

H12023

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT

Type of Survey: **Navigable Area**
Registry Number: **H12023**

LOCALITY

State: Rhode Island
General Locality: Block Island Sound
Sub-locality: Point Judith to Green Hill Point

2009

CHIEF OF PARTY
CDR Shepard M. Smith
NOAA

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DATE

NOAA FORM 77-28 (11-72)	U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	REGISTRY NUMBER: <h2 style="text-align: center; margin: 0;">H12023</h2>
<h1 style="margin: 0;">HYDROGRAPHIC TITLE SHEET</h1>		

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

State:	Rhode Island	
General Locality:	Block Island Sound	
Sub-Locality:	Point Judith to Green Hill Point	
Scale:	1:7,500	Date of Survey: 08/24/09 to 10/14//09
Instructions Dated:	26 February 2009	Project Number: OPR-B363-TJ-09
Vessel:	NOAA Ship THOMAS JEFFERSON	
Chief of Party:	CDR Shepard M. Smith, NOAA	
Surveyed by:	THOMAS JEFFERSON Personnel	
Soundings by:	Reson 8125 & 7125 Multibeam and Odom MKII single beam echosounders.	
Graphic record scaled by:	N/A	
Graphic record checked by:	N/A	
Protracted by:	N/A	Automated Plot: N/A
Verification by:	<i>Atlantic Hydrographic Branch Personnel (Notes in Red, Bold, Italic)</i>	
Soundings in:	Meters at MLLW	
<i>HCell Units:</i>	<i>FEET at MLLW</i>	

Remarks:
1) All Times are in UTC.
2) This is a Navigable Area Hydrographic Survey.
3) Projection is UTM Zone 19, NAD83.

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Descriptive Report to Accompany Hydrographic Survey H12023

Project OPR-B363-TJ-09
 H12023
 Point Judith to Green Hill Point
 Block Island Sound, RI
 Scale 1:7500
 24 Aug 2009- 14 Oct 2009
NOAA Ship THOMAS JEFFERSON

A. AREA SURVEYED

This hydrographic survey was completed as specified by Hydrographic Survey Letter Instructions OPR-B363-TJ-09, dated 26 February 2009. The survey limits are contained within the coordinates below.

Northern Limit	Southern Limit	Western Limit	Eastern Limit
41° 22' 39.4" N	41° 18' 54.17" N	71° 36' 18.9" W	71° 28' 40.2" W

Data acquisition was conducted from 24 August 2009 to 14 October 2009. Two additional lines of data were acquired on 22 October 2011 by *Thomas Jefferson* while working on OPR-B363-TJ-11. *Thomas Jefferson* took the opportunity to obtain a least depth over a rock that was not developed during the original survey dates. 2011 DAPR and HVF are submitted along with this survey.

The purpose of this project is to update the nautical charts in the area. Most of the bathymetry is from surveys completed before 1940. This project responds, in part, to a request from the President of the Northeast Marine Pilots for new hydrographic surveys to support deep draft (60') vessels carrying oil along the route that proceeds northwest from the precautionary area south of the Narragansett Bay and Buzzards Bay traffic lanes.

	Linear Nautical Miles
Single beam mainscheme	125.0
Multibeam mainscheme	806.6
Side Scan Sonar mainscheme	380.1
Developments	28.5
Crosslines	33.0
Shoreline/nearshore investigations	0
Number of Bottom Samples	6
Number of AWOIS items investigated	16
Total number of square nautical miles	14.84

Table 1: Hydrographic Survey Statistics

Calendar Date	Julian Day	Calendar Date	Julian Day
24-Aug-2009	236	25-Sep-2009	268
25-Aug-2009	237	26-Sep-2009	269
26-Aug-2009	238	10-Oct-2009	283
27-Aug-2009	239	11-Oct-2009	284
28-Aug-2009	240	12-Oct-2009	285
31-Aug-2009	243	13-Oct-2009	286
01-Sep-2009	244	14 Oct 2009	287
24-Sep-2009	267	22 Oct 2011*	295

Table 2: Dates of Survey - *Additional work performed during OPR-B363-TJ-11

Survey limits of H12023 are shown below.

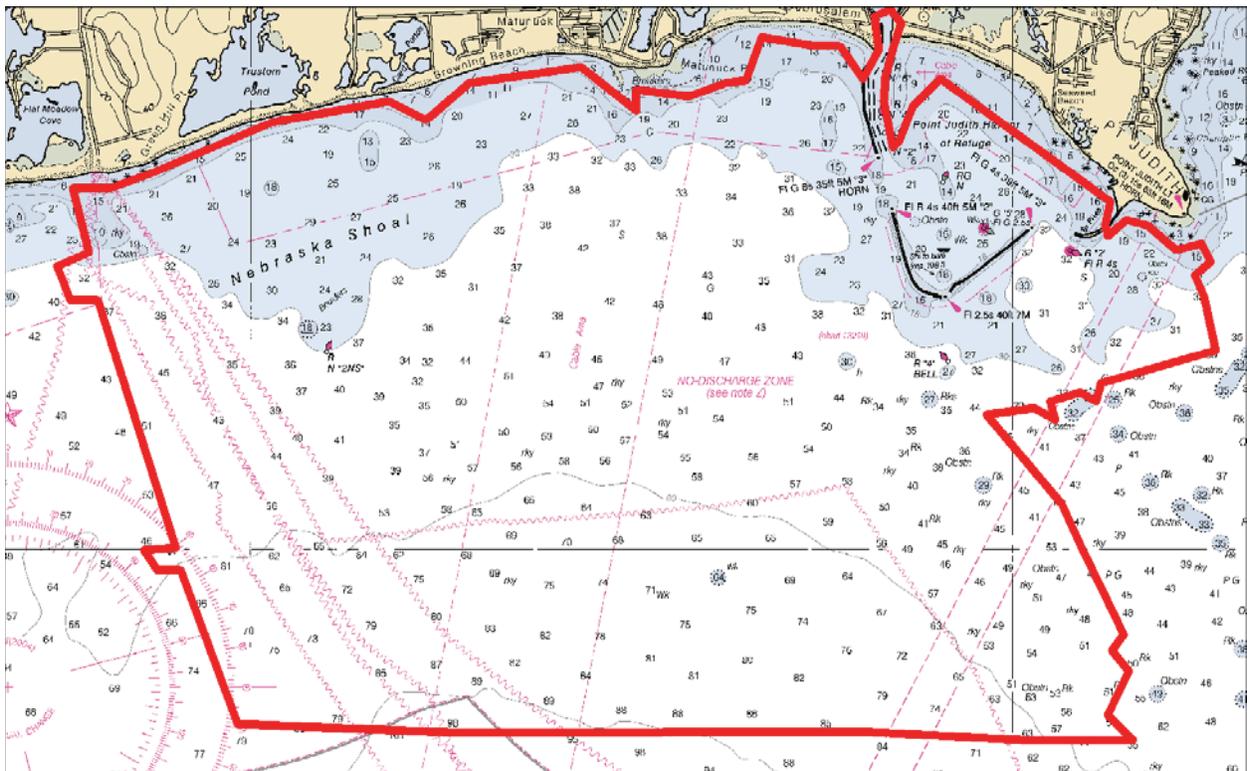


Figure 1: H12023 Survey Limits.

B. DATA ACQUISITION AND PROCESSING

Refer to *OPR-B363-TJ-09 Data Acquisition and Processing Report (DAPR)** for a complete description of data acquisition and processing systems, survey vessels, quality control procedures and data processing methods. Additional information to supplement sounding and survey data, and any deviations from the DAPR are included in this descriptive report.

B 1. EQUIPMENT AND VESSELS

Ship S222 acquired multibeam echosounder soundings, sound velocity profiles, and bottom samples. Launch 3101 acquired hull mounted side-scan imagery, multibeam echosounder soundings, vertical beam echosounder soundings, bottom samples, and sound velocity profiles. Launch 3102 acquired hull mounted and towed side-scan imagery, high-resolution multibeam echosounder soundings, and sound velocity profiles. On August 30th (DN242), a new POS/MV topside unit was installed on 3101. All other vessel configurations, equipment operation and data acquisition and processing were consistent with specifications described in the DAPR*.

While conducting operations for a junction survey on October 22, 2011 (DN295) two MB development lines were acquired by *Thomas Jefferson* over a significant sidescan contact in the H12023 survey area that had been left undeveloped in 2009. These two lines were converted in Caris using the 2011 HVF for the ship's Reson 7125 (which also contains all the relevant 2009 dated entries for this survey), from which a 50cm CUBE surface was generated in a separate field sheet. *Concur*

B 2. QUALITY CONTROL

B 2.1 System Certification and Calibration

Refer to NOAA Ship *Thomas Jefferson* DAPR* and Hydrographic Systems Readiness Report (HSRR) memo for a complete description of system integration and initial calibration results for equipment and sensors used for this survey.

**Included with HCell deliverables*

B.2.2 Sounding Coverage

As per the Letter Instructions, this survey was conducted using “Object Detection Multibeam” (OD MB) in depths less than 20 meters and “Complete Multibeam” in depths greater than 20 meters. As per guidance from HSD OPS, 100% SSS was initially acquired throughout the entire project area, to determine the extent of significant features. Subsequently, the survey area was divided into either 200% SSS or OD MB coverage, based on the available OD MB coverage density (Figure 2). *Concur*

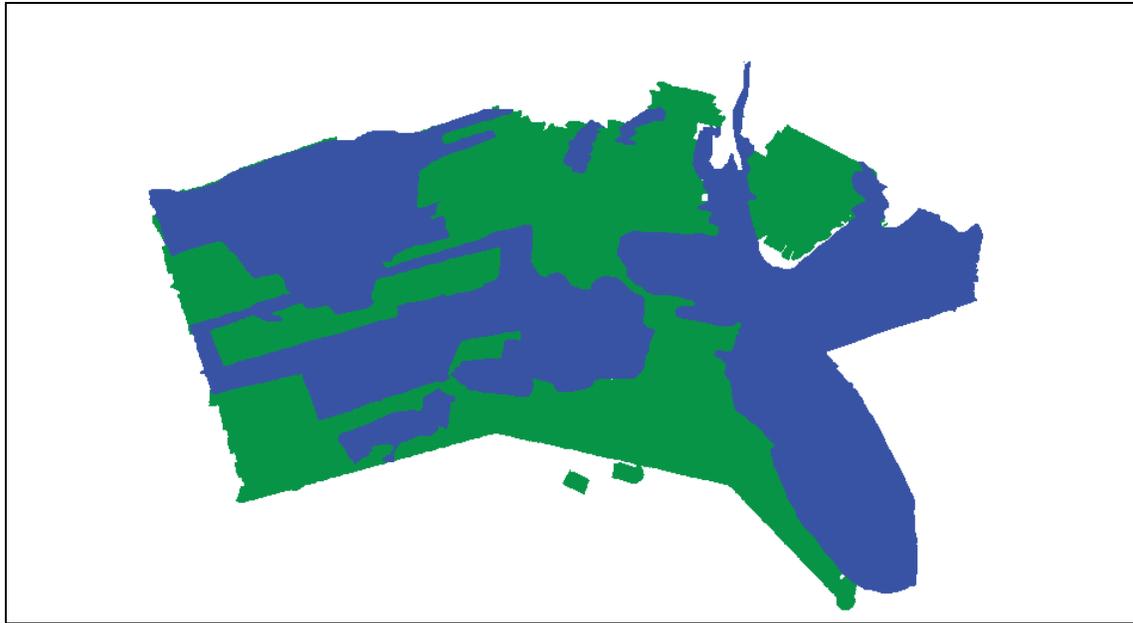


Figure 2: Coverage Type. Object detection MB coverage in blue. 200% SSS coverage in green.

In areas designated as side scan sonar coverage, this was monitored by creation of 100% and 200% coverage mosaics, each with 1m resolution. Bathymetry coverage was monitored by creating 0.5 meter resolution BASE surfaces in the object detection areas and 1 meter BASE surfaces over the complete multibeam areas as specified in HSSD 2009, Section 5.1.2. These outlines are provided as .hob file in the PSS\HOB_Files folder* of this report. *Concur*
**Attached to this report*

An area west of the primary Point Judith breakwater received only 100% SS coverage and partial bathymetry coverage. All significant features have adequate bathymetry. *Concur*

In general, buffer lines acquired along near shore areas did not receive 200% SS coverage.

A coverage gap exists between H12023 and the adjoining survey H12011. Neither survey has soundings in this section. The width of the area is 16m in the east to 4m in the west starting at 41-19-04 N 071-30-07.1W and ending at 41-19-04 N 71-30-29.0 W approximately 500m long.

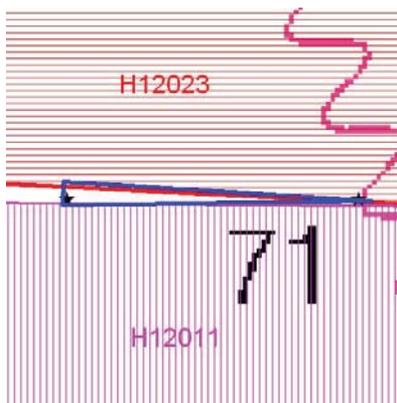


Figure 3: Coverage gap between H12023 and H12011

B 2.3 Crosslines

Multibeam echosounder crosslines totaling 33.0 lineal nautical miles, comprising 4.1% of mainscheme multibeam hydrography, were acquired during the course of the survey. As per email dated 10 September 2009 from AHB*, the quality control check was done using the standard deviation layer of the survey’s CUBE surface. Unusually high standard deviation values were investigated and resolved in processing, except where caused by areas of high bathymetric relief or features or as described in Section 2.5 Systematic Errors.

**Attached to this report in Appendix V*

B 2.4 Junctions and Prior Surveys

The following contemporary surveys junction with H12023 (Figure 4). Comparisons were made in CARIS BASE Editor using a difference surface.

Registry #	Scale	Year	Field Party	Junction side
H10659	1:10,000	1995	<i>Rude</i>	East
H12011	1:7,500	2009	<i>Thomas Jefferson</i>	South

Survey H12023 junctions with survey H10659 to the east. Survey was older than five years and no comparison was made.

Survey H12023 junctions with survey H12011 to the south. Soundings between H12023 and H12011 agreed within 1 foot.

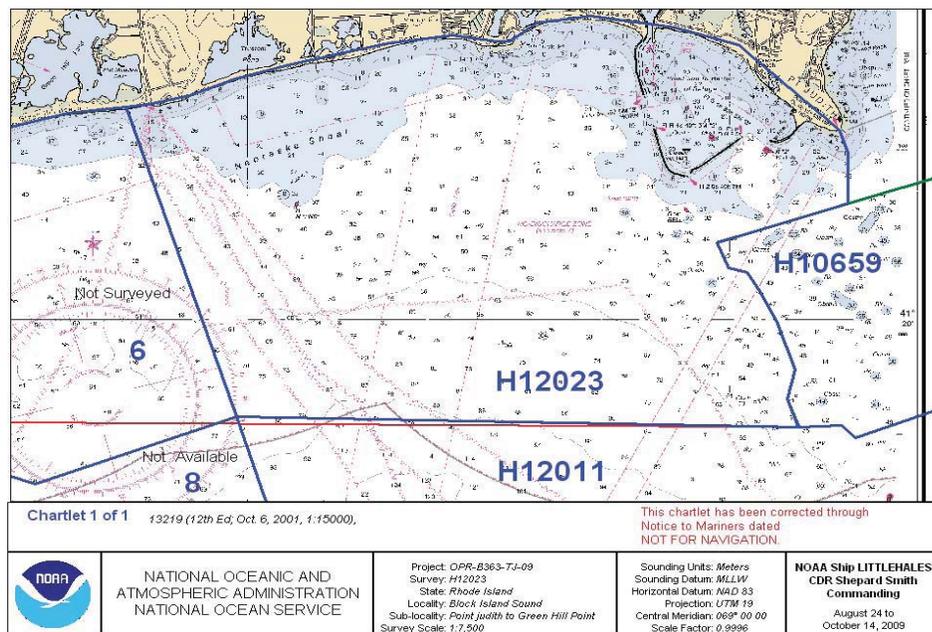


Figure 4: Survey Junctions

B 2.5 Systematic Errors

On DNs 243, 267 and 268, the Reson 7125 computer on Launch 3102 had an intermittent timing error. The error can be observed throughout the data as a wave in the surface. This generally does not exceed 40 cm in the grid. Where it exceeded this, the swaths were rejected, leaving gaps in the data (Figure 5). See correspondence in Appendix V*. **Concur**

**Attached to this report*



Figure 5: Data gaps from rejected data where heave artifacts exceeded 40cm.

Areas of sounding rarefaction (reduction in density) occur with the Reson 8125 system in depths approaching 20m. As the sonar system reaches the deeper limit of its range scale, the survey vessel must slow down significantly to maintain adequate coverage. Partly as a result of this issue, only 91% of nodes met the minimum density requirement of 5 soundings per node (Figure 6). **Concur**

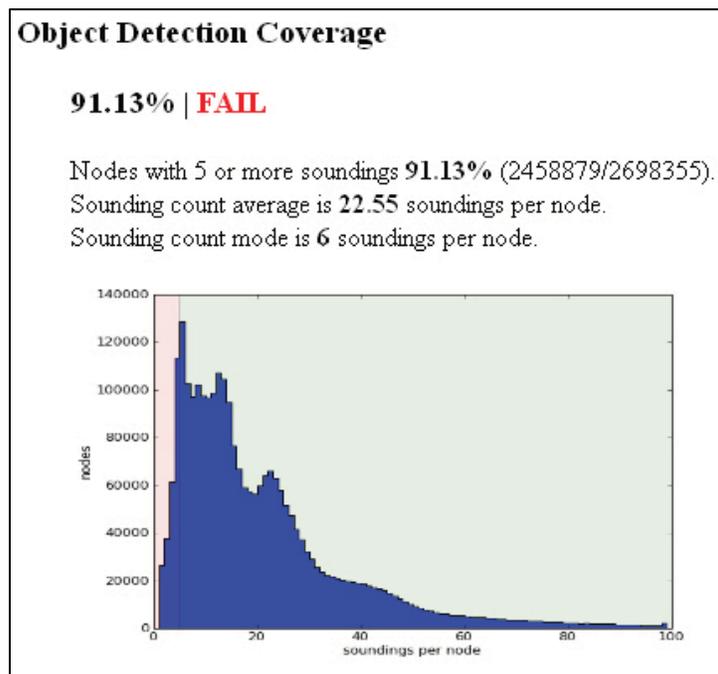


Figure 6: Sounding density plot produced with Python script

The sounding density is higher in the Object Detection MB areas of the survey (Figure 7). A more lenient requirement of 2 soundings per node was granted for areas covered by 200% SSS, as dictated in an email from James Crocker (Appendix V*). Once this exception is taken into consideration, the survey does meet sounding density requirements (Figure 7). **Concur**

**Attached to this report*

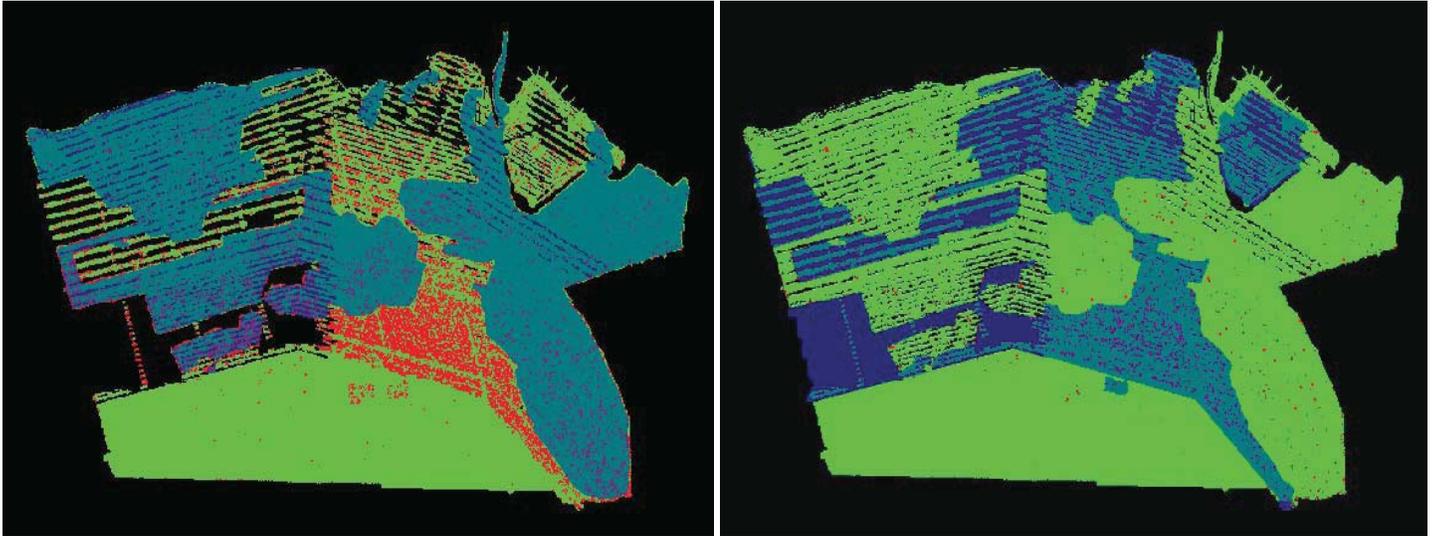


Figure 7: Density Comparison - On left, Object Detection MB areas are highlighted in transparent blue, green nodes have 5 or more soundings per node, and red nodes have fewer. On right, 200% SS coverage is highlighted in blue, green nodes have 2 or more soundings per node, and red nodes have fewer.

In areas where Odom MKII vertical beam data overlaps with multibeam coverage, vertical offsets are present. Most of the vertical beam data is 20-40cm shoaler than multibeam data, but still meets IHO Order 1 requirements. This offset can be identified in the combined surface (Figure 8). **Concur**

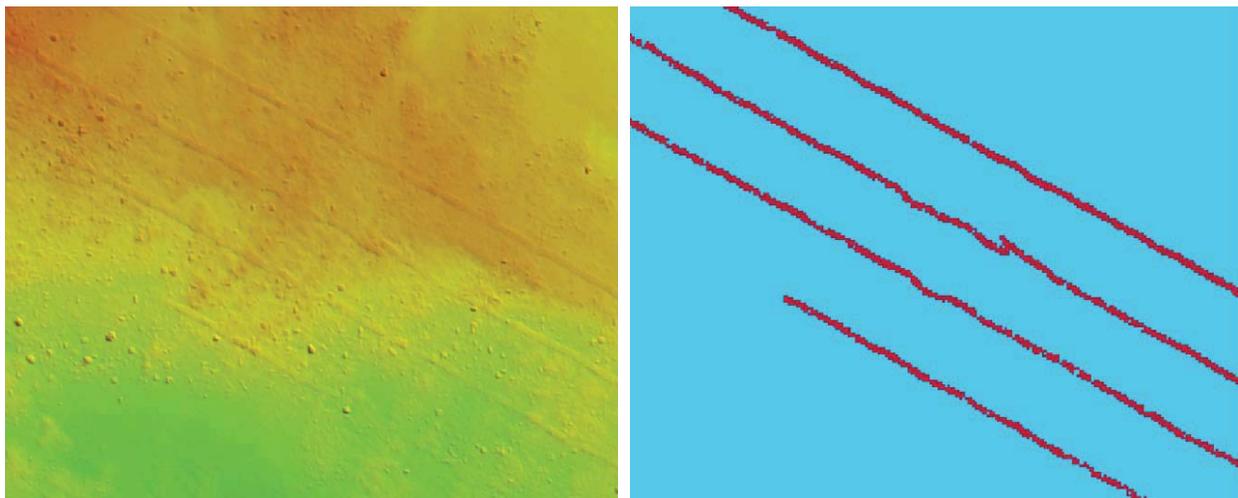


Figure 8: Vertical offset between VB and MB data as exhibited in the Depth (left) and Contributor (right) layers of the combined grid

B 3. CORRECTIONS TO ECHO SOUNDING

HDSCS sounding data were reduced to mean lower-low water (MLLW) using approved tides from the primary stations at New London CT, 8461490; Newport RI,8452660; and Montauk NY8510560. TCARI was used for tidal constituents and residuals provided by CO-OPS as specified in the Letter Instructions and illustrated in Figure 9.

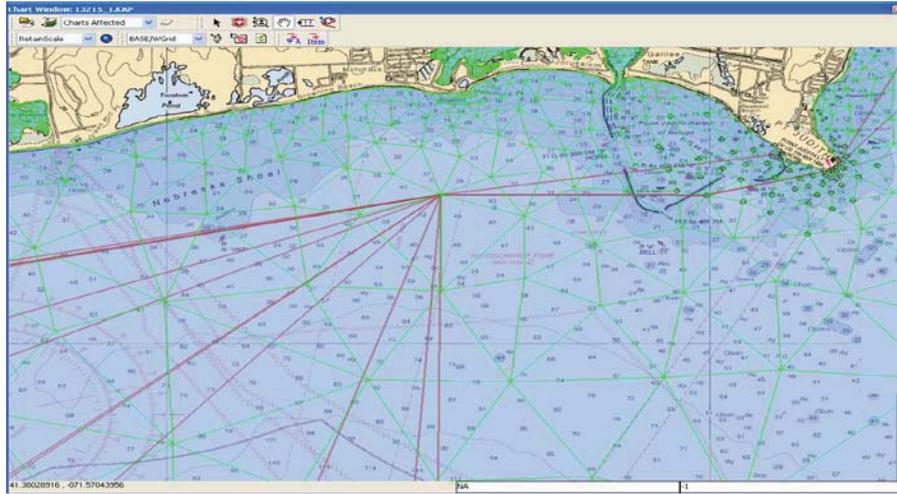


Figure 9: TCARI Zones.

All other datum reduction procedures conform to those outlined in the **DAPR***. All methods and instruments used for sound velocity correction were as described in the **DAPR***.
**Included with HCell deliverables*

B 4. DATA PROCESSING

B 4.1 Total Propagated Error

For the 2009 field season, Total Propagated Error (TPE) parameters for sound speed and tides are calculated separately for each project. The project-specific parameters for OPR-B363-TJ-09, survey H12023 are as follows:

Vessel	Tide Values		Sound Speed Values		Surface
	Measured	Zoning	CTD	MVP	
3101	TCARI	TCARI	4	N/A	.2
3102	TCARI	TCARI	4	N/A	.2
S222	TCARI	TCARI	4	1	.2

Table 3. TPE parameters.

B 4.2 BASE Surfaces and Mosaics

The following table describes all BASE Surfaces and Mosaics submitted as part of Survey H12023:

Name of Surfaces and/or Mosaics	Resolution	Type	Purpose
H12023 MB CUBE MLLW 50cm 1 Final	0.5 meter	CUBE	Object Detection
H12023 MB CUBE MLLW 50cm 2 Final	0.5 meter	CUBE	Object Detection
H12023 MB CUBE MLLW 50cm 3 Final	0.5 meter	CUBE	Object Detection
H12023 MB CUBE MLLW 50cm 4 Final	0.5 meter	CUBE	Object Detection
H12023 MB CUBE MLLW 50cm 5 Final	0.5 meter	CUBE	Object Detection
H12023 MB CUBE MLLW 50cm 6 Final	0.5 meter	CUBE	Object Detection
H12023 MB CUBE MLLW 50cm 7 Final	0.5 meter	CUBE	Object Detection
H12023 MB CUBE MLLW 50cm 8 Final	0.5 meter	CUBE	Object Detection
H12023 MB CUBE MLLW 50cm 9 Final	0.5 meter	CUBE	Object Detection
H12023 MB CUBE MLLW 50cm 10 Final	0.5 meter	CUBE	Object Detection
H12023 MB CUBE MLLW 50cm 11 Final	0.5 meter	CUBE	Object Detection
H12023 MB CUBE MLLW 50cm 12 Final	0.5 meter	CUBE	Object Detection
H12023 MB CUBE MLLW 50cm 13 Final	0.5 meter	CUBE	Object Detection
H12023 MB CUBE MLLW 50cm 14 Final	0.5 meter	CUBE	Object Detection
H12023 MB CUBE MLLW 50cm 15 Final	0.5 meter	CUBE	Object Detection
H12023 MB CUBE MLLW 50cm 16 Final	0.5 meter	CUBE	Object Detection
H12023 MB CUBE MLLW 50cm 17 Final	0.5 meter	CUBE	Object Detection
H12023 MB CUBE MLLW 1m 17 Final	1.0 meter	CUBE	Complete MB
H12023 MB CUBE MLLW 50cm 18 Final	0.5 meter	CUBE	Object Detection
H12023 MB CUBE MLLW 1m 18 Final	1.0 meter	CUBE	Complete MB
H12023 MB CUBE MLLW 50cm 19 Final	0.5 meter	CUBE	Object Detection
H12023 MB CUBE MLLW 1m 19 Final	1.0 meter	CUBE	Complete MB
H12023 MB CUBE MLLW 50cm 20 Final	0.5 meter	CUBE	Object Detection
H12023 MB CUBE MLLW 1m 21 Final	1.0 meter	CUBE	Complete MB
H12023_MB_CUBE_MLLW_1m_22_Final	1.0 meter	CUBE	Complete MB
H12023 MB CUBE MLLW 1m 23 Final	1.0 meter	CUBE	Complete MB
H12023 MB CUBE MLLW 1m 24 Final	1.0 meter	CUBE	Complete MB
H12023 MB CUBE MLLW 50cm 25 Final	0.5 meter	CUBE	Object Detection
H12023 MB CUBE MLLW 1m 25 Final	1.0 meter	CUBE	Complete MB
H12023 MB CUBE MLLW 50cm 26 Final	0.5 meter	CUBE	Object Detection
H12023 MB CUBE MLLW 1m 26 Final	1.0 meter	CUBE	Complete MB
H12023 AWOIS 1873 MB CUBE MLLW 50cm Final	0.5 meter	CUBE	Development
H12023 AWOIS 7480 MB CUBE MLLW 50cm Final	0.5 meter	CUBE	Development
H12023 Development MB CUBE MLLW 50cm Final	0.5 meter	CUBE	Development
H12023 VB Uncert MLLW 4m	4.0 meter	Uncertainty	VB Bathymetry
H12023 VB Uncert MLLW 4m ShoalExtracted.bag	4.0 meter	Uncertainty	VB Bathymetry
H12023 SSS 100 1m	1.0 meter	Mosaic	Coverage
H12023 SSS 200 1m	1.0 meter	Mosaic	Coverage

Table 4. Base Surfaces and mosaics

This survey was processed using the Combined Uncertainty and Bathymetry Estimator (CUBE) algorithm. The CUBE configuration was set to the appropriate NOAA-specific grid parameters in accordance with the FPM and the appropriate resolution and grid purpose. Where applicable, grids were thresholded at 0.5m resolution for depths 0-20m, and at 1m resolution for depths 19-40m. Refer to the 2009 Data Acquisition and Processing Report*, 2009 Field Procedures Manual, and CARIS HIPS/SIPS 7.0 manual for further discussion of CUBE. *Concur*

**Included with HCell deliverables*

B 4.3 Data cleaning

The survey data was cleaned using the swath and subset editor tools in CARIS. All areas of the BASE surface that indicated a high standard deviation were examined and cleaned as required such that at least 95% of all nodes meet the IHO Order 1 depth accuracy requirements.

C. VERTICAL AND HORIZONTAL CONTROL

As per FPM section 5.2.3.2.3 a HVCR report was not filed because horizontal and vertical control stations were not established by the field party for this survey. A summary of horizontal and vertical control for this survey follows.

C 1.1 Horizontal Control

The horizontal datum for this project is the North American Datum of 1983 (NAD83). Differential GPS (DGPS) was the sole method of positioning. Differential corrections from U.S. Coast Guard beacons at Acushnet MA (306 kHz), and Moriches NY (293 kHz), were used during this survey.

No horizontal control stations were established by the field party for this survey.

C 1.2 Vertical Control

The vertical datum for this project is Mean Lower-Low Water (MLLW). All HDCS sounding data were reduced to mean lower-low water (MLLW) using approved tides from the primary station at New London CT, (8461490), Newport RI (8452660), and Montauk NY (8510560). TCARI was used for tidal constituents and residuals provided by CO-OPS as specified in the Letter Instructions. A request for delivery of final approved (verified) tides for this survey was forwarded to N/OPS1 on 15 October 2009 in accordance with the FPM and project letter instructions. The final smooth tide letter was received 29 October 2009, and states TCARI grid B363TJ2009-TCARI-Revised should be used as final (Appendix VI*). *Concur*

**Attached to this report*

D. RESULTS AND RECOMMENDATIONS

D.1 Chart Comparison

Survey H12023 was compared with chart 13215 (18th Ed.; Aug. 1, 2004, 1:40,000) and chart 13219 (12th Ed; Oct. 6, 2001, 1:15000). Charts 13205, 13218, 12300, 13006, 5161, 13003 are at a scale of 80,000 or smaller and there are no observable discrepancies.

Chart comparisons were performed in CARIS, in Pydro using survey-scale excessed soundings, and in MapInfo using survey-scale and chart-scale excessed soundings exported from Pydro.

D.1.1 Chart 13219

Point Judith to Seaweed Beach *Concur*

Shore to 18ft curve: Soundings were shoal of chart by 3-6 feet. Most were uncharted rocks.

18 to 30ft curve: Soundings were within range of chart with isolated rocks shoal by 3-6 ft.

30ft curve seaward: Shoaling near 41°21'14.829"N, -071°28'58.642"W and Danger to Navigation (Appendix I*). Soundings are within range of chart, isolated rocks shoal by 3-6ft.
**Attached to this report*

Seaweed Beach to The Breachway *Concur*

Shore to 18ft curve: Soundings were within range of charted depths. Surveyed depths in the Point Judith Harbor Entrance Channel were within tabulated limits.

18 to 30ft curve: Soundings were within range of charted depths, isolated rocks shoal by 3-6ft.

30ft curve seaward: Soundings were within range of charted depths.

The Breachway to Matunuck Pt. *Concur*

Shore to 18ft curve: Soundings were within range of charted depths with isolated rocks 3-6 ft.

18 to 30ft curve: Soundings were within range of chart.

30ft curve seaward: Soundings were within range of charted depths.

Other Notes

There are 3 fish traps found by ortho-imagery. The fish traps at West Wall and East Wall were verified visually and positioned by launch 3102. The Brickwater Village Trap was not in place at the time, but its intended position was verified by Captain Tom Hoxsie of the *North Star*. The three traps are intermittent as they get serviced and replaced at the same location. Below is the *North Star* servicing the trap and a view of a typical layout of a fish trap (Figure 10). There are barrels anchored to the bottom supporting the trap gear. See Appendix II* and V*.



Figure 10: Fish traps photos.

There is a feature “Shoal to bare” located in the south west Harbor Refuge (Figure 11). The area was found and observed to bare towards the jetty. The perimeter of the shoal was covered and identified with Side Scan Sonar and Reson 7125 MB. See Appendix II*. *Concur*
**Attached to this report*

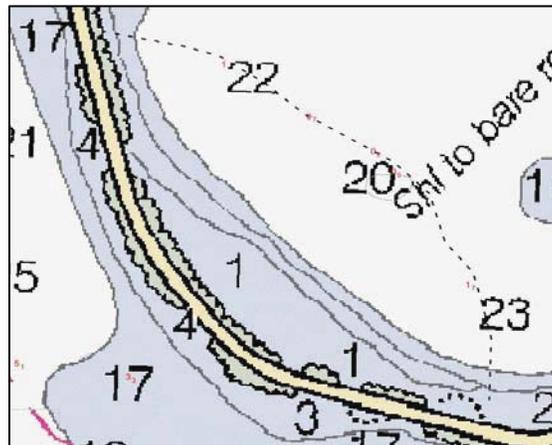


Fig 11: Shoal to bare

D.1.2 Chart 13215

Point Judith to Seaward Beach *Concur*

Same as 13219.

Seaward Beach to The Breachway *Concur*

Same as 13219.

The Breachway to Matunuck Pt. *Concur*

Same as 13219.

Matunuck Pt to Nebraska Shoal *Concur*

Shore to 18ft curve: Soundings were within range of charted depths.

18 to 30ft curve: 12% of soundings were shoal of chart by 3-6 ft the rest within range of chart.

30ft curve seaward: Soundings were within range of charted depths

D.1.3 ENCs US4CN21M and US4MA23M were not compared.

D.2 Additional Results**D.2.1 Automated Wreck and Obstruction Information Service (AWOIS) Items**

A total of 16 assigned AWOIS items were located within the modified limits of H12023 and investigated during this survey. AWOIS items were investigated with OD MB, and/or 200% SSS or onsite visual inspection. All AWOIS items are described in detail in Appendix II* of this report. The maritime boundary AWOIS items were not investigated because Thomas Jefferson does not have a maneuverable, shallow draft survey boat for inshore survey operations.

D.2.4 Shoreline

There is shoreline within the sheet limits of survey H12023. In particular the Harbor of Refuge jetty is not depicted with symbology that depicts the jetty extending out under the water. The hydrographer recommends delineating this from the SSS and updating the chart.

D.2.5 Charted Features

There are numerous charted features within the limits of survey H12023, see Appendix II* for a listing of all charted items addressed by this survey.

**Attached to this report*

D.2.6 Charted Pipelines and Cables

There are two charted cable areas that transect the survey area; one from Galilee heading south and one from Point Judith heading southwest. All of these pipelines and cables are buried and are not visible in either side-scan imagery or multibeam digital terrain models. The Hydrographer has no particular recommendations for these and cables. *Concur*

D.2.7 Bridges, Ferry Routes, and Overhead Cables

There are no bridges or overhead cable crossings within the limits of the survey. There is a ferry route from Point Judith to Block Island, but the Hydrographer has no recommendations regarding this ferry route. *Concur*

D.3 Dangers to Navigation and Shoals

D 3.1 Dangers to Navigation

Nine Dangers to Navigation were found and reported to the NOAA’s Office of Coast Survey, Marine Chart Division (MCD), and are include in Appendix I*. All Dangers to Navigation identified in this survey are listed in Table 5, with their submission date to MCD. *Concur*

DtoN Number	Description	Latitude	Longitude	Date Submitted
1.1	Rock	41° 21' 53.4" N	071° 29' 42.4" W	12/18/09
1.2	Rock	41° 21' 53.7" N	071° 29' 44.5" W	12/18/09
1.3	Rock	41° 21' 16.2" N	071° 30' 39.8" W	12/18/09
1.4	Rock	41° 21' 14.9" N	071° 28' 58.5" W	12/18/09
1.5	Rock	41° 21' 48.7" N	071° 31' 07.4" W	12/18/09
1.6	Rock	41° 21' 22.0" N	071° 28' 49.7" W	12/18/09
1.7	Rock	41° 21' 54.1" N	071° 30' 57.9" W	12/18/09
1.8	Rock	41° 21' 10.0" N	071° 29' 22.8" W	12/18/09
1.9	Rock	41° 21' 10.0" N	071° 28' 44.8" W	12/18/09

Table 5: DTOns

D 3.2 Shoals

The 1 ft shoal reported located near R N”2” at the channel entrance was disproved (see Appendix II*). *Concur*

D.4 Aids to Navigation

There are 14 charted Aids to Navigation (ATON) within the revised limits of H12023.

All Aids to Navigation were found to be on station and serving their intended purpose. The Hydrographer has no recommendations regarding these ATONs.

D.5 Coast Pilot Information

The Hydrographer has no recommendations for changes or addenda to the Coast Pilot.

D.6 Bottom Samples

Bottom samples were collected throughout the survey area. A total of 6 bottom samples were acquired. A complete description of all bottom samples acquired during Survey H12023 is contained in Appendix V*. *Concur*

**Attached to this report*

D.8 Adequacy of Survey

This survey is considered complete and adequate to supersede charted depths within the common area except as noted elsewhere in this report.

Summary and Recommendations for Additional Work

No additional work is needed to complete this survey. There are significant changes to navigation and this has been noted. It is recommended that this survey receive higher processing priority.

E. APPROVAL

As Lead Hydrographer, I have ensured that standard field surveying and processing procedures were followed in producing this examination in accordance with the Office of Coast Survey Hydrographic Surveys Division’s *Field Procedures Manual*, and NOS *Hydrographic Surveys Specifications and Deliverables*. Field operations for this basic hydrographic survey were conducted under my daily supervision with frequent checks of progress and adequacy.

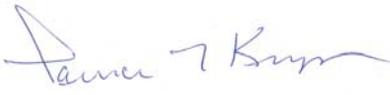
All field sheets, this Descriptive Report, and all accompanying records and data are approved. All records are forwarded for final review and processing to N/CS33, Atlantic Hydrographic Branch.

The Data Acquisition and Processing Report for OPR-B363-TJ-09 is submitted separately and contains additional information relevant to this survey.

Approved and Forwarded:

 Digitally signed by
Michael C. Davidson
Date: 2012.05.09
19:32:59 -04'00'

for
LT Jasper D. Schaer, NOAA
Field Operations Officer



for
CDR Shepard M. Smith, NOAA
Commanding Officer

In addition, the following individuals were also responsible for overseeing data acquisition and processing of this survey:

Survey Manager:

 Digitally signed by Peter Lewit
DN: cn=Peter Lewit, o=NOAA,
ou=Thomas Jefferson,
email=peter.lewit@noaa.gov, c=US
Date: 2012.05.09 19:19:18 Z

Peter Lewit, NOAA
Senior Survey Tech

Appendix I

Dangers to Navigation

9 – Dangers to Navigation

H12023 - Dangers to Navigation

Registry Number: H12023
State: Rhode Island
Locality: Block Island Sound
Sub-locality: Point Judith to Green Hill Point
Project Number: OPR-B363-TJ-09
Survey Dates: 08/27/2009 - 10/12/2009

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
13219	12th	10/06/2001	1:15,000 (13219_1)	USCG LNM: 7/27/2010 (2/15/2011) CHS NTM: None (8/27/2010) NGA NTM: None (2/26/2011)
13215	19th	12/01/2009	1:40,000 (13215_1)	USCG LNM: 11/2/2010 (2/15/2011) CHS NTM: None (8/27/2010) NGA NTM: None (2/26/2011)
13205	38th	02/01/2007	1:80,000 (13205_1)	[L]NTM: ?
13218	40th	02/01/2008	1:80,000 (13218_1)	[L]NTM: ?
12300	47th	05/01/2008	1:400,000 (12300_1)	[L]NTM: ?
13006	34th	05/01/2007	1:675,000 (13006_1)	[L]NTM: ?
5161	13th	10/01/2003	1:1,058,400 (5161_1)	[L]NTM: ?
13003	49th	04/01/2007	1:1,200,000 (13003_1)	[L]NTM: ?

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

Features

No.	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	Rock	1.38 m	41° 21' 53.4" N	071° 29' 42.4" W	---
1.2	Rock	2.71 m	41° 21' 53.7" N	071° 29' 44.5" W	---
1.3	Rock	8.03 m	41° 21' 10.0" N	071° 28' 44.8" W	---
1.4	Rock	3.36 m	41° 21' 16.2" N	071° 30' 39.8" W	---
1.5	Rock	5.87 m	41° 21' 14.9" N	071° 28' 58.5" W	---
1.6	Rock	4.75 m	41° 21' 22.0" N	071° 28' 49.7" W	---
1.7	Rock	3.32 m	41° 21' 54.1" N	071° 30' 57.9" W	---

1.8	Rock	6.28 m	41° 21' 10.0" N	071° 29' 22.8" W	---
1.9	Rock	3.78 m	41° 21' 48.7" N	071° 31' 07.4" W	---

1 - DR_DToN

1.1) 1.3m Rock

DANGER TO NAVIGATION

Survey Summary

Survey Position: 41° 21' 53.4" N, 071° 29' 42.4" W
Least Depth: 1.38 m (= 4.53 ft = 0.756 fm = 0 fm 4.53 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 0.999 m ; TVU (TPEv) ± 0.283 m
Timestamp: 2009-239.18:26:36.558 (08/27/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-239 / 536_1825
Profile/Beam: 909/35
Charts Affected: 13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

The item was covered by 200% Klein 5000 Side scan sonar. The sounding was acquired by Reson 7125 multibeam and corrected to MLLW using Final Verified Water Levels, Final TCARI zoning and resolved the sounding to 1.38m(4.53ft).

Feature Correlation

Source	Feature	Range	Azimuth	Status
536_1825	909/35	0.00	000.0	Primary
235_090901153400	0001	0.96	244.7	Secondary

Hydrographer Recommendations

Add Rock.

Cartographically-Rounded Depth (Affected Charts):

4ft (13219_1, 13215_1, 13205_1, 13218_1)

0 $\frac{3}{4}$ fm (12300_1, 13006_1, 13003_1)

1.4m (5161_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)

Attributes: QUASOU - 6:least depth known

SORDAT - 20091014

SORIND - US,US,graph,H12023

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

VALSOU - 1.382 m

Feature Images

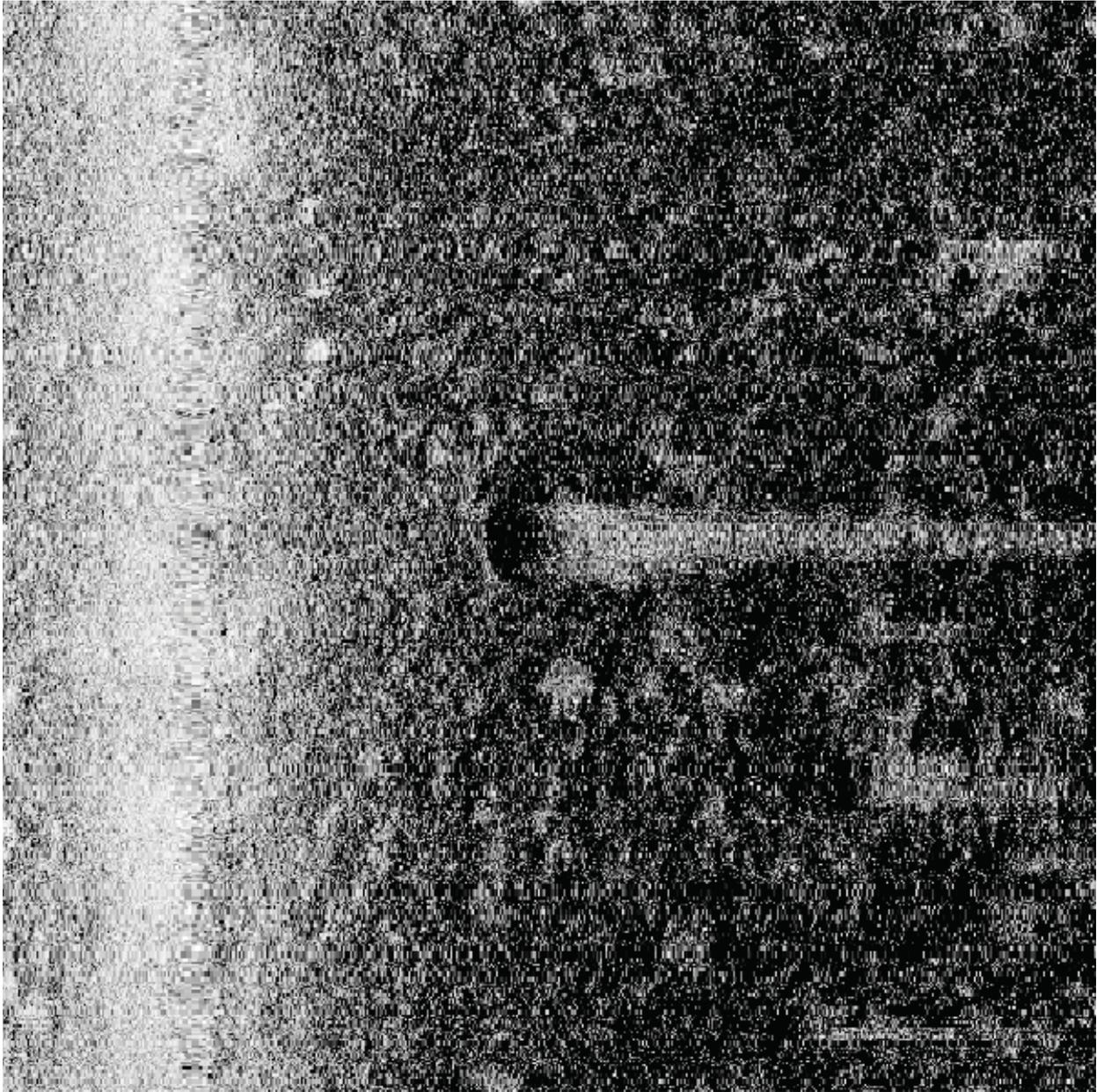


Figure 1.1.1

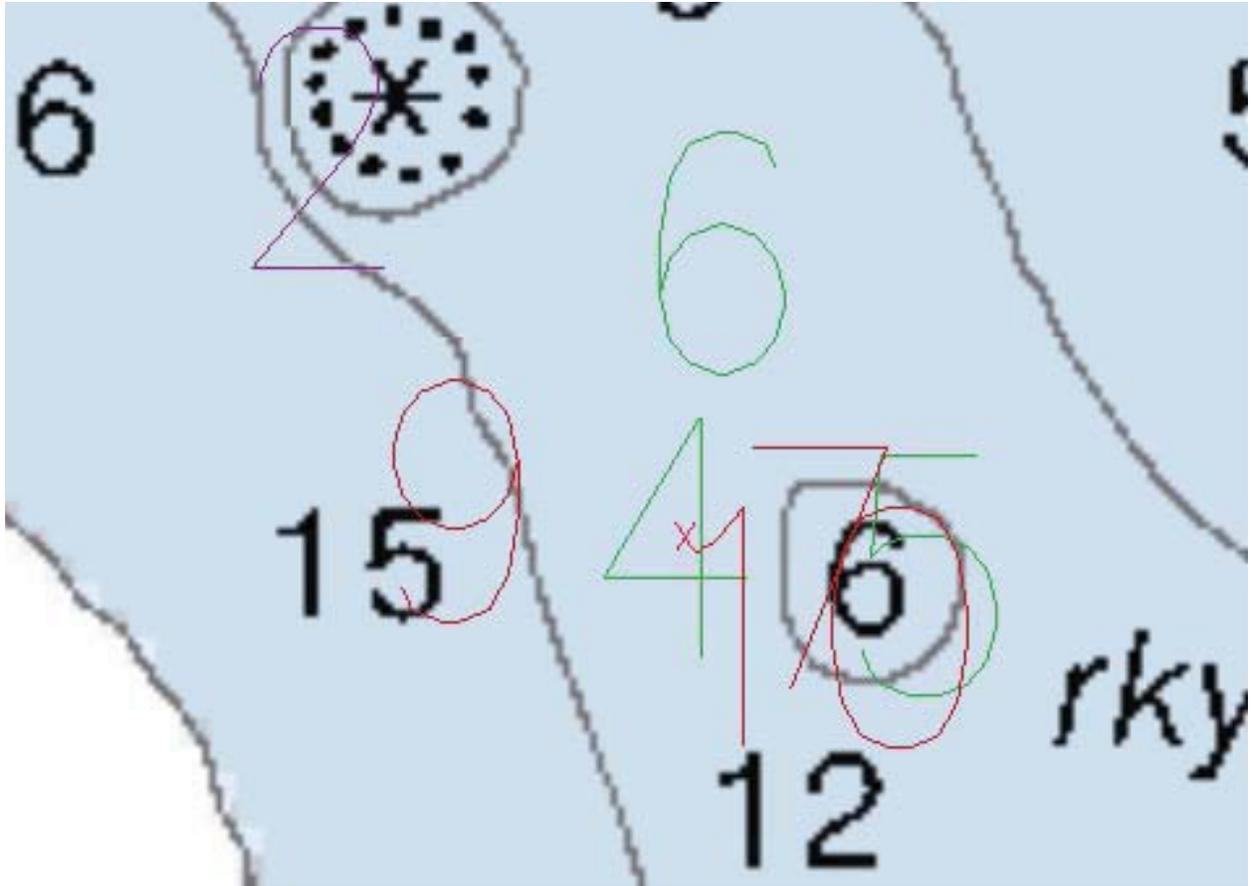


Figure 1.1.2

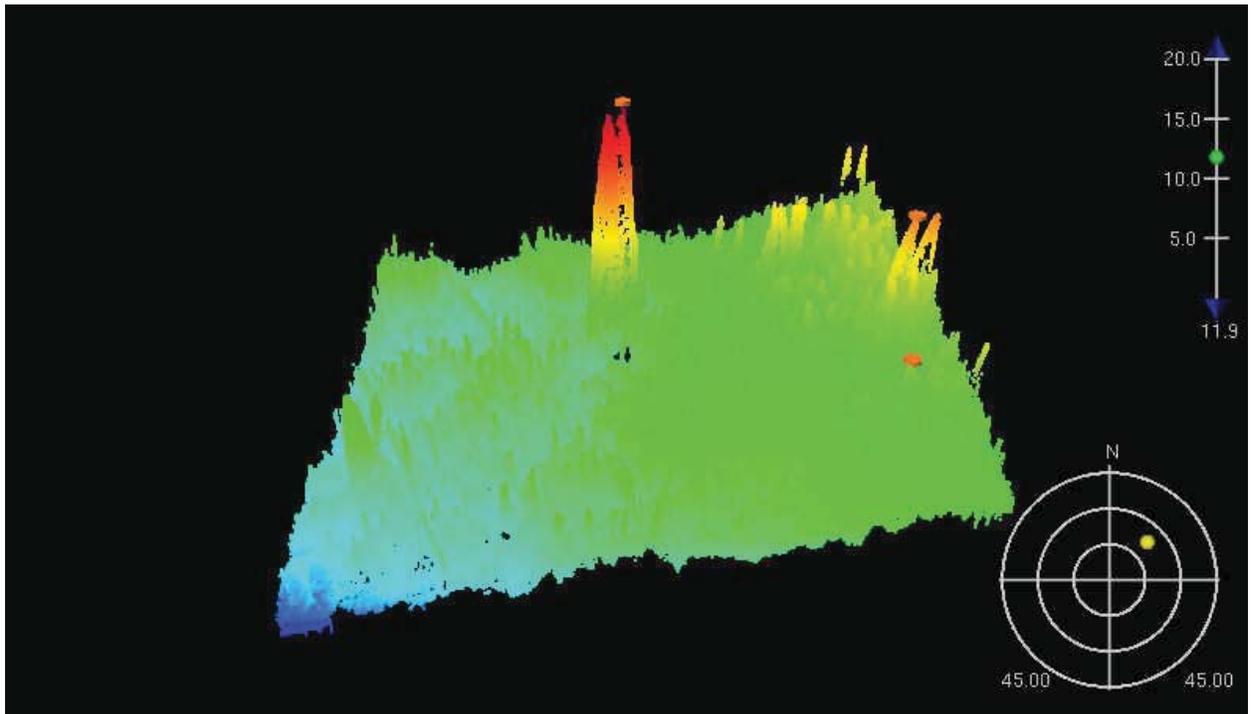


Figure 1.1.3

1.2) 2.7m Rock

DANGER TO NAVIGATION

Survey Summary

Survey Position: 41° 21' 53.7" N, 071° 29' 44.5" W
Least Depth: 2.71 m (= 8.89 ft = 1.482 fm = 1 fm 2.89 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.000 m ; **TVU (TPEv)** ± 0.285 m
Timestamp: 2009-239.18:27:10.197 (08/27/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-239 / 536_1825
Profile/Beam: 1387/512
Charts Affected: 13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

The item was covered by 200% Klein 5000 Side scan sonar. The sounding was acquired by Reson 7125 multibeam and corrected to MLLW using Final Verified Water Levels, Final TCARI zoning and resolved the sounding to 2.71m(8.89ft).

Feature Correlation

Source	Feature	Range	Azimuth	Status
536_1825	1387/512	0.00	000.0	Primary
071_090826141100	0004	48.71	281.0	Secondary

Hydrographer Recommendations

Add Dangerous Submerged Rock.

Cartographically-Rounded Depth (Affected Charts):

- 9ft (13219_1, 13215_1, 13205_1, 13218_1)
- 1 ½fm (12300_1, 13006_1, 13003_1)
- 2.7m (5161_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: QUASOU - 6:least depth known
 SORDAT - 20091014

SORIND - US,US,graph,H12023

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

VALSOU - 2.710 m

Feature Images

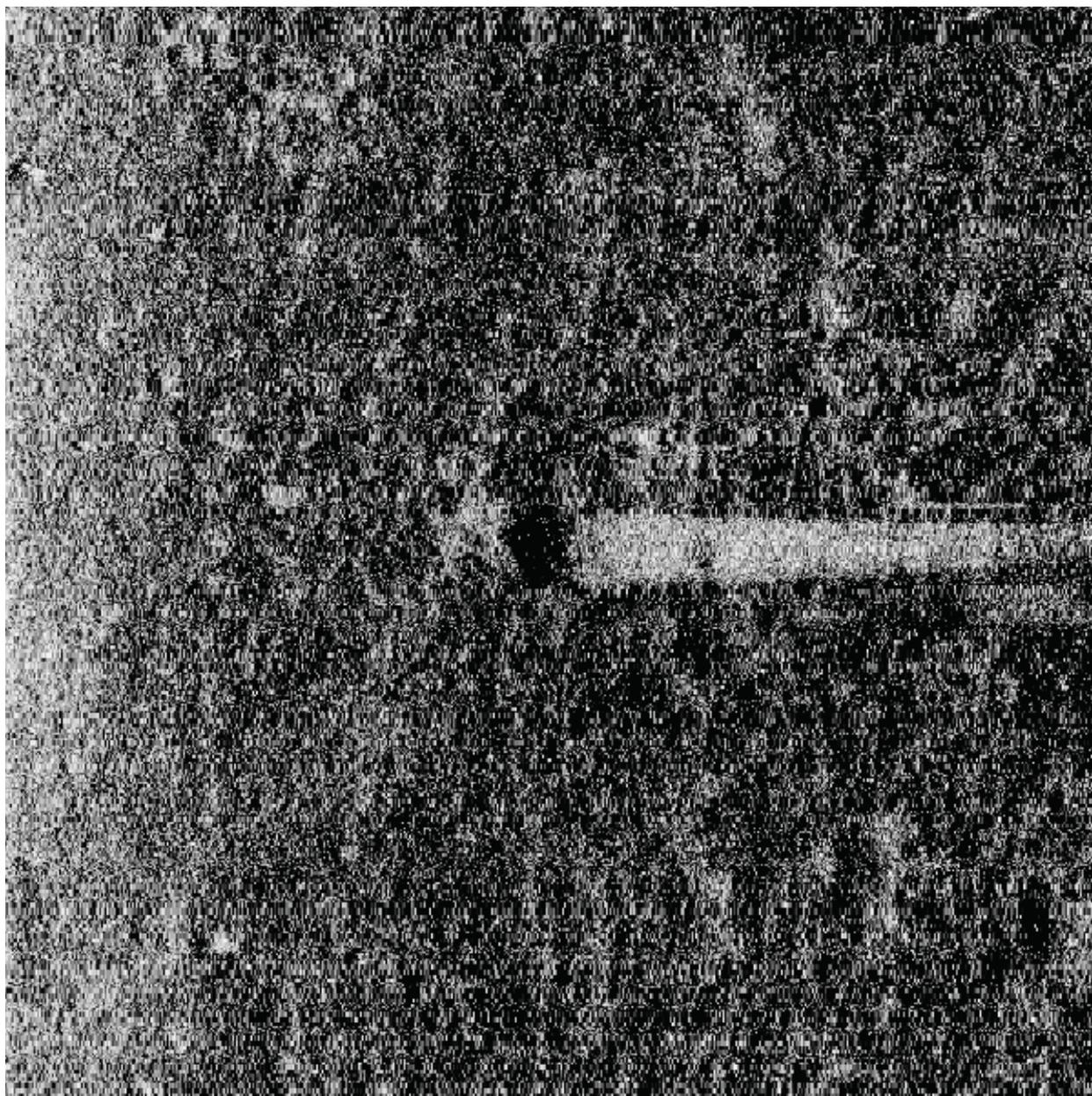


Figure 1.2.1

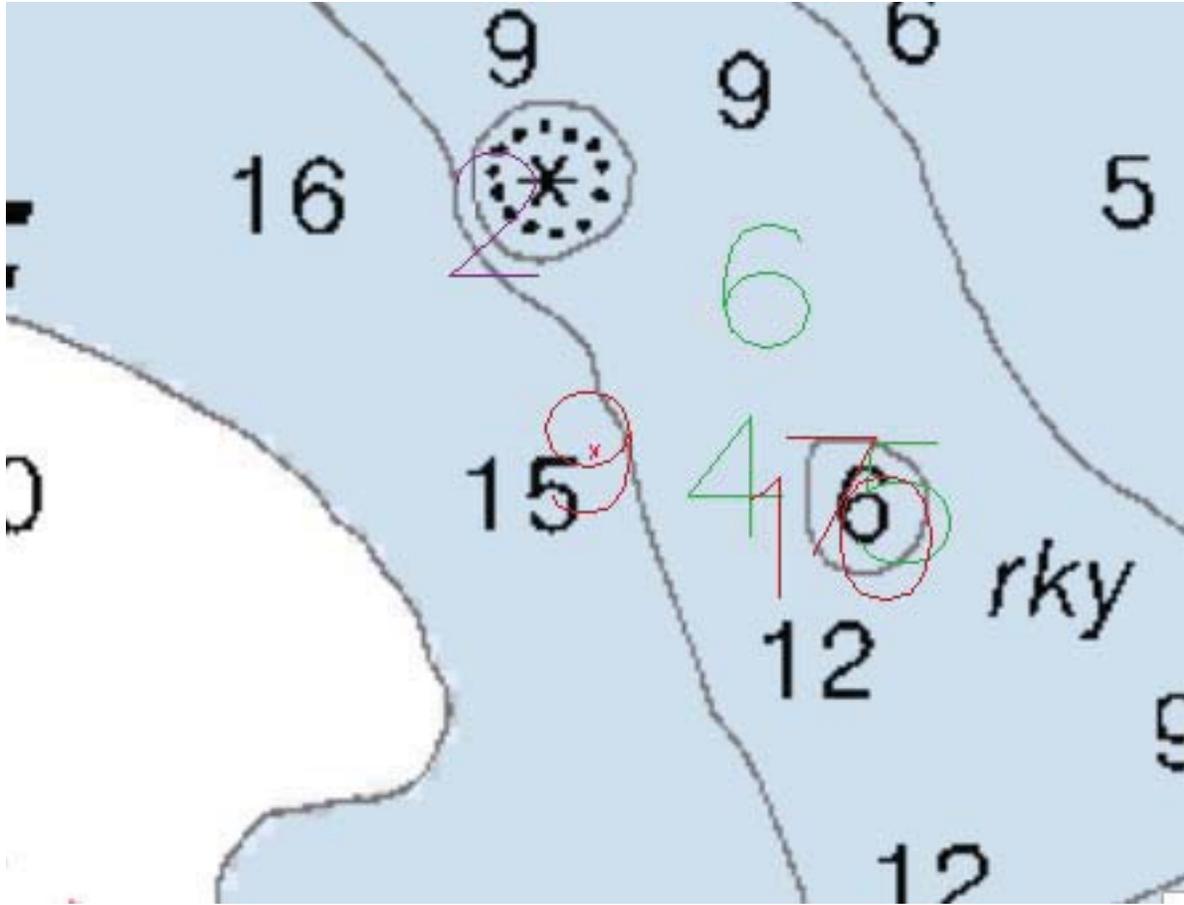


Figure 1.2.2

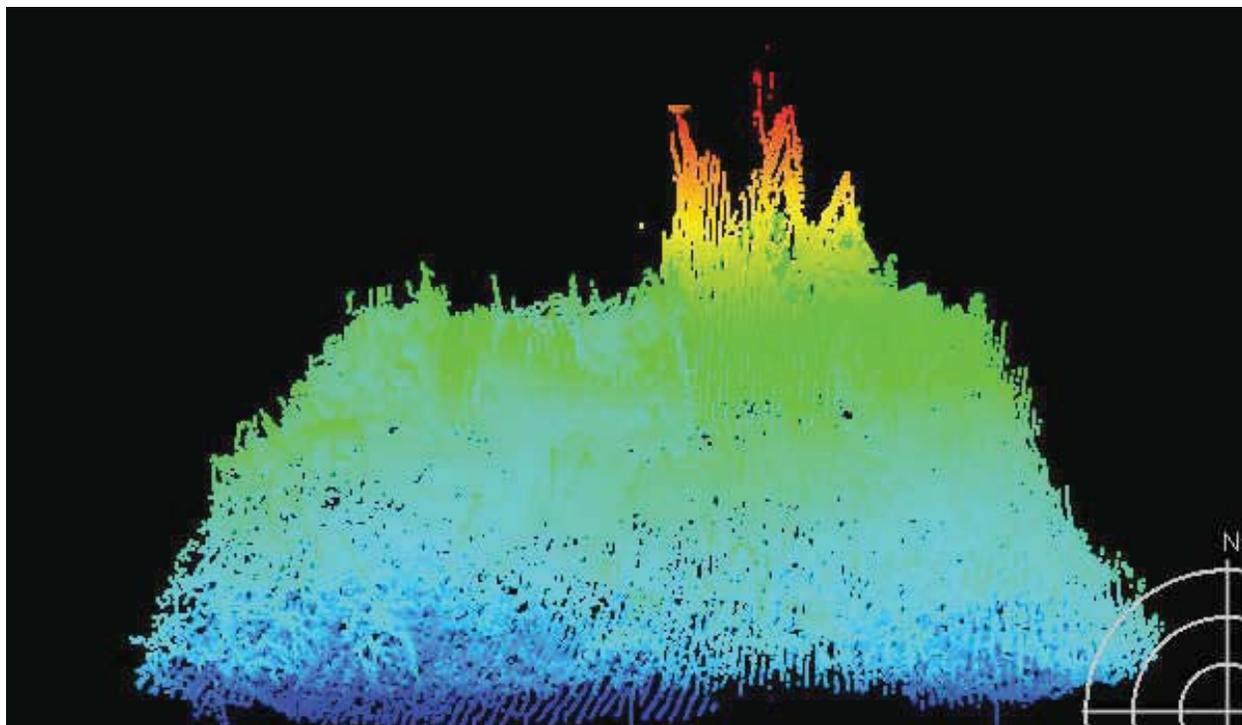


Figure 1.2.3

1.3) 8m rock

DANGER TO NAVIGATION

Survey Summary

Survey Position: 41° 21' 10.0" N, 071° 28' 44.8" W
Least Depth: 8.03 m (= 26.34 ft = 4.390 fm = 4 fm 2.34 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.000 m ; TVU (TPEv) ± 0.287 m
Timestamp: 2009-269.15:29:16.237 (09/26/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-269 / 501_1528
Profile/Beam: 267/134
Charts Affected: 13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

The item was covered by 200% Klein 5000 Side scan sonar. The sounding was acquired by Reson 7125 multibeam and corrected to MLLW using Final Verified water Levels, Final TCARI zoning and resolved the sounding to 8.03m(26.34ft).

