H12416

U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Ocean Survey

DESCRIPTIVE REPORT

Type of Survey:	Navigable Area
Registry Number:	H12416

LOCALITY

State(s):	New York
General Locality:	Long Island Sound
Sub-locality:	Crane Neck Pt to Port Jefferson, NY

2012

CHIEF OF PARTY
CDR Lawrence T. Krepp NOAA

LIBRARY & ARCHIVES

Date:

U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	REGISTRY NUMBER:
HYDROGRAPHIC TITLE SHEET	**H12416**

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(s):	**New York**
General Locality:	**Long Island Sound**
Sub-Locality:	**Crane Neck Pt to Port Jefferson, NY**
Scale:	**5000**
Dates of Survey:	**06/06/2012 to 06/28/2012**
Instructions Dated:	**05/08/2012**
Project Number:	**OPR-B340-TJ-12**
Field Unit:	**NOAA Ship *Thomas Jefferson***
Chief of Party:	**CDR Lawrence T. Krepp NOAA**
Soundings by:	**Multibeam Echo Sounder**
Imagery by:	**Multibeam Echo Sounder Backscatter**
Verification by:	**Atlantic Hydrographic Branch**
Soundings Acquired in:	**meters at Mean Lower Low Water**

Remarks:

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

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Descriptive Report to Accompany Survey H12416

Project: OPR-B340-TJ-12

Locality: Long Island Sound

Sublocality: Crane Neck Pt to Port Jefferson, NY

Scale: 1:5000

June 2012 - June 2012

NOAA Ship *Thomas Jefferson*

Chief of Party: CDR Lawrence T. Krepp NOAA

A. Area Surveyed

This hydrographic survey was completed as specified by Hydrographic Survey Project Instructions OPR-B340-TJ-12 and all other applicable directions. The survey area is located on the northern shore of Long Island, NY, extending from Crane Neck Point in the west, eastward to White Beach and includes Port Jefferson Harbor.

A.1 Survey Limits

Data were acquired within the following survey limits:

Northwest Limit	Southeast Limit
41° 1" 45' N 73° 3" 37' W	40° 56" 44' N 73° 10" 3' W

Table 1: Survey Limits

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

A.2 Survey Purpose

This project is being conducted in support of NOAA's Office of Coast Survey to provide contemporary hydrographic data in order to update the nautical charting products and reduce the survey backlog within the area. In addition, data from this project will support the Long Island Sound Seafloor Mapping Initiative for the States of Connecticut and New York. This project also responds to the Coast Guard proposal to establish six anchorage grounds in Long Island Sound to increase safety for vessels through enhanced voyage planning and also by clearly indicating the location of anchorage grounds for ships proceeding to ports in New York. The USCG is requesting that NOAA confirm that their underwater surveys of Long

Island Sound did not detect any wrecks at all in the locations being proposed for the anchorage areas. Data acquired for this project will be used by partners for species and habitat identification, infrastructure projects, ocean mapping, coastal hazards and geology. Partners include the US Environmental Protection Agency, Connecticut Department of Environmental Protection, the University of Connecticut Marine Science Department, New York Department of Environmental Quality, and other organizations.

A.3 Survey Quality

The entire survey is adequate to supersede previous data.

A.4 Survey Coverage

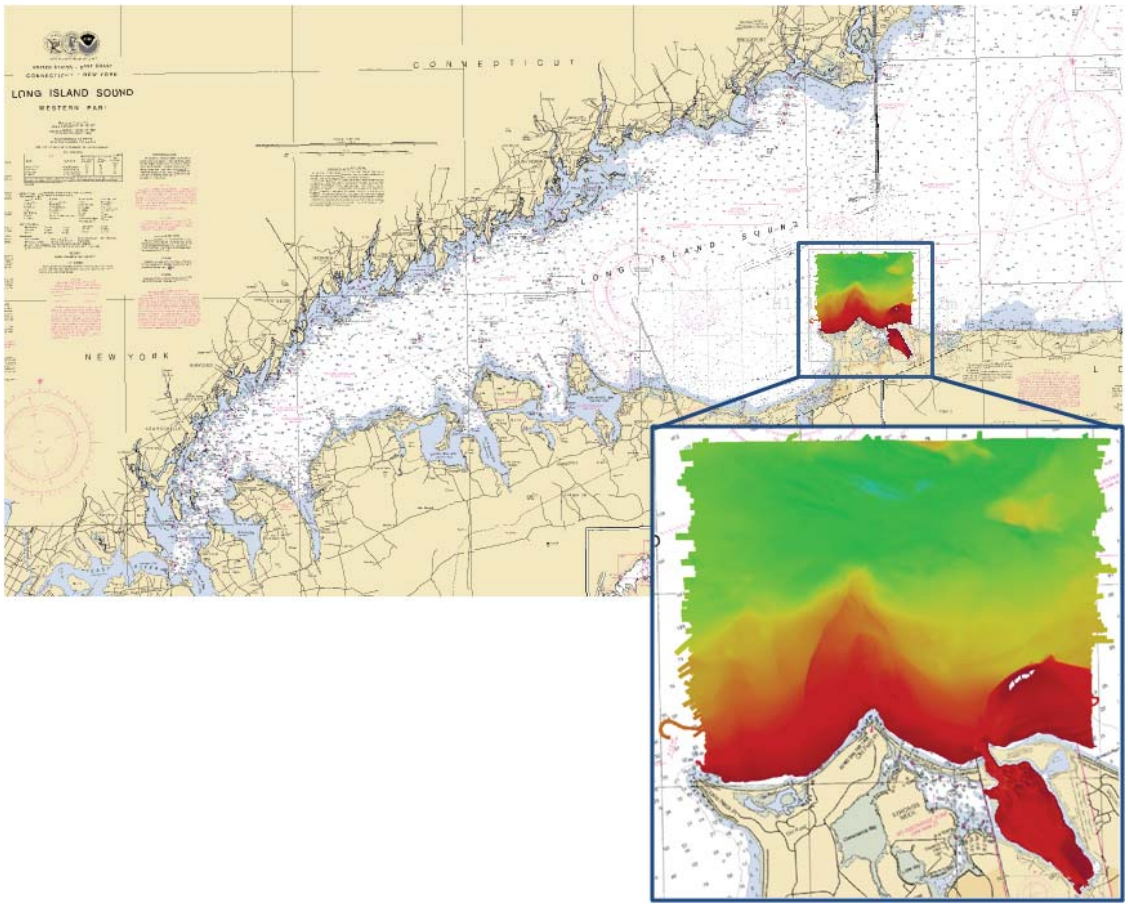


Figure 1: Location of survey H12416.

