Table 9: CARIS surfaces

After initial data cleaning, the surfaces were reviewed a second time for fliers using the standard deviation layer and the 3D display window. Higher standard deviation is generally associated with bathymetric features, contacts and/or areas of bathymetric change. Areas of noisy MBES data, although cleaned, can also show higher standard deviation.

The highest standard deviation of the H12634_MB_50cm_MLLW_1of2_Final BASE surface is 2.42 m, which corresponds to an accepted DTON (platform ruins) located at 28.915 N, 089.446 W.

The highest standard deviation of the H12634_MB_50cm_MLLW_2of2_Final BASE surface is 0.34 m, which corresponds to a feature located at 28.917 N, 089.470 W.

The highest standard deviation of the H12634_MB_1m_MLLW_Final BASE surface is 1.30 m which corresponds to the slope of a mudflow feature located at 28.863 N, 089.452 W.

The highest standard deviation of the H12634_MB_2m_MLLW_Final BASE surface is 5.54 m and corresponds to a ship wreck at 28.821 N, 89.426 W.

The highest standard deviation of the H12634_MB_4m_MLLW_Final BASE surface is 1.12 located at 28.815 N, 089.815 W and corresponds to a mudflow feature.

C. Vertical and Horizontal Control

A complete description of the horizontal and vertical control for the OPR-K339-KR-14 surveys is located within the accompanying Horizontal and Vertical Control Report (HVCR). A summary of the horizontal and vertical control is provided below.

C.1. Vertical Control

The vertical datum for this survey is Mean lower low water (MLLW).

Standard Vertical Control Methods Used:

Discrete Zoning

The following National Water Level Observation Network (NWLON) station served as datum control of this survey.

Station Name	Station ID
Pilot Station East, SW Pass, LA	8760992

Table 10. Tide Stations

File Name	Status
8760992.tid	Verified

Table 11. Water Level Files (.tid)

File Name	Status
K339KR2014CORP.zdf	Final

Table 12: Tide Correctors (.zdf)

Preliminary zoning is accepted as the final zoning for project OPR-K339-KR-14 as outlined in the Tides and Water Levels Statement of Work section 1.5.1.

C.2. Horizontal Control

The horizontal datum for this project is the North American Datum of 1983 (NAD83). All survey products are referenced to the Universal Transverse Mercator (UTM) zone 16 N, meters, projection. The C-Nav GPS systems aboard the vessels receive corrections through the C-Nav

Subscription Services. This is "a premier worldwide subscription service providing 5 cm or better positioning accuracy. GNSS corrections are broadcast via Inmarsat geostationary satellites, providing highly accurate and reliable positioning coverage from 72 degrees north to 72 degrees south latitude." (http://www.cnavgnss.com/products)

D. Results and Recommendations

D.1. Chart Comparison

D.1.1. Raster Charts

The following are the largest scale raster charts, which cover the survey area:

Chart	Scale	Edition	Edition Date	LNM Date	NM Date
11361_1	1:80000	78	06/2015	07/07/2015	07/11/2015
11361_2	1:40000	78	06/2015	07/07/2015	07/11/2015

Table 13. Largest Scale Raster Charts

11361_1

Forty-seven (47) Local Notices to Mariners were issued within the survey bounds subsequent to the date of the project instructions and before the end of the survey. The last Local Notice to Mariners compared to this survey was Edition 78, print date Jun. /2015. Forty-five (45) of these Notices were associated with DtoNs submitted for this survey. Two (2) were associated with deleting the Southwest Pass Entrance Racon (LNM 25/14 8th Dist, 7/3/2014) and adding the Chevron-WD-109-A Racon (LNM 26/14 8th Dist, 7/10/2014). To aid in the review and comparison of these Local Notice to Mariners, an S-57 was generated of all LNM within the survey bounds and is provided in the S-57 Features/Additional S-57 Files folder.

Surveyed soundings range from 14.0 to 270.9 feet (4.3 to 82.3 meters). Depths are most shallow surrounding and just northwest of Southwest Pass. Depths deepen both to the northwest and to the south/southeast of the Pass. A shoal biased selected sounding layer for the H12634_MB_1m_MLLW BASE surface was generated with a single-defined radius of 150 meters. The survey area will be described using the delineation shown in Figure 15. The portion in the black polygon will be designated as the 'north' portion of the survey area and the portion in the blue polygon will be designated as the 'south' portion of the survey area.

The north section of the survey area is described below:

The eastern portion of the north section of the survey area is dominated by the charted spoil area surrounding Southwest Pass. The spoil area does not currently have any charted depths. Surveyed soundings range from 15 feet near the West Jetty to 64 feet in the southeastern corner of the charted spoil area. Surveyed soundings between the charted spoil area and the 30 foot contour in the southwestern portion of the survey area match charted depths well. Surveyed soundings between the 30 and 60 foot contours also generally match charted depths well, with

two (2) exceptions shown in light blue circles in Figure 16; representative soundings in these areas were submitted for review. Seaward of the 60 foot contour, surveyed soundings match charted depths well in the vicinity of (from north to south) the 64, 62, 78, 79 and 76 foot charted depths. Surveyed soundings are 6 – 11 feet shallower than charted depths greater than 100 feet, shown in the blue polygon in Figure 16. A more extreme difference of 30 feet between surveyed soundings and the 122 foot charted depth is shown in the dark blue circle in Figure 16. An additional extreme difference is evident in data from one of the survey crosslines, where surveyed soundings 75 feet and shallower extend seaward of the 120 foot contour (Figure 16). A representative sounding was submitted and accepted as a DtoN (refer to DtoN submissions and the Final Feature File for additional information).

The southern section of the survey is described below:

In the southern portion of the survey area (blue polygon in Figure 15), surveyed soundings are generally 1 – 4 feet deeper than charted depths from the shallow extents of the survey the 180 foot contour. However, several exceptions do exist and are highlighted in Figure 17. In the blue square, surveyed soundings are 3 – 4 feet shallower than the 85 foot charted depth. In the purple square, surveyed soundings are 18 – 21 feet deeper than the charted 81 foot charted depth. Within the yellow rectangle, there is a 150 foot charted depth and a 176 foot charted depth. Surveyed soundings are 15 feet shallower than the 150 foot charted depth and 20 feet shallower than the 176 foot charted depth. Within in the orange rectangle there is a 151 foot charted depth and a 173 foot charted depth. Surveyed soundings are up to 9 feet shallower than the 151 foot charted depth and 7 feet shallower than the 173 foot charted depth. Beyond the 180 foot contour there doesn't seem to be a clear trend when surveyed soundings are compared to charted depths, some are shallower, deeper, and some match well. In Figure 18, yellow circles indicate areas where surveyed soundings match well with charted depths, red indicates areas where surveyed soundings are shallower than charted depths and black circles indicate areas were surveyed soundings are deeper than charted depths.

A user defined color map was used to evaluate surveyed soundings with respect to the charted 30, 60, 120, 180 and 240 foot contours (Figure 19). In the northern portion of the survey area there is a small portion of surveyed soundings $\leq$ 18 feet, shown in red near the West Jetty. Surveyed soundings generally follow the charted 30 and 60 foot contours fairly well. However, there are several isolated features with surveyed soundings 30 feet or less seaward of the surveyed 30 foot contour within the spoil area; these are associated with mudflow features (yellow rectangle in Figure 20). In addition, in two locations (associated with mudflow features) surveyed soundings greater than 60 feet extend east of the charted 60 foot contour (purple rectangles in Figure 20). Surveyed soundings less than 120 feet consistently extend seaward of the 120 foot contour (blue rectangle in Figure 19) and an extreme example of this is shown in the red rectangle (Figure 20).

In the southern portion of the survey area it is evident that surveyed soundings greater than 30 feet extend northwest of the currently charted 30 foot contour, but surveyed soundings generally follow the charted 60 foot contour fairly well. Surveyed soundings greater than 120 feet extend shoreward of the charted 120 foot contour, mainly in associated with mudflow features.

Surveyed soundings do not follow the 180 or 240 foot contours very well, with surveyed soundings greater than that of the contour extending shoreward of the contour in some areas as well as surveyed soundings less than that of the contour extending seaward of the currently charted contour. Refer to Figure 21 for reference.

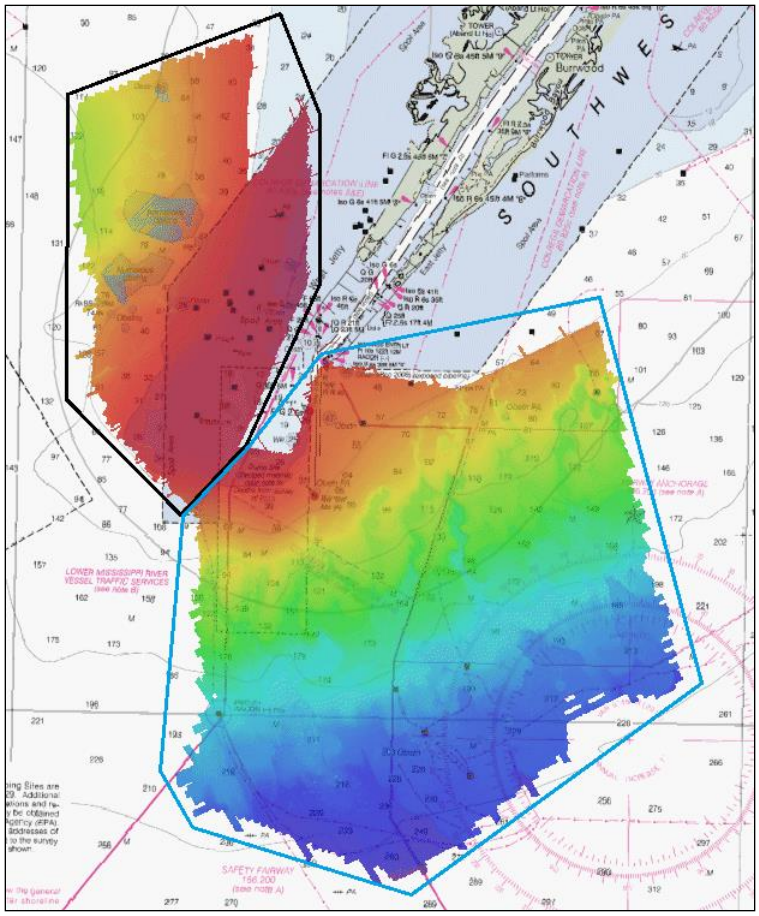

Figure 15. Black outline shows northern section of H12634 and blue outline shows southern section of H12634 as partitioned in the text.

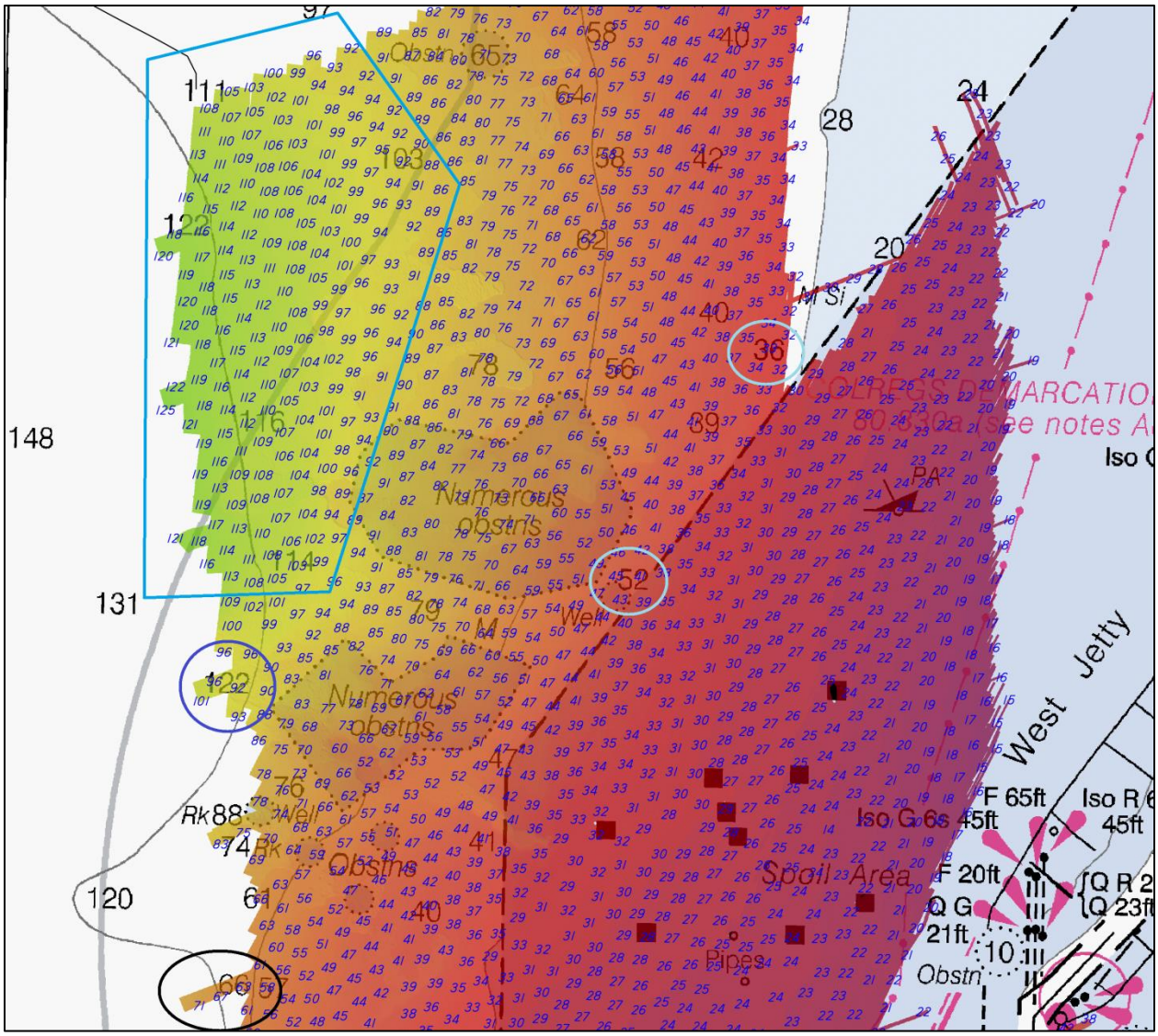

Figure 16. Blue selected sounding layer over transparent bathymetry overlying chart 11361. Light blue circles indicate surveyed soundings that are shallower than charted depths (surveyed soundings 33 feet on a charted 36 foot depth and surveyed soundings 41 feet on a charted 52 foot depth). Blue polygon indicates area where surveyed soundings are 6 to 11 feet shallower than charted depths >100 feet. Dark blue circle indicates a more extreme difference where surveyed soundings are 92 feet over a 122 foot charted depth. Black oval indicates area where surveyed soundings 75 feet and shallower extend seaward of the 120 foot contour.

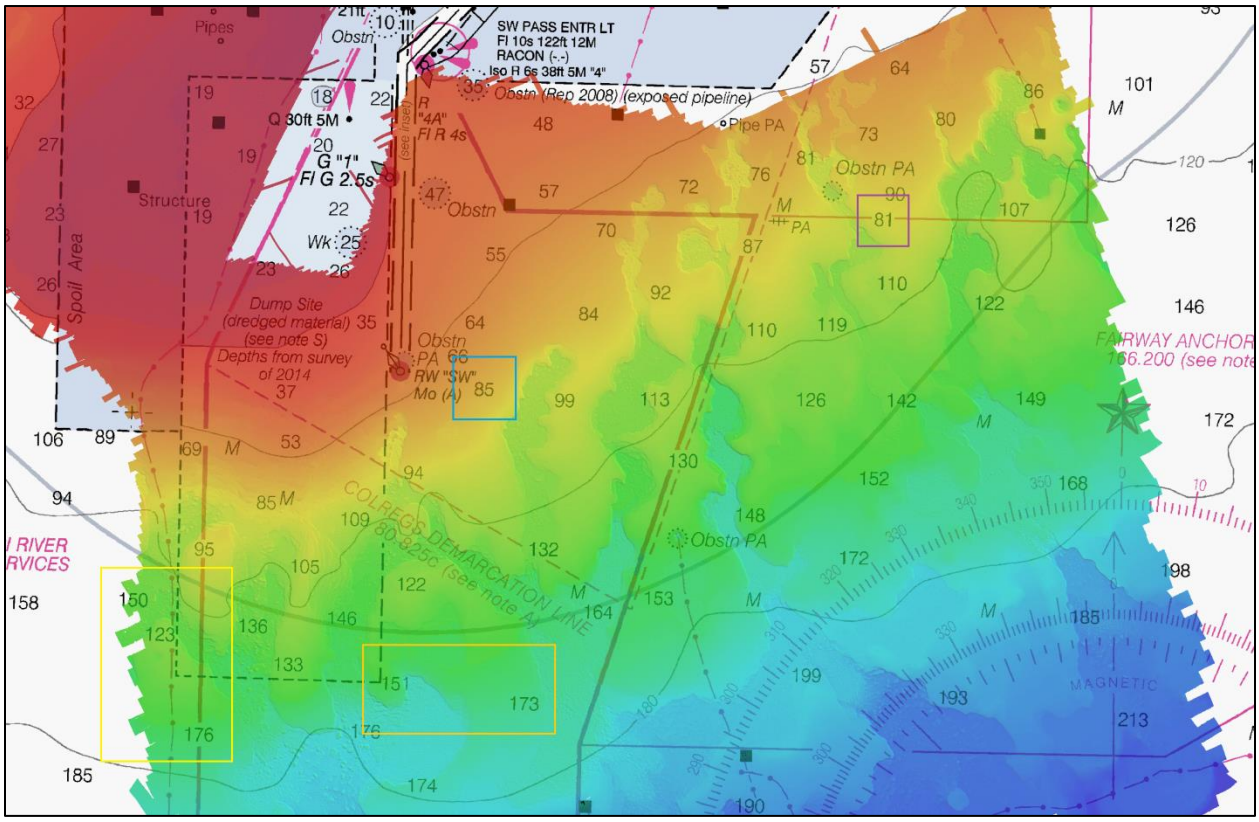

Figure 17. Larger discrepancies between charted depths and surveyed soundings in southern portion of H12634 survey area; refer to text for additional information.

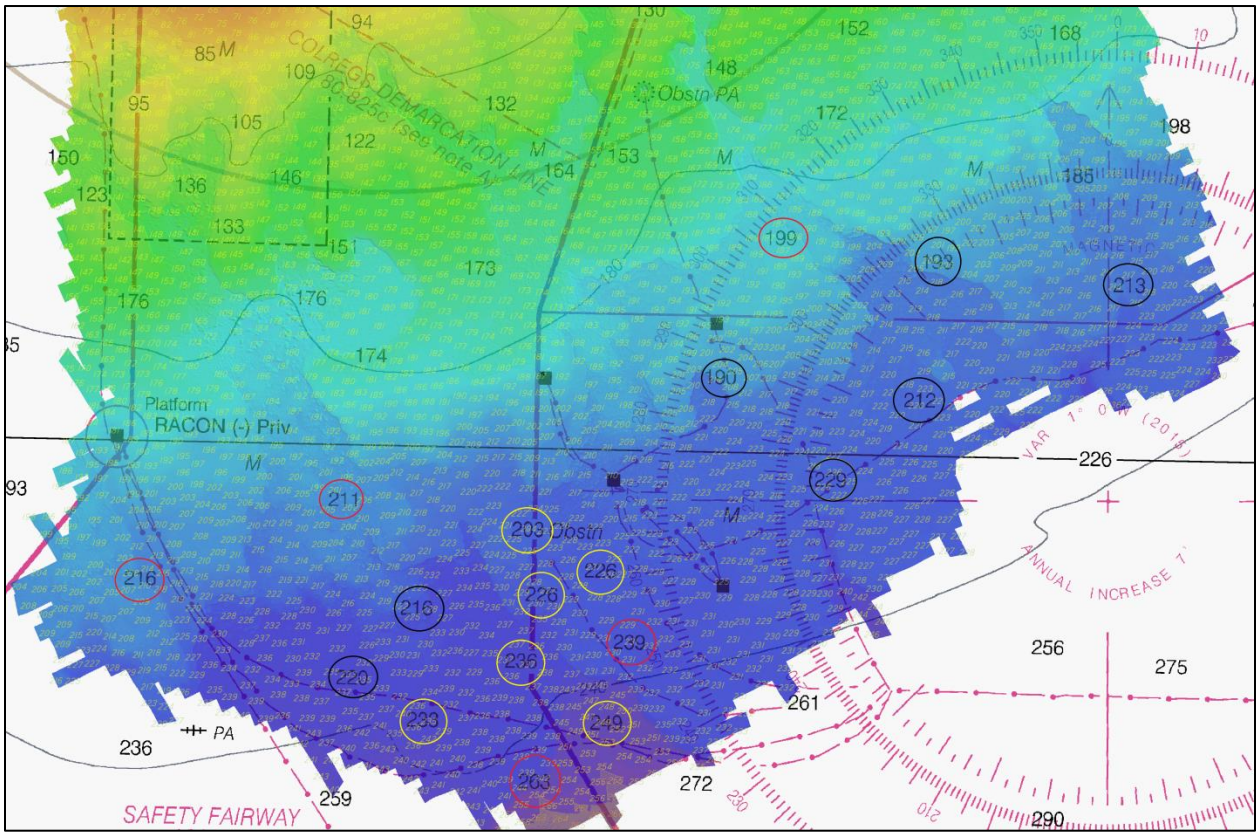

Figure 18. Southern portion of the survey area seaward of 180 foot contour. Yellow circles indicate areas where surveyed soundings match well with charted depths, red indicates areas where surveyed soundings are shallower than charted depths and black circles indicate areas were surveyed soundings are deeper than charted depths.

Min	Max	Start	End
0	5.486		
5.486	9.144		
9.144	18.288		
18.288	36.576		
36.576	54.864		
54.864	73.152		
73.152	100		

Figure 19. Color range chart used to evaluate the charted contours and surveyed soundings. 5.486 m represents 18 feet, 9.144 m represents 30 feet, 18.288 m represents 60 feet, 36.576 m represents 120 feet, 54.864 m represents 180 feet and 73.152 m represents 240 feet.

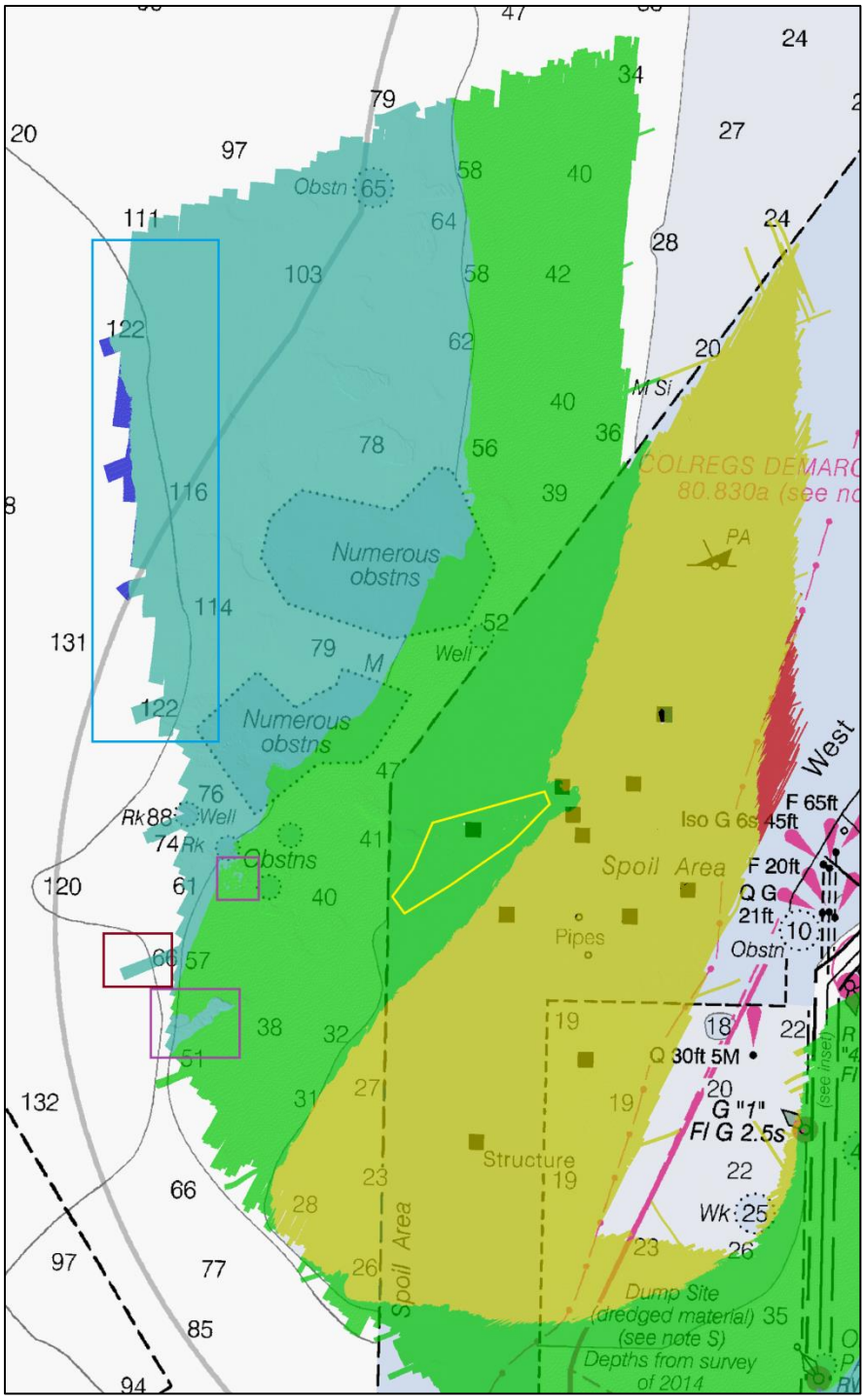

Figure 20. Comparison between surveyed soundings and charted contours in the northern portion of the survey area; refer to text for additional information.

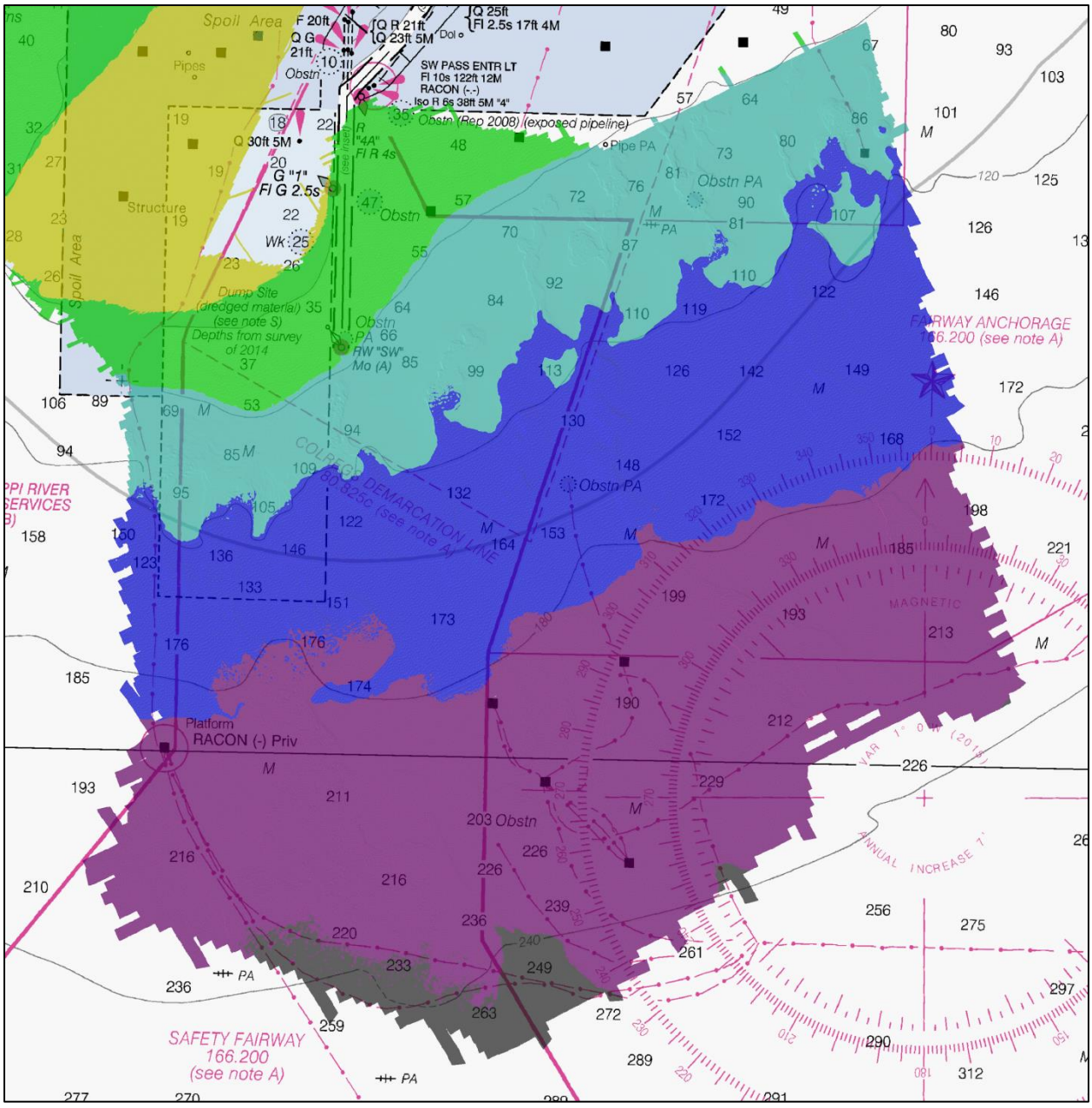

Figure 21. Comparison between charted contours and surveyed soundings in the southern portion of the survey area; refer to text for additional information.

11361 Southwest Pass Inset

The Southwest Pass Inset map generally shows the same features as the main 11361 map. Observations made for the main 11361 map, including contours, are generally valid; additional and supplemental information is provided here.

Surveyed soundings are generally deeper by 3 to 4 feet as compared to the 19 to 25 foot depths west and southwest of Southwest Pass channel in the charted dump site (Figure 22). No isolated features representing individual instances of dumped material were observed. Surveyed soundings are generally deeper by at least a foot as compared to charted depths east of Southwest Pass and north of the 60 foot contour. Surveyed soundings are also generally deeper than charted depths seaward of the 60 foot contour, although there is one charted 80 foot depth where surveyed soundings are up to 12 feet shallower than charted depths (black circle Figure 22). A 68 foot surveyed sounding was submitted to AHB for review but not accepted due to the depth being deeper than the 66 foot DtoN threshold (refer to Descriptive Report Appendix II: Supplemental Survey Correspondence for more information).

The depth for the channel proper, as stated in Note D of chart 11361, should be 45 feet. Review of soundings and viewing the data with a user defined color map shows depths 45 feet and greater within the channel (Figure 22).

