

H12554

NOAA Form 76-35A

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

**DESCRIPTIVE REPORT**

Type of Survey: Navigable Area

Registry Number: H12554

**LOCALITY**

State: Louisiana

General Locality: Louisiana Coast, LA

Sub-locality: 15 NM SW of Ship Shoal

**2013**

CHIEF OF PARTY  
Tara Levy

LIBRARY & ARCHIVES

Date:

**HYDROGRAPHIC TITLE SHEET**

**H12554**

**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: **Louisiana**

General Locality: **Louisiana Coast, LA**

Sub-Locality: **15 NM SW of Ship Shoal**

Scale: **40000**

Dates of Survey: **11/29/2013 to 04/02/2014**

Instructions Dated: **04/16/2013**

Project Number: **OPR-K354-KR-13**

Field Unit: **C & C Technologies**

Chief of Party: **Tara Levy**

Soundings by: **Multibeam Echo Sounder**

Imagery by: **Side Scan Sonar Multibeam Echo Sounder**

Verification by: **Atlantic Hydrographic Branch**

Soundings Acquired in: **meters at**

H-Cell Compilation Units: ***Meters at MLLW***

Remarks:

*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 Geophysical Data Center (NGDC) and can be retrieved via <http://www.ngdc.noaa.gov/>.*

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## Descriptive Report to Accompany Survey H12554

Project: OPR-K354-KR-13

Locality: Louisiana Coast, LA

Sublocality: 15 NM SW of Ship Shoal

Scale: 1:40000

November 2013 - April 2014

**C & C Technologies**

Chief of Party: Tara Levy

### A. Area Surveyed

The survey area is located 15 NM SW of Ship Shoal off the coast of Louisiana, USA.

#### A.1 Survey Limits

Data was acquired within the following survey limits:

Northeast Limit	Southwest Limit
28.824	28.722
91.325	91.430

*Table 1: Survey Limits*

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

#### A.2 Survey Purpose

Survey H12554 covers 23.06 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 this project is considered critical survey area as designated in the NOAA Hydrographic Survey Priorities, 2012 edition and contains potentially unreliable depths from 1934 – 1936 surveys.

#### A.3 Survey Quality

The entire survey is adequate to supersede previous data.

## A.4 Survey Coverage

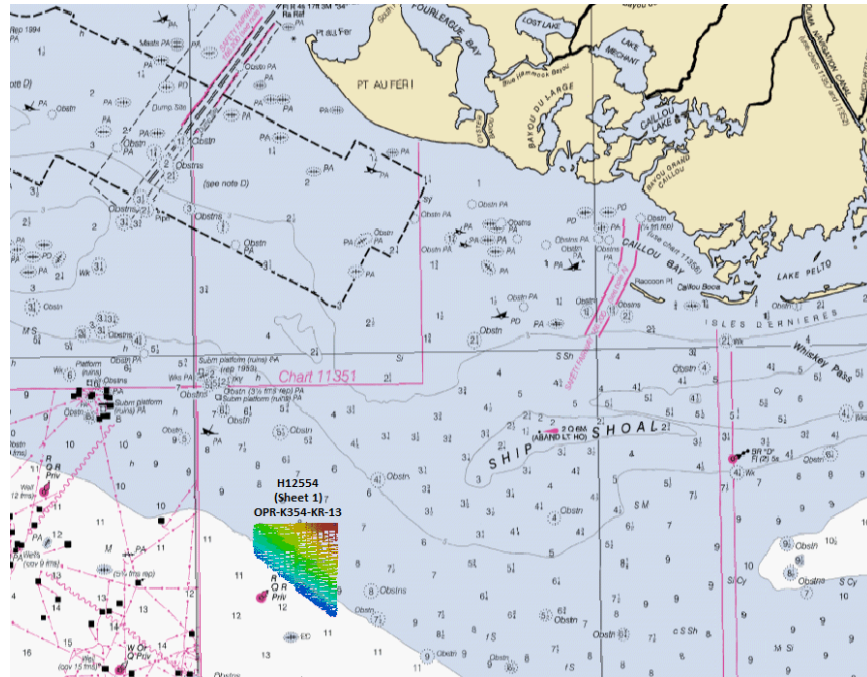


Figure 1: H12554 Survey Coverage

Survey coverage for H12554 (Figure 1) was in accordance with the requirements of the Project Instructions and HSSD. 200% SSS with concurrent MBES data was acquired in the survey area. The line plan was modified in the field and the SSS line spacing updated as needed to accommodate changes in data quality and to expedite data collection.



## A.5 Survey Statistics

The following table lists the mainscheme and crossline acquisition mileage for this survey:

	<b>HULL ID</b>	<b><i>1237094</i></b>	<b><i>Total</i></b>
<b>LNM</b>	<b>SBES Mainscheme</b>	0	0
	<b>MBES Mainscheme</b>	0	0
	<b>Lidar Mainscheme</b>	0	0
	<b>SSS Mainscheme</b>	0	0
	<b>SBES/MBES Combo Mainscheme</b>	0	0
	<b>SBES/SSS Combo Mainscheme</b>	48.12	48.12
	<b>MBES/SSS Combo Mainscheme</b>	592.06	592.06
	<b>SBES/MBES Combo Crosslines</b>	0	0
	<b>Lidar Crosslines</b>	0	0
	<b>Number of Bottom Samples</b>		4
<b>Number of DPs</b>		27	
<b>Number of Items Items Investigated by Dive Ops</b>		0	
<b>Total Number of SNM</b>		23.06	

*Table 2: Hydrographic Survey Statistics*

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

<i>Survey Dates</i>
11/29/2013
11/30/2013
12/01/2013
12/03/2013
12/09/2013
12/10/2013
12/11/2013
02/08/2014
02/09/2014
02/10/2014
02/11/2014
02/28/2014
03/01/2014
03/02/2014
03/04/2014
03/08/2014
04/02/2014

*Table 3: Dates of Hydrography*

## **A.6 Shoreline**

Shoreline does not exist for this survey.

## **A.7 Bottom Samples**

Four (4) bottom samples were collected within the limits of H12554.

## B. Data Acquisition and Processing

### B.1 Equipment and Vessels

Refer to the OPR-K354-KR-13 Data Acquisition and Processing Report (DAPR) for additional information regarding survey systems as well as operational, processing and quality control procedures. Additional and supplemental information is included in this descriptive report.

#### B.1.1 Vessels

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

<b>Hull ID</b>	<i>1237094</i>
<b>LOA</b>	40.84 meters
<b>Draft</b>	1.98 meters

*Table 4: Vessels Used*

#### B.1.2 Equipment

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

<b>Manufacturer</b>	<b>Model</b>	<b>Type</b>
Kongsberg	EM2040	MBES
Klein	5000 V2	SSS
Coda Octopus	F180	Attitude and Positioning System
C-Nav	3050	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

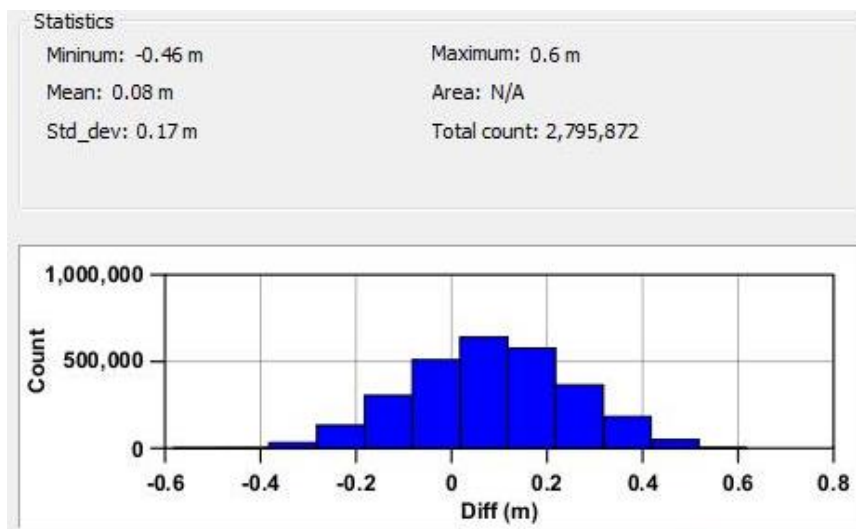
### B.2.1 Crosslines

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 48.12 NM and the total mainline miles were 592.06 NM; investigation lines and fill-ins were not included in mainlines totals. The crosslines comprise 8.13 percent of the total main line miles.

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; fill-ins and 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 analysis shows that 98% of depth difference values are between -0.332 and 0.368 m. This is well within the maximum allowable TVU for the depths of the comparison area (13.70 – 21.48 m) which ranges from  $\pm 0.532$  –  $\pm 0.578$  m.

