H12296

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: H12296

LOCALITY

State: Rhode Island

General Locality: Block Island Sound

Sub-locality: Green Hill to Watch Hill

2011

CHIEF OF PARTY
CDR Lawrence T. Krepp

LIBRARY & ARCHIVES

Date:

NOAA FORM 77-28 (11-72)	U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	REGISTRY NUMBER:
HYDROGRAPHIC TITLE SHEET		**H12296**

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:	**Green Hill to Watch Hill**
Scale:	**10000**
Dates of Survey:	**08/22/2011 to 10/23/2011**
Instructions Dated:	**06/29/2011**
Project Number:	**OPR-B363-TJ-11**
Field Unit:	**NOAA Ship *Thomas Jefferson***
Chief of Party:	**CDR Lawrence T. Krepp**
Soundings by:	**Multibeam Echo Sounder Singlebeam Echo Sounder**
Imagery by:	**Multibeam Echo Sounder Backscatter Side Scan Sonar**
Verification by:	**Atlantic Hydrographic Branch**
Soundings Acquired in:	**meters at Mean Lower Low Water**

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

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Descriptive Report to Accompany Survey H12296

Project: OPR-B363-TJ-11

Locality: Block Island Sound

Sublocality: Green Hill to Watch Hill

Scale: 1:10000

August 2011 - October 2011

NOAA Ship *Thomas Jefferson*

Chief of Party: CDR Lawrence T. Krepp

A. Area Surveyed

The survey sheet area extends from Green Hill to Watch Hill.

A.1 Survey Limits

Data was acquired within the following survey limits:

Northeast Limit	Southwest Limit
41.3632166667 N 71.5843444444 W	41.29255 N 71.8571027778 W

Table 1: Survey Limits

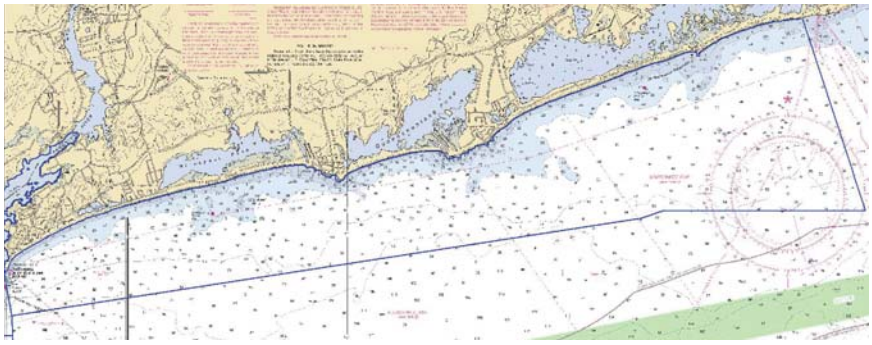


Figure 1: H12296 Survey Limits

Survey Limits were acquired in accordance with the requirements in the Project Instructions and the HSSD.

A.2 Survey Purpose

This project is being conducted in support of NOAA's Office of Coast Survey to provide contemporary hydrographic data in order to update the nautical charting products and reduce the survey backlog within the area. In addition, data from this project will support the Long Island Sound Seafloor Mapping Initiative for the states of Connecticut and New York. This project also responds, in part to the concerns raised by the Northeast Marine Pilots for new hydrographic surveys to support deep draft (60') vessels transiting the areas traffic lanes.

A.3 Survey Quality

The entire survey is adequate to supersede previous data.

This hydrographic survey was completed as specified by Hydrographic Survey Project Instructions OPR-B363-TJ-11 Block Island Sound dated 29 June 2011. No additional work is needed to complete this survey. It is recommended this survey receive normal processing priority.

A.4 Survey Coverage

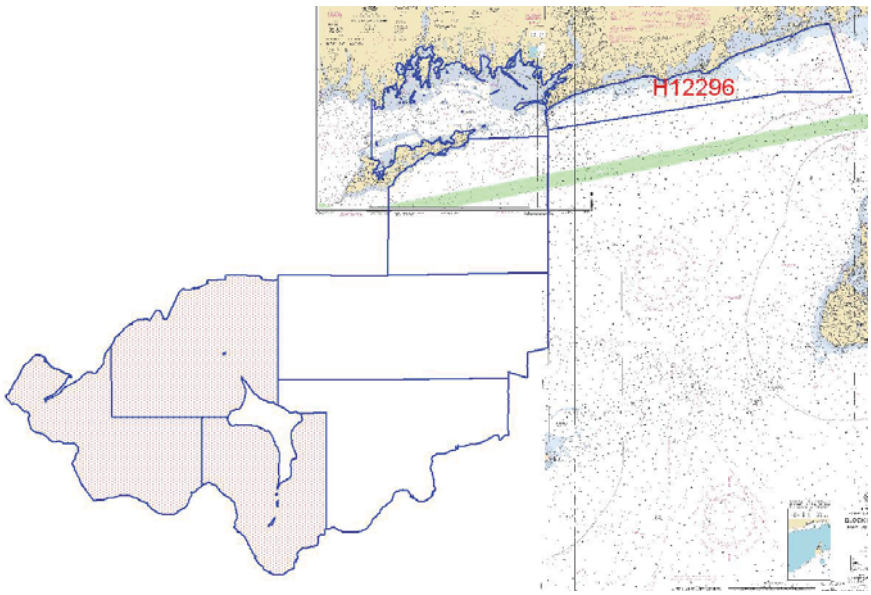


Figure 2: H12296 Within the project area

Survey Coverage was in accordance with the requirements in the Project Instructions and the HSSD.

A.5 Survey Statistics

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

	HULL ID	*S222*	*3101*	*3102*	*Total*
LNM	**SBES Mainscheme**	0	0	0	0
	MBES Mainscheme	220.0	0	0	220.0
	Lidar Mainscheme	0	0	0	0
	SSS Mainscheme	0	0	0	0
	SBES/MBES Combo Mainscheme	0	0	0	0
	SBES/SSS Combo Mainscheme	0	0	158.55	158.55
	MBES/SSS Combo Mainscheme	0	234.87	88.36	323.23
	SBES/MBES Combo Crosslines	10.83	0	37.76	48.59
	Lidar Crosslines	0	0	0	0
Number of Bottom Samples					15
Number of DPs					15
Number of Items Items Investigated by Dive Ops					0
Total Number of SNM					20

Table 2: Hydrographic Survey Statistics

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

Survey Dates
08/22/2011
08/23/2011
08/24/2011
08/25/2011
08/29/2011
08/30/2011
08/31/2011
09/01/2011
09/08/2011
09/09/2011
09/10/2011
09/11/2011
09/12/2011
09/13/2011
09/14/2011
09/15/2011
09/19/2011
09/20/2011
09/21/2011
09/22/2011
09/23/2011
09/24/2011
09/25/2011
09/28/2011
10/01/2011
10/12/2011
10/13/2011
10/19/2011
10/21/2011
10/22/2011
10/23/2011

Table 3: Dates of Hydrography

It should be noted that this survey has two different coverage types with different requirements for crosslines. The greater than twenty meter area was covered by object detection multibeam. This has 4.9% crosslines. The four to twenty meter area has set line spacing with side scan and concurrent bathymetry. This has 7.8% crosslines.

A.6 Shoreline

Shoreline was investigated in accordance with the Project Instructions and the HSSD.

A.7 Bottom Samples

The project reference file was used in determining bottom sample locations. When compared to the mosaic one bottom sample was not done as it was close to another with the same looking bottom type. Another was close to a charted underwater cable and was moved.

B. Data Acquisition and Processing

B.1 Equipment and Vessels

Refer to the 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 discussed in the following sections.

B.1.1 Vessels

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

Hull ID	***S222***	***3101***	***3102***
LOA	208 feet	31 feet	31 feet
Draft	4.6 meters	0.8 meters	0.8 meters

Table 4: Vessels Used

B.1.2 Equipment

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

Manufacturer	Model	Type
Applanix	POS/MV	Vessel Attitude System
Seabird	Seacat19+	Sound Speed System
Brook Ocean Technology	MVP 100	Sound Speed System
Klein	5000	SSS
Reson	7125	MBES
Odom	ETCV200	SBES

Table 5: Major Systems Used

Data were acquired by NOAA Ship Thomas Jefferson and Hydrographic Survey Launches 3101 and 3102. NOAA Ship Thomas Jefferson acquired Reson 7125 multibeam echosounder soundings, sound velocity profiles, and bottom samples. Launch 3101 acquired Klein 5000 side scan sonar imagery, Reson 7125 multibeam echosounder soundings, sound velocity profiles, and bottom samples. Launch 3102 acquired Klein 5000 side scan sonar imagery, Reson 7125 multibeam echosounder soundings, Odom ETCV200 vertical beam echosounder soundings, and sound velocity profiles.

B.2 Quality Control

B.2.1 Crosslines

As per the HSSD 2011, section 5.2.4.3 the quality control check was done using the standard deviation layer of the survey's combined surface. Areas of unusually high standard deviation were investigated and resolved in processing, except where caused by areas of high bathymetric relief or features. High areas of standard deviation are present on the ship crosslines where there are SVP problems. This value does not exceed 0.35 meters.

The difference between the multibeam crosslines and single beam does not exceed 0.14 meters

B.2.2 Uncertainty

The following survey specific parameters were used for this survey:

Measured	Zoning
0meters	0meters

Table 6: Survey Specific Tide TPU Values

Hull ID	Measured - CTD	Measured - MVP	Surface
S222	4meters/second	1meters/second	0.2meters/second
3101	4meters/second	N/Ameters/second	0.2meters/second
3102	4meters/second	N/Ameters/second	0.2meters/second

Table 7: Survey Specific Sound Speed TPU Values

These values were calculated for all baythmetry data following CARIS merge. Tidal uncertainty was computed using TCARI within Pydro.

B.2.3 Junctions

H12296 junctioned with H12023, H12011 and H12015.

The following junctions were made with this survey:

Registry Number	Scale	Year	Field Unit	Relative Location
H12023	1:20000	2009	NOAA Ship THOMAS JEFFERSON	E
H12015	1:7500	2009	NOAA Ship THOMAS JEFFERSON	SW
H12011	1:20000	2009	NOAA Ship THOMAS JEFFERSON	SE

Table 8: Junctioning Surveys

H12023

No data was available at the time of writing this DR to use for a junction comparison.

H12015

In general the difference in soundings between the two surveys is no greater than one foot.

H12011

There was a problem opening the provided BAG file for this junction survey. No comparison was made.

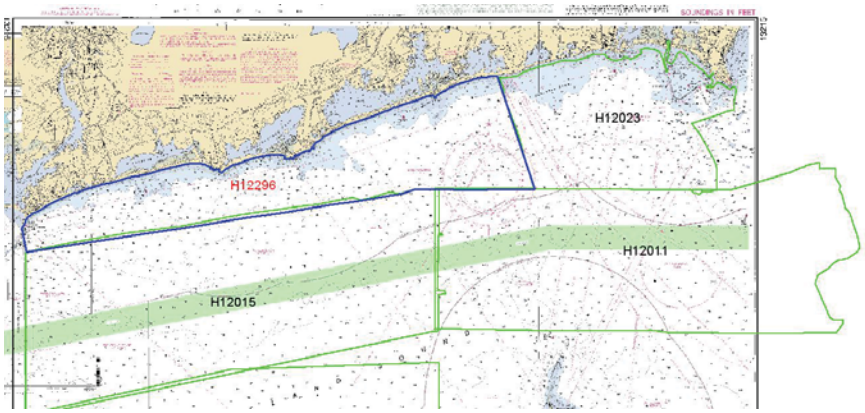


Figure 3: H12296 Junctions

B.2.4 Sonar QC Checks

Sonar system quality control checks were conducted as detailed in the quality control section of the DAPR.

B.2.5 Equipment Effectiveness

B.2.5.1None Exist

There were no conditions or deficiencies that affected equipment operational effectiveness.

B.2.6 Factors Affecting Soundings

B.2.6.1 None Exist

There were no other factors that affected corrections to soundings.

B.2.7 Sound Speed Methods

Sound Speed Cast Frequency: MVP casts were taken by the ship approximately every thirty minutes. CTDs were taken once a week for comparison. 3101 and 3102 took CTDs about every four hours.

B.2.8 Coverage Equipment and Methods

All Equipment and survey methods were used as detailed in the DAPR.

B.3 Echo Sounding Corrections

B.3.1 Corrections to Echo Soundings

All data reduction procedures conform to those detailed in the DAPR.

B.3.2 Calibrations

All sounding systems were calibrated as detailed in the DAPR.

B.4 Backscatter

Backscatter was logged as a s7k file and submitted to the IOCM processing center and/or directly to NGDC, and is not included with the data submitted to the Branch.

B.5 Data Processing

B.5.1 Software Updates

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

The following Feature Object Catalog was used:

B.5.2 Surfaces

The following CARIS surfaces were submitted to the Processing Branch:

Surface Name	Surface Type	Resolution	Depth Range	Surface Parameter	Purpose
H12296_SSS_100_1m	SSS Mosaic	1 meters	0 meters - 0 meters	N/A	100% SSS
H12296_SSS_200_1m	SSS Mosaic	1 meters	0 meters - 0 meters	N/A	200% SSS
H12296_CUBE_MB_50cm_Final	CUBE	0.5 meters	0 meters - 20 meters	NOAA_0.5m	Object Detection
H12296_CUBE_MB_1m_Final	CUBE	1 meters	19 meters - 30 meters	NOAA_1m	Object Detection
H12296_CUBE_MB_2m_Final	CUBE	2 meters	28 meters - 40 meters	NOAA_2m	Complete MBES
H12296_Uncertainty_VB_4m_Final	BASE Uncertainty	4 meters	-	N/A	MBES TracklineSBES Set Line Spacing
H12296_CUBE_Final_Combined_2m	CUBE	2 meters	1.20 meters - 33.30 meters	N/A	MBES TracklineSBES Set Line Spacing

Table 9: CARIS Surfaces

B.5.3 Launch 3102 Heave Error

There was a problem with a heave error occurring with the Reson 7125 multibeam. This occurred for Launch 3102 on day numbers 254,255,256,and 257 and Launch 3101 on 251. This was caused by internal timing problems within the Reson computer. The problem would generally begin during a line and would generally continue for the rest of the day. The amount of timing error was determined within HIPS and SIPS and then entered as the inverse value in the swath as the MBES data's timestamps had drifted.

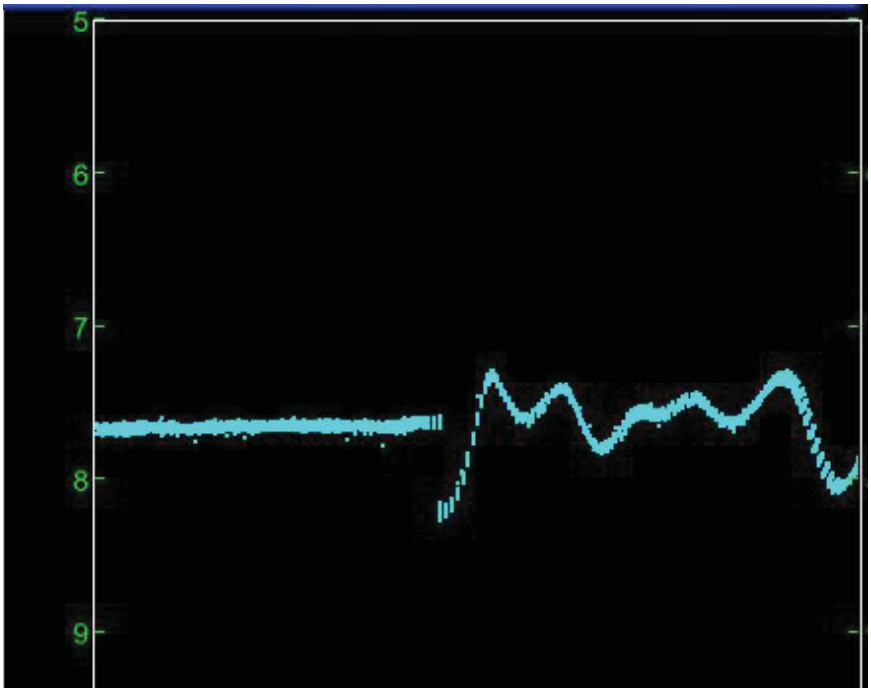


Figure 4: Heave Error Starting

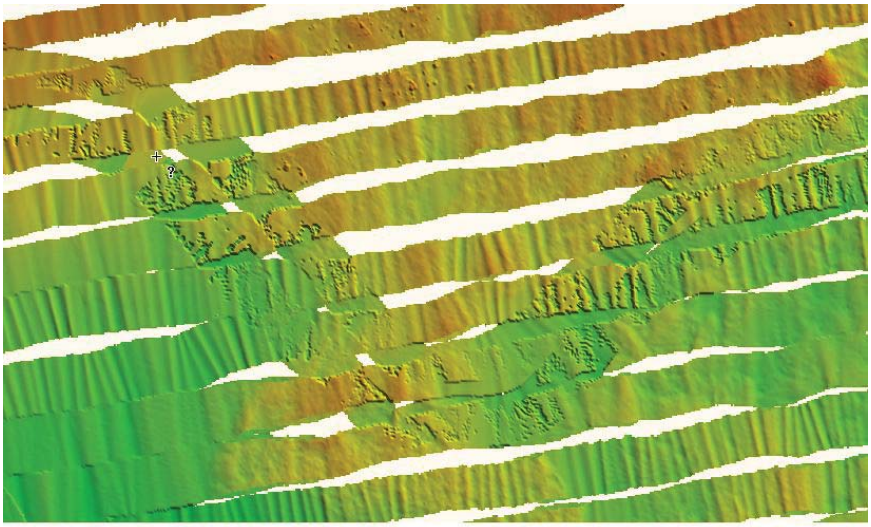


Figure 5: Before the Heave Error was Fixed

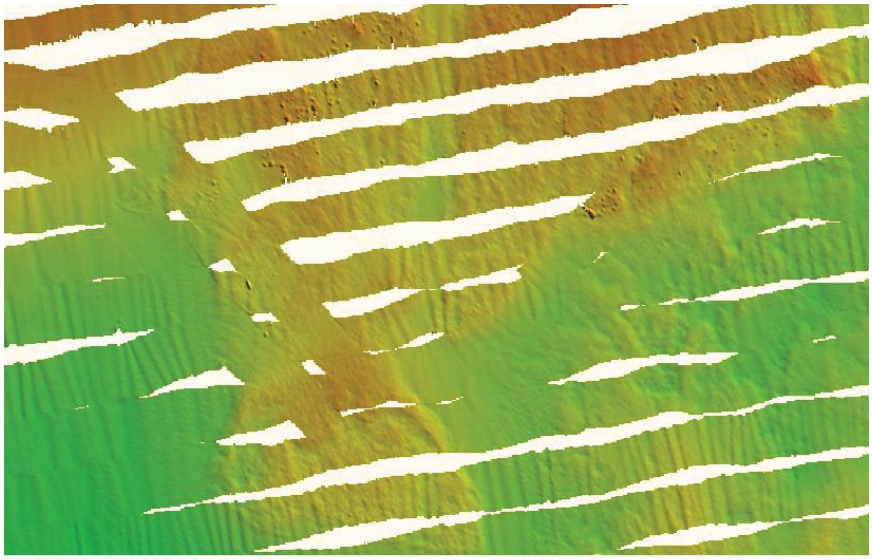


Figure 6: After the Heave Error was Fixed

B.5.4 Launch 3101 SSVS Blowouts

Launch 3101 had numerous SSVS blowouts. This resulted in incorrect beam-forming leading to "frowning" data. Areas where this occurred were cleaned to remove the bad data.