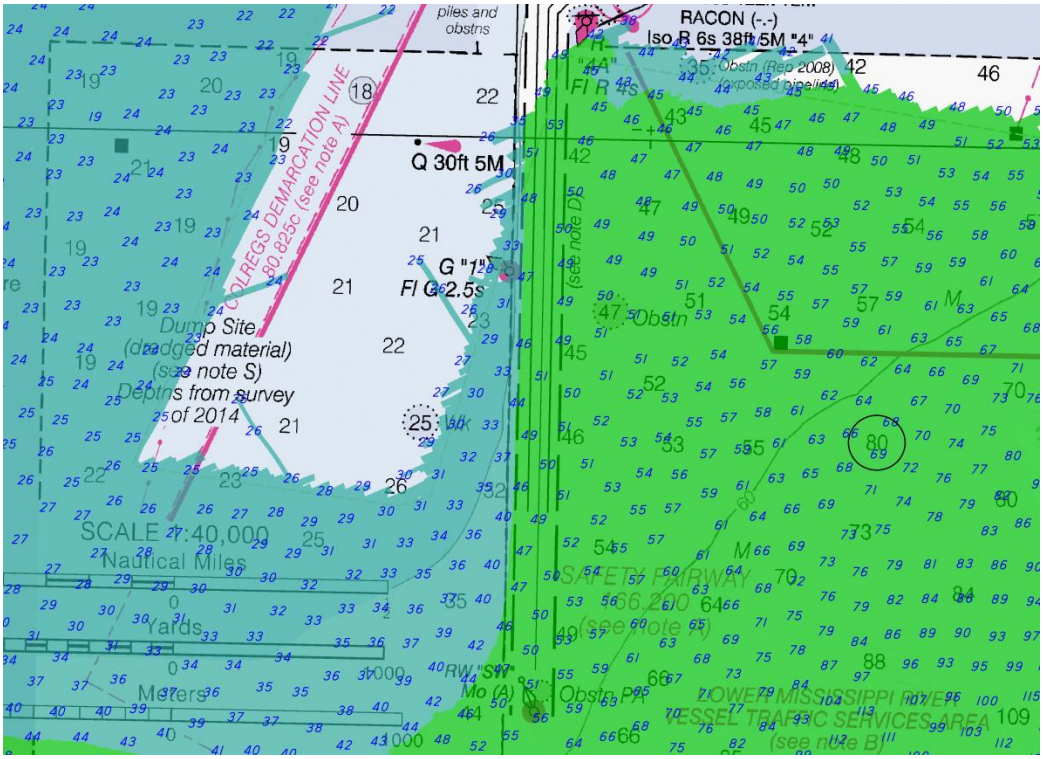

Figure 22. Southwest Channel inset map showing channel proper and overlain with blue selected soundings and bathymetry colored by depth range. Blue indicates surveyed soundings 0 – 45 feet and green indicates surveyed soundings greater than 45 feet. Black circle represents an area where surveyed soundings are shallower than charted depths.

D.1.2. Electronic Navigational Charts

ENC Name	Scale	Edition	Update Application Date	Issue Date	Preliminary
US4LA30M	80000	28	2014/07/23	2015/05/12	NO
US5LA33M	40000	3	2014/08/12	2015/05/11	NO

Table 14. Largest Scale ENCs

US4LA30M

Depths on ENC US4LA30M generally either match the charted depths of 11361 or are 1 foot shallower. The comparisons made between surveyed data and charted depths for 11361 are generally valid for the ENC. However, there are some discrepancies, particularly west and southwest of Southwest Pass channel. There are several depths on the ENC that do not correspond to depth on RNC 11361 and the ENC contains 18 foot contours which are not present on RNC 11361. Survey data does not support these 18 foot contours and indicates depths of 23 – 24 feet in this area. In addition, the contours on the ENC do not follow the contours of the RNC for a large portion of the survey area, particularly in the northern portion of the survey area (Figure 23). The contours of RNC 11361 match surveyed sounding depths better than those of ENC US4LA30M.

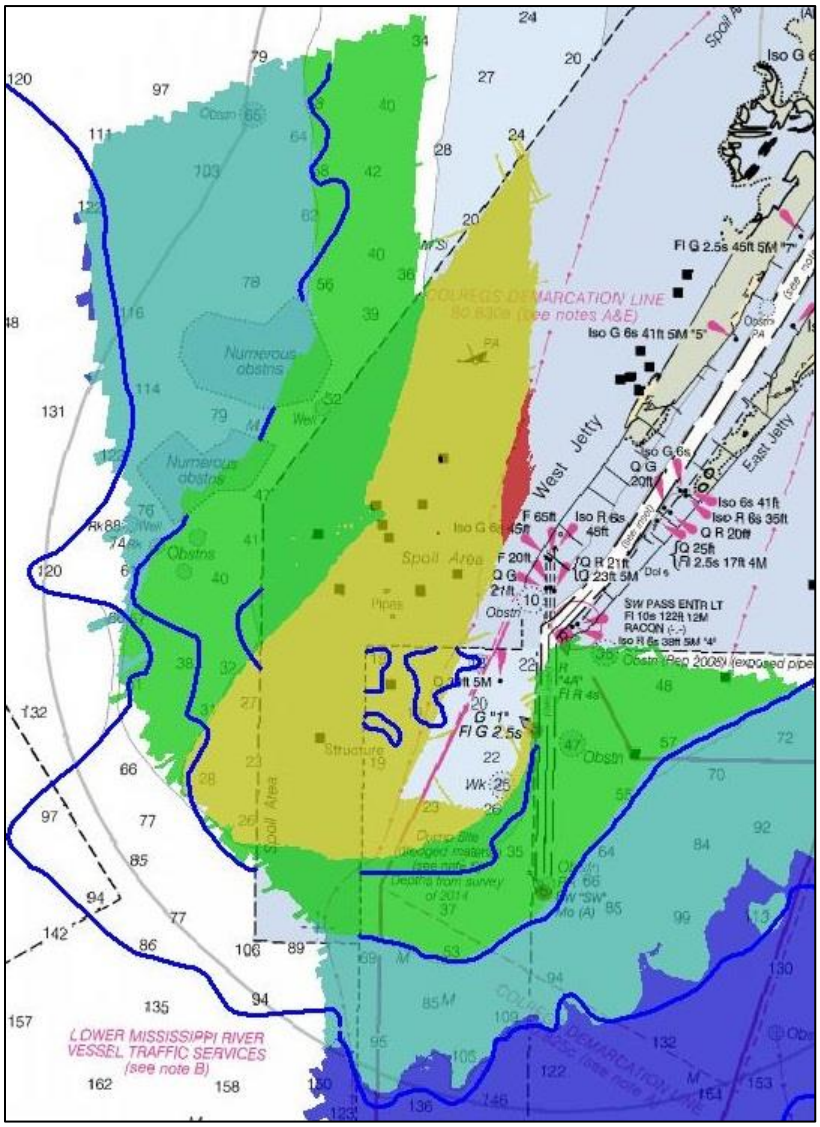

Figure 23. Figure showing discrepancies between ENC and RNC contours. RNC 11361 is overlain with bathymetry colored by depth (refer to Figure 19) and contours from ENC US4LA30 shown in blue.

US5LA33M

Depths on ENC US5LA33M west of Southwest Pass generally match those on the Southwest Pass Inset map or are 1 foot shallower. Observations made for the RNC in this area are valid for the ENC. ENC US5LA33M also contains the isolated 18 foot contours observed on US4LA30M, albeit in slightly different locations than US4LA30M ENC. Survey data does not support these 18 foot contours and indicates depths of 23 – 24 feet in this area. Depths are also slightly offset and deeper than those from 11361 Southwest Pass Inset within the 'Restricted Area' of Southwest Pass channel. Surveyed soundings are generally deeper than the ENC depths in this area by up to 3 feet.

D.1.3. AWOIS Items

There are five (5) AWOIS items located in and around the H12634 survey area. Two (2) AWOIS items (8373 and 11807) were assigned for full investigation and two (2) AWOIS items (14580 and 8368) were assigned for information purposes. One (1) AWOIS item (11806) assigned does not have a coverage descriptor; it is assumed full coverage. As per the instructions in the AWOIS spreadsheet provided by AHB, only the area within the project limits was searched.

The history of AWOIS item 8373 indicates that it is a submerged piling extending one foot above water. A wellhead located on a charted platform and an object that was further investigated were observed within the AWOIS radius, but no piling was observed extending out of the water. The hydrographer recommends removal from the chart.

The history of AWOIS 11807 states that it is a dangerous submerged obstruction with an unknown amount of water covering it marked with 3 orange balls. The AWOIS item is located within a mudflow feature and several such features are located within the AWOIS radius. Several small features were observed within the multibeam and backscatter data and are either examined or designated in the project but are not significant according to charted depths. The hydrographer recommends removal from the chart.

The radius of AWOIS item 11806 overlaps 11807 and also extends into H12636. The history of AWOIS 11806 reports dangerous submerged rig caissons and review of internal data indicates that there are several removed structures in this location. An uncharted platform was observed within the AWOIS radius and a feature observed in the vicinity of the AWOIS center coordinates. The feature observed was interpreted as a seep by AHB and has been forwarded to the appropriate authorities. Data not representative of the seafloor was removed from the project.

The history of AWOIS item 14580 indicates that a submerged pipe was located with SSS and MBES in 2008. The data from this survey does not support that the feature is still in the vicinity and the hydrographer recommends removal from the chart.

The history of AWOIS item 8368 indicates it is complete; a submerged obstruction was added to the chart. Surveyed data supports a submerged object at this location with a slightly shallower least depth of 200 feet, rather than 203 feet.

D.1.4. Maritime Boundary Points

No Maritime Boundary Points were assigned for investigation within H12634 survey bounds.

D.1.5. Charted Features

Chart 11361

The survey area covers the seaward portion of Southwest Pass, a portion of the Safety Fairway leading up to the Pass and a portion of the adjacent Fairway Anchorage (refer to section D.1.9

for additional information). There are two (2) charted buoys within the survey area, associated with Southwest Pass and a RACON associated with a platform (refer to section D.2.3 and the FFF for additional information). There are three (3) charted obstructions with depths, three (3) charted obstructions without depths, three (3) charted PA obstructions without depths and two polygons indicating numerous obstructions (refer to the FFF for additional information). There is also one (1) charted well within the survey area, one (1) charted well partially within the survey area, two charted pipes and two charted PA wrecks (refer to the FFF for additional information). There is one charted structure that appears to describe a charted platform and 18 additional charted platforms (refer to section D.2.7 and the FFF for additional information). Several submarine pipelines are charted, mainly in association with the charted platforms (refer to section D.2.5 and the FFF for additional information). The survey area also covers a portion of the Spoil Area surrounding Southwest Pass and a portion of the adjacent Dump Site.

11361 Southwest Pass Inset

There are no additional features on the Southwest Pass Inset map than what was described for Chart 11361.

US4LA30M

In addition to the features described for the 11361 RNC, ENC US4LA30M contains three additional obstructions with depths located within the spoil area. These are associated with DtoNs submitted for this survey.

US5LA33M

There are no additional features on ENC US5LA33M than what was described for RNC 11361 and ENC US4LA30M. Note that there are positioning offsets between the features on US4LA30M and US5LA33M.

D.1.6. Uncharted Features

All uncharted features have either been addressed as DtoNs and/or are located in the Final Feature File.

D.1.7. Dangers to Navigation

33 Dangers to Navigation were accepted for this survey: six (6) obstructions, two (2) obstructions-wellheads, twenty-three (23) soundings, one (1) wreck and one (1) uncharted platform. Refer to the Final Feature File and the H12634 Descriptive Report Appendices for additional information.

D.1.8. Shoal and Hazardous Features

Many surveyed soundings were submitted as DtoNs in the north and western portion of the survey area where surveyed soundings were significantly shallower than charted depths. The chart has since been updated. No other hazardous features other than the DtoNs already submitted for this survey exist.

D.1.9. Channels

The survey area encompasses the seaward portion of Southwest Pass, a portion of the Safety Fairway leading up to the channel, and a designated anchorage. The depth for the channel proper, as stated in Note D of chart 11361, should be 45 feet. Review of soundings and viewing the data with a user defined color range chart shows depths 45 feet and greater within the channel. Refer to the Chart Comparison section for additional depth information.

D.1.10. Bottom Samples

Eight (8) bottom samples were collected within the limits of H12634.

D.2. Additional Results

D.2.1. Shoreline

There is no Shoreline Verification requirement for this project.

D.2.2. Prior Surveys

Prior survey data was not required to be evaluated for this survey.

D.2.3. Aids to Navigation

Two (2) Aids to Navigation and one radar transponder beacon (associated with a platform) are currently charted within the survey area. The two (2) ATONs were observed near the charted locations. The radar transponder beacon was not verified or disproved during survey operations. Refer to the Final Feature File for additional information.

D.2.4. Overhead Features

Overhead features do not exist for this survey.

D.2.5. Submarine Features

Several pipelines are charted within the southeastern portion of the survey area. Features potentially representative of exposed pipeline were observed in the MBES bathymetry and

backscatter data. Refer to the Final Feature File and Additional S-57 Files for additional information.

D.2.6. Ferry Routes and Terminals

No ferry routes or terminals are currently charted within the survey limits, and none were observed during survey operations.

D.2.7. Platforms

Eighteen (18) platforms are currently charted within the bounds of H12634. One (1) platform is charted partially inside the northeast portion of the survey area on RNC 11361; ENC US4LA30M shows the platform on the border of the survey area. Seven (7) platforms were observed on or near the charted locations, seven (7) platforms were verified as having been removed and four (4) have been updated to wellheads in the Final Feature File. One (1) uncharted platform was observed during survey operations and submitted as a DtoN; the RNC and ENC have since been updated. Refer to the Final Feature File for additional information.

D.2.8. Significant Features

Survey data indicates that several small natural seeps may exist within the survey area. Refer to S-57 file 'H12634_Anomalous_Features' for additional information. In addition, a large potential seep exists at 28.903N, 089.366 W, near the location of AWOIS item 11806. Survey data representative of the seep was removed from the project because it was not representative of the actual seafloor (Figure 24). This feature was submitted for review to AHB and forwarded on to the appropriate authorities. Refer AWOIS item 11806 in section D.1.3 for additional information. This feature was not added to the Final Feature File because it does not represent a feature that can be charted.

Two shipwrecks were observed within the survey area. One is located at 28.821 N, 089.426 W in 223 - 225 feet of water (surveyed depths) and has a least depth from the MBES bottom detect of 167.188 feet (50.959 m Dp TPU 0.288 m, Hz TPU 0.276 m). This wreck was submitted for review but not accepted as a DtoN due to the depth. Due to an error processing EM2040 WC data, a separate CARIS project was generated that is located on the submitted hard drive. WC data was processed using a work-around provided by CARIS (refer to Project Correspondence for additional information). The least depth from the WC data for this wreck is 164.592 feet. The second shipwreck is located at 28.944 N, 089.444 W within the spoil area ~ 1 km northwest of a charted PA wreck. MBES bathymetry indicates that this wreck has a least depth of 15.906 feet (4.848 m Dp TPU 0.218 m, Hz TPU 0.142 m) and the bathymetry and backscatter data show an associated drag scar feature (Figure 25). Review of internal data indicates that this is the Yuma shipwreck. This feature was submitted and accepted as a DtoN but the chart has yet to be updated. Refer to the Final Feature File for additional information.

Coleman and Prior (1980) documented mudflow features off of both South and Southwest Passes and features representative of mudflows are evident in both the MBES backscatter (Figure 26)

and MBES bathymetry (Figure 27) of H12634. It appears that features within these mudflows can be transient and occasionally mounds observed at one point during survey operations are either not found or new features are located some distance away when the area was resurveyed (Figure 28). This is evident in investigations F, O and M, which were not added to the main BASE surfaces.

The survey covers the majority of the seaward portion of Southwest Pass. It appears that the EM2040 data was able to pick out the channel bottom well, but that the EM3002 data may have also picked up a layer of 'fluff' overlying the channel bottom and may not have always detected the channel bottom (Figure 29). Because the supposed channel bottom was sporadic, rather than delete too much data, this layer was left in the data; surveyed depths are deeper than the channel minimum depth.

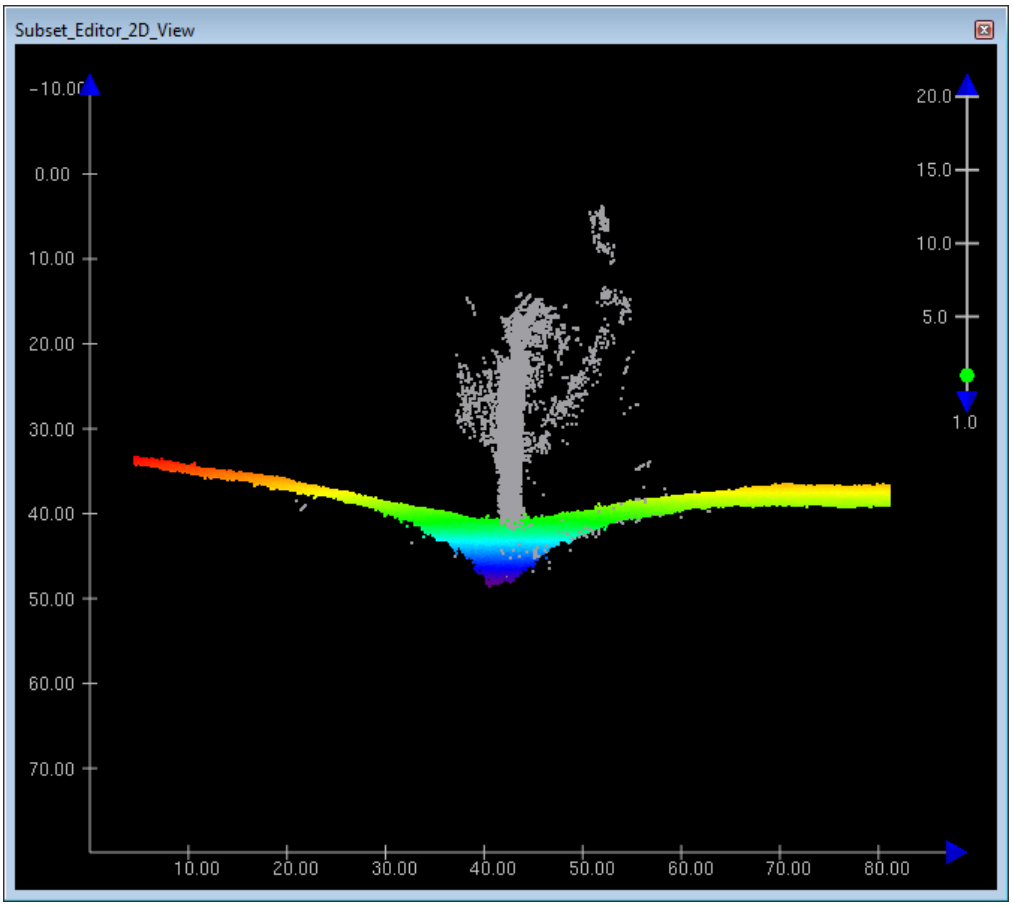

Figure 24. Data potentially representative of a seep feature was removed from the survey data. Axes are in meters.

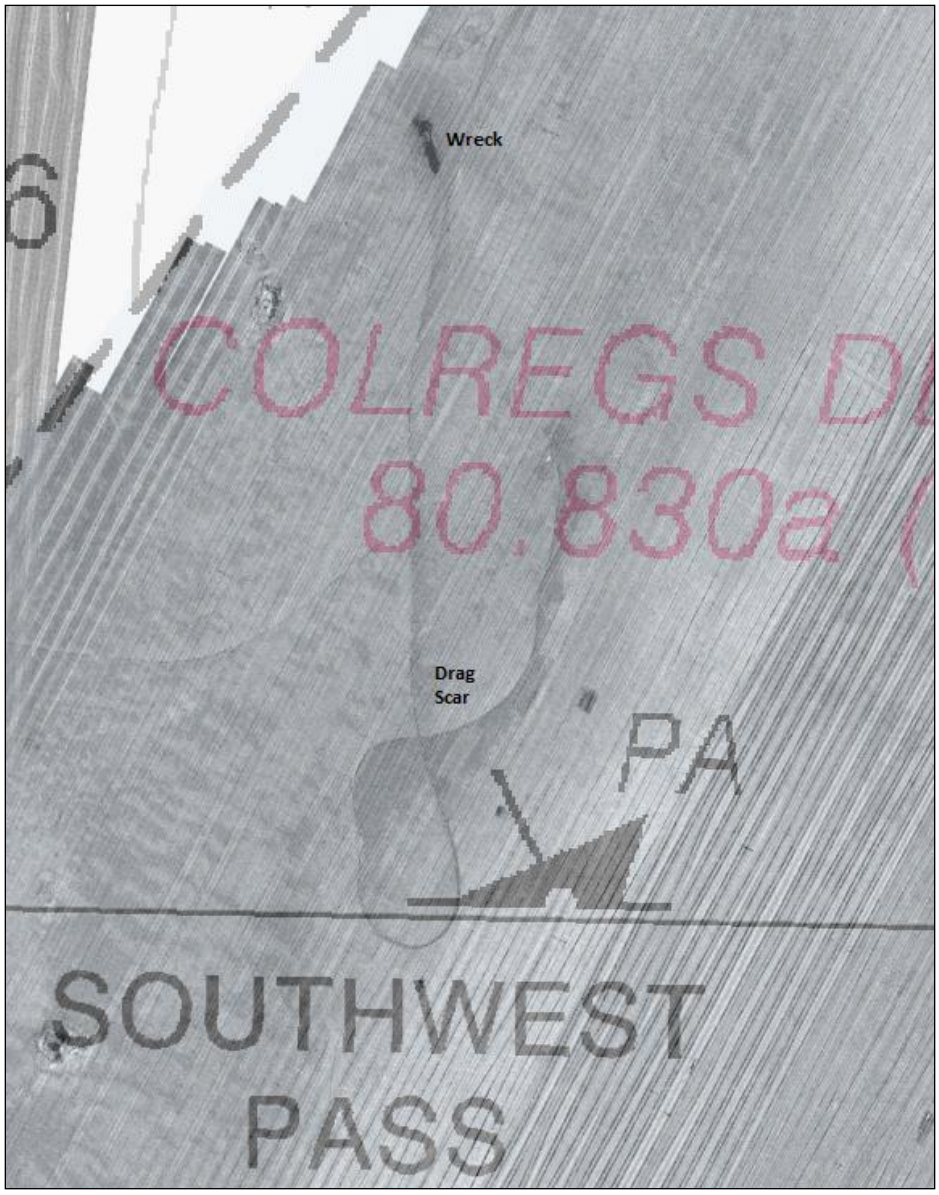

Figure 25. MBES backscatter data overlaying 11361 chart showing shipwreck and associated drag scar.

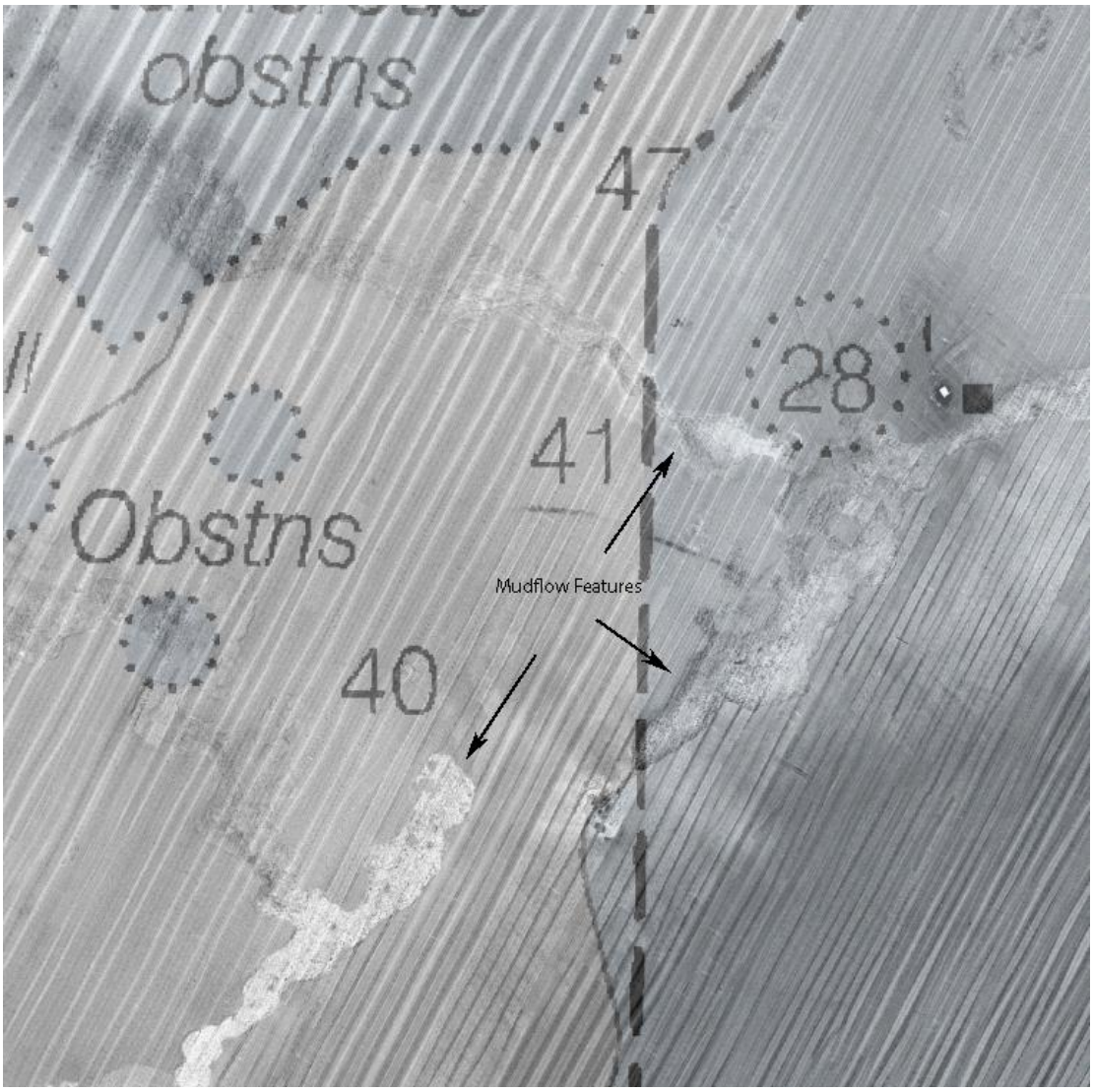

Figure 26. MBES backscatter overlaying chart 11361 showing mudflow features.

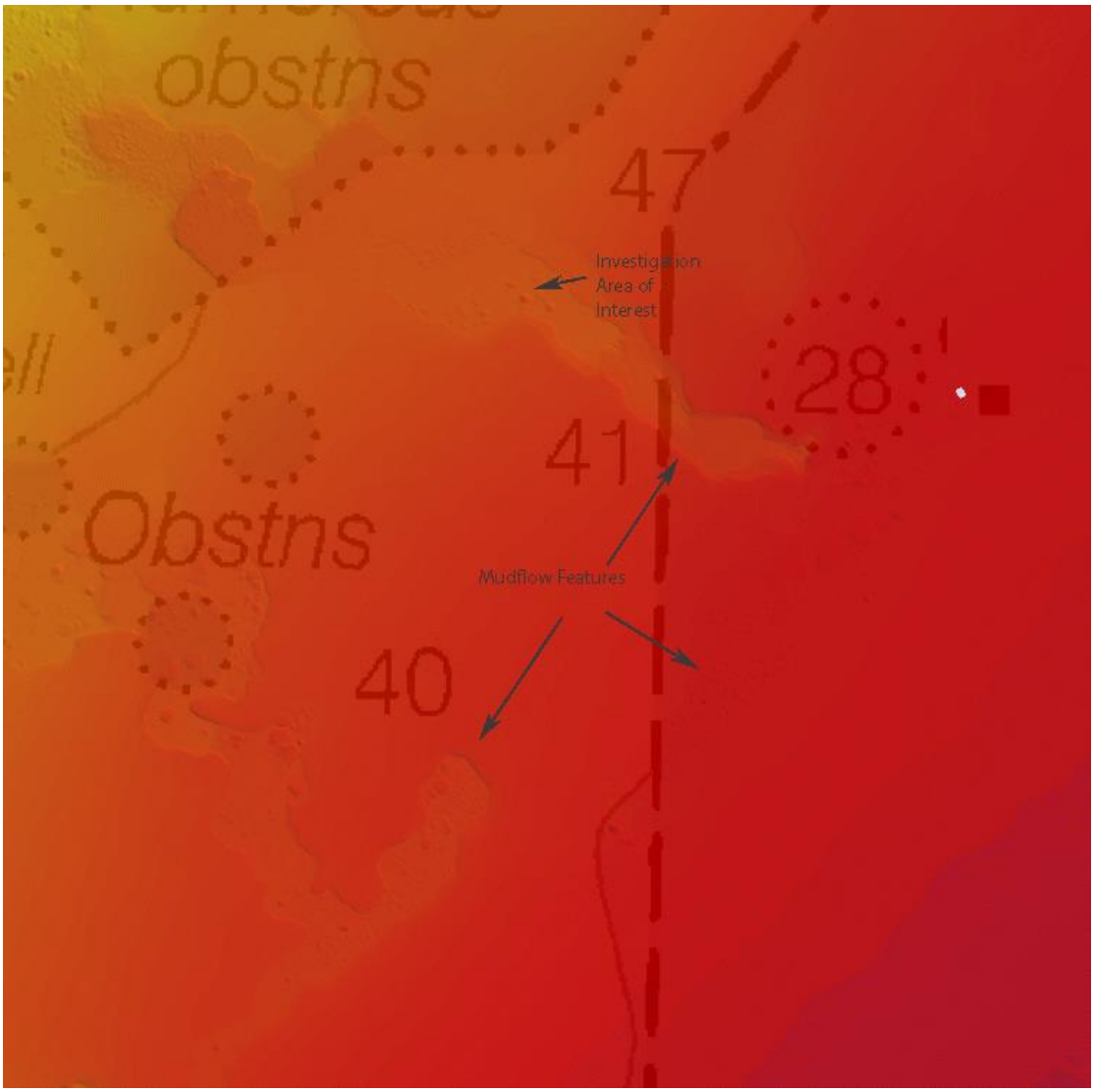

Figure 27. MBES bathymetry overlaying chart 11361 showing mudflow features. Investigation area of interest shown in detail in following Figure 28.

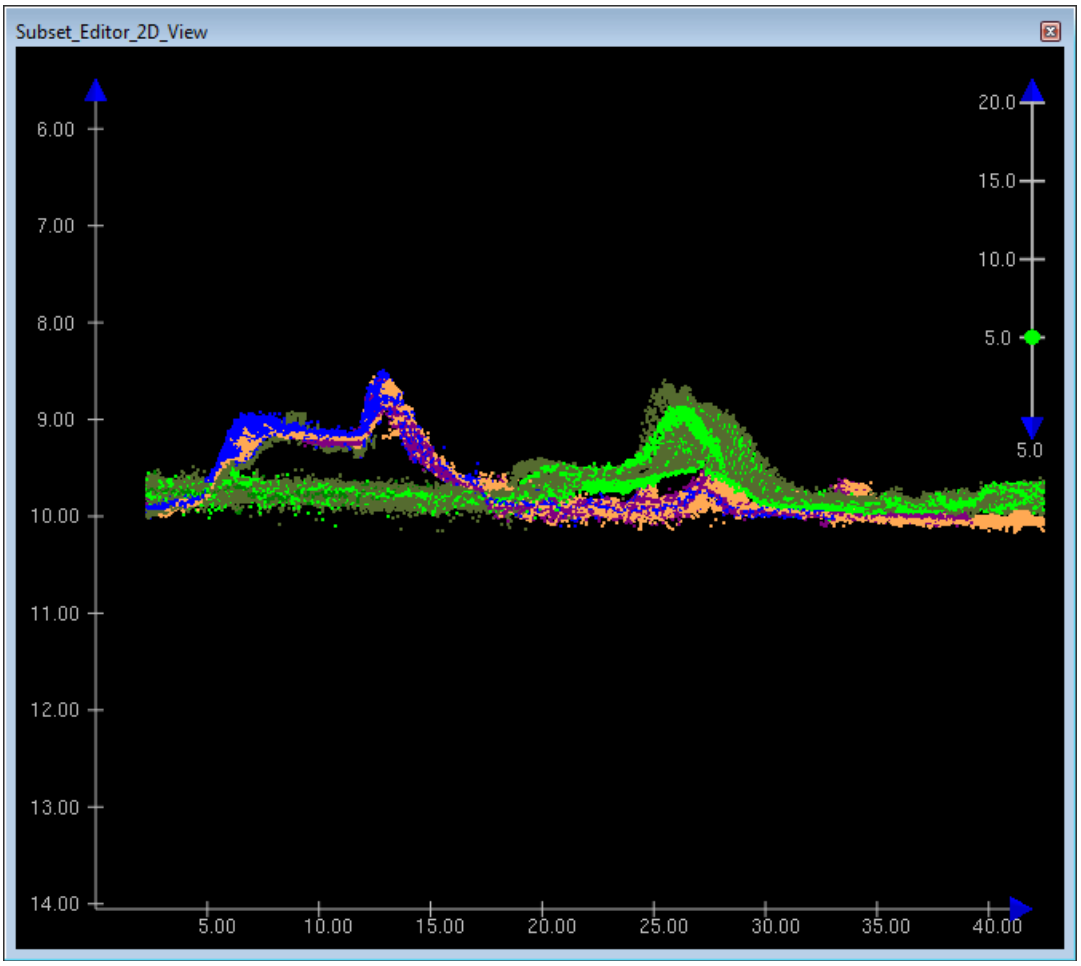

Figure 28. Features shown are within a mudflow feature. Feature on left is evident in investigation data (H34-M) and not on mainline data. Feature on right is evident in mainline data but not investigation data. Axes are in meters.

