

H11930

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: H11930

**LOCALITY**

State: Rhode Island

General Locality: Narragansett Bay

Sub-locality: East Passage

**2011**

CHIEF OF PARTY  
Matthew Nardi LTJG

LIBRARY & ARCHIVES

Date:

**HYDROGRAPHIC TITLE SHEET**

**H11930**

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: **Narragansett Bay**

Sub-Locality: **East Passage**

Scale: **10000**

Dates of Survey: **06/23/2011 to 09/19/2011**

Instructions Dated: **04/11/2011**

Project Number: **OPR-B301-NRT5-11**

Field Unit: **Navigation Response Team 5**

Chief of Party: **Matthew Nardi LTJG**

Soundings by: **Multibeam Echo Sounder**

Imagery by:

Verification by: **Pacific Hydrographic Branch**

Soundings Acquired in: **Meters at Mean Lower Low Water**

H-Cell Compilation Units: ***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. Revisions and end notes in red 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/>.*

## Descriptive Report to Accompany Survey H11930

Project: OPR-B301-NRT5-11

Locality: Narragansett Bay

Sublocality: East Passage

Scale: 1:10000

June 2011 - September 2011

**Navigation Response Team 5**

Chief of Party: Matthew Nardi LTJG

### A. Area Surveyed

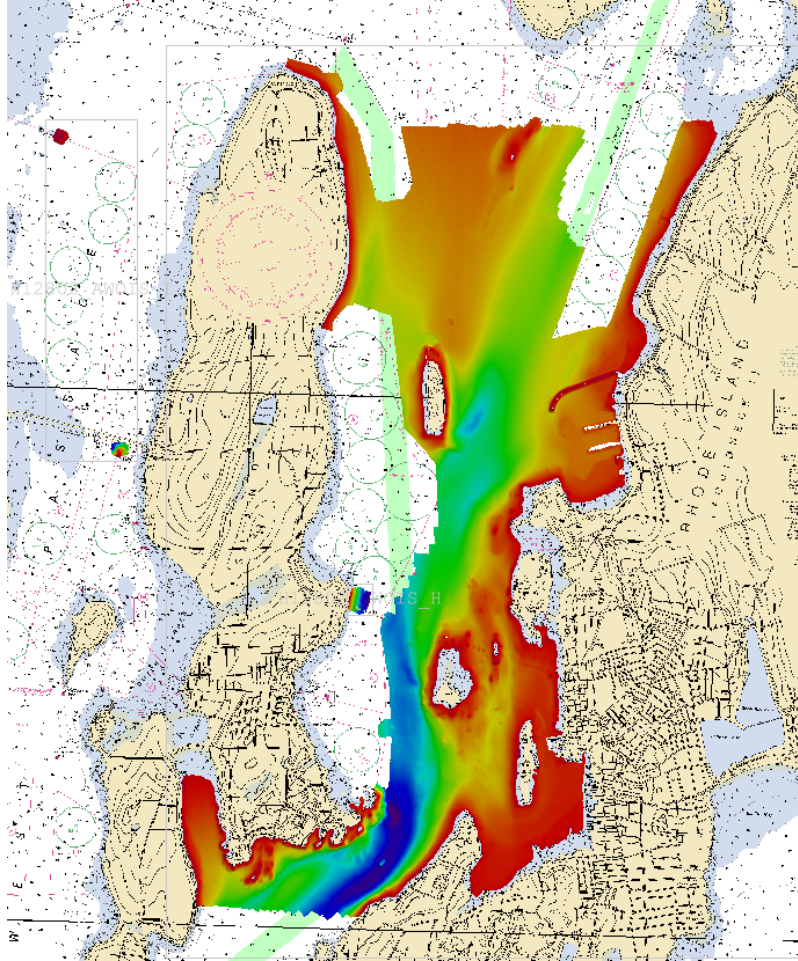
The survey limits of H11930 encompass a large portion of East Passage, from approximately .5 nautical miles north of Castle Hill light to the Northern tip of Conanicut Island. East Passage is the principal passage in Narragansett Bay, extending between Rhode Island on the east and Conanicut and Prudence Islands on the west. It is the most direct route to Newport, Bristol, Providence, Mount Hope Bay, and Taunton River. Two AWOIS items lying outside of the survey limits of H11930 in the West Passage were also investigated.

#### A.1 Survey Limits

Data was acquired within the following survey limits:

<b>Northeast Limit</b>	<b>Southwest Limit</b>
41.5753277778 N	41.4677833333 N
71.2980888889 W	71.4080555556 W

*Table 1: Survey Limits*



*Figure 1: H11930 Survey Limits*

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

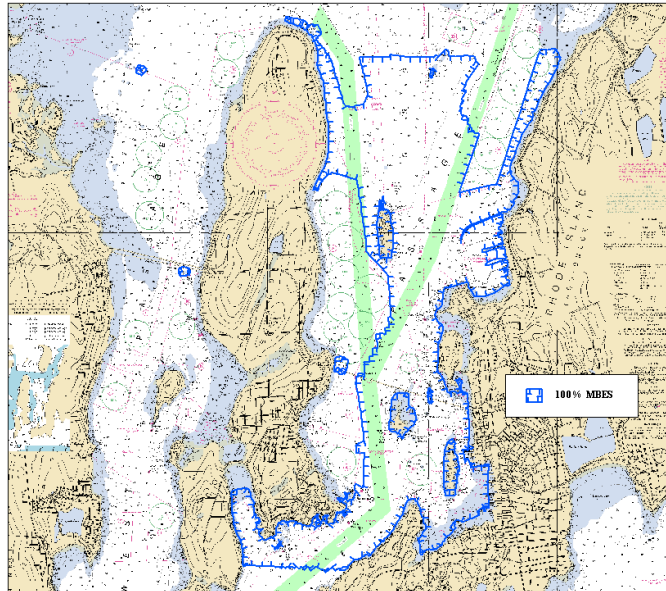
## **A.2 Survey Purpose**

H11930 is to supersede all bathymetry, seafloor features, and bottom characteristics within the assigned survey area, for the purpose of updating NOAA charts 13218, 13221, and 13223, as well as for ENC verification.

## **A.3 Survey Quality**

The entire survey is adequate to supersede previous data.

## A.4 Survey Coverage



*Figure 2: H11930 Survey Outline*

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:

	<b>HULL ID</b>	<i>s3002</i>	<i>Total</i>
<b>LNM</b>	<b>SBES Mainscheme</b>	0.00	0.00
	<b>MBES Mainscheme</b>	550.30	550.30
	<b>Lidar Mainscheme</b>	0.00	0.00
	<b>SSS Mainscheme</b>	0.00	0.00
	<b>SBES/MBES Combo Mainscheme</b>	0.00	0.00
	<b>SBES/SSS Combo Mainscheme</b>	0.00	0.00
	<b>MBES/SSS Combo Mainscheme</b>	0.00	0.00
	<b>SBES/MBES Combo Crosslines</b>	31.63	31.63
	<b>Lidar Crosslines</b>	0.00	0.00
	<b>Number of Bottom Samples</b>		
<b>Number of DPs</b>			8
<b>Number of Items Items Investigated by Dive Ops</b>			0
<b>Total Number of SNM</b>			8.123

*Table 2: Hydrographic Survey Statistics*

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

<b><i>Survey Dates</i></b>
06/23/2011
07/06/2011
07/07/2011
07/12/2011
07/18/2011
07/21/2011
07/26/2011
07/27/2011
07/28/2011
08/01/2011
08/02/2011
08/03/2011
08/04/2011
08/09/2011
08/10/2011
08/11/2011
08/15/2011
08/16/2011
08/23/2011
08/31/2011
09/01/2011
09/12/2011
09/13/2011
09/19/2011

*Table 3: Dates of Hydrography*

## **A.6 Shoreline**

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

## A.7 Bottom Samples

Bottom Samples were acquired in accordance with the Project Instructions or the HSSD.

*6 bottom samples were added to H11930 to be charted and 16 bottom samples were imported from the ENC to be retained.*

## 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:

<b>Hull ID</b>	<i>S3002</i>
<b>LOA</b>	30 feet
<b>Draft</b>	1 meters

*Table 4: Vessels Used*



*Figure 3: S3002*



S3002 is a 30 ft aluminum hulled SeaArk Commander, powered by twin 200hp outboard engines.

### B.1.2 Equipment

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

<b>Manufacturer</b>	<b>Model</b>	<b>Type</b>
Kongsberg	EM3002	MBES
Applanix	Pos MV	Vessel Attitude System
Applanix	Pos MV	Positioning System
Trimble	DSM212L	Positioning System
Seabird	Seacat 19+	Sound Speed System
Odom	Digibar Pro	Sound Speed System

*Table 5: Major Systems Used*

Positioning, attitude, and heading, are measured by the Applanix Pos MV inertial navigation system. The Trimble DSM212L receives coast guard beacon RTCM messages, and transmits them to the POS MV via RS232 connection. The Seabird Seacat 19+ is typically used to collect SVP casts, while the Odom digibar Pro measures surface sound speed in real time, transmitting the values to the EM3002 for beam forming via RS232 connection.

## B.2 Quality Control

### B.2.1 Crosslines

Visual crossline comparison was performed in Caris subset editor. In general, the agreement between crosslines and mainscheme is excellent, with no discernible difference between crosslines and mainscheme. There are two areas where a small difference is visible, however. In Mackerel Cove, there appears to be a purely vertical offset of approximately 10 centimeters. This may be the result of a tidal error caused by wind setup due to the elongated shape of the cove. The images below show the plots of observed vs predicted tides for DN207, when most of the mainscheme was collected, and DN243, when the crosslines were run. On DN207 there is a pronounced vertical offset of 20 centimeters between observed and predicted tides. If this was the result of water piling up in Narragansett Bay due to weather conditions, the effect would likely have been more pronounced in Mackerel Bay, and could have caused the observed 10 centimeter offset.

There is also a visible difference in some of the crosslines north of Gould Island. The difference is most pronounced near the Eastern shore of Conanicut Island, and diminishes in the middle, and eastern side of East passage. This appears to be caused by SVP error in the crossline, as only the outer beams seem

to deviate from the mainscheme lines by approximately 15 to 20 centimeters, and agreement improves going from west to east along a crossline. This suggests an East-West sound velocity variation within East Passage.

A crossline comparison was also performed using Caris QC Report. A one meter reference surface was created using only mainscheme lines. A QC Report by beam number was then created considering all crosslines together. Several additional QC reports were also created for individual crosslines. The QC report generated for all crosslines shows a maximum beam average deviation from the reference surface of less than five centimeters. The beam averages have a sloping trend, indicating that there is a slight residual roll bias. The QC reports for individual crosslines show that the majority of beam averages fall within five centimeters of the reference surface. The crossline 019\_1417 has a maximum beam average deviation of more than 15 centimeters, and is one of the lines from Mackerel Cove.

**Newport, RI - Data Disclaimer**  
**Station ID: 8452660**

**Newport, RI**

**Tide Data**

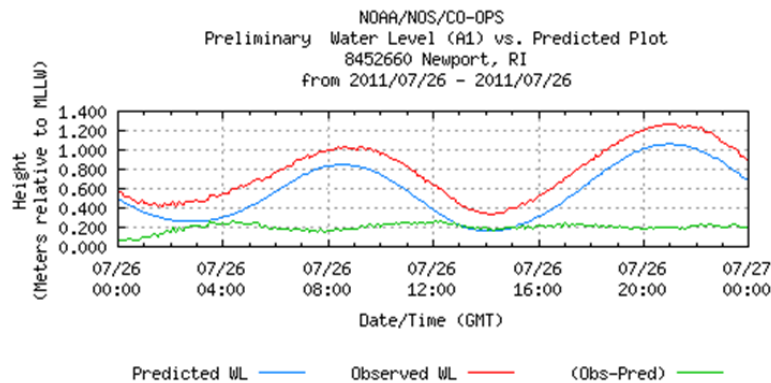


Figure 4: DN207

**Station ID: 8452660**

**Tide Data**

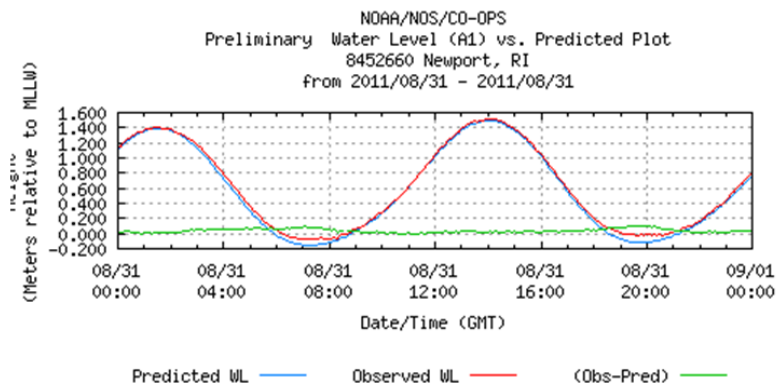


Figure 5: DN243

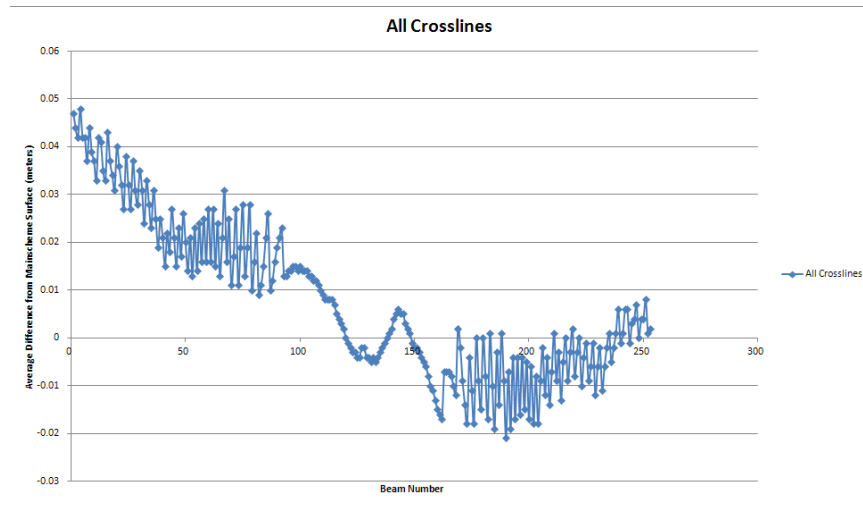


Figure 6: Caris QC Report selecting all Crosslines

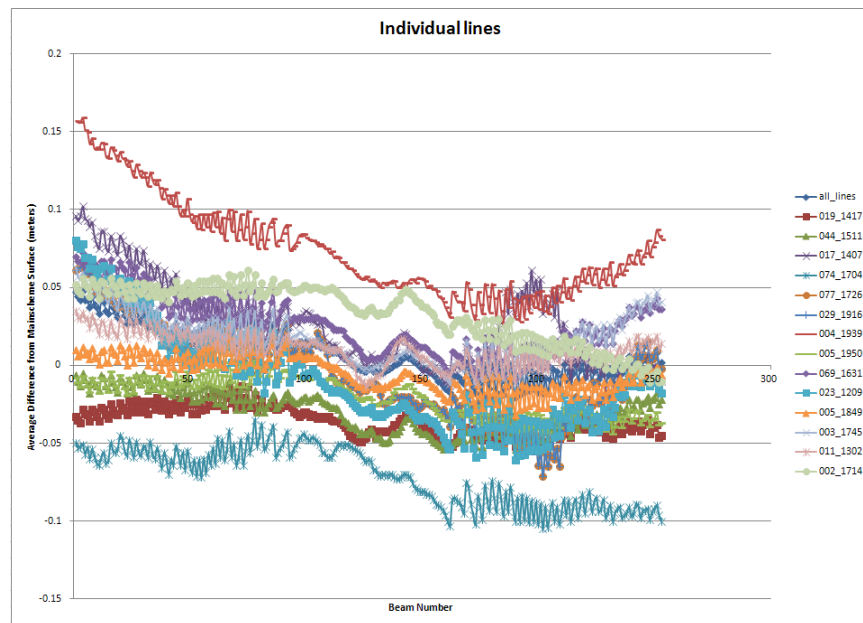


Figure 7: Caris QC Report of several Individual Crosslines

**Data is within specifications and is adequate to supersede charted data in the common area.**

### B.2.2 Uncertainty

Hull ID	Measured - CTD	Measured - MVP	Surface
S3002	2meters/second		.5meters/second

Table 6: Survey Specific Sound Speed TPU Values

Tides and tidal uncertainty were applied using TCARI, therefore no tidal uncertainty was input when calculating TPU in Caris.

### B.2.3 Junctions

The assigned Junction Survey (H11988) does not overlap the survey area, so a junction analysis could not be performed. A junction analysis was performed with H11310 (2004), which overlaps H11930 on the north end.

The following junctions were made with this survey:

Registry Number	Scale	Year	Field Unit	Relative Location
H11310	1:10000	2004	NOAA ship RUDE	N
H11988	1:10000	2008	Navigation Response Team 5	NW

Table 7: Junctioning Surveys

#### H11310

A BAG surface was available for H11310 from the NOAA Hydrographic Data Map Service. The BAG was opened in Caris, and a difference surface was created and exported to Excel for analysis. The agreement between H11930 and H11310 surfaces is excellent, with a mean difference of four millimeters, and a standard deviation of seventeen centimeters. The statistics are based on 22,631 samples.

#### H11988

The assigned junction Survey, H11988, does not overlap H11930, so no analysis could be performed.

***H11930 junctions with survey H12324 to the south. An adjoining portion of H12324 will be compiled with this during compilation.***

### 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.2.5.1 Unusual Conditions**

No conditions were experienced during the course of the survey that would affect equipment effectiveness.

## **B.2.6 Factors Affecting Soundings**

### **B.2.6.1 Wind Setup**

In Mackerel Cove, there appears to be a purely vertical offset of approximately 10 centimeters between some of the survey lines. This is believed to be the result of a tidal error caused by wind setup due to the elongated shape of the cove. This issue is discussed in more detail in the crosslines section.

*Data is within specifications and is adequate to supersede charted data in the common area.*

### **B.2.6.1 SVP errors**

There are sound velocity errors evident in the area southwest of Kettle Bottom Rock. An adequate number of casts were taken in the area, however, there was a significant change in sound velocity between Mackerel Cove and the deeper waters where the SVP error is visible. The image below shows the locations of the casts taken that day. The cast being used for real time SVP correction at the time was the one taken closest to Mackerel Cove. Due to the system configuration of S3002, it is not possible to post process SVP corrections, otherwise the SVP error could have been corrected using one of the casts farther to the south and east. An SVP error was also visible in crosslines taken north of Gould Island, which is detailed in the crosslines section of this report.

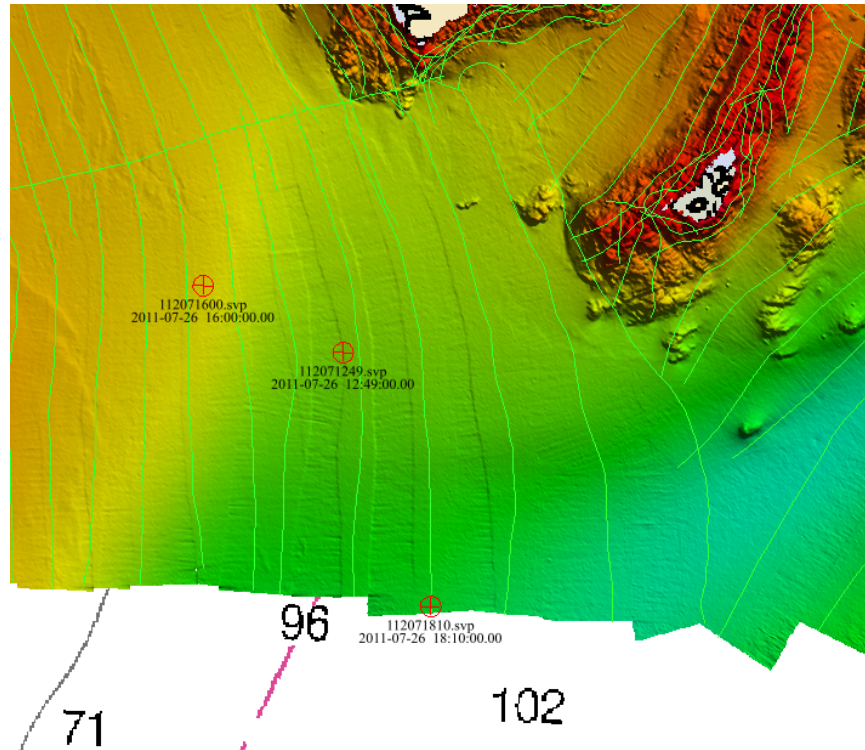


Figure 8: SVP error between Mackerel Cove and Kettle Bottom Rock

*Data is within specifications and is adequate to supersede charted data in the common area.*

#### B.2.6.1 True Heave Data Gaps

An issue was encountered with the PosMV, where on several occasions the True Heave/PosPac File stopped logging. Once detected, a new file was started immediately. During the acquisition for H11930 this occurred on four days, DN187, DN207, DN216, and DN227, leaving several lines without True Heave data. The survey lines without True Heave were processed with real time heave and reviewed. No heave artifacts were visible, so the lines were retained. The cause of the problem is unclear.