Coverage holidays do exist for this survey. Please see section B.2.10 for more information on the subject.

A.5 Survey Statistics

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

	HULL ID	*HSL 3101*	*HSL 3102*	*S-222*	*Total*
LNM	**SBES Mainscheme**	0.00	0.00	0.00	0.00
	MBES Mainscheme	241.39	311.97	254.71	808.07
	Lidar Mainscheme	0.00	0.00	0.00	0.00
	SSS Mainscheme	0.00	0.00	0.00	0.00
	SBES/MBES Combo Mainscheme	0.00	0.00	0.00	0.00
	SBES/SSS Combo Mainscheme	0.00	0.00	0.00	0.00
	MBES/SSS Combo Mainscheme	0.00	0.00	0.00	0.00
	SBES/MBES Combo Crosslines	6.02	22.57	7.76	36.35
	Lidar Crosslines	0.00	0.00	0.00	0.00
Number of Bottom Samples					21
Number AWOIS Items Investigated					4
Number Maritime Boundary Points Investigated					0
Number of DPs					5
Number of Items Items Investigated by Dive Ops					0
Total Number of SNM					14.49

Table 2: Hydrographic Survey Statistics

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

Survey Dates	Julian Day Number
06/06/2012	158
06/07/2012	159
06/08/2012	160
06/09/2012	161
06/10/2012	162
06/11/2012	163
06/12/2012	164
06/13/2012	165
06/19/2012	171
06/20/2012	172
06/21/2012	173
06/22/2012	174
06/23/2012	175
06/24/2012	176
06/25/2012	177
06/26/2012	178
06/28/2012	180

Table 3: Dates of Hydrography

B. Data Acquisition and Processing

B.1 Equipment and Vessels

Refer to the Data Acquisition and Processing Report (DAPR) for a complete description of data acquisition and processing systems, survey vessels, quality control procedures and data processing methods. Additional information to supplement sounding and survey data, and any deviations from the DAPR are discussed in the following sections.

B.1.1 Vessels

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

Hull ID	*S-222*	*HSL 3101*	*HSL 3102*
LOA	208 feet	31 feet	31 feet
Draft	15 feet	5.2 feet	5.2 feet

Table 4: Vessels Used

S-222 acquired Multibeam data, Sound Velocity data, and Attitude data. HSL 3101 acquired Multibeam data, Sound Velocity data, and Attitude data. HSL 3102 acquired Multibeam data, Sound Velocity data, Attitude data, and bottom samples.

B.1.2 Equipment

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

Manufacturer	Model	Type
Reson	7125 ROV	MBES
Reson	SVP71	Sound Speed System
Applanix	POS/MV V4	Positioning and Attitude System
Sea Bird	SBE 19 plus	Conductivity, Temperature and Depth Sensor
Brooke Ocean Technology	MVP100	Sound Speed System
Reson	7125 SV	MBES
Applied Micro Systems	Smart SV + T SSVS	Sound Speed System
Trimble	SPS351	Positioning System

Table 5: Major Systems Used

Vessel configurations, equipment operations, and data acquisition & processing were consistent with specifications described in the DAPR.

B.2 Quality Control

B.2.1 Crosslines

Crosslines, acquired for this survey, totalled 4.5% of mainscheme acquisition.

Crosslines were collected, processed and compared in accordance with section 5.2.4.3 of the HSSD (ed. 2012). All crosslines were filtered to 45 degrees on both sides and surface differencing in CARIS HIPS and SIPS was used to assess crossline agreement with mainscheme lines. Figure 1 depicts the difference surface between the 2-meter mainscheme and 2-meter crosslines surfaces. The difference surface is submitted digitally in the Separates IV folder. Percentage of crosslines collected to mainscheme lines is 4.50%, which exceeded the requirements in the HSSD for complete multibeam surveys. The differences in crosslines to mainscheme were generally less than +/- 0.07 meters (Figure3). In addition the hydrographer investigated nodes in the difference surface that exceeds the IHO tolerance to ensure that these were due to noise in the data and not systematic errors.