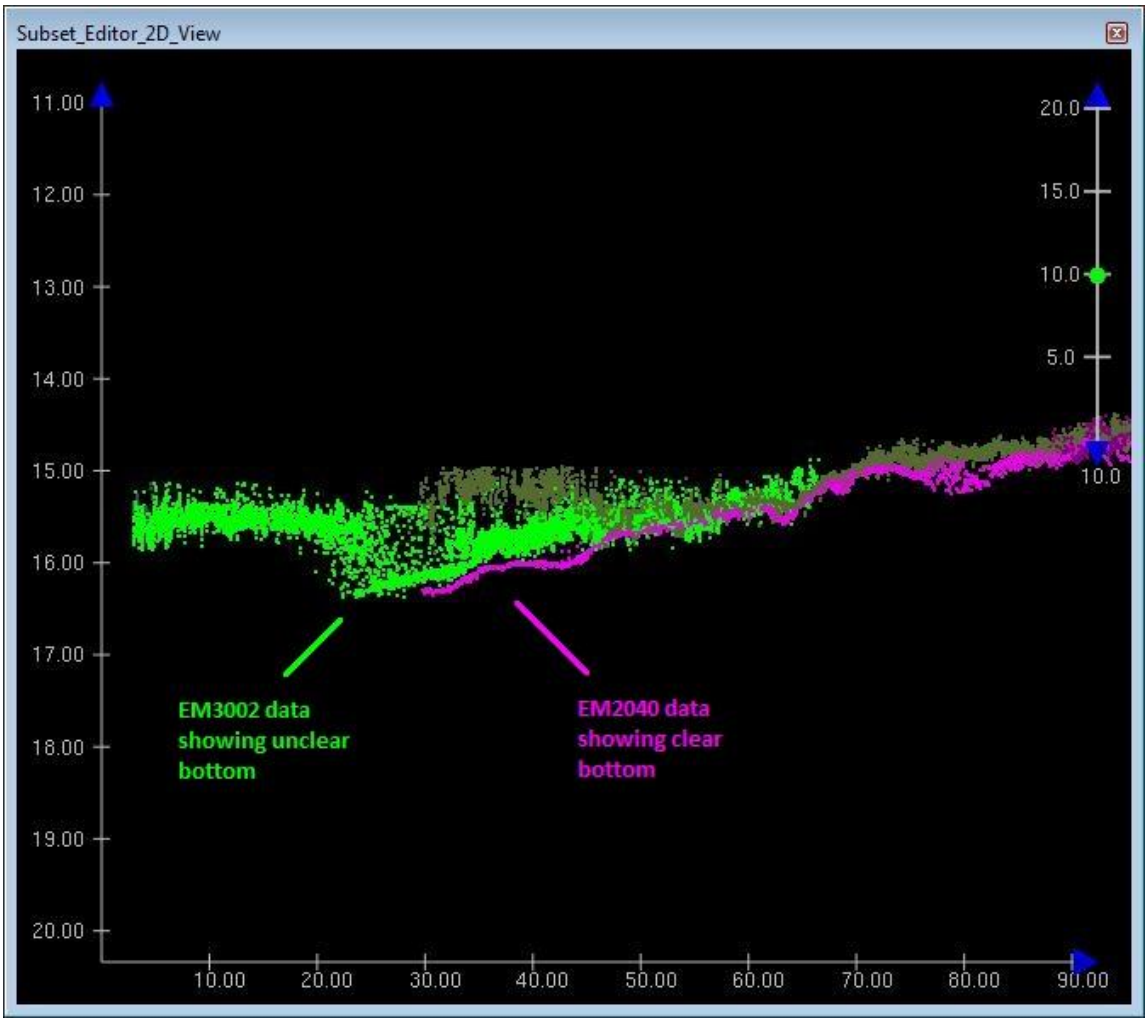

Figure 29. The green lines are EM3002 data and it appears that a portion of the light green data matches with the EM2040 data, shown in pink, but that there is a layer of noise. The dark green line does not show the same bathymetry as either of the other lines in the same area. Axes are in meters.

D.2.9. Construction and Dredging

No active dredging or construction was observed during survey operations.

D.3. Recommendations

D.3.1. New Survey Recommendations

No new surveys or investigations are recommended for this area.

D.3.2. Inset Recommendations

No new insets are recommended for this area.

E. Approval Sheet

LETTER OF APPROVAL

REGISTRY NUMBER H12634

This report is respectfully submitted.

Field operations contributing to the accomplishment of the H12634 survey were conducted under my direct supervision with frequent personal checks of progress and adequacy. This report and CARIS project have been closely reviewed and are considered complete and adequate as per the Statement of Work.

This report is accompanied by the Data Acquisition and Processing Report for project OPR-K339-KR-14.

Tara Levy
Chief of Party
C & C Technologies
August 2015

Nicole Galloway
Geoscientist
C & C Technologies
August 2015

APPENDIX I

TIDE NOTE AND GRAPHICS

FINAL TIDE NOTE and FINAL TIDE ZONING CHART

DATE: August 2015

HYDROGRAPHIC BRANCH: Atlantic
HYDROGRAPHIC PROJECT: OPR-K339-KR-14
HYDROGRAPHIC SHEET: H12634

LOCALITY: Approaches to Barataria Bay to Southwest Pass

TIME PERIOD: November 9, 2014 – May 13, 2015

TIDE STATION USED: 8760922 Pilot Station East, Southwest Pass, LA
Lat. 28° 55.9' N Lon. 89° 24.5 W

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.00 m
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 0.875 m

REMARKS: RECOMMENDED ZONING
Use zones identified as: CGM375, CGM376, CGM697, and CGM698

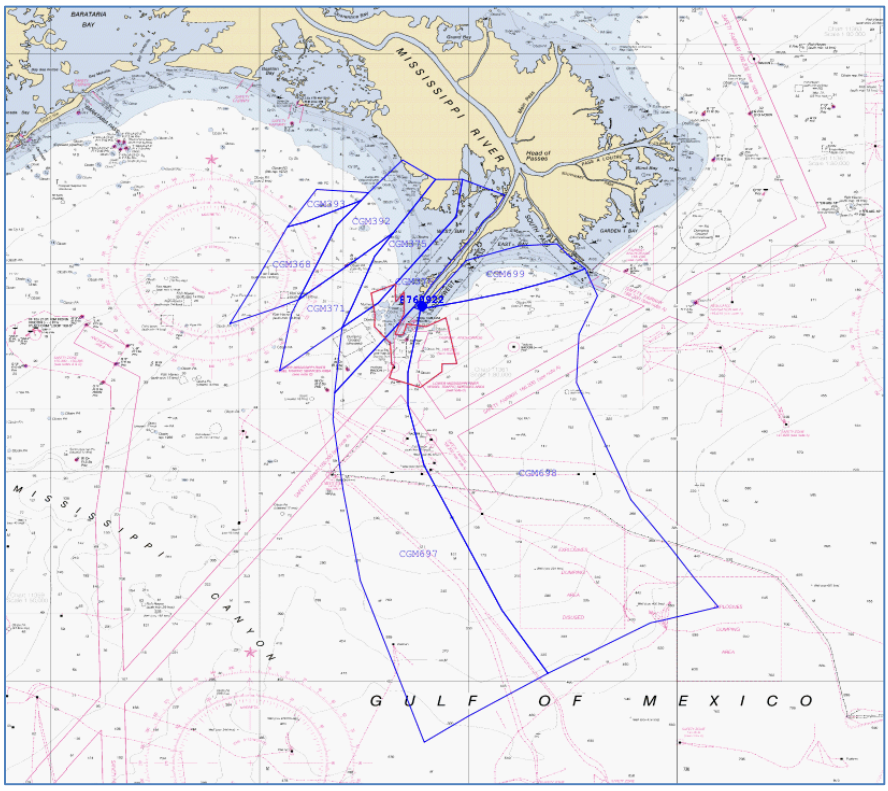

Figure 1. Final Tidal Zoning Chart

Note 1: Provided time series data are six minute time series data in meters, relative to MLLW and Greenwich Mean Time (GMT).
Note 2: For final processing, tidal zoning correctors were applied to verified observed data, acquired from the NOAA Tides and Currents website.

APPENDIX II

SUPPLEMENTAL SURVEY RECORDS AND CORRESPONDENCE

Subject:
RE: BASE surface resolution
From:
Castle Parker - NOAA Federal <castle.e.parker@noaa.gov>
Date:
11/17/2014 10:31 AM
To:
nicole.galloway@cctechnol.com, Mark Lathrop - NOAA Federal <mark.t.lathrop@noaa.gov>
CC:
Tara Levy <tara.levy@cctechnol.com>, Matthew Jaskoski - NOAA Federal <matthew.jaskoski@noaa.gov>, Tiffany Squyres - NOAA Federal <tiffany.squyres@noaa.gov>

Good day Nikki,

Thanks for your response; bearing in mind the clarification in your most recent email, AHB can work with the following grid resolutions for object detection and associated depth ranges:

Depths 0-22m = 50cm resolution

Depths 19-40 = 1m resolution

Depths > 40m = follow complete MB coverage resolution depth range and resolution

36-80m (use 40-80m) = 2m

72-160m (use 80-160m) = 4m

This deviation from HSSD needs to have Mark Lathrop's approval or acknowledgment as the COR. The odd resolutions greater than 20m is not line with our past best practices with grid combining. Please include this information in the DR Appendix 2 Supplemental Correspondence.

Regards,

Gene Parker

Castle Eugene Parker

NOAA Office of Coast Survey

Atlantic Hydrographic Branch

Hydrographic Team Lead / Physical Scientist

castle.e.parker@noaa.gov

office (757) 441-6746 x115

From: Nicole Galloway [mailto:nicole.galloway@cctechnol.com]
Sent: Monday, November 17, 2014 11:14 AM
To: Castle Parker - NOAA Federal; Mark Lathrop - NOAA Federal
Cc: Tara Levy; Matthew Jaskoski - NOAA Federal
Subject: Re: BASE surface resolution

Hi Gene,

Due to factors including weather, time constraints and an abundance of platforms in some areas, we've decided it is more efficient to collect MB only in several subareas (but collecting SSS with any investigations we decide to do). To ensure that we meet the requirements in the Project Instructions to collect Object Detection MBES with Backscatter, would the below recommendations also be valid for entire subareas collected with MB only?

Thanks!
Nikki

On 11/14/2014 2:39 PM, Castle Parker - NOAA Federal wrote:

Hello Nikki,

I take it that this issue is only related to the object detection grids for the selected developments. Is this correct? If so, the object detection is via SSS, therefore the development grids for the contacts selected would follow Object Detection grid resolutions for the depths; if less than 22m the resolution would be 50cm. I would recommend going back to 2012 HSSD where OD grids for depths of 19m to 40m would be a resolution of 1m, then any developments deeper than 40m would following the MB complete coverage resolution requirements for water depths common to the development. I do not like the 2.5% of water depths as it will yield an odd resolution size and one would have to determine each development based upon the depth in the surrounding area. My recommendation is as follows:

Depths 0-22m = 50cm resolution

Depths 19-40 = 1m resolution

Depths > 40m = follow complete MB coverage resolution depth range and resolution

36-80m (use 40-80m) = 4m

72-160m (use 80-160m) = 8m

***This is recommendation is also dependent upon the data density such that the grids meet the density requirements.

Mark and Jasko, please respond if there are any objections to these recommendations.

Regards,

Gene

Castle Eugene Parker

NOAA Office of Coast Survey

Atlantic Hydrographic Branch

Hydrographic Team Lead / Physical Scientist

castle.e.parker@noaa.gov

office (757) 441-6746 x115

-----Original Message-----
From: Nicole Galloway [mailto:nicole.galloway@cctechnol.com]
Sent: Friday, November 14, 2014 3:15 PM
To: Gene Parker; Mark Lathrop
Cc: Tara Levy
Subject: BASE surface resolution

Good Afternoon,

If possible, we would like some clarification about BASE surface resolution.

The Project Instructions for OPR-K339-KR-14 (SW Pass, LA) state that the coverage type will be Object Detection and the coverage requirements will be 200% SSS with concurrent Set Line Spacing SBES/MBES with backscatter, or Object Detection MBES with Backscatter.

Charted depths in the survey area range from potentially less than 12 feet (in H12634 near the channel/west jetty) to almost 270 feet (approximately 3.5 - 82 meters)

The HSSD (2013 and 2014) section 5.2.2.1 (Object Detection Coverage) states that the resolution for 0 - 22 meters depth will be 0.5 m and for

20+ meters depth will be 2.5% of the water depth.

Should we choose the second method of the coverage requirements (Object Detection MBES with Backscatter), it seems like this would require the generation of a great many grids. We are hoping you can provide some guidance on the best method to handle grid generation for water depths greater than 20 meters.

Thank-you and have a great weekend!

Nikki

--

Nicole Galloway

Geoscientist

C&C Technologies, Inc.

Lafayette, LA 70508 USA

email: nicole.galloway@cctechnol.com

337-210-0000 (Ext. 3537)

--

Nicole Galloway

Geoscientist

C&C Technologies, Inc.

Lafayette, LA 70508 USA

email: nicole.galloway@cctechnol.com

337-210-0000 (Ext. 3537)

Subject:
RE: OPR-C339-KR-14 H12634 Features for Review
From:
Castle Parker - NOAA Federal <castle.e.parker@noaa.gov>
Date:
2/13/2015 11:49 AM
To:
nicole.galloway@cctechnol.com, Mark Lathrop - NOAA Federal
<mark.t.lathrop@noaa.gov>
CC:
Tara Levy <tara.levy@cctechnol.com>

My mistake and oversight. I have not reviewed and will attempt to do this
today.
Sorry.
Gp

-----Original Message-----
From: Nicole Galloway [mailto:nicole.galloway@cctechnol.com]
Sent: Friday, February 13, 2015 10:21 AM
To: Mark Lathrop; Gene Parker
Cc: Tara Levy
Subject: Re: OPR-C339-KR-14 H12634 Features for Review

Good morning,

I just wanted to check and see if these items had been reviewed since I have
not heard anything.
Please let me know if there is anything else you need.

Thanks!
Nikki

On 2/2/2015 3:47 PM, Nicole Galloway wrote:
> > Good Afternoon,
> >
> > We have identified several features in H12634 of OPR-C339-KR-14 that
> > we would like some input on prior to a formal DtoN submission. Most of
> > the features are within a spoil area that does not have charted depths
> > and several are located on charted platforms but are structures that
> > are unlit and not representative of platforms. It was a large file to
> > email, so a link to download the file via ownCloud has been provided:
> >
> > https://owncloud.cctechnol.com/public.php?service=files&t=5d26981ffcb3
> > a577ea6d248bf40eef62
> >
> >
> > In the zip file there is an S-57 file, .hob file and associated
> > images. Please let us know if you have any trouble with the link, if
> > there is anything you would like us to update in the S-57 file and
> > whether you would like us to make a formal DtoN submission.
> >
> > Thanks!
> > Nikki
> >

--
Nicole Galloway
Geoscientist
C&C Technologies, Inc.
Lafayette, LA 70508 USA
email: nicole.galloway@cctechnol.com
337-210-0000 (Ext. 3537)

Subject:
FW: H12634 DtoN #1 Submission to NDB
From:
Castle Parker - NOAA Federal <castle.e.parker@noaa.gov>
Date:
2/13/2015 12:31 PM
To:
Nicole Galloway <nicole.galloway@cctechnol.com>
CC:
Mark Lathrop - NOAA Federal <mark.t.lathrop@noaa.gov>, Tara Levy <tara.levy@cctechnol.com>

Nikki,

I did review these features and submit them to NDB/MCD. I neglected to include you with the DtoN submission, my mistake. I did CC Tara Levy and Mark Lathrop. NDB has received and registered the features with the exception of the two OFSPLF (unlit). I did not submit the OBSTRNS located in 28-54-59.086N 089-27-07.103W and 28-55-05.728N 089-27-11.077 as they are located on charted platforms. Technically from a charting point of view they are not obstructions. I intended to send these two items to Tim Osborn the Nav Manager in order to contact the owner with regards to the unlit structures. The fact is that these platforms are charted is why I did not submit as DtoNs to NDB.   I neglected to complete this task sending the feature to Tim Osborn and will follow up with that today.

Regards,

Gene Parker

From: Castle Parker - NOAA Federal [mailto:castle.e.parker@noaa.gov]
Sent: Tuesday, February 03, 2015 4:43 PM
To: OCS NDB - NOAA Service Account
Cc: Matthew Jaskoski - NOAA Federal; Michael Gonsalves - NOAA Federal; Mark Lathrop - NOAA Federal; Tara Levy; Tiffany Squyres - NOAA Federal; Tim Osborn - NOAA Federal
Subject: H12634 DtoN #1 Submission to NDB

Good Day,

Please find attached a zip file for survey H12634 DtoN report #1 for submission to Nautical Data Branch (NDB) and Marine Chart Division (MCD). This Danger submission contains six obstructions.

The information originates from a NOAA contract field unit C&C Technologies Inc. and was submitted to the Atlantic Hydrographic Branch (AHB) for review and processing. The contents of the attached WinZip file were generated at AHB. The attached zip file contains a DtoN Letter (PDF), associated image files, and a Pydro XML file.

If you have any questions, please direct them back to me via email or phone (757-441-6747x115).

Thank you for your assistance with this matter.

Regards,

Gene Parker

Castle Eugene Parker

Atlantic Hydrographic Branch

Hydrographic Team Lead

Physical Scientist, NOAA Office of Coast Survey

castle.e.parker@noaa.gov

office (757) 441-6746 x115

Attachments:
H12634 DtoN #1.zip 13.2 MB

Subject:
Re: H12634 Charted Platforms-unlit
From:
Craig Winn - NOAA Federal <craig.winn@noaa.gov>
Date:
2/13/2015 1:31 PM
To:
Castle Parker - NOAA Federal <castle.e.parker@noaa.gov>
CC:
Lance Roddy - NOAA Federal <lance.roddy@noaa.gov>, Mark Lathrop - NOAA Federal <mark.t.lathrop@noaa.gov>, Nicole Galloway <nicole.galloway@cctechnol.com>, Matthew Jaskoski - NOAA Federal <matthew.jaskoski@noaa.gov>

Hi Gene,

If the fact that these lights are not lighted is the issue, officially they are not "watching" properly. Reports for ATONs malfunctioning or not "watching" properly go directly to USCG. I can forward these to USCG through our District rep. Thank you,

Craig

On Fri, Feb 13, 2015 at 1:53 PM, Castle Parker - NOAA Federal <castle.e.parker@noaa.gov> wrote:

> Good day Craig and Lance,
>
> I have a DtoN submission from C&C Technologies of which I did not submit as a Danger to NDB based upon the fact the submitted features as an obstruction (well head) and platform are located on charted platforms, therefore they are not Dangers. The photos associated also reveal that one of the features is a well head on a charted platform, and the second feature is a platform located on a charted platform. The fact that the well head and platform are unlit is the issue.
>
> My question to you is how do you want to handle these features? I can send these feature and the report to NDB and then a LNM can be issued, or I can send to the GOM Nav Manager to contact the owners to resolve the non-operational lights and unlit status. Both platforms appear to have lights on the platforms, but are unlit at night; reference the images within the attached report. The unlit status was observed by the field unit while in the area at night.
>
> Review and respond.
>
> Thank you.
>
> Gene Parker
>
> Castle Eugene Parker
>
> NOAA Office of Coast Survey
>
> Atlantic Hydrographic Branch
>
> Hydrographic Team Lead / Physical Scientist
>
> castle.e.parker@noaa.gov
>
> office (757) 441-6746 x115

Subject:
H12634 DtoN #2 submission to NDB
From:
Castle Parker - NOAA Federal <castle.e.parker@noaa.gov>
Date:
2/25/2015 12:58 PM
To:
OCS NDB - NOAA Service Account <ocs.ndb@noaa.gov>
CC:
Matthew Jaskoski - NOAA Federal <matthew.jaskoski@noaa.gov>, Michael Gonsalves - NOAA Federal <michael.gonsalves@noaa.gov>, Mark Lathrop - NOAA Federal <mark.t.lathrop@noaa.gov>, Tim Osborn - NOAA Federal <tim.osborn@noaa.gov>, Tiffany Squyres - NOAA Federal <tiffany.squyres@noaa.gov>, Patrick Keown - NOAA Federal <patrick.keown@noaa.gov>, Nicole Galloway <nicole.galloway@cctechnol.com>, Tara Levy <tara.levy@cctechnol.com>

Good Day,

Please find attached zip file for survey H12634 DtoN report #2 for submission to Nautical Data Branch (NDB) and Marine Chart Division (MCD). This Danger submission contains 22 soundings. The submission also includes a selected sounding set in S57 format as submitted by the field unit. AHB selected 22 soundings from the 1973 soundings submitted by the field unit. The selected sounding set is submitted for reference by Marine Chart Division in case MCD deems other soundings more preferable for chart application.

The information originates from a NOAA contract field unit C&C Technologies Inc. and was submitted to the Atlantic Hydrographic Branch (AHB) for review, sounding selection, and Danger to Navigation processing. The contents of the attached WinZip file were generated at AHB. The attached zip file contains a DtoN Letter (PDF), associated image files, and a Pydro XML file.

If you have any questions, please direct them back to me via email or phone (757-441-6747x115).

Thank you for your assistance with this matter.

Regards,

Gene Parker

Castle Eugene Parker

Atlantic Hydrographic Branch

Hydrographic Team Lead

Physical Scientist, NOAA Office of Coast Survey

castle.e.parker@noaa.gov

office (757) 441-6746 x115

Attachments:
H12634 DtoN #2.zip 41.3 KB
H12634_DtoN2_Source SelectedSoudnings.000 491 KB

Subject:
RE: H12634 DtoN #2 submission to NDB
From:
Castle Parker - NOAA Federal <castle.e.parker@noaa.gov>
Date:
2/25/2015 2:41 PM
To:
nicole.galloway@cctechnol.com
CC:
Mark Lathrop - NOAA Federal <mark.t.lathrop@noaa.gov>, Tara Levy <tara.levy@cctechnol.com>

Hello again Nikki,

All of the submitted soundings are near the selections that AHB previously made today and submitted to NDB. The three soundings in question (last sentence of your email below) were not submitted as well; the 66ft on charted 68ft and the surveyed 68ft is deep enough that it doesn't warrant Danger submission. The only one that concerned me was the surveyed 33ft sounding on charted 36ft depth. This one however is in the proper contour range. With the DtoN selection of soundings today, a selected 39ft would have inline a depth of 33ft between the DtoN 39ft and the charted 20ft, so it was not selected for submission to NDB.

Overall, I think we're OK with what was submitted to NDB. These decision were not totally mine; I did the initial selection and was confirmed by AHB Chief Matt Jaskoski. All of the depths that you have provided may get re-selected during HCell compilation, can't tell at this time, but the DtoN soundings submitted today has a chance of being deselected once the survey is submitted to AHB.

The other aspect is that bearing in mind I submitted the selected sounding set that you provided earlier today, that MCD may use it and potentially choose other soundings than what AHB selected and submitted to NDB/MCD.

Thanks for your submission as it has kept me busy today!

Regards,

Gene

Castle Eugene Parker

NOAA Office of Coast Survey

Atlantic Hydrographic Branch

Hydrographic Team Lead / Physical Scientist

castle.e.parker@noaa.gov

office (757) 441-6746 x115

From: Nicole Galloway [mailto:nicole.galloway@cctechnol.com]
Sent: Wednesday, February 25, 2015 2:59 PM

To: Castle Parker - NOAA Federal
Cc: Mark Lathrop - NOAA Federal; Tara Levy
Subject: Re: H12634 DtoN #2 submission to NDB

Hi Gene,

I've attached a zip file containing a .hob file, S-57 file and associated images for 9 soundings in H12634. I realize that 6 of these soundings overlap with several that you picked from the previously received selected sounding layer from this sheet. I've sent these to you for information and comparison purposes. The soundings were picked directly from the data, not the selected sounding layer.

There are 3 additional soundings I would like your opinion on (soundings on charted 36, 68 and 80 foot depths).

Thank-you!
Nikki

On 2/25/2015 12:58 PM, Castle Parker - NOAA Federal wrote:

Good Day,

Please find attached zip file for survey H12634 DtoN report #2 for submission to Nautical Data Branch (NDB) and Marine Chart Division (MCD). This Danger submission contains 22 soundings. The submission also includes a selected sounding set in S57 format as submitted by the field unit. AHB selected 22 soundings from the 1973 soundings submitted by the field unit. The selected sounding set is submitted for reference by Marine Chart Division in case MCD deems other soundings more preferable for chart application.

The information originates from a NOAA contract field unit C&C Technologies Inc. and was submitted to the Atlantic Hydrographic Branch (AHB) for review, sounding selection, and Danger to Navigation processing. The contents of the attached WinZip file were generated at AHB. The attached zip file contains a DtoN Letter (PDF), associated image files, and a Pydro XML file.

If you have any questions, please direct them back to me via email or phone (757-441-6747x115).

Thank you for your assistance with this matter.

Regards,

Gene Parker

Castle Eugene Parker

Atlantic Hydrographic Branch

Hydrographic Team Lead

Physical Scientist, NOAA Office of Coast Survey

castle.e.parker@noaa.gov

office (757) 441-6746 x115

--

Nicole Galloway

Geoscientist

C&C Technologies, Inc.

Lafayette, LA 70508 USA

email: nicole.galloway@cctechnol.com

337-210-0000 (Ext. 3537)

Subject:
Re: H12634 DtoN #2 submission to NDB
From:
OCS NDB - NOAA Service Account <ocs.ndb@noaa.gov>
Date:
2/26/2015 11:16 AM
To:
Castle Parker - NOAA Federal <castle.e.parker@noaa.gov>, Hugh Rein - NOAA Federal <Hugh.Rein@noaa.gov>
CC:
Matthew Jaskoski - NOAA Federal <matthew.jaskoski@noaa.gov>, Michael Gonsalves - NOAA Federal <michael.gonsalves@noaa.gov>, Mark Lathrop - NOAA Federal <mark.t.lathrop@noaa.gov>, Tim Osborn - NOAA Federal <tim.osborn@noaa.gov>, Tiffany Squyres - NOAA Federal <tiffany.squyres@noaa.gov>, Patrick Keown - NOAA Federal <patrick.keown@noaa.gov>, Nicole Galloway <nicole.galloway@cctechnol.com>, Tara Levy <tara.levy@cctechnol.com>, Allison Wittrock - NOAA Federal <Allison.Wittrock@noaa.gov>, NSD Coast Pilot <coast.pilot@noaa.gov>, Benjamin K Evans - NOAA Federal <Benjamin.K.Evans@noaa.gov>, James Crocker - NOAA Federal <James.M.Crocker@noaa.gov>, Matt Kroll - NOAA Federal <Matt.Kroll@noaa.gov>, Nautical Data Branch <OCS.NDB@noaa.gov>, Tara Wallace - NOAA Federal <Tara.Wallace@noaa.gov>, Pearce Hunt - NOAA Federal <Pearce.Hunt@noaa.gov>, _NOS OCS PBA Branch <ocs.pba@noaa.gov>, _NOS OCS PBB Branch <ocs.pbb@noaa.gov>, _NOS OCS PBC Branch <ocs.pbc@noaa.gov>, _NOS OCS PBD Branch <ocs.pbd@noaa.gov>, _NOS OCS PBE Branch <ocs.pbe@noaa.gov>, _NOS OCS PBG Branch <ocs.pbg@noaa.gov>

L-405/15, DD-25899, and DD-25900 have been registered by the Nautical Data Branch and directed to Products Branch G for processing.

The DtoNs reported are 22 soundings in the Gulf of Mexico, in the vicinity of the entrance to Southwest Pass, LA.

The soundings were derived by AHB from a selected sounding set in S57 format as submitted by the field unit.

The following charts are affected:
11361 kapp 58

11361 kapp 57

11366 kapp 2886

11360 kapp 48

11340 kapp 49

11006 kapp 44

The following ENCs are affected:
US5LA33M

US4LA30M

US3GC04M

US2GC09M

References:
H12634

OPR-K339-KR-14

This information was discovered by a NOAA contractor and submitted by AHB.

Nautical Data Branch/Marine Chart Division/
Office of Coast Survey/National Ocean Service/
Contact: ocs.ndb@noaa.gov

On Wed, Feb 25, 2015 at 1:58 PM, Castle Parker - NOAA Federal <castle.e.parker@noaa.gov> wrote:

Good Day,

Please find attached zip file for survey H12634 DtoN report #2 for submission to Nautical Data Branch (NDB) and Marine Chart Division (MCD). This Danger submission contains 22 soundings. The submission also includes a selected sounding set in S57 format as submitted by the field unit. AHB selected 22 soundings from the 1973 soundings submitted by the field unit. The selected sounding set is submitted for reference by Marine Chart Division in case MCD deems other soundings more preferable for chart application.

The information originates from a NOAA contract field unit C&C Technologies Inc. and was submitted to the Atlantic Hydrographic Branch (AHB) for review, sounding selection, and Danger to Navigation processing. The contents of the attached WinZip file were generated at AHB. The attached zip file contains a DtoN Letter (PDF), associated image files, and a Pydro XML file.

If you have any questions, please direct them back to me via email or phone (757-441-6747x115).

Thank you for your assistance with this matter.

Regards,

Gene Parker

Castle Eugene Parker

Atlantic Hydrographic Branch

Hydrographic Team Lead

Physical Scientist, NOAA Office of Coast Survey

castle.e.parker@noaa.gov

office (757) 441-6746 x115

6_Re H12634 DtoN #2 submission to NDB 2.txt
Attachments:
H12634_DtoN2_Source SelectedSoudnings.000 491 KB
H12634 DtoN #2.zip 41.3 KB

Subject:
RE: Submerged Vessel observed in H12634 of OPR-K339-KR-14
From:
<castle.e.parker@noaa.gov>
Date:
3/16/2015 8:43 PM
To:
<nicole.galloway@cctechnol.com>, "'Mark Lathrop - NOAA Federal'"
<mark.t.lathrop@noaa.gov>
CC:
"'Tara Levy'" <tara.levy@cctechnol.com>, "'Matthew Jaskoski - NOAA Federal'"
<matthew.jaskoski@noaa.gov>

Not a DtoN, based upon depth, but should be added to the survey's feature file. Chart application is dependent upon the Cartographic Team and application. I'm sorry for being short but at US Hydro and dealing with presentation issues.gp

-----Original Message-----
From: Nicole Galloway [mailto:nicole.galloway@cctechnol.com]
Sent: Monday, March 16, 2015 9:19 AM
To: Castle Parker - NOAA Federal; Mark Lathrop - NOAA Federal
Cc: Tara Levy; Matthew Jaskoski - NOAA Federal
Subject: Re: Submerged Vessel observed in H12634 of OPR-K339-KR-14

Thank-you Gene,

So this would not be considered a DtoN, but will it still be added to the chart?