*Data is within specifications and is adequate to supersede charted data in the common area.*

#### B.2.7 Sound Speed Methods

Sound Speed Cast Frequency: SVP casts were taken, at a minimum, every four hours, or when there was an indication that the sound velocity had changed, such as a change in the surface sound speed, or if smiling/frowning of the data was observed.

Due to the system configuration of S3002, it is not possible to post process SVP corrections in Caris HIPS. All SVP correction was performed in SIS in real time. If a sound speed variation was suspected, the appropriate cast would be manually selected in SIS before logging data.

### **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 not collected for this survey.

## **B.5 Data Processing**

### **B.5.1 Software Updates**

The following software updates occurred after the submission of the DAPR:

Manufacturer	Name	Version	Service Pack	Hotfix	Installation Date	Use
Caris	HIPS/SIPS	7.1		2	07/18/2011	Processing
Caris	HIPS/SIPS	7.1		3	01/11/2012	Processing

*Table 8: Software Updates*

The following Feature Object Catalog was used: NOAA extended Attributes

### **B.5.2 Surfaces**

The following CARIS surfaces were submitted to the Processing Branch:

Surface Name	Surface Type	Resolution	Depth Range	Surface Parameter	Purpose
H11930_A_1M	CUBE	1 meters	0 meters - 54 meters	NOAA_1m	Complete MBES
H11930_A_1M_Final	CUBE	1 meters	0 meters - 20 meters	NOAA_1m	Complete MBES
H11930_2M	CUBE	2 meters	0 meters - 54 meters	NOAA_2m	Complete MBES
H11930_2M_Final	CUBE	2 meters	18 meters - 40 meters	NOAA_2m	Complete MBES
H11930_4M	CUBE	4 meters	0 meters - 54 meters	NOAA_4m	Complete MBES
H11930_4M_Final	CUBE	4 meters	36 meters - 80 meters	NOAA_4m	Complete MBES
H11930_Final_Combined_4m	CUBE	4 meters	0.07 meters - 53.11 meters	NOAA_4m	Complete MBES
AWOIS_9421_50cm	CUBE	0.5 meters	0 meters - 25 meters	NOAA_0.5m	Object Detection
AWOIS_9421_50cm_Final	CUBE	0.5 meters	0 meters - 25 meters	NOAA_0.5m	Object Detection
AWOIS_14112_50cm	CUBE	0.5 meters	0 meters - 24 meters	NOAA_0.5m	Object Detection
AWOIS_14112_50cm_Final	CUBE	0.5 meters	0 meters - 24 meters	NOAA_0.5m	Object Detection
AWOIS_14107_50cm	CUBE	0.5 meters	0 meters - 10 meters	NOAA_0.5m	Object Detection
AWOIS_14107_50cm_Final	CUBE	0.5 meters	0 meters - 10 meters	NOAA_0.5m	Object Detection

*Table 9: CARIS Surfaces*

Cube surface resolutions and depth ranges were selected in accordance with Complete Coverage requirements set forth in HSSD 5.2.2.2

***A 4 meter combined base surface was created during office processing and certification, and used as the basis of chart compilation.***



## C. Vertical and Horizontal Control

Additional information discussing the vertical or horizontal control for this survey can be found in the accompanying HVCR.

### 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
Quonset Point	8454049

*Table 10: NWLON Tide Stations*

There was no Water Level file associated with this survey.

File Name	Status
B301NRT52011.tc	Final

*Table 11: Tide Correctors (.zdf or .tc)*

A request for final approved tides was sent to N/OPS1 on 10/05/2011. The final tide note was received on 11/03/2011.

The preliminary TCARI grid B301NRT52011.tc was accepted as the final grid.

**Final tide note is attached to this report.**

### C.2 Horizontal Control

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

The Trimble DSM212L receiver was set manually to receive DGPS corrections from Acushnet, MA frequency 306 kHz for the entire survey.

The following DGPS Stations were used for horizontal control:

DGPS Stations
Acushnet, MA Freq 306 kHz

*Table 12: USCG DGPS Stations*

### C.3 Additional Horizontal or Vertical Control Issues

#### 3.3.1 NAD83 to WGS84 Datum Transformation

Section 2.1 of NOS HSSD requires data submitted in the S57 features file to be referenced to the WGS84 datum. The S57 feature file creation and datum transformation from NAD83 to WGS84 were performed with Pydro. It should be noted, however, that Pydro uses the first realization of WGS84, WGS84(original), which is essentially equivalent to NAD83. Because it is using the WGS84(original) definition, Pydro performs a "unity" transformation which leaves the NAD83 positions unchanged. Recent realizations of WGS84 and NAD83 differ to a greater degree. The NGS HTDP tool was used to estimate the horizontal difference between recent realizations, NAD83(2011) and WGS84(G1150), by transforming an arbitrary point in the survey area. According to the point displacement, the horizontal difference between the two recent datums is approximately one meter in the vicinity of the survey area.

## D. Results and Recommendations

### D.1 Chart Comparison

#### D.1.1 Raster Charts

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

Chart	Scale	Edition	Edition Date	LNМ Date	NM Date
13223	1:20000	41	06/2009	12/14/2011	12/31/2011
13221	1:40000	58	05/2010	12/21/2011	12/31/2011
13218	1:80000	41	10/2009	12/14/2011	12/31/2011

*Table 13: Largest Scale Raster Charts*

#### 13223

Charted depths have good general agreement with survey soundings. Digital data is adequate to supersede all previous surveys and charted depths/contours. When comparing 13223 to ENC US5RI22M, it was discovered that there are two buoys which appear on the ENC that do appear on 13223. One is an unlighted special purpose buoy, charted at 41-28-19.2N, 71-20-54.6W, and is categorized as a yellow yacht can buoy. The other is a lighted special purpose buoy, charted at 41-25-42.00N, 71-18-36.00W, categorized as a White-Orange horizontal-striped general-warning can buoy. This buoy was identified as LLN 17681 "Fish Trap Lighted Buoy CC". This buoy is charted on 13221.

#### 13221

Charted depths have good general agreement with survey soundings. Digital data is adequate to supersede all previous surveys and charted depths/contours. When comparing 13221 to ENC US5RI22M, it was discovered that there is one special purpose buoy which appears on the ENC, but not on 13223. It is an unlighted special purpose buoy, charted at 41-28-19.2N, 71-20-54.6W, and is categorized as a yellow yacht can buoy.

#### 13218

No discrepancies were found. Charted depths have good general agreement with survey soundings. Digital data is adequate to supersede all previous surveys and charted depths/contours.

### D.1.2 Electronic Navigational Charts

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

ENC	Scale	Edition	Update Application Date	Issue Date	Preliminary?
US5RI22M	1:20000	19	12/08/2011	12/08/2011	NO
US4MA23M	1:80000	23	12/01/2011	12/01/2011	NO

*Table 14: Largest Scale ENC's*

#### US5RI22M

Charted depths have good general agreement with survey soundings. Digital data is adequate to supersede all previous surveys and charted depths/contours. Several discrepancies were found between US5RI22M and the raster charts. There are two special purpose buoys appearing on this ENC which do not appear on the raster charts (this is detailed further in the appropriate raster discussion section). When comparing US5RI22M to US4MA23M, it was noted that the charted positions of many buoys differed by approximately 50 meters. This seems to be the result of digitizing the buoys from different scale charts. Fort Adams Light (LLN 17815) is encoded as a Special Purpose Beacon (BCNSPP), when the light acts as a lateral beacon (BCNLAT). US4MA23M shows the Fort Adams light as a lateral beacon. The lighted bifurcation buoy with bell, charted at 41-30-40.56N,71-20-49.8W (LLN 17935) is incorrectly characterized. The ENC does not contain a Light or Fog signal object, and the BOYLAT,CATLAM property is incorrectly set to 1(Port hand lateral mark), instead of 3(Preferred channel to starboard).

#### US4MA23M

Charted depths have good general agreement with survey soundings. Digital data is adequate to supersede all previous surveys and charted depths/contours. It was found that Castle Hill Light (LLN 17795) was encoded as a Beacon Special Purpose (BCNSPP), while it serves as a Lateral Beacon (BCNLAT). It is encoded as a lateral beacon on US5RI22M.

### D.1.3 AWOIS Items

Number of AWOIS Items Addressed: 16

Number of AWOIS Items Not Addressed: 0

There were 13 AWOIS items assigned within the survey limits of H11930. Three additional AWOIS Items lying outside of the survey limits were also investigated. All investigations were performed with 100% MBES. Details of each investigation are given in the Pydro Features Report.

*An AWOIS items report was created and is attached to this report.*

#### D.1.4 Charted Features

A Fish Haven is charted at 41-32-37.03N, 71-18-40.-6W with a reported least depth of 10 ft. 100% MBES was acquired over the fish haven, and the least depth measured was 9.5 ft. 100% MBES was also acquired over a charted submerged automobile at 41-30-00.258N, 71-19-27.784W, with an approximate position (PA). An obstruction was found near the charted position, but it is unclear whether the obstruction is an automobile.

There is a rectangular area labeled as "Numerous Floats, rep 2007" located along the eastern shore of East Passage at approximately 41-33-28.9N, 71-18-26.466W. Many rows of floats running parallel to the shore were observed in this area. A commercial vessel was seen tending to the floats, and when asked the crew reported that it was a shell fish farm. Observing the commercial vessel, it was seen that the floats are tethered to a long line lying on the bottom, oriented parallel to the shore. Crates containing shell fish are attached to this line. There are two exclusion buoys marking the offshore corners of the floats and labeled "CRMC 00-11-58." The northwestern corner of the floats extends approximately 50 meters seaward of the charted floats area. Floats were only seen to occupy a portion of the delineated area in the along-shore direction, however structures on the bottom similar to the ones in the buoyed area are visible in the MBES data where no floats were seen. It is possible that the floats are moved to different sections of the shell fish farm that are being actively tended.

Additional details and recommendations are included in the Pydro PSS.

#### D.1.5 Uncharted Features

All new features were identified using MBES. Four uncharted wrecks were found, two appear to be barges approximately 50 meters in length, the other two are small vessels around 30 ft in length. Several rocks and obstructions were found with least depths differing significantly from charted depths; four of which were reported as Dangers to Navigation. Two features that appear to be outfalls extending from shore were also found, and recommended for charting.

#### D.1.6 Dangers to Navigation

The following DTON reports were submitted to the processing branch:

DTON Report Name	Date Submitted
H11930_DTON_Report_1	2012-01-06

*Table 15: DTON Reports*

Danger to Navigation Reports are included in Appendix I of this report.

***All reported DTONs have been applied to the latest charts.***

### **D.1.7 Shoal and Hazardous Features**

In general, the survey data agrees well with charted shoals and obstructions. In most cases, measured least depths agree within one to two feet of charted depths, and the extent of shoals are adequately charted. There are a few exceptions around Kettle Bottom Rock and the Dumplings that are worth noting, however. There is an charted isolated shoal 120 meters due east of Kettle Bottom rock with a least depth of 49 ft. A shoal is visible in the MBES data, and is located southwest of the charted location with a least depth of 38 ft. There is another isolated shoal 250 meters northeast of Kettle Bottom Rock with a charted least depth of 15 ft. The least depth measured with MBES on this shoal was 9 ft. There is a least depth of 18 ft seaward of the charted 30 ft curve just east of the same shoal. Approximately 600 meters northeast of Kettle Bottom Rock and near shore, there is a least depth of 16 ft 25 meters seaward of the 18 ft curve. Inside of the Dumplings there are several areas where depths less than 18ft are found outside of the 18 ft curve. There is a rock with a least depth of 32 ft between a charted 36 and 40 sounding off the southern end of Rose Island. Although many of these discrepancies are significant, they were not considered to be Dangers to Navigation due to their close proximity to other charted hazards.

*Chart features per H11930.*

### **D.1.8 Channels**

Significant depth discrepancies were found between Rose Island and Goat Island, where two uncharted obstructions exist with least depths more than 10 ft shoaler than the surrounding charted soundings. These two obstructions were submitted as Dtons due to their close proximity to Anchorage Area D, which is frequented by cruise ships. An uncharted wreck was also found in the main shipping channel just south of the Newport Bridge. The least depth of this wreck as measured with MBES is 99 ft, and poses no threat to surface navigation. The area surrounding Navy Piers 1 and 2 near Coddington Cove has a reported depth of 29 ft. All survey depths measured meet or exceed the 29 ft reported depth.

*DTONs have been applied to the latest Charts and the wreck feature is included in H11930.*

## **D.2 Additional Results**

### **D.2.1 Shoreline**

A total of six shoreline investigations were assigned within the survey limits of H11930. Five of the assigned features were covered with 100% MBES. One assigned feature in the southern part of Coddington Cove was not covered, however, because it was felt unsafe to proceed farther inshore. Details are included in the Pydro Features Report.

Due to software limitations, it was not possible to construct a complete Final Features File (FFF) for this survey in .000 format. A .000 file (H11930\_Final\_Features\_File) containing only the features addressed by this survey was exported from Pydro, and is included in the survey directory.

### *Chart features per H11930.*

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

Digital depth data for six prior surveys overlapping the survey limits of H11930 were downloaded from NOAA's Hydrographic Data Map Service: H11310 (2004), H10720 (1996), H10616 (1995), H08394(1957), F00368(1992), and F00360(1991). As a BAG surface was available for H11310, a difference surface was created in CARIS, and exported to Excel for analysis. The agreement between H11930 and H11310 surfaces is excellent, with a mean difference of four millimeters, and a standard deviation of seventeen centimeters. For all other prior surveys, sounding data was available, and was imported into Caris as soundings using the Generic data Parser. The Caris QC Report was used to calculate statics for each prior survey using a one meter surface from H11930 as the reference surface. The agreement was good, with mean differences for the surveys from the 1990s (H10720,H10616,F00368, and F00360) being less than 20 centimeters. The mean difference for the 1957 survey (H08394) was twenty-eight centimeters.

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

Aids to navigation (ATONs) exist for this survey, but were not investigated. All ATONS observed during data acquisition appeared to be on station, and serving their intended purpose.

### *Chart ATONs per latest ATONs information.*

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

Overhead features exist in the survey area, but were not investigated.

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

There are numerous charted Cable and Pipeline areas within the survey limits of H11930. The outline of several cable or pipelines are visible in the MBES data, including three crossing Newport Harbor, and one extending from the breakwater north of Coddington Cove to Gould Island. All fall within charted cable and pipeline areas.

### *All cable and pipeline areas are recommended to be retained as charted.*

#### **D.2.6 Ferry Routes and Terminals**

The Block Island Ferry has a terminal at Fort Adams State Park. Two routes leave from this terminal, one to Block Island, and one to Point Judith. The smaller Jamestown-Newport ferry also has a terminal at Fort Adams State Park with routes to locations in Newport, Rose Island, and Conanicut Marina in Jamestown. All of these routes are seasonal.

**D.2.7 Platforms**

No platforms exist for this survey.

**D.2.8 Significant Features**

No unusual or scientifically significant features exist for this survey.

**D.2 Construction and Dredging**

The hydrographer is not aware of any 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.

<b>Report Name</b>	<b>Report Date Sent</b>
Data Acquisition and Processing Report	2012-05-02
Coast Pilot Report	2012-04-20

<b>Approver Name</b>	<b>Approver Title</b>	<b>Approval Date</b>	<b>Signature</b>
LTJG Matthew Nardi	Chief of Party	05/02/2012	
Philip Sparr	Sheet Manager	05/02/2012	

## F. Table of Acronyms

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

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

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

# H11930 AWOIS Report

**Registry Number:** H11930  
**State:** Rhode Island  
**Locality:** Narragansett Bay  
**Sub-locality:** East Passage  
**Project Number:** OPR-B301-NRT5-11  
**Survey Dates:** 07/07/2011 - 09/13/2011

## Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
13223	42nd	02/01/2012	1:20,000 (13223_1)	USCG LNM: 4/24/2012 (4/24/2012) CHS NTM: None (2/24/2012) NGA NTM: 11/1/2008 (5/5/2012)
13221	59th	03/01/2012	1:40,000 (13221_1)	USCG LNM: 4/24/2012 (5/1/2012) CHS NTM: None (4/27/2012) NGA NTM: 11/1/2008 (5/12/2012)
13221	57th	02/01/2008	1:40,000 (13221_2)	[L]NTM: ?
13218	41st	10/01/2009	1:80,000 (13218_1)	USCG LNM: 4/24/2012 (4/24/2012) CHS NTM: None (2/24/2012) NGA NTM: 11/15/2003 (5/5/2012)
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	204/115	AWOIS	34.36 m	41° 28' 28.9" N	071° 21' 04.1" W	---
1.2	RICHARD CARD	AWOIS	[no data]	[no data]	[no data]	---
1.3	404/84	AWOIS	6.24 m	41° 33' 53.0" N	071° 24' 27.4" W	---
1.4	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.5	UNKNOWN	AWOIS	[no data]	[no data]	[no data]	---

1.6	1396/131	AWOIS	14.36 m	41° 29' 17.3" N	071° 20' 06.6" W	---
1.7	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.8	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.9	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.10	ARNIE BOY	AWOIS	[no data]	[no data]	[no data]	---
1.11	733/66	AWOIS	10.56 m	41° 32' 33.9" N	071° 20' 29.7" W	---
1.12	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---
1.13	UNKNOWN	AWOIS	[no data]	[no data]	[no data]	---
1.14	191/126	AWOIS	32.67 m	41° 29' 31.0" N	071° 21' 00.8" W	---
1.15	UNKNOWN	AWOIS	[no data]	[no data]	[no data]	---
1.16	785/75	AWOIS	7.94 m	41° 34' 19.3" N	071° 21' 47.9" W	---
1.17	31/6	AWOIS	6.28 m	41° 30' 00.1" N	071° 19' 30.0" W	---
1.18	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]	---

## 1 - Tree

## 1.1) AWOIS #1918 - CAPE FEAR

### Primary Survey Feature is Profile/Beam 204/115 / 061\_1543

**Search Position:** 41° 28' 28.9" N, 071° 21' 04.2" W  
**Historical Depth:** 33.83 m  
**Search Radius:** 100  
**Search Technique:** S2,MB,ES  
**Technique Notes:** [None]

#### History Notes:

SURVEY REQUIREMENT COMMENTS  
 SEARCH ONLY TO THE 60 FT. CURVE

#### HISTORY

CL930/54--COMMANDER, HYDROGRAPHIC SURVEY GROUP TWO; USS TANNER  
 REPORTED CROSSING UNCHARTED SUBMERGED OBSTRUCTION IN ENTRANCE TO  
 NEWPORT HARBOR; FATHOGRAMS SHOWING 4 CROSSINGS OF OBJECT;  
 CORRECTED LEAST DEPTH (DRAFT AND TIDE) OF 114 FT; POSITION BEARS  
 238 DEGREES TRUE, 145 YARDS FROM FORT ADAMS LIGHT; LENGTH OF  
 OBJECT 225 FT; TOP SIDE VERTICAL; SOLID RETURN.

