

H11445

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:	H11445
LOCALITY	
State:	New York
General Locality:	Eastern Long Island Sound
Sub-locality:	North shore of Plum Island
2008	
CHIEF OF PARTY CDR P. Tod Schattgen NOAA	
DATE	LIBRARY & ARCHIVES

**HYDROGRAPHIC TITLE SHEET**

**H11445**

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: **New York**

General Locality: **Eastern Long Island Sound**

Sub-Locality: **North shore of Plum Island**

Scale: **1:10,000** Date of Survey: **16 September to 01 October 2008**

Instructions Dated: **28 July 2008** Project Number: **OPR-B370-TJ-08**

Change No. 1 Dated **30 September 2008**

Vessel: **NOAA Ship *Thomas Jefferson***

Chief of Party: **CDR P. Tod Schattgen**

Surveyed by: ***Thomas Jefferson* Personnel**

Soundings by: **Reson 8101, and 8125 MBES, Klein 5000 SSS**

Graphic record scaled by: **N/A**

Graphic record checked by: **N/A**

Protracted by: **N/A** Automated Plot: **N/A**

Verification by:

Soundings in: **Meters at MLLW**

Remarks:

- 1) All Times are in UTC.**
- 2) This is a Navigable Area Hydrographic Survey.**
- 3) Projection is NAD83, UTM Zone 18.**

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## Descriptive Report to Accompany Hydrographic Survey H11445

**Project OPR-B370-TJ-08**  
**Eastern Long Island Sound**  
**North shore of Plum Island**  
**Scale 1:10,000**  
**16 September to 01 October 2008**  
**NOAA Ship *Thomas Jefferson***

### A. AREA SURVEYED

This hydrographic survey was completed as specified by Hydrographic Survey Letter Instructions OPR-B370-TJ-08, dated 28 July 2008.

Revised project instructions are dated 30 September 2008. Changes were made to add sheet “Q” with a registry number of H11997 and assigned sheet “H” the registry number H11445. POSPac data is to be acquired concurrently with true heave. Tide gauge 8465705 (New Haven, CT) has been used in place of 8467150 (Bridgeport, CT).

Northern Limit	Southern Limit	Western Limit	Eastern Limit
41° 12' 14.50" N 072° 08' 44.99" W	41° 09' 49.06" N 072° 12' 46.19" W	41° 09' 50.75" N 072° 14' 12.61" W	41° 11' 26.14" N 072° 08' 38.74" W

**Table A-1: Approximate survey area**

Data acquisition was conducted from 16 September to 01 October 2008.

This Project responds to a request from the Northeast Maritime Pilots Association for contemporary hydrographic surveys to update the nautical charts in the Eastern Long Island Sound. Petroleum and coal products constitute the bulk of the goods transported through the Sound.

	Lineal Nautical Miles
Single beam mainscheme only	N/A
Multibeam mainscheme only	235.06
Side Scan Sonar mainscheme only	32.068
Crosslines	9.2
Developments	N/A
Shoreline/nearshore investigations	N/A
Number of Bottom Samples	4
Number of AWOIS items investigated	2

**Table A-2: Survey Statistics**

The survey limits of H11445 are shown on the following page.

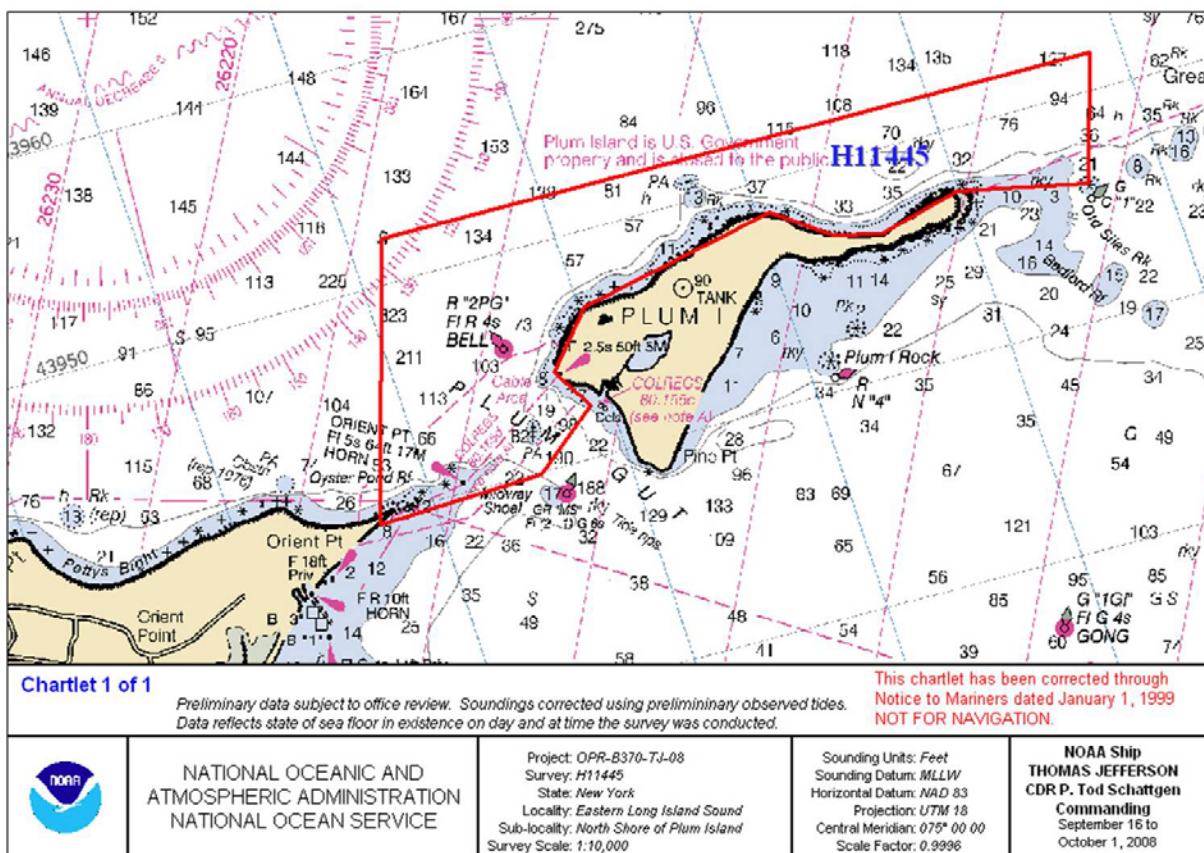


Figure A-1: Survey Area

## **B. DATA ACQUISITION AND PROCESSING**

Refer to Thomas Jefferson's *Data Acquisition and Processing Report (DAPR), Spring Addendum- 2008* for a complete description of data acquisition and processing systems, survey vessels, quality control procedures and data processing methods. Additional information to supplement sounding and survey data, and any deviations from the DAPR are included in this descriptive report.

### **B 1. EQUIPMENT AND VESSELS**

Data was acquired by Hydrographic Survey Launches 3101 and 3102. Launch 3101 acquired Reson 8125 multibeam soundings and sound velocity profiles. Launch 3102 acquired Klein 5000 side scan sonar imagery, Reson 8101 multibeam soundings, sound velocity profiles, and bottom samples. Vessel configurations, equipment operation and data acquisition and processing were consistent with specifications described in the DAPR.

### **B 2. QUALITY CONTROL**

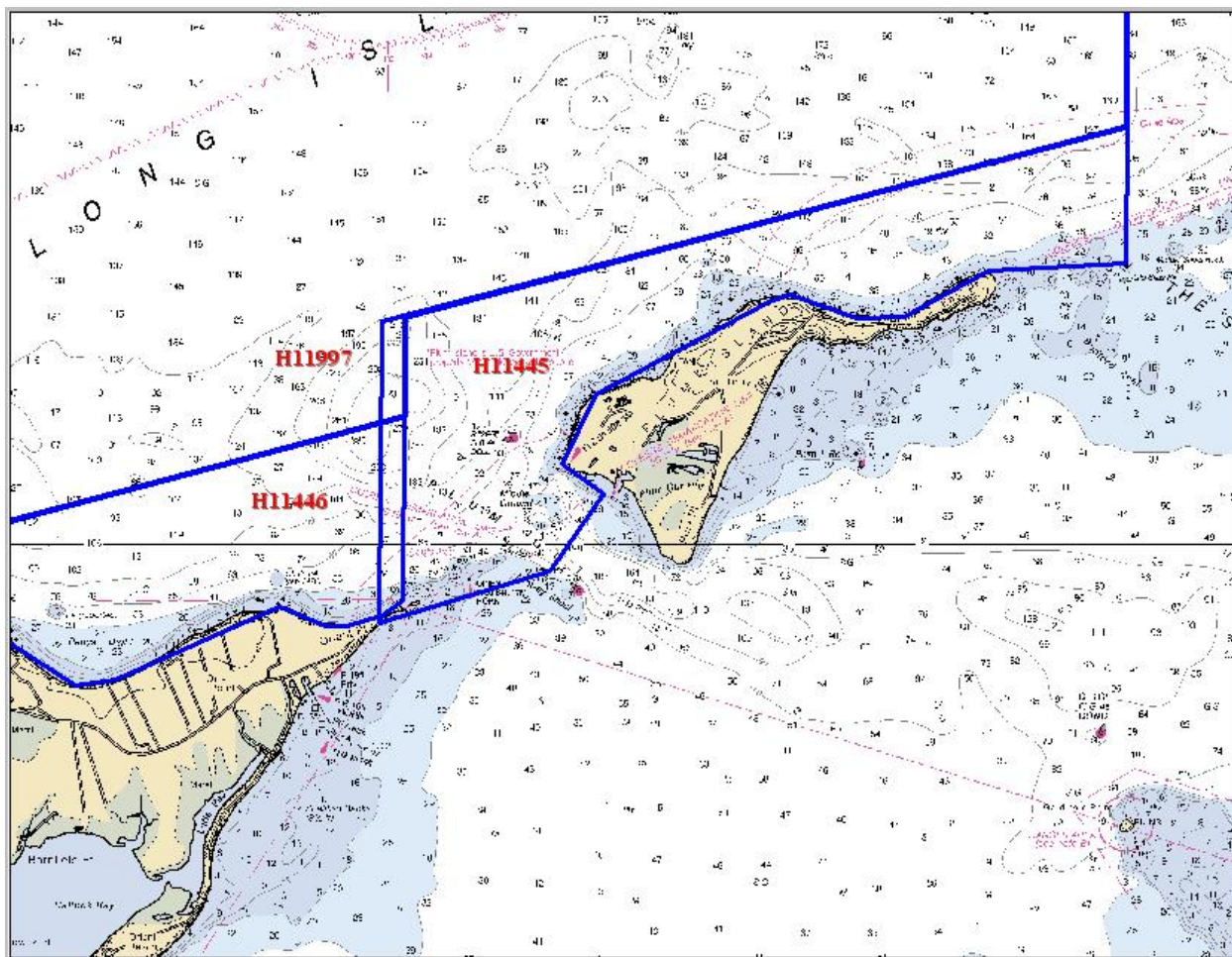
#### **B 2.1 System Certification and Calibration**

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

#### **B.2.2 Sounding Coverage**

As per the Letter Instructions, this survey was conducted using 100% side scan sonar and object detection multibeam coverage in depths from 4 to 20 meters, and complete multibeam coverage in depths greater than 20 meters. Side Scan Sonar coverage was monitored by creating a 100% coverage mosaic with a 1.0 meter resolution. Bathymetry coverage was monitored by creating BASE surfaces with a 2.0 meter resolution and a 0.5 meter resolution in less than 20 meter depth.

On the western side there is a gap where the data does not fully reach the survey limits due to the limitations of the launch RESON systems in the deep water. Data from surveys H11446 and H11997 fill the gap.



**Figure B-1: Overlap with H11997 and H11446**

### B 2.3 Crosslines

Multibeam echosounder cross-lines totaling 9.2 linear nautical miles, comprising 5 percent of hydrography, were acquired during the course of the survey. An evaluation of the standard deviation layer of the BASE surface was performed for the survey area. The results indicate some systematic artifacts due to attitude inputs; however, these do not exceed 0.631 in any area. Other areas of high standard deviation are caused by bathymetric features or man made obstructions. A crossline to mainscheme surface difference is located in the Descriptive Report/Separates/IV Crossline\_comparisons folder submitted with this survey.

### B 2.4 Junctions and Prior Surveys

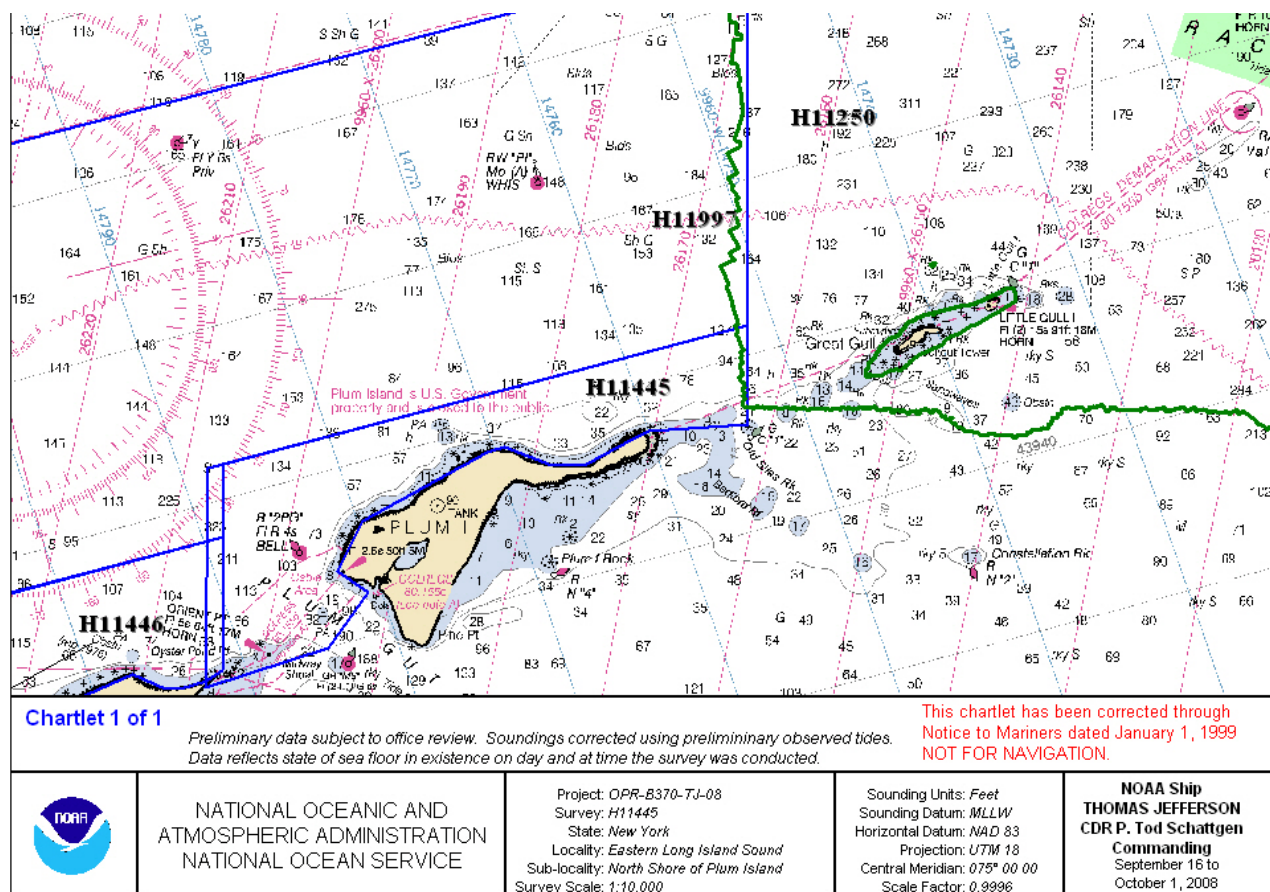
The following contemporary surveys junction with H11445:

<b>Registry #</b>	<b>Scale</b>	<b>Date</b>	<b>Field Party</b>	<b>Junction side</b>
H11446	1:10,000	2008	Thomas Jefferson	Southwest
H11250	1:10,000	2004	Thomas Jefferson	Northeast
H11997	1:20,000	2008	Thomas Jefferson	North



Survey H11250 junctions with H11445 in the Northeast. Survey data to H11250 is only available in a file format which is incompatible with current software suites. Due to this, no sounding comparison was accomplished.