Feature Correlation

Source	Feature	Range	Azimuth	Status
501_1528	267/134	0.00	000.0	Primary

Hydrographer Recommendations

Add Dangerous Submerged Rock.

Cartographically-Rounded Depth (Affected Charts):

26ft (13219_1, 13215_1, 13205_1, 13218_1)

4 ¼fm (12300_1, 13006_1, 13003_1)

8.0m (5161_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)

Attributes: QUASOU - 6:least depth known

SORDAT - 20091014

SORIND - US,US,graph,H12023

TECSOU - 2,3:found by side scan sonar,found by multi-beam
VALSOU - 8.028 m

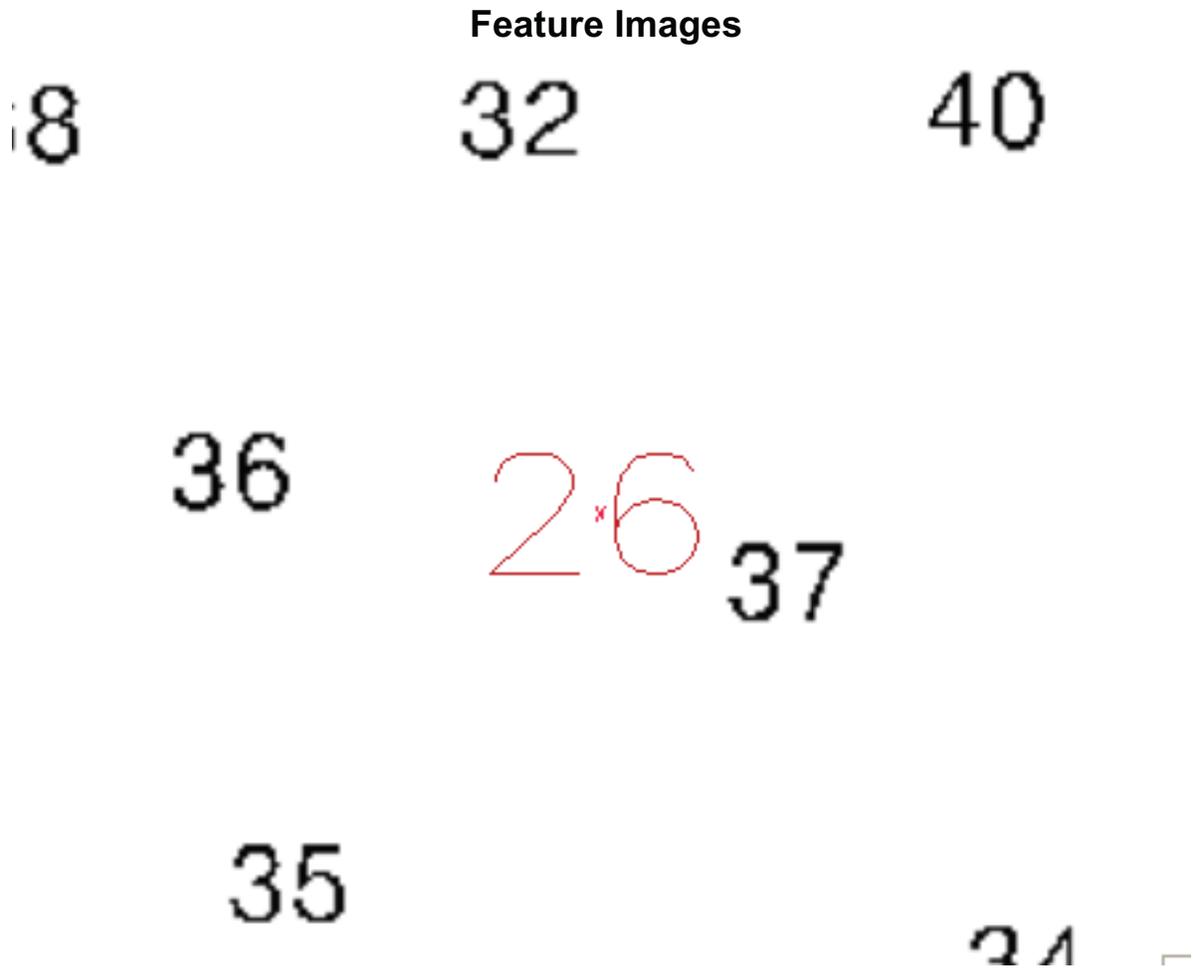


Figure 1.3.1

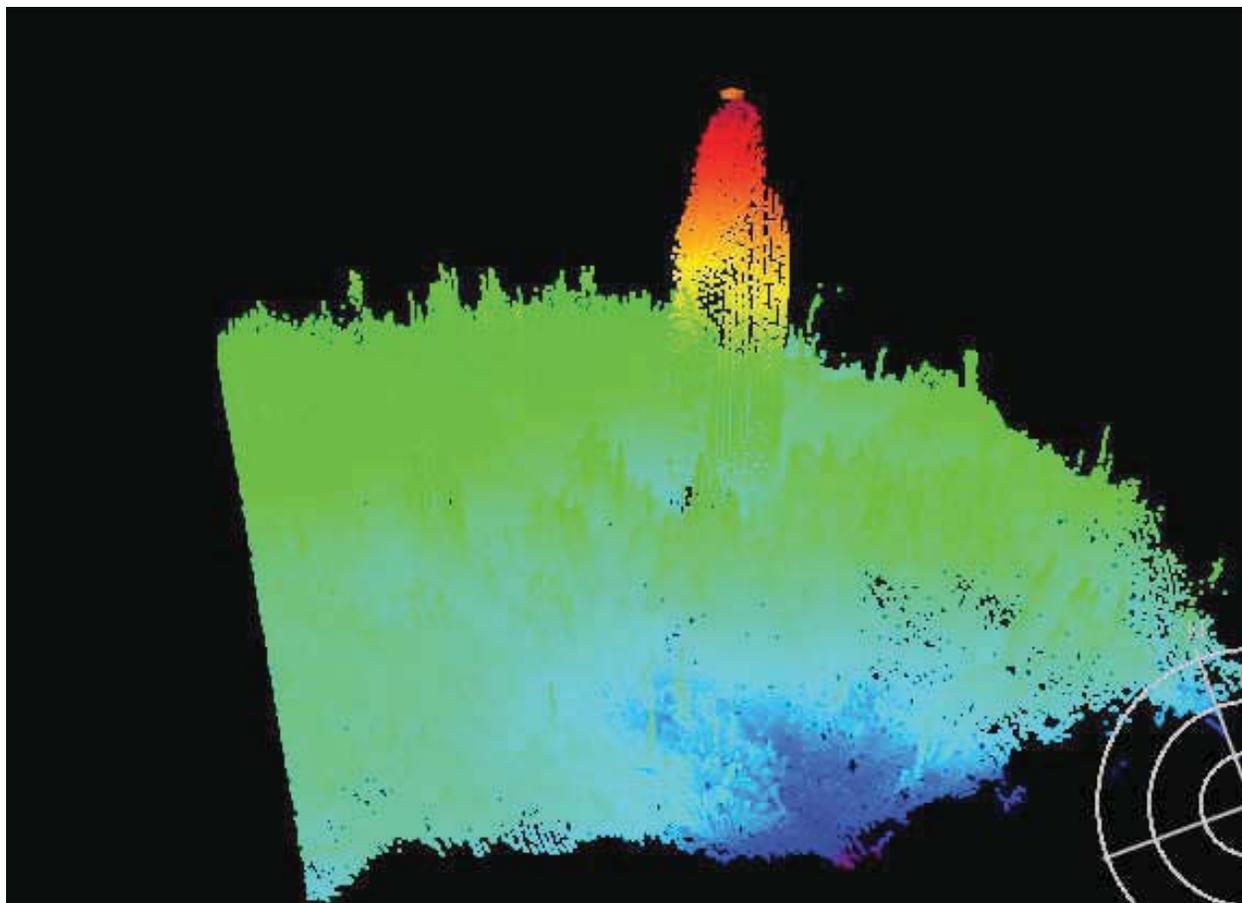


Figure 1.3.2

1.4) 3.36m Rock

DANGER TO NAVIGATION

Survey Summary

Survey Position: 41° 21' 16.2" N, 071° 30' 39.8" W
Least Depth: 3.36 m (= 11.04 ft = 1.839 fm = 1 fm 5.04 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.000 m ; **TVU (TPEv)** ± 0.285 m
Timestamp: 2009-269.20:17:47.904 (09/26/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-269 / 532_2012
Profile/Beam: 5498/29
Charts Affected: 13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

The item was covered by 200% Klein 5000 Side scan sonar. The sounding was acquired by Reson 7125 multibeam and corrected to MLLW using Final Verified Water Levels, Final TCARI zoning and resolved the sounding to 3.361m(11.03ft).

Feature Correlation

Source	Feature	Range	Azimuth	Status
532_2012	5498/29	0.00	000.0	Primary
204_090827164900	0004	3.51	022.3	Secondary
234_090828152100	0005	4.53	071.0	Secondary
238_090828143400	0007	7.81	029.6	Secondary
234_090828151400	0006	8.19	046.6	Secondary
204_090827164900	0003	36.52	248.3	Secondary

Hydrographer Recommendations

Add Dangerous Submerged Rock.

Cartographically-Rounded Depth (Affected Charts):

11ft (13219_1, 13215_1, 13205_1, 13218_1)

1 $\frac{3}{4}$ fm (12300_1, 13006_1, 13003_1)

3.4m (5161_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)

Attributes: QUASOU - 6:least depth known

SORDAT - 20091014

SORIND - US,US,graph,H12023

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

VALSOU - 3.364 m

WATLEV - 3:always under water/submerged

Feature Images

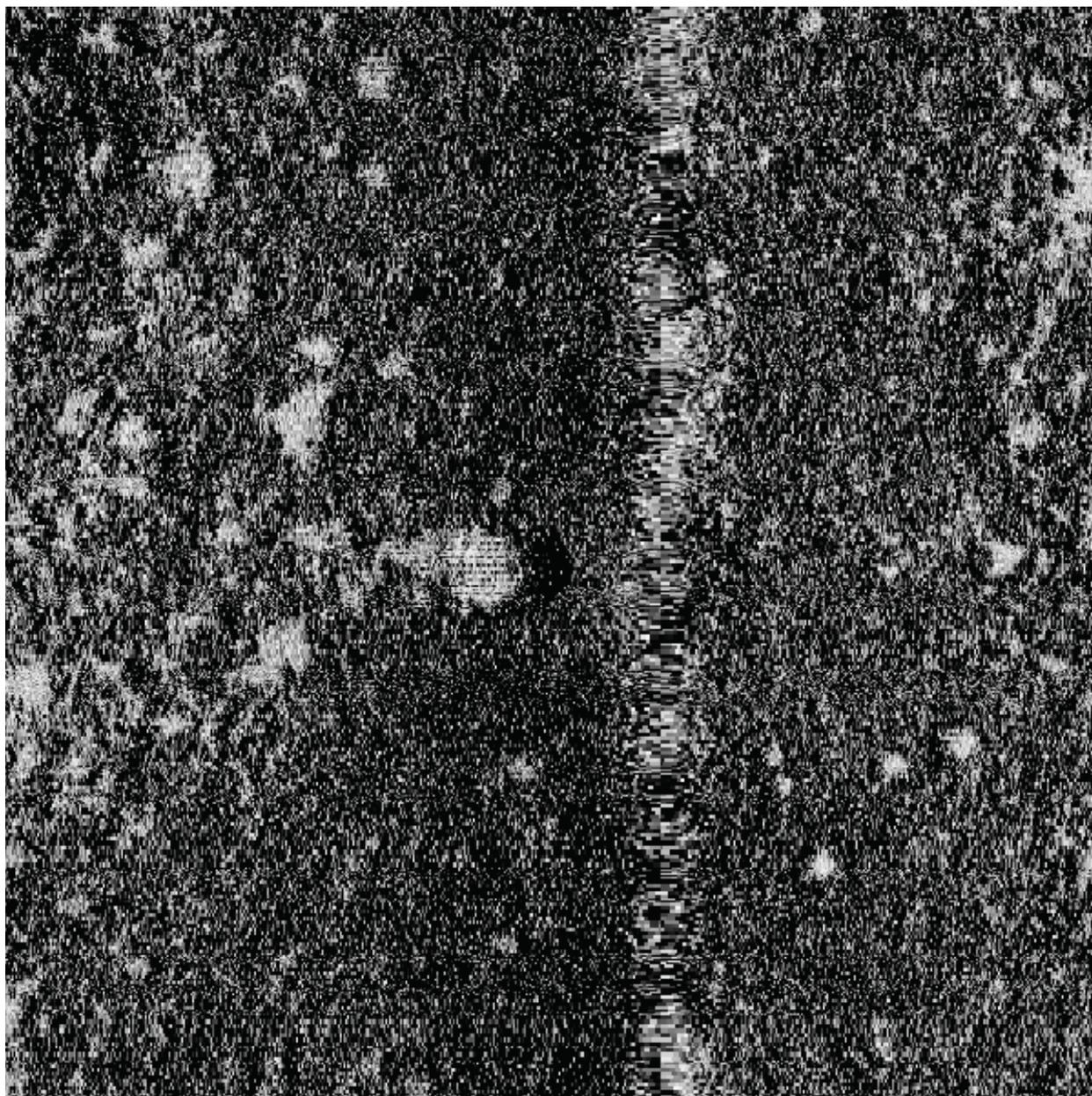


Figure 1.4.1

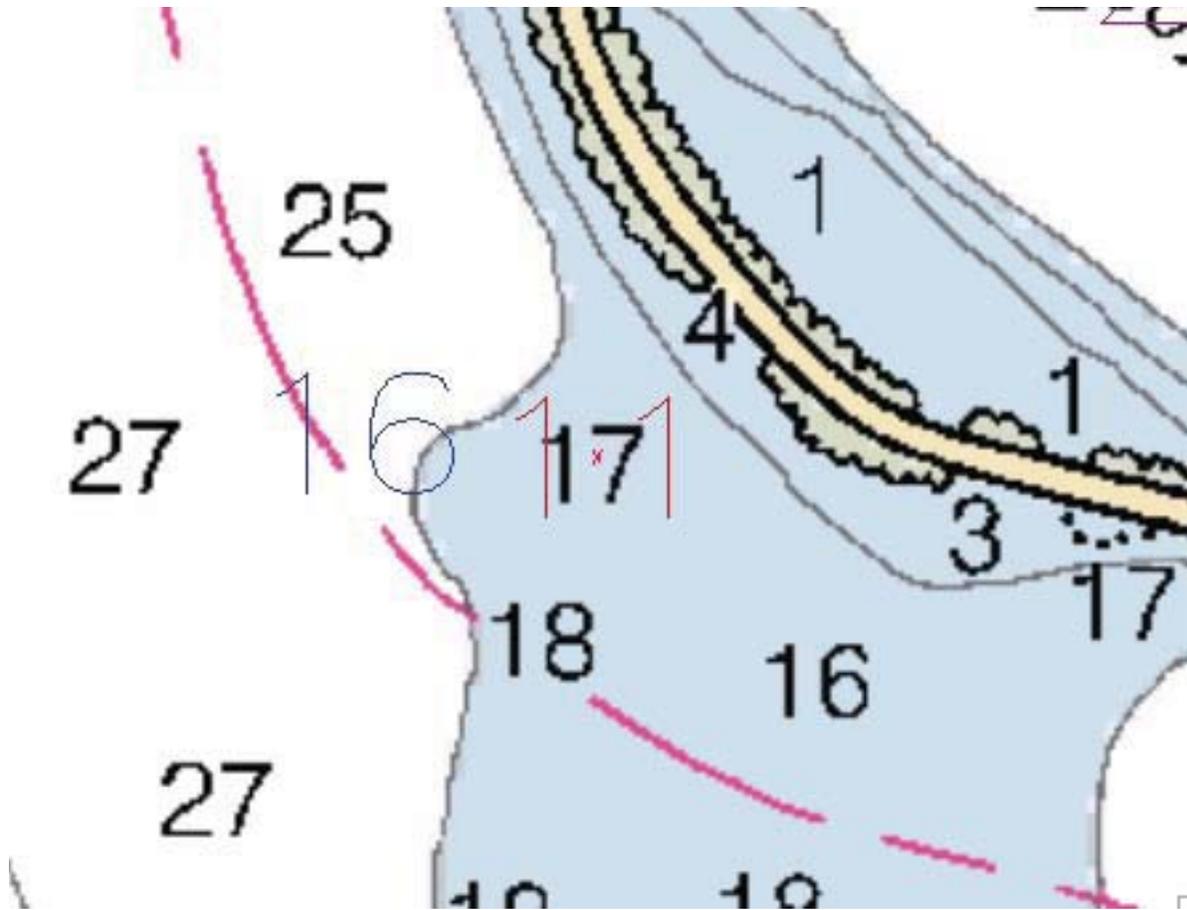


Figure 1.4.2

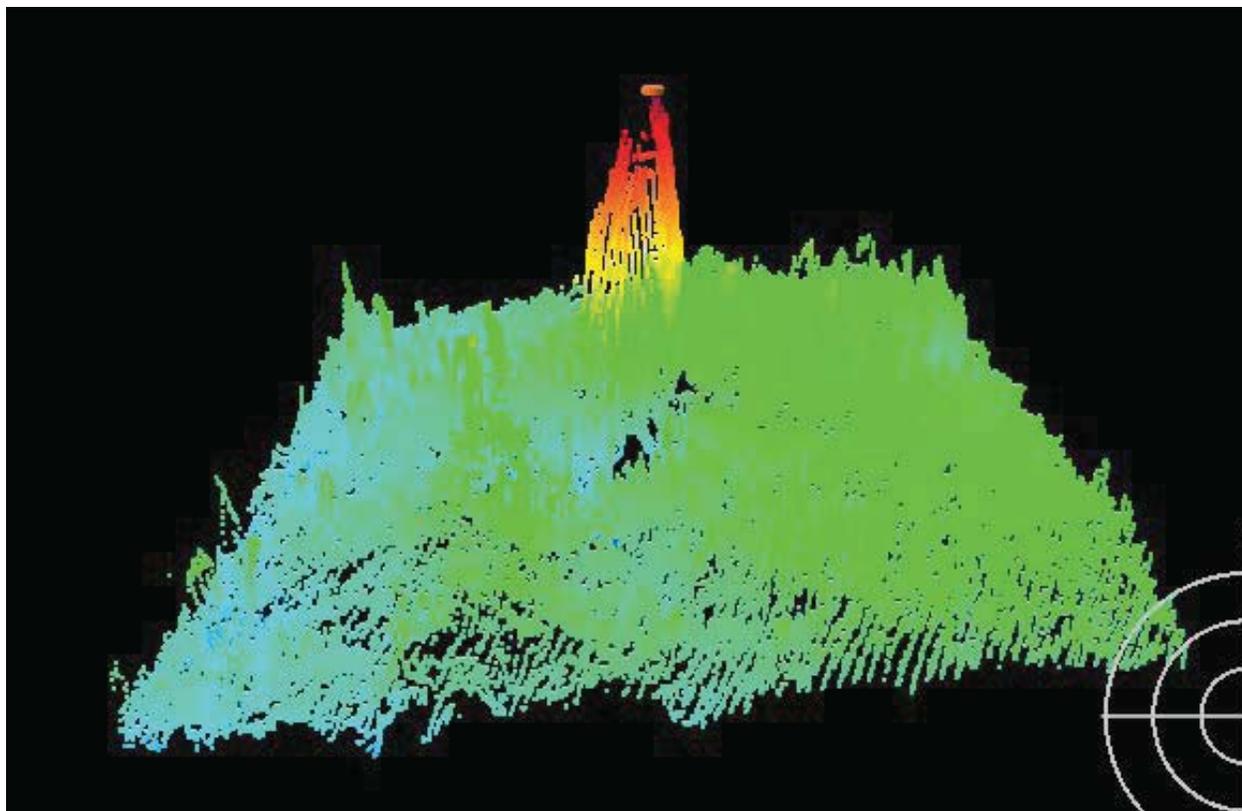


Figure 1.4.3

1.5) 5.87m Rock

DANGER TO NAVIGATION

Survey Summary

Survey Position: 41° 21' 14.9" N, 071° 28' 58.5" W
Least Depth: 5.87 m (= 19.26 ft = 3.209 fm = 3 fm 1.26 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 0.999 m ; TVU (TPEv) ± 0.285 m
Timestamp: 2009-285.17:42:32.729 (10/12/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-285 / 012_1742
Profile/Beam: 295/194
Charts Affected: 13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

The item was covered by 200% Klein 5000 Side scan sonar. The sounding was acquired by Reson 7125 multibeam and corrected to MLLW using Final Verified Water Levels, Final TCARI zoning and resolved the sounding to 5.87m(19.2ft).

Feature Correlation

Source	Feature	Range	Azimuth	Status
012_1742	295/194	0.00	000.0	Primary
189_090826173600	0001	0.66	276.1	Secondary

Hydrographer Recommendations

Add Dangerous Submerged rock.

Cartographically-Rounded Depth (Affected Charts):

19ft (13219_1, 13215_1, 13205_1, 13218_1)

3 ¼fm (12300_1, 13006_1, 13003_1)

5.9m (5161_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)

Attributes: QUASOU - 6:least depth known

SORDAT - 20091014

SORIND - US,US,graph,H12023

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

VALSOU - 5.869 m

Feature Images

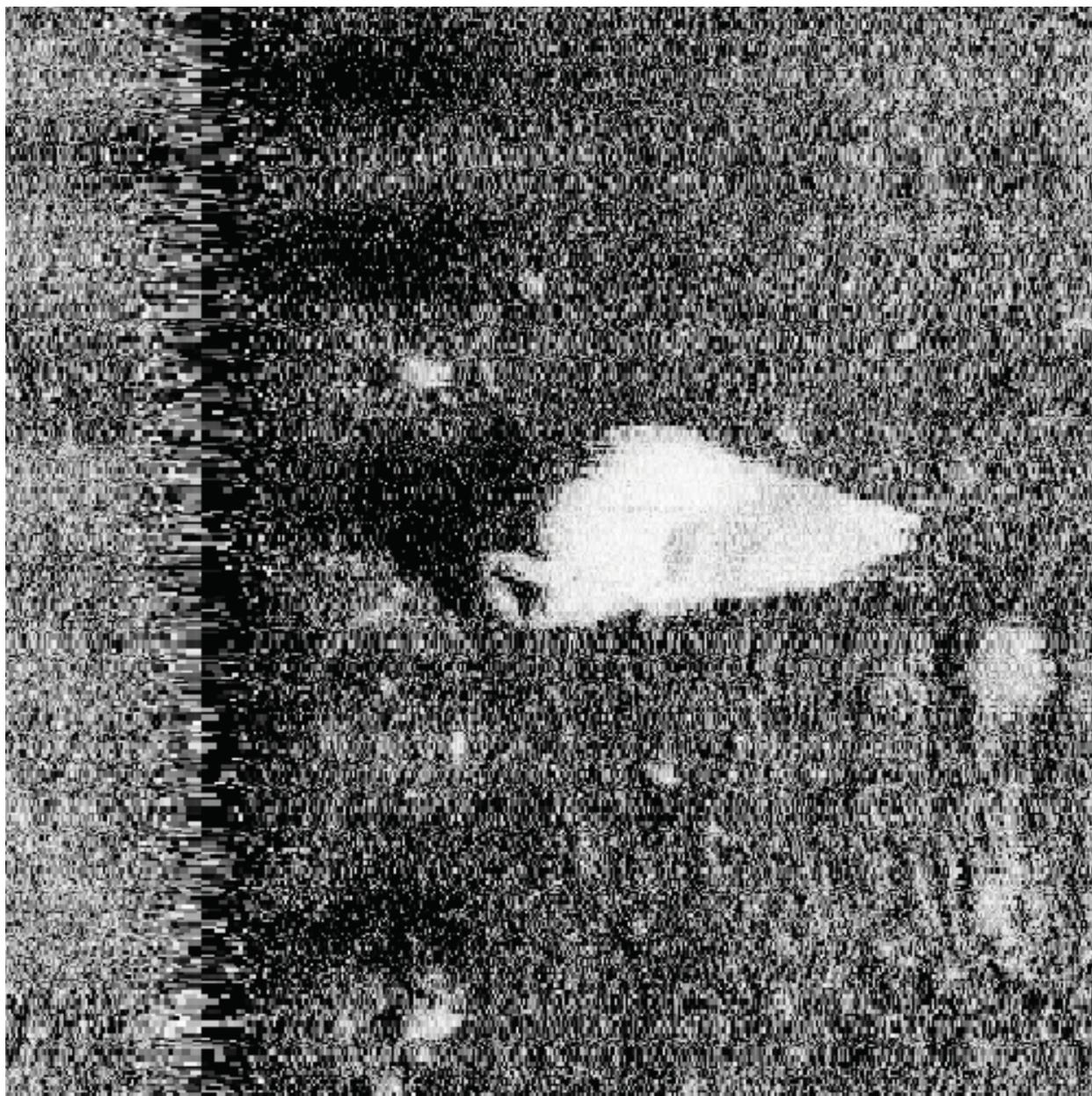


Figure 1.5.1

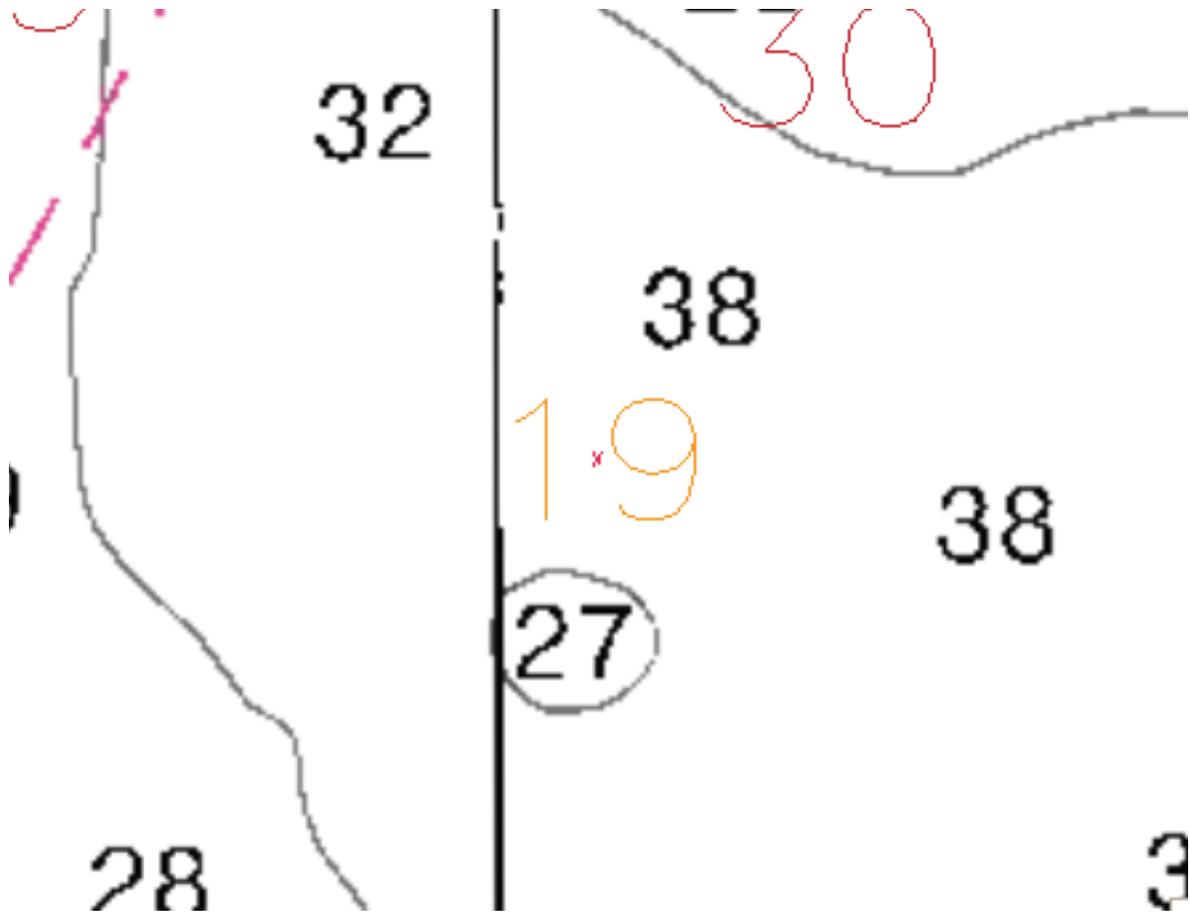


Figure 1.5.2

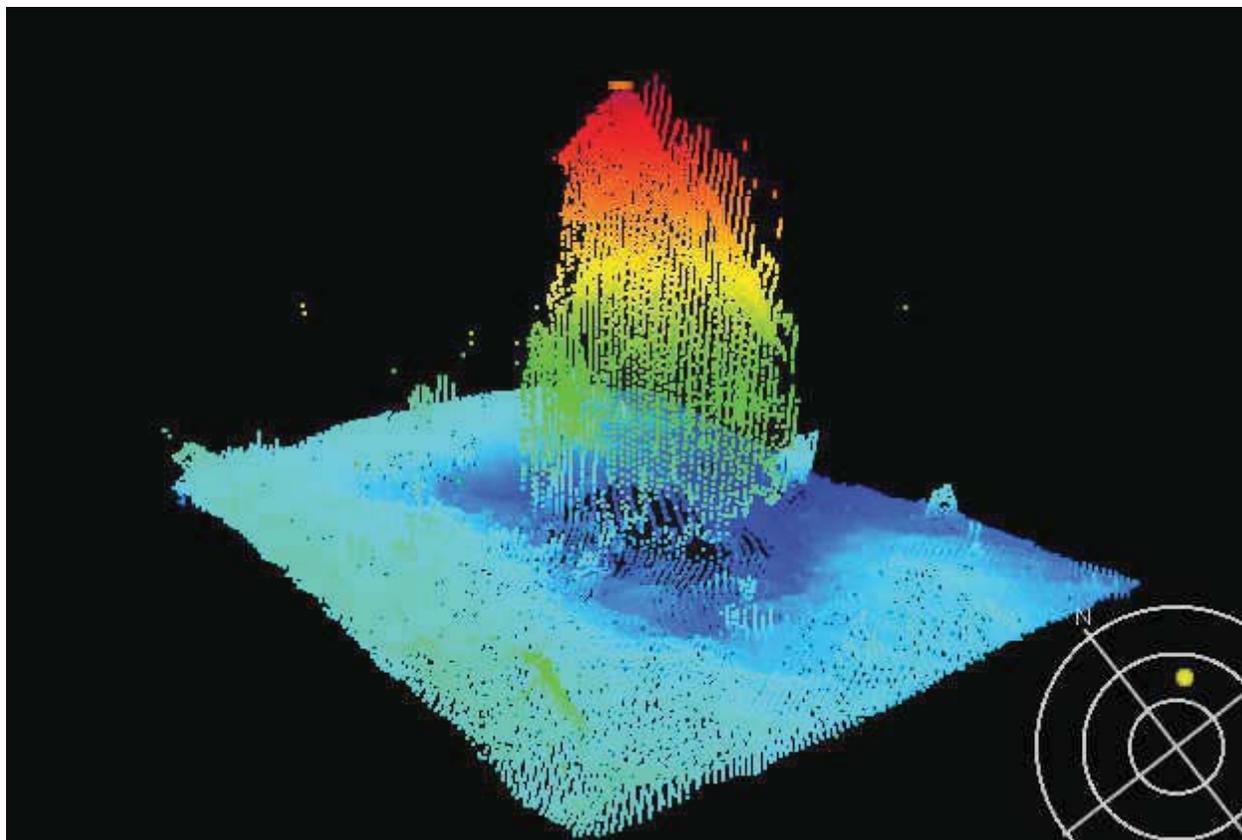


Figure 1.5.3

1.6) 4.75m Rock

DANGER TO NAVIGATION

Survey Summary

Survey Position: 41° 21' 22.0" N, 071° 28' 49.7" W
Least Depth: 4.75 m (= 15.59 ft = 2.598 fm = 2 fm 3.59 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.000 m ; TVU (TPEv) ± 0.286 m
Timestamp: 2009-285.19:07:10.506 (10/12/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-285 / 702_1905
Profile/Beam: 1355/71
Charts Affected: 13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

The item was covered by 200% Klein 5000 Side scan sonar. The sounding was acquired by Reson 7125 multibeam and corrected to MLLW using Final Verified Water Levels, Final TCARI zoning and resolved the sounding to 4.75m(15.59ft).

Feature Correlation

Source	Feature	Range	Azimuth	Status
702_1905	1355/71	0.00	000.0	Primary

Hydrographer Recommendations

Add Dangerous Submerged Rock.

Cartographically-Rounded Depth (Affected Charts):

15ft (13219_1, 13215_1, 13205_1, 13218_1)

2 ½fm (12300_1, 13006_1, 13003_1)

4.8m (5161_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)

Attributes: QUASOU - 6:least depth known

SORDAT - 20091014

SORIND - US,US,graph,H12023

TECSOU - 2,3:found by side scan sonar,found by multi-beam
VALSOU - 4.751 m

Feature Images

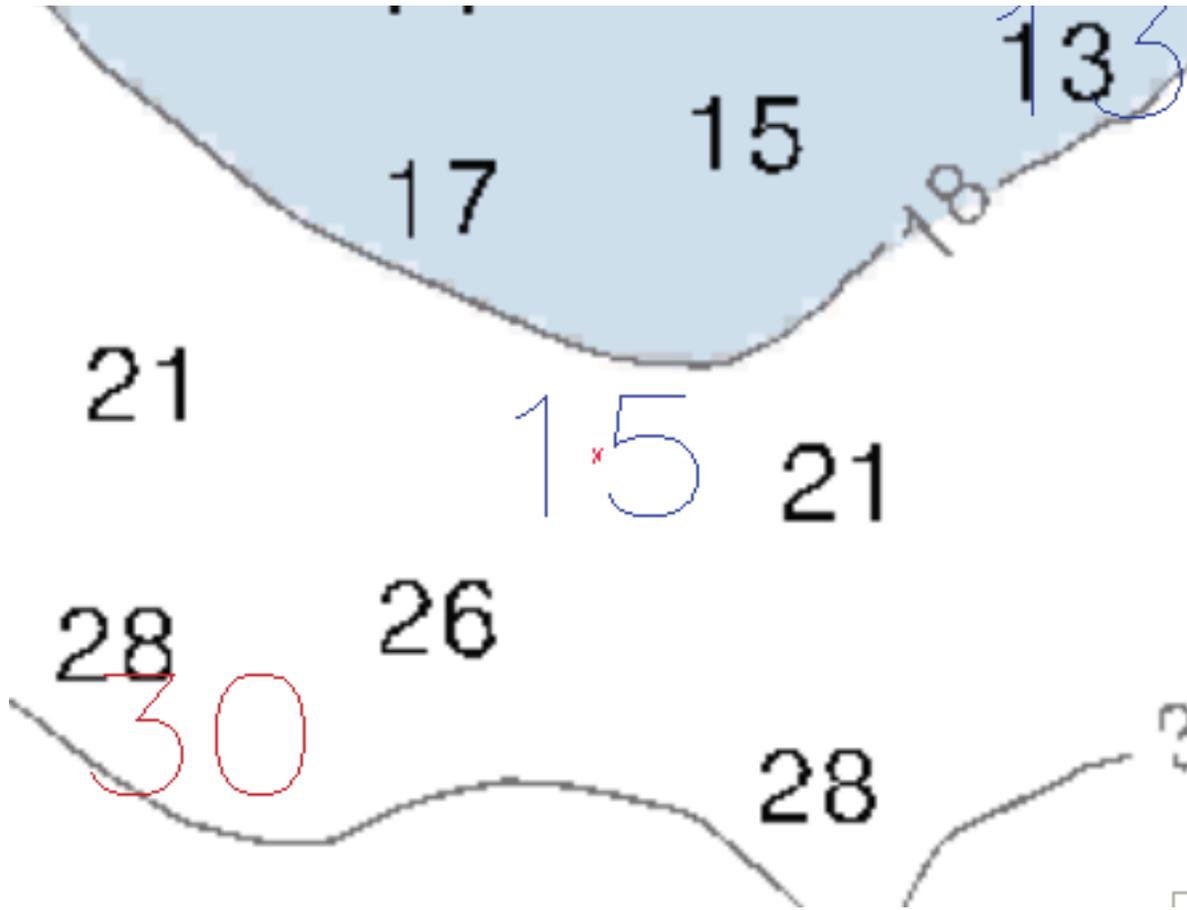


Figure 1.6.1

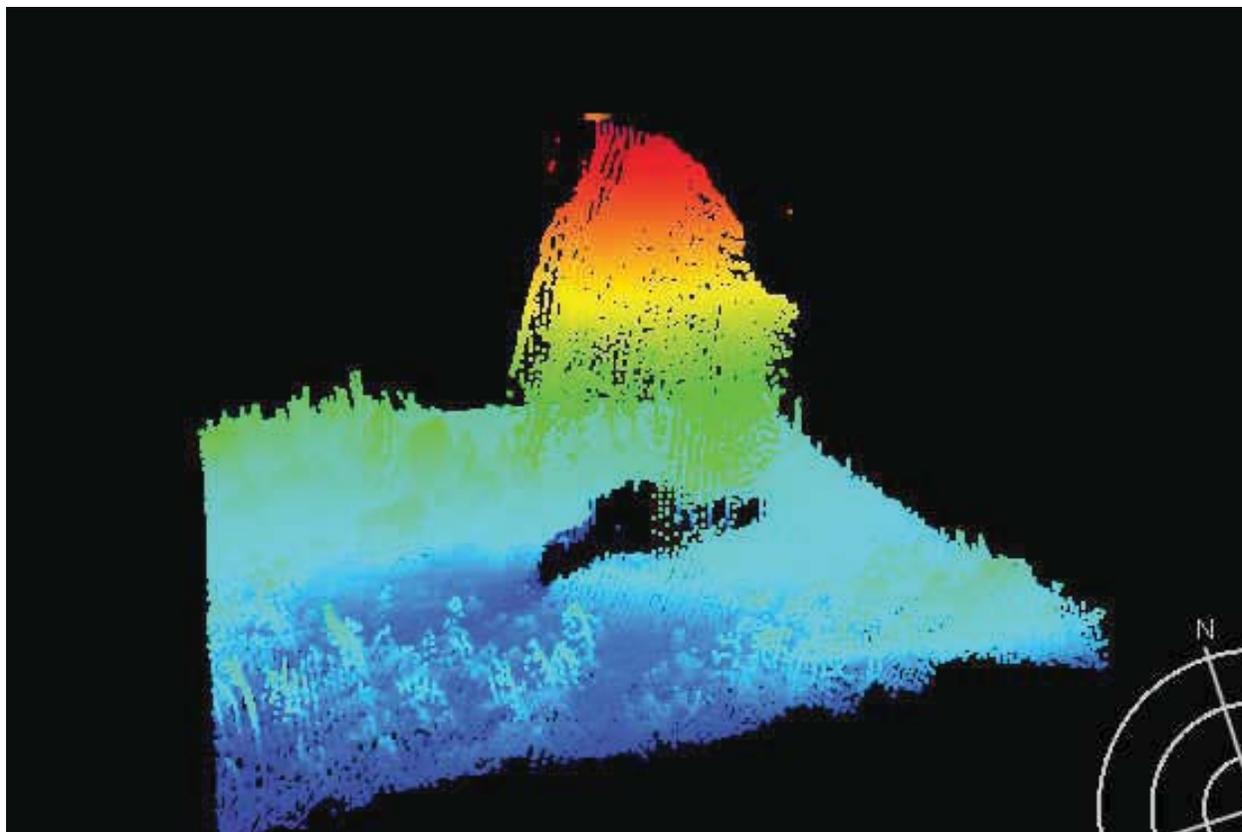


Figure 1.6.2

1.7) 3.32m Rock

DANGER TO NAVIGATION

Survey Summary

Survey Position: 41° 21' 54.1" N, 071° 30' 57.9" W
Least Depth: 3.32 m (= 10.88 ft = 1.814 fm = 1 fm 4.88 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.000 m ; TVU (TPEv) ± 0.284 m
Timestamp: 2009-285.20:44:26.839 (10/12/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-285 / 702_2043
Profile/Beam: 950/95
Charts Affected: 13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

The item was covered by 200% Klein 5000 Side scan sonar. The sounding was acquired by Reson 7125 multibeam and corrected to MLLW using Final Verified Water Levels, Final TCARI zoning and resolved the soundings to 3.32m(10.88ft).

Feature Correlation

Source	Feature	Range	Azimuth	Status
702_2043	950/95	0.00	000.0	Primary
197_090827140500	0001	30.80	185.4	Secondary
108_090831203500	0001	31.06	184.4	Secondary

Hydrographer Recommendations

Add Dangerous Submerged Rock.

Cartographically-Rounded Depth (Affected Charts):

11ft (13219_1, 13215_1, 13205_1, 13218_1)

1 $\frac{3}{4}$ fm (12300_1, 13006_1, 13003_1)

3.3m (5161_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)

Attributes: QUASOU - 6:least depth known

SORDAT - 20091014

SORIND - US,US,graph,H12023

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

VALSOU - 3.317 m

Feature Images

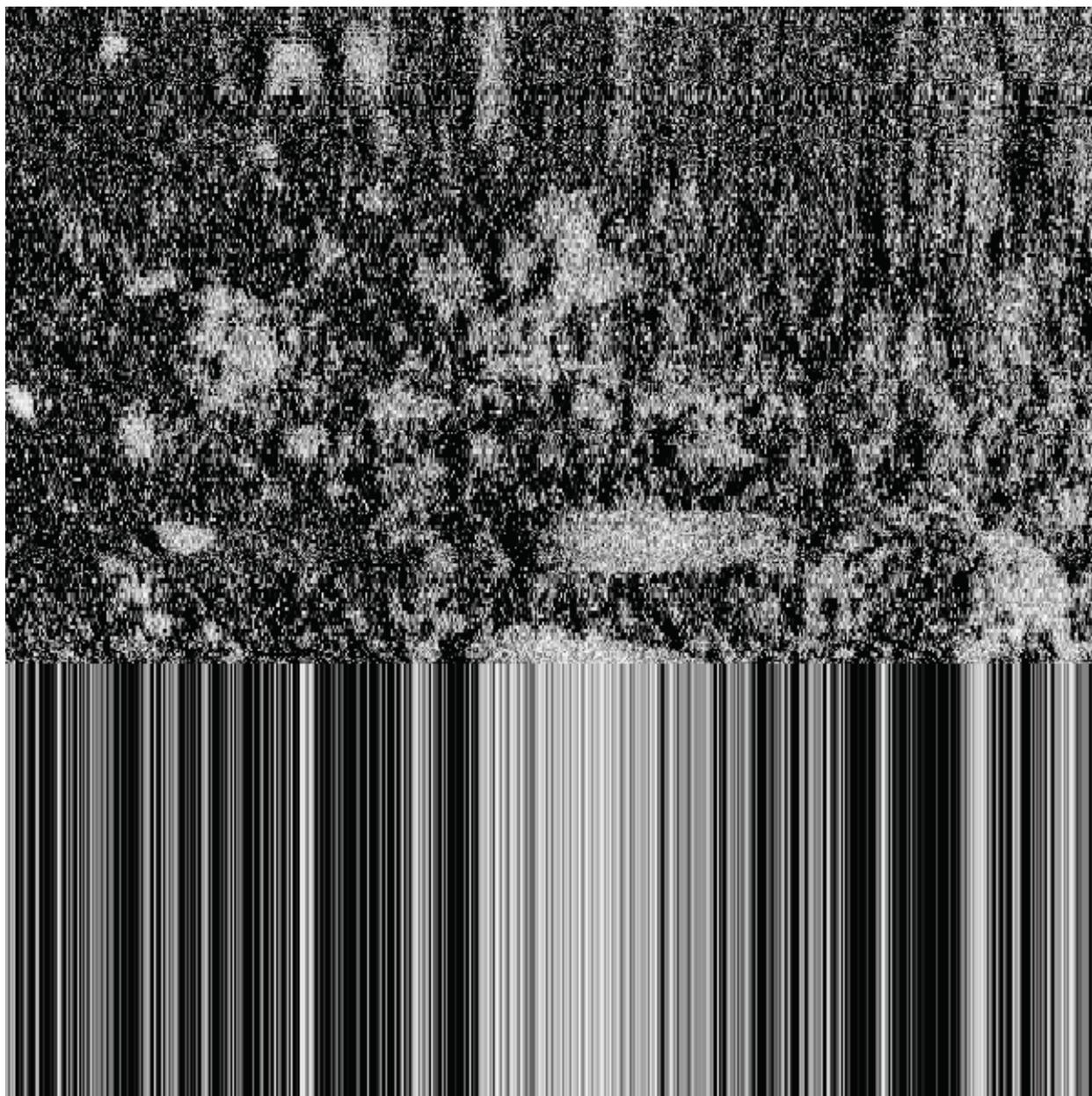


Figure 1.7.1

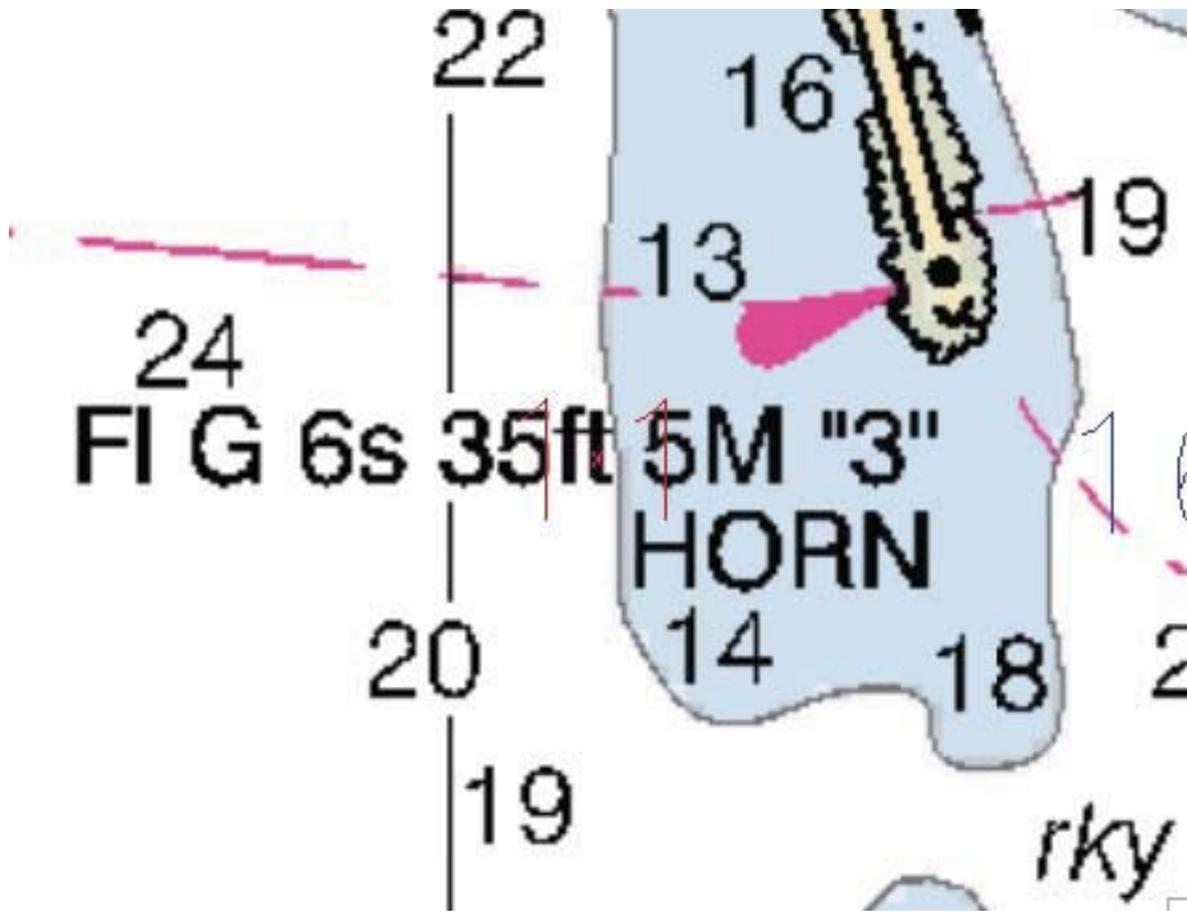


Figure 1.7.2

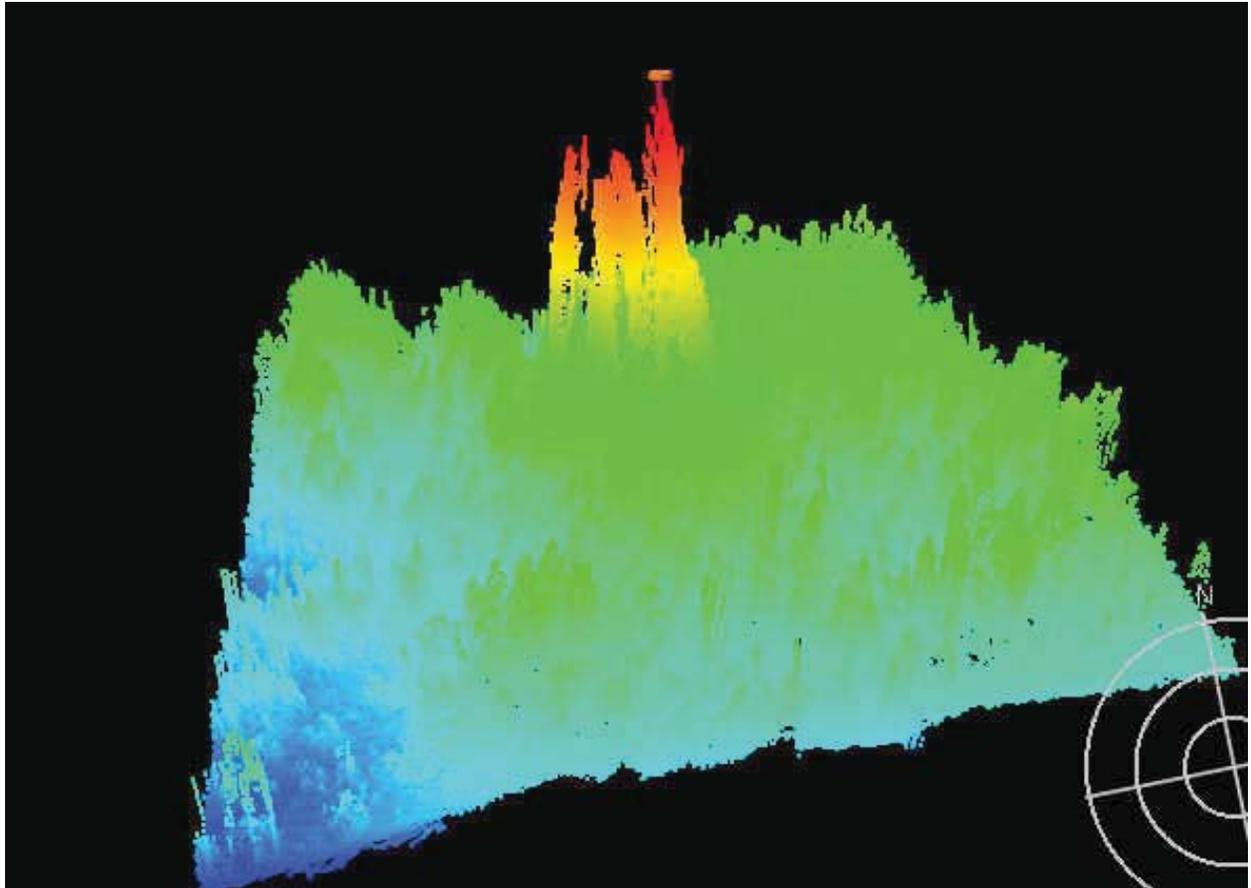


Figure 1.7.3

1.8) 6.28m Rock

DANGER TO NAVIGATION

Survey Summary

Survey Position: 41° 21' 10.0" N, 071° 29' 22.8" W
Least Depth: 6.28 m (= 20.60 ft = 3.433 fm = 3 fm 2.60 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.002 m ; TVU (TPEv) ± 0.293 m
Timestamp: 2009-285.15:34:03.351 (10/12/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-285 / 704_1533
Profile/Beam: 739/1
Charts Affected: 13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

The item was covered by 200% Klein 5000 Side scan sonar. The sounding was acquired by Reson 7125 multibeam and corrected to MLLW using Final Verified Water Levels, Final TCARI zoning and resolved the sounding to 6.28m(20.60ft).

Feature Correlation

Source	Feature	Range	Azimuth	Status
704_1533	739/1	0.00	000.0	Primary
216_090828165500	0004	9.64	137.5	Secondary

Hydrographer Recommendations

Add Dangerous Submerged Rock.

Cartographically-Rounded Depth (Affected Charts):

20ft (13219_1, 13215_1, 13205_1, 13218_1)

3 ¼fm (12300_1, 13006_1, 13003_1)

6.3m (5161_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)

Attributes: QUASOU - 6:least depth known

SORDAT - 20091014

SORIND - US,US,graph,H12023

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

VALSOU - 6.279 m

Feature Images

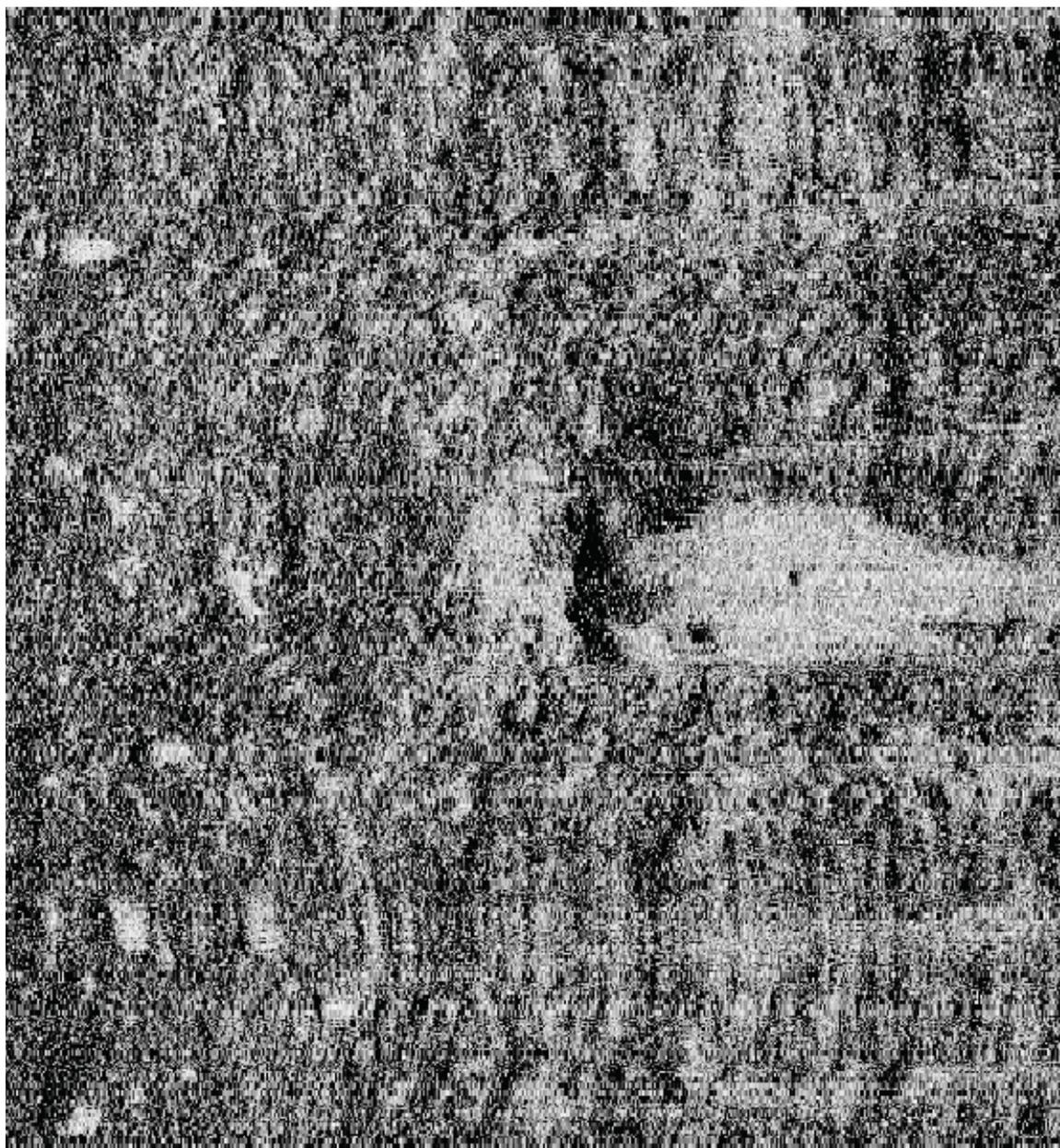


Figure 1.8.1

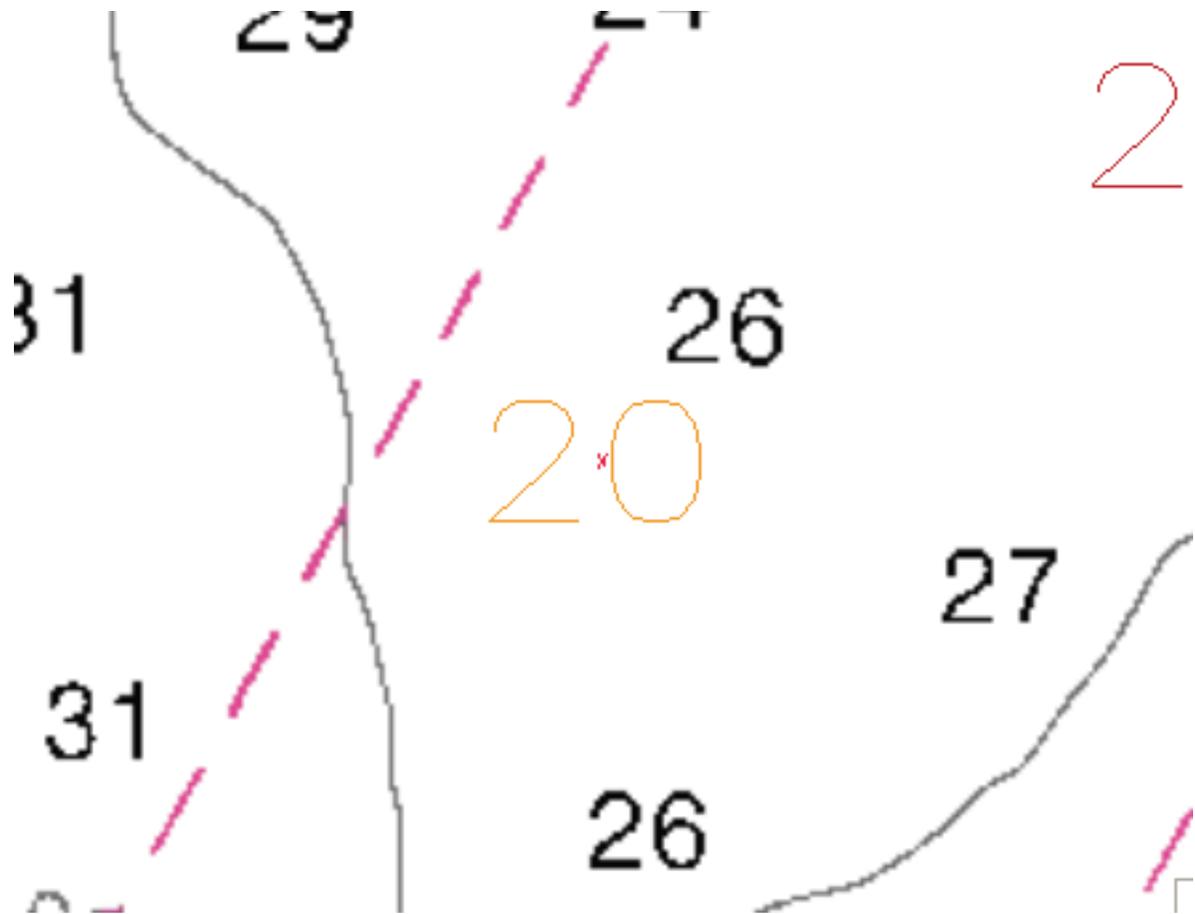


Figure 1.8.2

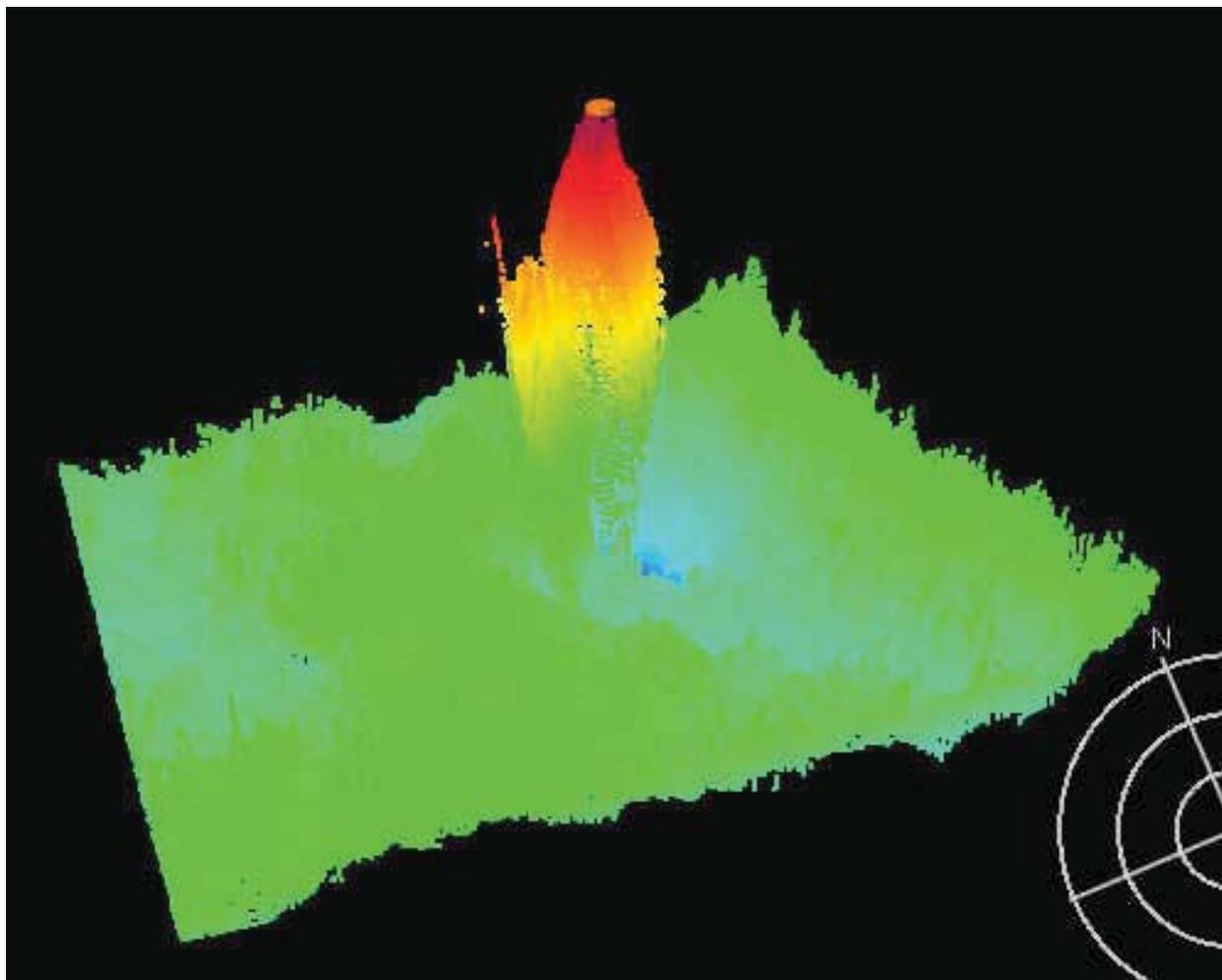


Figure 1.8.3

1.9) 3.78m Rock

DANGER TO NAVIGATION

Survey Summary

Survey Position: 41° 21' 48.7" N, 071° 31' 07.4" W
Least Depth: 3.78 m (= 12.40 ft = 2.066 fm = 2 fm 0.40 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.000 m ; TVU (TPEv) ± 0.287 m
Timestamp: 2009-285.20:48:51.819 (10/12/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-285 / 701_2046
Profile/Beam: 2150/1
Charts Affected: 13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

The item was covered by 200% Klein 5000 Side scan sonar. The sounding was acquired by Reson 7125 multibeam and corrected to MLLW using Final Verified Water Levels, Final TCARI zoning and resolved the sounding to 3.78m(12.40ft).