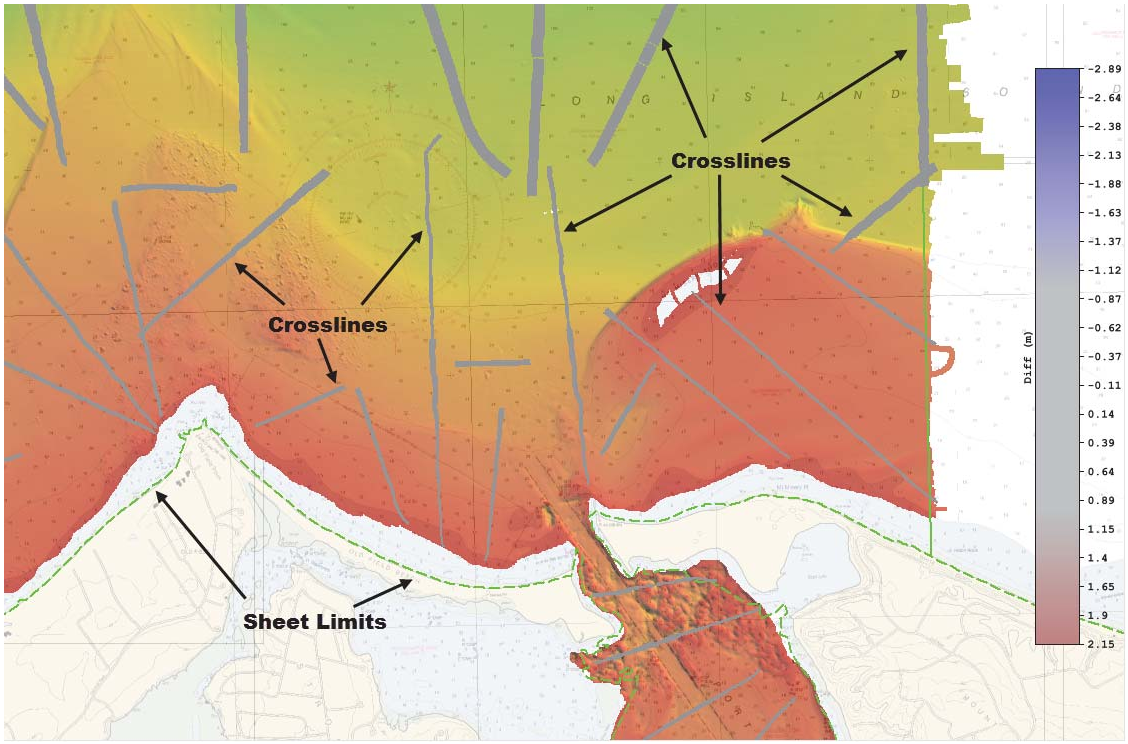


Figure 2: Mainscheme to crosslines difference surface.

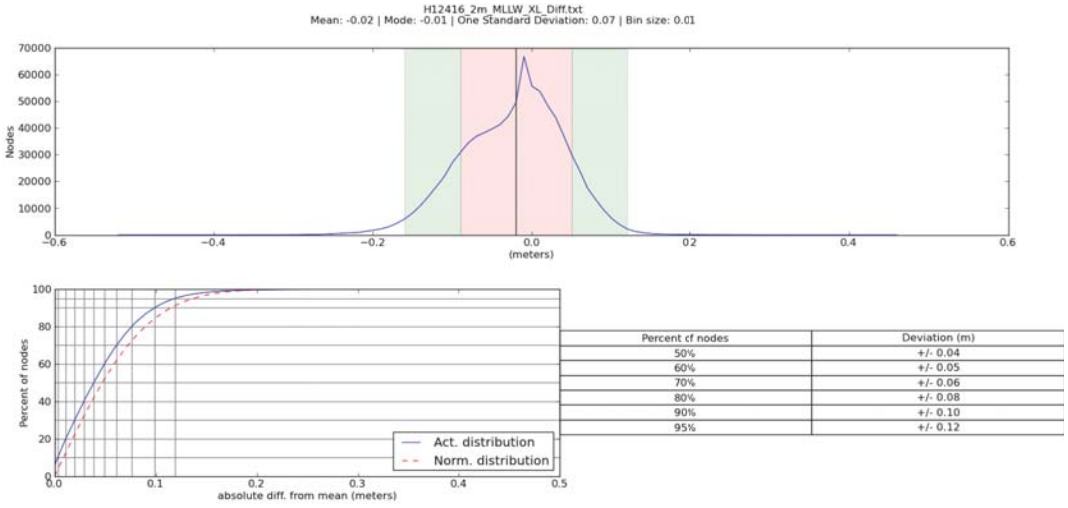


Figure 3: Statistical representation of differences between crosslines and mainscheme surfaces.

B.2.2 Uncertainty

The following survey specific parameters were used for this survey:

Measured	Zoning
0.104 meters	0 meters

Table 6: Survey Specific Tide TPU Values

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

Table 7: Survey Specific Sound Speed TPU Values

For data processed to the ellipsoid, uncertainty was derived using a combination of a priori values for equipment and vessel characteristics, in combination with real time uncertainties for vessel motion, as well as field assigned values for sound speed uncertainties. The a priori values were set in accordance with Appendix 4, table 4.9 of the NOAA Field Procedure Manual (ed 2012). Vessel position and attitude were calculated using IAPPK data. Uncertainties associated with the speed of sound were entered by the field unit in accordance with guidance from Appendix 4 of the FPM.

Total Propagated Uncertainty was evaluated to ensure compliance with Section 5.1.3 of NOAA's HSSD (ed 2012). A ratio between actual uncertainty and maximum allowed uncertainty is found for each node. An IHO TVU layer (named IHO_1) was created in the finalized surface in each depth band (50cm, 2m, and 4m

respectively) by calculating the ratio of the uncertainty at the node to the maximum allowed IHO uncertainty for each node. Because this entire survey falls within IHO Order 1 the calculation was -Uncertainty/((0.5^2 +((Depth*0.013)^2))^0.5). As a result any values less than than -1 would indicate that the node exceeded the specifications in regards to total vertical uncertainty.

The resulting 'IHO_1' layer was filtered using a color map to show any areas where actual uncertainty exceeded the maximum allowed uncertainty. Areas which failed were typically found around boulders and rocky seabed areas. These are places where higher uncertainty would be expected. Figure 4 shows the percentage of nodes which met the IHO S-44 Order I requirements.

A higher uncertainty in the 50cm finalized grid was noted in the northwest section of the surface. The uncertainty of these nodes are attributed to sound velocity errors. These errors do not exceed specifications outlined in the HSSD (2012 ed).

Surface	Nodes which Passed IHO Uncertainty
H12416_MB_50cm_MLLW_Final	99.96%
H12416_MB_2m_MLLW_Final	100.00%
H12416_MB_4m_MLLW_Final	100.00%

Figure 4: Percentage of nodes within IHO S-44 Order 1 Requirements

B.2.3 Junctions

The areas of overlap between survey H12416 and adjacent junction surveys were reviewed for sounding consistency in CARIS Subset Editor and by surface differencing either the 2 meter or 4 meter combined surfaces to assess surface agreement.