Statistical crossline information was also generated by comparing each of the crosslines to the depth layer of a 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 Order 1a standards. 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.*

### B.2.2 Uncertainty

The following survey specific parameters were used for this survey:

Measured	Zoning
0.009meters	0.102meters

*Table 6: Survey Specific Tide TPU Values*

Hull ID	Measured - CTD	Measured - MVP	Surface
1237094	2.00meters/second		0.8meters/second

*Table 7: Survey Specific Sound Speed TPU Values*

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.

### B.2.3 Junctions

The following junctions were made with this survey:

Registry Number	Scale	Year	Field Unit	Relative Location
H12332	1:40000	2011	C & C Technologies	E
H12333	1:40000	2011	C & C Technologies	E
H12334	1:40000	2011	C & C Technologies	E
H12435	1:40000	2012	C & C Technologies	N
H12555	1:40000	2013	C & C Technologies	W

*Table 8: Junctioning Surveys*

#### H12332

The areas of overlap between Sheets (Figure 3) 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 contemporary Sheets and Sheets H12332 and H12333 from the 2011 survey year using 1 meter BASE surfaces. A 2-m BASE surface was generated for junction analysis between H12554 and Sheets H12334 of 2011 and H12435 of 2012. The southeastern margin of H12554 borders the northwestern margin of H12332. Figure 4 shows statistical information for the junction generated with the

CARIS compute statistics tool. The data from H12554 is generally deeper than the data from H12332 but the depth differences show good agreement with 99% of depth difference values between -0.308 and 0.292 m.

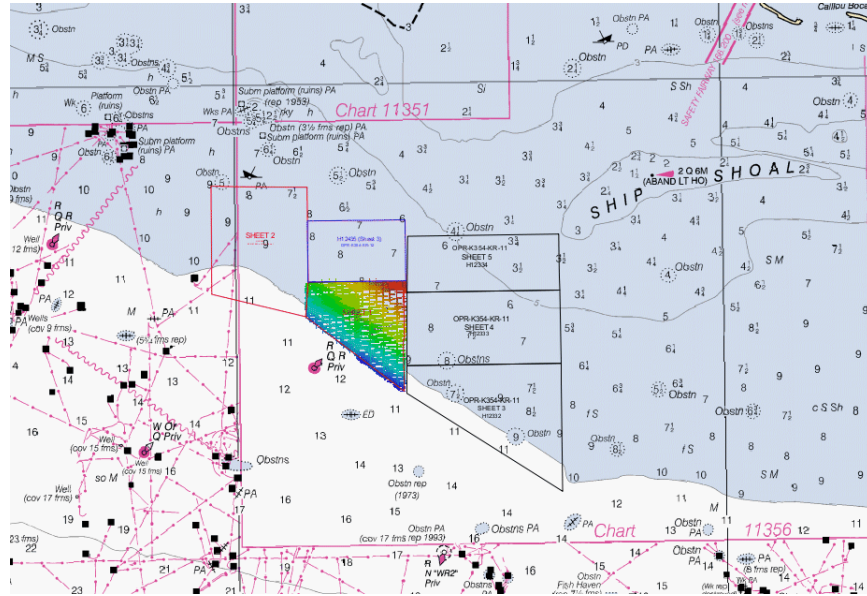


Figure 3: H12554 Junctions.

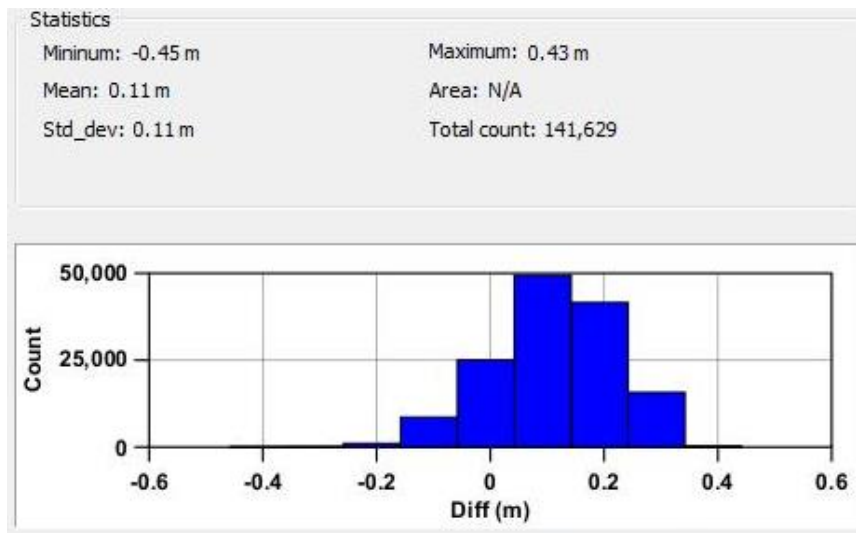
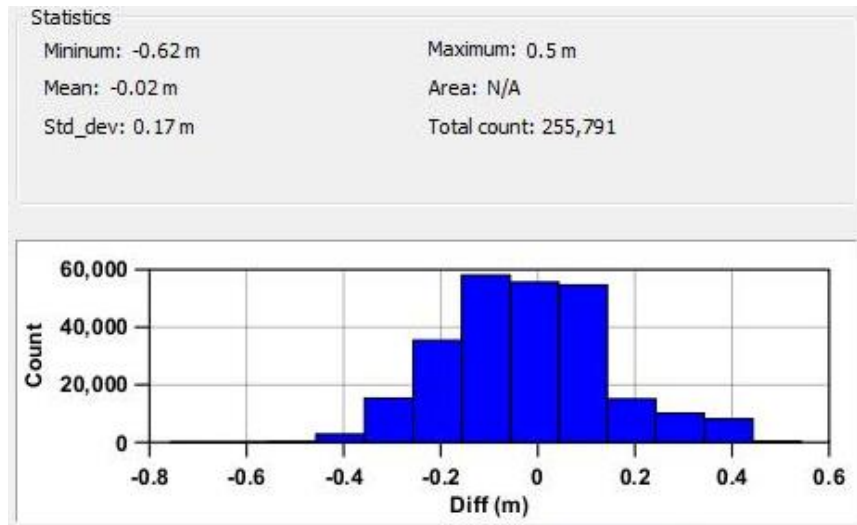


Figure 3: Statistical information and histogram output from CARIS Compute Statistics tool for the difference surface generated between H12554 and H12332.

H12333

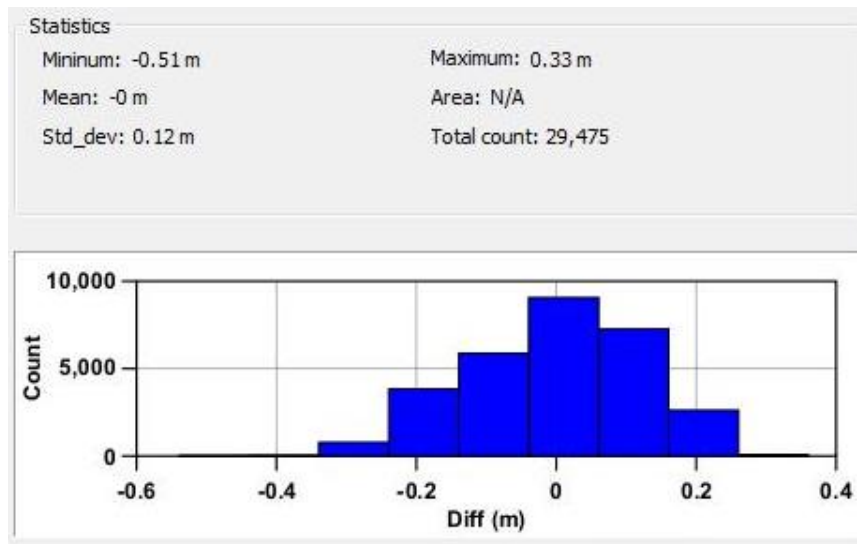
The eastern margin of H12554 borders the western margin of H12333. Figure 5 shows statistical information for the junction generated with the CARIS compute statistics tool. The depth differences show good agreement with 95% of depth difference values between -0.307 and 0.293 m.