Feature Correlation

Source	Feature	Range	Azimuth	Status
701_2046	2150/1	0.00	000.0	Primary
225_090827143300	0002	2.55	226.4	Secondary

Hydrographer Recommendations

Add Dangerous Submerged Rock.

Cartographically-Rounded Depth (Affected Charts):

12ft (13219_1, 13215_1, 13205_1, 13218_1)

2fm (12300_1, 13006_1, 13003_1)

3.8m (5161_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)

Attributes: QUASOU - 6:least depth known

SORDAT - 20091014

SORIND - US,US,graph,H12023

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

VALSOU - 3.778 m

Feature Images

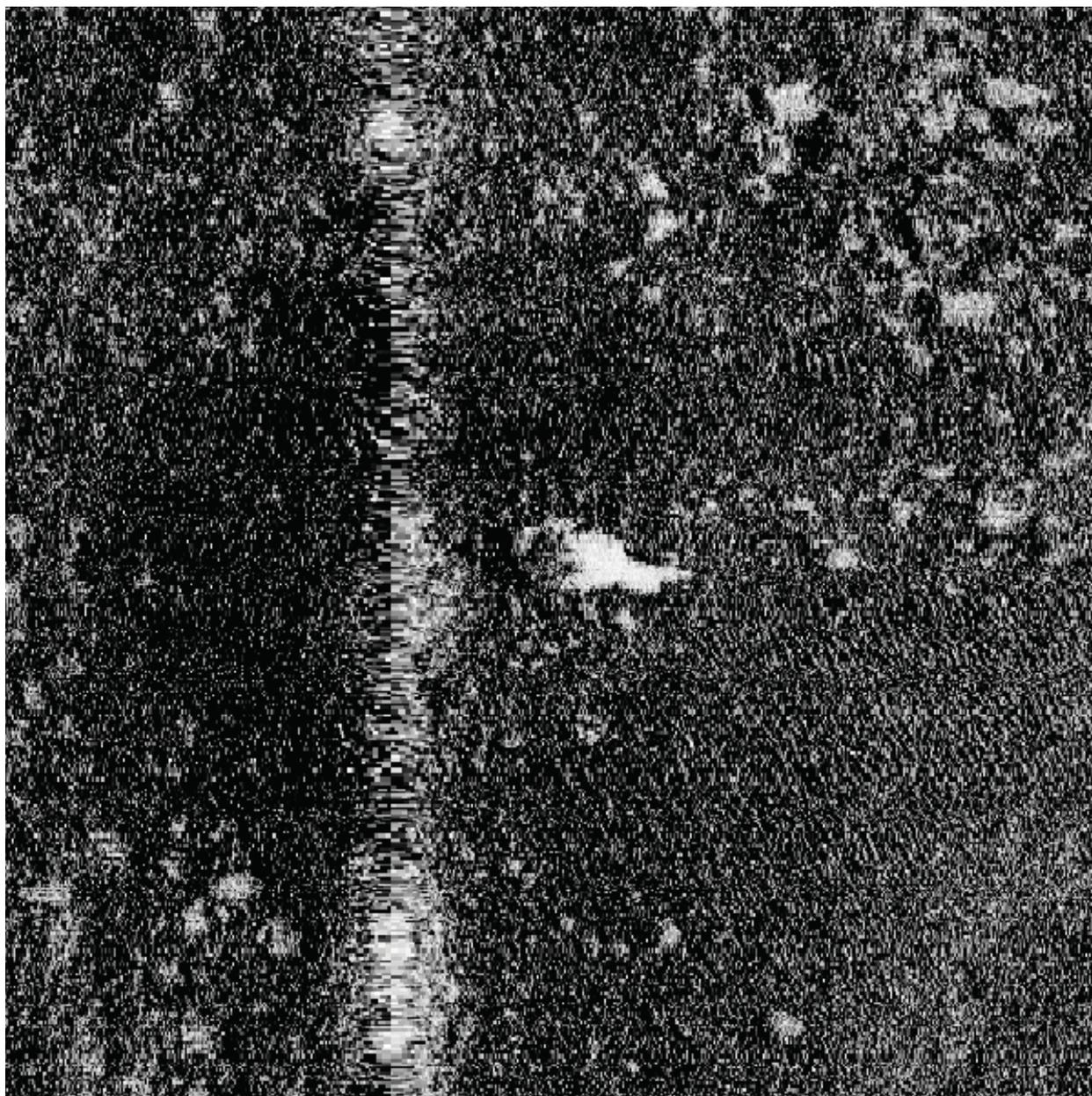


Figure 1.9.1

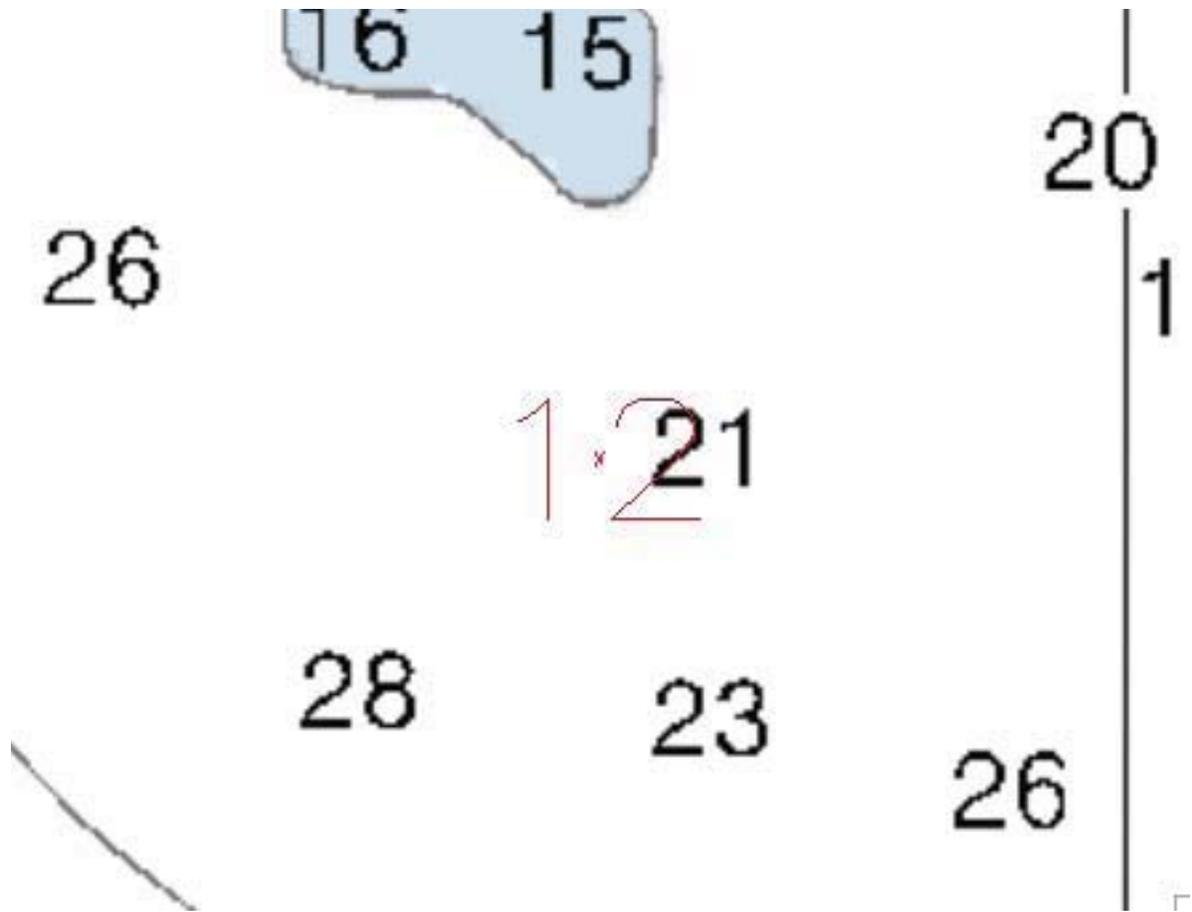


Figure 1.9.2

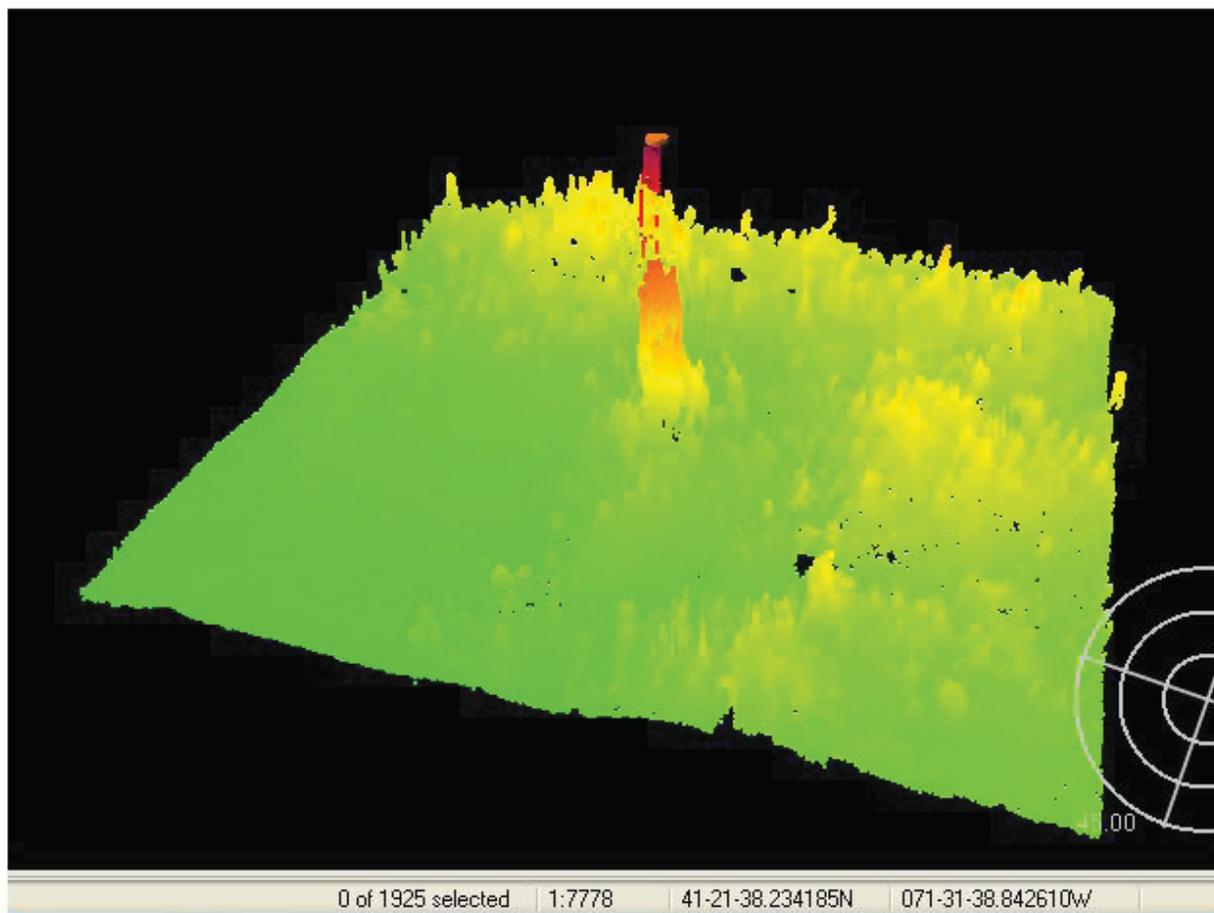


Figure 1.9.3

Appendix II

Survey Features Report

1. AWOIS Items

-16

2. Charted Features

-12

3. Uncharted Features

- 6

H12023 Survey Feature Reports

Registry Number: H12023
State: Rhode Island
Locality: Block Island Sound
Sub-locality: Point Judith to Green Hill Point
Project Number: OPR-B363-TJ-09
Survey Dates: 08/24/2009 - 04/16/2011

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
13219	12th	10/06/2001	1:15,000 (13219_1)	USCG LNM: 7/27/2010 (2/15/2011) CHS NTM: None (8/27/2010) NGA NTM: None (2/26/2011)
13215	19th	12/01/2009	1:40,000 (13215_1)	USCG LNM: 11/2/2010 (2/15/2011) CHS NTM: None (8/27/2010) NGA NTM: None (2/26/2011)
13221	57th	02/01/2008	1:40,000 (13221_1)	[L]NTM: ?
13205	38th	02/01/2007	1:80,000 (13205_1)	[L]NTM: ?
13218	40th	02/01/2008	1:80,000 (13218_1)	[L]NTM: ?
12300	47th	05/01/2008	1:400,000 (12300_1)	[L]NTM: ?
13006	34th	05/01/2007	1:675,000 (13006_1)	[L]NTM: ?
5161	13th	10/01/2003	1:1,058,400 (5161_1)	[L]NTM: ?
13003	49th	04/01/2007	1:1,200,000 (13003_1)	[L]NTM: ?

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

Features

No.	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	Wreck	3.66 m	41° 21' 32.9" N	071° 30' 28.0" W	---
1.2	Rock	0.77 m	41° 21' 56.2" N	071° 29' 45.8" W	---
1.3	Rock	11.65 m	41° 20' 07.8" N	071° 30' 35.1" W	---
1.4	Rock	10.21 m	41° 20' 29.0" N	071° 30' 42.6" W	---
1.5	Rock	8.88 m	41° 20' 18.8" N	071° 30' 11.4" W	---
1.6	Rock	10.15 m	41° 20' 42.7" N	071° 30' 52.7" W	---

1.7	Shoal	3.69 m	41° 22' 05.0" N	071° 30' 49.7" W	---
1.8	Rock	7.90 m	41° 20' 44.8" N	071° 30' 32.4" W	---
1.9	Wreck	2.14 m	41° 21' 34.2" N	071° 30' 10.8" W	---
1.10	Rock	10.86 m	41° 20' 41.5" N	071° 30' 26.0" W	---
1.11	Rock	15.65 m	41° 19' 17.4" N	071° 29' 42.9" W	---
1.12	Mooring buoy	[None]	41° 21' 28.0" N	071° 30' 26.4" W	---
2.1	Obstruction	[None]	41° 20' 48.4" N	071° 34' 57.5" W	---
2.2	Rock	4.15 m	41° 21' 26.3" N	071° 28' 42.9" W	---
2.3	Obstruction	5.99 m	41° 21' 29.6" N	071° 29' 56.0" W	---
2.4	Obstruction	6.83 m	41° 21' 27.5" N	071° 29' 59.6" W	---
2.5	Obstruction	11.77 m	41° 21' 13.6" N	071° 32' 19.5" W	---
2.6	Wreck	14.79 m	41° 20' 32.9" N	071° 31' 49.2" W	---
3.1	Shoal	8.12 m	41° 21' 06.4" N	071° 34' 38.2" W	14443
3.2	Shoal	8.96 m	41° 21' 28.9" N	071° 35' 42.6" W	14444
3.3	Rock	15.91 m	41° 19' 14.5" N	071° 29' 51.2" W	9983
3.4	Obstruction	6.50 m	41° 21' 37.8" N	071° 30' 41.3" W	7224
3.5	Rock	8.47 m	41° 21' 20.1" N	071° 29' 09.1" W	7279
3.6	Shoal	0.57 m	41° 21' 21.5" N	071° 30' 32.0" W	14344
3.7	Rock	14.11 m	41° 19' 52.1" N	071° 29' 40.4" W	9985
3.8	Rock	14.48 m	41° 19' 50.9" N	071° 30' 20.4" W	9986
3.9	Shoal	11.68 m	41° 20' 24.8" N	071° 30' 29.2" W	9987
3.10	Wreck	19.75 m	41° 19' 51.4" N	071° 31' 55.0" W	7480
3.11	Wreck	21.29 m	41° 19' 47.4" N	071° 32' 20.7" W	1873
3.12	GP	[None]	41° 21' 54.4" N	071° 35' 37.2" W	14483
3.13	GP	[None]	41° 21' 50.4" N	071° 35' 48.4" W	14485
3.14	GP	[None]	41° 21' 32.8" N	071° 28' 49.1" W	14482
3.15	GP	[None]	41° 21' 49.0" N	071° 35' 53.8" W	14486
3.16	GP	[None]	41° 21' 52.1" N	071° 35' 42.2" W	14484
4.1	Rock	1.38 m	41° 21' 53.4" N	071° 29' 42.4" W	---
4.2	Rock	2.71 m	41° 21' 53.7" N	071° 29' 44.5" W	---
4.3	Rock	8.03 m	41° 21' 10.0" N	071° 28' 44.8" W	---
4.4	Rock	3.36 m	41° 21' 16.2" N	071° 30' 39.8" W	---
4.5	Rock	5.87 m	41° 21' 14.9" N	071° 28' 58.5" W	---
4.6	Rock	4.75 m	41° 21' 22.0" N	071° 28' 49.7" W	---
4.7	Rock	3.32 m	41° 21' 54.1" N	071° 30' 57.9" W	---
4.8	Rock	6.28 m	41° 21' 10.0" N	071° 29' 22.8" W	---

4.9	Rock	3.78 m	41° 21' 48.7" N	071° 31' 07.4" W	---
-----	------	--------	-----------------	------------------	-----

1 - Charted Features

1.1) Wreck

Survey Summary

Survey Position: 41° 21' 32.9" N, 071° 30' 28.0" W
Least Depth: 3.66 m (= 12.00 ft = 2.001 fm = 2 fm 0.00 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.000 m ; TVU (TPEv) ± 0.286 m
Timestamp: 2009-237.16:30:50.666 (08/25/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-237 / 225_1629
Profile/Beam: 599/40
Charts Affected: 13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

Charted wreck found with 200% Klein 5000 side scan sonar and Reson 7125 object detection multibeam. Soundings were corrected to MLLW with final verified water levels and final TCARI zoning.

Feature Correlation

Source	Feature	Range	Azimuth	Status
225_1629	599/40	0.00	000.0	Primary
268_090901160300	0001	10.45	199.8	Secondary
225_090827145300	0001	14.42	189.6	Secondary
225_090825162900	0001	15.87	192.6	Secondary
267_090901155900	0001	17.01	199.9	Secondary

Hydrographer Recommendations

Revise charted wreck.

S-57 Data

Geo object 1: Wreck (WRECKS)
Attributes: CATWRK - 2:dangerous wreck
 SORDAT - 20091014
 SORIND - US,US,graph,H12023
 TECSOU - 2,3:found by side scan sonar,found by multi-beam
 VALSOU - 3.659 m
 WATLEV - 3:always under water/submerged

Feature Images

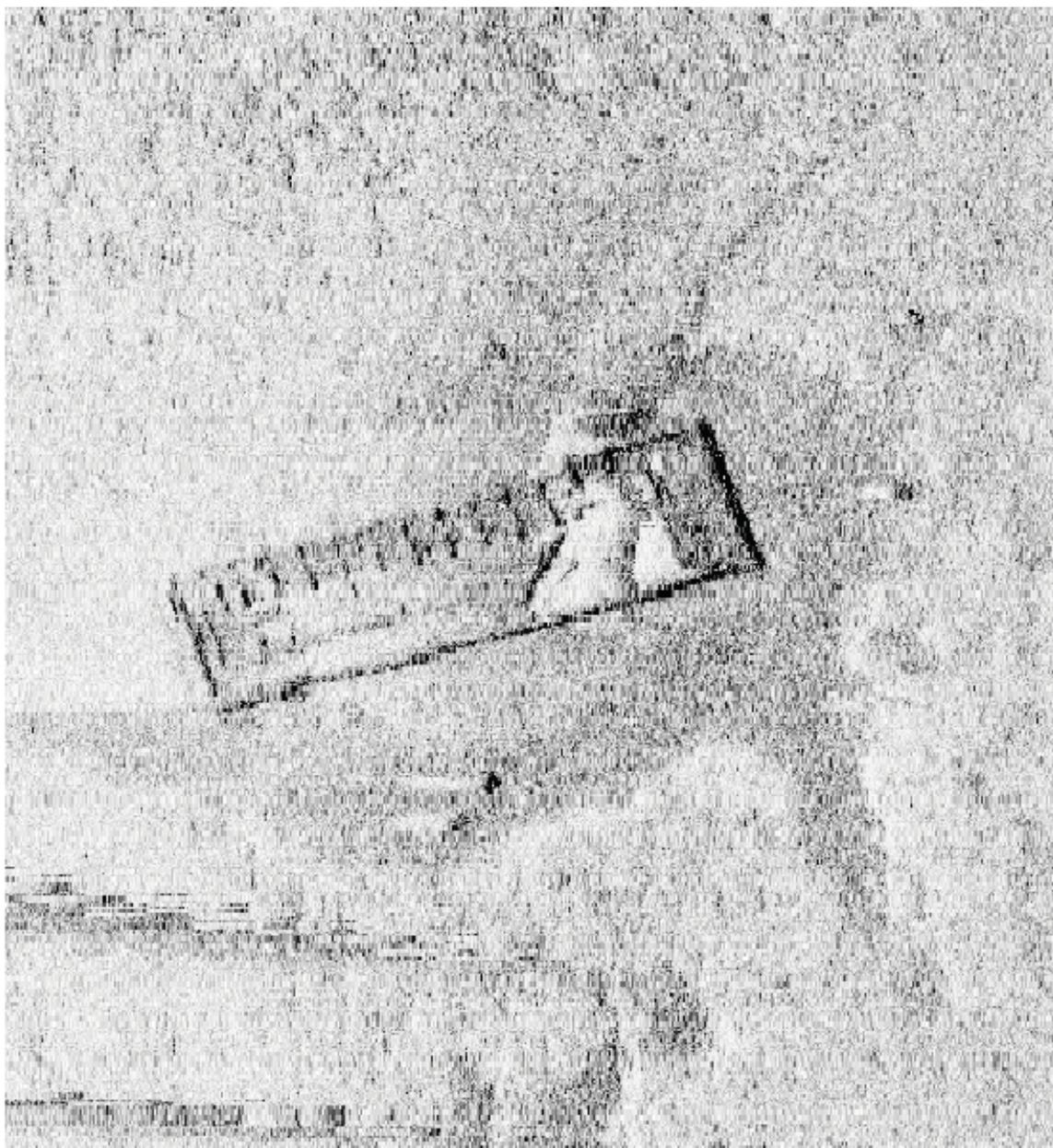


Figure 1.1.1

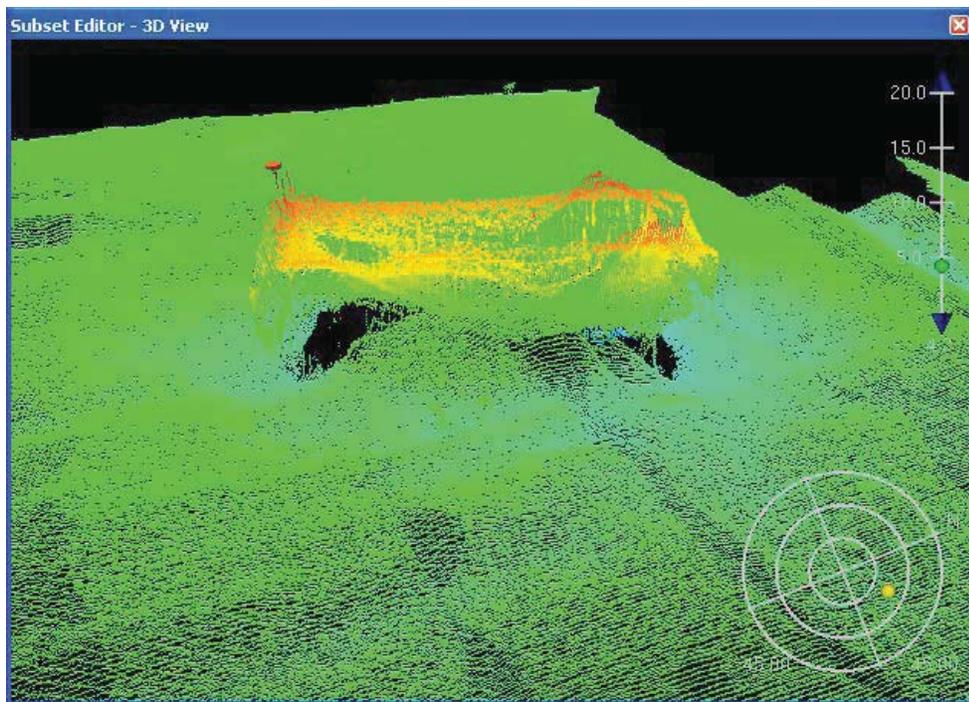


Figure 1.1.2

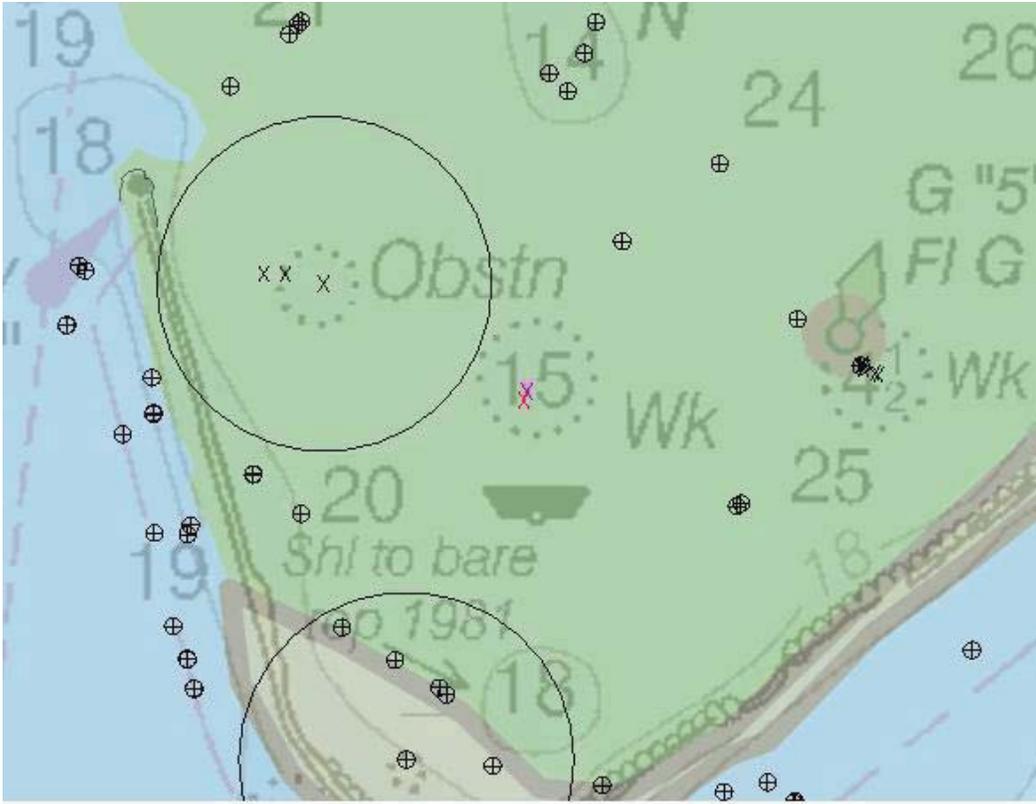


Figure 1.1.3

1.2) 0.77m Rock

Survey Summary

Survey Position: 41° 21' 56.2" N, 071° 29' 45.8" W
Least Depth: 0.77 m (= 2.51 ft = 0.418 fm = 0 fm 2.51 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 0.999 m ; **TVU (TPEv)** ± 0.283 m
Timestamp: 2009-239.18:23:03.101 (08/27/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-239 / 536_1821
Profile/Beam: 1110/369
Charts Affected: 13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

Charted rock found with 200% Klein 5000 side scan sonar and Reson 7125 object detection multibeam. Soundings were corrected to MLLW with final verified water levels and final TCARI zoning.

Feature Correlation

Source	Feature	Range	Azimuth	Status
536_1821	1110/369	0.00	000.0	Primary
071_090826141100	0005	2.06	003.6	Secondary
235_090901153400	0002	7.86	328.0	Secondary
135_090826135900	0001	9.65	013.9	Secondary (grouped)

Hydrographer Recommendations

Remove dangerous rock depth unknown. Add dangerous rock depth known.

Cartographically-Rounded Depth (Affected Charts):

2ft (13219_1, 13215_1, 13205_1, 13218_1)

0 ¼fm (12300_1, 13006_1, 13003_1)

.8m (5161_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)

Attributes: QUASOU - 6:least depth known

SORDAT - 20091014

SORIND - US,US,graph,H12023

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

VALSOU - 0.765 m

WATLEV - 3:always under water/submerged

Feature Images

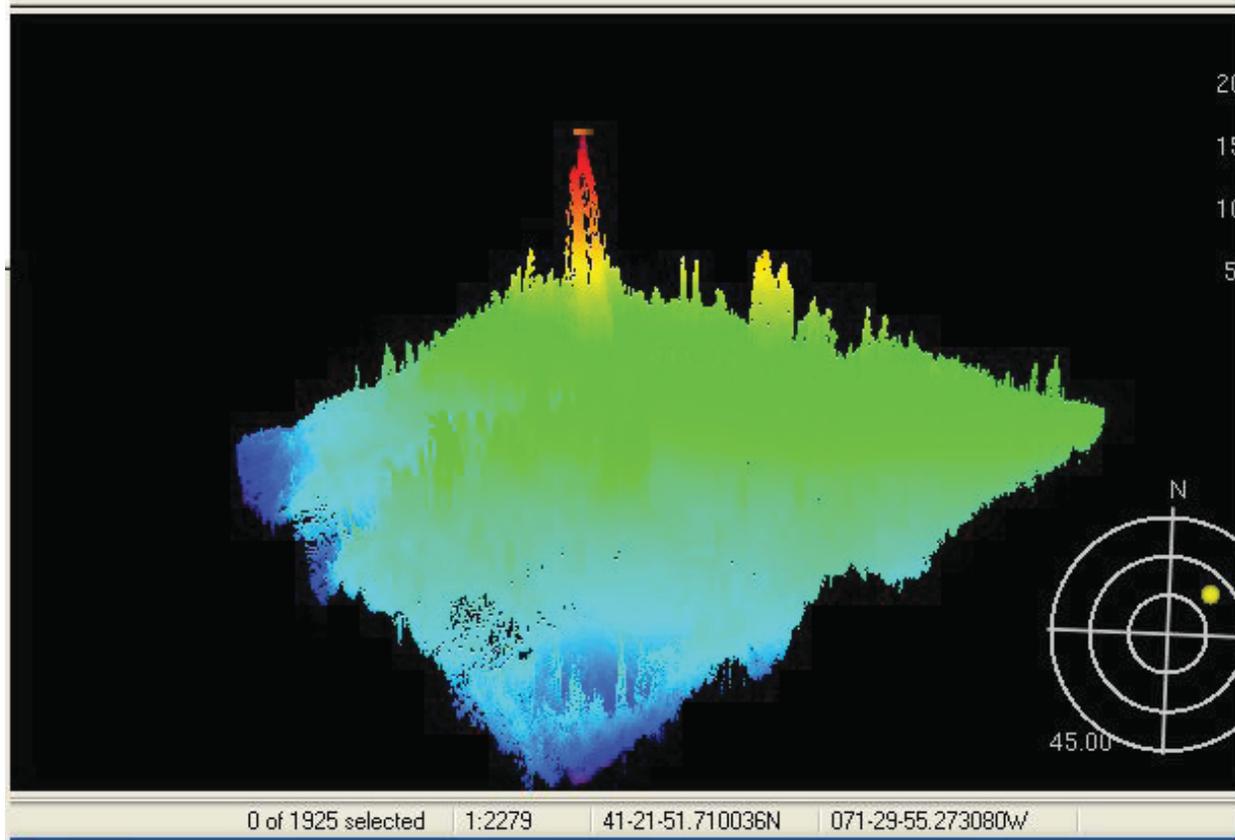


Figure 1.2.1



Figure 1.2.2

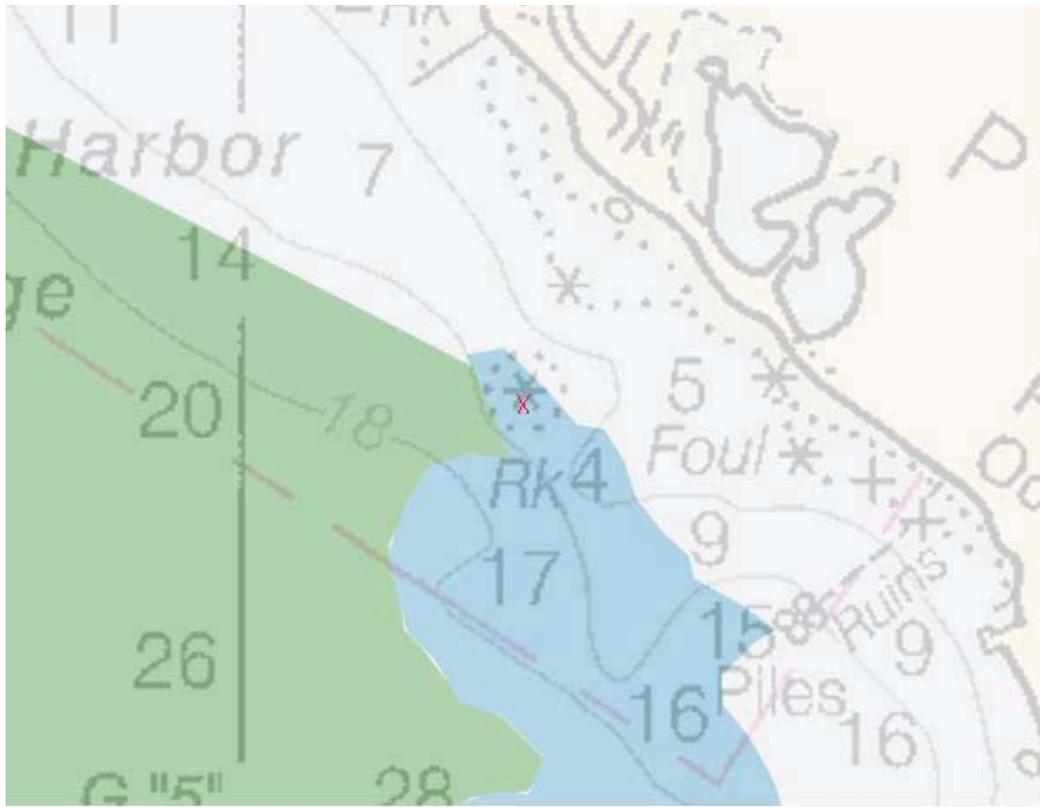


Figure 1.2.3

1.3) 11.65m Rock

Survey Summary

Survey Position: 41° 20' 07.8" N, 071° 30' 35.1" W
Least Depth: 11.65 m (= 38.22 ft = 6.369 fm = 6 fm 2.22 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.011 m ; **TVU (TPEv)** ± 0.324 m
Timestamp: 2009-268.20:35:32.224 (09/25/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-268 / 527_2029
Profile/Beam: 3492/20
Charts Affected: 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

Charted rock found with 200% Klein 5000 side scan sonar and Reson 7125 object detection multibeam. Soundings were corrected to MLLW with final verified water levels and final TCARI zoning.

Feature Correlation

Source	Feature	Range	Azimuth	Status
527_2029	3492/20	0.00	000.0	Primary
506_090825170700	0002	5.80	182.1	Secondary
506_090824201800	0002	6.60	312.7	Secondary

Hydrographer Recommendations

Revise rock.

Cartographically-Rounded Depth (Affected Charts):

38ft (13215_1, 13205_1, 13218_1)

6 ¼fm (12300_1, 13006_1, 13003_1)

11.6m (5161_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: QUASOU - 6:least depth known
 SORDAT - 20091014
 SORIND - US,US,graph,H12023

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

VALSOU - 11.648 m

WATLEV - 3:always under water/submerged

Feature Images

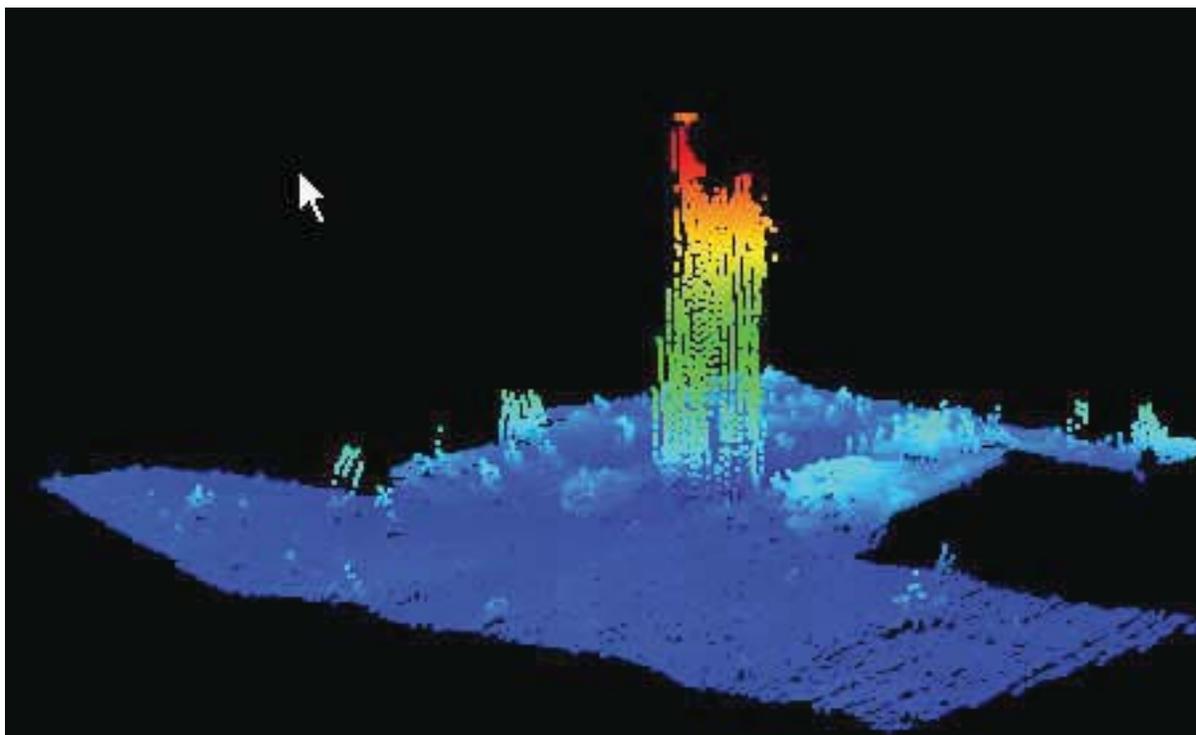


Figure 1.3.1

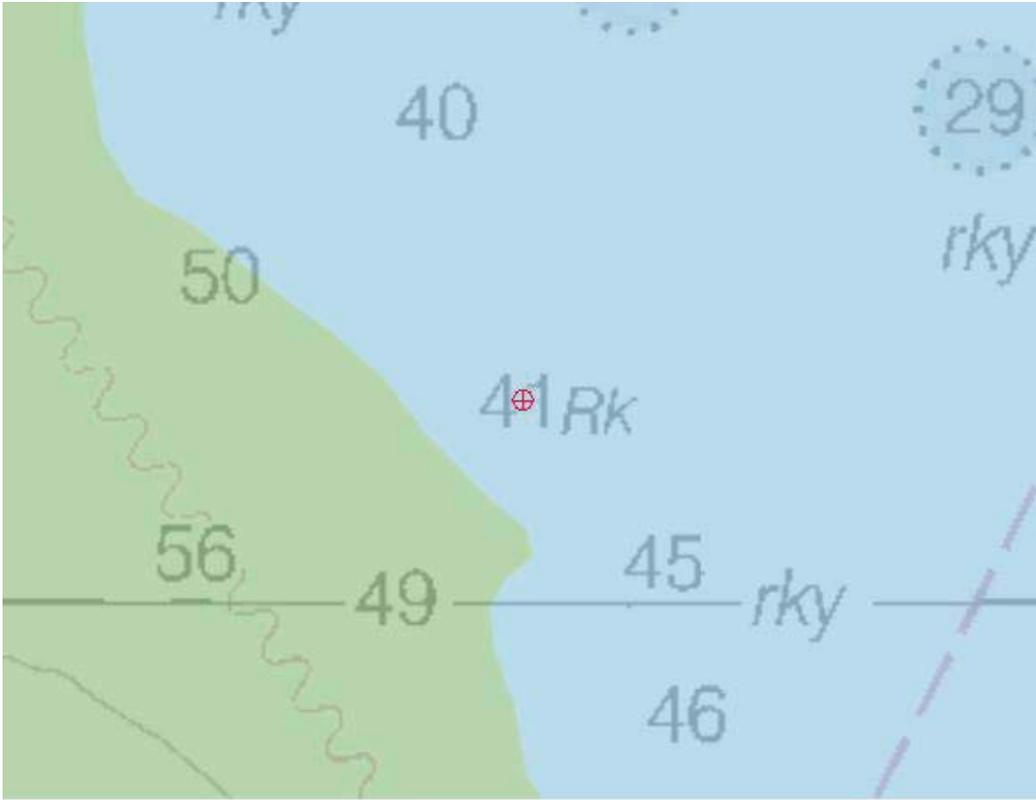


Figure 1.3.2

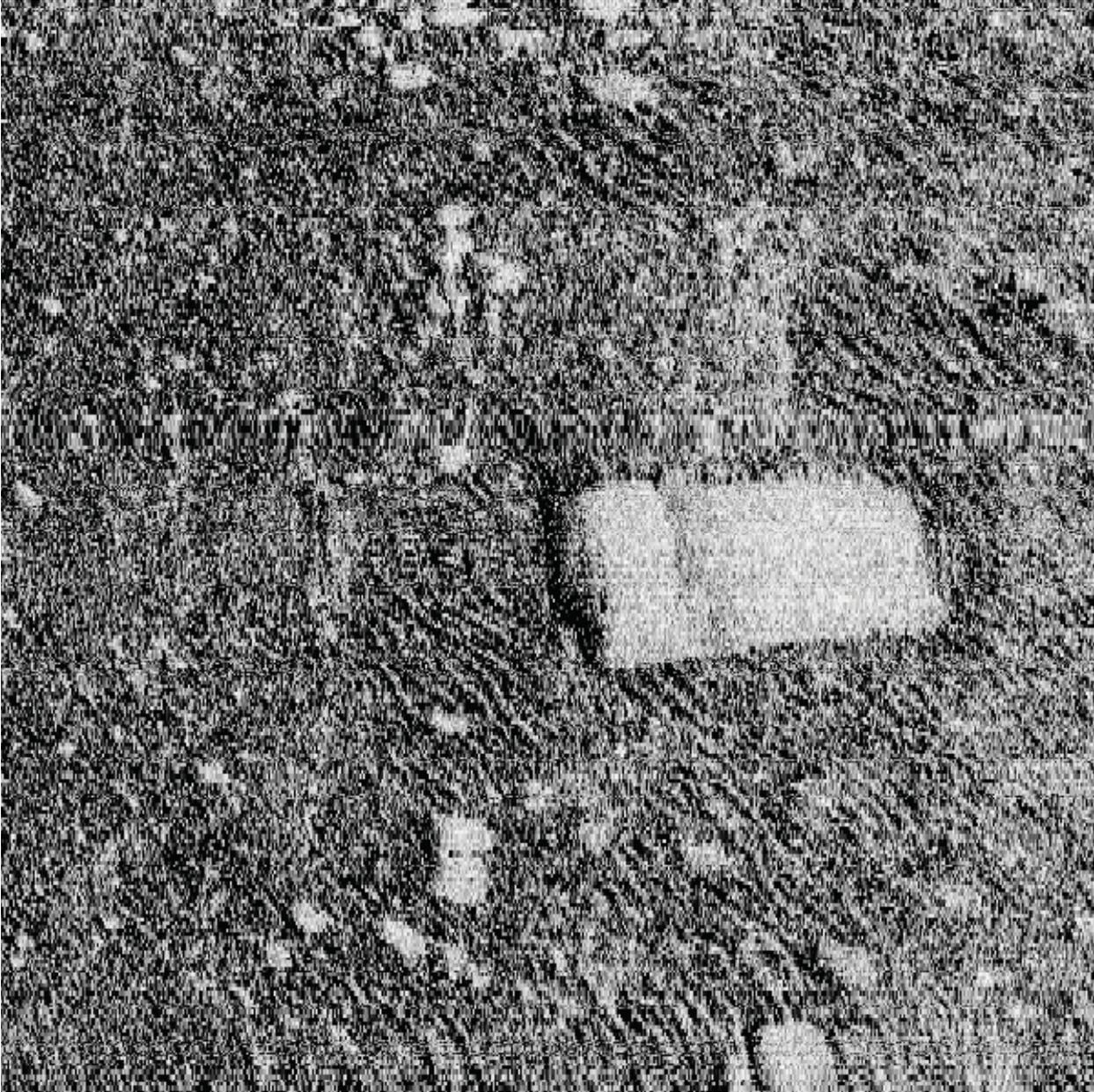


Figure 1.3.3

1.4) 10.2m Rock

Survey Summary

Survey Position: 41° 20' 29.0" N, 071° 30' 42.6" W
Least Depth: 10.21 m (= 33.51 ft = 5.585 fm = 5 fm 3.51 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.007 m ; **TVU (TPEv)** ± 0.310 m
Timestamp: 2009-268.19:21:43.797 (09/25/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-268 / 531_1919
Profile/Beam: 1459/480
Charts Affected: 13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

Charted rock found with 200% Klein 5000 side scan sonar and Reson 7125 object detection multibeam. Soundings were corrected to MLLW with final verified water levels and final TCARI zoning.

Feature Correlation

Source	Feature	Range	Azimuth	Status
531_1919	1459/480	0.00	000.0	Primary
509_090825150800	0001	3.23	300.0	Secondary

Hydrographer Recommendations

Revise rock.

Cartographically-Rounded Depth (Affected Charts):

33ft (13219_1, 13215_1, 13205_1, 13218_1)

5 ½fm (12300_1, 13006_1, 13003_1)

10.2m (5161_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: QUASOU - 6:least depth known
 SORDAT - 20091014
 SORIND - US,US,graph,H12023
 TECSOU - 2,3:found by side scan sonar,found by multi-beam

VALSOU - 10.214 m

WATLEV - 3:always under water/submerged

Feature Images

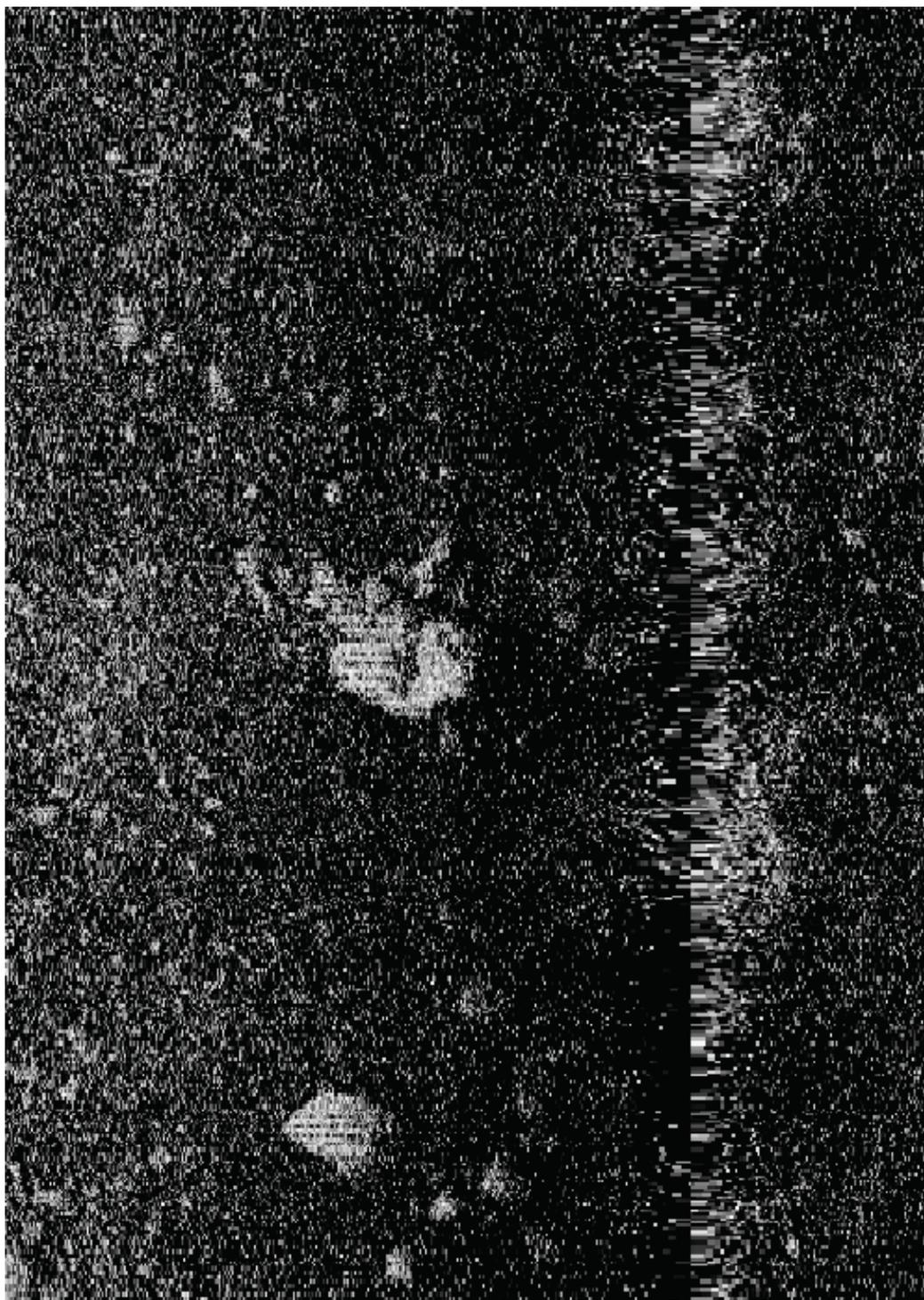


Figure 1.4.1

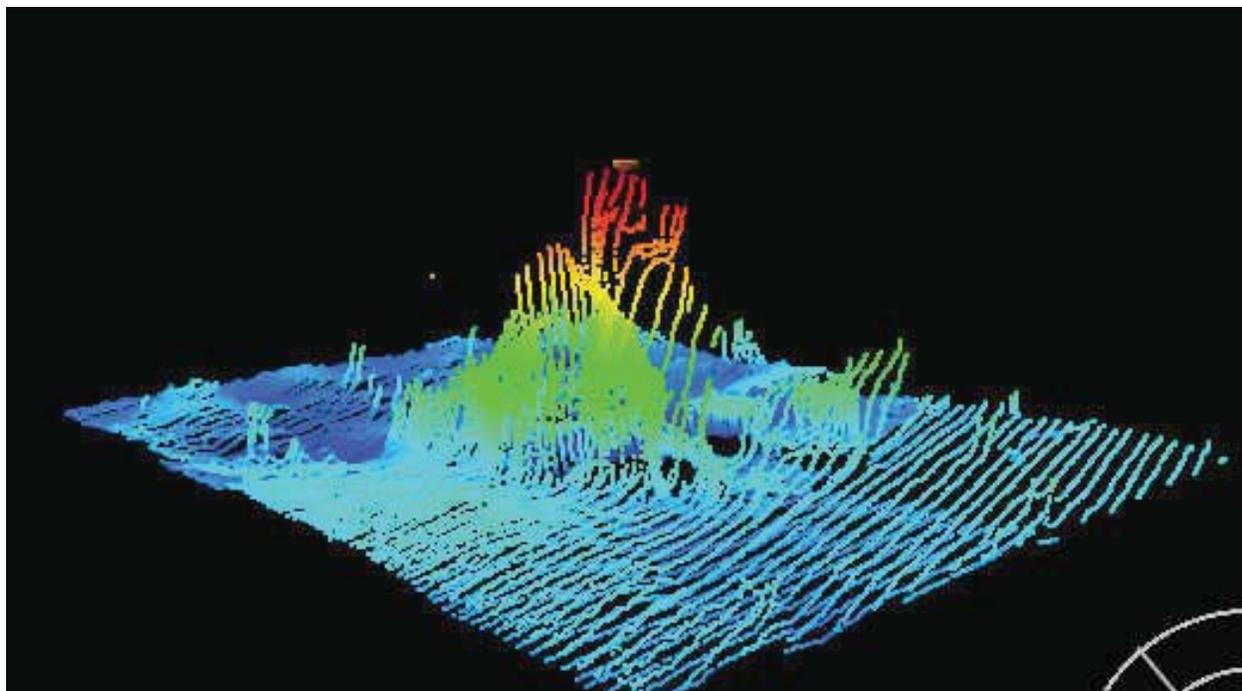


Figure 1.4.2

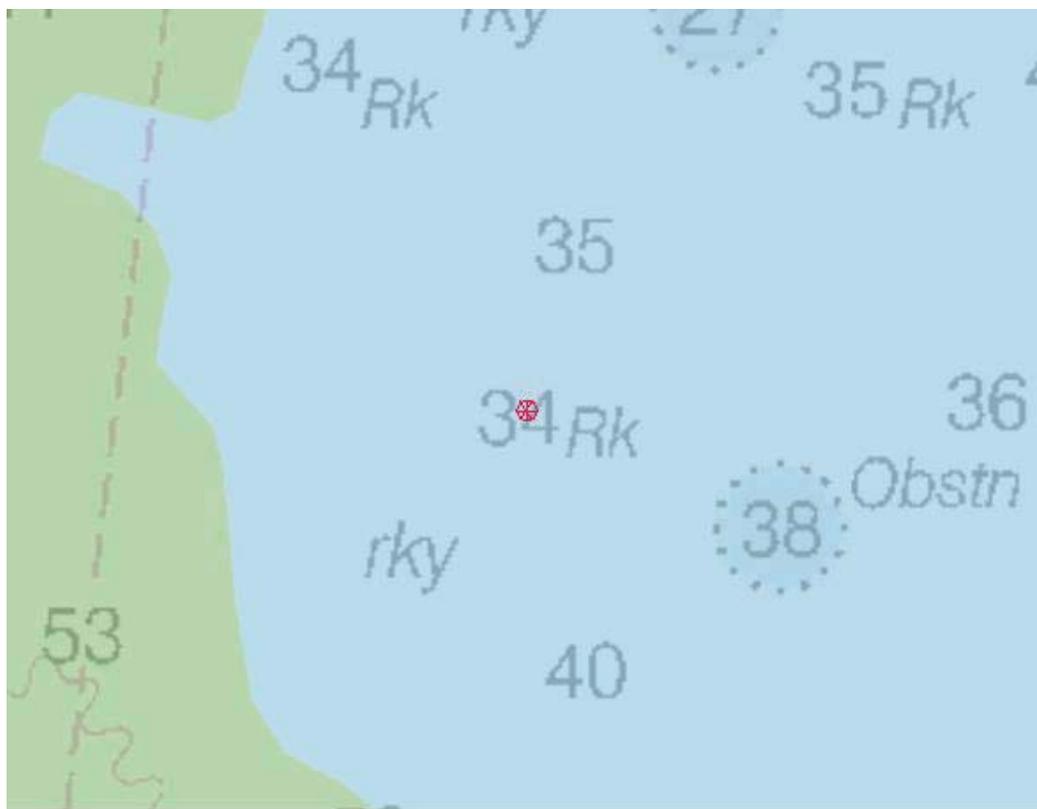


Figure 1.4.3

1.5) 8.88m Rock

Survey Summary

Survey Position: 41° 20' 18.8" N, 071° 30' 11.4" W
Least Depth: 8.88 m (= 29.12 ft = 4.853 fm = 4 fm 5.12 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.000 m ; TVU (TPEv) ± 0.287 m
Timestamp: 2009-269.14:28:09.192 (09/26/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-269 / 707_1426
Profile/Beam: 1106/304
Charts Affected: 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

Charted rock found with 200% Klein 5000 side scan sonar and Reson 7125 object detection multibeam. Soundings were corrected to MLLW with final verified water levels and final TCARI zoning.

Feature Correlation

Source	Feature	Range	Azimuth	Status
707_1426	1106/304	0.00	000.0	Primary
510_090825142400	0001	9.21	148.4	Secondary

Hydrographer Recommendations

Revise rock.

Cartographically-Rounded Depth (Affected Charts):

29ft (13215_1, 13205_1, 13218_1)

4 $\frac{3}{4}$ fm (12300_1, 13006_1, 13003_1)

8.9m (5161_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: SORDAT - 20091014
 SORIND - US,US,graph,H12023
 TECSOU - 2,3:found by side scan sonar,found by multi-beam
 VALSOU - 8.876 m

WATLEV - 3:always under water/submerged

Feature Images



Figure 1.5.1

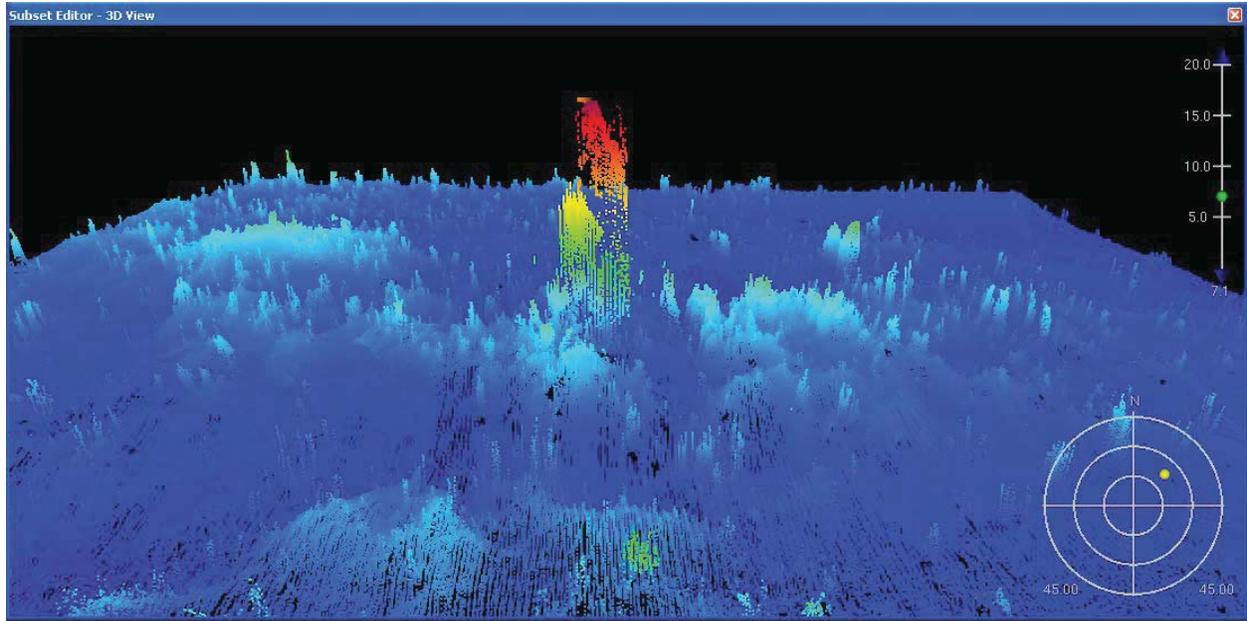


Figure 1.5.2

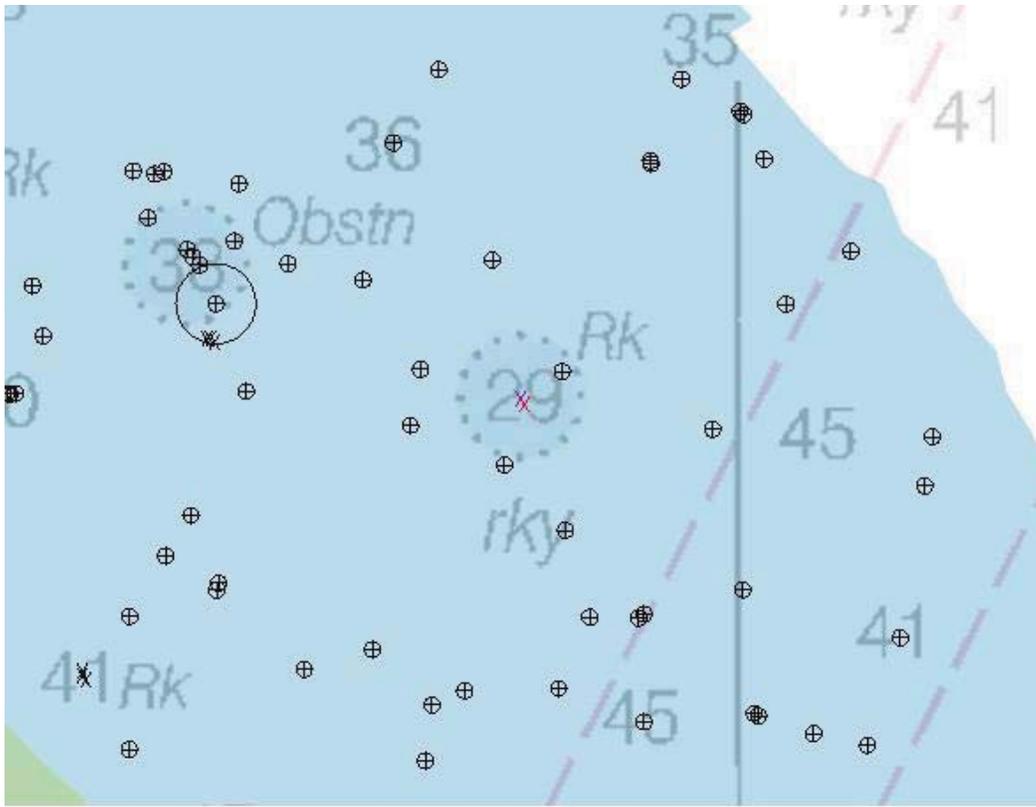


Figure 1.5.3

1.6) 10.15m Rock

Survey Summary

Survey Position: 41° 20' 42.7" N, 071° 30' 52.7" W
Least Depth: 10.15 m (= 33.31 ft = 5.552 fm = 5 fm 3.31 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.001 m ; **TVU (TPEv)** ± 0.289 m
Timestamp: 2009-284.13:10:19.927 (10/11/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-284 / 011_1306
Profile/Beam: 2402/147
Charts Affected: 13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

Charted rock found with 200% Klein 5000 side scan sonar and Reson 7125 object detection multibeam. Soundings were corrected to MLLW with final verified water levels and final TCARI zoning.