Survey H11997 junctions with H11445 in the North. The difference in soundings between the two surveys are on average 0.2 meters.



**Figure B-2: Junction Surveys**

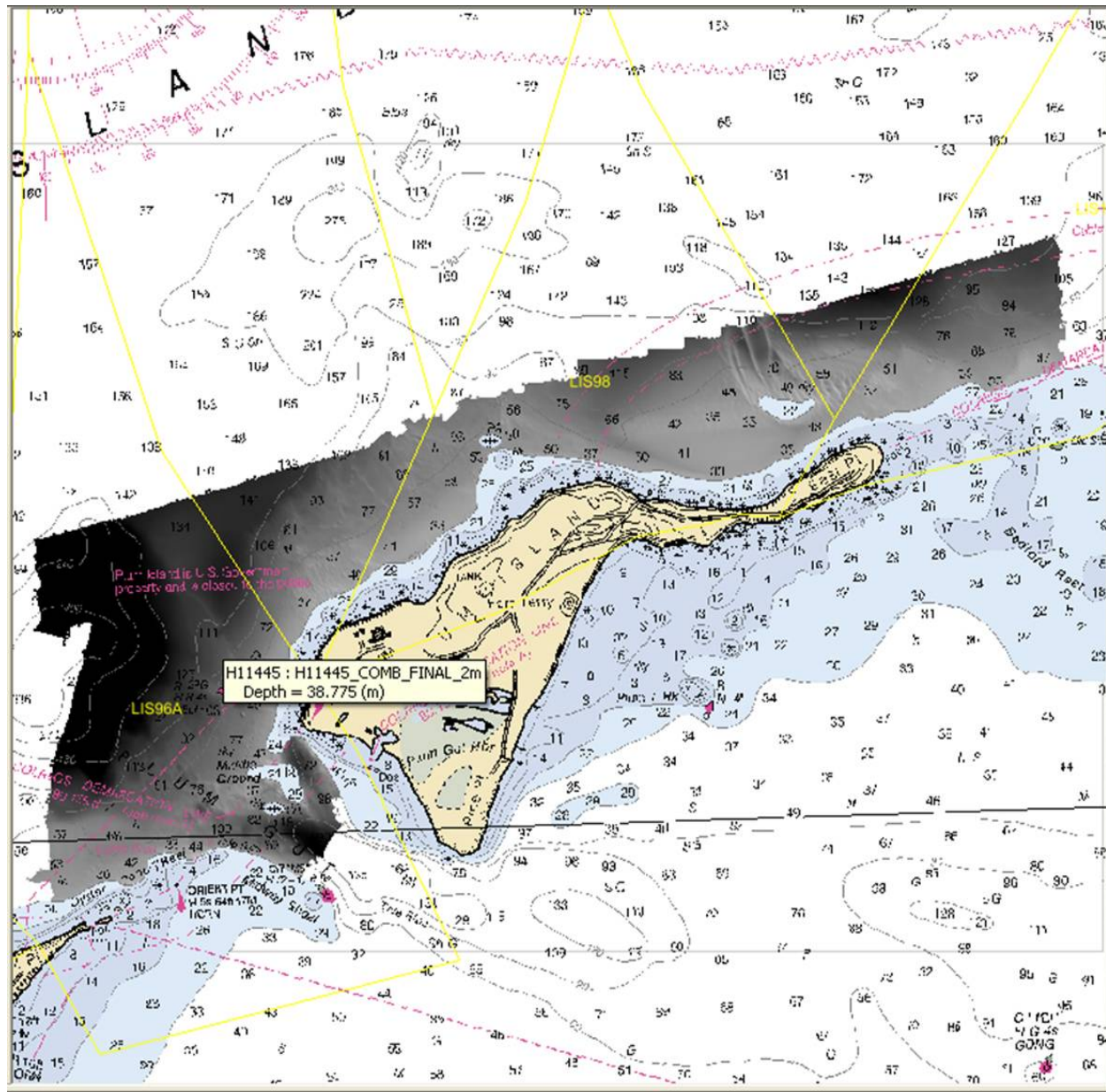
## B 2.5 Systematic Errors

The most prevalent systematic error for this survey is errors in dynamic draft due to high current. In areas exposed to high current the amount of error ranges up to 0.20 meters, while protected areas show lower to no draft error.



### B 3. CORRECTIONS TO ECHO SOUNDING

HDCS sounding data were reduced to mean lower-low water (MLLW) using Verified water levels from the tide station located at New London, Thames River, CT (8461490). Verified water levels and final tide zoning were applied to all sounding data.



### Figure B-3 Final Tide Zoning

All other datum reduction procedures conform to those outlined in the *DAPR*.

All methods and instruments used for sound velocity correction were as described in the *DAPR*. A table detailing all sound velocity casts is located in Separate II of this Descriptive Report.

## B 4. DATA PROCESSING

### B 4.1 Total Propagated Error

For the 2008 field season, Total Propagated Error (TPE) parameters for sound speed and tides were calculated separately for each project. The project-specific parameters for OPR-B370-TJ-08, Survey H11445 are as follows:

Vessel	Tide Values		Sound Speed Values	
	Measured	Zoning	Measured	Surface
3101	0.00	0.19	4	0.2
3102	0.00	0.19	4	0.2

**Table B-1: TPE Parameters**

These values were calculated for all MBES data immediately following CARIS Merge.

### B 4.2 BASE Surfaces and Mosaics

The following table describes all BASE Surfaces and Mosaics submitted as part of Survey H11445:

Name of Surfaces and/or Mosaics	Resolution	Type	Purpose
H11445_100SSS_Mosaic	1.0 meter	SSS Mosaic	Side Scan Coverage
H11445_1_Cube_Deep_2m_Final	2.0 meter	CUBE	Sounding Coverage
H11445_2_Cube_Deep_2m_Final	2.0 meter	CUBE	Sounding Coverage
H11445_3_Cube_Deep_2m_Final	2.0 meter	CUBE	Sounding Coverage
H11445_1_Cube_Shal_50cm_Final	0.5 meter	CUBE	Depth Threshold
H11445_2_Cube_Shal_50cm_Final	0.5 meter	CUBE	Depth Threshold
H11445_3_Cube_Shal_50cm_Final	0.5 meter	CUBE	Depth Threshold
H11445_COMB_FINAL_2m	2.0 meter	Combined	Not a deliverable

**Table B-2: Compiled Fieldsheets**

This survey was processed using the Combined Uncertainty and Bathymetry Estimator (CUBE) algorithm. The CUBE configuration was set to “Deep” for surfaces in depths greater than 20 meters and “Shallow” for surfaces in depths less than 20 meters. The entire survey was calculated using the IHO order 1 selection in CARIS surface generation. Refer to the 2008 Data Acquisition and Processing Report, 2008 Field Procedures Manual, and CARIS HIPS/SIPS 6.1 manual for further discussion.

## **C. VERTICAL AND HORIZONTAL CONTROL**

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

### **C 1.1 Horizontal Control**

The horizontal datum for this project is the North American Datum of 1983 (NAD83), zone 18. Differential GPS (DGPS) was the sole method of positioning. Differential corrections from U.S. Coast Guard beacons at Acushnet, MA (306 kHz), and Moriches, NY (293 kHz), were used during this survey.

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

### **C 1.2 Vertical Control**

The vertical datum for this project is Mean Lower Low Water (MLLW). The operating National Water Level Observation Network (NWLON) stations at New London, Thames River, CT (8461490) and New Haven, New Haven Harbor CT (8465705) served as datum control for H11445. A request for delivery of final approved (verified) tides for this survey was forwarded to N/OPS1 on 3 October 2008 in accordance with the FPM and project letter instructions.

The final smooth tides report from COOPS issued new zoning (H11445COPF.zdf) for this survey. Verified water levels with final zoning were applied to all sounding data.

## **D. RESULTS AND RECOMMENDATIONS**

### **D.1 Chart Comparison**

Survey H11445 was compared with charts 12358 (20<sup>th</sup> Ed.; April 2008, 1:40,000), 12354 (42<sup>nd</sup> Ed.; December 2006, 1:80,000), 13205 (38<sup>th</sup> Ed.; February 2007, 1:80,000), 13209 (25<sup>th</sup> Ed.; April 2007, 1:40,000), 13212 (38<sup>th</sup> Ed.; November 2008, 1:20,000), and ENC US4NY1GM Chart comparisons were performed in Pydro using survey-scale excessed soundings and in MapInfo using survey-scale and chart-scale excessed soundings exported from Pydro.

#### **D.1.2 Chart 12358 Comparison**

In general the soundings agree within 3 feet. Where there are differences they tend to be deeper than the charted depths. In some cases more than a 10 foot difference exists.

#### **D.1.3 Chart 12354 Comparison**

In general the soundings agree within 3 feet. Where there are differences they tend to be deeper than the charted depths. In some cases more than a 10 foot difference exists.

A charted 57 foot sounding at location 41° 11' 04.72" N, 072° 12' 35.42" W, was found to be 33.92 feet deep.

A charted 81 foot sounding at location 41° 11' 28.06" N, 072° 12' 17.76" W was found to be 64 feet deep.

A charted "rky" area at location 41° 11' 43.24" N, 072° 10' 00.29" W appears to be primarily sand waves.

#### **D.1.6 Chart 13205 Comparison**

In general the soundings agree within 3 feet. Where there are differences they tend to be deeper than the charted depths. In some cases more than a 10 foot difference exists.

A charted 57 foot sounding at location 41° 11' 04.72" N, 072° 12' 35.42" W, was found to be 33.92 feet deep.

A charted 81 foot sounding at location 41° 11' 28.06" N, 072° 12' 17.76" W was found to be 64 feet deep.

A charted "rky" area at location 41° 11' 43.24" N, 072° 10' 00.29" W appears to be primarily sand waves.

#### **D.1.7 Chart 13209 Comparison**

In general the soundings agree within 3 feet. Where there are differences they tend to be deeper than the charted depths. In some cases more than a 10 foot difference exists.

A charted 47 foot sounding at location 41° 10' 18.91" N, 072° 12' 57.90" W, was found to be 22 feet deep.

A charted 32 foot sounding at location 41° 11' 39.42" N, 072° 09' 43.99" W was found to be 23 feet deep.

A charted 50 foot sounding at location 41° 11' 27.98" N, 072° 11' 24.11" W was found to be 32 feet deep.

A charted "rky" area at location 41° 11' 40.60" N, 072° 10' 04.50" W appears to be primarily sand waves.

#### **D.1.8 Chart 13212 Comparison**

In general the soundings agree within 3 feet. Where there are differences they tend to be deeper than the charted depths. In some cases more than a 10 foot difference exists.

A charted 64 foot sounding at location 41° 11' 45.89" N, 072° 09' 22.86" W was found to be 53 feet deep.

### **D.1.9 ENC US5MA22M**

Electronic Navigation Chart US85MA22M was created from charts 12354 and 13209; thus any comparison between this ENC and acquired data would be redundant. No omissions or errors were noted on US5MA22M.

## **D.2 Additional Results**

### **D.2.1 Automated Wreck and Obstruction Information Service (AWOIS) Items**

A total of three assigned AWOIS items were located within the limits of H11445 and investigated during this survey. AWOIS items were investigated with complete multibeam over the search radius. All AWOIS items are described in detail in Appendix II of this report.

### **D.2.4 Shoreline**

There is no shoreline within the sheet limits of survey H11445.

### **D.2.5 Charted Features**

The following features are located as charted and their representation on the chart is adequate. The hydrographer recommends retaining the following features as charted:

<b>Description of Feature</b>	<b>Charted Latitude</b>	<b>Charted Longitude</b>	<b>Least Depth</b>
<b>Old Silas Rock</b>	41°11'29.629"N	072°08'45.157"W	3.23 meters

**Table D-1: Charted Features**

All other charted features and item investigations are described in detail in Appendix II of this report.

### **D.2.6 Charted Pipelines and Cables**

Two charted cables cross the survey area. The cables are not visible in the multibeam data. The hydrographer has no recommendations regarding the cables.

### **D.2.7 Bridges, Ferry Routes, and Overhead Cables**

There are several ferry routes within the survey area. Ferries were observed actively following the charted routes. There are no bridges, or overhead cable crossings within the limits of the survey.

### **D.3 Dangers to Navigation and Shoals**

#### **D 3.1 Dangers to Navigation**

Dangers to Navigation (DToN) submitted (one DToN on 9 Mar 09) from this survey are the most significant (see, appendix I). There are numerous other potential DToNs, however there are navigationally less significant and are not reported as DToNs to avoid cluttering the navigation products (see, appendix II).

#### **D 3.2 Shoals**

A charted 22 foot shoal at location 41° 11' 36.3430" N, 072° 10' 10.1688" W was found to have a least depth of 18 feet, indicating increased shoaling.

#### **D.4 Aids to Navigation**

There are two aids to navigation within the area of H11445: A red lighted nun buoy, identified as "2PG" located at position 41° 10' 33.53" N, 072° 13' 05.88" W and Orient Point light located at 41° 09' 48.45" N, 072° 13' 25.03" W. Both aids to navigation are on station and operational, serving their intended purpose.

#### **D.5 Coast Pilot Information**

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

#### **D.6 Bottom Samples**

A total of four bottom samples were acquired. A list of all bottom samples is contained in Appendix V.

#### **D.7 Adequacy of Survey**

This survey is considered complete and adequate to supersede charted depths within the common area as per requirements specified in the Project Letter Instructions.

## E. APPROVAL

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

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

Survey H11445 is adequate to supersede charted soundings in their common areas.

Listed below are supplemental reports submitted separately that contain additional information relevant to this survey:

<u>Title</u>	<u>Date Sent</u>	<u>Office</u>
Data Acquisition and Processing Report Spring Addendum-2008	4 Feb 2009	N/CS33
Horizontal and Vertical Control Report for OPR-B370-TJ-08	N/A	N/CS33
Tides and Water Levels Package for OPR-B370-TJ-08	N/A	N/OPS1
Coast Pilot Report for OPR-B370-TJ-08	N/A	N/CS26

Approved and Forwarded:

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LT Jasper D Schaer, NOAA  
Field Operations Officer

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CDR P. Tod Schattgen, NOAA  
Commanding Officer

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

Survey Managers:

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ENS Andrew J. Ostapenko, NOAA  
Junior Officer

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Matthew R. Forrest  
Survey Technician



# **Appendix I**

## **Dangers to Navigation**

# H11445 Dangers to Navigation

**Registry Number:** H11445  
**State:** New York  
**Locality:** Eastern Long Island Sound  
**Sub-locality:** North Shore of Plum Island  
**Project Number:** B-370-TJ-08  
**Survey Date:** 09/20/2008

## Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
13212	37th	11/01/2005	1:20,000 (13212_1)	[L]NTM: ?
12372	34th	11/01/2006	1:40,000 (12372_1)	[L]NTM: ?
13209	25th	04/01/2007	1:40,000 (13209_1)	USCG LNM: 02/26/2008 (06/03/2008) CHS NTM: None (04/25/2008) NGA NTM: 04/11/1998 (06/07/2008)
13205	38th	02/01/2007	1:80,000 (13205_1)	[L]NTM: ?
12354	42nd	12/01/2006	1:80,000 (12354_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	7.54 m	41° 11' 38.7" N	072° 09' 44.8" W	---

## **1 - Danger To Navigation**

## 1.1) Profile/Beam - 2189/88 from h11445 / tj\_3101\_reson8125 / 2008-264 / 374\_1539

### DANGER TO NAVIGATION

#### Survey Summary

**Survey Position:** 41° 11' 38.7" N, 072° 09' 44.8" W  
**Least Depth:** 7.54 m (= 24.74 ft = 4.124 fm = 4 fm 0.74 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh)  $\pm 0.981$  m ; TVU (TPEv)  $\pm 0.388$  m  
**Timestamp:** 2008-264.15:42:32.233 (09/20/2008)  
**Survey Line:** h11445 / tj\_3101\_reson8125 / 2008-264 / 374\_1539  
**Profile/Beam:** 2189/88  
**Charts Affected:** 13212\_1, 12372\_1, 13209\_1, 12354\_1, 13205\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Surveyed sounding of 25 feet does not agree with charted sounding of 32 feet, and is believed to be a danger to navigation.