NM45/54--ABOVE INFORMATION PUBLISHED. (ENTERED MSM 7/89)

FE368SS/92--OPR-B660-RU; WRECK LOCATED IN POS.  
 LAT.41-28-28.88N, LONG.71-21-04.21W (NAD 83) WITH A LEAST DEPTH  
 OF 111FT (33.95M). NO DIVER INVEST. (UPDATED 2/94 MCR)

#### DESCRIPTION

24 NO.1371; SUNK 1954; POSITION ACCURACY WITHIN 1 MILE; LEAST  
 DEPTH 114 FT.

### Survey Summary

**Survey Position:** 41° 28' 28.9" N, 071° 21' 04.1" W  
**Least Depth:** 34.36 m (= 112.72 ft = 18.786 fm = 18 fm 4.72 ft)  
**TPU ( $\pm 1.96\sigma$ ):** **THU (TPEh)**  $\pm 1.999$  m ; **TVU (TPEv)**  $\pm 0.207$  m  
**Timestamp:** 2011-244.15:44:31.379 (09/01/2011)  
**Survey Line:** h11930 / nrt5\_s3002\_em3002\_mbes / 2011-244 / 061\_1543  
**Profile/Beam:** 204/115



**Charts Affected:** 13223\_1, 13221\_1, 13221\_2, 13218\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

**Remarks:**

Designated soundings is least depth on charted wreck. Measured using 100% MBES. Wreck determined to be AWOIS item # 1918.

### Feature Correlation

Source	Feature	Range	Azimuth	Status
061_1543	204/115	0.00	000.0	Primary
AWOIS_EXPORT	AWOIS # 1918	2.51	086.5	Secondary (grouped)

### Hydrographer Recommendations

Update wreck position and least depth with current survey data.

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

112ft (13223\_1, 13221\_1, 13221\_2, 13218\_1)

19fm (12300\_1, 13006\_1, 13003\_1)

34m (5161\_1)

### S-57 Data

**Geo object 1:** Wreck (WRECKS)  
**Attributes:** CATWRK - 1:non-dangerous wreck  
 QUASOU - 1:depth known  
 SORDAT - 20110919  
 SORIND - US,US,graph,H-11930  
 TECSOU - 3:found by multi-beam  
 VALSOU - 34.356 m  
 WATLEV - 3:always under water/submerged

### Office Notes

It's Recommended getting a diver to verify least depth when possible. Update wreck position and least depth with current survey data.

AWOIS item #1918

### Feature Images

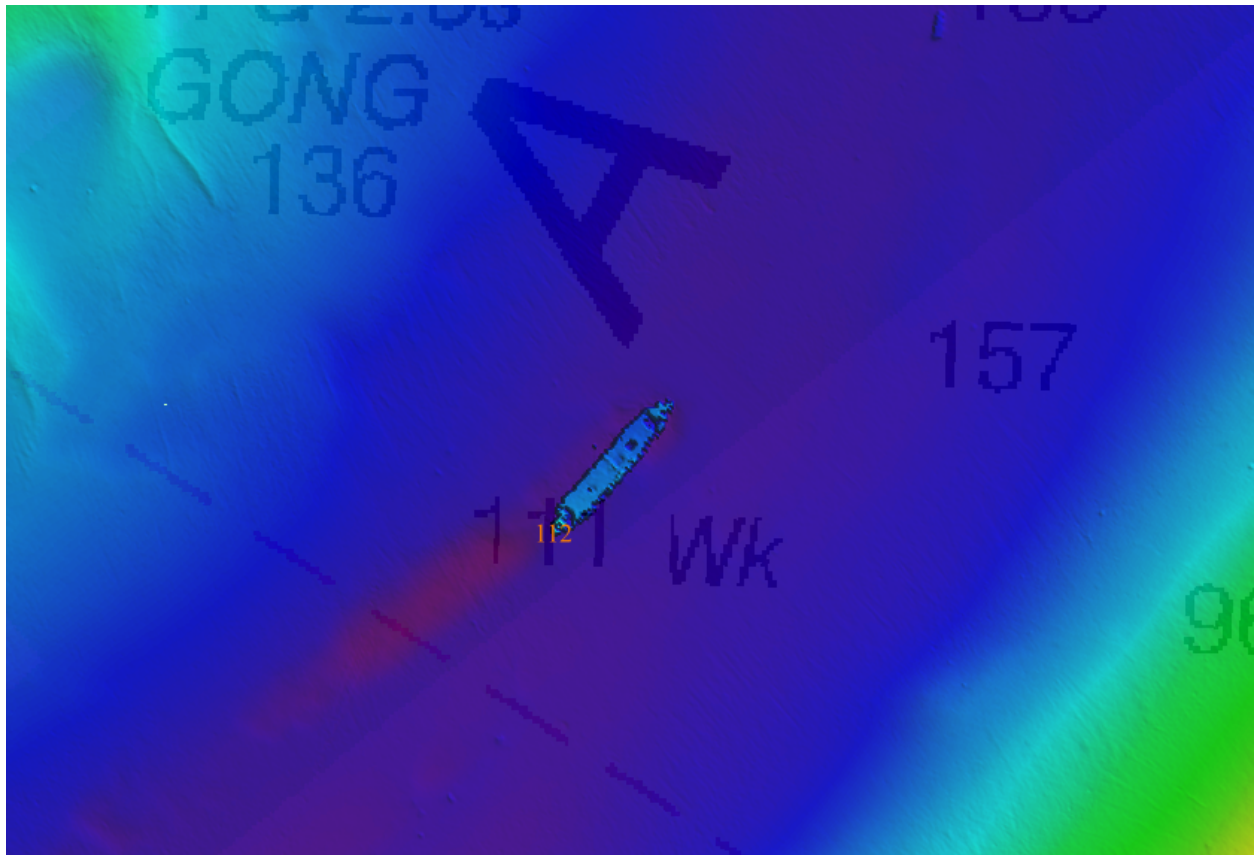


Figure 1.1.1

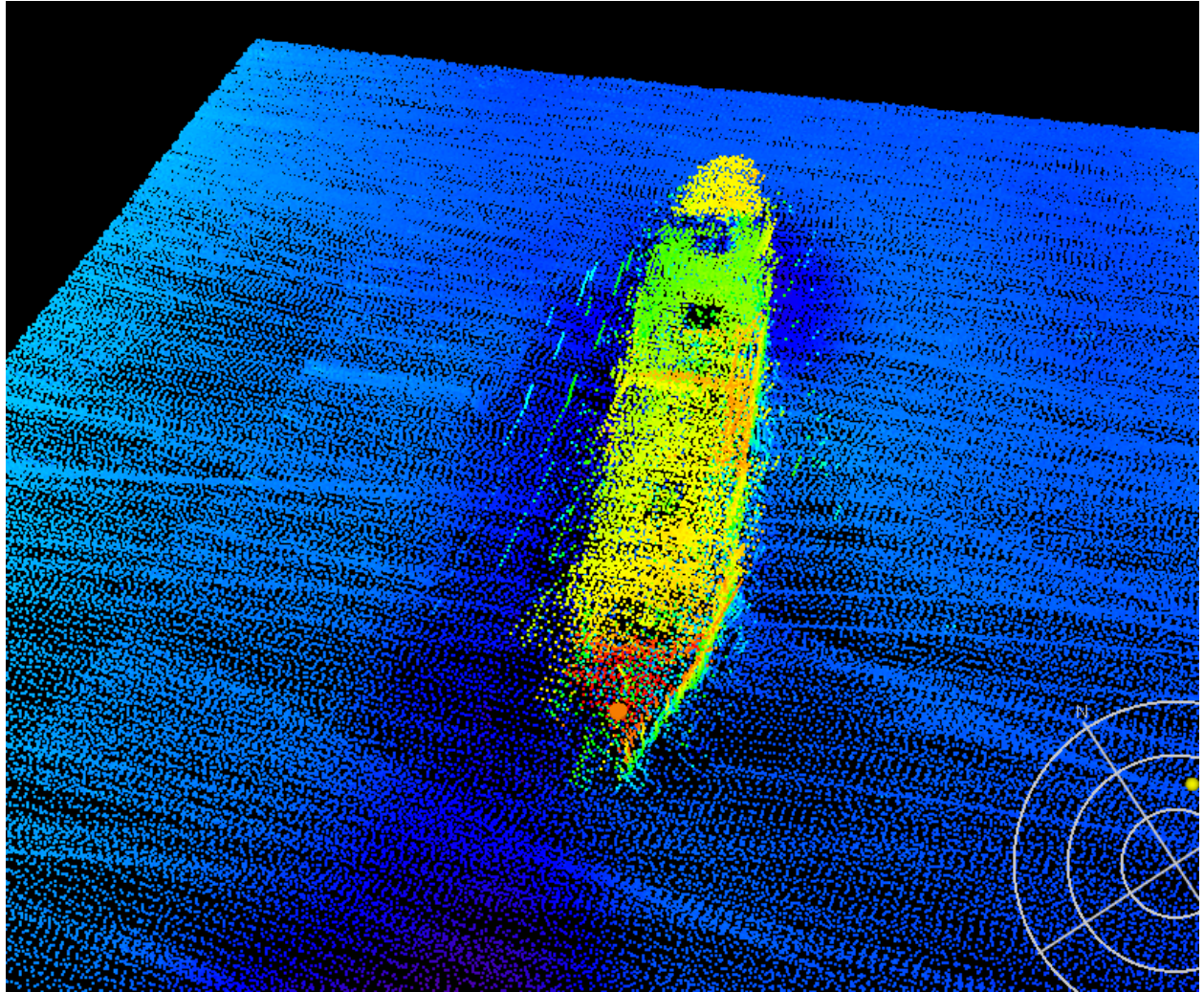


Figure 1.1.2

## 1.2) AWOIS #1923 - RICHARD CARD

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 41° 30' 00.4" N, 071° 19' 58.2" W  
**Historical Depth:** [None]  
**Search Radius:** 0  
**Search Technique:** [None]  
**Technique Notes:** [None]

#### History Notes:

##### DESCRIPTION

24 NO.4939; CARGO, 182 GT; SUNK 10/6/44 BY MARINE CASUALTY; POS. ACCURACY 3-5 MILES  
 61

### Survey Summary

**Charts Affected:** 13223\_1, 13221\_1, 13221\_2, 13218\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Area covered with 100% MBES. No sign of wreck found in the vicinity.

### Feature Correlation

Source	Feature	Range	Azimuth	Status
AWOIS_EXPORT	AWOIS # 1923	0.00	000.0	Primary

### Hydrographer Recommendations

Update AWOIS # 1923 as disproved.

### S-57 Data

[None]

## Office Notes

Update AWOIS database as AWOIS item #1923 disapproved. no feature observed on ENC or RNC

### 1.3) AWOIS #14107 - OBSTRUCTION

#### Primary Survey Feature is Profile/Beam 404/84 / 000\_1246

**Search Position:** 41° 33' 53.1" N, 071° 24' 27.4" W  
**Historical Depth:** 5.79 m  
**Search Radius:** 0  
**Search Technique:** [None]  
**Technique Notes:** [None]

**History Notes:**

OPR-B301-RU-04-- Chart dangerous submerged obstruction with a least depth of 19-ft in Latitude 41° 33' 53.069" N,

Longitude 071° 24' 27.412" W. Two contacts very close to one another. One seems to be a rock while the other

looks manmade, perhaps a section of culvert. Note: SSS review indicates that the feature is one object. The two contacts reported by field unit is related to

horizontal offsets in the bathy data, thus generating two separate objects in the BASE surface grid. SS indicates the

object is one feature (RES 10/24/07).

### Survey Summary

**Survey Position:** 41° 33' 53.0" N, 071° 24' 27.4" W  
**Least Depth:** 6.24 m (= 20.49 ft = 3.414 fm = 3 fm 2.49 ft)  
**TPU (±1.96σ):** THU (TPEh) ±1.964 m ; TVU (TPEv) ±0.173 m  
**Timestamp:** 2011-256.12:46:19.726 (09/13/2011)  
**Survey Line:** h11930 / nrt5\_s3002\_em3002\_mbes / 2011-256 / 000\_1246  
**Profile/Beam:** 404/84  
**Charts Affected:** 13223\_1, 13221\_1, 13221\_2, 13218\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

**Remarks:**

Designated sounding is a 20 ft least depth measured by MBES on charted 19 ft obstruction, and determined to be AWOIS # 14107. Obstruction is clearly visible in MBES data.

### Feature Correlation

Source	Feature	Range	Azimuth	Status
000_1246	404/84	0.00	000.0	Primary

AWOIS_EXPORT	AWOIS # 14107	2.19	179.2	Secondary (grouped)
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## Hydrographer Recommendations

Update position and least depth of obstruction.

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

20ft (13223\_1, 13221\_1, 13221\_2, 13218\_1)

3 ¼fm (12300\_1, 13006\_1, 13003\_1)

6.2m (5161\_1)

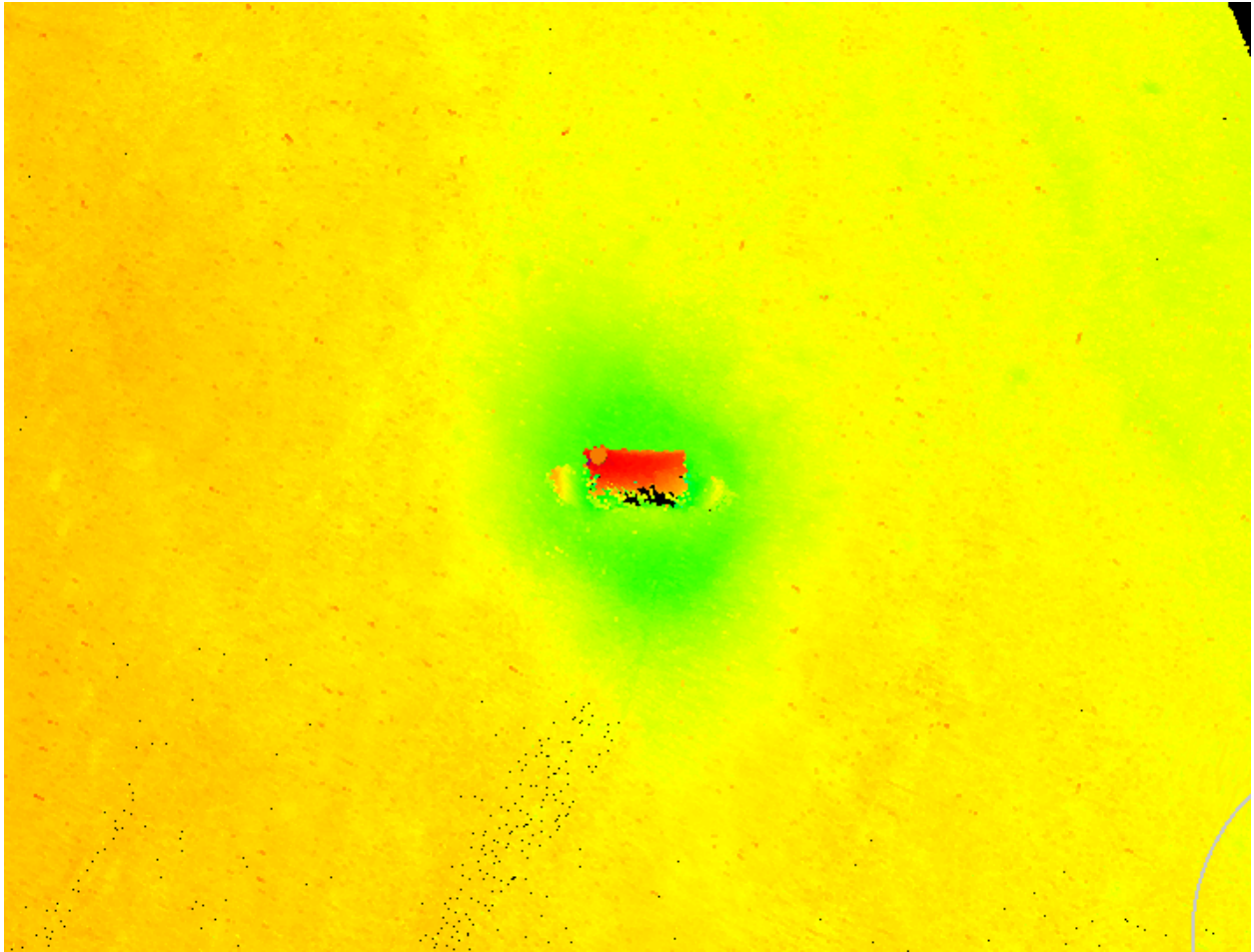
## S-57 Data

**Geo object 1:** Obstruction (OBSTRN)  
**Attributes:** CATOBS - 1:snag / stump  
QUASOU - 6:least depth known  
SORDAT - 20110919  
SORIND - US,US,graph,H-11930  
TECSOU - 3:found by multi-beam  
VALSOU - 6.244 m  
WATLEV - 3:always under water/submerged

## Office Notes

Update position and least depth of obstruction, AWOIS item #14107. Chart feature per H11930.

## Feature Images



*Figure 1.3.1*



## 1.4) AWOIS #14112 - OBSTRUCTION

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 41° 31' 32.7" N, 071° 23' 47.1" W  
**Historical Depth:** 9.45 m  
**Search Radius:** 0  
**Search Technique:** [None]  
**Technique Notes:** [None]

#### History Notes:

OPR-B301-RU-07-- Side Scan contact and 100% Multibeam Coverage. Thin shadow and weak MB hit shows a pipe or piling; Chart a dangerous obstruction with least depth 31 feet at the present survey position (RES 10/29/07).

### Survey Summary

**Charts Affected:** 13223\_1, 13221\_1, 13221\_2, 13218\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

No significant features were found in the search radius with 100% MBES coverage. The existance of a small pipe or piling cannot be ruled out, however.

### Hydrographer Recommendations

Retain as charted.

### S-57 Data

[None]

### Office Notes

Retain charted AWOIS item #14112.

## 1.5) AWOIS #13319 - UNKNOWN

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 41° 30' 47.2" N, 071° 20' 44.7" W  
**Historical Depth:** 25.60 m  
**Search Radius:** 50  
**Search Technique:** S2,MB,ES  
**Technique Notes:** [None]

#### History Notes:

H10616/95--OPR-B302-RU; SSS AND ES SEARCH IDENTIFIED WHAT IS PRESUMABLY THE MAST OF A SUNKEN SAILBOAT LYING ON KEEL. HYDROGRAPHER RECOMMENDS WK WITH LEAST DEPTH OF 84FT BE CHARTED AT 41/30/47.182N 71/20/44.704W (UPDATED 7/18/05, SME)

### Survey Summary

**Charts Affected:** 13223\_1, 13221\_1, 13221\_2, 13218\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

[None]

### Hydrographer Recommendations

[None]

### S-57 Data

[None]

### Office Notes

Retain AWOIS Item # 13319 as charted.

## 1.6) AWOIS #13838 - OBSTRUCTION

### Primary Survey Feature is Profile/Beam 1396/131 / 000\_1704

**Search Position:** 41° 29' 18.1" N, 071° 20' 07.3" W  
**Historical Depth:** 14.02 m  
**Search Radius:** 100  
**Search Technique:** S2,MB,ES  
**Technique Notes:** [None]

#### History Notes:

LNM 42/95-- USCG, 10/18/95: A SYMBOL AND LABEL FOR SUBMERGED OBSTRUCTION CHARTED AT 41°29'18.1"N - 071°20'07.3"W. THE POSSIBLE SOURCE FOR THIS NOTICE MIGHT OF BEEN HYDRO SURVEY

H-10616 DATED 10/3/95 (OPR-B302-RU-95). (ENTERED CEH 10/06)

### Survey Summary

**Survey Position:** 41° 29' 17.3" N, 071° 20' 06.6" W  
**Least Depth:** 14.36 m (= 47.10 ft = 7.849 fm = 7 fm 5.10 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh)  $\pm 1.969$  m ; TVU (TPEv)  $\pm 0.184$  m  
**Timestamp:** 2011-188.17:06:45.448 (07/07/2011)  
**Survey Line:** h11930 / nrt5\_s3002\_em3002\_mbes / 2011-188 / 000\_1704  
**Profile/Beam:** 1396/131  
**Charts Affected:** 13223\_1, 13221\_1, 13221\_2, 13218\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Sounding is least depth on charted obstruction rising approximately 6 ft above surrounding seafloor in a designated anchorage. Identified using 100% MBES. Charted position and least depth of obstruction are consistent with current survey data, however, the center of the charted obstruction is approximately 15 meters from the true position. Feature is determined to be AWOIS item #13838.