Feature Correlation

Source	Feature	Range	Azimuth	Status
011_1306	2402/147	0.00	000.0	Primary
511_090825132700	0002	2.07	057.2	Secondary
210_090831181300	0001	4.22	144.7	Secondary
210_090831181300	0001	4.46	116.6	Secondary

Hydrographer Recommendations

Revise rock.

Cartographically-Rounded Depth (Affected Charts):

33ft (13219_1, 13215_1, 13205_1, 13218_1)

5 ½fm (12300_1, 13006_1, 13003_1)

10.2m (5161_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)

Attributes: QUASOU - 6:least depth known

SORDAT - 20091014

SORIND - US,US,graph,H12023

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

VALSOU - 10.154 m

WATLEV - 3:always under water/submerged

Feature Images

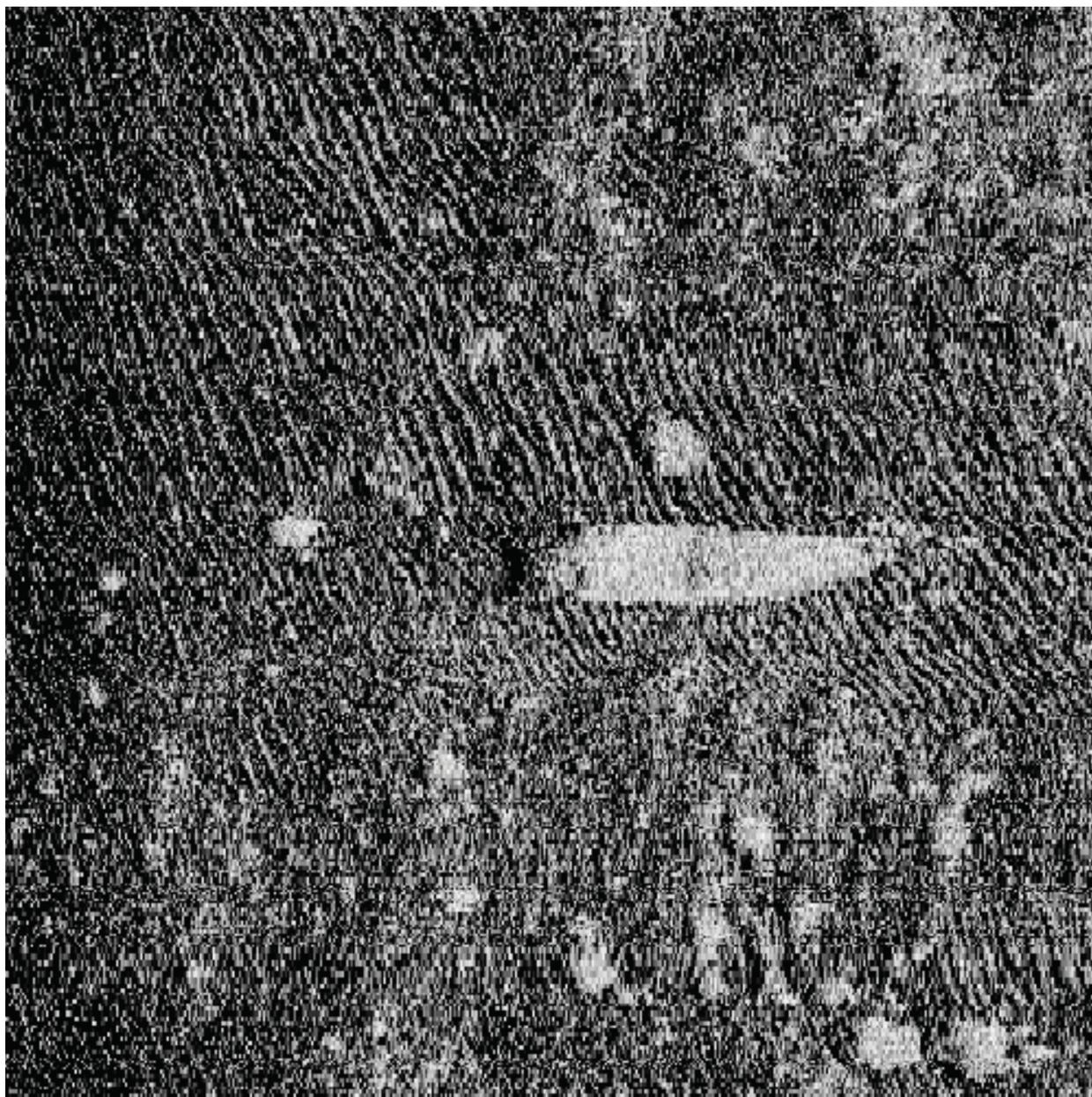


Figure 1.6.1

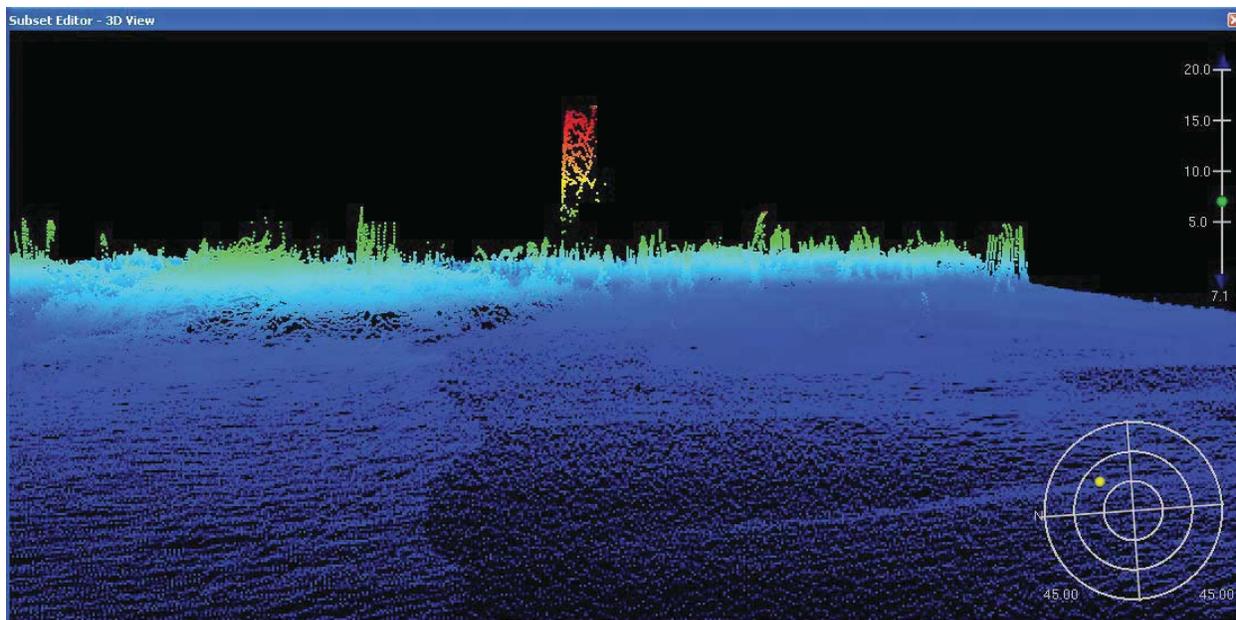


Figure 1.6.2



Figure 1.6.3

1.7) 1 ft rep 1981

Survey Summary

Survey Position: 41° 22' 05.0" N, 071° 30' 49.7" W
Least Depth: 3.69 m (= 12.11 ft = 2.018 fm = 2 fm 0.11 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.000 m ; **TVU (TPEv)** ± 0.284 m
Timestamp: 2009-284.20:35:37.978 (10/11/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-284 / 011_2035
Profile/Beam: 462/64
Charts Affected: 13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

Least depth over 1 ft reported shoal.

Feature Correlation

Source	Feature	Range	Azimuth	Status
011_2035	462/64	0.00	000.0	Primary

Hydrographer Recommendations

Remove 1 ft rep shoal.

Cartographically-Rounded Depth (Affected Charts):

12ft (13219_1, 13215_1, 13205_1, 13218_1)

2fm (12300_1, 13006_1, 13003_1)

3.7m (5161_1)

S-57 Data

Geo object 1: Sounding (SOUNDG)
Attributes: SORDAT - 20091014
 SORIND - US,US,graph,H12023

Feature Images

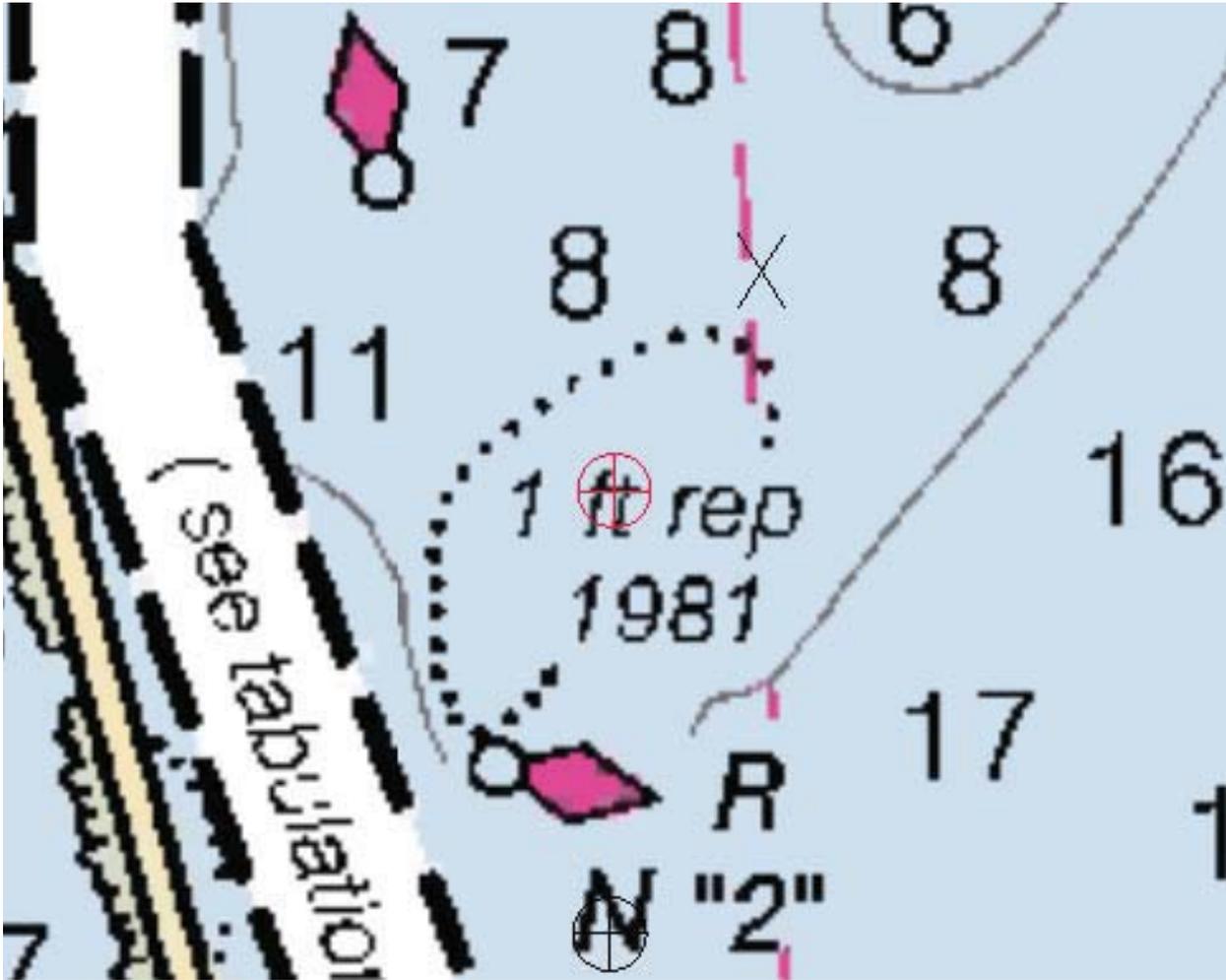


Figure 1.7.1

1.8) 7.9m Rock

Survey Summary

Survey Position: 41° 20' 44.8" N, 071° 30' 32.4" W
Least Depth: 7.90 m (= 25.91 ft = 4.319 fm = 4 fm 1.91 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.001 m ; **TVU (TPEv)** ± 0.288 m
Timestamp: 2009-284.13:24:59.268 (10/11/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-284 / 709_1323
Profile/Beam: 917/97
Charts Affected: 13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

Charted rock found with 200% Klein 5000 side scan sonar and Reson 7125 object detection multibeam. Soundings were corrected to MLLW with final verified water levels and final TCARI zoning.

Feature Correlation

Source	Feature	Range	Azimuth	Status
709_1323	917/97	0.00	000.0	Primary
512_090824210800	0001	1.38	054.6	Secondary
211_090831182200	0004	5.83	220.5	Secondary
211_090831182200	0002	10.34	202.5	Secondary

Hydrographer Recommendations

Revise rock.

Cartographically-Rounded Depth (Affected Charts):

26ft (13219_1, 13215_1, 13205_1, 13218_1)

4 ¼fm (12300_1, 13006_1, 13003_1)

7.9m (5161_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)

Attributes: QUASOU - 6:least depth known

SORDAT - 20091014

SORIND - US,US,graph,H12023

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

VALSOU - 7.898 m

WATLEV - 3:always under water/submerged

Feature Images

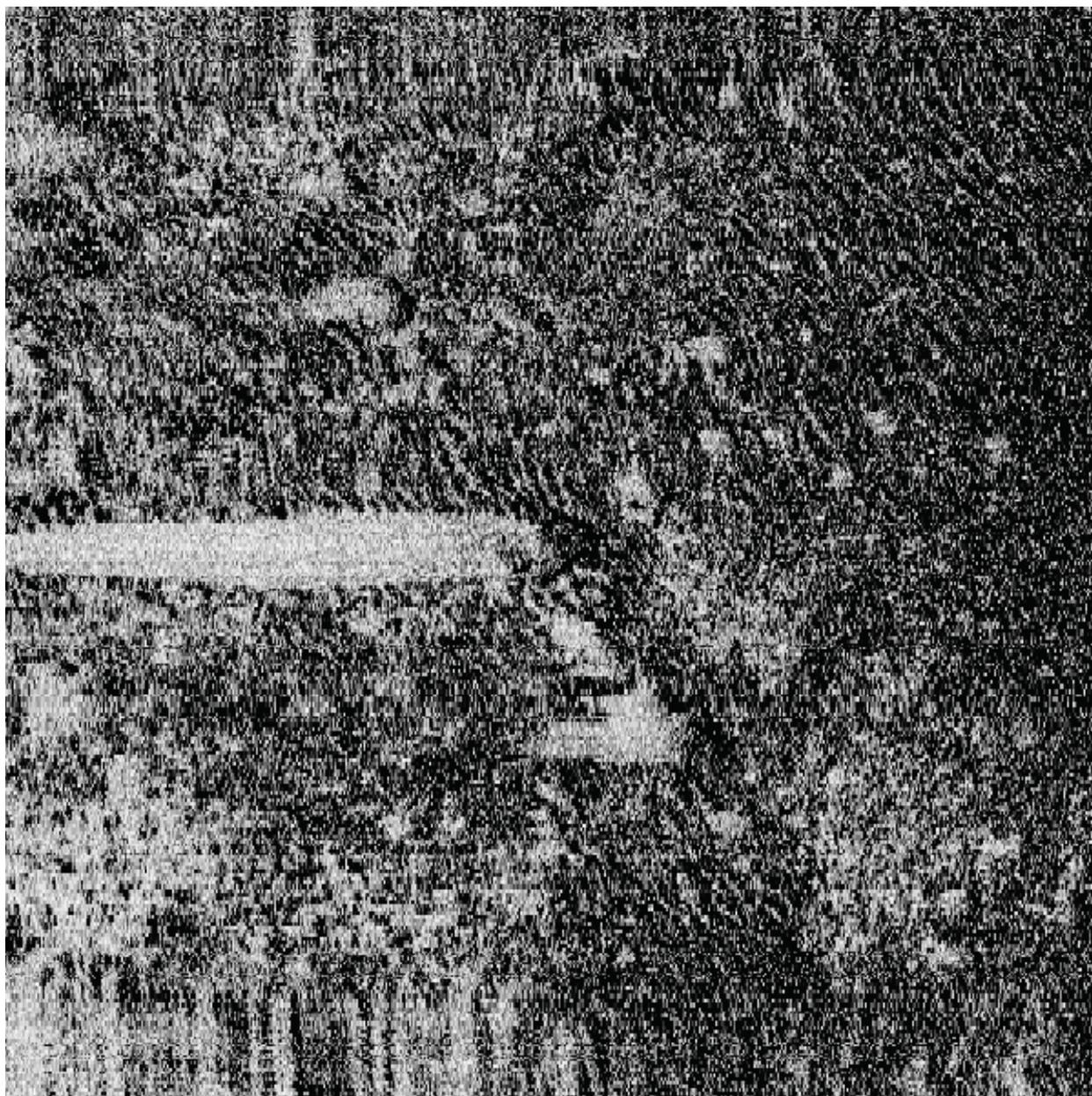


Figure 1.8.1

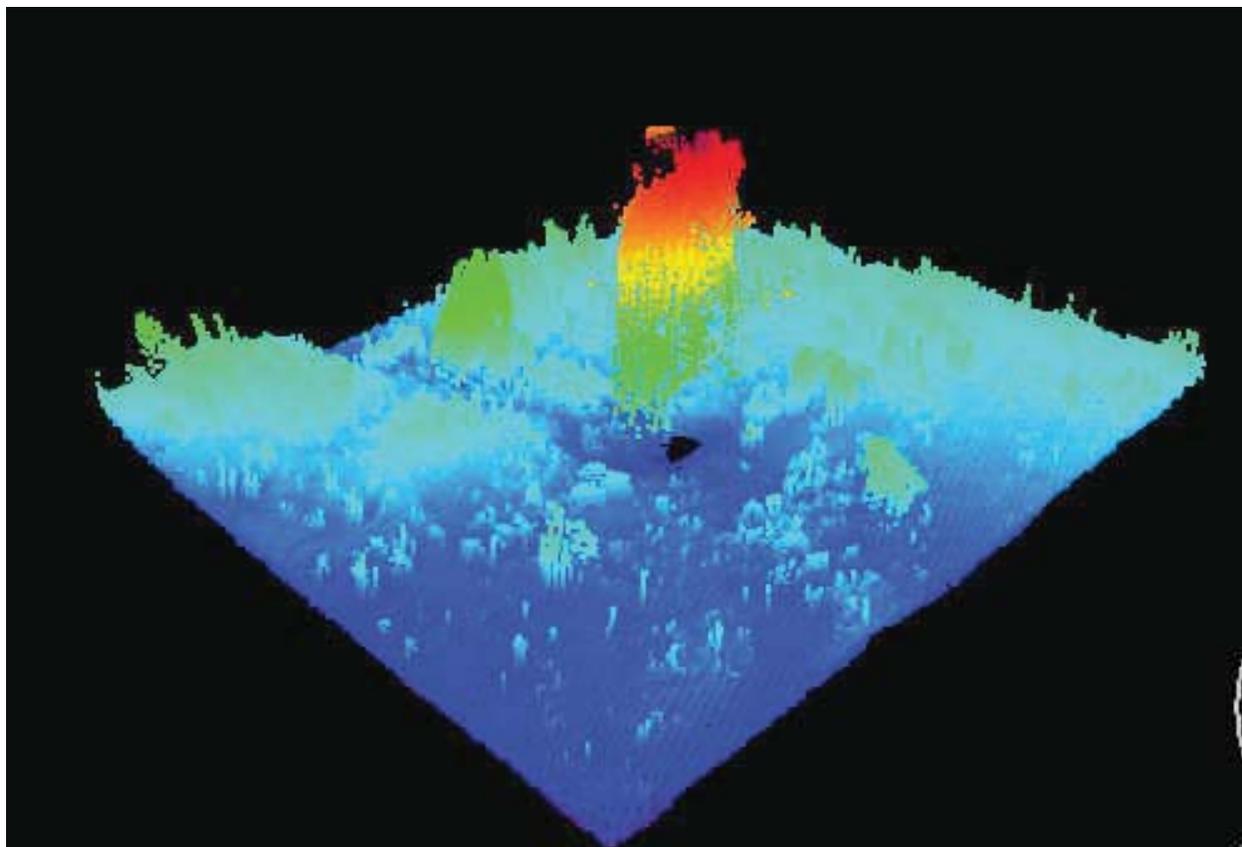


Figure 1.8.2

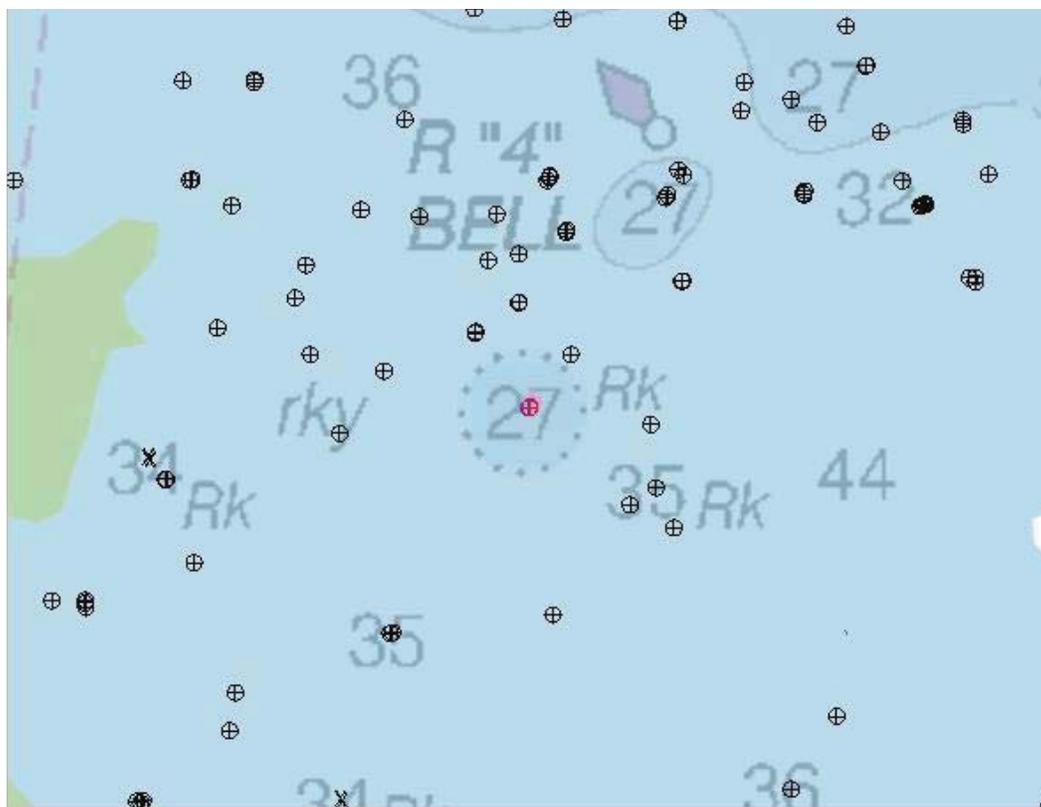


Figure 1.8.3

1.9) Wreck

Survey Summary

Survey Position: 41° 21' 34.2" N, 071° 30' 10.8" W
Least Depth: 2.14 m (= 7.03 ft = 1.172 fm = 1 fm 1.03 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 0.999 m ; **TVU (TPEv)** ± 0.283 m
Timestamp: 2009-238.18:39:26.135 (08/26/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-238 / 076_1839
Profile/Beam: 341/140
Charts Affected: 13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

Charted wreck found with 200% Klein 5000 side scan sonar and Reson 7125 object detection multibeam. Soundings were corrected to MLLW with final verified water levels and final TCARI zoning.

Feature Correlation

Source	Feature	Range	Azimuth	Status
076_1839	341/140	0.00	000.0	Primary
223_090825165300	0002	4.47	229.9	Secondary
266_090901155400	0001	4.94	310.8	Secondary
237_090825152300	0001	19.40	298.3	Secondary
237_090825154100	0001	24.43	297.6	Secondary

Hydrographer Recommendations

Revise charted wreck.

Cartographically-Rounded Depth (Affected Charts):

7ft (13219_1, 13215_1, 13205_1, 13218_1)

1fm (12300_1, 13006_1, 13003_1)

2.1m (5161_1)

S-57 Data

Geo object 1: Wreck (WRECKS)

Attributes: CATWRK - 2:dangerous wreck

QUASOU - 6:least depth known

SORDAT - 20091014

SORIND - US,US,graph,H12023

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

VALSOU - 2.143 m

Feature Images

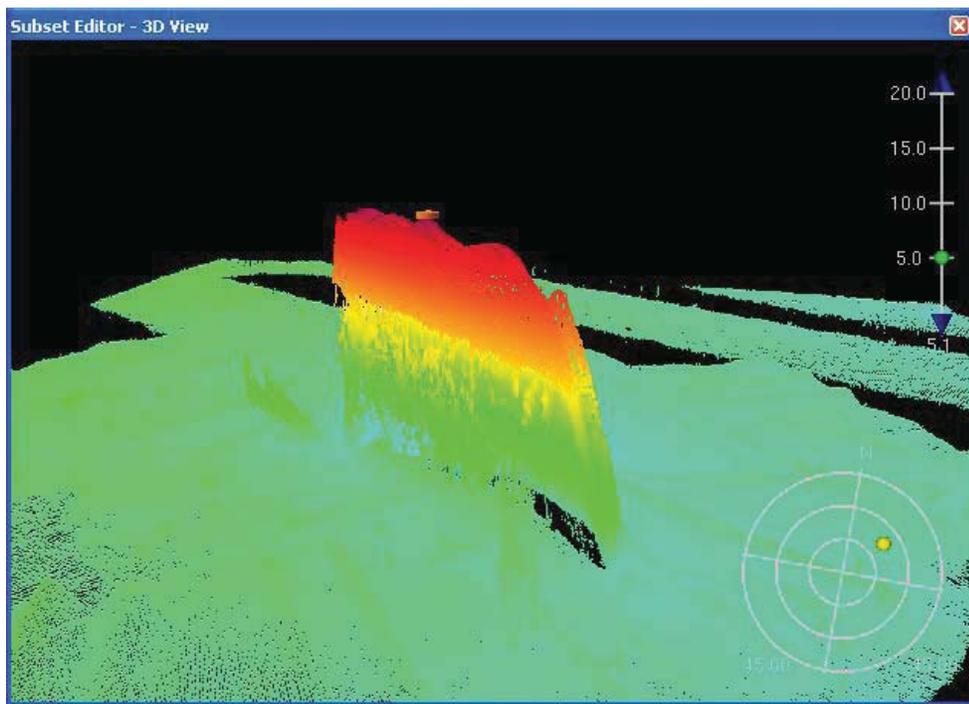


Figure 1.9.1

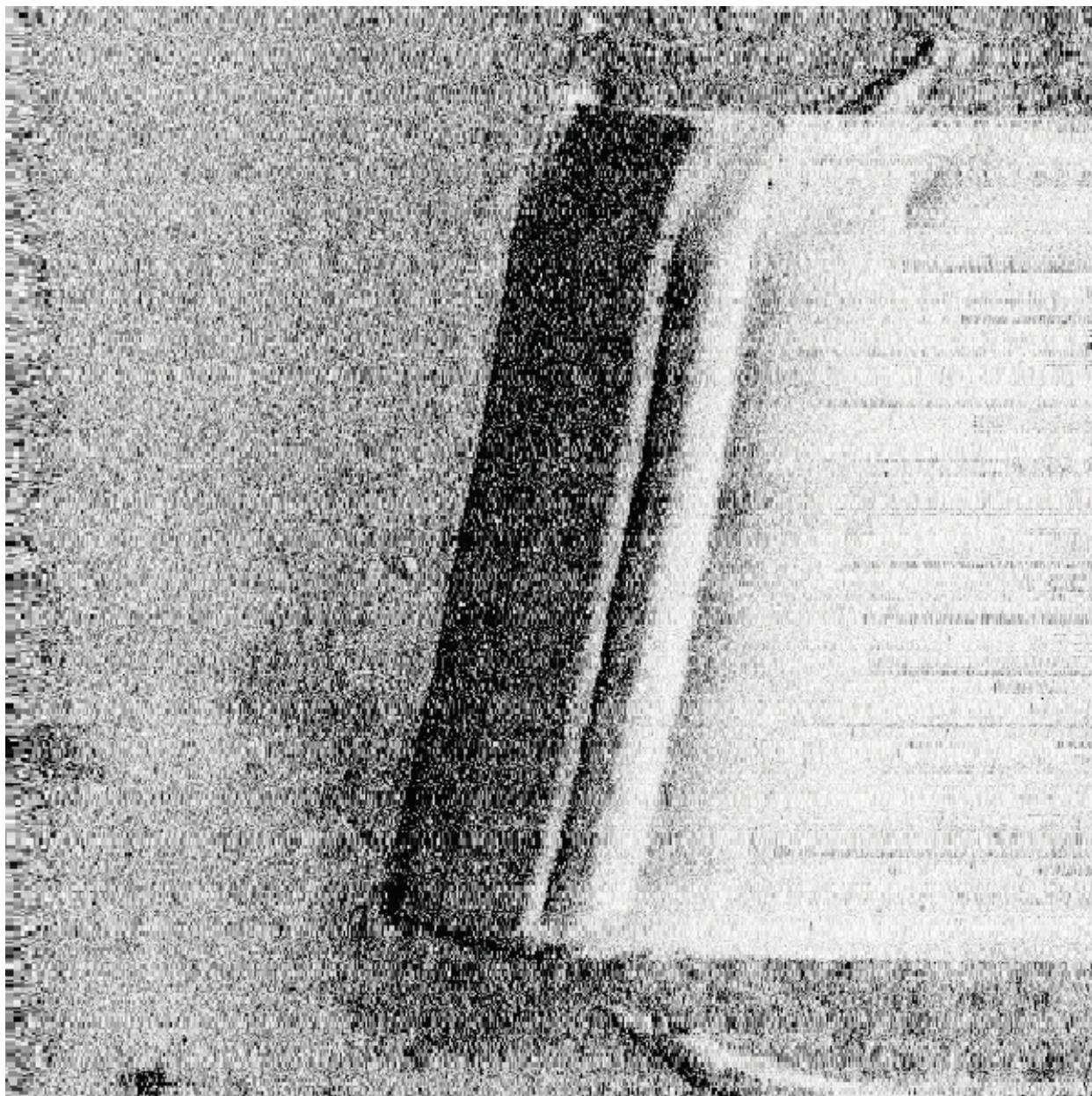


Figure 1.9.2

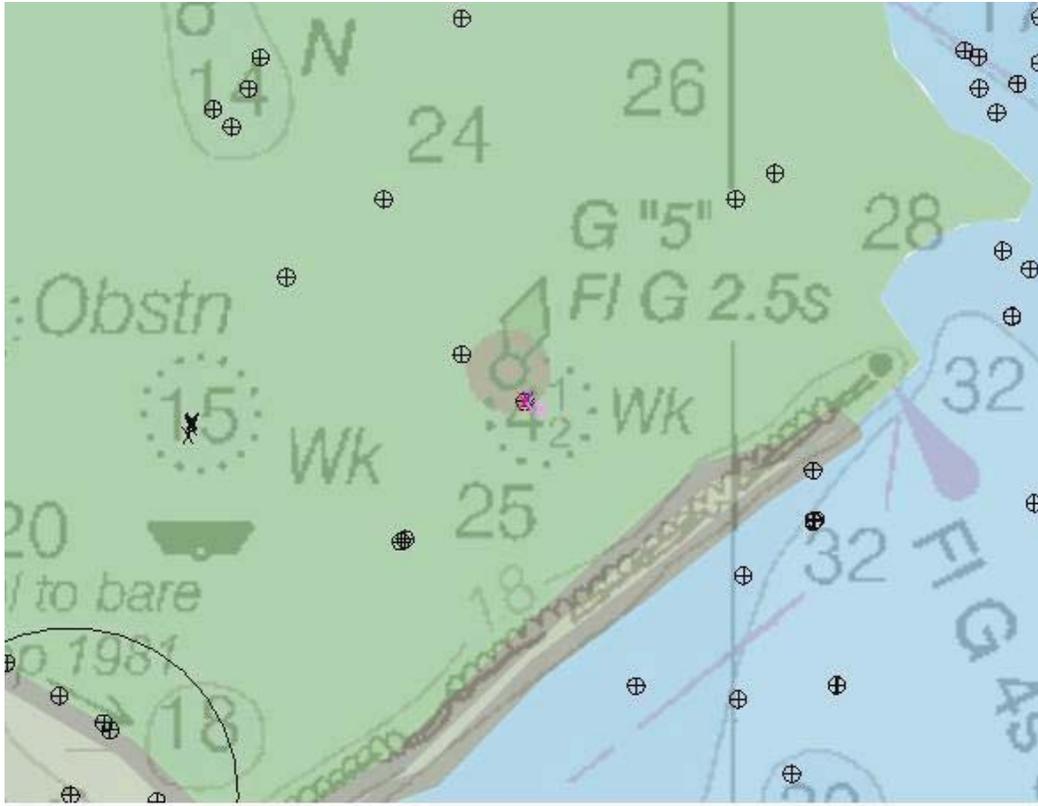


Figure 1.9.3

1.10) 10.86m Rock

Survey Summary

Survey Position: 41° 20' 41.5" N, 071° 30' 26.0" W
Least Depth: 10.86 m (= 35.62 ft = 5.937 fm = 5 fm 5.62 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 0.999 m ; **TVU (TPEv)** ± 0.288 m
Timestamp: 2009-240.13:24:54.383 (08/28/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-240 / 174_1321
Profile/Beam: 2892/261
Charts Affected: 13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

Charted rock found with 200% Klein 5000 side scan sonar and Reson 7125 object detection multibeam. Soundings were corrected to MLLW with final verified water levels and final TCARI zoning.

Feature Correlation

Source	Feature	Range	Azimuth	Status
174_1321	2892/261	0.00	000.0	Primary
211_090831182200	0001	6.89	259.8	Secondary
512_090824210800	0007	33.22	051.6	Secondary

Hydrographer Recommendations

Retain charted rock.

Cartographically-Rounded Depth (Affected Charts):

35ft (13219_1, 13215_1, 13205_1, 13218_1)

5 $\frac{3}{4}$ fm (12300_1, 13006_1, 13003_1)

10.9m (5161_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: QUASOU - 6:least depth known
 TECSOU - 2,3:found by side scan sonar,found by multi-beam
 VALSOU - 10.858 m

WATLEV - 3:always under water/submerged

Feature Images

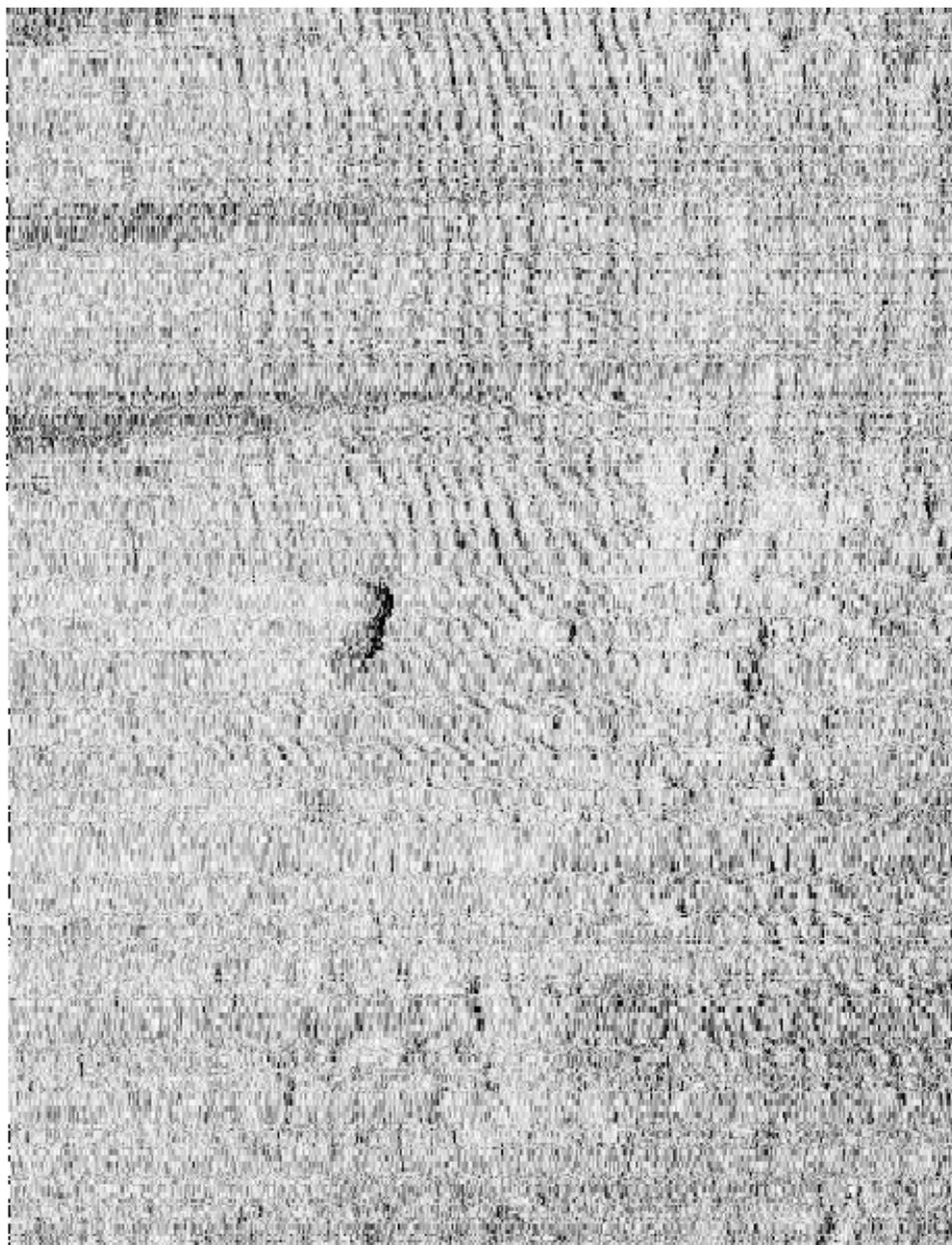


Figure 1.10.1

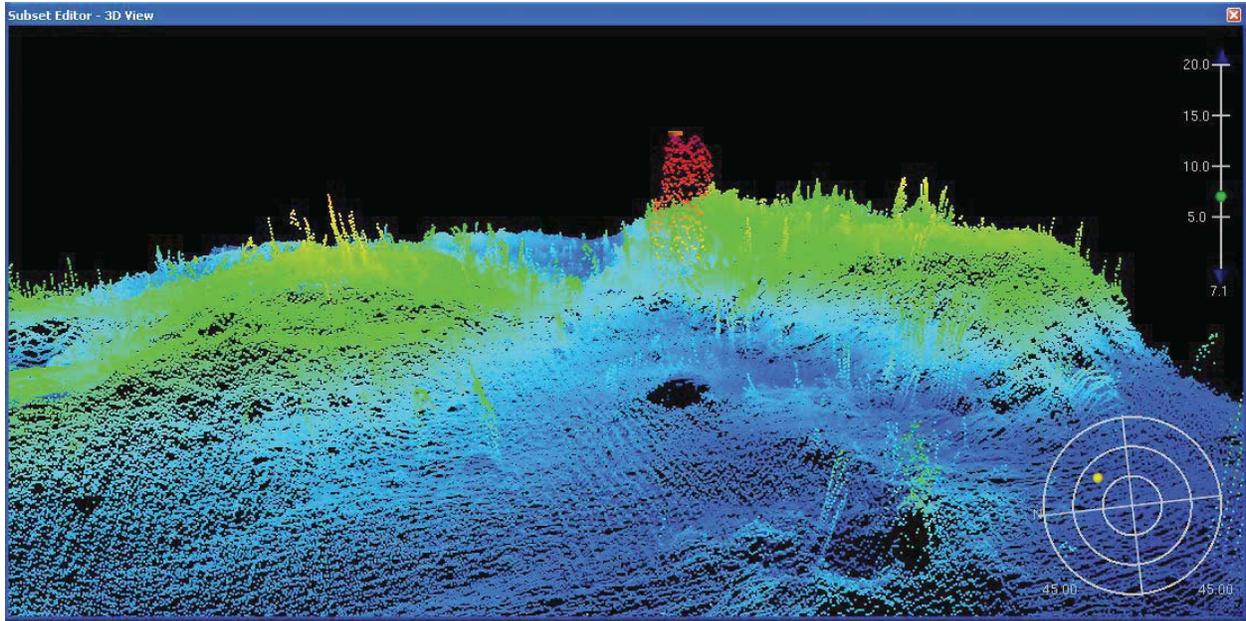


Figure 1.10.2

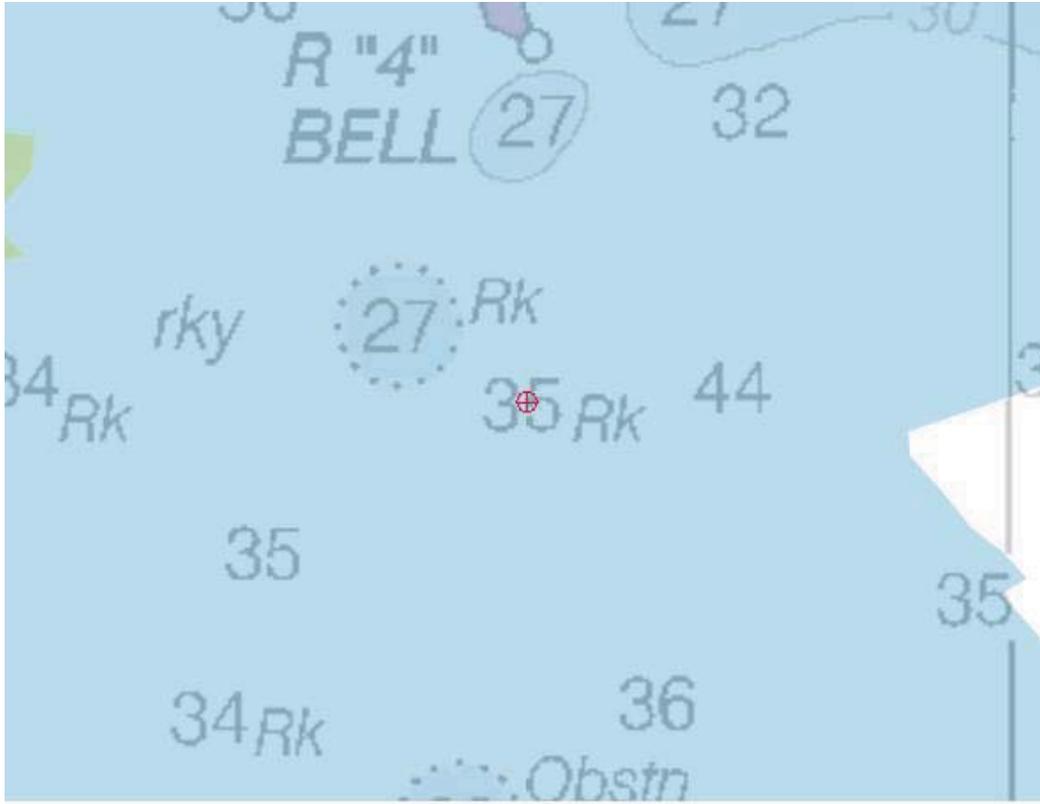


Figure 1.10.3

1.11) 15.65m Rock

Survey Summary

Survey Position: 41° 19' 17.4" N, 071° 29' 42.9" W
Least Depth: 15.65 m (= 51.35 ft = 8.559 fm = 8 fm 3.35 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.006 m ; **TVU (TPEv)** ± 0.302 m
Timestamp: 2009-268.16:25:17.643 (09/25/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-268 / 515_1622
Profile/Beam: 1452/119
Charts Affected: 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

Charted rock found with 200% Klein 5000 side scan sonar and Reson 7125 object detection multibeam. Soundings were corrected to MLLW with final verified water levels and final TCARI zoning.

Feature Correlation

Source	Feature	Range	Azimuth	Status
515_1622	1452/119	0.00	000.0	Primary
504_090825182900	0002	3.47	080.8	Secondary
504_090824183800	0001	5.67	049.5	Secondary

Hydrographer Recommendations

Retain charted rock with updated depth.

Cartographically-Rounded Depth (Affected Charts):

51ft (13215_1, 13205_1, 13218_1)

8 ½fm (12300_1, 13006_1, 13003_1)

15.7m (5161_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: QUASOU - 6:least depth known
 SORDAT - 20091014
 SORIND - US,US,graph,H12023

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

VALSOU - 15.653 m

WATLEV - 3:always under water/submerged

Feature Images

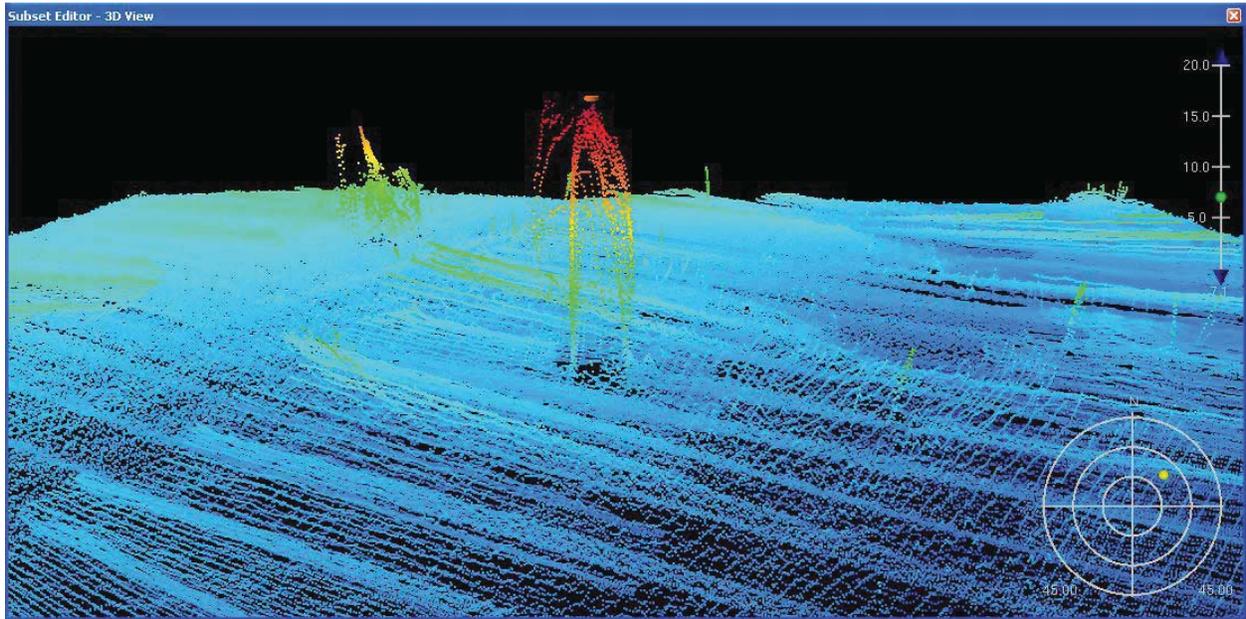


Figure 1.11.1

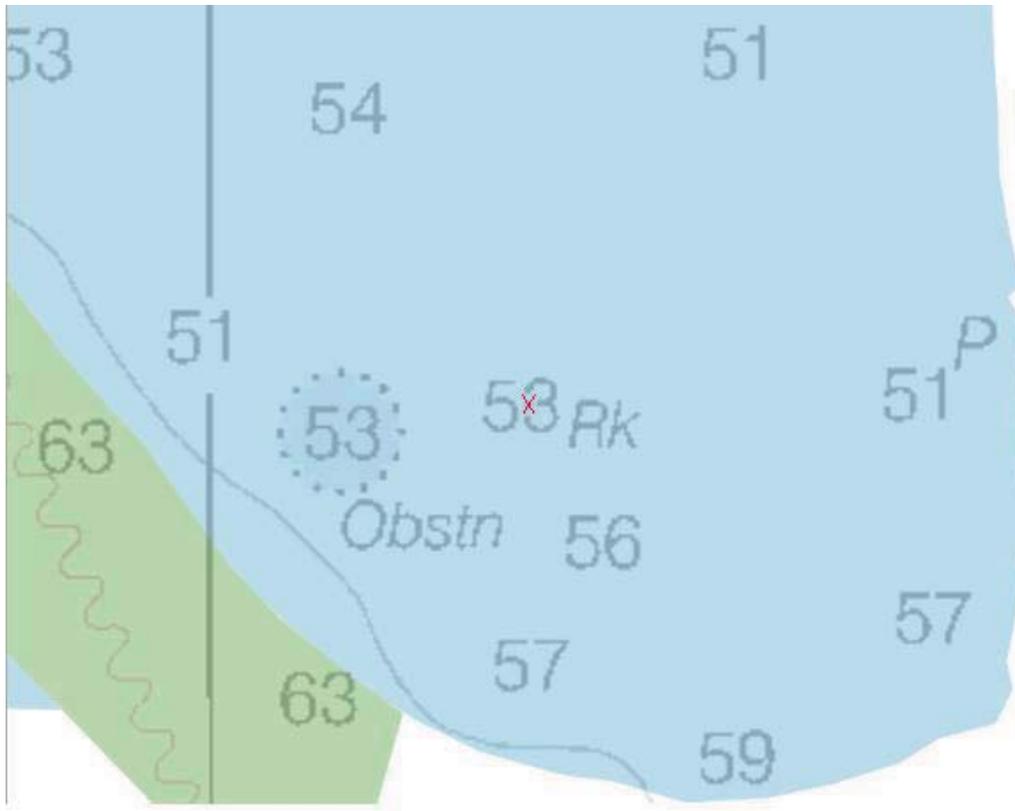


Figure 1.11.2

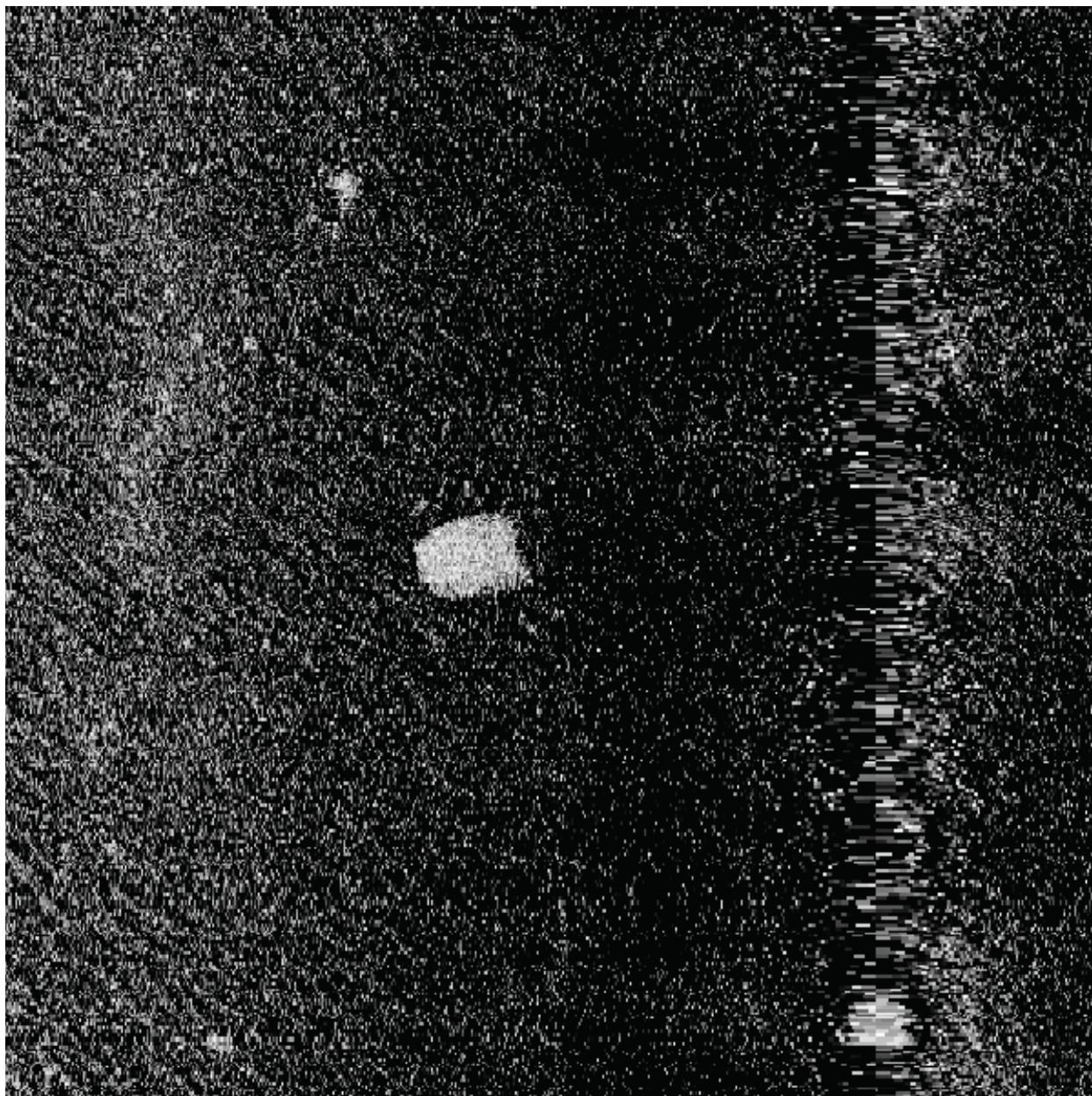


Figure 1.11.3

1.12) Mooring buoy

Survey Summary

Survey Position: 41° 21' 28.0" N, 071° 30' 26.4" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2011-106.09:57:49 (04/16/2011)
Survey Line: h12023 / tj_3102_klein5000_hull_100 / 2009-237 / 226_090825162600
Contact/Point: 0001/1
Charts Affected: 13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

Charted mooring buoy found with Klein 5000 side scan sonar.

Feature Correlation

Source	Feature	Range	Azimuth	Status
226_090825162600	0001	0.00	000.0	Primary

Hydrographer Recommendations

Revise mooring buoy.

S-57 Data

Geo object 1: Mooring/warping facility (MORFAC)
Attributes: CATMOR - 7:mooring buoy
 SORDAT - 20091014
 SORIND - US,US,graph,H12023

Feature Images



Figure 1.12.1



Figure 1.12.2

2 - New Features

2.1) Obstruction - least depth unknown

Survey Summary

Survey Position: 41° 20' 48.4" N, 071° 34' 57.5" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2009-289.05:09:48 (10/16/2009)
Survey Line: h12023 / tj_3102_klein5000_tow_200 / 2009-283 / 206_091010184400
Contact/Point: 0001/1
Charts Affected: 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

1.8m high contact found with Klein 5000 side scan sonar. No least depth acquired.

Feature Correlation

Source	Feature	Range	Azimuth	Status
206_091010184400	0001	0.00	000.0	Primary

Hydrographer Recommendations

Add obstruction least depth unknown.

S-57 Data

Geo object 1: Obstruction (OBSTRN)
Attributes: QUASOU - 2:depth unknown
 SORDAT - 20091014
 SORIND - US,US,graph,H12023
 TECSOU - 2:found by side scan sonar
 WATLEV - 3:always under water/submerged

Feature Images

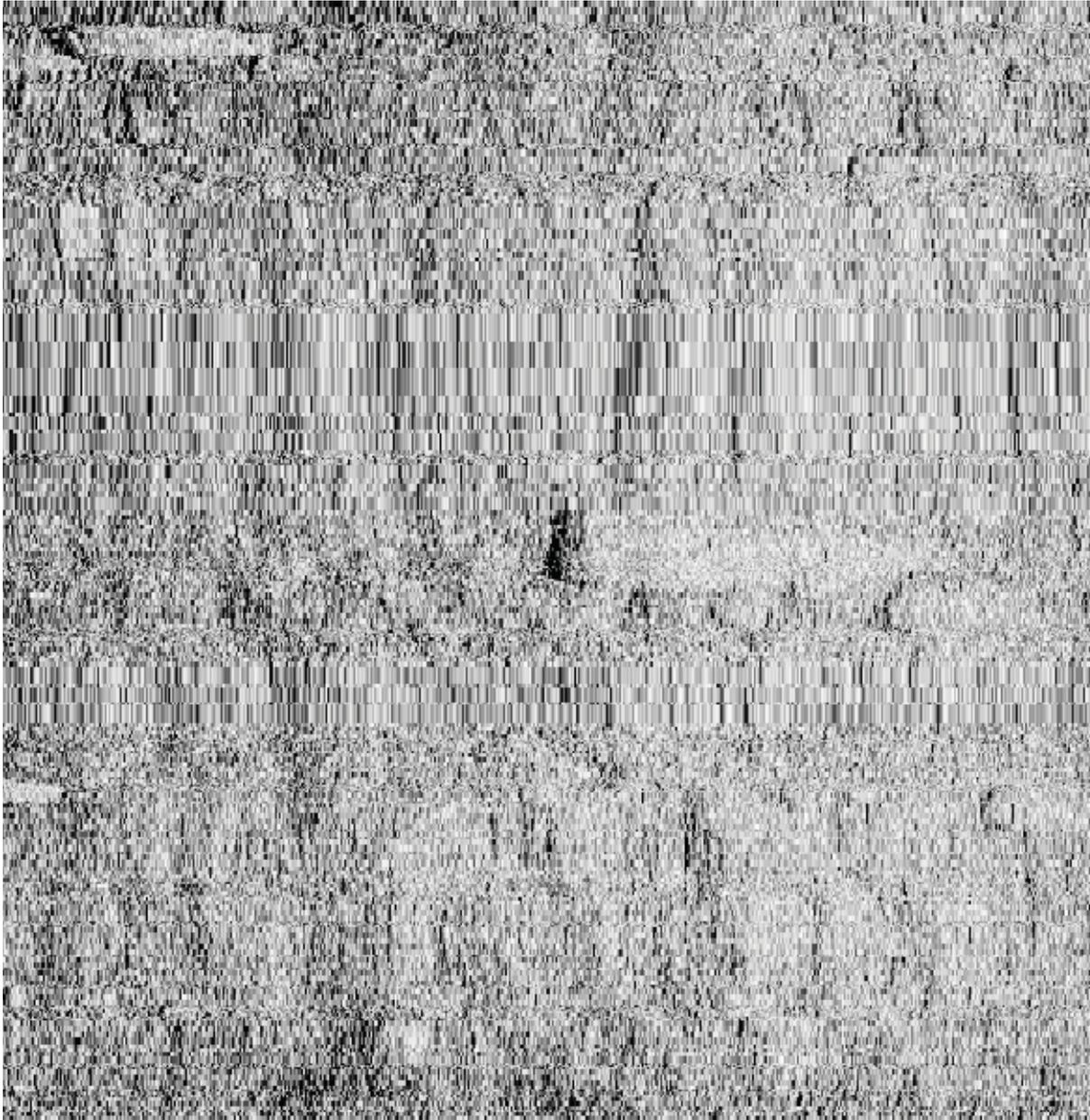


Figure 2.1.1

2.2) 4.15m Rock

Survey Summary

Survey Position: 41° 21' 26.3" N, 071° 28' 42.9" W
Least Depth: 4.15 m (= 13.62 ft = 2.270 fm = 2 fm 1.62 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.000 m ; **TVU (TPEv)** ± 0.285 m
Timestamp: 2009-269.18:33:06.574 (09/26/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-269 / 503_1831
Profile/Beam: 1116/104
Charts Affected: 13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

2.5m high uncharted rock found with 200% Klein 5000 side scan sonar and Reson 7125 object detection multibeam. Soundings were corrected to MLLW with final verified water levels and final TCARI zoning.

Feature Correlation

Source	Feature	Range	Azimuth	Status
503_1831	1116/104	0.00	000.0	Primary

Hydrographer Recommendations

Add rock and chart designated sounding.

