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:
HYDROGRAPHIC TITLE SHEET	**H12023**

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:	***Atlantic Hydrographic Branch***		
Soundings in:	Meters at MLLW		

The purpose of this survey is to provide contemporary surveys to update National Ocean Service (NOS) nautical charts. All separates are filed with the hydrographic data. Revisions and Rednotes were generated during office processing. The processing branch concurs with all information and recommendations in the DR unless otherwise noted. Page numbering may be interrupted or non-sequential. All pertinent records for this survey, including the Descriptive Report, are archived at the National Geophysical Data Center (NGDC) and can be retrieved via http://www.ngdc.noaa.gov/.

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.

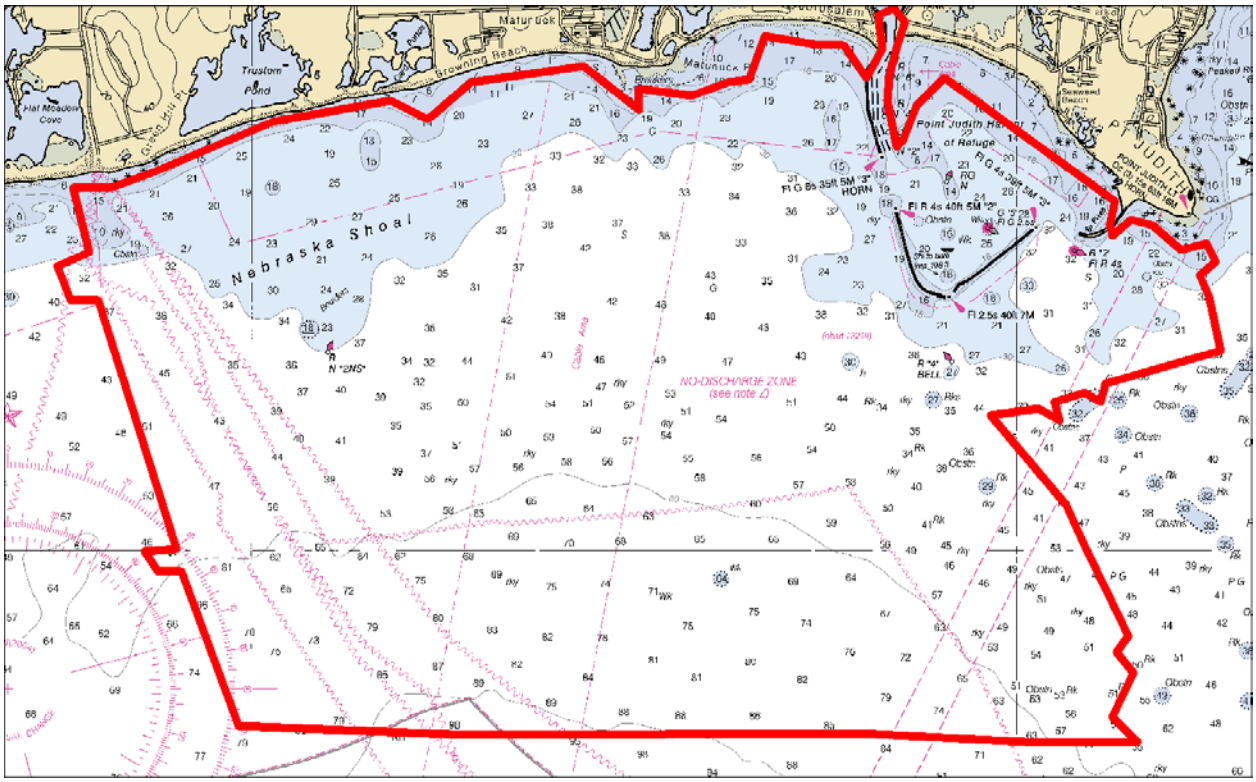


Figure 1: H12023 Survey Limits.

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.

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.

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).

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.

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

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.

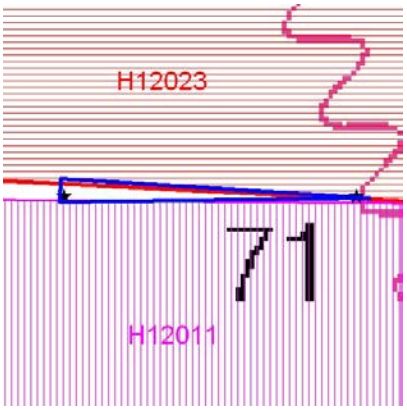


Figure 3: Coverage gap between H12023 and H12011

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.

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	*Rude*	East
H12011	1:7,500	2009	*Thomas Jefferson*	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.

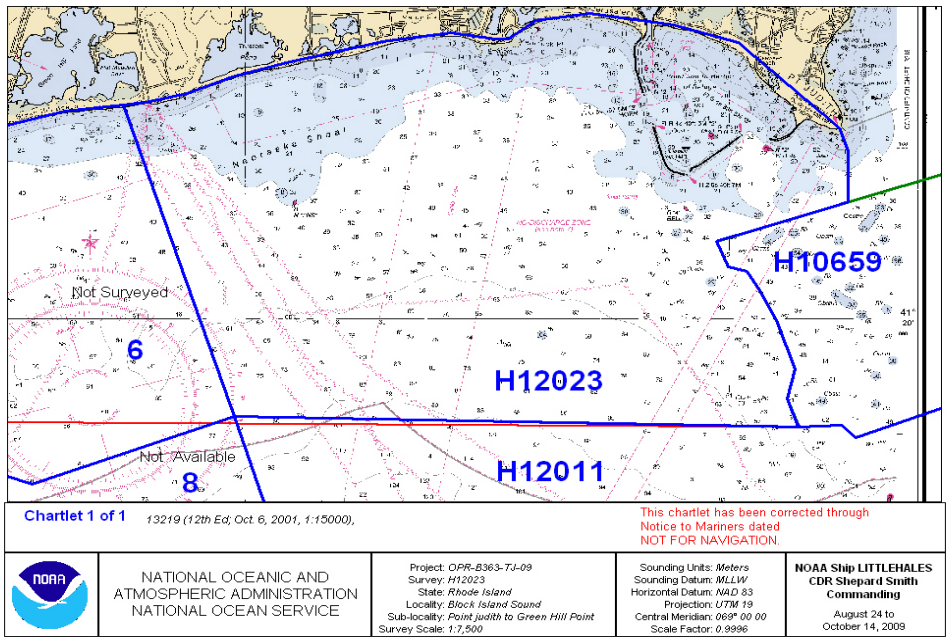


Figure 4: Survey Junctions

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.

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).

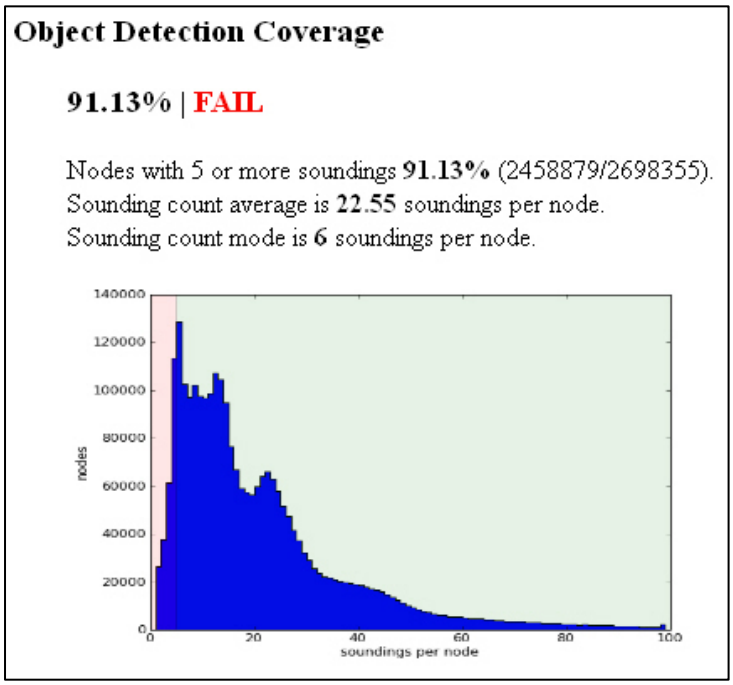


Figure 6: Sounding density plot produced with Python script

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).

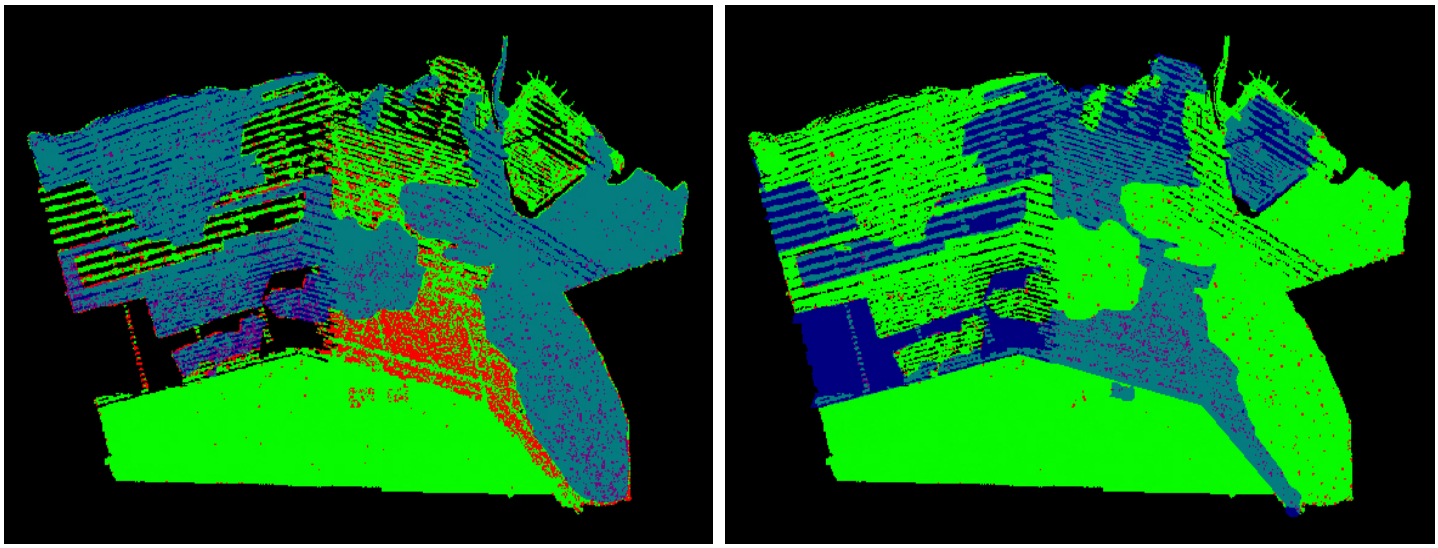


Figure 7: Density Comparison - On left, Object Detection MB areas are highlighted in transparent blue, green nodes have 5 or more soundings per node, and red nodes have fewer. On right, 200% SS coverage is highlighted in blue, green nodes have 2 or more soundings per node, and red nodes have fewer.

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).

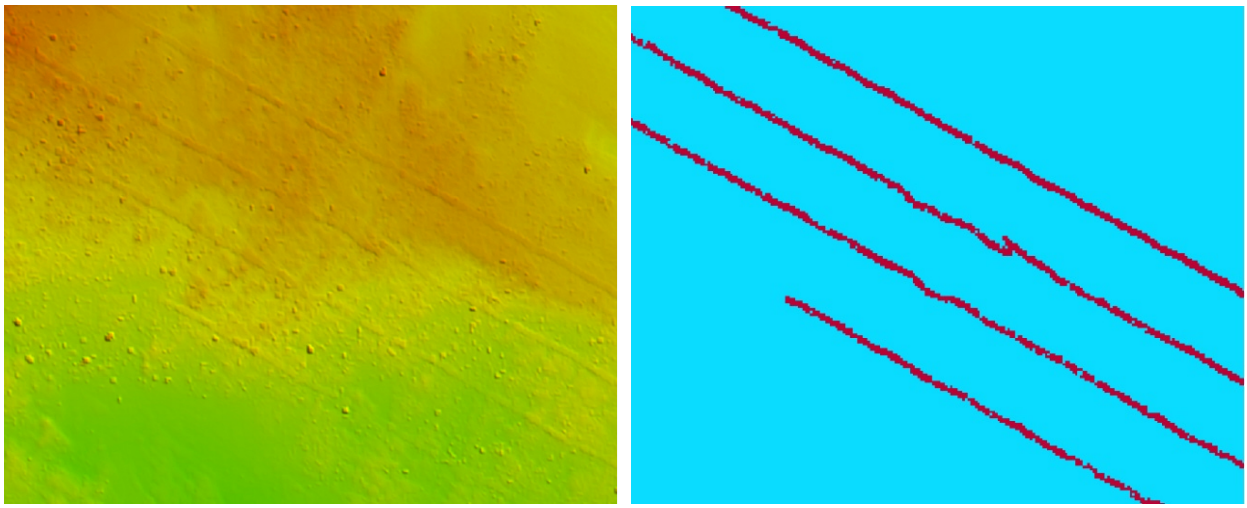


Figure 8: Vertical offset between VB and MB data as exhibited in the Depth (left) and Contributer (right) layers of the combined grid

B 3. CORRECTIONS TO ECHO SOUNDING

HDCS 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.

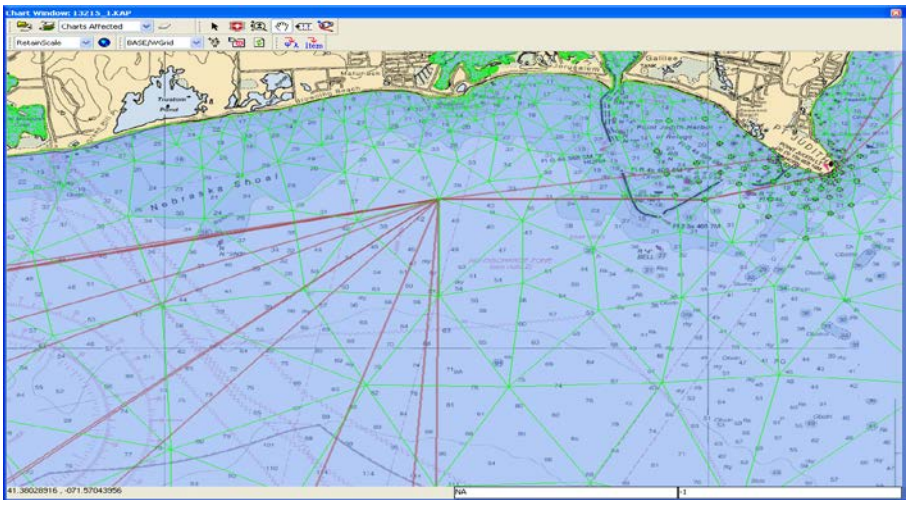


Figure 9: TCARI Zones.

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***.

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		
	Measured	Zoning	CTD	MVP	Surface
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 Bathymetery
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.

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/OPS1on 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).

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

Shore to18ft 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.

Seaweed Beach to The Breachway

Shore to18ft 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.

Shore to18ft 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 CaptainTom 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.

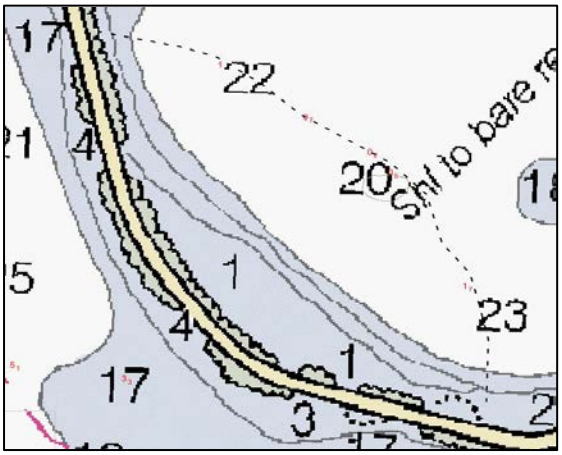


Fig 11: Shoal to bare

D.1.2 Chart 13215

Point Judith to Seaward Beach

Same as 13219.

Seaward Beach to The Breachway

Same as 13219.

The Breachway to Matunuck Pt.

Same as 13219.

Matunuck Pt to Nebraska Shoal

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.

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.

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.

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.

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).

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.

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

Tides and Water Levels

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

Generated by Pydro v9.9 (r2712) on Thu Oct 15 14:46:22 2009 [UTC]

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 DEPARMENT 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.

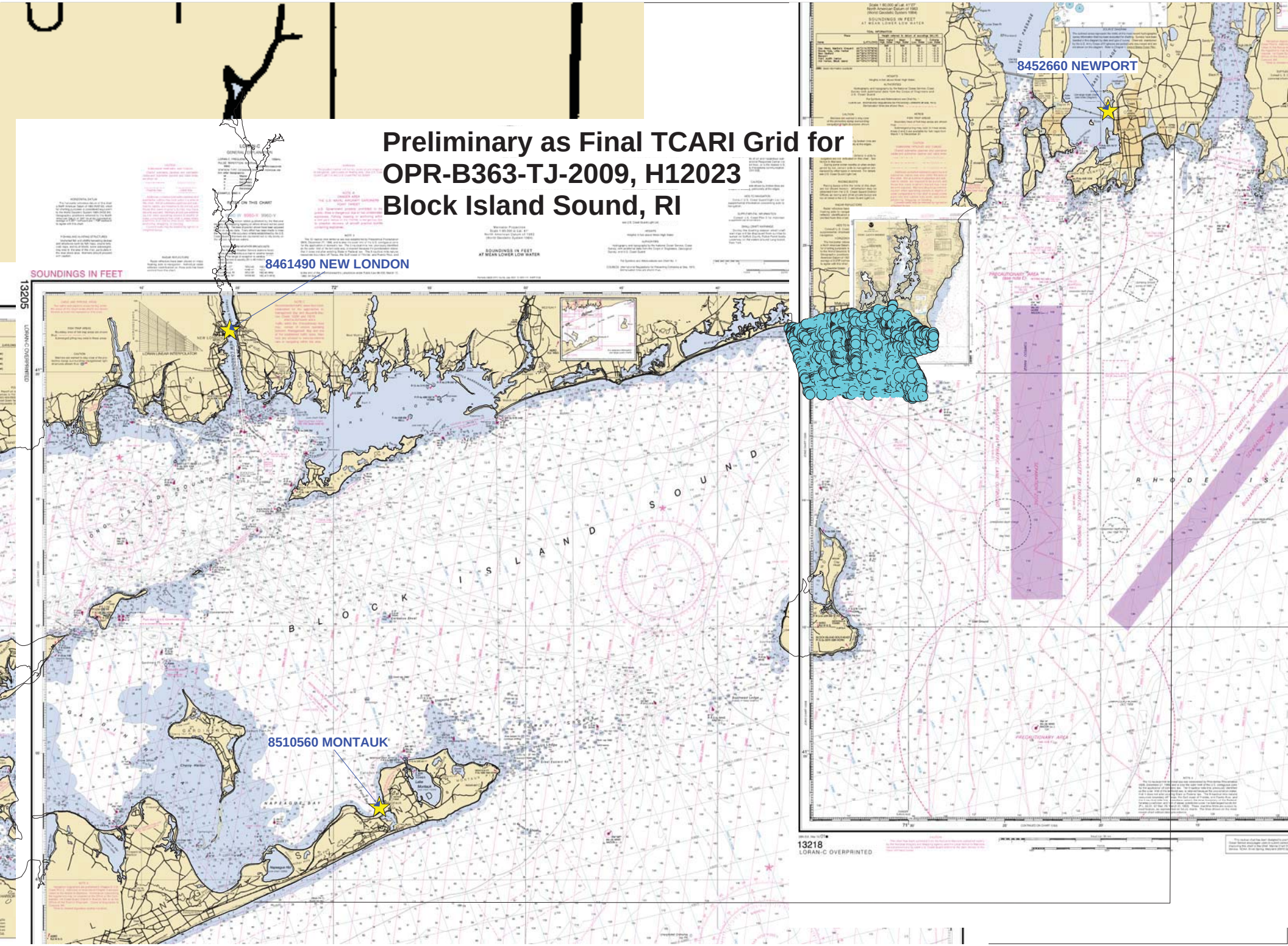
Refer to attachments for grid information.