#### Feature Correlation

Address	Feature	Range	Azimuth	Status
h11445/tj_3101_reson8125/2008-264/374_1539	2189/88	0.00	000.0	Primary

#### Hydrographer Recommendations

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

24ft (13212\_1, 12372\_1, 13209\_1, 12354\_1, 13205\_1)

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

7.5m (5161\_1)

#### S-57 Data

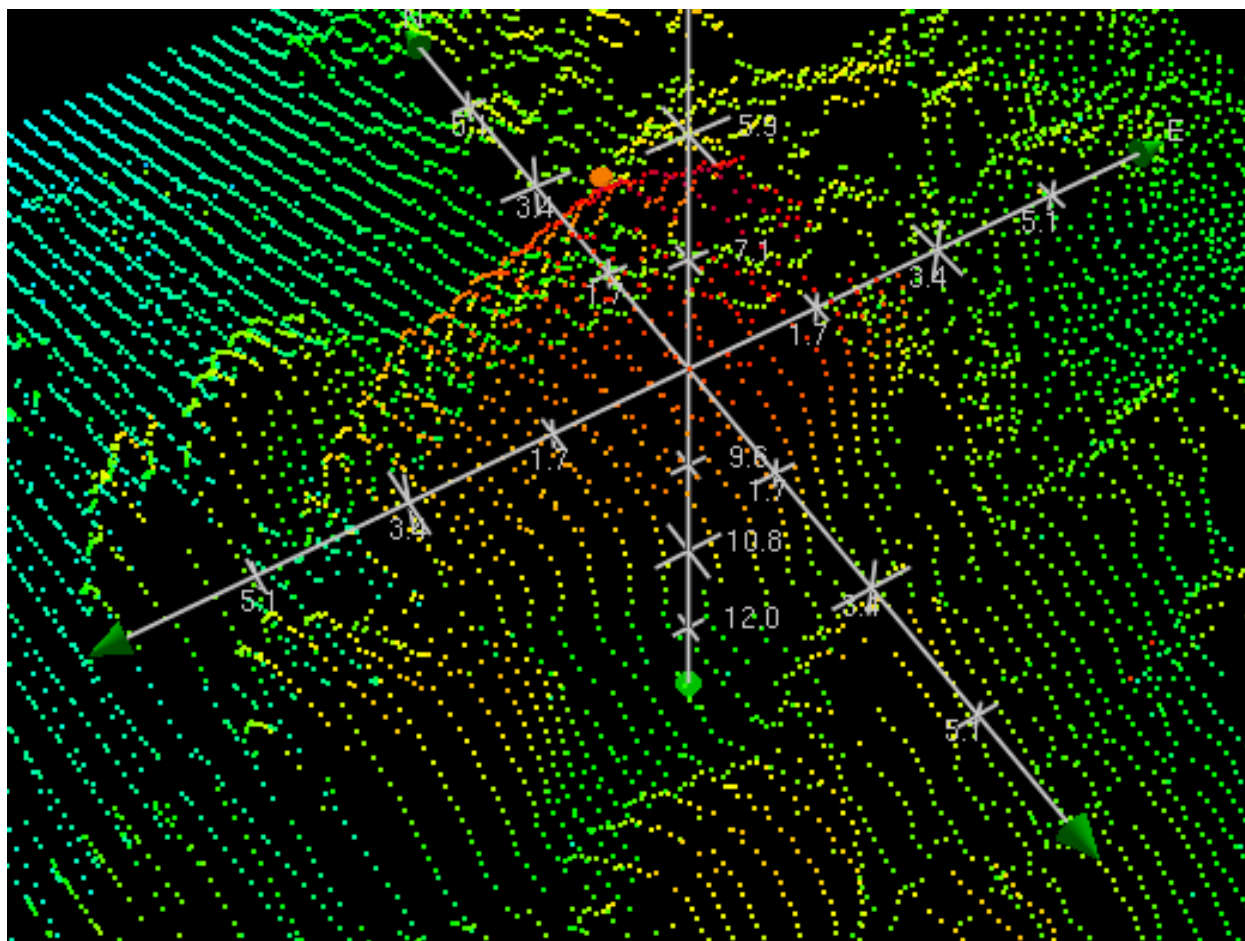
**Geo object 1:** Underwater rock / awash rock (UWTROC)  
**Attributes:** QUASOU - 6:least depth known  
 RECDAT - 20080920  
 STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VALSOU - 7.542 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

**Feature Images***Figure 1.1.1*

*Figure 1.1.2*



## **Appendix II**

### **Survey Features Report**

#### **1. Charted Features**

#### **2. Uncharted Features**

**-n/a**

#### **3. AWOIS Items**

# H11445 Feature Report

**Registry Number:** H11445  
**State:** New York  
**Locality:** Eastern Long Island Sound  
**Sub-locality:** North Shore of Plum Island  
**Project Number:** B-370-TJ-08  
**Survey Dates:** 09/16/2008 - 09/24/2008

## Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
13212	37th	11/01/2005	1:20,000 (13212_1)	[L]NTM: ?
12375	21st	02/17/2001	1:20,000 (12375_1)	[L]NTM: ?
12372	34th	11/01/2006	1:40,000 (12372_11) 1:40,000 (12372_1)	[L]NTM: ?
13209	25th	04/01/2007	1:40,000 (13209_1)	USCG LNM: 02/26/2008 (06/03/2008) CHS NTM: None (04/25/2008) NGA NTM: 04/11/1998 (06/07/2008)
12358	20th	04/01/2008	1:40,000 (12358_1)	[L]NTM: ?
13205	38th	02/01/2007	1:80,000 (13205_1)	[L]NTM: ?
12354	42nd	12/01/2006	1:80,000 (12354_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	3.29 m	41° 11' 30.9" N	072° 09' 24.7" W	---
1.2	Rock	3.23 m	41° 11' 31.8" N	072° 08' 48.5" W	---
1.3	Rock	4.66 m	41° 11' 23.9" N	072° 11' 32.1" W	---
1.4	Rock	5.88 m	41° 10' 56.3" N	072° 12' 34.9" W	---
1.5	Rock	1.84 m	41° 09' 47.9" N	072° 13' 34.3" W	---

1.6	Rock	1.35 m	41° 09' 49.0" N	072° 13' 27.7" W	---
1.7	Rock	2.55 m	41° 09' 47.6" N	072° 13' 27.0" W	---
1.8	Rock	0.88 m	41° 09' 48.3" N	072° 13' 28.2" W	---
1.9	Rock	2.62 m	41° 09' 51.0" N	072° 13' 23.5" W	---
1.10	Rock	2.84 m	41° 09' 51.0" N	072° 13' 23.5" W	---
1.11	Rock	2.32 m	41° 11' 21.2" N	072° 10' 12.3" W	---
1.12	Rock	2.36 m	41° 10' 46.5" N	072° 12' 38.6" W	---
1.13	Rock	1.85 m	41° 09' 40.0" N	072° 14' 02.0" W	---
1.14	Rock	2.16 m	41° 10' 47.6" N	072° 12' 38.4" W	---
1.15	Rock	2.75 m	41° 10' 55.2" N	072° 12' 26.4" W	---
1.16	Rock	3.22 m	41° 10' 56.2" N	072° 12' 23.4" W	---
1.17	Rock	2.51 m	41° 10' 53.3" N	072° 12' 29.6" W	---
1.18	Rock	4.95 m	41° 10' 18.7" N	072° 12' 41.6" W	---
1.19	Wreck	17.39 m	41° 10' 06.2" N	072° 12' 58.6" W	---
1.20	Rock	1.58 m	41° 10' 57.3" N	072° 12' 22.6" W	---
1.21	AWOIS	[no data]	[no data]	[no data]	---
1.22	AWOIS	[no data]	[no data]	[no data]	---
1.23	AWOIS	[no data]	[no data]	[no data]	---
1.24	AWOIS	[no data]	[no data]	[no data]	---
1.25	AWOIS	[no data]	[no data]	[no data]	---
1.26	AWOIS	[no data]	[no data]	[no data]	---
1.27	AWOIS	[no data]	[no data]	[no data]	---
1.28	AWOIS	[no data]	[no data]	[no data]	---
1.29	AWOIS	[no data]	[no data]	[no data]	---
1.30	AWOIS	[no data]	[no data]	[no data]	---
1.31	AWOIS	[no data]	[no data]	[no data]	---
1.32	AWOIS	[no data]	[no data]	[no data]	---
1.33	AWOIS	[no data]	[no data]	[no data]	---
1.34	AWOIS	[no data]	[no data]	[no data]	---
1.35	AWOIS	[no data]	[no data]	[no data]	---
1.36	AWOIS	[no data]	[no data]	[no data]	---
1.37	AWOIS	[no data]	[no data]	[no data]	---
1.38	AWOIS	[no data]	[no data]	[no data]	---

## **1 - DR\_Chart DR\_AWOIS**

## 1.1) Profile/Beam - 3986/8 from h11445 / tj\_3101\_reson8125 / 2008-264 / 320\_1935

### Survey Summary

**Survey Position:** 41° 11' 30.9" N, 072° 09' 24.7" W  
**Least Depth:** 3.29 m (= 10.81 ft = 1.802 fm = 1 fm 4.81 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh)  $\pm 0.980$  m ; TVU (TPEv)  $\pm 0.387$  m  
**Timestamp:** 2008-264.19:39:48.830 (09/20/2008)  
**Survey Line:** h11445 / tj\_3101\_reson8125 / 2008-264 / 320\_1935  
**Profile/Beam:** 3986/8  
**Charts Affected:** 13212\_1, 12372\_1, 13209\_1, 12354\_1, 13205\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Uncharted dangerous rock- the 3.29m (10.81 foot) least depth on this rock was acquired by multibeam echosounder and corrected to mean lower low water using verified water levels and final zoning. It lies in a surrounding depth of 22.33 feet.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
h11445/tj_3101_reson8125/2008-264/320_1935	3986/8	0.00	000.0	Primary

### Hydrographer Recommendations

Chart according to surveyed depth, position and S-57 attribution.

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

11ft (13212\_1, 12372\_1, 13209\_1, 12354\_1, 13205\_1)

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

3.3m (5161\_1)

### S-57 Data

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

**Attributes:** QUASOU - 6:least depth known  
 RECDAT - 20080920  
 STATUS - 1:permanent  
 TECSOU - 3:found by multi-beam

VALSOU - 3.295 m

WATLEV - 3:always under water/submerged

## 1.2) Profile/Beam - 6773/238 from h11445 / tj\_3101\_reson8125 / 2008-264 / 323\_1915

### Survey Summary

**Survey Position:** 41° 11' 31.8" N, 072° 08' 48.5" W  
**Least Depth:** 3.23 m (= 10.60 ft = 1.766 fm = 1 fm 4.60 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh)  $\pm 0.981$  m ; TVU (TPEv)  $\pm 0.388$  m  
**Timestamp:** 2008-264.19:21:31.129 (09/20/2008)  
**Survey Line:** h11445 / tj\_3101\_reson8125 / 2008-264 / 323\_1915  
**Profile/Beam:** 6773/238  
**Charts Affected:** 13212\_1, 12372\_1, 13209\_1, 12354\_1, 13205\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Uncharted dangerous rock- the 3.23m (10.6 foot) least depth on this rock was acquired by multibeam echosounder and corrected to mean lower low water using verified water levels and final zoning. It lies in a surrounding depth of 15.18 feet. Item is believed to be Old Silas rock. Its charted position differs from the surveyed position by approximately 100 meters.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
h11445/tj_3101_reson8125/2008-264/323_1915	6773/238	0.00	000.0	Primary

### Hydrographer Recommendations

Chart according to surveyed depth, position and S-57 attribution.

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

10ft (13212\_1, 12372\_1, 13209\_1, 12354\_1, 13205\_1)

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

3.2m (5161\_1)

### S-57 Data

**Geo object 1:** Underwater rock / awash rock (UWTROC)  
**Attributes:** QUASOU - 6:least depth known  
 RECDAT - 20080920  
 STATUS - 1:permanent



TECSOU - 3:found by multi-beam

VALSOU - 3.230 m

WATLEV - 3:always under water/submerged

### 1.3) Profile/Beam - 284/173 from h11445 / tj\_3101\_reson8125 / 2008-266 / 709\_1336

#### Survey Summary

**Survey Position:** 41° 11' 23.9" N, 072° 11' 32.1" W  
**Least Depth:** 4.66 m (= 15.28 ft = 2.546 fm = 2 fm 3.28 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh)  $\pm 0.980$  m ; TVU (TPEv)  $\pm 0.387$  m  
**Timestamp:** 2008-266.13:36:58.953 (09/22/2008)  
**Survey Line:** h11445 / tj\_3101\_reson8125 / 2008-266 / 709\_1336  
**Profile/Beam:** 284/173  
**Charts Affected:** 13209\_1, 12354\_1, 13205\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Uncharted dangerous rock- the 4.66m (15.28 foot) least depth on this rock was acquired by multibeam echosounder and corrected to mean lower low water using verified water levels and final zoning. It lies over a 25 foot sounding, and in a surrounding depth of 24.53 feet.

#### Feature Correlation

Address	Feature	Range	Azimuth	Status
h11445/tj_3101_reson8125/2008-266/709_1336	284/173	0.00	000.0	Primary

#### Hydrographer Recommendations

Chart according to surveyed depth, position and S-57 attribution.

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

15ft (13209\_1, 12354\_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:** QUASOU - 6:least depth known  
 STATUS - 1:permanent  
 TECSOU - 3:found by multi-beam  
 VALSOU - 4.657 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

## 1.4) Profile/Beam - 289/107 from h11445 / tj\_3101\_reson8125 / 2008-266 / 718\_1450

### Survey Summary

**Survey Position:** 41° 10' 56.3" N, 072° 12' 34.9" W  
**Least Depth:** 5.88 m (= 19.31 ft = 3.218 fm = 3 fm 1.31 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh)  $\pm 0.980$  m ; TVU (TPEv)  $\pm 0.387$  m  
**Timestamp:** 2008-266.14:51:00.587 (09/22/2008)  
**Survey Line:** h11445 / tj\_3101\_reson8125 / 2008-266 / 718\_1450  
**Profile/Beam:** 289/107  
**Charts Affected:** 13209\_1, 12354\_1, 13205\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Uncharted dangerous rock- the 5.79m (19 foot) least depth on this rock was acquired by multibeam echosounder and corrected to mean lower low water using verified water levels and final zoning. It lies in a surrounding depth of 27.72 feet.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
h11445/tj_3101_reson8125/2008-266/718_1450	289/107	0.00	000.0	Primary

### Hydrographer Recommendations

Chart according to surveyed depth, position and S-57 attribution.

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

19ft (13209\_1, 12354\_1, 13205\_1)

3 ¼fm (12300\_1, 13006\_1, 13003\_1)

5.9m (5161\_1)

### S-57 Data

**Geo object 1:** Underwater rock / awash rock (UWTROC)  
**Attributes:** QUASOU - 6:least depth known  
 RECDAT - 20080923  
 STATUS - 1:permanent  
 TECSOU - 3:found by multi-beam

VALSOU - 5.885 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

## 1.5) Profile/Beam - 2710/11 from h11445 / tj\_3101\_reson8125 / 2008-268 / 614\_2029

### Survey Summary

**Survey Position:** 41° 09' 47.9" N, 072° 13' 34.3" W  
**Least Depth:** 1.84 m (= 6.03 ft = 1.006 fm = 1 fm 0.03 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh)  $\pm 0.980$  m ; TVU (TPEv)  $\pm 0.386$  m  
**Timestamp:** 2008-268.20:33:11.330 (09/24/2008)  
**Survey Line:** h11445 / tj\_3101\_reson8125 / 2008-268 / 614\_2029  
**Profile/Beam:** 2710/11  
**Charts Affected:** 12358\_1, 13209\_1, 12354\_1, 13205\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Uncharted dangerous rock- the 1.84m (6.03 foot) least depth on this rock was acquired by multibeam echosounder and corrected to mean lower low water using verified water levels and final zoning. It lies in a surrounding depth of 10.52 feet.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
h11445/tj_3101_reson8125/2008-268/614_2029	2710/11	0.00	000.0	Primary

### Hydrographer Recommendations

Chart according to surveyed depth, position and S-57 attribution.