*Figure 5: Statistical information and histogram output from CARIS Compute Statistics tool for the difference surface generated between H12554 and H12333.*

#### H12334

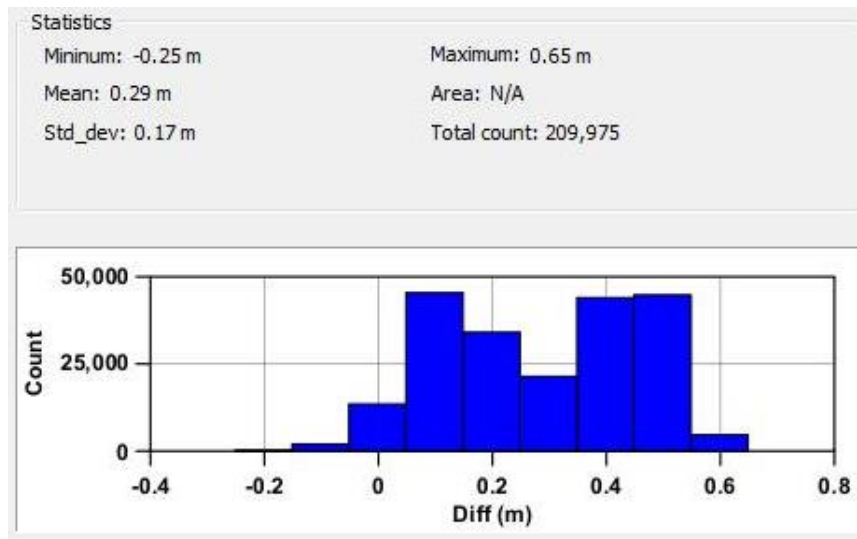
There is limited overlap where the northeastern margin of H12554 borders the southwestern margin of H12334. Figure 6 shows statistical information for the junction generated with the CARIS compute statistics tool. The depth differences show good agreement with 99% of depth difference values between -0.289 and 0.211 m.



*Figure 6: Statistical information and histogram output from CARIS Compute Statistics tool for the difference surface generated between H12554 and H12334.*

H12435

The northern margin of H12554 borders the southern margin of H12435. Figure 7 shows statistical information for the junction generated with the CARIS compute statistics tool. It is evident that the data from the contemporary survey is consistently deeper than that of H12435.

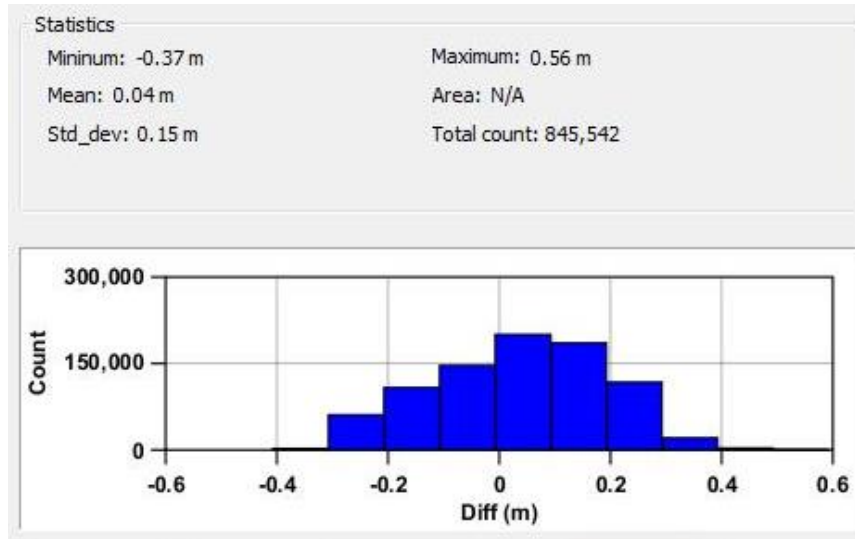


*Figure 7: Statistical information and histogram output from CARIS Compute Statistics tool for the difference surface generated between H12554 and H12435.*

H12555

The northwest margin of H12554 borders the southeast margin of H12555. Figure 8 shows statistical information for the junction generated with the CARIS compute statistics tool. The depth differences show good agreement with greater than 96% of depth difference values between -0.257 and 0.243 m. Note that the surface for H12555 is preliminary and any changes to this analysis will be documented in the H12555 Descriptive Report.





*Figure 8: Statistical information and histogram output from CARIS Compute Statistics tool for the difference surface generated between H12554 and H12555.*

## B.2.4 Sonar QC Checks

An Odom Echotrac MK III single beam echosounder was continuously operated and monitored during the survey as an independent check on the multibeam bottom-detect.

## B.2.5 Equipment Effectiveness

### B.2.5.1 Equipment Effectiveness

The angle of the multibeam sonars could be 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 periodically modified in the field as needed and the SSS line spacing updated to accommodate changes in data quality and expedite data collection.

## B.2.6 Factors Affecting Soundings

### B.2.6.1 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. In addition, the data was sound velocity corrected in post processing to account for an improper Z-value for the MBES. Although this corrected the depths, it appears that there are some residual artifacts scattered throughout the data that were not present prior to SVC (Figure 9). These were cleaned from the data as much as possible, but some residual noise may be present. CARIS indicates that the SVC process has been updated in current versions and there should be no further issues moving forward.

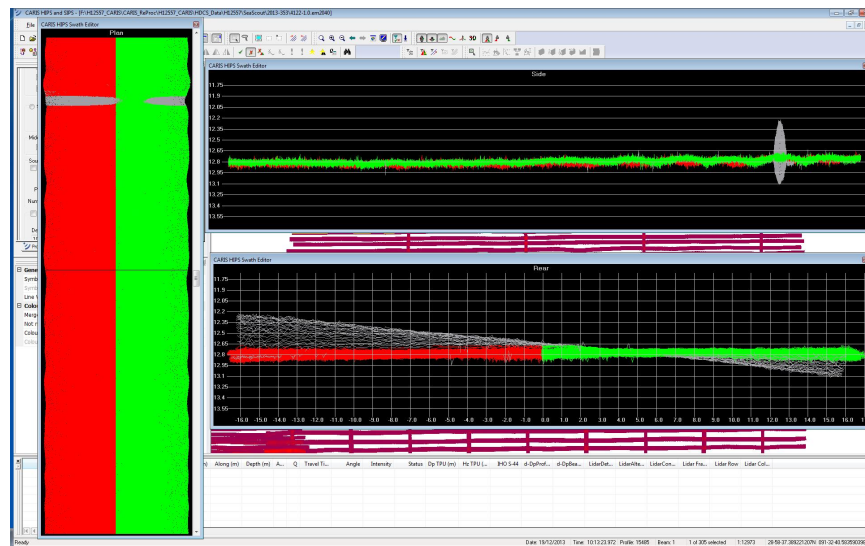


Figure 9: Data artifact present after SVC.

### B.2.7 Sound Speed Methods

Sound Speed Cast Frequency: Sea Bird Electronics SBE19 CTDs were used for speed of sound measurements. Casts were conducted at least twice daily 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.

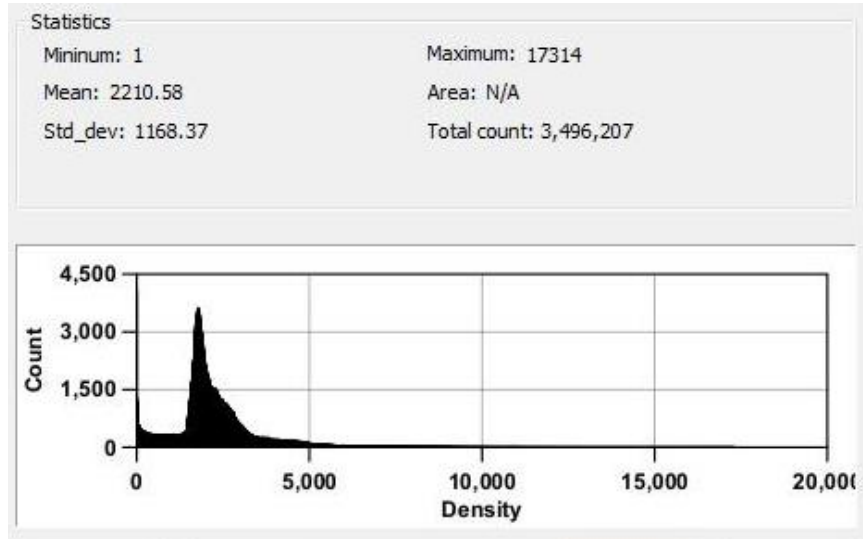
### B.2.8 Coverage Equipment and Methods

Main survey lines were oriented east/west throughout the survey area. 200% SSS with concurrent MBES was acquired in the survey area in accordance with the requirements stated in the project instructions for this survey. SSS data were acquired with a Klein 5000 V2 towfish and MBES data were acquired with a Kongsberg EM2040 echosounder.

### B.2.9 Density

According to section 5.2.2.3 of the HSSD (2013) at least 95% of all nodes on the surface shall be populated with at least 3 soundings for Set Line Spacing multibeam coverage. The Compute Statistics tool in CARIS HIPS was used to generate statistics about the density child layer of the H12557\_MB\_4m\_MLLW\_Final surface (Figure 10). A bin size of 1 was used and the data exported in ASCII format. The number of nodes in the first 2 bins were added together to determine the number of nodes that contain less than 3 soundings.