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).

Peter J. Stone

Digitally signed by Peter J. Stone
DN: cn=Peter J. Stone, o=CO-OPS, ou=NOAA/NOS, email=peter.stone@noaa.gov, c=US
Date: 2009.10.30 16:50:55 -04'00'

CHIEF, OCEANOGRAPHIC DIVISION


Preliminary as Final TCARI Grid for
OPR-B363-TJ-2009, H12023
Block Island Sound, RI
8461490 NEW LONDON
8452660 NEWPORT
8510560 MONTAUK
SOUNDINGS IN FEET
13205
LORAN-C OVERPRINTED
13218
LORAN-C OVERPRINTED
BLOCK ISLAND SOUND
LONG ISLAND SOUND
RHODE ISL

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 meet 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 schaer" <jasper.schaer@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,survy, 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

Selection

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 Lewitt

Spoke to Tom Hoxsie Capt of the
North Star fish boat pulling nets over our ATONS
The group of Atons are Commercial
Fish traps - They're in Seasonally from
April 1 - Nov 1.

There are 3 groups East Well Trap
Breakwater Village Trap, and West Well Trap
Near ATON 6, Aton 22, Aton 10
The Breakwater Village Trap is Removed but
may go Back in
MR Hoxsie would like the Traps charted

There are 3-4 Traps 2200 Ft Long
a Few miles off shore in Newport

The Piling charted in the East Jetty at
Point Judith hasn't Been There For 50 years

According to MR Hoxsie The Jetty
was Toppling over Some of his Traps
After the last Severe Storm

Tom Hoxsie Phone is [redacted] Home
[redacted] Cell

*Phone numbers censored for privacy

Subject: smooth tides request, B363, H12023
From: "jasper schaer" <jasper.schaer@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

U.S. DEPARTMENT OF COMMERCE
(10-95)NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

VESSEL No. S222	PROJECT NO. OPR-B363-TJ-09 FIELD NO. N/A SHEET LETTER: "N/A"		YEAR 2009	SURVEY TITLE: N/A			SURVEY NO: H12023 and 8	CHECKED BY:	DATE CHECKED:

POSITION NUMBERS	DAY OF THE YEAR	SAMPLE POSITION		DEPTHS (METERS)	TYPE OF SAMPLER	APPROXIMATE PENETRATION (CENTIMETERS)	LENGTH OF CORE	FIELD DESCRIPTION SIZE OR CONSISTENCY COLOR-NOUN (USE STANDARD ABBREVIATIONS)	REMARKS (Unusual conditions ,cohesiveness, dented cutter, stat.no.,type of bottom, relief .i.e slope plain disposition etc.) Vessels
		LATITUDE (o ' ") North	LONGITUDE (o ' ") West						
1A	285	41°21'38.681"	071°30'00.488"	8.7	Snapper	3cm	N/A	Si	3102
2	285	41°21'17.682"	071°31'57.988"	13.2	Polnar	6cm	N/A	S	S222
3		41°21'33.675"	071°32'33.937"	11.6	Polnar	6cm	N/A	G Sh	S222
4		41°19'41.505"	071°33'04.407"	23.7	Polnar	6cm	N/A	Si	S222
5		41°19'30.408"	071°31'21.012"	23.3	Polnar	6cm	N/A	Si	S222
6		41°20'31.823"	071°33'37.959"	16.2	Polnar	6cm	N/A	crs S G	S222
					* Sampler type is a Ponar, not Polnar as indicated.				

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

Subject: do you agree with the following statement?
From: jasper schaer <jasper.schaer@noaa.gov>
Date: Mon, 07 Dec 2009 15:02:21 -0500
To: Vanessa.Self@noaa.gov
CC: jasper schaer <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 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 correspondance 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> Thu, May 10, 2012 at 3:23 PM
To: Michael Davidson <michael.davidson@noaa.gov>

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

Appendix III

Survey Features Report

AWOIS

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 Date: 10/14/2009

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
13219	12th	10/06/2001	1:15,000 (13219_1)	[L]NTM: ?
13215	20th	02/01/2011	1:40,000 (13215_1)	USCG LNM: 5/29/2012 (6/19/2012) CHS NTM: None (5/25/2012) NGA NTM: None (6/30/2012)
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.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	AWOIS #1873 - 70ft WRECK	Wreck	21.29 m	41° 19' 47.4" N	071° 32' 20.7" W	1873
1.2	AWOIS #7480 - 62ft WRECK	Wreck	19.05 m	41° 19' 51.1" N	071° 31' 56.4" W	---
1.3	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.4	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.5	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.6	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.7	MARITIME BOUNDARY POINT	AWOIS	[no data]	[no data]	[no data]	---

1.8	MARITIME BOUNDARY POINT	AWOIS	[no data]	[no data]	[no data]	---
1.9	MARITIME BOUNDARY POINT	AWOIS	[no data]	[no data]	[no data]	---
1.10	MARITIME BOUNDARY POINT	AWOIS	[no data]	[no data]	[no data]	---
1.11	MARITIME BOUNDARY POINT	AWOIS	[no data]	[no data]	[no data]	---

1 - AWOIS

1.1) AWOIS #1873 - 70ft WRECK

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:

[None]

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 (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp: 2009-287.00:00:00.000 (10/14/2009)
Dataset: H12023_Features.000
FOID: US 0000850024 00001(0226000CF8680001)
Charts Affected: 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

WRECKS/remrks: 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 reamains of the wreck were found.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12023_Features.000	US 0000850024 00001	0.00	000.0	Primary
AWOIS_EXPORT	AWOIS # 1873	7.67	009.2	Secondary (grouped)

Hydrographer Recommendations

Retain wreck and update depth.

Cartographically-Rounded Depth (Affected Charts):

70ft (13215_1, 13205_1, 13218_1)

11fm (12300_1, 13006_1, 13003_1)

21m (5161_1)

S-57 Data

Geo object 1:	Wreck (WRECKS)
Attributes:	CATWRK - 3:distributed remains of wreck
	NINFOM - Add 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 - 21.292 m
	WATLEV - 3:always under water/submerged

Office Notes

AHB SAR: Survey coverage meets AWOIS search radius requirement. Feature located at survey position with 200% SSS and Object Detection MB. Compile: Delete the charted 71 ft wreck. Add the 70ft wreck at surveyed position.

Feature Images

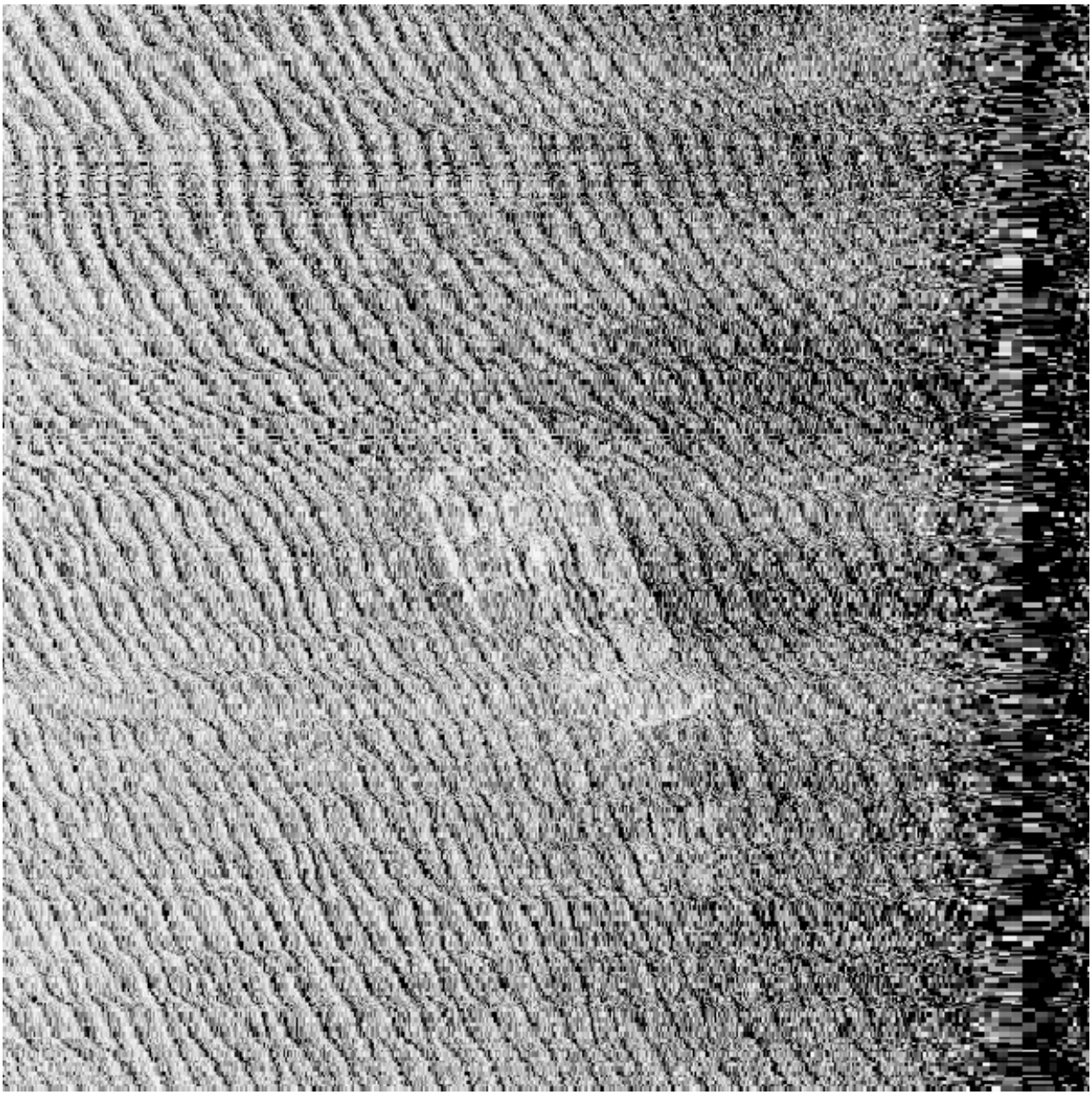


Figure 1.1.1

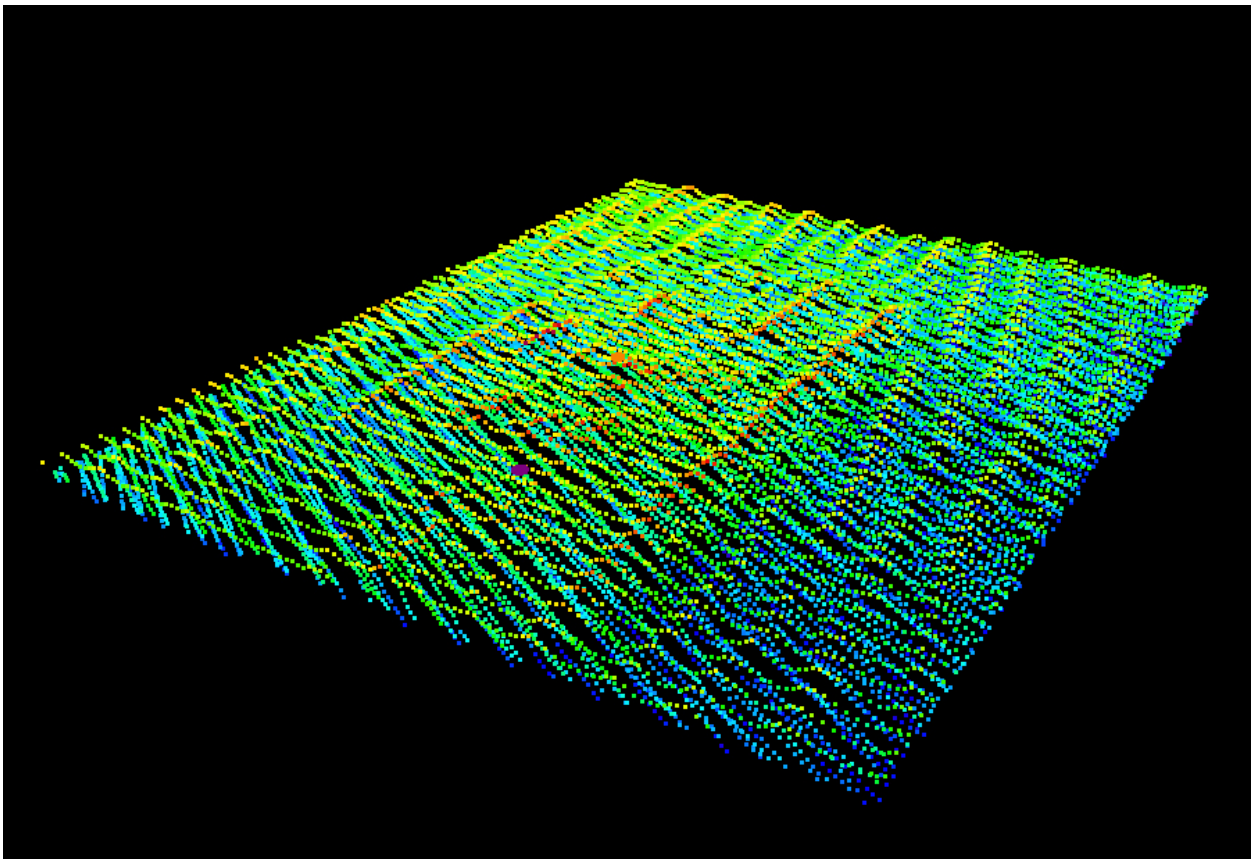


Figure 1.1.2

1.2) AWOIS #7480 - 62ft WRECK

Survey Summary

Survey Position:	41° 19' 51.1" N, 071° 31' 56.4" W
Least Depth:	19.05 m (= 62.49 ft = 10.416 fm = 10 fm 2.49 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2009-287.00:00:00.000 (10/14/2009)
Dataset:	H12023_Features.000
FOID:	US 0000850038 00001(0226000CF8760001)
Charts Affected:	13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

WRECKS/remrks: 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
H12023_Features.000	US 0000850038 00001	0.00	000.0	Primary

Hydrographer Recommendations

Revise wreck.

Cartographically-Rounded Depth (Affected Charts):

62ft (13215_1, 13205_1, 13218_1)

10 ¼fm (12300_1, 13006_1, 13003_1)

19.0m (5161_1)

S-57 Data

Geo object 1:	Wreck (WRECKS)
Attributes:	CATWRK - 2:dangerous wreck
	NINFOM - Add 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 - 19.048 m

WATLEV - 3:always under water/submerged

Office Notes

AHB SAR: Survey coverage meets AWOIS search radius requirement. Feature located at survey position with 200% SSS and Object Detection MB. Compile: Delete the charted 64 ft wreck. Add the 62 ft wreck at surveyed position.