Cartographically-Rounded Depth (Affected Charts):

13ft (13219_1, 13215_1, 13205_1, 13218_1)

2 ¼fm (12300_1, 13006_1, 13003_1)

4.2m (5161_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)

Attributes: QUASOU - 6:least depth known
 SORDAT - 20091014
 SORIND - US,US,graph,H12023
 TECSOU - 3:found by multi-beam
 VALSOU - 4.151 m

WATLEV - 3:always under water/submerged

Feature Images

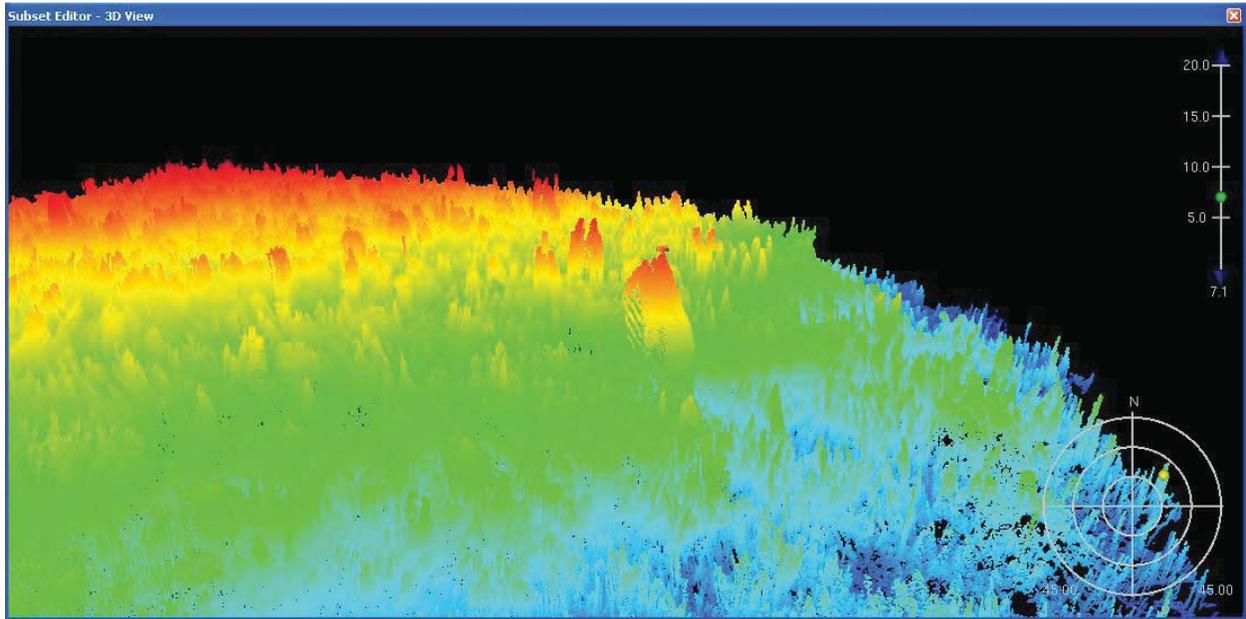


Figure 2.2.1

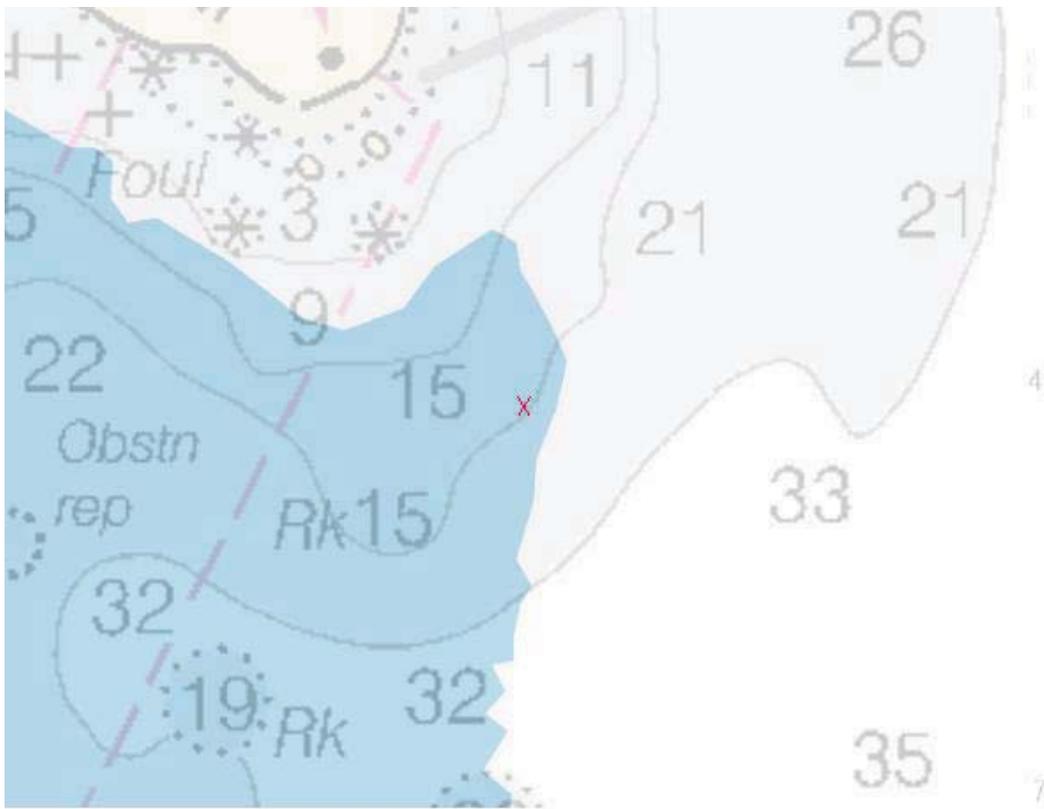


Figure 2.2.2

2.3) 5.99m Obstruction

Survey Summary

Survey Position: 41° 21' 29.6" N, 071° 29' 56.0" W
Least Depth: 5.99 m (= 19.66 ft = 3.277 fm = 3 fm 1.66 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.000 m ; TVU (TPEv) ± 0.286 m
Timestamp: 2009-269.20:12:40.405 (09/26/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-269 / 532_2012
Profile/Beam: 560/389
Charts Affected: 13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

4m high uncharted obstruction found with 200% Klein 5000 side scan sonar and Reson 7125 object detection multibeam. Soundings were corrected to MLLW with final verified water levels and final TCARI zoning.

Feature Correlation

Source	Feature	Range	Azimuth	Status
532_2012	560/389	0.00	000.0	Primary
234_090828152700	0006	1.53	002.8	Secondary
277_090901144500	0001	2.60	248.3	Secondary

Hydrographer Recommendations

Add Obstruction.

Cartographically-Rounded Depth (Affected Charts):

19ft (13219_1, 13215_1, 13205_1, 13218_1)

3 ¼fm (12300_1, 13006_1, 13003_1)

6.0m (5161_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)
Attributes: QUASOU - 6:least depth known
 SORDAT - 20091014
 SORIND - US,US,graph,H12023

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

VALSOU - 5.993 m

WATLEV - 3:always under water/submerged

Feature Images



Figure 2.3.1

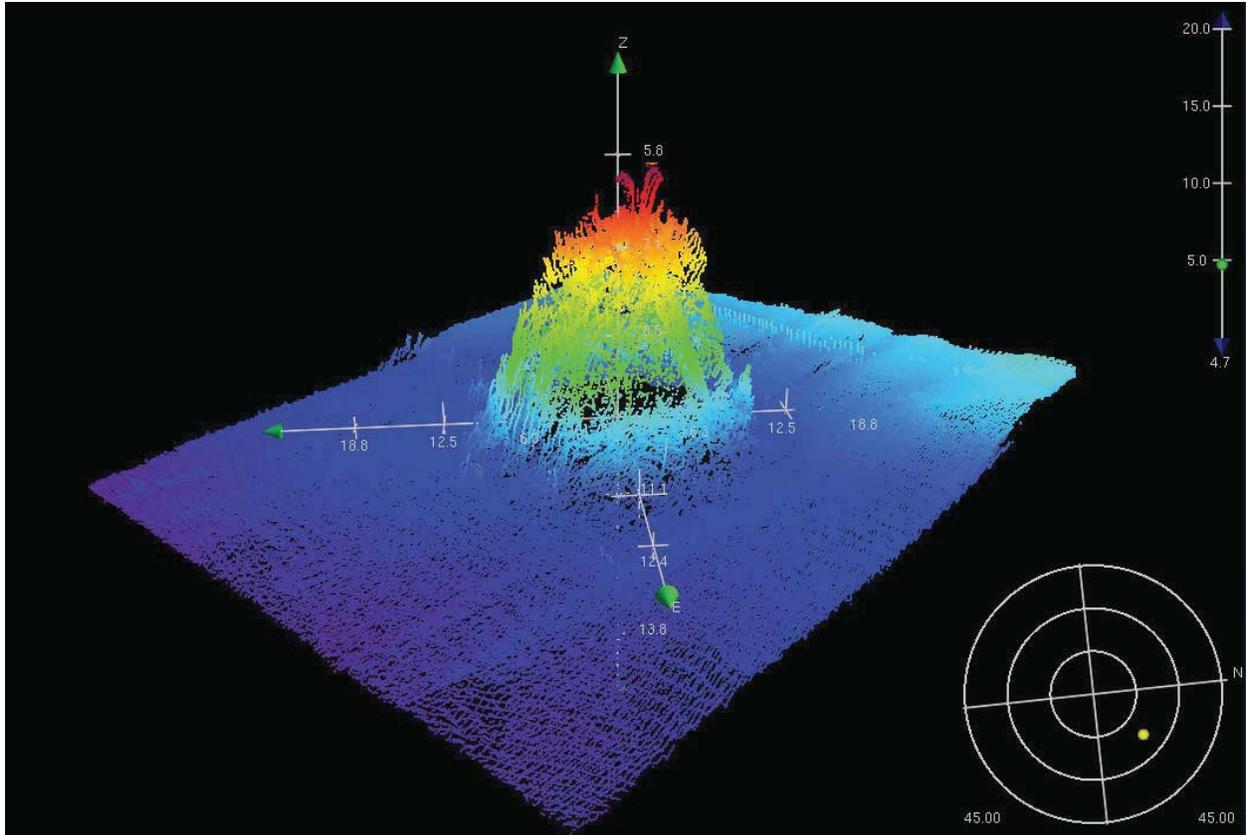


Figure 2.3.2



Figure 2.3.3

2.4) 6.83m Obstruction

Survey Summary

Survey Position: 41° 21' 27.5" N, 071° 29' 59.6" W
Least Depth: 6.83 m (= 22.42 ft = 3.737 fm = 3 fm 4.42 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.000 m ; TVU (TPEv) ± 0.286 m
Timestamp: 2009-269.20:13:08.633 (09/26/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-269 / 532_2012
Profile/Beam: 1008/161
Charts Affected: 13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

3m high uncharted obstruction found with reson 7125 object detection multibeam. Soundings were corrected to MLLW with final verified water levels and final TCARI zoning.

Feature Correlation

Source	Feature	Range	Azimuth	Status
532_2012	1008/161	0.00	000.0	Primary

Hydrographer Recommendations

Add Obstruction.

Cartographically-Rounded Depth (Affected Charts):

22ft (13219_1, 13215_1, 13205_1, 13218_1)

3 $\frac{3}{4}$ fm (12300_1, 13006_1, 13003_1)

6.8m (5161_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)
Attributes: QUASOU - 6:least depth known
 SORDAT - 20091014
 SORIND - US,US,graph,H12023
 TECSOU - 3:found by multi-beam
 VALSOU - 6.834 m

WATLEV - 3:always under water/submerged

Feature Images

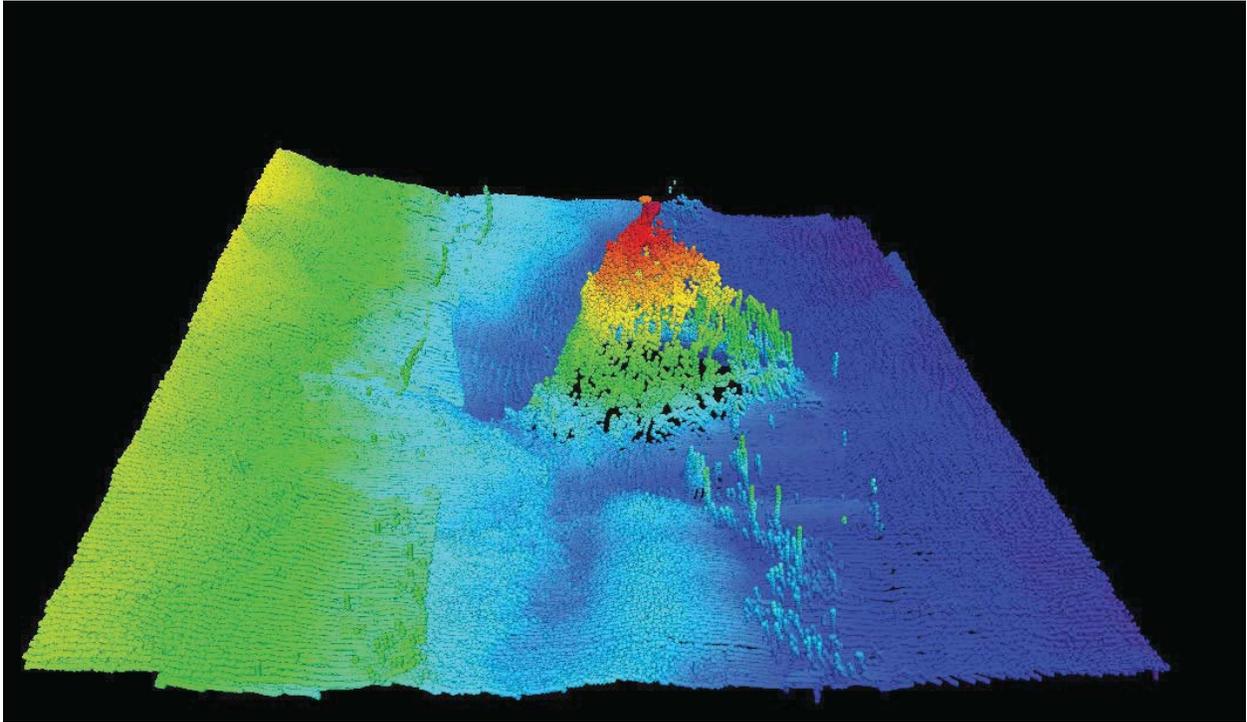


Figure 2.4.1

2.5) 11.77m Obstruction.

Survey Summary

Survey Position: 41° 21' 13.6" N, 071° 32' 19.5" W
Least Depth: 11.77 m (= 38.62 ft = 6.437 fm = 6 fm 2.62 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.001 m ; TVU (TPEv) ± 0.290 m
Timestamp: 2009-283.21:05:37.667 (10/10/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-283 / 213_2104
Profile/Beam: 573/158
Charts Affected: 13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

2.5m high obstruction found with Reson 7125 object detection multibeam. Soundings were corrected to MLLW with final verified water levels and final TCARI zoning.

Feature Correlation

Source	Feature	Range	Azimuth	Status
213_2104	573/158	0.00	000.0	Primary
213_090831185300	0005	4.67	204.0	Secondary
213_090831185300	0009	6.56	196.0	Secondary
516_090824194700	0001	8.21	096.4	Secondary

Hydrographer Recommendations

Add obstruction.

Cartographically-Rounded Depth (Affected Charts):

38ft (13219_1, 13215_1, 13205_1, 13218_1)

6 ¼fm (12300_1, 13006_1, 13003_1)

11.8m (5161_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)
Attributes: QUASOU - 6:least depth known
 SORDAT - 20091014

SORIND - US,US,graph,H12023

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

VALSOU - 11.772 m

WATLEV - 3:always under water/submerged

Feature Images

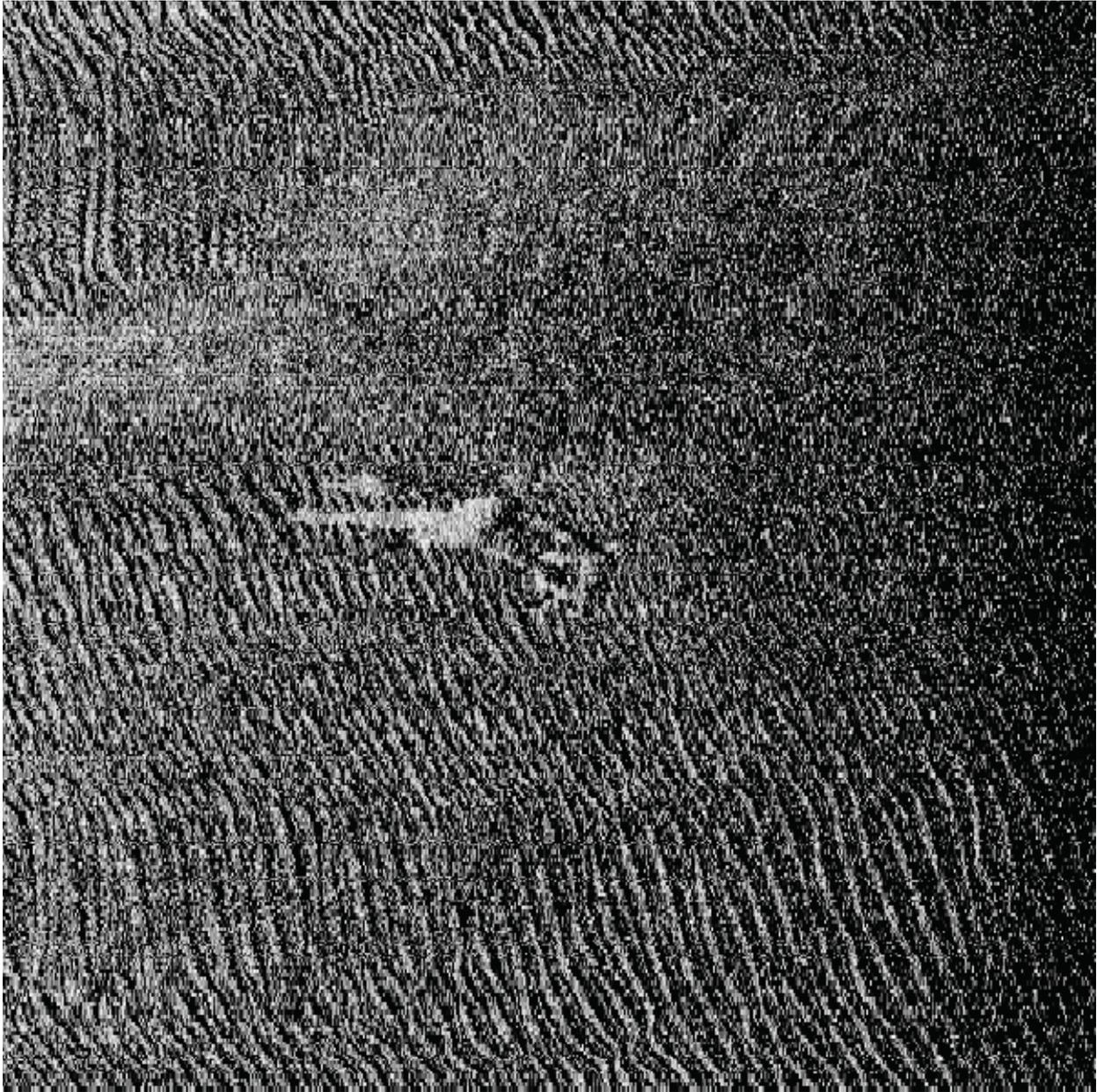


Figure 2.5.1

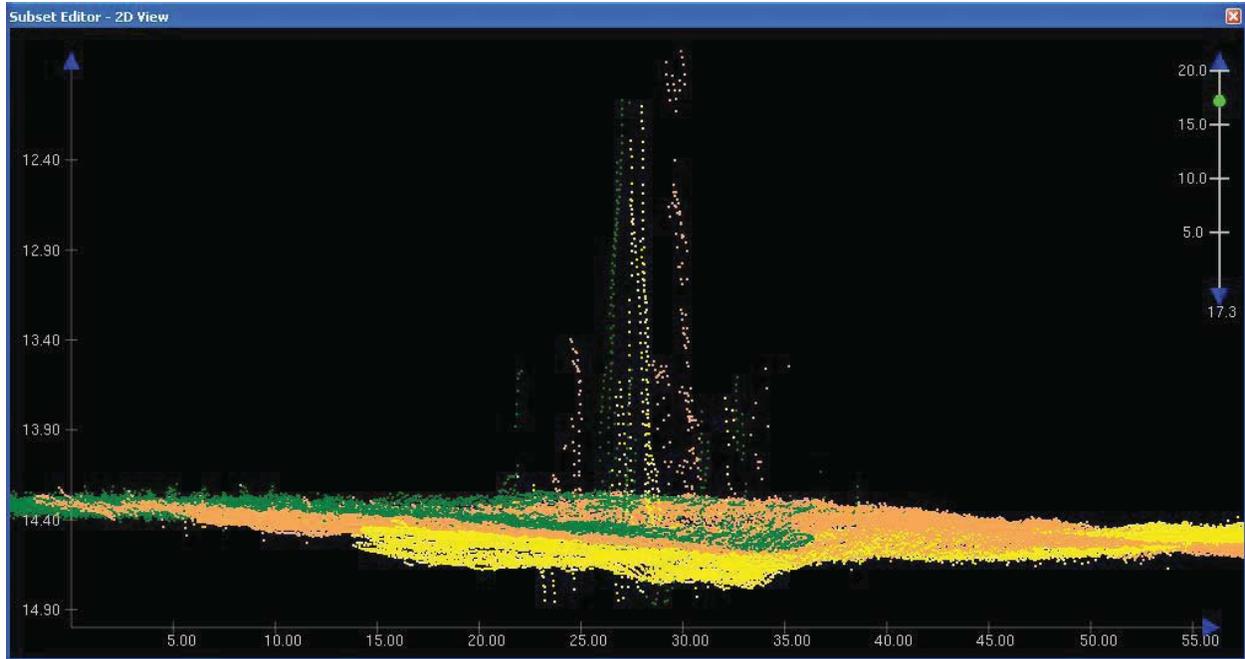


Figure 2.5.2

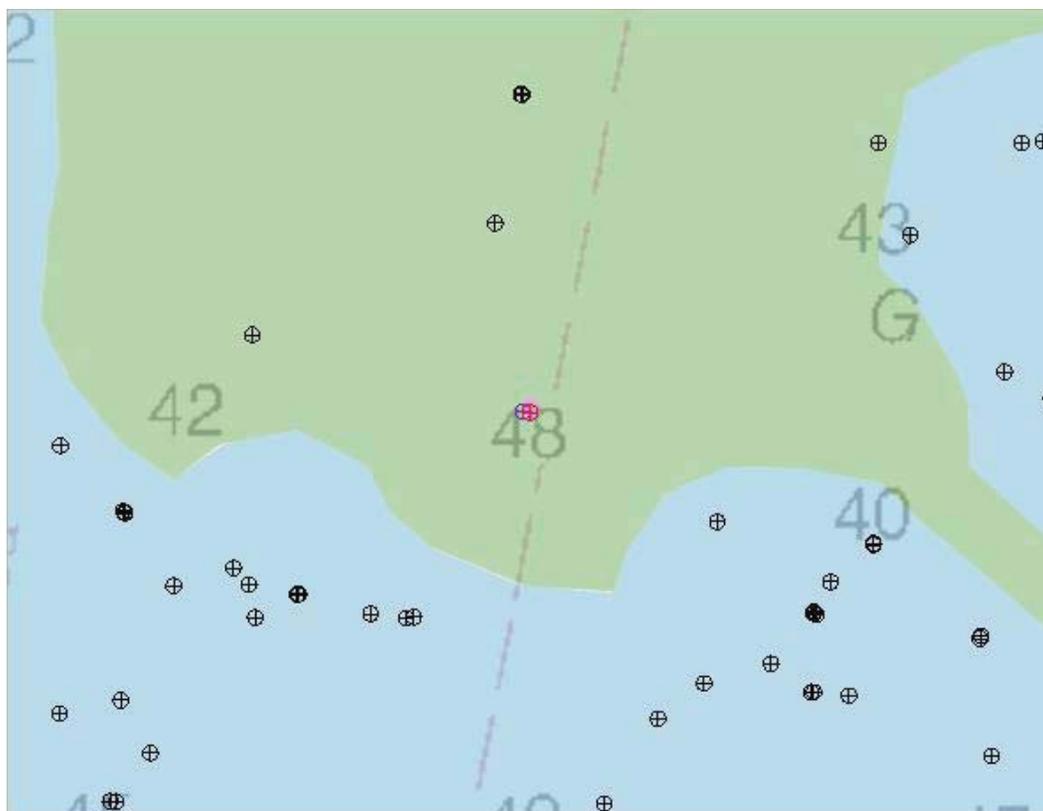


Figure 2.5.3

2.6) 14.79m Uncharted wreck

Survey Summary

Survey Position: 41° 20' 32.9" N, 071° 31' 49.2" W
Least Depth: 14.79 m (= 48.52 ft = 8.086 fm = 8 fm 0.52 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.001 m ; TVU (TPEv) ± 0.294 m
Timestamp: 2009-267.18:21:01.328 (09/24/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-267 / 708_1818
Profile/Beam: 1366/302
Charts Affected: 13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

Uncharted wreck found with 200% Klein 5000 side scan sonar and Reson 7125 object detection multibeam. Soundings were corrected to MLLW with final verified water levels and final TCARI zoning.

Feature Correlation

Source	Feature	Range	Azimuth	Status
708_1818	1366/302	0.00	000.0	Primary
206_090831174400	0001	2.86	273.5	Secondary
508_090824205900	0006	8.90	270.5	Secondary
507_090824204400	0003	13.48	267.2	Secondary
507_090825165400	0001	13.51	277.1	Secondary

Hydrographer Recommendations

Add Wreck.

Cartographically-Rounded Depth (Affected Charts):

48ft (13219_1, 13215_1, 13205_1, 13218_1)

8fm (12300_1, 13006_1, 13003_1)

14.8m (5161_1)

S-57 Data

Geo object 1: Wreck (WRECKS)
Attributes: CATWRK - 2:dangerous wreck

QUASOU - 6:least depth known

SORDAT - 20100914

SORIND - US,US,graph,H12023

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

VALSOU - 14.788 m

WATLEV - 3:always under water/submerged

Feature Images

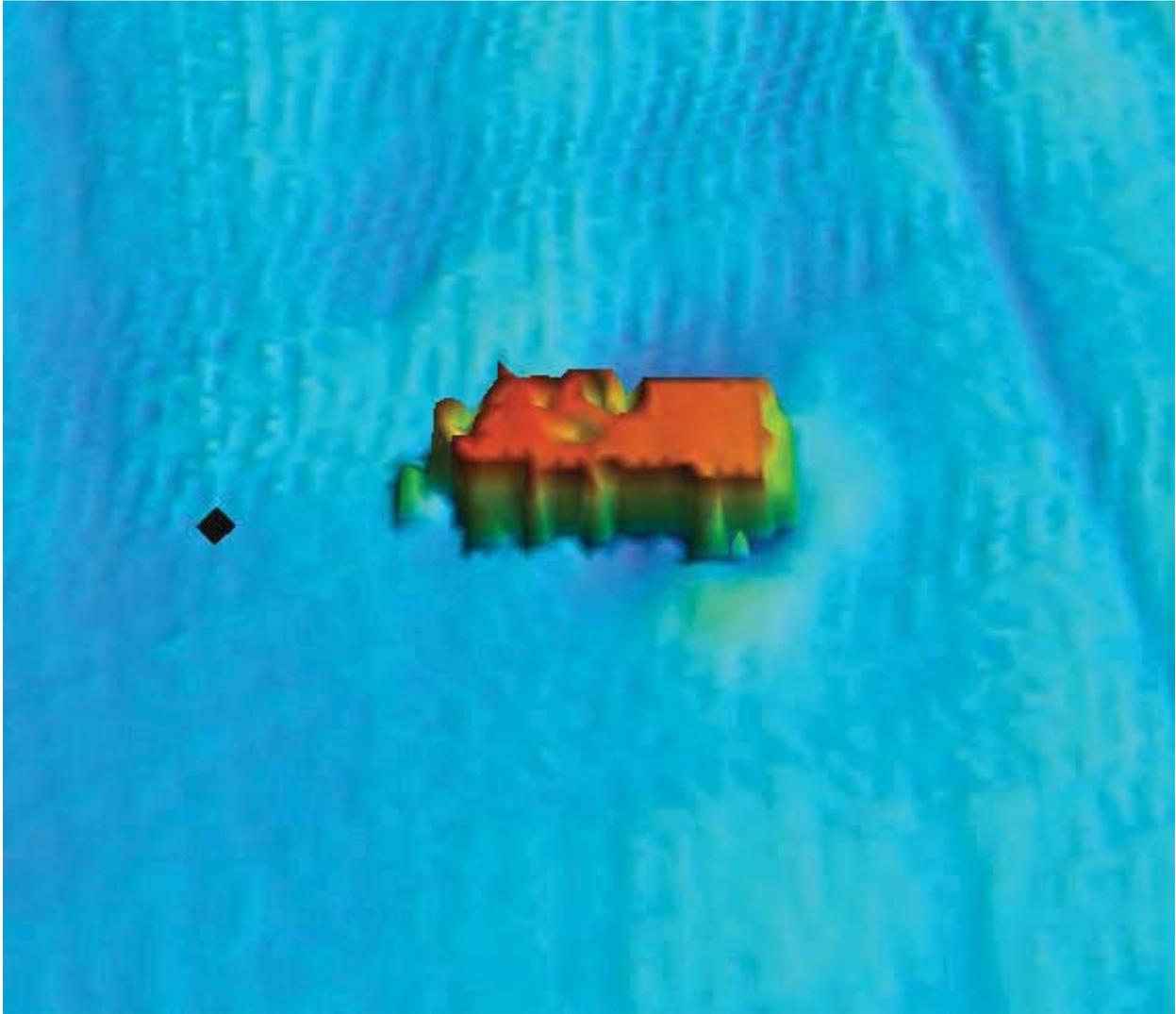


Figure 2.6.1

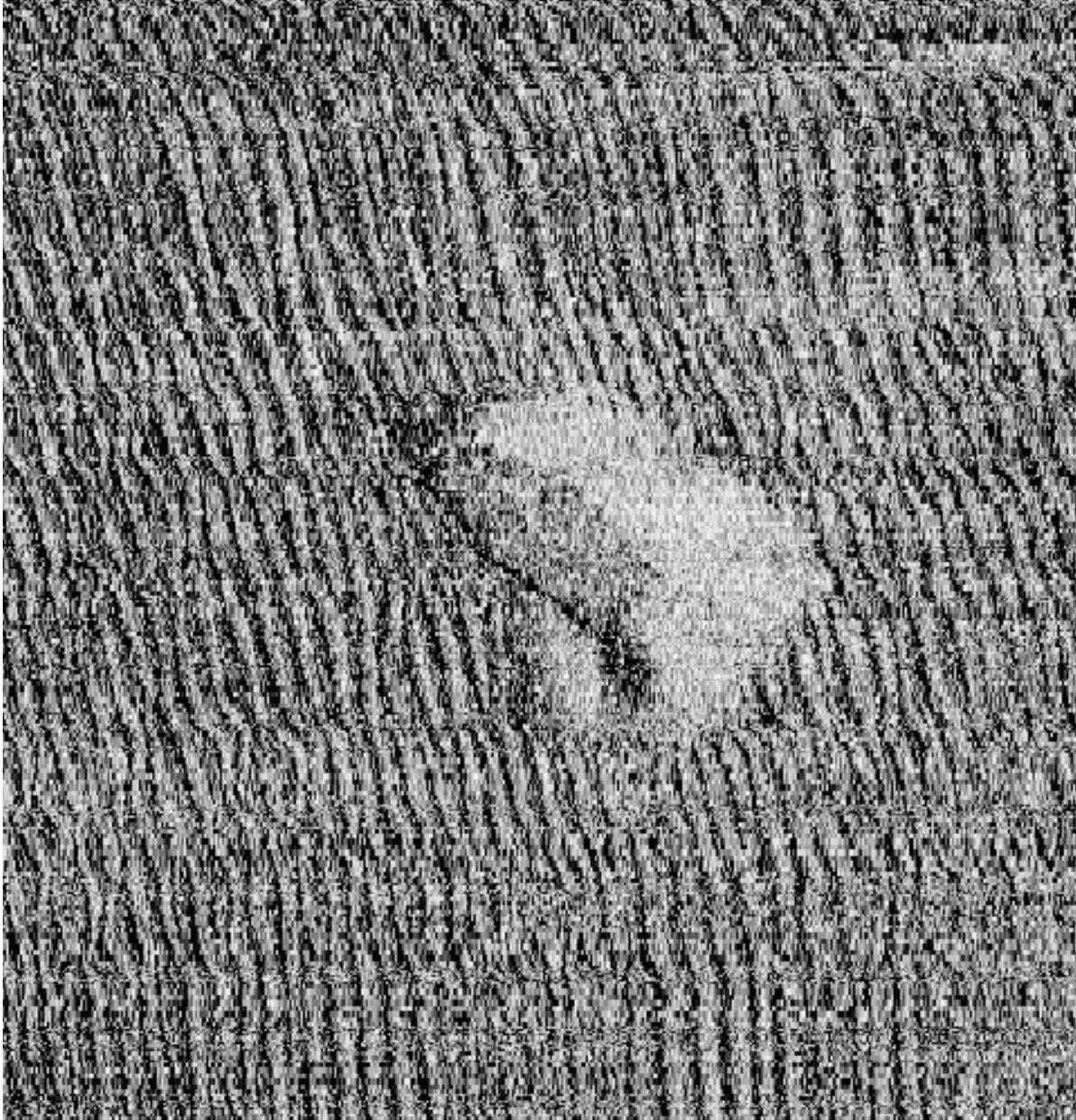


Figure 2.6.2



Figure 2.6.3

3 - AWOIS Features

3.1) AWOIS 14443

Primary Feature for AWOIS Item #14443

Search Position: 41° 21' 05.3" N, 071° 34' 36.8" W
Historical Depth: 5.49 m
Search Radius: 50
Search Technique: S2, MB
Technique Notes: [None]

History Notes:

Unidentified source - Obstruction symbol with 18 ft wire-drag clearance labeled on it.

Survey Summary

Survey Position: 41° 21' 06.4" N, 071° 34' 38.2" W
Least Depth: 8.12 m (= 26.64 ft = 4.441 fm = 4 fm 2.64 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 0.981 m ; TVU (TPEv) ± 0.113 m
Timestamp: 2009-268.20:28:44.189 (09/25/2009)
Survey Line: h12023 / tj_3101_reson8125_mb / 2009-268 / 000_2022
Profile/Beam: 4327/59
Charts Affected: 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

AWOIS #14443 was investigated with 200% Klein 5000 side scan sonar and Reson 8125 object detection multibeam. Soundings were corrected to MLLW with final verified water levels and final TCARI zoning. No 18 foot obstruction was found.

Feature Correlation

Source	Feature	Range	Azimuth	Status
000_2022	4327/59	0.00	000.0	Primary
170_090901171900	0007	2.75	146.1	Secondary
BlockIslandAWOIS	AWOIS # 14443	46.85	314.0	Secondary

Hydrographer Recommendations

Remove obstruction.

S-57 Data

[None]

Feature Images



Figure 3.1.1

3.2) AWOIS #14444

Primary Feature for AWOIS Item #14444

Search Position: 41° 21' 28.7" N, 071° 35' 42.1" W
Historical Depth: [None]
Search Radius: 50
Search Technique: S2, MB
Technique Notes: [None]

History Notes:

LNM 33/05 (8/16/2005)

Survey Summary

Survey Position: 41° 21' 28.9" N, 071° 35' 42.6" W
Least Depth: 8.96 m (= 29.41 ft = 4.902 fm = 4 fm 5.41 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 0.981 m ; TVU (TPEv) ± 0.113 m
Timestamp: 2009-269.17:09:34.107 (09/26/2009)
Survey Line: h12023 / tj_3101_reson8125_mb / 2009-269 / 000_1708
Profile/Beam: 790/154
Charts Affected: 13215_1, 13205_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

AWOIS #14444 was investigated with 200% Klein 5000 side scan sonar and Reson 8125 object detection multibeam. Soundings were corrected to MLLW with final verified water levels and final TCARI zoning. Nothing was found within the AWOIS radius.

Feature Correlation

Source	Feature	Range	Azimuth	Status
000_1708	790/154	0.00	000.0	Primary
BlockIslandAWOIS	AWOIS # 14444	12.14	298.4	Secondary

Hydrographer Recommendations

Remove submerged obstruction.

S-57 Data

[None]

Feature Images

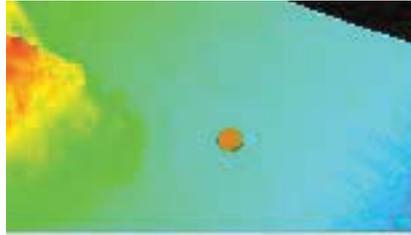


Figure 3.2.1

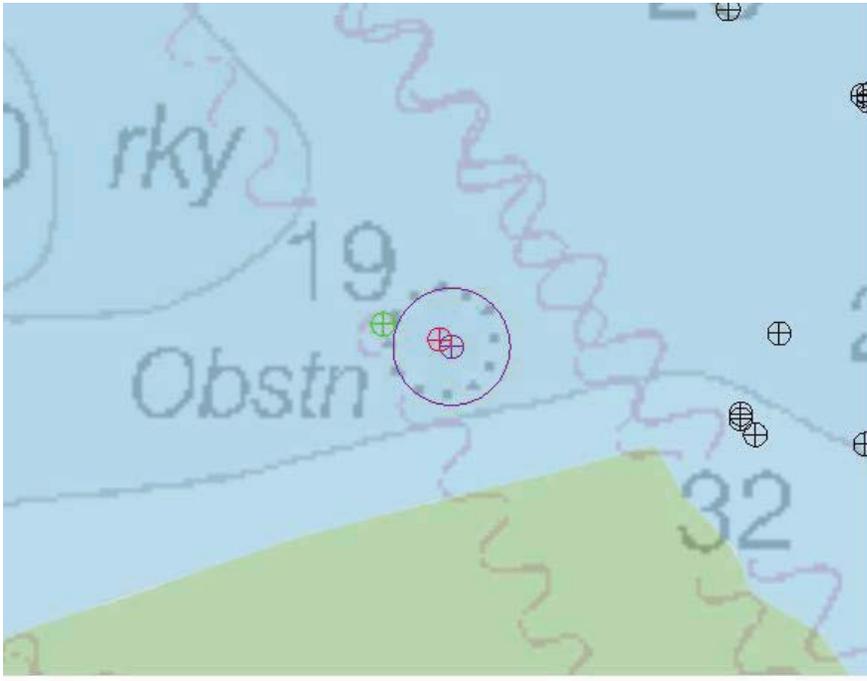


Figure 3.2.2

3.3) AWOIS #9983

Primary Feature for AWOIS Item #9983

Search Position: 41° 19' 14.7" N, 071° 29' 51.8" W
Historical Depth: 17.40 m
Search Radius: 50
Search Technique: S2, MB
Technique Notes: [None]

History Notes:

HISTORY

H10424/91--OPR-B660-RU; UNKNOWN OBSTRUCTION LOCATED IN I
41-19-14.72N, 71-29-51.76 WITH A ECHO SOUNDER LEAST DEPTH OF I
17.4M. 10/97 MCR

Survey Summary

Survey Position: 41° 19' 14.5" N, 071° 29' 51.2" W
Least Depth: 15.91 m (= 52.21 ft = 8.702 fm = 8 fm 4.21 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.007 m ; TVU (TPEv) ± 0.306 m
Timestamp: 2009-236.17:58:39.854 (08/24/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-236 / 503_1756
Profile/Beam: 1255/100
Charts Affected: 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

AWOIS #9983 was investigated with 200% Klein 5000 side scan sonar and Reson 7125 object detection multibeam. Soundings were corrected to MLLW with final verified water levels and final TCARI zoning. The obstruction appears to be a rock.

Feature Correlation

Source	Feature	Range	Azimuth	Status
503_1756	1255/100	0.00	000.0	Primary
503_090825184800	0001	0.36	212.0	Secondary
503_090824175600	0002	1.58	239.6	Secondary
BlockIslandAWOIS	AWOIS # 9983	15.37	115.8	Secondary

269_090824185400	0003	29.48	027.1	Secondary
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Hydrographer Recommendations

Change obstruction to rock and update depth.

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)

Attributes: QUASOU - 6:least depth known

SORDAT - 20091014

SORIND - US,US,graph,H12023

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

VALSOU - 15.915 m

WATLEV - 3:always under water/submerged

Feature Images

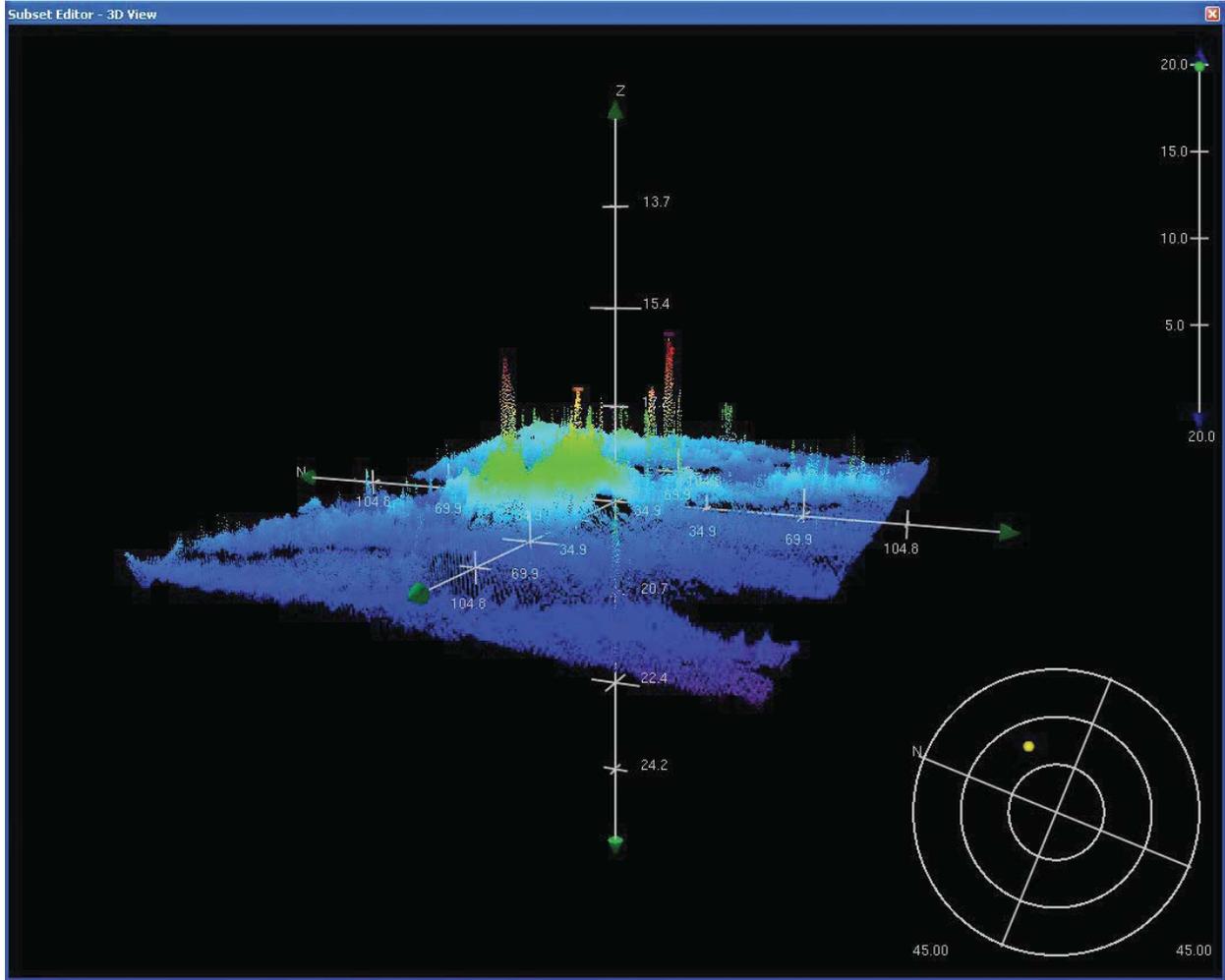


Figure 3.3.1

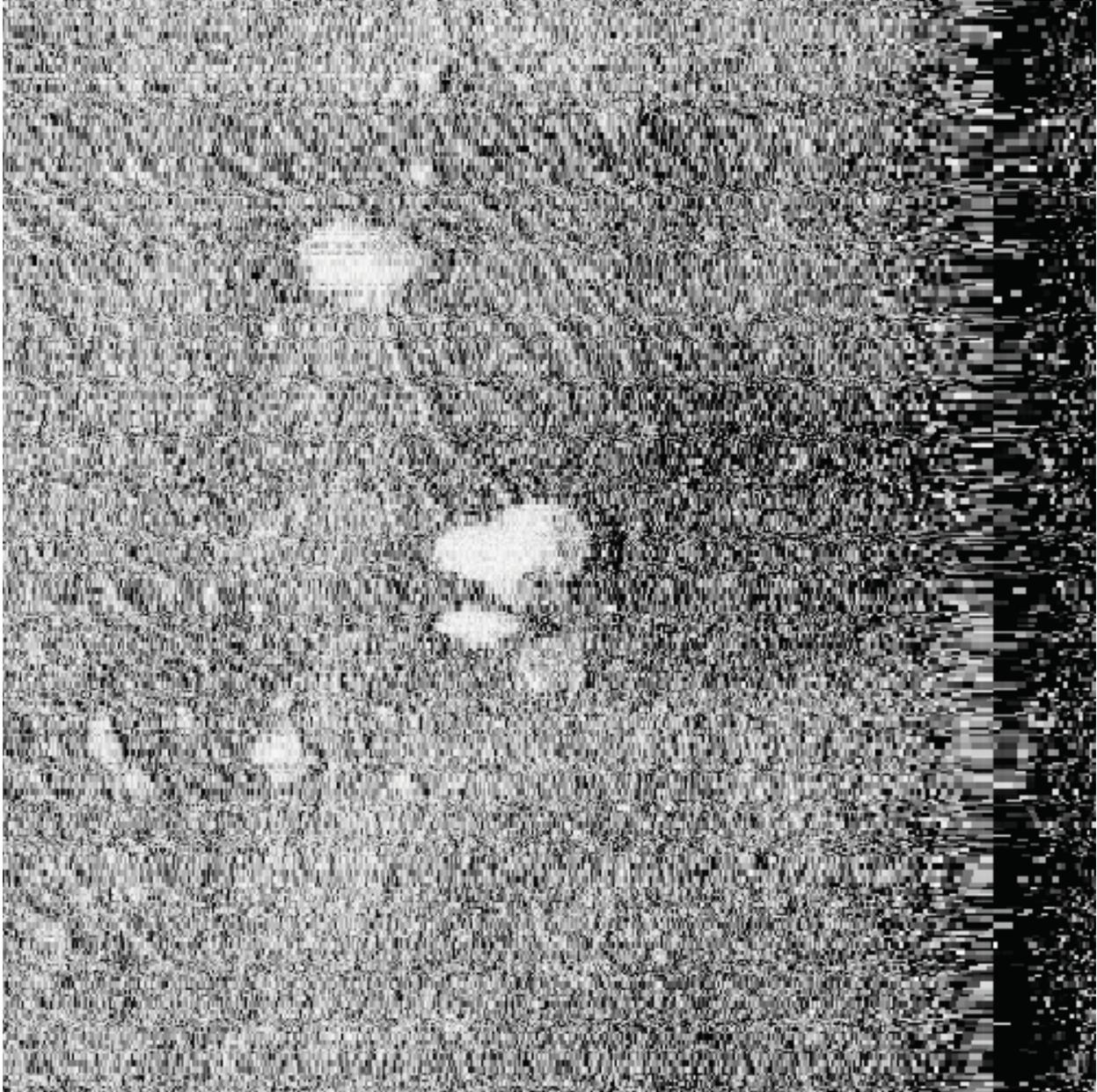


Figure 3.3.2

3.4) AWOIS #7224

Primary Feature for AWOIS Item #7224

Search Position: 41° 21' 37.4" N, 071° 30' 38.2" W
Historical Depth: [None]
Search Radius: 200
Search Technique: MB,S2,ES
Technique Notes: [None]

History Notes:

HISTORY

LNM34/84--AN UNCHARTED SUBMERGED OBJECT HAS BEEN REPORTED IN PA I
 LAT 41-21-37N, LONG 71-30-40W. (ENTERED MSM 3/89)

Survey Summary

Survey Position: 41° 21' 37.8" N, 071° 30' 41.3" W
Least Depth: 6.50 m (= 21.34 ft = 3.557 fm = 3 fm 3.34 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.000 m ; TVU (TPEv) ± 0.286 m
Timestamp: 2009-238.19:01:38.992 (08/26/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-238 / 166_1901
Profile/Beam: 26/369
Charts Affected: 13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

AWOIS #7224 was investigated with 200% Klein 5000 side scan sonar and Reson 7125 object detection multibeam. Soundings were corrected to MLLW with final verified water levels and final TCARI zoning. Two obstructions were found within the search radius.

Feature Correlation

Source	Feature	Range	Azimuth	Status
166_1901	26/369	0.00	000.0	Primary
166_1901	124/108	25.57	271.4	Secondary (grouped)
BlockIslandAWOIS	AWOIS # 7224	72.43	279.8	Secondary

Hydrographer Recommendations

Move obstruction symbol to the more shoal of the multibeam obstructions and update depth.

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: QUASOU - 6:least depth known

SORDAT - 20091014

SORIND - US,US,graph,H12023

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

VALSOU - 6.505 m

WATLEV - 3:always under water/submerged

Feature Images

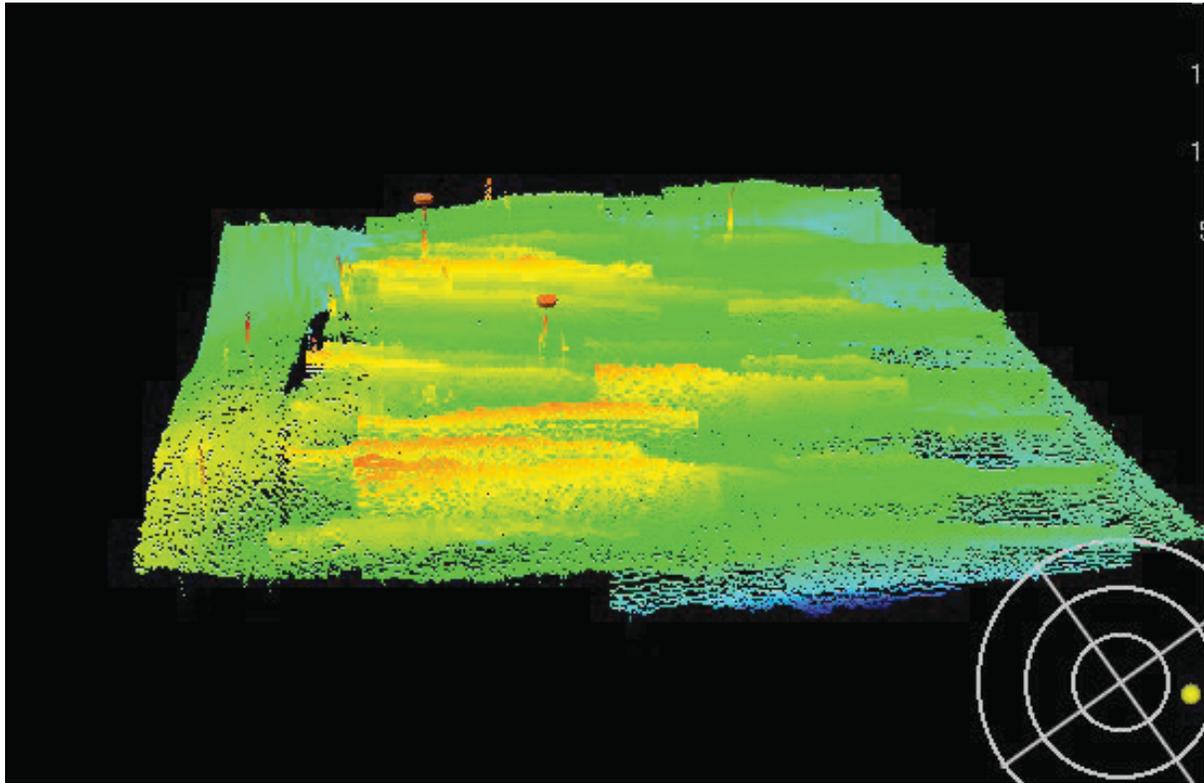


Figure 3.4.1

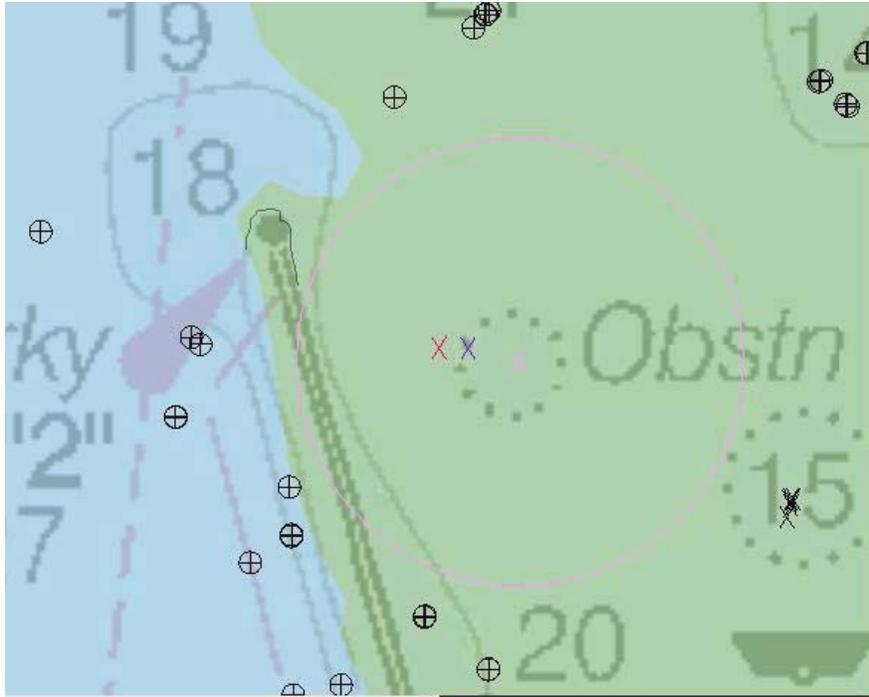


Figure 3.4.2

3.5) AWOIS #7279

Primary Feature for AWOIS Item #7279

Search Position: 41° 21' 20.4" N, 071° 29' 08.2" W
Historical Depth: [None]
Search Radius: 200
Search Technique: MB,S2,ES
Technique Notes: [None]

History Notes:

HISTORY

LN14/85--APPROXIMATELY 600 TONS OF STONE HAS BEEN REPORTED AS
 SUNK IN PA LAT 41-21-20N, LONG 71-29-10W. (ENTERED MSM 4/89)

Survey Summary

Survey Position: 41° 21' 20.1" N, 071° 29' 09.1" W
Least Depth: 8.47 m (= 27.78 ft = 4.630 fm = 4 fm 3.78 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.004 m ; TVU (TPEv) ± 0.296 m
Timestamp: 2009-238.17:43:24.697 (08/26/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-238 / 189_1736
Profile/Beam: 3019/74
Charts Affected: 13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

AWOIS #7279 was investigated with 200% Klein 5000 side scan sonar and Reson 7125 object detection multibeam. Soundings were corrected to MLLW with final verified water levels and final TCARI zoning. The obstruction appears to be a rocky area.

Feature Correlation

Source	Feature	Range	Azimuth	Status
189_1736	3019/74	0.00	000.0	Primary
BlockIslandAWOIS	AWOIS # 7279	22.48	247.9	Secondary

Hydrographer Recommendations

Remove obstruction and chart rocky.

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: QUASOU - 6:least depth known
SORDAT - 20091014
SORIND - US,US,graph,H12023
TECSOU - 2,3:found by side scan sonar,found by multi-beam
VALSOU - 8.468 m
WATLEV - 3:always under water/submerged

Feature Images

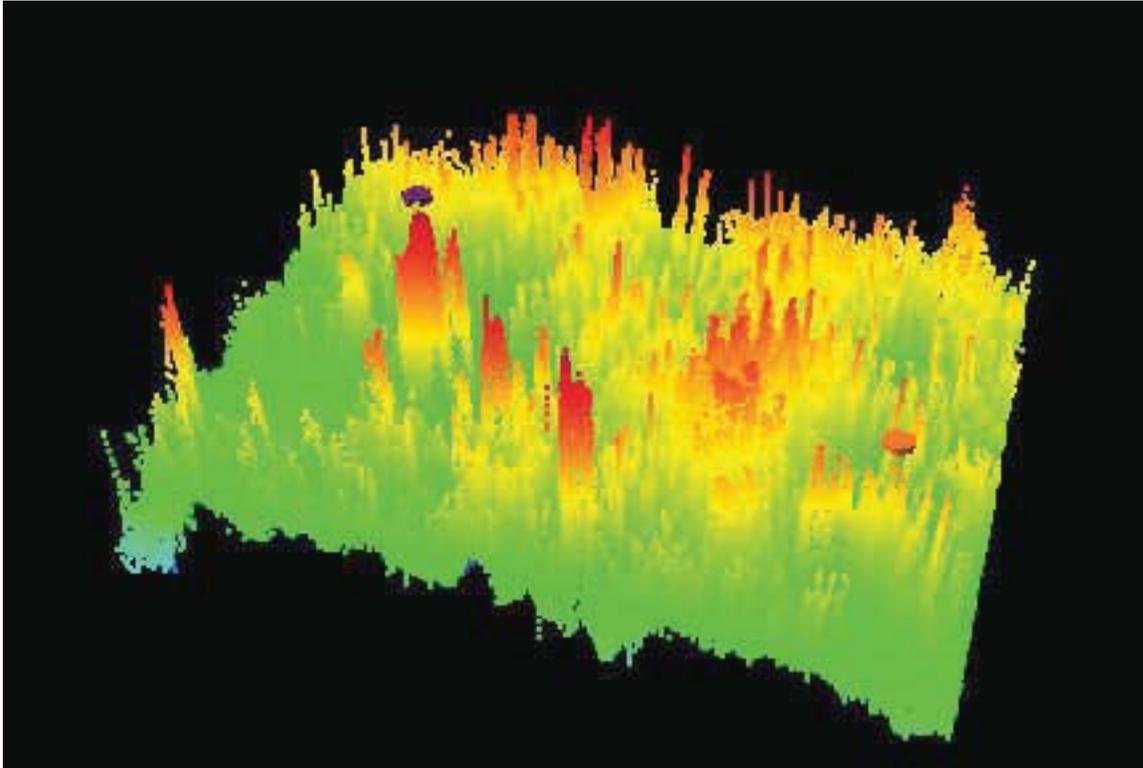


Figure 3.5.1

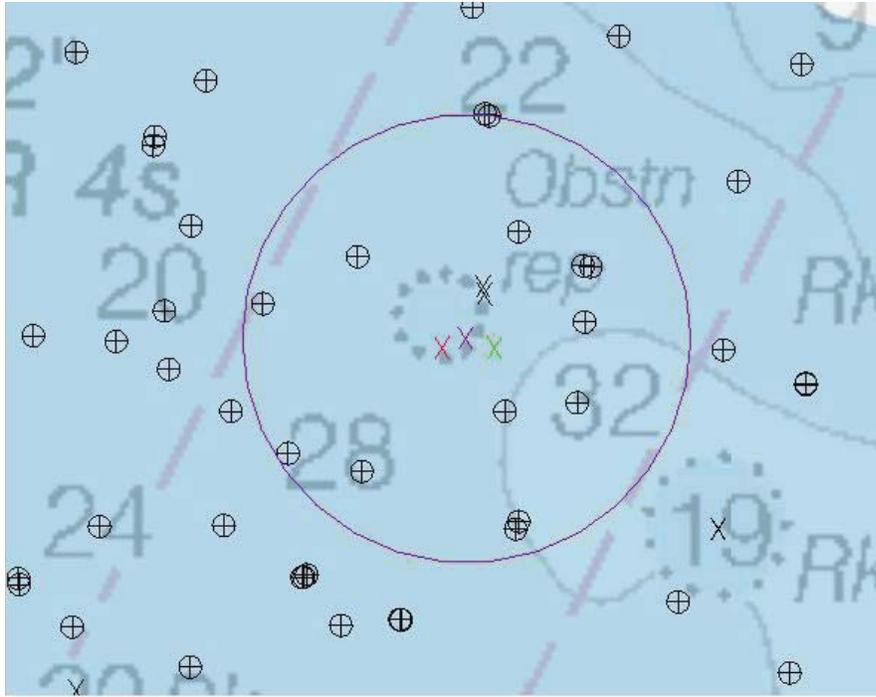


Figure 3.5.2

3.6) AWOIS #14344

Primary Feature for AWOIS Item #14344

Search Position: 41° 21' 19.0" N, 071° 30' 34.0" W
Historical Depth: [None]
Search Radius: 200
Search Technique: MB,S2,ES
Technique Notes: [None]

History Notes:

L-1425/81-- Applied shoal to bare reported in 1981. Derived from Lt. Millett's 1981 Field Inspection of Coast Pilot 2.

LNM 12/82-- Authority of NOS, added dotted danger curve, rectangular in shape, 100yds by 50yds, oriented on a bearing of 135 degrees and 315 degrees centered at position 41/21/19N and 71/30/34W and labeled SHL to bare rep (1981) PA. (Entered 9/08, EAN)

Survey Summary

Survey Position: 41° 21' 21.5" N, 071° 30' 32.0" W
Least Depth: 0.57 m (= 1.88 ft = 0.313 fm = 0 fm 1.88 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 0.999 m ; TVU (TPEv) ± 0.283 m
Timestamp: 2009-239.19:48:32.367 (08/27/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-239 / 537_1948
Profile/Beam: 359/508
Charts Affected: 13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

The present survey confirms that shoaling is occurring in this area.

Feature Correlation

Source	Feature	Range	Azimuth	Status
537_1948	359/508	0.00	000.0	Primary
BlockIslandAWOIS	AWOIS # 14344	91.18	031.3	Secondary

Hydrographer Recommendations

Update the chart with current survey soundings.

S-57 Data

[None]

Feature Images

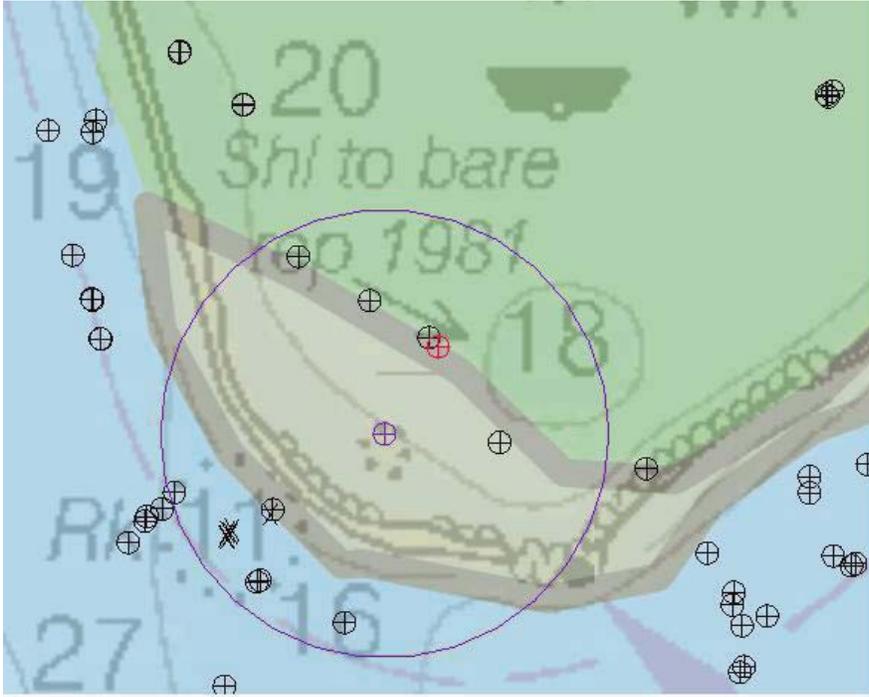


Figure 3.6.1

3.7) AWOIS #9985

Primary Feature for AWOIS Item #9985

Search Position: 41° 19' 52.0" N, 071° 29' 40.4" W
Historical Depth: 14.40 m
Search Radius: 50
Search Technique: S2, MB
Technique Notes: [None]

History Notes:

HISTORY

H-10424/91--OPR-B660-RU; AN UNKNOWN OBSTRUCTION WAS LOCATED IN I
 41-19-52.01, 71-29-40.45 WITH AN ECHO SOUNDER LEAST DEPTH 14.4M. I
 10/97 MCR

Survey Summary

Survey Position: 41° 19' 52.1" N, 071° 29' 40.4" W
Least Depth: 14.11 m (= 46.29 ft = 7.715 fm = 7 fm 4.29 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.010 m ; TVU (TPEv) ± 0.314 m
Timestamp: 2009-268.18:49:51.565 (09/25/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-268 / 039_1847
Profile/Beam: 1104/70
Charts Affected: 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

AWOIS #9985 was investigated with 200% Klein 5000 side scan sonar and Reson 7125 object detection multibeam. Soundings were corrected to MLLW with final verified water levels and final TCARI zoning. The obstruction appears to be a rock.