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

6ft (12358\_1, 13209\_1, 12354\_1, 13205\_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 - 6:least depth known  
 RECDAT - 20080925  
 SORDAT - 20080925  
 STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VALSOU - 1.839 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged



## 1.6) Profile/Beam - 1360/118 from h11445 / tj\_3101\_reson8125 / 2008-268 / 642\_1915

### Survey Summary

**Survey Position:** 41° 09' 49.0" N, 072° 13' 27.7" W  
**Least Depth:** 1.35 m (= 4.42 ft = 0.737 fm = 0 fm 4.42 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh)  $\pm 0.980$  m ; TVU (TPEv)  $\pm 0.386$  m  
**Timestamp:** 2008-268.19:16:33.153 (09/24/2008)  
**Survey Line:** h11445 / tj\_3101\_reson8125 / 2008-268 / 642\_1915  
**Profile/Beam:** 1360/118  
**Charts Affected:** 12358\_1, 13209\_1, 12354\_1, 13205\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Uncharted dangerous rock- the 1.35m (4.42 foot) least depth on this rock was acquired by multibeam echosounder and corrected to mean lower low water using verified water levels and final zoning. Rock lies in a surrounding depth of 7.76 feet.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
h11445/tj_3101_reson8125/2008-268/642_1915	1360/118	0.00	000.0	Primary

### Hydrographer Recommendations

Chart according to surveyed position, depth and S-57 attribution.

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

4ft (12358\_1, 13209\_1, 12354\_1, 13205\_1)

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

1.3m (5161\_1)

### S-57 Data

**Geo object 1:** Underwater rock / awash rock (UWTROC)  
**Attributes:** QUASOU - 6:least depth known  
 STATUS - 1:permanent  
 TECSOU - 3:found by multi-beam  
 VALSOU - 1.348 m

VERDAT - 12:Mean lower low water

## 1.7) Profile/Beam - 1728/12 from h11445 / tj\_3101\_reson8125 / 2008-268 / 642\_1915

### Survey Summary

**Survey Position:** 41° 09' 47.6" N, 072° 13' 27.0" W  
**Least Depth:** 2.55 m (= 8.37 ft = 1.395 fm = 1 fm 2.37 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh)  $\pm 0.980$  m ; TVU (TPEv)  $\pm 0.386$  m  
**Timestamp:** 2008-268.19:16:54.713 (09/24/2008)  
**Survey Line:** h11445 / tj\_3101\_reson8125 / 2008-268 / 642\_1915  
**Profile/Beam:** 1728/12  
**Charts Affected:** 12358\_1, 13209\_1, 12354\_1, 13205\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Uncharted dangerous rock- the 2.55m (8.37 foot) least depth on this rock was acquired by multibeam echosounder and corrected to mean lower low water using verified water levels and final zoning. Rock lies in a surrounding depth of 10.57 feet.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
h11445/tj_3101_reson8125/2008-268/642_1915	1728/12	0.00	000.0	Primary

### Hydrographer Recommendations

Chart according to surveyed position, depth and S-57 attribution.

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

8ft (12358\_1, 13209\_1, 12354\_1, 13205\_1)

1 ¼fm (12300\_1, 13006\_1, 13003\_1)

2.6m (5161\_1)

### S-57 Data

**Geo object 1:** Underwater rock / awash rock (UWTROC)  
**Attributes:** QUASOU - 6:least depth known  
 STATUS - 1:permanent  
 TECSOU - 3:found by multi-beam  
 VALSOU - 2.551 m

WATLEV - 3:always under water/submerged

## 1.8) Profile/Beam - 507/184 from h11445 / tj\_3101\_reson8125 / 2008-268 / 643\_1911

### Survey Summary

**Survey Position:** 41° 09' 48.3" N, 072° 13' 28.2" W  
**Least Depth:** 0.88 m (= 2.88 ft = 0.480 fm = 0 fm 2.88 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh)  $\pm 0.980$  m ; TVU (TPEv)  $\pm 0.386$  m  
**Timestamp:** 2008-268.19:12:07.414 (09/24/2008)  
**Survey Line:** h11445 / tj\_3101\_reson8125 / 2008-268 / 643\_1911  
**Profile/Beam:** 507/184  
**Charts Affected:** 12358\_1, 13209\_1, 12354\_1, 13205\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Uncharted dangerous rock- the 0.88m (2.88 foot) least depth on this rock was acquired by multibeam echosounder and corrected to mean lower low water using verified water levels and final zoning. It lies in a surrounding depth of 6.84 feet.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
h11445/tj_3101_reson8125/2008-268/643_1911	507/184	0.00	000.0	Primary

### Hydrographer Recommendations

Chart according to surveyed depth, position and S-57 attribution.

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

3ft (12358\_1, 13209\_1, 12354\_1, 13205\_1)

0 ½fm (12300\_1, 13006\_1, 13003\_1)

.9m (5161\_1)

### S-57 Data

**Geo object 1:** Underwater rock / awash rock (UWTROC)  
**Attributes:** QUASOU - 6:least depth known  
 STATUS - 1:permanent  
 TECSOU - 3:found by multi-beam  
 VALSOU - 0.877 m

## 1.9) Profile/Beam - 864/20 from h11445 / tj\_3101\_reson8125 / 2008-268 / 646\_1901

### Survey Summary

**Survey Position:** 41° 09' 51.0" N, 072° 13' 23.5" W  
**Least Depth:** 2.62 m (= 8.59 ft = 1.432 fm = 1 fm 2.59 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh)  $\pm 0.980$  m ; TVU (TPEv)  $\pm 0.387$  m  
**Timestamp:** 2008-268.19:02:45.641 (09/24/2008)  
**Survey Line:** h11445 / tj\_3101\_reson8125 / 2008-268 / 646\_1901  
**Profile/Beam:** 864/20  
**Charts Affected:** 12358\_1, 13209\_1, 12354\_1, 13205\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Uncharted dangerous rock- the 2.62m (8.59 foot) least depth on this rock was acquired by multibeam echosounder and corrected to mean lower low water using verified water levels and final zoning. It lies in a surrounding depth of 13.94 feet.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
h11445/tj_3101_reson8125/2008-268/646_1901	864/20	0.00	000.0	Primary

### Hydrographer Recommendations

Chart according to surveyed depth, position and S-57 attribution.

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

8ft (12358\_1, 13209\_1, 12354\_1, 13205\_1)

1 ¼fm (12300\_1, 13006\_1, 13003\_1)

2.6m (5161\_1)

### S-57 Data

**Geo object 1:** Underwater rock / awash rock (UWTROC)  
**Attributes:** QUASOU - 6:least depth known  
 STATUS - 1:permanent  
 TECSOU - 3:found by multi-beam  
 VALSOU - 2.619 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

## 1.10) Profile/Beam - 319/195 from h11445 / tj\_3101\_reson8125 / 2008-268 / 662\_1845

### Survey Summary

**Survey Position:** 41° 09' 51.0" N, 072° 13' 23.5" W  
**Least Depth:** 2.84 m (= 9.32 ft = 1.553 fm = 1 fm 3.32 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh)  $\pm 0.980$  m ; TVU (TPEv)  $\pm 0.386$  m  
**Timestamp:** 2008-268.18:46:04.830 (09/24/2008)  
**Survey Line:** h11445 / tj\_3101\_reson8125 / 2008-268 / 662\_1845  
**Profile/Beam:** 319/195  
**Charts Affected:** 12358\_1, 13209\_1, 12354\_1, 13205\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Uncharted dangerous rock- the 2.84 m (9.32 foot) least depth on this rock was acquired by multibeam echosounder and corrected to mean lower low water using verified water levels and final zoning. It lies in a surrounding depth of 13.99 feet.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
h11445/tj_3101_reson8125/2008-268/662_1845	319/195	0.00	000.0	Primary

### Hydrographer Recommendations

Chart according to surveyed depth, position and S-57 attribution.

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

9ft (12358\_1, 13209\_1, 12354\_1, 13205\_1)

1 ½fm (12300\_1, 13006\_1, 13003\_1)

2.8m (5161\_1)

### S-57 Data

**Geo object 1:** Underwater rock / awash rock (UWTROC)  
**Attributes:** QUASOU - 6:least depth known  
 STATUS - 1:permanent  
 TECSOU - 3:found by multi-beam  
 VALSOU - 2.841 m



VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

## 1.11) Profile/Beam - 5926/30 from h11445 / tj\_3102\_reson8101 / 2008-260 / 100\_1728

### Survey Summary

**Survey Position:** 41° 11' 21.2" N, 072° 10' 12.3" W  
**Least Depth:** 2.32 m (= 7.61 ft = 1.269 fm = 1 fm 1.61 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh)  $\pm 0.980$  m ; TVU (TPEv)  $\pm 0.389$  m  
**Timestamp:** 2008-260.17:38:42.071 (09/16/2008)  
**Survey Line:** h11445 / tj\_3102\_reson8101 / 2008-260 / 100\_1728  
**Profile/Beam:** 5926/30  
**Charts Affected:** 13212\_1, 12372\_1, 13209\_1, 12354\_1, 13205\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Uncharted dangerous rock- the 2.32m (7.61 foot) least depth on this rock was acquired by multibeam echosounder and corrected to mean lower low water using verified water levels and final zoning. It lies in a least depth of 16.31 feet.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
h11445/tj_3102_reson8101/2008-260/100_1728	5926/30	0.00	000.0	Primary

### Hydrographer Recommendations

Chart according to surveyed depth, position and S-57 attribution.

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

7ft (13212\_1, 12372\_1, 13209\_1, 12354\_1, 13205\_1)

1 ¼fm (12300\_1, 13006\_1, 13003\_1)

2.3m (5161\_1)

### S-57 Data

**Geo object 1:** Underwater rock / awash rock (UWTROC)  
**Attributes:** QUASOU - 6:least depth known  
 STATUS - 1:permanent  
 TECSOU - 3:found by multi-beam  
 VALSOU - 2.321 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

## 1.12) Profile/Beam - 963/101 from h11445 / tj\_3102\_reson8101 / 2008-260 / 120\_1947

### Survey Summary

**Survey Position:** 41° 10' 46.5" N, 072° 12' 38.6" W  
**Least Depth:** 2.36 m (= 7.74 ft = 1.290 fm = 1 fm 1.74 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh)  $\pm 0.981$  m ; TVU (TPEv)  $\pm 0.392$  m  
**Timestamp:** 2008-260.19:51:03.825 (09/16/2008)  
**Survey Line:** h11445 / tj\_3102\_reson8101 / 2008-260 / 120\_1947  
**Profile/Beam:** 963/101  
**Charts Affected:** 13209\_1, 12354\_1, 13205\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Uncharted dangerous rock- the 2.36m (7.74 foot) least depth on this rock was acquired by multibeam echosounder and corrected to mean lower low water using verified water levels and final zoning. It lies in a least depth of 15.30 feet.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
h11445/tj_3102_reson8101/2008-260/120_1947	963/101	0.00	000.0	Primary

### Hydrographer Recommendations

Chart according to surveyed depth, position and S-57 attribution.

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

7ft (13209\_1, 12354\_1, 13205\_1)

1 ¼fm (12300\_1, 13006\_1, 13003\_1)

2.4m (5161\_1)

### S-57 Data

**Geo object 1:** Underwater rock / awash rock (UWTROC)  
**Attributes:** QUASOU - 6:least depth known  
 STATUS - 1:permanent  
 TECSOU - 3:found by multi-beam  
 VALSOU - 2.360 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

## 1.13) Profile/Beam - 50/82 from h11445 / tj\_3102\_reson8101 / 2008-261 / 127\_1717

### Survey Summary

**Survey Position:** 41° 09' 40.0" N, 072° 14' 02.0" W  
**Least Depth:** 1.85 m (= 6.06 ft = 1.010 fm = 1 fm 0.06 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh)  $\pm 0.980$  m ; TVU (TPEv)  $\pm 0.388$  m  
**Timestamp:** 2008-261.17:17:07.688 (09/17/2008)  
**Survey Line:** h11445 / tj\_3102\_reson8101 / 2008-261 / 127\_1717  
**Profile/Beam:** 50/82  
**Charts Affected:** 12358\_1, 13209\_1, 12354\_1, 13205\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Uncharted dangerous rock- the 1.85m (6 foot) least depth on this rock was acquired by multibeam echosounder and corrected to mean lower low water using verified water levels and final zoning. It lies in a least depth of 11.59 feet.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
h11445/tj_3102_reson8101/2008-261/127_1717	50/82	0.00	000.0	Primary

### Hydrographer Recommendations

Chart according to surveyed depth, position and S-57 attribution.

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

6ft (12358\_1, 13209\_1, 12354\_1, 13205\_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 - 6:least depth known  
 STATUS - 1:permanent  
 TECSOU - 3:found by multi-beam  
 VALSOU - 1.847 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

## 1.14) Profile/Beam - 287/58 from h11445 / tj\_3102\_reson8101 / 2008-264 / 441\_1943

### Survey Summary

**Survey Position:** 41° 10' 47.6" N, 072° 12' 38.4" W  
**Least Depth:** 2.16 m (= 7.08 ft = 1.181 fm = 1 fm 1.08 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh)  $\pm 0.980$  m ; TVU (TPEv)  $\pm 0.389$  m  
**Timestamp:** 2008-264.19:43:38.581 (09/20/2008)  
**Survey Line:** h11445 / tj\_3102\_reson8101 / 2008-264 / 441\_1943  
**Profile/Beam:** 287/58  
**Charts Affected:** 13209\_1, 12354\_1, 13205\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Uncharted dangerous rock- the 2.16m (7.08 foot) least depth on this rock was acquired by multibeam echosounder and corrected to mean lower low water using verified water levels and final zoning. It lies in a least depth of 16.73 feet.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
h11445/tj_3102_reson8101/2008-264/441_1943	287/58	0.00	000.0	Primary

### Hydrographer Recommendations

Chart according to surveyed depth, position and S-57 attribution.

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

7ft (13209\_1, 12354\_1, 13205\_1)

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

2.2m (5161\_1)

### S-57 Data

**Geo object 1:** Underwater rock / awash rock (UWTROC)  
**Attributes:** QUASOU - 6:least depth known  
 STATUS - 1:permanent  
 TECSOU - 3:found by multi-beam  
 VALSOU - 2.159 m



VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

## 1.15) Profile/Beam - 632/33 from h11445 / tj\_3102\_reson8101 / 2008-264 / 469\_1649

### Survey Summary

**Survey Position:** 41° 10' 55.2" N, 072° 12' 26.4" W  
**Least Depth:** 2.75 m (= 9.03 ft = 1.505 fm = 1 fm 3.03 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh)  $\pm 0.980$  m ; TVU (TPEv)  $\pm 0.389$  m  
**Timestamp:** 2008-264.16:50:43.675 (09/20/2008)  
**Survey Line:** h11445 / tj\_3102\_reson8101 / 2008-264 / 469\_1649  
**Profile/Beam:** 632/33  
**Charts Affected:** 13209\_1, 12354\_1, 13205\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Uncharted dangerous rock- the 2.75 meter (9.03 foot) least depth on this rock was acquired by multibeam echosounder and corrected to MLLW using verified water levels and final zoning. The rock lies in a surrounding depth of 19.19 feet.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
h11445/tj_3102_reson8101/2008-264/469_1649	632/33	0.00	000.0	Primary

### Hydrographer Recommendations

Chart according to surveyed depth, position and S-57 attribution.

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

9ft (13209\_1, 12354\_1, 13205\_1)

1 ½fm (12300\_1, 13006\_1, 13003\_1)

2.8m (5161\_1)

### S-57 Data

**Geo object 1:** Underwater rock / awash rock (UWTROC)  
**Attributes:** QUASOU - 6:least depth known  
 RECDAT - 20080920  
 SORDAT - 20080920  
 STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VALSOU - 2.753 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

## 1.16) Profile/Beam - 893/82 from h11445 / tj\_3102\_reson8101 / 2008-264 / 469\_1649

### Survey Summary

**Survey Position:** 41° 10' 56.2" N, 072° 12' 23.4" W  
**Least Depth:** 3.22 m (= 10.56 ft = 1.760 fm = 1 fm 4.56 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh)  $\pm 0.981$  m ; TVU (TPEv)  $\pm 0.388$  m  
**Timestamp:** 2008-264.16:51:09.427 (09/20/2008)  
**Survey Line:** h11445 / tj\_3102\_reson8101 / 2008-264 / 469\_1649  
**Profile/Beam:** 893/82  
**Charts Affected:** 13209\_1, 12354\_1, 13205\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Uncharted dangerous rock- the 3.22 meter (10.56 foot) least depth on this rock was acquired by multibeam echosounder and corrected to mean lower low water using verified water levels and final zoning. This rock lies in a surrounding depth of 17.69 feet.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
h11445/tj_3102_reson8101/2008-264/469_1649	893/82	0.00	000.0	Primary

### Hydrographer Recommendations

Chart according to surveyed depth, position and S-57 attribution.

