H12049

NOAA FORM 76-35A

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

DESCRIPTIVE REPORT

Type of Survey	**Hydrographic Multibeam & Sidescan**
Project No.	**OPR-K354-KR-09**
Registry No.	**H12049**

LOCALITY

State	**Louisiana**
General Locality	**Gulf of Mexico**
Sub-locality	**Entrance to Timbalier Bay**

2009

CHIEFS OF PARTY
Scott Croft, John Baker

LIBRARY & ARCHIVES

DATE

NOAA FORM 77-28 (11-72)	U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	REGISTRY No: H12049
	HYDROGRAPHIC TITLE SHEET	
		FIELD NUMBER: Sheet B

State: Louisiana

General Locality: Gulf of Mexico

Locality: Entrance to Timbalier Bay

Scale: 1:10,000 Date of Survey: July 2009 to Aug 2009

Instructions Dated: June 2009 Project Number: OPR-K354-KR-09

Vessels: *M/V Andrew Charles*

Chiefs of Party: Scott Croft, John Baker

Surveyed by: C&C Technologies Personnel

Soundings taken by echosounder, hand lead line, or pole: Simrad EM3002 Multibeam Echosounder

Verification by: ~~C&C Technologies Personnel~~ ***Verification by Atlantic Hydrographic Branch Personnel***

Soundings in: Feet: X Fathoms: _____ Meters: _____ at MLW: _____ MLLW: X

Remarks: Multibeam Hydrographic Survey of Sheet B
Data collection in meters, referenced to MLLW, later converted into feet
200% side scan sonar coverage
UTC time was used exclusively ***Zone 15***
Grab samples were taken
Tidal Zones: CGM366, 717, 718, 731, 732, 733, 734, 735, 749, 750, 364, WGM416
Tidal Station: 8762075 (Port Fourchon, LA)

NOAA FORM 77-28 SUPERSEDES FORM C & GS - 537

Data acquired in meters, H-Cell compiled in Feet at MLLW.

Bold, italic, red notes in the Descriptive Report were made during office processing.

TABLE OF CONTENTS

APPENDICES

Appendix I	Danger to Navigation Reports
Appendix II	Survey Feature Report
Appendix III	Final Progress Sketch and Survey Outline
Appendix IV	Tides and Water Levels
Appendix V	Supplemental Survey Records and Correspondence

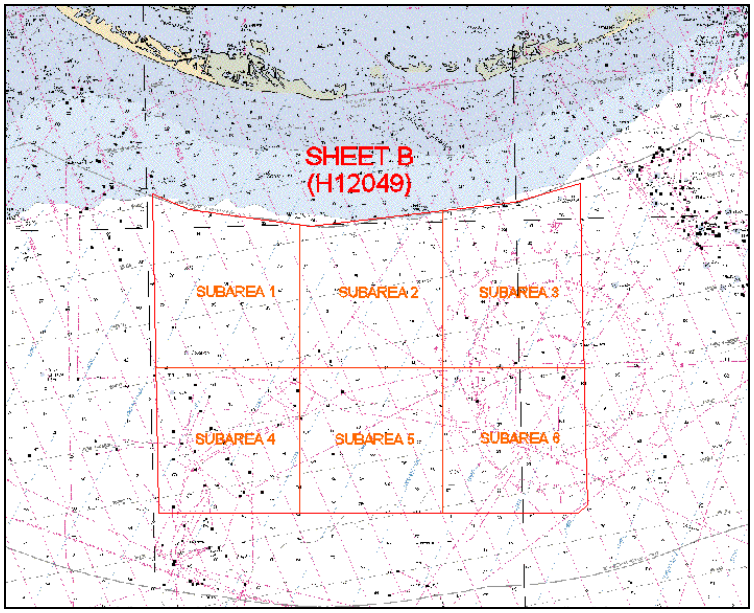
*SEPARATES

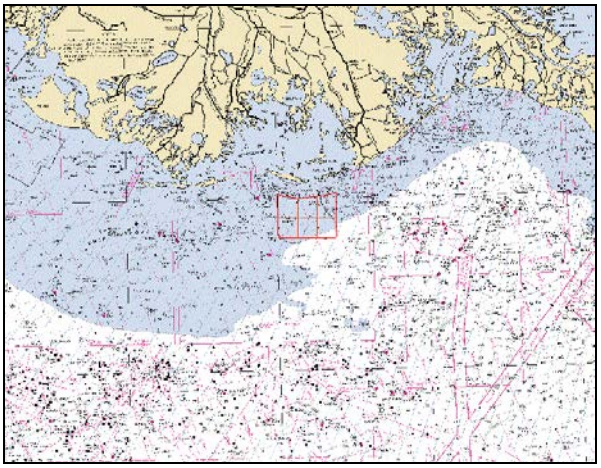
Separates I	Acquisition and Processing Logs
Separates II	Sonar Contact Table Side Scan Data Reproductions Correlator Sheets
Separates III	Sound Velocity Profile Data
Separates IV	Statement of Work
Separates V	Crossline Comparisons

Data filed with original field records.

A. AREA SURVEYED

The survey area is located at the Entrance to Timbalier Bay in the Gulf of Mexico. The following sketch shows the layout of Sheet B (H12049) of Project (OPR-K354-KR-09). Water depths in the survey area range from 31 feet to 70 feet Mean Lower Low Water (MLLW). ***Concur.***





	Andrew Charles	Total
LNM Side Scan + Multibeam	1754.97	1754.97
LNM Crosslines	89.58	89.58
LNM Investigations	18.98	18.98

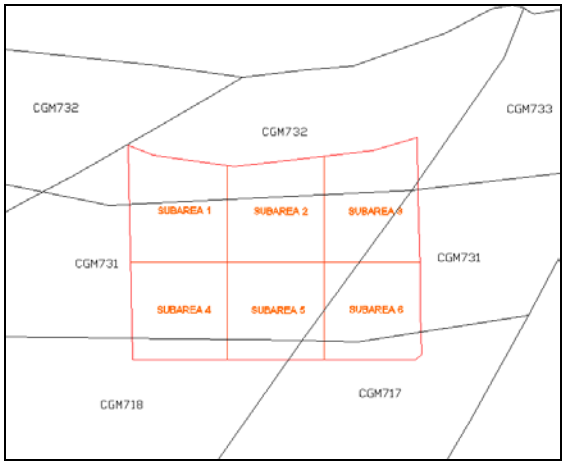
Number of bottom samples collected	70
Number of items investigated	24
Total square nautical miles	77.71

A.1 ACQUISITION DATES

July 23-28 2009
August 1-14, 22-23 2009

A.2 SURVEY SUBAREAS

The survey area was broken down into six sub areas to allow for more efficient data processing and management. The sub areas were based on the predicted data set sizes prior to survey commencement. Tidal data from Port Fourchon, LA (8762075) was used as the source for corrections. Zones CGM731 and CGM732 split subareas 1 and 2. CGM731, CGM732, and CGM733 split subarea 3. CGM731 and CGM718 split subarea 4. CGM731, CGM718, and CGM717 split subarea 5. And zones CGM731 and CGM717 split subarea 6. Below is an image showing the layout of the tide zoning for this project. ***Concur.***



B. DATA ACQUISITION AND PROCESSING *See also the H-Cell Report*

B.1 EQUIPMENT

System	Manufacturer	Model
Multibeam Echo Sounder	Simrad	EM3002
Side Scan Sonar	Edgetech	4200
Single Beam Echo Sounder	ODOM	Echotrac MK III
Motion Sensor	CODA	F180
Primary Positioning System	CNAV	2050
Secondary Positioning System	CNAV	2050
Tertiary Positioning System	CODA	F180
Sound Speed at Transducer	Endeco	YSI
Sound Velocity Profiler	Seabird	SBE19 Plus

See *Data Acquisition and Processing Report for a detailed description of the equipment used for hydrographic operations. ***Concur.***

The *M/V Andrew Charles*, a 41.1-meter vessel, conducted survey operations for this project. The vessel is 10.3 meters wide with an approximate draft of 3.02 meters. A central reference point was established prior to the survey from which all relevant offsets were measured. Relevant offsets are presented in the following table. ***Concur.***

METERS FROM CRP	Y(FORWARD)	X(STARBOARD)	Z(VERTICAL)
Primary CNAV	3.070	-0.376	-10.770
Secondary CNAV	3.070	0.275	-10.661
F180 Primary	3.070	-0.947	-10.752
F180 Secondary	3.070	1.053	-10.746
IMU	-0.248	1.038	-0.817
EM3002	1.326	1.835	4.008
Single Beam (Dual)	0.783	1.835	4.008
SSS Sheave	-26.022	-0.053	3.773

A detailed vessel description, vessel diagram, and patch test results are presented in the *Data Acquisition and Processing Report.

Data included with H-Cell Survey deliverables.

B.2 QUALITY CONTROL

In order to most efficiently carry out this survey, the survey lines were oriented roughly east west throughout the survey area. The side scan was operated with a range of 100 meters per channel, and line spacing was set to 90 meters. These parameters allowed us to effectively meet the criteria of 200 percent side scan coverage, using Technique 2, as set forth in Section 6.1 of the "Specifications and Deliverables" document. The angular sector on the multibeam was set so that the criterion of two times water depth, as well as all accuracy, resolution, and detection criteria as set forth in Sections 5.2 and 5.3 of the "Specifications and Deliverables" document, were met. ***Concur.***

The internal consistency of the multibeam depth values is quantified in the cross line statistics that were performed at the end of each main line. Cross lines were run prior to the collection of main line data so that quality control statistics could be performed on the data after each line. Based on pre-plot calculations, the total cross line miles was 90 nm, while the total main line miles was 1665 nm. The cross lines comprised about 5% of the total data set as compared to the main scheme lines. Rerun line miles are not included in these totals. As can be seen in the sample statistics found in *Separates V, the main lines and cross lines depth values showed very good agreement. Each main line was compared to all cross lines for which there was overlapping data. The graphs shown in *Separates V are a random sample of the graphs that were produced. The graphs show the mean difference, RMS difference, and confidence interval for each beam. The results show that the multibeam data was repeatable with 90% of the soundings within about 8 to 14 centimeters across the swath. The six BASE surfaces for Sheet B were created at a scale of 1:10000 with a resolution of 2 meters. Soundings between the base surfaces agree to within 1 foot in all areas, with no visible draft or tidal errors between the survey junctions. No further correction to soundings is necessary. ***Concur. *Data filed with original field records.***

Multibeam quality control procedures are outlined in Section B.1 of the accompanying *Data Acquisition and Processing Report.

B.3 CORRECTIONS TO ECHO SOUNDINGS

No deviations from the Correction to Echo Soundings section in the *Data Acquisition and Processing Report occurred.

Data included with H-Cell Survey deliverables.

C. VERTICAL AND HORIZONTAL CONTROL *See also the H-Cell Report*

Tide and water level corrections were determined and applied in accordance with Attachment #7 of the Statement of Work. Tidal zoning as set forth in the Statement of Work was applied. Data from Port Fourchon, LA (8762075) was used as the primary source of tides, while Grand Isle, LA (8761724) was used as a back up. Because there were no outages at the primary station during the survey, the secondary station was not used for any tidal corrections. The following table shows the tidal zone and correctors that were used for this sheet. Tidal data were processed using the 1983-01 epoch.

Tide Zone	Reference Station	Primary/ Secondary	Time Corrector	Range Ratio
CGM366	8762075	PRIM	-12	1.05
CGM366	8761724	SEC	-48	1.23
CGM717	8762075	PRIM	-12	1.05
CGM717	8761724	SEC	-48	1.23
CGM718	8762075	PRIM	-12	1.05
CGM718	8761724	SEC	-42	1.23
CGM731	8762075	PRIM	-12	1.05
CGM731	8761724	SEC	-42	1.23
CGM732	8762075	PRIM	-6	1.09
CGM732	8761724	SEC	-42	1.27
CGM733	8762075	PRIM	-6	1.17
CGM733	8761724	SEC	-36	1.37
CGM734	8762075	PRIM	-6	1.09
CGM734	8761724	SEC	-36	1.27

CGM735	8762075	PRIM	-6	1.05
CGM735	8761724	SEC	-42	1.23
CGM749	8762075	PRIM	0	1.13
CGM749	8761724	SEC	-36	1.32
CGM750	8762075	PRIM	0	1.09
CGM750	8761724	SEC	-36	1.27
WGM416	8762075	PRIM	-6	1.21
WGM416	8761724	SEC	-36	1.42
CGM364	8762075	PRIM	-6	1.09
CGM364	8761724	SEC	-36	1.27

The horizontal datum for the survey is the North American Datum of 1983 (NAD 83). The projection is Universal Transverse Mercator (UTM) Zone 15 North. The vertical datum for the soundings is Mean Lower Low Water (MLLW). ***Concur.***

D. RESULTS AND RECOMMENDATIONS ***See also the H-Cell Report***

D.1 CHART COMPARISON

D.1.1 CHARTS AND NOTICES TO MARINERS

The following charts were used for comparison purposes.

Chart Number	Scale	Edition	Edition Date
11357	1:80,000	40	Jun 09
11340	1:458,596	74	Aug 09

The following table shows the last updated NM and LNM for each digital chart.

Chart Number	Corrected Through	
	NM	LNM
11357	Jun. 06/09	Jun. 02/09
11340	Aug 08/09	Jul 28/09

D.1.2 CHARTED FEATURES ***See Appendix II for all charting recommendations.***

No evidence of the following charted features was found during survey operations. It is recommended that these features be removed from the chart. All positions were taken from the chart, and are approximate.

Charted Feature	Chart Number	Latitude	Longitude
Submerged Obstruction rep (AWOIS ~~15604~~ ***14335***)	11357	28°57'00.720"N	90°29'00.240"W
Pipe PA (AWOIS ~~15788~~ ***14488***)	11357	28°56'04.920"N	90°29'26.160"W
Wk (rep 2009) 35	11357	29°00'21.600"N	90°20'18.800"W
Submerged Obstruction PA (AWOIS ~~15792~~ ***14492***)	11357	29°00'29.880"N	90°18'47.880"W
Submerged Obstruction rep PA (AWOIS ~~15796~~ ***14496***)	11357	28°57'00.360"N	90°18'29.880"W
Submerged Wreck (AWOIS ~~292~~ ***304***)	11357	28°56'31.920"N	90°20'32.280"W

Charted Feature	Chart Number	Latitude	Longitude
~~Submerged Obstruction rep~~	~~11340~~	~~28°57'09.316"N~~	~~90°29'01.602"W~~
~~Pipe PA~~	~~11340~~	~~28°56'06.890"N~~	~~90°29'25.660"W~~
~~Submerged Obstruction PA~~	~~11340~~	~~29°00'32.359"N~~	~~90°18'45.870"W~~
~~Submerged Obstruction PA 4 ¾~~	~~11340~~	~~28°58'05.870"N~~	~~90°19'32.972"W~~
~~Submerged Obstruction rep PA~~	~~11340~~	~~28°57'05.778"N~~	~~90°18'27.502"W~~
~~Submerged Wreck~~	~~11340~~	~~28°56'37.907"N~~	~~90°20'43.990"W~~

There are no hazardous features on these charts that were found during survey operations.

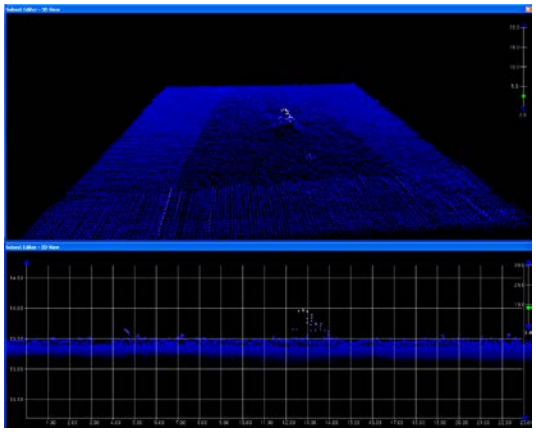
D.1.3 NOTICES TO MARINERS ***See Appendix II for charting recommendation.***

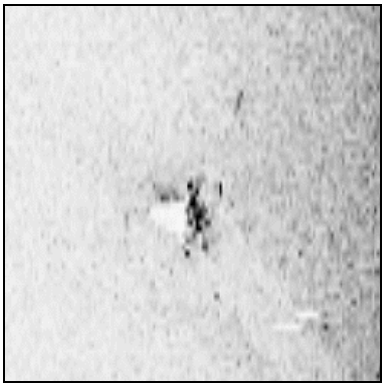
The Notices to Mariners were reviewed from the last updated notice for each digital chart, to Aug 23/2009. During that time, three notices to mariners were issued for the charted area within the survey bounds. ***Concur.***

In "LNM 23/09, 8th Dist", issued on 6/12/2009. An “add” Wreck, at position N29°00'21.600", W90°20'18.800" on chart 11357 was issued. This Wreck was

reported in 2009 to have a least depth of 35 ft. The wreck was not found at the time of survey. ***See Appendix II for charting recommendation.***

In "LNM 43/09, 8th Dist", issued on 10/29/2009. An "add" obstruction at position N28°58'05.500", W090°19'36.100" on charts 11357 and 11340 was issued. This obstruction was reported to in 2009 to have a least depth of 4 ¾ fathoms on chart 11340 and 29 feet on chart 11357. An insignificant target was found at this location during survey operations, and should not be charted as an obstruction. Below are the multibeam and sidescan images of this insignificant target. ***See Appendix II for charting recommendation.***





D.1.4 CHARTED SOUNDINGS

Chart 11340

Surveyed soundings are deeper than charted soundings by 2-6 feet. There is one 5-¾ fathom sounding in the northeast part of the survey area that is nearly 8 feet shoaler than the surrounding surveyed soundings. This can be seen in the image below. ***Concur.***

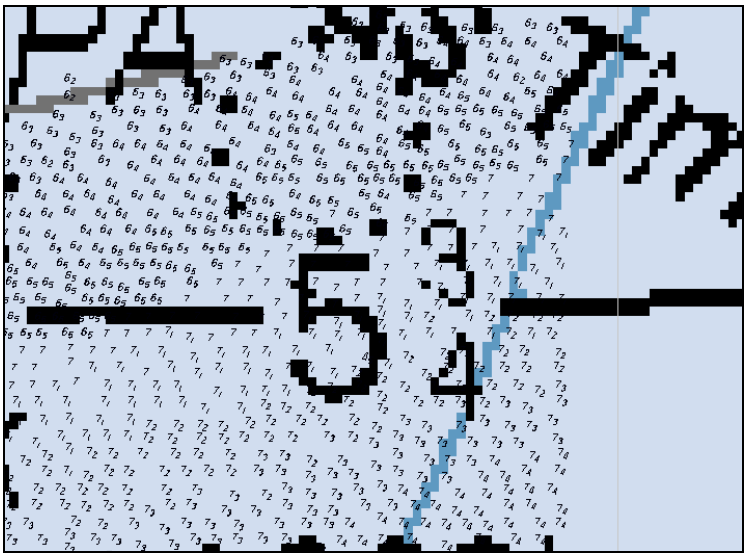


Chart 11357

Surveyed soundings are 2-6 feet deeper than charted soundings. ***Concur.***

D.1.5 SHOALS AND HAZARDOUS FEATURES ***See Appendix II for charting recommendation.***

There are no charted shoals within the survey bounds, and none were found during survey operations. Two new hazardous features were found during the survey, they are discussed in section D.1.7. All charted hazards within the survey area were assigned for full investigation as AWOIS items, and have been discussed in section D.1.6 of this report.

D.1.6 AWOIS ITEMS ***See Appendix II for charting recommendations.***

Five AWOIS items were assigned for full investigation within the H12049 survey area. ***Submitted AWOIS numbers are incorrectly reported as the ObjectID numbers from the AWOIS database. AHB has indicated the correct AWOIS record number.***

AWOIS ~~15796~~ ***14496***

Description: Obstruction

Charted Position: 28°57'00.18"N 90°18'29.87"W

Search Radius: 200 meters

Investigation Method: 200% Side Scan Sonar, Multibeam Echo sounder

Position Determined By: Differential GPS

Investigation Summary: This AWOIS item is described as an Obstruction, and is also found on charts number 11357 and 11340 as an Obstruction rep PA. No evidence of this item was found during the survey, and it is recommended that it be removed from the charts. ***Concur, delete Obstn PA at charted position.***

AWOIS ~~15792~~ ***14492***

Description: Obstruction

Charted Position: 29°00'30.00"N 90°18'48.00"W

Search Radius: 200 meters

Investigation Method: 200% Side Scan Sonar, Multibeam Echosounder

Position Determined By: Differential GPS

Investigation Summary: This AWOIS item is described as an Obstruction, and is also found on charts number 11357 and 11340 as an Obstruction PA. No evidence of this item was found during the survey, and it is recommended that it be removed from the charts. ***Concur, remove Obstn PA from charted position.***

AWOIS ~~292~~ ***304***

Description: Unknown

Charted Position: 28°56’31.84”N 90°20’32.29”W

Search Radius: 1000 meters

Investigation Method: 200% Side Scan Sonar, Multibeam Echosounder

Position Determined By: Differential GPS

Investigation Summary: This AWOIS item is described as Unknown, and is also found on charts number 11357 and 11340 as a Submerged Wreck. No evidence of this item was found during the survey, and it is recommended that it be removed from the charts. ***Concur, delete Submerged Wreck at charted position.***

AWOIS ~~15604~~ ***14335***

Description: Obstruction

Charted Position: 28°57’00.85”N 90°29’00.31”W

Search Radius: 300 meters

Investigation Method: 200% Side Scan Sonar, Multibeam Echosounder

Position Determined By: Differential GPS

Investigation Summary: This AWOIS item is described as an Obstruction, and is also found on charts number 11357 and 11340 as an Obstruction rep. No evidence of this item was found during the survey, and it is recommended that it be removed from the charts. ***Concur, delete Obs rep at charted position.***

AWOIS ~~15788~~ ***14488***

Description: Pipe

Charted Position: 28°56’05.00”N 90°29’26.00”W

Search Radius: 200 meters

Investigation Method: 200% Side Scan Sonar, Multibeam Echosounder

Position Determined By: Differential GPS

Investigation Summary: This AWOIS item is described as a Pipe, and is also found on charts number 11357 and 11340 as a Pipe PA. No evidence of this item

was found during the survey, and it is recommended that it be removed from the charts. ***Concur, delete Pipe PA from charted position.***

D.1.7 INVESTIGATION ITEMS

Additional investigation work was performed for twenty-four significant sonar contacts. Two to six additional multibeam and side scan lines were run over each of these targets. After review, the following two contacts were determined to be significant.