Feature Correlation

Source	Feature	Range	Azimuth	Status
039_1847	1104/70	0.00	000.0	Primary
509_090825145700	0002	0.73	025.7	Secondary
509_090824212300	0001	1.61	261.4	Secondary
BlockIslandAWOIS	AWOIS # 9985	1.74	012.5	Secondary

Hydrographer Recommendations

Change obstruction to rock and update depth.

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: QUASOU - 6:least depth known
SORDAT - 20091014
SORIND - US,US,graph,H12023
TECSOU - 2,3:found by side scan sonar,found by multi-beam
VALSOU - 14.110 m
WATLEV - 3:always under water/submerged

Feature Images

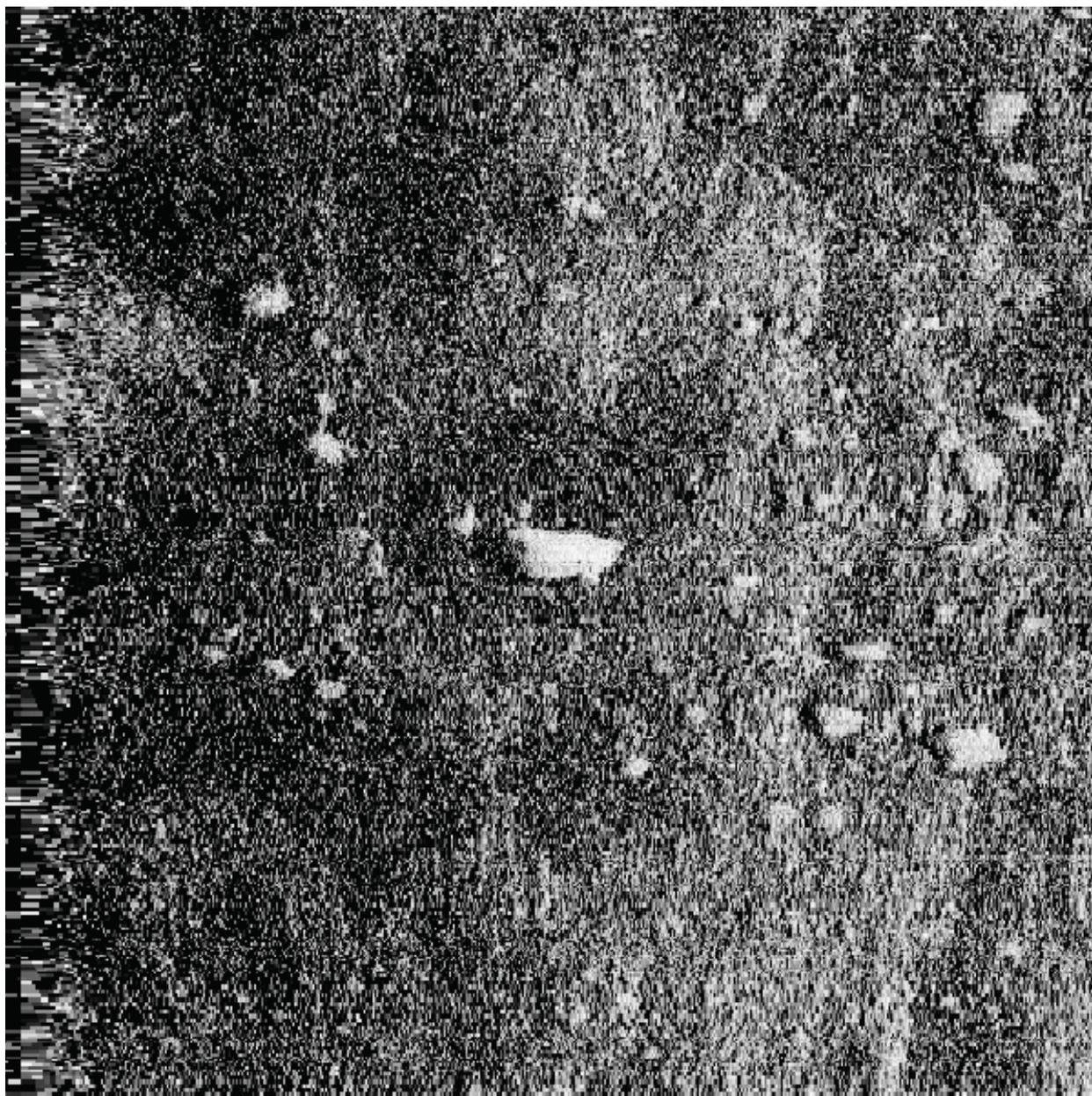


Figure 3.7.1

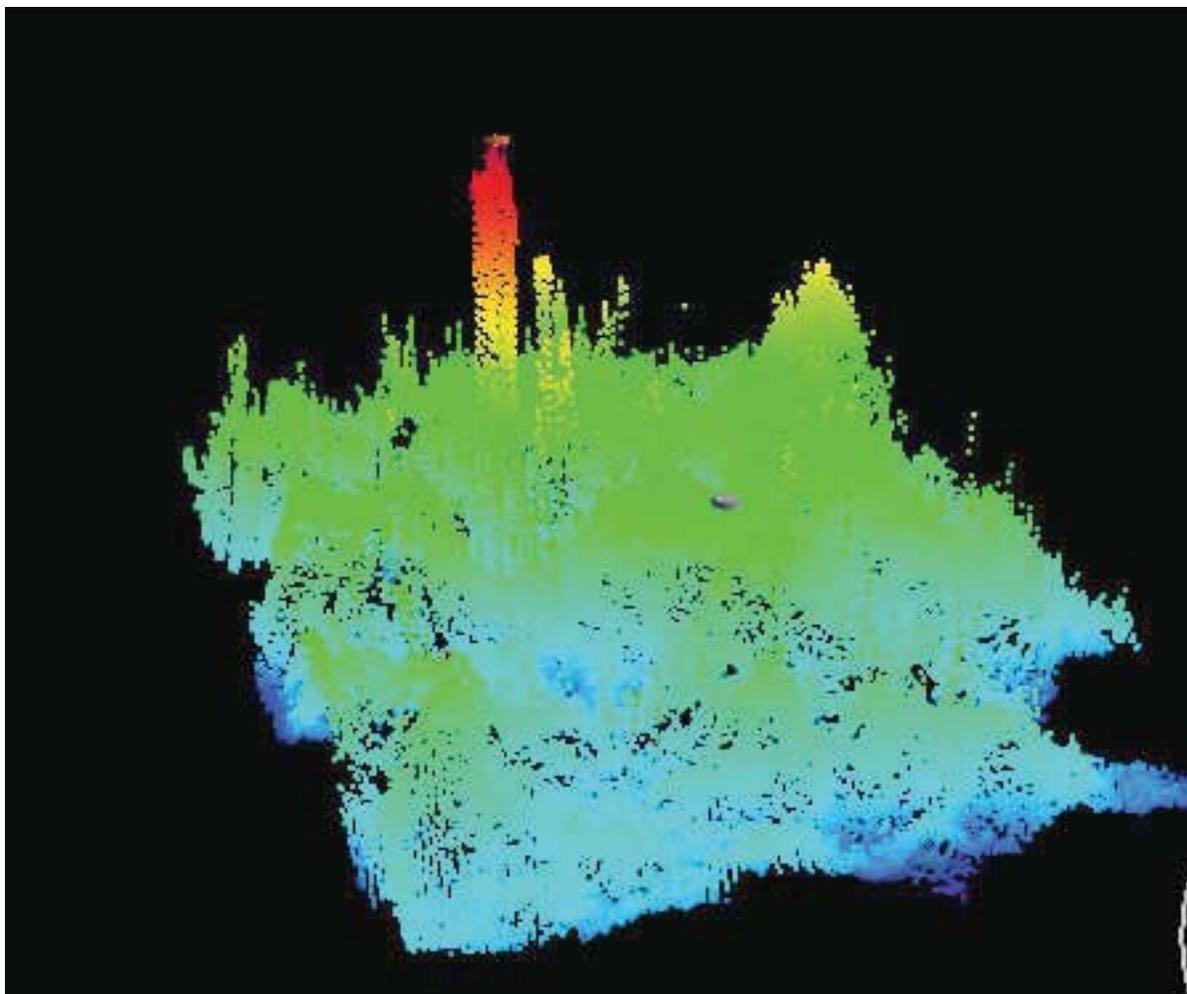


Figure 3.7.2

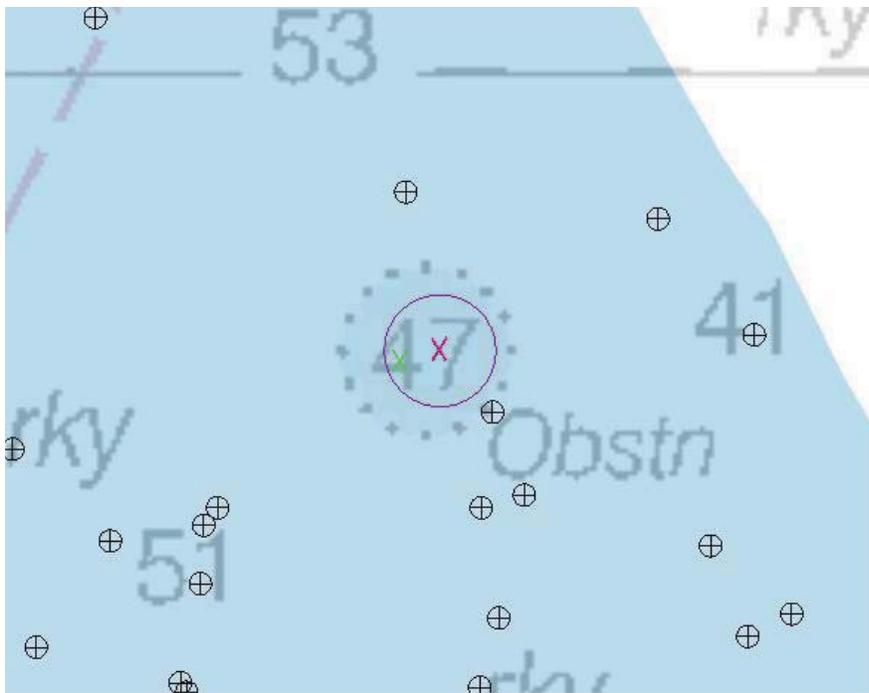


Figure 3.7.3

3.8) AWOIS #9986

Primary Feature for AWOIS Item #9986

Search Position: 41° 19' 51.0" N, 071° 30' 20.3" W
Historical Depth: 14.50 m
Search Radius: 50
Search Technique: S2, MB
Technique Notes: [None]

History Notes:

HISTORY

H-10424/91--OPR-B660-RU; AN UNKNOWN OBSTRUCTION WAS LOCATED IN ì
 POS. 41-19-51.02, 71-30-20.29 WITH AN ECHO SOUNDER LEAST DEPTH OF ì
 14.5M. 10/97 MCR

Survey Summary

Survey Position: 41° 19' 50.9" N, 071° 30' 20.4" W
Least Depth: 14.48 m (= 47.50 ft = 7.917 fm = 7 fm 5.50 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.002 m ; TVU (TPEv) ± 0.293 m
Timestamp: 2009-269.13:18:10.692 (09/26/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-269 / 703_1316
Profile/Beam: 866/340
Charts Affected: 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

AWOIS #9986 was investigated with 200% Klein 5000 side scan sonar and Reson 7125 object detection multibeam. Soundings were corrected to MLLW with final verified water levels and final TCARI zoning. Rocks were found.

Feature Correlation

Source	Feature	Range	Azimuth	Status
703_1316	866/340	0.00	000.0	Primary
505_090824192600	0002	2.32	232.7	Secondary
505_090824190400	0018	2.52	187.1	Secondary
BlockIslandAWOIS	AWOIS # 9986	3.22	207.3	Secondary

505_090825174600	0006	3.95	334.2	Secondary
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Hydrographer Recommendations

Chart rock

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)

Attributes: QUASOU - 6:least depth known

SORDAT - 20091014

SORIND - US,US,graph,H12023

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

VALSOU - 14.478 m

WATLEV - 3:always under water/submerged

Feature Images

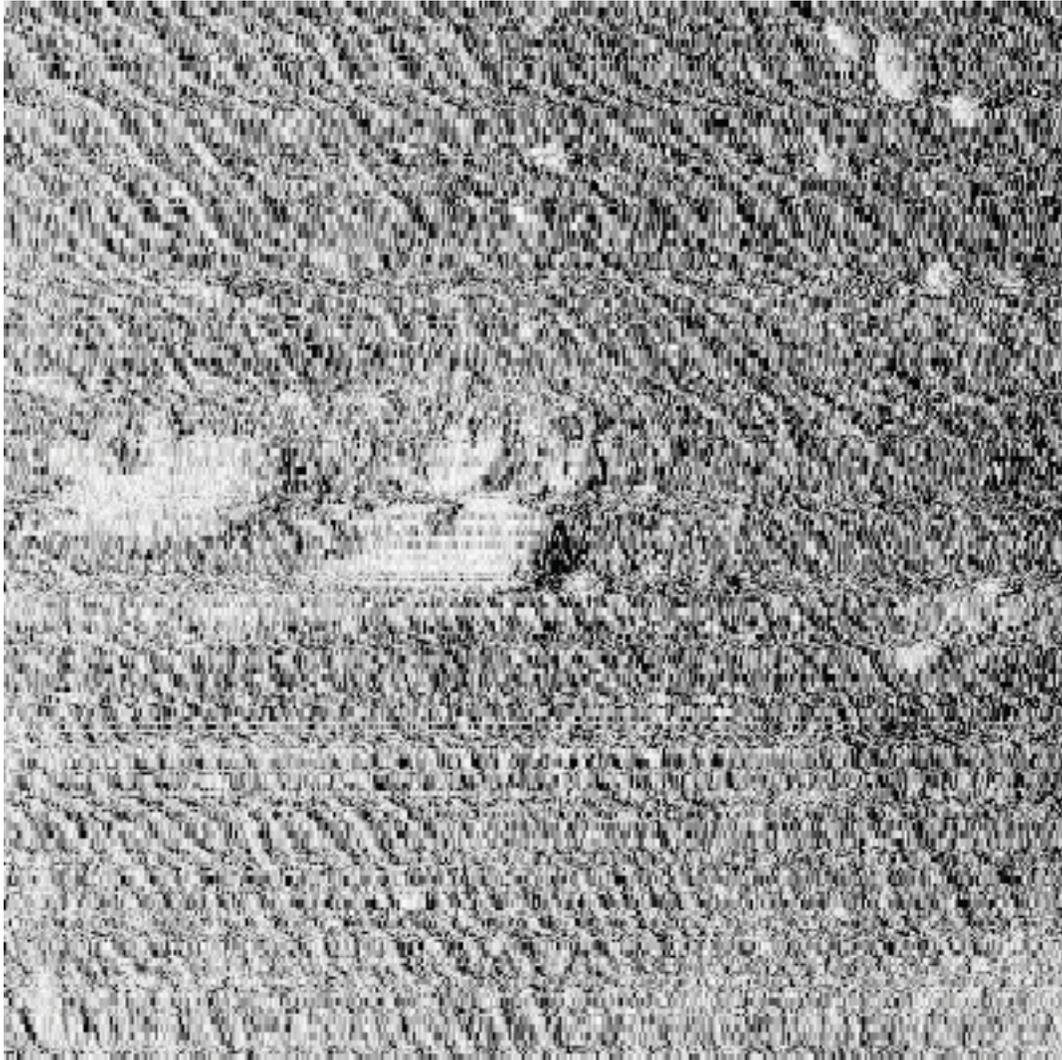


Figure 3.8.1

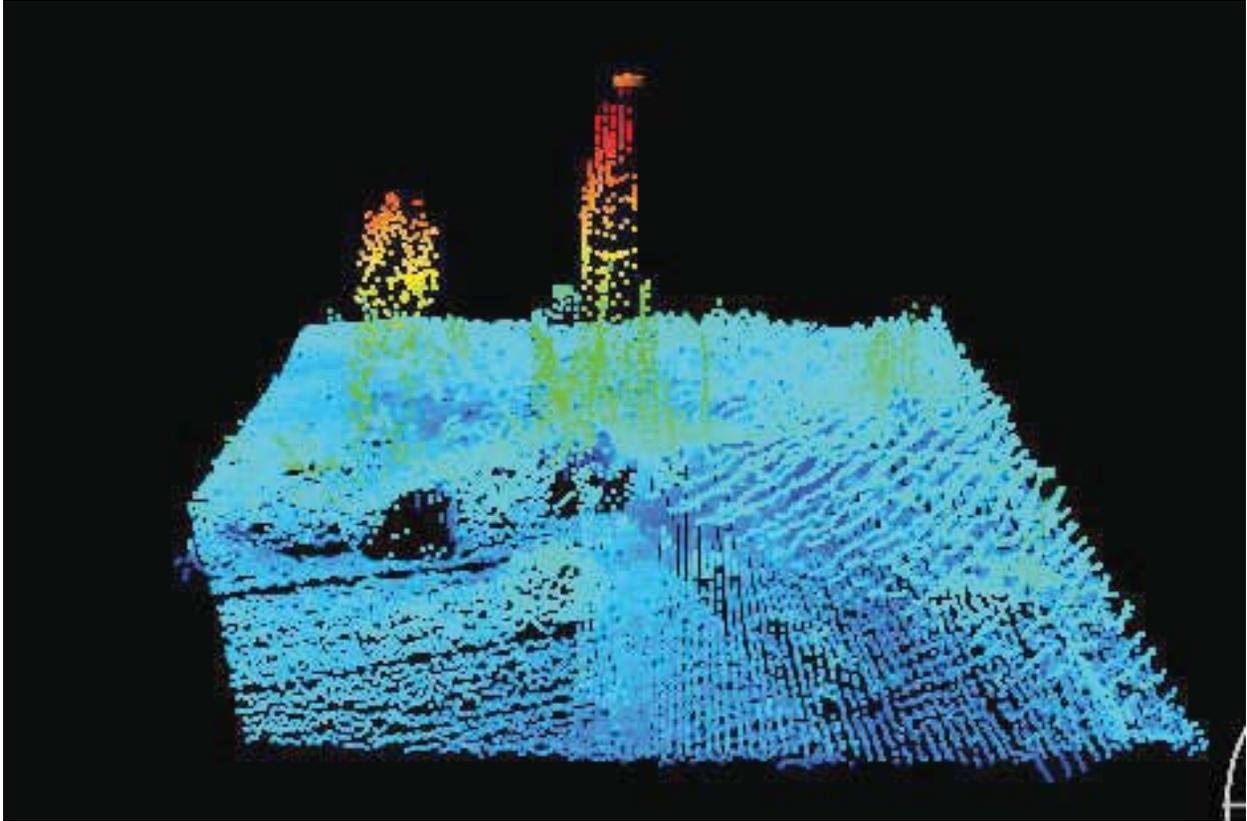


Figure 3.8.2

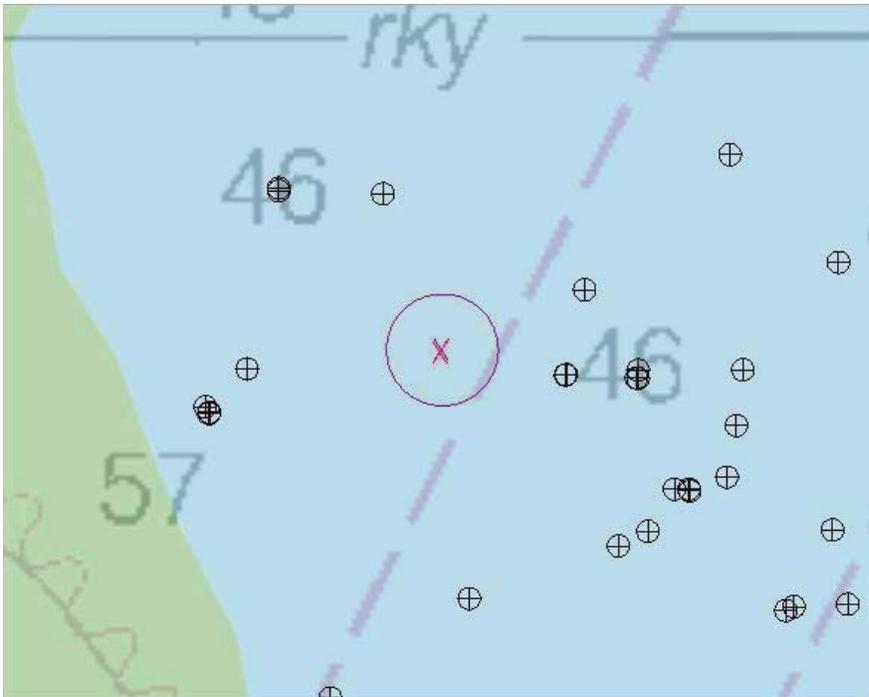


Figure 3.8.3

3.9) AWOIS #9987

Primary Feature for AWOIS Item #9987

Search Position: 41° 20' 22.9" N, 071° 30' 28.0" W
Historical Depth: 12.70 m
Search Radius: 50
Search Technique: S2, MB
Technique Notes: [None]

History Notes:

HISTORY

H-10424/91--OPR-B660-RU; AN UNKNOWN OBSTRUCTION WAS LOCATED IN I
 41-20-22.89, 71-30-27.97 WITH AN ECHO-SOUNDER LEAST DEPTH OF I
 12.7M. 10/97 MCR

Survey Summary

Survey Position: 41° 20' 24.8" N, 071° 30' 29.2" W
Least Depth: 11.68 m (= 38.33 ft = 6.388 fm = 6 fm 2.33 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.009 m ; TVU (TPEv) ± 0.317 m
Timestamp: 2009-269.12:47:38.182 (09/26/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-269 / 707_1238
Profile/Beam: 8245/475
Charts Affected: 13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

AWOIS #9987 was found with 200% Klein 5000 side scan sonar and Reson 7125 multibeam. Soundings were corrected to MLLW with final verified water levels and final TCARI zoning. The AWOIS radius appears to mis-positioned.

Feature Correlation

Source	Feature	Range	Azimuth	Status
707_1238	8245/475	0.00	000.0	Primary
509_090824212300	0004	10.72	144.9	Secondary
509_090825145700	0005	14.17	320.2	Secondary
BlockIslandAWOIS	AWOIS # 9987	65.83	333.3	Secondary (grouped)

Hydrographer Recommendations

Retain as charted.

S-57 Data

[None]

Feature Images

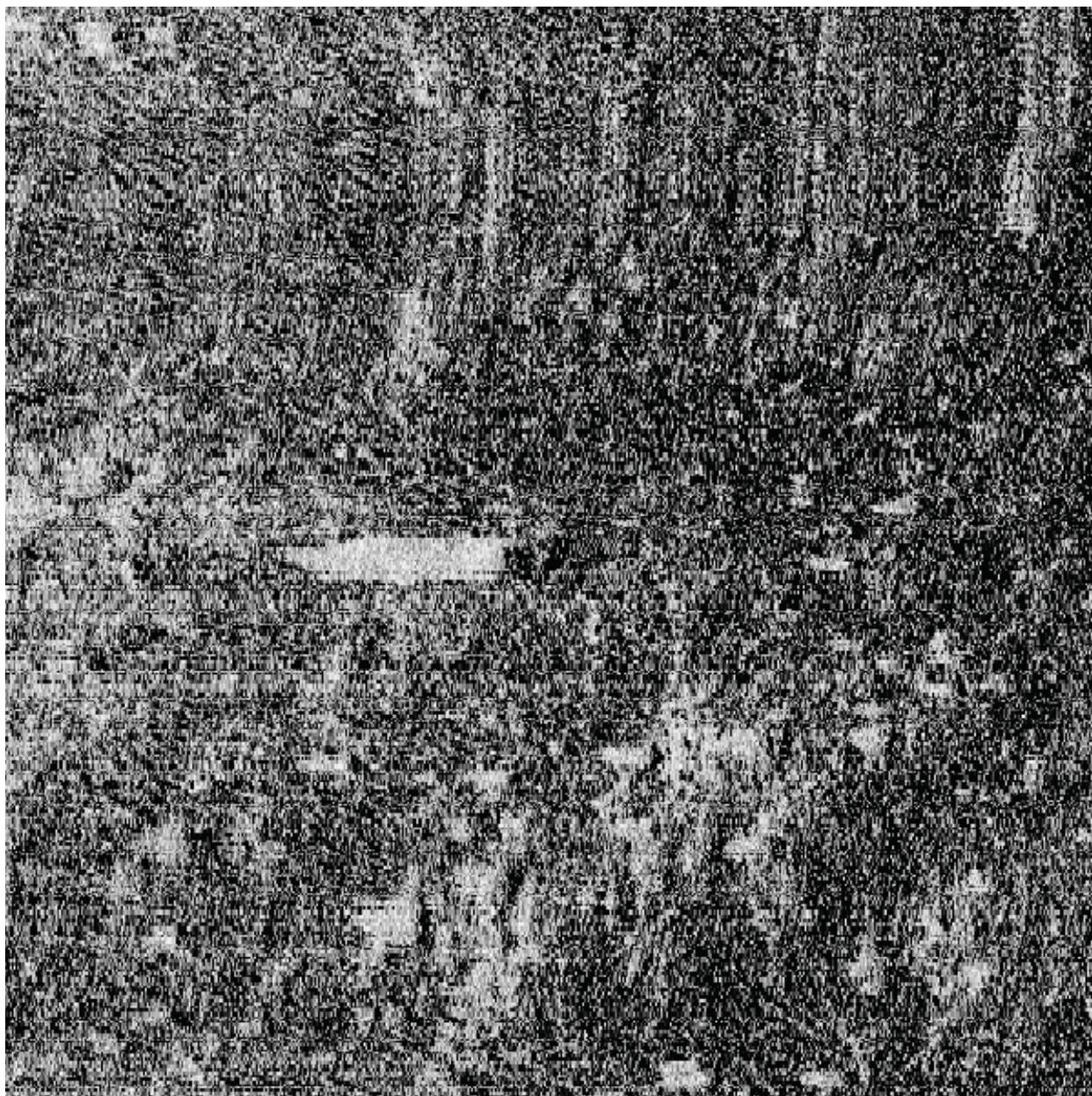


Figure 3.9.1

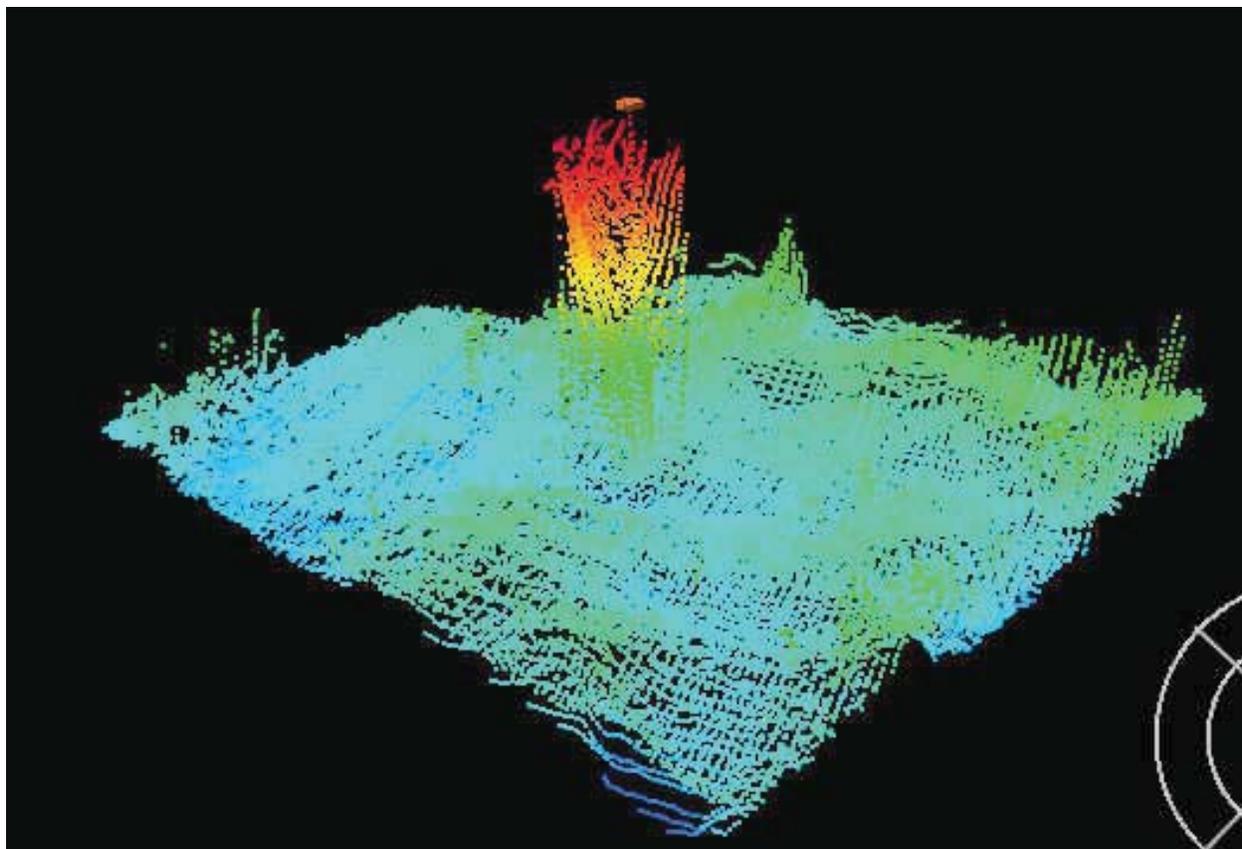


Figure 3.9.2

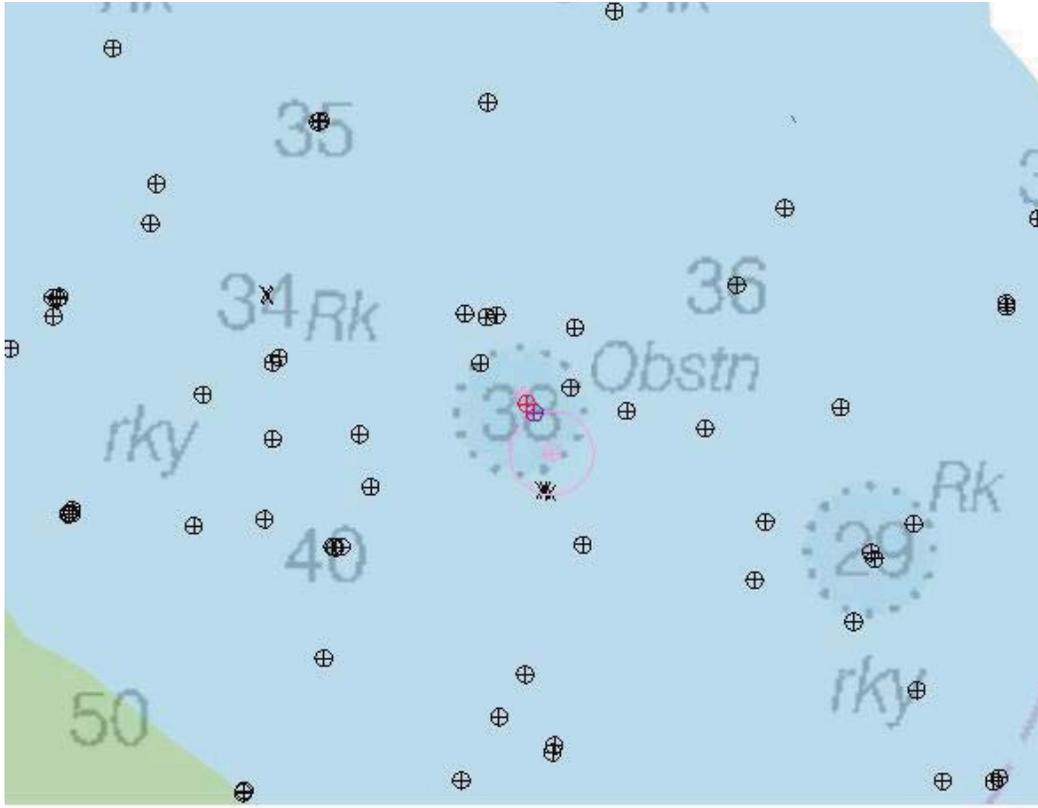


Figure 3.9.3

3.10) AWOIS #7480

Primary Feature for AWOIS Item #7480

Search Position: 41° 19' 51.2" N, 071° 31' 54.8" W
Historical Depth: [None]
Search Radius: 50
Search Technique: S2,DI,ES,##
Technique Notes: [None]

History Notes:

SURVEY REQUIREMENT COMMENTS

CONDUCT INVESTIGATION AROUND LORAN RATES RATHER THAN GEOGRAPHIC POSITION.

HISTORY

H-10424/91-92--OPR-B660-RU; WRECK WAS LOCATED BY SIDE SCAN SONAR AND INVESTIGATED BY DIVERS. WRECK WAS LOCATED APPROX. 200 METERS FROM LISTED POSITION PROVIDED BY MR. TIM COLEMAN. LEAST DEPTH ON THE WRECK WAS 19.5M (64FT) IN POS. LAT.41-19-51.19N, LONG.71-31-54.84W. RECOMMEND TO CHART AS A DANGEROUS SUBM WRECK. (UPDATED 8/93 MCR)

Survey Summary

Survey Position: 41° 19' 51.4" N, 071° 31' 55.0" W
Least Depth: 19.75 m (= 64.81 ft = 10.801 fm = 10 fm 4.81 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.000 m ; TVU (TPEv) ± 0.405 m
Timestamp: 2009-237.17:08:23.565 (08/25/2009)
Survey Line: h12023 / tj_s222_reson7125_stbd / 2009-237 / 144_1657
Profile/Beam: 6112/267
Charts Affected: 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

AWOIS #7480 was investigated with 200% Klein 5000 side scan sonar and Reson 7125 object detection multibeam. Soundings were corrected to MLLW with final verified water levels and final TCARI zoning. The wreck was found.

Feature Correlation

Source	Feature	Range	Azimuth	Status
144_1657	6112/267	0.00	000.0	Primary
BlockIslandAWOIS	AWOIS # 7480	8.28	336.3	Secondary
286_090831152600	0001	8.92	348.4	Secondary
123_090831153100	0001	10.98	071.6	Secondary
286_090831152600	0002	14.94	357.5	Secondary
123_1649	178/412	38.52	083.4	Secondary
286_090831152600	0001	41.02	081.3	Secondary

Hydrographer Recommendations

Retain charted wreck

S-57 Data

Geo object 1: Wreck (WRECKS)

Attributes: CATWRK - 2:dangerous wreck
 CONVIS - 2:not visual conspicuous
 QUASOU - 6:least depth known
 SORDAT - 20091014
 SORIND - US,US,graph,H12023
 TECSOU - 2,3:found by side scan sonar,found by multi-beam
 VALSOU - 19.753 m

Feature Images

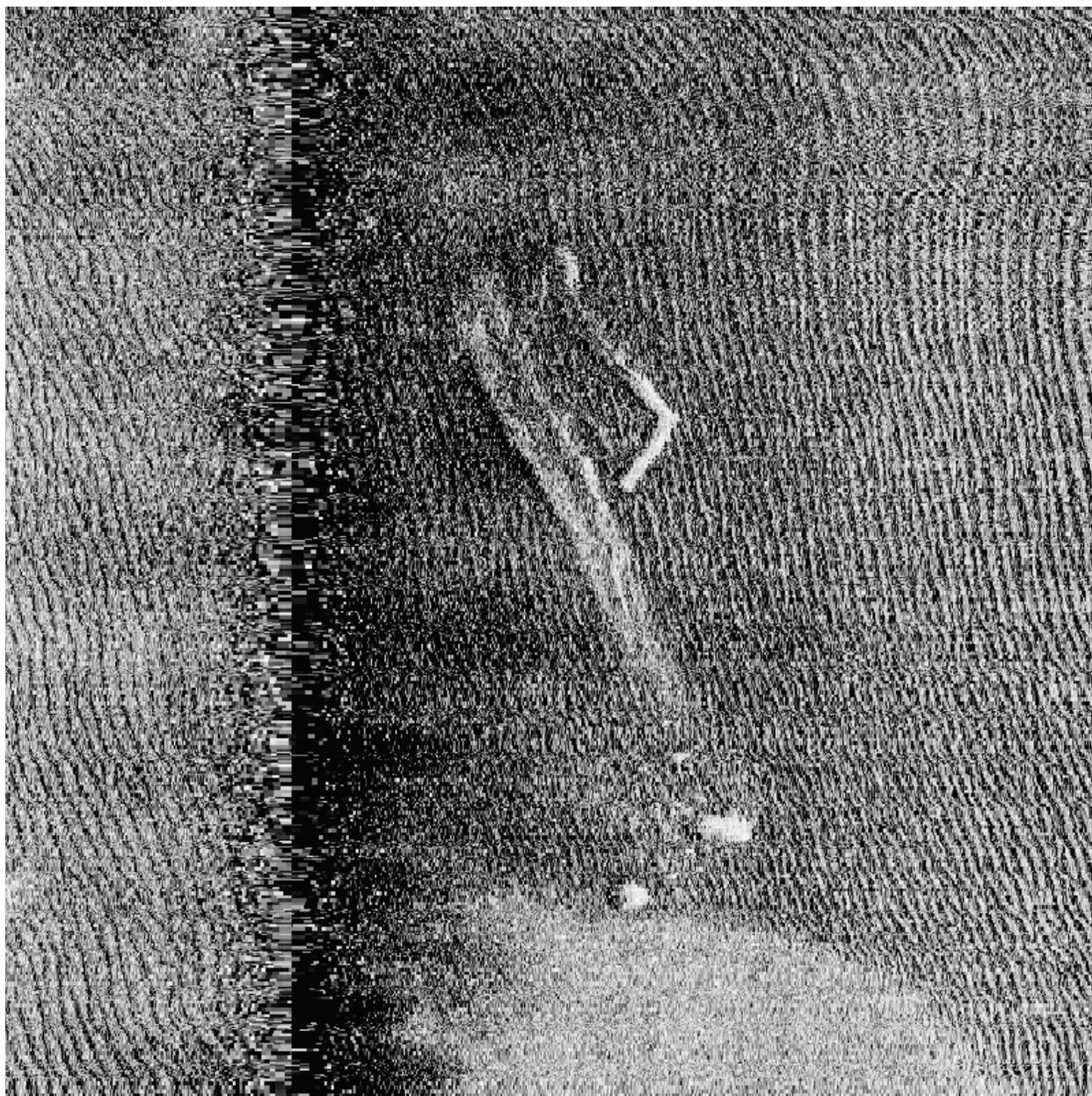


Figure 3.10.1

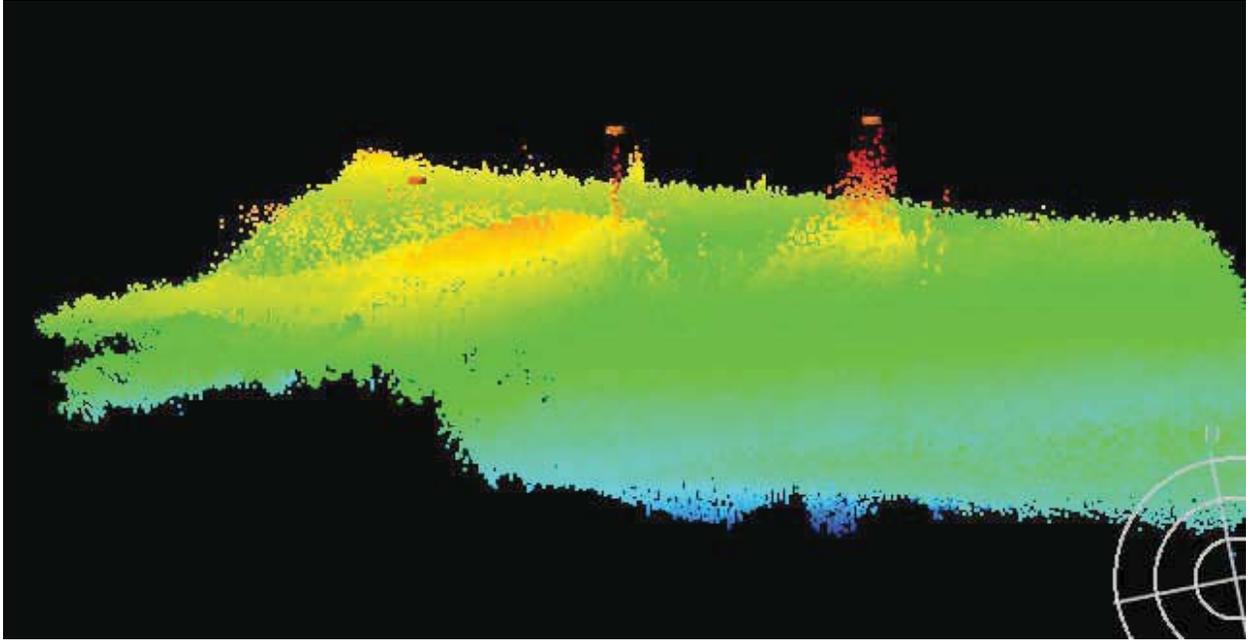


Figure 3.10.2



Figure 3.10.3

3.11) AWOIS #1873

Primary Feature for AWOIS Item #1873

Search Position: 41° 19' 47.2" N, 071° 32' 20.8" W
Historical Depth: [None]
Search Radius: 50
Search Technique: S2,DI,ES,SD,##
Technique Notes: [None]

History Notes:

SURVEY REQUIREMENT COMMENTS

CONDUCT DIVER INVESTIGATION TO IDENTIFY SSS CONTACT 718.20P IN POS. 1
LAT.41-19-47.05N, LONG.71-32-20.95W (NAD 83) FROM HYDRO. SURVEY H-10424. 1
DETERMINE LEAST DEPTH.

HISTORY

NM48/27--BUOY ESTABLISHED IN 11 1/2 FMS. OF WATER TO MARK WRECK OF A BARGE; 1
STANDING ON END WITH 8 FT. OF BOW SHOWING ABOVE WATER.
NM51/27--BUOY DISCONTINUED; WRECK HAS DISAPPEARED. WRECK NOT 1
CHARTED. (ENTERED MSM 3/89)

H-10424/91-92--OPR-B660-RU; SIDE SCAN SONAR IMAGE OF BARGE 1
DETECTED DURING OFFICE PROCESSING. FOLLOW UP INVEST. BY THE 1
HYDROGRAPHER LOCATED THE BARGE WITH SSS AND A DIVER INVEST. WAS 1
PERFORMED. WRECK IS SANDED IN AND EXPOSED BY 8 IN. OFF THE 1
BOTTOM; 40M LONG AND 10M IN LENGTH, LYING IN AN EAST/WEST 1
DIRECTION; FISHING NET WAS SNAGGED ON THE WRECK; SOME COAL WAS 1
FOUND NEARBY. LEAST DEPTH ON BARGE WAS 21.6M (71 FT) MLLW IN POS. 1
LAT.41-19-47.16N, LONG.71-32-20.8W (NAD 83). RECOMMEND TO CHART 1
NON-DANGEROUS WRECK. (UPDATED 8/93 MCR)

DESCRIPTION

24 NO.1261; SUNK 1927; POSITION ACCURACY WITHIN 1 MILE; SUBSEQUENTLY FAILED 1
TO LOCATE

Survey Summary

Survey Position: 41° 19' 47.4" N, 071° 32' 20.7" W
Least Depth: 21.29 m (= 69.86 ft = 11.643 fm = 11 fm 3.86 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.001 m ; **TVU (TPEv)** ± 0.406 m
Timestamp: 2009-237.16:16:19.408 (08/25/2009)
Survey Line: h12023 / tj_s222_reson7125_stbd / 2009-237 / 146_1603
Profile/Beam: 6375/275
Charts Affected: 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

AWOIS #1873 was investigated with 200% Klein 5000 side scan sonar and Reson 7125 object detection multibeam. Soundings were corrected to MLLW with final verified water levels and final TCARI zoning. The remains of the wreck were found.

Feature Correlation

Source	Feature	Range	Azimuth	Status
146_1603	6375/275	0.00	000.0	Primary
122_090831151200	0001	3.74	122.7	Secondary
285_090831151000	0001	5.55	054.7	Secondary
BlockIslandAWOIS	AWOIS # 1873	7.67	009.2	Secondary
285_090831151000	0001	8.34	058.4	Secondary

Hydrographer Recommendations

Retain wreck and update depth.

S-57 Data

Geo object 1: Wreck (WRECKS)
Attributes: CATWRK - 3:distributed remains of wreck
 CONVIS - 2:not visual conspicuous
 QUASOU - 6:least depth known
 SORDAT - 20091014
 SORIND - US,US,graph,H12023
 TECSOU - 2,3:found by side scan sonar,found by multi-beam
 VALSOU - 21.292 m

Feature Images

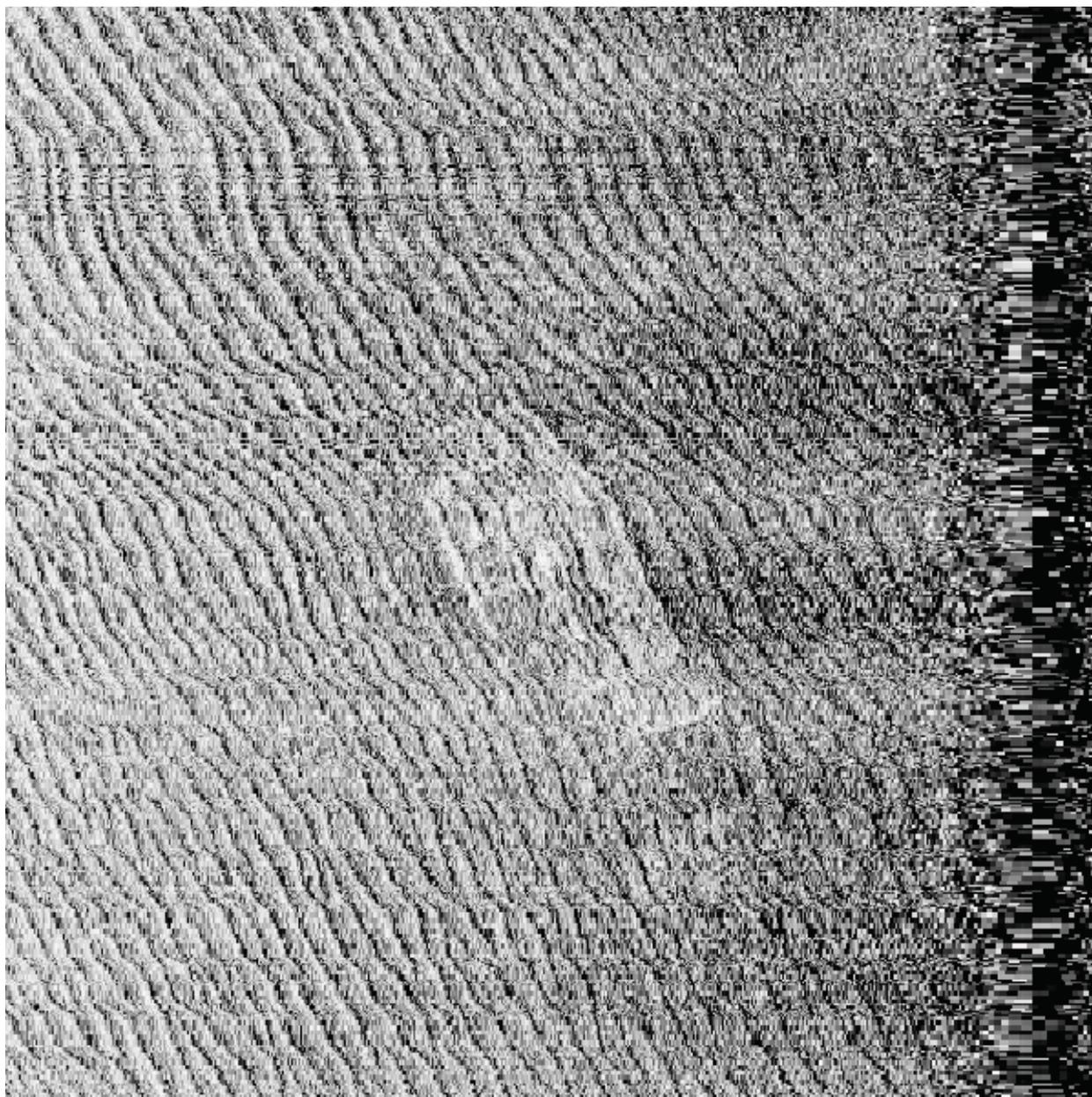


Figure 3.11.1

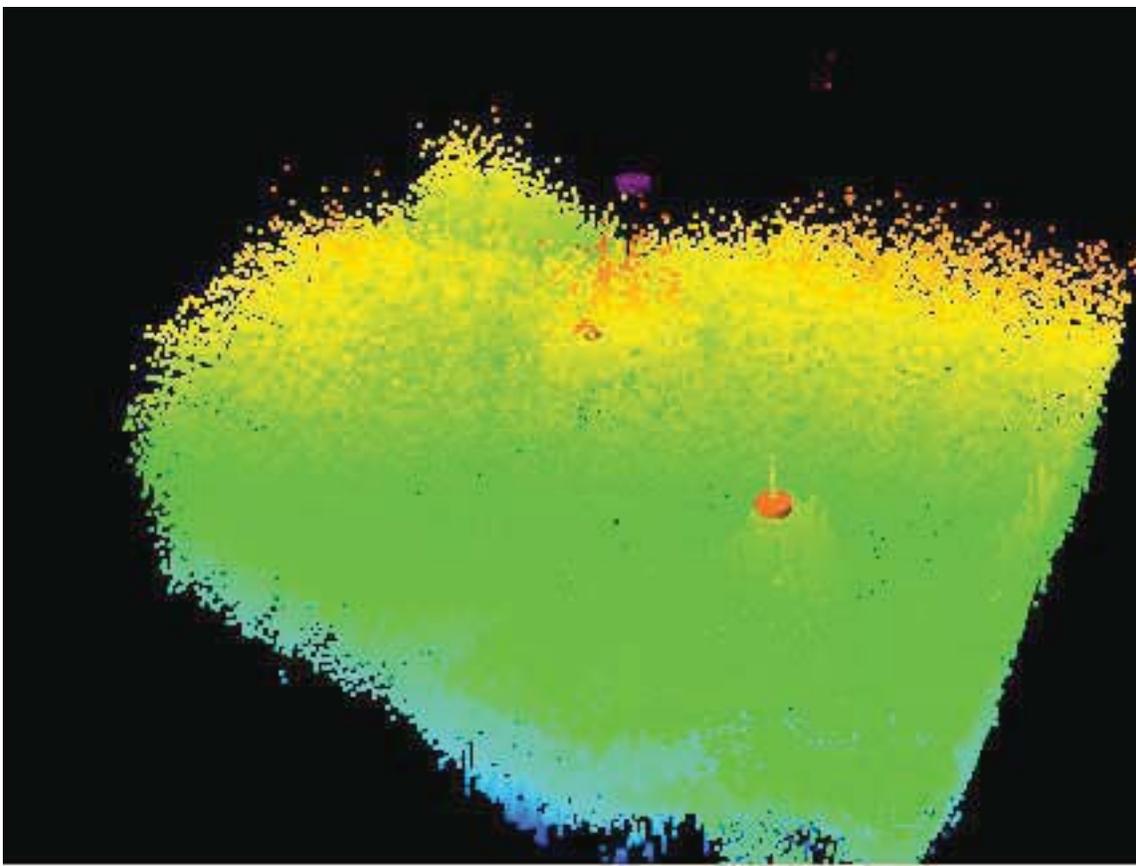


Figure 3.11.2

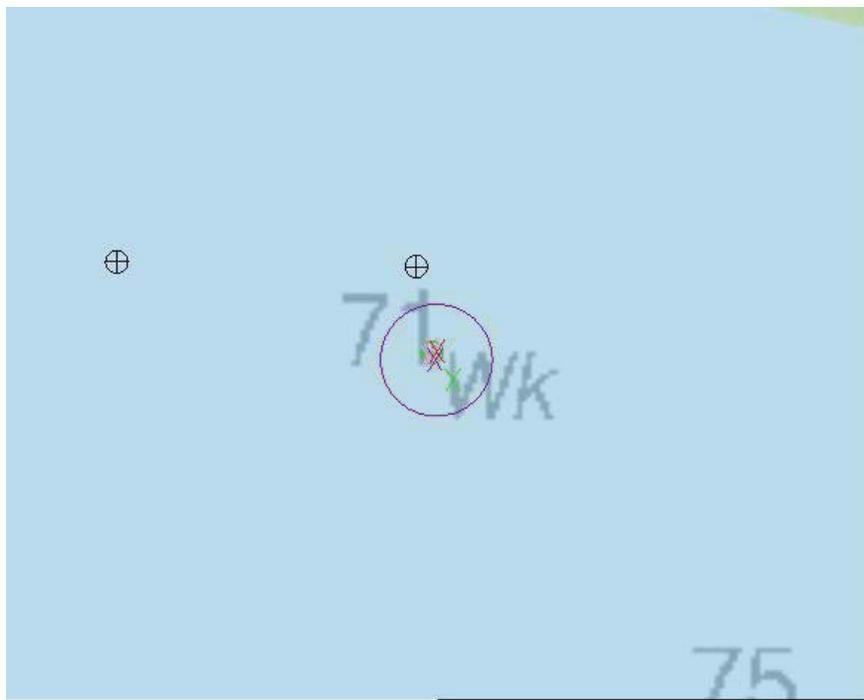


Figure 3.11.3

3.12) AWOIS #14483

Primary Feature for AWOIS Item #14483

Search Position: 41° 21' 54.4" N, 071° 35' 37.2" W
Historical Depth: [None]
Search Radius: 50
Search Technique: [None]
Technique Notes: UPDATE POSITION AND HEIGHT IN SUPPORT OF MARITIME BOUNDARY CLAIM.

History Notes:

[None]

Survey Summary

Survey Position: 41° 21' 54.4" N, 071° 35' 37.2" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2011-092.21:31:25 (04/02/2011)
GP Dataset: ChartGPs - Digitized
GP No.: 1
Charts Affected: 13215_1, 13205_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

Due to not having a shallow draft manueverable boat this AWOIS item was not investigated.

Feature Correlation

Source	Feature	Range	Azimuth	Status
ChartGPs - Digitized	1	0.00	000.0	Primary
BlockIslandAWOIS	AWOIS # 14483	0.57	171.0	Secondary (grouped)

Hydrographer Recommendations

Retain as Charted.

S-57 Data

[None]

Feature Images

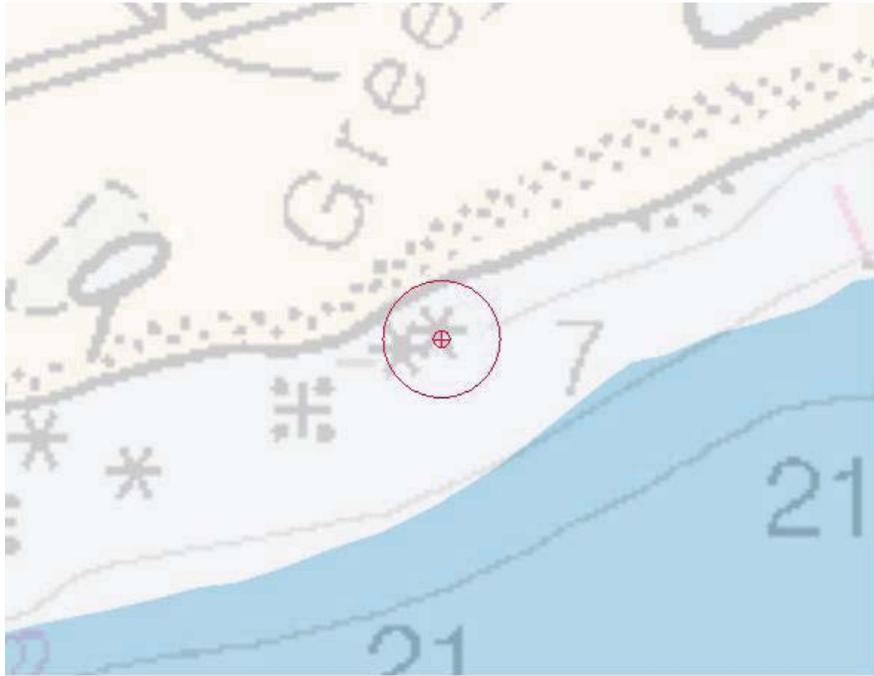


Figure 3.12.1

3.13) AWOIS #14485

Primary Feature for AWOIS Item #14485

Search Position: 41° 21' 50.4" N, 071° 35' 48.3" W
Historical Depth: [None]
Search Radius: 50
Search Technique: [None]
Technique Notes: UPDATE POSITION AND HEIGHT IN SUPPORT OF MARITIME BOUNDARY CLAIM.

History Notes:

[None]

Survey Summary

Survey Position: 41° 21' 50.4" N, 071° 35' 48.4" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2011-092.21:34:09 (04/02/2011)
GP Dataset: ChartGPs - Digitized
GP No.: 2
Charts Affected: 13215_1, 13205_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

Due to not having a shallow draft manueverable boat this AWOIS item was not investigated.

Feature Correlation

Source	Feature	Range	Azimuth	Status
ChartGPs - Digitized	2	0.00	000.0	Primary
BlockIslandAWOIS	AWOIS # 14485	2.32	250.2	Secondary (grouped)

Hydrographer Recommendations

Retain as charted.

S-57 Data

[None]

Feature Images



Figure 3.13.1

3.14) AWOIS #14482

Primary Feature for AWOIS Item #14482

Search Position: 41° 21' 32.8" N, 071° 28' 49.0" W
Historical Depth: [None]
Search Radius: 50
Search Technique: [None]
Technique Notes: UPDATE POSITION AND HEIGHT IN SUPPORT OF MARITIME BOUNDARY CLAIM.

History Notes:

[None]

Survey Summary

Survey Position: 41° 21' 32.8" N, 071° 28' 49.1" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2011-092.21:35:39 (04/02/2011)
GP Dataset: ChartGPs - Digitized
GP No.: 3
Charts Affected: 13219_1, 13215_1, 13221_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

Due to not having a shallow draft manueverable boat this AWOIS item was not investigated.

Feature Correlation

Source	Feature	Range	Azimuth	Status
ChartGPs - Digitized	3	0.00	000.0	Primary
BlockIslandAWOIS	AWOIS # 14482	2.15	245.9	Secondary (grouped)

Hydrographer Recommendations

Retain as Charted.

S-57 Data

[None]

Feature Images

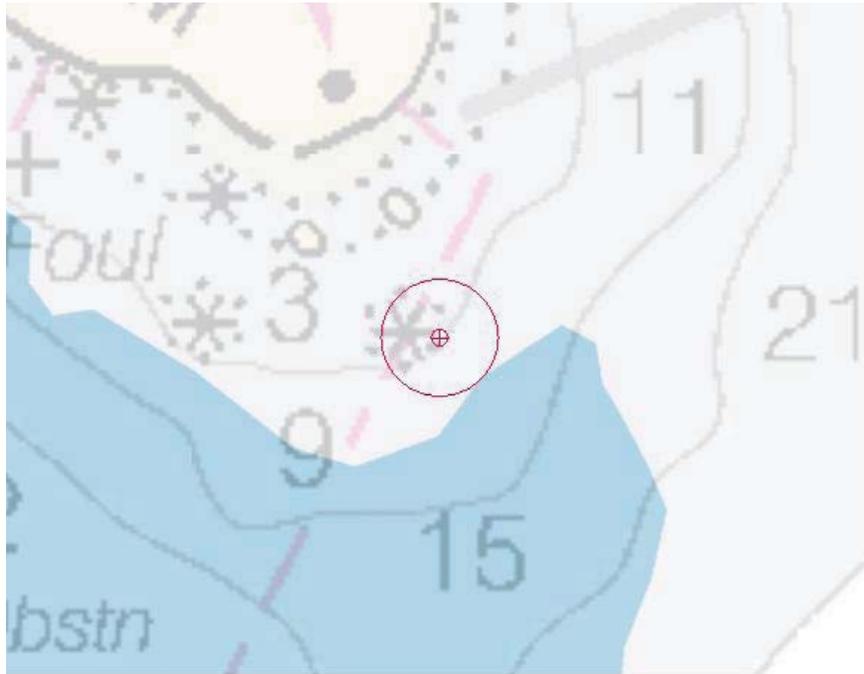


Figure 3.14.1

3.15) AWOIS #14486

Primary Feature for AWOIS Item #14486

Search Position: 41° 21' 49.0" N, 071° 35' 53.7" W
Historical Depth: [None]
Search Radius: 50
Search Technique: [None]
Technique Notes: UPDATE POSITION AND HEIGHT IN SUPPORT OF MARITIME BOUNDARY CLAIM.

History Notes:

[None]

Survey Summary

Survey Position: 41° 21' 49.0" N, 071° 35' 53.8" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2011-092.21:37:30 (04/02/2011)
GP Dataset: ChartGPs - Digitized
GP No.: 4
Charts Affected: 13215_1, 13205_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

Due to not having a shallow draft manueverable boat this AWOIS item was not investigated.

Feature Correlation

Source	Feature	Range	Azimuth	Status
ChartGPs - Digitized	4	0.00	000.0	Primary
BlockIslandAWOIS	AWOIS # 14486	1.50	301.2	Secondary (grouped)

Hydrographer Recommendations

Retain as charted.