The following junctions were made with this survey:

Registry Number	Scale	Year	Field Unit	Relative Location
H11044	1:20000	2001	NOAA Ship RUDE	NE
H11045	1:20000	2003	NOAA Ship RUDE	NW
H12417	1:5000	2012	NOAA Ship THOMAS JEFFERSON	E
H12488	1:10000	2012	NOAA Ship THOMAS JEFFERSON	W

Table 8: Junctioning Surveys

H11044

Surface differencing in CARIS HIPS and SIPS was used to assess junction agreement between H12416_4m_Combined surface and H11044_2 surface. The H11044_2 surface was created from the H11044_2m_xyz.txt file provided to the ship in the Project Instructions and used in lieu of a H11044 combined surface. Nodes generally agree within 0.16m with 95% of the nodes agreeing with +/- 4.02m. Areas of larger differences are believed to be caused by the comparison between single-beam (H11044) and multi-beam (H12416). See Figure 5 for a graphical representation and Figure 6 for statistical information of the surface differencing.

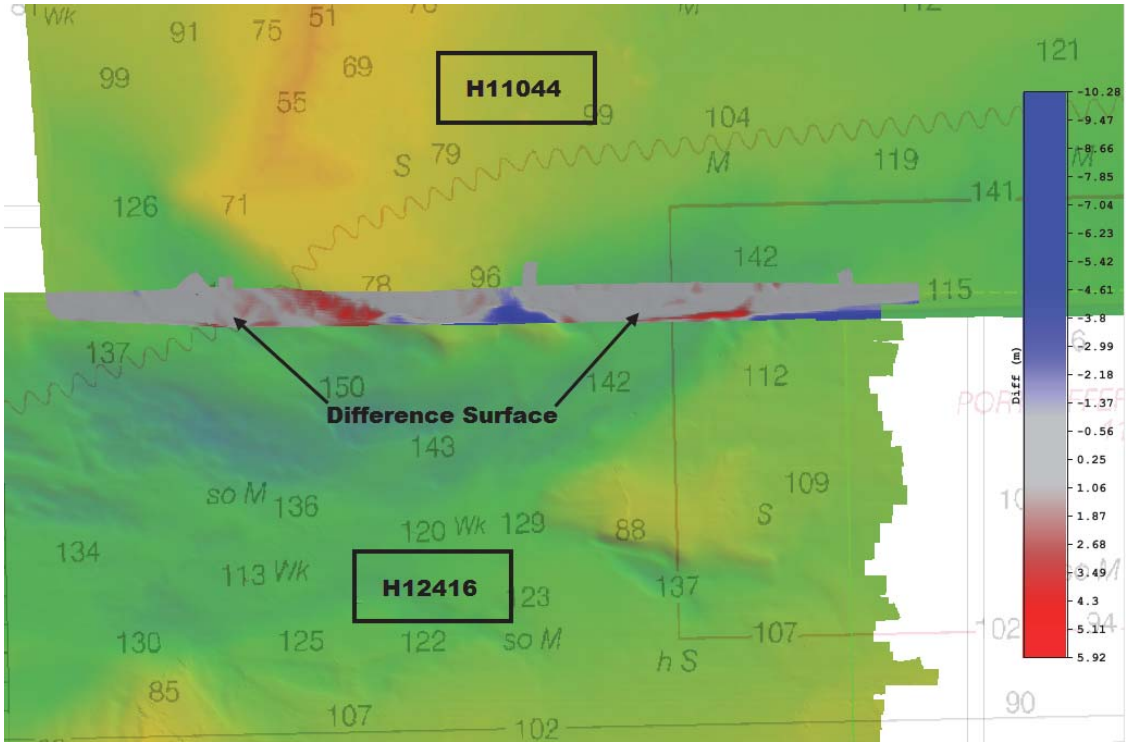
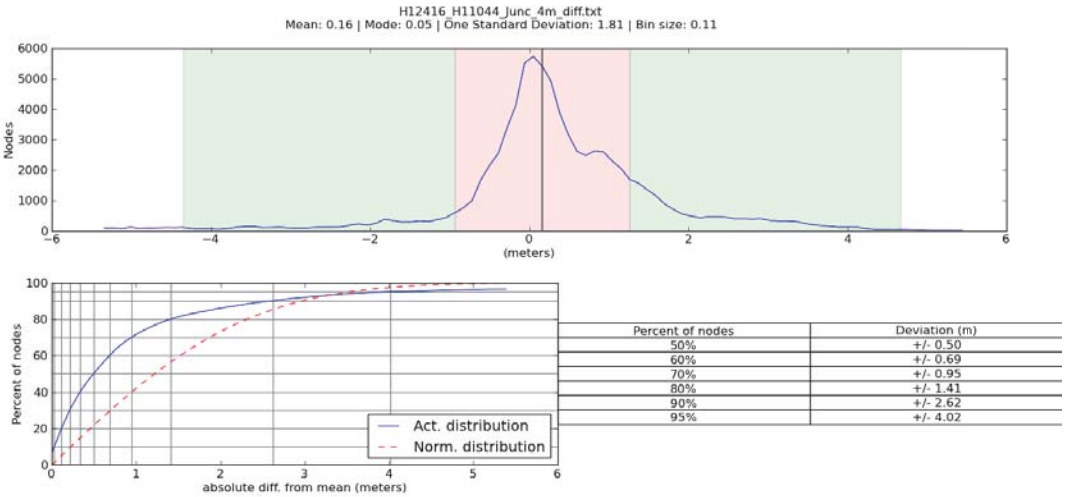


Figure 5: Graphical representation of junction comparison between H12416 and H11044.



Percent of nodes	Deviation (m)
50%	+/- 0.50
60%	+/- 0.69
70%	+/- 0.95
80%	+/- 1.41
90%	+/- 2.62
95%	+/- 4.02

Figure 6: Statistical representation of junction comparison between H12416 and H11044.

H11045

The ship was not provided with a usable file format for a junction survey comparison; therefore, a comparison with H11045 was not performed.

H12417

Surface differencing in CARIS HIPS and SIPS was used to assess junction agreement between H12416_4m_Combined surface and H12417_4m_CUBE_MLLW_Final_Combined surface. The mean difference of this survey was 0 meters with 95% of nodes agreeing within +/- 0.15 m. See Figure 7 for a graphical representation and Figure 8 for statistical information of the surface differencing.