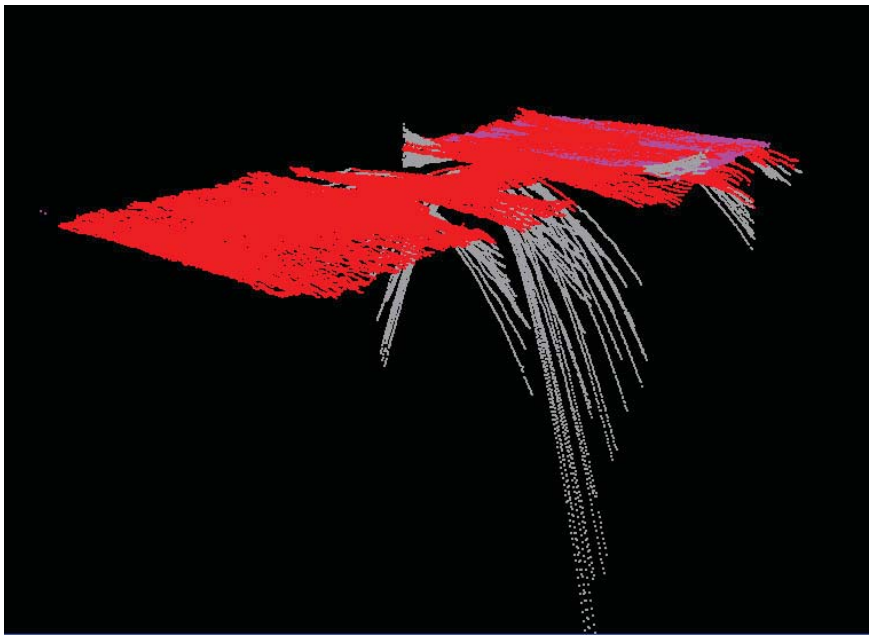


Figure 7: Launch 3101 SSVS blowouts

B.5.5 S222 Sound speed problem

The S222 data has "smiling" data throughout it. This could be caused by a roughly 2.0 meter per second or more difference between the SSVS and MVP sensor. Data in the deep area on the western side was filtered from beam 1-50 and 470-512. This reduced the problem but it also resulted in sparse data. The error does not exceed 0.45 meters.

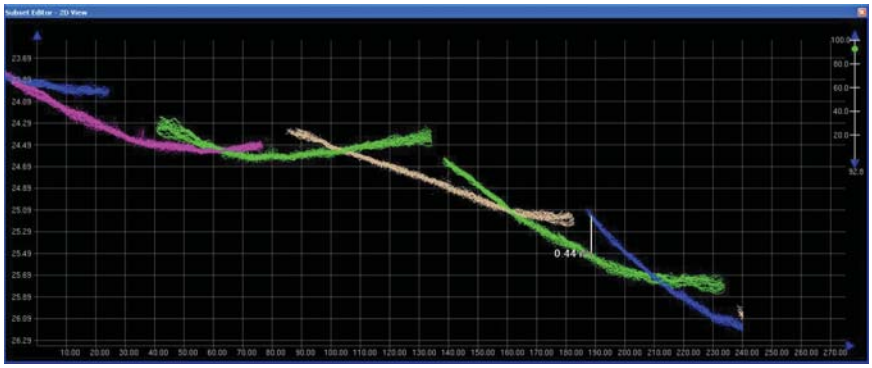


Figure 8: S222 Smiling Data

B.5.6 Data Correctors Reapplied

Due to the issues discussed above, the data correctors needed to be reapplied (sound velocity, merge, and TPU). These correctors were reapplied in that order before recreating all of the surfaces. Once all of the surfaces were created, they were then reviewed in CARIS HIPS & SIPS subset editor making sure that the data looked clean. In addition, all of the designated soundings were verified and the critical soundings were regenerated as well.

C. Vertical and Horizontal Control

AS per FPM section 5.2.3.2.3 a HVCR was not filed as no horizontal or vertical control stations were established by the field party for this survey. A summary of horizontal and vertical control for this survey follows.

C.1 Vertical Control

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

Standard Vertical Control Methods Used:

TCARI

The following National Water Level Observation Network (NWLON) stations served as datum control for this survey:

Station Name	Station ID
Newport, RI	8452660
New London, CT	8461490
Montauk, NY	8510560

Table 10: NWLON Tide Stations

File Name	Status
8452660.tid	Final Approved
8461490.tid	Final Approved
8510560.tid	Final Approved

Table 11: Water Level Files (.tid)

File Name	Status
B363TJ2011.tc	Final

Table 12: Tide Correctors (.zdf or .tc)

A request for final approved tides was sent to N/OPS1 on 10/28/2011. The final tide note was received on 12/09/2011.

The Project Instructions called for a subordinate tide gauge to be installed at Orient Harbor. For this sheet, this gauge was not required and was not used.

C.2 Horizontal Control

The horizontal datum for this project is North American Datum of 1983 (NAD83).

The following DGPS Stations were used for horizontal control:

DGPS Stations
Moriches, NY (293 kHz)
Acushnet, MA (306 KHz)

Table 13: USCG DGPS Stations

D. Results and Recommendations

D.1 Chart Comparison

D.1.1 Raster Charts

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

Chart	Scale	Edition	Edition Date	LNM Date	NM Date
13214	1:20000	29	12/2011	12/07/2010	12/18/2010
13215	1:40000	20	02/2011	02/08/2011	02/19/2011

Table 14: Largest Scale Raster Charts

13214

Soundings as surveyed are deeper than charted, by several feet in some areas. In general, the soundings agree within 4 feet of charted depths.

13215

Soundings as surveyed are deeper than charted, but in general the soundings agree within 4 feet of charted depths.

D.1.2 Electronic Navigational Charts

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

ENC	Scale	Edition	Update Application Date	Issue Date	Preliminary?
US5CN44M	1:20000	4	NaN/NaN/NaN	11/07/2011	NO
US5RI10M	1:40000	5	NaN/NaN/NaN	11/22/2011	NO

Table 15: Largest Scale ENCs

US5CN44M

Soundings as surveyed are deeper than charted. In general, the soundings agree within 1 meter but there are a few locations that are off by 2 meters. The deeper depths tend to have a better agreement than the shallower depths.

US5RI10M

Soundings as surveyed are deeper than charted. In general, the soundings agree within 1 meter but there are a few locations that are off by 2 meters. The deeper depths tend to have a better agreement than the shallower depths.

D.1.3 AWOIS Items

Number of AWOIS Items Addressed: 5
Number of AWOIS Items Not Addressed: 0

H12296 contains 5 AWOIS items (4 Wrecks and 1 Cranes). 3 were disproved. Consult the H12296 Final Feature File for detailed information about the AWOIS items investigated.

D.1.4 Charted Features

H12296 contained 2 charted features (charted rocks) that were not included as AWOIS items. Consult the H12296 Final Feature File for detailed information about the charted items investigated.

D.1.5 Uncharted Features

H12296 contained 120 uncharted features. 78 of those features are rocky seabed areas that were delineated to reduce the number of significant rocks included in the FFF. 41 of the new features were underwater rocks.

The other feature was an uncharted wreck. Consult the H12296 Final Feature File for detailed information about the uncharted items found.

D.1.6 Dangers to Navigation

One Danger to Navigation Report was submitted with two DTONs. See Appendix 1 for further details.

D.1.7 Shoal and Hazardous Features

There is a charted 5 foot shoal located in position 45-19-11.560 071-47-02.365 named Old Reef. The soundings in this area are 2 feet deeper than charted.

D.1.8 Channels

No channels exist for this survey. There are no designated anchorages, precautionary areas, safety fairways, traffic separation schemes, pilot boarding areas, or channel and range lines within the survey limits.

D.2 Additional Results

D.2.1 Shoreline

Shoreline was not assigned in the Hydrographic Survey Project Instructions or Statement of Work.

D.2.2 Prior Surveys

Results of prior surveys are represented by charted features and soundings as discussed in chart comparisons above. Therefore a detailed comparison of prior surveys was not conducted.

D.2.3 Aids to Navigation

There are two privately owned buoys in the survey area (Y "RSM-A" and Y "RSM-C"). These were verified in their correct position at the beginning of the survey, however they were not present at the end of the survey.

D.2.4 Overhead Features

Overhead features do not exist for this survey.

D.2.5 Submarine Features

One charted cable and one cable area are located in the survey area. No cables are visible in the side scan imagery and are assumed to be properly buried.

D.2.6 Ferry Routes and Terminals

No ferry routes or terminals exist for this survey.

D.2.7 Platforms

No platforms exist for this survey.

D.2.8 Significant Features

There were no significant features discovered during this survey.

D.2 Construction and Dredging

There is no present or planned construction or dredging within the survey limits.

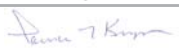
E. Approval Sheet

As Chief of Party, Field operations for this hydrographic survey were conducted under my direct supervision, with frequent personal checks of progress and adequacy. I have reviewed the attached survey data and reports.

All field sheets, this Descriptive Report, and all accompanying records and data are approved. All records are forwarded for final review and processing to the Processing Branch.

The survey data meets or exceeds requirements as set forth in the NOS Hydrographic Surveys and Specifications Deliverables Manual, Field Procedures Manual, Standing and Letter Instructions, and all HSD Technical Directives. These data are adequate to supersede charted data in their common areas. This survey is complete and no additional work is required with the exception of deficiencies noted in the Descriptive Report.

The Data Acquisition and Processing Report for OPR-B363-TJ-11 is submitted separtely and contains additional information relevant to this survey.

Approver Name	Approver Title	Approval Date	Signature
LT William Winner	Field Operations Officer	11/16/2012	
CDR Lawrence T. Krepp	Commanding Officer	11/16/2012	
ST Kimberly Glomb	Sheet Manager	11/16/2012	

F. Table of Acronyms

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

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

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

APPENDIX I

TIDE NOTE AND GRAPHICS

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 25, 2011

MEMORANDUM FOR: Gerald Hovis, Chief, Products and Services Branch, N/OPS3

FROM: CDR Larry Krepp, 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:

Atlantic Hydrographic Branch (N/CS33)
439 West York St
Norfolk, VA 23510

NOAA Ship THOMAS JEFFERSON (MOA-TJ)
439 West York St
Norfolk, VA 23510-1145

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

Project No.:	OPR-B363-TJ-11
Registry No.:	H12296
State:	Rhode Island
Locality:	Block Island Sound
Sublocality:	Green Hill to Watch Hill

Attachments containing:

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

cc: N/CS33

Year_DOY	Min Time	Max Time
2011_234	16:05:59	22:45:54
2011_235	13:05:00	23:26:15
2011_236	13:24:21	23:37:47
2011_237	12:50:50	20:36:13
2011_241	16:31:12	21:22:53
2011_242	12:54:08	21:16:02
2011_243	12:35:34	20:53:13
2011_244	12:51:31	14:59:33
2011_251	14:12:11	17:27:48
2011_252	13:14:06	22:15:45
2011_253	12:39:14	15:05:02
2011_254	12:51:34	19:35:15
2011_255	13:01:18	21:07:38
2011_256	12:45:49	21:09:08
2011_257	12:39:02	21:06:06
2011_258	13:51:07	15:11:54
2011_262	18:50:17	21:12:41
2011_263	12:53:08	16:59:25
2011_264	12:57:06	20:07:44
2011_265	13:22:26	21:13:15
2011_266	13:02:01	21:05:06
2011_267	15:41:21	21:16:13
2011_268	12:58:06	21:23:12
2011_271	12:54:41	17:07:03
2011_274	13:27:50	21:29:19
2011_285	13:12:11	20:40:44
2011_286	13:05:47	20:06:10
2011_292	12:49:56	16:56:02
2011_294	17:50:19	21:21:27
2011_295	16:14:12	21:01:23
2011_296	12:26:51	20:02:56

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

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE : November 22, 2011

HYDROGRAPHIC BRANCH: Atlantic
HYDROGRAPHIC PROJECT: OPR-B363-TJ-2011
HYDROGRAPHIC SHEET: H12296

LOCALITY: Green Hill to Watch Hill, Block Island Sound, RI
TIME PERIOD: August 22 - October 23, 2011

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° 2.9' 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 GRIDS

Please use the TCARI grid "H12296.tc" for project OPR-B363-TJ-2011, Registry No. H12296 between the dates of August 22, 2011 and October 23, 2011.

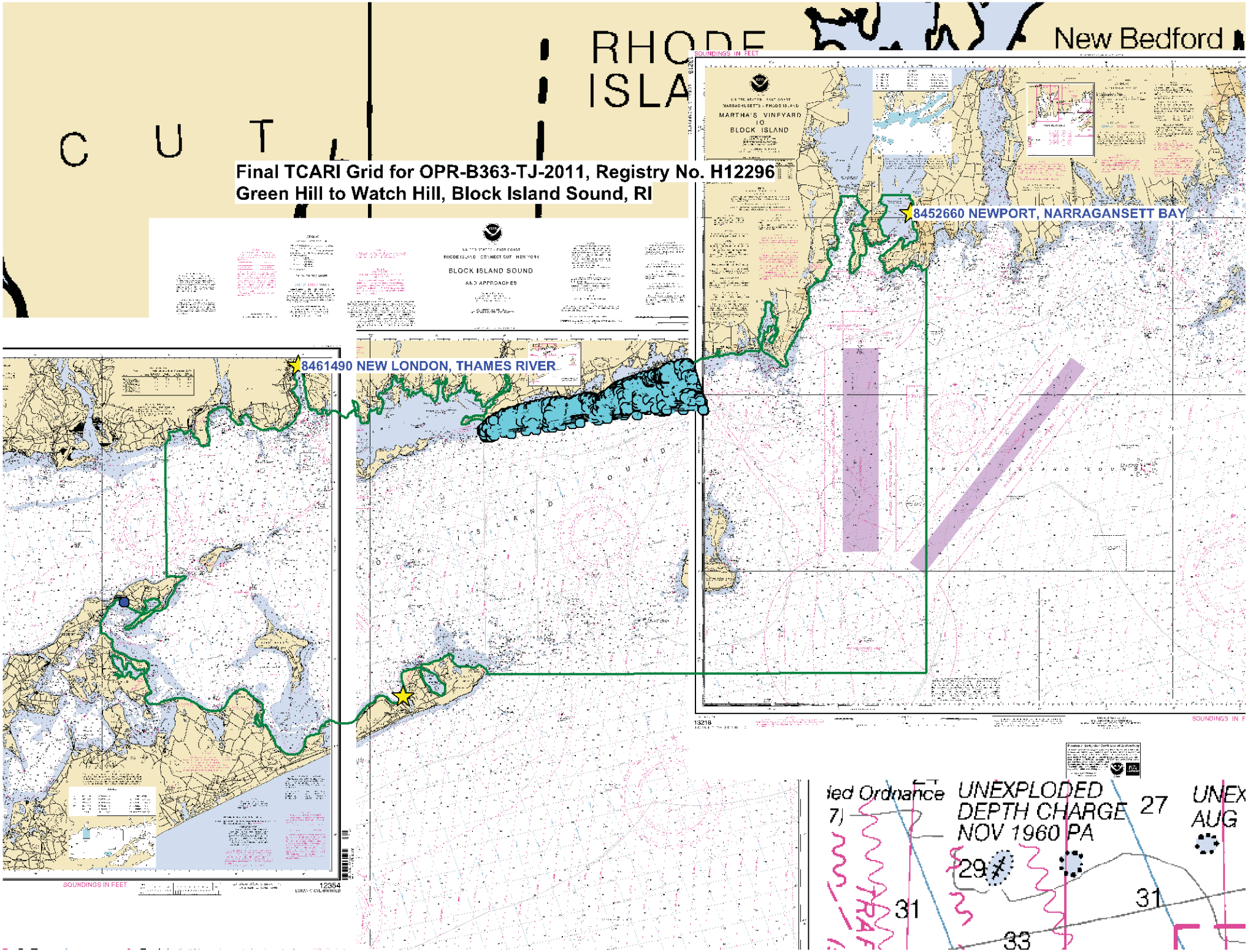
Refer to attachments for grid information.

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).

Gerald Hovis

Digitally signed by Gerald Hovis
DN: cn=Gerald Hovis, o=Center for Operational Oceanographic Products and Services, ou=NOAA/NOS/CO-OPS/OD/PSB, email=gerald.hovis@noaa.gov, c=US
Date: 2011.11.23 10:57:58 -05'00'

CHIEF, PRODUCTS AND SERVICES BRANCH


Final TCARI Grid for OPR-B363-TJ-2011, Registry No. H12296
Green Hill to Watch Hill, Block Island Sound, RI
8452660 NEWPORT, NARRAGANSETT BAY
8461490 NEW LONDON, THAMES RIVER
New Bedford
BLOCK ISLAND SOUND
AND APPROACHES
MARTHA'S VINEYARD
TO
BLOCK ISLAND
SOUNDINGS IN FEET
UNEXPLODED
DEPTH CHARGE
NOV 1960 PA
27
29
31
33

APPENDIX II

SUPPLEMENTAL SURVEY RECORDS AND CORRESPONDENCE

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: Re: Bottom Sample submission
From: Gene Parker <Castle.E.Parker@noaa.gov>
Date: Mon, 31 Jan 2011 11:47:48 -0500
To: "ops.thomas.jefferson" <OPS.Thomas.Jefferson@noaa.gov>

Good day Mark,
Submit both. HSSD specifies both in two areas of the document. First one needs to comply with HSSD; if the TJ wants to make the Hob file, then they have gone beyond the minimum requirements. If the TJ doesn't do it, then AHB would have to as long as the BS is within the Pydro PSS. Reference HSSD Section 8.2 S57 Feature File, paragraph 6:

> The S-57 feature file contains all the attributed information on specific objects that cannot be portrayed in a simple depth grid. Features to include in the S-57 feature file include; wrecks, obstructions, shoreline, rocks, islets, oil platforms, nature of seabed (bottom samples) and all other objects that may need to be compiled to a navigational product and require additional information that cannot be included in the BAG.

The Pydro PSS is in lieu of the S57 format file.

We could make the hob from the table, but since the TJ has done this, submit both the Hob file and the table contained in DR Appendix 5. Place the Hob file in the PSS directory which has contained all features in NOAA PSS format as in the past. If the TJ is going to submit the hob file, the source would be the table, so HSSD specifies delivery of both. If the TJ only submitted the table, AHB would have to generate the feature objects. If the TJ creates the hob file, then submit it.
gene

ops.thomas.jefferson wrote:

> Gene,
> We will be submitting .HOB files for the bottom samples in addition to the summary table found in the supplemental survey records and correspondence section of the DR. It is my understanding that the table is only used to create the .HOB anyways. A recommendation will need to be made that either the table either be omitted or be used in place of the .hob file. Only the summary table is mention in the HSSD april 2010 version. If there are any other issues with this idea please let us know.
> Mark

Castle Eugene Parker <castle.e.parker@noaa.gov>
Physical Scientist - Hydrographic Team Lead
Atlantic Hydrographic Branch
NOAA Office of Coast Survey

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

VESSEL No. S222 and 3101	PROJECT NO. OPR - B363- TJ-11 FIELD NO. N/A SHEET LETTER: "N/A"	YEAR 2011	SURVEY TITLE: OPR-B363-TJ-11	SURVEY NO: H12296	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.)
		LATITUDE (o ' ") North	LONGITUDE (o ' ") West						
1	274	41°18'01.268"	071°49'51.551"				5 cm		S
2	274	41°18'03.863"	071°51'00.006"				5 cm		fne S
3	274	41°18'28.995"	071°48'41.336"				5 cm		crs P fne Sh
4	274	41°18'40.690"	071°46'39.793"				5 cm		med S
5	274	41°19'00.788"	071°44'12.345"				5 cm		stk M
6	274	41°19'19.057"	071°43'04.366"				5 cm		crs S brk Sh P
7	274	41°19'30.639"	071°39'19.603"				5 cm		crs S P
8	274	41°20'43.896"	071°37'27.923"				5 cm		crs S brk Sh
9	274	41°20'34.790"	071°36'14.308"				5 cm		med P crs S
10	286	41°20'48.998"	071°39'04.129"				5 cm		crs S P
11	286	41°19'33.516"	071°40'52.719"				5 cm		med S
12	286	41°19'14.863"	071°45'46.529"				5 cm		med S brk Sh
13	286	41°18'37.296"	071°49'28.988"				5 cm		rky
14	286	41°19'11.381"	071°36'22.052"				5 cm		crs G P
15	286	41°19'25.746"	071°37'47.510"				5 cm		crs G P

From: kimberly.glomb <Kimberly.Glomb@noaa.gov>
To: fishcntr2 <fishcntr2@aol.com>
Subject: Fwd: Re: Fwd: Re: Fwd: Montauk station data
Date: Fri, Dec 9, 2011 3:36 pm

-------- Original Message --------
Subject: Re: Fwd: Re: Fwd: Montauk station data
Date: Fri, 09 Dec 2011 15:36:17 +0000 (GMT)
From: Michael.Davidson@noaa.gov
To:J. Corey Allen <Corey.Allen@noaa.gov>
CC:OPS.Thomas.Jefferson@noaa.gov, Kimberly.Glomb@noaa.gov

Corey,

Thanks for the info. I have a sheet manager that is going on leave for 2 months in a couple of weeks. We already have the final tide note

Any concerns about submitting the survey with TCARI for all days except for DN274 which would have ERS?