3,490,781 nodes contain at least 3 soundings and the total number of nodes in the surface is 3,496,207. Therefore, greater than 99% of all nodes on the surface contain at least 3 soundings.



*Figure 10: Statistical information about the density child layer of the H12554\_MB\_4m\_MLLW\_Final BASE surface, generated from 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 DAPR.

### B.3.2 Calibrations

Prior to initiating survey operations, a standard patch test was performed to determine correctors for pitch, roll, and heading; additional calibrations were performed as necessary. A squat and settlement test was also conducted. Refer to the Data Acquisition and Processing Report for additional information.

## B.4 Backscatter

Backscatter was logged within each raw Kongsberg EM file. This data was imported during CARIS conversion and reviewed when necessary.

## B.5 Data Processing

### B.5.1 Software Updates

There were no software configuration changes after the DAPR was submitted.

The following Feature Object Catalog was used: NOAA Extended Attribute Files V5\_3\_2

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

### B.5.2 Surfaces

The following CARIS surfaces were submitted to the Processing Branch:

Surface Name	Surface Type	Resolution	Depth Range	Surface Parameter	Purpose
H12554_MB_4m_MLLW	Uncertainty	4 meters	13.71 meters - 21.34 meters	n/a	Set Line Spacing MBES
H12554_MB_4m_MLLW_Final	Uncertainty	4 meters	13.71 meters - 21.34 meters	n/a	Set Line Spacing MBES
2554_MB_Investigations_50cm_MLL	Uncertainty	50 centimeters	16.17 meters - 21.22 meters	n/a	Object Detection
54_MB_Investigations_50cm_MLLW	Uncertainty	50 centimeters	15.71 meters - 21.22 meters	n/a	Object Detection
H12554_MB_1m_MLLW	Uncertainty	1 meters	13.70 meters - 21.39 meters	n/a	QC/Junction
H12554_MB_2m_MLLW	Uncertainty	2 meters	13.70 meters - 21.39 meters	n/a	Junction
H12554_MB_Mainlines_1m_MLLW	Uncertainty	1 meters	14.04 meters - 21.48 meters	n/a	QC
H12554_MB_Crosslines_1m_MLLW	Uncertainty	1 meters	13.70 meters - 20.21 meters	n/a	QC

Table 9: CARIS Surfaces

The following CARIS surfaces were submitted. A 4-m BASE surface of all the lines was generated to fulfill the requirement for Set Line Spacing MB coverage, specified in section 5.2.2.3 in the HSSD (2013). A 50-cm BASE surface of all the investigation lines was generated to fulfill the requirement for Object Detection MB coverage, specified in section 5.2.2.1 in the HSSD (2013). In addition, a 1-m BASE surface of all the

lines was generated for QC purposes as well as for junctions. A 2-m BASE surface was also generated for junction analysis. Individual 1-m BASE surfaces were generated for the crosslines and mainlines separately in order to conduct the crossline comparison analysis.

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. Noisy MB data, although cleaned, can also show higher standard deviation. The maximum standard deviation of the H12254\_MB\_4m\_MLLW\_Final BASE surface is 0.44 m located at 28-47-05.085 N, 91-22-32.551 W, which corresponds to a feature submitted as a DtoN for this survey.

## C. Vertical and Horizontal Control

### C.1 Vertical Control

The vertical datum for this project is Mean Lower Low Water (MLLW).

### C.2 Horizontal Control

The horizontal datum for this project is The horizontal datum for this project is North American Datum of 1983 (NAD83). *The survey projection is UTM-15N-NAD83.*

## 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	LNМ Date	NM Date
11356	1:80000	41	07/2014	11/25/2014	12/13/2014
11340	1:458596	78	08/2014	12/02/2012	12/13/2014

Table 10: Largest Scale Raster Charts



### D.1.2 Electronic Navigational Charts

The following are the largest scale ENC's, which cover the survey area:

ENC	Scale	Edition	Update Application Date	Issue Date	Preliminary?
US4LA25M	1:80000	17	09/19/2013	12/09/2014	NO
US3GC03M	1:458596	46	08/27/2013	11/25/2014	NO

*Table 11: Largest Scale ENC's*

#### US4LA25M

Depths on the ENC US4LA25M generally match the charted depths of 11356 or are 1 foot shallower. Comparisons for the RNC are generally valid for the ENC although some surveyed soundings are up to 3 feet deeper than charted depths.

#### US3GC03M

Depths on the ENC US3GC03M match those of RNC 11340 and the comparisons for the RNC are valid for the ENC.

### D.1.3 AWOIS Items

Number of AWOIS Items Addressed: 1

Number of AWOIS Items Not Addressed: 0

One (1) AWOIS item, 12794, exists within the survey area. Full MBES and 200% SSS coverage were acquired within the 200 m AWOIS search radius. The history states that this item is a well, covered by 9 fathoms of water and marked by a privately maintained lighted buoy. A platform and associated debris exist within the AWOIS radius, but the MBES and SSS data do not indicate the presence of a well and no lighted buoy was observed. The hydrographer recommends removal from the chart.

### D.1.4 Charted Features

Chart 11356

There are five (5) charted platforms in the survey area and one (1) that is partially in the survey area. One (1) of these charted platforms corresponds to a DtoN submitted for this survey. Refer to section

D.2.7 for additional information. Many pipelines are charted within the survey area, mainly concentrated in conjunction with the platforms to the southwest and extending northeast. Refer to section D.2.5 for additional information. One (1) charted well (cov 55 feet) corresponds to the AWOIS item assigned in the survey area; refer to D.1.3 for additional information. One (1) charted obstruction corresponds to a DtoN submitted on this survey; refer to section D.1.6 for additional information.

#### Chart 11340

Chart 11340 (depths in fathoms) covers the whole survey area of H12554 but the chart is a much smaller scale than 11356 and contains less detail. No individual pipelines or platforms are charted but the chart has been updated with one obstruction submitted as a DtoN for this survey.

#### D.1.5 Uncharted Features

One (1) uncharted obstruction and one (1) uncharted platform were observed and submitted as DtoNs (refer to section D.1.6 and the FFF for additional information).

#### D.1.6 Dangers to Navigation

The following DTON reports were submitted to the processing branch:

DTON Report Name	Date Submitted
H12554_DtoNs	2014-04-11

*Table 12: DTON Reports*

Two (2) Dangers to Navigation submitted for this survey. Details are located: Descriptive\_Report \Appendices\II\_Supplemental\_Survey\_Records \_&\_Correspondence and in the Final Feature File.

#### D.1.7 Shoal and Hazardous Features

No shoal areas were observed within the survey area. Refer to section D.1.6 for information on hazardous features that were submitted as DtoNs.

#### D.1.8 Channels

No channels are currently charted within the survey limits, and none were observed during survey operations.



## **D.2 Additional Results**

### **D.2.1 Shoreline**

Shoreline does not exist within the survey area.

### **D.2.2 Prior Surveys**

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

### **D.2.3 Aids to Navigation**

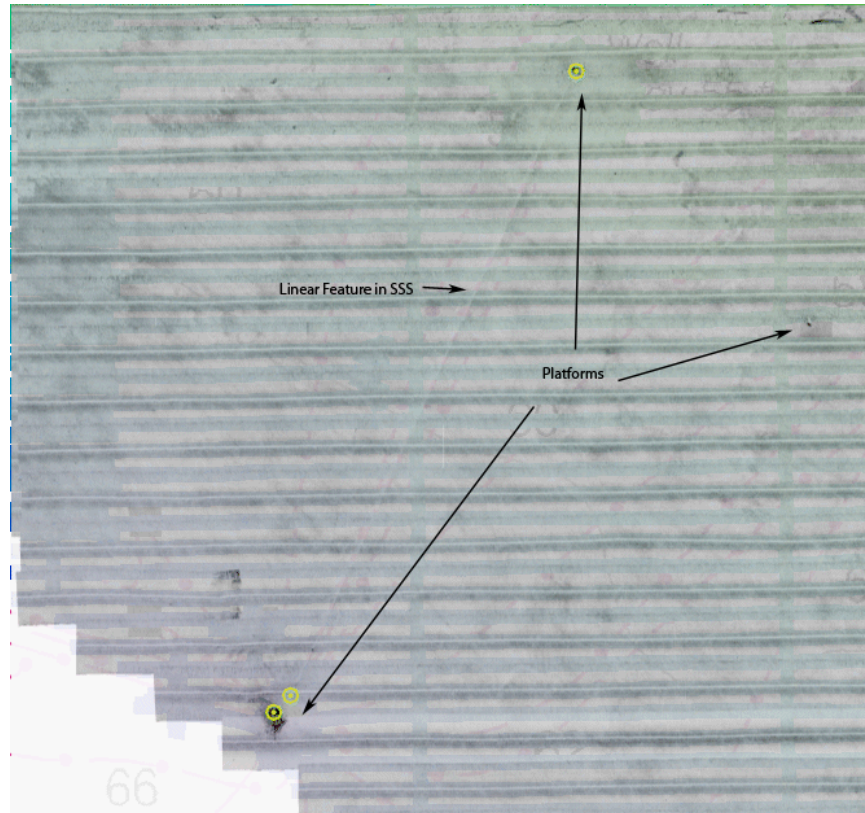
No Aids to Navigation are currently charted within the survey area limits and none were observed during survey operations.