Nikki

On 3/15/2015 8:33 AM, Castle Parker - NOAA Federal wrote:
> > Good day Nikki,
> > The CATWRK category of wreck would be "non-dangerous" #1 selection.
> > The wreck is below (deeper) 11fm or 66ft and thus is non-dangerous. If
> > the wreck were 66ft or less, then it's dangerous. The defining danger
> > / non-danger zone is 66ftor 11fms.
> > Regards,
> > Gene
> >
> > -----Original Message-----
> > From: Nicole Galloway [mailto:nicole.galloway@cctechnol.com]
> > Sent: Friday, March 13, 2015 3:38 PM
> > To: Gene Parker; Mark Lathrop
> > Cc: Tara Levy
> > Subject: Submerged Vessel observed in H12634 of OPR-K339-KR-14
> >
> > Good Afternoon,
> >
> > Attached is a zip file with a .hob file, an S-57 file and associated
> > images outlining a submerged vessel identified within the survey bounds of
H12634.
> > The 'Category of wreck' was left as 'Value is unknown'. Please advise
> > as to the proper value for this attribute.
> >
> > Please let me know if there is any other data you require.
> >
> > Thank-you!
> > Nikki
> >
> > --
> > Nicole Galloway
> > Geoscientist
> > C&C Technologies, Inc.
> > Lafayette, LA 70508 USA
> > email: nicole.galloway@cctechnol.com
> > 337-210-0000 (Ext. 3537)

--
Nicole Galloway
Geoscientist
C&C Technologies, Inc.
Lafayette, LA 70508 USA
email: nicole.galloway@cctechnol.com
337-210-0000 (Ext. 3537)

Subject:
H12634 DtoN #3 16ft Wreck Submission to NDB
From:
Castle Parker - NOAA Federal <castle.e.parker@noaa.gov>
Date:
3/23/2015 11:24 AM
To:
OCS NDB - NOAA Service Account <ocs.ndb@noaa.gov>
CC:
Matthew Jaskoski - NOAA Federal <matthew.jaskoski@noaa.gov>, Michael Gonsalves - NOAA Federal <michael.gonsalves@noaa.gov>, Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>, Mark Lathrop - NOAA Federal <mark.t.lathrop@noaa.gov>, Nicole Galloway <nicole.galloway@cctechnol.com>, Tara Levy <tara.levy@cctechnol.com>, Tim Osborn - NOAA Federal <tim.osborn@noaa.gov>

Good Day,

Please find attached compressed file for survey H12634 DtoN report #3, a 16ft wreck for submission to Nautical Data Branch (NDB) and Marine Chart Division (MCD) and chart application.

The information originates from a NOAA contract field unit C&C Technologies Inc. and was submitted to the Atlantic Hydrographic Branch (AHB) for review and processing. The contents of the attached WinZip file were generated at AHB. The attached zip file contains a DtoN Letter (PDF), associated image files, and a Pydro XML file.

If any question arise, please direct them back to me via email or phone (757-441-6747 x115).

Thank you for your assistance with this matter.

Regards,

Gene Parker

Castle Eugene Parker

Atlantic Hydrographic Branch

Hydrographic Team Lead

Physical Scientist, NOAA Office of Coast Survey

castle.e.parker@noaa.gov

office (757) 441-6746 x115

Attachments:
H12634 DtoN #3.zip 146 KB

Subject:
Re: H12634 DtoN #3 16ft Wreck Submission to NDB
From:
OCS NDB - NOAA Service Account <ocs.ndb@noaa.gov>
Date:
3/24/2015 11:16 AM
To:
Castle Parker - NOAA Federal <castle.e.parker@noaa.gov>
CC:
Matthew Jaskoski - NOAA Federal <matthew.jaskoski@noaa.gov>, Michael Gonsalves - NOAA Federal <michael.gonsalves@noaa.gov>, Christina Fandel - NOAA Federal <christina.fandel@noaa.gov>, Mark Lathrop - NOAA Federal <mark.t.lathrop@noaa.gov>, Nicole Galloway <nicole.galloway@cctechnol.com>, Tara Levy <tara.levy@cctechnol.com>, Tim Osborn - NOAA Federal <tim.osborn@noaa.gov>, NSD Coast Pilot <coast.pilot@noaa.gov>, Benjamin K Evans - NOAA Federal <Benjamin.K.Evans@noaa.gov>, James Crocker - NOAA Federal <James.M.Crocker@noaa.gov>, Matt Kroll - NOAA Federal <Matt.Kroll@noaa.gov>, Nautical Data Branch <OCS.NDB@noaa.gov>, Tara Wallace - NOAA Federal <Tara.Wallace@noaa.gov>, Chris Libeau - NOAA Federal <Chris.Libeau@noaa.gov>, Pearce Hunt - NOAA Federal <Pearce.Hunt@noaa.gov>, Allison Wittrock - NOAA Federal <Allison.Wittrock@noaa.gov>, _NOS OCS PBA Branch <ocs.pba@noaa.gov>, _NOS OCS PBB Branch <ocs.pbb@noaa.gov>, _NOS OCS PBC Branch <ocs.pbc@noaa.gov>, _NOS OCS PBD Branch <ocs.pbd@noaa.gov>, _NOS OCS PBE Branch <ocs.pbe@noaa.gov>, _NOS OCS PBG Branch <ocs.pbg@noaa.gov>

L-562/15 and DD-25986 have been registered by the Nautical Data Branch and directed to Products Branch G for processing.

The DtoN reported is a submerged wreck near the Approaches to Southwest Pass in the Gulf of Mexico, LA.

The following charts are affected:
11361 kapp 57

11366 kapp 2886

11360 kapp 48

11340 kapp 49

The following ENCs are affected:
US4LA30M

US3GC04M

References:
H12634
OPR-K339-KR-14

This information was discovered by a NOAA contractor and was submitted by AHB.

Nautical Data Branch/Marine Chart Division/
Office of Coast Survey/National Ocean Service/
Contact: ocs.ndb@noaa.gov

On Mon, Mar 23, 2015 at 12:24 PM, Castle Parker - NOAA Federal <castle.e.parker@noaa.gov> wrote:

> Good Day,

9_Re H12634 DtoN #3 16ft Wreck Submission to NDB.txt

Please find attached compressed file for survey H12634 DtoN report #3, a 16ft wreck for submission to Nautical Data Branch (NDB) and Marine Chart Division (MCD) and chart application.

The information originates from a NOAA contract field unit C&C Technologies Inc. and was submitted to the Atlantic Hydrographic Branch (AHB) for review and processing. The contents of the attached WinZip file were generated at AHB. The attached zip file contains a DtoN Letter (PDF), associated image files, and a Pydro XML file.

If any question arise, please direct them back to me via email or phone (757-441-6747 x115).

Thank you for your assistance with this matter.

Regards,

Gene Parker

Castle Eugene Parker

Atlantic Hydrographic Branch

Hydrographic Team Lead

Physical Scientist, NOAA Office of Coast Survey

castle.e.parker@noaa.gov

office (757) 441-6746 x115

Attachments:
H12634 DtoN #3.zip 146 KB

Subject:
RE: H12634 Feature for Review
From:
Castle Parker - NOAA Federal <castle.e.parker@noaa.gov>
Date:
4/17/2015 2:29 PM
To:
nicole.galloway@cctechnol.com
CC:
Mark Lathrop - NOAA Federal <mark.t.lathrop@noaa.gov>, Michael Gonsalves - NOAA Federal <michael.gonsalves@noaa.gov>, Tara Levy <tara.levy@cctechnol.com>, Matthew Jaskoski - NOAA Federal <matthew.jaskoski@noaa.gov>

Hello Nikki,
Thanks for the review. I'm puzzled about the 3m depth. The notes are OK, but with no positive and inconsistent results I'm hesitant to submit as a DtoN with a least depth at this time. Additional data would be good. We could submit as a reported depth or obstruction (depth unknown), but would like to have images listed below and possibly confirmation MB data, or at least something that correlates to each other and the other hydro lines.

Why so much variance between three of the four lines? The fourth line did not capture the feature? Do you have any side scan imagery? If so, does the contact return and side scan imagery and heights measured correlate to the MB data? Can you send a SS image in line mode, not the mosaic? Or was the mosaic from backscatter?

Also can you send an image of the bathy data in sub set view, with the view in line view (each line a different color) with the rejected on as well. I'd really be interested in a side scan view. Is this a gas seep from what potentially looks like a well at the bottom of the circular scour?

One thing to note is that the data points are not connected from top to the bottom; gaps exist between the clusters of soundings. These thoughts are based upon the submitted images.

Since the inconsistent supporting data is a problem for your identifying the least depth, it will be for AHB as well. Does the data provide any supporting evidence or characteristics as if related to AWOIS 11086 and rig caisson(s)?

These are my thoughts and would like to see the side scan imagery even in screen grabs. Let me know what happens with the additional data and also if you have some SS imagery for review.

Thanks, we appreciate your extra efforts.
Regards,
Gene

Feature file remarks: Feature observed in location of AWOIS 11806 but is not currently charted. Four lines of MB data ensonify the feature. Bottom detect information is available on the feature from three of the four lines. All show differing least depths (36 m, 27 m and 3 m). The line that traverses most directly over the feature shows the shallowest least depth which is used here to err on the side of caution. QUASOU is left as depth known because we are unsure the least depth was ensonified. Plans to collect additional data are in progress.

-----Original Message-----
From: Nicole Galloway [mailto:nicole.galloway@cctechnol.com]
Sent: Friday, April 17, 2015 11:37 AM
To: Gene Parker
Cc: Mark Lathrop; 'Michael Gonsalves'; Tara Levy
Subject: H12634 Feature for Review

Good Morning,

I have attached a zip file with a .hob, .000 and associated images of a feature in H12634. The feature corresponds to AWOIS item 11806 and one MBES line shows a potentially very shallow least depth. Plans to acquire additional data are in progress. Please review the remarks section of the S-57 file and let us know if there is any other information you require.

Thanks!
Nikki

--
Nicole Galloway
Geoscientist
C&C Technologies, Inc.
Lafayette, LA 70508 USA
email: nicole.galloway@cctechnol.com
337-210-0000 (Ext. 3537)

Subject:
RE: Pockmark features in H12634
From:
Castle Parker - NOAA Federal <castle.e.parker@noaa.gov>
Date:
4/24/2015 2:20 PM
To:
nicole.galloway@cctechnol.com
CC:
Mark Lathrop - NOAA Federal <mark.t.lathrop@noaa.gov>, Tara Levy <tara.levy@cctechnol.com>, Matthew Jaskoski - NOAA Federal <matthew.jaskoski@noaa.gov>

Hello Nikki,

I would reject the data points that are potentially natural seeps. Based upon the inconsistencies between the lines, I would reject; AHB can accept at a later time, but doubt that we will.

I had a similar situation to this in 2005 where a gas flow was rising from a pipe, we could not determine the depth of the pipe, so the plume was charted as 5ft OBSTRN. The owner was notified and field unit was supposed to resolve the gas flow. A nor'easter blew through and the field unit did not get back to the site. No communications was provided back to us (NOAA) and the 5ft OSBTRN is still on the chart. I don't want this to happen again as it seems that what we apply to the chart won't get resolved for a number of years.

I would think that it would be prudent to submit a list of these locations so that we can generate documentation and submit to Tim Osborn as information and pass it to the USCG and possibly owner or previous owner.

Rejection is preferred.

Thanks.

Have a good weekend!

Gene

Castle Eugene Parker

NOAA Office of Coast Survey

Atlantic Hydrographic Branch

Hydrographic Team Lead / Physical Scientist

castle.e.parker@noaa.gov

office (757) 441-6746 x115

-----Original Message-----
From: Nicole Galloway [mailto:nicole.galloway@cctechnol.com]

Sent: Friday, April 24, 2015 2:59 PM
To: Gene Parker
Cc: Mark Lathrop; Tara Levy
Subject: Pockmark features in H12634

Good afternoon Gene,

There are several small depression features in H12634 in which on some lines (not all) there is evidence of a narrow linear feature protruding from the pockmark. The depression features are evident on all lines, but because of the inconsistency of any feature protruding from the depression, there is the possibility that these are natural seep features and not representative of the actual seafloor. In that case, these features should be removed from the data. Would this be acceptable, or would it be best to leave the data as is and examine the least depth?

Thanks!

Nikki

--

Nicole Galloway

Geoscientist

C&C Technologies, Inc.

Lafayette, LA 70508 USA

email: nicole.galloway@cctechnol.com

337-210-0000 (Ext. 3537)

Subject:
H12634 DtoN #4 Uncharted Offshore Platform submission to NDB
From:
Castle Parker - NOAA Federal <castle.e.parker@noaa.gov>
Date:
5/7/2015 2:03 PM
To:
OCS NDB - NOAA Service Account <ocs.ndb@noaa.gov>
CC:
Matthew Jaskoski - NOAA Federal <matthew.jaskoski@noaa.gov>, Michael Gonsalves - NOAA Federal <michael.gonsalves@noaa.gov>, Mark Lathrop - NOAA Federal <mark.t.lathrop@noaa.gov>, Nicole Galloway <nicole.galloway@cctechnol.com>, Tara Levy <tara.levy@cctechnol.com>, Tiffany Squyres - NOAA Federal <tiffany.squyres@noaa.gov>, Tim Osborn - NOAA Federal <tim.osborn@noaa.gov>

Good Day,

Please find the attached compressed file for survey H12634 DtoN report #4, detailing an uncharted offshore production platform for submission to Nautical Data Branch (NDB) and Marine Chart Division (MCD) for chart application.

The information originates from a NOAA contract field unit C&C Technologies Inc. and was submitted to the Atlantic Hydrographic Branch (AHB) for review and processing. The contents of the attached WinZip file were generated at AHB. The attached zip file contains a DtoN Letter (PDF), associated image files, and a Pydro XML file.

If any question arise, please direct them back to me via email or phone (757-441-6747 x115).

Thank you for your assistance with this matter.

Regards,

Gene Parker

Castle Eugene Parker

Atlantic Hydrographic Branch

Hydrographic Team Lead

Physical Scientist, NOAA Office of Coast Survey

castle.e.parker@noaa.gov

office (757) 441-6746 x115

Attachments:

11_H12634 DtoN #4 Uncharted Offshore Platform submission to NDB.txt
H12634 DtoN #4.zip 10.9 MB

Subject:
FW: H12634 Feature for Review
From:
Castle Parker - NOAA Federal <castle.e.parker@noaa.gov>
Date:
5/7/2015 1:00 PM
To:
Tim Osborn - NOAA Federal <tim.osborn@noaa.gov>
CC:
Matthew Jaskoski - NOAA Federal <matthew.jaskoski@noaa.gov>, Michael Gonsalves - NOAA Federal <michael.gonsalves@noaa.gov>, Mark Lathrop - NOAA Federal <mark.t.lathrop@noaa.gov>, Nicole Galloway <nicole.galloway@cctechnol.com>, Tara Levy <tara.levy@cctechnol.com>

Good day Tim,

C&C Technologies has surveyed a feature that AHB interprets as a gas seep. Reading the email trail below you can tell that this subject has been going back and forth for a while. C&C has done a good job of acquiring more data for our interpretation. The outcome is that AHB interprets the submission as a gas seep.

AWOIS 11806 has common location with this survey feature, but the survey data indicates more of gas rising through the water column than a rigid rig caisson that would be similar to a large pipe. AWOIS 11806 was originally noted by USCG District 5 in 1999 with low positional quality. This object or submission does not have the appearance of a caisson rigid pipe (steel or concrete) and with the low positional quality we don't interpret the submission as the caisson. We believe at one time there may have been something at this location based upon the scour within a grid image, but now it has the appearance of a natural gas seep. The pipeline file sourced from BOEM that AHB uses for reference has no pipeline within close proximity to this location. AHB has not received any data for this survey. Once the survey deliverables arrived to AHB, we can then readdress this feature with a better view referencing the full data set.

Please forward this information to the proper authorities.

Respond as necessary and thanks for your efforts.

Regards,

Gene

Castle Eugene Parker

NOAA Office of Coast Survey

Atlantic Hydrographic Branch

Hydrographic Team Lead / Physical Scientist

castle.e.parker@noaa.gov

office (757) 441-6746 x115

-----Original Message-----
From: Nicole Galloway [mailto:nicole.galloway@cctechnol.com]
Sent: Wednesday, May 06, 2015 4:06 PM
To: Castle Parker - NOAA Federal
Cc: Mark Lathrop - NOAA Federal; Tara Levy
Subject: Re: H12634 Feature for Review

Thank-you for the review Gene, I will keep those observations in mind for future reference.

There is actually a platform on top of that charted well. I thought it had been submitted and I apologize for the oversight. Attached is a zip file with a hob file, S-57 file and associated images of the platform.

Let me know if there is anything else you may need.

Thanks!

Nikki

On 5/6/2015 12:14 PM, Castle Parker - NOAA Federal wrote:

> Good day Nikki,

> I interpret this as a gas seep. I've had AHB Chief review this as

> well and we both agree that the data appears to be a gas seep. You

> can submit within the survey's feature file as you provided to me for

> with the included remarks as documented, and we will deal with it at AHB.

>

> However, I still think this is a gas seep rather than obstruction rising to

> the shoal depth of 3m.   The side scan image #7 does have a shadow but it

> is not clearly defined, the same for the dark area representing the

> rise in the water column. My experience with side scan interpretation

> is that gas provides a dark return as what is within the side scan

> contact imagery. The shape of the black blog expands in size as it

> extends upward in the water column, which is also indicative of gas rising in the water column.

>

> I am going to create a feature report of this and send to GOM Nav

> Manager Tim Osborn in order to contact BOEM and USCG to track down the owner.
>
> Another question, did the survey data locate the charted well that is
> located approximately 382m to the SW? If your coverage of the charted
> well provides nothing more than the sea floor, more than likely, the
> charted well is not placed correctly and what you have documented with
> the data is this feature, and possibly the well has become uncovered.
>
> Thanks and regards,
> Gene
>
> -----Original Message-----
> From: Nicole Galloway [mailto:nicole.galloway@cctechnol.com]
> Sent: Wednesday, May 06, 2015 12:21 PM
> To: Castle Parker - NOAA Federal
> Cc: Mark Lathrop - NOAA Federal; Michael Gonsalves - NOAA Federal;
> Tara Levy; Matthew Jaskoski - NOAA Federal
> Subject: Re: H12634 Feature for Review
>
> Good Morning Gene,
>
> We were able to collect additional data over this feature. Please
> refer to the attached zip file (S-57, hob and images) and let me know
> if any additional questions arise.
>
> Thank-you!
> Nikki
>
> On 4/17/2015 3:26 PM, Nicole Galloway wrote:
>> Hi Gene,
>>
>> We were puzzled as well, but figured it would be best to at least
>> submit for review.
>>

>> That is correct in that the fourth line did not capture the contact.
>> I have attached an image of the bathy in subset view colored by line,
>> with the rejected on.
>>
>> We do not have SSS data right now. This Sheet was collected with full
>> MBES and backscatter (that is the mosaic you are seeing).
>>
>> Thanks for the review! We will keep you posted on progress with this
>> feature.
>> Nikki
>>
>> On 4/17/2015 2:29 PM, Castle Parker - NOAA Federal wrote:
>>> Hello Nikki,
>>> Thanks for the review. I'm puzzled about the 3m depth. The notes
>>> are OK, but with no positive and inconsistent results I'm hesitant
>>> to submit as a
>>> DtoN with a least depth at this time. Additional data would be
>>> good. We
>>> could submit as a reported depth or obstruction (depth unknown), but
>>> would like to have images listed below and possibly confirmation MB
>>> data, or at least something that correlates to each other and the
>>> other hydro lines.
>>>
>>> Why so much variance between three of the four lines? The fourth
>>> line did
>>> not capture the feature? Do you have any side scan imagery? If so,
>>> does the contact return and side scan imagery and heights measured
>>> correlate to the MB data? Can you send a SS image in line mode, not
>>> the mosaic? Or was the mosaic from backscatter?
>>>
>>> Also can you send an image of the bathy data in sub set view, with
>>> the view in line view (each line a different color) with the
>>> rejected on as well.
>>> I'd really be interested in a side scan view. Is this a gas seep

>>> from what potentially looks like a well at the bottom of the
>>> circular scour?
>>>
>>> One thing to note is that the data points are not connected from top
>>> to the bottom; gaps exist between the clusters of soundings. These
>>> thoughts are based upon the submitted images.
>>>
>>> Since the inconsistent supporting data is a problem for your
>>> identifying the
>>> least depth, it will be for AHB as well. Does the data provide any
>>> supporting evidence or characteristics as if related to AWOIS 11086
>>> and rig caisson(s)?
>>>
>>> These are my thoughts and would like to see the side scan imagery
>>> even in
>>> screen grabs. Let me know what happens with the additional data and
>>> also
>>> if you have some SS imagery for review.
>>>
>>> Thanks, we appreciate your extra efforts.
>>> Regards,
>>> Gene
>>>
>>>
>>> Feature file remarks: Feature observed in location of AWOIS 11806
>>> but is not currently charted. Four lines of MB data ensonify the feature.
>>> Bottom detect information is available on the feature from three of
>>> the four lines.
>>> All
>>> show differing least depths (36 m, 27 m and 3 m). The line that
>>> traverses most directly over the feature shows the shallowest least
>>> depth which is used here to err on the side of caution. QUASOU is
>>> left as depth known because we are unsure the least depth was
>>> ensonified. Plans to collect additional data are in progress.

>>>

>>> -----Original Message-----

>>> From: Nicole Galloway [mailto:nicole.galloway@cctechnol.com]

>>> Sent: Friday, April 17, 2015 11:37 AM

>>> To: Gene Parker

>>> Cc: Mark Lathrop; 'Michael Gonsalves'; Tara Levy

>>> Subject: H12634 Feature for Review

>>>

>>> Good Morning,

>>>

>>> I have attached a zip file with a .hob, .000 and associated images

>>> of a feature in H12634. The feature corresponds to AWOIS item 11806

>>> and one MBES line shows a potentially very shallow least depth.

>>> Plans to acquire additional data are in progress. Please review the

>>> remarks section of the

>>> S-57 file and let us know if there is any other information you require.

>>>

>>> Thanks!

>>> Nikki

>>>

>>> --

>>> Nicole Galloway

>>> Geoscientist

>>> C&C Technologies, Inc.

>>> Lafayette, LA 70508 USA

>>> email: nicole.galloway@cctechnol.com

>>> 337-210-0000 (Ext. 3537)

>>

>

> --

> Nicole Galloway

> Geoscientist

> C&C Technologies, Inc.

> Lafayette, LA 70508 USA

> email: nicole.galloway@cctechnol.com

> 337-210-0000 (Ext. 3537)

--

Nicole Galloway

Geoscientist

C&C Technologies, Inc.

Lafayette, LA 70508 USA

email: nicole.galloway@cctechnol.com

337-210-0000 (Ext. 3537)

Attachments:
H12634 Gas Seep Report to GOM Nav Man.pdf 915 KB
AWOIS 11806.pdf 77.0 KB

Subject:
Re: H12634 DtoN #4 Uncharted Offshore Platform submission to NDB
From:
OCS NDB - NOAA Service Account <ocs.ndb@noaa.gov>
Date:
5/8/2015 6:53 AM
To:
Castle Parker - NOAA Federal <castle.e.parker@noaa.gov>
CC:
Matthew Jaskoski - NOAA Federal <matthew.jaskoski@noaa.gov>, Michael Gonsalves - NOAA Federal <michael.gonsalves@noaa.gov>, Mark Lathrop - NOAA Federal <mark.t.lathrop@noaa.gov>, Nicole Galloway <nicole.galloway@cctechnol.com>, Tara Levy <tara.levy@cctechnol.com>, Tiffany Squyres - NOAA Federal <tiffany.squyres@noaa.gov>, Tim Osborn - NOAA Federal <tim.osborn@noaa.gov>, NSD Coast Pilot <coast.pilot@noaa.gov>, Benjamin K Evans - NOAA Federal <Benjamin.K.Evans@noaa.gov>, James Crocker - NOAA Federal <James.M.Crocker@noaa.gov>, Matt Kroll - NOAA Federal <Matt.Kroll@noaa.gov>, Nautical Data Branch <OCS.NDB@noaa.gov>, Tara Wallace - NOAA Federal <Tara.Wallace@noaa.gov>, Pearce Hunt - NOAA Federal <Pearce.Hunt@noaa.gov>, _NOS OCS PBA Branch <ocs.pba@noaa.gov>, _NOS OCS PBB Branch <ocs.pbb@noaa.gov>, _NOS OCS PBC Branch <ocs.pbc@noaa.gov>, _NOS OCS PBD Branch <ocs.pbd@noaa.gov>, _NOS OCS PBE Branch <ocs.pbe@noaa.gov>, _NOS OCS PBG Branch <ocs.pbg@noaa.gov>

L-862/15 and DD-26163 have been registered by the Nautical Data Branch and directed to Products Branch G for processing.

The DtoN reported is an uncharted platform near the Approaches to Southwest Pass in the Gulf of Mexico, LA.

The following charts are affected:
11361 kapp 57

11366 kapp 2886

11340 kapp 49

11006 kapp 44

The following ENCs are affected:
US4LA30M

US3GC04M

US2GC09M

References:
H12634
OPR-K339-KR-14

This information was discovered by a NOAA contractor and was submitted by AHB.

Nautical Data Branch/Marine Chart Division/
Office of Coast Survey/National Ocean Service/
Contact: ocs.ndb@noaa.gov

On Thu, May 7, 2015 at 3:03 PM, Castle Parker - NOAA Federal <castle.e.parker@noaa.gov> wrote:

> Good Day,

13_Re H12634 DtoN #4 Uncharted Offshore Platform submission to NDB.txt

Please find the attached compressed file for survey H12634 DtoN report #4, detailing an uncharted offshore production platform for submission to Nautical Data Branch (NDB) and Marine Chart Division (MCD) for chart application.

The information originates from a NOAA contract field unit C&C Technologies Inc. and was submitted to the Atlantic Hydrographic Branch (AHB) for review and processing. The contents of the attached WinZip file were generated at AHB. The attached zip file contains a DtoN Letter (PDF), associated image files, and a Pydro XML file.

If any question arise, please direct them back to me via email or phone (757-441-6747 x115).

Thank you for your assistance with this matter.

Regards,

Gene Parker

Castle Eugene Parker

Atlantic Hydrographic Branch

Hydrographic Team Lead

Physical Scientist, NOAA Office of Coast Survey

castle.e.parker@noaa.gov

office (757) 441-6746 x115

Attachments:
H12634 DtoN #4.zip 10.9 MB

Subject:
Re: H12634 Features and Sounding for review
From:
Nicole Galloway <nicole.galloway@cctechnol.com>
Date:
5/20/2015 3:40 PM
To:
Castle Parker - NOAA Federal <castle.e.parker@noaa.gov>
CC:
Mark Lathrop - NOAA Federal <mark.t.lathrop@noaa.gov>, Tara Levy <tara.levy@cctechnol.com>, Matthew Jaskoski - NOAA Federal <matthew.jaskoski@noaa.gov>

Thank-you Gene,

I am OK submitting the two features in the spoil area; we weren't always sure how to handle features in that area due to lack of depths, but I suppose it is better to be cautious! I have attached an additional .hob and .000 file of a shallow sounding that falls under within the DtoN depth range; let me know if that is enough information.

Nikki

On 5/20/2015 3:18 PM, Castle Parker - NOAA Federal wrote:
>
> Nikki,
>
> If these are the items you want to submit, I will process. The 68ft sounding is actually outside the DtoN depth range, but bearing in mind the chart discrepancy, I will submit and deal with any backlash from NDB and MCD. If you have no other information to add to these three items, I have enough information to process and submit to NDB.
>
>
>
> Thanks and regards,
>
> Gene
>
>
>
> From: Nicole Galloway [mailto:nicole.galloway@cctechnol.com]
> Sent: Tuesday, May 19, 2015 4:24 PM
> To: Gene Parker
> Cc: Mark Lathrop; Tara Levy
> Subject: H12634 Features and Sounding for review
>
>
>
> Good Afternoon,
>
> We would like your input on two features in H12634 over which we recently collected additional data. F1 is ~ 1 m in height and F2 is ~ 80 cm in height (according to surveyed depths). These two features are located in the spoil area where there are no charted depths. Please advise as to whether you would like to submit these as DtoNs.
>
> Also, soundings much shallower than a 128 foot charted depth were observed from crossline data slightly outside the survey bounds. A sounding has been submitted in support of this observation.
>
> Thank-you!
>
> Nikki
> --
> Nicole Galloway
> Geoscientist

> C&C Technologies, Inc.
> Lafayette, LA 70508 USA
> email: nicole.galloway@cctechnol.com
> 337-210-0000 (Ext. 3537)

--
Nicole Galloway
Geoscientist
C&C Technologies, Inc.
Lafayette, LA 70508 USA
email: nicole.galloway@cctechnol.com
337-210-0000 (Ext. 3537)

Attachments:
H12634_Sounding.hob   871 bytes
H12634_Sounding.000   2.3 KB

Subject:
H12634 DtoN #5 Submission to NDB
From:
Castle Parker - NOAA Federal <castle.e.parker@noaa.gov>
Date:
5/21/2015 6:53 AM
To:
OCS NDB - NOAA Service Account <ocs.ndb@noaa.gov>
CC:
Matthew Jaskoski - NOAA Federal <matthew.jaskoski@noaa.gov>, Michael Gonsalves - NOAA Federal <michael.gonsalves@noaa.gov>, Mark Lathrop - NOAA Federal <mark.t.lathrop@noaa.gov>, Nicole Galloway <nicole.galloway@cctechnol.com>, Tara Levy <tara.levy@cctechnol.com>, Tim Osborn - NOAA Federal <tim.osborn@noaa.gov>, Tiffany Squyres - NOAA Federal <tiffany.squyres@noaa.gov>

Good Day,

Please find the attached compressed file for survey H12634 DtoN #5 report, detailing two uncharted obstructions and one sounding for submission to Nautical Data Branch (NDB) and Marine Chart Division (MCD) for chart application.

The information originates from a NOAA contract field unit C&C Technologies Inc. and was submitted to the Atlantic Hydrographic Branch (AHB) for review and processing. The contents of the attached WinZip file were generated at AHB. The attached zip file contains a DtoN Letter (PDF), associated image files, and a Pydro XML file.

If any question arise, please direct them back to me via email or phone (757-441-6747 x115).

Thank you for your assistance with this matter.

Regards,

Gene Parker

Castle Eugene Parker

Atlantic Hydrographic Branch

Hydrographic Team Lead

Physical Scientist, NOAA Office of Coast Survey

castle.e.parker@noaa.gov

office (757) 441-6746 x115

Attachments:
H12634 DtoN #5.zip 3.3 MB

Subject:
Re: H12634 DtoN #5 Submission to NDB
From:
OCS NDB - NOAA Service Account <ocs.ndb@noaa.gov>
Date:
5/21/2015 3:14 PM
To:
Castle Parker - NOAA Federal <castle.e.parker@noaa.gov>
CC:
Matthew Jaskoski - NOAA Federal <matthew.jaskoski@noaa.gov>, Michael Gonsalves - NOAA Federal <michael.gonsalves@noaa.gov>, Mark Lathrop - NOAA Federal <mark.t.lathrop@noaa.gov>, Nicole Galloway <nicole.galloway@cctechnol.com>, Tara Levy <tara.levy@cctechnol.com>, Tim Osborn - NOAA Federal <tim.osborn@noaa.gov>, Tiffany Squyres - NOAA Federal <tiffany.squyres@noaa.gov>, NSD Coast Pilot <coast.pilot@noaa.gov>, Benjamin K Evans - NOAA Federal <Benjamin.K.Evans@noaa.gov>, James Crocker - NOAA Federal <James.M.Crocker@noaa.gov>, Matt Kroll - NOAA Federal <Matt.Kroll@noaa.gov>, Nautical Data Branch <OCS.NDB@noaa.gov>, Tara Wallace - NOAA Federal <Tara.Wallace@noaa.gov>, Pearce Hunt - NOAA Federal <Pearce.Hunt@noaa.gov>, _NOS OCS PBA Branch <ocs.pba@noaa.gov>, _NOS OCS PBB Branch <ocs.pbb@noaa.gov>, _NOS OCS PBC Branch <ocs.pbc@noaa.gov>, _NOS OCS PBD Branch <ocs.pbd@noaa.gov>, _NOS OCS PBE Branch <ocs.pbe@noaa.gov>, _NOS OCS PBG Branch <ocs.pbg@noaa.gov>

L-934/15 and DD-26225 have been registered by the Nautical Data Branch and directed to Products Branch G for processing.

The DtoNs reported are one shoal sounding and two obstructions, located west of the approaches to Southwest Pass in the Gulf of Mexico.

The following charts are affected:
11361 kapp 58

11361 kapp 57

11366 kapp 2886

11360 kapp 48

11340 kapp 49

11006 kapp 44

The following ENCs are affected:
US5LA33M

US4LA30M

US3GC04M

US2GC09M

References:
H12634
OPR-K339-KR-14

This information was discovered by a NOAA contractor and was submitted by AHB.