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

10ft (13209\_1, 12354\_1, 13205\_1)

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

3.2m (5161\_1)

### S-57 Data

**Geo object 1:** Underwater rock / awash rock (UWTROC)  
**Attributes:** QUASOU - 6:least depth known  
 RECDAT - 20080920  
 SORDAT - 20080920  
 STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VALSOU - 3.219 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

## 1.17) Profile/Beam - 242/94 from h11445 / tj\_3102\_reson8101 / 2008-264 / 470\_1654

### Survey Summary

**Survey Position:** 41° 10' 53.3" N, 072° 12' 29.6" W  
**Least Depth:** 2.51 m (= 8.24 ft = 1.374 fm = 1 fm 2.24 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh)  $\pm 0.981$  m ; TVU (TPEv)  $\pm 0.389$  m  
**Timestamp:** 2008-264.16:54:30.111 (09/20/2008)  
**Survey Line:** h11445 / tj\_3102\_reson8101 / 2008-264 / 470\_1654  
**Profile/Beam:** 242/94  
**Charts Affected:** 13209\_1, 12354\_1, 13205\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Uncharted dangerous rock- the 2.51 meter (8.24 foot) least depth on this rock was acquired by multibeam echosounder and corrected to mean lower low water using verified water levels and mean lower low water. The rock lies in a surrounding depth of 17.52.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
h11445/tj_3102_reson8101/2008-264/470_1654	242/94	0.00	000.0	Primary

### Hydrographer Recommendations

Chart according to surveyed depth, position and S-57 attribution.

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

8ft (13209\_1, 12354\_1, 13205\_1)

1 ¼fm (12300\_1, 13006\_1, 13003\_1)

2.5m (5161\_1)

### S-57 Data

**Geo object 1:** Underwater rock / awash rock (UWTROC)  
**Attributes:** QUASOU - 6:least depth known  
 RECDAT - 20080920  
 SORDAT - 20080920  
 STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VALSOU - 2.513 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

## 1.18) Profile/Beam - 567/97 from h11445 / tj\_3102\_reson8101 / 2008-265 / 590\_1538

### Survey Summary

**Survey Position:** 41° 10' 18.7" N, 072° 12' 41.6" W  
**Least Depth:** 4.95 m (= 16.25 ft = 2.709 fm = 2 fm 4.25 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh)  $\pm 0.983$  m ; TVU (TPEv)  $\pm 0.396$  m  
**Timestamp:** 2008-265.15:39:11.546 (09/21/2008)  
**Survey Line:** h11445 / tj\_3102\_reson8101 / 2008-265 / 590\_1538  
**Profile/Beam:** 567/97  
**Charts Affected:** 12358\_1, 13209\_1, 12354\_1, 13205\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Uncharted dangerous rock- the 4.95 meter (16.25 foot) least depth on this rock was acquired by multibeam echosounder and corrected to mean lower low water using verified water levels and final zoning. It lies outside the 30 foot contour and in close proximity to a 72 foot sounding.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
h11445/tj_3102_reson8101/2008-265/590_1538	567/97	0.00	000.0	Primary

### Hydrographer Recommendations

Chart according to surveyed depth, position and S-57 attribution.

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

16ft (12358\_1, 13209\_1, 12354\_1, 13205\_1)

2 ¾fm (12300\_1, 13006\_1, 13003\_1)

5.0m (5161\_1)

### S-57 Data

**Geo object 1:** Underwater rock / awash rock (UWTROC)  
**Attributes:** QUASOU - 6:least depth known  
 STATUS - 1:permanent  
 TECSOU - 3:found by multi-beam  
 VALSOU - 4.954 m



VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

## 1.19) Profile/Beam - 923/3 from h11445 / tj\_3102\_reson8101 / 2008-266 / 713\_1348

### Survey Summary

**Survey Position:** 41° 10' 06.2" N, 072° 12' 58.6" W  
**Least Depth:** 17.39 m (= 57.06 ft = 9.510 fm = 9 fm 3.06 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh)  $\pm 1.064$  m ; TVU (TPEv)  $\pm 0.700$  m  
**Timestamp:** 2008-266.13:51:34.993 (09/22/2008)  
**Survey Line:** h11445 / tj\_3102\_reson8101 / 2008-266 / 713\_1348  
**Profile/Beam:** 923/3  
**Charts Affected:** 12358\_1, 13209\_1, 12354\_1, 13205\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Item is believed to be AWOIS Item 13954, a truck trailer.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
h11445/tj_3102_reson8101/2008-266/713_1348	923/3	0.00	000.0	Primary

### Hydrographer Recommendations

Chart according to surveyed depth, position and S-57 attribution.

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

57ft (12358\_1, 13209\_1, 12354\_1, 13205\_1)

9 ½fm (12300\_1, 13006\_1, 13003\_1)

17.4m (5161\_1)

### S-57 Data

**Geo object 1:** Wreck (WRECKS)  
**Attributes:** CATWRK - 1:non-dangerous wreck  
 CONVIS - 2:not visual conspicuous  
 HEIGHT - 2.02 m  
 QUASOU - 6:least depth known  
 STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VALSOU - 17.392 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

## 1.20) Profile/Beam - 149/69 from h11445 / tj\_3102\_reson8101 / 2008-268 / 728\_1751

### Survey Summary

**Survey Position:** 41° 10' 57.3" N, 072° 12' 22.6" W  
**Least Depth:** 1.58 m (= 5.18 ft = 0.863 fm = 0 fm 5.18 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh)  $\pm 0.980$  m ; TVU (TPEv)  $\pm 0.391$  m  
**Timestamp:** 2008-268.17:51:13.338 (09/24/2008)  
**Survey Line:** h11445 / tj\_3102\_reson8101 / 2008-268 / 728\_1751  
**Profile/Beam:** 149/69  
**Charts Affected:** 13209\_1, 12354\_1, 13205\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Uncharted dangerous rock- the 1.58m (5.18 foot) least depth on this rock was acquired by multibeam echosounder and corrected to mean lower low water using verified water levels and final zoning. It lies in a surrounding depth of 20.93 feet.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
h11445/tj_3102_reson8101/2008-268/728_1751	149/69	0.00	000.0	Primary

### Hydrographer Recommendations

Chart according to surveyed depth, position and S-57 attribution.

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

5ft (13209\_1, 12354\_1, 13205\_1)

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

1.6m (5161\_1)

### S-57 Data

**Geo object 1:** Underwater rock / awash rock (UWTROC)  
**Attributes:** QUASOU - 6:least depth known  
 STATUS - 1:permanent  
 TECSOU - 3:found by multi-beam  
 VALSOU - 1.578 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

## 1.21) AWOIS #1800 - SOUNDING

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 41° 08' 06.3" N, 072° 35' 16.3" W  
**Historical Depth:** 16.46 m  
**Search Radius:** 0  
**Search Technique:** S2,MB  
**Technique Notes:** [None]

**History Notes:**

H9089/69--BS; SURVEY NOT PROCESSED; BS SHOWS INTENSIFIED DEVELOPMENT, FURTHER WORK MAY BE REQUIRED TO ESTABLISH DEPTHS LESS THAN 54 FT.

### Survey Summary

**Charts Affected:** 12358\_1, 12354\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

**Remarks:**

Item not covered in survey area.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
AWOIS_B370-TJ-08	AWOIS # 1800	0.00	000.0	Primary

### Hydrographer Recommendations

### S-57 Data

[None]

## 1.22) AWOIS #1831 - CITIES SERVICES #4

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 41° 12' 48.4" N, 072° 17' 37.3" W  
**Historical Depth:** 38.71 m  
**Search Radius:** 100  
**Search Technique:** S2,MB  
**Technique Notes:** [None]

#### History Notes:

H9181/70-71--OPR-474; LIMITED DEVELOPEMENT OF 25 METER LS FOUND APPARENT WRECK RISING 15 FT IN 140 FT, 127 FT LD (ACTUAL); FATHO TRACE BROKEN, NO DIVER VERIFICATION; AT POS.41-12-48N, 72-17-39W.■ CL1291/81--CG; WK FOUND W/SS IN 143 FT OF WATER, DIVER IDENTIFIED AS BARGE RIVETED CONSTRUCTION, STEEL, MUCH MARINE GROWTH. INFO VERIFIED BY TELECON CGC MAHONING.■■ DESCRIPTION■ 01 1936■ 24 NO. 8373. BARGE, 810 GT, SUNK 1/24/36 BY MARINE CASUALTY; POSITION ACCURACY WITHIN 1 MILE■ 206 LORAN C RATES: 9960-W 14806.9; 9960-Y 43970.7. (ENTERED MSM 3/89)■ \*\*\*\* IT WAS DETERMINED THAT ITEM 1830 WAS THE SAME AS THIS ITEM. THE DATA FROM ITEM 1830 WAS COMBINED WITH THIS ITEM.

### Survey Summary

**Charts Affected:** 12372\_11, 12354\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Item not covered in survey area.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
AWOIS_B370-TJ-08	AWOIS # 1831	0.00	000.0	Primary

### Hydrographer Recommendations

### S-57 Data

[None]

## 1.23) AWOIS #1835 - UNKNOWN

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 41° 13' 19.0" N, 072° 16' 49.3" W  
**Historical Depth:** [None]  
**Search Radius:** 250  
**Search Technique:** S2,MB  
**Technique Notes:** [None]

#### History Notes:

CL1291/81-USCG; WRECK FOUND W/SS IN POS.41/13/18.60, 072/16/51.00 (NAD 27) COVERED 128 FT APPROX. 200 YDS DUE WEST IS A SMALLER CONTACT, THOUGHT TO BE WOOD CONSTRUCTION AND SLIGHTLY MOVEABLE, INFO VERIFIED BY TELECON CGC MAHONING.

### Survey Summary

**Charts Affected:** 12375\_1, 12372\_11, 13209\_1, 12354\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Item not covered in survey area.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
AWOIS_B370-TJ-08	AWOIS # 1835	0.00	000.0	Primary

### Hydrographer Recommendations

### S-57 Data

[None]



## 1.24) AWOIS #3341 - UNKNOWN

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 41° 06' 45.8" N, 072° 32' 09.3" W  
**Historical Depth:** 21.64 m  
**Search Radius:** 100  
**Search Technique:** S2,MB  
**Technique Notes:** [None]

#### History Notes:

S-B600-RU -- 71-FOOT WIRE DRAG DEPTH OVER AN UNKNOWN SHIPWRECK. IT IS UNCLEAR WHETHER THE ITEM WAS PROVED OR DISPROVED. ■■■HISTORY■ MAR--1/84, OPR-B660-RU/HE-83; NON-DANGEROUS SUBM. WK. CLEARED BY WD, EFFECTIVE DEPTH 72FT BASED ON PREDICTED TIDES IN LAT.41-06-45.44N, LONG.72-32-10.92W. RECOMMENDS CHARTING NON-DANGEROUS SUBM. WK.■ CL212/84--SAME DATA AS ABOVE. (ENTERED, 2/84, RWD).■ FE322WD--OPR-B660-RU/HE-83-84; WRECK LOCATED BY SIDE SCANSONAR IN LAT 41-06-45.45N, LONG 72-32-11.01W; NOT DIVER INVESTIGATED OR IDENTIFIED; ECHO SOUNDER DEVELOPMENT YIELDED A GOOD POSITION AND A SHOALEST DEPTH OF 81 FT.(NOT CORRECTED FOR VELOCITY OR INSTRUMENT ERROR); WIRE DRAG CLEARED IN OPPOSITE DIRECTIONS BY 71 FT.; NOT CONSIDERED A HAZARD TO NAVIGATION; EVALUATOR RECOMMENDED CHARTING A 71 FT. SOUNDING, BASKET, AND TYPE WK. (UPDATED MSM 5/89)■■■ DESCRIPTION■ 206 LORAN C RATES: 9960-W 14915.9, 9960-Y 43946.6. (ENTERED MSM 3/89)

### Survey Summary

**Charts Affected:** 12358\_1, 12354\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Item not covered in survey area.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
AWOIS_B370-TJ-08	AWOIS # 3341	0.00	000.0	Primary

### Hydrographer Recommendations

#### S-57 Data

[None]

## 1.25) AWOIS #3342 - SOUNDING

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 41° 05' 24.3" N, 072° 35' 40.3" W  
**Historical Depth:** [None]  
**Search Radius:** 250  
**Search Technique:** S2,MB  
**Technique Notes:** [None]

#### History Notes:

MAR--11/83, OPR-B660-RU/HE; SHOALING AREA OF SAND WAVES LOCATED IN LAT.41-05-33.5N, LONG.72-35-51.3W. LD DETERMINED IS 69.7 FT (PREDICTED TIDES). (ENTERED, 2/84, RWD). ■ CL1130/83--SAME DATA AS ABOVE. (ENTERED 4/84 RWD). ■ FE322WD--OPR-B660-RU/HE-83-84; 69 FT. DEPTH WAS NOT VERIFIED SINCE INSUFFICIENT SOUNDING CORRECTORS WERE DETERMINED FOR ECHO SOUNDINGS; HYDROGRAPHY OBTAINED BY THIS SURVEY IS CONSIDERED ONLY RECONNAISSANCE; HUNG ON SAND WAVE IN LAT 41-05-24N, LONG 72-35-42W AT 72 FT.; CLEARED BY 70 FT; HANG IS NOT RECOMMENDED FOR CHARTING; EVALUATOR RECOMMENDED DELETING THE CHARTED 69 FT. SHOAL AND ADD THE PICTORAL SAND WAVE SYMBOL TO THE CHART IN THE VICINITY OF THE PRESENT SURVEY. (UPDATED MSM 5/89)

### Survey Summary

**Charts Affected:** 12358\_1, 12354\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Item not covered in survey area.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
AWOIS_B370-TJ-08	AWOIS # 3342	0.00	000.0	Primary

### Hydrographer Recommendations

#### S-57 Data

[None]

**1.26) AWOIS #6928 - L. W.B.C. CO.3****No Primary Survey Feature for this AWOIS Item**

**Search Position:** 41° 05' 24.3" N, 072° 25' 58.3" W  
**Historical Depth:** [None]  
**Search Radius:** 500  
**Search Technique:** S2,MB  
**Technique Notes:** Search not required in less than 4 meters water depth

**History Notes:**

CL416/43--DOD; AS A RESULT OF DAMAGE INCURRED DURING A SEVERE WIND STORM, A BARGE SANK 3/4 MILE EAST OF HORTON POINT LIGHTHOUSE AND 1/4 MILE OFF HASHAMOMUCK BEACH, LONG ISLAND; LOCATED IN LAT 41-05-24N, LONG 72-26-00W (SCALED FROM CHART; CHARTED POSITION DETERMINED FROM MARKED UP COPY OF CHART SUBMITTED BY THE WAR DEPARTMENT); WIND AND WAVE ACTION RESULTED IN WRECKAGE EXTENDING FROM HORTON POINT LIGHTHOUSE TO APPROXIMATELY LAT 41-05-18N, LONG 72-25-00W; NOT CONSIDERED ENOUGH OF A HAZARD TO JUSTIFY REMOVAL. (ENTERED MSM 11/88)

**Survey Summary**

**Charts Affected:** 12358\_1, 12354\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

**Remarks:**

Item not covered in survey area.