Thanks,
Mike

----- Original Message -----
From: "J. Corey Allen" <Corey.Allen@noaa.gov>
Date: Friday, December 9, 2011 2:06 pm
Subject: Fwd: Re: Fwd: Montauk station data
To: Michael Davidson <Michael.Davidson@noaa.gov>
Cc: _OMAO MOA OPS Thomas Jefferson <OPS.Thomas.Jefferson@noaa.gov>, Marc S Moser <Marc.S.Moser@noaa.gov>, James M Crocker <James.M.Crocker@n

> Mike,
> See below from Carolyn. I looks like H12386 was sent yesterday
> (12/8) and the others are due nlt 1/6. I will send an update to TJ
> once I hear that verified data has been posted, but it sounds like
> the TCARI may be updated so not much point to reapplying tides based
> on verified until final tide delivery.
>
> Cheers, Corey
>
> -------- Original Message --------
>
>
> Subject:
> Re: Fwd: Montauk station data
>
>
> Date:
> Thu, 08 Dec 2011 13:01:48 -0500
>
>
> From:
> Carolyn Lindley <Carolyn.Lindley@noaa.gov>
>
>
> Reply-To:
>
> Carolyn.Lindley@noaa.gov
>
>
> Organization:
>
> National Ocean Service
>
>
> To:
> J. Corey Allen <Corey.Allen@noaa.gov>
>
>
> CC:
> Gerald.Hovis <Gerald.Hovis@noaa.gov>,
> _NOS.CO-OPS.HPT <NOS.COOPS.HPT@noaa.gov>
>
>
>
>
>
>
> Hi Corey,
>
> At the pipeline meeting on 11/22 we learned that FOD had data to
> fill the gap. I have sent an email to the pipeline requesting an
> update on where the data is in the pipeline.
>
> B363-TJ-2012 H12386 should be done shortly.
>
> B363-TJ-2011 H12299 & H12298 are regular tide notes with the 45
> day deadline of 1/6/12. Currently, Orient Harbor data is with OET
> and still needs to move through the pipeline before HPT can address
> the tide notes. We will let you know if we think there will be a
> delay in delivery.
>

> Thanks,
> Carolyn
>
> On 12/8/2011 12:42 PM, J. Corey Allen wrote:
>
>
> HPT,
> When will the backfilled data become "verified"? Can you please
> provide a status update on the requested tide notes?
>
> Corey
>
> -------- Original Message --------
>
>
>
> Subject:
>
> Montauk station data
>
>
> Date:
> Thu, 08 Dec 2011 15:40:37 +0000 (GMT)
>
>
> From:
> Michael.Davidson@noaa.gov
>
>
> To:
> Corey Allen <Corey.Allen@noaa.gov>
>
>
> CC:
> Marc S Moser <Marc.S.Moser@noaa.gov>,
> Paul Turner <Paul.Turner@noaa.gov>,
> OPS.Thomas.Jefferson@noaa.gov,
> James M Crocker <James.M.Crocker@noaa.gov>
>
>
>
>
>
>
> Hi Corey,
>
> Can you touch base with CO-OPS to find out what the status is with the
> missing data from the Montauk station? On September 30, the station
> stopped transmitting and was reset on October 4th. The data was being
> saved at the station, but CO-OPS was unable to remotely communicate
> with the station to re-send the data. On November 15th, LT Loren
> Evory from CO-OPS downloaded the data from the station and sent it in
> to be processed. I have received a copy of the raw station data as a
> courtesy from LT Evory, but the preliminary or verified tides data
> that we need is not currently available.
>
> While you are talking to them, can you also please check on the status
> of the final tide notes for H12298, H12299, and H12386? The requests
> for tides were submitted on November 22.
>
> Thanks,
> Mike
>
> --
> LT Michael C. Davidson
> Operations Officer
> NOAA Ship Thomas Jefferson
> ops.thomas.jefferson@noaa.gov
>
>
>
> --
> Carolyn Lindley
> Hydrographic Planning Team Lead
> Center for Operational Oceanographic Products and Services
> NOAA/National Ocean Service
> (o) 301-713-2890 x166
> (c) 240-620-7122
>
>

From Nautical Data Branch <OCS.NDB@noaa.gov>

Sent Thursday, November 17, 2011 1:48 pm

To _NOS OCS NSD Coast Pilot <coast.pilot@noaa.gov> , Allen Taylor <Allen.Taylor@noaa.gov> , Andrew Kampia <Andrew.Kampia@noaa.gov> , Brent Pounds <Brent.Pounds@noaa.gov> , Castle E Parker <Castle.E.Parker@noaa.gov> , Craig Winn <Craig.Winn@noaa.gov> , David Merke <David.Merke@noaa.gov> , Gerald Koehl <Gerald.Koehl@noaa.gov> , James M Crocker <James.M.Crocker@noaa.gov> , John Barber <John.Barber@noaa.gov> , Jon Swallow <Jon.Swallow@noaa.gov> , Ken Forster <Ken.Forster@noaa.gov> , Kevin Shaw <Kevin.Shaw@noaa.gov> , Mark Griffin <Mark.Griffin@noaa.gov> , Matt Kroll <Matt.Kroll@noaa.gov> , Michael Gaeta <Michael.Gaeta@noaa.gov> , OCS NDB <OCS.NDB@noaa.gov> , Richard T Brennan <Richard.T.Brennan@noaa.gov> , Robert Ramsey <Robert.Ramsey@noaa.gov> , Tara Wallace <Tara.Wallace@noaa.gov> , Travis Newman <Travis.Newman@noaa.gov> , Michael.Davidson@noaa.gov , ahb.dton@noaa.gov , AHB Chief <AHB.Chief@noaa.gov> , Corey Allen <Corey.Allen@noaa.gov> , Brent.Pounds@noaa.gov , _OMAO MOA OPS Thomas Jefferson <OPS.Thomas.Jefferson@noaa.gov> , _NMAO MOA CO Thomas Jefferson <CO.Thomas.Jefferson@noaa.gov> , Kimberly Glomb <Kimberly.Glomb@noaa.gov>

Subject Dangers to Navigation - H12296

Attachments H12296_DTON_1.zip 1.5MB

L-1448/11 and DD-21151 have been registered by the Nautical Data Branch and directed to PBC for processin

The DtoNs reported are two rocks in Block Island Sound, RI.

The following charts are affected:
13215 kapp 2141
13205 kapp 2150

The following ENCs are affected:
US5RI10M
US4CN21M

References:
H-12296
OPR-B363-TJ-11

This information was discovered and submitted by the NOAA ship THOMAS JEFFERSON.

-------- Original Message --------
Subject: OPR-B363-TJ-11 H12296 DToNs
Date: Wed, 16 Nov 2011 20:24:00 -0500
From: Michael.Davidson@noaa.gov
To: OCS.NDB@noaa.gov
CC: ahb.dton@noaa.gov, AHB.Chief@noaa.gov, Corey.Allen@noaa.gov, Brent.Pounds@noaa.gov, OPS.T

DToN Team,

Attached is a DToN report for OPR-B363-TJ-11 H12296. The report details two dangerous r

Please feel free to contact me with any questions regarding the attached DToN report.

V/R,
Mike

--
LT Michael C. Davidson
Operations Officer
NOAA Ship Thomas Jefferson
439 W York St
Norfolk, VA 23510
757-647-0187 (ship's cell)
808-434-2706 (ship's Iridium)
ops.thomas.jefferson@noaa.gov

From "J. Corey Allen" <Corey.Allen@noaa.gov>

Sent Thursday, November 17, 2011 8:55 am
To Michael.Davidson@noaa.gov
Cc OPS.Thomas.Jefferson@noaa.gov , CO.Thomas.Jefferson@noaa.gov , James M Crocker <James.M.Crocker@noaa.gov> , Marc S Moser <Marc.S.Moser@noaa.gov>
Subject Re: Fwd: H12296 Request for Tides

Mike,
I spoke with CO-OPS and they are actively working on this project. The grid doesn't need to be adjusted based on the Orient Harbor installation, but they are running some QC on the grid due to the outages seen at Montauk. Since H12296 is well to the north of Montauk they do not expect any issues. They are also actively working on the FA Kotzebue project which has been assigned the highest priority by HSD. Given these priorities and the necessary spot checks on the B363 grid, they anticipate delivery of the final tide no later than Thanksgiving. Please let me know if you have any additional concerns.

Regards, Corey

On 11/16/2011 8:05 PM, Michael.Davidson@noaa.gov wrote:
> Hi Corey,
>
> It has been about 18 days since our request for final tides for OPR-B363-TJ-11 H12296. Would you please inquire with CO-OPS when we may expect to receive the final tides note? There was a brief outage in the Montauk station that covers part of the survey dates, but I would be surprised if this would impact the verification of the TCARI grid.
>
> Thanks,
> Mike
>
> --
> LT Michael C. Davidson
> Operations Officer
> NOAA Ship Thomas Jefferson
> 439 W York St
> Norfolk, VA 23510
> 757-647-0187 (ship's cell)
> 808-434-2706 (ship;s Iridium)
> ops.thomas.jefferson@noaa.gov

--
J. Corey Allen
Physical Scientist, Operations Branch
Hydrographic Surveys Division
Office of Coast Survey
NOAA
Corey.Allen@noaa.gov
301.713.2777 x103 (Office)
301.717.7271 (Cell)
301.713.4533 (Fax)

UNITED STATES DEPARTMENT COMMERCE
National Oceanic and Atmospheric Administration
Office of Marine and Aviation Operations
NOAA Ship *Thomas Jefferson* S-222
439 West York Street
Norfolk, VA 23510-1114

November 18, 2011

Memorandum For: Nautical Data Branch

From: CDR Lawrence T. Krepp, NOAA
Commanding Officer, NOAA Ship *Thomas Jefferson*

Subject: Coast Pilot Report, H12296

We reviewed the Coast Pilot as might be affected by this survey, and have no comments to forward as a result.

The general comments about the area will be reviewed as part of one of the other surveys in this project.

Subject: Fwd: Re: Object detection requirements to 40m
From: Michael.Davidson@noaa.gov
Date: 11/8/2011 8:53 PM
To: ChiefST.Thomas.Jefferson@noaa.gov, Frankie.A.Daniel@noaa.gov, Kimberly Glomb <Kimberly.Glomb@noaa.gov>, Joseph Carrier <Joseph.Carrier@noaa.gov>
CC: Matt Vanhoy <Matt.Vanhoy@noaa.gov>, Anthony R Klemm <anthony.r.klemm@noaa.gov>, Lindsey L Norman <lindsey.l.norman@noaa.gov>, CO.Thomas.Jefferson@noaa.gov, OPS.Thomas.Jefferson@noaa.gov

Survey and JOs,

See the email thread below regarding gridding resolutions for the B363 Project.

H12386 is Complete MB coverage requirements only.
H12296, H12298, and h12299 are required to have OD MBES grid resolutions to 20m, but since the data supports OD resolutions to 30m, I would like us to do so. Since pilots will be bringing in vessels with drafts of up to 60ft, I think it is prudent to extend the OD resolution beyond 20m.

If you have any questions regarding the appropriate grid resolutions for B363, please come see me to discuss. Sheet managers, please include this email chain in Appendix V of your DRs.

Thanks,
Mike

Subject: Re: Object detection requirements to 40m
From: Michael.Davidson@noaa.gov
Date: 11/8/2011 8:37 PM
To: James Crocker <jmcrocker@me.com>
CC: "J. Corey Allen" <Corey.Allen@noaa.gov>, Jeffrey Ferguson <Jeffrey.Ferguson@noaa.gov>, "CO.Thomas.Jefferson@noaa.gov" <CO.Thomas.Jefferson@noaa.gov>, "OPS.Thomas.Jefferson@noaa.gov" <OPS.Thomas.Jefferson@noaa.gov>, James M Crocker <James.M.Crocker@noaa.gov>, Paul Turner <Paul.Turner@noaa.gov>

CDR Crocker,

Thanks for getting back to us on this. I hope that REFTRA is going well.

Just to clarify the point about OD to 20m only, the project instructions discuss the vessel drafts of 60 ft. From our earlier conversations, I was under the impression that we needed OD beyond 20m due to the 60 ft drafts. TJ will grid to OD standards to 20m, and even to 30m to be prudent if necessary. We were having a little trouble with the OD to 40m, so I am glad to hear that this is not required.

Since the data will support OD to 30m I am inclined to go ahead and exceed the spec here just to be prudent, unless there are objections.

Thank you for your time. Enjoy the rest of REFTRA.

V/R,
Mike

----- Original Message -----
From: James Crocker <jmcrocker@me.com>
Date: Tuesday, November 8, 2011 2:30 pm
Subject: Re: Object detection requirements to 40m

To: "J. Corey Allen" <Corey.Allen@noaa.gov>
Cc: "Michael.Davidson@noaa.gov" <Michael.Davidson@noaa.gov>, Jeffrey Ferguson <Jeffrey.Ferguson@noaa.gov>, "CO.Thomas.Jefferson@noaa.gov" <CO.Thomas.Jefferson@noaa.gov>, "OPS.Thomas.Jefferson@noaa.gov" <OPS.Thomas.Jefferson@noaa.gov>, James M Crocker <James.M.Crocker@noaa.gov>, Paul Turner <Paul.Turner@noaa.gov>

All,
It should be object detection for 20 m or less and complete for greater than 20 m. The whole project may be set at object detection but defined by the depth constraints above.
Jim

Sent from my iPhone

On Nov 8, 2011, at 1:50 PM, "J. Corey Allen" <Corey.Allen@noaa.gov> wrote:

> Mike,
> The newly tasked B363 area, H12386 only has a Complete Coverage requirement, not Object Detection. Please refer to the email from Paul Turner on 10/14. I can appreciate that it might have been confusing since new instructions were not issued, please let me know if you do not have record of this email and I can forward.
>
> For the originally assigned B363 areas, I have to assume Jim intended OD based on requirements in the area, and therefore as guided by the specs you should carry the 1m grid resolutions out to 40m. I am cc' him on this email on the off chance he is able to respond and doesn't not concur with my assumptions.
>
> Glad to hear the weather will allow you to acquire data offshore. Please feel free to contact me further if this does not clear things up.
>
> Cheers, Corey
>
> On 11/7/2011 11:32 AM, Michael.Davidson@noaa.gov wrote:
>> Hi Corey,
>>
>> May I have a little clarification on the Project Instructions for B363? Specifically, it states that the entire project is Object Detection. In HSSD, it states that OD is rarely required in greater than 30m depths, but provides grid resolution requirements to 40m. The lack of specific instruction that OD is not required beyond 30m in the PI has led us to believe that OD is required to 40m for all of B363. Is this actually the case?
>>
>> I would like to request loosening the object detection requirements for OPR-B363-TJ-11. I understand the need to extend the OD depths beyond the 20m that TJ is used to doing due to the desire to bring in drafts of 60ft into the BIS/LIS areas. However, I question the need to extend the OD depth to 40m and the need to acquire data to support OD density requirements for a 1m grids at 40m depths. This has only a minor issue on H12296, H12298, and H12299. However, on H12386, the newly added offshore sheet, a significant portion of the survey is greater than 30m but less than 40m. To maintain OD density in these depth ranges, we have to slow the ship significantly. This is not only inefficient, but it also makes the ship difficult to steer with a following current, thereby creating holidays and further compounding the inefficiencies.
>>
>> I would like to propose that we acquire OD specs to 30m depths and

Complete MB specs beyond 30m depths for B363. This will allow us to have 1m grids to 30m and 2m grids to 40m. If this is not feasible for the entire project, then I would like to at least request it for the H12386.

> Please let me know what you think at your earliest convenience.

(We will be acquiring additional data on H12386 this evening).

> Thank you for your time.
>
> V/R,
> Mike
>
> --
> LT Michael C. Davidson
> Operations Officer
> NOAA Ship Thomas Jefferson
> 439 W York St
> Norfolk, VA 23510
> 757-647-0187 (ship's cell)
> 808-434-2706 (ship's Iridium)
> 301-713-7782 (VOIP)
> ops.thomas.jefferson@noaa.gov

--
J. Corey Allen
Physical Scientist, Operations Branch
Hydrographic Surveys Division
Office of Coast Survey
NOAA
Corey.Allen@noaa.gov
301.713.2777 x103 (Office)
301.717.7271 (Cell)
301.713.4533 (Fax)

Attachments:

Re: Object detection requirements to 40m.eml 4.8 KB

APPENDIX III
SURVEY FEATURES REPORT

DToNs - fourteen

AWOIS - four

Wrecks - one

Maritime Boundaries - none

H12296 Dangers to Navigation

Registry Number: H12296
State: Rhode Island
Locality: Block Island Sound
Sub-locality: Green Hill to Watch Hill
Project Number: OPR-B363-TJ-11
Survey Date: 10/23/2011

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
13215	20th	02/01/2011	1:40,000 (13215_1)	USCG LNM: 4/9/2013 (4/16/2013) CHS NTM: None (11/30/2012) NGA NTM: None (4/27/2013)
13205	38th	02/01/2007	1:80,000 (13205_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	Significant Rock 8	Rock	6.27 m	41° 18' 45.6" N	071° 47' 54.8" W	---
1.2	Significant Rock 9	Rock	7.40 m	41° 19' 14.7" N	071° 46' 42.8" W	---
1.3	10ft Rock	Rock	3.21 m	41° 19' 31.1" N	071° 46' 41.6" W	---
1.4	Significant Rock 11	Rock	7.76 m	41° 19' 20.5" N	071° 45' 55.1" W	---
1.5	Significant Rock 10	Rock	6.83 m	41° 19' 36.4" N	071° 43' 41.5" W	---
1.6	20ft Rock	Rock	6.35 m	41° 19' 39.4" N	071° 43' 15.3" W	---
1.7	Dangerous rock 2	Rock	1.74 m	41° 19' 55.5" N	071° 42' 27.0" W	---
1.8	18ft Rock	Rock	5.50 m	41° 20' 02.9" N	071° 41' 14.8" W	---
1.9	Significant Rock 2	Rock	4.88 m	41° 20' 37.9" N	071° 40' 21.3" W	---
1.10	Significant Rock 1	Rock	5.13 m	41° 20' 49.5" N	071° 39' 02.5" W	---

1.11	Significant Rock 4	Rock	4.75 m	41° 21' 17.9" N	071° 37' 38.6" W	---
1.12	Dangerous Rock	Rock	3.51 m	41° 21' 35.2" N	071° 37' 07.6" W	---
1.13	18ft Rock 2	Rock	5.49 m	41° 21' 31.0" N	071° 36' 42.8" W	---
1.14	39ft Rock	Rock	12.02 m	41° 20' 54.9" N	071° 36' 04.8" W	---

1 - DR_DToN

1.1) Significant Rock 8

DANGER TO NAVIGATION

Survey Summary

Survey Position:	41° 18' 45.6" N, 071° 47' 54.8" W
Least Depth:	6.27 m (= 20.57 ft = 3.428 fm = 3 fm 2.57 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2011-296.00:00:00.000 (10/23/2011)
Dataset:	H12296_FinalFeatureFile_pydro.000
FOID:	US 0000519309 00001(02260007EC8D0001)
Charts Affected:	13215_1, 13205_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

UWTROC/remrks: Significant rock found with 200% Klein 5000 side scan sonar and Reson 7125 object detection multibeam. Soundings are corrected to MLLW with verified tides and final zoning.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12296_FinalFeatureFile_pydro.000	US 0000519309 00001	0.00	000.0	Primary

Hydrographer Recommendations

Chart underwater rock.