### Feature Correlation

Source	Feature	Range	Azimuth	Status
000_1704	1396/131	0.00	000.0	Primary
AWOIS_EXPORT	AWOIS # 13838	30.74	148.5	Secondary

## Hydrographer Recommendations

Update position of charted obstruction with position of designated sounding. Update position in AWOIS database.

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

47ft (13223\_1, 13221\_1, 13221\_2, 13218\_1)

7 ¾fm (12300\_1, 13006\_1, 13003\_1)

14.4m (5161\_1)

## S-57 Data

**Geo object 1:** Obstruction (OBSTRN)  
**Attributes:** QUASOU - 1:depth known  
SORDAT - 20110919  
SORIND - US,US,graph,H-11930  
TECSOU - 3:found by multi-beam  
VALSOU - 14.355 m  
WATLEV - 3:always under water/submerged

## Office Notes

It's Recommended getting a diver to verify least depth when possible. Update obstruction position and least depth with current survey data. AWOIS Item # 13838

## Feature Images

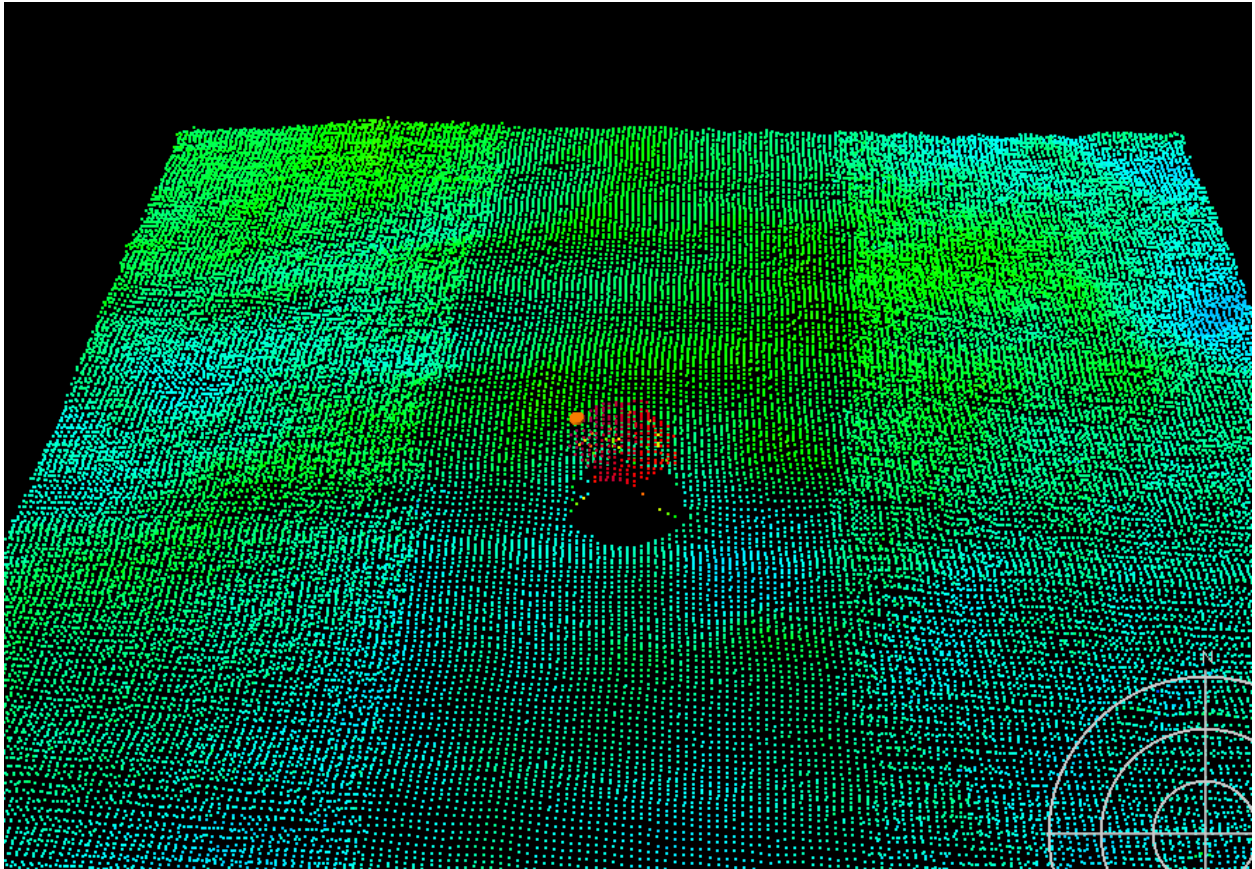


Figure 1.6.1

## 1.7) AWOIS #13839 - OBSTRUCTION

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 41° 29' 12.0" N, 071° 20' 09.0" W  
**Historical Depth:** [None]  
**Search Radius:** 100  
**Search Technique:** S2,MB,ES  
**Technique Notes:** [None]

#### History Notes:

LNM 44/05-- USCG' 11/1/05; MARINERS HAVE REPORTED SUBSURFACE OBSTRUCTION IN ANCHORAGE D (DELTA) ADJACENT TO GOAT ISLAND IN NEWPORT HARBOR, NEWPORT, RI, THAT MAY FOAL VESSEL ANCHORS, SPECIFICALLY IN THE VICINITY OF APPROXIMATE POSITION 41-29.2N - 071-20.15W. DIVERS HAVE REPORTED SUBSURFACE OBSTRUCTIONS TO INCLUDE OLD ANCHOR CHAIN AND MOORINGS. (ENTERED CEH 10/06)

### Survey Summary

**Charts Affected:** 13223\_1, 13221\_1, 13221\_2, 13218\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

No obstructions were found within a 100 meter radius of this position using 100% MBES. This AWOIS item is likely a duplicate of adjacent AWOIS item # 13838, which was found using 100% MBES near its reported location.

### Feature Correlation

Source	Feature	Range	Azimuth	Status
AWOIS_EXPORT	AWOIS # 13839	0.00	000.0	Primary

### Hydrographer Recommendations

Consolidate AWOIS items #13838 and #13839. The block which is visible at the location of #13838 is likely the mooring described by #13839.

### S-57 Data

[None]

## Office Notes

Update position of charted obstruction. Chart per H11930  
AWOIS item #13839.

## 1.8) AWOIS #8974 - OBSTRUCTION

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 41° 33' 01.1" N, 071° 20' 54.4" W  
**Historical Depth:** [None]  
**Search Radius:** 50  
**Search Technique:** S2,MB,ES  
**Technique Notes:** [None]

#### History Notes:

HISTORY

FE360SS/91--OPR-B660-RU; UNKNOWN OBSTRUCTION LOCATED ON ECHOSOUNDER RECORDS IN POS. LAT.41-33-01.09N, LONG.71-20-54.35W WITH A DEPTH OF 14.3M (47FT). (ENTERED 7/94 MCR)

### Survey Summary

**Charts Affected:** 13223\_1, 13221\_1, 13221\_2, 13218\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

No significant features were detected in this area by 100% MBES.

### Hydrographer Recommendations

Update AWOIS item # 8974 as disproved, and remove 47 ft obstruction from chart.

### S-57 Data

[None]

### Office Notes

remove charted obstruction. AWOIS item # 8974



## 1.9) AWOIS #9421 - OBSTRUCTION

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 41° 30' 28.0" N, 071° 21' 22.5" W  
**Historical Depth:** [None]  
**Search Radius:** 150  
**Search Technique:** S2,MB,ES  
**Technique Notes:** [None]

#### History Notes:

##### SURVEY REQUIREMENT COMMENTS

CONDUCT A SEARCH 50M OUT FROM AN AXIS RUNNING FROM OFFSHORE ì  
POS. LAT.41-30-28.0N, LONG.71-21-21W, TO INSHORE POS. ì  
LAT.41-30-28N, LONG.71-21-26W.

##### HISTORY

CL64/79--COE PERMIT AND PLAN FROM THE TOWN OF JAMESTOWN, RI TO ì  
CONSTRUCT A 20 INCH DIA. SEWER OUTFALL, ENCASED IN CONCRETE. OUTFALL IS BURIED ì  
FROM SHORE TO APPROX. 300 FT OFFSHORE WHERE IT PROTRUDES FROM THE ì  
BOTTOM TO OFFSHORE DIFFUSERS. SUBM. CRIB SYMBOL IS USED TO ì  
MARK THE OFFSHORE DIFFUSER SITE IN POS. LAT.41-30-28N, ì  
LONG.71-21-22.5W (SCALED FROM CHT 13223 IN NAD 83). INSHORE POINT ì  
OF OUTFALL IS POS. LAT.41-30-28N, LONG.71-21-28.5W (NAD 83). ì  
(ENTERED 4/95 MCR)

H10616/95--OPR-B302-RU; NOT INVESTIGATED BECAUSE OF VEHICLE SAFETY (UPDATED  
7/18/05, SME)

### Survey Summary

**Charts Affected:** 13223\_1, 13221\_1, 13221\_2, 13218\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

All parts of the sewer and crib appear to be buried, but the outline is visible in the MBES data.

### Hydrographer Recommendations

Retain as charted.

## S-57 Data

[None]

## Office Notes

Retain charted AWOIS item #9421.

### Feature Images

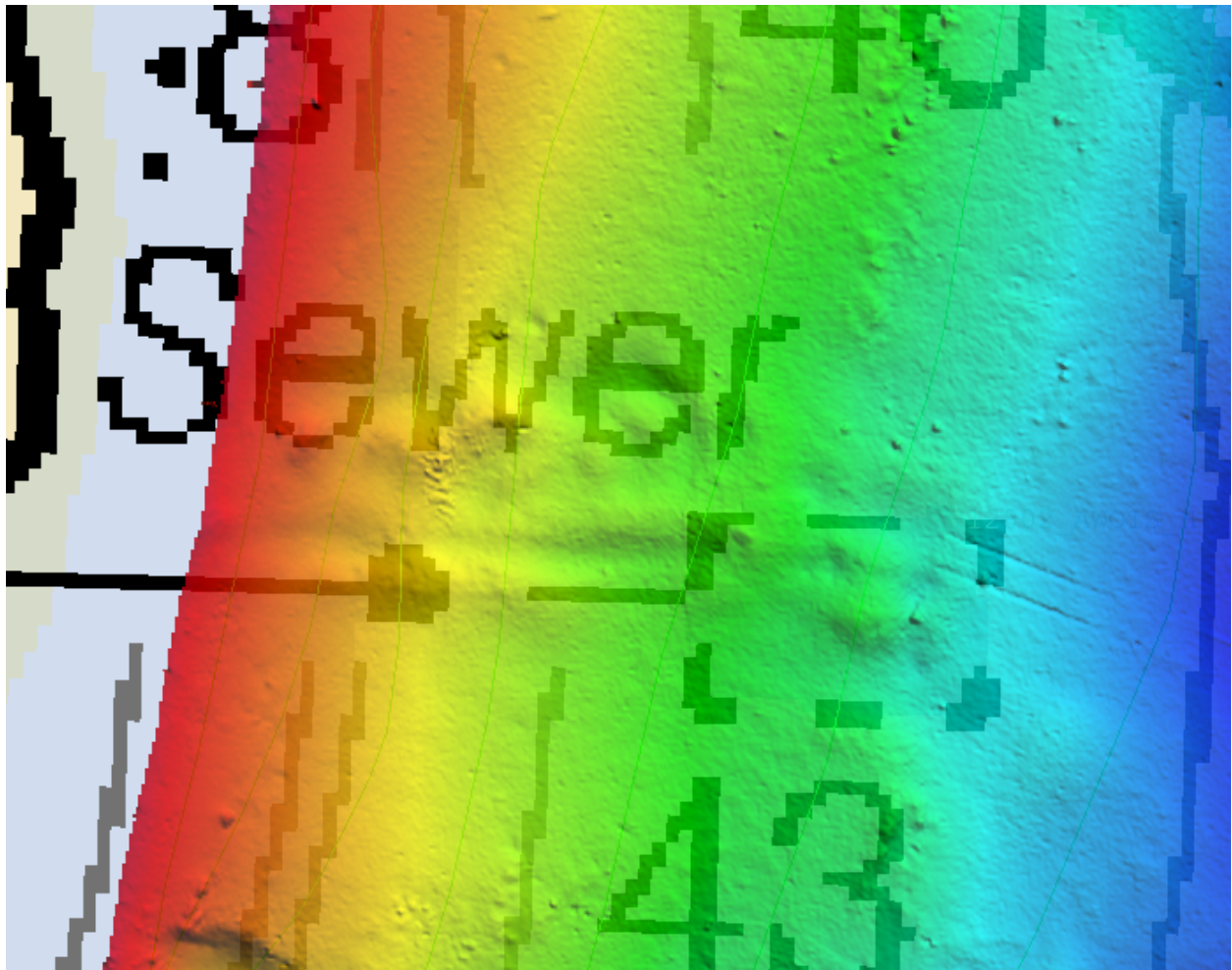
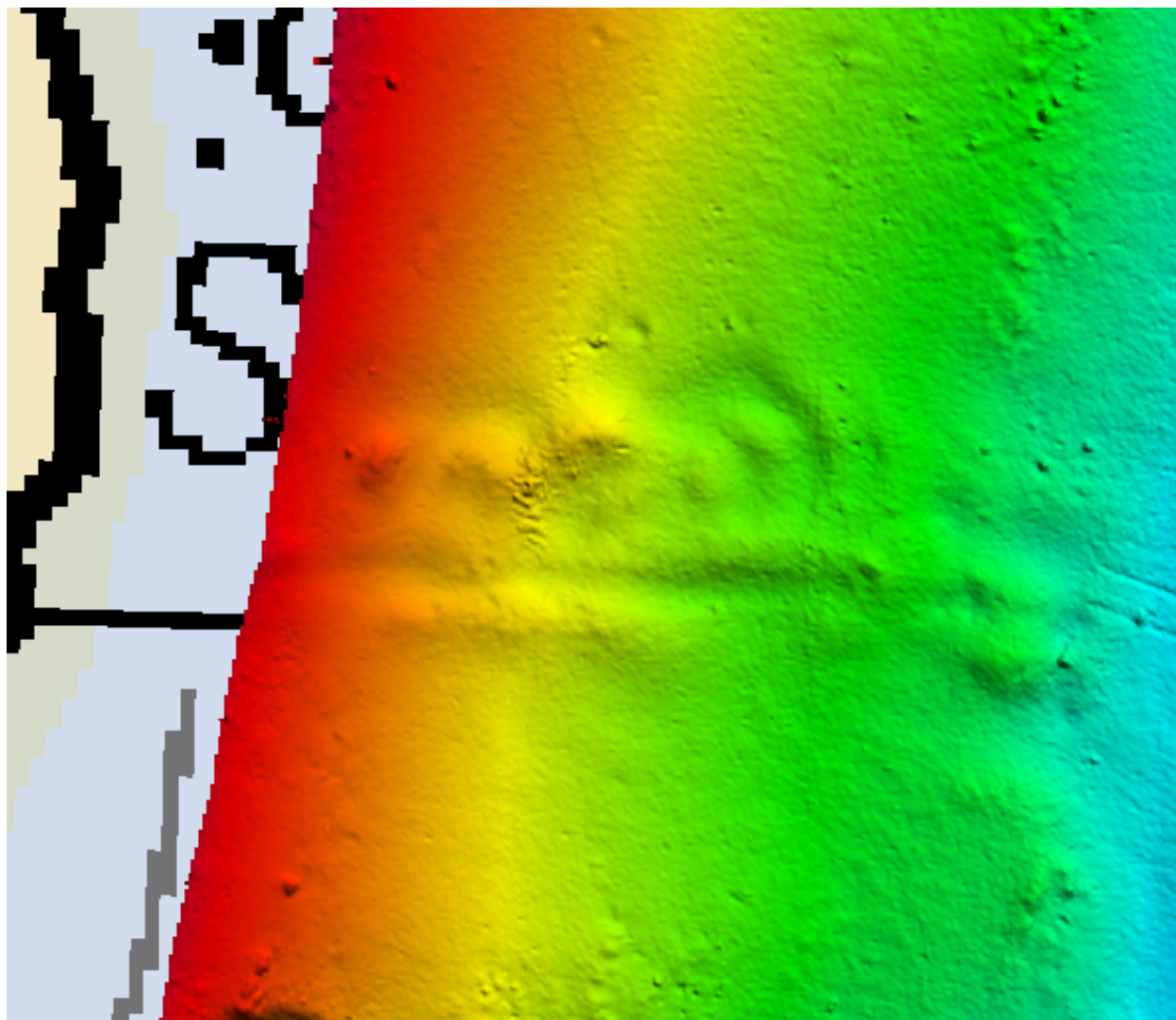


Figure 1.9.1



*Figure 1.9.2*

## 1.10) AWOIS #9422 - ARNIE BOY

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 41° 28' 10.4" N, 071° 25' 08.2" W  
**Historical Depth:** [None]  
**Search Radius:** 150  
**Search Technique:** S2,MB,ES  
**Technique Notes:** [None]

#### History Notes:

##### SURVEY REQUIREMENT COMMENTS

SEARCH ONLY REQUIRED IN DEPTHS GREATER THAN 25 FT TO DISPROVE ì  
WRECK. ITEM IS ASSIGNED AT THE DISCRETION OF THE COMMANDING ì  
OFFICER, DUE TO OPERATIONAL CONSTRAINTS.

##### HISTORY

NM38/65--THE 38 FT CABIN CRUISER ARNIE BOY HAS BEEN REPORTED ì  
SUNK IN 35 FT OF WATER IN APPROX. POS. LAT.41-28-10N, LONG.71-25-10W (NAD ì  
27). (ENTERED 4/95 MCR)

CL1434/68--1968 INVESTIGATION BY LOCAL DIVE CLUB COULD NOT LOCATE ì  
THE WRECK. THE CLUB SPENT APPROX. 8 HRS TROLLING AND 8 HRS DIVING ì  
IN THE SEARCH. THE DIVERS STRONGLY DOUBT THAT THE WRECK REMAINS. ì  
EXISTANCE DOUBTFUL ADDED TO THE CHART. (ENTERED 4/95 MCR)

H10641/95--OPR-B302-RU; NO EVIDENCE OF A WK WAS DISCOVERED DURING MAIN SCHEME  
SIDE SCAN COVERAGE. DUE TO DEPTH OF WATER AND PROXIMITY TO THE SHORE, COMMAND  
DECIDED IT WAS UNWISE TO INVESTIGATE ITEM FURTHER. RESEARCH PERSONNEL FROM  
UNIV OF RHODE ISLAND WERE CONTACTED FOR INFO PERTAINING TO THIS ITEM, BUT THEY  
HAD NO KNOWLEDGE OF IT. EVALUATOR RECOMMENDS NO CHANGE IN CHARTING STATUS  
(UPDATED 7/18/05, SME)

### Survey Summary

**Charts Affected:** 13223\_1, 13221\_1, 13221\_2, 13218\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Not investigated.

## Feature Correlation

Source	Feature	Range	Azimuth	Status
AWOIS_EXPORT	AWOIS # 9422	0.00	000.0	Primary

## Hydrographer Recommendations

[None]

## S-57 Data

[None]

## Office Notes

No investigated

## 1.11) AWOIS #7890 - OBSTRUCTION

### Primary Survey Feature is Profile/Beam 733/66 / 000c1821

**Search Position:** 41° 32' 35.3" N, 071° 20' 30.9" W  
**Historical Depth:** [None]  
**Search Radius:** 0  
**Search Technique:** S2,MB,ES  
**Technique Notes:** [None]

#### History Notes:

##### HISTORY

LNM31/86--1ST CGD; 8/5/86; OBSTRUCTION REPORTED IN PA LAT 41-32-37N, LONG 71-19-52W (NAD27). (ENTERED MSD 12/90)  
 FE360SS/91--OPR-B660-RU; SEARCH WAS AABORTED BEFORE A FULL 400% SSS INVEST., HOWEVER THE EVALUATOR RECOMMENDS THAT A ROCK LOCATED IN POS. LAT.41-32-35.25N, LONG.71-20-30.89W BE CHARTED AND THE OBSTRUCTION REMOVED FROM THE CHART. LEAST DEPTH ON ROCK WAS 11.5M (37FT). (UPDATED 7/94 MCR)

### Survey Summary

**Survey Position:** 41° 32' 33.9" N, 071° 20' 29.7" W  
**Least Depth:** 10.56 m (= 34.64 ft = 5.774 fm = 5 fm 4.64 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh)  $\pm 1.972$  m ; TVU (TPEv)  $\pm 0.189$  m  
**Timestamp:** 2011-216.18:22:05.183 (08/04/2011)  
**Survey Line:** h11930 / nrt5\_s3002\_em3002\_mbes / 2011-216 / 000c1821  
**Profile/Beam:** 733/66  
**Charts Affected:** 13223\_1, 13221\_1, 13221\_2, 13218\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Least depth of 34 ft measured near charted 37 ft rock. Determined to be AWOIS #7890. Measured by MBES. Feature rises approximately 12 ft from surrounding seafloor, but does not appear to be rocky.