**Feature Correlation**

Address	Feature	Range	Azimuth	Status
AWOIS_B370-TJ-08	AWOIS # 6928	0.00	000.0	Primary

**Hydrographer Recommendations****S-57 Data**

[None]

## 1.27) AWOIS #6944 - OBSTRUCTION

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 41° 09' 38.4" N, 072° 16' 20.3" W  
**Historical Depth:** [None]  
**Search Radius:** 250  
**Search Technique:** S2,MB  
**Technique Notes:** [None]

#### History Notes:

CL843/49--USN HYDROGRAPHIC OFFICE; A REPORT WAS RECEIVED THAT A DIVER DISCOVERED A PINNACLE ROCK BEARING 060 DEGREES, 550 YARDS FROM THE NEAREST TIP OF MULFORD POINT; PA LAT 41-09-38N, LONG 72-16-22W; ROCK WAS REPORTED TO BE 5 FT. ACROSS AT THE BOTTOM, THREE FT. AT THE TOP, AND RISING 12 - 15 FT. ABOVE THE HARD SAND BOTTOM; SOUNDINGS AROUND THE ROCK WERE 5 1/4 FMS; BOAT WAS UNABLE TO GET A SOUNDING ON ITS TOP; PINNACLE COULD BE AS LITTLE AS 13 - 16 FT. BELOW THE SURFACE AT MLW. (ENTERED MSM 11/88)

### Survey Summary

**Charts Affected:** 12358\_1, 13209\_1, 12354\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Item not covered in survey area.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
AWOIS_B370-TJ-08	AWOIS # 6944	0.00	000.0	Primary

### Hydrographer Recommendations

[None]

### S-57 Data

[None]

## 1.28) AWOIS #6956 - UNKNOWN

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 41° 11' 30.4" N, 072° 11' 43.3" W  
**Historical Depth:** [None]  
**Search Radius:** 300  
**Search Technique:** S2,MB  
**Technique Notes:** [None]

#### History Notes:

LN41/70--3RD CGD; A 26 FT. CABIN CRUISER IS REPORTED SUNK IN ABOUT 50 FT. OF WATER NORTH OF PLUM ISLAND IN PA LAT 41-11-30N, LONG 72-11-45W.■ CL856/71--CGS; CHANGE TO PROJECT INSTRUCTIONS FOR OPR-474-HSL-71; WRECK IS REPORTED TO BE ON THE NORTH SIDE OF THE CHARTED 13 FT. ROCK. (ENTERED MSM 11/88)

### Survey Summary

**Charts Affected:** 13209\_1, 12354\_1, 13205\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

AWOIS was not located using object detection multibeam echosounder bathymetry and 100% side scan sonar.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
AWOIS_B370-TJ-08	AWOIS # 6956	0.00	000.0	Primary

### Hydrographer Recommendations

### S-57 Data

[None]

## 1.29) AWOIS #7087 - OBSTRUCTION

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 41° 09' 50.3" N, 072° 14' 48.3" W  
**Historical Depth:** [None]  
**Search Radius:** 300  
**Search Technique:** S2,MB  
**Technique Notes:** Search not required in less than 4 meters water depth

#### History Notes:

CL677/77--COE; MV SEA BOOTS REPORTED STRIKING A SUBMERGED OBJECT APPROXIMATELY 1 MILE, 270 DEGREES WEST OF ORIENT LIGHT IN PA LAT 41-09-50N, LONG 72-14-50W; CHARTED AS OBSTR REP 1976. (ENTERED MSM 2/89)

### Survey Summary

**Charts Affected:** 12358\_1, 13209\_1, 12354\_1, 13205\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Item not covered in survey area.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
AWOIS_B370-TJ-08	AWOIS # 7087	0.00	000.0	Primary

### Hydrographer Recommendations

[None]

### S-57 Data

[None]

### 1.30) AWOIS #7357 - OBSTRUCTION

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

**Search Position:** 41° 13' 46.4" N, 072° 10' 08.6" W  
**Historical Depth:** 41.15 m  
**Search Radius:** 200  
**Search Technique:** S2,MB  
**Technique Notes:** [None]

**History Notes:**

FE268WD--OPR-B660-RU/HE-83,84; CONTACT #13; SUSPECTED WRECK LOCATED DURING SURVEY OPERATIONS IN LAT 41-13-46.1N, LONG 72-10-10.3W (COMPUTED BY OFFSET FROM THE VESSEL TRACK); EVALUATOR INTERPRETED SIDE SCAN SONAR CONTACT AS A BOULDER; COMPUTED LEAST DEPTH OF 135 FT. (ESTIMATED BY SCALING THE HEIGHT OFF THE BOTTOM FROM SIDE SCAN SONAR RECORDS); LIES ON THE CREST OF A RIDGE THAT IS COVERED BY LARGE BOULDERS; WHETHER IT IS A BOULDER OR A WRECK IS OF LITTLE IMPORTANCE BECAUSE OF LEAST DEPTH. (ENTERED MSM 5/89)

#### Survey Summary

**Charts Affected:** 13212\_1, 12372\_1, 13209\_1, 12354\_1, 13205\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

**Remarks:**

Item not covered in survey area.

#### Feature Correlation

Address	Feature	Range	Azimuth	Status
AWOIS_B370-TJ-08	AWOIS # 7357	0.00	000.0	Primary

#### Hydrographer Recommendations

#### S-57 Data

[None]

### 1.31) AWOIS #7358 - OBSTRUCTION

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

**Search Position:** 41° 14' 10.3" N, 072° 09' 01.3" W  
**Historical Depth:** [None]  
**Search Radius:** 0  
**Search Technique:** S2,MB  
**Technique Notes:** [None]

**History Notes:**

H9212/71--SHOAL AREA CENTERED IN LAT 41-14-10N, LONG 72-09-03W; 127 FT. LEAST DEPTH.■  
FE268WD--OPR-B660-RU/HE-83,84; BOULDER FIELD CENTERED AT THE SAME POSITION AS THE  
SHOAL ABOVE; EVALUATOR RECOMMENDED CHARTING "BLDS" AT LAT 41-14-05N, LONG  
72-08-52W, LAT 41-14-27N, LONG 72-08-52W TO DELINEATE THE BOULDER FIELD. (ENTERED MSM  
5/89)

#### Survey Summary

**Charts Affected:** 13212\_1, 12372\_1, 13209\_1, 12354\_1, 13205\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

**Remarks:**

Item not covered in survey area.

#### Feature Correlation

Address	Feature	Range	Azimuth	Status
AWOIS_B370-TJ-08	AWOIS # 7358	0.00	000.0	Primary

#### Hydrographer Recommendations

#### S-57 Data

[None]



## 1.32) AWOIS #7359 - OBSTRUCTION

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 41° 14' 00.4" N, 072° 10' 18.3" W  
**Historical Depth:** [None]  
**Search Radius:** 0  
**Search Technique:** S2,MB  
**Technique Notes:** [None]

#### History Notes:

H9212/71-- SHOAL, WITH 117 FT. LEAST DEPTH, CENTERED IN LAT 41-14-00N, LONG 72-10-20W.■  
FE268WD--OPR-B660-RU/HE-83,84; BOULDER FIELD CENTERED AROUND THE SAME POSITION AS  
THE SHOAL ABOVE; EVALUATOR RECOMMENDED CHARTING "BLDS" IN LAT 41-14-01N, LONG  
72-10-18W TO DELINEATE BOULDER FIELD. (ENTERED MSM 5/89)

### Survey Summary

**Charts Affected:** 13212\_1, 12372\_1, 13209\_1, 12354\_1, 13205\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Item not covered in survey area.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
AWOIS_B370-TJ-08	AWOIS # 7359	0.00	000.0	Primary

### Hydrographer Recommendations

### S-57 Data

[None]

### 1.33) AWOIS #7360 - UNKNOWN

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

**Search Position:** 41° 11' 17.4" N, 072° 18' 10.3" W  
**Historical Depth:** 27.13 m  
**Search Radius:** 0  
**Search Technique:** S2,MB  
**Technique Notes:** [None]

#### History Notes:

H9181/70 -- 89 FT SHOAL SOUNDING LOCATED IN LAT 41-11-17N, LONG 72-18-12W.■■■  
FE268WD--OPR-B660-RU/HE-83,84; BOULDER FIELD CENTERED IN APPROXIMATELY THE SAME  
POSITION AS 89 FT. SOUNDING ABOVE; 90 FT. SOUNDING CHARTED; RECOMMENDED DELETING  
CHARTED SOUNDING, CHARTING 89 FT. SOUNDING FROM H9181 AND CONDUCT ADDITIONAL  
SURVEY WORK TO DETERMINE THE EXTENT OF BOULDER FIELD. (ENTERED MSM 5/89)

#### Survey Summary

**Charts Affected:** 12354\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Item not covered in survey area.

#### Feature Correlation

Address	Feature	Range	Azimuth	Status
AWOIS_B370-TJ-08	AWOIS # 7360	0.00	000.0	Primary

#### Hydrographer Recommendations

#### S-57 Data

[None]

### 1.34) AWOIS #12266 - SOUNDING

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

**Search Position:** 41° 11' 25.6" N, 072° 11' 39.3" W  
**Historical Depth:** 3.96 m  
**Search Radius:** 100  
**Search Technique:** S2,MB  
**Technique Notes:** [None]

**History Notes:**

H-5513/34 -- 13 FT WIRE -DRAG CLEARANCE OVER A ROCK NOW CHARTED IN POSITION:  
41°11'25.58" N 072°11'39.34" W [NAD 83] [ENTERED 4/10/04 JCM]

#### Survey Summary

**Charts Affected:** 13209\_1, 12354\_1, 13205\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

**Remarks:**

AWOIS was not located using object detection multibeam echosounder bathymetry and 100% side scan sonar.

#### Feature Correlation

Address	Feature	Range	Azimuth	Status
AWOIS_B370-TJ-08	AWOIS # 12266	0.00	000.0	Primary

#### Hydrographer Recommendations

#### S-57 Data

[None]

**1.35) AWOIS #12415 - UNKNOWN****No Primary Survey Feature for this AWOIS Item**

**Search Position:** 41° 09' 30.4" N, 072° 19' 28.3" W  
**Historical Depth:** [None]  
**Search Radius:** 200  
**Search Technique:** S2,MB  
**Technique Notes:** [None]

**History Notes:**

LNM 12/91 CGD1 (3/20/91) -- WRECK, POSITION APPROXIMATE, NEAR: 41°09'30.40" N 072°19'28.30" W  
[NAD 83] [ENTERED 4/19/04 JCM]

**Survey Summary**

**Charts Affected:** 12358\_1, 12354\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

**Remarks:**

Item not covered in survey area.

**Feature Correlation**

Address	Feature	Range	Azimuth	Status
AWOIS_B370-TJ-08	AWOIS # 12415	0.00	000.0	Primary

**Hydrographer Recommendations****S-57 Data**

[None]

### 1.36) AWOIS #12416 - SOUNDING

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

**Search Position:** 41° 08' 43.5" N, 072° 20' 50.3" W  
**Historical Depth:** 5.49 m  
**Search Radius:** 100  
**Search Technique:** S2,MB  
**Technique Notes:** [None]

**History Notes:**

H01590b (1883)-- 18 FT LEAD-LINE DEPTH NOW CHARTED IN POSITION: 41°08'43.50" N 072°20'50.27" W [NAD 83] [ENTERED 4/19/04 JCM]

#### Survey Summary

**Charts Affected:** 12358\_1, 12354\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

**Remarks:**

Item not covered in survey area.

#### Feature Correlation

Address	Feature	Range	Azimuth	Status
AWOIS_B370-TJ-08	AWOIS # 12416	0.00	000.0	Primary

#### Hydrographer Recommendations

#### S-57 Data

[None]

**1.37) AWOIS #12417 - SOUNDING****No Primary Survey Feature for this AWOIS Item**

**Search Position:** 41° 08' 48.5" N, 072° 19' 58.7" W  
**Historical Depth:** 2.13 m  
**Search Radius:** 100  
**Search Technique:** S2,MB  
**Technique Notes:** Search not required in less than 4 meters water depth

**History Notes:**

H01590b (1883) -- 7 FT LEAD-LINE DEPTH NOW CHARTED IN POSITION: 41°08'48.52" N 072°19'58.72" W  
[NAD 83] [ENTERED 4/19/04 JCM]

**Survey Summary**

**Charts Affected:** 12358\_1, 12354\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

**Remarks:**

Item not covered in survey area.

**Feature Correlation**

Address	Feature	Range	Azimuth	Status
AWOIS_B370-TJ-08	AWOIS # 12417	0.00	000.0	Primary

**Hydrographer Recommendations****S-57 Data**

[None]

## 1.38) AWOIS #13954 - OBSTRUCTION

### No Primary Survey Feature for this AWOIS Item

**Search Position:** 41° 10' 06.0" N, 072° 12' 54.0" W  
**Historical Depth:** 19.51 m  
**Search Radius:** 400  
**Search Technique:** MB, S2  
**Technique Notes:** SEARCH NOT REQUIRED IN WATER DEPTHS LESS THAN 4 METERS

#### History Notes:

LNM 49/02 -- An obstruction that consists of a tractor-trailer is reported to exist between Plum Gut and Orient Point in position (PA) 41-10.1N 072-12.9W in 64 feet of water. The obstruction is marked with three orange floats attached directly to the obstruction. Mariners are advised to use caution when transiting the area. UPDATED 5/17/2007 JCM.

### Survey Summary

**Charts Affected:** 12358\_1, 13209\_1, 12354\_1, 13205\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

AWOIS was covered with object detection multibeam echosounder bathymetry and 40% of 400 meter search radius was covered by 100% side scan sonar coverage. Item was found.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
AWOIS_B370-TJ-08	AWOIS # 13954	0.00	000.0	Primary

### Hydrographer Recommendations

### S-57 Data

[None]