Cartographically-Rounded Depth (Affected Charts):

20ft (13215_1, 13205_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 - Chart rock
	QUASOU - 6:least depth known
	SORDAT - 20111023

SORIND - US,US,graph,H12296

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

VALSOU - 6.270 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Sent as DTON during SAR. Verified with multibeam and side scan sonar.

COMPILE: Chart rock feature as a shoal sounding within a rocky seabed area.

Feature Images

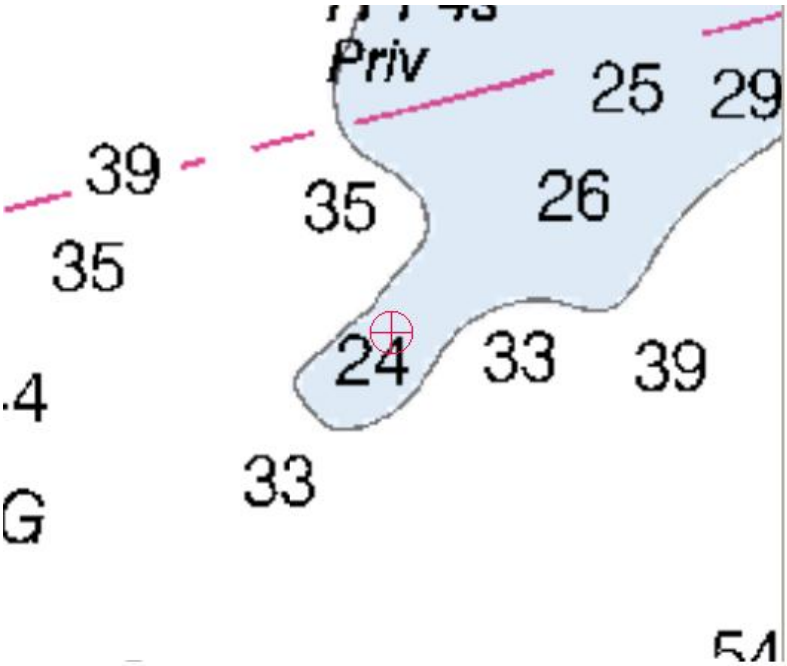


Figure 1.1.1

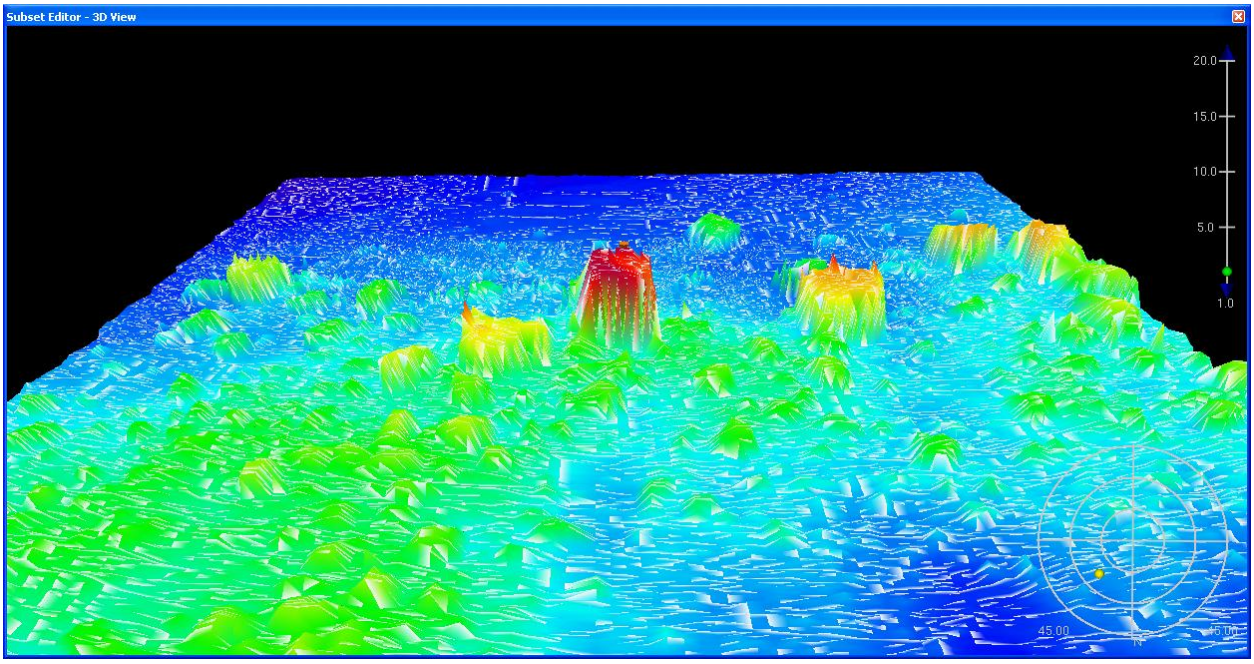


Figure 1.1.2

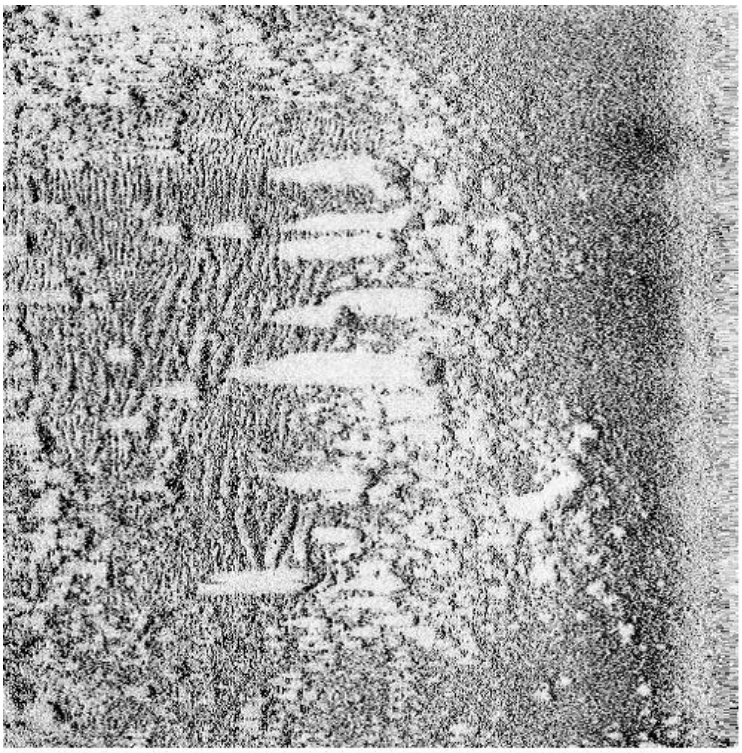


Figure 1.1.3

1.2) Significant Rock 9

DANGER TO NAVIGATION

Survey Summary

Survey Position:	41° 19' 14.7" N, 071° 46' 42.8" W
Least Depth:	7.40 m (= 24.28 ft = 4.047 fm = 4 fm 0.28 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2011-296.00:00:00.000 (10/23/2011)
Dataset:	H12296_FinalFeatureFile_pydro.000
FOID:	US 0000519313 00001(02260007EC910001)
Charts Affected:	13215_1, 13205_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

UWTROC/remrks: Significant rock found with 200% Klein 5000 side scan sonar and Reson 7125 object detection multibeam. Soundings are corrected to MLLW with verified tides and final zoning.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12296_FinalFeatureFile_pydro.000	US 0000519313 00001	0.00	000.0	Primary

Hydrographer Recommendations

Chart underwater rock.

Cartographically-Rounded Depth (Affected Charts):

24ft (13215_1, 13205_1)

4fm (12300_1, 13006_1, 13003_1)

7.4m (5161_1)

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	NINFOM - Chart rock
	QUASOU - 6:least depth known
	SORDAT - 20111023

SORIND - US,US,graph,H12296

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

VALSOU - 7.401 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Sent as DTON during SAR. Rock verified with multibeam and side scan sonar.

COMPILE: Chart rock feature as a shoal sounding within a rocky seabed area.

Feature Images

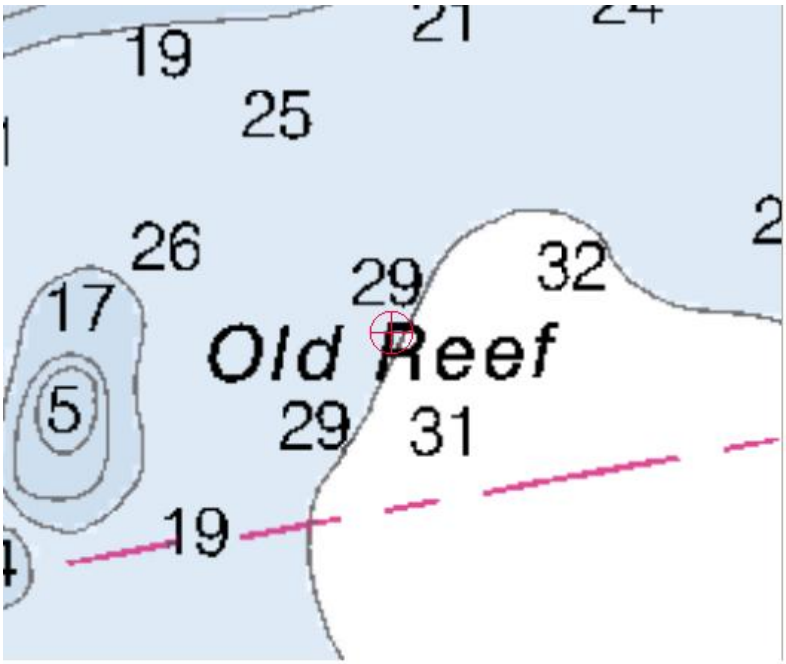


Figure 1.2.1

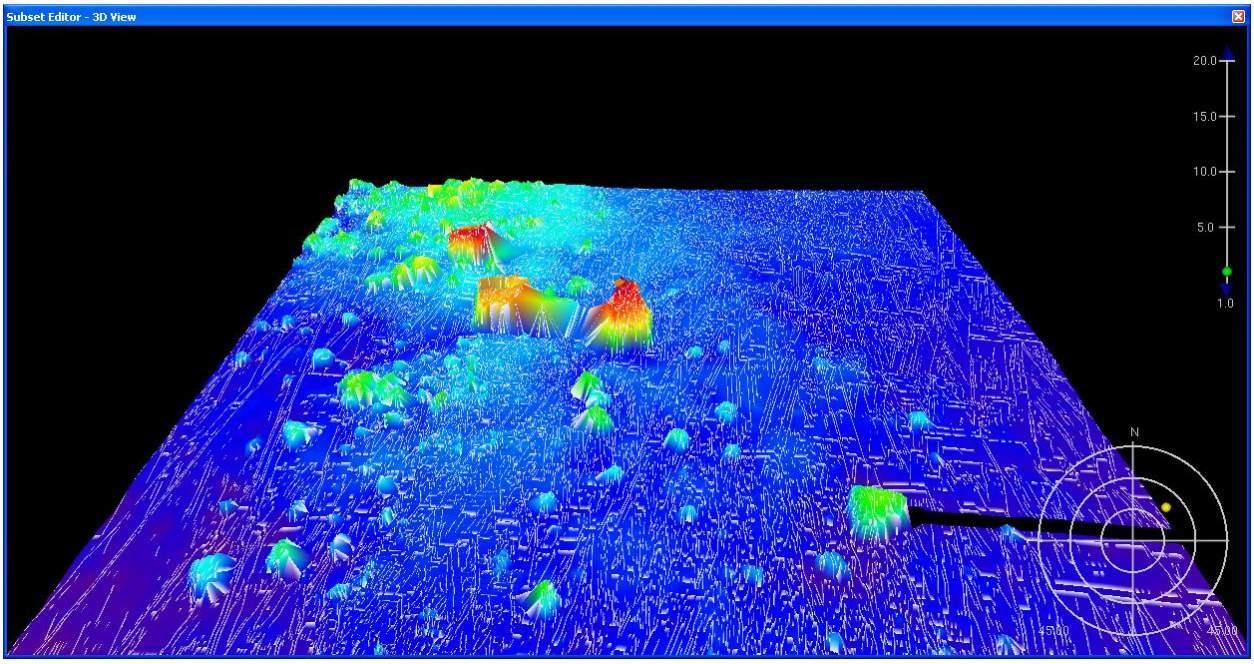


Figure 1.2.2

Figure 1.2.3

1.3) 10ft Rock

DANGER TO NAVIGATION

Survey Summary

Survey Position:	41° 19' 31.1" N, 071° 46' 41.6" W
Least Depth:	3.21 m (= 10.52 ft = 1.753 fm = 1 fm 4.52 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2011-296.00:00:00.000 (10/23/2011)
Dataset:	H12296_FinalFeatureFile_pydro.000
FOID:	US 0000519305 00001(02260007EC890001)
Charts Affected:	13215_1, 13205_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

UWTROC/remrks: Uncharted rock found with Reson 7125 OD MBES. Sounding are reduced to MLLW using verified tides.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12296_FinalFeatureFile_pydro.000	US 0000519305 00001	0.00	000.0	Primary

Hydrographer Recommendations

Chart a rock.

Cartographically-Rounded Depth (Affected Charts):

10ft (13215_1, 13205_1)

1 ¾fm (12300_1, 13006_1, 13003_1)

3.2m (5161_1)

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	EXPSOU - 2:shoaler than range of depth of the surrounding depth area
	NINFOM - Chart rock
	QUASOU - 6:least depth known

SORDAT - 20111023

SORIND - US,US,graph,H12296

TECSOU - 3:found by multi-beam

VALSOU - 3.205 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Sent as DTON during SAR. Rock verified with multibeam.

COMPILE: Chart rock feature as a shoal sounding within a rocky seabed area.

Feature Images

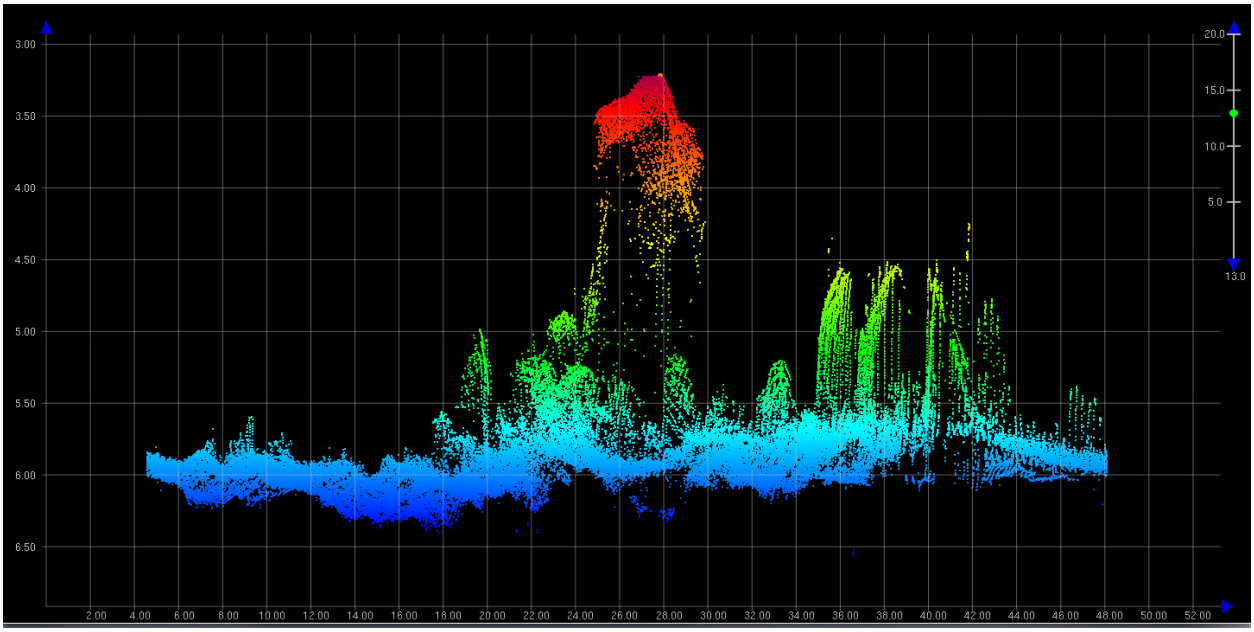


Figure 1.3.1

1.4) Significant Rock 11

DANGER TO NAVIGATION

Survey Summary

Survey Position:	41° 19' 20.5" N, 071° 45' 55.1" W
Least Depth:	7.76 m (= 25.47 ft = 4.245 fm = 4 fm 1.47 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2011-296.00:00:00.000 (10/23/2011)
Dataset:	H12296_FinalFeatureFile_pydro.000
FOID:	US 0000519316 00001(02260007EC940001)
Charts Affected:	13215_1, 13205_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

UWTROC/remrks: Significant rock found with 200% Klein 5000 side scan sonar and Reson 7125 object detection multibeam. Soundings are corrected to MLLW with verified tides and final zoning.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12296_FinalFeatureFile_pydro.000	US 0000519316 00001	0.00	000.0	Primary

Hydrographer Recommendations

Chart underwater rock.

Cartographically-Rounded Depth (Affected Charts):

25ft (13215_1, 13205_1)

4 ¼fm (12300_1, 13006_1, 13003_1)

7.8m (5161_1)

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	NINFOM - Chart rock
	QUASOU - 6:least depth known
	SORDAT - 20111023

SORIND - US,US,graph,H12296

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

VALSOU - 7.763 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Sent as DTON during SAR. Rock verified with multibeam and side scan sonar.

COMPILE: Chart rock feature as a shoal sounding within a rocky seabed area.