### **D.2.4 Overhead Features**

Overhead features do not exist for this survey.

### **D.2.5 Submarine Features**

Many pipelines are charted within the survey area on chart 11356, mainly in conjunction with charted platforms. Features potentially representative of exposed pipeline were observed in the SSS and MBES data and investigations conducted when necessary (refer to the Final Feature File for additional information). In addition, there is a long linear feature evident in the MB and SSS data that extends between two platforms. The feature is located on a charted pipeline and the endpoints match the LNM observed within the survey area (Figure 12). Review of internal data also indicates a pipeline at this location, constructed in May of 2013.



*Figure 12: SSS data with slight transparency overlaying chart 11356. SSS shows three platforms and the linear feature extending between two of them. The yellow circles represent the LNM 31/13 8th Dist pipeline points.*

### **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**

Three (3) platforms were observed during survey operations. Two (2) platforms were observed in the charted locations and one (1) platform was uncharted at the time of the survey and submitted as a DtoN. Refer to the Final Feature File for additional information.

### **D.2.8 Significant Features**

No anomalous environmental conditions were observed during the survey.

**D.2 Construction and Dredging**

No active dredging or construction was observed during survey operations.

## E. Approval Sheet

Field operations contributing to the accomplishment of the H12554 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-K354-KR-13.

<b>Approver Name</b>	<b>Approver Title</b>	<b>Approval Date</b>	<b>Signature</b>
Tara Levy	Chief of Party	12/18/2014	
Nicole Galloway	Geoscientist	12/18/2014	

## F. Table of Acronyms

<b>Acronym</b>	<b>Definition</b>
<b>AFF</b>	Assigned Features File
<b>AHB</b>	Atlantic Hydrographic Branch
<b>AST</b>	Assistant Survey Technician
<b>ATON</b>	Aid to Navigation
<b>AWOIS</b>	Automated Wreck and Obstruction Information System
<b>BAG</b>	Bathymetric Attributed Grid
<b>BASE</b>	Bathymetry Associated with Statistical Error
<b>CO</b>	Commanding Officer
<b>CO-OPS</b>	Center for Operational Products and Services
<b>CORS</b>	Continually Operating Reference Station
<b>CTD</b>	Conductivity Temperature Depth
<b>CEF</b>	Chart Evaluation File
<b>CSF</b>	Composite Source File
<b>CST</b>	Chief Survey Technician
<b>CUBE</b>	Combined Uncertainty and Bathymetry Estimator
<b>DAPR</b>	Data Acquisition and Processing Report
<b>DGPS</b>	Differential Global Positioning System
<b>DP</b>	Detached Position
<b>DR</b>	Descriptive Report
<b>DTON</b>	Danger to Navigation
<b>ENC</b>	Electronic Navigational Chart
<b>ERS</b>	Ellipsoidal Referenced Survey
<b>ERZT</b>	Ellipsoidally Referenced Zoned Tides
<b>FOO</b>	Field Operations Officer
<b>FPM</b>	Field Procedures Manual
<b>GAMS</b>	GPS Azimuth Measurement Subsystem
<b>GC</b>	Geographic Cell
<b>GPS</b>	Global Positioning System
<b>HIPS</b>	Hydrographic Information Processing System
<b>HSD</b>	Hydrographic Surveys Division
<b>HSSDM</b>	Hydrographic Survey Specifications and Deliverables Manual

<b>Acronym</b>	<b>Definition</b>
<b>HSTP</b>	Hydrographic Systems Technology Programs
<b>HSX</b>	Hypack Hysweep File Format
<b>HTD</b>	Hydrographic Surveys Technical Directive
<b>HVCR</b>	Horizontal and Vertical Control Report
<b>HVF</b>	HIPS Vessel File
<b>IHO</b>	International Hydrographic Organization
<b>IMU</b>	Inertial Motion Unit
<b>ITRF</b>	International Terrestrial Reference Frame
<b>LNM</b>	Local Notice to Mariners
<b>LNM</b>	Linear Nautical Miles
<b>MCD</b>	Marine Chart Division
<b>MHW</b>	Mean High Water
<b>MLLW</b>	Mean Lower Low Water
<b>NAD 83</b>	North American Datum of 1983
<b>NAIP</b>	National Agriculture and Imagery Program
<b>NALL</b>	Navigable Area Limit Line
<b>NM</b>	Notice to Mariners
<b>NMEA</b>	National Marine Electronics Association
<b>NOAA</b>	National Oceanic and Atmospheric Administration
<b>NOS</b>	National Ocean Service
<b>NRT</b>	Navigation Response Team
<b>NSD</b>	Navigation Services Division
<b>OCS</b>	Office of Coast Survey
<b>OMAO</b>	Office of Marine and Aviation Operations (NOAA)
<b>OPS</b>	Operations Branch
<b>MBES</b>	Multibeam Echosounder
<b>NWLON</b>	National Water Level Observation Network
<b>PDBS</b>	Phase Differencing Bathymetric Sonar
<b>PHB</b>	Pacific Hydrographic Branch
<b>POS/MV</b>	Position and Orientation System for Marine Vessels
<b>PPK</b>	Post Processed Kinematic
<b>PPP</b>	Precise Point Positioning
<b>PPS</b>	Pulse per second

<b>Acronym</b>	<b>Definition</b>
<b>PRF</b>	Project Reference File
<b>PS</b>	Physical Scientist
<b>PST</b>	Physical Science Technician
<b>RNC</b>	Raster Navigational Chart
<b>RTK</b>	Real Time Kinematic
<b>SBES</b>	Singlebeam Echosounder
<b>SBET</b>	Smooth Best Estimate and Trajectory
<b>SNM</b>	Square Nautical Miles
<b>SSS</b>	Side Scan Sonar
<b>ST</b>	Survey Technician
<b>SVP</b>	Sound Velocity Profiler
<b>TCARI</b>	Tidal Constituent And Residual Interpolation
<b>TPU</b>	Total Propagated Error
<b>TPU</b>	Topside Processing Unit
<b>USACE</b>	United States Army Corps of Engineers
<b>USCG</b>	United States Coast Guard
<b>UTM</b>	Universal Transverse Mercator
<b>XO</b>	Executive Officer
<b>ZDA</b>	Global Positioning System timing message
<b>ZDF</b>	Zone Definition File

APPENDIX I  
TIDES AND WATERLEVELS



# FINAL TIDE NOTE and FINAL TIDE ZONING CHART

DATE: December 2014

HYDROGRAPHIC BRANCH: Atlantic

HYDROGRAPHIC PROJECT: OPR-K354-KR-13

HYDROGRAPHIC SHEET: H12554

LOCALITY: 15 NM SW of Ship Shoal

TIME PERIOD: November 29, 2013 – April 2, 2014

TIDE STATION USED: 8764227 LAWMA, Amerada Pass, LA

Lat. 29° 27.0' N Lon. 91° 20.3' W

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.00 m

HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 0.828 m

## REMARKS: RECOMMENDED ZONING

Use zones identified as: WGM264 and WGM265

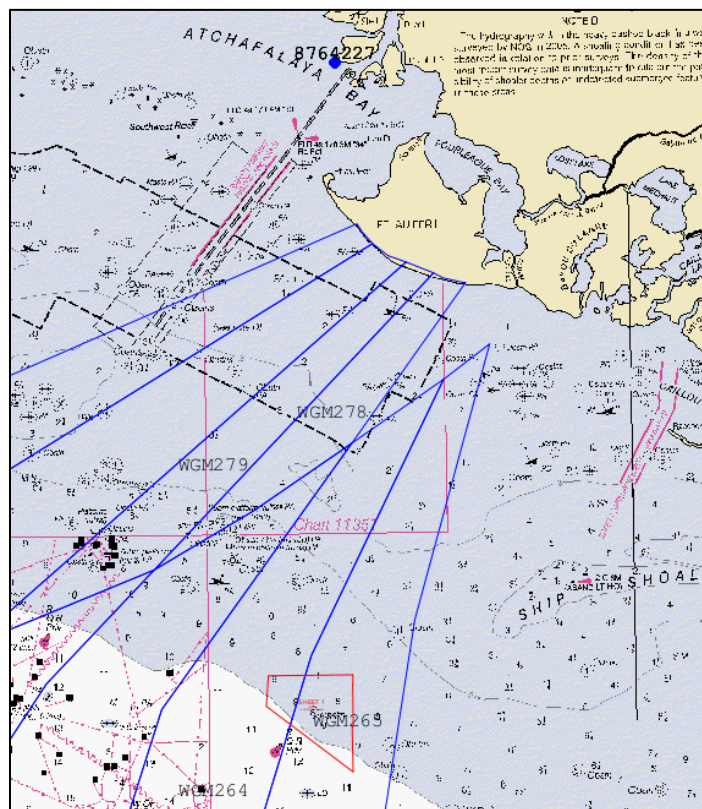


Figure 1. Final Tidal Zoning Chart

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.