## Feature Images

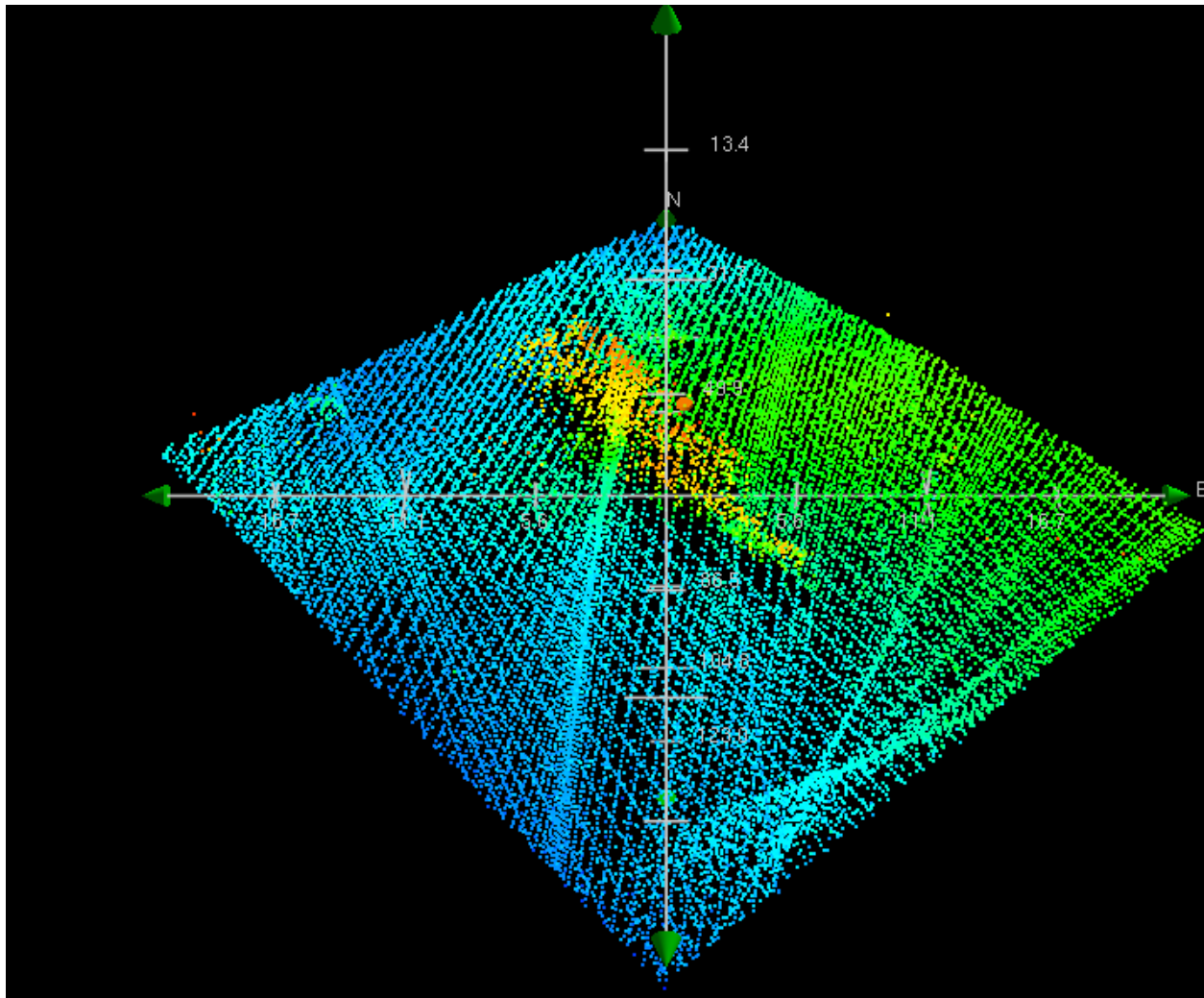
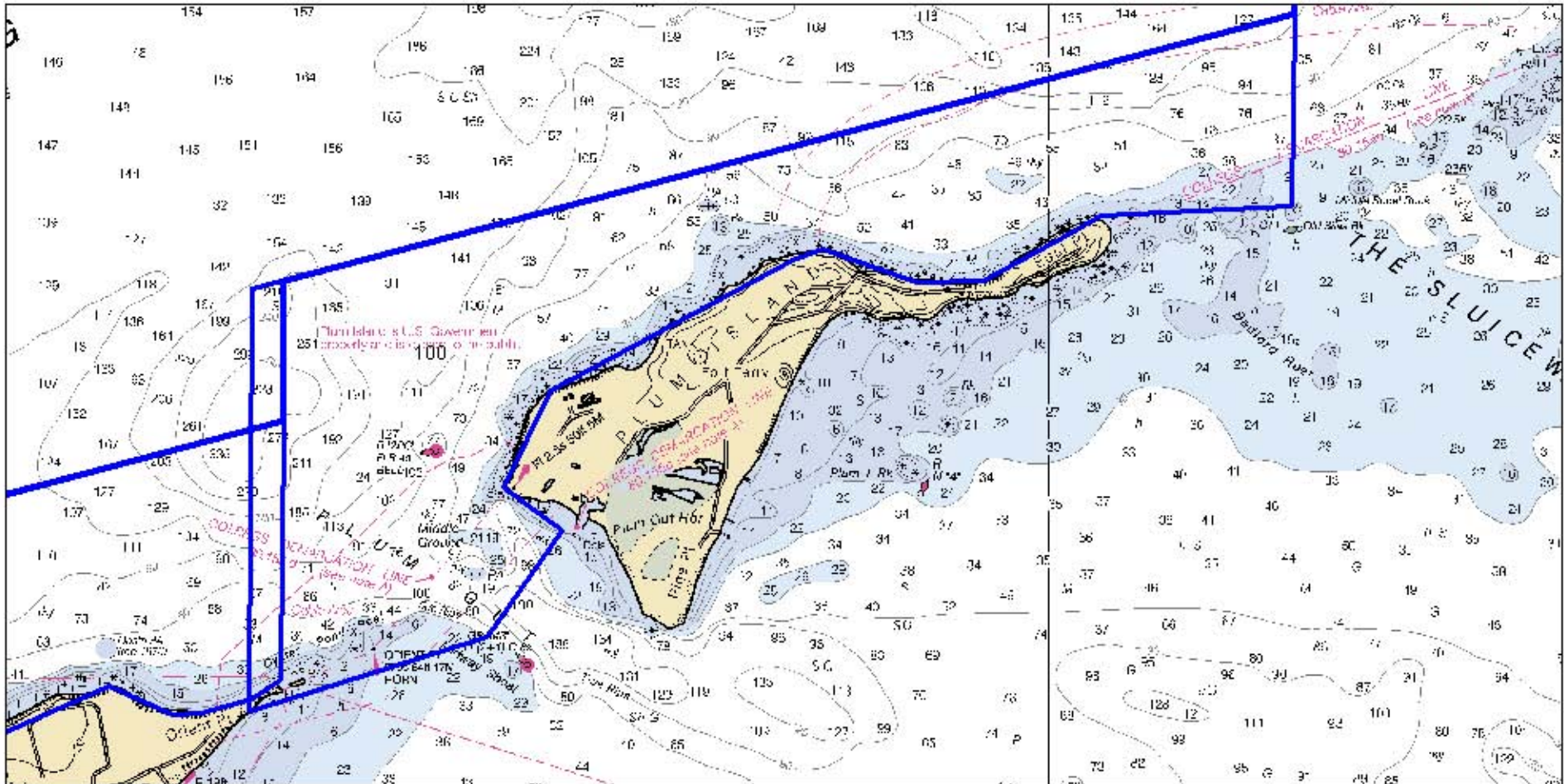


Figure 1.38.1



# **Appendix III**

## **Progress Sketch**



Project	Sheet_Letter	H_num	HQ_Est_SHM	CumIPercCompPre	CumIPercCompCu	SHM_CompCurf	CumSHMcom	CumIPercProcess
B370-TJ-08	P		10	0	0	0	0	0
B370-TJ-08	K	H11999	34	0	90	31	31	0
B370-TJ-08	Q	H11997	37	0	100	37	37	0
B370-TJ-08	J	H11251	6	0	100	6	6	0
B370-TJ-08	N	H11446	4	0	100	4	4	0
B370-TJ-08	H	H11445	3	0	100	3	3	0
			4	0	0	0	0	0
			0	0	0	0	0	0

# Progress Sketch OPR-B370-TJ-08

## September 2008

## **Appendix IV**

### **Tides and Water Levels**

#### **1. Tide Notes**

**-N/A**

#### **2. Request for Approved Tides**

#### **3. Final Tide Notes**



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 03, 2008

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

FROM: CDR P. Tod Schattgen, NOAA, NOAA Ship THOMAS JEFFERSON (MOA-TJ)

SUBJECT: Request for Approved Tides/Water Levels

Please provide the following data:

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

Transmit data to the following:

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

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

Project No.: OPR-B370-TJ-08  
Registry No.: H11445  
State: New York  
Locality: Long Island Sound  
Sublocality: North Shore of Plum Island

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
2008_260	12:56:39	20:56:27
2008_261	12:50:01	20:51:18
2008_262	12:53:55	20:27:20
2008_263	19:05:33	20:54:14
2008_264	12:34:46	20:56:37
2008_265	12:38:53	21:05:50
2008_266	12:31:58	15:58:46
2008_268	15:50:06	20:35:22
2008_275	13:44:51	16:17:05



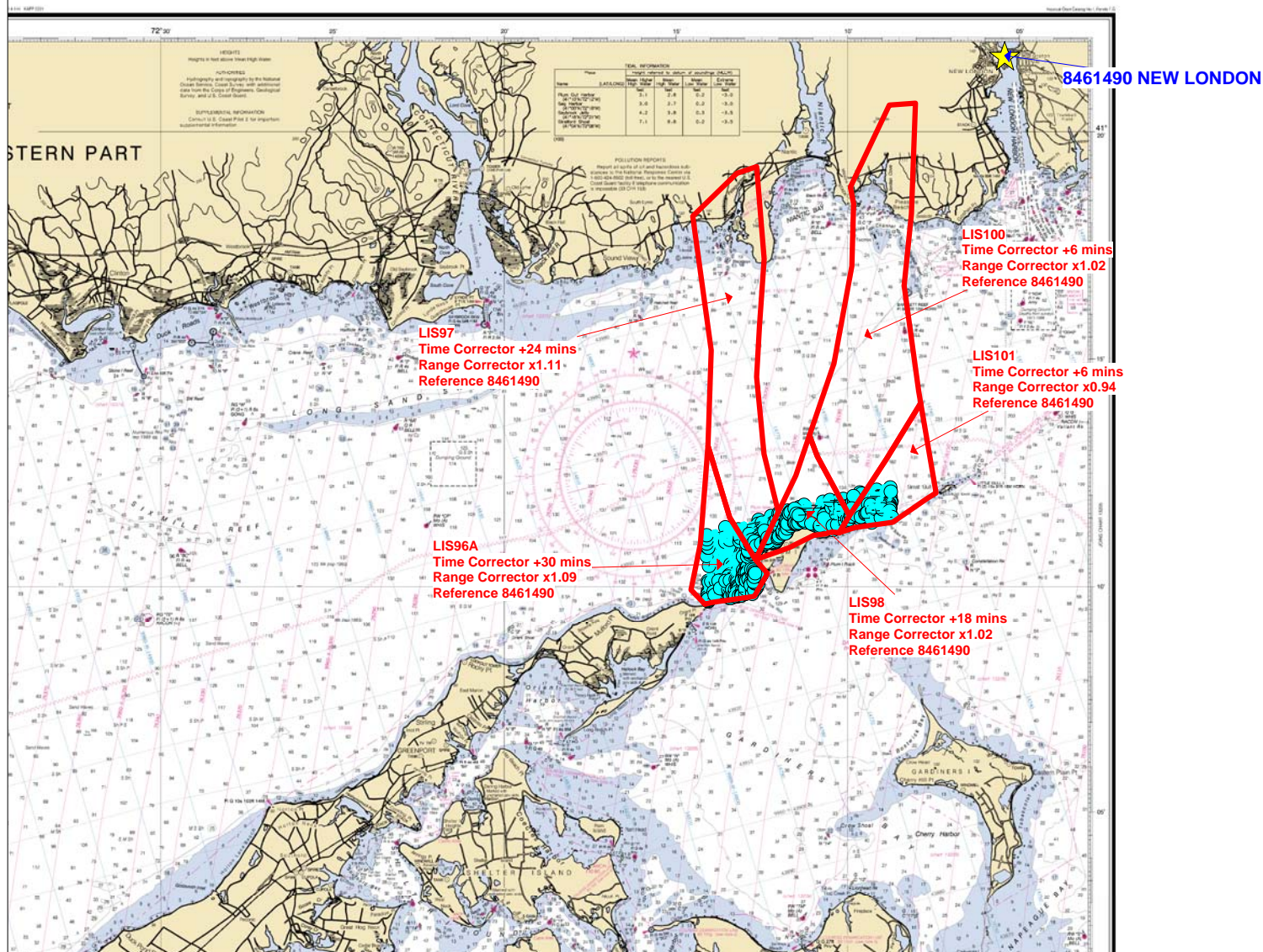
**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
National Ocean Service  
Silver Spring, Maryland 20910





Cont

## Final Tidal Zoning for OPR-B370-TJ-2008, H11445 Eastern Long Island Sound, NY



## **Appendix V**

### **Supplemental Survey Records & Correspondence**



**Subject:** Re: for the Appendix V record, OPR-B307, H11920 & H11921

**From:** "shep.smith" <smith.shepard@gmail.com>

**Date:** Sat, 26 Jul 2008 14:26:28 -0400

**To:** jasper.schaer <jasper.schaer@noaa.gov>

Sounds like a good approach.

jasper.schaer wrote:

Sir,

Will AHB accept object detection MB coverage, in place of complete MB coverage, in the 4-20 meter survey area of the project, which already been covered by 100% SSS?

V/r-js

**Subject:** Re: [Fwd: Tide zoning issues on two TJ's survey projects]  
**From:** Carolyn Lindley <Carolyn.Lindley@noaa.gov>  
**Date:** Mon, 20 Oct 2008 15:18:18 -0400  
**To:** jasper.schaer <jasper.schaer@noaa.gov>  
**CC:** NOS.COOPS.HPT@noaa.gov, "james.m.crocker" <James.M.Crocker@noaa.gov>, tod.schattgen <Tod.Schattgen@noaa.gov>

Hi Jasper,  
The TPE value is the 95% value.  
Thanks,  
Carolyn

jasper.schaer wrote:

Our data analysis has revealed that we are at IHO-2, if we use the 0.38 TPE value for B370. Is this tpe value, 0.38m, a 1-sigma or 95% value?

thanks-js

jasper.schaer wrote:

Thanks, Craig for your quick response. -js

Craig Martin wrote:

Jeremy / Jasper,

In response to your email on two of TJ's survey projects:

- 1) The error estimate that should be used for the tides portion of the TPE on the B370 project is 0.38 meters.
- 2) Generally, no revision to preliminary tide zones is conducted, unless the mission is drastically beyond the scope of the original project submitted to CO-OPS. Short overages outside of the preliminary zoning is addressed and covered in the Smooth Tide process. We have not received a request for smooth tides for any B370 sheets to date. Once HPT receives these requests we will adjust the zoning and send back to the ship for application.
- 3) Due to total lack of tide information inside Menemsha Pond, CO-OPS is unable to provide reliable tide correctors to meet OCS specs beyond the southern border of Edy's Island. The TCARI grid was adjusted to the point where information could be confidentially extrapolated to meet these standards. This was annotated in the "Notes" section on the Final Tide note for the H-11920 in which the data was collected. In addition, CO-OPS informed HSD of this lack of tide information when the data was collected.

Regards,  
Craig

Jeremy McHugh wrote:

Hi HPT,  
Could you please address each of Jasper's three concerns and copy everyone on the reply. Thanks!  
Jeremy

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

Subject: Tide zoning issues on two TJ's survey projects  
Date: Sat, 27 Sep 2008 16:39:25 -0400  
From: jasper.schaer <[jasper.schaer@noaa.gov](mailto:jasper.schaer@noaa.gov)>  
Organization: NOAA-TJ  
To: [Smooth.Tides@noaa.gov](mailto:Smooth.Tides@noaa.gov)

CC: Jeremy McHugh <[Jeremy.McHugh@noaa.gov](mailto:Jeremy.McHugh@noaa.gov)>  
References: <[ae8627f11e4ab567.48db6d84@noaa.gov](mailto:ae8627f11e4ab567.48db6d84@noaa.gov)>  
<[48DBB8BE.3000703@noaa.gov](mailto:48DBB8BE.3000703@noaa.gov)> <[48DBC7AE.9080302@noaa.gov](mailto:48DBC7AE.9080302@noaa.gov)>  
<[48DBDC75.9000507@noaa.gov](mailto:48DBDC75.9000507@noaa.gov)> <[48DBF32E.10601@noaa.gov](mailto:48DBF32E.10601@noaa.gov)>  
<[ad3413f430b07cf.48dcb168@noaa.gov](mailto:ad3413f430b07cf.48dcb168@noaa.gov)> <[48DD051E.6050609@noaa.gov](mailto:48DD051E.6050609@noaa.gov)>  
<[48DD1459.2010202@noaa.gov](mailto:48DD1459.2010202@noaa.gov)>

Tide zoning issues on B370 & B307.

1. We were looking for the error estimates to apply to our TPE on B370. There were none given in the tide letter part of the project instruction because at the time it was being determined. If we apply zero, we run the risk of data dropping out in our grid surfaces. We need error estimate for our discreet zoning for B370 or at the very least a high.

2. TJ 's launches survey to the 4m curve and at times we acquire data outside the preliminary tide zone in getting to the 4 m curve. This is the case for B370. Will need a revision for discreet tide zoning for B370. What do you need from us?