Feature Images

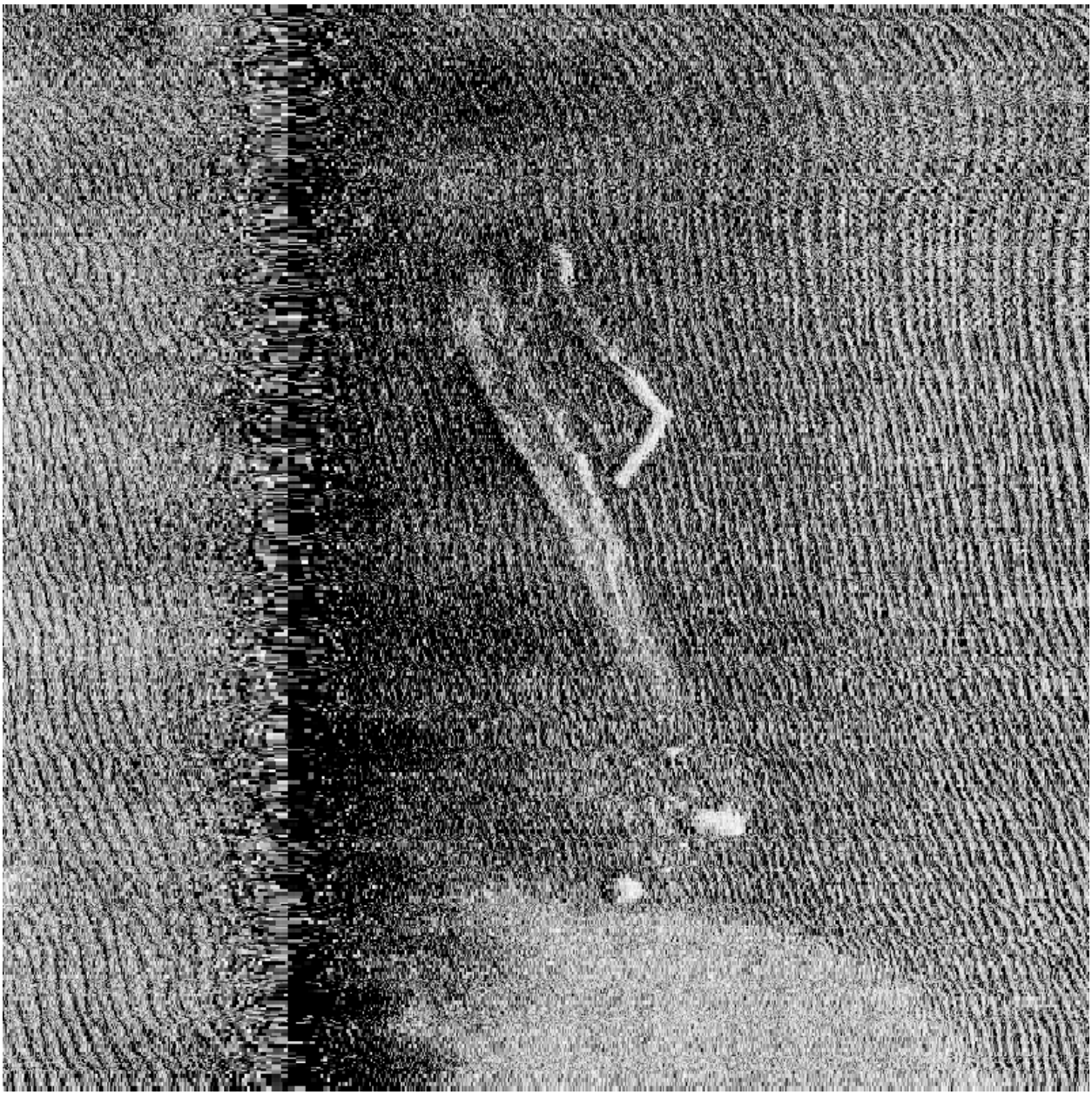


Figure 1.2.1

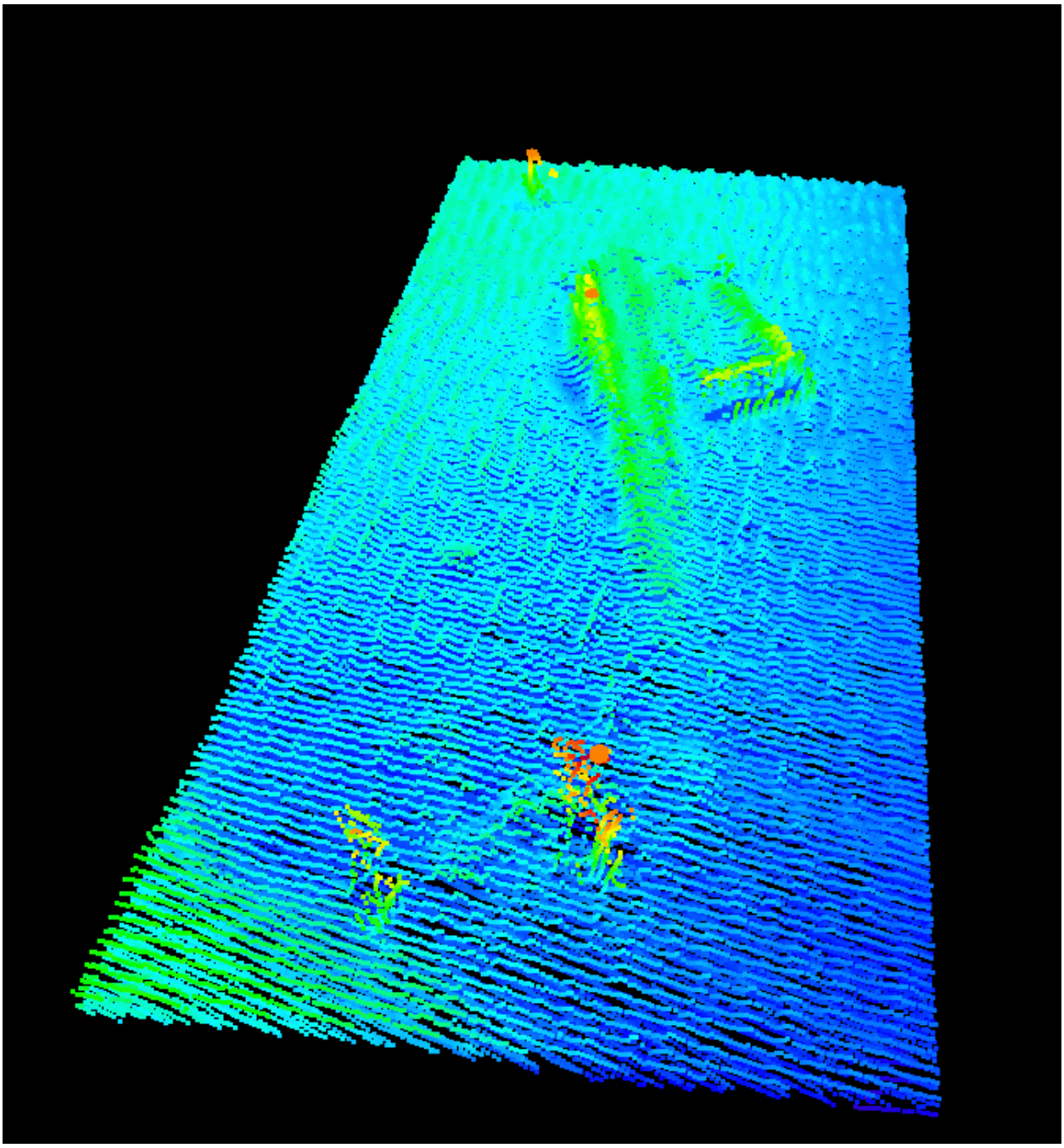


Figure 1.2.2

1.3) AWOIS #7224 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

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 ì

LAT 41-21-37N, LONG 71-30-40W. (ENTERED MSM 3/89)

Survey Summary

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. No obstruction was found within the search radius.

Feature Correlation

Source	Feature	Range	Azimuth	Status
AWOIS_EXPORT	AWOIS # 7224	0.00	000.0	Primary

Hydrographer Recommendations

Remove obstruction.

S-57 Data

[None]

Office Notes

AHB SAR: Survey coverage meets AWOIS search radius requirement. Feature disproved by 200% SSS and Object Detection MB. Compile: Delete charted obstruction.

1.4) AWOIS #7279 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

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

LNM14/85--APPROXIMATELY 600 TONS OF STONE HAS BEEN REPORTED ì

SUNK IN PA LAT 41-21-20N, LONG 71-29-10W. (ENTERED MSM 4/89)

Survey Summary

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. No obstruction was found.

Feature Correlation

Source	Feature	Range	Azimuth	Status
AWOIS_EXPORT	AWOIS # 7279	0.00	000.0	Primary

Hydrographer Recommendations

Remove obstruction.

S-57 Data

[None]

Office Notes

AHB SAR: Survey coverage meets AWOIS search radius requirement. There is no feature matching the AWOIS description within the search radius. Feature disproved by 200% SSS and Object Detection MB. Compile: Delete charted obstruction

1.5) AWOIS #14443 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

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

Charts Affected: 13215_1, 13205_1, 13218_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. Nothing was found within the AWOIS radius.

Feature Correlation

Source	Feature	Range	Azimuth	Status
AWOIS_EXPORT	AWOIS # 14443	0.00	000.0	Primary

Hydrographer Recommendations

Remove submerged obstruction.

S-57 Data

[None]

Office Notes

AHB SAR: Survey coverage meets AWOIS search radius requirement. Feature considered disproved by 200% SSS and Object Detection MB. Compile: Delete charted obstruction

1.6) AWOIS #14444 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

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

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. Nothing was found within the AWOIS radius.

Feature Correlation

Source	Feature	Range	Azimuth	Status
AWOIS_EXPORT	AWOIS # 14444	0.00	000.0	Primary

Hydrographer Recommendations

Remove submerged obstruction.

S-57 Data

[None]

Office Notes

AHB SAR: Survey coverage meets AWOIS search radius requirement. Feature considered disproved by 200% SSS and Object Detection MB. Compile: Delete charted obstruction

1.7) AWOIS #14483 - MARITIME BOUNDARY POINT

No Primary Survey Feature for this AWOIS Item

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

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
AWOIS_EXPORT	AWOIS # 14483	0.00	000.0	Primary

Hydrographer Recommendations

Retain as Charted.

S-57 Data

[None]

Office Notes

AHB SAR: Feature not investigated. Charted feture not investigated based upon the location in the near shore area and outside the H12023 coverage extents. Compile: Feature not investigated. No cartographic action needed.

1.8) AWOIS #14485 - MARITIME BOUNDARY POINT

No Primary Survey Feature for this AWOIS Item

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

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
AWOIS_EXPORT	AWOIS # 14485	0.00	000.0	Primary

Hydrographer Recommendations

Retain as charted.

S-57 Data

[None]

Office Notes

AHB SAR: Feature not investigated. Charted feture not investigated based upon the location in the near shore area and outside the H12023 coverage extents. Compile: Feature not investigated. No cartographic action needed.

1.9) AWOIS #14484 - MARITIME BOUNDARY POINT

No Primary Survey Feature for this AWOIS Item

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

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
AWOIS_EXPORT	AWOIS # 14484	0.00	000.0	Primary

Hydrographer Recommendations

Retain as charted.

S-57 Data

[None]

Office Notes

AHB SAR: Feature not investigated. Charted feture not investigated based upon the location in the near shore area and outside the H12023 coverage extents. Compile: Feature not investigated. No cartographic action needed.

1.10) AWOIS #14486 - MARITIME BOUNDARY POINT

No Primary Survey Feature for this AWOIS Item

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

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
AWOIS_EXPORT	AWOIS # 14486	0.00	000.0	Primary

Hydrographer Recommendations

Retain as charted.

S-57 Data

[None]

Office Notes

AHB SAR: Feature not investigated. Charted feture not investigated based upon the location in the near shore area and outside the H12023 coverage extents. Compile: Feature not investigated. No cartographic action needed.

1.11) AWOIS #14482 - MARITIME BOUNDARY POINT

No Primary Survey Feature for this AWOIS Item

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

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
AWOIS_EXPORT	AWOIS # 14482	0.00	000.0	Primary

Hydrographer Recommendations

Retain as Charted.

S-57 Data

[None]

Office Notes

AHB SAR: Feature not investigated. Charted feture not investigated based upon the location in the near shore area and outside the H12023 coverage extents. Compile: Feature not investigated. No cartographic action needed.

Wrecks

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 Date: 10/14/2009

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
13219	12th	10/06/2001	1:15,000 (13219_1)	[L]NTM: ?
13215	20th	02/01/2011	1:40,000 (13215_1)	USCG LNM: 5/29/2012 (6/19/2012) CHS NTM: None (5/25/2012) NGA NTM: None (6/30/2012)
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.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	12ft WRECK	Wreck	3.66 m	41° 21' 32.9" N	071° 30' 28.0" W	---
1.2	6ft WRECK	Wreck	2.00 m	41° 21' 34.5" N	071° 30' 11.1" W	---

1 - Wrecks

1.1) 12ft 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 (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2009-287.00:00:00.000 (10/14/2009)
Dataset:	H12023_Features.000
FOID:	US 0000850074 00001(0226000CF89A0001)
Charts Affected:	13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

WRECKS/remrks: 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
H12023_Features.000	US 0000850074 00001	0.00	000.0	Primary

Hydrographer Recommendations

Revise charted wreck.

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:	Wreck (WRECKS)
Attributes:	CATWRK - 2:dangerous wreck
	NINFOM - Add 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 - 3.659 m

WATLEV - 3:always under water/submerged

Office Notes

AHB SAR: Charted feature located at survey position with 200% SSS and Object Detection MB. Compile: Delete charted 15 ft wreck and add the 12 ft wreck at the surveyed position.

Feature Images

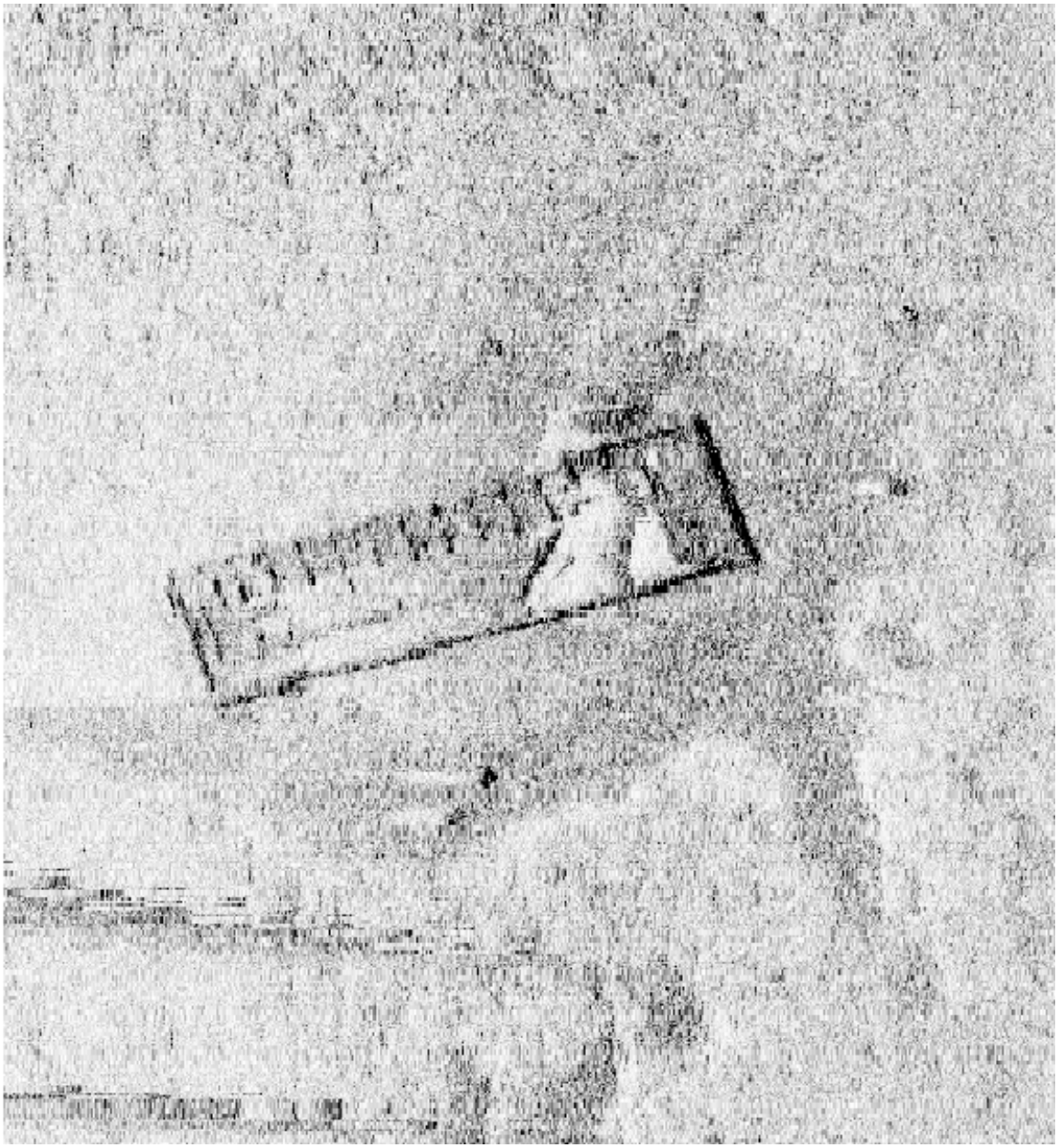


Figure 1.1.1

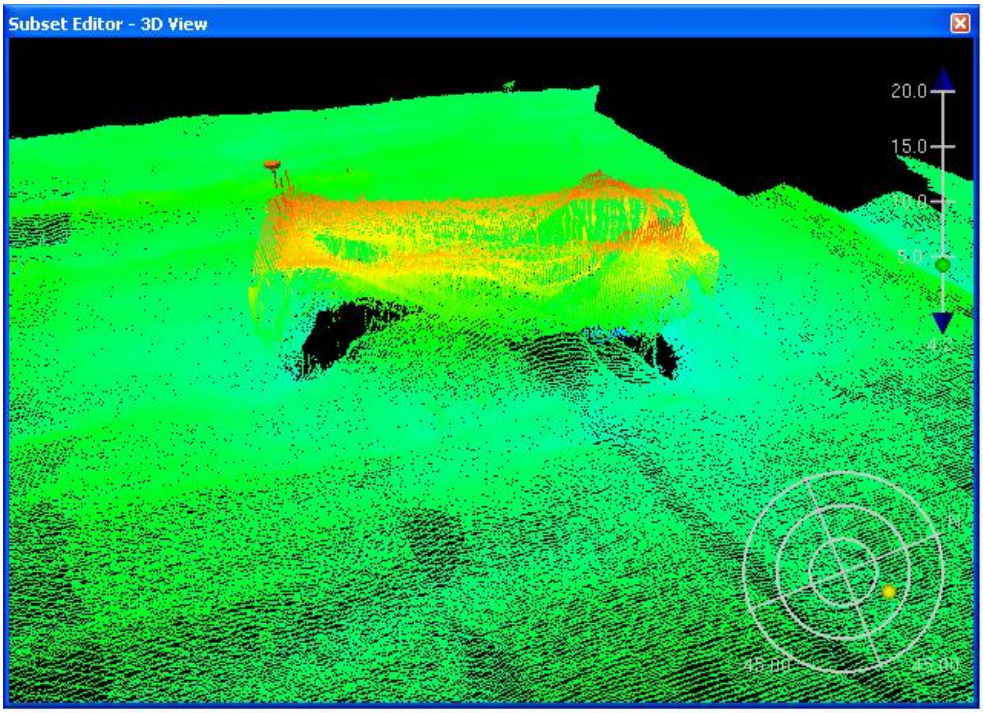


Figure 1.1.2

1.2) 6ft WRECK

Survey Summary

Survey Position:	41° 21' 34.5" N, 071° 30' 11.1" W
Least Depth:	2.00 m (= 6.57 ft = 1.095 fm = 1 fm 0.57 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2009-287.00:00:00.000 (10/14/2009)
Dataset:	H12023_Features.000
FOID:	US 0000850106 00001(0226000CF8BA0001)
Charts Affected:	13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

WRECKS/remrks: 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
H12023_Features.000	US 0000850106 00001	0.00	000.0	Primary

Hydrographer Recommendations

Revise charted wreck.