Feature Images

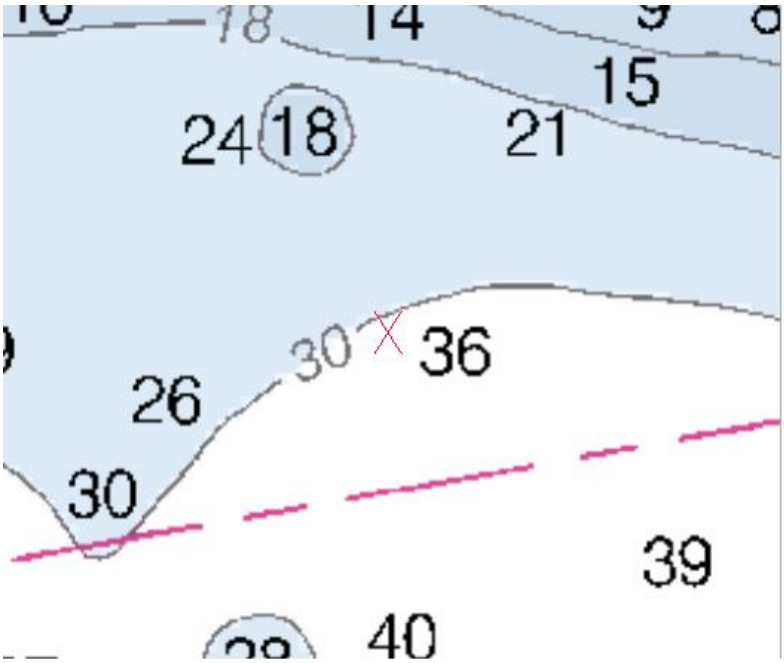


Figure 1.4.1

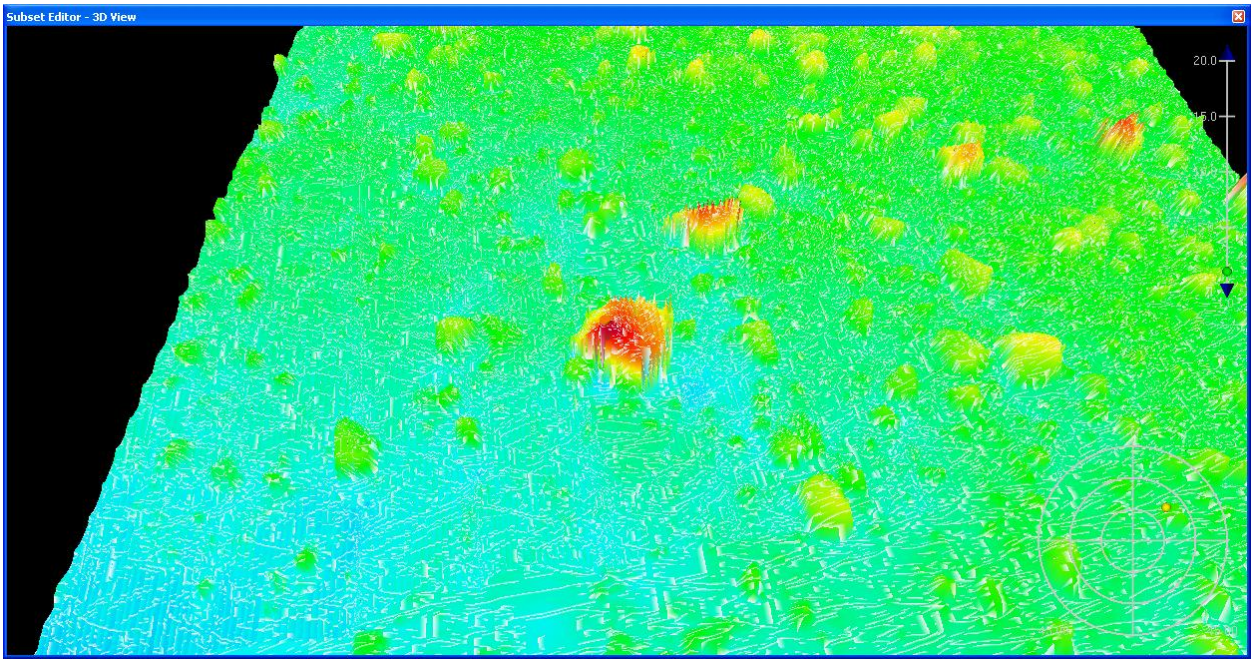


Figure 1.4.2

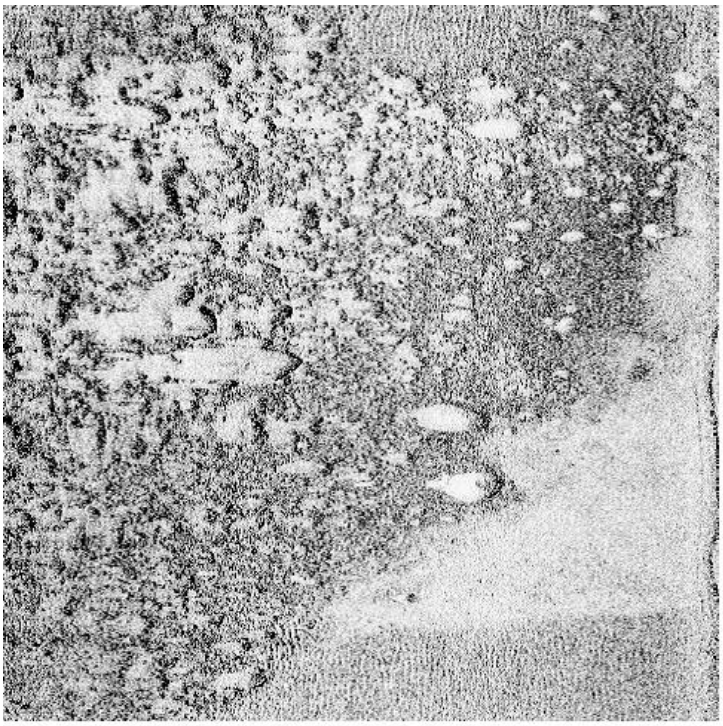


Figure 1.4.3

1.5) Significant Rock 10

DANGER TO NAVIGATION

Survey Summary

Survey Position:	41° 19' 36.4" N, 071° 43' 41.5" W
Least Depth:	6.83 m (= 22.40 ft = 3.733 fm = 3 fm 4.40 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2011-296.00:00:00.000 (10/23/2011)
Dataset:	H12296_FinalFeatureFile_pydro.000
FOID:	US 0000519317 00001(02260007EC950001)
Charts Affected:	13215_1, 13205_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

UWTROC/remrks: Significant rock found with 200% Klein 5000 side scan sonar and Reson 7125 object detection multibeam. Soundings are corrected to MLLW with verified tides and final zoning.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12296_FinalFeatureFile_pydro.000	US 0000519317 00001	0.00	000.0	Primary

Hydrographer Recommendations

Chart underwater rock.

Cartographically-Rounded Depth (Affected Charts):

22ft (13215_1, 13205_1)

3 ¾fm (12300_1, 13006_1, 13003_1)

6.8m (5161_1)

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	NINFOM - Chart rock
	QUASOU - 6:least depth known
	SORDAT - 20111023

SORIND - US,US,graph,H12296

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

VALSOU - 6.826 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Sent as DTON during SAR. Rock verified with multibeam and side scan sonar.

COMPILE: Chart rock feature as a shoal sounding within a rocky seabed area.

Feature Images

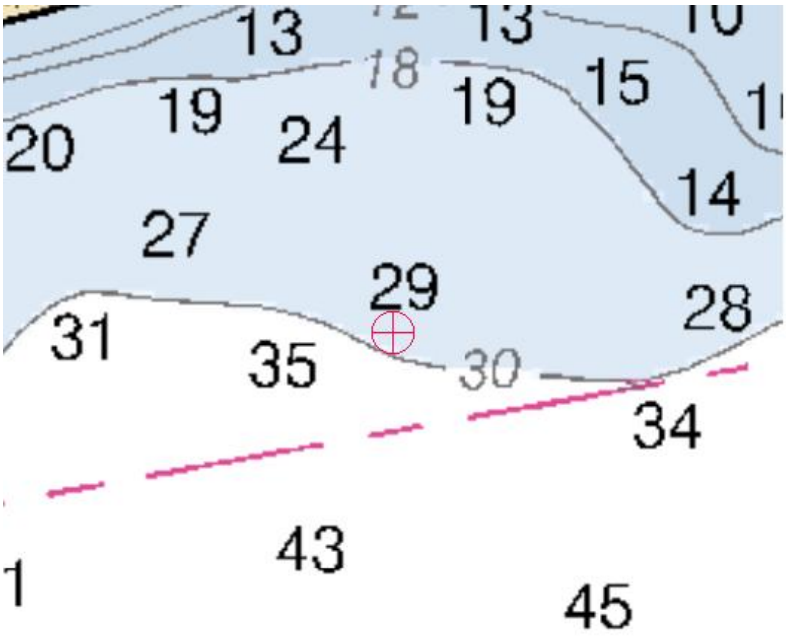


Figure 1.5.1

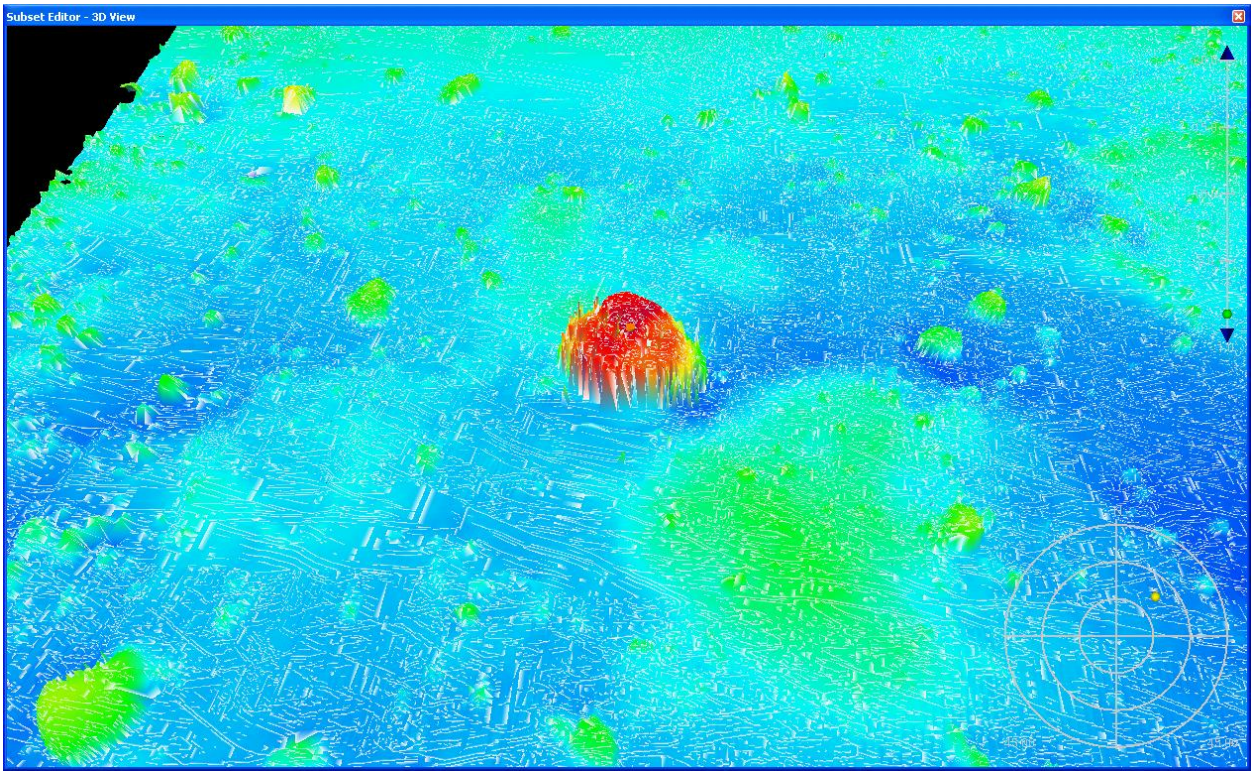


Figure 1.5.2

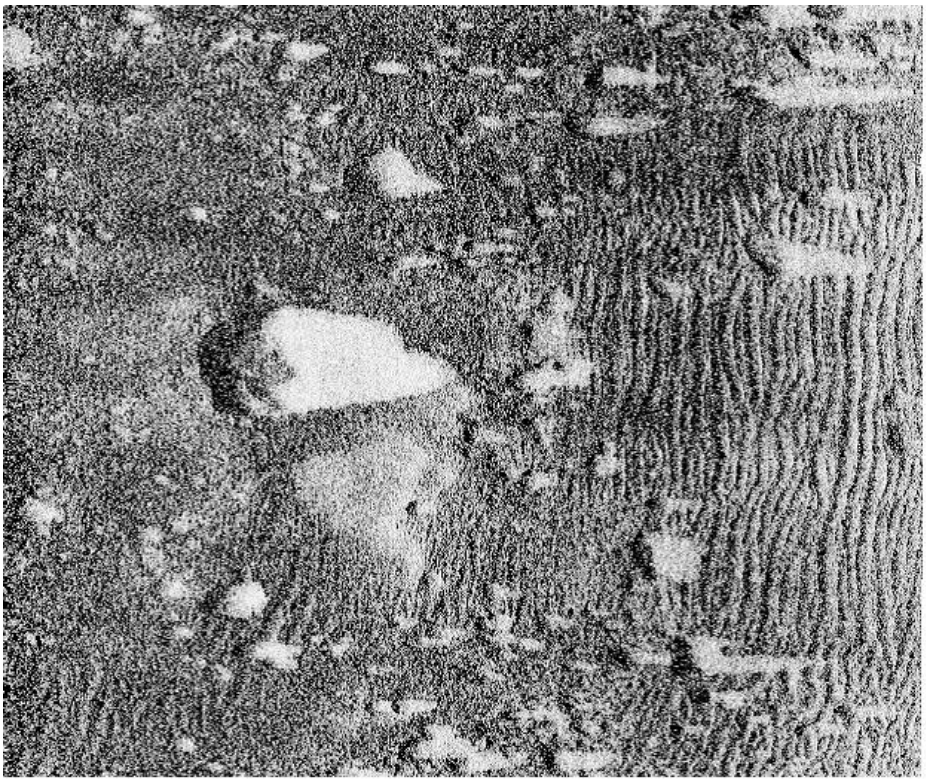


Figure 1.5.3

1.6) 20ft Rock

DANGER TO NAVIGATION

Survey Summary

Survey Position:	41° 19' 39.4" N, 071° 43' 15.3" W
Least Depth:	6.35 m (= 20.83 ft = 3.472 fm = 3 fm 2.83 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2011-296.00:00:00.000 (10/23/2011)
Dataset:	H12296_FinalFeatureFile_pydro.000
FOID:	US 0000519328 00001(02260007ECA00001)
Charts Affected:	13215_1, 13205_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

UWTROC/remrks: Uncharted rock found with Reson 7125 OD MBES. Soundings are corrected to MLLW using verified tides.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12296_FinalFeatureFile_pydro.000	US 0000519328 00001	0.00	000.0	Primary

Hydrographer Recommendations

Chart a rock.

Cartographically-Rounded Depth (Affected Charts):

21ft (13215_1, 13205_1)

3 ½fm (12300_1, 13006_1, 13003_1)

6.3m (5161_1)

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	EXPSOU - 1:within the range of depth of the surrounding depth area
	NINFOM - Chart rock
	QUASOU - 6:least depth known

SORDAT - 20111023

SORIND - US,US,graph,H12296

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

VALSOU - 6.349 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Sent as DTON during SAR. Rock verified with multibeam and side scan sonar.

COMPILE: Chart rock feature as a shoal sounding within a rocky seabed area.

Feature Images

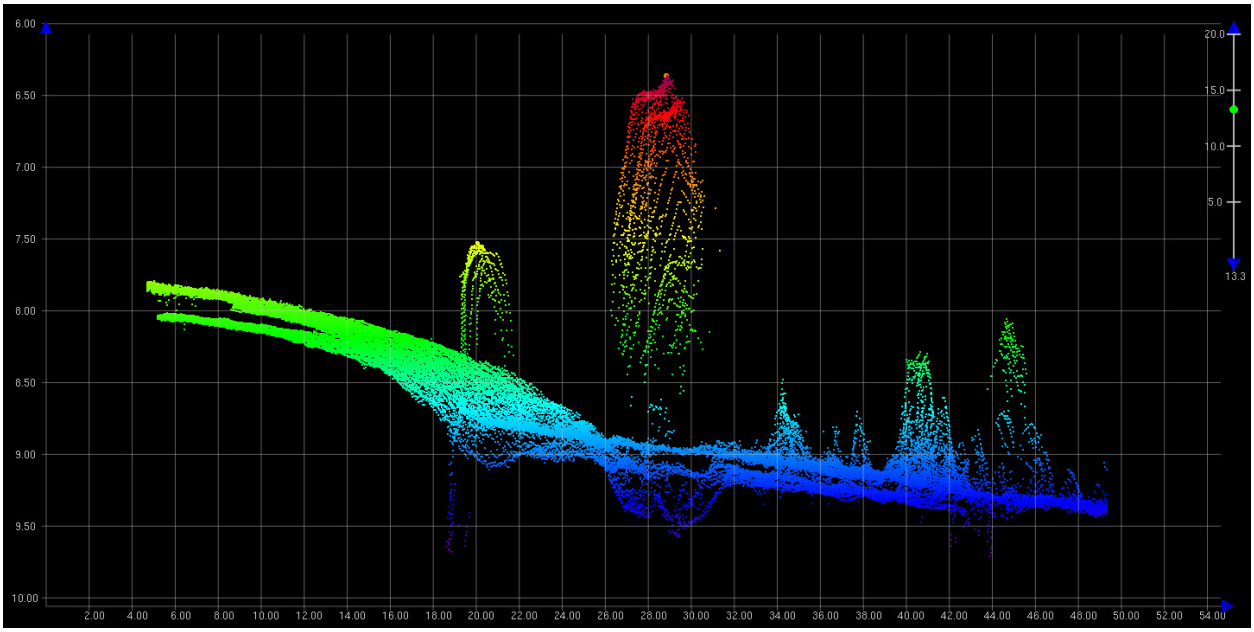


Figure 1.6.1

1.7) Dangerous rock 2

DANGER TO NAVIGATION

Survey Summary

Survey Position:	41° 19' 55.5" N, 071° 42' 27.0" W
Least Depth:	1.74 m (= 5.69 ft = 0.949 fm = 0 fm 5.69 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2011-296.00:00:00.000 (10/23/2011)
Dataset:	H12296_FinalFeatureFile_pydro.000
FOID:	US 0000519318 00001(02260007EC960001)
Charts Affected:	13215_1, 13205_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

UWTROC/remrks: Dangerous rock found with Reson 7125 object detection multibeam. Soundings are corrected to MLLW with verified tides and preliminary zoning.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12296_FinalFeatureFile_pydro.000	US 0000519318 00001	0.00	000.0	Primary

Hydrographer Recommendations

Chart dangerous rock.

Cartographically-Rounded Depth (Affected Charts):

5ft (13215_1, 13205_1)

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

1.7m (5161_1)

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	NINFOM - Chart rock
	QUASOU - 6:least depth known
	SORDAT - 20111023

SORIND - US,US,graph,H12296

TECSOU - 3:found by multi-beam

VALSOU - 1.735 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: DtoN sent by field is charted. Rock verified with multibeam.

COMPILE: Chart rock feature as a shoal sounding within a rocky seabed area.