S-57 Data

[None]

Feature Images

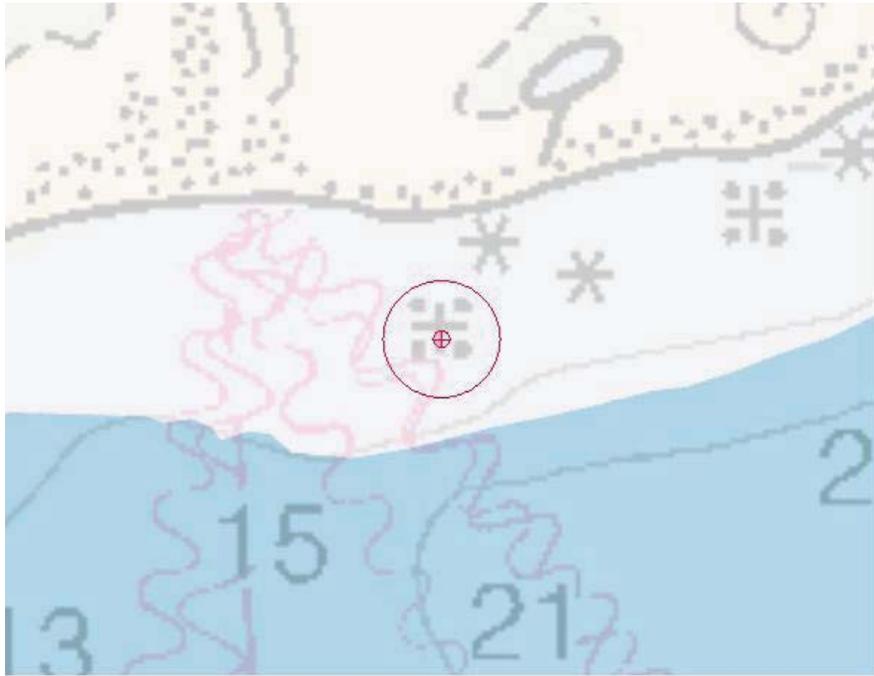


Figure 3.15.1

3.16) AWOIS #14484

Primary Feature for AWOIS Item #14484

Search Position: 41° 21' 52.1" N, 071° 35' 42.2" W
Historical Depth: [None]
Search Radius: 50
Search Technique: [None]
Technique Notes: UPDATE POSITION AND HEIGHT IN SUPPORT OF MARITIME BOUNDARY CLAIM.

History Notes:

[None]

Survey Summary

Survey Position: 41° 21' 52.1" N, 071° 35' 42.2" W
Least Depth: [None]
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2011-092.21:39:39 (04/02/2011)
GP Dataset: ChartGPs - Digitized
GP No.: 5
Charts Affected: 13215_1, 13205_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

Due to not having a shallow draft manueverable boat this AWOIS item was not investigated.

Feature Correlation

Source	Feature	Range	Azimuth	Status
ChartGPs - Digitized	5	0.00	000.0	Primary
BlockIslandAWOIS	AWOIS # 14484	1.50	340.1	Secondary (grouped)

Hydrographer Recommendations

Retain as charted.

S-57 Data

[None]

Feature Images



Figure 3.16.1

4 - Dangers to Navigation

4.1) 1.3m Rock

DANGER TO NAVIGATION

Survey Summary

Survey Position: 41° 21' 53.4" N, 071° 29' 42.4" W
Least Depth: 1.38 m (= 4.53 ft = 0.756 fm = 0 fm 4.53 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 0.999 m ; TVU (TPEv) ± 0.283 m
Timestamp: 2009-239.18:26:36.558 (08/27/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-239 / 536_1825
Profile/Beam: 909/35
Charts Affected: 13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

The item was covered by 200% Klein 5000 Side scan sonar. The sounding was acquired by Reson 7125 multibeam and corrected to MLLW using Final Verified Water Levels, Final TCARI zoning and resolved the sounding to 1.38m(4.53ft).

Feature Correlation

Source	Feature	Range	Azimuth	Status
536_1825	909/35	0.00	000.0	Primary
235_090901153400	0001	0.96	244.7	Secondary

Hydrographer Recommendations

Add Rock.

Cartographically-Rounded Depth (Affected Charts):

4ft (13219_1, 13215_1, 13205_1, 13218_1)

0 $\frac{3}{4}$ fm (12300_1, 13006_1, 13003_1)

1.4m (5161_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)

Attributes: QUASOU - 6:least depth known

SORDAT - 20091014

SORIND - US,US,graph,H12023

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

VALSOU - 1.382 m

Feature Images

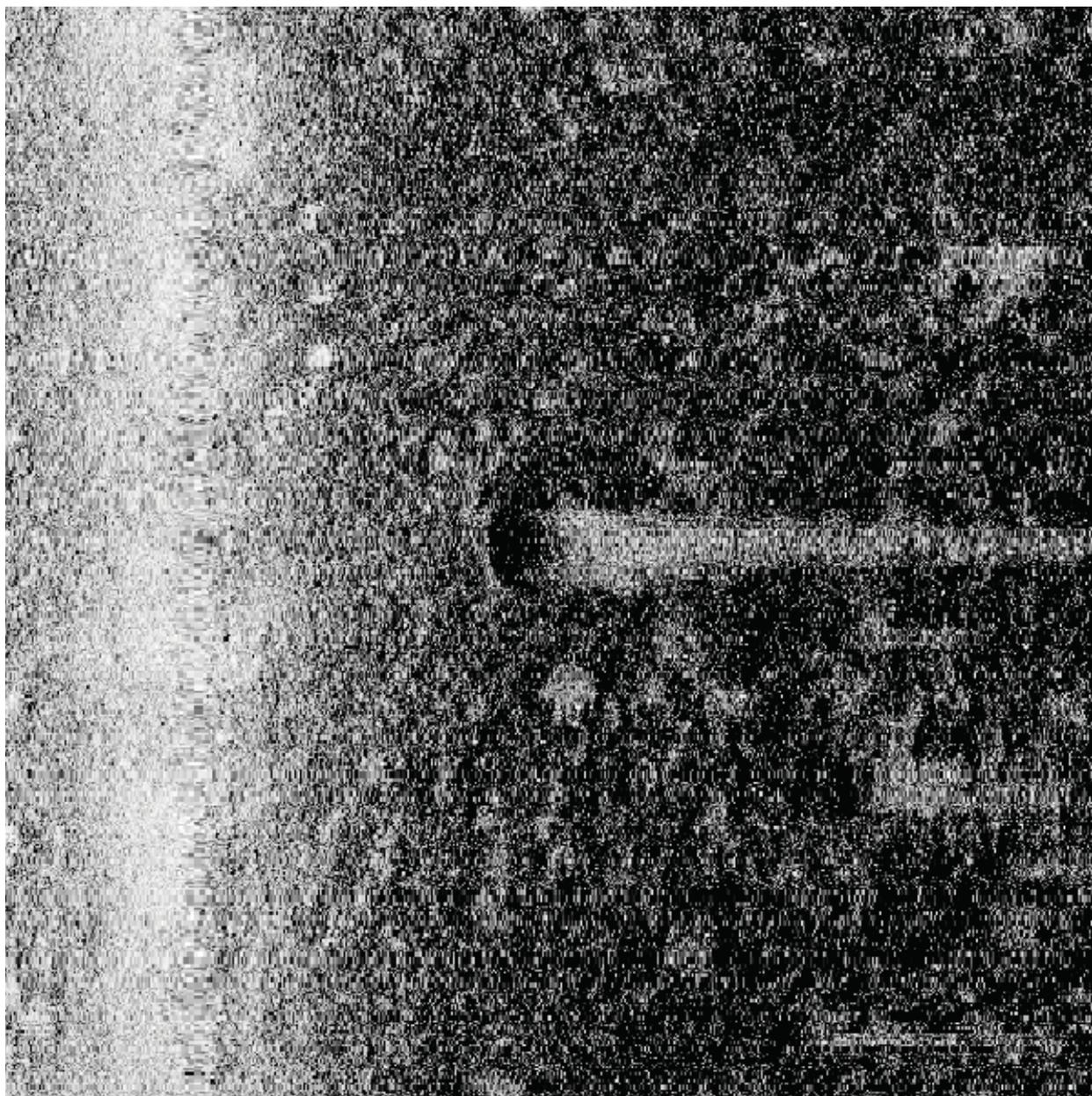


Figure 4.1.1

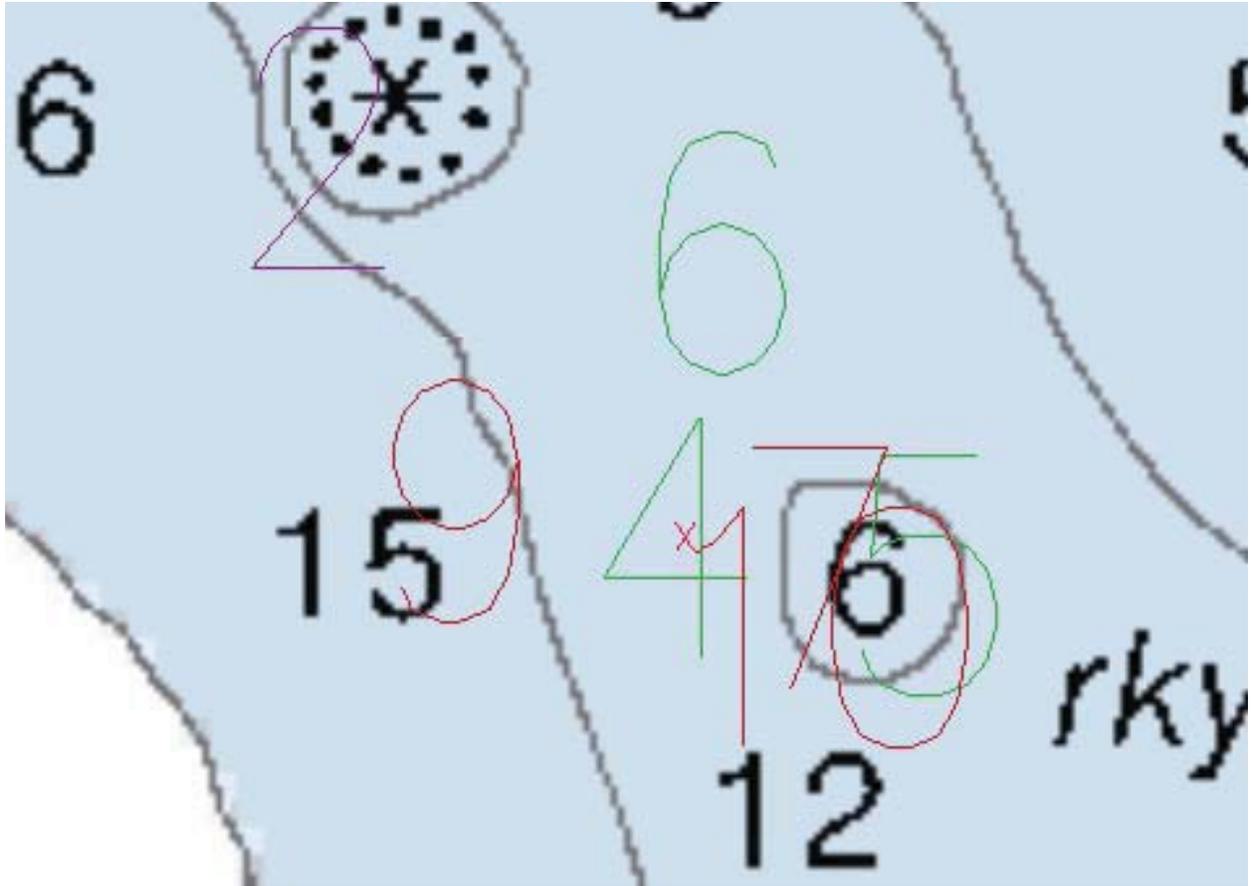


Figure 4.1.2

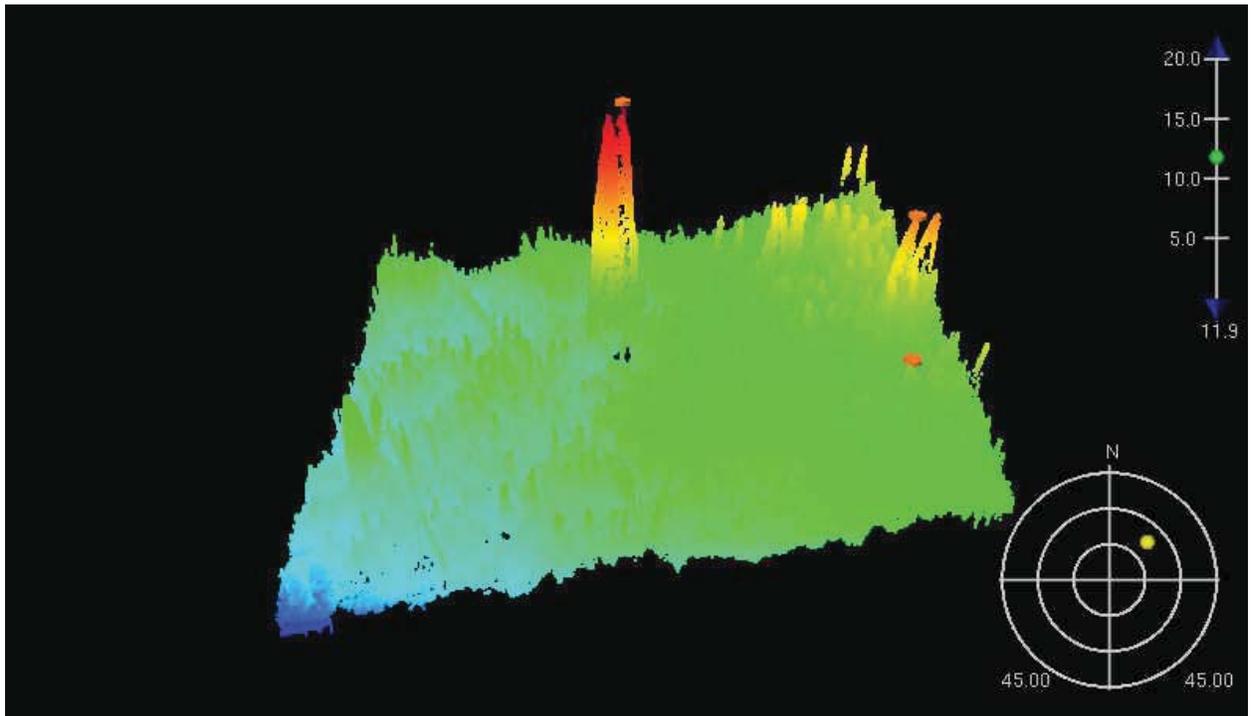


Figure 4.1.3

4.2) 2.7m Rock

DANGER TO NAVIGATION

Survey Summary

Survey Position: 41° 21' 53.7" N, 071° 29' 44.5" W
Least Depth: 2.71 m (= 8.89 ft = 1.482 fm = 1 fm 2.89 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.000 m ; TVU (TPEv) ± 0.285 m
Timestamp: 2009-239.18:27:10.197 (08/27/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-239 / 536_1825
Profile/Beam: 1387/512
Charts Affected: 13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

The item was covered by 200% Klein 5000 Side scan sonar. The sounding was acquired by Reson 7125 multibeam and corrected to MLLW using Final Verified Water Levels, Final TCARI zoning and resolved the sounding to 2.71m(8.89ft).

Feature Correlation

Source	Feature	Range	Azimuth	Status
536_1825	1387/512	0.00	000.0	Primary
071_090826141100	0004	48.71	281.0	Secondary

Hydrographer Recommendations

Add Dangerous Submerged Rock.

Cartographically-Rounded Depth (Affected Charts):

9ft (13219_1, 13215_1, 13205_1, 13218_1)

1 ½fm (12300_1, 13006_1, 13003_1)

2.7m (5161_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)

Attributes: QUASOU - 6:least depth known

SORDAT - 20091014

SORIND - US,US,graph,H12023

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

VALSOU - 2.710 m

Feature Images

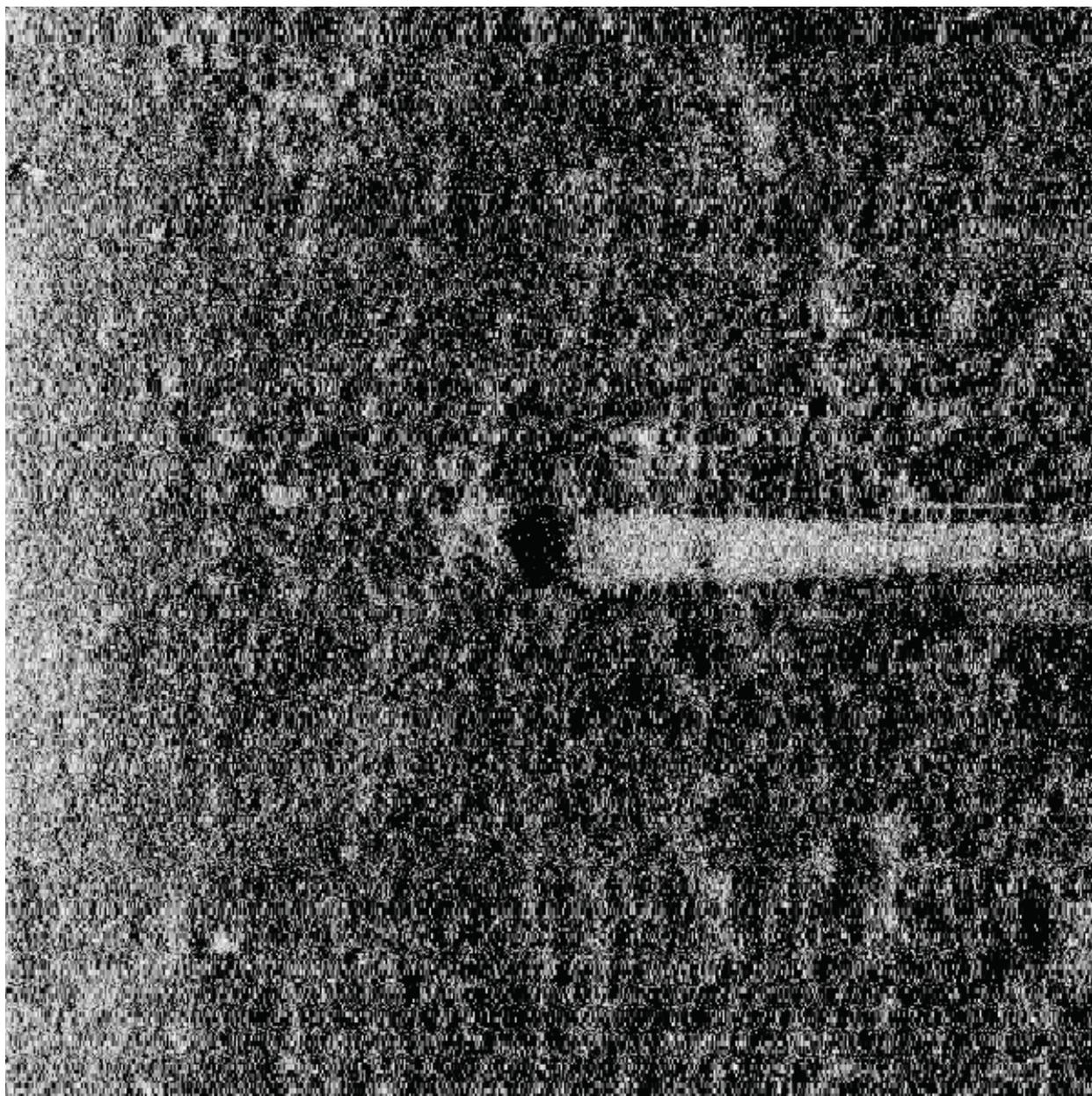


Figure 4.2.1

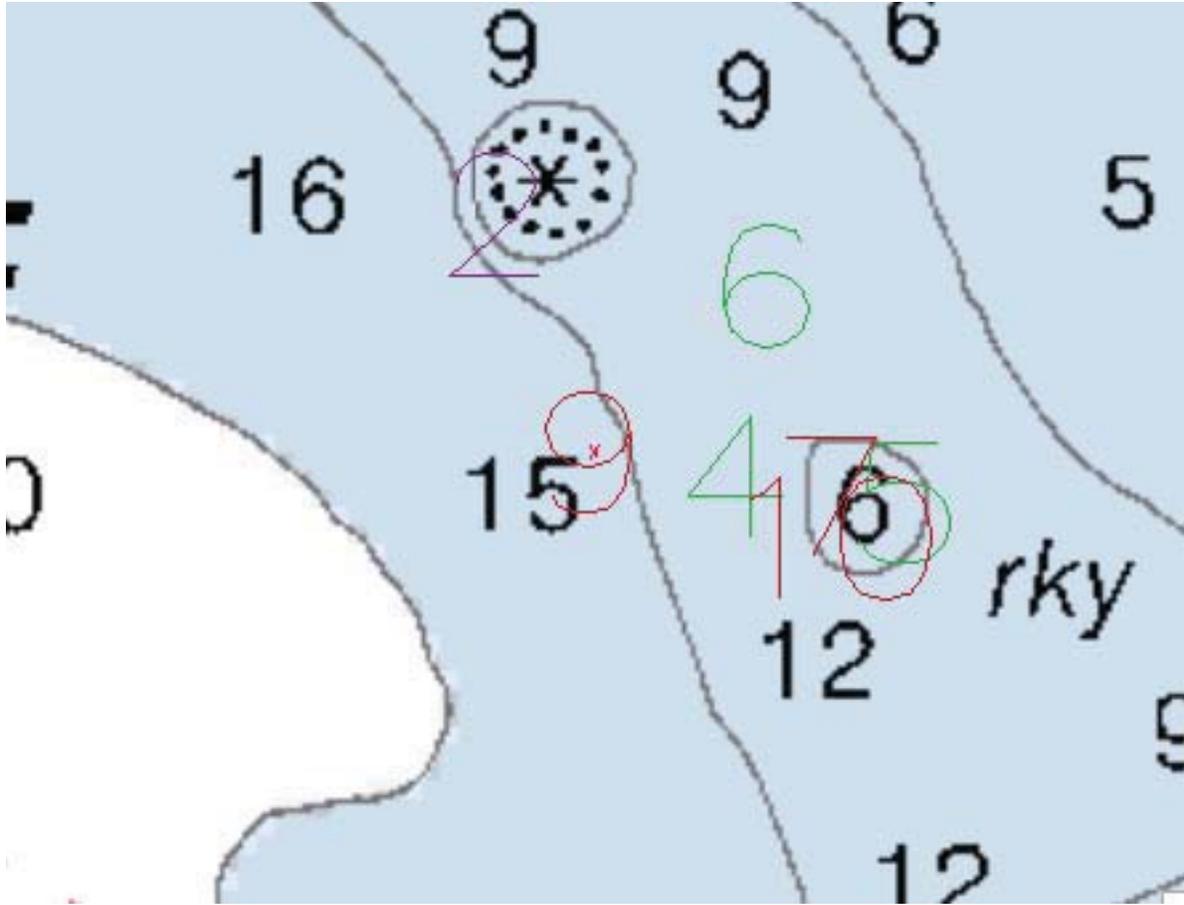


Figure 4.2.2

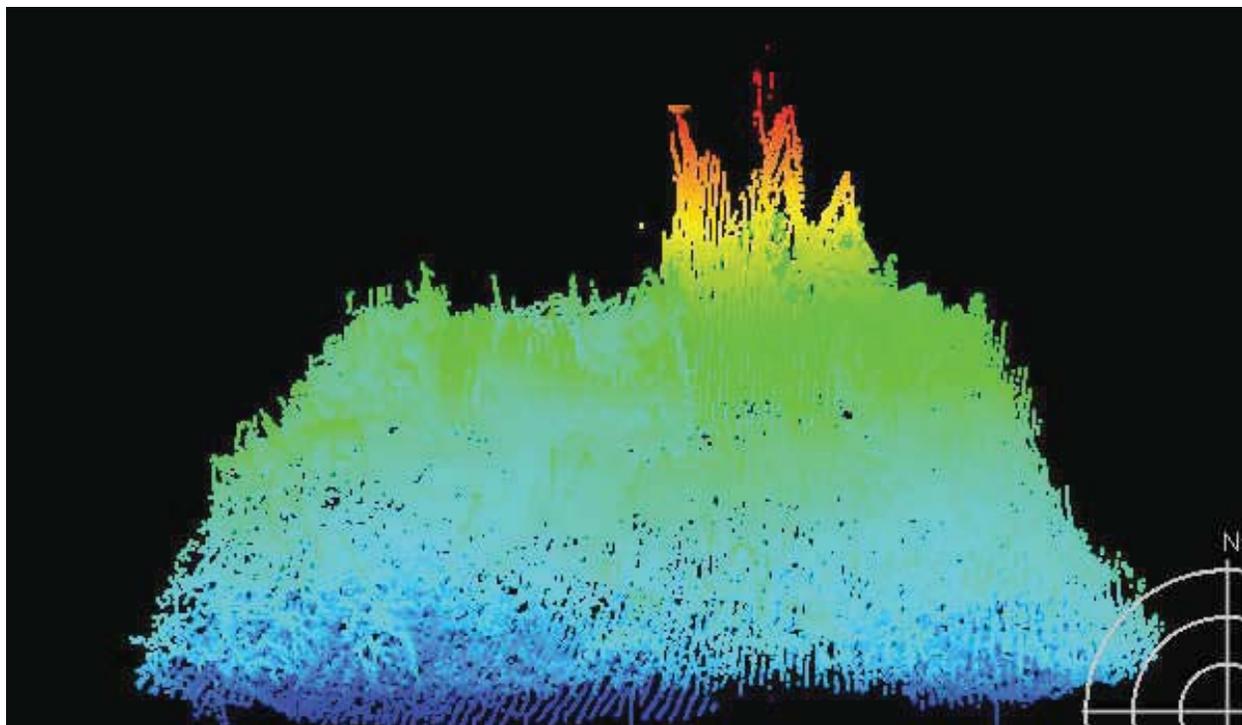


Figure 4.2.3

4.3) 8m rock

DANGER TO NAVIGATION

Survey Summary

Survey Position: 41° 21' 10.0" N, 071° 28' 44.8" W
Least Depth: 8.03 m (= 26.34 ft = 4.390 fm = 4 fm 2.34 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.000 m ; TVU (TPEv) ± 0.287 m
Timestamp: 2009-269.15:29:16.237 (09/26/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-269 / 501_1528
Profile/Beam: 267/134
Charts Affected: 13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

The item was covered by 200% Klein 5000 Side scan sonar. The sounding was acquired by Reson 7125 multibeam and corrected to MLLW using Final Verified water Levels, Final TCARI zoning and resolved the sounding to 8.03m(26.34ft).

Feature Correlation

Source	Feature	Range	Azimuth	Status
501_1528	267/134	0.00	000.0	Primary

Hydrographer Recommendations

Add Dangerous Submerged Rock.

Cartographically-Rounded Depth (Affected Charts):

26ft (13219_1, 13215_1, 13205_1, 13218_1)

4 ¼fm (12300_1, 13006_1, 13003_1)

8.0m (5161_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)

Attributes: QUASOU - 6:least depth known

SORDAT - 20091014

SORIND - US,US,graph,H12023

TECSOU - 2,3:found by side scan sonar,found by multi-beam
VALSOU - 8.028 m

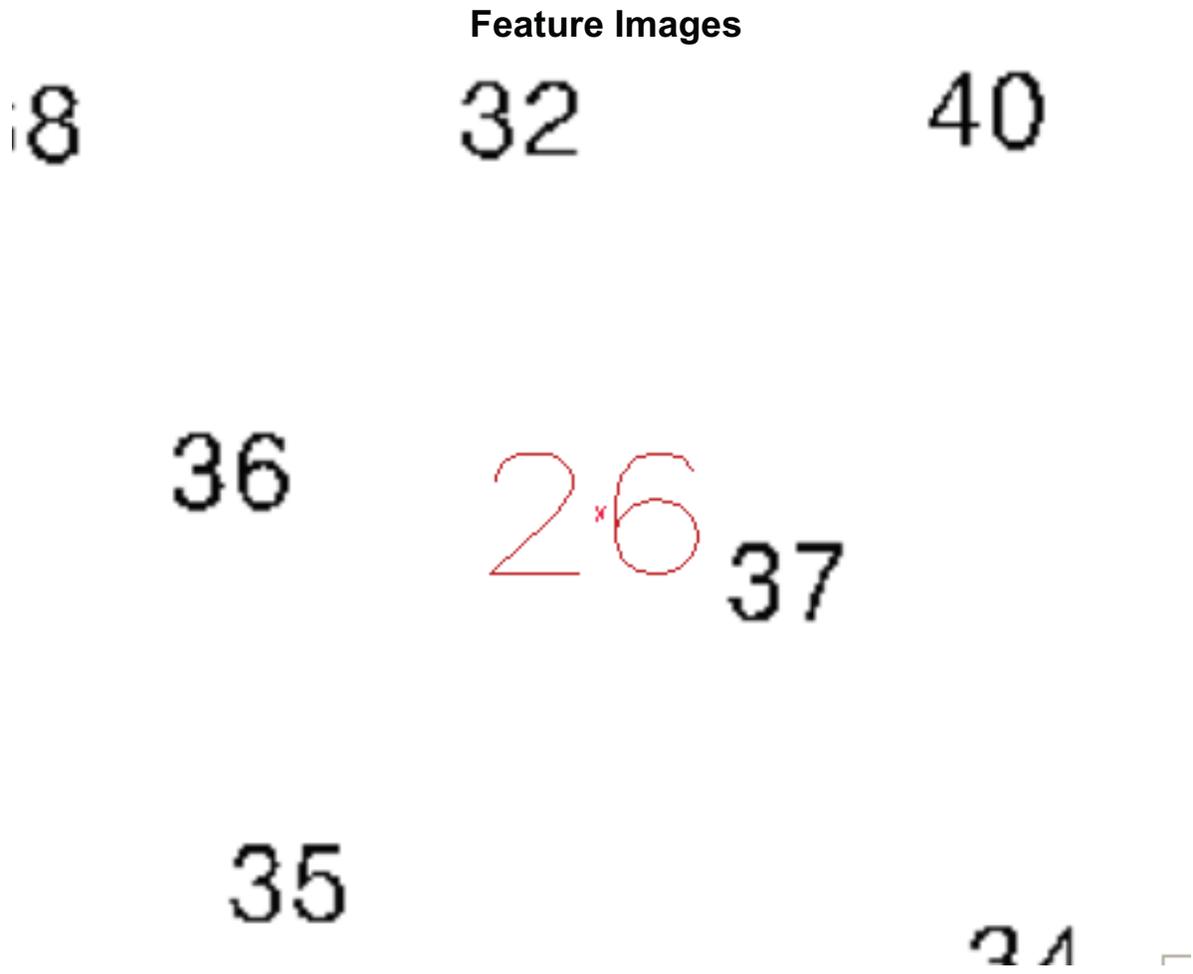


Figure 4.3.1

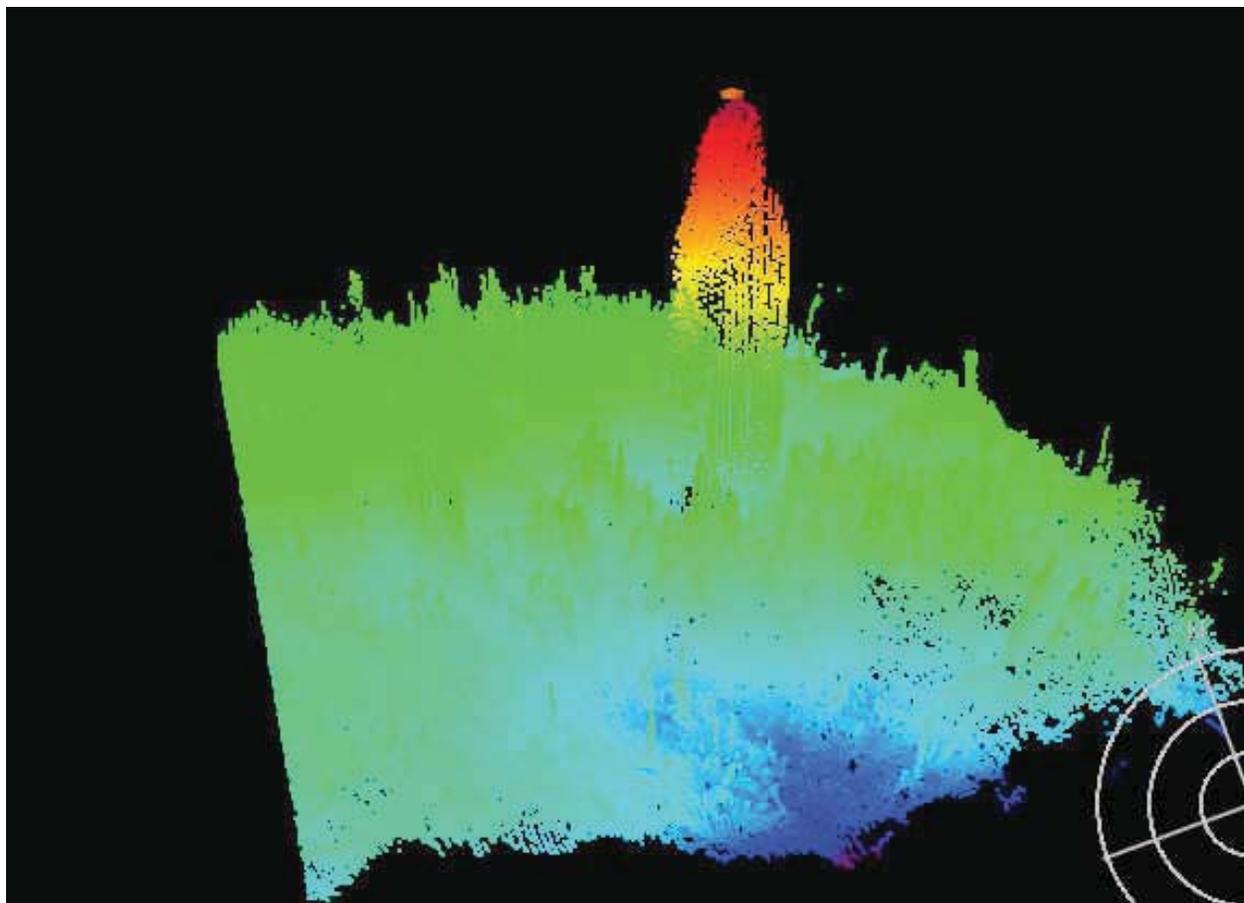


Figure 4.3.2

4.4) 3.36m Rock

DANGER TO NAVIGATION

Survey Summary

Survey Position: 41° 21' 16.2" N, 071° 30' 39.8" W
Least Depth: 3.36 m (= 11.04 ft = 1.839 fm = 1 fm 5.04 ft)
TPU ($\pm 1.96\sigma$): **THU (TPEh)** ± 1.000 m ; **TVU (TPEv)** ± 0.285 m
Timestamp: 2009-269.20:17:47.904 (09/26/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-269 / 532_2012
Profile/Beam: 5498/29
Charts Affected: 13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

The item was covered by 200% Klein 5000 Side scan sonar. The sounding was acquired by Reson 7125 multibeam and corrected to MLLW using Final Verified Water Levels, Final TCARI zoning and resolved the sounding to 3.361m(11.03ft).

Feature Correlation

Source	Feature	Range	Azimuth	Status
532_2012	5498/29	0.00	000.0	Primary
204_090827164900	0004	3.51	022.3	Secondary
234_090828152100	0005	4.53	071.0	Secondary
238_090828143400	0007	7.81	029.6	Secondary
234_090828151400	0006	8.19	046.6	Secondary
204_090827164900	0003	36.52	248.3	Secondary

Hydrographer Recommendations

Add Dangerous Submerged Rock.

Cartographically-Rounded Depth (Affected Charts):

11ft (13219_1, 13215_1, 13205_1, 13218_1)

1 $\frac{3}{4}$ fm (12300_1, 13006_1, 13003_1)

3.4m (5161_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)

Attributes:

- QUASOU - 6:least depth known
- SORDAT - 20091014
- SORIND - US,US,graph,H12023
- TECSOU - 2,3:found by side scan sonar,found by multi-beam
- VALSOU - 3.364 m
- WATLEV - 3:always under water/submerged

Feature Images

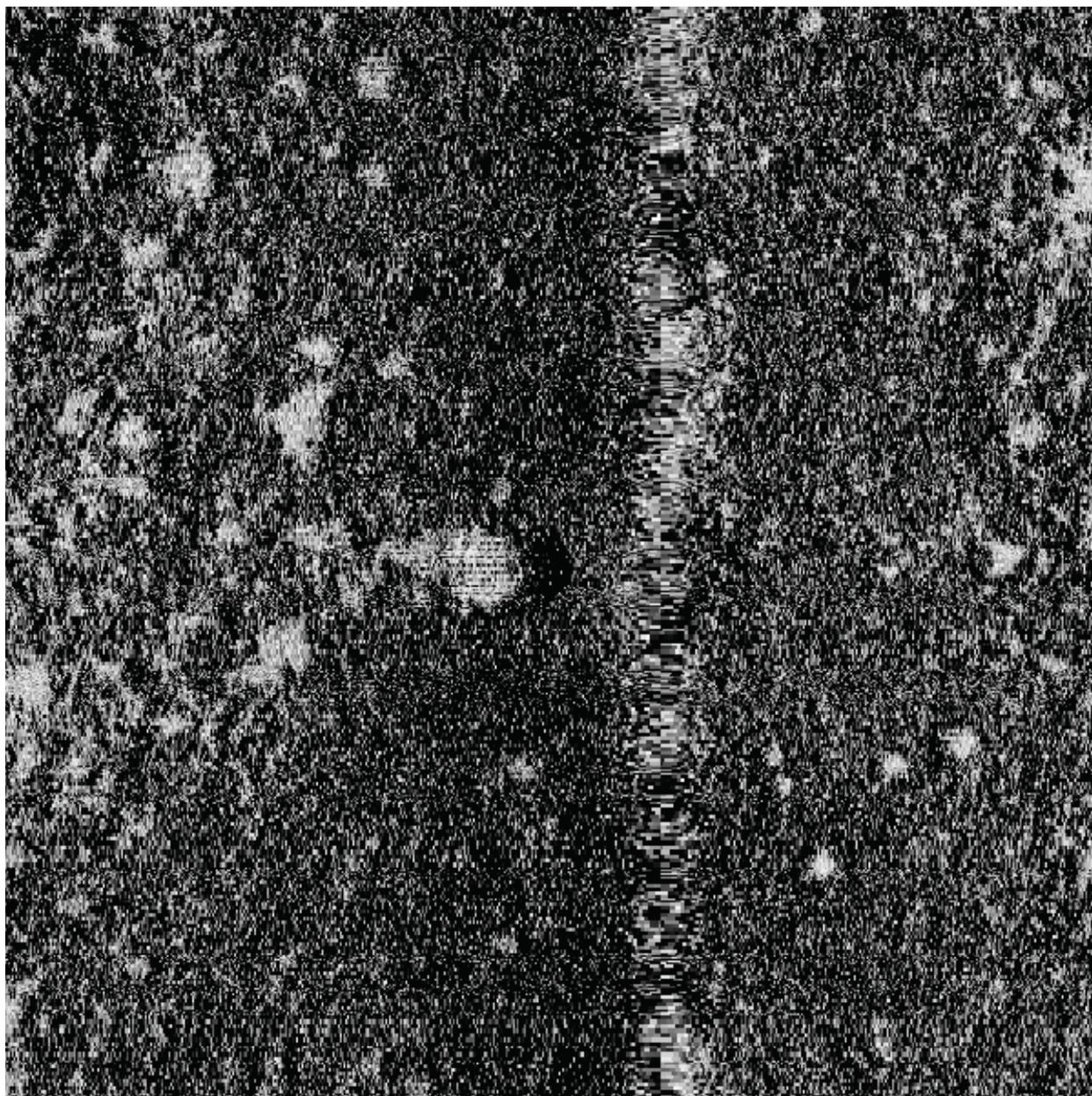


Figure 4.4.1

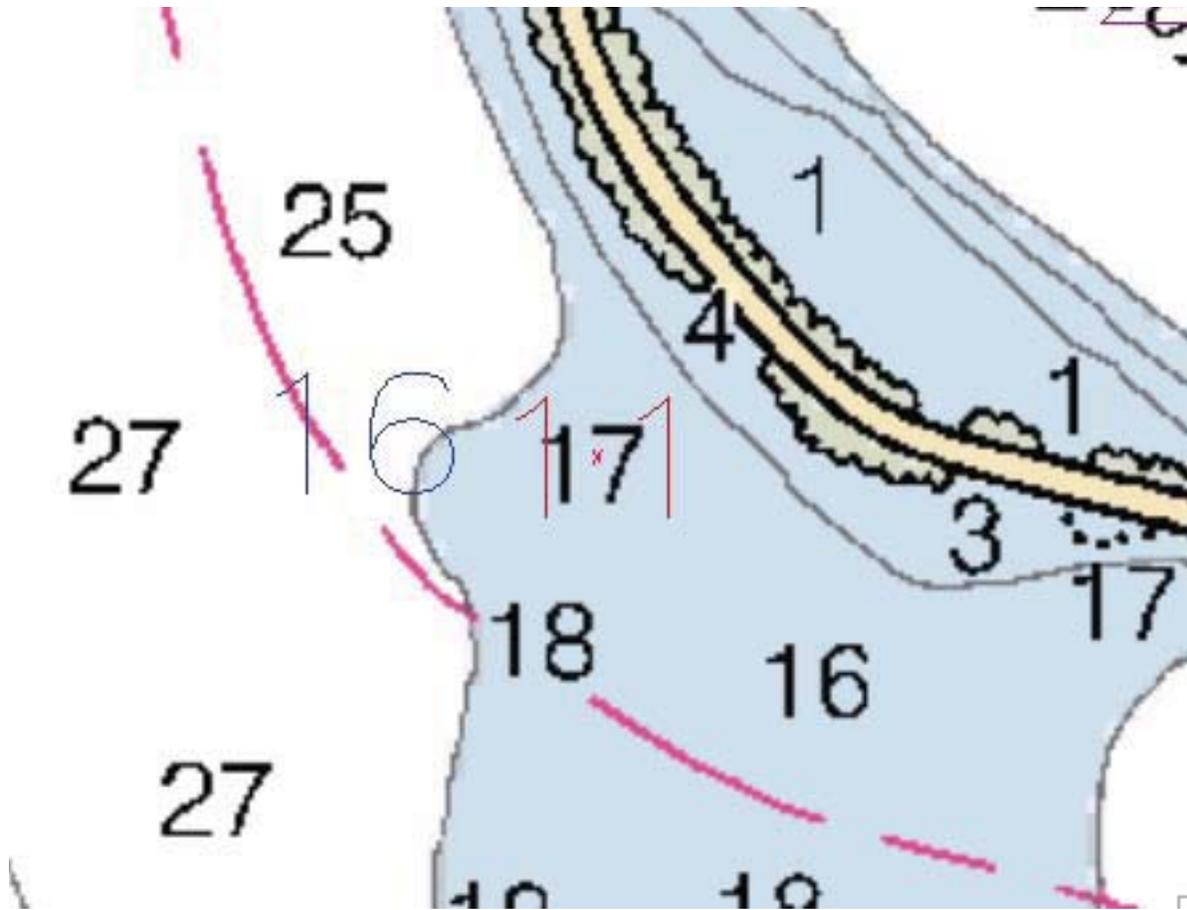


Figure 4.4.2

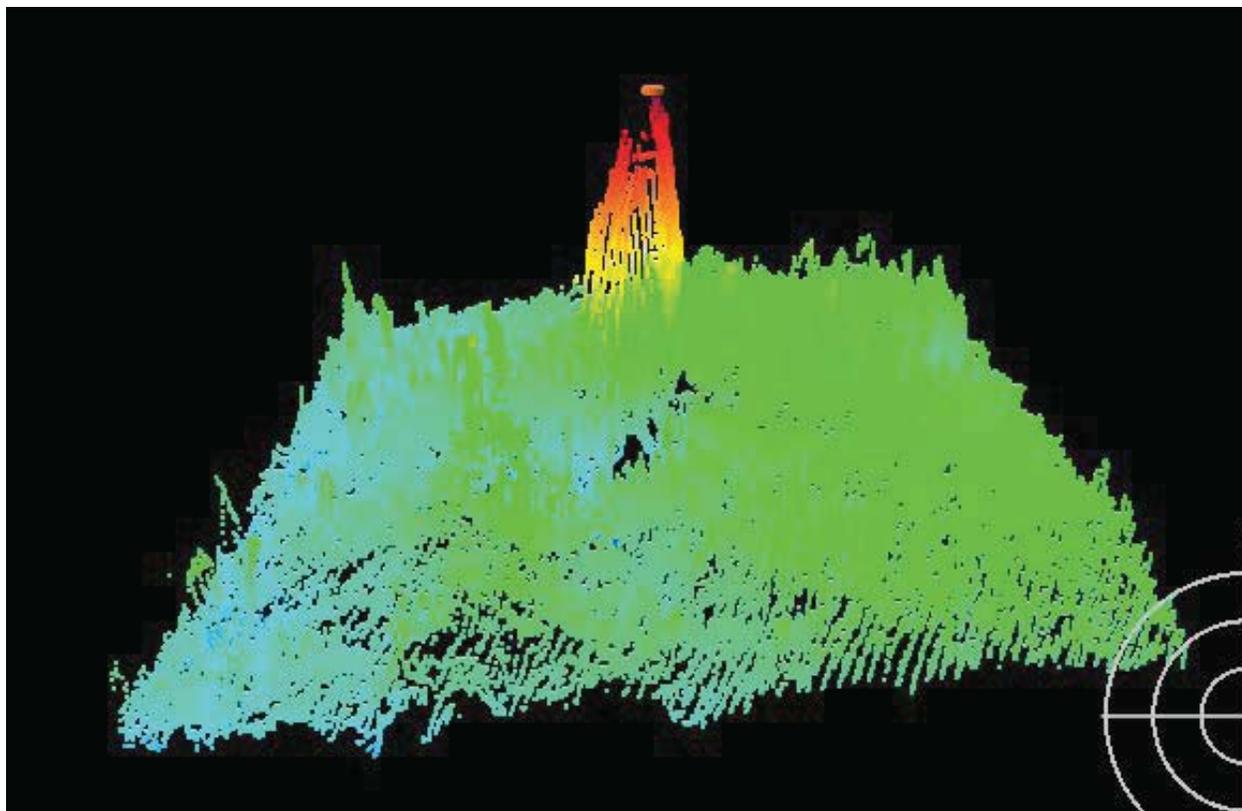


Figure 4.4.3

4.5) 5.87m Rock

DANGER TO NAVIGATION

Survey Summary

Survey Position: 41° 21' 14.9" N, 071° 28' 58.5" W
Least Depth: 5.87 m (= 19.26 ft = 3.209 fm = 3 fm 1.26 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 0.999 m ; TVU (TPEv) ± 0.285 m
Timestamp: 2009-285.17:42:32.729 (10/12/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-285 / 012_1742
Profile/Beam: 295/194
Charts Affected: 13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

The item was covered by 200% Klein 5000 Side scan sonar. The sounding was acquired by Reson 7125 multibeam and corrected to MLLW using Final Verified Water Levels, Final TCARI zoning and resolved the sounding to 5.87m(19.2ft).

Feature Correlation

Source	Feature	Range	Azimuth	Status
012_1742	295/194	0.00	000.0	Primary
189_090826173600	0001	0.66	276.1	Secondary

Hydrographer Recommendations

Add Dangerous Submerged rock.

Cartographically-Rounded Depth (Affected Charts):

19ft (13219_1, 13215_1, 13205_1, 13218_1)

3 ¼fm (12300_1, 13006_1, 13003_1)

5.9m (5161_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)

Attributes: QUASOU - 6:least depth known

SORDAT - 20091014

SORIND - US,US,graph,H12023

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

VALSOU - 5.869 m

Feature Images

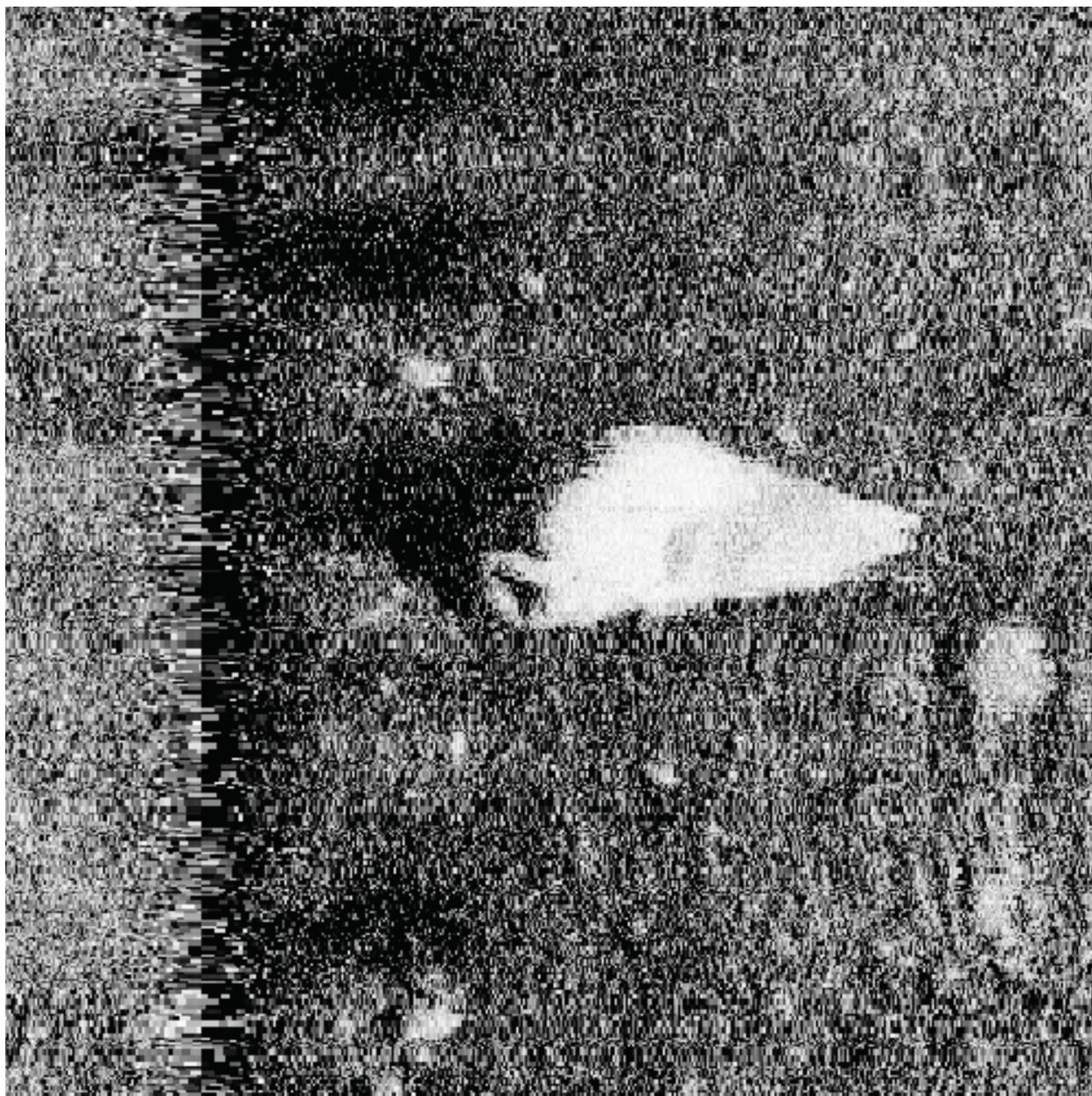


Figure 4.5.1

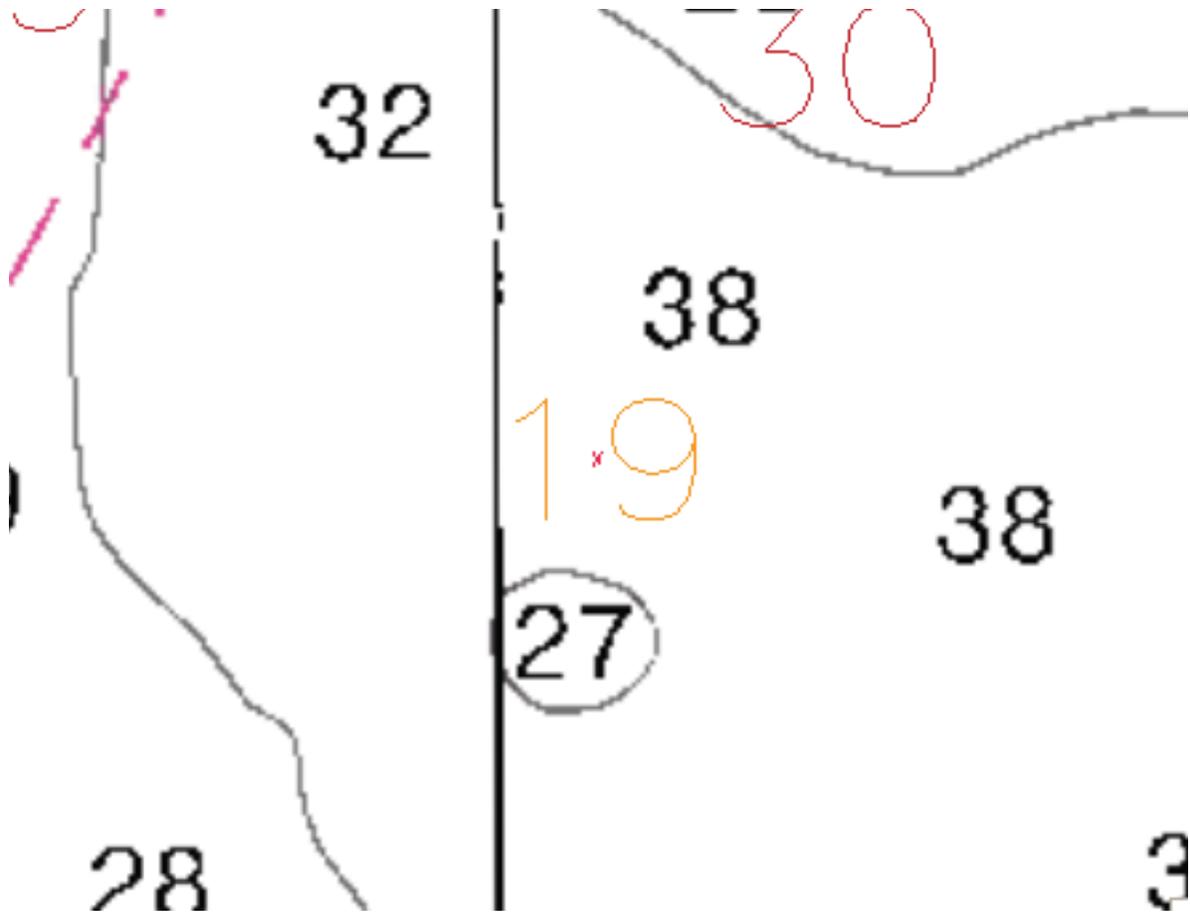


Figure 4.5.2

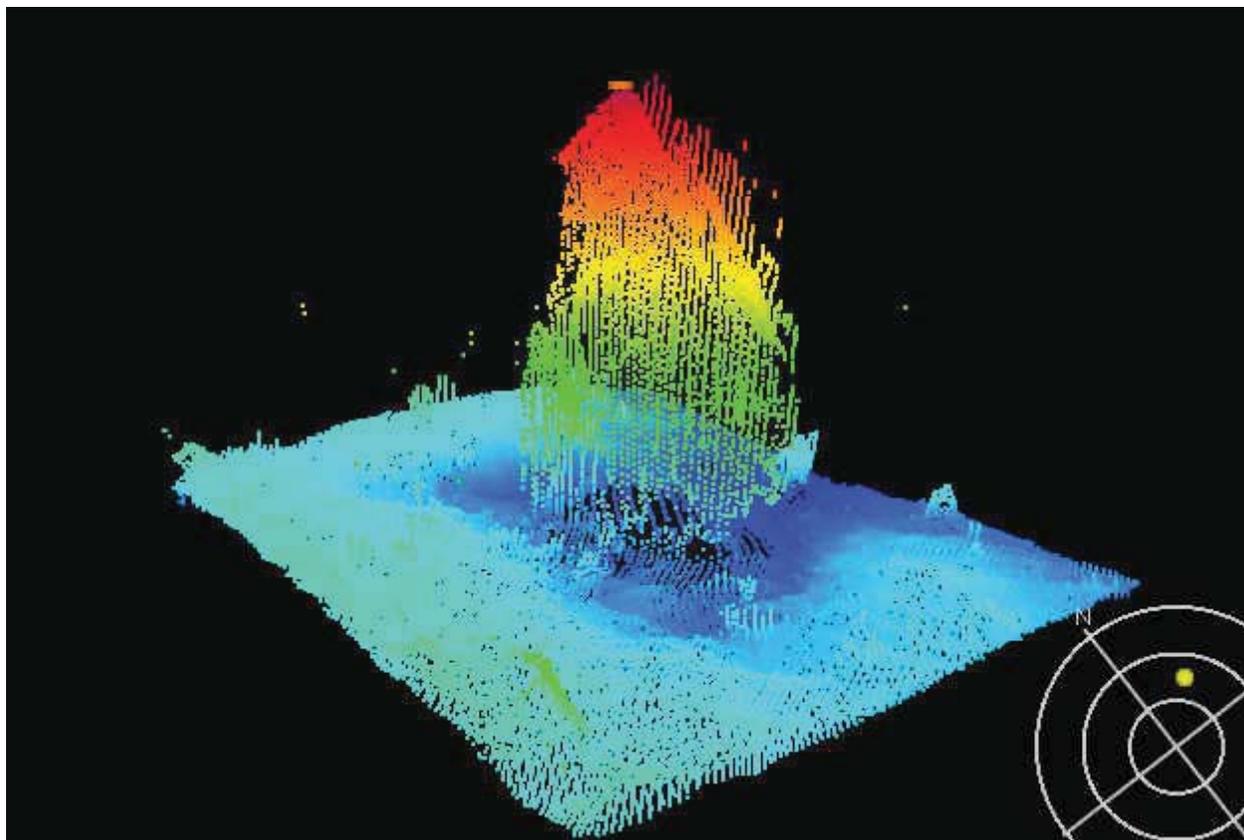


Figure 4.5.3

4.6) 4.75m Rock

DANGER TO NAVIGATION

Survey Summary

Survey Position: 41° 21' 22.0" N, 071° 28' 49.7" W
Least Depth: 4.75 m (= 15.59 ft = 2.598 fm = 2 fm 3.59 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.000 m ; TVU (TPEv) ± 0.286 m
Timestamp: 2009-285.19:07:10.506 (10/12/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-285 / 702_1905
Profile/Beam: 1355/71
Charts Affected: 13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

The item was covered by 200% Klein 5000 Side scan sonar. The sounding was acquired by Reson 7125 multibeam and corrected to MLLW using Final Verified Water Levels, Final TCARI zoning and resolved the sounding to 4.75m(15.59ft).

Feature Correlation

Source	Feature	Range	Azimuth	Status
702_1905	1355/71	0.00	000.0	Primary

Hydrographer Recommendations

Add Dangerous Submerged Rock.

Cartographically-Rounded Depth (Affected Charts):

15ft (13219_1, 13215_1, 13205_1, 13218_1)

2 ½fm (12300_1, 13006_1, 13003_1)

4.8m (5161_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)

Attributes: QUASOU - 6:least depth known

SORDAT - 20091014

SORIND - US,US,graph,H12023

TECSOU - 2,3:found by side scan sonar,found by multi-beam
VALSOU - 4.751 m

Feature Images

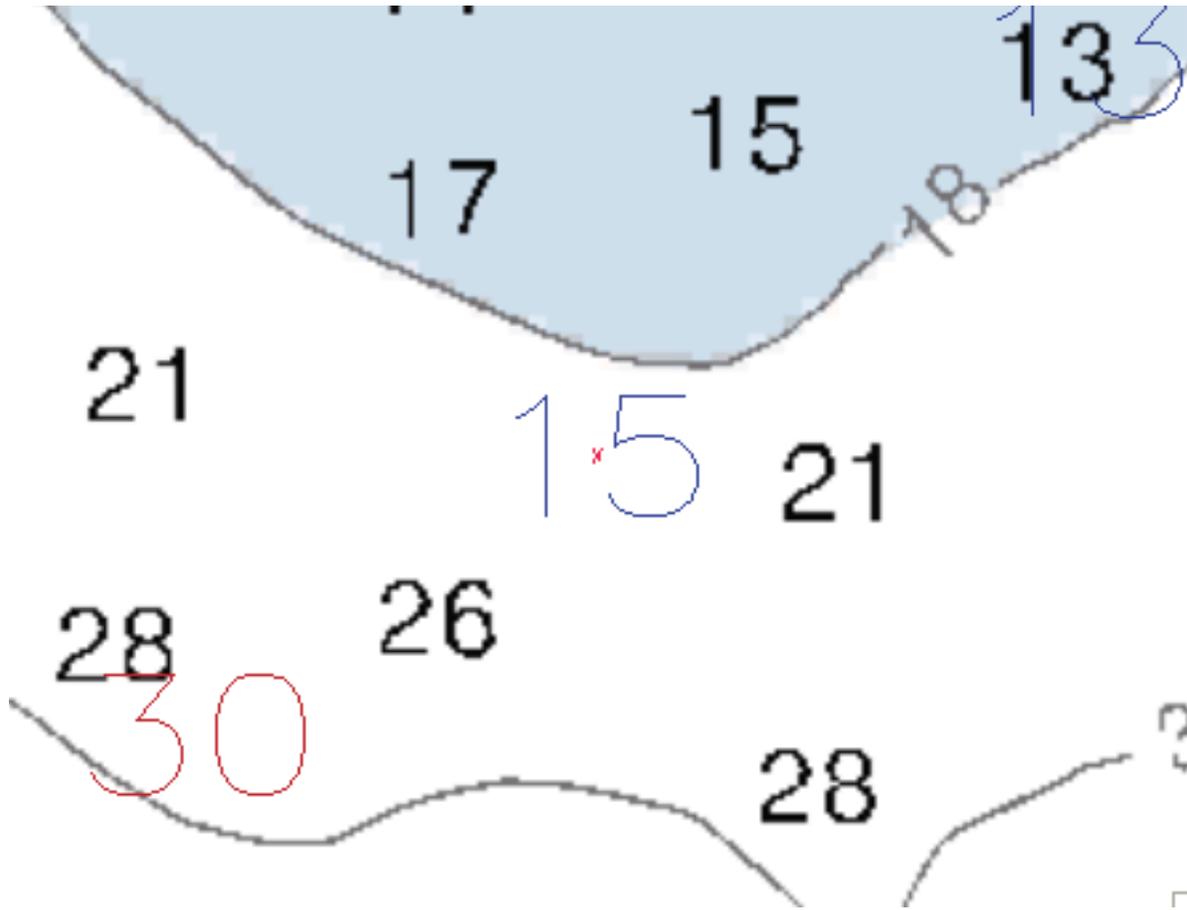


Figure 4.6.1

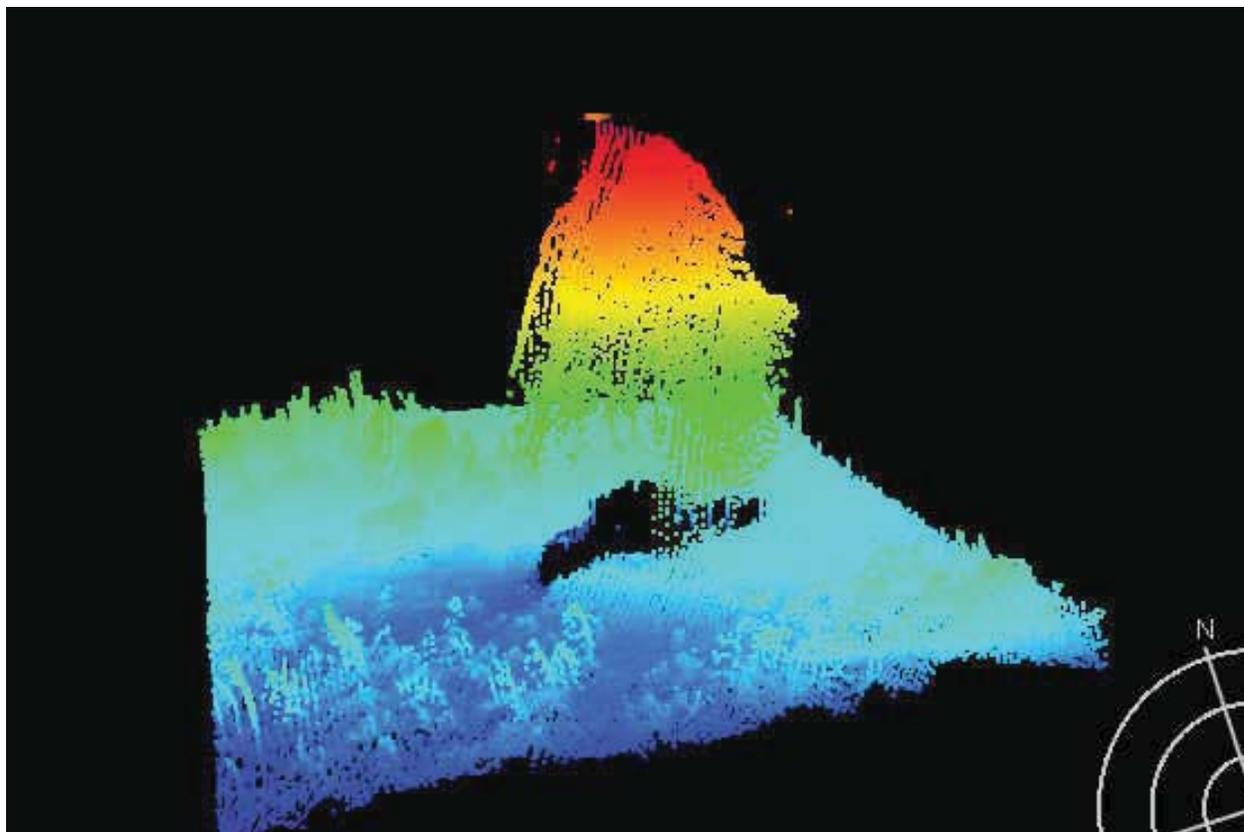


Figure 4.6.2

4.7) 3.32m Rock

DANGER TO NAVIGATION

Survey Summary

Survey Position: 41° 21' 54.1" N, 071° 30' 57.9" W
Least Depth: 3.32 m (= 10.88 ft = 1.814 fm = 1 fm 4.88 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.000 m ; TVU (TPEv) ± 0.284 m
Timestamp: 2009-285.20:44:26.839 (10/12/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-285 / 702_2043
Profile/Beam: 950/95
Charts Affected: 13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

The item was covered by 200% Klein 5000 Side scan sonar. The sounding was acquired by Reson 7125 multibeam and corrected to MLLW using Final Verified Water Levels, Final TCARI zoning and resolved the soundings to 3.32m(10.88ft).