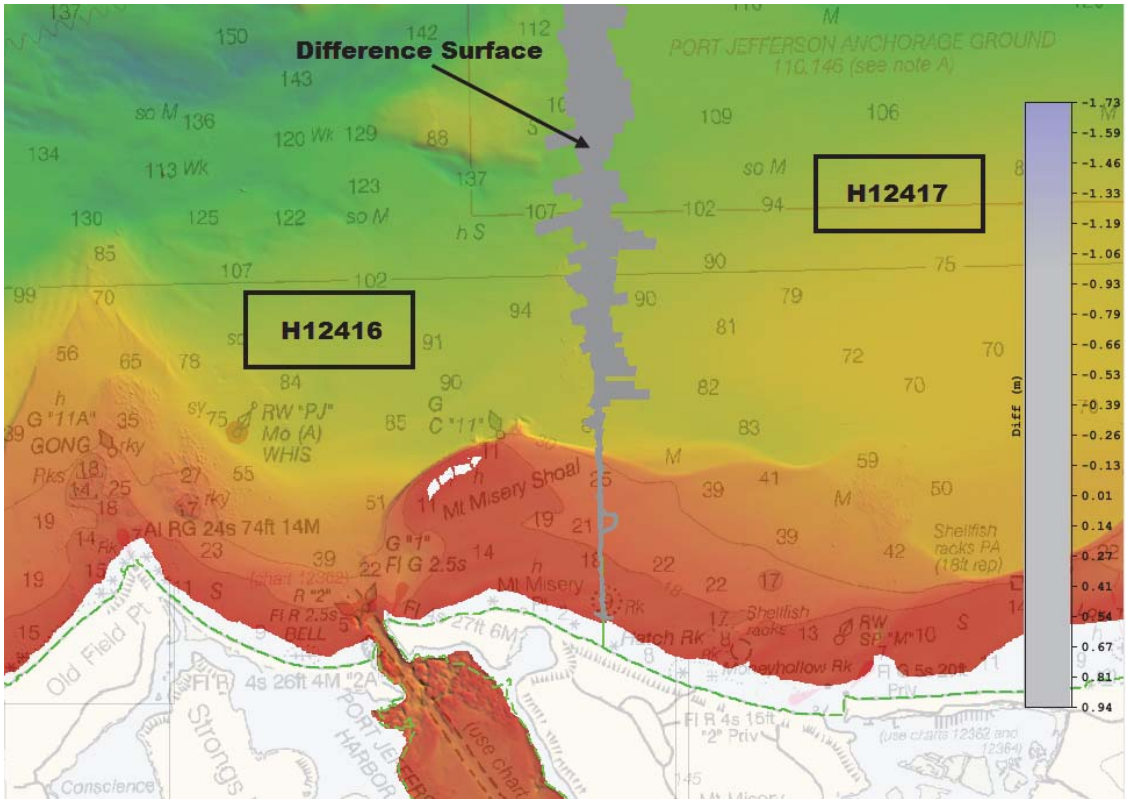
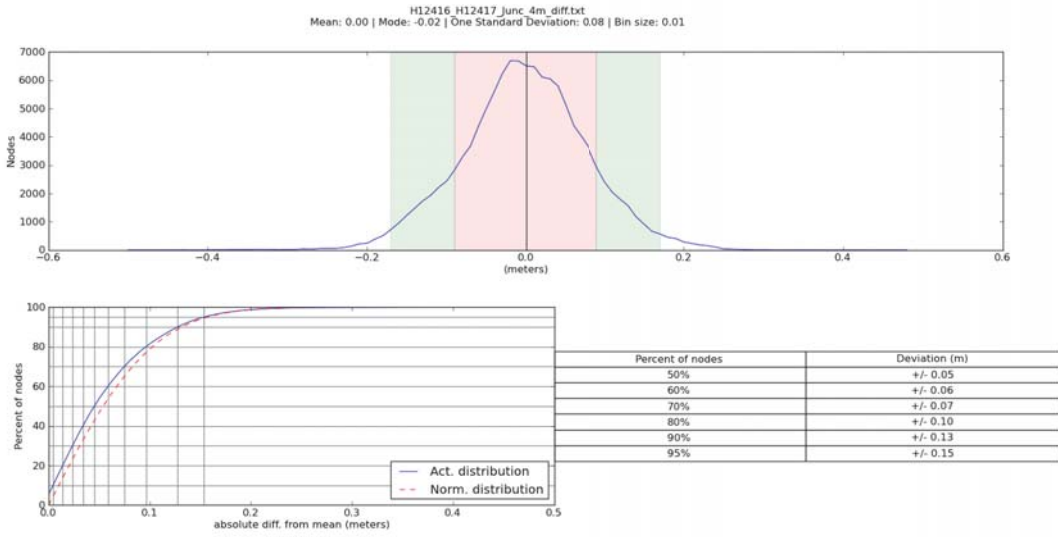


Figure 7: Graphical representation of junction comparison between H12416 and H12417.



Percent of nodes	Deviation (m)
50%	+/- 0.05
60%	+/- 0.06
70%	+/- 0.07
80%	+/- 0.10
90%	+/- 0.13
95%	+/- 0.15

Figure 8: Statistical representation of junction comparison between H12416 and H12417.

H12488

Surface differencing in CARIS HIPS and SIPS was used to assess junction agreement between H12416_MB_2m_MLLW_Final surface and H12488_Comb_2m_MLLW surface. It should be noted that survey H12488 has not yet been submitted for acceptance and the H12488_Comb_2m_MLLW surface used

is a preliminary surface. However, the surfaces compared well; the mean difference between the surfaces was 0.01 meters with 95% of nodes agreeing within +/- 0.13m. See Figure 9 for a graphical representation and Figure 10 for statistical information of the surface differencing.