Nautical Data Branch/Marine Chart Division/
Office of Coast Survey/National Ocean Service/
Contact: ocs.ndb@noaa.gov

On Thu, May 21, 2015 at 7:53 AM, Castle Parker - NOAA Federal <castle.e.parker@noaa.gov> wrote:

Good Day,

Please find the attached compressed file for survey H12634 DtoN #5 report, detailing two uncharted obstructions and one sounding for submission to Nautical Data Branch (NDB) and Marine Chart Division (MCD) for chart application.

The information originates from a NOAA contract field unit C&C Technologies Inc. and was submitted to the Atlantic Hydrographic Branch (AHB) for review and processing. The contents of the attached WinZip file were generated at AHB. The attached zip file contains a DtoN Letter (PDF), associated image files, and a Pydro XML file.

If any question arise, please direct them back to me via email or phone (757-441-6747 x115).

Thank you for your assistance with this matter.

Regards,

Gene Parker

Castle Eugene Parker

Atlantic Hydrographic Branch

Hydrographic Team Lead

Physical Scientist, NOAA Office of Coast Survey

castle.e.parker@noaa.gov

office (757) 441-6746 x115

Attachments:
H12634 DtoN #5.zip 3.3 MB

APPENDIX III

SURVEY FEATURES REPORT

DToNs - six
AWOIS - three
Wrecks - one
Maritime Boundaries - none

H12634_H12635_H12636_DTONs

Registry Number: H12634, H12635, H12636

State: Louisiana

Locality: Approaches to Barataria Bay to Southwest Pass

Sub-locality: Approaches to Southwest Pass; 7 NM NW of Southwest Pass; 7 NM East of Southwest Pass

Project Number: OPR-K339-KR-14

Survey Dates: 06/03/2014 to 05/13/2015

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
11361	74th	09/01/2007	1:80,000 (11361_1) 1:40,000 (11361_2)	[L]NTM: ?
11366	11th	01/01/2008	1:250,000 (11366_1)	[L]NTM: ?
11360	43rd	11/01/2008	1:456,394 (11360_1)	[L]NTM: ?
1115A	43rd	11/01/2008	1:456,394 (1115A_1)	[L]NTM: ?
11340	73rd	08/01/2008	1:458,596 (11340_1)	[L]NTM: ?
1116A	73rd	08/01/2008	1:458,596 (1116A_1)	[L]NTM: ?
11006	32nd	08/01/2005	1:875,000 (11006_1)	[L]NTM: ?
411	52nd	09/01/2007	1:2,160,000 (411_1)	[L]NTM: ?

* Correction(s) - *source: last correction applied (last correction reviewed--"cleared date")*

Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	Survey
1.1	DTON 3 - Add dangerous obstruction, least depth 26.17 feet.	Obstruction	7.98 m	29° 03' 26.8" N	089° 30' 18.3" W	H12635
1.2	DTON - Add dangerous obstruction, least depth 63 feet.	Obstruction	19.21 m	28° 57' 32.9" N	089° 28' 08.1" W	H12634
1.3	DTON A - Dangerous baring obstruction (wellhead)	Obstruction	[None]	28° 54' 32.8" N	089° 27' 06.4" W	H12634
1.4	DTON B - Dangerous baring obstruction (wellhead)	Obstruction	[None]	28° 54' 23.6" N	089° 27' 02.3" W	H12634
1.5	DTON - Add dangerous submerged obstruction least depth 8 feet	Obstruction	2.55 m	28° 54' 54.9" N	089° 26' 43.9" W	H12634
1.6	DTON - Dangerous sunken wreck, least depth 15.9 feet.	Wreck	4.85 m	28° 56' 37.3" N	089° 26' 37.3" W	H12634
1.7	DTON - Offshore platform	GP	[None]	28° 53' 58.8" N	089° 22' 05.1" W	H12634
1.8	DTON - Dangerous baring obstruction (wellhead)	Obstruction	[None]	28° 58' 30.4" N	089° 16' 00.1" W	H12636
1.9	DTON - Dangerous baring obstruction (wellhead)	Obstruction	[None]	28° 58' 47.7" N	089° 15' 52.9" W	H12636
1.10	DTON - Dangerous baring obstruction (wellhead)	Obstruction	[None]	28° 58' 46.2" N	089° 15' 00.3" W	H12636

1.1) DTON 3 - Add dangerous obstruction, least depth 26.17 feet.

DANGER TO NAVIGATION

Survey Summary

Survey Position:	29° 03' 26.8" N, 089° 30' 18.3" W
Least Depth:	7.98 m (= 26.17 ft = 4.362 fm = 4 fm 2.17 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2014-307.06:33:10.000 (11/03/2014)
Dataset:	H12634_H12635_H12636_AWOIS, Wrecks, DTONs.000
FOID:	0_ 0000830776 00001(FFFE000CAD380001)
Charts Affected:	11361_1, 11366_1, 1116A_1, 11340_1, 11006_1, 411_1

Remarks:

OBSTRN/remrks: This obstruction is in the C database as a submerged well head. Feature submitted as DtoN - chart has since been updated.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12634_H12635_H12636_AWOIS, Wrecks, DTONs.000	0_ 0000830776 00001	0.00	000.0	Primary

Hydrographer Recommendations

Add to chart

Cartographically-Rounded Depth (Affected Charts):

26ft (11361_1)

4 ¼fm (1116A_1, 11340_1, 11006_1, 411_1)

4fm 2ft (11366_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes:

CATOBS - 2:wellhead

NINFOM - Add obstruction

QUASOU - 6:least depth known

SORDAT - 20150430

SORIND - US,US,graph,H12635

TECSOU - 2,3:found by side scan sonar,found by multi-beam

VALSOU - 7.977 m

WATLEV - 3:always under water/submerged

Office Notes

SAR NOTES: Feature was ensonified with object detect SSS and MBES. Feature is considered significant and verified as per survey data. Defer the final charting disposition to AHB Compile Team.

HTL: The feature has the appearance of a well, that rises approximately 2.55m above the sea floor.

COMPILATION: Concur. Add dangerous submerged obstruction, least depth 26 feet in the present survey position.

Feature Images

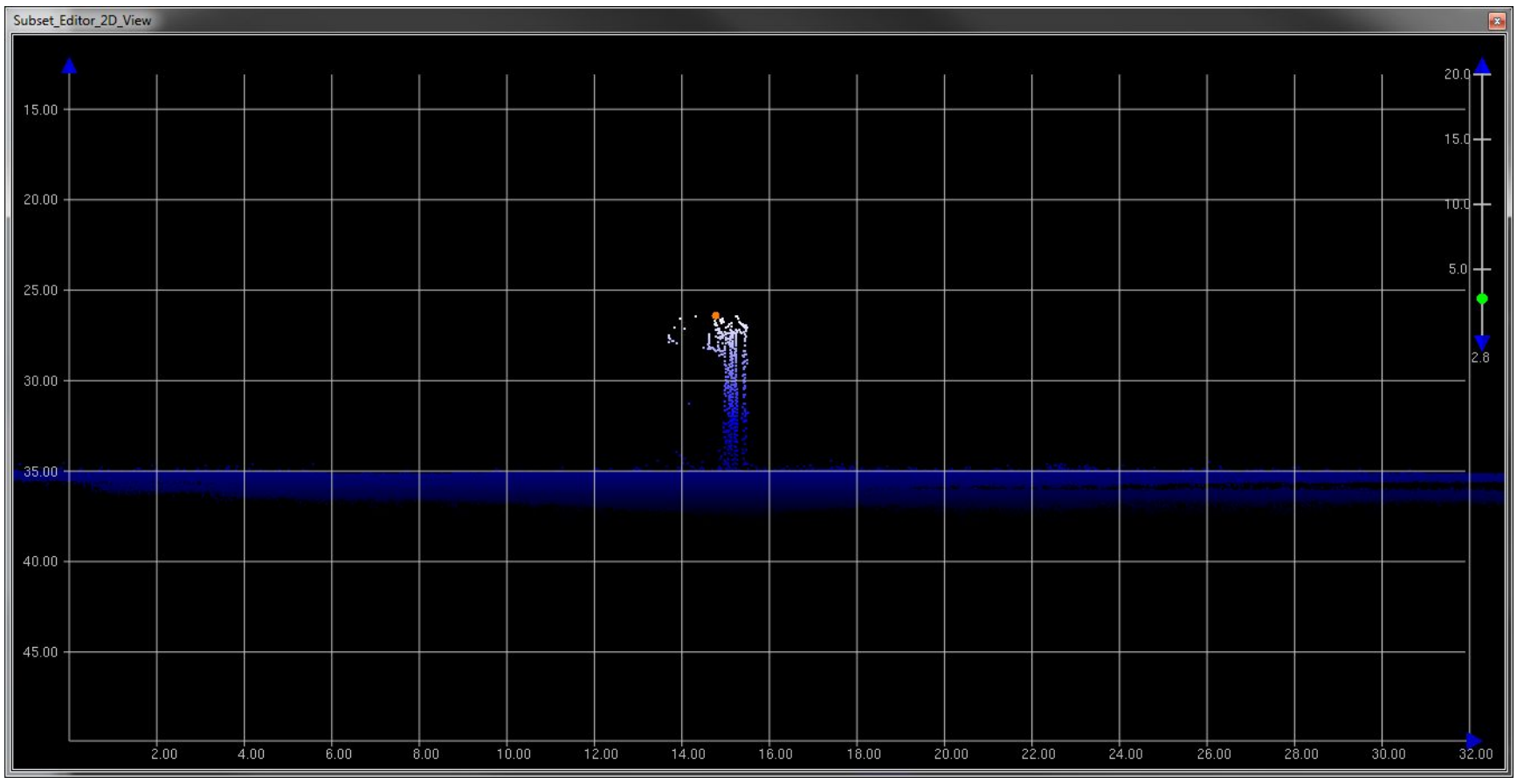

Figure 1.4.1

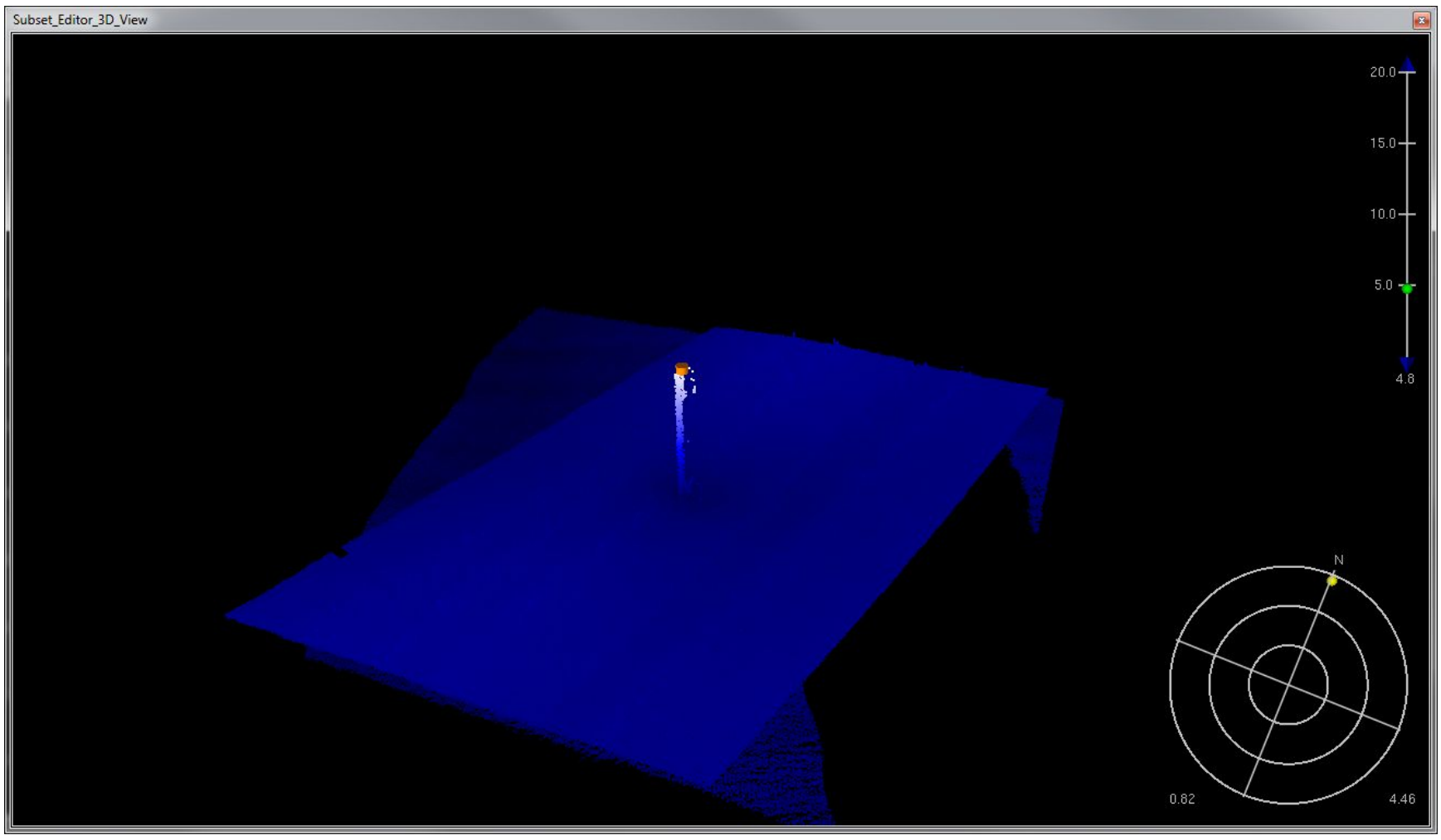

Figure 1.4.2

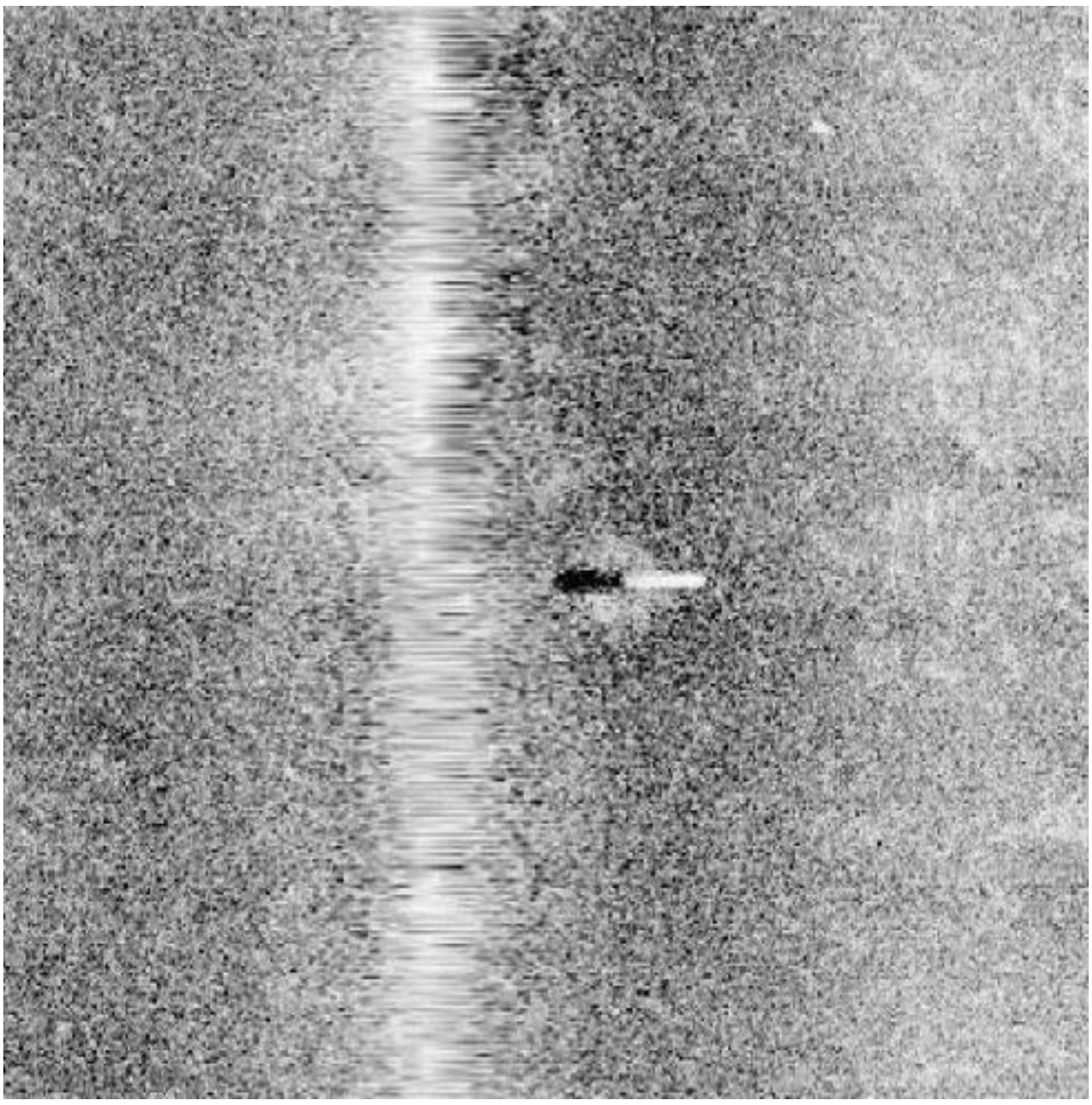

Figure 1.4.3

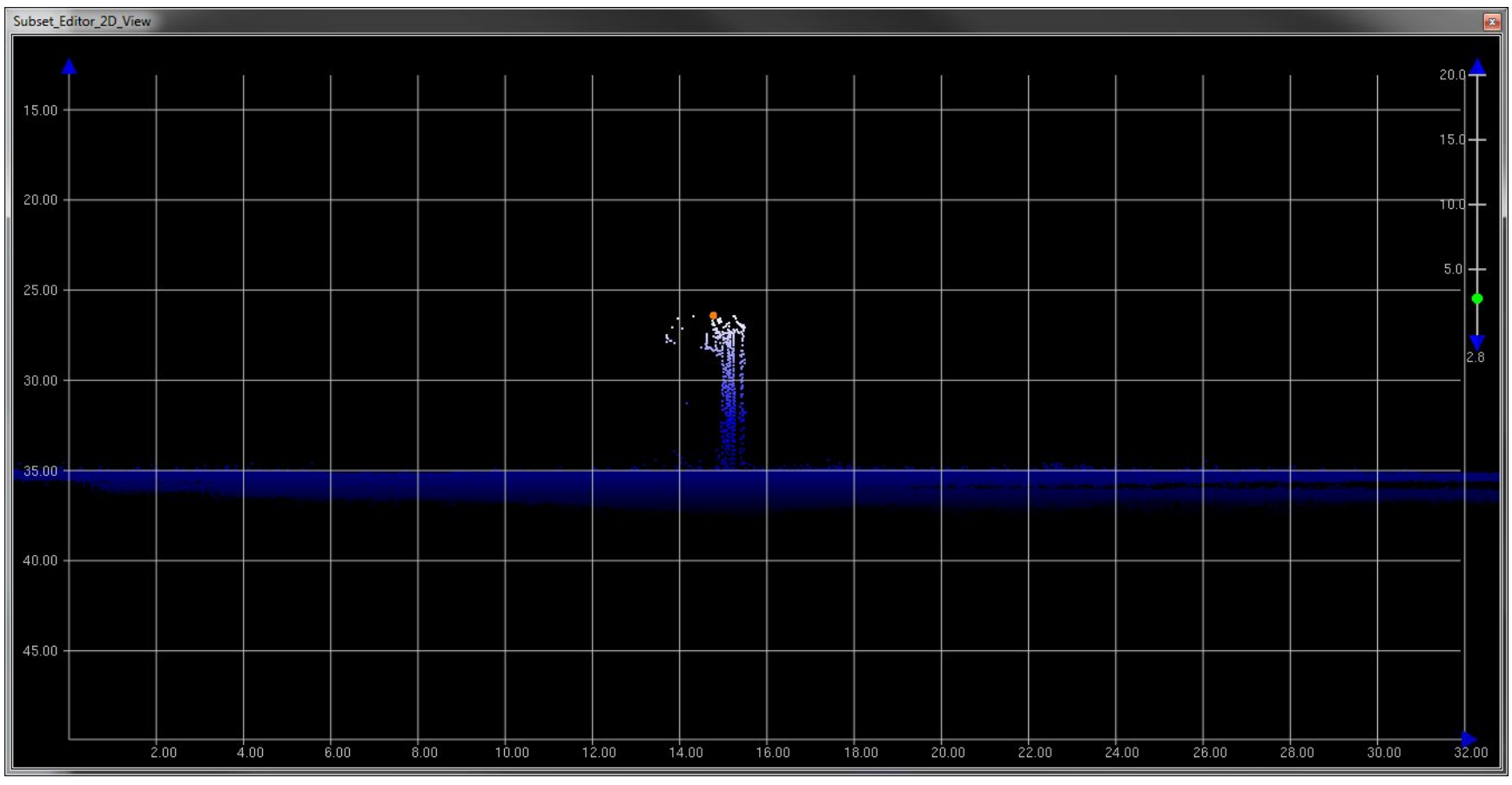

Figure 1.4.4

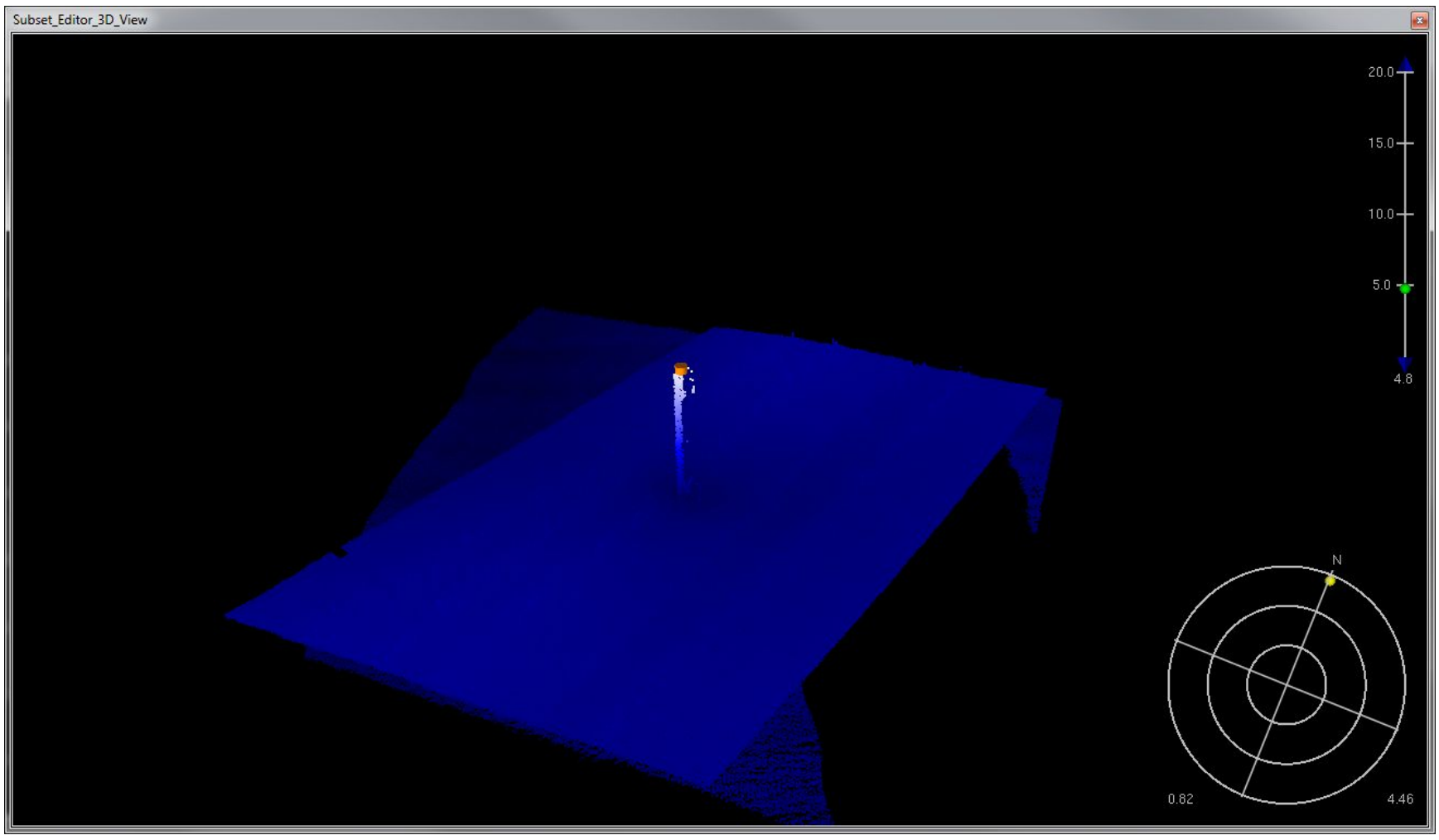

Figure 1.4.5

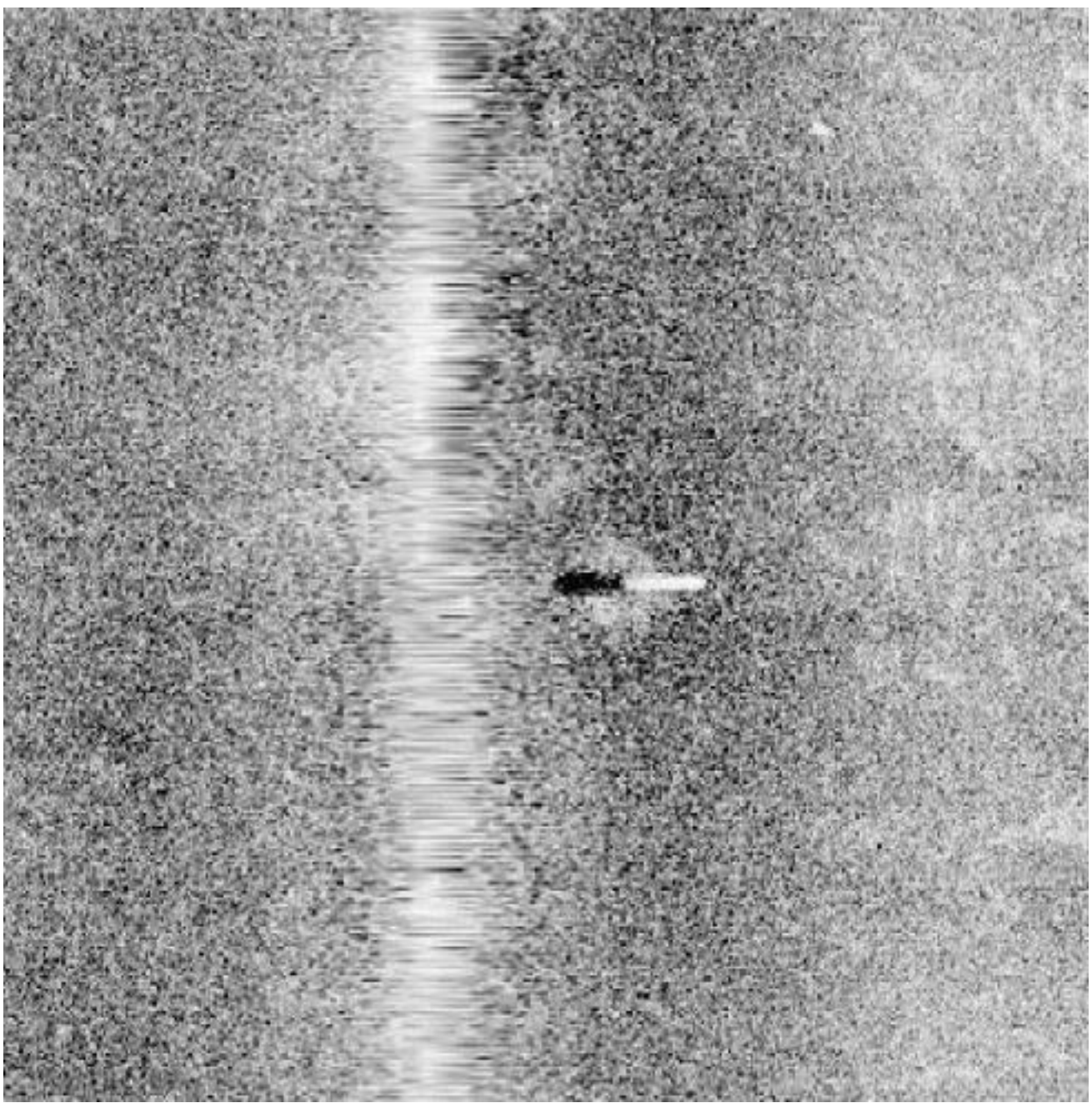

Figure 1.4.6

1.2) DTON - Add dangerous obstruction, least depth 63 feet.

DANGER TO NAVIGATION

Survey Summary

Survey Position: 28° 57' 32.9" N, 089° 28' 08.1" W

Least Depth: 19.21 m (= 63.02 ft = 10.504 fm = 10 fm 3.02 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2014-320.05:29:49.000 (11/16/2014)

Dataset: H12634_H12635_H12636_AWOIS, Wrecks, DTONs.000

FOID: 0_ 0000830787 00001(FFFE000CAD430001)

Charts Affected: 11361_1, 11366_1, 1115A_1, 11360_1, 1116A_1, 11340_1, 11006_1, 411_1

Remarks:

OBSTRN/remrks: feature observed within survey data and investigated. 10 feet shallower than surrounding depths. Chart has been updated with an obstruction.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12634_H12635_H12636_AWOIS, Wrecks, DTONs.000	0_ 0000830787 00001	0.00	000.0	Primary

Hydrographer Recommendations

Add to chart

Cartographically-Rounded Depth (Affected Charts):

63ft (11361_1)

10 ½fm (1115A_1, 11360_1, 1116A_1, 11340_1, 11006_1, 411_1)

10fm 3ft (11366_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes:

NINFOM - Add obstruction

QUASOU - 6:least depth known

SORDAT - 20150513

SORIND - US,US,graph,H12634

TECSOU - 2,3:found by side scan sonar,found by multi-beam

VALSOU - 19.210 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Concur. New obstruction verified with 100% MBES.

COMPILATION: Concur. Delete charted dangerous obstruction, least depth 65 feet. Add dangerous submerged obstruction, least depth 63 feet in the present survey position.