Feature Correlation

Source	Feature	Range	Azimuth	Status
702_2043	950/95	0.00	000.0	Primary
197_090827140500	0001	30.80	185.4	Secondary
108_090831203500	0001	31.06	184.4	Secondary

Hydrographer Recommendations

Add Dangerous Submerged Rock.

Cartographically-Rounded Depth (Affected Charts):

11ft (13219_1, 13215_1, 13205_1, 13218_1)

1 $\frac{3}{4}$ fm (12300_1, 13006_1, 13003_1)

3.3m (5161_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)

Attributes: QUASOU - 6:least depth known

SORDAT - 20091014

SORIND - US,US,graph,H12023

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

VALSOU - 3.317 m

Feature Images

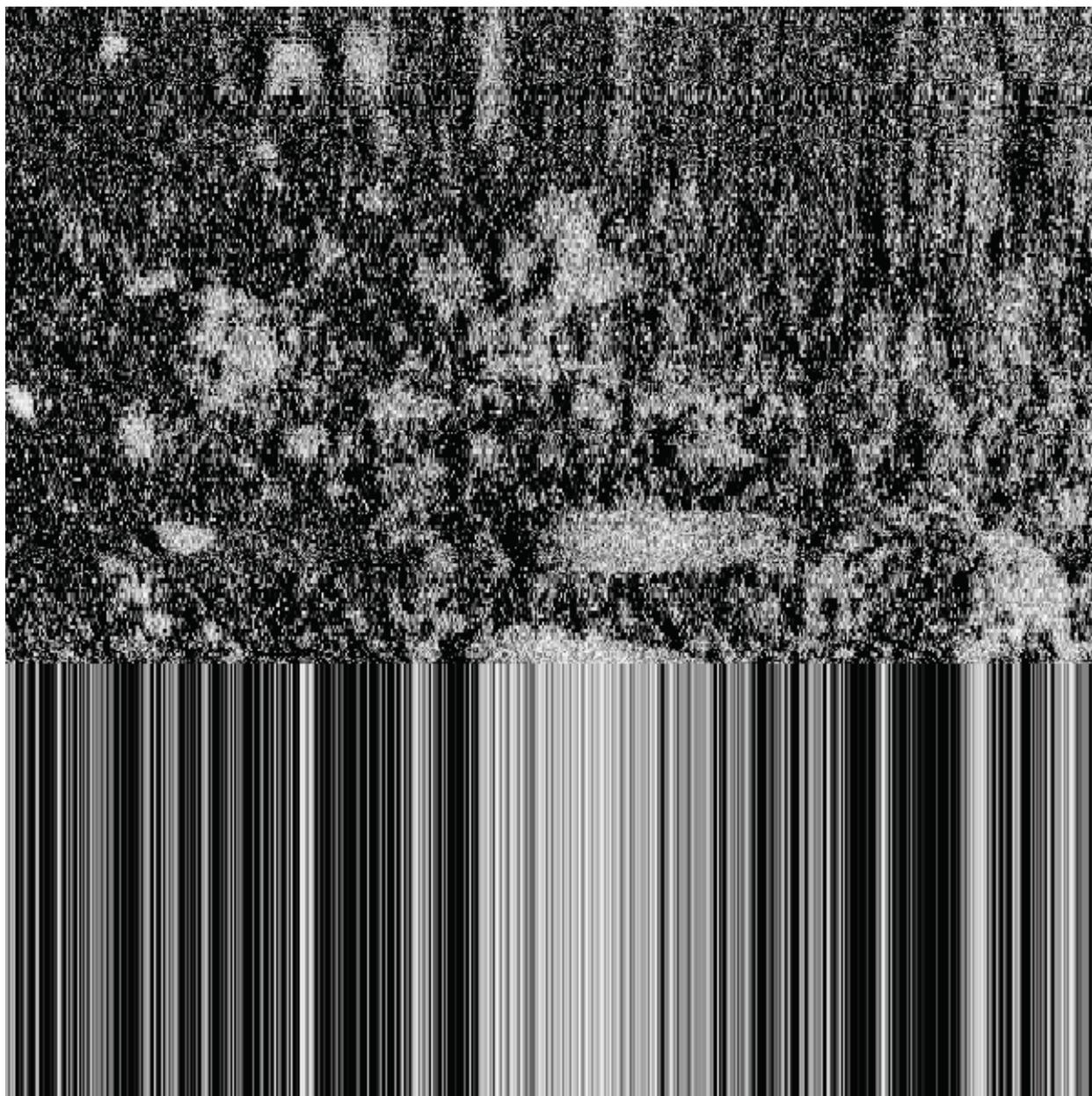


Figure 4.7.1

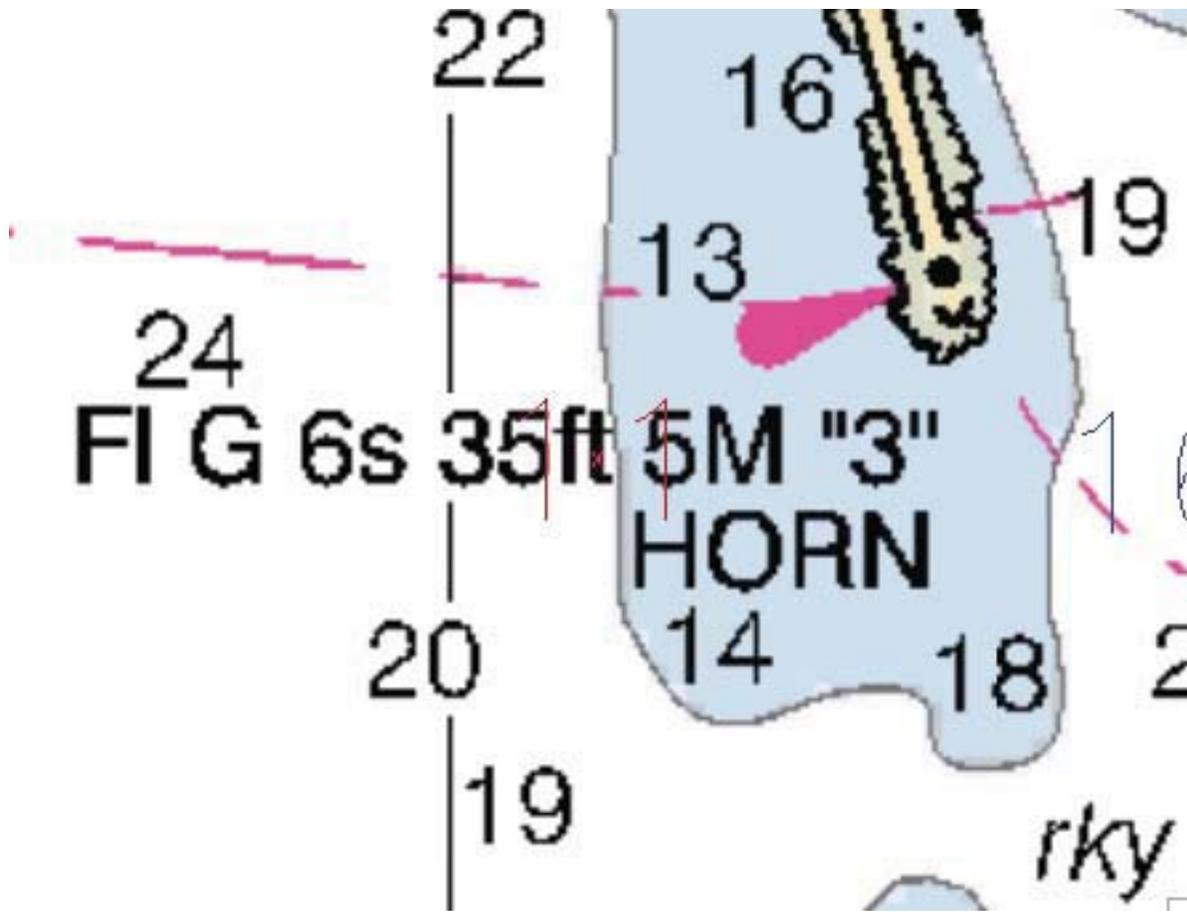


Figure 4.7.2

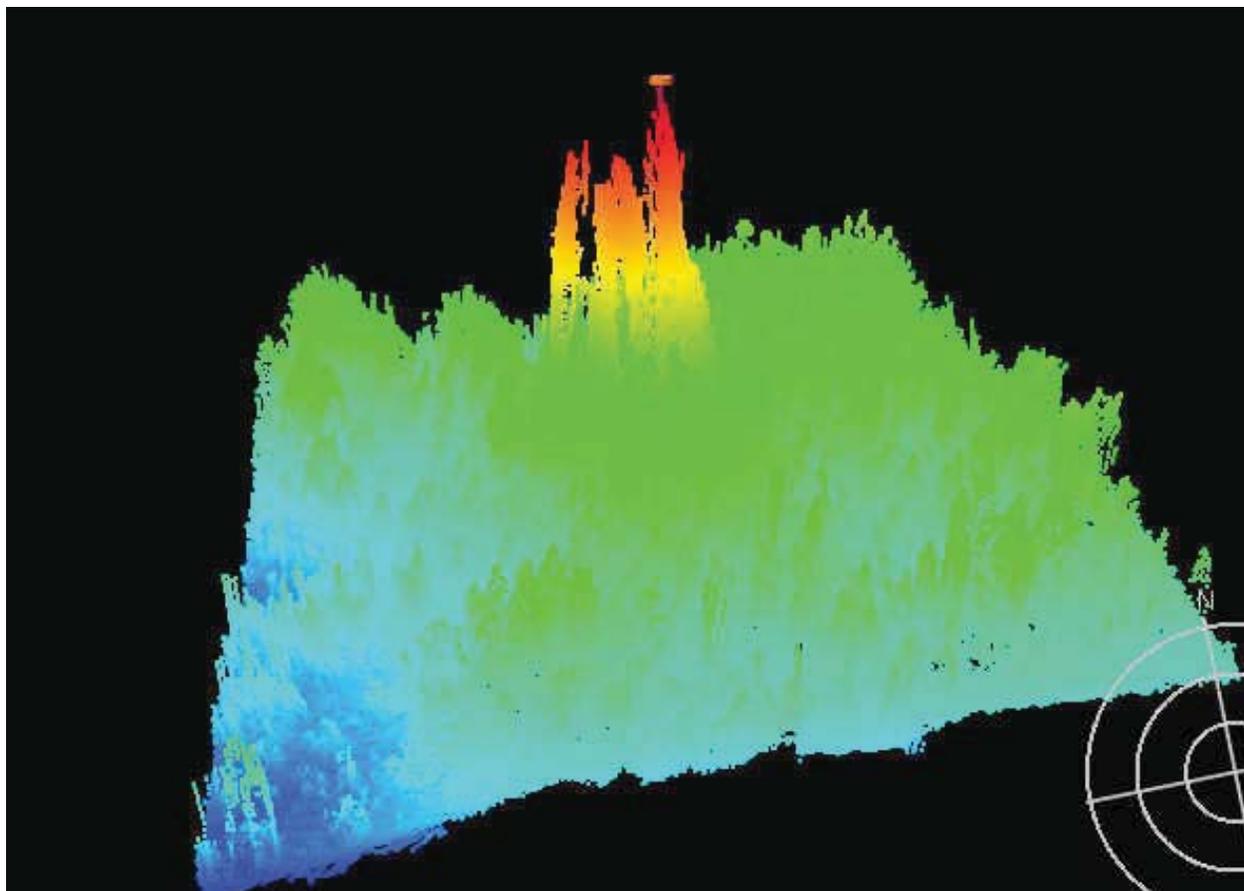


Figure 4.7.3

4.8) 6.28m Rock

DANGER TO NAVIGATION

Survey Summary

Survey Position: 41° 21' 10.0" N, 071° 29' 22.8" W
Least Depth: 6.28 m (= 20.60 ft = 3.433 fm = 3 fm 2.60 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.002 m ; TVU (TPEv) ± 0.293 m
Timestamp: 2009-285.15:34:03.351 (10/12/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-285 / 704_1533
Profile/Beam: 739/1
Charts Affected: 13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

The item was covered by 200% Klein 5000 Side scan sonar. The sounding was acquired by Reson 7125 multibeam and corrected to MLLW using Final Verified Water Levels, Final TCARI zoning and resolved the sounding to 6.28m(20.60ft).

Feature Correlation

Source	Feature	Range	Azimuth	Status
704_1533	739/1	0.00	000.0	Primary
216_090828165500	0004	9.64	137.5	Secondary

Hydrographer Recommendations

Add Dangerous Submerged Rock.

Cartographically-Rounded Depth (Affected Charts):

20ft (13219_1, 13215_1, 13205_1, 13218_1)

3 ¼fm (12300_1, 13006_1, 13003_1)

6.3m (5161_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)

Attributes: QUASOU - 6:least depth known

SORDAT - 20091014

SORIND - US,US,graph,H12023

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

VALSOU - 6.279 m

Feature Images



Figure 4.8.1

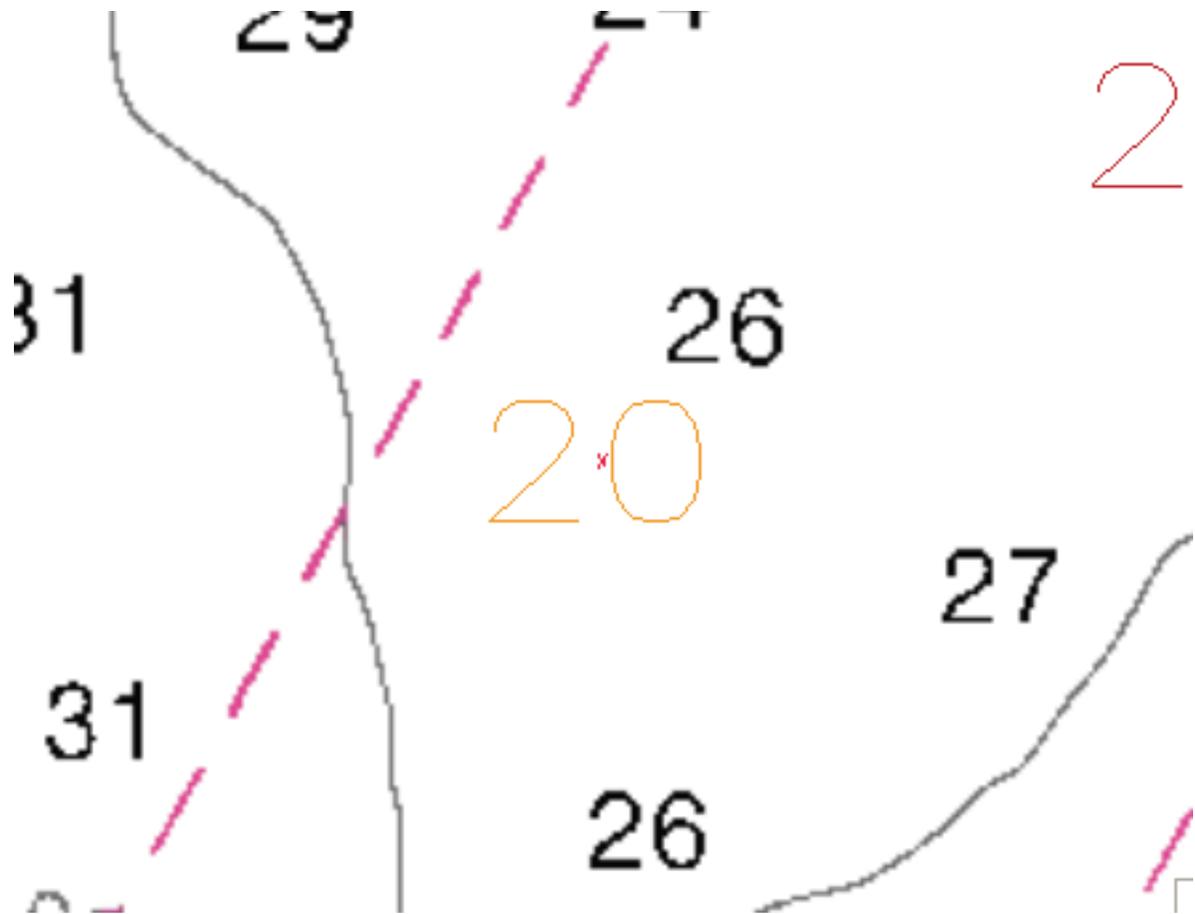


Figure 4.8.2

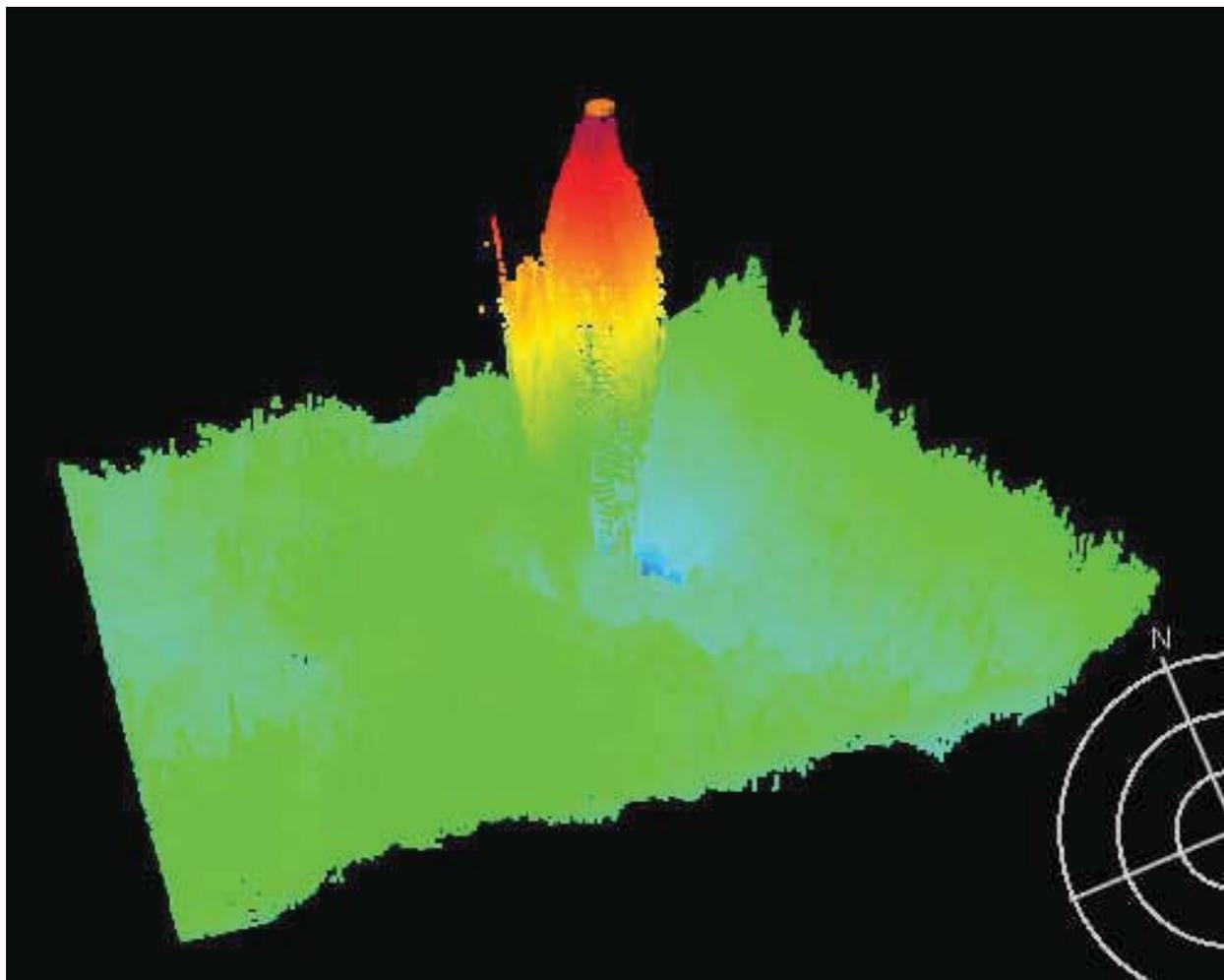


Figure 4.8.3

4.9) 3.78m Rock

DANGER TO NAVIGATION

Survey Summary

Survey Position: 41° 21' 48.7" N, 071° 31' 07.4" W
Least Depth: 3.78 m (= 12.40 ft = 2.066 fm = 2 fm 0.40 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) ± 1.000 m ; TVU (TPEv) ± 0.287 m
Timestamp: 2009-285.20:48:51.819 (10/12/2009)
Survey Line: h12023 / tj_3102_reson7125_mb / 2009-285 / 701_2046
Profile/Beam: 2150/1
Charts Affected: 13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

The item was covered by 200% Klein 5000 Side scan sonar. The sounding was acquired by Reson 7125 multibeam and corrected to MLLW using Final Verified Water Levels, Final TCARI zoning and resolved the sounding to 3.78m(12.40ft).

Feature Correlation

Source	Feature	Range	Azimuth	Status
701_2046	2150/1	0.00	000.0	Primary
225_090827143300	0002	2.55	226.4	Secondary

Hydrographer Recommendations

Add Dangerous Submerged Rock.

Cartographically-Rounded Depth (Affected Charts):

12ft (13219_1, 13215_1, 13205_1, 13218_1)

2fm (12300_1, 13006_1, 13003_1)

3.8m (5161_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)

Attributes: QUASOU - 6:least depth known

SORDAT - 20091014

SORIND - US,US,graph,H12023

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

VALSOU - 3.778 m

Feature Images



Figure 4.9.1

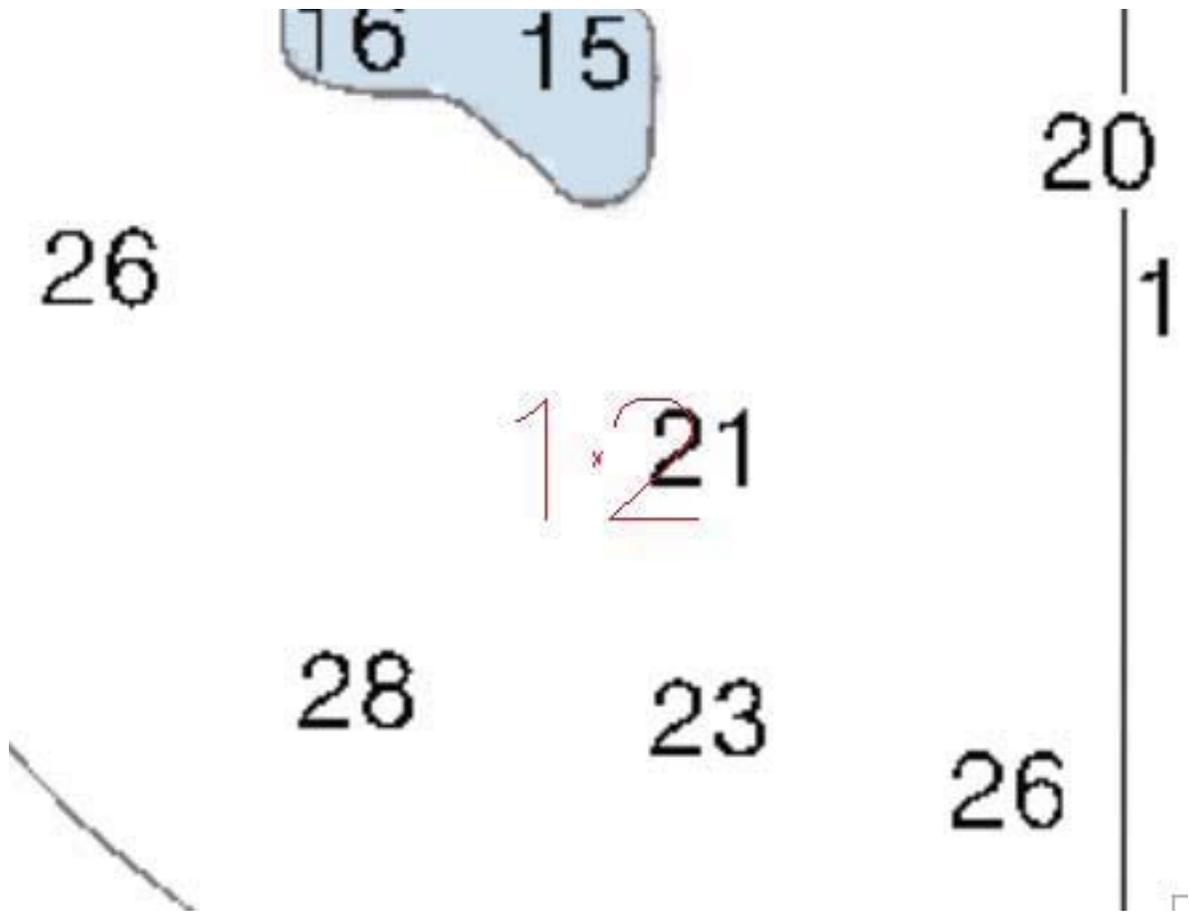


Figure 4.9.2

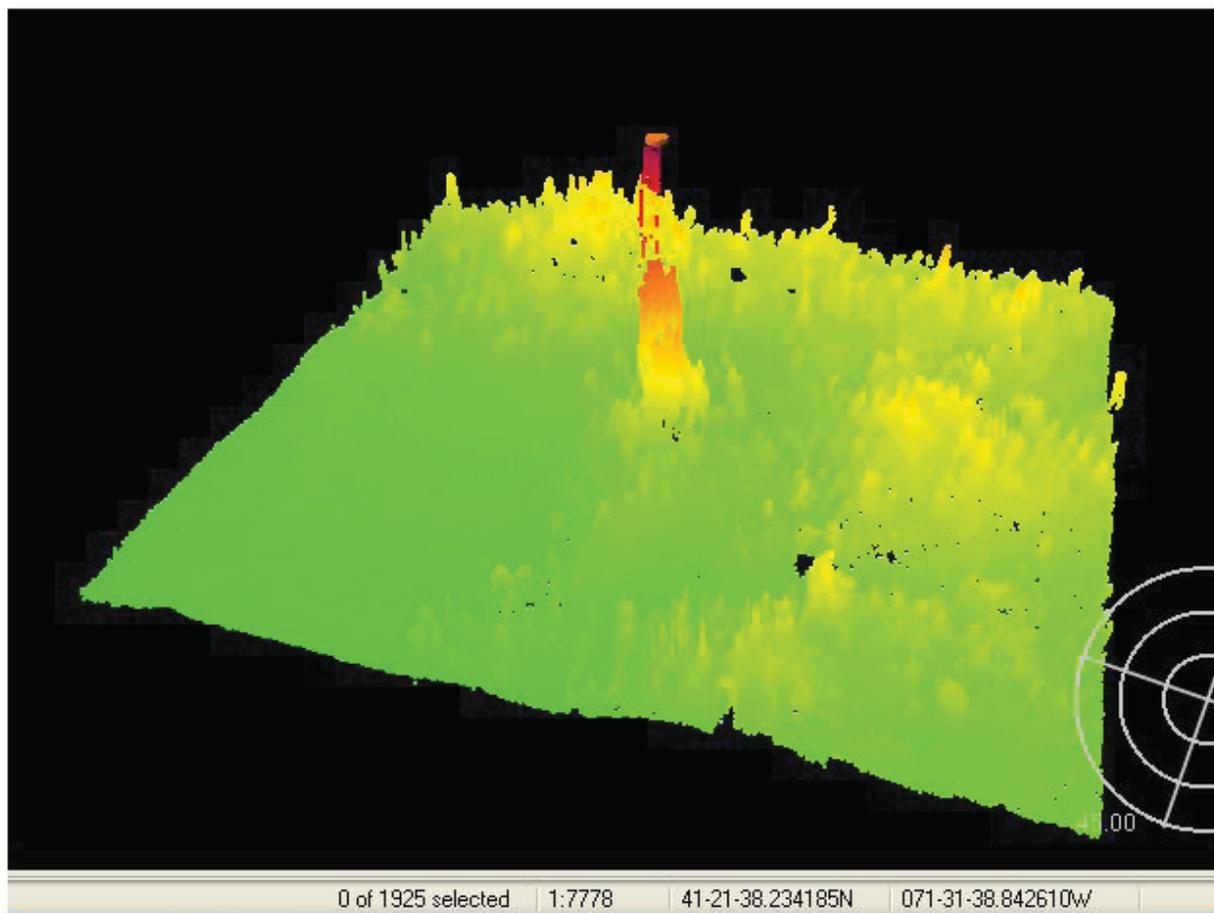
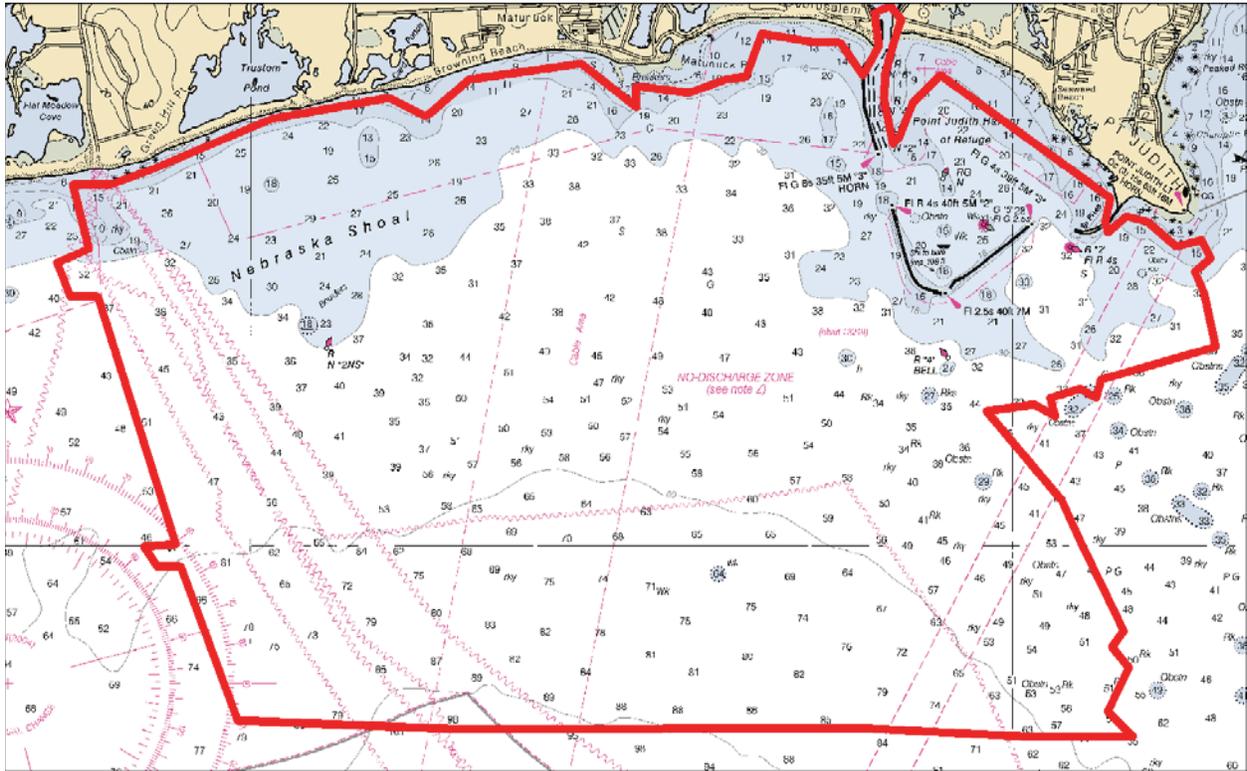


Figure 4.9.3

Appendix III

Progress Sketch



NOAA Ship THOMAS JEFFERSON															
FY 2009 Project Statistics															
Project	Location	Month/Year	LNM VBES		LNM MB		LNM SSS		LNM Combo *		LNM Combo Type ^		Items Investigated	Tide Gauges Installed / Removed	Bottom Samples
			Ship	Launch	Ship	Launch	Ship	Launch	Ship	Launch	Ship	Launch			
CY 2009															
OPR-B363	Block Island Sound	Aug-09	0	0	2724	632	0	209	0	126	0	0	50	0	30
OPR-B363	Block Island Sound	Sep-09	0	0	0	253	0	0	0	102	392	0	0	0	0

Project Number and Name	Sheet Identifier	Registry Number	HQ Estimated SNM	Sheet Start Date	Sheet End Date	Smooth Tides Request Date	Smooth Tides Received Date	Cumulative % Complete at the end of September	Cumulative % Complete at the end of October
OPR-B363, Block Island Sound, RI	1	H12009	25	4/7/09	5/19/09	5/27/09	6/23/09		
	2	H12010	13	7/23/09	8/19/09	8/27/09	9/11/09		
	3	H12033	14	8/7/09	8/21/09	8/23/09	9/11/09		
	4	H12011	24	7/24/09	8/26/09	8/26/09	9/11/09		
	5	H12023	16	8/20/09	10/14/09	10/15/09		80%	100%
	10	H12137	31	8/8/09	8/22/09	8/24/09	9/11/09		

Appendix IV

Tides and Water Levels

- 1. Request for Approved Tides**
- 2. Final Tide Note**



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NOAA Ship THOMAS JEFFERSON (MOA-TJ)
439 West York St
Norfolk, VA 23510-1145

October 15, 2009

MEMORANDUM FOR: Chief, Requirements and Development Division, N/OPS1

FROM: CDR Shepard M. Smith, NOAA Ship THOMAS JEFFERSON (MOA-TJ)

SUBJECT: Request for Approved Tides/Water Levels

Please provide the following data:

1. Tide Note
2. Final TCARI grid
3. Final zoning in MapInfo and .MIX format
4. Six Minute Water Level data (Co-ops web site)

Transmit data to the following:

NOAA/NOS/Atlantic Hydrographic Branch
N/CS33, Building #2
439 West York Street
Norfolk, VA 23510
ATTN: Chief AHB

NOAA Ship Thomas Jefferson
439 West York Street
Norfolk, VA 23510
ATTN: Commanding Officer

These data are required for the processing of the following hydrographic survey:

Project No.: OPR-B363-TJ-09
Registry No.: H12023
State: Rhode Island
Locality: Block Island Sound
Sublocality: Point Judith to Green Hill Pt.

Attachments containing:

- 1) an Abstract of Times of Hydrography,
- 2) digital MID MIF files of the track lines from Pydro

cc: N/CS33
MOCA/TJ



Year_DOY	Min Time	Max Time
2009_236	13:23:22	21:51:46
2009_237	12:26:01	23:08:06
2009_238	13:04:38	21:09:34
2009_239	12:53:20	21:08:32
2009_240	12:33:57	18:39:39
2009_243	13:19:12	21:22:58
2009_244	12:48:54	21:34:38
2009_267	12:56:23	21:26:57
2009_268	12:29:29	21:25:54
2009_269	12:38:18	21:31:17
2009_283	12:54:51	21:22:46
2009_284	12:57:07	21:07:32
2009_285	13:13:54	21:55:54
2009_286	13:45:09	18:08:10
2009_287	12:33:22	21:26:22



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Ocean Service
Silver Spring, Maryland 20910

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE : October 29, 2009

HYDROGRAPHIC BRANCH: Atlantic
HYDROGRAPHIC PROJECT: OPR-B363-TJ-2009
HYDROGRAPHIC SHEET: H12023

LOCALITY: Point Judith to Green Hill Pt., Block Island Sound, RI
TIME PERIOD: August 24 - October 14, 2009

TIDE STATION USED: Newport, RI 845-2660
Lat. 41° 30.3' N Long. 71° 19.6' W

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 1.099 meters

TIDE STATION USED: New London, CT 846-1490
Lat. 41° 21.7' N Long. 72° 05.4' W

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 0.839 meters

Tide STATION USED: Montauk, NY 851-0560
Lat. 41° 02.9' Long. 71° 57.6' W

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 0.683 meters

REMARKS: RECOMMENDED GRID

Please use the TCARI grid "B363TJ2009-TCARI-Revised" as the final grid for project OPR-B363-TJ-2009, H12023, during the time period between August 24 and October 14, 2009.

Refer to attachments for grid information.

Note 1: Provided time series data are tabulated in metric units (meters), relative to MLLW and on Greenwich Mean Time on the 1983-2001 National Tidal Datum Epoch (NTDE).

CHIEF, OCEANOGRAPHIC DIVISION

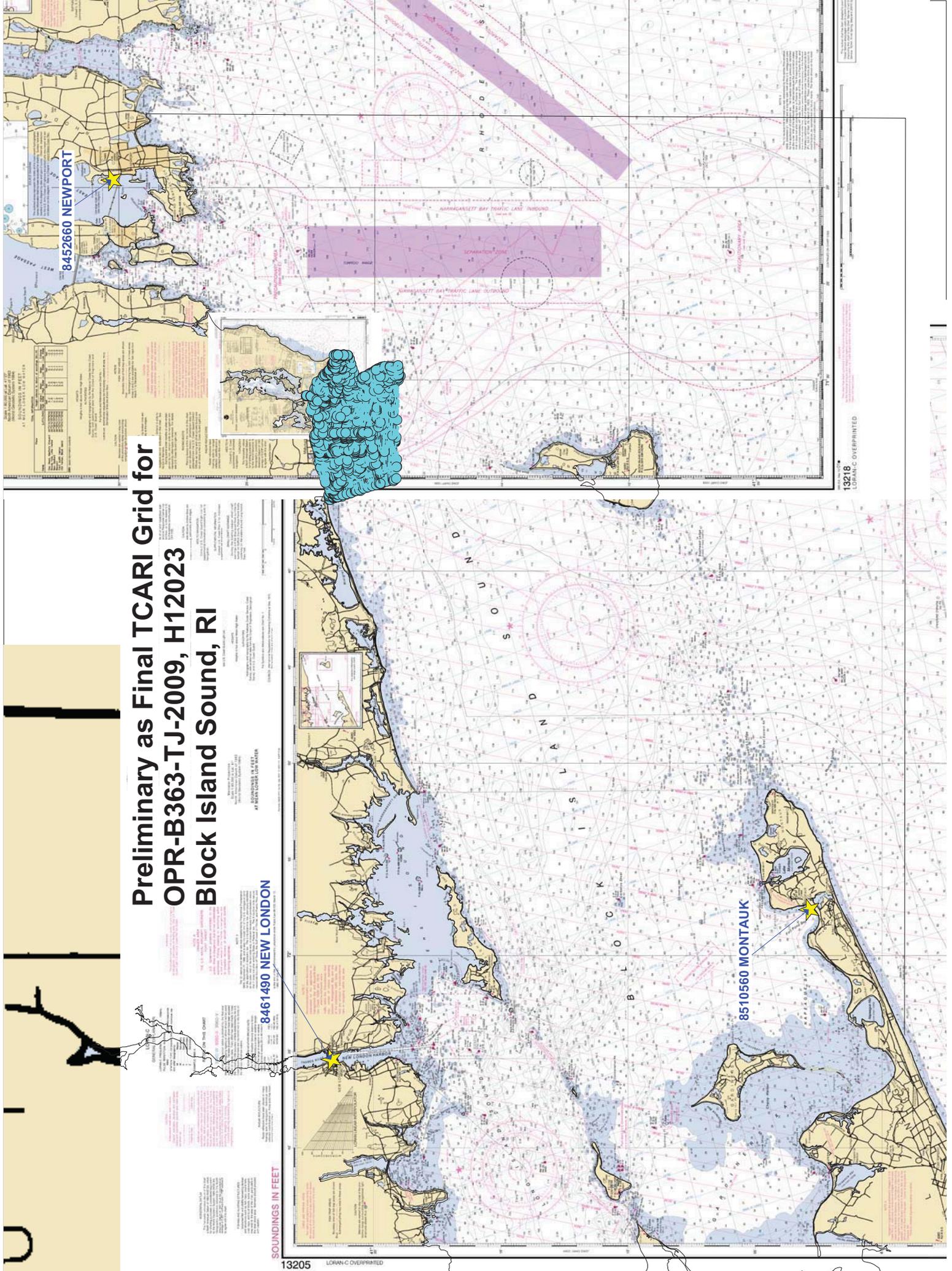


Preliminary as Final TCARI Grid for OPR-B363-TJ-2009, H12023 Block Island Sound, RI

8461490 NEW LONDON

8510560 MONTAUK

8452660 NEWPORT



SOUNDINGS IN FEET

13205 LORAN-C OVERPRINTED

13218 LORAN-C OVERPRINTED

Appendix V

Supplemental Survey Records & Correspondence

Subject: [Fwd: Revised Coverage Requirements]
From: "co.thomas.jefferson" <co.thomas.jefferson@noaa.gov>
Date: Mon, 14 Sep 2009 17:17:28 -0400
To: foo.thomas.jefferson@noaa.gov, daniel wright <daniel.wright@noaa.gov>

Please include in DR correspondence as appropriate.

CO

----- Original Message -----

Subject: Revised Coverage Requirements
Date: Mon, 14 Sep 2009 17:05:00 -0400
From: james.m.crocker <James.M.Crocker@noaa.gov>
To: _NMAO MOA CO Thomas Jefferson <CO.Thomas.Jefferson@noaa.gov>, _NMAO MOA FOO Thomas Jefferson <FOO.Thomas.Jefferson@noaa.gov>
CC: Jeffrey Ferguson <Jeffrey.Ferguson@noaa.gov>, Jeremy McHugh <Jeremy.McHugh@noaa.gov>, Richard T Brennan <Richard.T.Brennan@noaa.gov>, Kyle Ward <Kyle.Ward@noaa.gov>, Benjamin K Evans <Benjamin.K.Evans@noaa.gov>

CDR Smith,

This email is to detail the agreement to relax the multibeam resolution requirements for a survey when collecting multibeam bathymetry concurrent with side scan sonar data, where complete coverage for object detection for the survey is being met by 200% side scan sonar coverage. This agreement supersedes, where applicable, the requirements outlined in the 2009 HSSD and HTD 2009-2 for grid resolution and density.

For all projects assigned in 2009, where the complete coverage requirement for assigned surveys is being met by 200% side scan sonar data acquisition, the following requirements shall be met at a minimum:

- 1 - Grid resolutions shall be 2m for water depths less than 20m, and 4 m for water depths of 20m to 40m.
- 2 - Sounding density requirements are set at a minimum of 2 sounding per node.
- 3 - Grid resolution and density for feature developments used to determine least depth shall meet object detection requirements as defined in 2009 HSSD and HTD 2009-2 and soundings shall be designated where appropriate.

Regards,
Jim

--
CDR Shepard Smith, NOAA
Commanding Officer
NOAA Ship Thomas Jefferson
439 West York St
Norfolk, VA 23510
757-647-0187

Subject: B363, H12023 Dton

From: "jasper schae" <jasper.schae@noaa.gov>

Date: Fri, 18 Dec 2009 14:11:28 -0500

To: OCS.NDB@noaa.gov

CC: richard.t.brennan@noaa.gov, "co.thomas.jefferson" <co.thomas.jefferson@noaa.gov>, james.m.crocker@noaa.gov

See attached.

-js

H12023_DTOns 1-9 Report.zip	Content-Type: application/x-zip-compressed Content-Encoding: base64
------------------------------------	--

Subject: Feature Requirements for H12023

From: "co.thomas.jefferson" <co.thomas.jefferson@noaa.gov>

Date: Wed, 19 Aug 2009 00:55:49 +0000

To: James M Crocker <James.M.Crocker@noaa.gov>, "LCDR Rick Brennan NOAA" <Richard.T.Brennan@noaa.gov>, vanessa.self@noaa.gov, Mark Blankenship <Mark.Blankenship@noaa.gov>

CC: foo.thomas.jefferson@noaa.gov, daniel.wright <daniel.wright@noaa.gov>, Bryan.Chauveau@noaa.gov, Olivia Hauser <Olivia.Hauser@noaa.gov>, peter.lewit@noaa.gov, megan.palmer@noaa.gov, Jeffrey Ferguson <Jeffrey.Ferguson@noaa.gov>

All,

I have taken the liberty of doing some work on the HSD-supplied composite source file to prepare it for use in accordance with our project instructions.

This is what I did:

- 1) Removed all features not within the survey area.
- 2) Removed most prior survey features, except one rock that appears to be the source for a charted rock that is right on the 12 curve.
- 3) Removed all features clearly shoreward of the 4m curve.
- 4) Removed all features not required to be addressed by the survey (fixed aids, etc)
- 5) Compared the chart and original CSF to the orthophotos from NAIP (via RSD). Where there were discrepancies, digitized features from the photo to be confirmed by the survey. identified a foul area, a number of piles and a ruined pier. Also adjusted the positions of a few pilings and one ruined pier.
- 6) For all features, I added a survey requirement in the INFORM field (see below). Most only require visual interpretation from a distance or standard sonar confirmation.
- 7) Updated the SORIND with source as required to track source.
- 8) Exported the total set to a *.000 file.

This is what I expect to happen next:

- 1) Load the *.000 file into the launches in Hypack, import into Pydro, and use as a reference file in HIPS.
- 2) Assign features with visual requirements to the SSS buffer boat. Paper notes and sketches will suffice to document findings.
- 3) Upon return to ship, enter findings into Pydro to document results, updating S-57 attribution as required.
- 4) Reconcile all features in Pydro, flag as report, flag new observations of features as primary. If confirmed by survey, change SORIND to US,US,survey, H12023. Be explicit about disprovals. Modify geometry as necessary.
- 5) There are 52 features with disposition requirements. They all must be included in the reports. Individual pilings do not warrant a separate feature report. They can be flagged as chart but not report in Pydro, and general language inserted in the DR.

I would be happy to discuss this plan with anyone ashore or aboard at any time. We start work on this survey on Friday, weather permitting.

Shep

Feature ID	Acronym	Geome...	Latitude	Longitude	Information	Source indication
US 00000...	DEPCNT	Line			At low tide, confirm shoal is visible.	US,US,ortho,NAIP-2008
US 00000...	MORFAC	Point	41-21-28.36N	071-30-27.20W	Verify position with DP or disprove visually.	US,US,reprt,1stCGD,LNM 21/08
US 00000...	OBSTRN	Point	41-19-15.51N	071-29-52.20W	Obtain position and least depth with ODMB or disprove with 200% SSS	US,US,graph,chart 13218
US 00000...	OBSTRN	Point	41-19-51.49N	071-29-41.18W	Obtain position and least depth with ODMB or disprove with 200% SSS	US,US,graph,chart 13218
US 00000...	OBSTRN	Point	41-21-07.10N	071-34-38.58W	Obtain position and least depth with ODMB or disprove with 200% SSS	US,US,graph,chart 13218
US 00000...	OBSTRN	Point	41-20-24.48N	071-30-29.60W	Obtain position and least depth with ODMB or disprove with 200% SSS	US,US,graph,chart 13218
US 00000...	OBSTRN	Point	41-21-37.96N	071-30-40.09W	Obtain position and least depth with ODMB or disprove with 200% SSS	US,US,graph,chart 13218
US 00000...	OBSTRN	Point	41-21-35.45N	071-29-32.85W	Obtain position and least depth with ODMB or disprove with 200% SSS	US,US,graph,chart 13218
US 00000...	OBSTRN	Point	41-21-20.45N	071-29-06.96W	Obtain position and least depth with ODMB or disprove with 200% SSS	US,US,graph,chart 13218
US 00000...	OBSTRN	Point	41-21-28.80N	071-35-42.60W	Obtain position and least depth with ODMB or disprove with 200% SSS	US,US,reprt,1stCGD,LNM 33/05
US 00000...	OBSTRN	Line			Confirm extents of foul area with MB and SSS buffers.	US,US,ortho,NAIP-2008
US 00000...	PILPNT	Point	41-22-07.96N	071-31-00.92W	Confirm piling is visible.	US,US,Ortho,NAIP-2008
US 00000...	PILPNT	Point	41-22-07.53N	071-31-02.80W	Confirm piling is visible.	US,US,Ortho,NAIP-2008
US 00000...	PILPNT	Point	41-22-06.96N	071-31-03.93W	Confirm piling is visible.	US,US,Ortho,NAIP-2008
US 00000...	PILPNT	Point	41-22-06.71N	071-31-02.86W	Confirm piling is visible.	US,US,Ortho,NAIP-2008
US 00000...	PILPNT	Point	41-21-48.12N	071-29-30.60W	Confirm piling is visible.	US,US,Ortho,NAIP-2008
US 00000...	PILPNT	Point	41-21-36.98N	071-29-32.27W	Confirm piling is visible.	US,US,Ortho,NAIP-2008
US 00000...	PILPNT	Point	41-21-37.06N	071-29-31.16W	Confirm piling is visible.	US,US,Ortho,NAIP-2008
US 00000...	PILPNT	Point	41-21-37.40N	071-29-31.59W	Confirm piling is visible.	US,US,Ortho,NAIP-2008
US 00000...	PILPNT	Point	41-21-47.02N	071-29-30.96W	Confirm piling is visible.	US,US,Ortho,NAIP-2008
US 00000...	PILPNT	Point	41-21-37.40N	071-29-32.66W	Confirm piling is visible.	US,US,Ortho,NAIP-2008
US 00000...	PILPNT	Point	41-22-07.02N	071-31-02.41W	Confirm piling is visible.	US,US,Ortho,NAIP-2008
US 00000...	PILPNT	Point	41-22-07.30N	071-31-03.29W	Confirm piling is visible.	US,US,Ortho,NAIP-2008
US 00000...	PILPNT	Point	41-22-06.40N	071-31-03.41W	Confirm piling is visible.	US,US,Ortho,NAIP-2008
US 00000...	PILPNT	Point	41-21-36.66N	071-29-31.77W	Confirm piling is visible.	US,US,Ortho,NAIP-2008
US 00000...	PILPNT	Point	41-21-47.37N	071-29-30.46W	Confirm piling is visible.	US,US,Ortho,NAIP-2008
US 00000...	PILPNT	Point	41-21-47.50N	071-29-31.65W	Confirm piling is visible.	US,US,Ortho,NAIP-2008
US 00000...	PILPNT	Point	41-21-37.79N	071-29-32.06W	Confirm piling is visible.	US,US,Ortho,NAIP-2008
US 00000...	PILPNT	Point	41-21-47.86N	071-29-31.04W	Confirm piling is visible.	US,US,Ortho,NAIP-2008
US 00000...	PILPNT	Point	41-21-47.66N	071-29-30.04W	Confirm piling is visible.	US,US,Ortho,NAIP-2008
US 00000...	SBDARE	Point	41-20-53.78N	071-32-29.97W	Obtain new sample, compare to DTM.	US,US,graph,chart 13218
US 00000...	SBDARE	Point	41-20-20.30N	071-33-40.91W	Obtain new sample, compare to DTM.	US,US,graph,chart 13218
US 00000...	SBDARE	Point	41-20-29.39N	071-33-11.73W	Obtain new sample, compare to DTM.	US,US,graph,chart 13218
US 00000...	SBDARE	Point	41-21-38.73N	071-32-11.01W	Obtain new sample, compare to DTM.	US,US,graph,chart 13218
US 00000...	SBDARE	Point	41-19-44.28N	071-29-51.04W	Obtain new sample, compare to DTM.	US,US,graph,chart 13218
US 00000...	SBDARE	Point	41-20-40.86N	071-33-41.54W	Obtain new sample, compare to DTM.	US,US,graph,chart 13218
US 00000...	SBDARE	Point	41-21-16.18N	071-34-31.03W	Obtain new sample, compare to DTM.	US,US,graph,chart 13218
US 00000...	SLCONS	Line			From a distance, visually confirm pier is ruined.	US,US,Ortho,NAIP-2008
US 00000...	SLCONS	Line			From a distance, visually confirm pier is ruined.	US,US,Ortho,NAIP-2008
US 00000...	SLCONS	Line			From a distance, visually confirm pier is ruined.	US,US,graph,GC-10585
US 00000...	UWTROC	Point	41-21-56.39N	071-29-45.56W	Locate with SSS buffer. Only approach with permission of the CO.	US,US,graph,survey H07640
US 00000...	UWTROC	Point	41-20-07.56N	071-30-35.07W	Confirm or disprove with ODMB.	US,US,graph,chart 13218
US 00000...	UWTROC	Point	41-20-44.72N	071-30-32.28W	Confirm or disprove with ODMB.	US,US,graph,chart 13218
US 00000...	UWTROC	Point	41-20-18.89N	071-30-11.41W	Confirm or disprove with ODMB.	US,US,graph,chart 13218
US 00000...	UWTROC	Point	41-21-36.02N	071-29-08.11W	Locate with SSS buffer. Only approach with permission of the CO.	US,US,graph,chart 13218
US 00000...	UWTROC	Point	41-20-28.99N	071-30-43.06W	Confirm or disprove with ODMB.	US,US,graph,chart 13218
US 00000...	UWTROC	Point	41-21-52.85N	071-29-41.21W	Locate with SSS buffer. Only approach with permission of the CO.	US,US,graph,chart 13218
US 00000...	UWTROC	Point	41-20-42.82N	071-30-53.60W	Confirm or disprove with ODMB.	US,US,graph,chart 13218
US 00000...	WRECKS	Point	41-19-46.73N	071-32-23.05W	Obtain position and least depth with ODMB or disprove with 200% SSS	US,US,graph,chart 13218
US 00000...	WRECKS	Point	41-19-51.61N	071-31-52.98W	Obtain position and least depth with ODMB or disprove with 200% SSS	US,US,graph,chart 13218
US 00000...	WRECKS	Point	41-21-33.65N	071-30-29.21W	Obtain position and least depth with ODMB or disprove with 200% SSS	US,US,graph,chart 13218
US 00000...	WRECKS	Point	41-21-33.84N	071-30-10.65W	Obtain position and least depth with ODMB or disprove with 200% SSS	US,US,graph,chart 13218

--
 CDR Shepard Smith, NOAA
 Commanding Officer
 NOAA Ship Thomas Jefferson
 439 West York St
 Norfolk, VA 23510
 757-647-0187

H12023_CSF.hob	Content-Type: application/octet-stream
	Content-Encoding: base64

H12023_CSF.000	Content-Type: application/octet-stream
	Content-Encoding: base64

H12023

Aug 27 2009 Palmer Lewis

Spoke to Tom Hoxsie Capt of the North Star fish boat pulling Nets over our ATONS

The group of ATONS are ~~the~~ Commercial Fish traps - They're in Season with from April 1 - Nov 1.

There are 3 groups East Well Trap Brickwater Village Trap, and West Well Trap near Aton 6, Aton 22, Aton 10

The Brickwater Village Trap is removed but may go back in MR Hoxsie would like the traps checked

There are 3-4 Traps 2200 Ft long a few miles off shore in Newport

The Piling checked in the East Jetty at Coast Jett had been there for 50 years

According to MR Hoxsie the Jetty was topped over some of his traps after the last severe storm

Tom Hoxsie phone is ~~XXXXXXXXXXXX~~ Home ~~XXXXXXXXXXXX~~ Cell

*Phone numbers censored for privacy

Subject: smooth tides request, B363, H12023

From: "jasper schae" <jasper.schae@noaa.gov>

Date: Thu, 15 Oct 2009 10:47:58 -0400

To: smooth.tides@noaa.gov

CC: richard.t.brennan@noaa.gov, shep.smith@noaa.gov, Jeremy McHugh <Jeremy.McHugh@noaa.gov>

See attached. -js

H12023_ smooth tide request.zip	Content-Type: application/x-zip-compressed Content-Encoding: base64
--	--

Subject: Re: Composite Source File for H12023

From: "Kyle.Ward" <Kyle.Ward@noaa.gov>

Date: Tue, 18 Aug 2009 08:15:21 -0400

To: "co.thomas.jefferson" <CO.Thomas.Jefferson@noaa.gov>

CC: daniel wright <Daniel.Wright@noaa.gov>, FOO.Thomas.Jefferson@noaa.gov, Peter.Lewit@noaa.gov, "ryan.wartick" <Ryan.Wartick@noaa.gov>, Bryan.Chauveau@noaa.gov, Vanessa.Self@noaa.gov, LCDR Rick Brennan NOAA <Richard.T.Brennan@noaa.gov>

At the beginning of the year when we were considering creating CSFs for the TJ I had Jack demo how a .000 file could be loaded into Pydro. The process was quite easy to load them as chart GPs. I am sure you expert Pydro users have no trouble with this but feel free to ask Jack if you have any questions.

Kyle

co.thomas.jefferson wrote:

CST, FOO, Pete, and ENS Wartick,

On H:\H12023\Presurvey there is a .000 file (also attached) that has just those parts of the Composite Source File that are relevant to H12023. There are around 40 items. I suggest we put them into Pydro so we can work with them as we go. The goal will be to disprove or confirm and describe each. The first step is to get them into Pydro. Bryan said he would be happy to help.

This is part of a larger vision for feature management that I would be happy to discuss at any time.

CO

Subject: Re: Crossline comparison

From: Chris van Westendorp <Christiaan.VanWestendorp@noaa.gov>

Date: Thu, 10 Sep 2009 13:00:35 -0400

To: "mark.blankenship" <Mark.Blankenship@noaa.gov>

CC: LCDR Rick Brennan <Richard.T.Brennan@noaa.gov>, Castle Parker <Castle.E.Parker@noaa.gov>, Edward Owens <Edward.Owens@noaa.gov>, LT Jasper Schaer <jasper.schaer@noaa.gov>, CDR Shep Smith <Shep.Smith@noaa.gov>, Daniel Wright <Daniel.Wright@noaa.gov>

Mark,

Per 5.1.4.3 of the HSSD, AHB authorizes TJ to use the Standard Deviation layer to conduct surface difference comparison and analysis on future survey submissions of multibeam data. This meets the crossline comparison requirement laid out in HSSD.

Please let me know if you have any questions or need for further clarification.

R/

LCDR Chris van Westendorp, NOAA

mark.blankenship wrote:

Chris,

You mentioned in the meeting today that AHB was not going to require the multiple CUBE surface comparison, instead allowing us to use a single surface standard deviation layer to do our checks with. Is there any memo coming out for that?

Mark

LCDR Chris van Westendorp <christiaan.vanwestendorp@noaa.gov>

Atlantic Hydrographic Branch

NOAA OCS

do you agree with the following statement?

Subject: do you agree with the following statement?

From: jasper schaeer <jasper.schaer@noaa.gov>

Date: Mon, 07 Dec 2009 15:02:21 -0500

To: Vanessa.Self@noaa.gov

CC: jasper schaeer <jasper.schaer@noaa.gov>

On the 7th Dec, 2009 after a pre-content review of H12023, two separate timing problems were identified on 3102. CO requested help to come up with solutions from AHB and HSTP. Later in the afternoon, PS Shelf and LT Hauser came aboard and were briefed on these survey issues. They both concurred that since both datasets have variable timing issues, it would be counterproductive to continue working on the dataset. In other words, the end results would not improve much after tweaking with the latency values in the HVF. Their recommendation was to remove the erroneous data from finalize base surfaces, include a descriptive paragraph in the DR about the issues, and if there are any features deal with it accordingly.

Subject: H12023

From: Olivia.Hauser@noaa.gov

Date: Thu, 17 Dec 2009 16:54:23 -0500

To: jasper.schaer@noaa.gov, CO.Thomas.Jefferson@noaa.gov, Mark.Blankenship@noaa.gov

CC: Vanessa.Self@noaa.gov, Richard.T.Brennan@noaa.gov, Peter.Lewit@noaa.gov, Edward.J.Vandenameele@noaa.gov, Caryn.Arnold@noaa.gov

Hello All,

The above survey (H12023) contained a couple of days (DN 243 and DN 268) worth of data that had severe motion data artifacts. After much discussion as to the reason for these artifacts and investigation into whether they could be "fixed" or mitigated, it has been decided that this is not possible. Representatives from Hypack, Reson and HSTP reviewed the lines and based on the information provided, surmised that the issue involved the lack of proper PPS input into the Reson 7125. TJ vessels had several 7125 swaps this summer, and it suspected that there was a problem with I/O module time dll selection and an issue with selecting I/O module hardware ports when switching between units. There have been discussions with the TJ on the proper hardware and software settings and how to identify issues in the future. Also, Justin Freisner from Reson is incorporating this example into his training this winter in Hydrotraining. Please include this correspondence with the survey as you see fit. Thank you.

V/R, Olivia



Michael Davidson <michael.davidson@noaa.gov>

RE: Survey Submission Structure for passback surveys

1 message

Castle Parker <castle.e.parker@noaa.gov>
To: Michael Davidson <michael.davidson@noaa.gov>

Thu, May 10, 2012 at 3:23 PM

Mike,

I concur. Speaking for AHB, I will accept this deviation from the deliverable specifications. I think that it's important for the directory structure to be consistent at the time of survey submission. Please include this accepted spec deviation in DR Appendix 5.

Thanks for your consideration with this subject and I completely agree with you.

Regards,

Gene

From: Michael Davidson [mailto:michael.davidson@noaa.gov]
Sent: Thursday, May 10, 2012 3:01 PM
To: Castle Parker
Subject: Survey Submission Structure for passback surveys

Gene,

TJ has a few surveys that were passed back for additional work. In the next several weeks, we will be submitting surveys from 2009, 2010, 2011, followed soon there after by current surveys from 2012. In an attempt to make things consistent, I would like to submit all the surveys according to the 2012 Specs and Deliverables. Before doing this, I wanted to check with you to see if this would be considered non-compliant with S&D for the prior year surveys.

If AHB agrees with our proposal to submit all surveys in the 2012 Directory Structure, please email back concurrence and I will include this email thread in Appendix V for documentation.

Thank you for your time.

V/R,

Mike

--

LT Michael C. Davidson