Item 2B – Submitted as H12049 DTON1 on

Least Depth: 28.924 ft

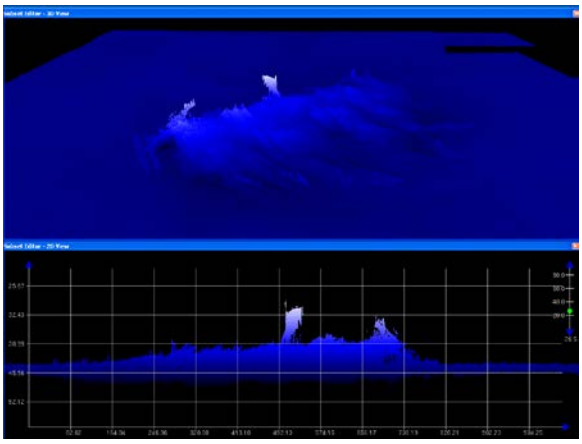
Multibeam Line: contact1angle

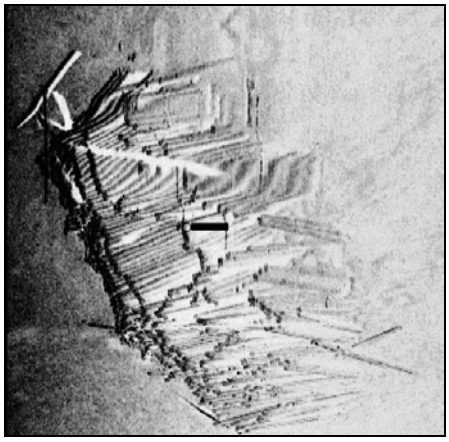
Position: 28°59'53.574"N, 90°18'36.383"W(NAD83)

Time Stamp: 2009-07-26 16:26:55.948

Hydrographer's recommendations: This contact has been marked as a designated sounding within the H12049 Caris project submitted in conjunction with this report. It is recommended that this contact be charted as a 29-foot submerged obstruction at ***28°59'53.574"N, -090°18'36.382"W (Coordinates were originally submitted and documented incorrectly, as 28°58'05.498"N, -090°19'36.098"W .)***

(NAD83). This contact was previously submitted as a danger to navigation. A copy of the report that was sent to NOAA can be found in section D.1.8 of this report. ***See Appendix I for charting recommendations.***





Item 21B

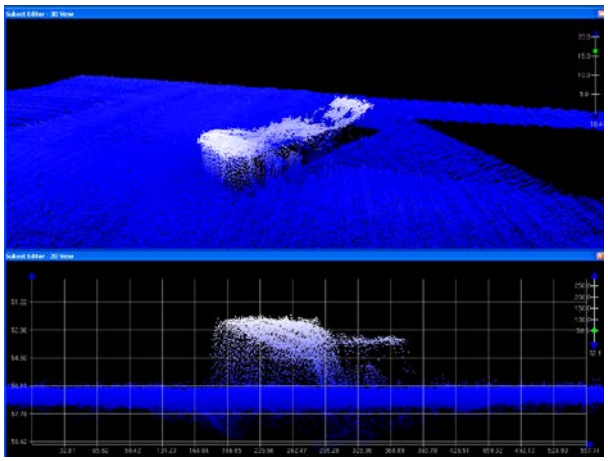
Least Depth: 51.890 ft

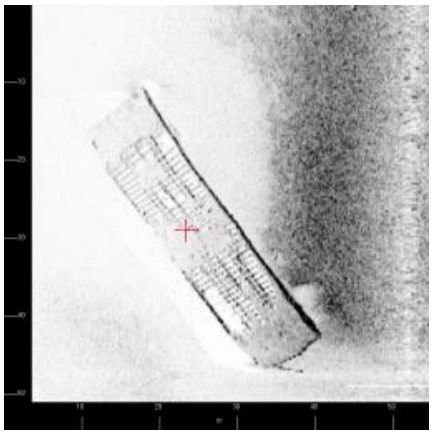
Multibeam Line: 21B-1

Position: ~~28°54'02.439"N, 90°29'29.968"W~~ ***28°59'53.574"N, -090°18'36.382"W*** (NAD83)

Time Stamp: 2009-08-14 08:31:05.725

Hydrographer's recommendations: This contact has been marked as a designated sounding within the H12049 Caris project submitted in conjunction with this report. It is recommended that this contact be charted as a 52-foot submerged obstruction at ~~28°54'02.439"N, 90°29'29.968"W~~ ***28°59'53.574"N, -090°18'36.382"W*** (NAD83).





D.1.8 DANGER TO NAVIGATION REPORTS ***See also Appendix I of this Report***

One danger to navigation report was issued. Below is a copy of the report that was sent to NOAA. ***One new danger to Navigation Report and a correction to the field submitted DTON was issued by AHB during processing of the present survey.***

H12049 Dton#1

Registry number: H12049
State: Louisiana
Locality: Louisiana Coast
Sub Locality: Entrance to Timbalier Bay
Project Number: OPR-K354-KR-09
Survey Dates: 26/07/2009 -13/08/2009

Charts Affected

Number	Edition	Date	Scale
11357	40th	7/1/2005	1:80 000

Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1	H12049_DTON1	Submerged Obstruction	29.39 feet no tidal correction	028° 58' 05.496" N	090° 19' 36.082" W	------

Danger to Navigation

Survey Summary

Survey Position: 028° 58' 05.496" N, 090° 19' 36.082" W
Least Depth: 29.39 ft
Timestamp: 2009-07-26 16:26:55.948
Survey Line: 2320-1 / 2B
Charts Affected: 11357

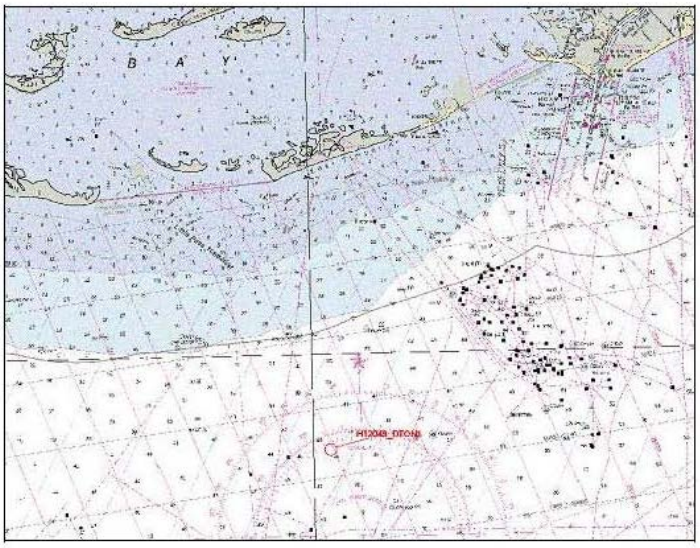
Remarks:

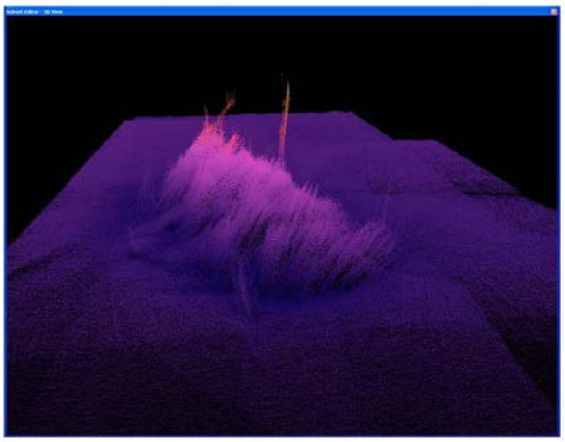
Least depth measurement of this contact is 29.39 ft in charted 46 ft depths. The feature was located with sidescan sonar and further developed using a multibeam echosounder.

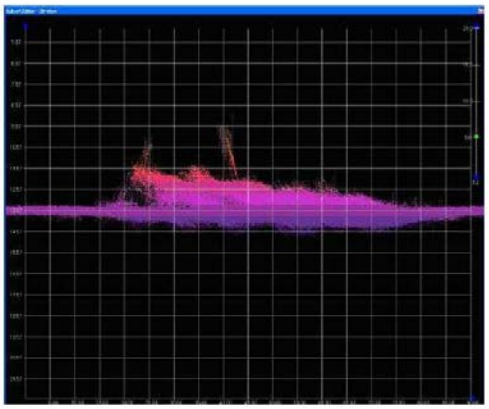
Hydrographers Recommendations:

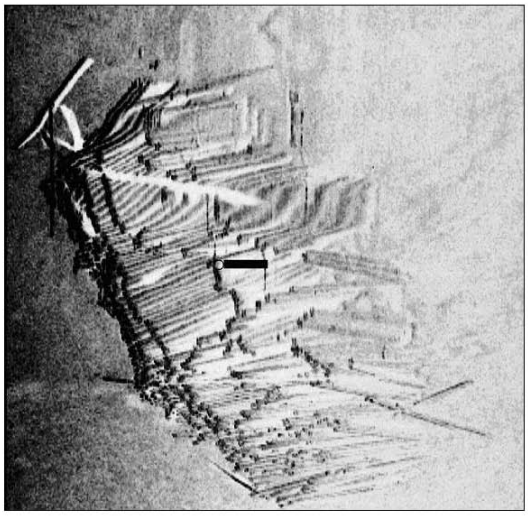
It is recommended that this item be charted as a 29 ft obstruction at 028° 58' 05.496" N, 090° 19' 36.082" W.

Feature Correlation









D.2 ADDITIONAL RESULTS

D.2.1 PRIOR SURVEYS

Comparison with prior surveys was not required under this Task Order. See Section D.1 for comparison to nautical charts. ***Concur.***

D.2.2 AIDS TO NAVIGATION

No aids to navigation area charted, and none were found within the survey bounds at the time of survey. ***Concur.***

D.2.3 EXISTING INFRASTUCTURE ***See also Appendix II of this Report***

The following charted structures were found as charted.

Charted Position			
Latitude	Longitude	Structure Type	Structure Name
28°56'45.137"N	90°25'07.988"W	Platform	No visible name
28°57'42.796"N	90°21'24.874"W	Platform	No visible name
28°58'02.483"N	90°20'34.717"W	Platform	ST-30-A
~~28°56'49.934"N~~ ***28°56'51.102"N***	~~90°19'20.917"W~~ ***90°19'22.313"W***	Platform	ST-38-1

~~28°56'35.386"N~~ ***28°56'36.775"N***	~~90°20'06.665"W~~ ***90°20'07.242"W***	Platform	ST-27-C
28°56'13.288"N	90°18'50.263"W	Platform	No visible name
28°54'56.537"N	90°20'48.846"W	Platform	No visible name
28°55'44.452"N	90°21'09.781"W	Platform	ST-37-J
28°55'43.210"N	90°21'10.365"W	Platform	ST-37-A
28°54'33.601"N	90°25'07.298"W	Platform	ST-49-A
28°55'23.700"N	90°25'56.005"W	Platform	ST-510-35E
28°56'00.213"N	90°24'48.186"W	Platform	ST-1035-7
28°56'19.426"N	90°26'05.877"W	Platform	ST-35
28°56'05.085"N	90°26'02.365"W	Platform	No visible name
28°53'21.157"N	90°29'27.967"W	Platform	ST-51-CE
~~28°53'36.030"N~~ ***28°53'36.324"N***	~~90°27'38.000"W~~ ***90°27'38.921"W***	Platform	ST-510-4
28°53'51.721"N	90°28'35.175"W	Platform	ST-51-CC
28°54'14.455"N	90°28'50.740"W	Platform	No visible name
28°54'51.819"N	90°28'03.339"W	Platform	No visible name
28°54'52.310"N	90°29'11.433"W	Platform	ST-34-B
28°54'50.190"N	90°29'12.567"W	Platform	~~ST-34-B~~
28°55'58.146"N	90°28'25.112"W	Platform	ST-34-E
28°54'09.117"N	90°27'22.887"W	Platform	No visible name

Structures found in the following locations are currently uncharted.

Surveyed Position			
Latitude	Longitude	Structure Type	Structure Name
28°56'43.652"N	90°21'57.668"W	Platform	ST-37-1

There was a number of lift boats found in the survey area at the time of survey. These "jack up rigs" are not permanent and should remain uncharted. ***Concur.***

Surveyed Position			
Latitude	Longitude	Structure Type	Structure Name
28°58'15.596"N	90°26'43.764"W	Lift boat	Hercules 267
28°58'10.250"N	90°26'36.416"W	Lift boat	Hercules 257
28°58'03.080"N	90°27'06.513"W	Lift boat	Hercules101

28°58'11.826"N	90°27'13.557"W	Lift boat	Hercules 211
28°58'11.652"N	90°27'06.980"W	Lift boat	Hercules 85
28°57'58.889"N	90°26'35.894"W	Lift boat	Hercules 120

The following is a list of structures that are currently charted, but were no longer present at the time of the survey.

Charted Position	
Latitude	Longitude
28°56'59.160"N	90°25'26.133"W
28°56'14.934"N	90°18'48.218"W
28°53'39.830"N	90°27'02.839"W
28°54'29.260"N	90°27'59.612"W
28°54'28.926"N	90°27'56.136"W
28°54'40.961"N	90°28'49.814"W
28°54'30.613"N	90°29'25.265"W
28°54'47.971"N	90°29'39.894"W
28°55'08.776"N	90°29'24.978"W
28°55'12.674"N	90°28'25.362"W
28°55'37.894"N	90°28'40.192"W
28°55'56.943"N	90°28'54.687"W
28°56'15.805"N	90°28'49.126"W

D.2.4 OTHER PERTINENT INFORMATION

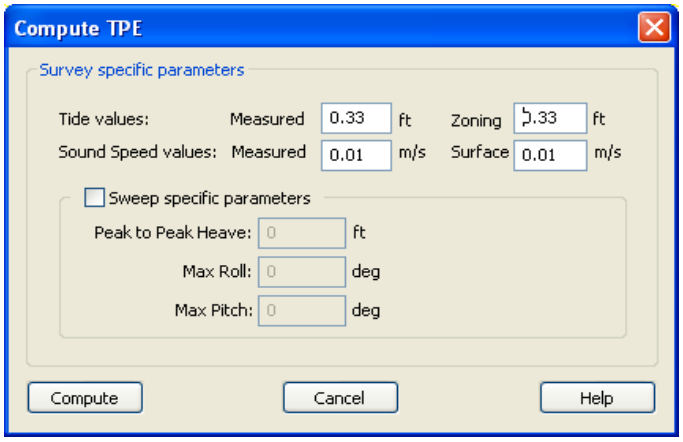
Draft corrections are verified on a daily basis, and entered into the multibeam collection software to be applied in real-time. Draft was entered directly into the single beam. ***Concur.***

Six separate BASE surfaces were created for this project, one for each subarea. All six BASE surfaces were created at 2-meter resolution. ***Concur.***

All of the side scan data collected for this project has been layback corrected. Data should be imported into Caris using fish position and zero layback correction. ***Concur with clarification. The CARIS vessel file needs the tow point static offsets for proper contact correlation and positioning.***

S57 feature files for oil and gas infrastructure, bottom samples, and obstructions have been submitted in a Caris Notebook project. ***Concur.***

All TPE values were calculated using the following settings. ***Concur.***



LETTER OF APPROVAL

REGISTRY NUMBER H12049

This report and the accompanying smooth sheet are respectfully submitted.

Field operations contributing to the accomplishment of the survey H12049 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-09.

John Baker
Chief of Party
C&C Technologies
April 2010

APPENDIX I

DANGERS TO NAVIGATION

H12049 DtoN #1 Revised

Registry Number: H12049
State: Louisiana
Locality: Gulf of Mexico
Sub-locality: Entrance to Timbalier Bay
Project Number: OPR-K354-CC-09
Survey Date: 01/01/1981

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
11357	40th	06/01/2009	1:80,000 (11357_1)	USCG LNM: 2/15/2011 (2/8/2011) NGA NTM: 10/16/2010 (2/19/2011)
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	DTON #1 - Add 29ft dangerous OBSTRN	Obstruction	8.81 m	28° 59' 53.6" N	090° 18' 36.4" W	---

1 - Dangers To Navigation

1.1) DTON #1 - Add 29ft dangerous OBSTRN

DANGER TO NAVIGATION

Survey Summary

Survey Position:	28° 59' 53.6" N, 090° 18' 36.4" W
Least Depth:	8.81 m (= 28.90 ft = 4.817 fm = 4 fm 4.90 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	1981-001.00:00:00.000 (01/01/1981)
GP Dataset:	H12049_K354_CC / H12049_Caris_Notebook / S57 / H12049_obstructions.000
GP No.:	1C1C000007980001
Charts Affected:	11357_1, 1116A_1, 11340_1, 411_1

Remarks:

Least depth measurement of this contact is 28.9 ft in charted 46 ft depths. The Feature was located with sidescan sonar and further developed using a multibeam echosounder. Documented in DR, page 14.

"Item 2B – Submitted as H12049 DTON1 on

Least Depth: 28.924 ft

Multibeam Line: contact1angle

Position: 28°59’53.574”N, 90°18’36.383”W(NAD83)

Time Stamp: 2009-07-26 16:26:55.948

Hydrographer’s recommendations: This contact has been marked as a designated sounding within the H12049 Caris project submitted in conjunction with this report. It is recommended that this contact be charted as a 29-foot submerged obstruction at 28°59’53.574”N, 90°18’36.383”W(NAD83). This contact was previously submitted as a danger to navigation. A copy of the report that was sent to NOAA can be found in section D.1.8 of this report."

The DtoN#1 location was reported to be incorrect. However, the feature associated with this location is correct.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H12049_K354_CC/H12049_Caris_Notebook/S57/H12049_obstructions.000	1C1C000007980001	0.00	000.0	Primary

Hydrographer Recommendations

DtoN #1 was submitted by the field unit as being located in 28-58-05.5N, 090-19-36.1W. The field unit associated and submitted the DtoN #1 with an incorrect geographic location. It is recommended that this item be charted as a 29 ft obstruction at the present survey location.

Cartographically-Rounded Depth (Affected Charts):

29ft (11357_1)

4 ¾fm (1116A_1, 11340_1, 411_1)

S-57 Data

Geo object 1:	Obstruction (OBSTRN)
Attributes:	QUASOU - 6:least depth known
	SORDAT - 20090823
	SORIND - US,US,graph,H12049
	TECSOU - 2,3:found by side scan sonar,found by multi-beam
	VALSOU - 8.810 m
	WATLEV - 3:always under water/submerged

Office Notes

Concur with clarification. DTON #1 - Delete incorrectly charted dangerous obstruction, least depth 29 ft.(rep 2009) in 28°58'05.498”N, 090°19'36.098"W. Add dangerous obstruction, least depth 29 ft at the current survey position, 28°59'53.574”N, 090°18'36.382"W.

Feature Images

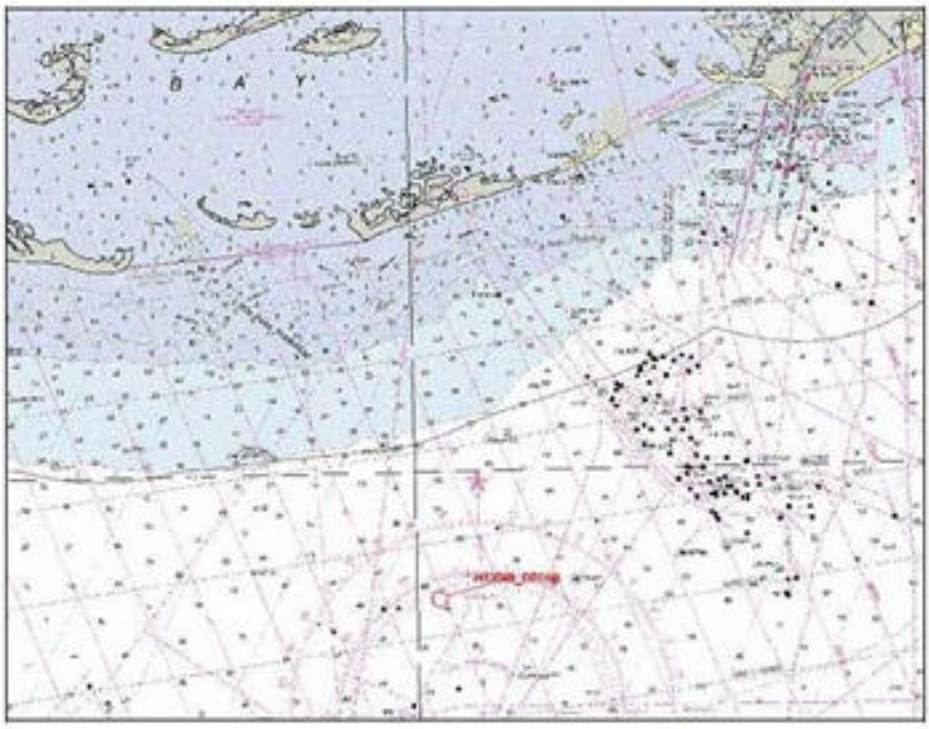


Figure 1.1.1

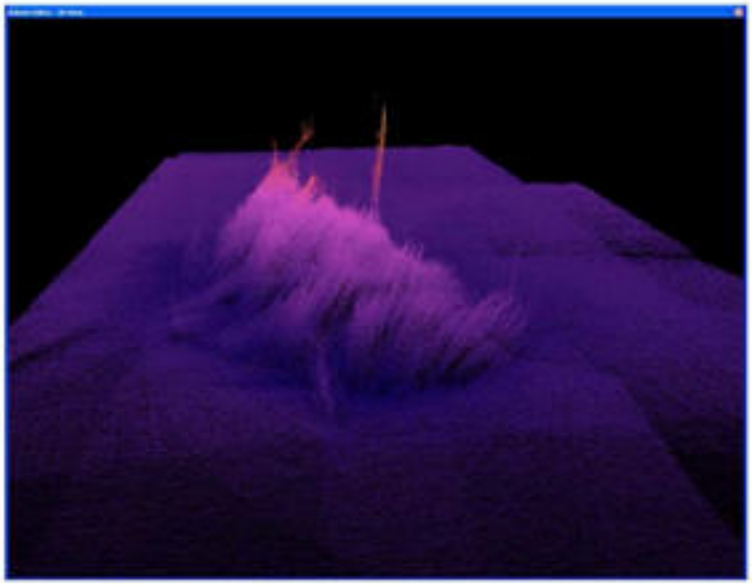


Figure 1.1.2

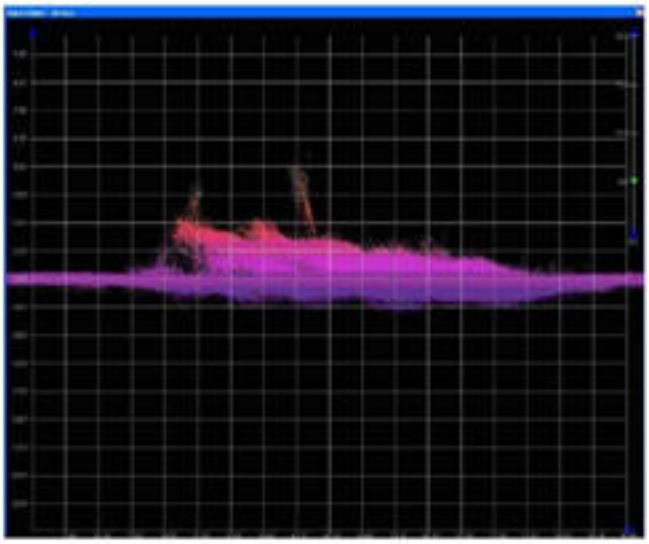


Figure 1.1.3

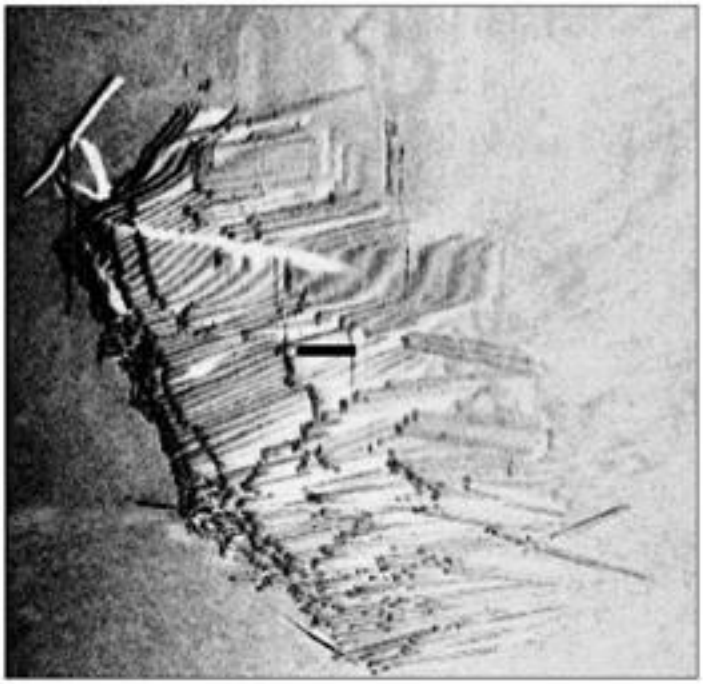


Figure 1.1.4

1.1) DTON #2 - Delete charted 52 ft dangerous OBSTRN, Add 52 ft dangerous single WRECKS (Barge)

DANGER TO NAVIGATION

Survey Summary

Survey Position: 28° 54' 02.4" N, 090° 29' 30.0" W

Least Depth: 15.82 m (= 51.90 ft = 8.650 fm = 8 fm 3.90 ft)

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

Timestamp: 1981-001.00:00:00.000 (01/01/1981)

GP Dataset: H12049_K354_CC / H12049_Caris_Notebook / S57 / H12049_obstructions.000

GP No.: 1C1C000007990001

Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

Least depth measurement of this obstruction is 51.890 feet in charted 53 ft depths. After observed tide corrections, the surveyed depths in this area are 56 feet, meaning this obstruction protrudes 4.1 feet above the sea floor. The obstruction was located with

sidescan sonar and further developed using a multibeam echo sounder.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H12049_K354_CC/H12049_Caris_Notebook/S57/H12049_obstructions.000	1C1C000007990001	0.00	000.0	Primary

Hydrographer Recommendations

It is recommended that this item is charted as a 52 ft obstruction at 28/54/02.439N, 090/29/30.968W.