Feature Images

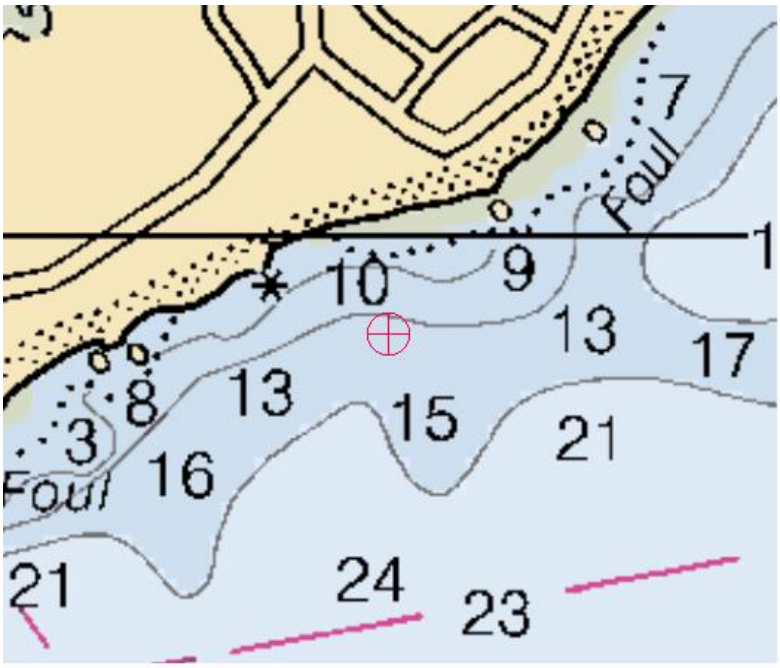


Figure 1.7.1

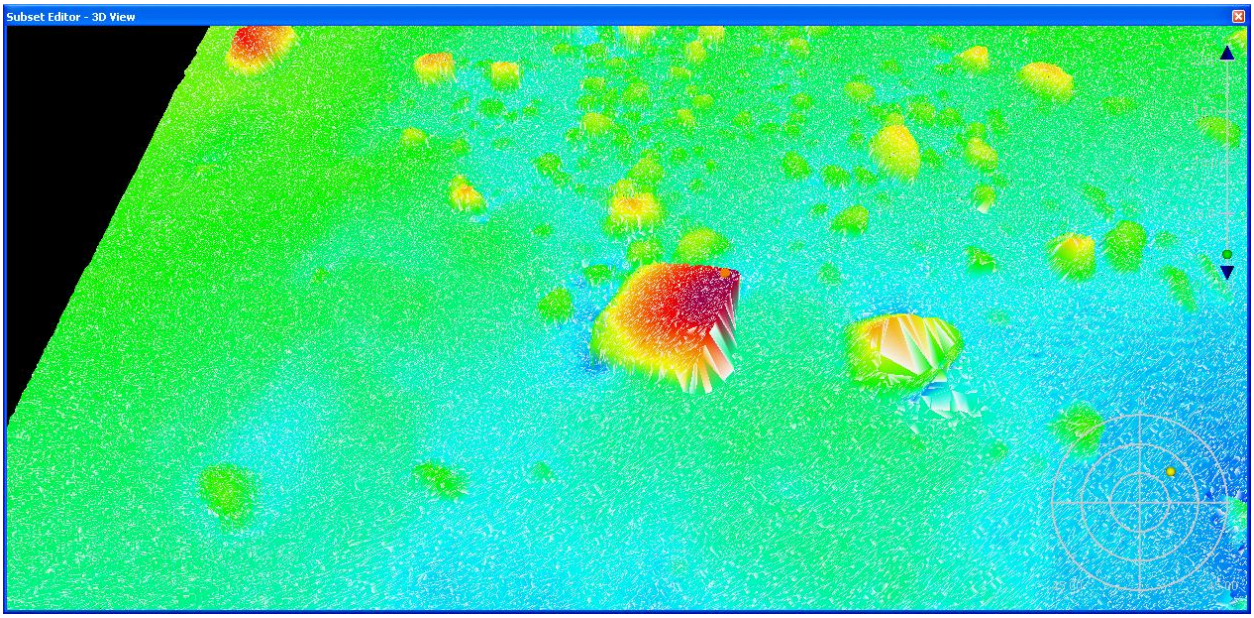


Figure 1.7.2

1.8) 18ft Rock

DANGER TO NAVIGATION

Survey Summary

Survey Position:	41° 20' 02.9" N, 071° 41' 14.8" W
Least Depth:	5.50 m (= 18.06 ft = 3.010 fm = 3 fm 0.06 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2011-296.00:00:00.000 (10/23/2011)
Dataset:	H12296_FinalFeatureFile_pydro.000
FOID:	US 0000519320 00001(02260007EC980001)
Charts Affected:	13215_1, 13205_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

UWTROC/remrks: Significant rock found with 200% Klein 5000 side scan sonar and Reson 7125 object detection multibeam. Soundings are corrected to MLLW with verified tides and final zoning.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12296_FinalFeatureFile_pydro.000	US 0000519320 00001	0.00	000.0	Primary

Hydrographer Recommendations

Chart underwater rock.

Cartographically-Rounded Depth (Affected Charts):

18ft (13215_1, 13205_1)

3fm (12300_1, 13006_1, 13003_1)

5.5m (5161_1)

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	NINFOM - Chart rock
	QUASOU - 6:least depth known
	SORDAT - 20111023

SORIND - US,US,graph,H12296

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

VALSOU - 5.505 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Sent as DTON during SAR. Rock verified with multibeam and side scan sonar.

COMPILE: Chart rock feature as a shoal sounding within a rocky seabed area.

Feature Images

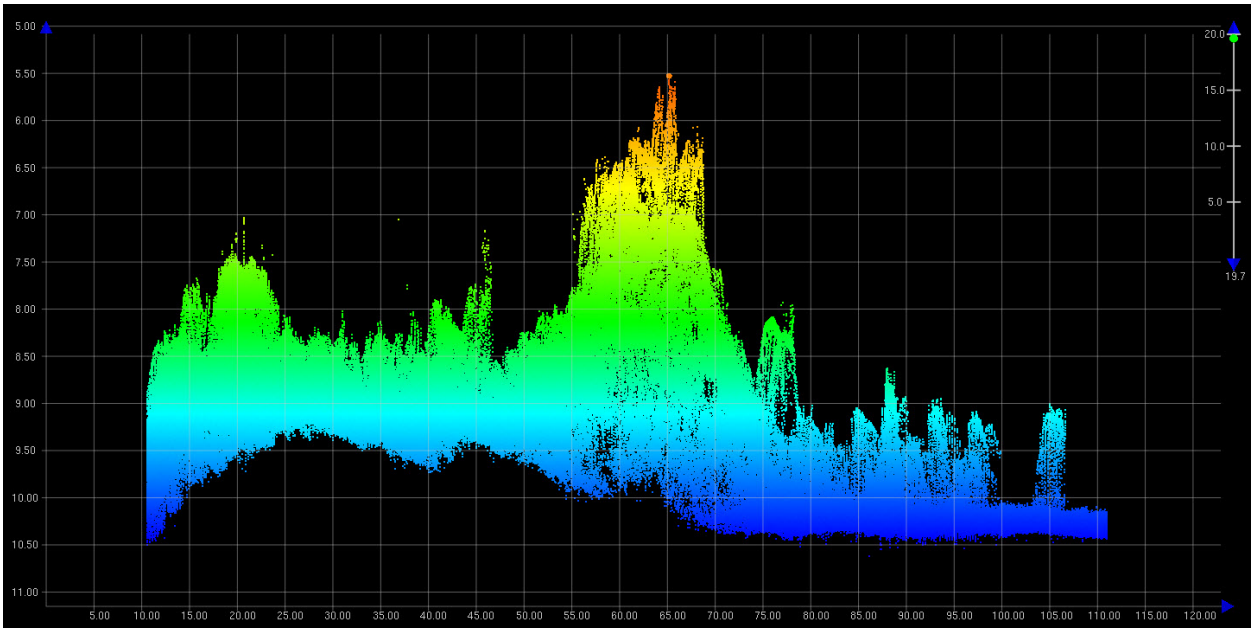


Figure 1.8.1

1.9) Significant Rock 2

DANGER TO NAVIGATION

Survey Summary

Survey Position:	41° 20' 37.9" N, 071° 40' 21.3" W
Least Depth:	4.88 m (= 16.00 ft = 2.666 fm = 2 fm 4.00 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2011-296.00:00:00.000 (10/23/2011)
Dataset:	H12296_FinalFeatureFile_pydro.000
FOID:	US 0000519311 00001(02260007EC8F0001)
Charts Affected:	13215_1, 13205_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

UWTROC/remrks: Significant rock found with 200% Klein 5000 side scan sonar and Reson 7125 object detection multibeam. Soundings are corrected to MLLW with verified tides and final zoning.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12296_FinalFeatureFile_pydro.000	US 0000519311 00001	0.00	000.0	Primary

Hydrographer Recommendations

Chart underwater rock.

Cartographically-Rounded Depth (Affected Charts):

16ft (13215_1, 13205_1)

2 ½fm (12300_1, 13006_1, 13003_1)

4.9m (5161_1)

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	NINFOM - Chart rock
	QUASOU - 6:least depth known
	SORDAT - 20111023

SORIND - US,US,graph,H12296

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

VALSOU - 4.876 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Sent as DTON during SAR. Rock verified with multibeam and side scan sonar.

COMPILE: Chart rock feature as a shoal sounding within a rocky seabed area.

Feature Images

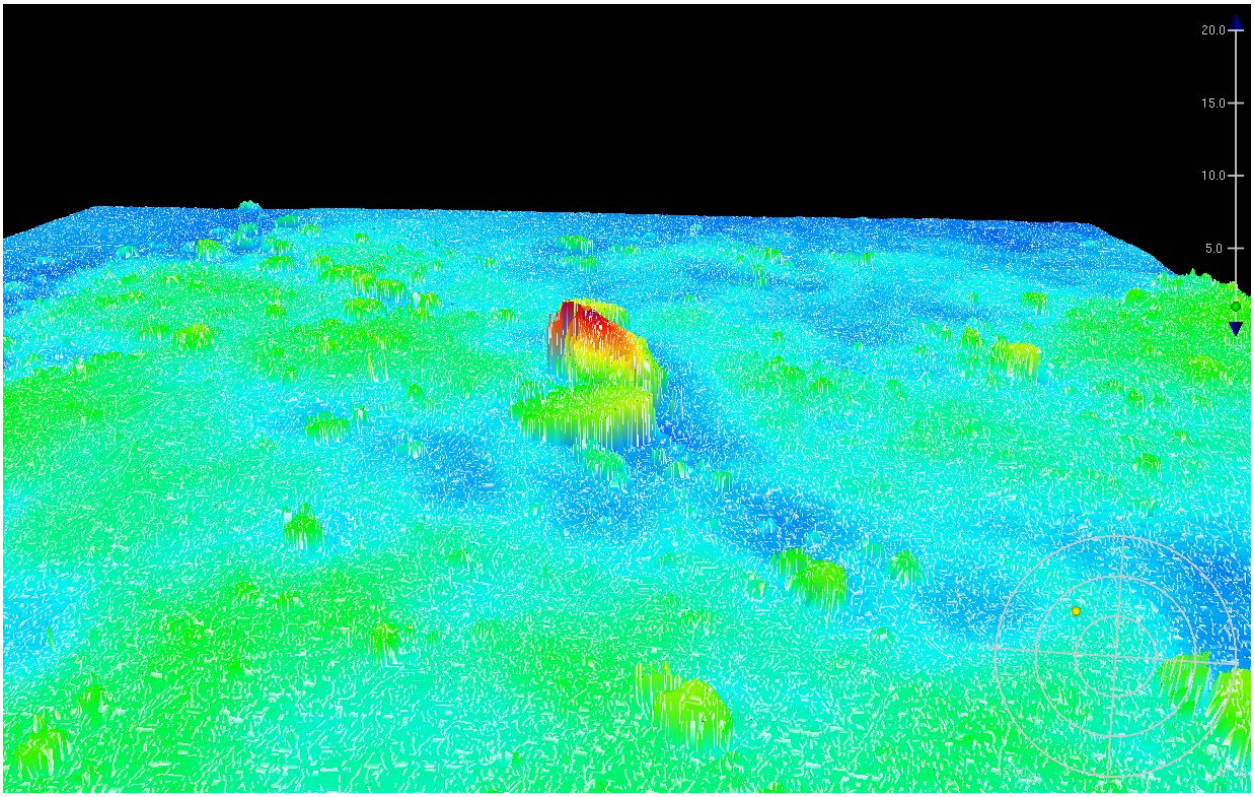


Figure 1.9.1

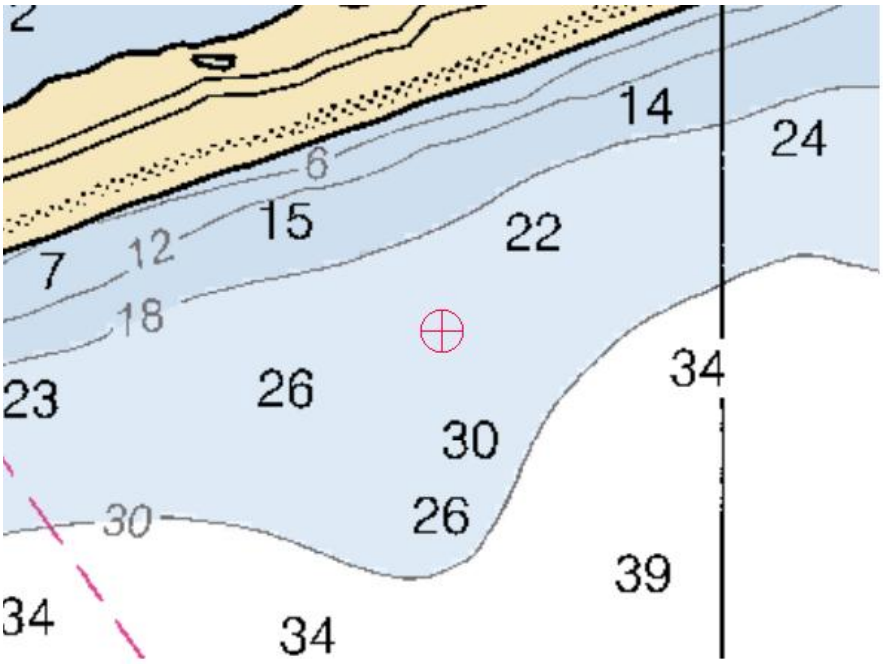


Figure 1.9.2

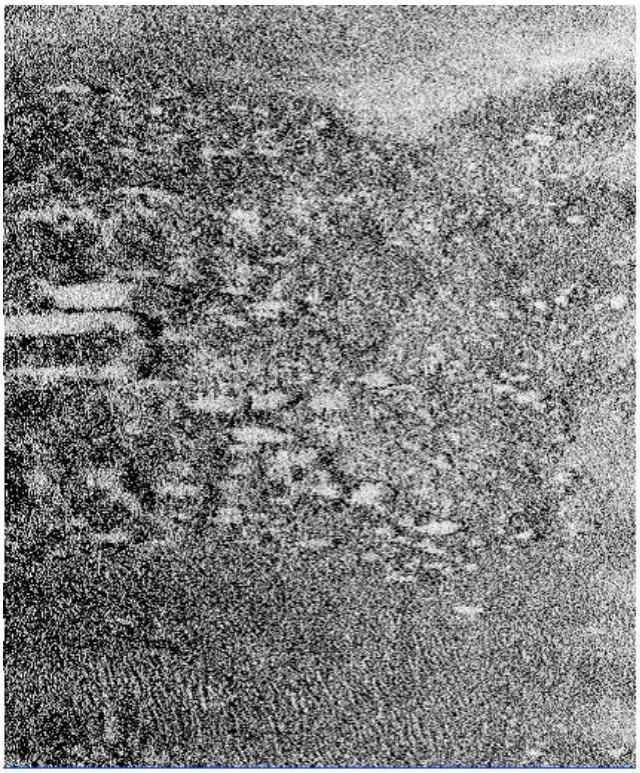


Figure 1.9.3

1.10) Significant Rock 1

DANGER TO NAVIGATION

Survey Summary

Survey Position:	41° 20' 49.5" N, 071° 39' 02.5" W
Least Depth:	5.13 m (= 16.84 ft = 2.807 fm = 2 fm 4.84 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2011-296.00:00:00.000 (10/23/2011)
Dataset:	H12296_FinalFeatureFile_pydro.000
FOID:	US 0000519321 00001(02260007EC990001)
Charts Affected:	13215_1, 13205_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

UWTROC/remrks: Significant rock found with 200% Klein 5000 side scan sonar and Reson 7125 object detection multibeam. Soundings are corrected to MLLW with verified tides and final zoning.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12296_FinalFeatureFile_pydro.000	US 0000519321 00001	0.00	000.0	Primary

Hydrographer Recommendations

Chart underwater rock.

Cartographically-Rounded Depth (Affected Charts):

17ft (13215_1, 13205_1)

2 ¾fm (12300_1, 13006_1, 13003_1)

5.1m (5161_1)

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	NINFOM - Chart rock
	QUASOU - 6:least depth known
	SORDAT - 20111023

SORIND - US,US,graph,H12296

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

VALSOU - 5.133 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Sent as DTON during SAR. Rock verified with multibeam and side scan sonar.

COMPILE: Chart rock feature as a shoal sounding within a rocky seabed area.

Feature Images

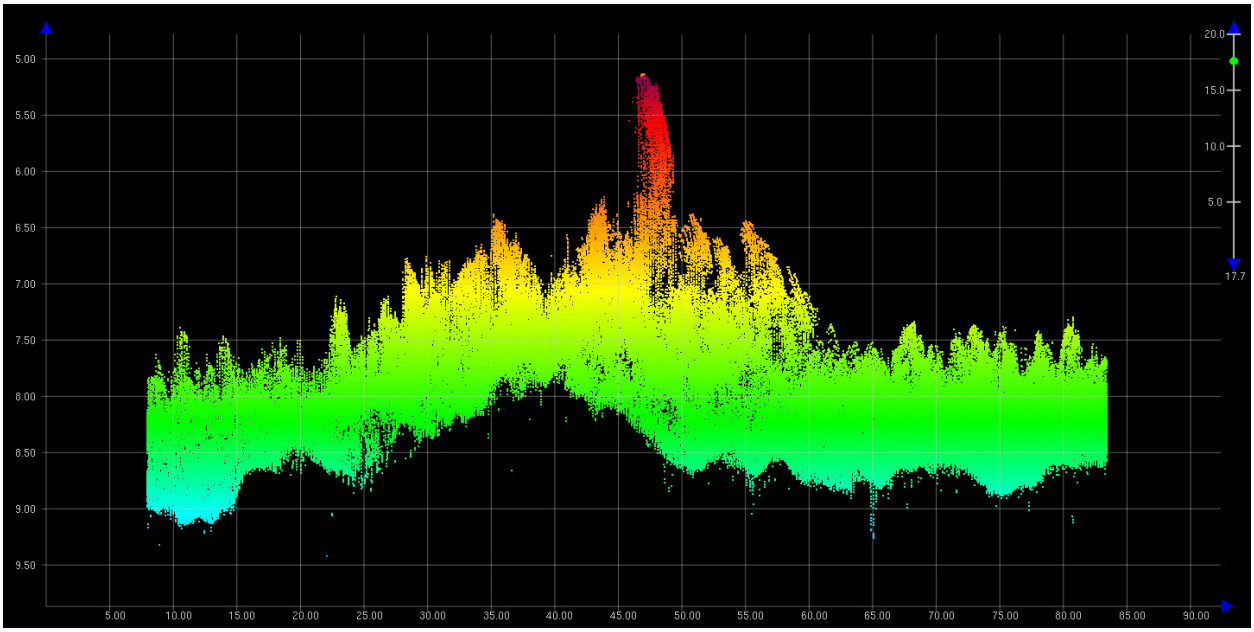


Figure 1.10.1

1.11) Significant Rock 4

DANGER TO NAVIGATION

Survey Summary

Survey Position:	41° 21' 17.9" N, 071° 37' 38.6" W
Least Depth:	4.75 m (= 15.57 ft = 2.596 fm = 2 fm 3.57 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2011-296.00:00:00.000 (10/23/2011)
Dataset:	H12296_FinalFeatureFile_pydro.000
FOID:	US 0000519323 00001(02260007EC9B0001)
Charts Affected:	13215_1, 13205_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

UWTROC/remrks: Significant rock found with 200% Klein 5000 side scan sonar and Reson 7125 object detection multibeam. Soundings are corrected to MLLW with verified tides and final zoning.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12296_FinalFeatureFile_pydro.000	US 0000519323 00001	0.00	000.0	Primary

Hydrographer Recommendations

Chart underwater rock.