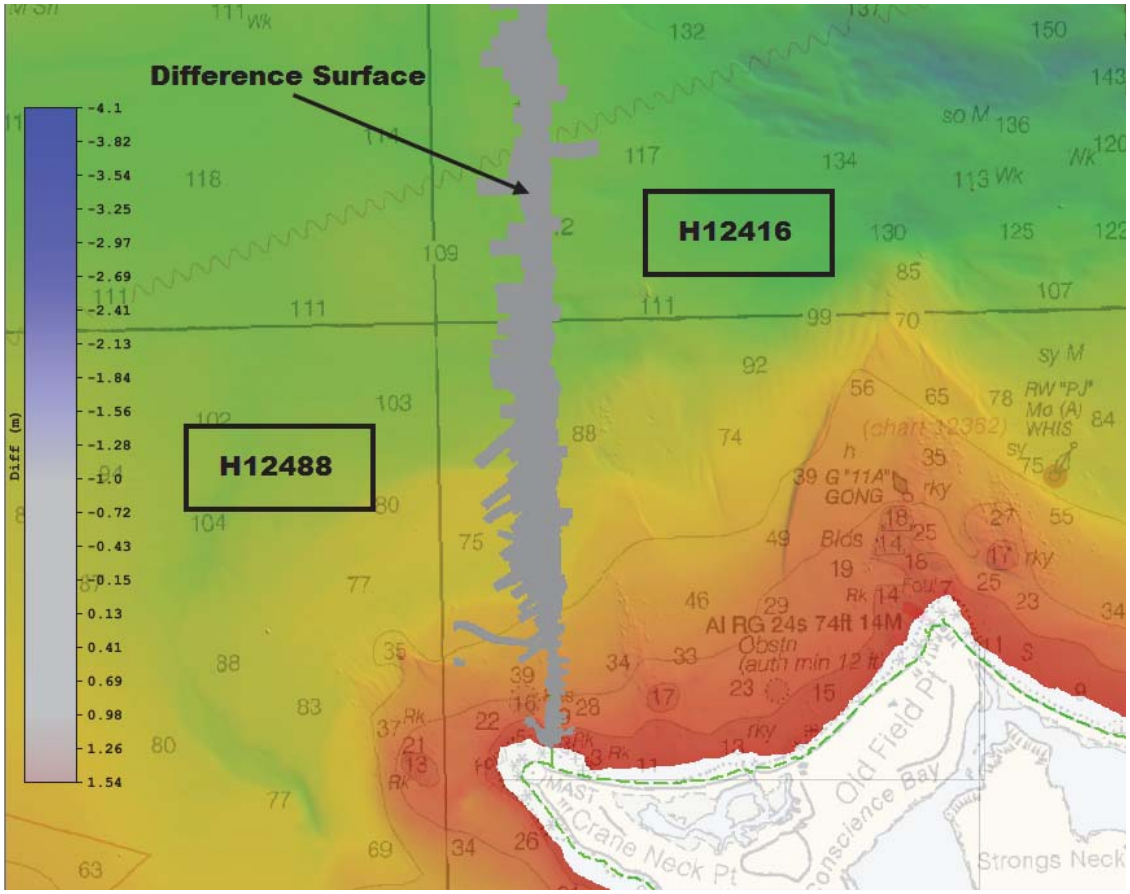
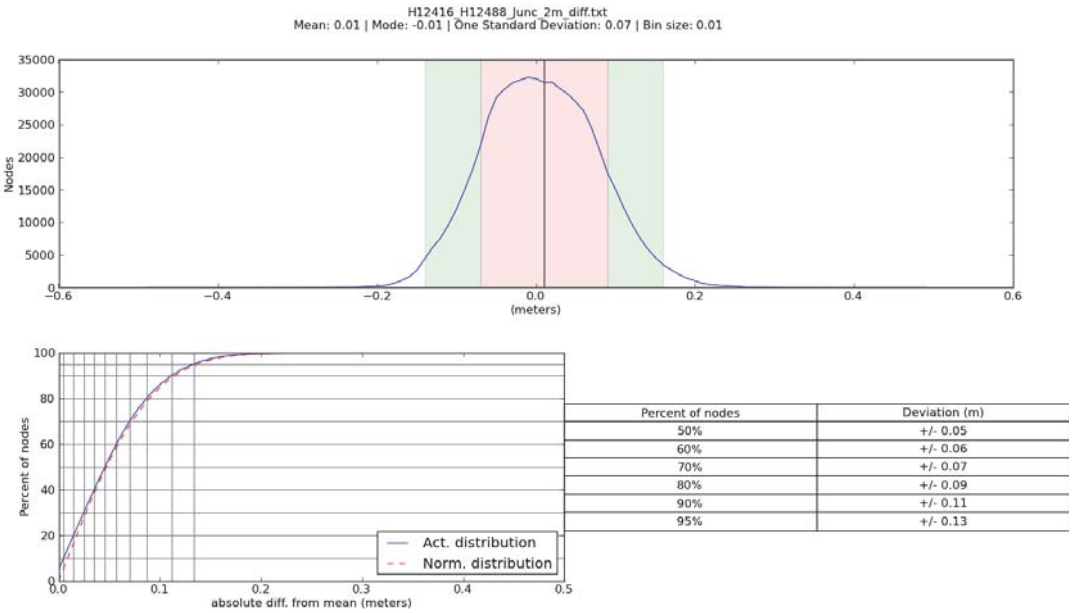


Figure 9: Graphical representation of junction comparison between H12416 and H12488



Percent of nodes	Deviation (m)
50%	+/- 0.05
60%	+/- 0.06
70%	+/- 0.07
80%	+/- 0.09
90%	+/- 0.11
95%	+/- 0.13

Figure 10: Statistical representation of junction comparison between H12416 and H12488

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

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

B.2.6 Factors Affecting Soundings

There were no other factors that affected corrections to soundings.

B.2.7 Sound Speed Methods

Sound Speed Cast Frequency: HSL 3101 and 3102 acquired sound speed profiles by using SBE-19 plus CTDs at discrete locations within the survey area generally once every four hours. S-222 utilized a Moving Vessel Profiler (MVP-100) for collecting sound speed profiles approximately once every 30 minutes.