Cartographically-Rounded Depth (Affected Charts):

6ft (13219_1, 13215_1, 13205_1, 13218_1)

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

2.0m (5161_1)

S-57 Data

Geo object 1:	Wreck (WRECKS)
Attributes:	CATWRK - 2:dangerous wreck
	NINFOM - Add 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 - 2.002 m

WATLEV - 3:always under water/submerged

Office Notes

AHB SAR: Charted feature located at survey position with 200% SSS and Object Detection MB. Compile: Delete charted wreck and add the 6 ft wreck at the surveyed position.

Feature Images

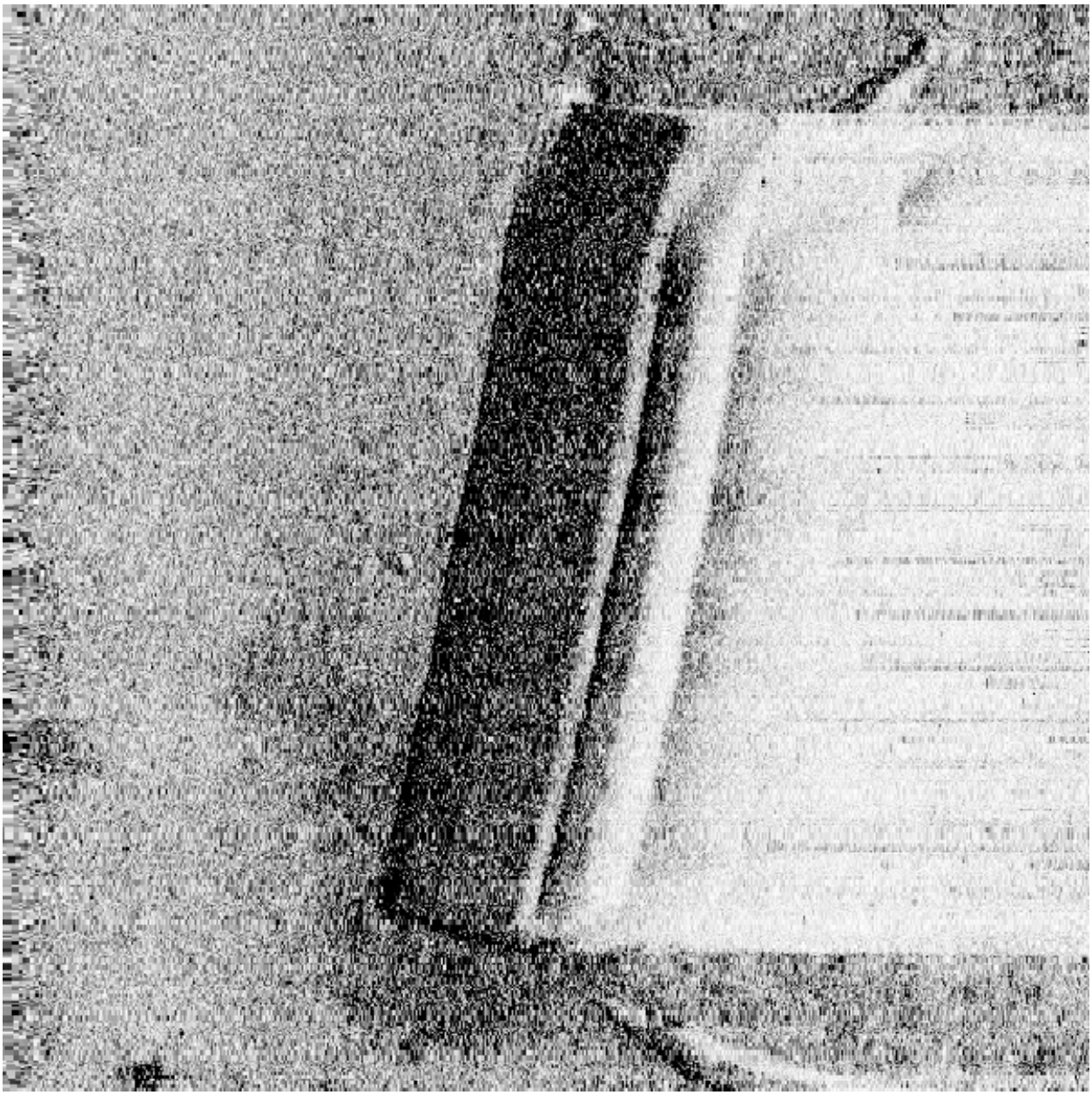


Figure 1.2.1

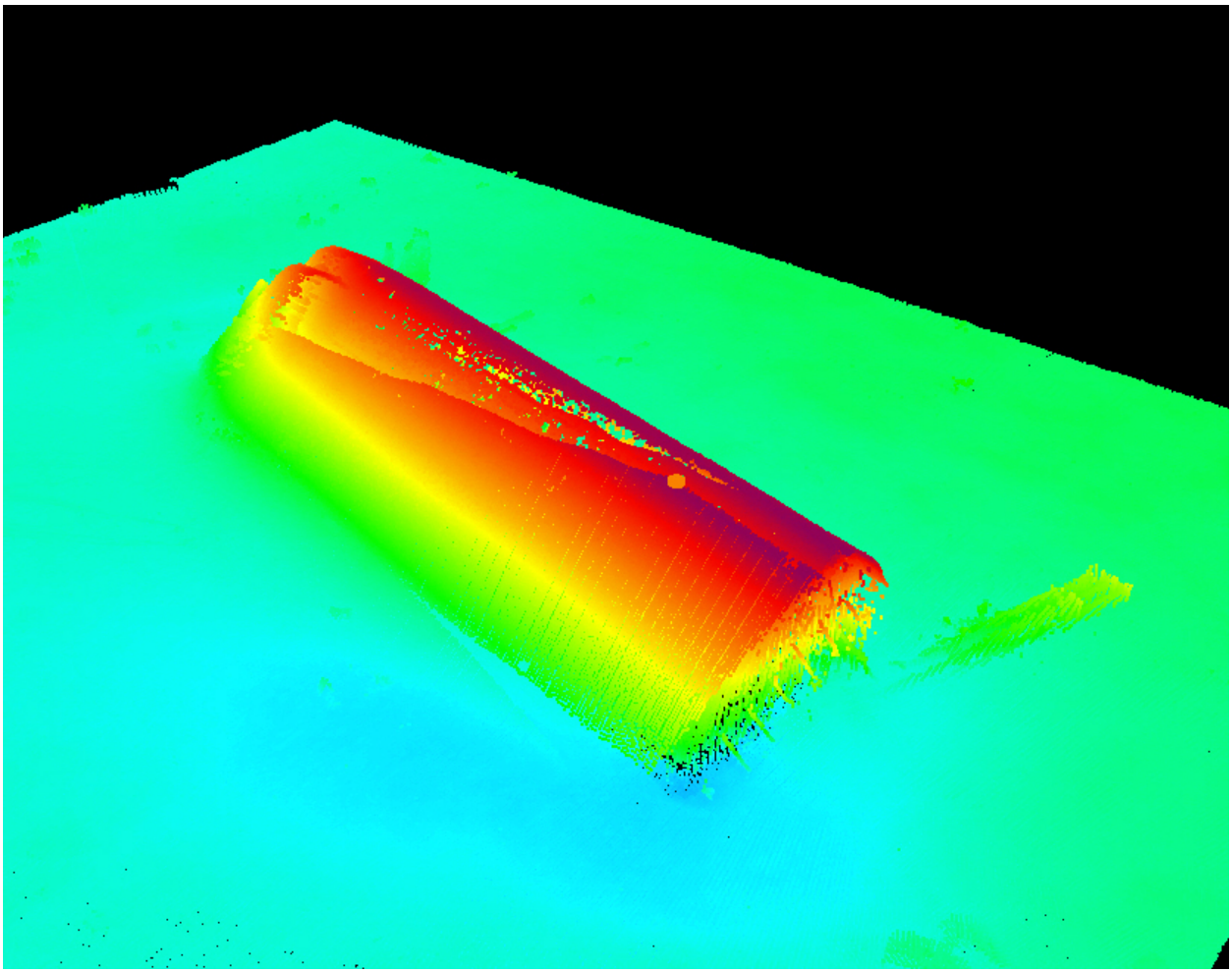


Figure 1.2.2

DtoNs

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: 10/14/2009 - 09/14/2010

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
13219	12th	10/06/2001	1:15,000 (13219_1)	[L]NTM: ?
13215	20th	02/01/2011	1:40,000 (13215_1)	USCG LNM: 5/29/2012 (6/19/2012) CHS NTM: None (5/25/2012) NGA NTM: None (6/30/2012)
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.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	DtoN-36ft Rock	Rock	10.90 m	41° 21' 04.9" N	071° 32' 26.0" W	---
1.2	DtoN-38ft OBSTRN	Obstruction	11.77 m	41° 21' 13.6" N	071° 32' 19.5" W	---
1.3	DtoN-48ft WRECK	Wreck	14.79 m	41° 20' 32.9" N	071° 31' 49.2" W	---
1.4	DTON-12ft UWTROC	Rock	3.78 m	41° 21' 48.7" N	071° 31' 07.4" W	---
1.5	DTON-11ft UWTROC	Rock	3.32 m	41° 21' 54.1" N	071° 30' 57.9" W	---
1.6	DTON-11ft UWTROC	Rock	3.36 m	41° 21' 16.2" N	071° 30' 39.8" W	---
1.7	DtoN-22ft OBSTRN	Obstruction	6.83 m	41° 21' 27.5" N	071° 29' 59.6" W	---
1.8	DtoN-19ft OBSTRN	Obstruction	5.99 m	41° 21' 29.6" N	071° 29' 56.0" W	---

1.9	DTON-4ft UWTROC	Rock	1.38 m	41° 21' 53.4" N	071° 29' 42.4" W	---
1.10	DTON-20ft UWTROC	Rock	6.28 m	41° 21' 10.0" N	071° 29' 22.8" W	---
1.11	DTON-19ft UWTROC	Rock	5.87 m	41° 21' 14.9" N	071° 28' 58.5" W	---
1.12	DTON-15ft UWTROC	Rock	4.75 m	41° 21' 22.0" N	071° 28' 49.7" W	---
1.13	DTON-26ft UWTROC	Rock	8.03 m	41° 21' 10.0" N	071° 28' 44.8" W	---

1 - DtoN

1.1) DtoN-36ft Rock

DANGER TO NAVIGATION

Survey Summary

Survey Position:	41° 21' 04.9" N, 071° 32' 26.0" W
Least Depth:	10.90 m (= 35.75 ft = 5.959 fm = 5 fm 5.75 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2009-287.00:00:00.000 (10/14/2009)
Dataset:	H12023_Features.000
FOID:	US 0000907089 00001(0226000DD7510001)
Charts Affected:	13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

UWTROC/remrks: Rock observed during AHB Compile

Hydrographer Recommendations

Chart rock at surveyed position

Cartographically-Rounded Depth (Affected Charts):

36ft (13219_1, 13215_1, 13205_1, 13218_1)

6fm (12300_1, 13006_1, 13003_1)

10.9m (5161_1)

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	NINFOM - Add rock
	QUASOU - 1:depth known
	SORDAT - 20091014
	SORIND - US,US,graph,H12023
	VALSOU - 10.898 m
	WATLEV - 3:always under water/submerged

Office Notes

Compile: Chart rock at surveyed position

1.2) DtoN-38ft OBSTRN

DANGER TO NAVIGATION

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 (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2009-287.00:00:00.000 (10/14/2009)
Dataset:	H12023_Features.000
FOID:	US 0000907087 00001(0226000DD74F0001)
Charts Affected:	13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

OBSTRN/remrks: 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
H12023_Features.000	US 0000907087 00001	0.00	000.0	Primary

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:	NINFOM - Add obstruction
	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

Office Notes

AHB SAR: Uncharted feature located at survey position with 200% SSS and Object Detection MB.
Compile: Add obstruction

Feature Images

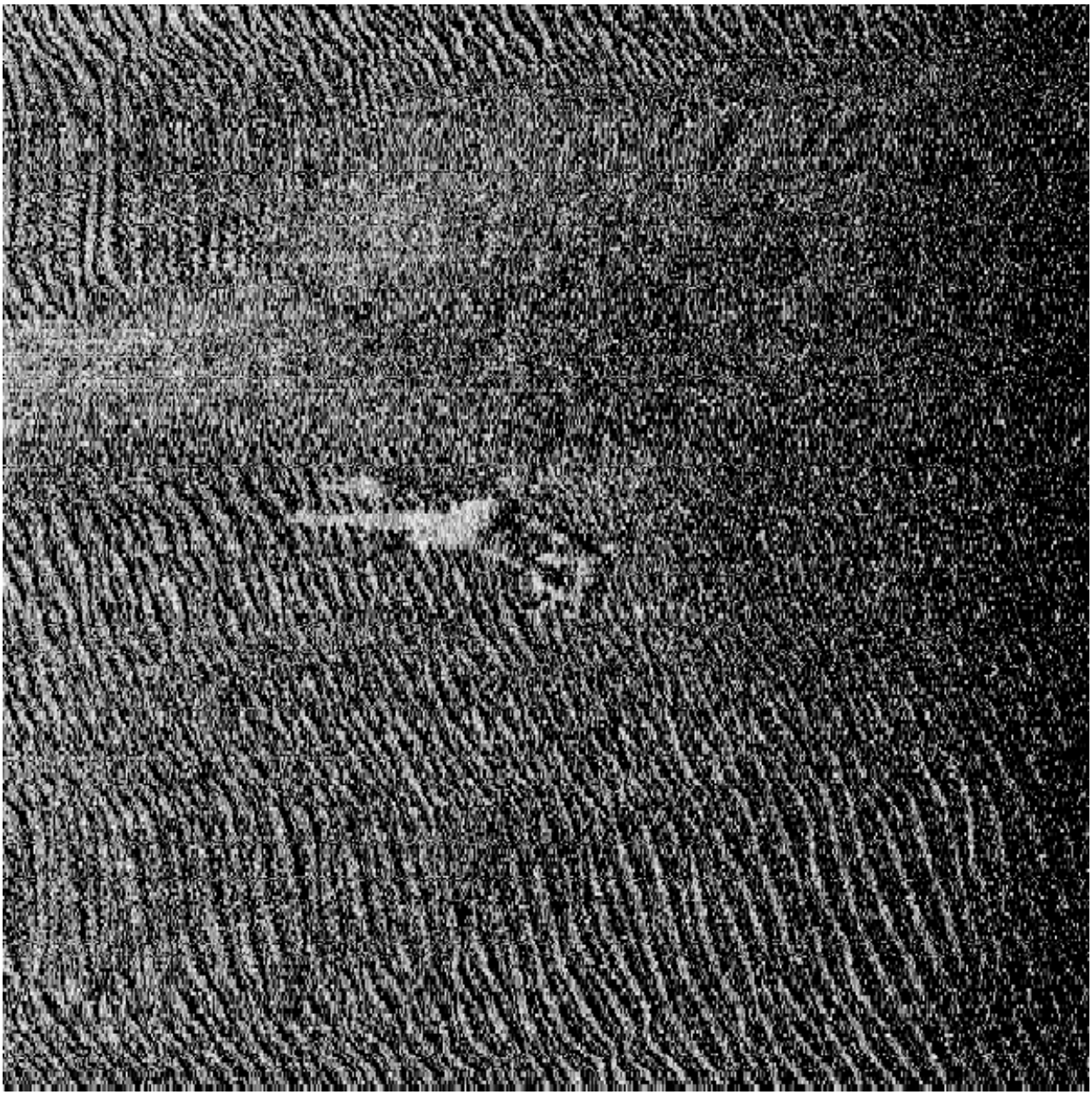


Figure 1.2.1

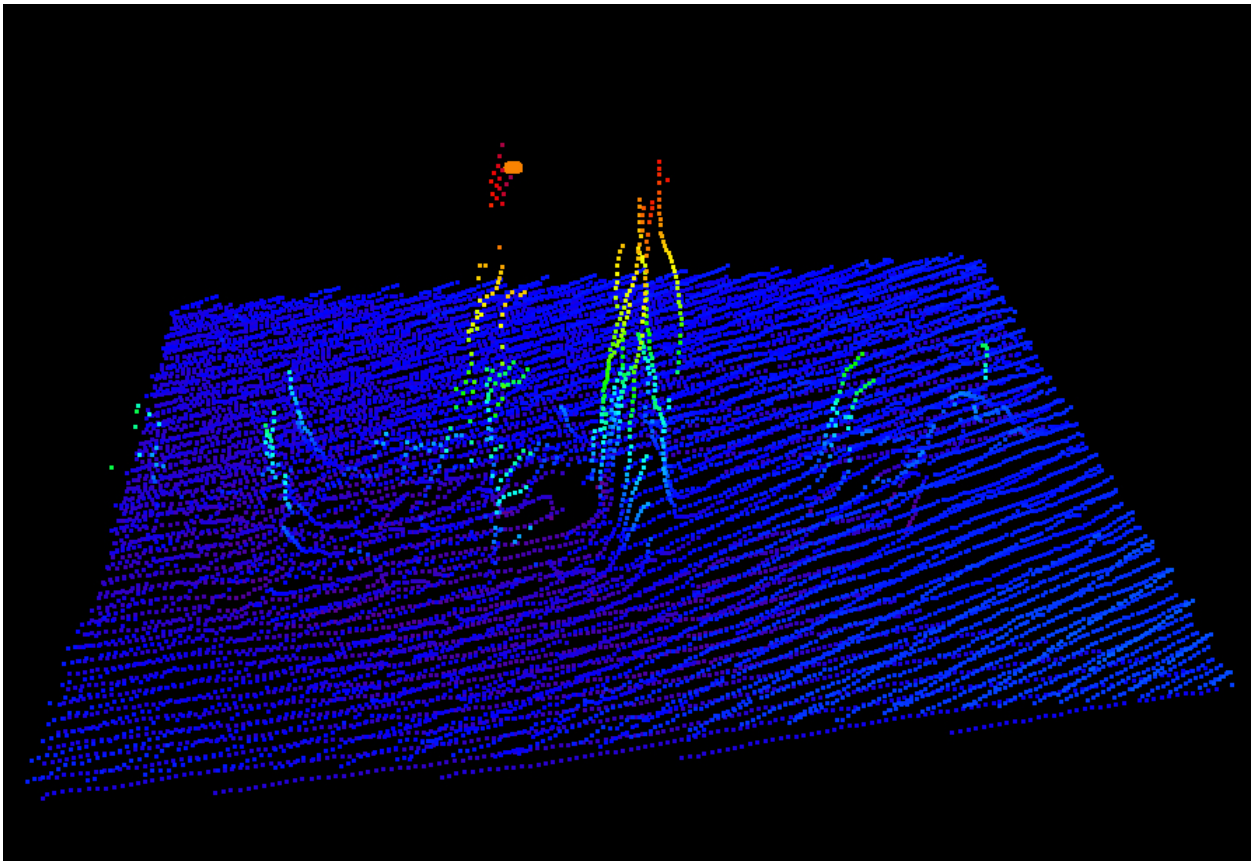


Figure 1.2.2

1.3) DtoN-48ft WRECK

DANGER TO NAVIGATION

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 (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2010-257.00:00:00.000 (09/14/2010)
Dataset:	H12023_Features.000
FOID:	US 0000850025 00001(0226000CF8690001)
Charts Affected:	13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