Cartographically-Rounded Depth (Affected Charts):

15ft (13215_1, 13205_1)

2 ½fm (12300_1, 13006_1, 13003_1)

4.7m (5161_1)

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	NINFOM - Chart rock
	QUASOU - 6:least depth known
	SORDAT - 20111023

SORIND - US,US,graph,H12296

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

VALSOU - 4.747 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Sent as DTON during SAR. Rock verified with multibeam and side scan sonar.

COMPILE: Chart rock feature as a shoal sounding within a rocky seabed area.

Feature Images

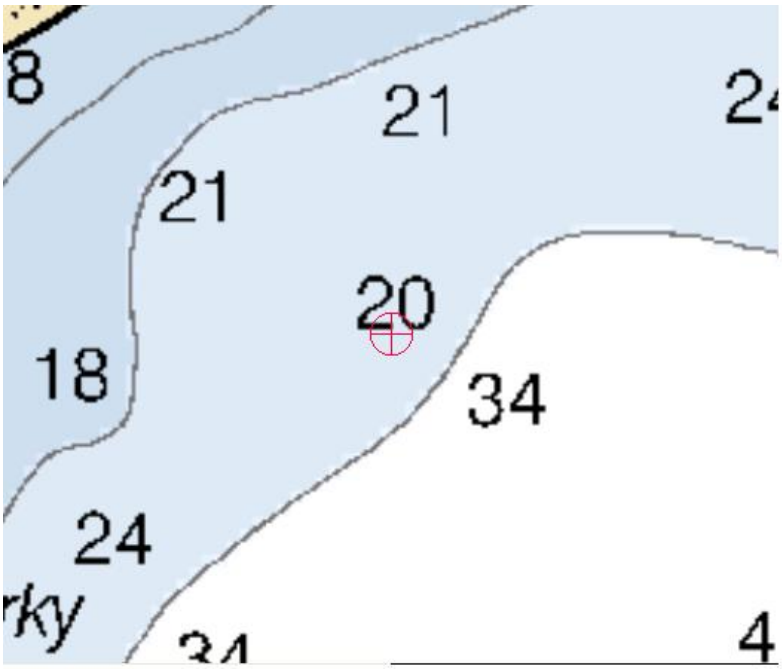


Figure 1.11.1

Figure 1.11.2

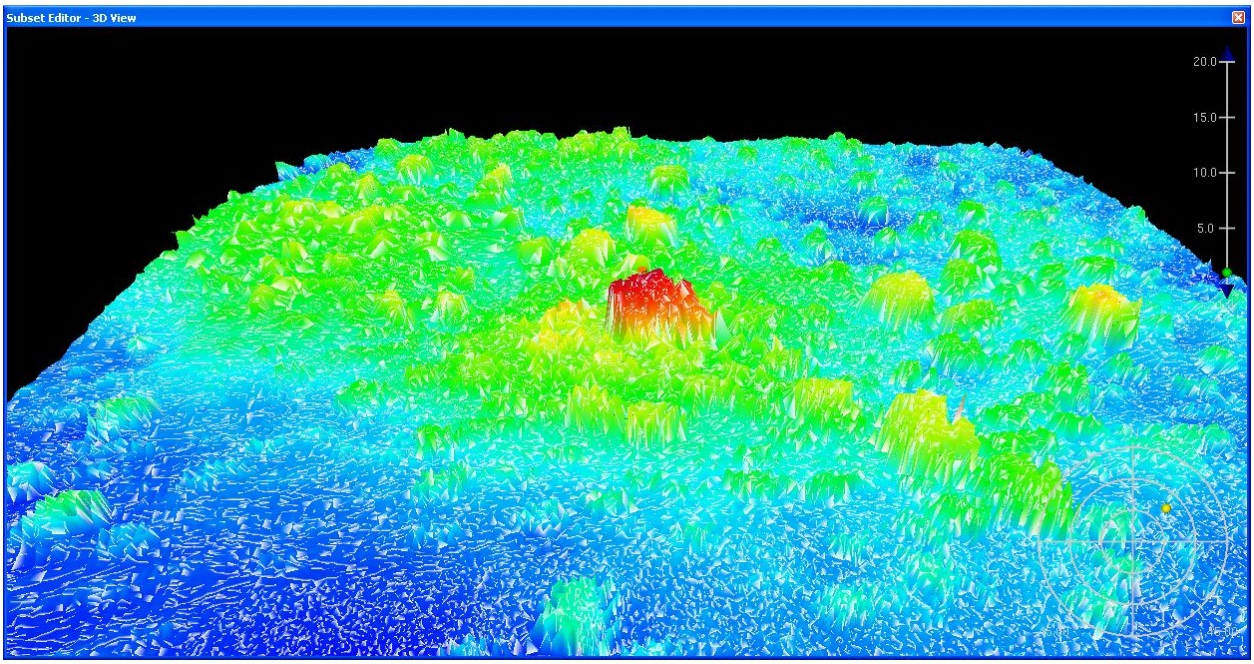


Figure 1.11.3

1.12) Dangerous Rock

DANGER TO NAVIGATION

Survey Summary

Survey Position:	41° 21' 35.2" N, 071° 37' 07.6" W
Least Depth:	3.51 m (= 11.50 ft = 1.917 fm = 1 fm 5.50 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2011-296.00:00:00.000 (10/23/2011)
Dataset:	H12296_FinalFeatureFile_pydro.000
FOID:	US 0000519331 00001(02260007ECA30001)
Charts Affected:	13215_1, 13205_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

UWTROC/remrks: Dangerous rock found with 200% Klein 5000 side scan sonar and Reson 7125 object detection multibeam. Soundings are corrected to MLLW with verified tides and preliminary zoning.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12296_FinalFeatureFile_pydro.000	US 0000519331 00001	0.00	000.0	Primary

Hydrographer Recommendations

Chart dangerous rock.

Cartographically-Rounded Depth (Affected Charts):

11ft (13215_1, 13205_1)

1 ¾fm (12300_1, 13006_1, 13003_1)

3.5m (5161_1)

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	NINFOM - Chart rock
	QUASOU - 6:least depth known
	SORDAT - 20111023

SORIND - US,US,graph,H12296

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

VALSOU - 3.506 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Sent as DTON by field is currently charted. Verified with multibeam and side scan sonar.

COMPILE: Chart rock feature as a shoal sounding within a rocky seabed area.

Feature Images

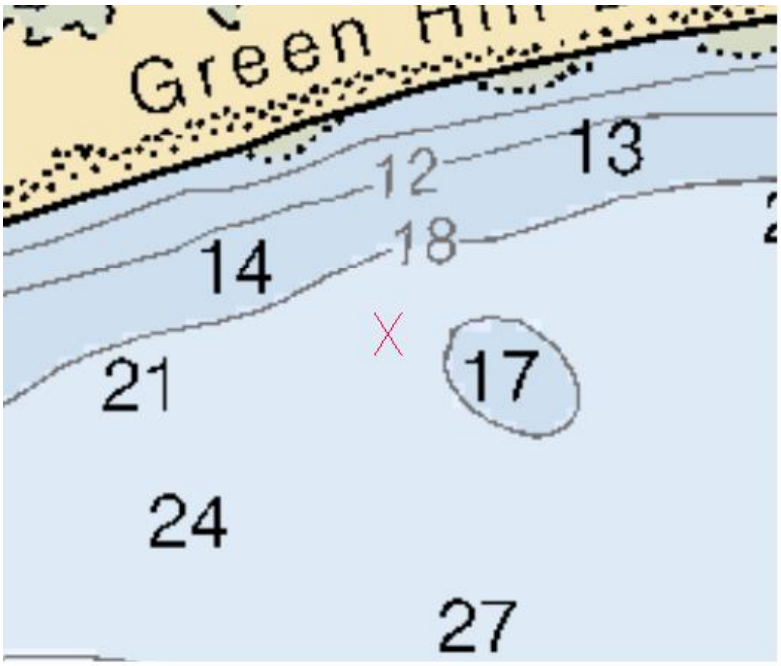


Figure 1.12.1

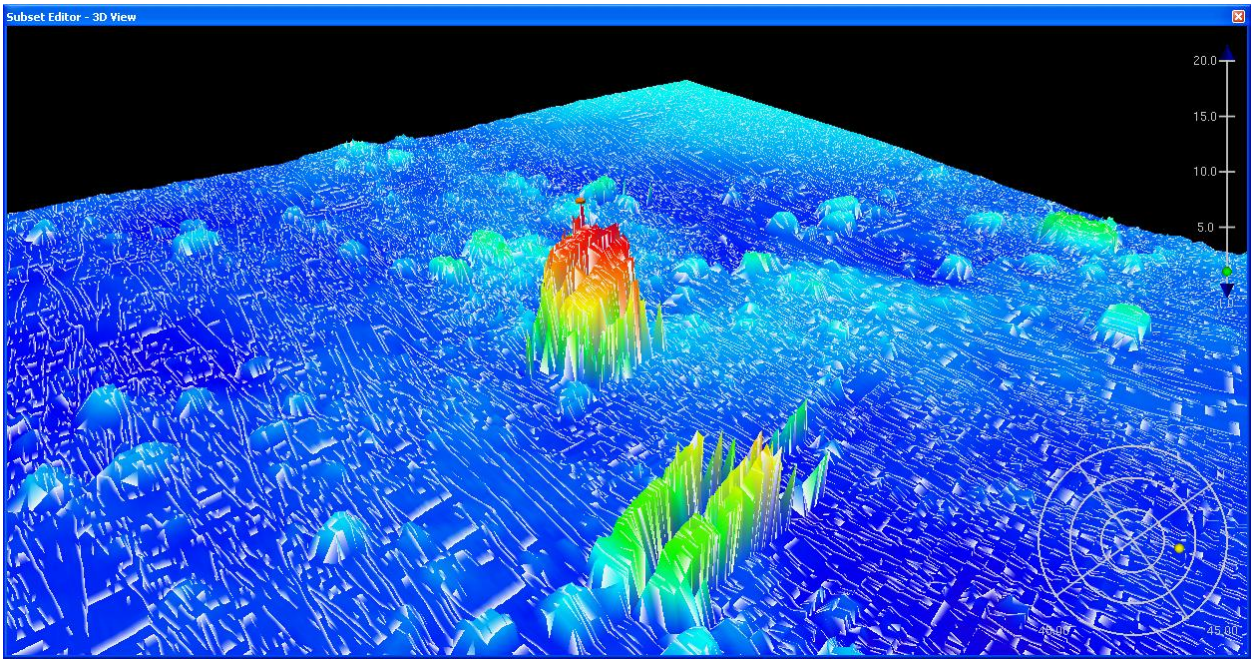


Figure 1.12.2

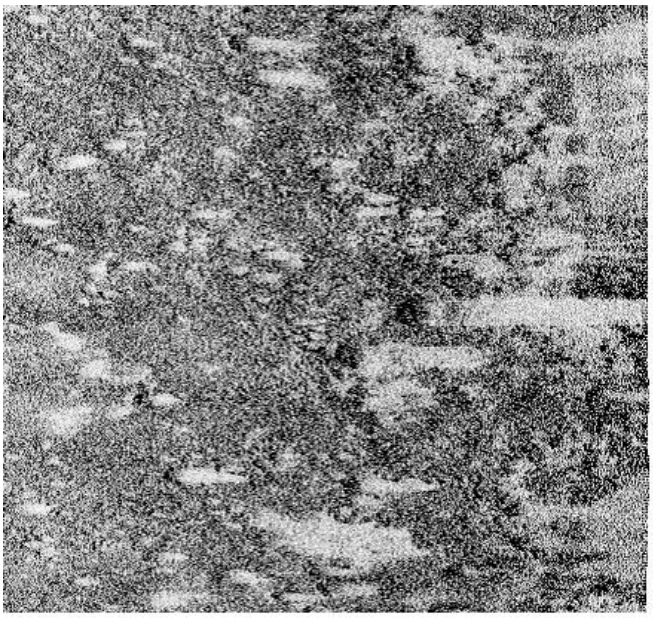


Figure 1.12.3

1.13) 18ft Rock 2

DANGER TO NAVIGATION

Survey Summary

Survey Position:	41° 21' 31.0" N, 071° 36' 42.8" W
Least Depth:	5.49 m (= 18.01 ft = 3.001 fm = 3 fm 0.01 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2011-296.00:00:00.000 (10/23/2011)
Dataset:	H12296_FinalFeatureFile_pydro.000
FOID:	US 0000519315 00001(02260007EC930001)
Charts Affected:	13215_1, 13205_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

UWTROC/remrks: Significant rock found with 200% Klein 5000 side scan sonar and Reson 7125 object detection multibeam. Soundings are corrected to MLLW with verified tides and final zoning.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12296_FinalFeatureFile_pydro.000	US 0000519315 00001	0.00	000.0	Primary

Hydrographer Recommendations

Chart underwater rock.

Cartographically-Rounded Depth (Affected Charts):

18ft (13215_1, 13205_1)

3fm (12300_1, 13006_1, 13003_1)

5.5m (5161_1)

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	NINFOM - Chart rock
	QUASOU - 6:least depth known
	SORDAT - 20111023

SORIND - US,US,graph,H12296

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

VALSOU - 5.488 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Sent as DTON during SAR. Rock verified with multibeam and side scan sonar.

COMPILE: Chart rock feature as a shoal sounding within a rocky seabed area.

Feature Images

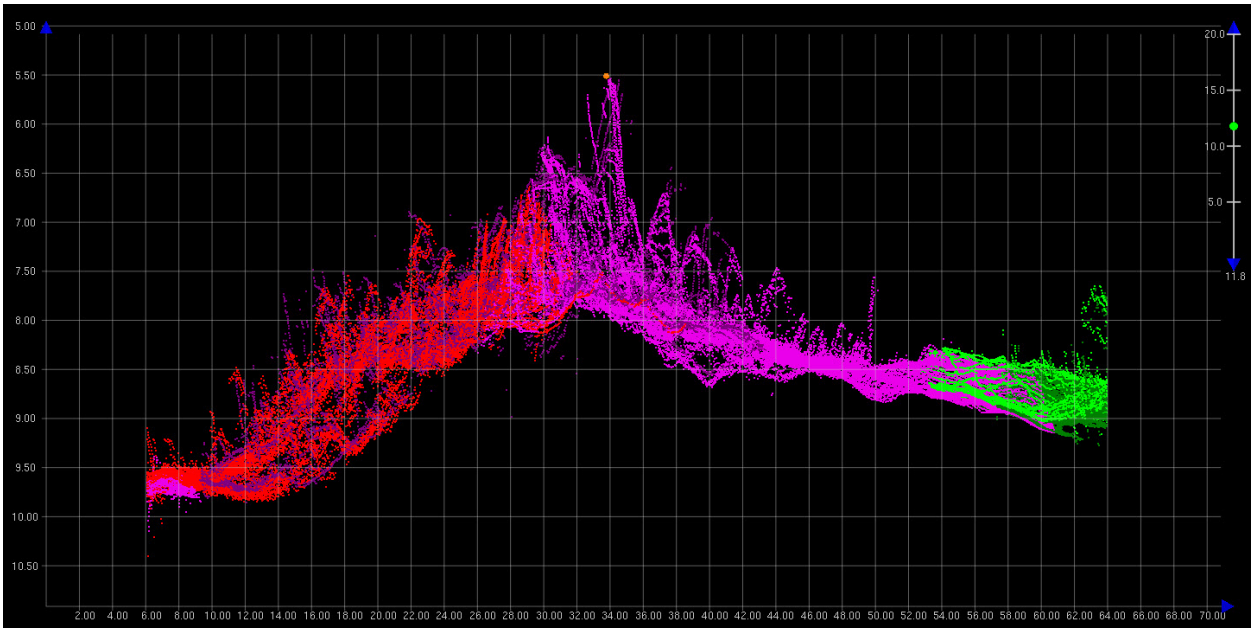


Figure 1.13.1

1.14) 39ft Rock

DANGER TO NAVIGATION

Survey Summary

Survey Position:	41° 20' 54.9" N, 071° 36' 04.8" W
Least Depth:	12.02 m (= 39.42 ft = 6.570 fm = 6 fm 3.42 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2011-296.00:00:00.000 (10/23/2011)
Dataset:	H12296_FinalFeatureFile_pydro.000
FOID:	US 0000519332 00001(02260007ECA40001)
Charts Affected:	13215_1, 13205_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

UWTROC/remrks: Uncharted rock found with Klein 5000 200% SSS and Reson 7125 MBES. Soundings are reduced to MLLW using verified tides.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12296_FinalFeatureFile_pydro.000	US 0000519332 00001	0.00	000.0	Primary

Hydrographer Recommendations

Chart a rock.

Cartographically-Rounded Depth (Affected Charts):

39ft (13215_1, 13205_1)

6 ½fm (12300_1, 13006_1, 13003_1)

12.0m (5161_1)

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	EXPSOU - 1:within the range of depth of the surrounding depth area
	NINFOM - Chart rock
	QUASOU - 6:least depth known

SORDAT - 20111023

SORIND - US,US,graph,H12296

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

VALSOU - 12.015 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Sent as DTON during SAR. Rock verified with multibeam and side scan sonar.

COMPILE: Chart rock feature as a shoal sounding within a rocky seabed area.

Feature Images

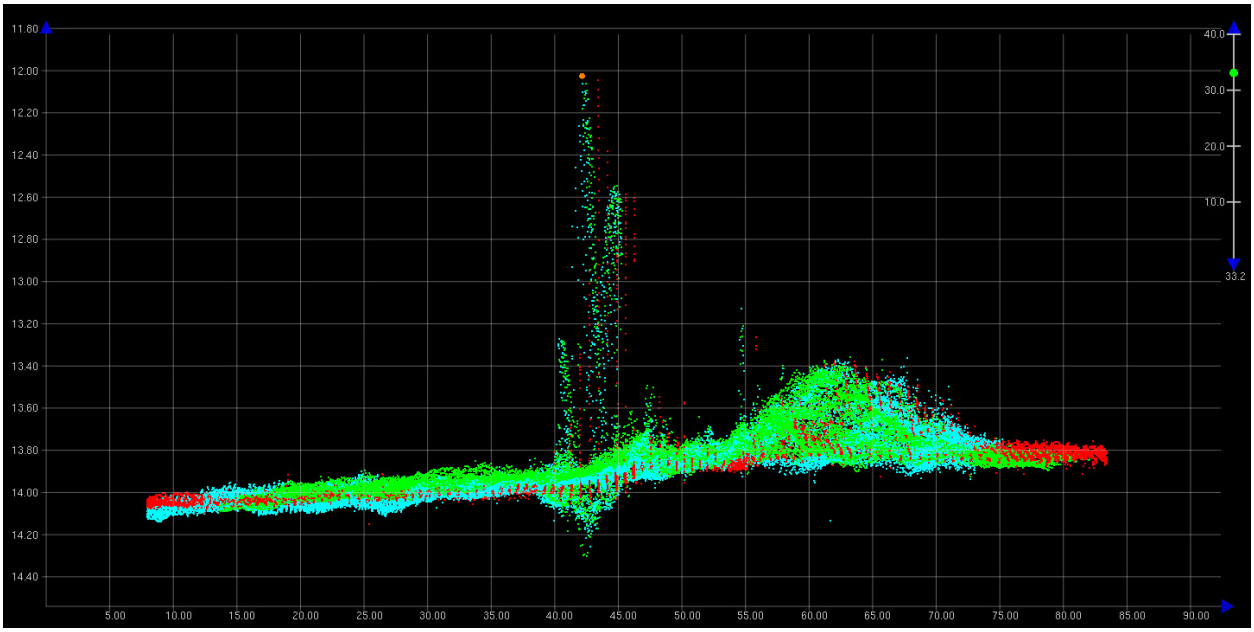


Figure 1.14.1

H12296 AWOIS

Registry Number: H12296
State: Rhode Island
Locality: Block Island Sound
Sub-locality: Green Hill to Watch Hill
Project Number: OPR-B363-TJ-11
Survey Date: 10/23/2011

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
13214	28th	04/01/2006	1:20,000 (13214_1)	[L]NTM: ?
13215	18th	08/01/2004	1:40,000 (13215_1)	[L]NTM: ?
12372	34th	11/01/2006	1:40,000 (12372_1)	[L]NTM: ?
13205	38th	02/01/2007	1:80,000 (13205_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	PROGRESS	AWOIS	[no data]	[no data]	[no data]	---
1.2	UNKNOWN	AWOIS	[no data]	[no data]	[no data]	---
1.3	AWOIS #7473	Wreck	10.93 m	41° 17' 59.0" N	071° 51' 25.6" W	7473
1.4	AWOIS #7477	GP	[None]	41° 20' 08.6" N	071° 36' 58.3" W	---

1 - AWOIS

1.1) AWOIS #1832 - PROGRESS

No Primary Survey Feature for this AWOIS Item

Search Position: 41° 20' 09.5" N, 071° 37' 47.9" W
Historical Depth: 15.30 m
Search Radius: 100
Search Technique: S2,SD,DI,ES,##
Technique Notes: [None]

History Notes:

SURVEY REQUIREMENT COMMENTS
CONDUCT SEARCH AROUND LORAN RATES RATHER THAN GEOGRAPHIC ì
POSITION. IF FOUND, ACQUIRE ACCURATE POSITION AND LEAST DEPTH.