### Feature Correlation

Source	Feature	Range	Azimuth	Status
000c1821	733/66	0.00	000.0	Primary

AWOIS_EXPORT	AWOIS # 7890	50.12	147.3	Secondary (grouped)
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## Hydrographer Recommendations

Replace 37 ft rock with 34 ft obstruction centered on designated sounding. Update position and description of item # 7890 in AWOIS database.

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

34ft (13223\_1, 13221\_1, 13221\_2, 13218\_1)

5 ¾fm (12300\_1, 13006\_1, 13003\_1)

10.6m (5161\_1)

## S-57 Data

**Geo object 1:** Obstruction (OBSTRN)  
**Attributes:** QUASOU - 6:least depth known  
SORDAT - 20110919  
SORIND - US,US,graph,H-11930  
TECSOU - 3:found by multi-beam  
VALSOU - 10.559 m  
WATLEV - 3:always under water/submerged

## Office Notes

Chart AWOIS item #7890 per HCell.



### Feature Images

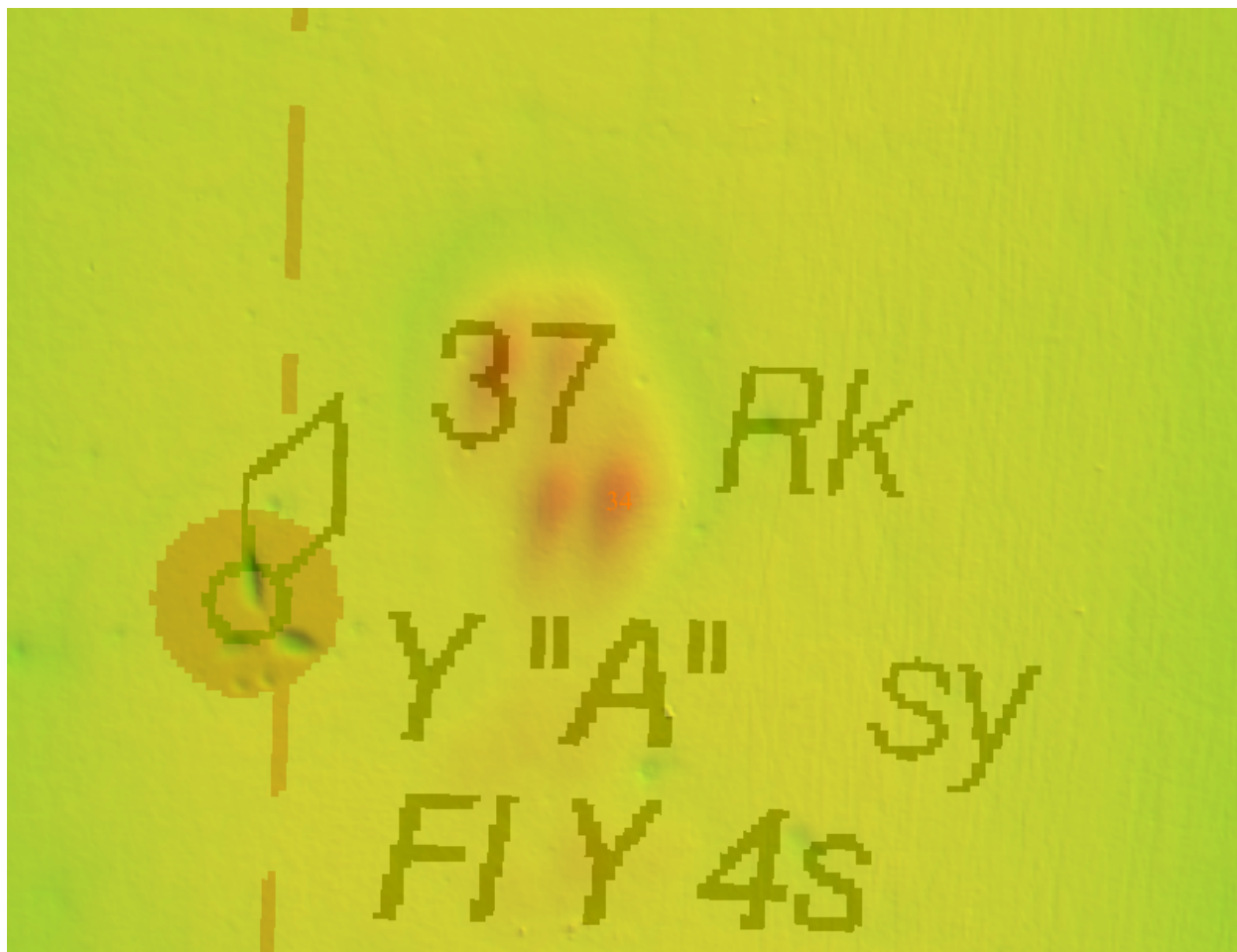


Figure 1.11.1

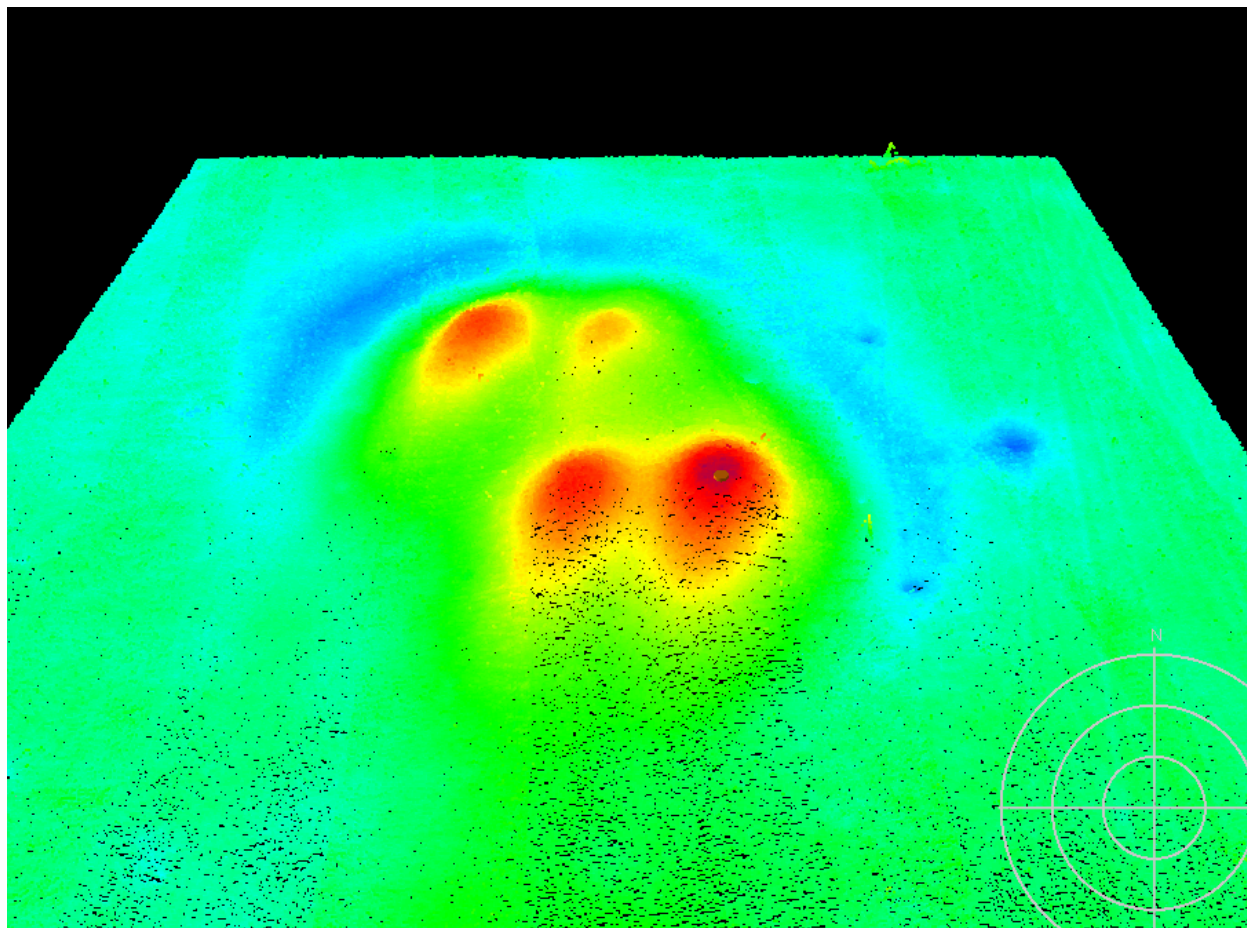


Figure 1.11.2

## 1.12) AWOIS #7893 - OBSTRUCTION

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 41° 32' 45.7" N, 071° 20' 40.1" W  
**Historical Depth:** [None]  
**Search Radius:** 50  
**Search Technique:** S2,MB,ES  
**Technique Notes:** [None]

#### History Notes:

##### HISTORY

CL556/63--U.S. NAVAL UNDERWATER ORDNANCE STATION, NEWPORT, R.I.; A SUBMERGED PILE AND WATER CURRENT METER INSTALLED APPROXIMATELY 700 YARDS NORTH OF GOULD ISLAND IN PA LAT 41-32-45.5N, LONG 71-20-42.5W (SCALED FROM CHART 13223 IN NAD 27); LOCATED IN CHARTED CABLE AREA; CABLE RUNNING SOUTH FROM METER TO PIER ALONG THE BOTTOM; IN 50 FT. OF WATER, RISING 16 FT. OFF THE BOTTOM; CHARTED AS SUBM PILE (34 FT. REP). (ENTERED MSD 12/90)

FE360SS/91--OPR-B660-RU; OBSTRUCTION, BELIEVED TO BE THE ITEM WAS LOCATED IN POS. LAT.41-32-45.71N, LONG.71-20-40.11W WITH A ECHOSOUNDER DEPTH OF 12.4M (40FT). THIS IS 14M EAST OF THE ITEM. NO IDENTIFICATION OF CONTACT. (UPDATED 7/94 MCR)

### Survey Summary

**Charts Affected:** 13223\_1, 13221\_1, 13221\_2, 13218\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

### Hydrographer Recommendations

### S-57 Data

[None]

## Office Notes

Retain charted AWOIS item 7893.

## 1.13) AWOIS #8249 - UNKNOWN

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 41° 29' 15.4" N, 071° 19' 30.2" W  
**Historical Depth:** [None]  
**Search Radius:** 0  
**Search Technique:** S2,MB,ES  
**Technique Notes:** [None]

**History Notes:**

HISTORY

CL537/66--REDEVELOPMENT AGENCY OF NEWPORT, RI REPORTING SUNKEN STEEL BARGE ABANDONED AT GOAT ISLAND, RI. THE BARGE IS 50 FT BY 100 FT AND IS LOCATED IN POS. LAT.41-29-15N, LONG.71-19-32W, ALONGSIDE A WHARF, UNDER ABOUT TWO FEET OF WATER AT LOW TIDE. THE OWNERS HAVE NO PLANS FOR REMOVAL. (ENTERED 4/92 MCR)  
 LNM16/66--4/14/66, 1ST CGD; REFERENCE  
 CL546/68--USCG AUX REPORT, 3/25/68; CHARTLET INDICATING OBSTRUCTIONS THAT HAVE BEEN REMOVE. ONE OF THE CIRCLED ITEMS MAY BE THE SUNKEN BARGE; CHARTLET IS NOT CLEAR.

### Survey Summary

**Charts Affected:** 13223\_1, 13221\_1, 13221\_2, 13218\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

**Remarks:**

No features were found using 100% MBES in the vicinity. Sunken barge appears to have been removed.

### Feature Correlation

Source	Feature	Range	Azimuth	Status
AWOIS_EXPORT	AWOIS # 8249	0.00	000.0	Primary

### Hydrographer Recommendations

Update AWOIS # 8249 as disproved.

## S-57 Data

[None]

## Office Notes

AWOIS #8249 disapproved by MBES 100% coverage

## 1.14) AWOIS #7347 - G-1

### Primary Survey Feature is Profile/Beam 191/126 / 000\_1824

**Search Position:** 41° 29' 30.9" N, 071° 21' 00.8" W  
**Historical Depth:** 32.61 m  
**Search Radius:** 100  
**Search Technique:** S2,MB,ES  
**Technique Notes:** [None]

#### History Notes:

##### HISTORY

CL930/54--U.S.NAVY; USS TANNER; TELEX AND FATHOGRAMS SHOWING OBSTRUCTION WITH CORRECTED LEAST DEPTH OF 98 FT.; LOCATED 317 DEGREES TRUE, 1700 YARDS FROM FT. ADAMS LIGHT; LAT 41-29-30.5N, LONG 71-21-02.0W (SCALED FROM CHART 13223). (ENTERED MSM 5/89)

FE-368SS/92--OPR-B660-RU; WRECK LOCATED IN POS. LAT.41-29-30.92N, LONG.71-21-00.78W (NAD 83) WITH A LEAST DEPTH OF 108FT (33M). NO DIVER INVESTIGATION. (UPDATED 2/94 MCR)

H10616/95--OPR-B302-RU; SSS AND ES SEARCH IDENTIFIED WK CONSISTING OF STREWN WRECKAGE SHOWING NO RESEMBLANCE TO A SUBMARINE. EVALUATOR RECOMMENDS WK BE CHARTED AS SHOWN ON PRESENT SURVEY AT 41/29/30.92N 71/21/00.83W (UPDATED 7/18/05, SME)

### Survey Summary

**Survey Position:** 41° 29' 31.0" N, 071° 21' 00.8" W  
**Least Depth:** 32.67 m (= 107.20 ft = 17.866 fm = 17 fm 5.20 ft)  
**TPU ( $\pm 1.96\sigma$ ):** **THU (TPEh)**  $\pm 1.993$  m ; **TVU (TPEv)**  $\pm 0.198$  m  
**Timestamp:** 2011-255.18:25:00.669 (09/12/2011)  
**Survey Line:** h11930 / nrt5\_s3002\_em3002\_mbes / 2011-255 / 000\_1824  
**Profile/Beam:** 191/126  
**Charts Affected:** 13223\_1, 13221\_1, 13221\_2, 13218\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Designated sounding is least depth on charted wreck. Wreck lies approximately 50 meters north of its charted position. Wreck determined to be AWOIS item # 7347.

## Feature Correlation

Source	Feature	Range	Azimuth	Status
000_1824	191/126	0.00	000.0	Primary
AWOIS_EXPORT	AWOIS # 7347	3.26	001.4	Secondary (grouped)

## Hydrographer Recommendations

Update position of charted wreck to coincide with position of designated sounding.

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

107ft (13223\_1, 13221\_1, 13221\_2, 13218\_1)

18fm (12300\_1, 13006\_1, 13003\_1)

33m (5161\_1)

## S-57 Data

**Geo object 1:** Wreck (WRECKS)  
**Attributes:** CATWRK - 1:non-dangerous wreck  
 QUASOU - 1:depth known  
 SORDAT - 20110919  
 SORIND - US,US,graph,H-11930  
 TECSOU - 3:found by multi-beam  
 VALSOU - 32.674 m

## Office Notes

It's Recommended getting a diver to verify least depth when possible. Update wreck position and least depth with current survey data.

AWOIS item #7347



### Feature Images



Figure 1.14.1

## 1.15) AWOIS #14576 - UNKNOWN

**Charting Action is Not Addressed**

**No Primary Survey Feature for this AWOIS Item**

**Search Position:** 41° 28' 12.0" N, 071° 24' 00.0" W  
**Historical Depth:** 1.22 m  
**Search Radius:** 200  
**Search Technique:** S2,MB,ES  
**Technique Notes:** [None]

**History Notes:**

LNM 33/01 - 1st CG; A submerged vessel has been reported in (PA) 41-28.2N 071-24.0W Approx 200 yards from beach, 4-5 feet below surface. (Entered 5/6/09 KAK)

### Survey Summary

**Charts Affected:** 13223\_1, 13221\_1, 13221\_2, 13218\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

**Remarks:**

Not investigated.

### Feature Correlation

Source	Feature	Range	Azimuth	Status
AWOIS_EXPORT	AWOIS # 14576	0.00	000.0	Primary

### Hydrographer Recommendations

[None]

### S-57 Data

[None]

## Office Notes

Not investigated.

## 1.16) AWOIS #14577 - OBSTRUCTION

### Primary Survey Feature is Profile/Beam 785/75 / 000\_1213

**Search Position:** 41° 34' 19.3" N, 071° 21' 48.2" W  
**Historical Depth:** 7.32 m  
**Search Radius:** 150  
**Search Technique:** S2,MB,ES  
**Technique Notes:** [None]

#### History Notes:

Unknown source; Added between 1997 and 2001, Obstn (24). 41-34-19.3N, 71-21-48.2W. (Entered 5/6/09 KAK)

### Survey Summary

**Survey Position:** 41° 34' 19.3" N, 071° 21' 47.9" W  
**Least Depth:** 7.94 m (= 26.05 ft = 4.342 fm = 4 fm 2.05 ft)  
**TPU ( $\pm 1.96\sigma$ ):** **THU (TPEh)**  $\pm 1.969$  m ; **TVU (TPEv)**  $\pm 0.177$  m  
**Timestamp:** 2011-256.12:13:57.931 (09/13/2011)  
**Survey Line:** h11930 / nrt5\_s3002\_em3002\_mbes / 2011-256 / 000\_1213  
**Profile/Beam:** 785/75  
**Charts Affected:** 13223\_1, 13221\_1, 13221\_2, 13218\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Designated sounding is 26 ft least depth measured by MBES of small feature at approximate location of charted 24 ft obstruction. The feature is not significant per HSSD specifications, is located on a slope, and the MBES data indicates that the seafloor in this area is generally rocky.

FFFE4DF654410025:

### Feature Correlation

Source	Feature	Range	Azimuth	Status
000_1213	785/75	0.00	000.0	Primary
AWOIS_EXPORT	AWOIS # 14577	6.76	094.0	Secondary (grouped)

## Hydrographer Recommendations

Update soundings and contours based on current survey data, remove charted 24 ft obstruction, and place a note of "rky" in this general area.