Feature Images

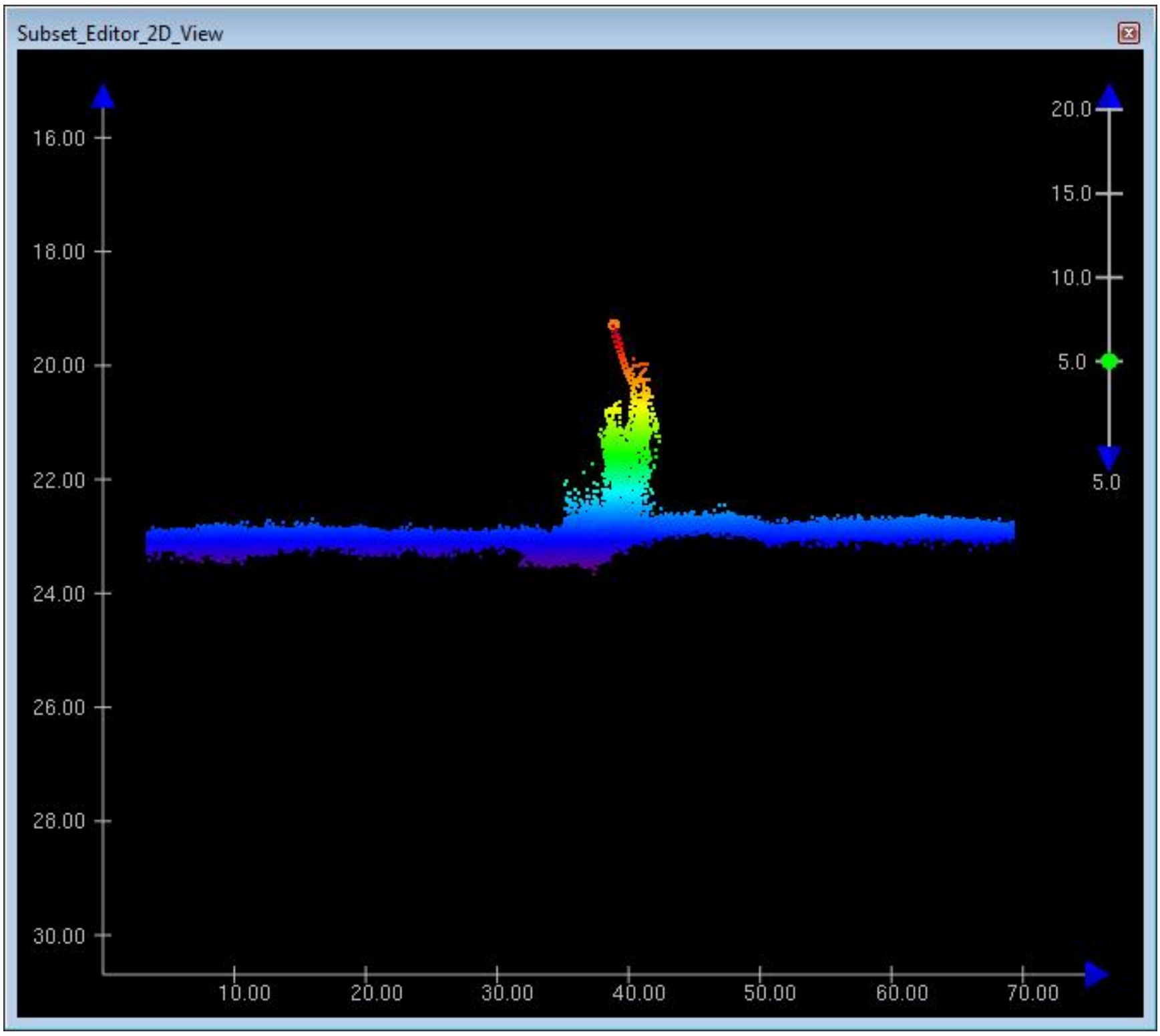

Figure 1.5.1

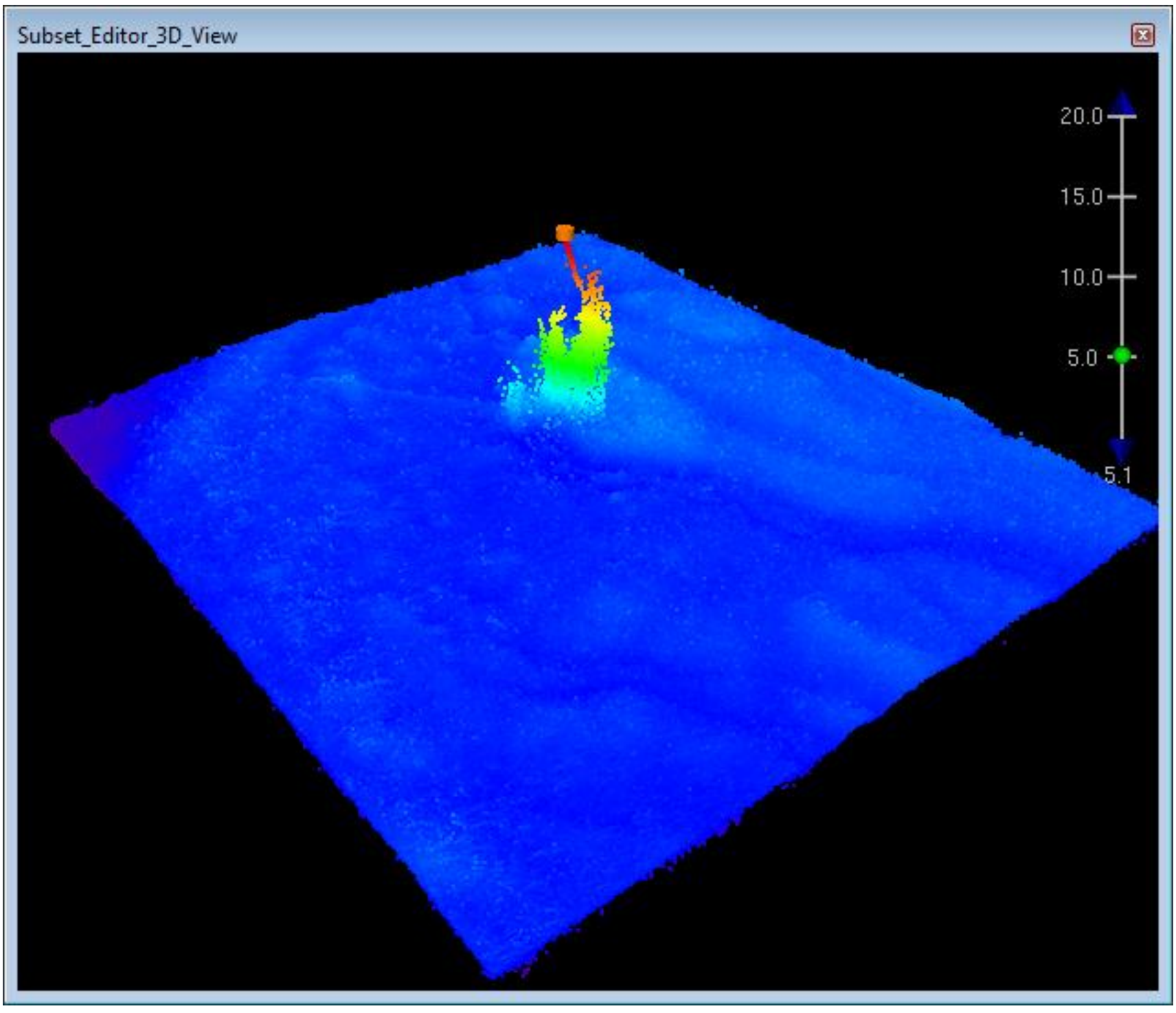

Figure 1.5.2

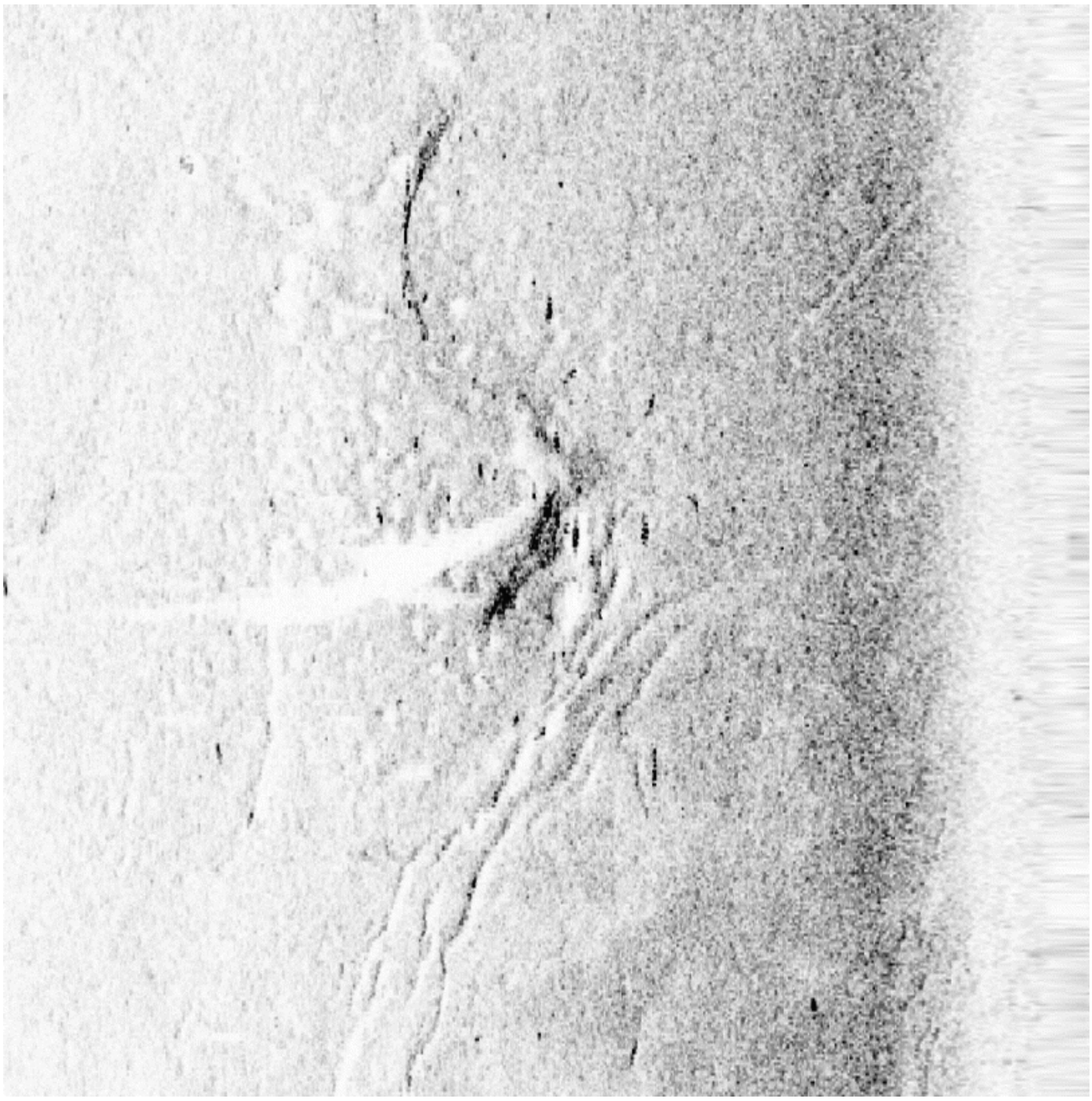

Figure 1.5.3

1.3) DTON A - Dangerous baring obstruction (wellhead)

DANGER TO NAVIGATION

Survey Summary

Survey Position: 28° 54' 32.8" N, 089° 27' 06.4" W

Least Depth: [None]

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2014-347.14:22:53.000 (12/13/2014)

Dataset: H12634_H12635_H12636_AWOIS, Wrecks, DTONs.000

FOID: 0_ 0000830792 00001(FFFE000CAD480001)

Charts Affected: 11361_2, 11361_1, 11366_1, 1115A_1, 11360_1, 1116A_1, 11340_1, 11006_1, 411_1

Remarks:

OBSTRN/remrks: wellhead observed (pipe structure). Submitted as DtoN; pipes have been added to ENC and RNC. Judging from photo, it is possible that this structure becomes mostly submerged during high water conditions. MB data has a gap where structure is located and position is from center of gap. Note: This wellhead was originally submitted as a DTON using the detached position from ship navigation.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12634_H12635_H12636_AWOIS, Wrecks, DTONs.000	0_ 0000830792 00001	0.00	000.0	Primary

Hydrographer Recommendations

add to chart

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: CATOBS - 2:wellhead

EXPSOU - 2:shoaler than range of depth of the surrounding depth area

NINFOM - Add obstruction

SORDAT - 20150513

SORIND - US,US,graph,H12634

WATLEV - 1:partly submerged at high water

Office Notes

SAR: Concur. Feature exists in gap in data. In addition wellhead has been visually confirmed by field party (image included). Final charting decision up to the compiler as TECSOU, QUASOU and VALSOU cannot be completed as there is not a least depth of this wellhead.

COMPILATION: Concur. Delete charted visible pipe. Add dangerous baring obstruction (wellhead) in the present survey position.

Feature Images

Figure 1.6.1

Figure 1.6.2

1.4) DTON B - Dangerous baring obstruction (wellhead)

DANGER TO NAVIGATION

Survey Summary

Survey Position:	28° 54' 23.6" N, 089° 27' 02.3" W
Least Depth:	[None]
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2014-347.15:47:56.000 (12/13/2014)
Dataset:	H12634_H12635_H12636_AWOIS, Wrecks, DTONs.000
FOID:	0_ 0000830791 00001(FFFE000CAD470001)
Charts Affected:	11361_2, 11361_1, 11366_1, 1115A_1, 11360_1, 1116A_1, 11340_1, 11006_1, 411_1

Remarks:

OBSTRN/remrks: wellhead observed (pipe structure). Submitted as DtoN; pipes have been added to chart. Judging from photo, it is possible that this structure becomes mostly submerged during high water conditions. Postion is from MB data. Note: This wellhead was originally submitted as a DTON using the detached position from ship navigation.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12634_H12635_H12636_AWOIS, Wrecks, DTONs.000	0_ 0000830791 00001	0.00	000.0	Primary

Hydrographer Recommendations

Add to chart

S-57 Data

Geo object 1:	Obstruction (OBSTRN)
Attributes:	CATOBS - 2:wellhead
	NINFOM - Add obstruction
	SORDAT - 20150513
	SORIND - US,US,graph,H12634
	WATLEV - 1:partly submerged at high water

Office Notes

SAR: Concur. MBES data shows evidence of the presence of the wellhead. Wellhead has been visually confirmed by field party (image included). Final charting decision up to the compiler as TECSOU, QUASOU and VALSOU cannot be completed as there is not a least depth of this wellhead.

COMPILATION: Concur. Delete charted visible pipe. Add dangerous baring obstruction (wellhead) in the present survey position.

Feature Images

Figure 1.7.1

Figure 1.7.2

1.5) DTON - Add dangerous submerged obstruction least depth 8 feet

DANGER TO NAVIGATION

Survey Summary

Survey Position: 28° 54' 54.9" N, 089° 26' 43.9" W

Least Depth: 2.55 m (= 8.35 ft = 1.392 fm = 1 fm 2.35 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2015-029.21:32:44.000 (01/29/2015)

Dataset: H12634_H12635_H12636_AWOIS, Wrecks, DTONs.000

FOID: 0_ 0000830786 00001(FFFE000CAD420001)

Charts Affected: 11361_2, 11361_1, 11366_1, 1115A_1, 11360_1, 1116A_1, 11340_1, 11006_1, 411_1

Remarks:

OBSTRN/remrks: feature observed within survey data and investigated. Located on a charted platform - appears to be platform ruins.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12634_H12635_H12636_AWOIS, Wrecks, DTONs.000	0_ 0000830786 00001	0.00	000.0	Primary

Hydrographer Recommendations

Add to chart as an obstruction

Cartographically-Rounded Depth (Affected Charts):

8ft (11361_2, 11361_1)

1 ¼fm (1115A_1, 11360_1, 1116A_1, 11340_1, 11006_1, 411_1)

1fm 2ft (11366_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: NINFOM - Add obstruction

QUASOU - 6:least depth known

SORDAT - 20150513

SORIND - US,US,graph,H12634

TECSOU - 2,3:found by side scan sonar,found by multi-beam

VALSOU - 2.546 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Concur. Obstruction verified with MBES data.

COMPILATION: Add dangerous obstruction least depth 8 feet in the present survey position.

Feature Images

Figure 1.8.1

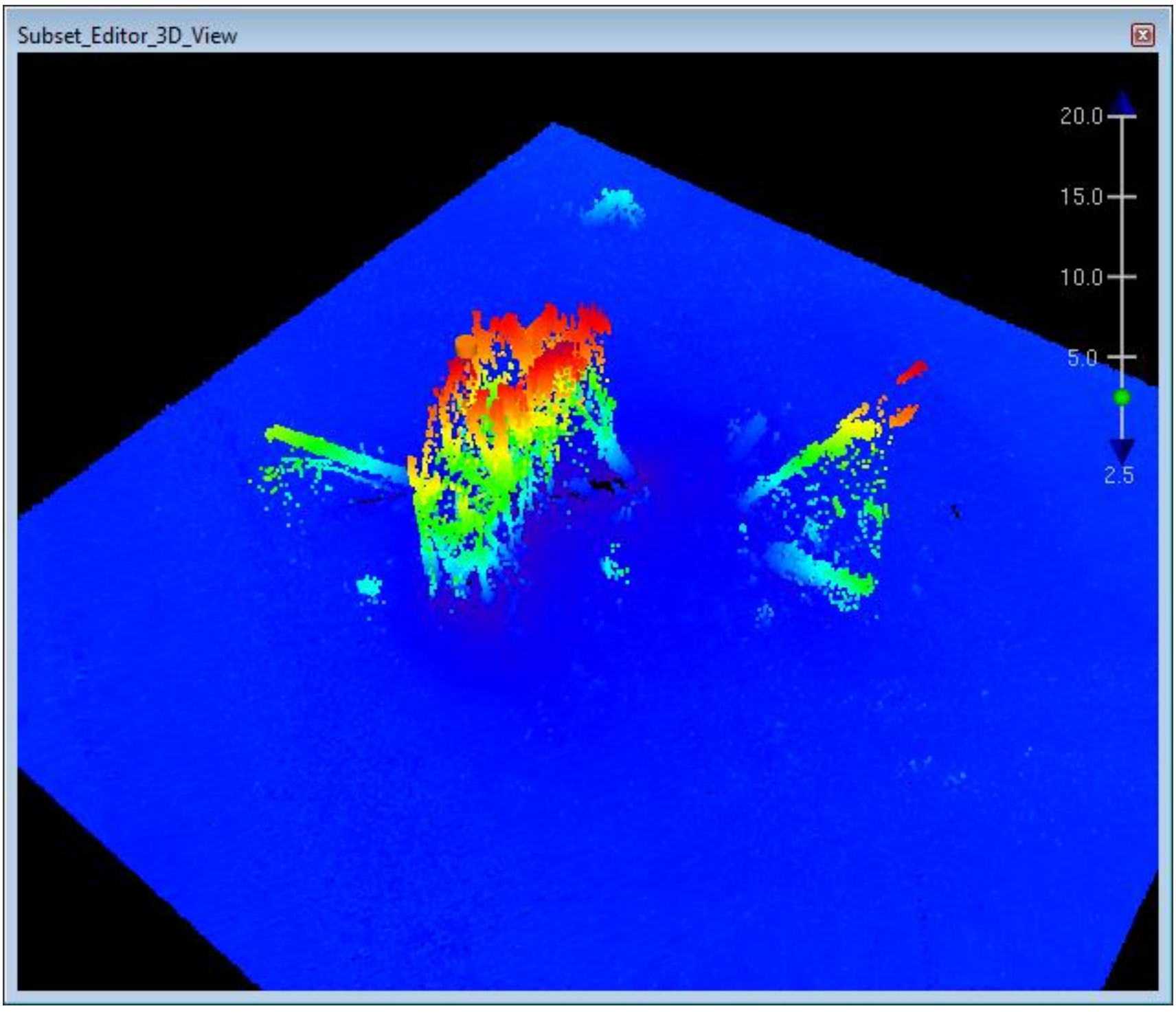

Figure 1.8.2

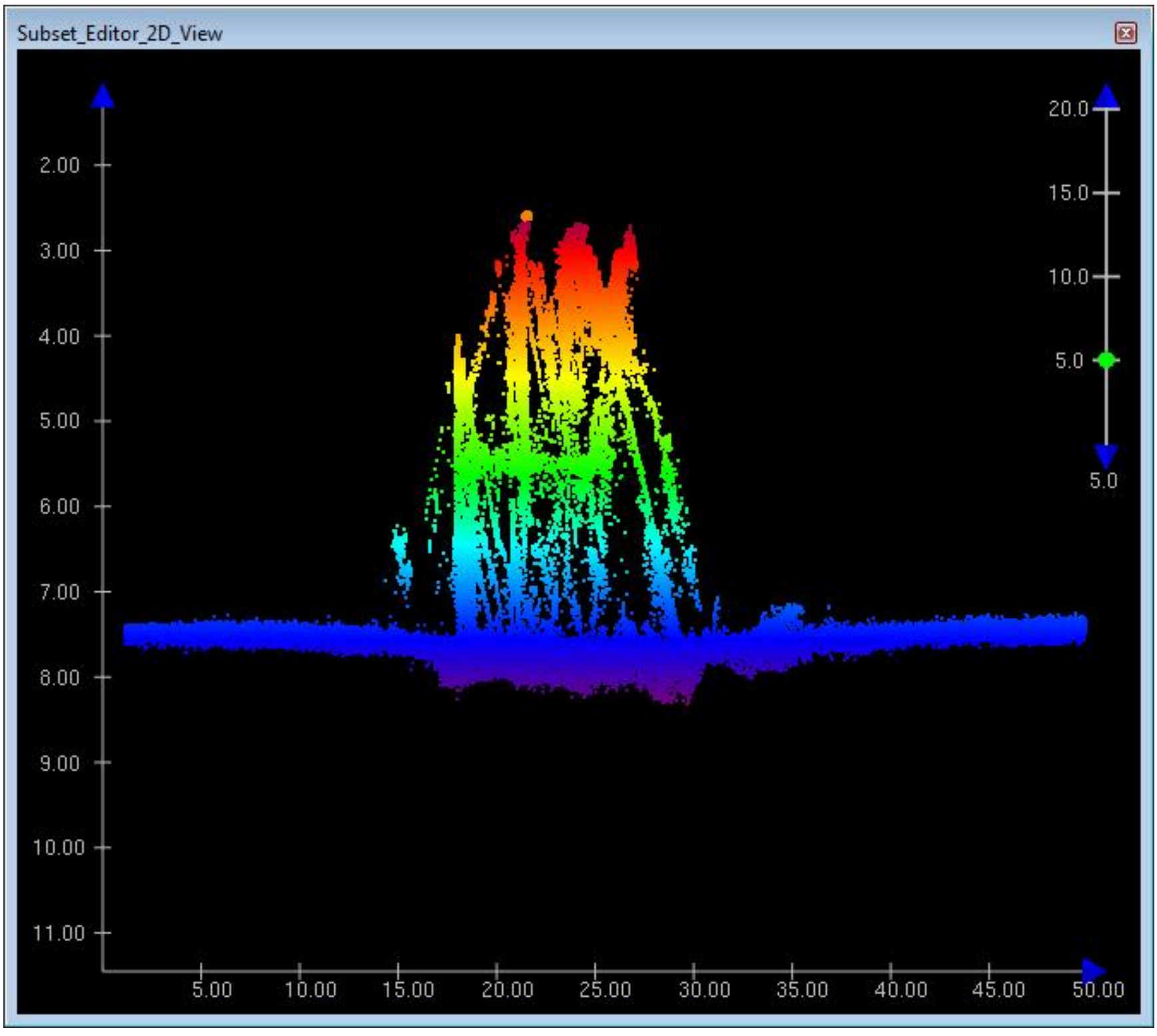
Subset_Editor_2D_View
2.00
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.00
11.00
5.00
10.00
15.00
20.00
25.00
30.00
35.00
40.00
45.00
50.00
20.0
15.0
10.0
5.0
5.0

Figure 1.8.3

1.6) DTON - Dangerous sunken wreck, least depth 15.9 feet.

DANGER TO NAVIGATION

Survey Summary

Survey Position: 28° 56' 37.3" N, 089° 26' 37.3" W

Least Depth: 4.85 m (= 15.91 ft = 2.651 fm = 2 fm 3.91 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2015-063.08:09:28.000 (03/04/2015)

Dataset: H12634_H12635_H12636_AWOIS, Wrecks, DTONs.000

FOID: 0_ 0000830784 00001(FFFE000CAD400001)

Charts Affected: 11361_1, 11366_1, 1115A_1, 11360_1, 1116A_1, 11340_1, 11006_1, 411_1

Remarks:

WRECKS/remrks: Submerged vessel observed in H12634 within a spoil area on chart 11361. Least depth and position shown are from the bathymetry data. WC data was collected and reviewed, but at this time no additional data is considered to supercede the least depth identified from the MBES bottom detect.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12634_H12635_H12636_AWOIS, Wrecks, DTONs.000	0_ 0000830784 00001	0.00	000.0	Primary

Hydrographer Recommendations

add to chart

Cartographically-Rounded Depth (Affected Charts):

16ft (11361_1)

2 ½fm (1115A_1, 11360_1, 1116A_1, 11340_1, 11006_1, 411_1)

2fm 4ft (11366_1)

S-57 Data

Geo object 1: Wreck (WRECKS)

Attributes: CATWRK - 2:dangerous wreck

NINFOM - Add wreck

QUASOU - 6:least depth known

SORDAT - 20150513

SORIND - US,US,graph,H12634

TECSOU - 2,3:found by side scan sonar,found by multi-beam

VALSOU - 4.848 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Concur. New wreck's depth and position confirmed with 100% MBES.

COMPILATION: Concur. Add dangerous sunken wreck, least depth 16 feet in present survey position.

Feature Images

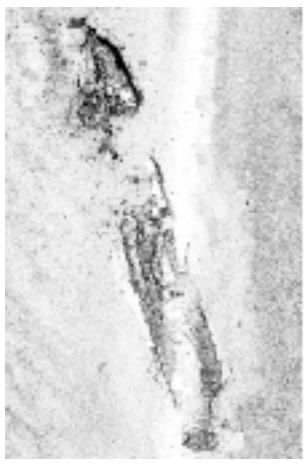

Figure 1.9.1

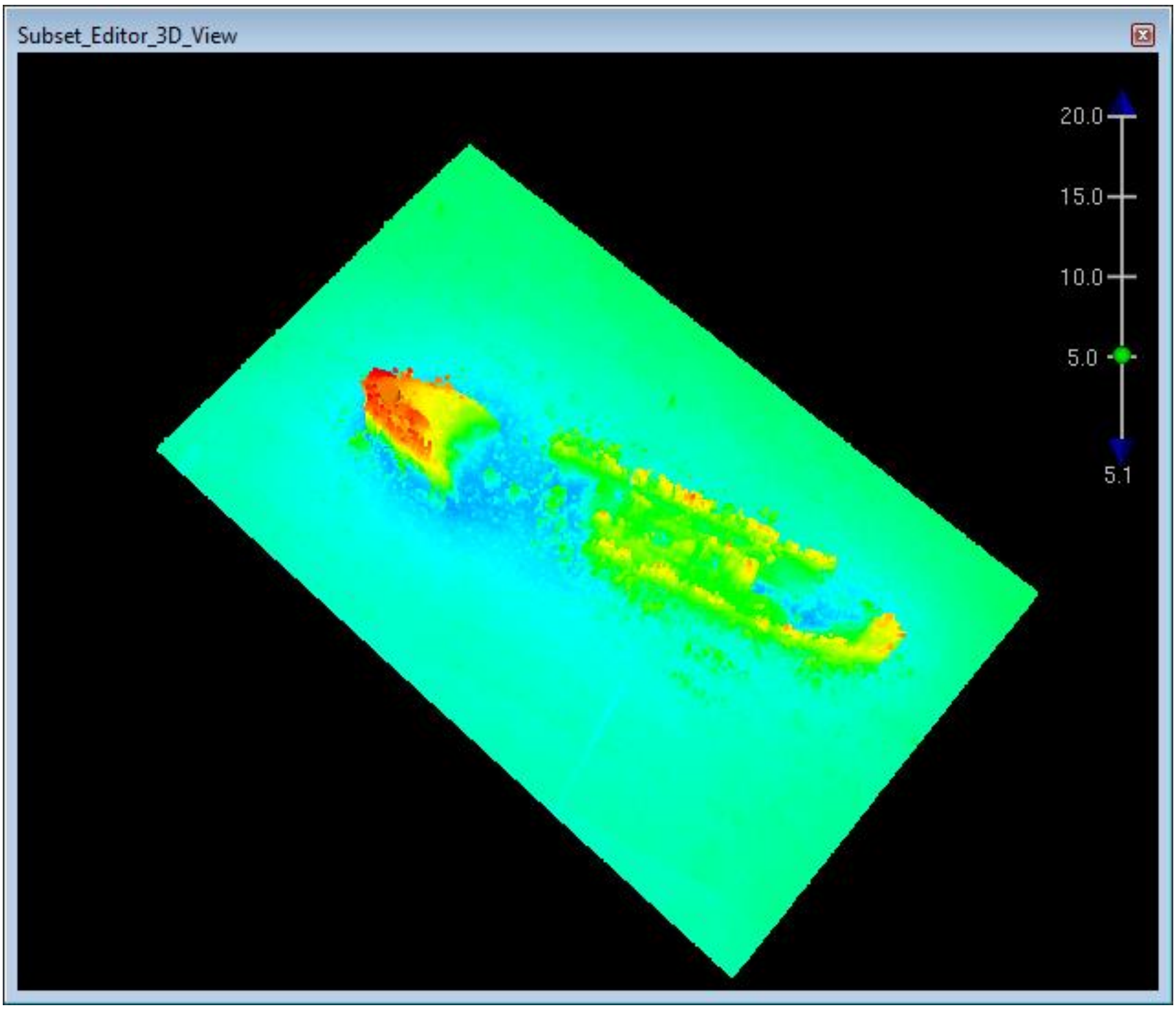

Figure 1.9.2

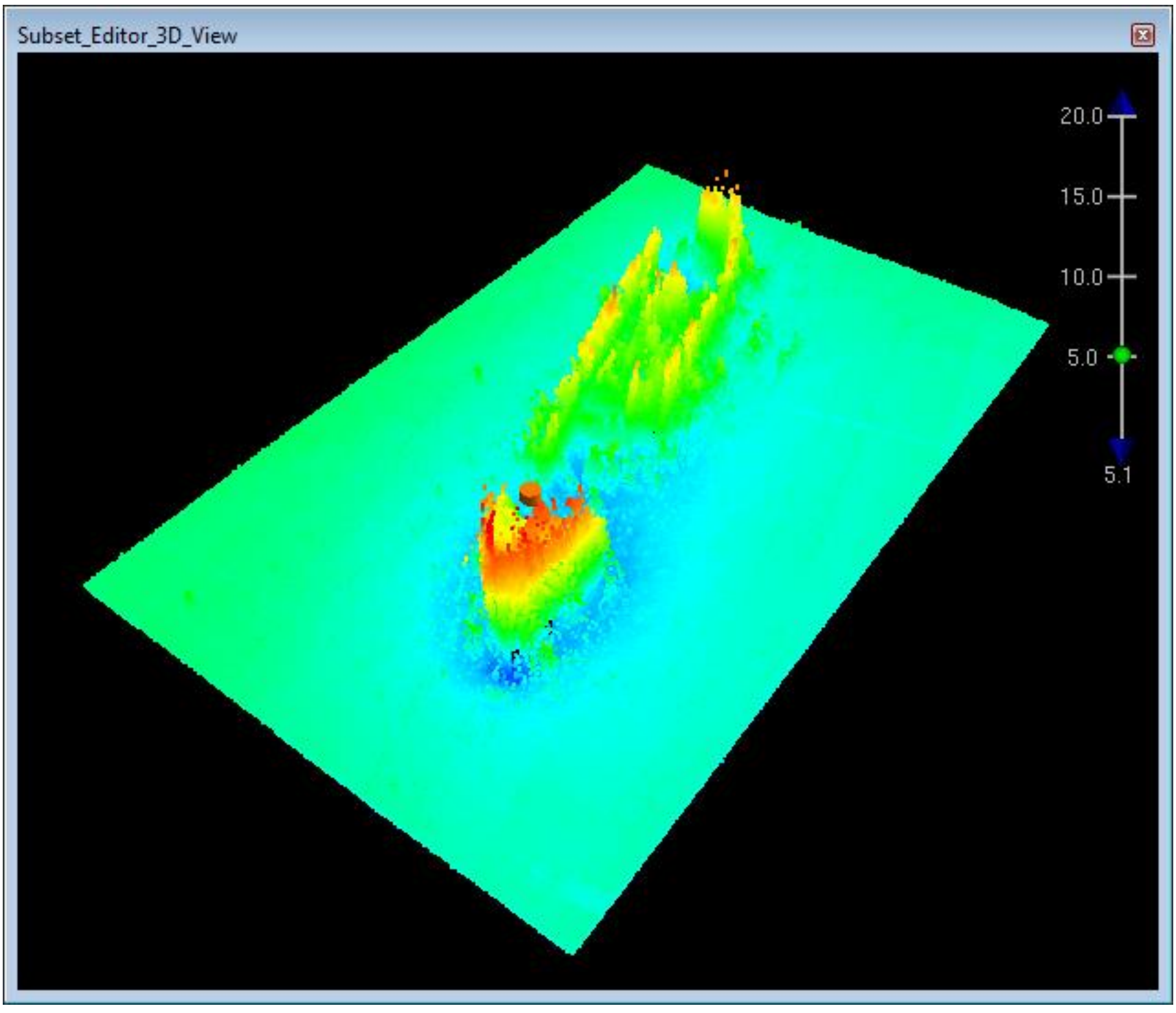

Figure 1.9.3

1.7) DTON - Offshore platform

DANGER TO NAVIGATION

Survey Summary

Survey Position:	28° 53' 58.8" N, 089° 22' 05.1" W
Least Depth:	[None]
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2015-025.19:36:34.000 (01/25/2015)
Dataset:	H12634_H12635_H12636_AWOIS, Wrecks, DTONs.000
FOID:	0_ 0000830788 00001(FFFE000CAD440001)
Charts Affected:	11361_1, 11366_1, 1115A_1, 11360_1, 1116A_1, 11340_1, 11006_1, 411_1

Remarks:

OFSPLF/remrks: Offshore platform (SP 42 A) observed visually and in survey data. Submitted as a DtoN. Chart has since been updated. Note in the MB 3d image that the data potentially representative of the platform and associated structure has been removed; the three deleted features surrounding the platform are potentially part of a support structure. Postion is from MB data (albeit removed data)

COMPILATION: Concur. Delete charted offshore platform. Add offshore platform in the present survey position.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12634_H12635_H12636_AWOIS, Wrecks, DTONs.000	0_ 0000830788 00001	0.00	000.0	Primary

Hydrographer Recommendations

Add to chart

S-57 Data

Geo object 1:	Offshore platform (OFSPLF)
Attributes:	NINFOM - Add offshore platform
	OBJNAM - SP 42 A
	SORDAT - 20150513
	SORIND - US,US,graph,H12634

Office Notes

SAR: Concur. MBES data confirms presense of structure. Chart new platform.