Cartographically-Rounded Depth (Affected Charts):

52ft (11357_1)

8 ½fm (1116A_1, 11340_1, 411_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: QUASOU - 6:least depth known

SORDAT - 20090823

SORIND - US,US,graph,H12049

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

VALSOU - 15.820 m

WATLEV - 3:always under water/submerged

Office Notes

Concur with clarification. H12049_DtoN#2 submitted during AHB processing and is currently shown on the latest editon of NOS Chart 11357 as a 52 foot dangerous Obstruction in Lat 28-54-02.40, Lon 90-29-30.00. Delete charted 52 foot dangerous obstruction and chart a dangerous wreck (barge) with a least depth of 52 feet in the present survey position.

Feature Images

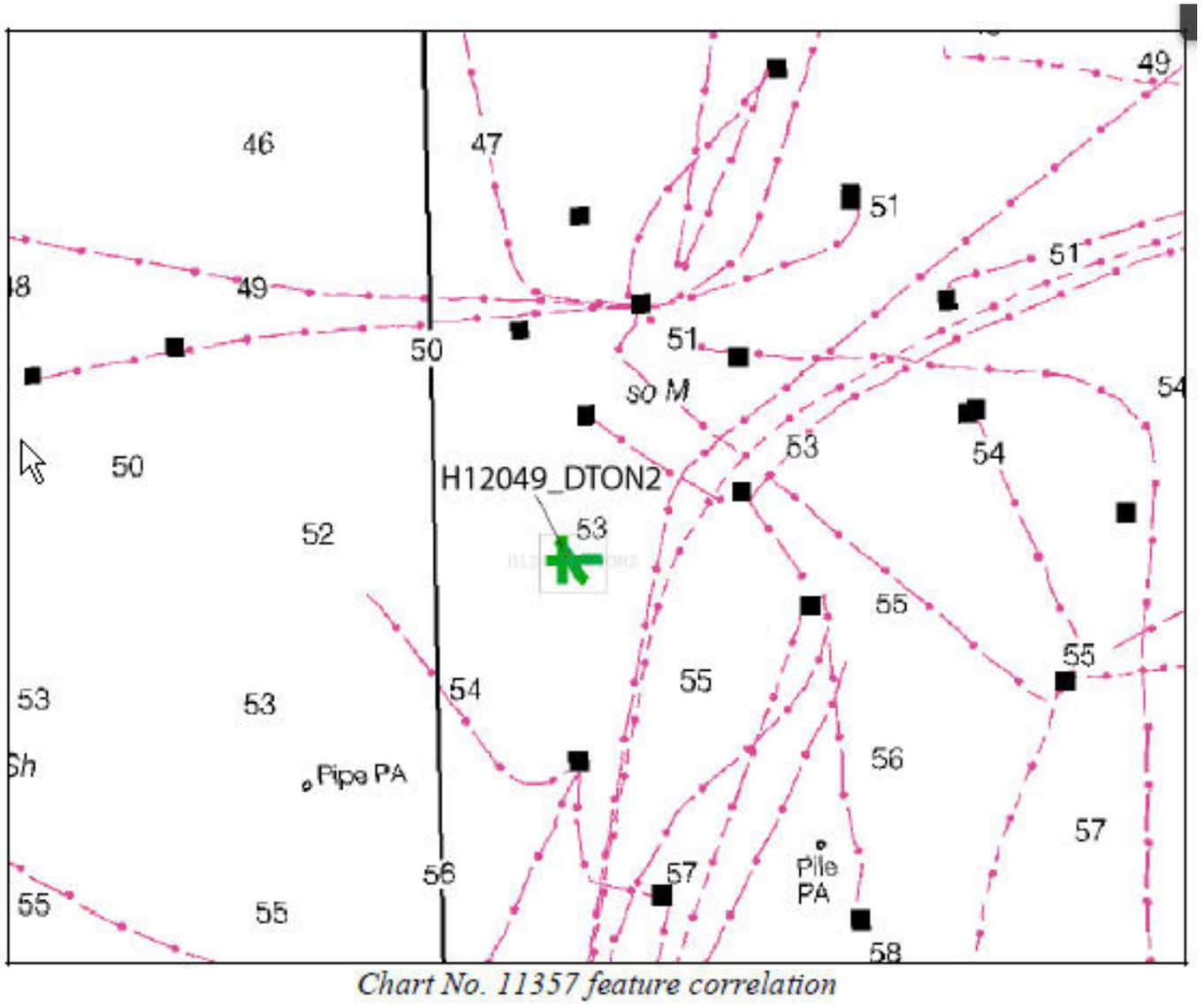


Figure 1.1.1

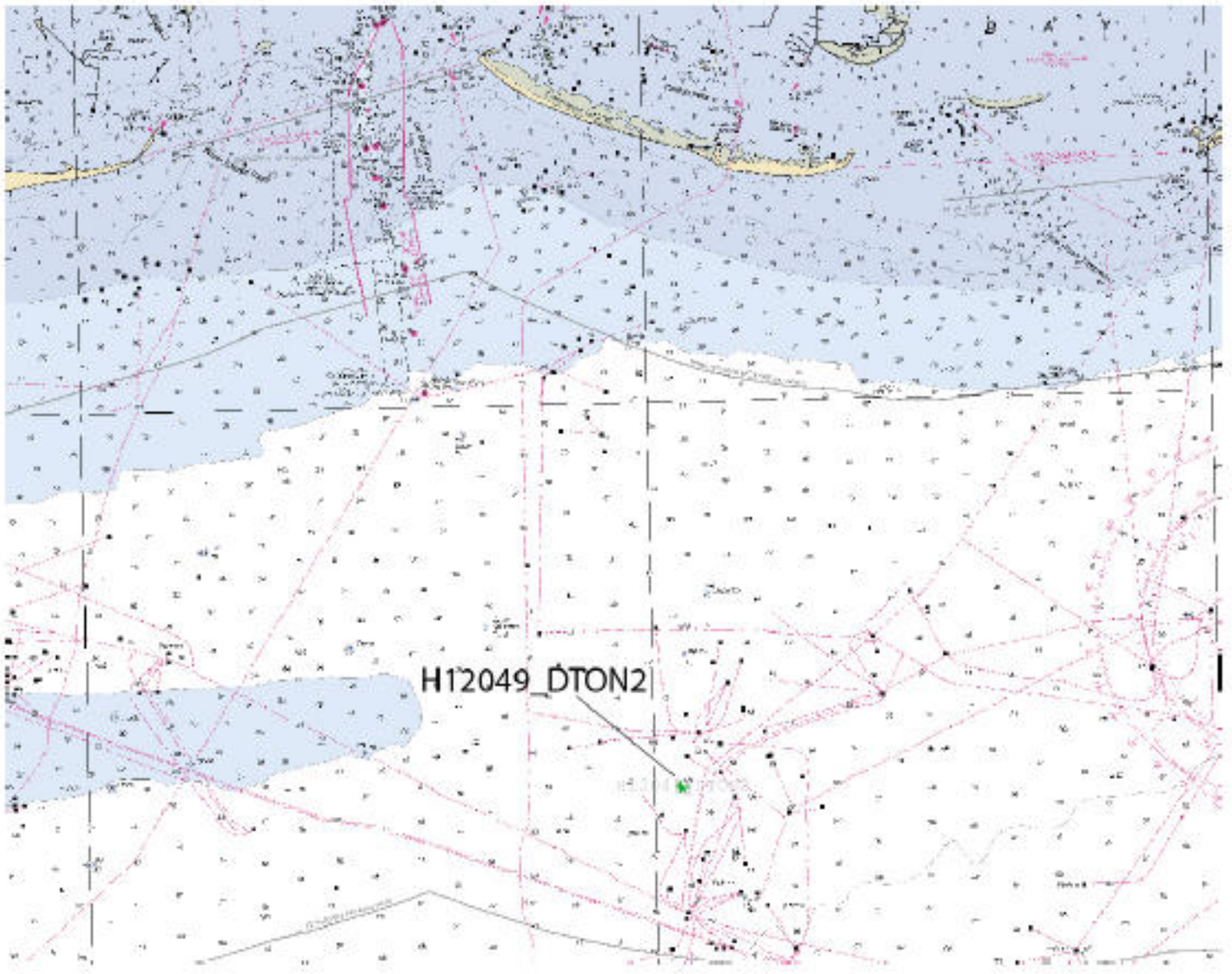
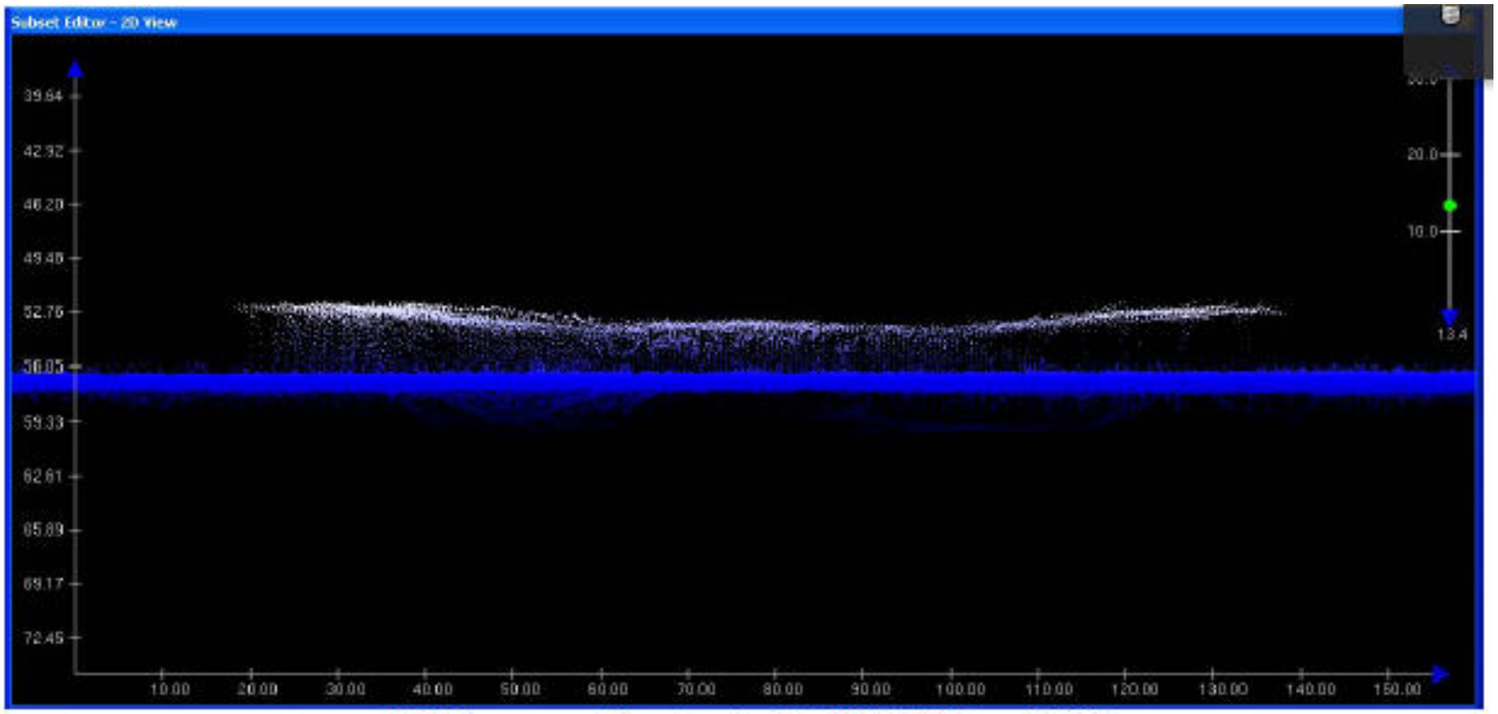
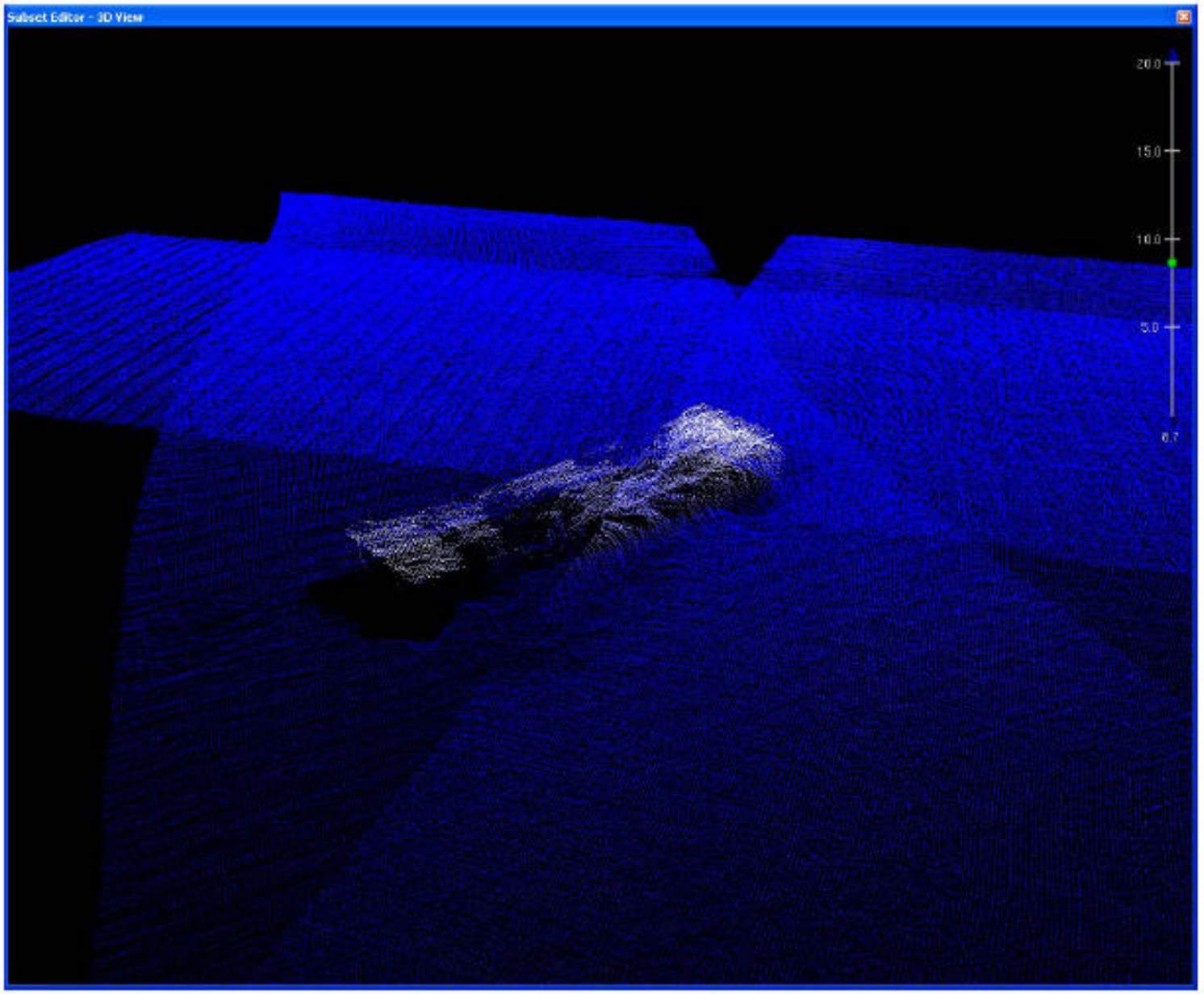


Figure 1.1.2



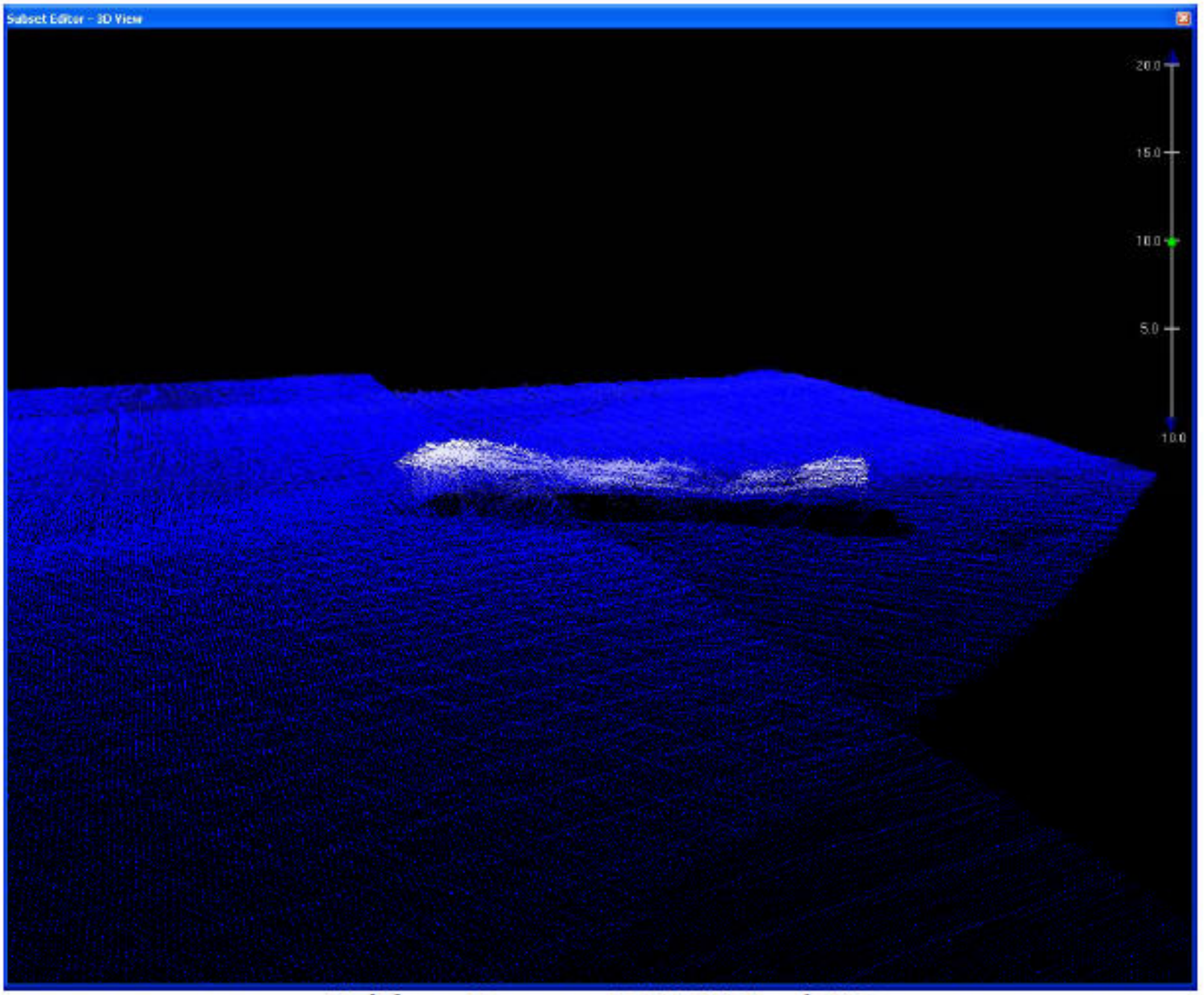
Mulitbeam profile view in CARIS HIPS and SIPS