Casts were grouped by vessel and applied within CARIS using the application method of "Nearest in Time". An exception to this application method was Vessel 3101 on DN 161, which utilized "Nearest in Distance within 2 hours".

On June 24, 2012 (DN176), Launch 3102 was tasked with Crosslines. No cast was obtained in the deep water, depths were in the range of 150ft plus. No other cast was available from any other platform that day. The closest cast for that depth was from S222 on DN 177. The cast name, from MVP, is H12416_3102_177_2018deep.svp. A comparison cast was performed on available casts from junction surveys. These were on the east and west side of H12416. At 50 degrees, the casts were acceptable on successive days. Nearest in distance was used for the single svp correction. The lines were then filtered to 50 degrees that will facilitate infrequent cast acquisition. TPU for Launch (CTD) was computed at 4m/sec for those lines based on frequency of cast. The cast comparison was as follows:

Wed Dec 12 16:30:37 2012
COMPARE 2 FILES
RESULTS: PERCENT DEPTH DIFFERENCE OK
SUMMARY OF RESULTS - COMPARE 2 CASTS VELOCIPY, Version 12.9
REFERENCE PROFILE: H12415_S222_175_183100.VPQ
COMPARISON PROFILE: H12488_S222_177_201800.VPQ
REFERENCE INSTRUMENT: SBE19PLUS (SN:6667)
COMPARISON INSTRUMENT: SBE19PLUS (SN:6667)
DRAFT = 0.80m
MAXIMUM COMMON DEPTH = 32.00
MAXIMUM DEPTH PERCENTAGE DIFFERENCE = 0.23%
MAXIMUM PERCENTAGE DIFFERENCE AT = 30.17m
Max percentage diff line and last line of travel time table:
Travel time, Avg Depth, Depth Diff, Pct Depth Diff, Avg Crosstrack, Crosstrack Diff, Pct Crosstrack Diff
0.03s , 30.14m, 0.07m , 0.23% , 34.29m , 0.05m , 0.15%
0.03s , 30.14m, 0.07m , 0.23% , 34.29m , 0.05m , 0.15%

Crosslines affected were 930-1658, 931-172, 932-1928, 933-1950, and 935-2052.

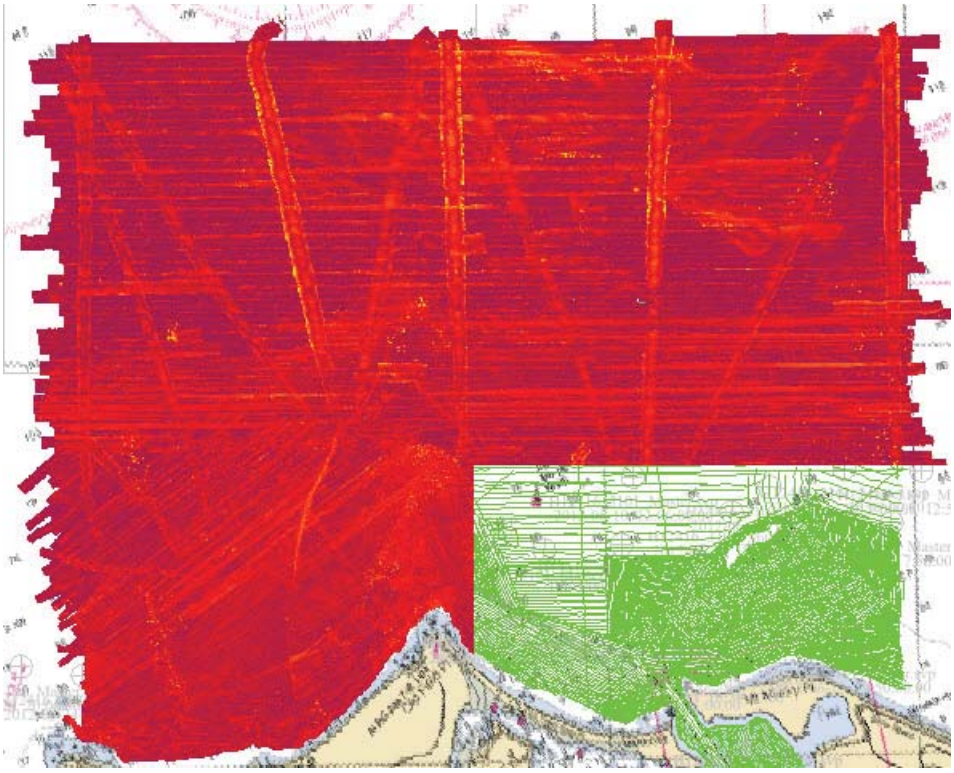


Figure 11: Crossline Standard Deviation Before

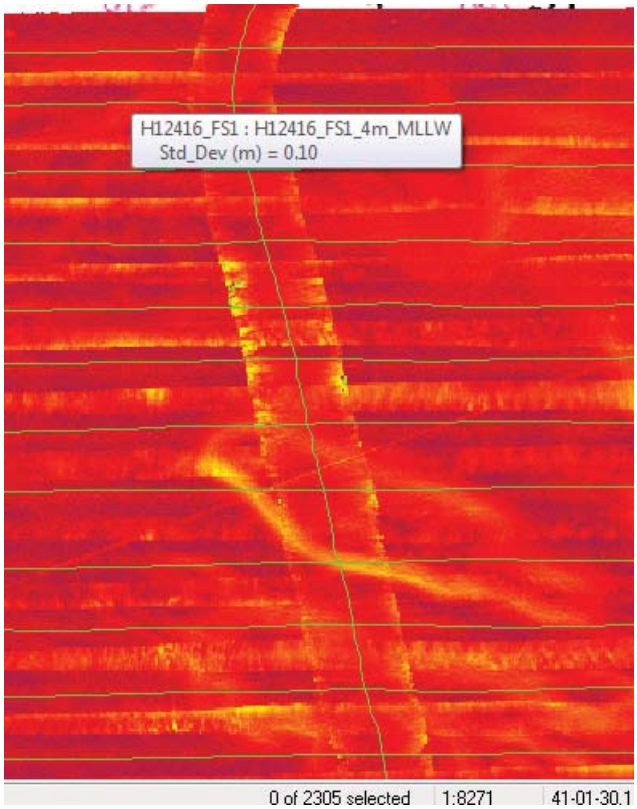


Figure 12: Crossline Standard Deviation After

B.2.8 Coverage Equipment and Methods

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

B.2.9 Density

Survey H12416 met density requirements per the HSSD. Figure 13 highlights the percentage of nodes which contains five or more soundings.