WRECKS/remrks: 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
H12023_Features.000	US 0000850025 00001	0.00	000.0	Primary

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
	NINFOM - Add 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

Office Notes

AHB SAR: Uncharted feature located at survey position with 200% SSS and Object Detection MB. Feature interpreted as a wreck based on SSS imagery and MB data. Compile: Add wreck

Feature Images

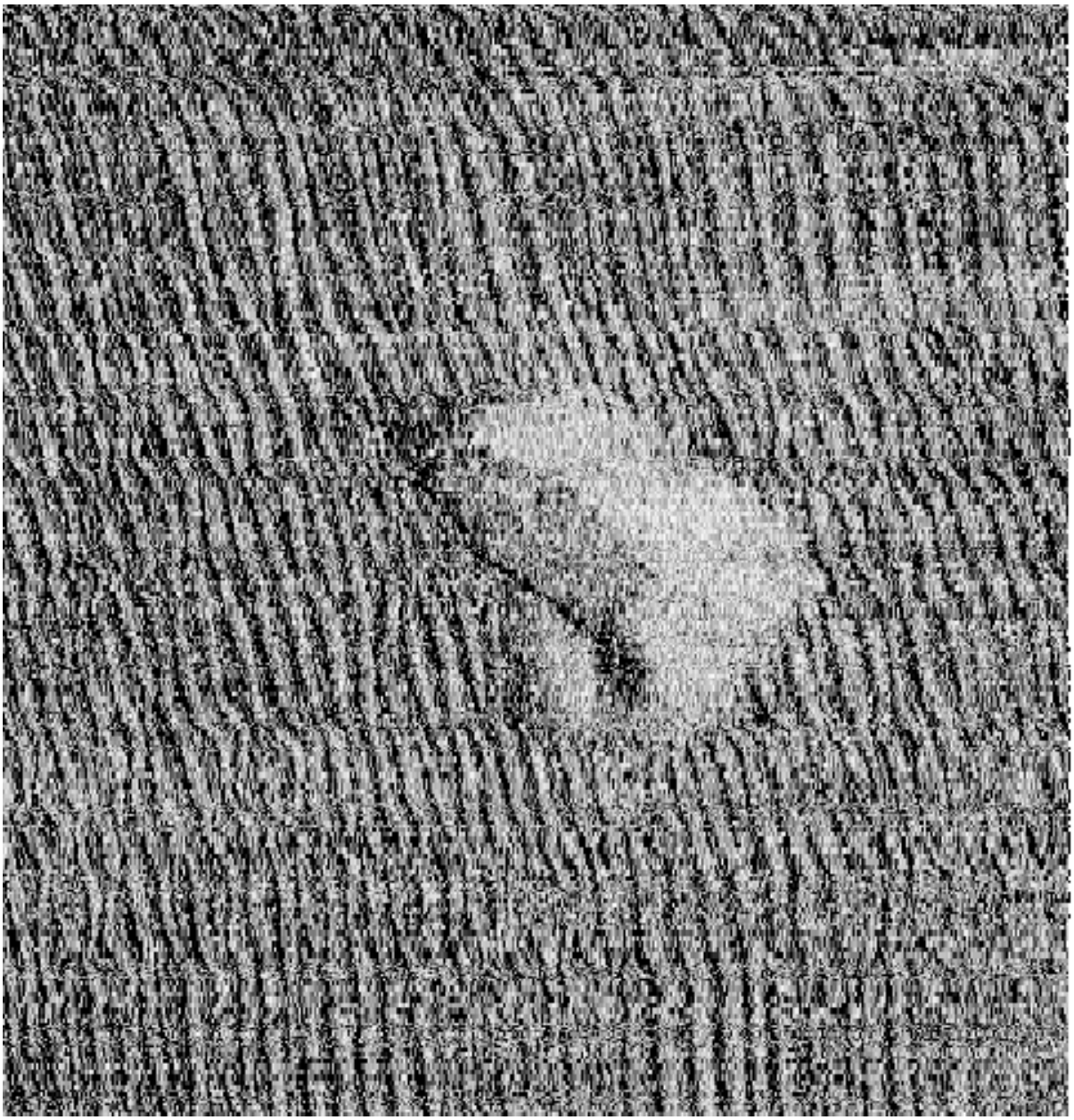


Figure 1.3.1

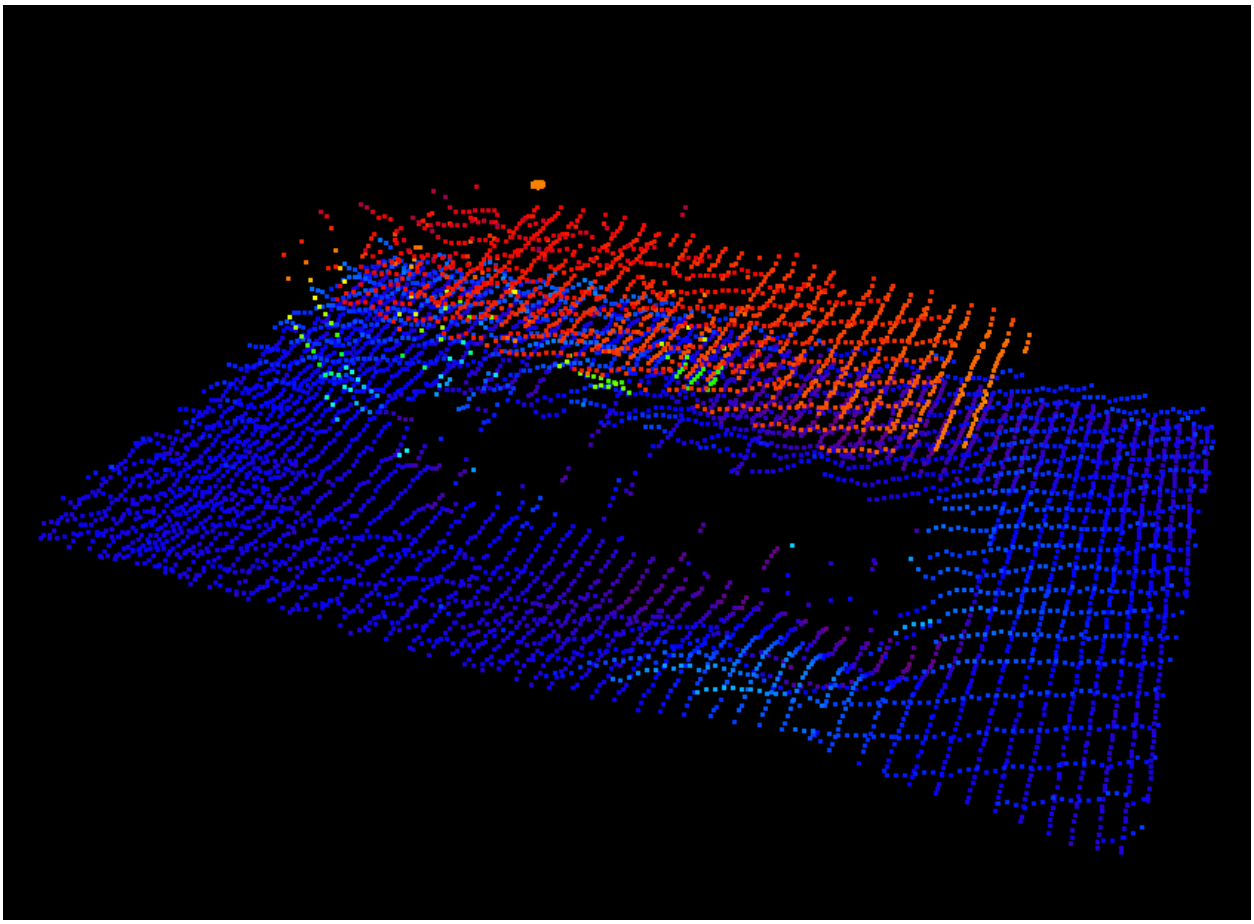


Figure 1.3.2

1.4) DTON-12ft UWTROC

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 (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2009-287.00:00:00.000 (10/14/2009)
Dataset:	H12023_Features.000
FOID:	US 0000850042 00001(0226000CF87A0001)
Charts Affected:	13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

UWTROC/remrks: The item was covered by 100% 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
H12023_Features.000	US 0000850042 00001	0.00	000.0	Primary

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:	NINFOM - Add rock
	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

WATLEV - 3:always under water/submerged

Office Notes

AHB SAR: Danger to Navigation located at survey position with 100% SSS and Object Detection MB. Feature has been applied to the chart. Compile: Add rock

Feature Images

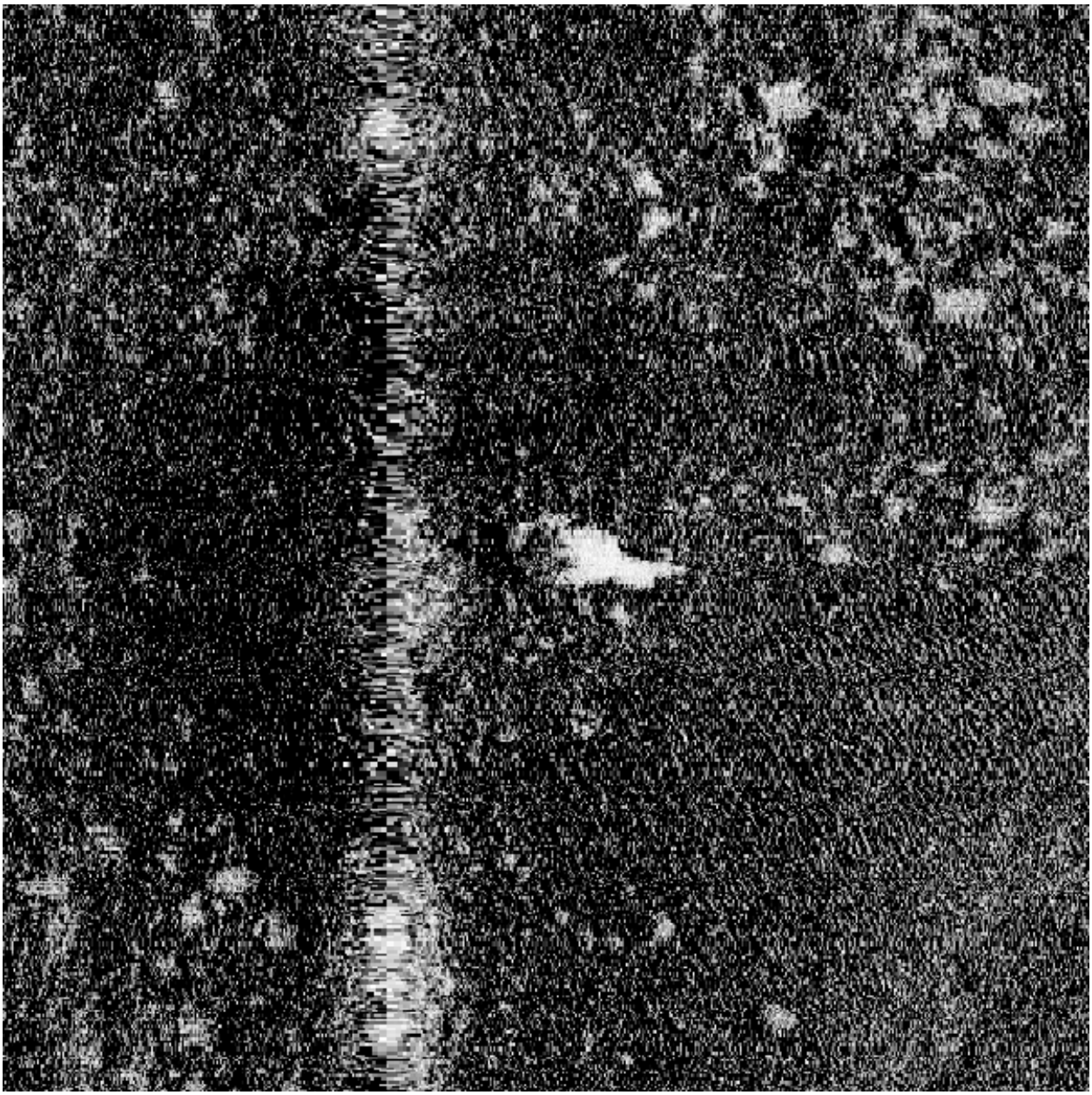


Figure 1.4.1

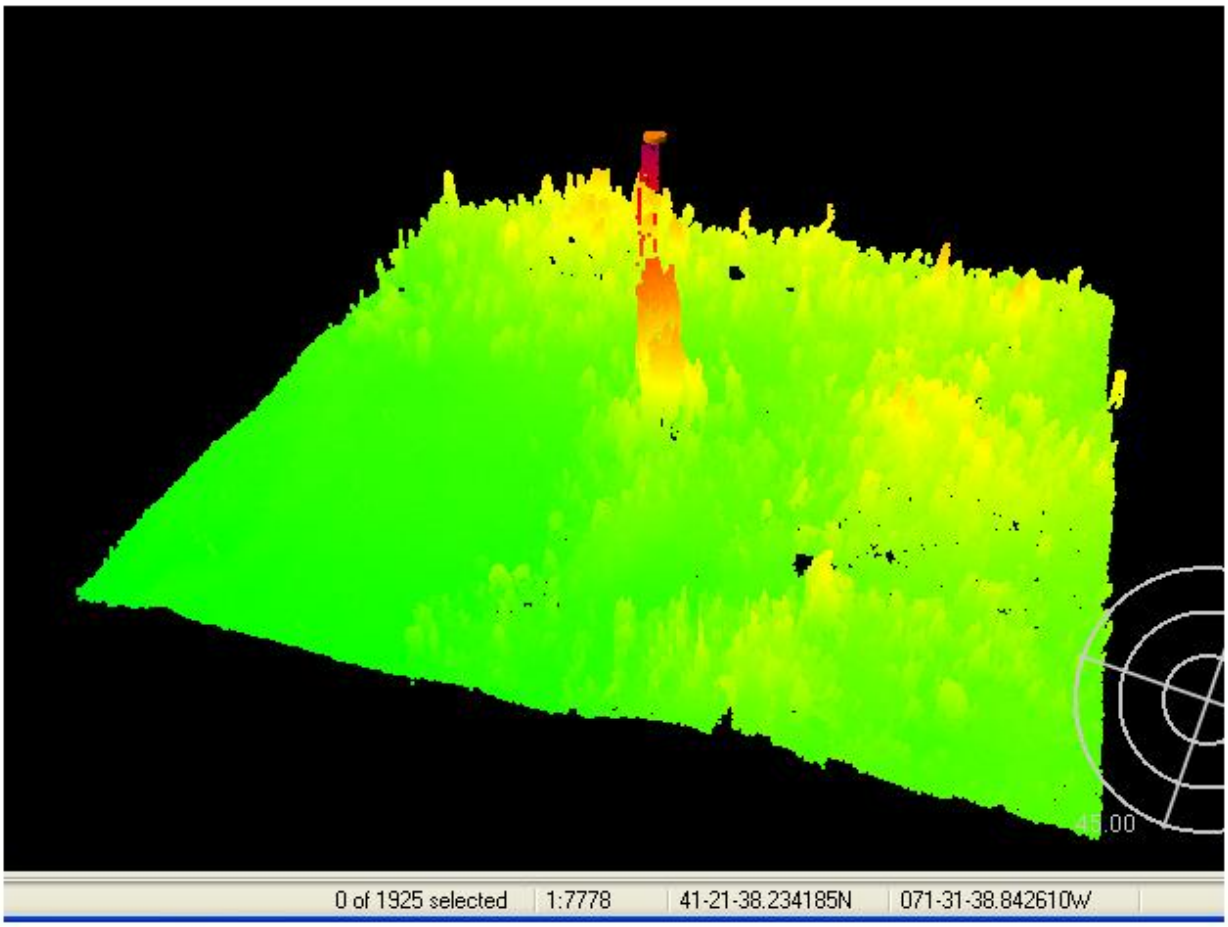


Figure 1.4.2

1.5) DTON-11ft UWTROC

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 (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2009-287.00:00:00.000 (10/14/2009)
Dataset:	H12023_Features.000
FOID:	US 0000850026 00001(0226000CF86A0001)
Charts Affected:	13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

UWTROC/remrks: 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
H12023_Features.000	US 0000850026 00001	0.00	000.0	Primary

Hydrographer Recommendations

Add Dangerous Submerged Rock.