Figure 1.1.3



Mulitbeam 3D view in CARIS HIPS and SIPS

Figure 1.1.4



Mulitbeam 3D view in CARIS HIPS and SIPS

Figure 1.1.5

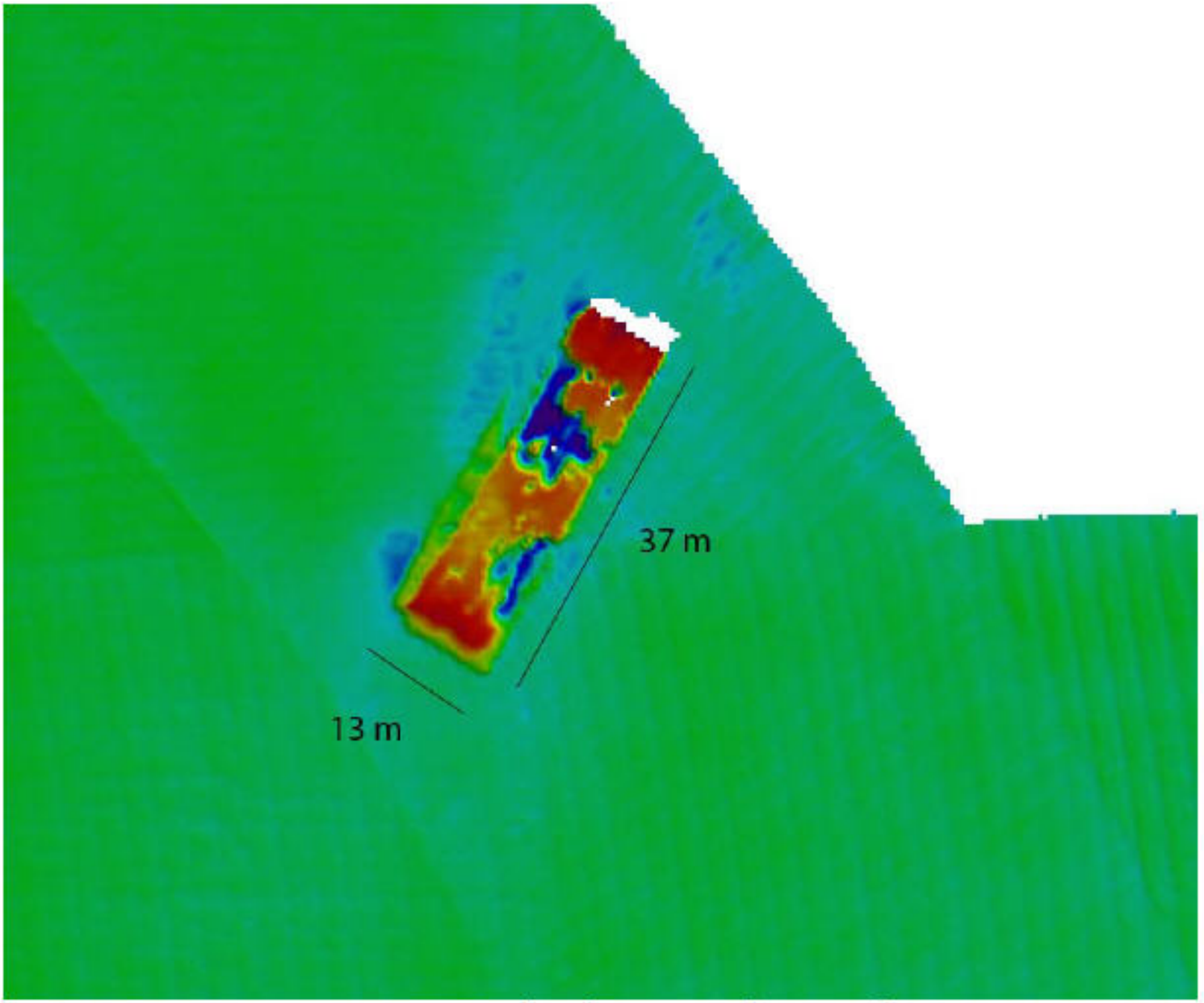
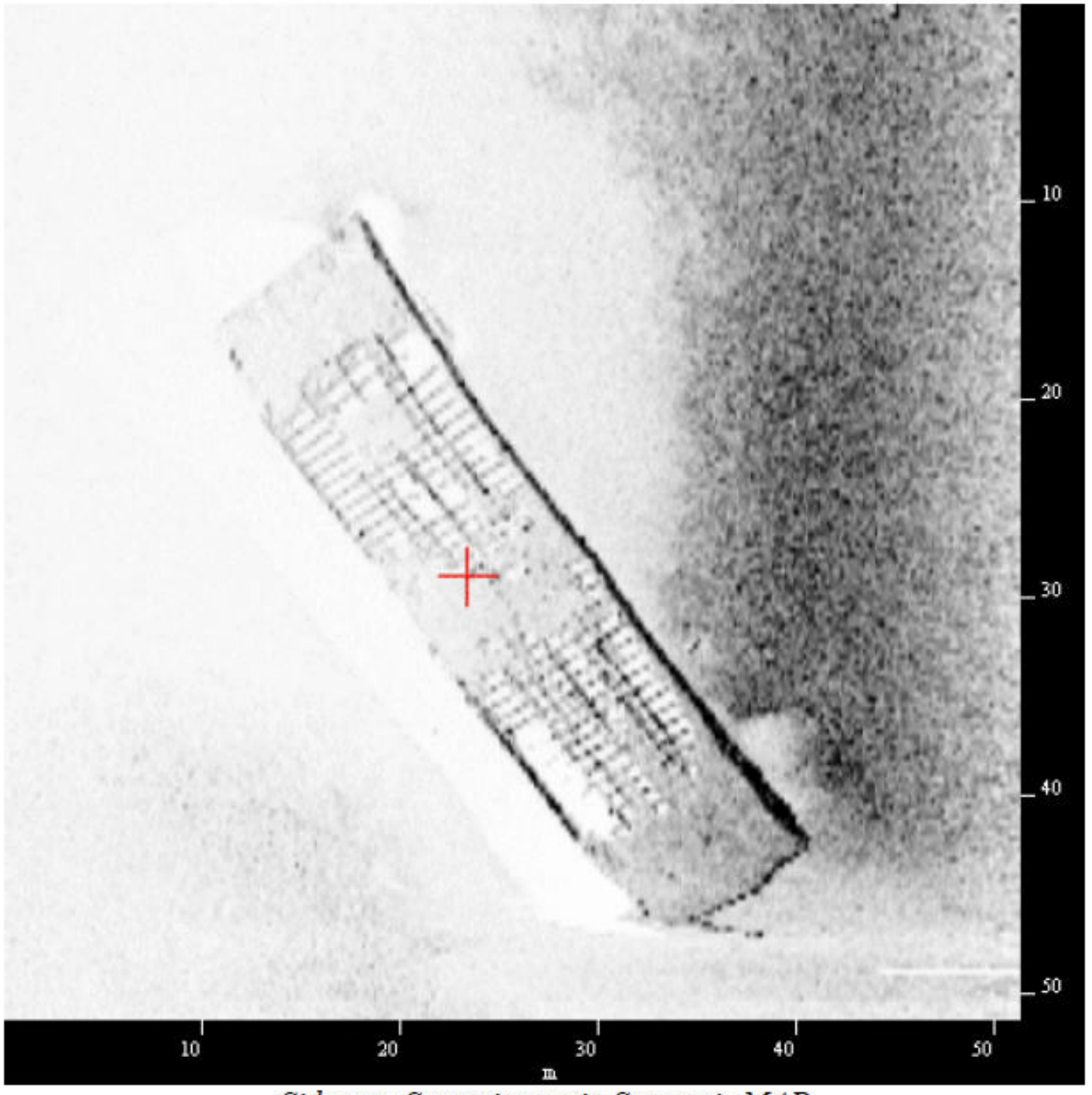


Figure 1.1.6



Sidescan Sonar image in Sonarwiz MAP

Figure 1.1.7

APPENDIX II

SURVEY FEATURES REPORT

H12049_AWOIS Report

Registry Number: H12049
State: Louisiana
Locality: Gulf of Mexico
Sub-locality: Entrance to Timbalier Bay
Project Number: OPR-K354-CC-09
Survey Date: 01/01/1981

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
11357	40th	06/01/2009	1:80,000 (11357_1)	USCG LNM: 2/15/2011 (2/8/2011) NGA NTM: 10/16/2010 (2/19/2011)
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 14488 - Delete PIPLNT	GP	[None]	28° 56' 05.0" N	090° 29' 26.0" W	---
1.2	AWOIS 14335 - Delete OBSTRN	GP	[None]	28° 57' 00.8" N	090° 29' 00.3" W	---
1.3	AWOIS 304 - Delete single WRECKS	GP	[None]	28° 56' 31.8" N	090° 20' 32.3" W	---
1.4	AWOIS 14492 - Delete OBSTRN	GP	[None]	29° 00' 30.0" N	090° 18' 48.0" W	---
1.5	AWOIS 14496 - Delete OBSTRN	GP	[None]	28° 57' 00.2" N	090° 18' 29.9" W	---

1 - AWOIS

1.1) AWOIS 14488 - Delete PIPLNT

Survey Summary

Survey Position: 28° 56' 05.0" N, 090° 29' 26.0" W

Least Depth: [None]

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

Timestamp: 1981-001.00:00:00.000 (01/01/1981)

GP Dataset: COMPILE / Working / HOB's / H12049_PYDRO_Features_1.000

GP No.: 022600028B0A0001

Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

USCG 8th - 46ft pipe rept sticking above waterline 06/08/01 by MSO Morgan City at 28/56/05N 90/29/26W. (ETR 03/11/09)

AWOIS 14488

Description: Pipe

Charted Position: 28°56’05.00”N 90°29’26.00”W

Search Radius: 200 meters

Investigation Method: 200% Side Scan Sonar, Multibeam Echosounder

Position Determined By: Differential GPS

Investigation Summary: This AWOIS item is described as a Pipe, and is also found on charts number 11357 and 11340 as a Pipe PA. No evidence of this item was found during the survey, and it is recommended that it be removed from the charts.

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/H12049_PYDRO_Features_1.000	022600028B0A0001	0.00	000.0	Primary

Hydrographer Recommendations

No evidence of this item was found during the survey, and it is recommended that it be removed from the charts.

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Attributes: INFORM - AWOIS 14488

NINFOM - Delete PILPNT

Office Notes

Concur with clarification. Disproved feature is AWOIS Item #14488. Delete charted dangerous PILPNT (Pipe) PA.

Update AWOIS database.

1.2) AWOIS 14335 - Delete OBSTRN

Survey Summary

Survey Position: 28° 57' 00.8" N, 090° 29' 00.3" W

Least Depth: [None]

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

Timestamp: 1981-001.00:00:00.000 (01/01/1981)

GP Dataset: COMPILE / Working / HOB's / H12049_PYDRO_Features_1.000

GP No.: 022600028B090001

Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

LNM49/60--8th CGD, 04/30/60: 136ft Steel drill tower. 12ft water over wreckage. (ETR 09/09/08)

AWOIS 14335

Description: Obstruction

Charted Position: 28°57’00.85”N 90°29’00.31”W

Search Radius: 300 meters

Investigation Method: 200% Side Scan Sonar, Multibeam Echosounder

Position Determined By: Differential GPS

Investigation Summary: This AWOIS item is described as an Obstruction, and is also found on charts number 11357 and 11340 as an Obstruction rep. No evidence of this item was found during the survey, and it is recommended that it be removed from the charts.

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/H12049_PYDRO_Features_1.000	022600028B090001	0.00	000.0	Primary

Hydrographer Recommendations

No evidence of this item was found during the survey, and it is recommended that it be removed from the charts.

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Attributes: INFORM - AWOIS 14335

NINFOM - Delete OBSTRN

Office Notes

Concur with clarification. Disproved feature is AWOIS Item #14335. Delete charted dangerous OBSTRN (obstruction) rep.

Update AWOIS database.

1.3) AWOIS 304 - Delete single WRECKS

Survey Summary

Survey Position: 28° 56' 31.8" N, 090° 20' 32.3" W

Least Depth: [None]

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

Timestamp: 1981-001.00:00:00.000 (01/01/1981)

GP Dataset: COMPILE / Working / HOB's / H12049_PYDRO_Features_1.000

GP No.: 022600028B0E0001

Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

NM DATED 2/28/46

AWOIS 304

Description: Unknown

Charted Position: 28°56’31.84”N 90°20’32.29”W

Search Radius: 1000 meters

Investigation Method: 200% Side Scan Sonar, Multibeam Echosounder

Position Determined By: Differential GPS

Investigation Summary: This AWOIS item is described as Unknown, and is also found on charts number 11357 and 11340 as a Submerged Wreck. No evidence of this item was found during the survey, and it is recommended that it be removed from the charts.

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/H12049_PYDRO_Features_1.000	022600028B0E0001	0.00	000.0	Primary

Hydrographer Recommendations

No evidence of this item was found during the survey, and it is recommended that it be removed from the charts.

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Attributes: INFORM - AWOIS 304

NINFOM - Delete single WRECKS

Office Notes

Concur with clarification. Disproved feature is AWOIS Item #304. Delete charted dangerous sunken WRECKS (wreck), unknown depth.

Update AWOIS database.

1.4) AWOIS 14492 - Delete OBSTRN

Survey Summary

Survey Position: 29° 00' 30.0" N, 090° 18' 48.0" W

Least Depth: [None]

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

Timestamp: 1981-001.00:00:00.000 (01/01/1981)

GP Dataset: COMPILE / Working / HOB's / H12049_PYDRO_Features_1.000

GP No.: 022600028B0C0001

Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

USCG 8th - Obstruction PA at 29/00/30N 90/18/48W. (ETR 03/11/09)

LNM37/08

AWOIS 14492

Description: Obstruction

Charted Position: 29°00’30.00”N 90°18’48.00”W

Search Radius: 200 meters

Investigation Method: 200% Side Scan Sonar, Multibeam Echosounder

Position Determined By: Differential GPS

Investigation Summary: This AWOIS item is described as an Obstruction, and is also found on charts number 11357 and 11340 as an Obstruction PA.

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/H12049_PYDRO_Features_1.000	022600028B0C0001	0.00	000.0	Primary

Hydrographer Recommendations

No evidence of this item was found during the survey, and it is recommended that it be removed from the charts.

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Attributes: INFORM - AWOIS 14492

NINFOM - Delete OBSTRN

Office Notes

Concur with clarification. Disproved feature is AWOIS Item #14492. Delete charted dangerous OBSTRN (obstruction) PA, depth unknown.

Update AWOIS database.

1.5) AWOIS 14496 - Delete OBSTRN

Survey Summary

Survey Position: 28° 57' 00.2" N, 090° 18' 29.9" W

Least Depth: [None]

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

Timestamp: 1981-001.00:00:00.000 (01/01/1981)

GP Dataset: COMPILE / Working / HOB's / H12049_PYDRO_Features_1.000

GP No.: 022600028B0D0001

Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

Scaled from chart. First appeared on 1965 edition of chart 11357 as Obstn rep PA. (ETR 03/11/09)

AWOIS 14496

Description: Obstruction

Charted Position: 28°57’00.18”N 90°18’29.87”W

Search Radius: 200 meters

Investigation Method: 200% Side Scan Sonar, Multibeam Echo sounder

Position Determined By: Differential GPS

Investigation Summary: This AWOIS item is described as an Obstruction, and is also found on charts number 11357 and 11340 as an Obstruction rep PA.

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/H12049_PYDRO_Features_1.000	022600028B0D0001	0.00	000.0	Primary

Hydrographer Recommendations

No evidence of this item was found during the survey, and it is recommended that it be removed from the charts.

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Attributes: INFORM - AWOIS 14496

NINFOM - Delete OBSTRN

Office Notes

Concur with clarification. Disproved feature is AWOIS Item #14496. Delete dangerous OBSTRN (obstruction) PA, rep, depth unknown.

Update AWOIS database.

H12049_Charted Features Report

Registry Number: H12049
State: Louisiana
Locality: Gulf of Mexico
Sub-locality: Entrance to Timbalier Bay
Project Number: OPR-K354-CC-09
Survey Dates: 01/01/1981 - 07/26/2009

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
11357	40th	06/01/2009	1:80,000 (11357_1)	USCG LNM: 2/15/2011 (2/8/2011) NGA NTM: 10/16/2010 (2/19/2011)
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	Delete charted OFSPLF, Add present survey OFSPLF ST-51-CE	Open buoy	[None]	28° 53' 21.2" N	090° 29' 28.0" W	---
1.2	Delete charted OFSPLF, Add present survey OFSPLF.ST-34-B	GP	[None]	28° 54' 52.3" N	090° 29' 11.4" W	---
1.3	Delete charted OFSPLF, Add present survey OFSPLF	GP	[None]	28° 54' 14.5" N	090° 28' 50.7" W	---
1.4	Delete charted OFSPLF, Add present survey OFSPLF ST-51-CC	GP	[None]	28° 53' 51.7" N	090° 28' 35.2" W	---
1.5	Delete charted OFSPLF, Add present survey OFSPLF ST-34-E	GP	[None]	28° 55' 58.1" N	090° 28' 25.1" W	---
1.6	Delete charted OFSPLF, Add present survey OFSPLF	GP	[None]	28° 54' 51.8" N	090° 28' 03.3" W	---
1.7	Delete charted OFSPLF, Add present survey OFSPLF ST-510-4	GP	[None]	28° 53' 36.0" N	090° 27' 38.0" W	---
1.8	Delete charted OFSPLF, Add present survey OFSPLF	GP	[None]	28° 54' 09.1" N	090° 27' 22.9" W	---
1.9	Delete charted OFSPLF, Add present survey OFSPLF ST-35	GP	[None]	28° 56' 19.4" N	090° 26' 05.9" W	---
1.10	Delete charted OFSPLF, Add present survey OFSPLF	GP	[None]	28° 56' 05.1" N	090° 26' 02.4" W	---
1.11	Delete charted OFSPLF, Add present survey OFSPLF ST-510-35E	GP	[None]	28° 55' 23.7" N	090° 25' 56.0" W	---
1.12	Delete charted OFSPLF, Add present survey OFSPLF	GP	[None]	28° 56' 45.1" N	090° 25' 08.0" W	---
1.13	Delete charted OFSPLF, Add present survey OFSPLF ST-49-A	GP	[None]	28° 54' 33.6" N	090° 25' 07.3" W	---

1.14	Delete charted OFSPLF, Add present survey OFSPLF ST-1035-7	GP	[None]	28° 56' 00.2" N	090° 24' 48.2" W	---
1.15	Delete charted OFSPLF, Add present survey OFSPLF	GP	[None]	28° 57' 42.8" N	090° 21' 24.9" W	---
1.16	Delete charted OFSPLF, Add present survey OFSPLF ST-37-A	GP	[None]	28° 55' 43.2" N	090° 21' 10.4" W	---
1.17	Delete charted OFSPLF, Add present survey OFSPLF ST-37-J	GP	[None]	28° 55' 44.5" N	090° 21' 09.8" W	---
1.18	Delete charted OFSPLF, Add present survey OFSPLF	GP	[None]	28° 54' 56.5" N	090° 20' 48.8" W	---
1.19	Delete charted OFSPLF, Add present survey OFSPLF ST-30-A	GP	[None]	28° 58' 02.5" N	090° 20' 34.7" W	---
1.20	Delete charted OFSPLF, Add present survey OFSPLF ST-27-C	GP	[None]	28° 56' 35.4" N	090° 20' 06.7" W	---
1.21	Delete charted OFSPLF, Add present survey OFSPLF ST-38-1	GP	[None]	28° 56' 49.9" N	090° 19' 20.9" W	---
1.22	Delete charted OFSPLF, Add present survey OFSPLF	GP	[None]	28° 56' 13.3" N	090° 18' 50.3" W	---
1.23	Delete charted OFSPLF, Add present survey OFSPLF	GP	[None]	28° 56' 29.7" N	090° 29' 55.1" W	---
1.24	DTON #1 GP error - Delete charted dangerous 29 ft OBSTRN (Rep 2009)	Obstruction	8.50 m	28° 58' 05.5" N	090° 19' 36.1" W	---
1.25	Delete OFSPLF	GP	[None]	28° 54' 47.3" N	090° 29' 40.1" W	---
1.26	Delete SBDARE	GP	[None]	28° 56' 31.0" N	090° 29' 27.1" W	---
1.27	Delete OFSPLF	GP	[None]	28° 55' 09.8" N	090° 29' 25.6" W	---
1.28	Delete OFSPLF	GP	[None]	28° 54' 30.5" N	090° 29' 25.1" W	---
1.29	Delete SBDARE	GP	[None]	28° 54' 34.8" N	090° 29' 07.9" W	---
1.30	Delete OFSPLF	GP	[None]	28° 55' 56.8" N	090° 28' 55.7" W	---
1.31	Delete SBDARE	GP	[None]	28° 59' 02.4" N	090° 28' 54.6" W	---
1.32	Delete OFSPLF	GP	[None]	28° 54' 40.9" N	090° 28' 49.8" W	---
1.33	Delete OFSPLF	GP	[None]	28° 56' 16.0" N	090° 28' 47.6" W	---
1.34	Delete OFSPLF	GP	[None]	28° 55' 38.2" N	090° 28' 40.1" W	---
1.35	Delete OFSPLF	GP	[None]	28° 55' 13.4" N	090° 28' 23.9" W	---
1.36	Delete OFSPLF	GP	[None]	28° 55' 11.7" N	090° 28' 23.9" W	---
1.37	Delete OFSPLF	GP	[None]	28° 54' 29.1" N	090° 27' 58.9" W	---
1.38	Delete OFSPLF	GP	[None]	28° 54' 29.8" N	090° 27' 56.2" W	---
1.39	Delete OFSPLF	GP	[None]	28° 53' 40.7" N	090° 27' 02.3" W	---
1.40	Delete OFSPLF	GP	[None]	28° 56' 59.7" N	090° 25' 25.8" W	---
1.41	Delete SBDARE	GP	[None]	28° 56' 39.0" N	090° 25' 06.7" W	---
1.42	Delete SBDARE	GP	[None]	28° 59' 31.6" N	090° 22' 35.3" W	---
1.43	Delete SBDARE	GP	[None]	28° 58' 34.7" N	090° 22' 31.9" W	---
1.44	Delete SBDARE	GP	[None]	28° 56' 19.4" N	090° 22' 14.6" W	---
1.45	Delete SBDARE	GP	[None]	28° 54' 03.2" N	090° 21' 51.4" W	---
1.46	Delete single WRECKS	GP	[None]	29° 00' 21.9" N	090° 20' 18.4" W	---
1.47	Delete OFSPLF	GP	[None]	28° 56' 15.1" N	090° 18' 48.4" W	---

1 - Charted

1.1) Delete charted OFSPLF, Add present survey OFSPLF ST-51-CE

Survey Summary

Survey Position: 28° 53' 21.2" N, 090° 29' 28.0" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: H12049_K354_CC / H12049_Caris_Notebook / S57 / H12049_platforms.000
GP No.: 1C1C0000014F0001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

Structure found.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H12049_K354_CC/H12049_Caris_Notebook/S57/H12049_platforms.000	1C1C0000014F0001	0.00	000.0	Primary

Hydrographer Recommendations

Chart structure at present survey position.

S-57 Data

Geo object 1: Offshore platform (OFSPLF)
Attributes: CATOFP - 2:production platform
OBJNAM - ST-51-CE
SORDAT - 20080923
SORIND - US,US,graph,H12049

Office Notes

Concur. Delete charted OFSPLF, Add present survey OFSPLF.

1.2) Delete charted OFSPLF, Add present survey OFSPLF.ST-34-B

Survey Summary

Survey Position: 28° 54' 52.3" N, 090° 29' 11.4" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: H12049_K354_CC / H12049_Caris_Notebook / S57 / H12049_platforms.000
GP No.: 1C1C000001580001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

Structure found as charted.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H12049_K354_CC/H12049_Caris_Notebook/S57/H12049_platforms.000	1C1C000001580001	0.00	000.0	Primary

Hydrographer Recommendations

Chart structure at current survey position.

S-57 Data

Geo object 1: Offshore platform (OFSPLF)
Attributes: CATOFP - 2:production platform
OBJNAM - ST-34-B
SORDAT - 20090823
SORIND - US,US,graph,H12049

Office Notes

Concur. Delete charted OFSPLF, Add present survey OFSPLF.

1.3) Delete charted OFSPLF, Add present survey OFSPLF

Survey Summary

Survey Position: 28° 54' 14.5" N, 090° 28' 50.7" W

Least Depth: [None]

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

Timestamp: 1981-001.00:00:00.000 (01/01/1981)

GP Dataset: H12049_K354_CC / H12049_Caris_Notebook / S57 / H12049_platforms.000

GP No.: 1C1C000001570001

Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

Structure found as charted.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H12049_K354_CC/H12049_Caris_Notebook/S57/H12049_platforms.000	1C1C000001570001	0.00	000.0	Primary

Hydrographer Recommendations

Chart structure at current survey position.