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

26ft (13223\_1, 13221\_1, 13221\_2, 13218\_1)

4 ¼fm (12300\_1, 13006\_1, 13003\_1)

7.9m (5161\_1)

## S-57 Data

**Geo object 1:** Seabed area (SBDARE)  
**Attributes:** NATSUR - 9:rock  
SORDAT - 20110919  
SORIND - US,US,graph,H-11930

## Office Notes

Remove charted 24 ft obstruction. Chart rocky seabed area per H11930

### Feature Images

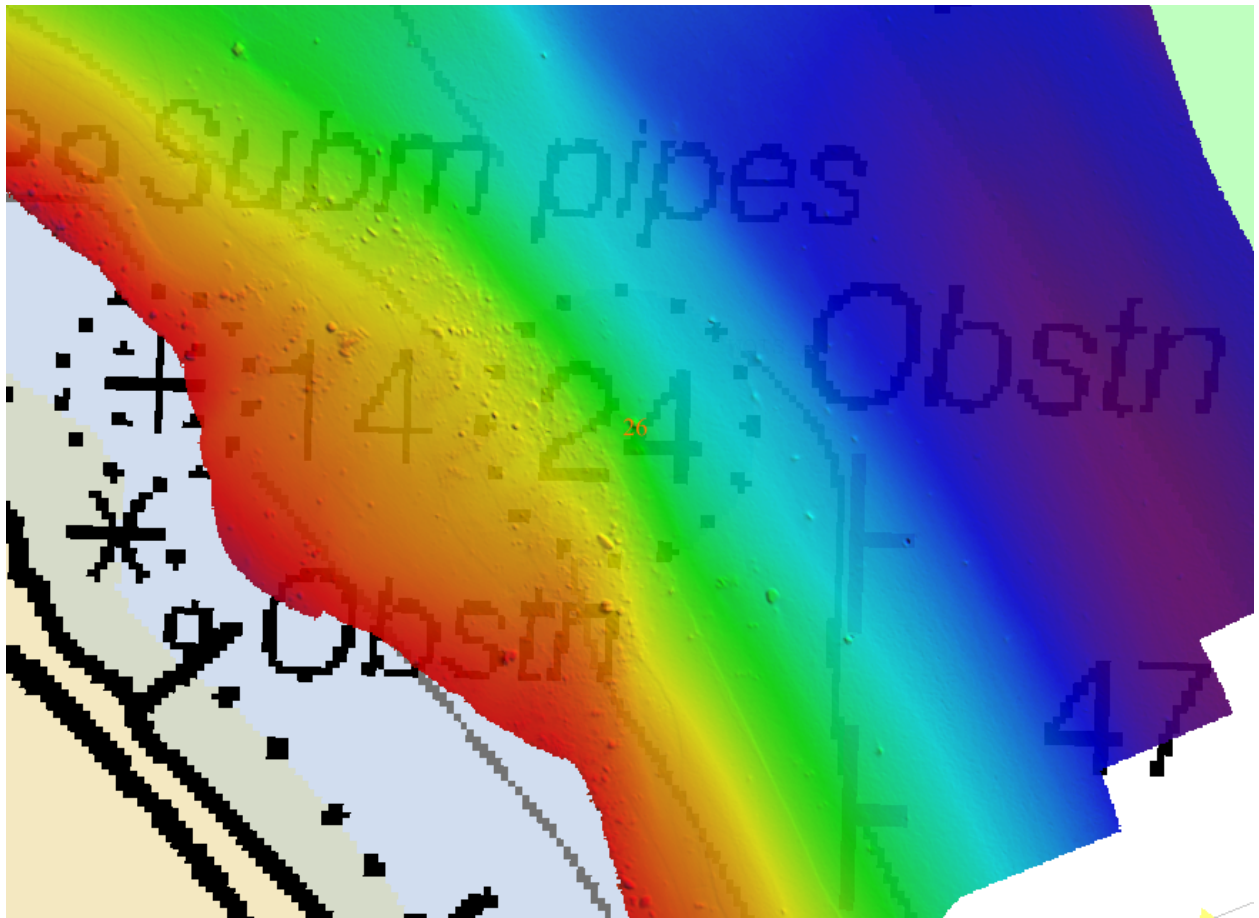


Figure 1.16.1

## 1.17) AWOIS #14578 - OBSTRUCTION

### Primary Survey Feature is Profile/Beam 31/6 / 000b1902

**Search Position:** 41° 30' 00.2" N, 071° 19' 28.4" W  
**Historical Depth:** [None]  
**Search Radius:** 200  
**Search Technique:** S2,MB,ES  
**Technique Notes:** [None]

#### History Notes:

LNM 35/83 - 1st CG; Automobile submerged in 18 feet of water, PA, 41-30'N, 71-19.5W. (Entered 5/6/09 KAK)

### Survey Summary

**Survey Position:** 41° 30' 00.1" N, 071° 19' 30.0" W  
**Least Depth:** 6.28 m (= 20.59 ft = 3.431 fm = 3 fm 2.59 ft)  
**TPU ( $\pm 1.96\sigma$ ):** **THU (TPEh)**  $\pm 1.969$  m ; **TVU (TPEv)**  $\pm 0.182$  m  
**Timestamp:** 2011-214.19:02:14.841 (08/02/2011)  
**Survey Line:** h11930 / nrt5\_s3002\_em3002\_mbes / 2011-214 / 000b1902  
**Profile/Beam:** 31/6  
**Charts Affected:** 13223\_1, 13221\_1, 13221\_2, 13218\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

20 ft least depth on feature found near charted automobile. Found with MBES. Feature rises approximately 2 ft from the surrounding seafloor. It is unclear whether the feature is an automobile.

FFFE4DF654410004:

### Feature Correlation

Source	Feature	Range	Azimuth	Status
000b1902	31/6	0.00	000.0	Primary
AWOIS_EXPORT	AWOIS # 14578	35.52	266.8	Secondary (grouped)

## Hydrographer Recommendations

Update Obstruction least depth and position with current survey data.

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

20ft (13223\_1, 13221\_1, 13221\_2, 13218\_1)

3 ¼fm (12300\_1, 13006\_1, 13003\_1)

6.3m (5161\_1)

## S-57 Data

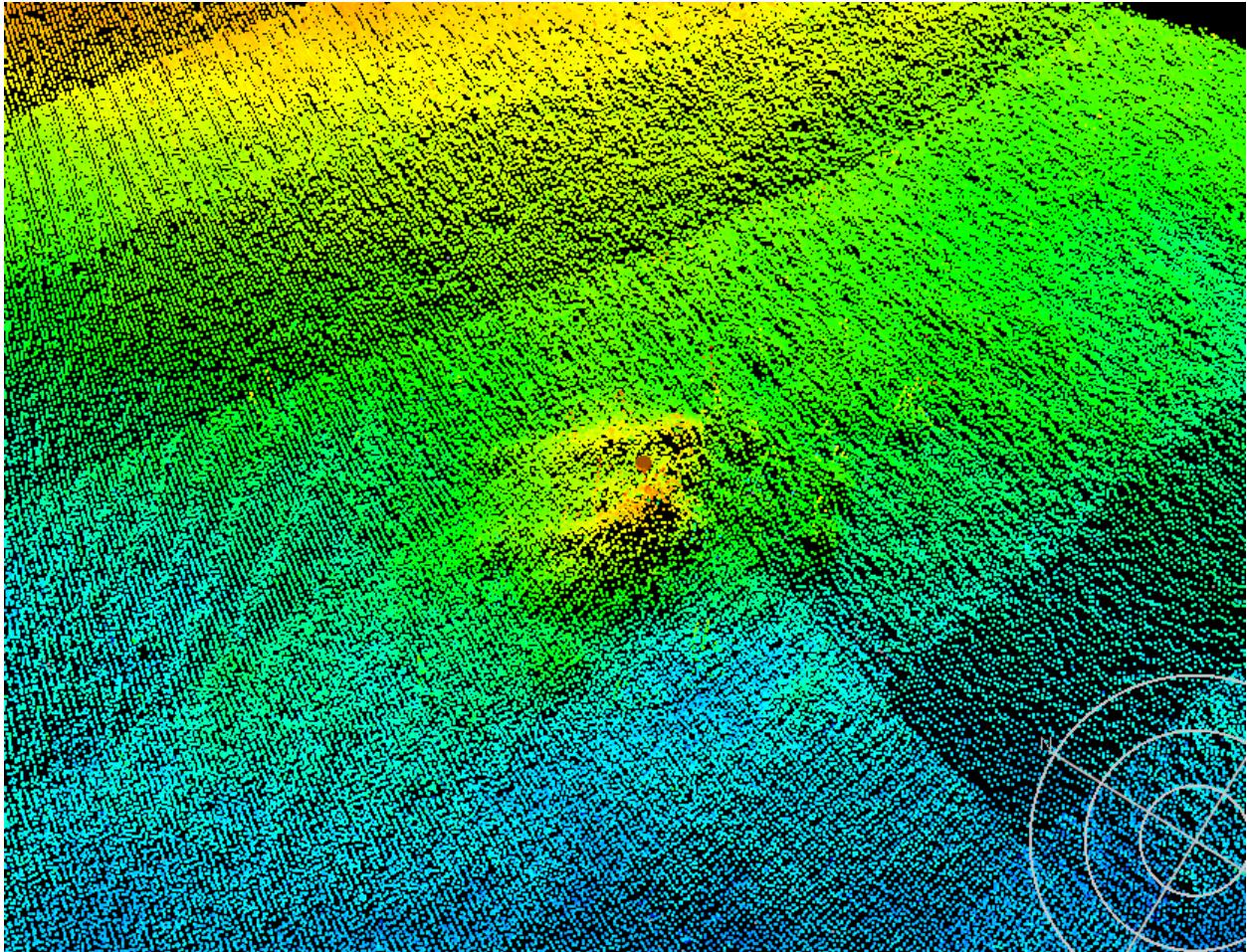
**Geo object 1:** Obstruction (OBSTRN)  
**Attributes:** INFORM - Automobile  
NINFOM - Assigned  
QUASOU - 2:depth unknown  
SORDAT - 20110919  
SORIND - US,US,graph,H-11930  
VALSOU - 6.275 m  
WATLEV - 3:always under water/submerged

## Office Notes

Update Obstruction least depth and position with current survey data. AWOIS Item #14578.



## Feature Images



*Figure 1.17.1*

## 1.18) AWOIS #14579 - OBSTRUCTION

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 41° 29' 43.0" N, 071° 19' 24.0" W  
**Historical Depth:** [None]  
**Search Radius:** 150  
**Search Technique:** S2,MB,ES  
**Technique Notes:** [None]

#### History Notes:

H8394-1963; Added obstruction, position scaled from chart 41-29-43N, 71-19-24W. (Entered 5/6/09 KAK)

### Survey Summary

**Charts Affected:** 13223\_1, 13221\_1, 13221\_2, 13218\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Area surveyed with 100% MBES. There are many small features and shoaling near shore in this area, however, no significant features were found, and nothing within the 150 meter search radius resembles ruins.

### Hydrographer Recommendations

Remove charted obstruction and submerged ruins. Update AWOIS # 14579 as disproved.

### S-57 Data

[None]

### Office Notes

Remove charted obstruction. AWOIS item #14579

# H11930 Danger to Navigation Report

**Registry Number:** H11930  
**State:** Rhode Island  
**Locality:** Narragansett Bay  
**Sub-locality:** East Passage  
**Project Number:** OPR-B301-NRT5-11  
**Survey Dates:** 6/23/2011 - 9/19/2011

## Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
13223	41st	06/01/2009	1:20,000 (13223_1)	USCG LNM: 3/8/2011 (3/15/2011) CHS NTM: None (8/27/2010) NGA NTM: 11/1/2008 (3/26/2011)
13221	57th	02/01/2008	1:40,000 (13221_2) 1:40,000 (13221_1)	[L]NTM: ?
13218	40th	02/01/2008	1:80,000 (13218_1)	[L]NTM: ?
12300	47th	05/01/2008	1:400,000 (12300_1)	[L]NTM: ?
13006	34th	05/01/2007	1:675,000 (13006_1)	[L]NTM: ?
5161	13th	10/01/2003	1:1,058,400 (5161_1)	[L]NTM: ?
13003	49th	04/01/2007	1:1,200,000 (13003_1)	[L]NTM: ?

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

## Features

No.	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	Rock	1.10 m	41° 31' 18.4" N	071° 19' 17.8" W	---
1.2	Obstruction	12.68 m	41° 29' 41.1" N	071° 19' 55.8" W	---
1.3	Obstruction	13.16 m	41° 29' 34.3" N	071° 19' 54.2" W	---
1.4	Rock	1.83 m	41° 28' 59.4" N	071° 23' 02.1" W	---

# **1 - Dangers To Navigation**

## 1.1) Profile/Beam 3526/3 / 000\_1813

### DANGER TO NAVIGATION

#### Survey Summary

**Survey Position:** 41° 31' 18.4" N, 071° 19' 17.8" W  
**Least Depth:** 1.10 m (= 3.62 ft = 0.603 fm = 0 fm 3.62 ft)  
**TPU ( $\pm 1.96\sigma$ ):** **THU (TPEh)**  $\pm 1.963$  m ; **TVU (TPEv)**  $\pm 0.539$  m  
**Timestamp:** 2011-187.18:14:55.607 (07/06/2011)  
**Survey Line:** h11930 / nrt5\_s3002\_em3002\_mbes / 2011-187 / 000\_1813  
**Profile/Beam:** 3526/3  
**Charts Affected:** 13223\_1, 13221\_1, 13221\_2, 13218\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Sounding is least depth on rock. Rock rises 10 ft above surrounding seafloor. Rock has least depth of 3 ft which lies 60 meters seaward of 6 ft curve, and near charted 10 ft sounding. Found with MBES. Final tides have been applied.

#### Feature Correlation

Source	Feature	Range	Azimuth	Status
000_1813	3526/3	0.00	000.0	Primary

#### Hydrographer Recommendations

Chart Rock. There are several other smaller rocks in this area, a note of "rky" should also be added.

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

3ft (13223\_1, 13221\_1, 13221\_2, 13218\_1)

0 ½fm (12300\_1, 13006\_1, 13003\_1)

1.1m (5161\_1)