Cartographically-Rounded Depth (Affected Charts):

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

1 ¾fm (12300_1, 13006_1, 13003_1)

3.3m (5161_1)

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	NINFOM - Add rock
	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

WATLEV - 3:always under water/submerged

Office Notes

AHB SAR: Danger to Navigation located at survey position with 200% SSS and Object Detection MB. Feature has been applied to the chart. Compile: Add rock

Feature Images

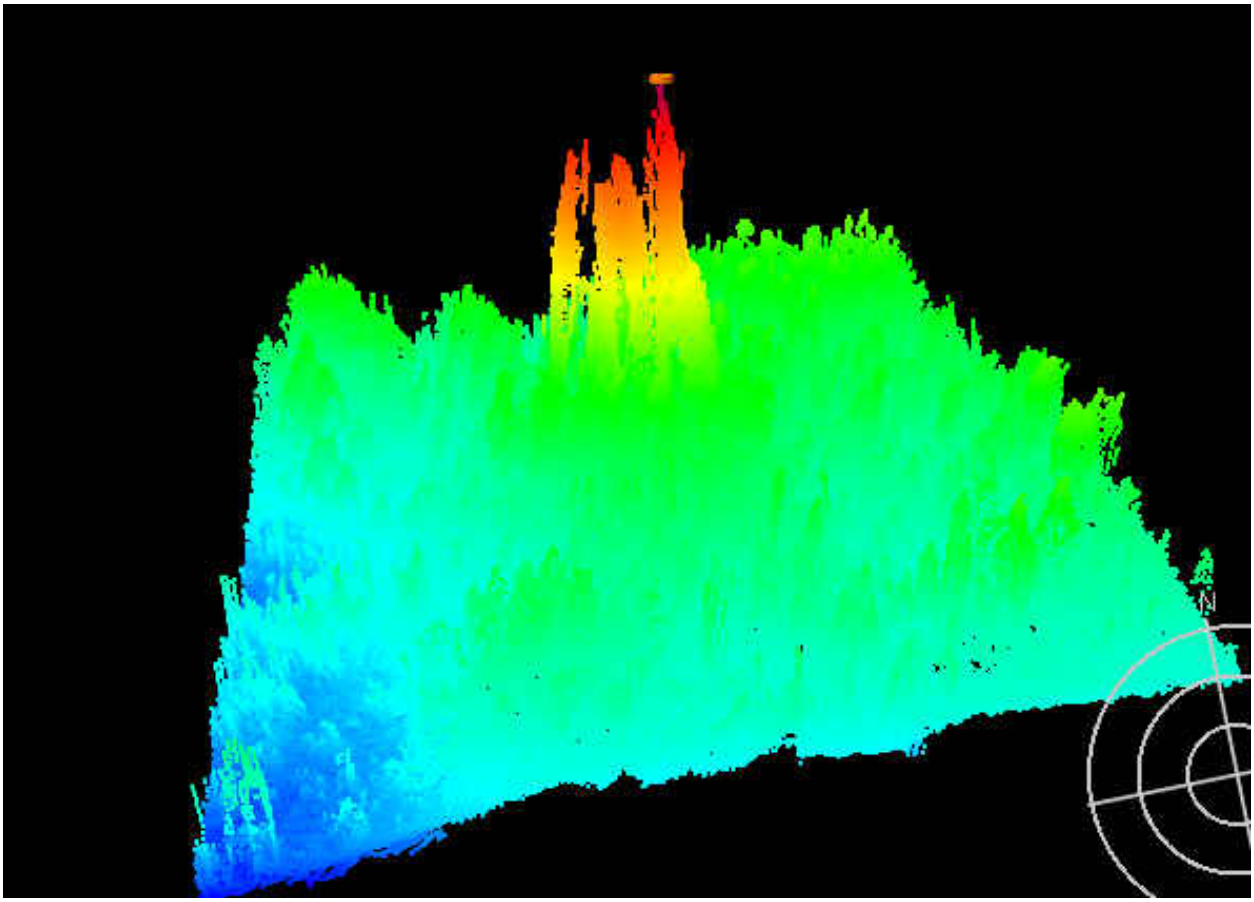


Figure 1.5.1

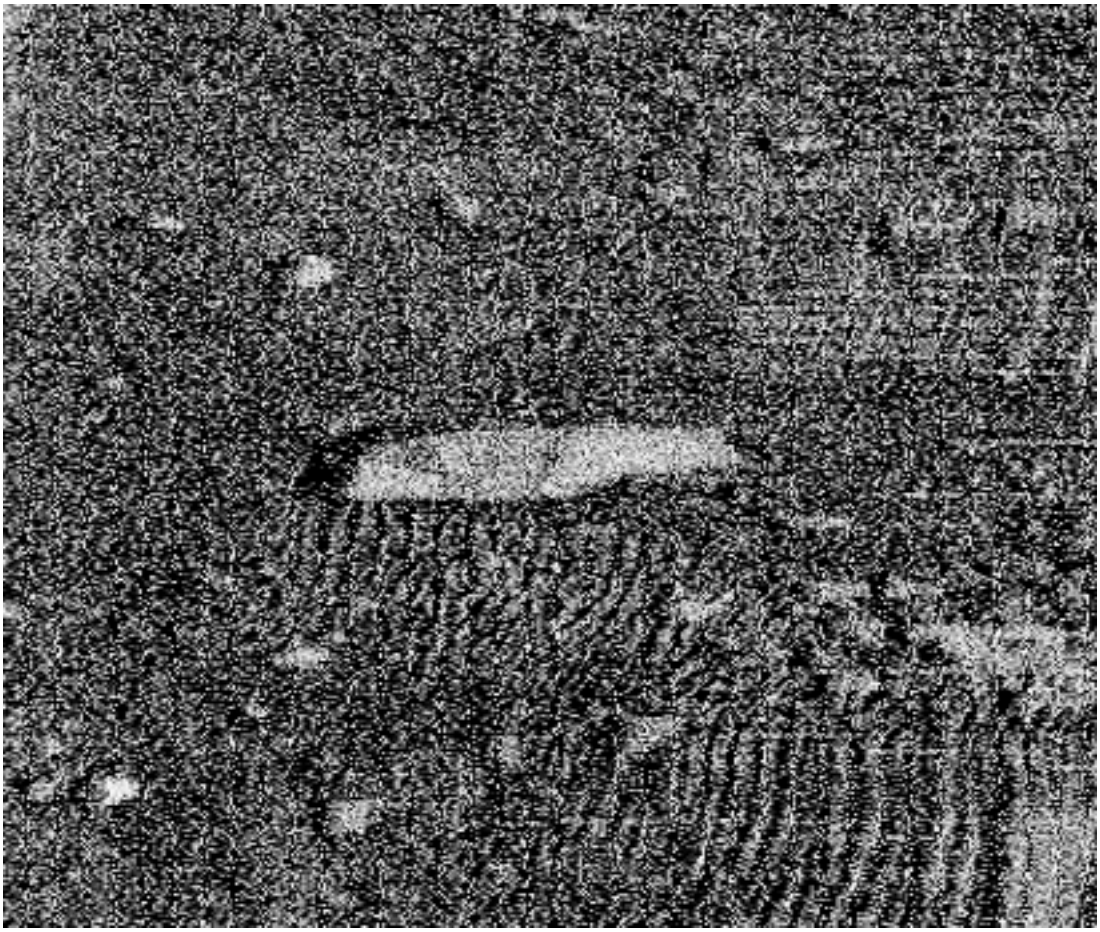


Figure 1.5.2

1.6) DTON-11ft UWTROC

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 (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2009-287.00:00:00.000 (10/14/2009)
Dataset:	H12023_Features.000
FOID:	US 0000850089 00001(0226000CF8A90001)
Charts Affected:	13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

UWTROC/remrks: The item was covered by 200% Klein 5000 Side scan sonar. The sounding was aquired 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
H12023_Features.000	US 0000850089 00001	0.00	000.0	Primary

Hydrographer Recommendations

Add Dangerous Submerged Rock.

Cartographically-Rounded Depth (Affected Charts):

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

1 ¾fm (12300_1, 13006_1, 13003_1)

3.4m (5161_1)

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	NINFOM - Add rock
	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

Office Notes

AHB SAR: Danger to Navigation located at survey position with 200% SSS and Object Detection MB. Feature has been applied to the chart. Compile: Add rock

Feature Images

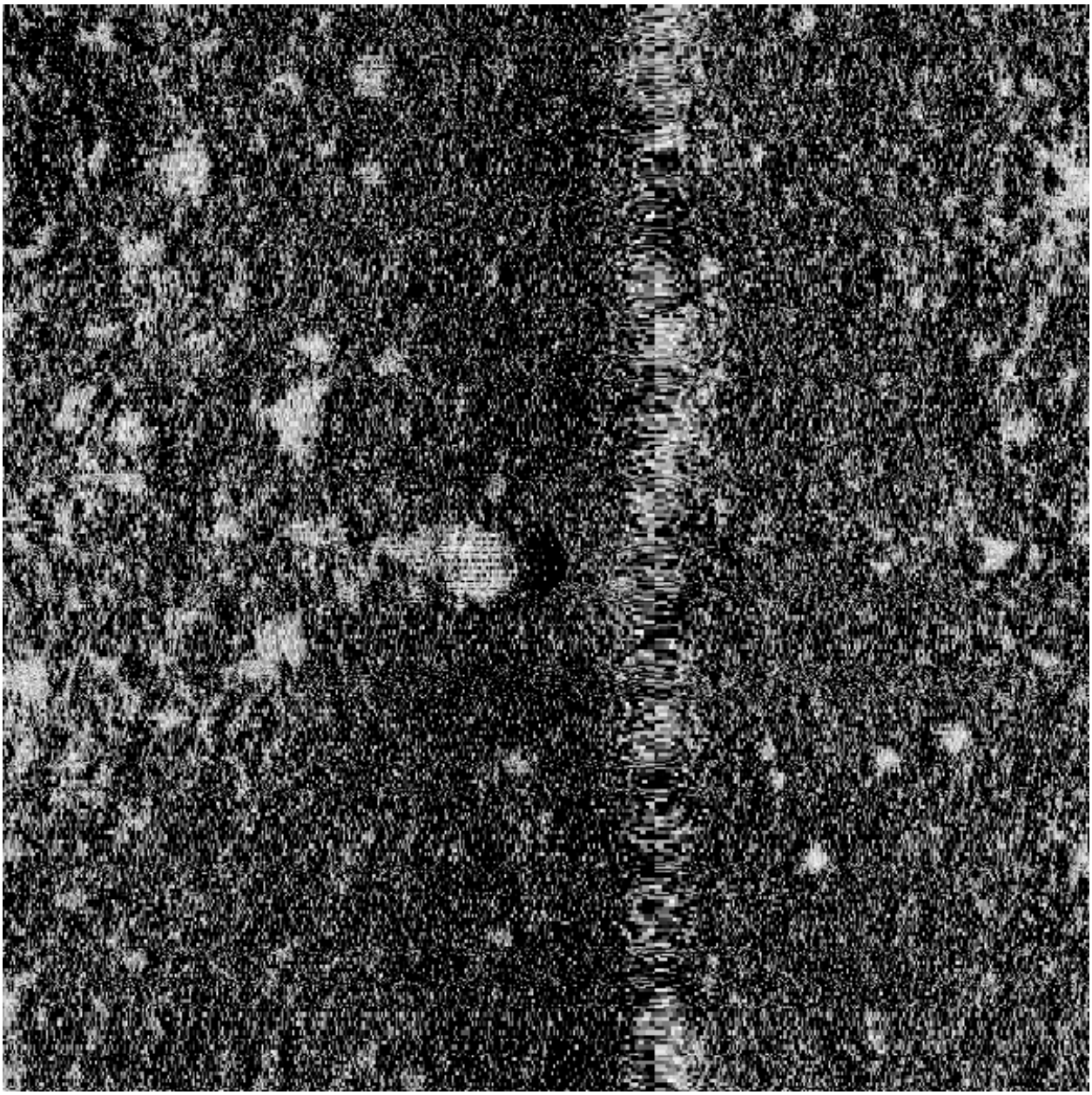


Figure 1.6.1

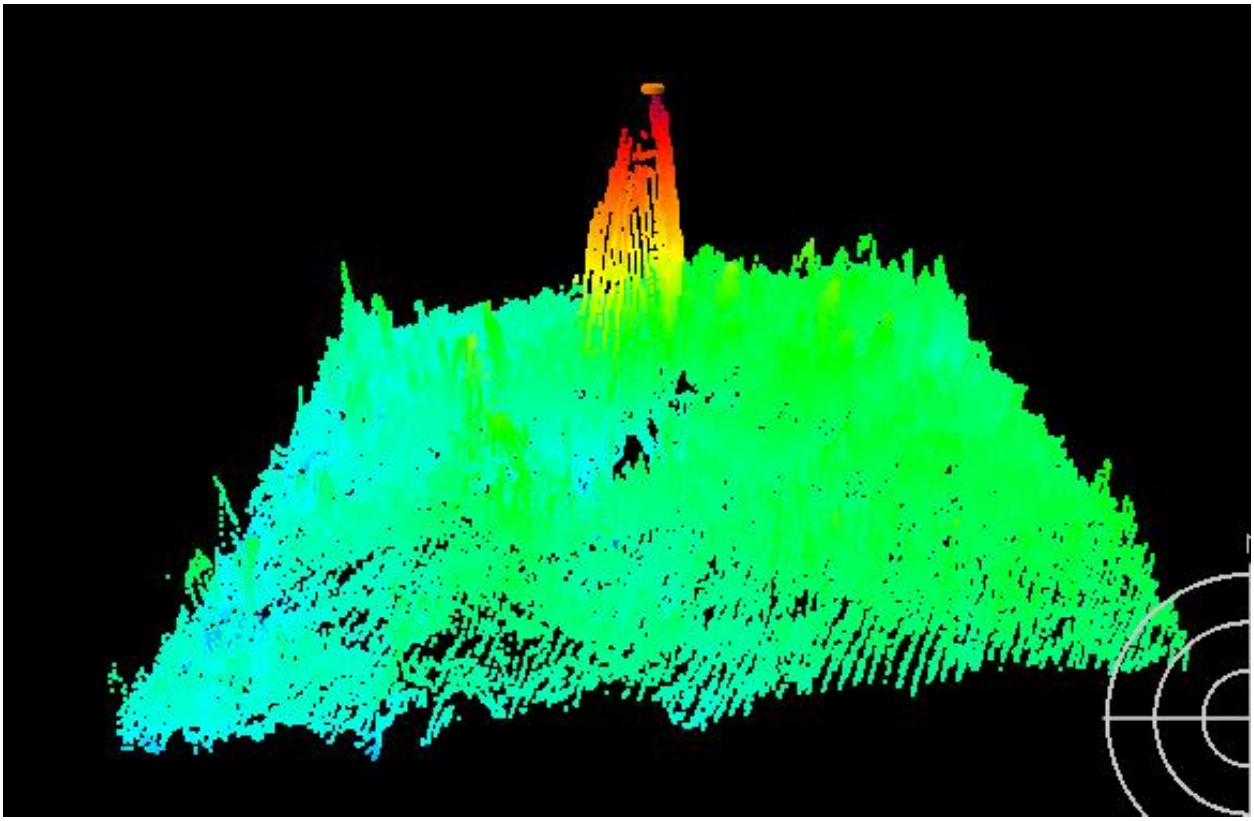


Figure 1.6.2

1.7) DtoN-22ft OBSTRN

DANGER TO NAVIGATION

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 (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2009-287.00:00:00.000 (10/14/2009)
Dataset:	H12023_Features.000
FOID:	US 0000850036 00001(0226000CF8740001)
Charts Affected:	13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

OBSTRN/remrks: 3.0m 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
H12023_Features.000	US 0000850036 00001	0.00	000.0	Primary

Hydrographer Recommendations

Add Obstruction.

Cartographically-Rounded Depth (Affected Charts):

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

3 ¾fm (12300_1, 13006_1, 13003_1)

6.8m (5161_1)

S-57 Data

Geo object 1:	Obstruction (OBSTRN)
Attributes:	NINFOM - Add obstruction
	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 - 6.834 m

WATLEV - 3:always under water/submerged

Office Notes

AHB SAR: Uncharted feature located at survey position with 200% SSS and Object Detection MB. Feature interpreted as a pile of debris based on SSS imagery and MB data. Compile: Add obstruction