Feature Images

Figure 1.10.1

Figure 1.10.2

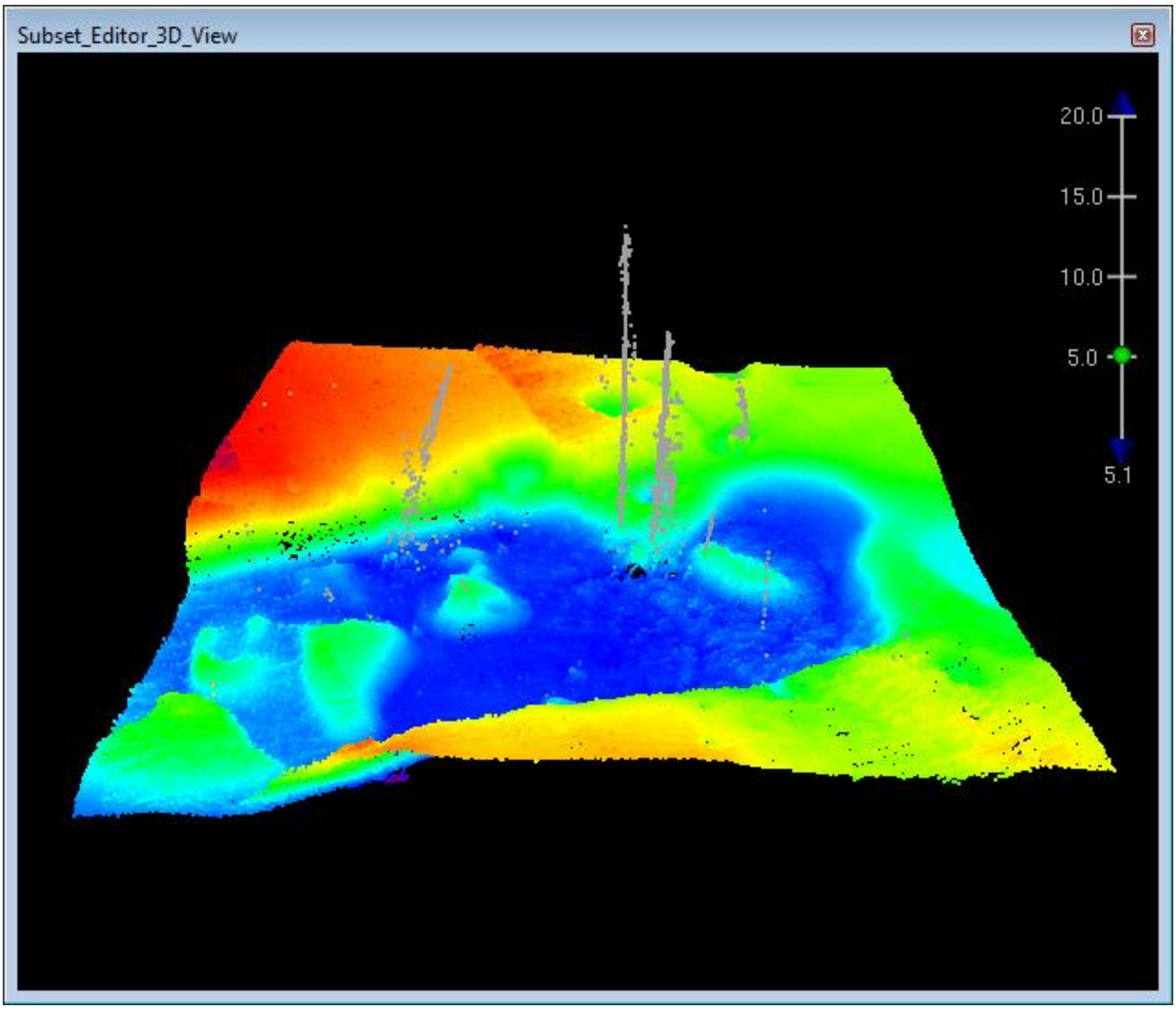

Figure 1.10.3

1.8) DTON - Dangerous baring obstruction (wellhead)

DANGER TO NAVIGATION

Survey Summary

Survey Position: 28° 58' 30.4" N, 089° 16' 00.1" W

Least Depth: [None]

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2014-209.18:35:00.000 (07/28/2014)

Dataset: H12634_H12635_H12636_AWOIS, Wrecks, DTONs.000

FOID: 0_ 0000830790 00001(FFFE000CAD460001)

Charts Affected: 11361_1, 11366_1, 1115A_1, 11360_1, 1116A_1, 11340_1, 11006_1, 411_1

Remarks:

OBSTRN/remrks: Structure (without a visible name) observed both visually and within survey data. Submitted as a DtoN. Chart updated with 'Pipe'. Appears that a portion always may be dry but that it may become partially submerged at high water/

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12634_H12635_H12636_AWOIS, Wrecks, DTONs.000	0_ 0000830790 00001	0.00	000.0	Primary
H12636_Final_Feature_File.000	US 0000092837 00001	-1.00	-999.0	Secondary (grouped)

Hydrographer Recommendations

add to chart

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes:

CATOBS - 2:wellhead

NINFOM - Add obstruction

OBJNAM - no visible name

SORDAT - 20150430

SORIND - US,US,graph,H12636

WATLEV - 1:partly submerged at high water

Office Notes

SAR: Feature visually observed by field and ensonified in MB. Verified by images and data. Feature was submitted as DtoN 1.1 as a well head and correctly applied to ENC US4LA30M; the feature was applied to RNC 11361 as a baring and exposed pipe. Recommend to apply to the RNC that has parity with the ENC and the actual object.

COMPILATION: Concur. Delete charted visible pipe. Add dangerous baring obstruction (wellhead) in the present survey position.

Feature Images

Figure 1.11.1

Figure 1.11.2

1.9) DTON - Dangerous baring obstruction (wellhead)

DANGER TO NAVIGATION

Survey Summary

Survey Position: 28° 58' 47.7" N, 089° 15' 52.9" W

Least Depth: [None]

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2014-209.17:43:00.000 (07/28/2014)

Dataset: H12634_H12635_H12636_AWOIS, Wrecks, DTONs.000

FOID: 0_ 0000830777 00001(FFFE000CAD390001)

Charts Affected: 11361_1, 11366_1, 1115A_1, 11360_1, 1116A_1, 11340_1, 11006_1, 411_1

Remarks:

OBSTRN/remrks: Structure observed both visually and within survey data. Submitted as DtoN and chart updated with 'Pipe'. Appears that a portion of structure may always be dry but that it becomes at least partially submerged at high water.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12634_H12635_H12636_AWOIS, Wrecks, DTONs.000	0_ 0000830777 00001	0.00	000.0	Primary

Hydrographer Recommendations

Add to chart

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: CATOBS - 2:wellhead

NINFOM - Add obstruction

OBJNAM - 0353-131

SORDAT - 20150430

SORIND - US,US,graph,H12636

WATLEV - 1:partly submerged at high water

Office Notes

SAR: Feature ensonified with ODMB and visually observed by field. Verified by survey data and images. Feature was submitted as DtoN 1.2 as an OBSTRN well head; the feature was applied as a baring pipe on RNC 11361 rather than well head.

COMPILATION: Concur. Delete charted visible pipe. Add dangerous baring obstruction (wellhead) in the present survey position.

Feature Images

Figure 1.12.1

Figure 1.12.2

1.10) DTON - Dangerous baring obstruction (wellhead)

DANGER TO NAVIGATION

Survey Summary

Survey Position: 28° 58' 46.2" N, 089° 15' 00.3" W

Least Depth: [None]

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2014-210.12:52:27.000 (07/29/2014)

Dataset: H12634_H12635_H12636_AWOIS, Wrecks, DTONs.000

FOID: 0_ 0000830789 00001(FFFE000CAD450001)

Charts Affected: 11361_1, 11366_1, 1115A_1, 11360_1, 1116A_1, 11340_1, 11006_1, 411_1

Remarks:

OBSTRN/remrks: Structure observed both visually and within survey data. Submitted as DtoN 1.3 and chart updated with 'Pipe'. Appears that a portion may always stay dry but that it becomes at least partially submerged at high water.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12634_H12635_H12636_AWOIS, Wrecks, DTONs.000	0_ 0000830789 00001	0.00	000.0	Primary
H12636_Final_Feature_File.000	US 0000092839 00001	-1.00	-999.0	Secondary (grouped)

Hydrographer Recommendations

add to chart

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: CATOBS - 2:wellhead

NINFOM - Add obstruction

OBJNAM - EPL SP-28-229

SORDAT - 20150430

SORIND - US,US,graph,H12636

WATLEV - 1:partly submerged at high water

Office Notes

SAR: Feature visually observed by field and ensonified in MB. Verified by survey data and images. The feature was submitted as a DtoN 1.3, submitted as OBSTRN (well head). Feature was incorrectly applied to the RNC 11361. Well head was correctly applied to ENC US4LA30M.

COMPILATION: Concur. Delete charted visible pipe. Add dangerous baring obstruction (wellhead) in the present survey position.

Feature Images

Figure 1.13.1

Figure 1.13.2

H12634_H12635_H12636_AWOIS Items

Registry Number: H12634, H12635, H12636

State: Louisiana

Locality: Approaches to Barataria Bay to Southwest Pass

Sub-locality: Approaches to Southwest Pass; 7 NM NW of Southwest Pass; 7 NM East of Southwest Pass

Project Number: OPR-K339-KR-14

Survey Dates: 06/03/2014 to 05/13/2015

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
11361	74th	09/01/2007	1:80,000 (11361_1) 1:40,000 (11361_2)	[L]NTM: ?
11366	11th	01/01/2008	1:250,000 (11366_1)	[L]NTM: ?
11360	43rd	11/01/2008	1:456,394 (11360_1)	[L]NTM: ?
1115A	43rd	11/01/2008	1:456,394 (1115A_1)	[L]NTM: ?
11340	73rd	08/01/2008	1:458,596 (11340_1)	[L]NTM: ?
1116A	73rd	08/01/2008	1:458,596 (1116A_1)	[L]NTM: ?
11006	32nd	08/01/2005	1:875,000 (11006_1)	[L]NTM: ?
411	52nd	09/01/2007	1:2,160,000 (411_1)	[L]NTM: ?

* Correction(s) - *source: last correction applied (last correction reviewed--"cleared date")*

Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item	Survey
1.1	AWOIS 14580 - Delete dangerous obstruction, least depth 47 feet.	GP	[None]	28° 53' 35.5" N	089° 25' 44.1" W	-14580--	H12634
1.2	AWOIS 8368 - Add non-dangerous obstruction, least depth 199.99 feet.	Obstruction	60.96 m	28° 49' 36.1" N	089° 24' 49.7" W	8368	H12634
1.3	AWOIS 11807 - Delete dangerous obstruction PA, least depth unknown.	GP	[None]	28° 53' 39.1" N	089° 23' 20.1" W	11807	H12634
1.4	AWOIS 11795 - Delete dangerous sunken wreck, PA symbol disproven	GP	[None]	28° 58' 60.0" N	089° 14' 00.3" W	11795	H12636
1.5	AWOIS 11811 - Add non-dangerous wreck, least depth 113 feet	Wreck	34.51 m	28° 56' 45.3" N	089° 13' 50.0" W	11811	H12636

1.1) AWOIS 14580 - Delete dangerous obstruction, least depth 47 feet.

Survey Summary

Survey Position: 28° 53' 35.5" N, 089° 25' 44.1" W

Least Depth: [None]

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2011-213.00:00:00.000 (08/01/2011)

Dataset: H12634_H12635_H12636_AWOIS, Wrecks, DTONs.000

FOID: 0_ 0000830779 00001(FFFE000CAD3B0001)

Charts Affected: 11361_2, 11361_1, 11366_1, 1115A_1, 11360_1, 1116A_1, 11340_1, 11006_1, 411_1

Remarks:

$CSYMB/remrks: The history of AWOIS item 14580 indicates that a submerged pipe was located with SSS and MBES in 2008. The data from this survey does not support that the feature is still in the vicinity.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12634_H12635_H12636_AWOIS, Wrecks, DTONs.000	0_ 0000830779 00001	0.00	000.0	Primary

Hydrographer Recommendations

remove from chart

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Attributes: NINFOM - Delete obstruction

SORDAT - 20150513

SORIND - US,US,graph,H12634

Office Notes

SAR: Concur. Charted obstruction has been disproved with 100% MBES.

COMPILATION: Concur. AWOIS# 14580. Delete charted dangerous obstruction, least depth 47 feet. Update chart with present survey depths.

1.2) AWOIS 8368 - Add non-dangerous obstruction, least depth 199.99 feet.

Survey Summary

Survey Position: 28° 49' 36.1" N, 089° 24' 49.7" W

Least Depth: 60.96 m (= 199.99 ft = 33.332 fm = 33 fm 1.99 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2015-021.14:18:47.000 (01/21/2015)

Dataset: H12634_H12635_H12636_AWOIS, Wrecks, DTONs.000

FOID: 0_ 0000830780 00001(FFFE000CAD3C0001)

Charts Affected: 11361_1, 11366_1, 1115A_1, 11360_1, 1116A_1, 11340_1, 11006_1, 411_1

Remarks:

OBSTRN/remrks: Obstruction located on charted position on 11361 but position of least depth is slightly off from that of the ENC.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12634_H12635_H12636_AWOIS, Wrecks, DTONs.000	0_ 0000830780 00001	0.00	000.0	Primary

Hydrographer Recommendations

Add to chart

Cartographically-Rounded Depth (Affected Charts):

200ft (11361_1)

33ft (1115A_1, 11360_1, 1116A_1, 11340_1, 11006_1, 411_1)

33fm (11366_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes:

NINFOM - Add obstruction

QUASOU - 6:least depth known

SORDAT - 20150513

SORIND - US,US,graph,H12634

TECSOU - 3:found by multi-beam

VALSOU - 60.958 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Concur. New position and depth of charted wreck confirmed with 100% MBES.

COMPILATION: AWOIS# 8363 Concur. Delete charted non-dangerous obstruction, least depth 203 feet. Add non-dangerous obstruction, least depth 199.99 feet in the present survey position.

Feature Images

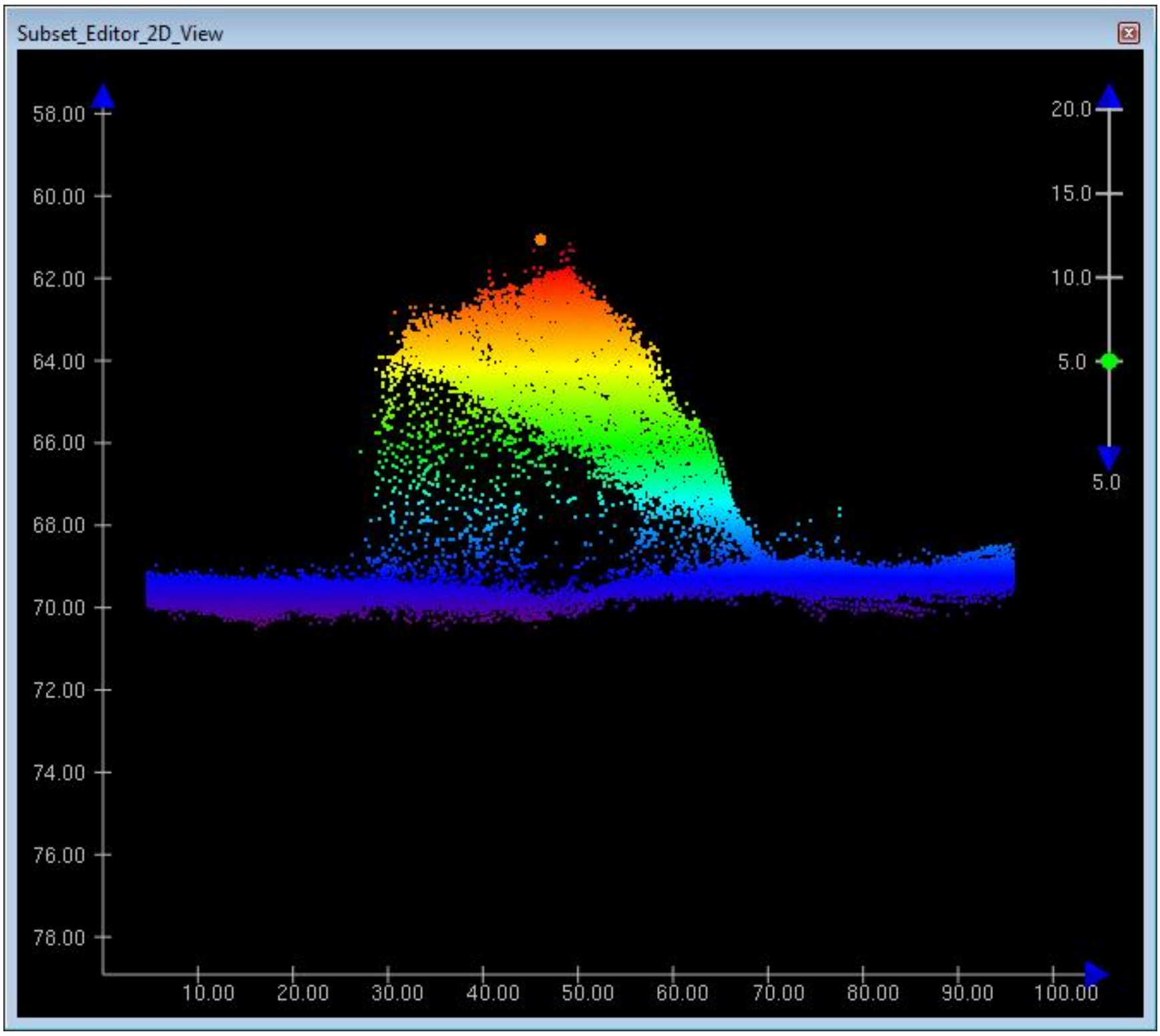

Figure 1.3.1

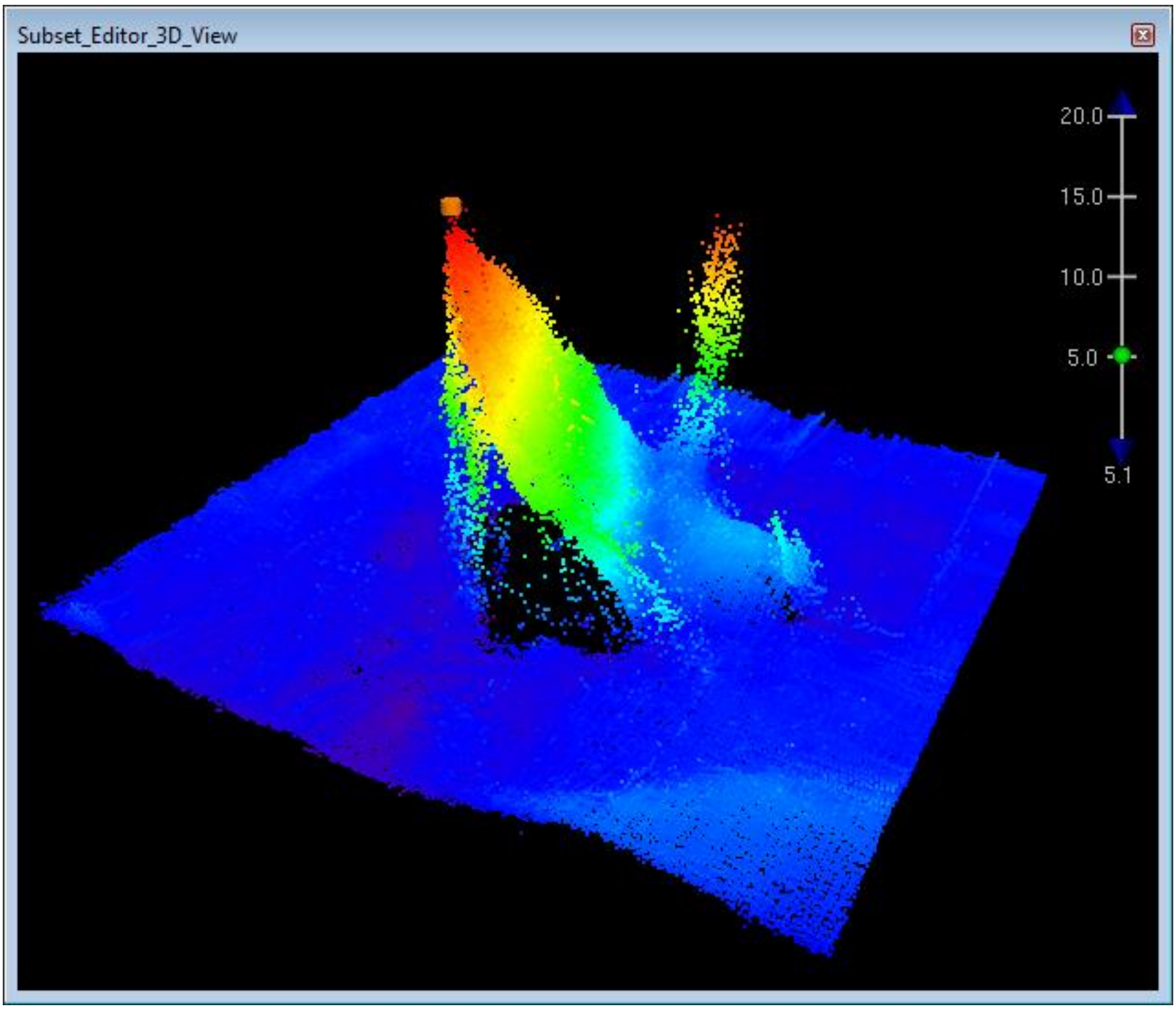

Figure 1.3.2

1.3) AWOIS 11807 - Delete dangerous obstruction PA, least depth unknown.

Survey Summary

Survey Position: 28° 53' 39.1" N, 089° 23' 20.1" W

Least Depth: [None]

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2011-213.00:00:00.000 (08/01/2011)

Dataset: H12634_H12635_H12636_AWOIS, Wrecks, DTONs.000

FOID: 0_ 0000830781 00001(FFFE000CAD3D0001)

Charts Affected: 11361_1, 11366_1, 1115A_1, 11360_1, 1116A_1, 11340_1, 11006_1, 411_1

Remarks:

$CSYMB/remrks: The history of AWOIS 11807 states that it is a dangerous submerged obstruction marked with 3 orange balls. The AWOIS item is located within a mudflow feature. Several small features were observed within the multibeam bathymetry and backscatter data and are examined/designated in the project but are not significant according to charted depths.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12634_H12635_H12636_AWOIS, Wrecks, DTONs.000	0_ 0000830781 00001	0.00	000.0	Primary

Hydrographer Recommendations

Remove from chart

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Attributes: NINFOM - Delete Obstruction

SORDAT - 20150513

SORIND - US,US,graph,H12634

Office Notes

SAR: Charted obstruction disproved with 100% MBES. Remove from chart.

COMPILATION: AWOIS 11807

Concur. Delete charted dangerous obstruction PA, least depth unknown. Update area with present survey depths.

1.4) AWOIS 11795 - Delete dangerous sunken wreck, PA symbol disproven

Survey Summary

Survey Position: 28° 58' 60.0" N, 089° 14' 00.3" W

Least Depth: [None]

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2015-120.00:00:00.000 (04/30/2015)

Dataset: H12634_H12635_H12636_AWOIS, Wrecks, DTONs.000

FOID: 0_ 0000830782 00001(FFFE000CAD3E0001)

Charts Affected: 11361_1, 11366_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

$CSYMB/remrks: The history for AWOIS 11795 states that it is a vessel at least 60 feet in length that burned and sank. Mainline data indicated a potential feature in the vicinity and further investigation was conducted. The investigation data did not indicate the presence of a feature. The hydrographer recommends removal from chart.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12634_H12635_H12636_AWOIS, Wrecks, DTONs.000	0_ 0000830782 00001	0.00	000.0	Primary

Hydrographer Recommendations

remove from chart

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Attributes: NINFOM - Delete wrecks

NTXTDS - Chart 11361, ED78, NTM 20160326

SORDAT - 20150430

SORIND - US,US,graph,H12636

Office Notes

SAR: Area ensonified with ODMB. No evidence of this feature exists.

COMPILATION: AWOIS 11795

Concur. No indication of dangerous sunken wreck, depth unknown, PA found during present survey operations. Consider AWOIS 11795 disproved. Delete charted dangerous sunken wreck, depth unknown, PA and update area with present survey depths.

1.5) AWOIS 11811 - Add non-dangerous wreck, least depth 113 feet

Survey Summary

Survey Position: 28° 56' 45.3" N, 089° 13' 50.0" W

Least Depth: 34.51 m (= 113.21 ft = 18.869 fm = 18 fm 5.21 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2015-050.10:25:44.000 (02/19/2015)

Dataset: H12634_H12635_H12636_AWOIS, Wrecks, DTONs.000

FOID: 0_ 0000830778 00001(FFFE000CAD3A0001)

Charts Affected: 11361_1, 11366_1, 1115A_1, 11360_1, 11006_1, 411_1

Remarks:

WRECKS/remrks: The history for AWOIS 11811 states that it is a sunken vessel but the exact position is unknown. Mainline data indicated a potential feature in the vicinity and further investigation was conducted. A sunken vessel was located 95 m southeast of the charted wreck. The hydrographer recommends that the chart be updated with the surveyed position of the wreck. Note that the designated sounding was applied to the H12636_MB_1m_MLLW_Final surface and the grid node matches the VALSOU.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12634_H12635_H12636_AWOIS, Wrecks, DTONs.000	0_ 0000830778 00001	0.00	000.0	Primary
H12636_Final_Feature_File.000	US 0000092833 00001	-1.00	-999.0	Secondary (grouped)

Hydrographer Recommendations

add to chart

S-57 Data

Geo object 1: Wreck (WRECKS)

Attributes:

CATWRK - 1:non-dangerous wreck

NINFOM - Add wreck

QUASOU - 6:least depth known

SORDAT - 20150430

SORIND - US,US,graph,H12636

TECSOU - 3:found by multi-beam

VALSOU - 34.507 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Feature ensonified with ODMB. Feature is verified per survey data.

COMPILATION: AWOIS 11811

Concur. Delete charted non-dangerous wreck PA symbol. Add non-dangerous wreck, least depth 113 ft. in the present survey position.

Feature Images

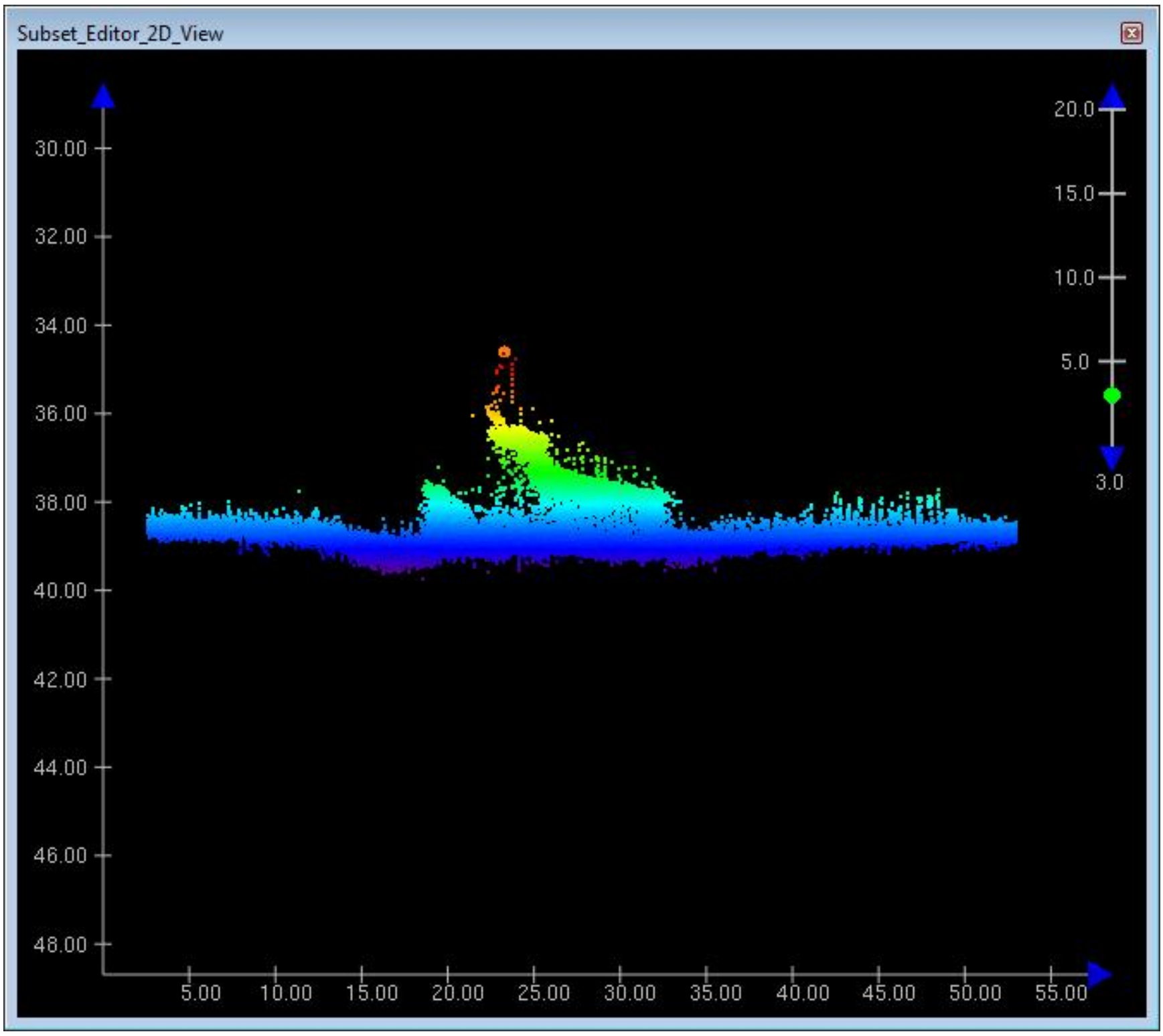

Figure 1.6.1

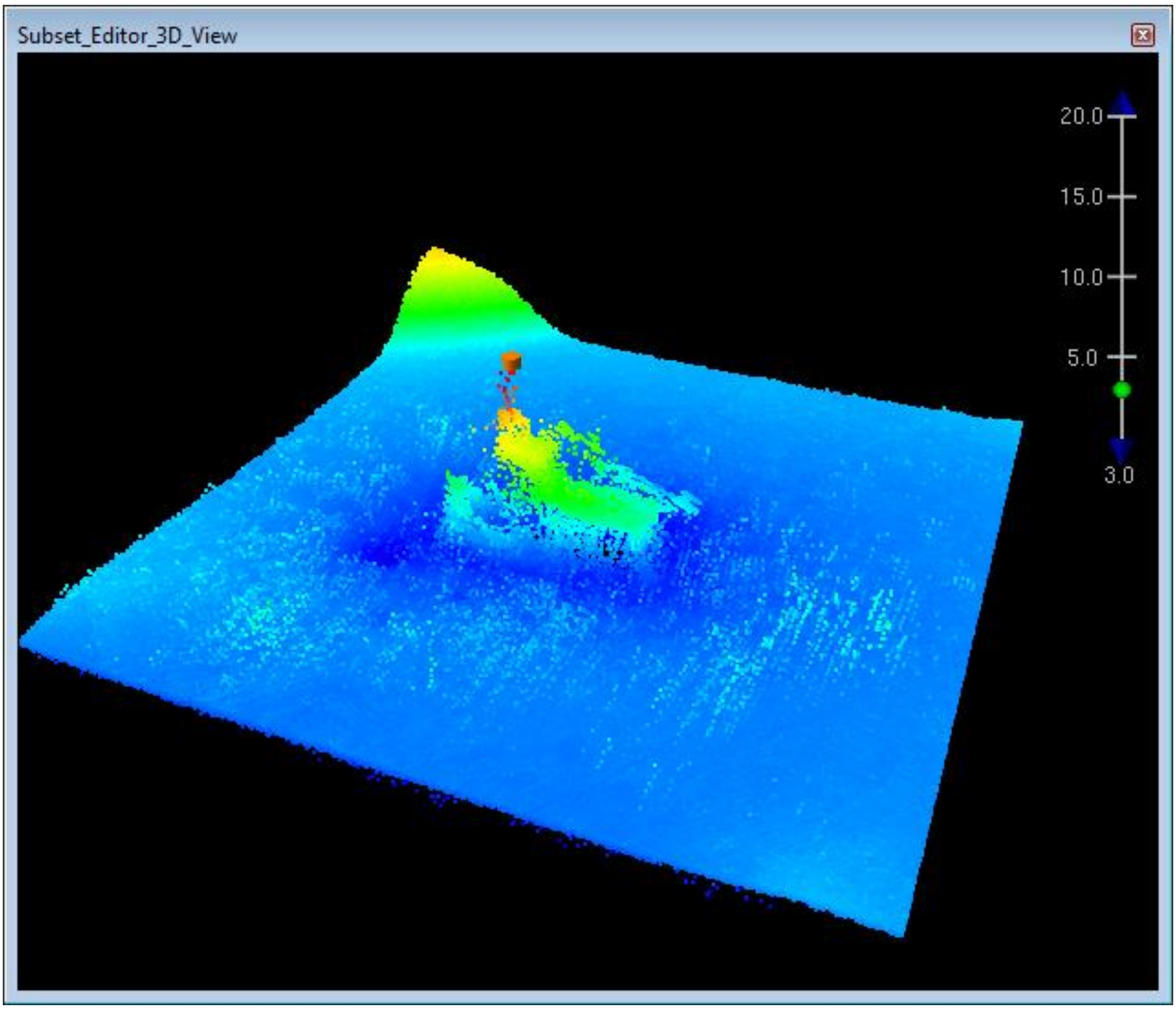

Figure 1.6.2

Figure 1.6.3

H12634_H12635_H12636_Wrecks

Registry Number: H12634, H12635, H12636

State: Louisiana

Locality: Approaches to Barataria Bay to Southwest Pass

Sub-locality: Approaches to Southwest Pass; 7 NM NW of Southwest Pass; 7 NM East of Southwest Pass

Project Number: OPR-K339-KR-14

Survey Dates: 06/03/2014 to 05/13/2015

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
11361	74th	09/01/2007	1:80,000 (11361_1)	[L]NTM: ?
11366	11th	01/01/2008	1:250,000 (11366_1)	[L]NTM: ?
11360	43rd	11/01/2008	1:456,394 (11360_1)	[L]NTM: ?
1115A	43rd	11/01/2008	1:456,394 (1115A_1)	[L]NTM: ?
11340	73rd	08/01/2008	1:458,596 (11340_1)	[L]NTM: ?
1116A	73rd	08/01/2008	1:458,596 (1116A_1)	[L]NTM: ?
11006	32nd	08/01/2005	1:875,000 (11006_1)	[L]NTM: ?
411	52nd	09/01/2007	1:2,160,000 (411_1)	[L]NTM: ?