## ABSTRACT OF TIMES OF HYDROGRAPHY

Project: OPR-K354-KR-13 Registry No.: H12554

Contractor Name: C & C Technologies, Inc.

Date: December 2014

Sheet Number: 1

Inclusive Dates: November 29, 2013 - April 2, 2014

Field Work is Complete

Time (UTC)

Day (yy/mm/dd)	Julian Day	Start	End	Year
13/11/29	333	0627	0640	2013
13/11/29	333	0658	1215	2013
13/11/29	333	1233	1446	2013
13/11/29	333	1734	1913	2013
13/11/29	333	1930	2149	2013
13/11/29	333	2221	2400	2013
13/11/30	334	0000	0056	2013
13/11/30	334	0129	1530	2013
13/11/30	334	1800	2111	2013
13/11/30	334	2130	2400	2013
13/12/01	335	0000	1001	2013
13/12/03	337	0719	1214	2013
13/12/09	343	1650	1900	2013
13/12/09	343	1934	2400	2013
13/12/10	344	0000	0555	2013
13/12/11	345	2053	2139	2013
13/12/11	345	2203	2357	2013
14/02/08	39	2136	2400	2013
14/02/09	40	0000	0240	2014
14/02/09	40	0300	0412	2014
14/02/09	40	0447	0928	2014
14/02/09	40	1021	1358	2014
14/02/09	40	1409	2309	2014
14/02/09	40	2330	2400	2014
14/02/10	41	0000	1148	2014
14/02/11	42	0752	0934	2014
14/02/11	42	0943	0955	2014
14/02/11	42	1025	1104	2014
14/02/28	59	1859	2400	2014
14/03/01	60	0000	0509	2014
14/03/01	60	0533	0553	2014
14/03/01	60	0723	1733	2014
14/03/01	60	1757	2023	2014
14/03/01	60	2108	2400	2014
14/03/02	61	0000	0132	2014
14/03/02	61	0216	0304	2014
14/03/04	63	1232	1236	2014
14/03/08	67	2103	2115	2014
14/03/08	67	2144	2230	2014
14/03/08	67	2311	2332	2014
14/04/02	92	0459	1210	2014

## APPENDIX II

# SUPPLEMENTAL SURVEY RECORDS AND COORESPONDENCE

FW H12554 DtoN #1 Submission to NDB.txt

Subject:  
FW: H12554 DtoN #1 Submission to NDB  
From:  
Castle Parker - NOAA Federal <castle.e.parker@noaa.gov>  
Date:  
4/14/2014 10:30 AM  
To:  
Nicole Kuenzel <nicole.kuenzel@cctechnol.com>, Tara Levy  
<tara.levy@cctechnol.com>, Scott Croft <scott.croft@cctechnol.com>

FYI...

Submitted.

gp

From: Castle Parker - NOAA Federal [mailto:castle.e.parker@noaa.gov]  
Sent: Monday, April 14, 2014 11:29 AM  
To: OCS NDB - NOAA Service Account  
Cc: Abigail Higgins; Michael Gonsalves - NOAA Federal; Lucy Hick - NOAA Federal;  
Tim Osborn - NOAA Federal  
Subject: H12554 DtoN #1 Submission to NDB

Good Day,

Please find attached a zip file for survey H12554 DtoN Report #1. This Danger submission to Nautical Data Branch & Marine Chart Division contains one uncharted 51ft Obstruction and one uncharted offshore platform intended for chart application.

The contents of the attached winzip file were originally submitted by contract field unit C&C Technologies. The submitted Danger products were reviewed and generated at Atlantic Hydrographic Branch. The attached zip file contains a DtoN Letter (PDF), Pydro XML file, and image files.

If you have any questions, please direct them back to me; email me or call 757-441-6746 ext. 115.

Thank you,

Gene Parker

Castle Eugene Parker  
Atlantic Hydrographic Branch  
Hydrographic Team Lead

FW H12554 DtoN #1 Submission to NDB.txt

Physical Scientist, NOAA Office of Coast Survey

castle.e.parker@noaa.gov

office (757) 441-6746 x115

Attachments:

H12554 DtoN#1.zip            6.5 MB

H12554 DtoNs for Review.txt

Subject:  
H12554 DtoNs for Review  
From:  
Nicole Kuenzel <nicole.kuenzel@cctechnol.com>  
Date:  
4/11/2014 3:29 PM  
To:  
Gene Parker <Castle.E.Parker@noaa.gov>, Paul Turner <paul.turner@noaa.gov>  
CC:  
Tara Levy <tara.levy@cctechnol.com>

Good Afternoon,

Attached is a zip file containing a .hob file, s-57 file and associated images for two DtoNs for your review. DtoNs are located in H12554 (Sheet 1) of OPR-K354-KR-13.

Let me know if you have any questions or need additional information.  
Thanks!  
Nikki

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

Attachments:  
H12554\_DtoNs.zip            4.9 MB

# REQUISITION FOR SUPPLIES/SERVICE

REQ. DATE	PAGE	OF
SEP 17, 2014	1	2

1. REQUISITION NO. NCNJ3000-14-01814	2. PRIORITY	3. AMOUNT 0.00	4. DELIVERY DATE FEB 28, 2015	5. FUNDS AVAILABLE			
6. CONTACT (Name and Phone) MARK LATHROP 301-713-2702 113			7. AUTHORIZED BY MARK LATHROP		8. CONTRACT/IDC NO. DG133C-08-CQ-0004		
9. PURCHASE FOR HYDROGRAPHIC SURVEYS DIV 1315 EASTWEST HWY SSMC-3 6TH FL/N/CS3 SILVER SPRING MD 20910		NJ300012	10. DEPT NOAA-NOS	11. FUND	12. PROJECT 18041	13. FSC C218	
			14. ACCOUNTING AND APPROPRIATION DATA See Schedule				
			16a. RECOMMENDED COR MARK LATHROP				
			16b. FUND CERTIFYING OFFICIAL LYNN LIOGYS				
15a. DELIVER TO See Schedule		17. VENDOR C & C TECHNOLOGIES, INC 730 E KALISTE SALOOM RD LAFAYETTE LA 705082547					
15b. SUPPLEMENTAL ADDRESS N/A		00000492					

**18. PURPOSE**


Modification to extend delivery date of DG133C-08-CQ-0004, Task Order 9 from April 01, 2014 to February 28, 2015. AAP#18041 This modifies Requisition NCNJ3000-14-00410.