3. Data from survey B307 was collected in Menemsha Pond, an area that was not original planned, hence why the B307's tcari files were revised. When we try to apply the verified WL data to the TCARI file, we encounter a host of problems, see attached.

r-js

--

Jeremy McHugh, Physical Scientist  
NOAA's Office of Coast Survey  
301-713-2702 x117

Carolyn Lindley <[Carolyn.Lindley@noaa.gov](mailto:Carolyn.Lindley@noaa.gov)>

Oceanographer

NOAA/National Ocean Service

CO-OPS

From [Olivia.Hauser@noaa.gov](mailto:Olivia.Hauser@noaa.gov)



Sent Thursday, May 1, 2008 3:10 pm

To [Christiaan.VanWestendorp@noaa.gov](mailto:Christiaan.VanWestendorp@noaa.gov) , [jasper.schaer@noaa.gov](mailto:jasper.schaer@noaa.gov) ,  
[Daniel.Wright@noaa.gov](mailto:Daniel.Wright@noaa.gov) , [Jake.Yoos@noaa.gov](mailto:Jake.Yoos@noaa.gov) , [James.Jacobson@noaa.gov](mailto:James.Jacobson@noaa.gov) ,  
[Matthew.Ringel@noaa.gov](mailto:Matthew.Ringel@noaa.gov) , [Mark.Mcmann@noaa.gov](mailto:Mark.Mcmann@noaa.gov) , [David.Elliott@noaa.gov](mailto:David.Elliott@noaa.gov) ,  
[Kathryn.Simmons@noaa.gov](mailto:Kathryn.Simmons@noaa.gov) , [Lucy.Massimillo@noaa.gov](mailto:Lucy.Massimillo@noaa.gov) , [Matthew.Jaskoski@noaa.gov](mailto:Matthew.Jaskoski@noaa.gov) ,  
"Eric M. Moore" <[Eric.M.Moore@noaa.gov](mailto:Eric.M.Moore@noaa.gov)> , [Michael.Davidson@noaa.gov](mailto:Michael.Davidson@noaa.gov) ,  
[Stephen.Kuzirian@noaa.gov](mailto:Stephen.Kuzirian@noaa.gov) , "Lynnette V. Morgan" <[Lynnette.V.Morgan@noaa.gov](mailto:Lynnette.V.Morgan@noaa.gov)>

Cc [Mark.Vanwaes@noaa.gov](mailto:Mark.Vanwaes@noaa.gov)

Bcc

Subject HVCR

Hi FOOs, CSTs and Team Leads,

A recent discussion made me realize that many of you are still creating some sort of Horizontal and Vertical Control Report (HVCR), even if you have not done any active horizontal control or vertical control. If you have not actively set up a tide gauge or a differential beacon, you are not required to write a HVCR. See FPM section "5.2.3.2.3. Horizontal & Vertical Control Report (HVCR)" Please just state that fact in your DR, and place a txt file in a HVCR folder stating there was not a report required for this survey. This lets the branch know that you do not have a report, and saves you from having to re-write, or copy any information into a separate document. Please email me if you have any questions.

Olivia

**Subject:** Re: H11821 Deliverables

**From:** Shepard Smith <Shep.Smith@noaa.gov>

**Date:** Fri, 30 May 2008 11:56:42 -0400

**To:** daniel wright <Daniel.Wright@noaa.gov>

**CC:** megan nadeau <Megan.Nadeau@noaa.gov>, jasper schaer <jasper.schaer@noaa.gov>, Castle E Parker <Castle.E.Parker@noaa.gov>, Wesley Kitt <Wesley.Kitt@noaa.gov>

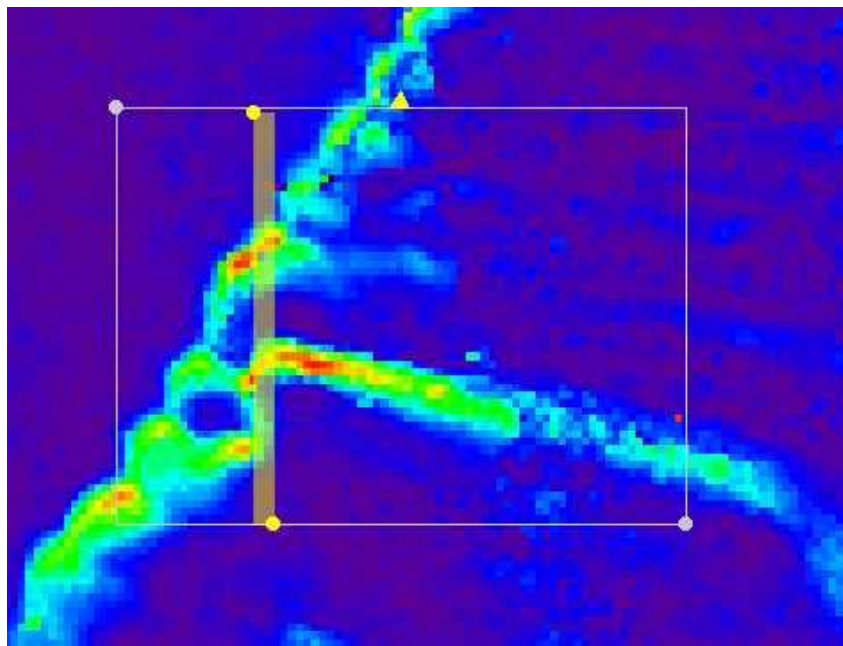
TJ,

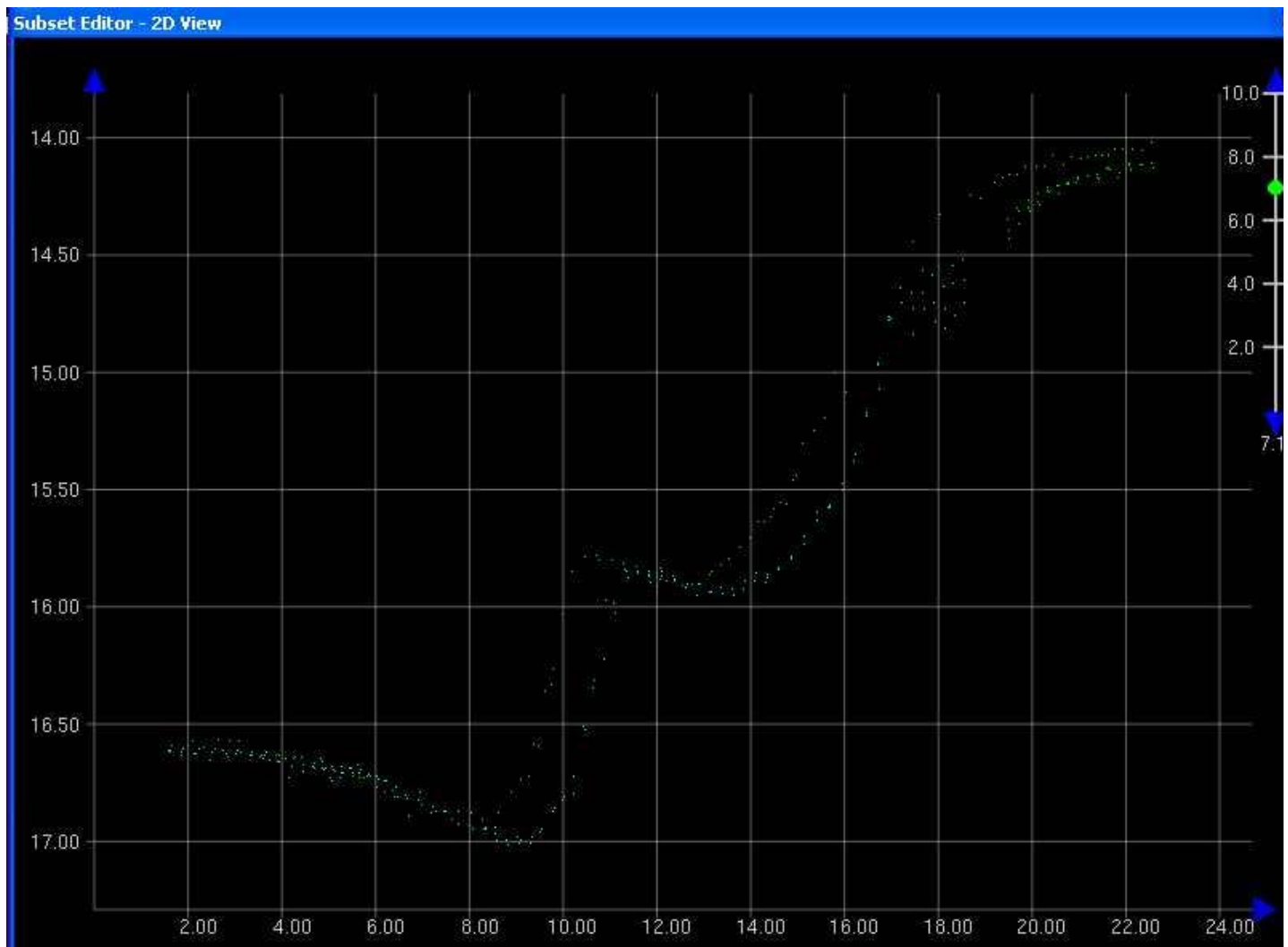
Yes, please.

I envision something along these lines:

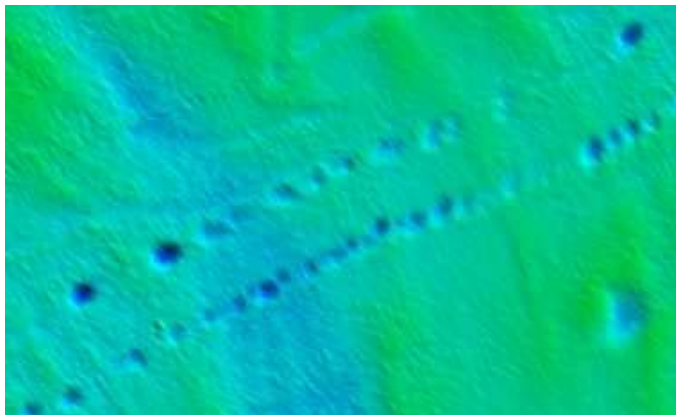
"The standard deviation layer of each grid was examined for areas of unusually high uncertainty that might indicate unresolved systematic errors. The colors in the following screen captures are scaled from 0 to 0.5m (*adjust as appropriate*). Comments to follow:

In areas of steep slopes and on the edges of dredged scours, horizontal errors between adjacent lines on the order of 1m caused std deviation of around 0.5m

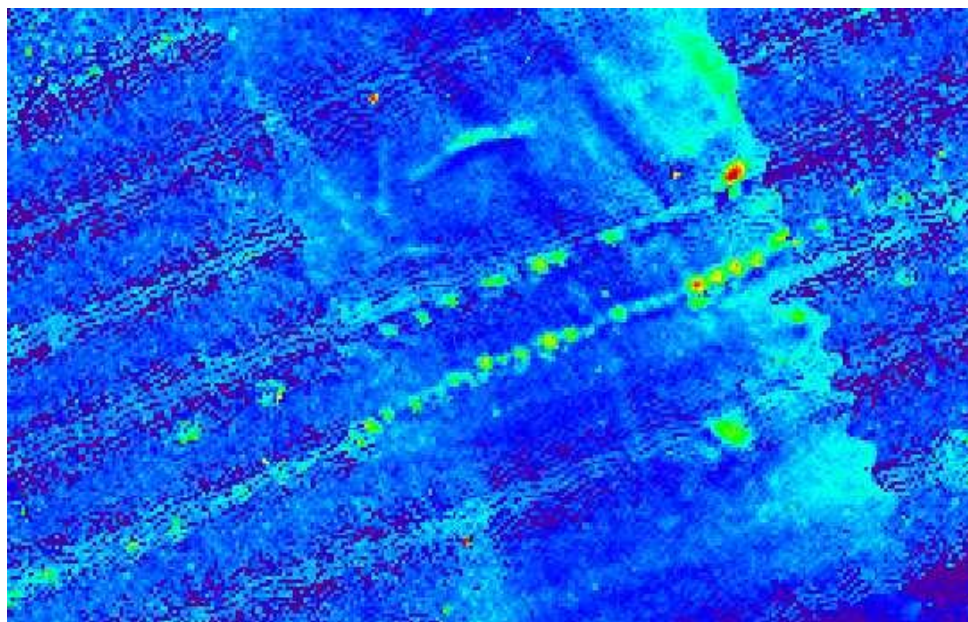




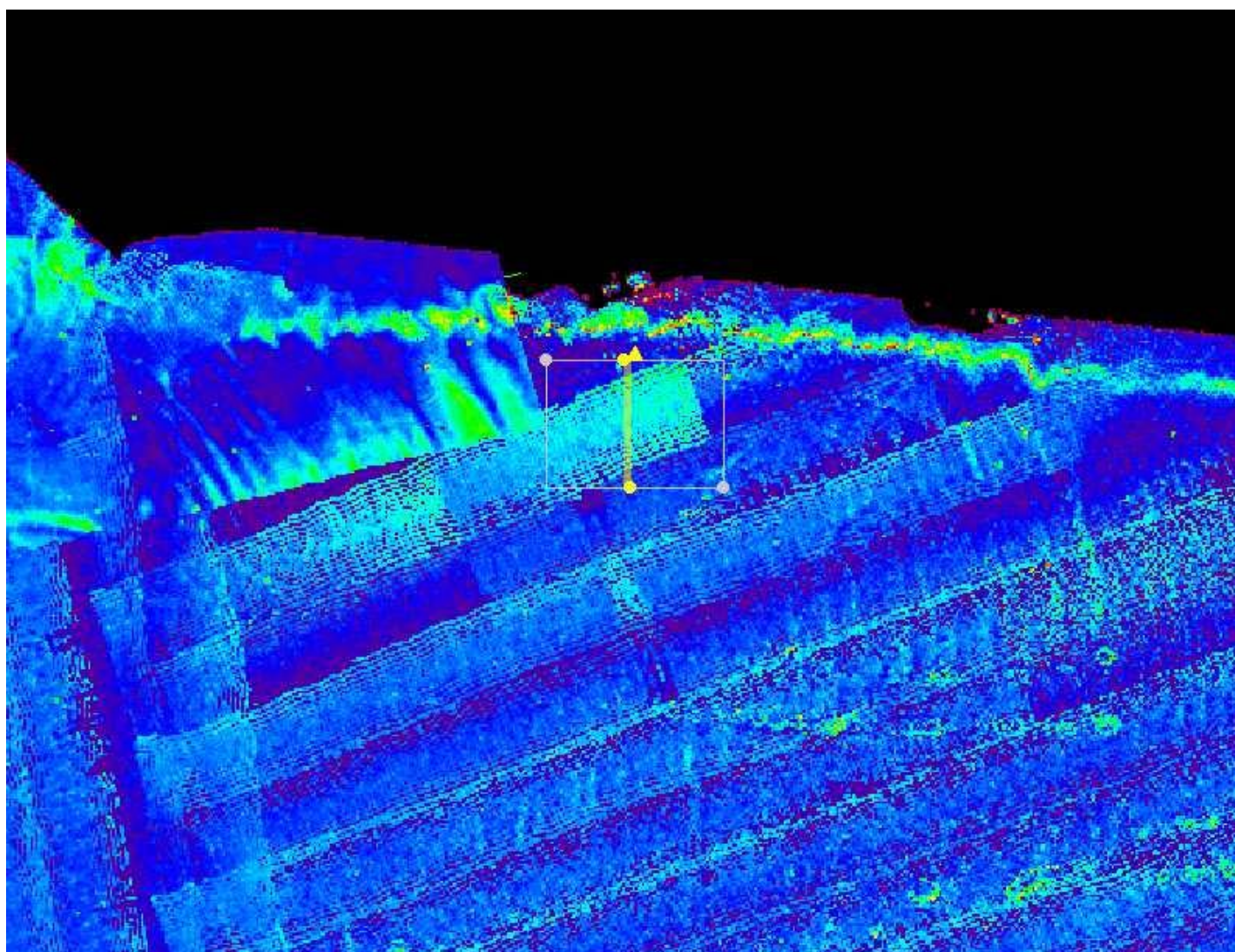
Lines of spudprints show up as lines of high std deviation that happened to coincide with the direction of the mainscheme lines.







Some areas of overlapping mainscheme lines show a std deviation of up to 0.15m, associated with an offset between the lines. We don't fully understand this offset, especially because it is on the same vessel just a few minutes apart.



etc, etc...

daniel wright wrote:

Hello Shep,

We are preparing our deliverables for H11821, Approaches to Jacksonville, and we would like confirmation/clarification on the following:

1. In our discussion regarding crossline comparisons, we agreed that an analysis of areas of high standard deviation in the BASE surface would be preferable over Pydro crossline stats, or a crossline to mainscheme surface differencing. Do you still concur?

2. Section 5.1.2 of the Specs and Deliverables;

"If single beam and multibeam are specified in the Hydrographic Survey Project Instructions or Statement of Work and they both fall in a common area, then a separate single beam surface is required."

In 2 of the 5 field sheets we collected both MB and SB for mainscheme bathy. If the soundings will be generated from the combined data, wouldn't this be better submitted as 1 combined surface? Or would you prefer 2 separate surfaces? Currently we have them combined.

Please let us know your thoughts on this.

Br,  
Dan