Feature Images

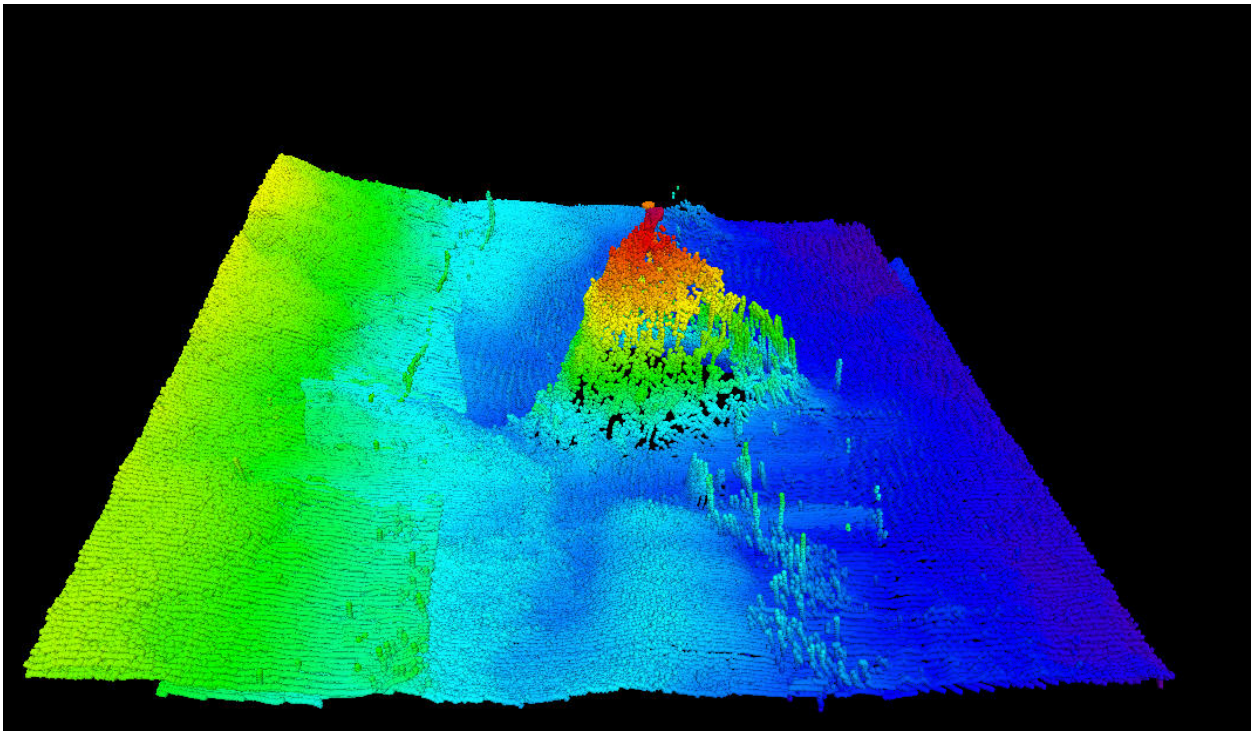


Figure 1.7.1

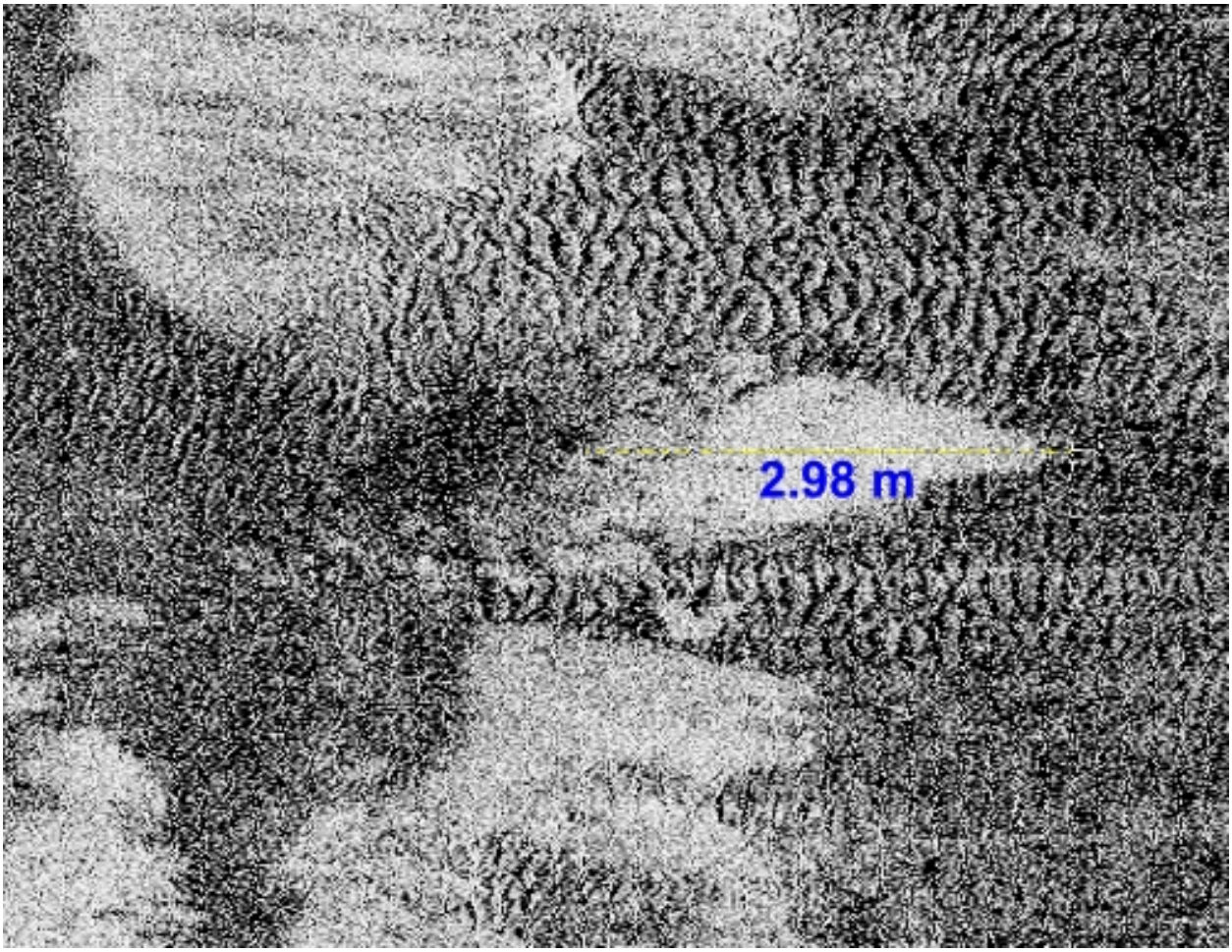


Figure 1.7.2

1.8) DtoN-19ft OBSTRN

DANGER TO NAVIGATION

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 (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2009-287.00:00:00.000 (10/14/2009)
Dataset:	H12023_Features.000
FOID:	US 0000850041 00001(0226000CF8790001)
Charts Affected:	13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

OBSTRN/remrks: 4.0m 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
H12023_Features.000	US 0000850041 00001	0.00	000.0	Primary

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:	NINFOM - Add obstruction
	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

Office Notes

AHB SAR: Uncharted feature located at survey position with 200% SSS and Object Detection MB. Feature interpreted as a pile of debris based on SSS imagery and MB data. Compile: Add obstruction

Feature Images

Figure 1.8.1

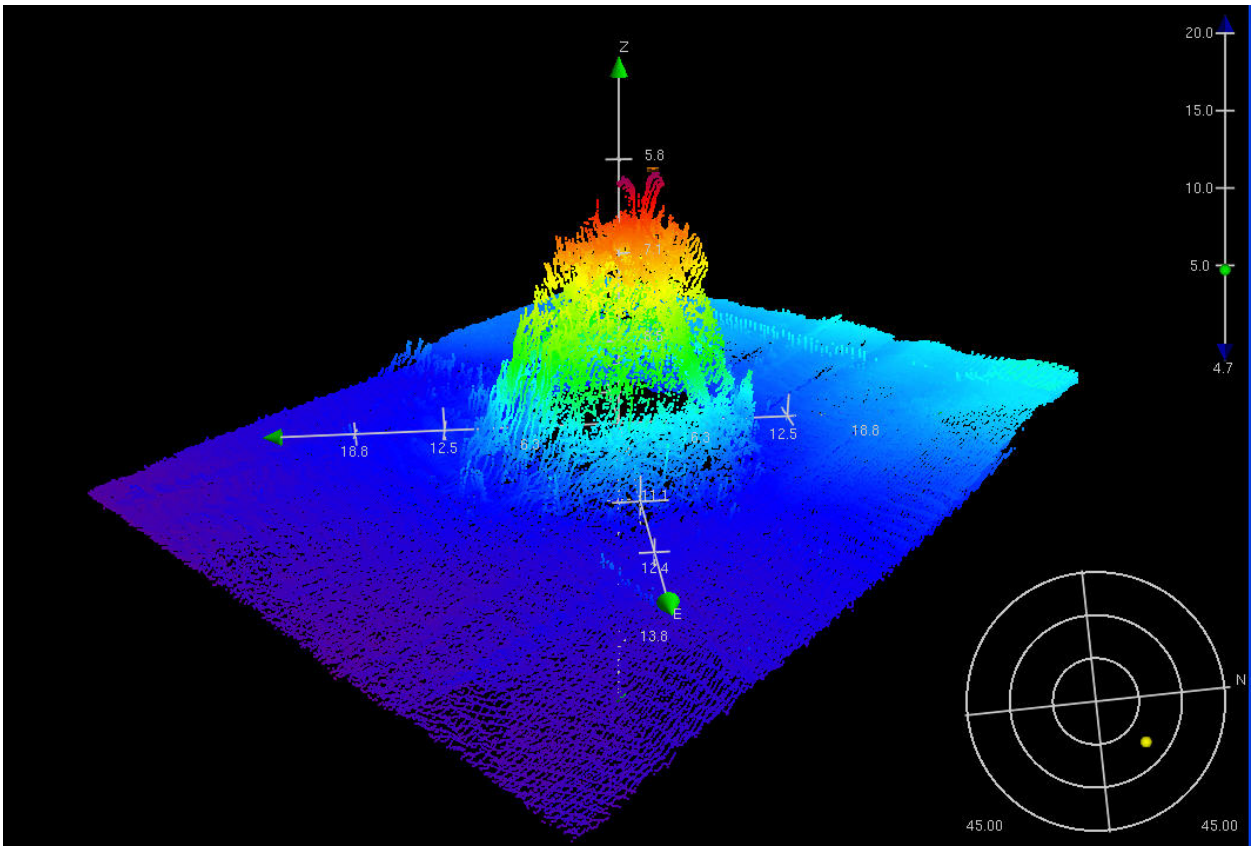


Figure 1.8.2

1.9) DTON-4ft UWTROC

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 (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2009-287.00:00:00.000 (10/14/2009)
Dataset:	H12023_Features.000
FOID:	US 0000850033 00001(0226000CF8710001)
Charts Affected:	13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

UWTROC/remrks: 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
H12023_Features.000	US 0000850033 00001	0.00	000.0	Primary

Hydrographer Recommendations

Add Rock.

Cartographically-Rounded Depth (Affected Charts):

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

0 ¾fm (12300_1, 13006_1, 13003_1)

1.4m (5161_1)

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	NINFOM - Add rock
	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

WATLEV - 3:always under water/submerged

Office Notes

AHB SAR: Danger to Navigation located at survey position with 200% SSS and Object Detection MB. Feature has been applied to the chart. Compile: Add rock

Feature Images

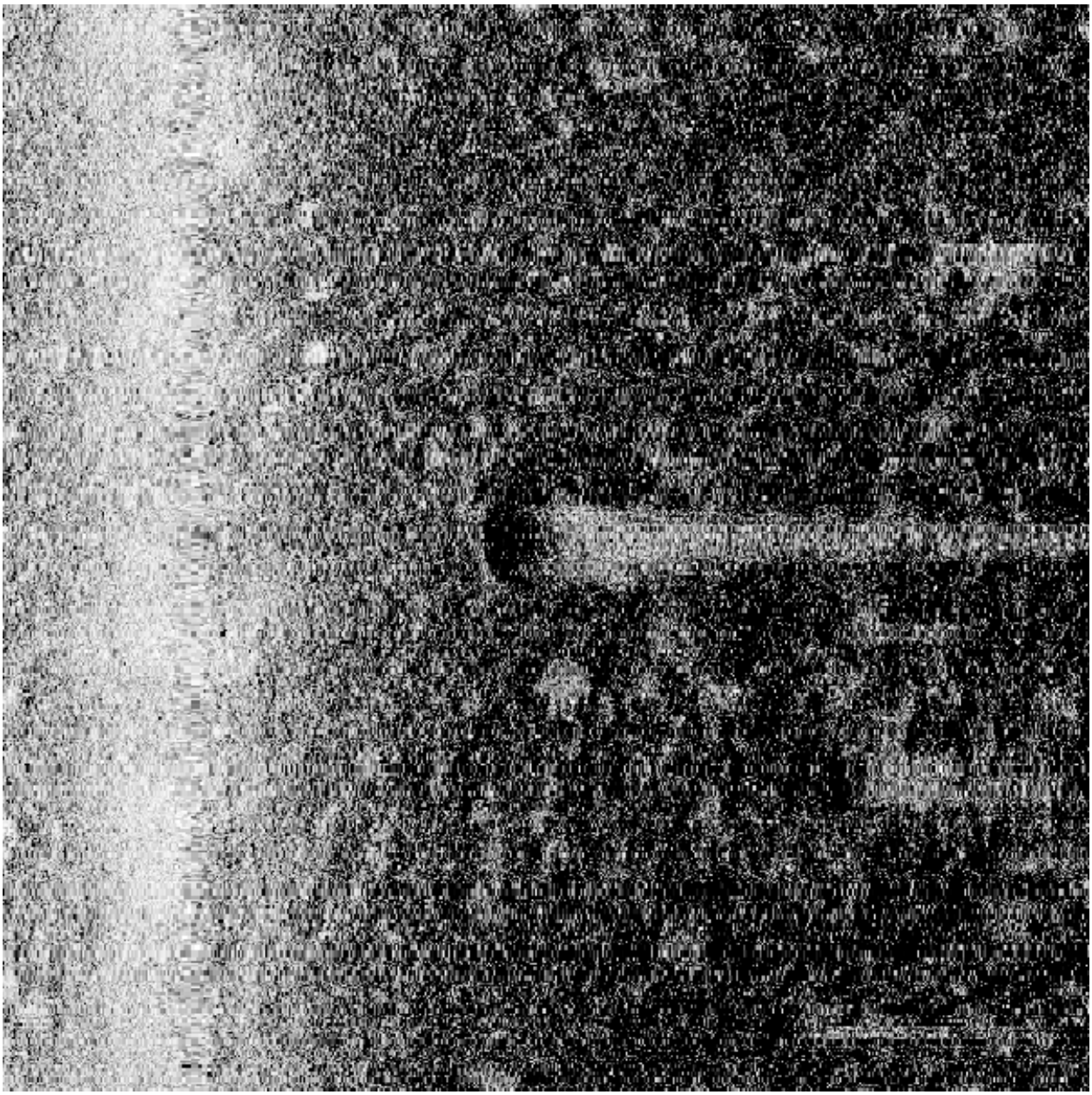


Figure 1.9.1

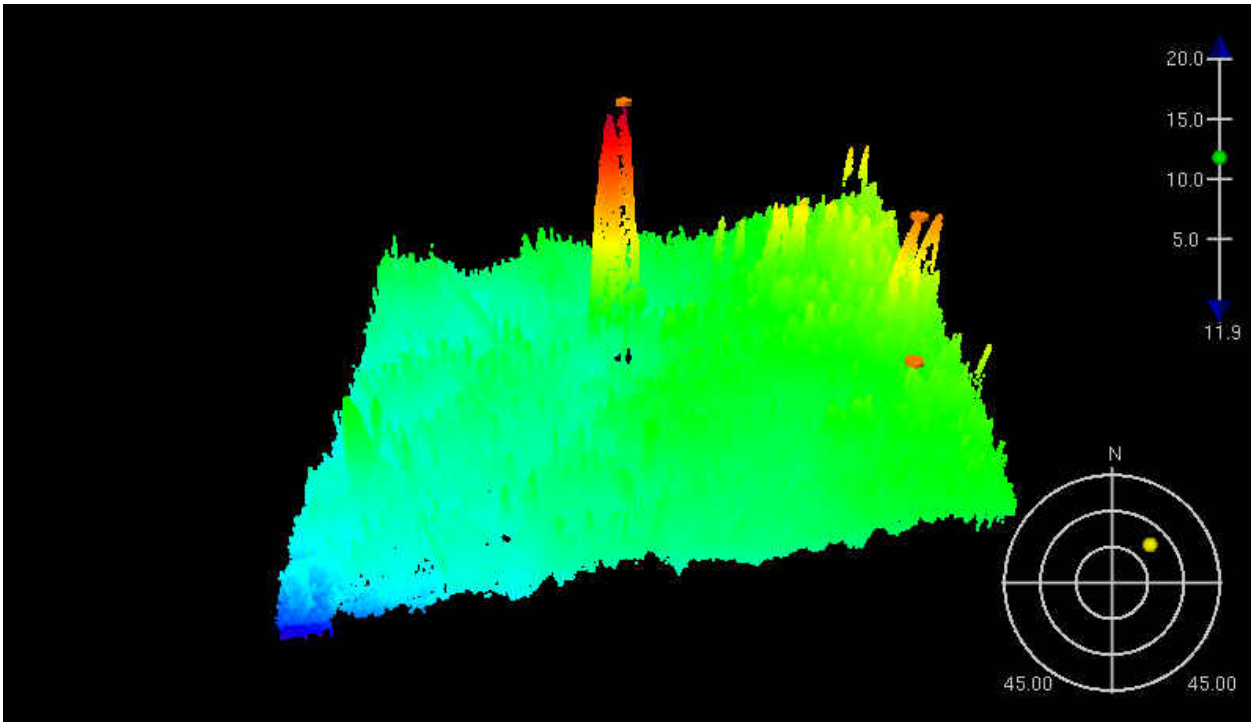


Figure 1.9.2

1.10) DTON-20ft UWTROC

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 (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2009-287.00:00:00.000 (10/14/2009)
Dataset:	H12023_Features.000
FOID:	US 0000850101 00001(0226000CF8B50001)
Charts Affected:	13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

UWTROC/remrks: 1The item was covered by 100% 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
H12023_Features.000	US 0000850101 00001	0.00	000.0	Primary

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:	NINFOM - Add rock
	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

WATLEV - 3:always under water/submerged

Office Notes

AHB SAR: Danger to Navigation located at survey position with 100% SSS and Object Detection MB. Feature has been applied to the chart. Compile: Add rock

Feature Images

Figure 1.10.1

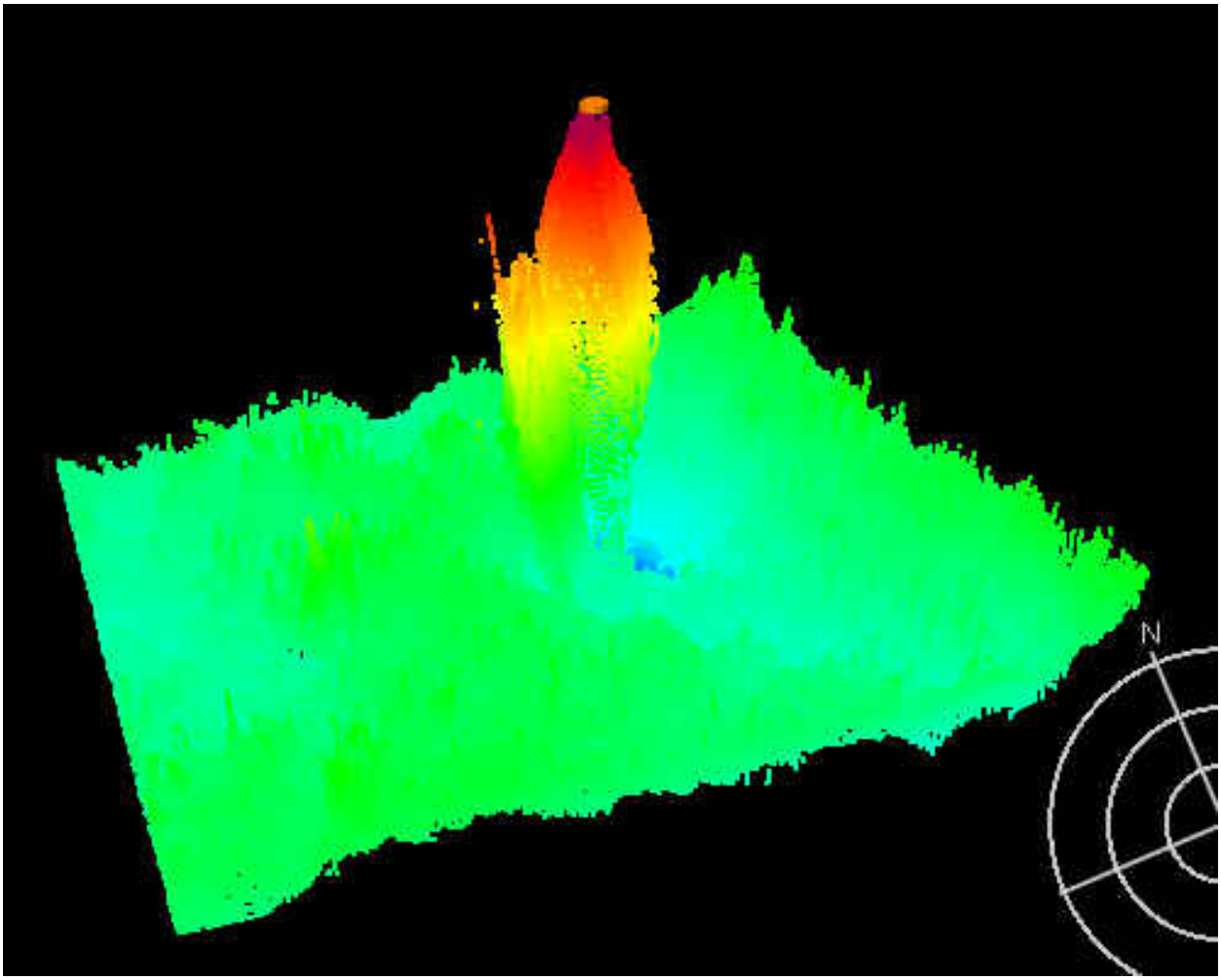


Figure 1.10.2

1.11) DTON-19ft UWTROC

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 (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2009-287.00:00:00.000 (10/14/2009)
Dataset:	H12023_Features.000
FOID:	US 0000850114 00001(0226000CF8C20001)
Charts Affected:	13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