ITEM OR FORM NO. (19)	DESCRIPTION (20)	QUANTITY (21)	UNIT (22)	UNIT PRICE (23)	AMOUNT (24)
	Please See Continuation Page for Line Item Details				

**SCHEDULE Continued**

ITEM NO.	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001	<p>The following is request for a zero dollar modification for an extension of the original contract delivery date for C&amp;C Technologies, Inc. on Task order 0009, NCNJ3000-14-00410. Task order 0009, NCNJ3000-14-00410 is a hydrographic survey contract for survey operations in the Gulf of Mexico requiring a large survey vessel capable of conducting offshore, open ocean hydrographic surveys for pro-longed duration's. C&amp;C Technologies, Inc. has requested a five month extension to the delivery date to compensate for time lost while focusing internal resources and efforts on an additional, higher priority NOAA contract awarded in response to Hurricane Sandy.</p> <p>Accounting and Appropriation Data:            14.14.L8K6JSB.P00.1011.010301003.            1009000301000000.25130000.000000            \$0.00            DELIVERY DATE: 02/28/2015            SHIP TO:                HYDROGRAPHIC SURVEYS DIV                1315 EASTWEST HWY                SSMC-3 6TH FL/N/CS3                SILVER SPRING MD 20910            FOB : Destination</p>	0.00	EA	0.00	0.00



AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. Contract ID Code		Page of Pages		
2. AMENDMENT MODIFICATION NO. 0002		3. EFFECTIVE DATE SEP 23, 2014		4. REQUISITION/PURCHASE REQ. NO. NCNJ3000-14-01814		5. PROJECT NO. (If applicable) 00000		
6. ISSUED BY NOAA/ERAD 200 GRANBY STREET NORFOLK VA 23510			CODE AJ930073		7. ADMINISTERED BY (If other than Item 6) See Block 6			CODE
8. NAME AND ADDRESS OF CONTRACTOR (NO., Street, Country, State and ZIP Code) C & C TECHNOLOGIES, INC 730 E KALISTE SALOOM RD LAFAYETTE LA 705082547  FRANK LIPARI, JR. 337-261-0680				(x)	9A. AMENDMENT OF SOLICITATION NO.			
					9B. DATED (SEE ITEM 11)			
					10A. MODIFICATION OF CONTRACT/ORDER NO. DG133C-08-CQ-0004/T-0009			
CODE 00000492				FACILITY CODE	X	10B. DATED (SEE ITEM 13) MAY 16, 2013		
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>								
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OR OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment your desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.								
12. ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule						Modification Amount: \$0.00 Modification Obligated Amount: \$0.00		
<b>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>								
Check One	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.							
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).							
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: FAR 52.243-1, Changes - Fixed Price, ALT III							
	D. OTHER (Specify type of modification, and authority)							
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.								
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible)								
<b>See Attachment Page</b>								
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.								
15A. NAME AND TITLE OF SIGNER (Type or print) Thomas S. Ortego, Chief Financial Officer				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) MELISSA R. SAMPSON, CONTRACTING OFFICER 757-441-6561 melissa.r.sampson@noaa.gov				
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED		
 (Signature of person authorized to sign)		9/23/2014		 (Signature of Contracting Officer)		SEP 23, 2014		

Attachment Page

a. This modification is issued to extend the period of performance due to a shift in the Government's priorities as a result of Super Storm Sandy. The period of performance is revised from "Date of Award through September 30, 2014" to "Date of Award through February 28, 2015" at the prices set forth in the contract.

b. The following Class Deviation is incorporated:

**ASSURANCE BY CORPORATIONS REGARDING AN UNPAID DELINQUENT TAX LIABILITY OR A FELONY CONVICTION UNDER ANY FEDERAL LAW (CLASS DEVIATION) (MARCH 2014)**

(1) In accordance with Sections 536 and 537 of Public Law 113-76 Consolidated Appropriations Act, 2014, none of the funds made available by Consolidated Appropriations Act, 2014 may be used to enter into a contract with any corporation that -

- (a) Was convicted of a felony criminal violation under any Federal law within the preceding 24 months, unless the agency has considered suspension or debarment of the corporation and made a determination that this further action is not necessary to protect the interests of the Government.
- (b) Has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability, unless the agency has considered suspension or debarment of the corporation and made a determination that this further action is not necessary to protect the interests of the Government.

(2) *By accepting this award or order, in writing or by performance, the offeror/contractor assures that -*

- (a) The offeror/contractor is not a corporation convicted of a felony criminal violation under a Federal law within the preceding 24 months.
- (b) The offeror/contractor is not a corporation that has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreements with the authority responsible for collecting the tax liability.

(End of Provision)

c. This extension is at no cost to either party, as such, the total amount of the task order is unchanged.

d. All other terms and conditions remain the same.

END MODIFCIATION 0002

**SCHEDULE Continued**

ITEM NO.	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE \$	AMOUNT \$
0001	Hydrographic survey in accordance with Statement of Work and Project Instructions for OPR-K354-KR-13 in the Gulf of Mexico.  Accounting and Appropriation Data: 14.13.L8K6JSB.P00.1015.010301003. 1009000301000000.25130000.000000 \$2,385,998.75	1.00	EA	2,385,998.75	2,385,998.75

**Subject:** Re: OPR-K354-KR-13 -- Modification Approval

**From:** Tara Levy <tara.levy@cctechnol.com>

**Date:** 9/25/2014 9:45 AM

**To:** Paul Turner - NOAA Federal <paul.turner@noaa.gov>, tara.levy@cctech.us

**CC:** Scott Croft <scott.croft@cctechnol.com>, Michael Gonsalves - NOAA Federal <michael.gonsalves@noaa.gov>, Mark Lathrop - NOAA Federal <mark.t.lathrop@noaa.gov>

Paul,

I will use the new monthly survey progress report you attached in your e-mail.  
Thank you for working to get this done so quickly for us.

Tara Levy

C&C Technologies, Inc  
730 E. Kaliste Saloom Rd.  
Lafayette, LA, USA 70508  
337-210-0000 (Ext. 3518)  
337-210-0612 (direct line)  
337-296-3029 (cell)  
337-261-0192 (Fax)

[tara.levy@cctech.us](mailto:tara.levy@cctech.us)

On 9/25/2014 8:45 AM, Paul Turner - NOAA Federal wrote:

Good morning Tara-

The modification request to extend the final delivery date of OPR-K354-KR-13 from 9/30/2014 to 02/28/2015 has been approved by NOAA's Contracting Office and you will receive an email and hard copy of the modified contract in the next 2-3 weeks.

For reference on future NOAA contracts, all requests for extensions/modifications are due to the Hydrographic Surveys Division no later than August 1st to allow adequate time for NOAA's Contracting Office to review and process the submitted request.

I've attached a revised monthly survey progress report to use for the remainder of this project. Please note the new *Monthly Processing* and *Expected Delivery Date* columns to indicate the monthly % complete for acquisition and processing until the survey is submitted to AHB (You can disregard the Acquisition column for this project).

Please use this form going forward for all remaining monthly reports and indicate the *Date of Survey Submission* as each sheet is submitted to AHB.

Let me know if you have any questions.

Paul

--

Paul Turner  
Physical Scientist  
NOAA - Office of Coast Survey

301-713-2700 \*106

[Paul.Turner@noaa.gov](mailto:Paul.Turner@noaa.gov)

**Subject:** Re: Request for Modification for OPR-K354-KR-13

**From:** Tara Levy <tara.levy@cctech.com>

**Date:** 9/19/2014 1:42 PM

**To:** Paul Turner - NOAA Federal <paul.turner@noaa.gov>, tara.levy@cctech.us

**CC:** Scott Croft <scott.croft@cctech.com>, Michael Gonsalves - NOAA Federal <michael.gonsalves@noaa.gov>, Mark Lathrop - NOAA Federal <mark.t.lathrop@noaa.gov>

Paul,

I do not have any questions at this time. I will contact you if I do.

Thank you for the update!

Tara Levy

C&C Technologies, Inc  
730 E. Kaliste Saloom Rd.  
Lafayette, LA, USA 70508  
337-210-0000 (Ext. 3518)  
337-210-0612 (direct line)  
337-296-3029 (cell)  
337-261-0192 (Fax)

[tara.levy@cctech.us](mailto:tara.levy@cctech.us)

On 9/19/2014 1:40 PM, Paul Turner - NOAA Federal wrote:

Hi Tara-

Thank you for providing the justification. I've submitted the modification request for OPR-K354-KR-13 with an extension and new delivery date of 02/28/2015. Once the request has been approved, you will receive an Amendment of Solicitation/Modification of Contract via email and hard copy. *This process usually takes 2-3 weeks.*

Please let me know if you have any additional questions.

Paul

On Tue, Sep 16, 2014 at 5:58 PM, Tara Levy <[tara.levy@cctech.com](mailto:tara.levy@cctech.com)> wrote:

**Paul,**

**I am requesting an extension on task order OPR-K354-KR-13 in order to give us time to complete the remaining deliverables. Task order OPR-C319-KR-13(Sandy Hook) final deliverables took considerably more time than expected with all the geology and contacts that needed to be reviewed and verified. We put a lot of our resources into completing those and unfortunately fell behind in this project. We have thus far completed and verified all field work, and all DTON's noted from the field data collection have been turned in. I am**

**requesting a Modification for time to complete the report portion for the 5 sheets for OPR-K354-KR-13 on the following schedule.**

**H12556 Oct 31st**

**H12557 Nov 26th**

**H12554 Dec 19th**

**H12555 Jan 26th**

**H12558 Feb 28th**

**Please let me know if you require anything else from me.**

**Have a good evening.**

Tara Levy

C&C Technologies, Inc  
730 E. Kaliste Saloom Rd.  
Lafayette, LA, USA 70508  
[337-210-0000](tel:337-210-0000) (Ext. 3518)  
[337-210-0612](tel:337-210-0612) (direct line)  
[337-296-3029](tel:337-296-3029) (cell)  
[337-261-0192](tel:337-261-0192) (Fax)

[tara.levy@cctech.us](mailto:tara.levy@cctech.us)

On 9/15/2014 3:18 PM, Paul Turner - NOAA Federal wrote:

Good afternoon Tara-

I apologize for the delay in my response and I am actively working on submitting the request for modification to OPR-K354-KR-13.