#### S-57 Data

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

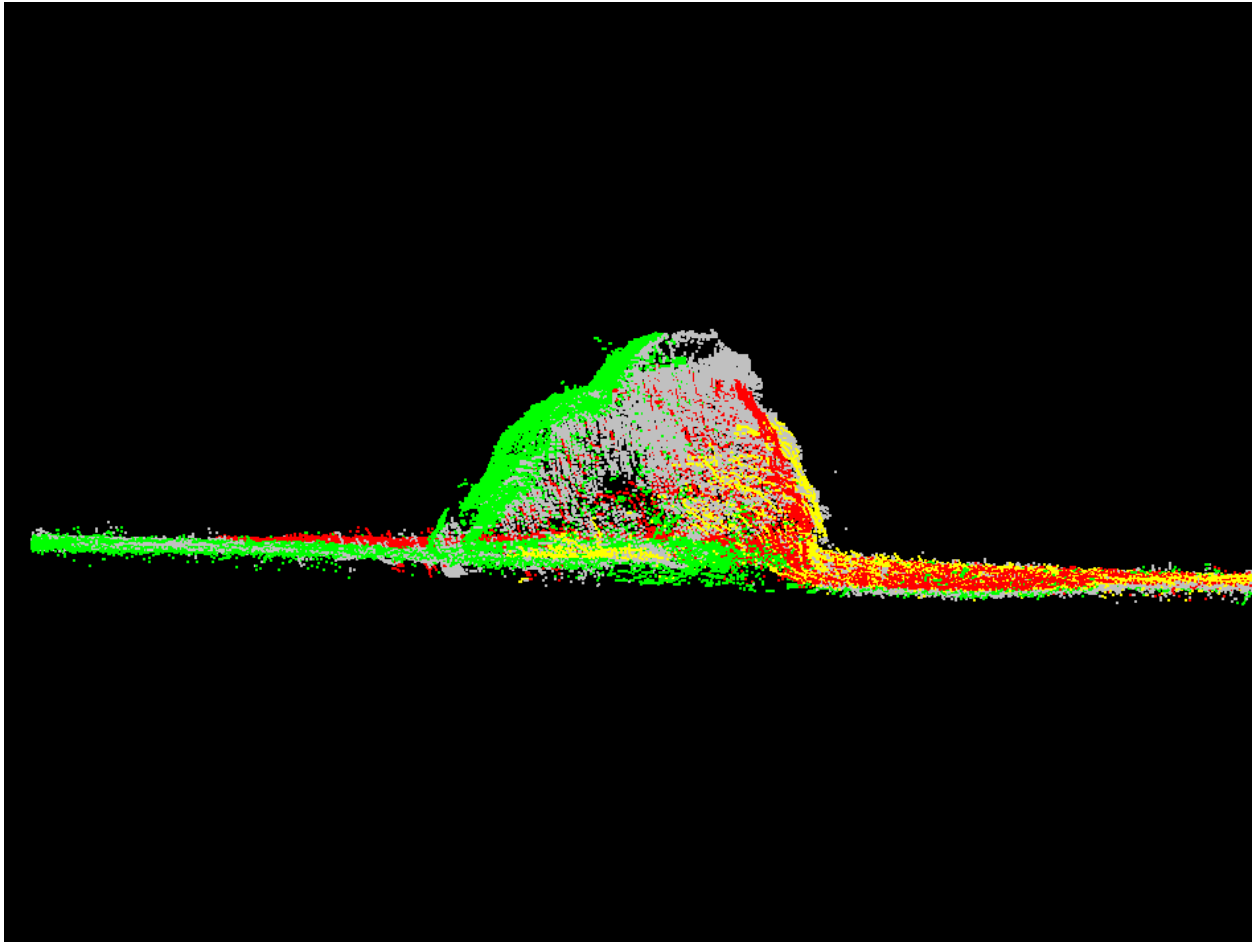
**Attributes:** QUASOU - 1:depth known

TECSOU - 3:found by multi-beam

VALSOU - 1.103 m

WATLEV - 3:always under water/submerged

## Feature Images



*Figure 1.1.1*

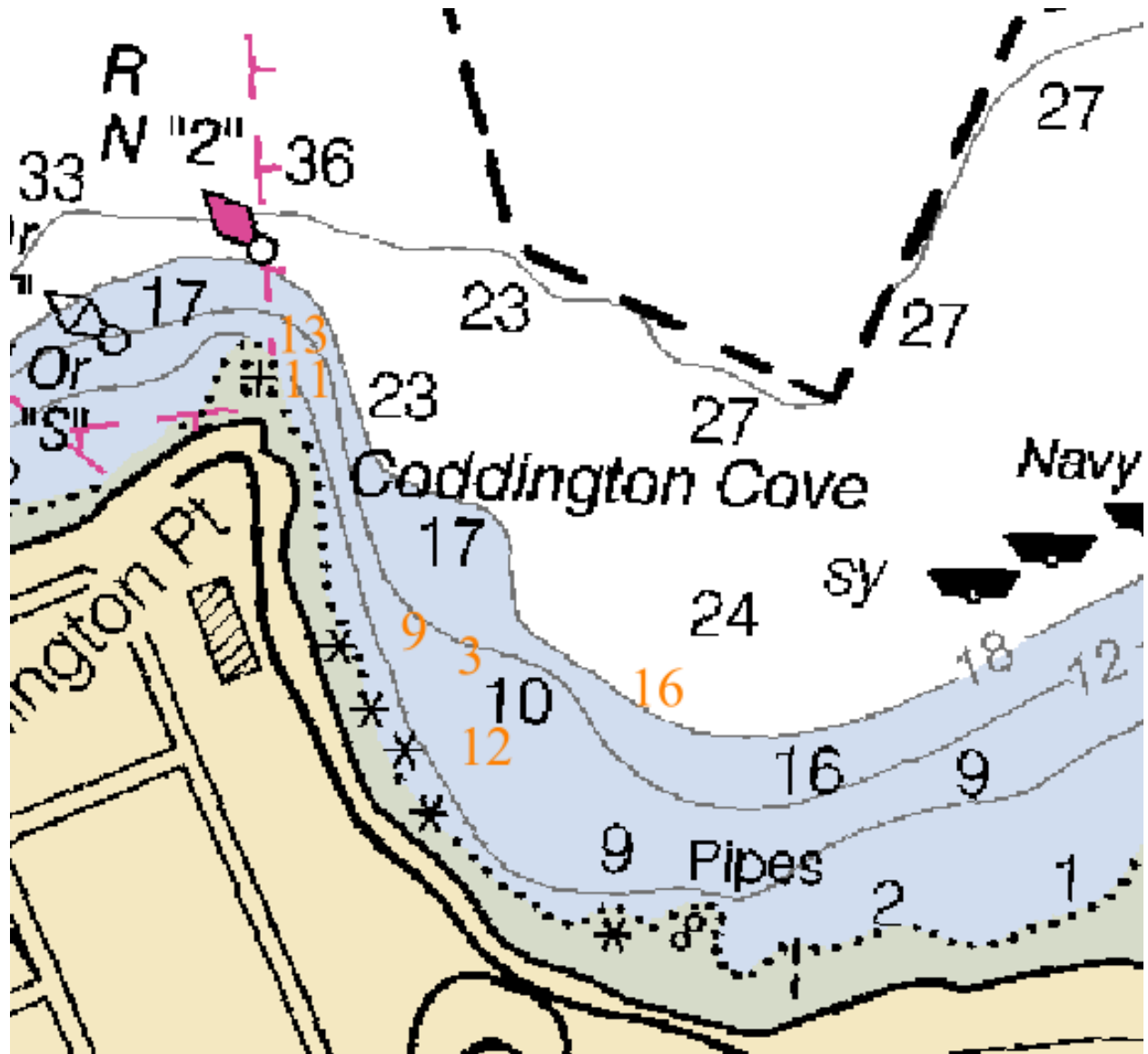


Figure 1.1.2



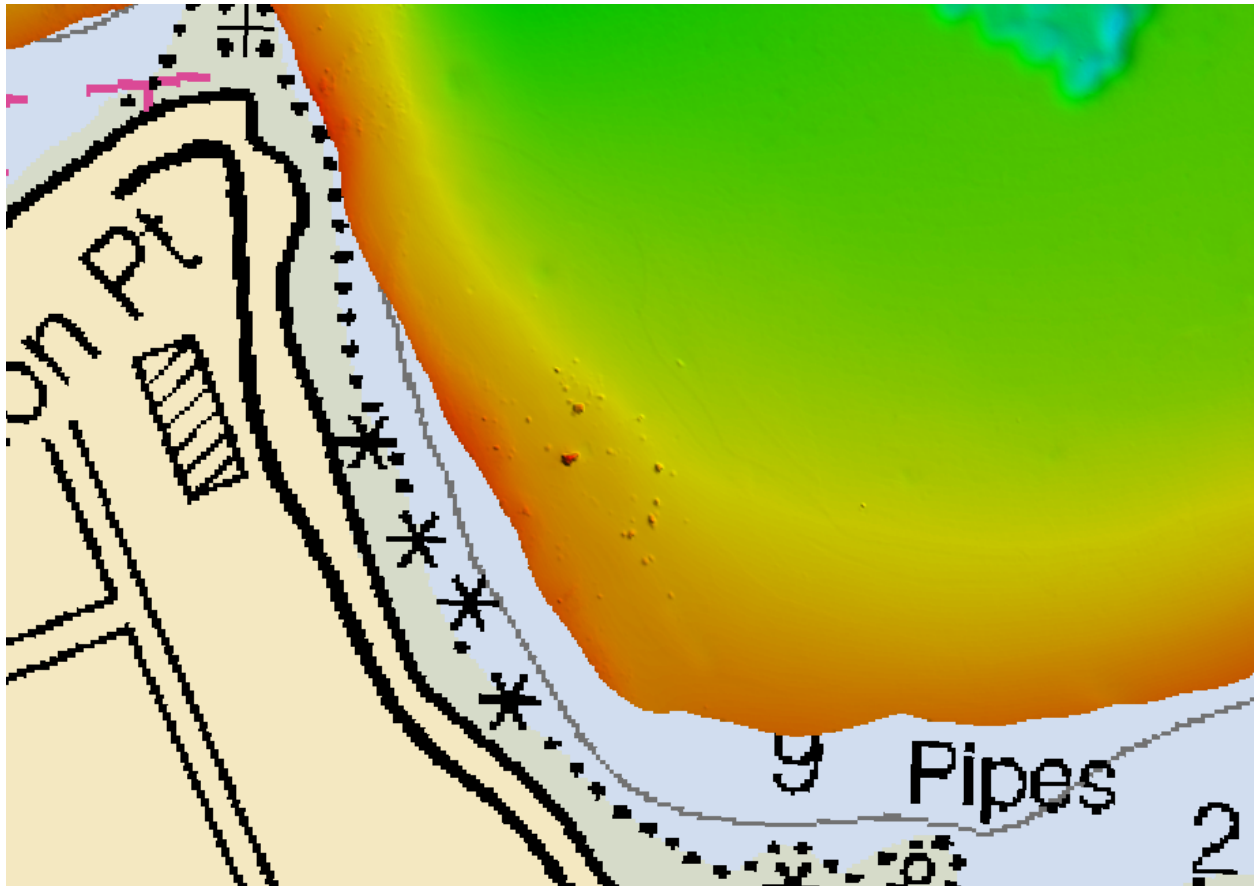


Figure 1.1.3

## 1.2) Profile/Beam 242/158 / 000b1844

### DANGER TO NAVIGATION

#### Survey Summary

**Survey Position:** 41° 29' 41.1" N, 071° 19' 55.8" W  
**Least Depth:** 12.68 m (= 41.58 ft = 6.931 fm = 6 fm 5.58 ft)  
**TPU ( $\pm 1.96\sigma$ ):** **THU (TPEh)**  $\pm 1.969$  m ; **TVU (TPEv)**  $\pm 0.549$  m  
**Timestamp:** 2011-213.18:44:23.750 (08/01/2011)  
**Survey Line:** h11930 / nrt5\_s3002\_em3002\_mbes / 2011-213 / 000b1844  
**Profile/Beam:** 242/158  
**Charts Affected:** 13223\_1, 13221\_1, 13221\_2, 13218\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Sounding is least depth on linear obstruction which is approximately 50 meters long, and rises 10 ft from surrounding seafloor. Least depth of 41 ft lies between charted 48 and 51 ft soundings, and near designated anchorage used by cruise ships. Final tides have been applied.

#### Feature Correlation

Source	Feature	Range	Azimuth	Status
000b1844	242/158	0.00	000.0	Primary

#### Hydrographer Recommendations

Chart obstruction.

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

41ft (13223\_1, 13221\_1, 13221\_2, 13218\_1)

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

12.7m (5161\_1)

#### S-57 Data

**Geo object 1:** Obstruction (OBSTRN)  
**Attributes:** CATOBS - 1:snag / stump  
 QUASOU - 1:depth known  
 TECSOU - 3:found by multi-beam

VALSOU - 12.675 m

WATLEV - 3:always under water/submerged

### Feature Images

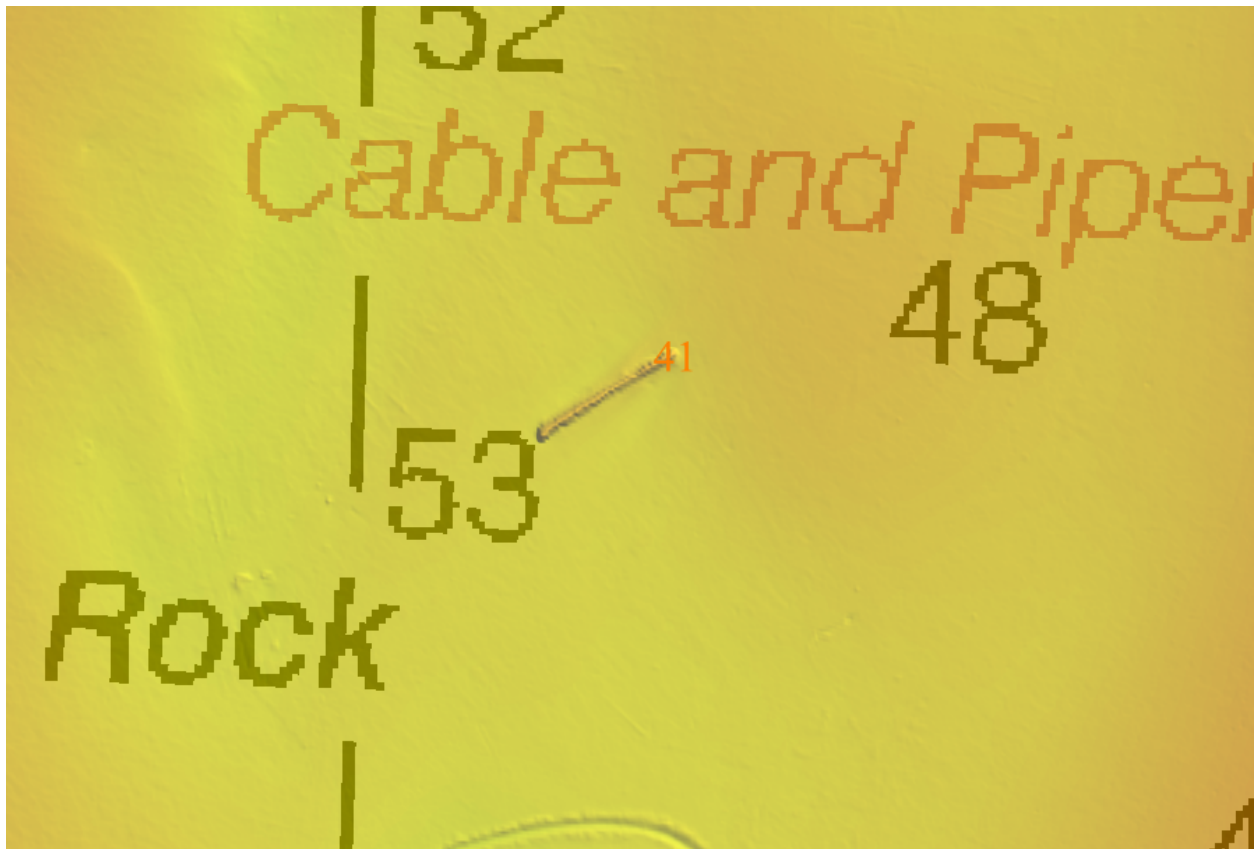


Figure 1.2.1

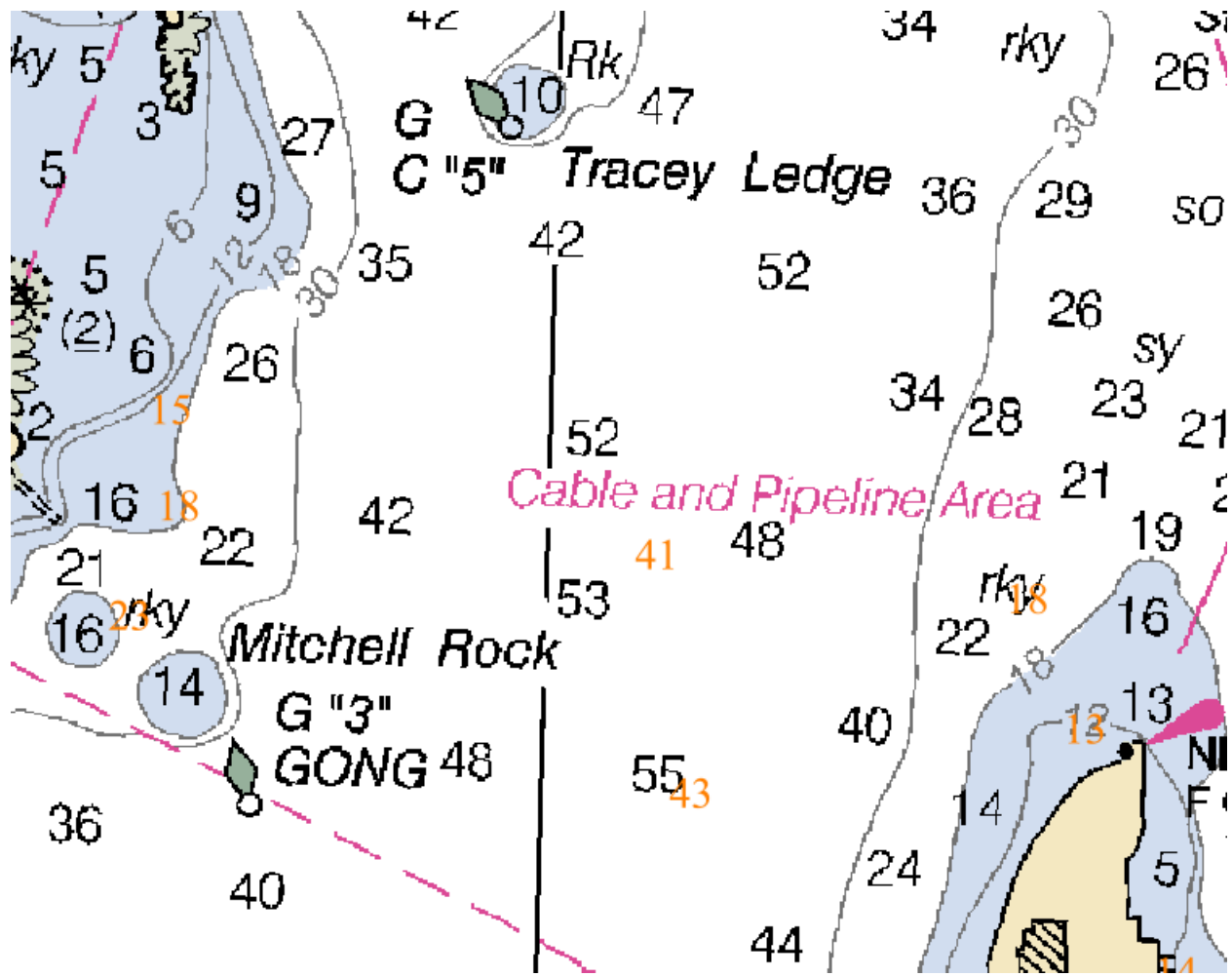


Figure 1.2.2

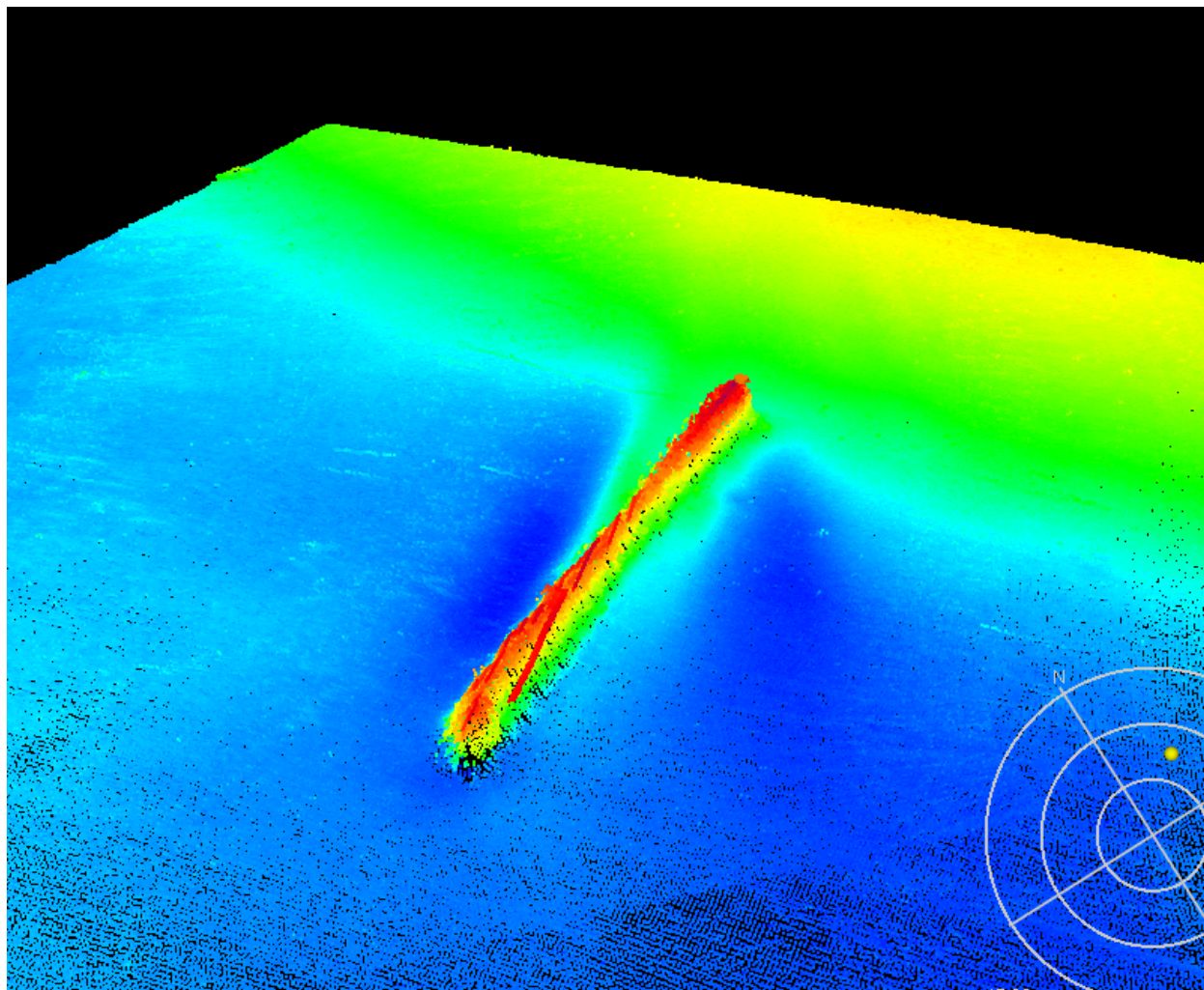


Figure 1.2.3

### 1.3) Profile/Beam 1110/212 / 000c1857

## DANGER TO NAVIGATION

### Survey Summary

**Survey Position:** 41° 29' 34.3" N, 071° 19' 54.2" W  
**Least Depth:** 13.16 m (= 43.19 ft = 7.198 fm = 7 fm 1.19 ft)  
**TPU ( $\pm 1.96\sigma$ ):** **THU (TPEh)**  $\pm 1.975$  m ; **TVU (TPEv)**  $\pm 0.561$  m  
**Timestamp:** 2011-213.18:58:51.349 (08/01/2011)  
**Survey Line:** h11930 / nrt5\_s3002\_em3002\_mbes / 2011-213 / 000c1857  
**Profile/Beam:** 1110/212  
**Charts Affected:** 13223\_1, 13221\_1, 13221\_2, 13218\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Sounding is least depth on obstruction rising approximately 10 ft from the surrounding seafloor. Obstruction is approximately 12 meters long. Least depth of 43 ft near charted 55 ft sounding, and near designated anchorage used by cruise ships. Final tides have been applied.

### Feature Correlation

Source	Feature	Range	Azimuth	Status
000c1857	1110/212	0.00	000.0	Primary

### Hydrographer Recommendations

Chart obstruction.