S-57 Data

Geo object 1: Offshore platform (OFSPLF)

Attributes: CATOFP - 2:production platform

OBJNAM - No visible name

SORDAT - 20080923

SORIND - US,US,graph,H12049

Office Notes

Concur. Delete charted OFSPLF, Add present survey OFSPLF.

1.4) Delete charted OFSPLF, Add present survey OFSPLF ST-51-CC

Survey Summary

Survey Position: 28° 53' 51.7" N, 090° 28' 35.2" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: H12049_K354_CC / H12049_Caris_Notebook / S57 / H12049_platforms.000
GP No.: 1C1C0000015E0001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

Structure found.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H12049_K354_CC/H12049_Caris_Notebook/S57/H12049_platforms.000	1C1C0000015E0001	0.00	000.0	Primary

Hydrographer Recommendations

Chart structure at survey position.

S-57 Data

Geo object 1: Offshore platform (OFSPLF)
Attributes: CATOFP - 2:production platform
OBJNAM - ST-51-CC
SORDAT - 20090823
SORIND - US,US,graph,H12049

Office Notes

Concur. Delete charted OFSPLF, Add OFSPLF in present survey location

1.5) Delete charted OFSPLF, Add present survey OFSPLF ST-34-E

Survey Summary

Survey Position: 28° 55' 58.1" N, 090° 28' 25.1" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: H12049_K354_CC / H12049_Caris_Notebook / S57 / H12049_platforms.000
GP No.: 1C1C0000015A0001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

Structure found as charted.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H12049_K354_CC/H12049_Caris_Notebook/S57/H12049_platforms.000	1C1C0000015A0001	0.00	000.0	Primary

Hydrographer Recommendations

Chart structure at current survey position.

S-57 Data

Geo object 1: Offshore platform (OFSPLF)
Attributes: CATOFP - 2:production platform
OBJNAM - ST-34-E
SORDAT - 20080923
SORIND - US,US,graph,H12049

Office Notes

Concur. Delete charted OFSPLF, Add present survey OFSPLF.

1.6) Delete charted OFSPLF, Add present survey OFSPLF

Survey Summary

Survey Position: 28° 54' 51.8" N, 090° 28' 03.3" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: H12049_K354_CC / H12049_Caris_Notebook / S57 / H12049_platforms.000
GP No.: 1C1C000001500001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

Structure found as charted.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H12049_K354_CC/H12049_Caris_Notebook/S57/H12049_platforms.000	1C1C000001500001	0.00	000.0	Primary

Hydrographer Recommendations

Chart structure at current survey position.

S-57 Data

Geo object 1: Offshore platform (OFSPLF)
Attributes: CATOFP - 2:production platform
OBJNAM - No visible name
SORDAT - 20080923
SORIND - US,US,graph,H12049

Office Notes

Concur. Delete charted OFSPLF, Add present survey OFSPLF.

1.7) Delete charted OFSPLF, Add present survey OFSPLF ST-510-4

Survey Summary

Survey Position: 28° 53' 36.0" N, 090° 27' 38.0" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: H12049_K354_CC / H12049_Caris_Notebook / S57 / H12049_platforms.000
GP No.: 1C1C000001560001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

Structure found.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H12049_K354_CC/H12049_Caris_Notebook/S57/H12049_platforms.000	1C1C000001560001	0.00	000.0	Primary

Hydrographer Recommendations

Chart structure at present survey position as seen in side scan mosaic sub area 4 28-53-36.324N, 090-27-38-921W.

S-57 Data

Geo object 1: Offshore platform (OFSPLF)
Attributes: CATOFP - 2:production platform
OBJNAM - ST-510-4
SORDAT - 20080923
SORIND - US,US,graph,H12049

Office Notes

Concur. Delete charted OFSPLF, Add OFSPLF in present survey location

1.8) Delete charted OFSPLF, Add present survey OFSPLF

Survey Summary

Survey Position: 28° 54' 09.1" N, 090° 27' 22.9" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: H12049_K354_CC / H12049_Caris_Notebook / S57 / H12049_platforms.000
GP No.: 1C1C000001520001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

Structure found as charted.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H12049_K354_CC/H12049_Caris_Notebook/S57/H12049_platforms.000	1C1C000001520001	0.00	000.0	Primary

Hydrographer Recommendations

Chart structure at current survey position.

S-57 Data

Geo object 1: Offshore platform (OFSPLF)
Attributes: CATOFP - 2:production platform
OBJNAM - No visible name
SORDAT - 20080923
SORIND - US,US,graph,H12049

Office Notes

Concur. Delete charted OFSPLF, Add present survey OFSPLF

1.9) Delete charted OFSPLF, Add present survey OFSPLF ST-35

Survey Summary

Survey Position: 28° 56' 19.4" N, 090° 26' 05.9" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: H12049_K354_CC / H12049_Caris_Notebook / S57 / H12049_platforms.000
GP No.: 1C1C0000014E0001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

Structure found by present survey.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H12049_K354_CC/H12049_Caris_Notebook/S57/H12049_platforms.000	1C1C0000014E0001	0.00	000.0	Primary

Hydrographer Recommendations

Chart structure at present survey position.

S-57 Data

Geo object 1: Offshore platform (OFSPLF)
Attributes: OBJNAM - ST-35
SORDAT - 20080923
SORIND - US,US,graph,H12049

Office Notes

Concur. Delete charted OFSPLF, Add OFSPLF in present survey location.

1.10) Delete charted OFSPLF, Add present survey OFSPLF

Survey Summary

Survey Position: 28° 56' 05.1" N, 090° 26' 02.4" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: H12049_K354_CC / H12049_Caris_Notebook / S57 / H12049_platforms.000
GP No.: 1C1C0000014B0001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

Structure found as charted.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H12049_K354_CC/H12049_Caris_Notebook/S57/H12049_platforms.000	1C1C0000014B0001	0.00	000.0	Primary

Hydrographer Recommendations

Chart structure at current survey position.

S-57 Data

Geo object 1: Offshore platform (OFSPLF)
Attributes: CATOFP - 2:production platform
OBJNAM - No visible name
SORDAT - 20080923
SORIND - US,US,graph,H12049

Office Notes

Concur. Delete charted OFSPLF, Add present survey OFSPLF.

1.11) Delete charted OFSPLF, Add present survey OFSPLF ST-510-35E

Survey Summary

Survey Position: 28° 55' 23.7" N, 090° 25' 56.0" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: H12049_K354_CC / H12049_Caris_Notebook / S57 / H12049_platforms.000
GP No.: 1C1C000001620001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

Structure found as charted.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H12049_K354_CC/H12049_Caris_Notebook/S57/H12049_platforms.000	1C1C000001620001	0.00	000.0	Primary

Hydrographer Recommendations

Chart structure at current survey position.

S-57 Data

Geo object 1: Offshore platform (OFSPLF)
Attributes: CATOFP - 2:production platform
OBJNAM - ST-510-35E
SORDAT - 20090823
SORIND - US,US,graph,H12049

Office Notes

Concur. Delete charted OFSPLF, Add present survey OFSPLF.

1.12) Delete charted OFSPLF, Add present survey OFSPLF

Survey Summary

Survey Position: 28° 56' 45.1" N, 090° 25' 08.0" W

Least Depth: [None]

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

Timestamp: 1981-001.00:00:00.000 (01/01/1981)

GP Dataset: H12049_K354_CC / H12049_Caris_Notebook / S57 / H12049_platforms.000

GP No.: 1C1C0000015F0001

Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

Structure was found as charted.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H12049_K354_CC/H12049_Caris_Notebook/S57/H12049_platforms.000	1C1C0000015F0001	0.00	000.0	Primary

Hydrographer Recommendations

Chart structure at current survey position.

S-57 Data

Geo object 1: Offshore platform (OFSPLF)

Attributes: CATOFP - 2:production platform

OBJNAM - No visible name

SORDAT - 20090823

SORIND - US,US,graph,H12049

Office Notes

Concur. Delete charted OFSPLF, Add present survey OFSPLF.

1.13) Delete charted OFSPLF, Add present survey OFSPLF ST-49-A

Survey Summary

Survey Position: 28° 54' 33.6" N, 090° 25' 07.3" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: H12049_K354_CC / H12049_Caris_Notebook / S57 / H12049_platforms.000
GP No.: 1C1C0000014D0001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

Structure found as charted.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H12049_K354_CC/H12049_Caris_Notebook/S57/H12049_platforms.000	1C1C0000014D0001	0.00	000.0	Primary

Hydrographer Recommendations

Chart structure at current survey position.

S-57 Data

Geo object 1: Offshore platform (OFSPLF)
Attributes: CATOFP - 2:production platform
OBJNAM - ST-49-A
SORDAT - 20090823
SORIND - US,US,graph,H12049

Office Notes

Concur. Delete charted OFSPLF, Add present survey OFSPLF

1.14) Delete charted OFSPLF, Add present survey OFSPLF ST-1035-7

Survey Summary

Survey Position: 28° 56' 00.2" N, 090° 24' 48.2" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: H12049_K354_CC / H12049_Caris_Notebook / S57 / H12049_platforms.000
GP No.: 1C1C000001550001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

Structure found as charted.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H12049_K354_CC/H12049_Caris_Notebook/S57/H12049_platforms.000	1C1C000001550001	0.00	000.0	Primary

Hydrographer Recommendations

Chart structure at current survey position.

S-57 Data

Geo object 1: Offshore platform (OFSPLF)
Attributes: CATOFP - 2:production platform
OBJNAM - ST-1035-7
SORDAT - 20090823
SORIND - US,US,graph,H12049

Office Notes

Concur. Delete charted OFSPLF, Add present survey OFSPLF.

1.15) Delete charted OFSPLF, Add present survey OFSPLF

Survey Summary

Survey Position: 28° 57' 42.8" N, 090° 21' 24.9" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: H12049_K354_CC / H12049_Caris_Notebook / S57 / H12049_platforms.000
GP No.: 1C1C000001590001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

Structure was found as charted.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H12049_K354_CC/H12049_Caris_Notebook/S57/H12049_platforms.000	1C1C000001590001	0.00	000.0	Primary

Hydrographer Recommendations

Chart structure at current survey position.

S-57 Data

Geo object 1: Offshore platform (OFSPLF)
Attributes: CATOFP - 2:production platform
OBJNAM - No visible name
SORDAT - 20090823
SORIND - US,US,graph,H12049

Office Notes

Concur. Delete charted OFSPLF, Add present survey OFSPLF.

1.16) Delete charted OFSPLF, Add present survey OFSPLF ST-37-A

Survey Summary

Survey Position: 28° 55' 43.2" N, 090° 21' 10.4" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: H12049_K354_CC / H12049_Caris_Notebook / S57 / H12049_platforms.000
GP No.: 1C1C000001540001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

Structure was found as charted.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H12049_K354_CC/H12049_Caris_Notebook/S57/H12049_platforms.000	1C1C000001540001	0.00	000.0	Primary

Hydrographer Recommendations

Chart structure at current survey position.

S-57 Data

Geo object 1: Offshore platform (OFSPLF)
Attributes: CATOFP - 2:production platform
OBJNAM - ST-37-A
SORDAT - 20090823
SORIND - US,US,graph,H12049

Office Notes

Concur. Delete charted OFSPLF, Add present survey OFSPLF.

1.17) Delete charted OFSPLF, Add present survey OFSPLF ST-37-J

Survey Summary

Survey Position: 28° 55' 44.5" N, 090° 21' 09.8" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: H12049_K354_CC / H12049_Caris_Notebook / S57 / H12049_platforms.000
GP No.: 1C1C0000015D0001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

Structure was found as charted.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H12049_K354_CC/H12049_Caris_Notebook/S57/H12049_platforms.000	1C1C0000015D0001	0.00	000.0	Primary

Hydrographer Recommendations

Chart structure at current survey position.

S-57 Data

Geo object 1: Offshore platform (OFSPLF)
Attributes: CATOFP - 2:production platform
OBJNAM - ST-37-J
SORDAT - 20090823
SORIND - US,US,graph,H12049

Office Notes

Concur. Delete charted OFSPLF, Add present survey OFSPLF.

1.18) Delete charted OFSPLF, Add present survey OFSPLF

Survey Summary

Survey Position: 28° 54' 56.5" N, 090° 20' 48.8" W

Least Depth: [None]

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

Timestamp: 1981-001.00:00:00.000 (01/01/1981)

GP Dataset: H12049_K354_CC / H12049_Caris_Notebook / S57 / H12049_platforms.000

GP No.: 1C1C000001530001

Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

Structure was found as charted.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H12049_K354_CC/H12049_Caris_Notebook/S57/H12049_platforms.000	1C1C000001530001	0.00	000.0	Primary

Hydrographer Recommendations

Chart structure at survey position.

S-57 Data

Geo object 1: Offshore platform (OFSPLF)

Attributes:

CATOFP - 2:production platform

OBJNAM - No visible name

SORDAT - 20090823

SORIND - US,US,graph,H12049

Office Notes

Concur. Delete charted OFSPLF, Add present survey OFSPLF.

1.19) Delete charted OFSPLF, Add present survey OFSPLF ST-30-A

Survey Summary

Survey Position: 28° 58' 02.5" N, 090° 20' 34.7" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: H12049_K354_CC / H12049_Caris_Notebook / S57 / H12049_platforms.000
GP No.: 1C1C000001510001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

Structure was found as charted.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H12049_K354_CC/H12049_Caris_Notebook/S57/H12049_platforms.000	1C1C000001510001	0.00	000.0	Primary

Hydrographer Recommendations

Chart structure at current survey position.

S-57 Data

Geo object 1: Offshore platform (OFSPLF)
Attributes: CATOFP - 2:production platform
OBJNAM - ST-30-A
SORDAT - 20090823
SORIND - US,US,graph,H12049

Office Notes

Concur. Delete charted OFSPLF, Add present survey OFSPLF.

1.20) Delete charted OFSPLF, Add present survey OFSPLF ST-27-C

Survey Summary

Survey Position: 28° 56' 35.4" N, 090° 20' 06.7" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: H12049_K354_CC / H12049_Caris_Notebook / S57 / H12049_platforms.000
GP No.: 1C1C000001610001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

Structure found as charted.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H12049_K354_CC/H12049_Caris_Notebook/S57/H12049_platforms.000	1C1C000001610001	0.00	000.0	Primary

Hydrographer Recommendations

Chart structure at current survey position as seen and located in the SS mosaic sub area 3 28-56-36.775N, 090-20-07.242W.

S-57 Data

Geo object 1: Offshore platform (OFSPLF)
Attributes: CATOFP - 2:production platform
OBJNAM - ST-27-C
SORDAT - 20090823
SORIND - US,US,graph,H12049

Office Notes

Concur. Delete charted OFSPLF, Add present survey OFSPLF.

1.21) Delete charted OFSPLF, Add present survey OFSPLF ST-38-1

Survey Summary

Survey Position: 28° 56' 49.9" N, 090° 19' 20.9" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: H12049_K354_CC / H12049_Caris_Notebook / S57 / H12049_platforms.000
GP No.: 1C1C0000014C0001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

Structure found as charted.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H12049_K354_CC/H12049_Caris_Notebook/S57/H12049_platforms.000	1C1C0000014C0001	0.00	000.0	Primary

Hydrographer Recommendations

Chart structure at current survey position as seen in the SS mosaic sub area 3 28-56-51.102N, 090-19-22.313W.

S-57 Data

Geo object 1: Offshore platform (OFSPLF)
Attributes: CATOFP - 2:production platform
OBJNAM - ST-38-1
SORDAT - 20090823
SORIND - US,US,graph,H12049

Office Notes

Concur. Delete charted OFSPLF, Add present survey OFSPLF.

1.22) Delete charted OFSPLF, Add present survey OFSPLF

Survey Summary

Survey Position: 28° 56' 13.3" N, 090° 18' 50.3" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: H12049_K354_CC / H12049_Caris_Notebook / S57 / H12049_platforms.000
GP No.: 1C1C0000015C0001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

Structure was found as charted.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H12049_K354_CC/H12049_Caris_Notebook/S57/H12049_platforms.000	1C1C0000015C0001	0.00	000.0	Primary

Hydrographer Recommendations

Chart structure at current survey position.

S-57 Data

Geo object 1: Offshore platform (OFSPLF)
Attributes: CATOFP - 2:production platform
OBJNAM - No visible name
SORDAT - 20090823
SORIND - US,US,graph,H12049

Office Notes

Concur. Delete charted OFSPLF, Add present survey OFSPLF.

1.23) Delete charted OFSPLF, Add present survey OFSPLF

Survey Summary

Survey Position: 28° 56' 29.7" N, 090° 29' 55.1" W

Least Depth: [None]

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

Timestamp: 1981-001.01:01:01.001 (01/01/1981)

GP Dataset: AHB_H12049 / SAR / SAR AHB HOB Files / H12049_SAR_Features.000

GP No.: 02260003ABD30001

Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

Charted OFSPLF not addressed by the field.

Feature Correlation

Address	Feature	Range	Azimuth	Status
AHB_H12049/SAR/SAR AHB HOB Files/H12049_SAR_Features.000	02260003ABD30001	0.00	000.0	Primary

Hydrographer Recommendations

Chart platform at survey position, 28°56'29.659" , -090°29'55.090".

S-57 Data

Geo object 1: Offshore platform (OFSPLF)

Attributes: NINFOM - 00

SORDAT - 20090823

SORIND - US,US,graph,H12049

Office Notes

Concur. Delete charted OFSPLF, Add present survey OFSPLF.

Feature Images

[Image file h:/compilation/h12049_k354_cc/ahb_h12049/pss/images/h12049_charted_ofsplf_4.bmp does not exist.]

[Image file h:/compilation/h12049_k354_cc/ahb_h12049/pss/images/h12049_charted_ofsplf_1.bmp does not exist.]

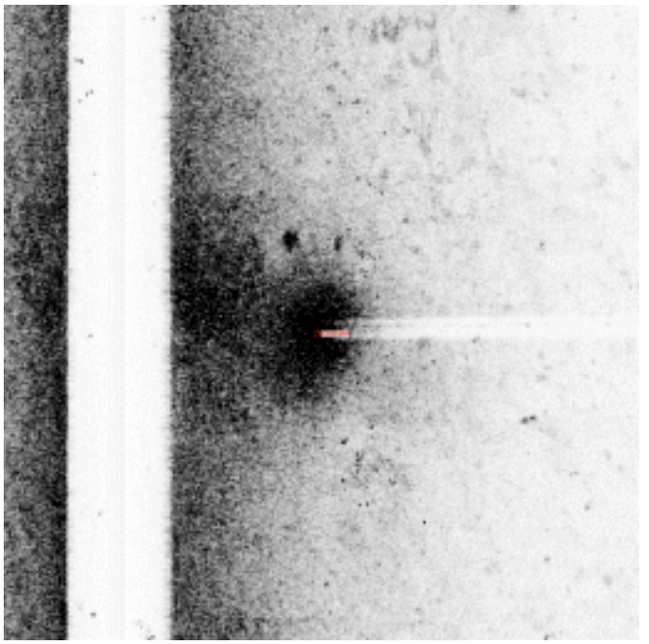


Figure 1.23.1

1.24) DTON #1 GP error - Delete charted dangerous 29 ft OBSTRN (Rep 2009)

Survey Summary

Survey Position: 28° 58' 05.5" N, 090° 19' 36.1" W

Least Depth: 8.50 m (= 27.89 ft = 4.648 fm = 4 fm 3.89 ft)

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

Timestamp: 2009-207.00:00:00.000 (07/26/2009)

GP Dataset: AHB_H12049 / SAR / SAR AHB HOB Files / H12049_SAR_Features.000

GP No.: 02260003ABD40001

Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

29 foot obstruction was addressed by the field, but associated another 29ft Obstruction with DtoN#1. This item is the DtoN #1 submission, but was an incorrect geographic location. Obstruction not visible in bathy or in mosaic. Source of charted feature is as follows with attributed within the ENC US4LA29M: US,US,reprt,DD: 15943, x-ref: H-12049 L-1493/09. Appears that the GP associated with DtoN #1 is incorrect as nothings exists on the seafloor at this location.

In "LNM 43/09, 8th Dist", issued on 10/29/2009. An “add” obstruction at position N28°58'05.500", W090°19'36.100" on charts 11357 and 11340 was issued. This obstruction was reported in 2009 to have a least depth of 4 ¾ fathoms on chart 11340 and 29 feet on chart 11357. An insignificant target was found at this location during present survey operations, and should not be charted as an obstruction. Below are the multibeam and sidescan images of this insignificant target.

Feature Correlation

Address	Feature	Range	Azimuth	Status
AHB_H12049/SAR/SAR AHB HOB Files/H12049_SAR_Features.000	02260003ABD40001	0.00	000.0	Primary

Hydrographer Recommendations

Delete charted 29 ft dangerous obstruction at charted position 28°58'05.498" , -090°19'36.098". See also sections D.1.7. and D.1.8. of the DR.

Cartographically-Rounded Depth (Affected Charts):

28ft (11357_1)

4 ½fm (1116A_1, 11340_1, 411_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

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

SORDAT - 20090823

SORIND - US,US,graph,H12049

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

VALSOU - 8.500 m

WATLEV - 3:always under water/submerged

Office Notes

Concur. This is the feature with the incorrect GP that was submitted as DTON #1. Delete charted dangerous 29 ft OBSTRN (Rep 2009).