* Correction(s) - *source: last correction applied (last correction reviewed--"cleared date")*

Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	Survey
						---
1.1	WRECK - Non-dangerous sunken wreck, least depth 68 feet	Wreck	20.64 m	28° 57' 50.7" N	089° 28' 00.7" W	H12635

1.2	WRECK - non-dangerous sunken wreck, least depth 167 feet	Wreck	50.96 m	28° 49' 17.1" N	089° 25' 32.7" W	H12634

1.1) WRECK - Non-dangerous sunken wreck, least depth 68 feet

Survey Summary

Survey Position: 28° 57' 50.7" N, 089° 28' 00.7" W

Least Depth: 20.64 m (= 67.73 ft = 11.288 fm = 11 fm 1.73 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2014-324.21:57:45.000 (11/20/2014)

Dataset: H12634_H12635_H12636_AWOIS, Wrecks, DTONs.000

FOID: 0_ 0000830785 00001(FFFE000CAD410001)

Charts Affected: 11361_1, 11366_1, 1115A_1, 11360_1, 1116A_1, 11340_1, 11006_1, 411_1

Remarks:

WRECKS/remrks: Internal correspondence indicates that this is a potential wreck. Feature submitted as DtoN but not originally accepted b/c of depth. Note that the least depth here corresponds to the nearest node depth on the 4 meter finalized surface, but not the 50 cm finalized surface because the sounding was designated on a mainline and not an investigation line (50 cm grid contains only investigations while the 4 meter surface contains all lines).

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12634_H12635_H12636_AWOIS, Wrecks, DTONs.000	0_ 0000830785 00001	0.00	000.0	Primary

Hydrographer Recommendations

Add to chart

Cartographically-Rounded Depth (Affected Charts):

67ft (11361_1)

11ft (1115A_1, 11360_1, 1116A_1, 11340_1, 11006_1, 411_1)

11fm (11366_1)

S-57 Data

Geo object 1: Wreck (WRECKS)

Attributes: CATWRK - 1:non-dangerous wreck
NINFOM - Add wreck
QUASOU - 6:least depth known
SORDAT - 20150430
SORIND - US,US,graph,H12635
TECSOU - 3,2:found by multi-beam,found by side scan sonar
VALSOU - 20.644 m
WATLEV - 3:always under water/submerged

Office Notes

SAR NOTES: Feature was ensonified with object detect SSS and MBES. Feature is considered significant and verified as per survey data. Defer the final charting disposition to AHB Compile Team.

COMPILATION: Concur. Add non-dangerous sunken wreck, least depth 68 feet in the present survey position.

Feature Images

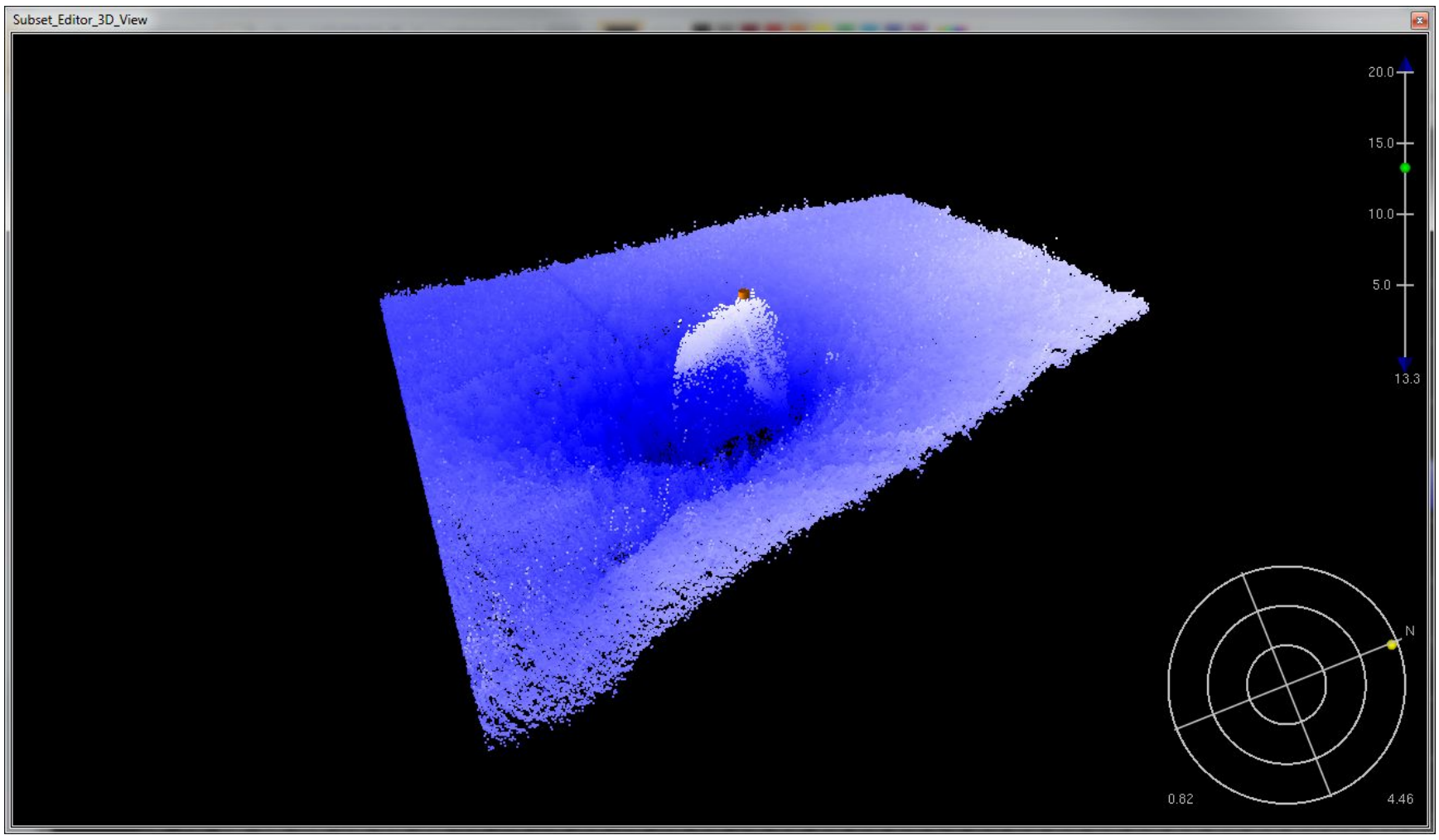

Figure 1.2.1

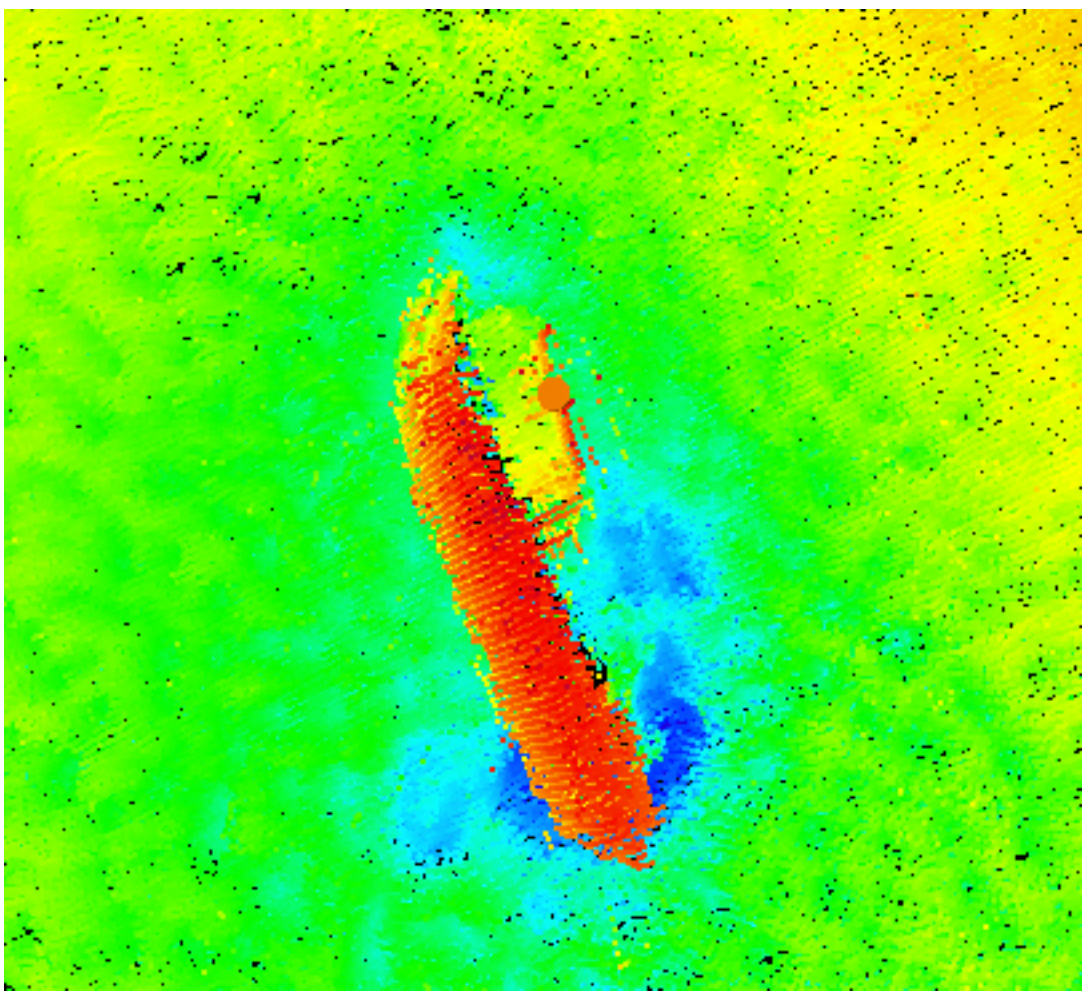

Figure 1.2.2

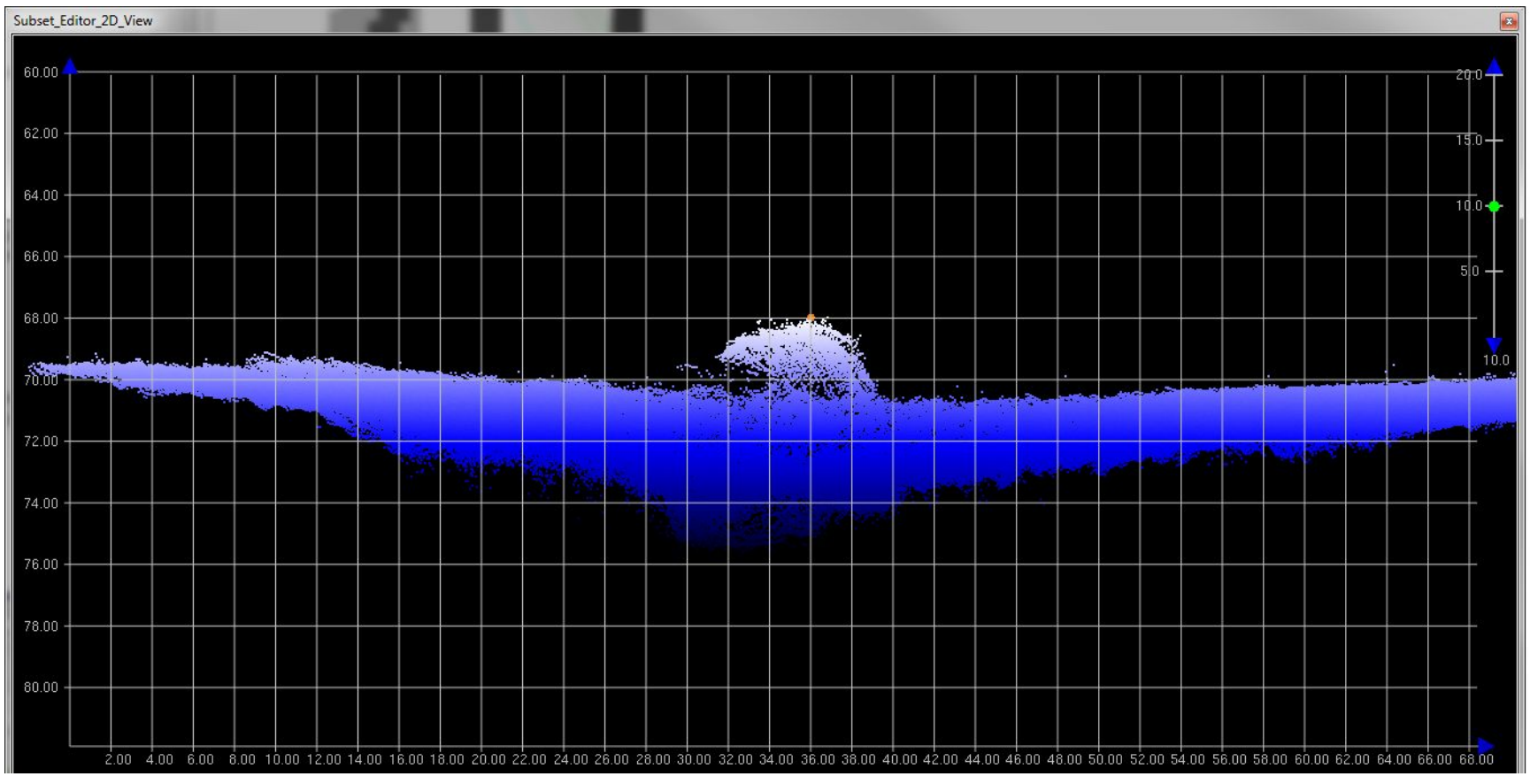

Figure 1.2.3

Figure 1.2.4

1.2) WRECK - non-dangerous sunken wreck, least depth 167 feet

Survey Summary

Survey Position: 28° 49' 17.1" N, 089° 25' 32.7" W

Least Depth: 50.96 m (= 167.19 ft = 27.865 fm = 27 fm 5.19 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2015-021.17:05:25.000 (01/21/2015)

Dataset: H12634_H12635_H12636_AWOIS, Wrecks, DTONs.000

FOID: 0_ 0000830783 00001(FFFE000CAD3F0001)

Charts Affected: 11361_1, 11366_1, 1115A_1, 11360_1, 1116A_1, 11340_1, 11006_1, 411_1

Remarks:

WRECKS/remrks: Wreck observed in survey data. MBES bathymetry and water column data collected. Least depth here is from bottom detect and matches finalized grid node. Due to an error processing EM2040 WC data, a separate CARIS project was generated that is located on the submitted hard drive. WC data was processed using a work-around provided by CARIS (refer to Project Correspondence for additional information). The least depth from the WC data for this wreck is 50.168 m . Feature submitted for review but not accepted as a DtoN due to water depth.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12634_H12635_H12636_AWOIS, Wrecks, DTONs.000	0_ 0000830783 00001	0.00	000.0	Primary

Hydrographer Recommendations

Add to chart

Cartographically-Rounded Depth (Affected Charts):

167ft (11361_1)

28ft (1115A_1, 11360_1, 1116A_1, 11340_1, 11006_1, 411_1)

28fm (11366_1)

S-57 Data

Geo object 1: Wreck (WRECKS)

Attributes:

CATWRK - 1:non-dangerous wreck

NINFOM - Add wreck

QUASOU - 6:least depth known

SORDAT - 20150513

SORIND - US,US,graph,H12634

TECSOU - 3:found by multi-beam

VALSOU - 50.959 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Concur. New position and depth verified with 100% MBES. Chart new wreck.

COMPILATION: Concur. Add non-dangerous sunken wreck, least depth 167 feet in the present survey position.

Feature Images

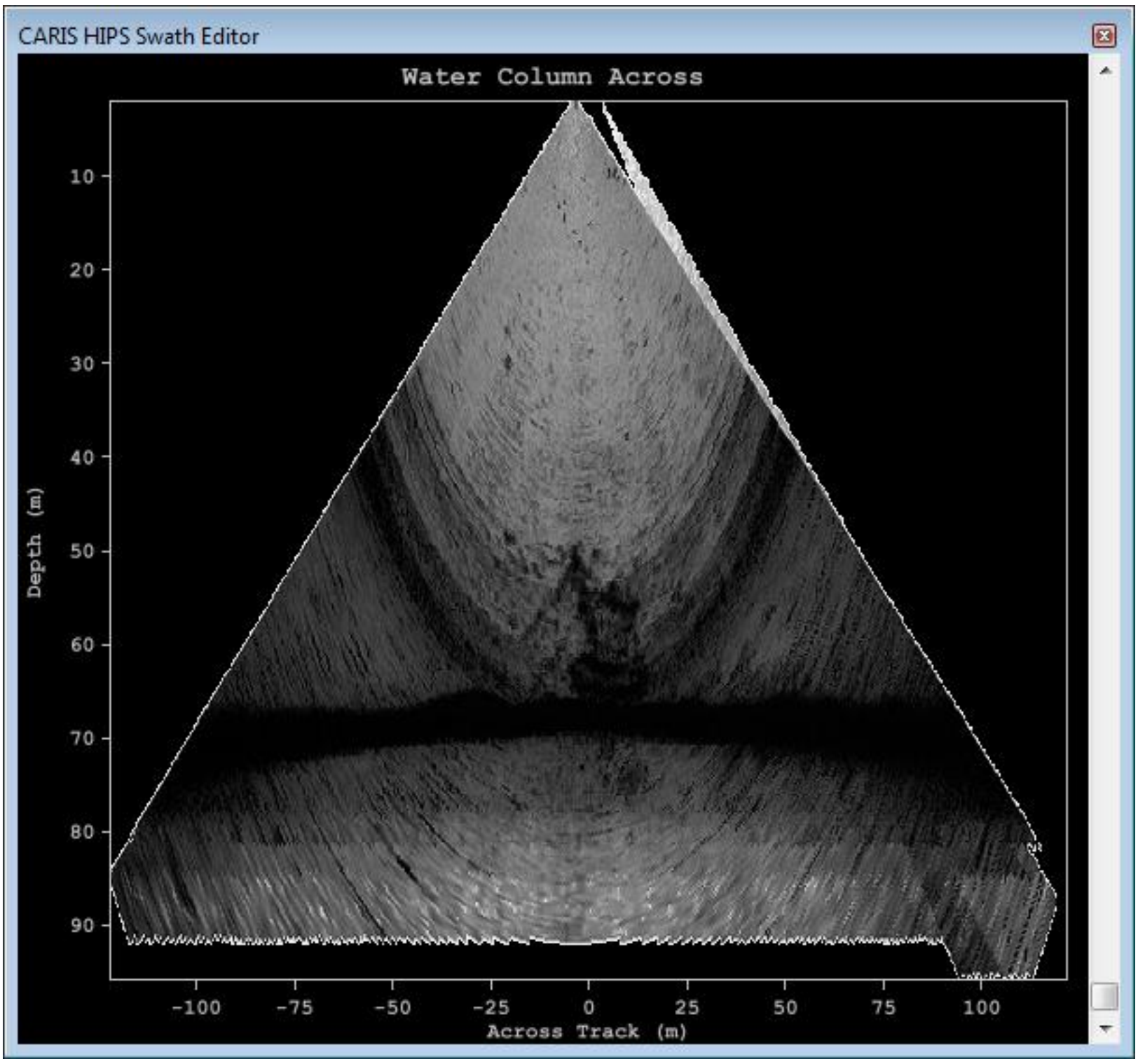

Figure 1.4.1

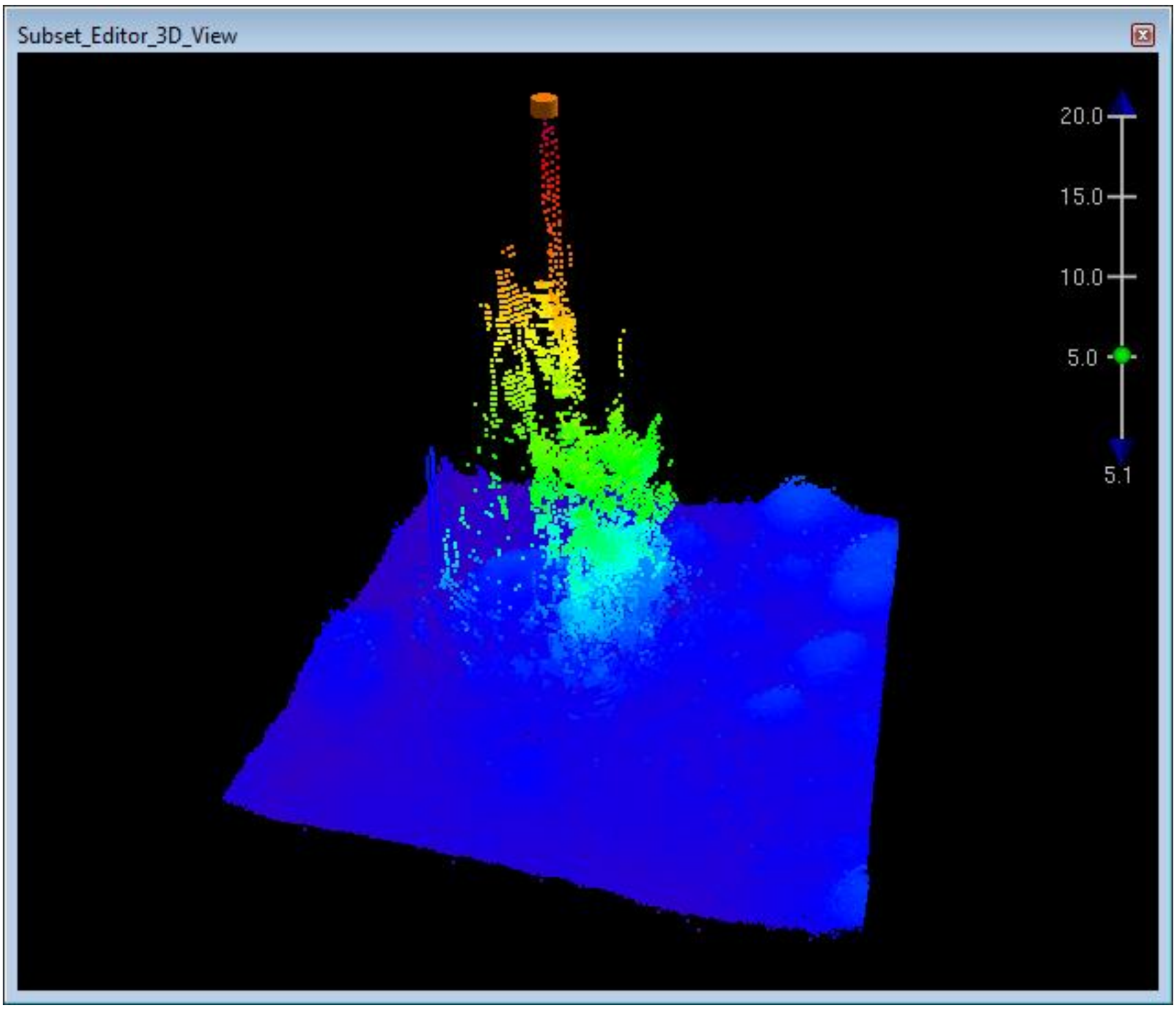

Figure 1.4.2

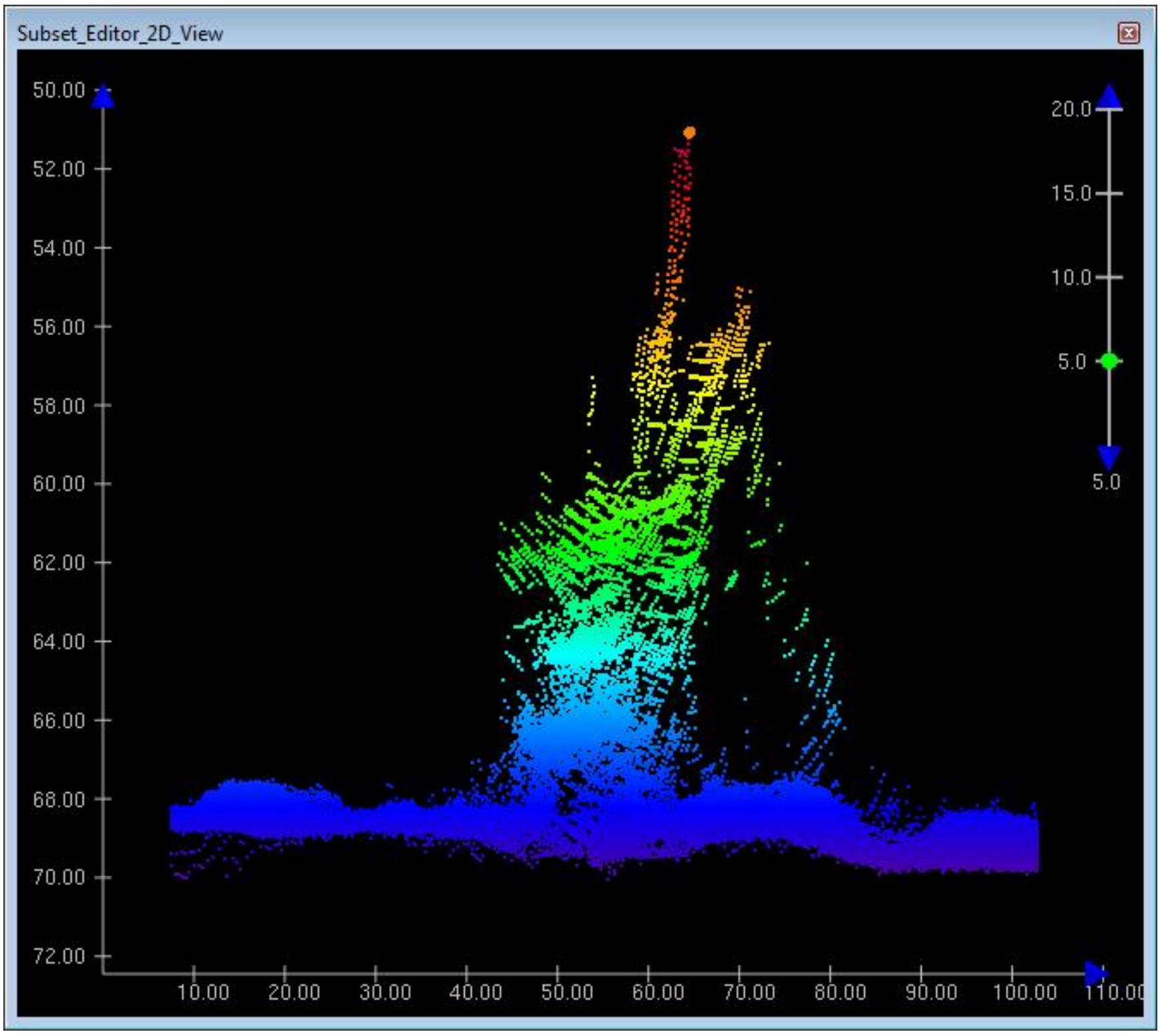
Subset_Editor_2D_View
50.00
52.00
54.00
56.00
58.00
60.00
62.00
64.00
66.00
68.00
70.00
72.00
20.0
15.0
10.0
5.0
5.0
10.00
20.00
30.00
40.00
50.00
60.00
70.00
80.00
90.00
100.00
110.00

Figure 1.4.3

APPROVAL PAGE

H12634

Data meet or exceed current specifications as certified by the OCS survey acceptance review process. Descriptive Report and survey data except where noted are adequate to supersede prior surveys and nautical charts in the common area.

The following products will be sent to NCEI for archive

- H12634_DR.pdf
- Collection of depth varied resolution BAGS
- Processed survey data and records
- H12634_H12635_H12636_GeoImage.pdf

The survey evaluation and verification has been conducted according to current OCS Specifications, and the survey has been approved for dissemination and usage of updating NOAA's suite of nautical charts.

Approved: _____

Digitally signed by Jasmine Cousins
DN: cn=Jasmine Cousins, o=NOAA, ou=Atlantic Hydrographic Branch, email=jasmine.cousins@noaa.gov, c=US
Date: 2016.09.15 11:23:28 -04'00'

Lieutenant Commander Briana Welton, NOAA
Chief, Atlantic Hydrographic Branch