HISTORY
FE363/91--OPR-B660-RU; DREDGE "PROGRESS WAS LOCATED BY SIDE SCAN ì
SONAR IN POS. LAT.41-20-09.52N, LONG.71-37-47.86W (NAD 83). ì
DREDGE WAS DETERIORATED, WITH MACHINERY THAT APPEARS TO BE 6-8FT ì
IN DIA. GEARS AND SOME LARGE STEEL BEAMS SHOWING. DIVER LEAST ì
DEPTH OF 15.3M (50FT) WAS OBTAINED ON ONE OF THE GEARS; BOTTOM ì
DEPTH WAS 17.7M (58FT). (UPADTED 11/93 MCR)

DESCRIPTION
24 NO.279; 117 GT; POSITION ACCURACY 1-3 MILES; REPORTED THRU OCGR.
27 NO.179; 117 NT; SUNK BEFORE WWII; REPORTED THROUGH OLD COAST GUARD

Survey Summary

Charts Affected: 13215_1, 13205_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

[None]

Feature Correlation

Source	Feature	Range	Azimuth	Status
OPR-B363-TJ-11 AWOIS	AWOIS # 1832	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

SAR: Charted wreck found with multibeam.

COMPILE: Chart 51ft wreck at survey position.

1.2) AWOIS #14449 - UNKNOWN

No Primary Survey Feature for this AWOIS Item

Search Position: 41° 21' 35.9" N, 071° 36' 34.6" W
Historical Depth: [None]
Search Radius: 300
Search Technique: S2, MB
Technique Notes: [None]

History Notes:

unidentified source- dangerous submerged wreck with approximate position.

Survey Summary

Charts Affected: 13215_1, 13205_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

[None]

Feature Correlation

Source	Feature	Range	Azimuth	Status
OPR-B363-TJ-11 AWOIS	AWOIS # 14449	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

SAR: Disproved via 200% side scan sonar.

COMPILE: Delete AWOIS #14449.

1.3) AWOIS #7473

Primary Feature for AWOIS Item #7473

Search Position:	41° 17' 59.3" N, 071° 51' 28.2" W
Historical Depth:	[None]
Search Radius:	200
Search Technique:	MB,S2,ES
Technique Notes:	[None]

History Notes:

SURVEY REQUIREMENT COMMENTS

CONDUCT INVESTIGATION AROUND GEOGRAPHIC POSITION.

HISTORY

CL834/89--N/CG241 LTR; WK REPORTED (THROUGH DOC 210 BELOW).

LNM39/89(9/29/89)--1ST CGD; WK REPORTED (THROUGH CL834/89 ì

ABOVE). (ENTERED 5/92 RWD)

FE345SS/90--OPR-B660-HE; ITEM NOT LOCATED AROUND PROVIDED ì

LORAN C RATES WITH 200% SSS COVERAGE. ROCK OUTCROPPINGS FOUND TO ì

THE NW OF SEARCH AREA. ITEM WAS DISASSIGNED. (UPDATED 7/92 MCR)ì

DESCRIPTION

****TELCON 5/11/92 MR. TIM COLEMAN; WRECK OF BARGE IS OF WOOD ì

AND REPORTEDLY COMES UP 3-4FT OFF THE BOTTOM. DIVERS VERY RECENTLY INDICATE ì

THAT ONLY THE RIBS AND KEEL REMAIN, AND THAT THEY ARE STILL INTACKED. FISHERMEN ì

ALSO FREQUENT THE WRECK. (UPDATED 5/92 RWD)

****TELCON 5/12/92 MR. TIM COLEMAN; MR. COLEMAN INFORMED THIS ì

OFFICE THAT THE WRECK LIES IN APPROX. 22FT OF WATER, APPROX. ì

100DEG T., AND 200FT FROM THE R"2" BUOY IN WATCH HILL PASSAGE. ì

(THIS NEW POSITION, SCALED IN LAT 41-17-59N, LONG 71-51-30W(NAD27), PLOTS ì

APPROX 200M WEST OF THE POSITION AS CHARTED FROM THE ORIGINAL LORAN RATES AND ì

N/CG241 CONSIDERS ITS POSITION MORE ACCURATE). (UPDATED 5/92 RWD)

Survey Summary

Survey Position: 41° 17' 59.0" N, 071° 51' 25.6" W

Least Depth: 10.93 m (= 35.87 ft = 5.978 fm = 5 fm 5.87 ft)

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

Timestamp: 2011-296.00:00:00.000 (10/23/2011)

Dataset: awois.000

FOID: US 0000000001 02387(0226000000010953)

Charts Affected: 13214_1, 12372_1, 13215_1, 13205_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

WRECKS/remrks: WRECKS/remrks: AWOIS #7473 investigated with 200% Klein 5000 side scan sonar and Reson 7125 object detection multibeam. The wreck was found. Soundings were corrected to MLLW with verified tides and final zoning.

Feature Correlation

Source	Feature	Range	Azimuth	Status
awois.000	US 0000000001 02387	0.00	000.0	Primary
OPR-B363-TJ-11 AWOIS	AWOIS # 7473	62.31	100.9	Secondary (grouped)

Hydrographer Recommendations

Move wreck symbol to current location.

Cartographically-Rounded Depth (Affected Charts):

36ft (13214_1, 12372_1, 13215_1, 13205_1)

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

10.9m (5161_1)

S-57 Data

Geo object 1: Wreck (WRECKS)

Attributes: CATWRK - 2:dangerous wreck

CONVIS - 2:not visual conspicuous

NINFOM - Chart wreck

QUASOU - 6:least depth known

SORDAT - 20111023

SORIND - US,US,graph,H12296

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

VALSOU - 10.932 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Charted Wreck PA found approximately 80m east of charted position.

COMPILE: Chart wreck at survey position.

Feature Images

Figure 1.3.1

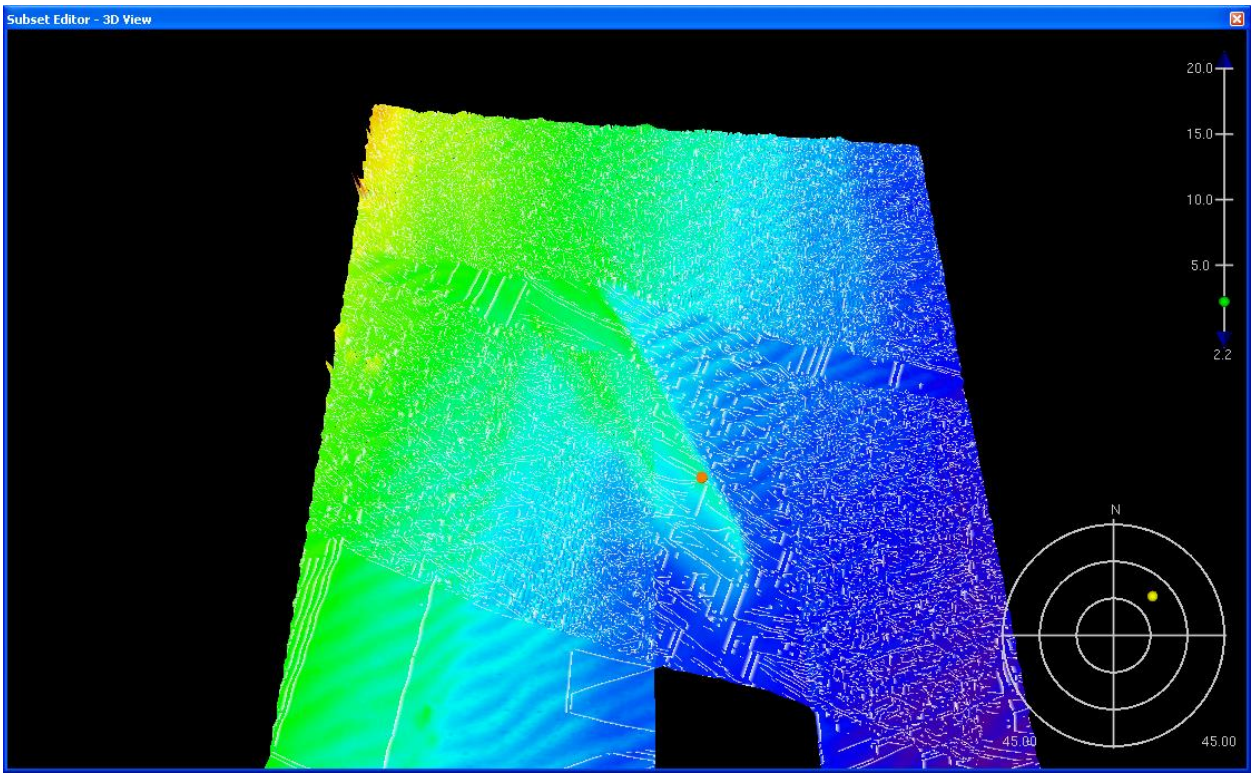


Figure 1.3.2

1.4) AWOIS #7477

Survey Summary

Survey Position:	41° 20' 08.6" N, 071° 36' 58.3" W
Least Depth:	[None]
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2011-296.00:00:00.000 (10/23/2011)
Dataset:	awois.000
FOID:	US 0000000004 02387(0226000000040953)
Charts Affected:	13215_1, 13205_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

$CSYMB/remrks: $CSYMB/remrks: AWOIS #7477 investigated with 200% Klein 5000 side scan sonar with concurrent Reson 7125 multibeam. The wreck was disproved previously and was not found during this survey.

Hydrographer Recommendations

Update the AWOIS database.

S-57 Data

Geo object 1:	Cartographic symbol ($CSYMB)
Attributes:	INFORM - Item Status_ASSIGNED, Technique_S2,DI,ES,##
	NINFOM - Assigned
	NTXTDS - ENC US5RI10M,ED7,Update 3
	SORDAT - 20111023
	SORIND - US,US,graph,H12296

Office Notes

SAR: Rock not found in charted position. Two rocks found and verified with multibeam and side scan sonar within AWOIS radius. Recommend to chart the shoalest one.

COMPILE: Delete charted rock and chart 50ft rock 97m southeast.

H12296 Wrecks

Registry Number: H12296
State: Rhode Island
Locality: Block Island Sound
Sub-locality: Green Hill to Watch Hill
Project Number: OPR-B363-TJ-11
Survey Date: 10/23/2011

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
13215	20th	02/01/2011	1:40,000 (13215_1)	USCG LNM: 4/9/2013 (4/16/2013) CHS NTM: None (11/30/2012) NGA NTM: None (4/27/2013)
13205	38th	02/01/2007	1:80,000 (13205_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	8.9ft Uncharted Wreck	Wreck	2.71 m	41° 19' 23.9" N	071° 47' 28.7" W	---

1 - Wrecks

1.1) 8.9ft Uncharted Wreck

Survey Summary

Survey Position:	41° 19' 23.9" N, 071° 47' 28.7" W
Least Depth:	2.71 m (= 8.89 ft = 1.481 fm = 1 fm 2.89 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2011-296.00:00:00.000 (10/23/2011)
Dataset:	H12296_FinalFeatureFile_pydro.000
FOID:	US 0000519335 00001(02260007ECA70001)
Charts Affected:	13215_1, 13205_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 are corrected to MLLW with verified tides and final zoning.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12296_FinalFeatureFile_pydro.000	US 0000519335 00001	0.00	000.0	Primary

Hydrographer Recommendations

Chart underwater wreck.

Cartographically-Rounded Depth (Affected Charts):

9ft (13215_1, 13205_1)

1 ½fm (12300_1, 13006_1, 13003_1)

2.7m (5161_1)

S-57 Data

Geo object 1:	Wreck (WRECKS)
Attributes:	CATWRK - 2:dangerous wreck
	NINFOM - Chart wreck
	QUASOU - 6:least depth known
	SORDAT - 20111023
	SORIND - US,US,graph,H12296

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

VALSOU - 2.709 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Uncharted Wreck found with multibeam and side scan sonar.

COMPILE: Chart wreck at survey position.

Feature Images

Figure 1.1.1

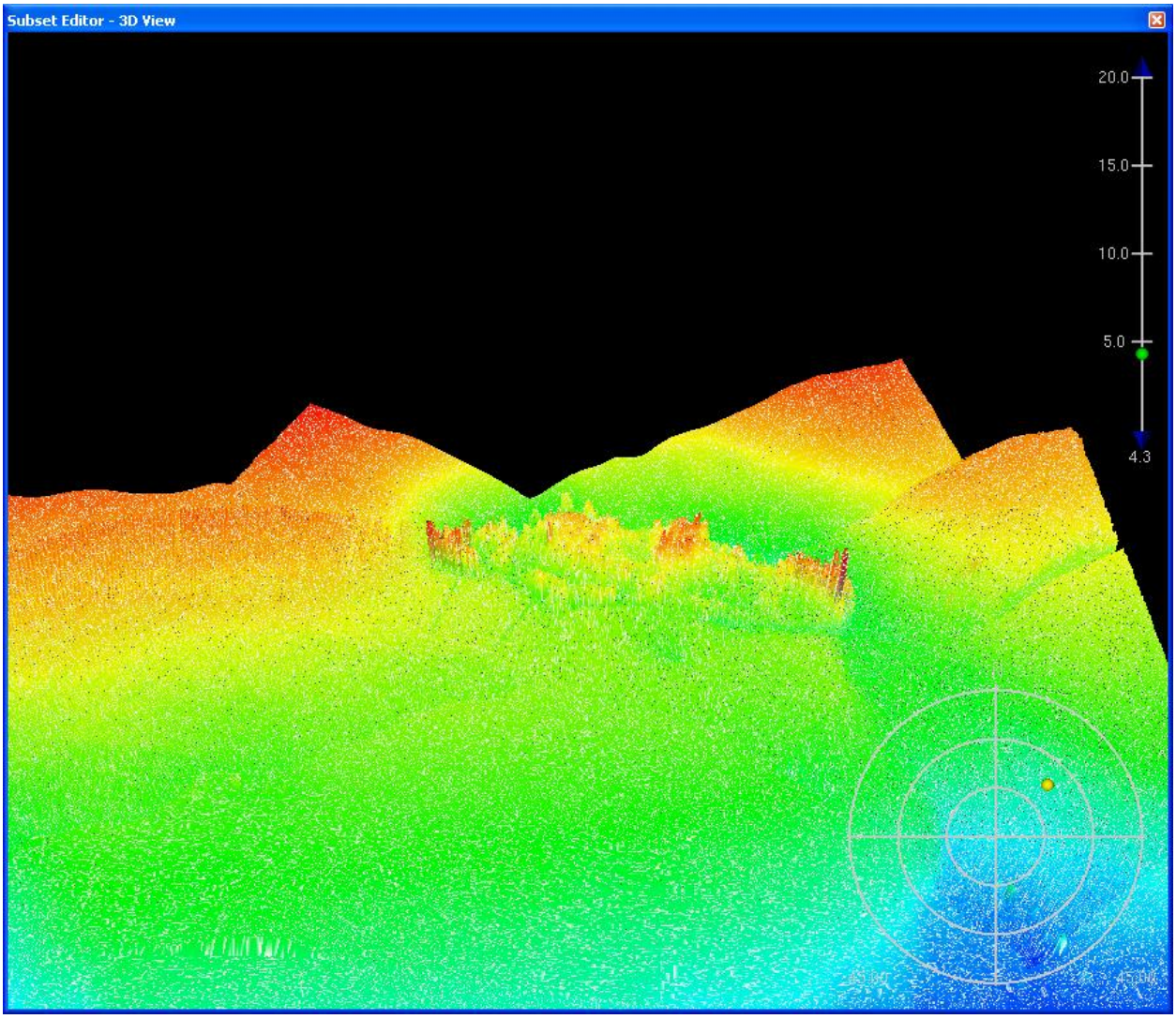


Figure 1.1.2

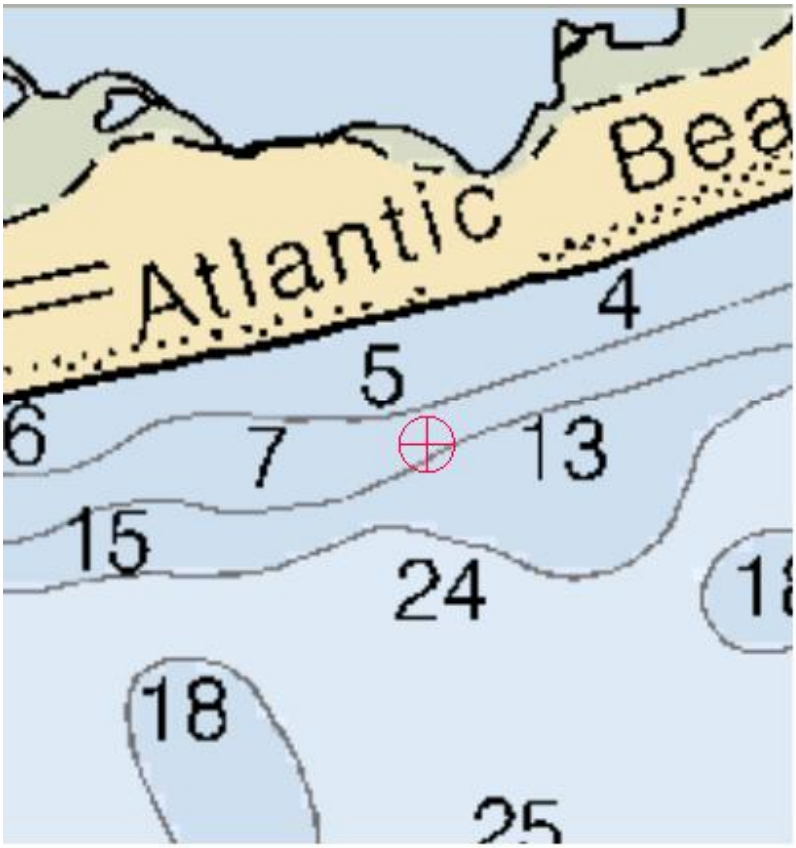


Figure 1.1.3

APPROVAL PAGE

H12296

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

- H12296_DR.pdf
- Collection of depth varied resolution BAGS
- Processed survey data and records
- H12296_GeoImage.pdf

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

OWENS.EDWARD.A.1365816804

Digitally signed by OWENS.EDWARD.A.1365816804
DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=OTHER, cn=OWENS.EDWARD.A.1365816804
Date: 2013.07.23 10:35:04 -04'00'

Approved:_____

For: LT Abigail Higgins, NOAA
Chief, Atlantic Hydrographic Branch