Feature Images

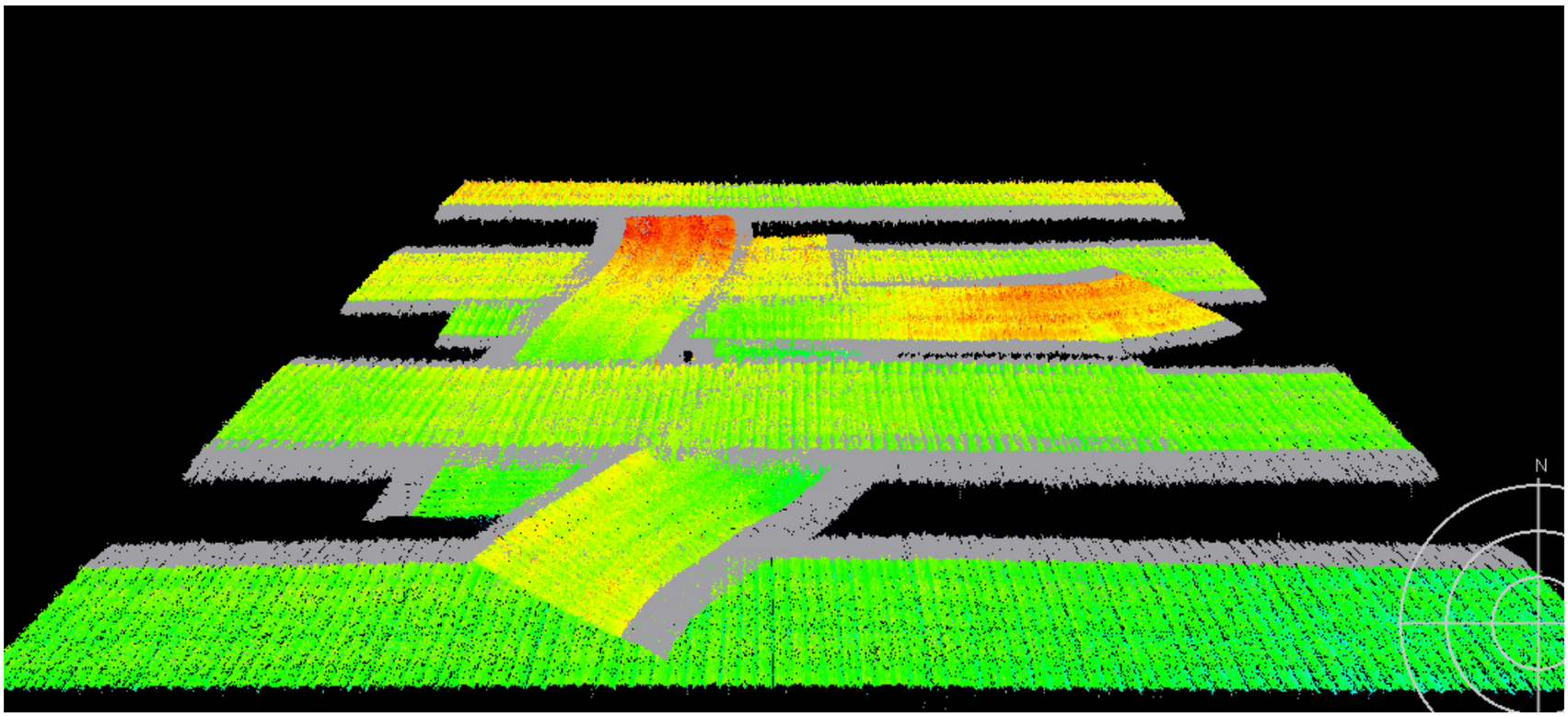


Figure 1.24.1

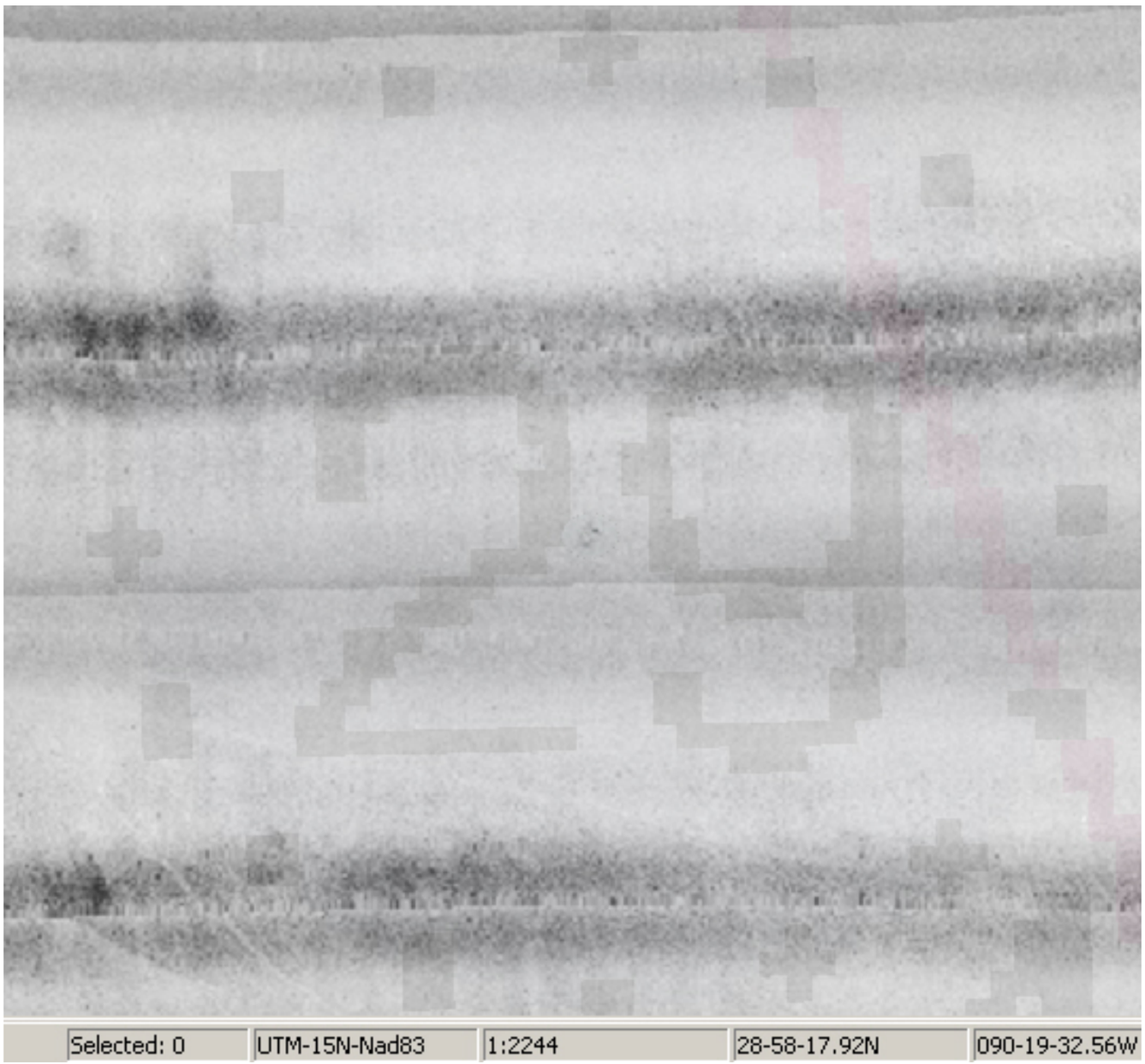


Figure 1.24.2

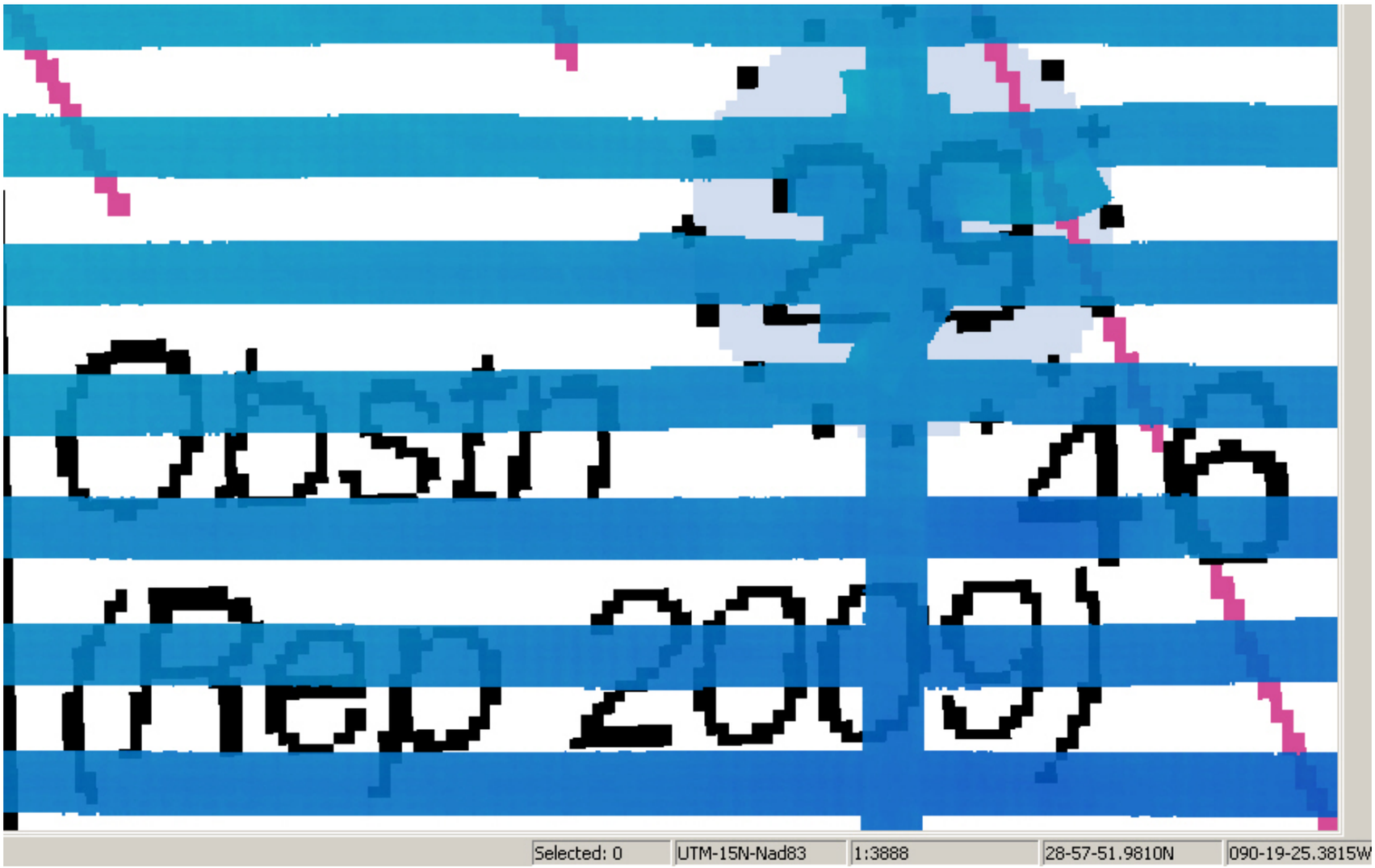


Figure 1.24.3

1.25) Delete OFSPLF

Survey Summary

Survey Position: 28° 54' 47.3" N, 090° 29' 40.1" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: COMPILE / Working / HOB's / H12049_PYDRO_Features_1.000
GP No.: 022600028B340001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:
[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/H12049_PYDRO_Features_1.000	022600028B340001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Delete OFSPLF

1.26) Delete SBDARE

Survey Summary

Survey Position: 28° 56' 31.0" N, 090° 29' 27.1" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: COMPILE / Working / HOB's / H12049_PYDRO_Features_1.000
GP No.: 022600028B050001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:
[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/H12049_PYDRO_Features_1.000	022600028B050001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Delete SBDARE

1.27) Delete OFSPLF

Survey Summary

Survey Position: 28° 55' 09.8" N, 090° 29' 25.6" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: COMPILE / Working / HOB's / H12049_PYDRO_Features_1.000
GP No.: 022600028B290001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:
[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/H12049_PYDRO_Features_1.000	022600028B290001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Delete OFSPLF

1.28) Delete OFSPLF

Survey Summary

Survey Position: 28° 54' 30.5" N, 090° 29' 25.1" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: COMPILE / Working / HOB's / H12049_PYDRO_Features_1.000
GP No.: 022600028B260001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:
[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/H12049_PYDRO_Features_1.000	022600028B260001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Delete OFSPLF

1.29) Delete SBDARE

Survey Summary

Survey Position: 28° 54' 34.8" N, 090° 29' 07.9" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: COMPILE / Working / HOB's / H12049_PYDRO_Features_1.000
GP No.: 022600028B020001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:
[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/H12049_PYDRO_Features_1.000	022600028B020001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Delete SBDARE

1.30) Delete OFSPLF

Survey Summary

Survey Position: 28° 55' 56.8" N, 090° 28' 55.7" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: COMPILE / Working / HOB's / H12049_PYDRO_Features_1.000
GP No.: 022600028B110001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:
[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/H12049_PYDRO_Features_1.000	022600028B110001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Delete OFSPLF

1.31) Delete SBDARE

Survey Summary

Survey Position: 28° 59' 02.4" N, 090° 28' 54.6" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: COMPILE / Working / HOB's / H12049_PYDRO_Features_1.000
GP No.: 022600028B080001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:
[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/H12049_PYDRO_Features_1.000	022600028B080001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Delete SBDARE

1.32) Delete OFSPLF

Survey Summary

Survey Position: 28° 54' 40.9" N, 090° 28' 49.8" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: COMPILE / Working / HOB's / H12049_PYDRO_Features_1.000
GP No.: 022600028AE50001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:
[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/H12049_PYDRO_Features_1.000	022600028AE50001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Delete OFSPLF

1.33) Delete OFSPLF

Survey Summary

Survey Position: 28° 56' 16.0" N, 090° 28' 47.6" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: COMPILE / Working / HOB's / H12049_PYDRO_Features_1.000
GP No.: 022600028B330001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:
[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/H12049_PYDRO_Features_1.000	022600028B330001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Delete OFSPLF

1.34) Delete OFSPLF

Survey Summary

Survey Position: 28° 55' 38.2" N, 090° 28' 40.1" W

Least Depth: [None]

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

Timestamp: 1981-001.00:00:00.000 (01/01/1981)

GP Dataset: COMPILE / Working / HOB's / H12049_PYDRO_Features_1.000

GP No.: 022600028B2F0001

Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/H12049_PYDRO_Features_1.000	022600028B2F0001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Delete OFSPLF

1.35) Delete OFSPLF

Survey Summary

Survey Position: 28° 55' 13.4" N, 090° 28' 23.9" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: COMPILE / Working / HOB's / H12049_PYDRO_Features_1.000
GP No.: 022600028B130001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:
[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/H12049_PYDRO_Features_1.000	022600028B130001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Delete OFSPLF

1.36) Delete OFSPLF

Survey Summary

Survey Position: 28° 55' 11.7" N, 090° 28' 23.9" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: COMPILE / Working / HOB's / H12049_PYDRO_Features_1.000
GP No.: 022600028B1F0001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:
[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/H12049_PYDRO_Features_1.000	022600028B1F0001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Delete OFSPLF

1.37) Delete OFSPLF

Survey Summary

Survey Position: 28° 54' 29.1" N, 090° 27' 58.9" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: COMPILE / Working / HOB's / H12049_PYDRO_Features_1.000
GP No.: 022600028B0F0001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:
[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/H12049_PYDRO_Features_1.000	022600028B0F0001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Delete OFSPLF

1.38) Delete OFSPLF

Survey Summary

Survey Position: 28° 54' 29.8" N, 090° 27' 56.2" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: COMPILE / Working / HOB's / H12049_PYDRO_Features_1.000
GP No.: 022600028B170001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:
[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/H12049_PYDRO_Features_1.000	022600028B170001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Delete OFSPLF

1.39) Delete OFSPLF

Survey Summary

Survey Position: 28° 53' 40.7" N, 090° 27' 02.3" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: COMPILE / Working / HOB's / H12049_PYDRO_Features_1.000
GP No.: 022600028B2C0001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:
[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/H12049_PYDRO_Features_1.000	022600028B2C0001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Delete OFSPLF

1.40) Delete OFSPLF

Survey Summary

Survey Position: 28° 56' 59.7" N, 090° 25' 25.8" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: COMPILE / Working / HOB's / H12049_PYDRO_Features_1.000
GP No.: 022600028B280001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:
[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/H12049_PYDRO_Features_1.000	022600028B280001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Delete OFSPLF

1.41) Delete SBDARE

Survey Summary

Survey Position: 28° 56' 39.0" N, 090° 25' 06.7" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: COMPILE / Working / HOB's / H12049_PYDRO_Features_1.000
GP No.: 022600028B040001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:
[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/H12049_PYDRO_Features_1.000	022600028B040001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Delete SBDARE

1.42) Delete SBDARE

Survey Summary

Survey Position: 28° 59' 31.6" N, 090° 22' 35.3" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: COMPILE / Working / HOB's / H12049_PYDRO_Features_1.000
GP No.: 022600028B070001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:
[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/H12049_PYDRO_Features_1.000	022600028B070001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Delete SBDARE

1.43) Delete SBDARE

Survey Summary

Survey Position: 28° 58' 34.7" N, 090° 22' 31.9" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: COMPILE / Working / HOB's / H12049_PYDRO_Features_1.000
GP No.: 022600028B060001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:
[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/H12049_PYDRO_Features_1.000	022600028B060001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Delete SBDARE

1.44) Delete SBDARE

Survey Summary

Survey Position: 28° 56' 19.4" N, 090° 22' 14.6" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: COMPILE / Working / HOB's / H12049_PYDRO_Features_1.000
GP No.: 022600028B2D0001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:
[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/H12049_PYDRO_Features_1.000	022600028B2D0001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Delete SBDARE

1.45) Delete SBDARE

Survey Summary

Survey Position: 28° 54' 03.2" N, 090° 21' 51.4" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: COMPILE / Working / HOB's / H12049_PYDRO_Features_1.000
GP No.: 022600028B030001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:
[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/H12049_PYDRO_Features_1.000	022600028B030001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Delete SBDARE

1.46) Delete single WRECKS

Survey Summary

Survey Position: 29° 00' 21.9" N, 090° 20' 18.4" W

Least Depth: [None]

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

Timestamp: 1981-001.00:00:00.000 (01/01/1981)

GP Dataset: COMPILE / Working / HOB's / H12049_PYDRO_Features_1.000

GP No.: 022600028B100001

Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

In "LNM 23/09, 8th Dist", issued on 6/12/2009. An “add” Wreck, at position N29°00'21.600", W90°20'18.800" on chart 11357 was issued. This Wreck was reported in 2009 to have a least depth of 35 ft. The wreck was not found at the time of survey.

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/H12049_PYDRO_Features_1.000	022600028B100001	0.00	000.0	Primary

Hydrographer Recommendations

Delete dangerous 35 ft wreck (rep 2009)

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur. Delete dangerous 35 ft wreck (rep 2009)

1.47) Delete OFSPLF

Survey Summary

Survey Position: 28° 56' 15.1" N, 090° 18' 48.4" W
Least Depth: [None]
TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 1981-001.00:00:00.000 (01/01/1981)
GP Dataset: COMPILE / Working / HOB's / H12049_PYDRO_Features_1.000
GP No.: 022600028B1D0001
Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:
[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/H12049_PYDRO_Features_1.000	022600028B1D0001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Delete OFSPLF

H12049_UnCharted Features Report

Registry Number: H12049
State: Louisiana
Locality: Gulf of Mexico
Sub-locality: Entrance to Timbalier Bay
Project Number: OPR-K354-CC-09
Survey Dates: 01/01/1981 - 08/23/2009

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
11357	40th	06/01/2009	1:80,000 (11357_1)	USCG LNM: 2/15/2011 (2/8/2011) NGA NTM: 10/16/2010 (2/19/2011)
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	Add OFSPLF	GP	[None]	28° 54' 50.2" N	090° 29' 12.6" W	---
1.2	Add OFSPLF ST-37-1	GP	[None]	28° 56' 43.7" N	090° 21' 57.7" W	---
1.3	Add SBDARE - sand, clay	GP	[None]	28° 58' 49.5" N	090° 29' 39.6" W	---
1.4	Add SBDARE - coarse clay	GP	[None]	28° 54' 27.7" N	090° 28' 31.5" W	---
1.5	Add SBDARE - silt/ooze, clay	GP	[None]	28° 59' 49.6" N	090° 24' 41.4" W	---
1.6	Add SBDARE - coarse clay	GP	[None]	28° 56' 33.7" N	090° 24' 48.9" W	---
1.7	Add SBDARE - fine silt/ooze	GP	[None]	28° 54' 22.3" N	090° 23' 36.8" W	---
1.8	Add SBDARE - fine clay	GP	[None]	28° 56' 28.8" N	090° 19' 51.6" W	---
1.9	Add SBDARE - fine silt/ooze	GP	[None]	28° 54' 17.4" N	090° 18' 41.1" W	---
1.10	Add SBDARE - soft silt/ooze	GP	[None]	28° 59' 40.6" N	090° 18' 31.7" W	---

1 - DR_UnCharted

1.1) Add OFSPLF

Survey Summary

Survey Position: 28° 54' 50.2" N, 090° 29' 12.6" W

Least Depth: [None]

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

Timestamp: 1981-001.00:00:00.000 (01/01/1981)

GP Dataset: H12049_K354_CC / H12049_Caris_Notebook / S57 / H12049_platforms.000

GP No.: 1C1C000001600001

Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

Structure found as charted.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H12049_K354_CC/H12049_Caris_Notebook/S57/H12049_platforms.000	1C1C000001600001	0.00	000.0	Primary

Hydrographer Recommendations

Chart new structure at current survey position.

S-57 Data

Geo object 1: Offshore platform (OFSPLF)

Attributes: CATOFP - 2:production platform

OBJNAM - ST-34-B

SORDAT - 20090823

SORIND - US,US,graph,H12049

Office Notes

Concur. Add present survey OFSPLF.

1.2) Add OFSPLF ST-37-1

Survey Summary

Survey Position: 28° 56' 43.7" N, 090° 21' 57.7" W

Least Depth: [None]

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

Timestamp: 1981-001.00:00:00.000 (01/01/1981)

GP Dataset: H12049_K354_CC / H12049_Caris_Notebook / S57 / H12049_platforms.000

GP No.: 1C1C0000015B0001

Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

Structure found at survey location is currently uncharted.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H12049_K354_CC/H12049_Caris_Notebook/S57/H12049_platforms.000	1C1C0000015B0001	0.00	000.0	Primary

Hydrographer Recommendations

Chart structure at survey position.

S-57 Data

Geo object 1: Offshore platform (OFSPLF)

Attributes: CATOFP - 2:production platform

OBJNAM - ST-37-1

SORDAT - 20090823

SORIND - US,US,graph,H12049

Office Notes

Concur, chart structure at survey position.