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

43ft (13223\_1, 13221\_1, 13221\_2, 13218\_1)

7 ¼fm (12300\_1, 13006\_1, 13003\_1)

13.2m (5161\_1)

### S-57 Data

**Geo object 1:** Obstruction (OBSTRN)  
**Attributes:** CATOBS - 1:snag / stump  
 QUASOU - 1:depth known  
 TECSOU - 3:found by multi-beam

VALSOU - 13.163 m

WATLEV - 3:always under water/submerged



## Feature Images



*Figure 1.3.1*

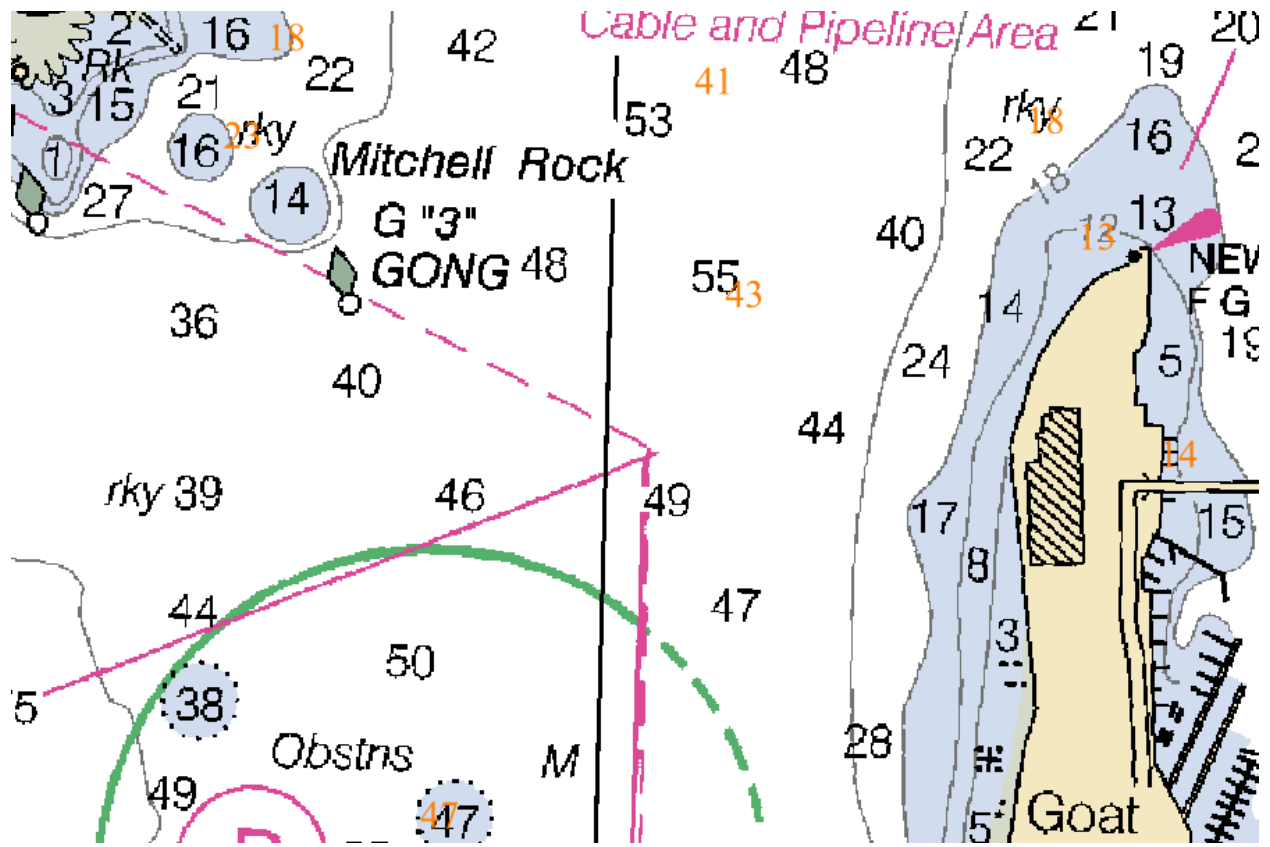


Figure 1.3.2

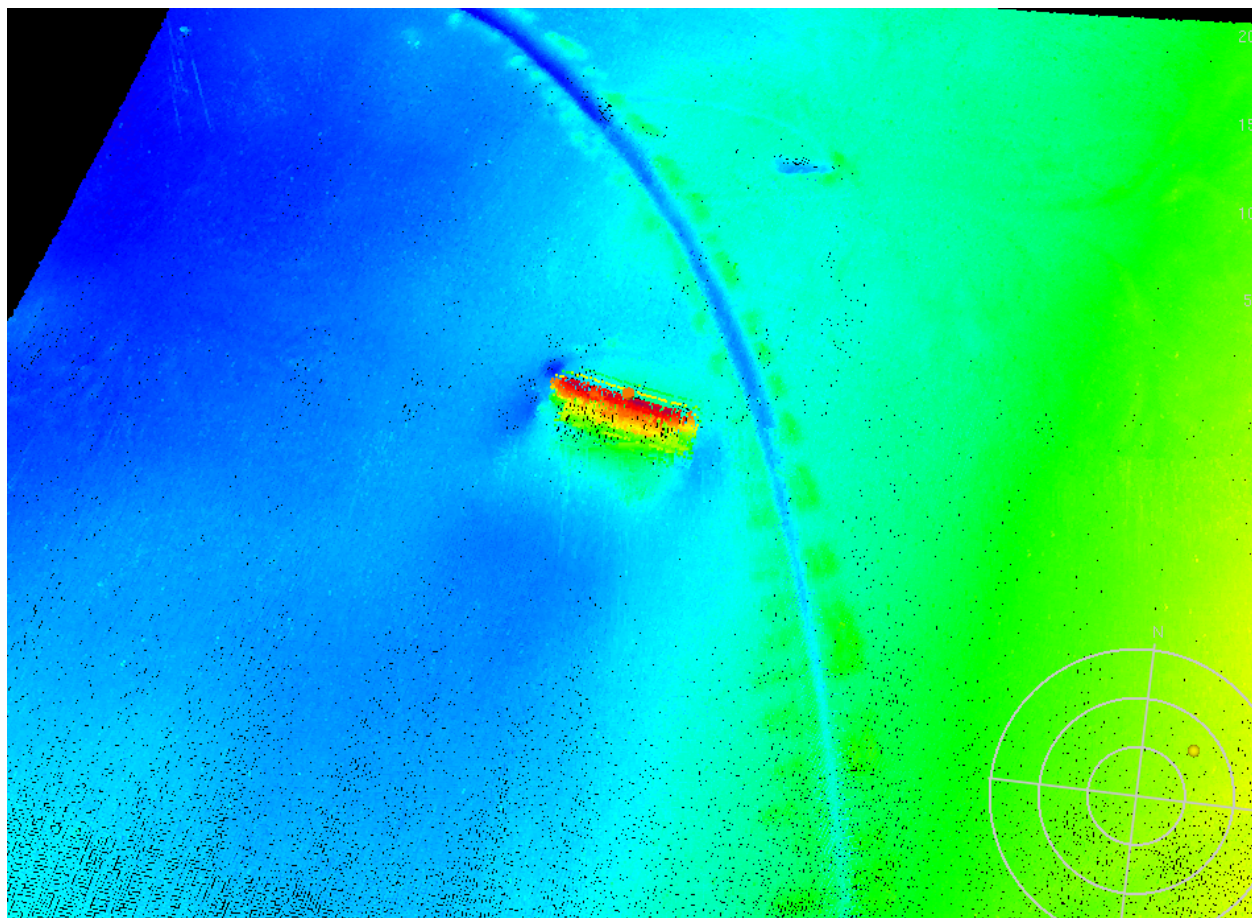


Figure 1.3.3

## 1.4) Profile/Beam 5774/158 / 000b1450

### DANGER TO NAVIGATION

#### Survey Summary

**Survey Position:** 41° 28' 59.4" N, 071° 23' 02.1" W  
**Least Depth:** 1.83 m (= 6.00 ft = 1.000 fm = 1 fm 0.00 ft)  
**TPU ( $\pm 1.96\sigma$ ):** **THU (TPEh)**  $\pm 1.963$  m ; **TVU (TPEv)**  $\pm 0.545$  m  
**Timestamp:** 2011-207.14:53:25.263 (07/26/2011)  
**Survey Line:** h11930 / nrt5\_s3002\_em3002\_mbes / 2011-207 / 000b1450  
**Profile/Beam:** 5774/158  
**Charts Affected:** 13223\_1, 13221\_1, 13221\_2, 13218\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Sounding is least depth on large rock rising over 6 ft from surrounding seafloor. Rock has least depth of 6 ft, and lies 50 meters seaward of the charted 6 ft curve. It is also seaward of the 12 ft curve. Final tides have been applied.

#### Feature Correlation

Source	Feature	Range	Azimuth	Status
000b1450	5774/158	0.00	000.0	Primary

#### Hydrographer Recommendations

Chart submerged rock. There are many other smaller rocks in this area. Recommend that a note of "rky" also be added to chart in this area.

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

6ft (13223\_1, 13221\_1, 13221\_2, 13218\_1)

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

1.8m (5161\_1)

#### S-57 Data

**Geo object 1:** Underwater rock / awash rock (UWTROC)  
**Attributes:** QUASOU - 1:depth known  
 TECSOU - 3:found by multi-beam

VALSOU - 1.829 m

WATLEV - 3:always under water/submerged

### Feature Images

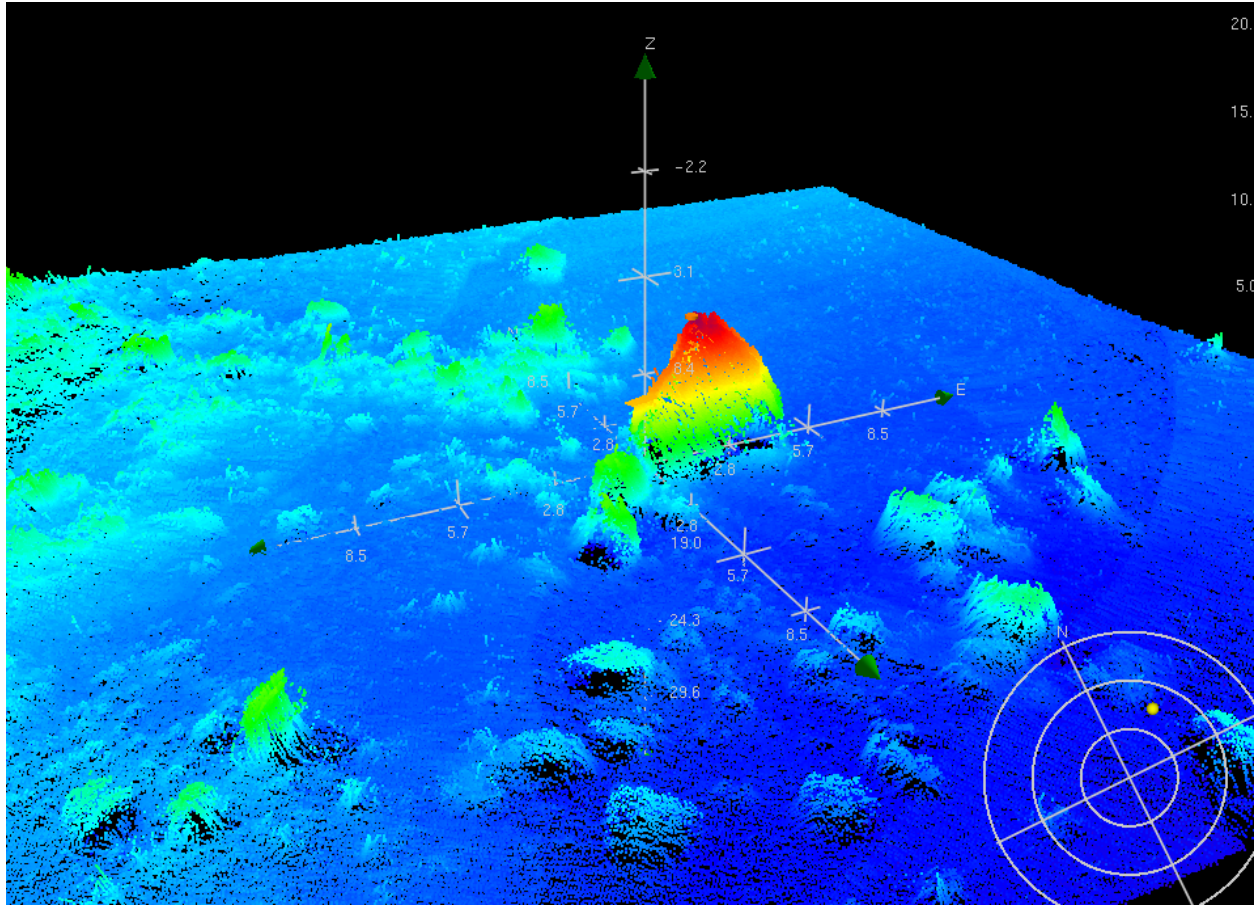


Figure 1.4.1

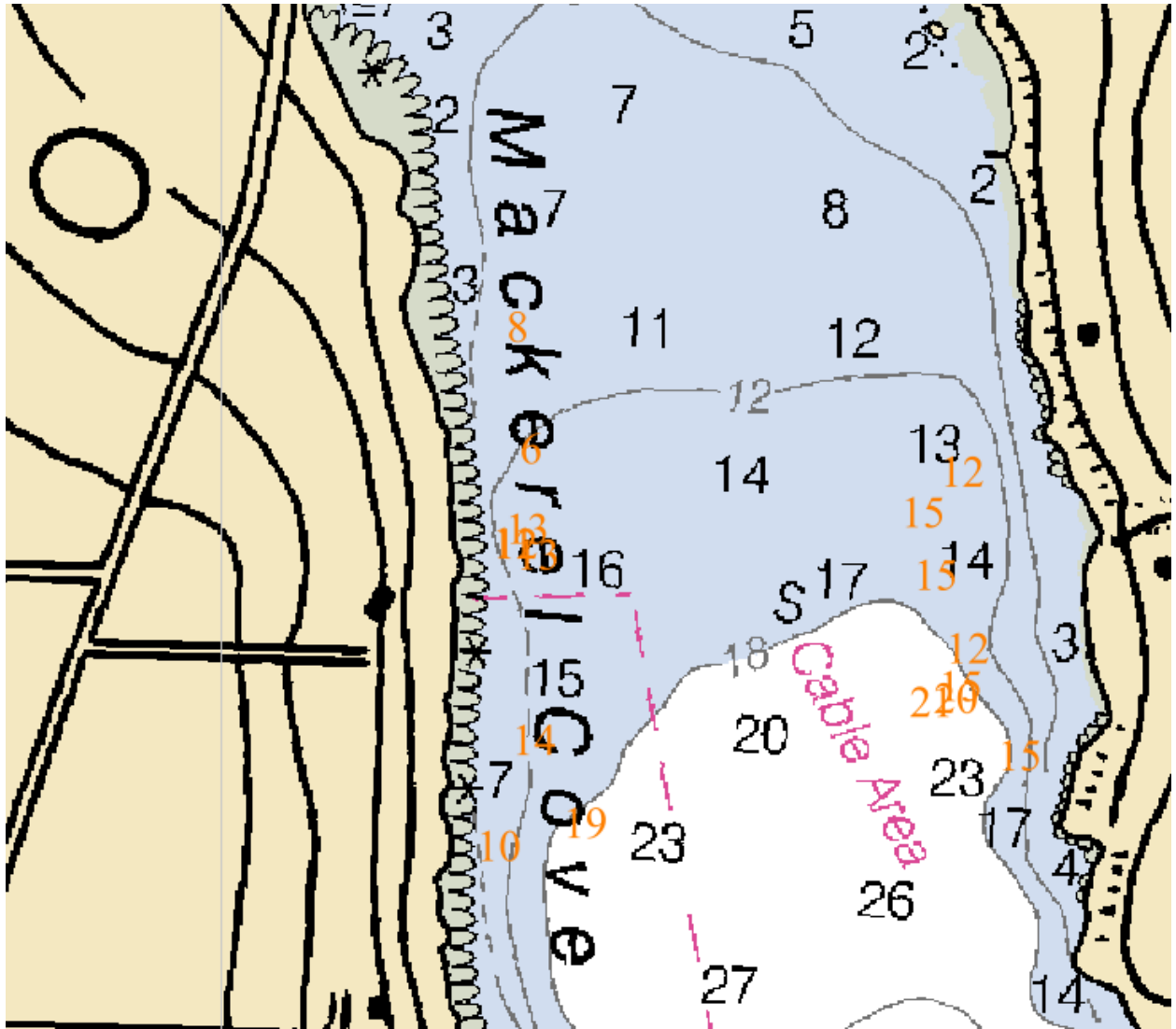


Figure 1.4.2



Figure 1.4.3





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

**TIDE NOTE FOR HYDROGRAPHIC SURVEY**

**DATE :** October 28, 2011

**HYDROGRAPHIC BRANCH:** Pacific  
**HYDROGRAPHIC PROJECT:** OPR-B301-NRT5-2011  
**HYDROGRAPHIC SHEET:** H11930

**LOCALITY:** East Passage, Narragansett Bay, RI  
**TIME PERIOD:** June 23 - September 19, 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:** Quonset Point, RI 845-4049  
Lat. 41° 35.2' N Long. 71° 24.7' W  
**PLANE OF REFERENCE (MEAN LOWER LOW WATER):** 0.000 meters  
**HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE:** 1.174 meters

**REMARKS: RECOMMENDED GRID**

Please use the TCARI grid "B301NRT52011.tc" as the final grid for project OPR-B301-NRT5-2011, H11930, during the time period between June 23 - September 19, 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: 2011.11.02 15:00:22 -04'00'

CHIEF, PRODUCTS AND SERVICES BRANCH



RESTRICTED AREA  
165.100 (see notes)

Preliminary as Final TCARI Grid for  
OPR-B301-NRT5-2011, H11930  
Narragansett Bay and Approaches, RI

PROVIDENCE

RHODE ISLAND

8454049 QUONSET POINT, RI

R TRS (WKFD)  
1370 KHZ

New Bedford

R TRS (WBSM)  
1420 KHZ

Newport

8452660 NEWPORT, RI

Pt Judith

AERO Rot W & G HORN

Oc (3) 15s 65ft 16M HORN

FI 5s 58ft 13M UNEXPLODED DEPTH CHARGES FIY 4s

AERO Rot W & G Block

FIG 5s 261ft 20M HORN (use chart 13205)

RHODE ISLAND SOUND (use chart 13218)

Q 8M

Gay Hd

BAYARDS (use chart 13230)

VINEYARD SOUND (use chart 17012)

MAP AERO Rot W & G VINEY

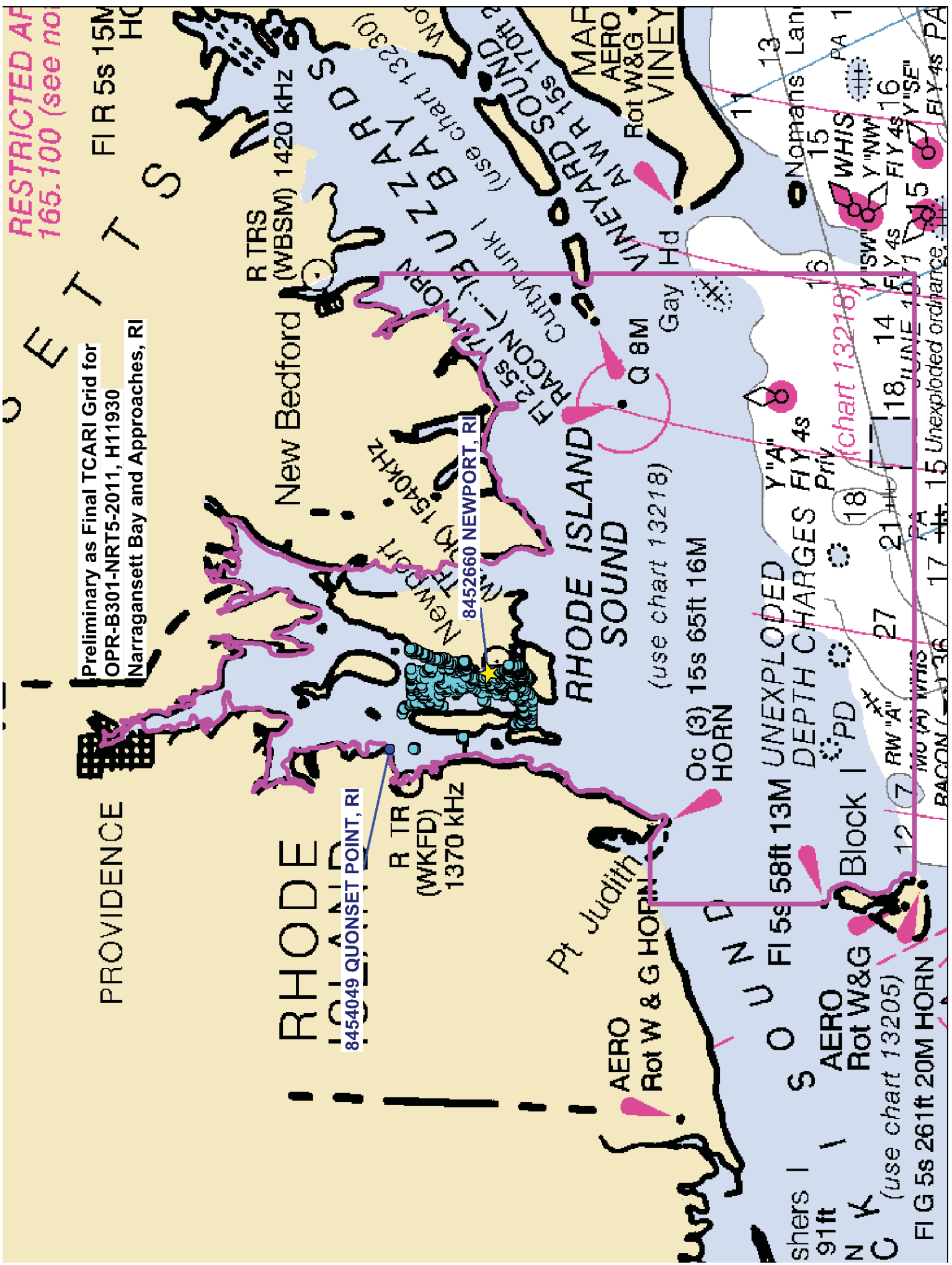
Nomans Lan

WHIS Y "NW" FIY 4s 16

Y "SW" FIY 4s 16

Y "SE" FIY 4s 16

Unexploded ordnance



APPROVAL PAGE

H11930

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

- H11930\_DR.pdf
- Collection of depth varied resolution BAGS
- Processed survey data and records
- H11930\_GeoImage.pdf

The survey evaluation and verification has been conducted according current OCS Specifications.

Approved: \_\_\_\_\_

**Peter Holmberg**  
**Cartographic Team Lead, Pacific Hydrographic Branch**

The survey has been approved for dissemination and usage of updating NOAA's suite of nautical charts.

Approved: \_\_\_\_\_

**LCDR David Zezula**  
**Chief, Pacific Hydrographic Branch**