In order to submit the modification, please provide a more in-depth justification as to why you are requesting an extension along with a timeline of planned survey submission(s) and a plan of action that you will adhere to in order to meet the new contract modification submission date.

The Hydrographic Surveys Division is recommending an extension to 12/31/2014, however, would like to allow adequate time to produce quality survey deliverables. Please include in your justification a proposed Delivery Date for the contract modification that will allow sufficient time to process and submit all deliverables for OPR-K354-KR-13.

Thank you and please let me if you have any questions.

Paul

On Tue, Sep 9, 2014 at 4:59 PM, Tara Levy <[tara.levy@cctechnol.com](mailto:tara.levy@cctechnol.com)> wrote:

Paul,

I am requesting a modification for OPR-K354-KR-13 to complete the deliverables. Due to a back log of reporting these have yet to be completed. The plan is to complete one report each month starting the month of Oct. This would have us completing all reports by February of 2015.

Please let me know if you need any more information regarding this request.

Sincerely,

--

Tara Levy

C&C Technologies, Inc  
730 E. Kaliste Saloom Rd.  
Lafayette, LA, USA 70508  
[337-210-0000](tel:337-210-0000) (Ext. 3518)  
[337-210-0612](tel:337-210-0612) (direct line)  
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[337-261-0192](tel:337-261-0192) (Fax)

[tara.levy@cctech.us](mailto:tara.levy@cctech.us)

--

Paul Turner  
Physical Scientist  
NOAA - Office of Coast Survey

[301-713-2700](tel:301-713-2700) \*106  
[Paul.Turner@noaa.gov](mailto:Paul.Turner@noaa.gov)

--

Paul Turner  
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## APPENDIX III

### FEATURES REPORT

DTONS - 2

AWOIS - 1

WRECK - 0

MARITIME BOUNDARIES - 0

# H12554 Feature Report

**Registry Number:** H12554  
**State:** Louisiana  
**Locality:** Louisiana Coast, LA  
**Sub-locality:** 15 NM SW of Ship Shoal  
**Project Number:** OPR-K354-KR-13  
**Survey Dates:** 11/29/2013 - 04/02/2014

## Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
11356	38th	06/01/2008	1:80,000 (11356_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: ?
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
1.1	AWOIS 12794	GP	[None]	28° 46' 06.0" N	091° 21' 24.0" W	12794
2.1	DTON 1	Obstruction	15.71 m	28° 47' 05.1" N	091° 22' 32.5" W	---
2.2	DTON 2	GP	[None]	28° 46' 09.9" N	091° 21' 22.9" W	---

## **1 - AWOIS Features**

## 1.1) AWOIS 12794

### Feature for AWOIS Item #12794

**Search Position:** 28° 46' 06.0" N, 091° 21' 24.0" W  
**Historical Depth:** [None]  
**Search Radius:** 200  
**Search Technique:** Type: OBSTRUCTION, Itemstatus: ASSIGNED, Searchtype: FULL, Technique: S2 MB VS

#### Technique Notes:

#### History Notes:

History

CGD8 LNM 09/94; REPORTS A WELL COVERED BY 9 FATHOMS MARKED BY A PRIVATELY MAINTAINED LIGHTED BOUY IN LAT. 28/46/06 N. LON. 091/21/24 W.(NAD83)

### Survey Summary

**Survey Position:** 28° 46' 06.0" N, 091° 21' 24.0" W  
**Least Depth:** [None]  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh) [None] ; TVU (TPEv) [None]  
**Timestamp:** 2014-092.00:00:00.000 (04/02/2014)  
**Dataset:** H12554\_Feature\_Report.000  
**FOID:** 0\_0002452782 00001(FFFE00256D2E0001)  
**Charts Affected:** 11356\_1, 1116A\_1, 11340\_1, 411\_1

#### Remarks:

\$CSYMB/remrks: submerged well was not observed within survey data

\$CSYMB/invreq: Type: OBSTRUCTION, Itemstatus: ASSIGNED, Searchtype: FULL, Technique: S2 MB VS

### Hydrographer Recommendations

remove from chart

### S-57 Data

**Geo object 1:** Cartographic symbol (\$CSYMB)

**Attributes:** NINFOM - Delete Obstruction  
NTXTDS - Chart11356,ED41.NTM20150502  
SORDAT - 20140402  
SORIND - US,US,graph,H12554

## Office Notes

SAR: Search radius of AWOIS 12794 was ensonified with object detect MBES and SSS. No evidence of a submerged wellhead. A platform was observed within the search radius, 123 meters NNE from AWOIS assignment. Compile: Concur with SAR.



## **2 - Dangers To Navigation**



## 2.1) DTON 1

### DANGER TO NAVIGATION

#### Survey Summary

**Survey Position:** 28° 47' 05.1" N, 091° 22' 32.5" W  
**Least Depth:** 15.71 m (= 51.54 ft = 8.590 fm = 8 fm 3.54 ft)  
**TPU ( $\pm 1.96\sigma$ ):** **THU (TPEh)** [None] ; **TVU (TPEv)** [None]  
**Timestamp:** 2014-060.05:34:36.000 (03/01/2014)  
**Dataset:** H12554\_Feature\_Report.000  
**FOID:** 0\_0002452778 00001(FFFE00256D2A0001)  
**Charts Affected:** 11356\_1, 1116A\_1, 11340\_1, 411\_1

#### Remarks:

OBSTRN/remrks: Obstruction observed during survey operations - feature was investigated further and submitted as a DtoN - chart has since been updated

#### Hydrographer Recommendations

Add to chart

#### Cartographically-Rounded Depth (Affected Charts):

51ft (11356\_1)

8 ½fm (1116A\_1, 11340\_1, 411\_1)

#### S-57 Data

**Geo object 1:** Obstruction (OBSTRN)  
**Attributes:** NINFOM - Add Obstruction  
 QUASOU - 6:least depth known  
 SORDAT - 20140402  
 SORIND - US,US,graph,H12554  
 TECSOU - 2,3:found by side scan sonar,found by multi-beam  
 VALSOU - 15.709 m  
 WATLEV - 3:always under water/submerged

## Office Notes

SAR: Feature ensonified with object detect MB and SSS. Feature is considered significant and verified as per survey data. Although the feature is charted via DtoN, the feature is considered as new rather than retain. Defer the final charting disposition to AHB Compile Team. Complie: Currently charted on raster but not ENC. Treat as 'add delete'.

## Feature Images

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[Image file V:\Surveys\H12554\_K354\_CC\_13\AHB\_H12554\PSS\H54-F1\_3d.jpg does not exist.]

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## 2.2) DTON 2

### DANGER TO NAVIGATION

#### Survey Summary

**Survey Position:** 28° 46' 09.9" N, 091° 21' 22.9" W  
**Least Depth:** [None]  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh) [None] ; TVU (TPEv) [None]  
**Timestamp:** 2014-092.00:00:00.000 (04/02/2014)  
**Dataset:** H12554\_Feature\_Report.000  
**FOID:** 0\_0002452780 00001(FFFE00256D2C0001)  
**Charts Affected:** 11356\_1, 1116A\_1, 11340\_1, 411\_1

#### Remarks:

OFSPLF/remrks: Uncharted platform observed during survey operations within AWOIS 12794 radius - submitted as a DtoN; chart has since been updated

#### Hydrographer Recommendations

Add to chart

#### S-57 Data

**Geo object 1:** Offshore platform (OFSPLF)  
**Attributes:** CATOFP - 2:production platform  
 CONRAD - 1:radar conspicuous  
 CONVIS - 1:visual conspicuous  
 NINFOM - Add offshore platform  
 OBJNAM - EI-189JG OSCG-0423  
 SORDAT - 20140402  
 SORIND - US,US,graph,H12554

#### Office Notes

SAR: Feature was ensonified with MB and SSS. Feature is considered significant and verified per survey data. Baring feature confirmed by field unit. Defer final charting disposition to AHB Compile Team.  
 Complie: Concur with SAR.

## Feature Images

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APPROVAL PAGE

H12554

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 NGDC for archive

- H12554\_DR.pdf
- Collection of depth varied resolution BAGS
- Processed survey data and records
- H12554\_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: \_\_\_\_\_

**Lieutenant Comander, Matthew Jaskoski, NOAA**  
Chief, Atlantic Hydrographic Branch