1.3) Add SBDARE - sand, clay

Survey Summary

Survey Position: 28° 58' 49.5" N, 090° 29' 39.6" W

Least Depth: [None]

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

Timestamp: 2009-235.00:00:00.000 (08/23/2009)

GP Dataset: COMPILE / Working / HOB's / H12049_PYDRO_Features_1.000

GP No.: 022600028B880001

Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/H12049_PYDRO_Features_1.000	022600028B880001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Seabed area (SBDARE)

Attributes:

COLOUR - 8:brown

INFORM - 12.86m

NATQUA - 7,10,3:stiff,hard,coarse

NATSUR - 4,2,17:sand,clay,shells

NINFOM - Add SBDARE

OBJNAM - GSB20

SORDAT - 20090823

SORIND - US,US,graph,H12049

Office Notes

Add SBDARE - sand, clay

1.4) Add SBDARE - coarse clay

Survey Summary

Survey Position: 28° 54' 27.7" N, 090° 28' 31.5" W

Least Depth: [None]

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

Timestamp: 2009-235.00:00:00.000 (08/23/2009)

GP Dataset: COMPILE / Working / HOB's / H12049_PYDRO_Features_1.000

GP No.: 022600028B7F0001

Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/H12049_PYDRO_Features_1.000	022600028B7F0001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Seabed area (SBDARE)

Attributes:

COLOUR - 7:grey

INFORM - 17.5m

NATQUA - 3:coarse

NATSUR - 2:clay

NINFOM - Add SBDARE

OBJNAM - GSB59

SORDAT - 20090823

SORIND - US,US,graph,H12049

Office Notes

Add SBDARE - coarse clay

1.5) Add SBDARE - silt/ooze, clay

Survey Summary

Survey Position: 28° 59' 49.6" N, 090° 24' 41.4" W

Least Depth: [None]

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

Timestamp: 2009-235.00:00:00.000 (08/23/2009)

GP Dataset: COMPILE / Working / HOB's / H12049_PYDRO_Features_1.000

GP No.: 022600028B940001

Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/H12049_PYDRO_Features_1.000	022600028B940001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Seabed area (SBDARE)

Attributes:

COLOUR - 8:brown

INFORM - 12.19m

NATQUA - 1,7:fine,stiff

NATSUR - 3,2:silt,clay

NINFOM - Add SBDARE

OBJNAM - GSB5

SORDAT - 20090823

SORIND - US,US,graph,H12049

Office Notes

Add SBDARE - silt/ooze, clay

1.6) Add SBDARE - coarse clay

Survey Summary

Survey Position: 28° 56' 33.7" N, 090° 24' 48.9" W

Least Depth: [None]

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

Timestamp: 2009-235.00:00:00.000 (08/23/2009)

GP Dataset: COMPILE / Working / HOB's / H12049_PYDRO_Features_2.000

GP No.: 02260003F9D40001

Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/H12049_PYDRO_Features_2.000	02260003F9D40001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Seabed area (SBDARE)

Attributes: NATQUA - 3:coarse
NATSUR - 2:clay
NINFOM - Add SBDARE
SORDAT - 20090823
SORIND - US,US,graph,H12049

Office Notes

Add SBDARE - coarse clay

1.7) Add SBDARE - fine silt/ooze

Survey Summary

Survey Position: 28° 54' 22.3" N, 090° 23' 36.8" W

Least Depth: [None]

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

Timestamp: 2009-235.00:00:00.000 (08/23/2009)

GP Dataset: COMPILE / Working / HOB's / H12049_PYDRO_Features_2.000

GP No.: 02260003F9D30001

Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/H12049_PYDRO_Features_2.000	02260003F9D30001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Seabed area (SBDARE)

Attributes:

NATQUA - 1:fine

NATSUR - 3:silt

NINFOM - Add SBDARE

SORDAT - 20090823

SORIND - US,US,graph,H12049

Office Notes

Add SBDARE - fine silt/ooze

1.8) Add SBDARE - fine clay

Survey Summary

Survey Position: 28° 56' 28.8" N, 090° 19' 51.6" W

Least Depth: [None]

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

Timestamp: 2009-235.00:00:00.000 (08/23/2009)

GP Dataset: COMPILE / Working / HOB's / H12049_PYDRO_Features_2.000

GP No.: 02260003F9D10001

Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/H12049_PYDRO_Features_2.000	02260003F9D10001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Seabed area (SBDARE)

Attributes:

NATQUA - 1:fine

NATSUR - 2:clay

NINFOM - Add SBDARE

SORDAT - 20090823

SORIND - US,US,graph,H12049

Office Notes

Add SBDARE - fine clay

1.9) Add SBDARE - fine silt/ooze

Survey Summary

Survey Position: 28° 54' 17.4" N, 090° 18' 41.1" W

Least Depth: [None]

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

Timestamp: 2009-235.00:00:00.000 (08/23/2009)

GP Dataset: COMPILE / Working / HOB's / H12049_PYDRO_Features_2.000

GP No.: 02260003F9D00001

Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/H12049_PYDRO_Features_2.000	02260003F9D00001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Seabed area (SBDARE)

Attributes:

NATQUA - 1:fine

NATSUR - 3:silt

NINFOM - Add SBDARE

SORDAT - 20090823

SORIND - US,US,graph,H12049

Office Notes

Add SBDARE - fine silt/ooze

1.10) Add SBDARE - soft silt/ooze

Survey Summary

Survey Position: 28° 59' 40.6" N, 090° 18' 31.7" W

Least Depth: [None]

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

Timestamp: 2009-235.00:00:00.000 (08/23/2009)

GP Dataset: COMPILE / Working / HOB's / H12049_PYDRO_Features_2.000

GP No.: 02260003F9D20001

Charts Affected: 11357_1, 1116A_1, 11340_1, 411_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
COMPILE/Working/HOB's/H12049_PYDRO_Features_2.000	02260003F9D20001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Seabed area (SBDARE)

Attributes: NATQUA - 6:soft

NATSUR - 3:silt

NINFOM - Add SBDARE

SORDAT - 20090823

SORIND - US,US,graph,H12049

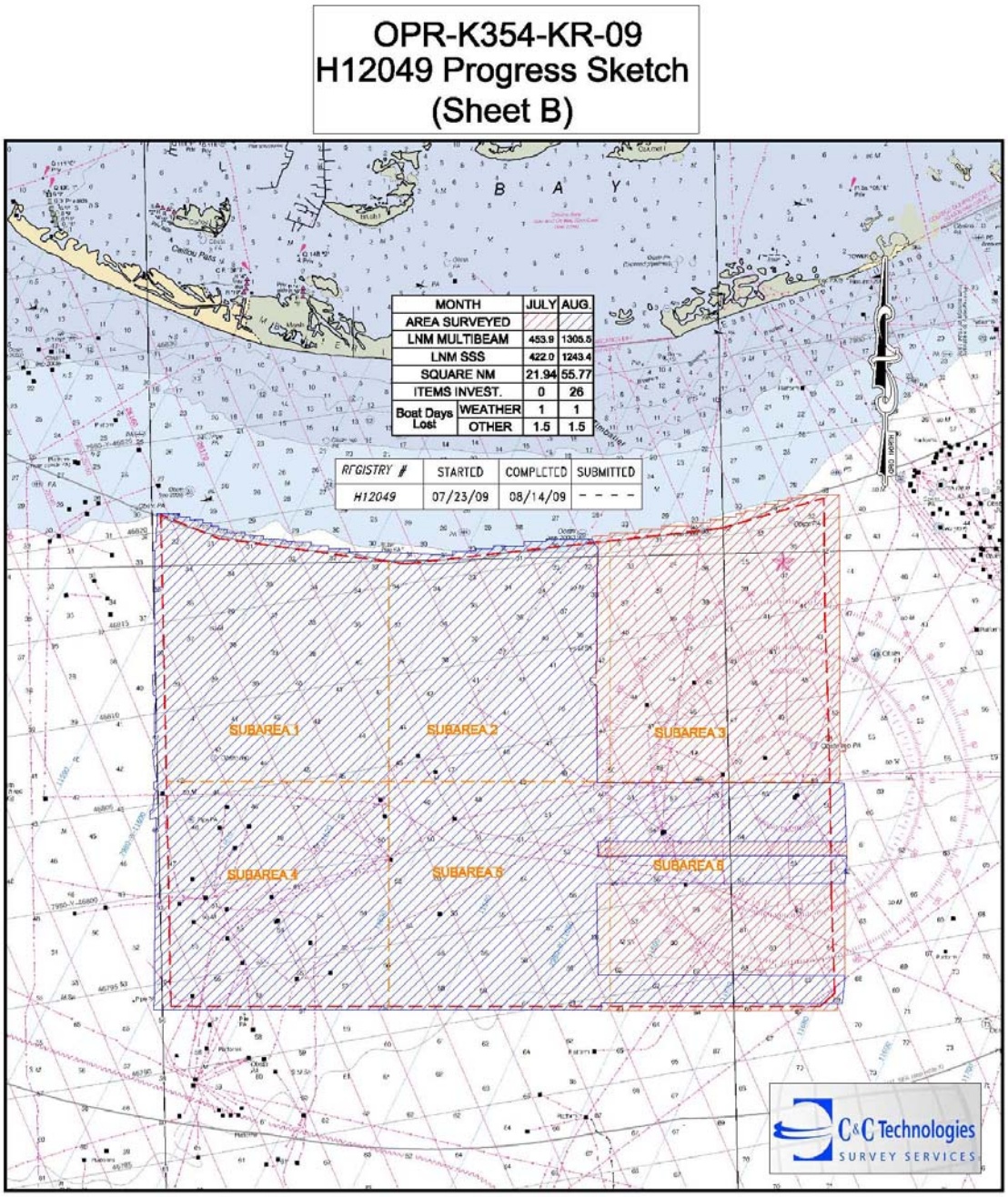
Office Notes

Add SBDARE - soft silt/ooze

APPENDIX III

FINAL PROGRESS SKETCH

A shapefile of the final survey outline for Sheet B (H12049) has been included in the DR folder inside the H12049_Report_Deliverables directory



APPENDIX IV

TIDES AND WATER LEVELS

The tidal data applied to all multibeam echo sounder data was downloaded from the following website:

http://tidesandcurrents.noaa.gov/station_retrieve.shtml?type=Historic%20Tide%20Data&state=Louisiana&id1=876

ABSTRACT OF TIMES OF HYDROGRAPHY

Project: OPR-K354-KR-09
Contractor Name: C & C Technologies, Inc.
Inclusive Dates: July 23rd,2009 - August 23rd,2009
Registry No.: H12049 (Sheet B)
Date: April 2010
Sheet Letter: B
Field Work is Complete
Time (UTC)

Date	Julian Day	Start	End	Year
7/23/2009	204	0714	2400	2009
7/24/2009	205	0000	2400	2009
7/25/2009	206	0000	0741	2009
7/25/2009	206	1004	2400	2009
7/26/2009	207	0000	2400	2009
7/27/2009	208	0000	2400	2009
7/28/2009	209	0000	0440	2009
8/1/2009	213	0030	2400	2009
8/2/2009	214	0000	2400	2009
8/3/2009	215	0000	2400	2009
8/4/2009	216	0000	2400	2009
8/5/2009	217	0000	1140	2009
8/6/2009	218	0150	2400	2009
8/7/2009	219	1234	2400	2009
8/8/2009	220	0000	2400	2009
8/9/2009	221	0000	2400	2009
8/10/2009	222	0000	2400	2009
8/11/2009	223	0000	2400	2009
8/12/2009	224	0000	1048	2009
8/12/2009	224	2132	2400	2009
8/13/2009	225	0000	2400	2009
8/14/2009	226	0000	1100	2009
8/22/2009	234	2135	2400	2009
8/23/2009	235	0000	0752	2009

APPENDIX V

SUPPLEMENTAL SURVEY RECORDS AND CORRESPONDENCE

One danger to navigation report was issued. One danger to navigation report was issued. Below is a copy of the report that was sent to NOAA.

H12049 Dton#1

Registry number: H12049
State: Louisiana
Locality: Louisiana Coast
Sub Locality: Entrance to Timbalier Bay
Project Number: OPR-K354-KR-09
Survey Dates: 26/07/2009 -13/08/2009

Charts Affected

Number	Edition	Date	Scale
11357	40th	7/1/2005	1:80 000

Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1	H12049_DTON1	Submerged Obstruction	29.39 feet no tidal correction	028° 58' 05.496" N	090° 19' 36.082" W	------

Danger to Navigation

Survey Summary

Survey Position: 028° 58' 05.496" N, 090° 19' 36.082" W
Least Depth: 29.39 ft
Timestamp: 2009-07-26 16:26:55.948
Survey Line: 2320-1 / 2B
Charts Affected: 11357

Remarks:

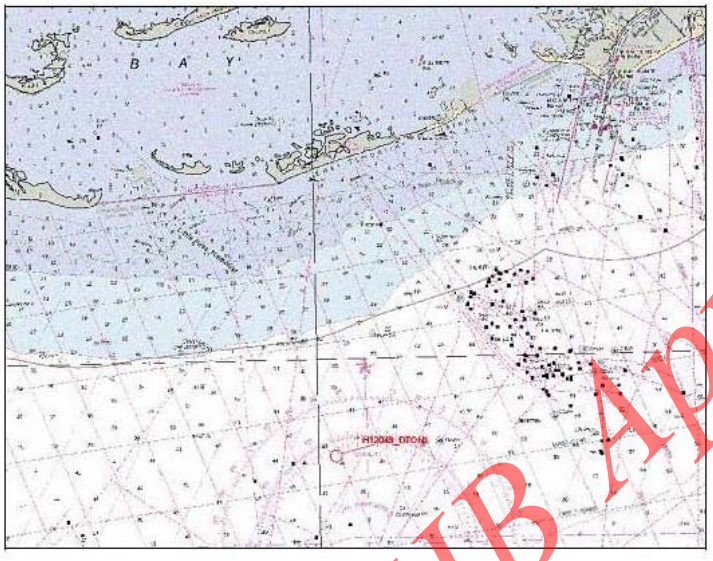
Least depth measurement of this contact is 29.39 ft in charted 46 ft depths. The feature was located with sidescan sonar and further developed using a multibeam echosounder.

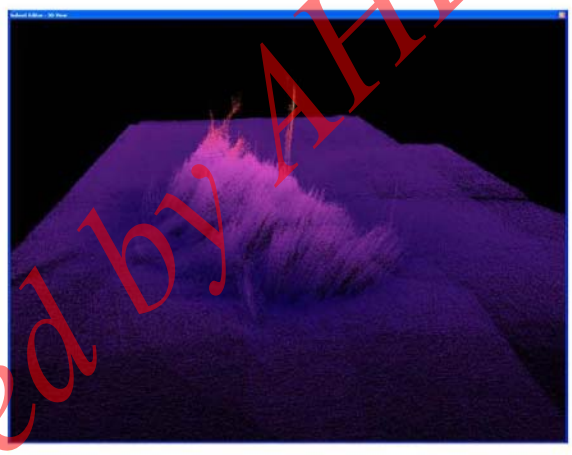
Hydrographers Recommendations:

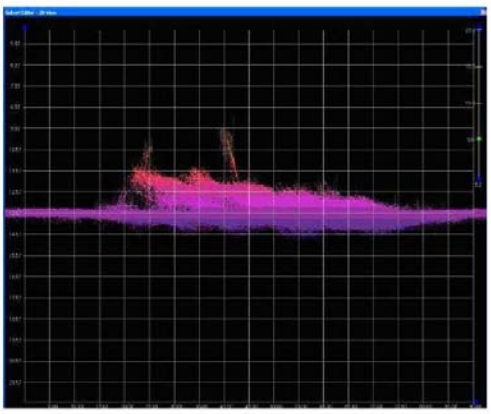
It is recommended that this item be charted as a 29 ft obstruction at 028° 58' 05.496" N, 090° 19' 36.082" W.

Superseded by AHB Appendix I

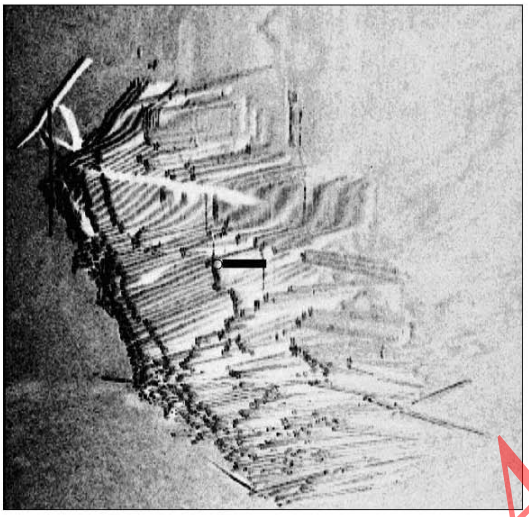
Feature Correlation







Superseded by AHB Appendix 1



Superseded by AHB Appendix 1

Subject: Fwd: Re: Draft policy on elevated pipelines
From: "CDR Rick Brennan, NOAA" <Richard.T.Brennan@noaa.gov>
Date: Thu, 28 Jul 2011 20:29:23 -0400
To: James Miller <James.J.Miller@noaa.gov>, Edward Owens <Edward.Owens@noaa.gov>, 'Gene Parker' <Castle.E.Parker@noaa.gov>

My comments from way-back-when...

-------- Original Message --------
Subject: Re: Draft policy on elevated pipelines
Date: Mon, 19 Apr 2010 17:14:46 -0400
From:LCDR Rick Brennan, NOAA <Richard.T.Brennan@noaa.gov>
To: Doug Baird <Doug.Baird@noaa.gov>, Jeffrey Ferguson <Jeffrey.Ferguson@noaa.gov>, Mike Brown <Mike.Brown@noaa.gov>, "John.Nyberg" <John.Nyberg@noaa.gov>, '"howard.danley@noaa.gov"' <Howard.Danley@noaa.gov>, Ed Martin <Ed.Martin@noaa.gov>

Doug,

Edits are in-line in the attached document.

Rick

Doug Baird wrote:

> For your comments. If the linear dimensions of the pipeline cause format problems with the DTON reporting, we may end up using a different mechanism for reporting hazardous pipelines.
>
> In the interest of moving this forward, and yet not being too onerous - please provide your suggestions by Monday, May 3rd.

--

LCDR Rick Brennan, NOAA
Chief, Atlantic Hydrographic Branch
439 West York Street
Norfolk, VA 23510
Office: 757-441-6746
Cell: 443-994-3301

Learn about "America's Seventh Service":
www.noaacorps.noaa.gov
Learn about NOAA's Office of Coast Survey:
www.nauticalcharts.noaa.gov

Elevated pipelines_draft_RTB_edits.docx	**Content-Type:**	application/vnd.openxmlformats-officedocument.wordprocessingml.document
	Content-Encoding:	base64

Policy text for Elevated pipelines deemed to be hazards to surface navigation

This policy does not address exposed pipelines that are close to the sediment. This policy will address pipelines that are significantly elevated from the bottom sediment and could pose a hazard to surface navigation. The definition of significant is the same as hydrographic survey object detection standards – i.e., greater than ~~2~~ 1 meters (~~6~~ 3 feet) off the bottom between the ~~to~~ depths of 0 and 20 meters (65 feet), then 10% off the ~~bottom~~ water depth ~~to the deeper range~~for depths deeper than 20 m.

In water depths between 4 meters (13 feet) and 40 meters (130 feet), pipelines that are elevated a significant height off the bottom and therefore pose a hazard to surface navigation, the in-house field unit (or processing branch if contracted field unit) that discovers the pipeline is to contact the relevant Coast Survey Navigation Manager with the appropriate information regarding the elevated pipeline. The Nav Manager is to then contact the relevant regulatory authority for that region (e.g., USACE or MMS) and inform them of the hazardous situation regarding the noted pipeline. Coast Survey expects the regulatory authority to alert the permitted owner of the noted pipeline and require the owner to bury the pipeline as dictated by the terms of the permit.

After a period of ~~30~~ 15 calendar days, and no longer than ~~45~~ 30 calendar days, from initial contact with the Nav Manager, the Nav Manager is to inform the processing branch of the status of the reburial effort. If positive effect of reburial has occurred or is anticipated within a reasonably short time frame, then the processing branch should ensure that the pipeline is adequately charted. If positive effect of reburial has not occurred or is not expected, the processing branch should then forward a Danger to Navigation message to the following e-mail address ocs.ndb@noaa.gov. The DTON message should include the least depth of the pipeline, the geographic coordinates for the length of the elevated pipeline section(s), and any relevant information regarding ownership, permit issued, etc. that was learned from the Nav Managers interaction with the regulatory authority and/or pipeline owner.

MCD will then chart the DTON as an obstruction (least depth known), linear obstruction with caution area, or other symbol as appropriate to the size of the elevated pipeline section and scale of the chart and requirements of the chart product. After MCD has charted the DTON obstruction, the navigation manager shall continue to contact the USACE, MMS, or the pipeline owner periodically until it has been established that the pipeline has been reburied or that reburial will not take place.

Comment [r1]: The entire time we have to review a survey is (technically) 21 days. I don't want to make this time longer than the time the survey should be in our system.

Comment [r2]: I believe we currently tell the ACOE that if they will be removing the DTON within 2 weeks we will hold off on submitting the DTON. If longer than this, we will move forward with publishing the DTON.

It also seems that there should be some burden of proof provided by the owner that the pipeline has been serviced as expected. I don't think we should just take them at their word.

This Document is for Office Process use only and is intended to supplement, not supersede or replace, information/recommendations in the Descriptive or H-Cell Reports.

AHB COMPILATION LOG

General Survey Information	
REGISTRY No.	H12049
PROJECT No.	OPR-K354-KR-09
FIELD UNIT	C&C TECHNOLOGIES
DATE OF SURVEY	20090723 - 20090823
LARGEST SCALE CHART	***11357_1, edition 41, 20110501, 1:80,000***
ADDITIONAL CHARTS	
SOUNDING UNITS	**FEET**
COMPILER	Deborah A. Bland

Source Grids	**File Name** H:\Compilation\H12049_K354_CC\AHB_H12049\SAR Final Products\GRIDS
	H12049_Sub1_2m_Final_AHB **H12049_Investigations_50cm_Final** **H12049_Sub2_2m_Final** **H12049_Sub3_2m_Final** **H12049_Sub4_2m_Final_AHB** **H12049_Sub5_2m_Final** **H12049_Sub6_2m_Final**
Surfaces	**File Name** H:\Compilation\H12049_K354_CC\AHB_H12049\COMPILE\Working
Combined	**H12049_4m_Combined.csar**
Interpolated TIN	\Interpolated TIN**H12049_12m_InterpTIN.csar**
Shifted Interpolated TIN	\Shifted Surface**H12049_12m_InterpTIN_Shifted.csar**
Final HOBs	**File Name** H:\Compilation\H12049_K354_CC\AHB_H12049\COMPILE\Final_Hobs
Survey Scale Soundings	H12049**_SS_Soundings.hob**
Chart Scale Soundings	H12049**_CS_Soundings.hob**
Contour Layer	H12049**_Contours.hob**
Feature Layer	H12049**_Features.hob**
Meta-Objects Layer	H12049**_MetaObjects.hob**
Blue Notes	H12049**_BlueNotes.hob**
ENC Retain Soundings	

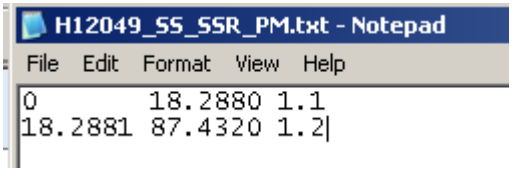
Meta-Objects Attribution	
Acronym	**Value**
M_COVR	
CATCOV	1 – coverage available
SORDAT	20090823
SORIND	US,US,graph,H12049
M_QUAL	
CATZOC	6 – zone of confidence U (data not assessed)
INFORM	*M/V Andrew Charles*
POSACC	10.0 m
SORDAT	20090823
SORIND	US,US,graph,H12049
SUREND	20090823
SURSTA	20090723
DEPARE	

DRVALV 1	27.0000 ft
DRVALV2	70.2073 ft
SORDAT	20090823
SORIND	US,US,graph,H12049
M_CSCL	
CSCALE	
SORDAT	
SORIND	

SPECIFICATIONS:

I. COMBINED SURFACE:
- a. Number of SAR Final Grids: *7*
- b. Resolution of Combined (m): 4 m

II. SURVEY SCALE SOUNDINGS (SS):
- a. Attribute Name: Depth
- b. Selection criteria: Radius, Shoal bias
- c. Radius value is: mm at map scale
  - i. Use single-defined radius: X.XX
  - ii. And/Or use radius table file: H12049_SS_SSR_PM.txt [*XXk = chart scale*]



III. Queried De
- a. Depth of All Soundings
  - i. Minimum: ***8.8160 m***
  - ii. Maximum: ***21.3992 m***

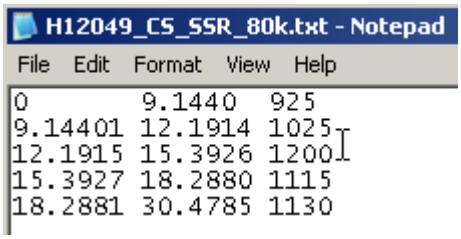
IV. INTERPOLATED TIN SURFACE:
- a. Resolution (m): ***12 m***
- b. Interpolation method: Natural Neighbor
- c. Shift value: ***-0.75 ft*** [*only include applicable shift values*] [*-0.75 feet* (And/Or) *-0.75 fathoms*]

V. CONTOURS:
- a. Attribute Name: Depth
- b. Use a Depth List: ***H12049_depth_contours.txt***
- c. Output Options: Create contour lines
  - i. Line Object: DEPCNT
  - ii. Value Attribute: VALDCO

VI. FEATURES:
- a. Number of Chart Features: 97 [*all features included in H-Cell*]
- b. Number of Non-Chart Features: 62 [*all features submitted by field & not included in H-Cell*]

VII. CHART SURVEY SOUNDINGS (CS):
- a. Number of ENC CS Soundings: 196
- b. Attribute Name: Depth
- c. Selection criteria: Radius, Shoal bias

d. Radius value is: Distance on the ground (m)
   i. Use single-defined radius: X.XX m
   ii. And/Or use radius table file: H12049_CS_SSR_80k.txt



e. Number Survey CS Soundings: ***184***

VIII. NOTES:

[*Type text*]

ATLANTIC HYDROGRAPHIC BRANCH
H-CELL REPORT to ACCOMPANY
SURVEY H12049 (2009)

This H-Cell Report has been written to supplement and/or clarify the original Descriptive Report (DR) and pass critical compilation information to the cartographers in the Marine Chart Division. Sections in this report refer to the corresponding sections of the Descriptive Report.