UWTROC/remrks: The item was covered by 100% 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
H12023_Features.000	US 0000850114 00001	0.00	000.0	Primary

Hydrographer Recommendations

Add Dangerous Sumberged 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:	NINFOM - Add rock
	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

WATLEV - 3:always under water/submerged

Office Notes

AHB SAR: Danger to Navigation located at survey position with 100% SSS and Object Detection MB. Feature has been applied to the chart. Compile: Add rock

Feature Images

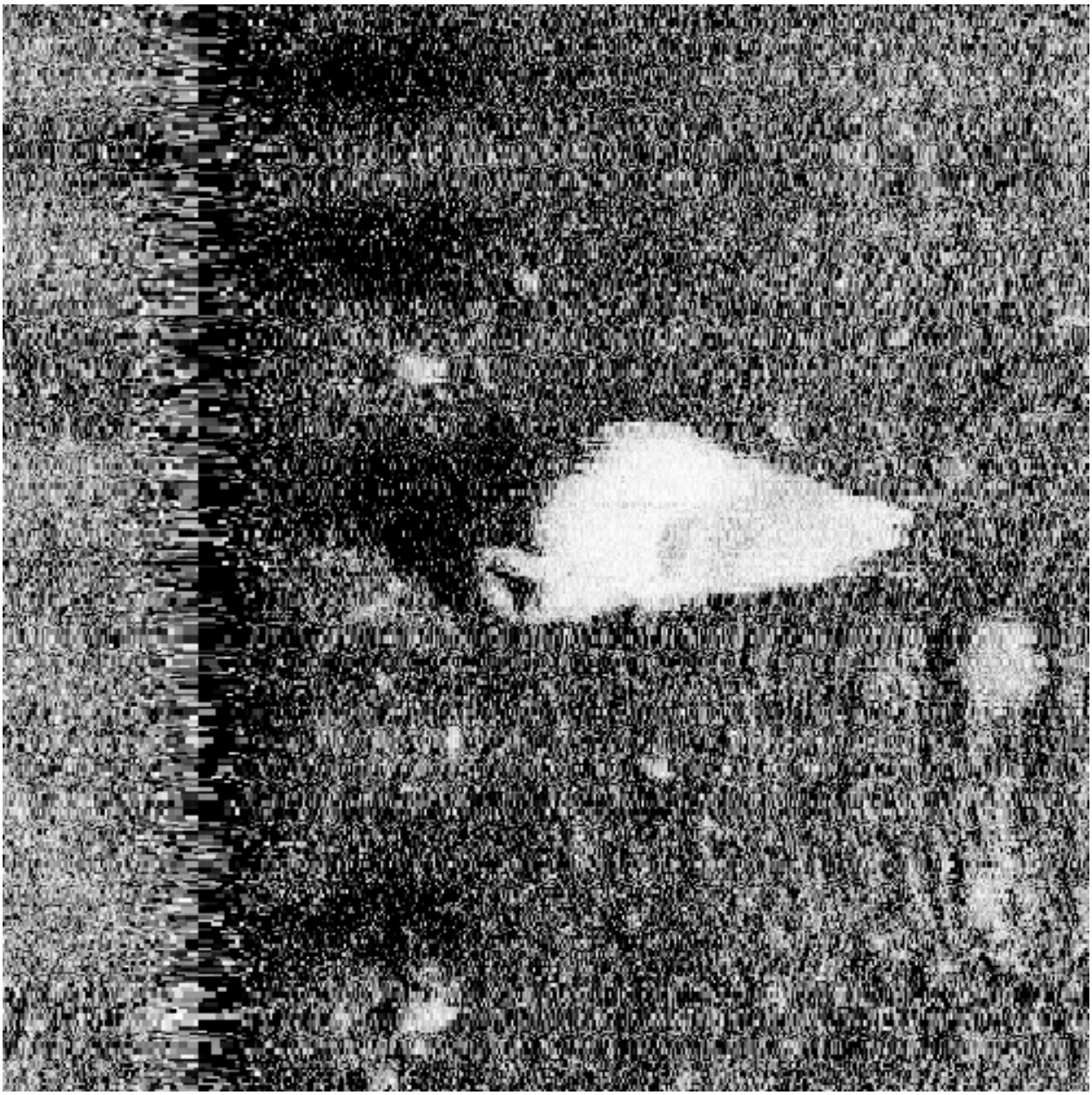


Figure 1.11.1

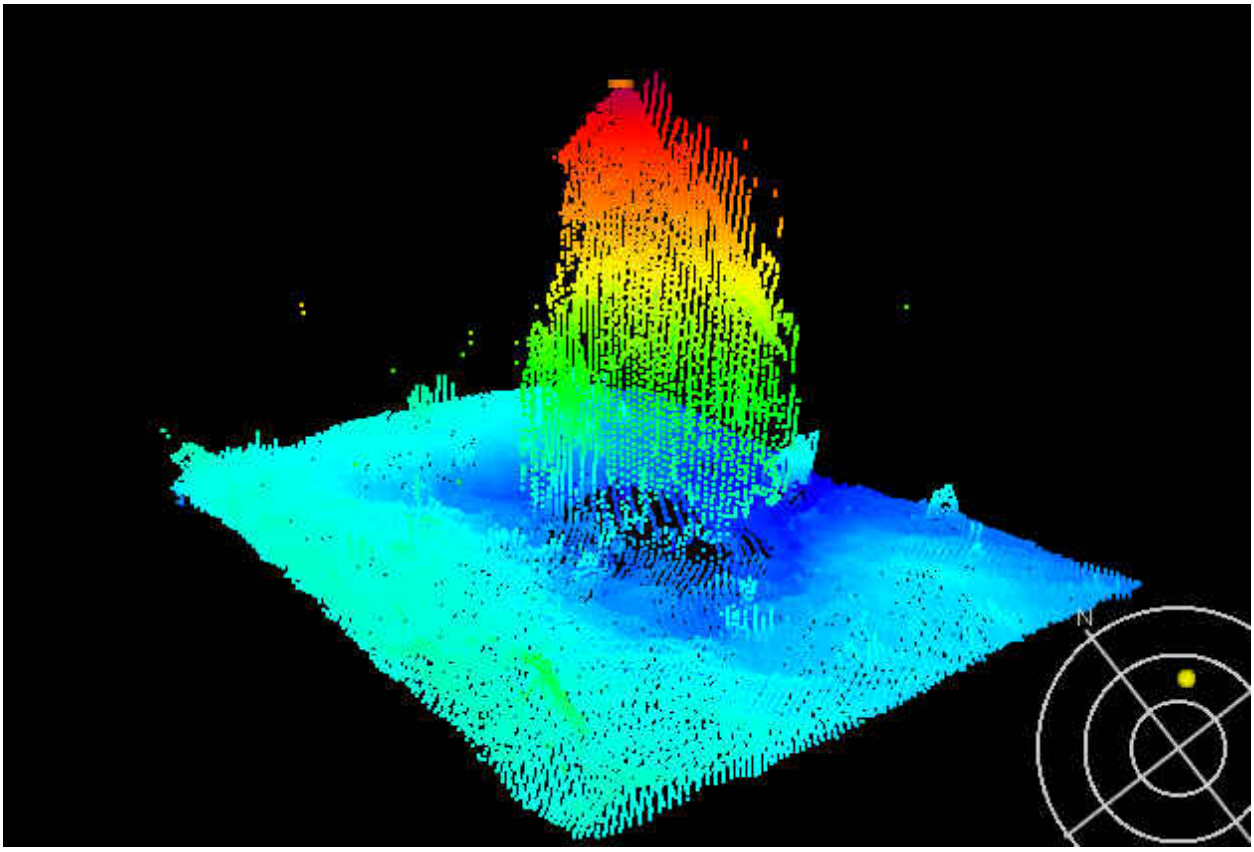


Figure 1.11.2

1.12) DTON-15ft UWTROC

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 (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2009-287.00:00:00.000 (10/14/2009)
Dataset:	H12023_Features.000
FOID:	US 0001055169 00001(0226001019C10001)
Charts Affected:	13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

UWTROC/remrks: The item 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
H12023_Features.000	US 0001055169 00001	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:	NINFOM - Add rock
	QUASOU - 6:least depth known
	SORDAT - 20091014

SORIND - US,US,graph,H12023

TECSOU - 3:found by multi-beam

VALSOU - 4.751 m

WATLEV - 3:always under water/submerged

Office Notes

AHB SAR: Danger to Navigation located at survey position with Object Detection MB. Feature has been applied to the chart. Compile: Add Rock

Feature Images

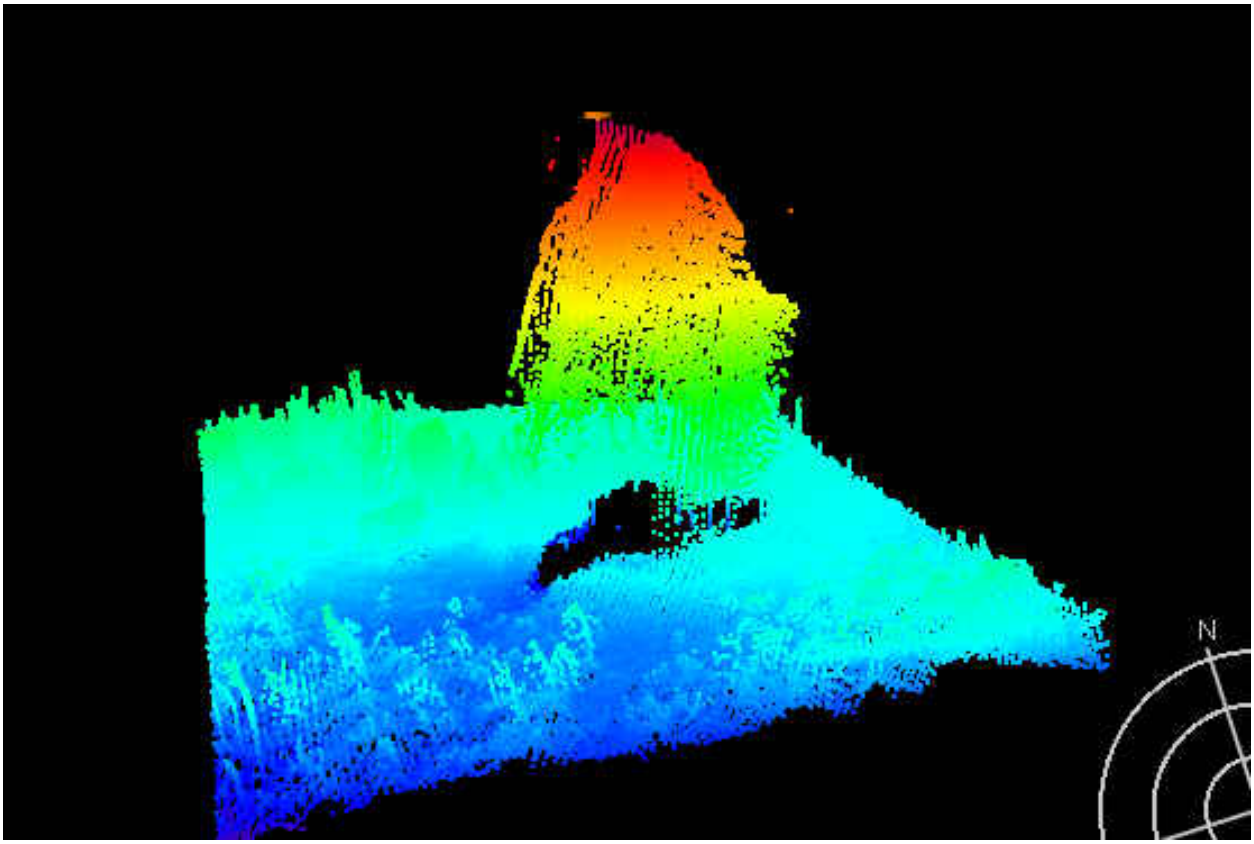


Figure 1.12.1

1.13) DTON-26ft UWTROC

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 (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2009-287.00:00:00.000 (10/14/2009)
Dataset:	H12023_Features.000
FOID:	US 0000850035 00001(0226000CF8730001)
Charts Affected:	13219_1, 13215_1, 13205_1, 13218_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

UWTROC/remrks: The item 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
H12023_Features.000	US 0000850035 00001	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:	NINFOM - Add rock
	QUASOU - 6:least depth known
	SORDAT - 20091014

SORIND - US,US,graph,H12023

TECSOU - 3:found by multi-beam

VALSOU - 8.028 m

WATLEV - 3:always under water/submerged

Office Notes

AHB SAR: Danger to Navigation located at survey position with Object Detection MB. Feature has been applied to the chart. Compile: Add rock

Feature Images

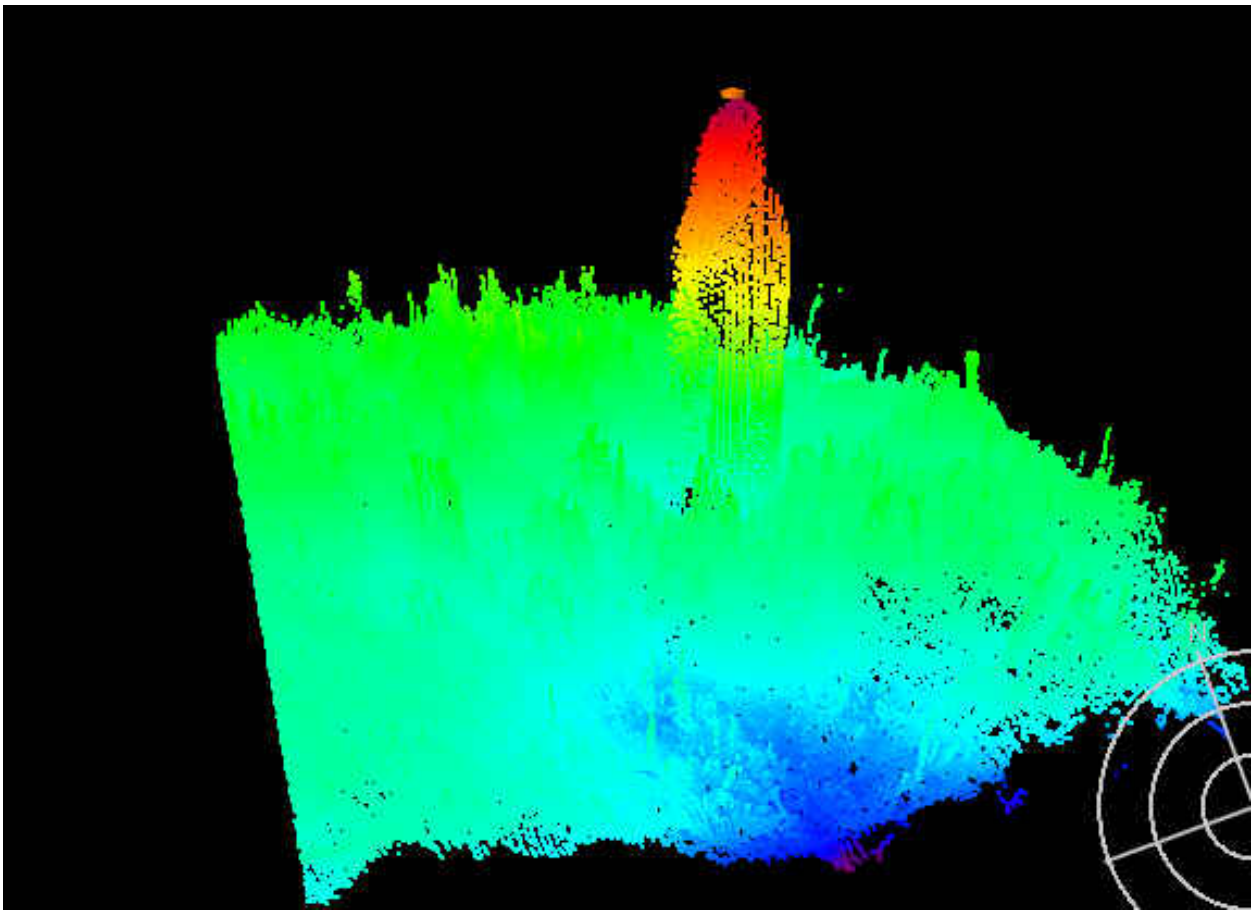


Figure 1.13.1

APPROVAL PAGE

H12023

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

The following products will be sent to NGDC for archive

- H12023_DR.pdf
- Collection of depth varied resolution BAGS
- Processed survey data and records
- H12023_GeoImage.pdf

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

Digitally signed by Abigail Higgins
DN: cn=Abigail Higgins, o=NOAA, ou=Office of Coast Survey, email=abigail.higgins@noaa.gov, c=US
Date: 2012.09.28 14:44:41 -04'00'

Approved: _____

LT Abigail Higgins
Chief, Atlantic Hydrographic Branch