B. DATA ACQUISITION AND PROCESSING

B.2 QUALITY CONTROL

The AHB source depth grids for the survey's nautical chart update were six 2m and one 50 cm resolution BASE surfaces (*.CSAR), which were combined at 4m resolution. The survey scale soundings were created from the combined surface using sounding spacing range (SSR) files (all SSR values are included in the AHB Compilation Log section of this Descriptive Report). The survey scale soundings were imported into a "point cloud" grid. The chart scale soundings were derived directly from the survey scale soundings point cloud grid using an SSR file, therefore, preserving absolute continuity between the charted depths, the survey scale soundings, and the original source grid. The surface model was referenced when selecting the chart scale soundings, to ensure that the selected soundings portray the bathymetry within the common area.

A UTM projected TIN surface was created from the survey scale soundings point cloud grid, from which an interpolated surface of 12m resolution was generated. The interpolated TIN surface of 12m resolution was shifted by the NOAA sounding rounding value of -0.75 feet. The shifted interpolated TIN was used to generate depth contours in feet (60 feet). The depth contours are forwarded to MCD for reference only. The contours were utilized during chart scale sounding selection and quality assurance efforts at AHB. The depth contours are incorporated into the SS H-Cell product as per 2009 H-Cell Specifications.

The compilation products (Final *.HOB files) for this survey are detailed in the H12049 AHB Compilation Log contained within this document. The Final HOB files include depth areas (DEPARE), depth contours (DEPCNT), soundings (SOUNDG), meta-objects (M_COVR and M_QUAL), cartographic Blue Notes ($CSYMB), and features (OBSTRN, OFSPLF, SBDARE, and WRECKS).

As dictated by Hydrographic Technical Directive 2008-8, the Final HOB files were combined into two separate H-Cell files in S-57 format. Both S-57 files were exported from CARIS Bathy DataBASE in meters, and then converted from metric units into feet using CARIS S-57 Composer 2.2. Quality assurance and topology checks were conducted using CARIS S-57 Composer 2.2 and DKART Inspector 5.1 validation tests.

The final H-Cell products are two S-57 files, in Lat/Long NAD-83. The contents of these two H-Cell deliverables are listed in the table below:

TABLE 1 - Contents of H-Cell Files			
H12049_CS.000			**Scale 1:80,000**
Object Class Types	**Geographic**	**Cartographic**	**Meta**
S-57 Object Acronyms	DEPARE	$CSYMB	M_COVR
	OBSTRN		M_QUAL
	OFSPLF		
	SBDARE		
	SOUNDG		
	WRECKS		
H12049_SS.000			**Scale 1:10,000**
Object Class Types	**Geographic**		
S-57 Object Acronyms	DEPCNT		
	SOUNDG		

B.2.3 Junctions and Prior Surveys

a. Survey H12049 (2009) junctions with survey H11785 (2009) to the northeast, H12055 (2009) to the south, H12048 (2009) to the west, and H12054 (2009) to the southwest. Present survey depths are within 0-1 feet with charted depths to the northwest. Present survey depths compare within 0-1 feet with junctional surveys H11785, H12055, H12048, and H12054. Present survey depths are from 0-6 feet deeper than charted depths to the east.

Figure 1: Present survey depths vs. charted depths to the northwest

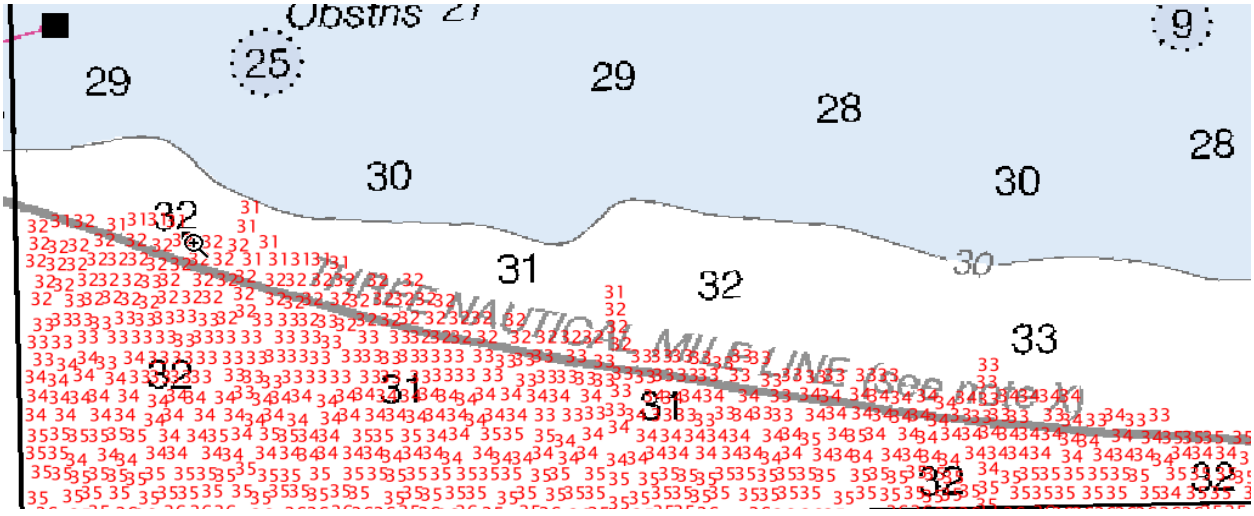


Figure 2: Present survey depths (red) vs. H11785 depths to the northeast (blue)

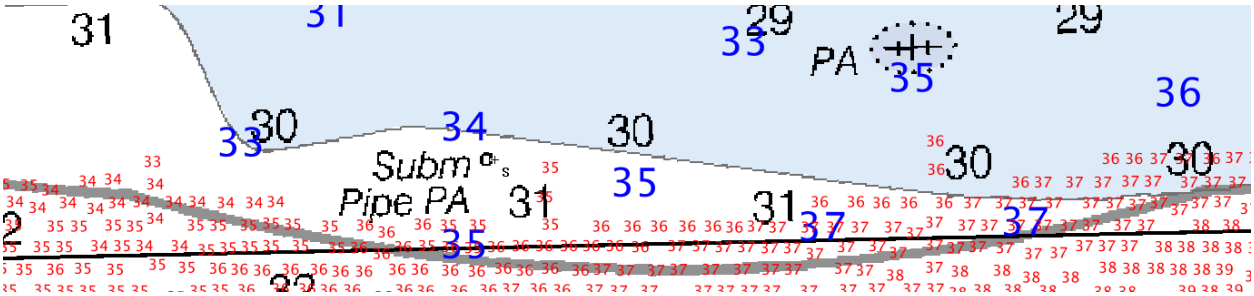


Figure 3: Present survey depths (red) vs. H12055 depths to the south (blue)

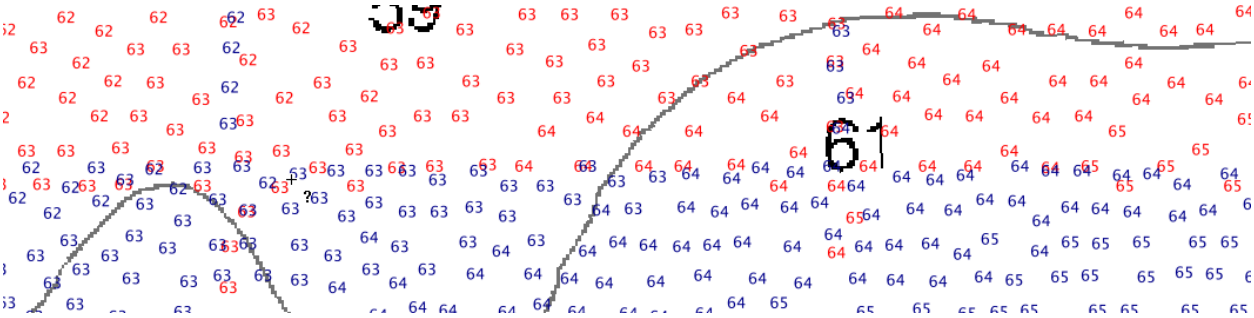


Figure 4: Present survey depths (red) vs. H12048 depths to the west (blue)

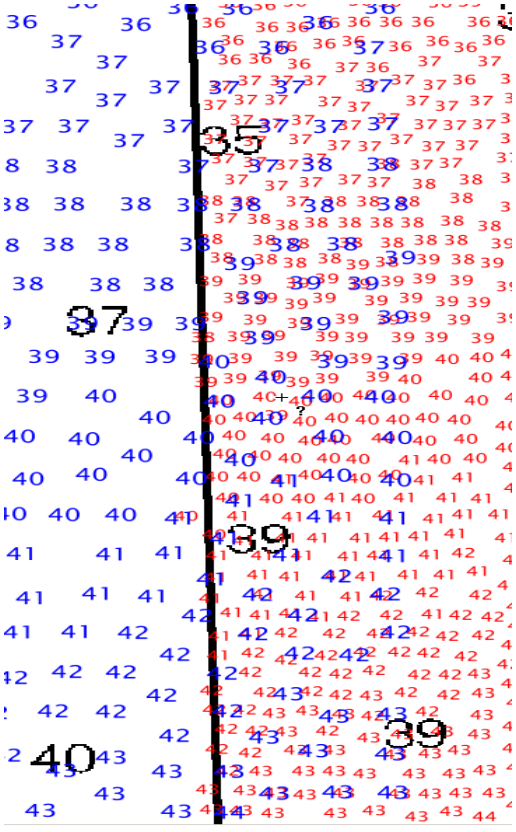


Figure 5: Present survey depths (red) vs. H12054 depths to the southwest (blue)

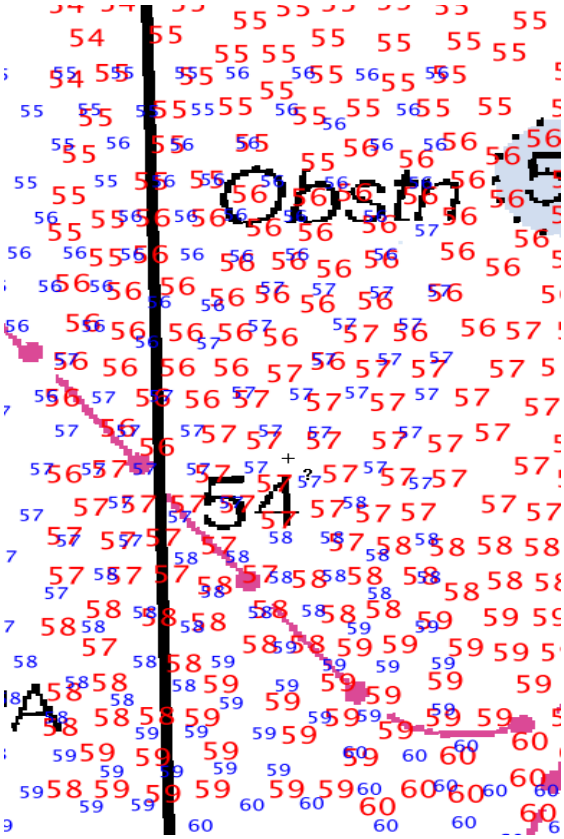
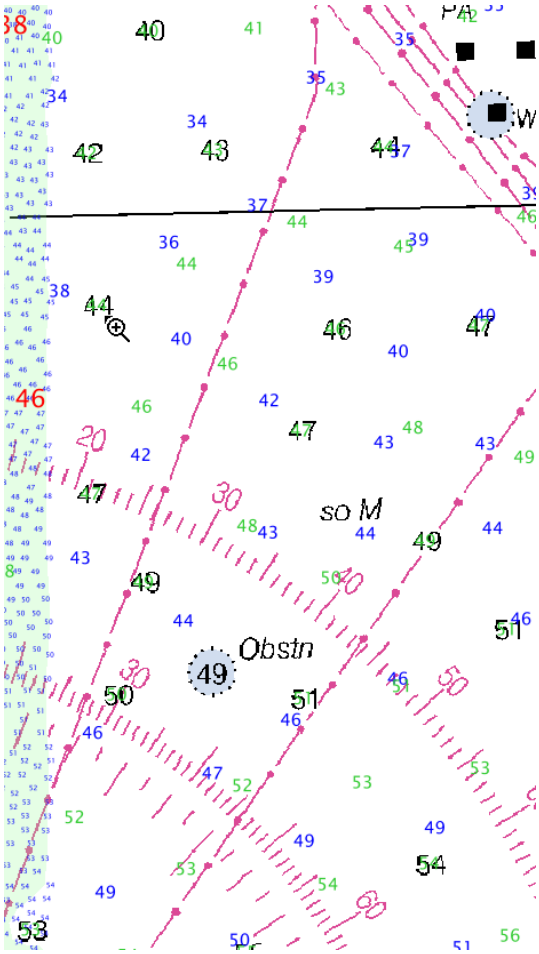


Figure 6: Present survey depths vs. charted depths to the east

b. During the junction review with NOS chart 11357 (41st Edition, May/11) it was noticed that the depths on the latest edition of this chart and the depths on the latest edition of the US5LA26M (20th Edition), the ENC covering the eastern side of this chart, were in conflict. Features were the same on the chart and the ENC but depths were different. (See below). Upon further investigation, it was determined that survey H11457 (2007) was applied to the chart 11357, but was not applied to ENC US5LA26M. It is recommended that the ENC is updated to agree with NOS chart 11357.

Chart 11357 soundings in black,
Survey H11457 soundings in green,
ENC US5LA26M soundings in blue



B.4 DATA PROCESSING

The following software was used to process data at the Atlantic Hydrographic Branch:

CARIS Bathy DataBASE version 3.2.0/Build 245535
CARIS HIPS/SIPS version 7.0/SP2/HF8
CARIS S-57 Composer version 2.2 Build 237205
dKart Inspector version 5.1
HSTP Pydro version 11.3 (r3347)

C. VERTICAL AND HORIZONTAL CONTROL

The hydrographer makes adequate mention of horizontal and vertical control used for this survey in section C. of the DR. The sounding datum for this survey is Mean Lower Low Water (MLLW), and the vertical datum is Mean High Water (MHW). Horizontal control used for this survey during data acquisition is based upon the North American Datum of 1983 (NAD83), UTM projection zone 15 North.

D. RESULTS AND RECOMMENDATIONS

D.1 CHART COMPARISON

11357 (41st Edition, May/11)
TIMBALIER AND TERREBONNE BAYS
Corrected through NM 07/09/2011
Corrected through LNM 07/12/2011
Scale 1:80,000

ENC COMPARISON

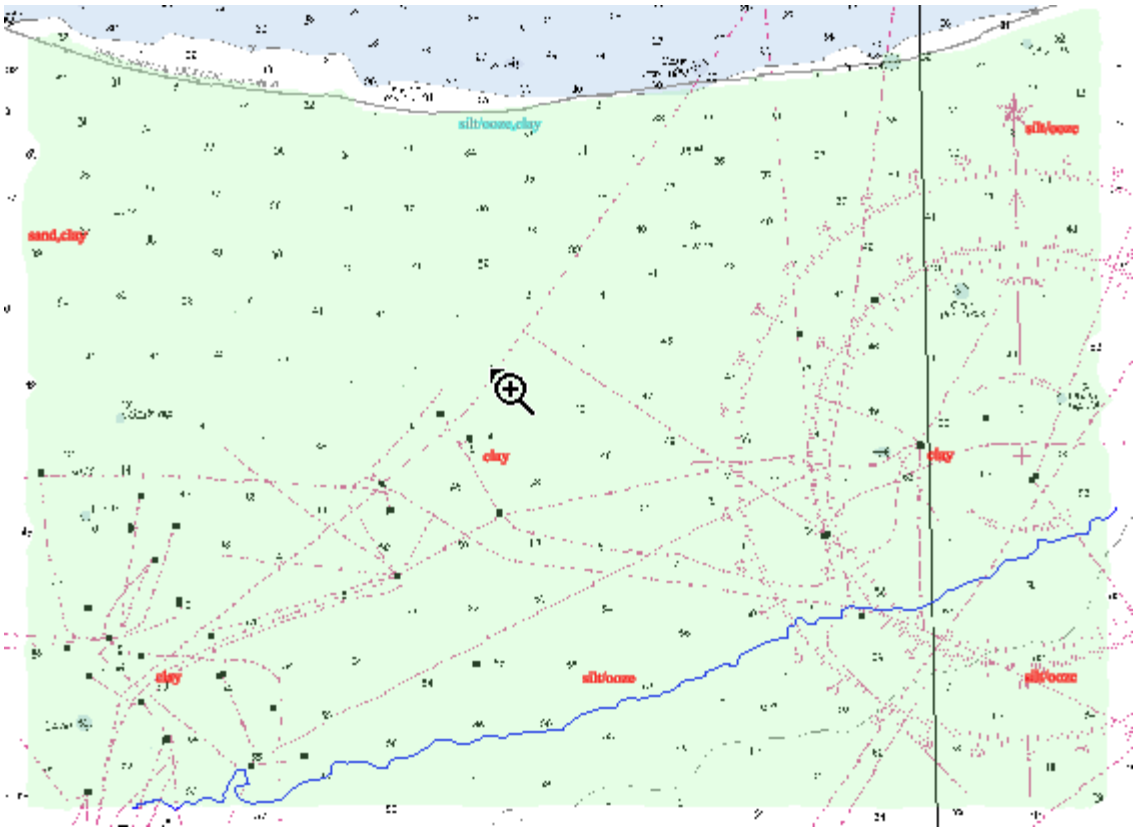
US4LA29M
TIMBALIER BAY
Edition 13
Application Date 2011/04/08
Issue Date 2011/04/08

US4LA31M
TIMBALIER AND TERREBONNE BAYS
Edition 23
Application Date 2010/11/09
Issue Date 2011/07/13

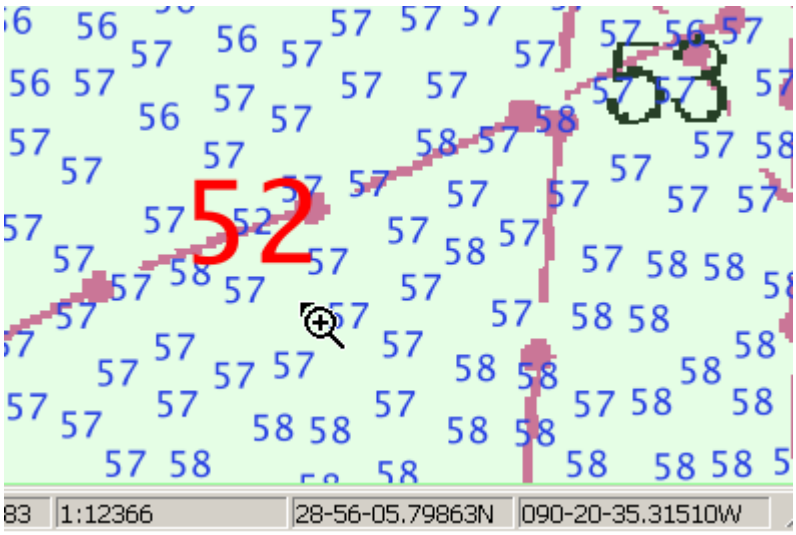
D.2 ADDITIONAL RESULTS

The charted hydrography originates with prior surveys and requires no further consideration. The hydrographer makes adequate chart comparisons in section D and Appendix I and II of the DR. The hydrographer recommends that any charted features not specifically addressed either in the H-Cell files or the Blue Notes should be retained as charted. The following exceptions are noted:

a. The field collected 70 bottom samples throughout the survey area, eight of which were applied to the chart. All seabed area characteristics charted within the survey limits were updated with present survey samples.



b. A 52.648 ft Obstruction positioned on a charted pipeline was found in Latitude 28-56-09.9204N, Longitude 90-20-37.9442W. Based on the proposed elevated pipeline policy provided by CAPT Baird, Chief of NOAA's Marine Chart Division sent on April 19, 2010 (See DR Appendix V), it is recommended that this feature is charted as a 52 ft chart scale SOUNDG at the present survey position. Final feature disposition is deferred to MCD.



D.6 MISCELLANEOUS

Chart compilation was completed by Atlantic Hydrographic Branch personnel in Norfolk, Virginia. Compilation data will be forwarded to the Marine Chart Division in Silver Spring, Maryland. See section D.1 of this report for a list of the Raster Charts and Electronic Navigation Charts (ENC) used for compiling the present survey.

D.7 ADEQUACY OF SURVEY

The present survey is adequate to supersede the charted bathymetry within the common area. Any features not specifically addressed either in the H-Cell files or the Blue Notes should be retained as charted. Refer to section D and Appendix I and II of the DR for further recommendations by the hydrographer.

APPROVAL SHEET
H12049

Initial Approvals:

The completed survey has been inspected with regard to survey coverage, delineation of depth contours, disposition of critical depths, cartographic symbolization, and verification or disproval of charted data. All revisions and additions made to the H-Cell files during survey processing have been entered in the digital data for this survey. The survey records and digital data comply with National Ocean Service and Office of Coast Survey requirements except where noted in the Descriptive Report and the H-Cell Report.

All final products have undergone a comprehensive review per the Hydrographic Surveys Division Office Processing Manual and are verified to be accurate and complete except where noted.

Deborah A. Bland

Digitally signed by Deborah A. Bland
DN: cn=Deborah A. Bland, o=National Ocean Service, ou=Atlantic Hydrographic Branch, email=Deborah.A.Bland@NOAA.gov, c=US
Date: 2011.08.31 12:45:23 -04'00'

Deborah A. Bland
Cartographer
Atlantic Hydrographic Branch

I have reviewed the H-Cell files, accompanying data, and reports. This survey and accompanying Marine Chart Division deliverables meet National Ocean Service requirements and standards for products in support of nautical charting except where noted.

Richard T. Brennan

Richard T. Brennan
2011.08.31 17:24:44 -04'00'

Approved: _____

CDR Richard T. Brennan, NOAA
Chief, Atlantic Hydrographic Branch