Surface	Percentage Nodes Populated with <5 Soundings
H12416_MB_50cm_MLLW_Final	99.81%
H12416_MB_2m_MLLW_Final	99.96%
H12416_MB_4m_MLLW_Final	99.98%

Figure 13: Density Requirements

B.2.10 Coverage Holidays

Complete multibeam coverage was obtained within the limits of H12416. Holidays greater than three nodes did occur, generally in areas of depths less than 4-meters. The following are examples of coverage holidays.

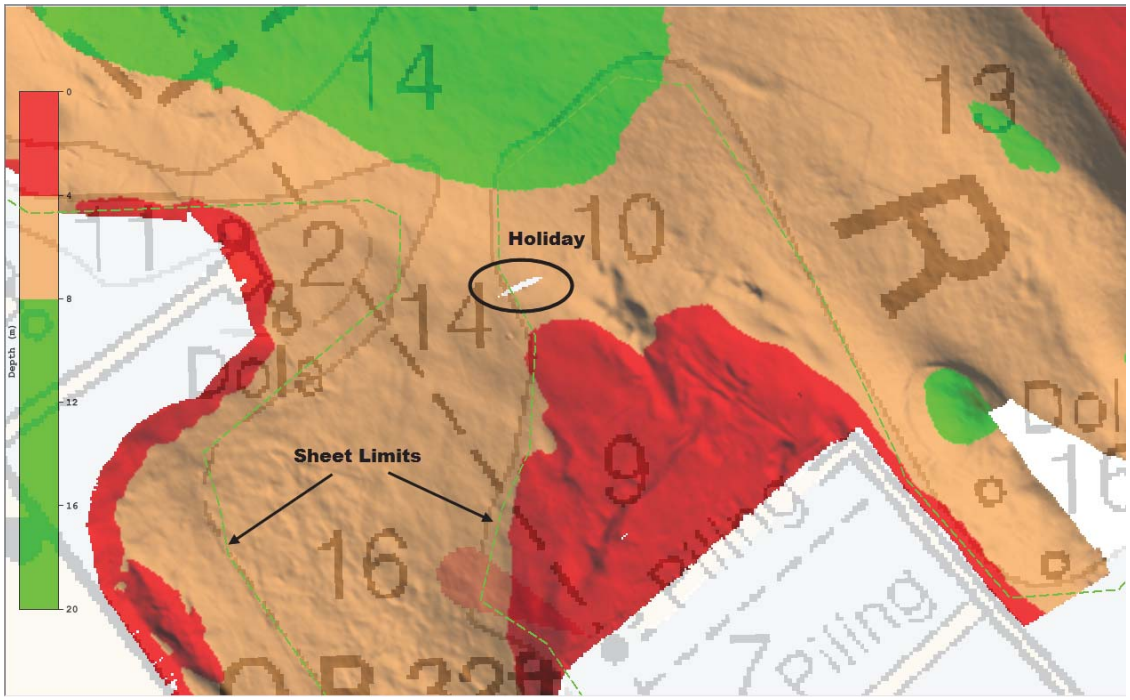


Figure 14: Coverage holiday NW of Port Jefferson ferry pier.

Figure 15: Multiple coverage holidays around mooring buoys inside 4-meter depth contour.

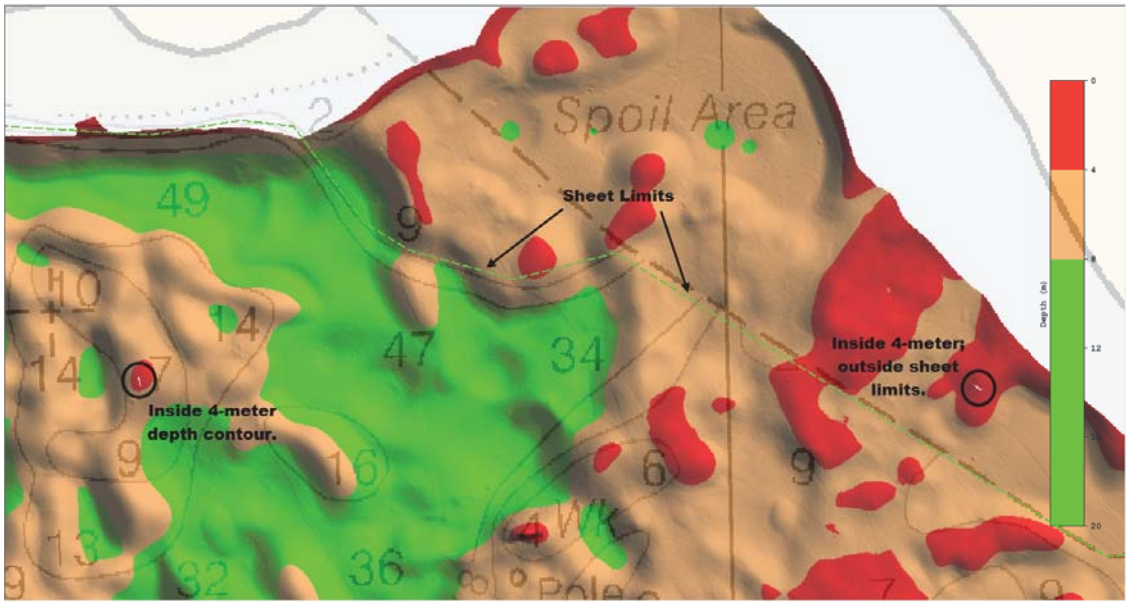


Figure 16: Coverage holidays inside 4-meter depth contour; NE Port Jefferson.

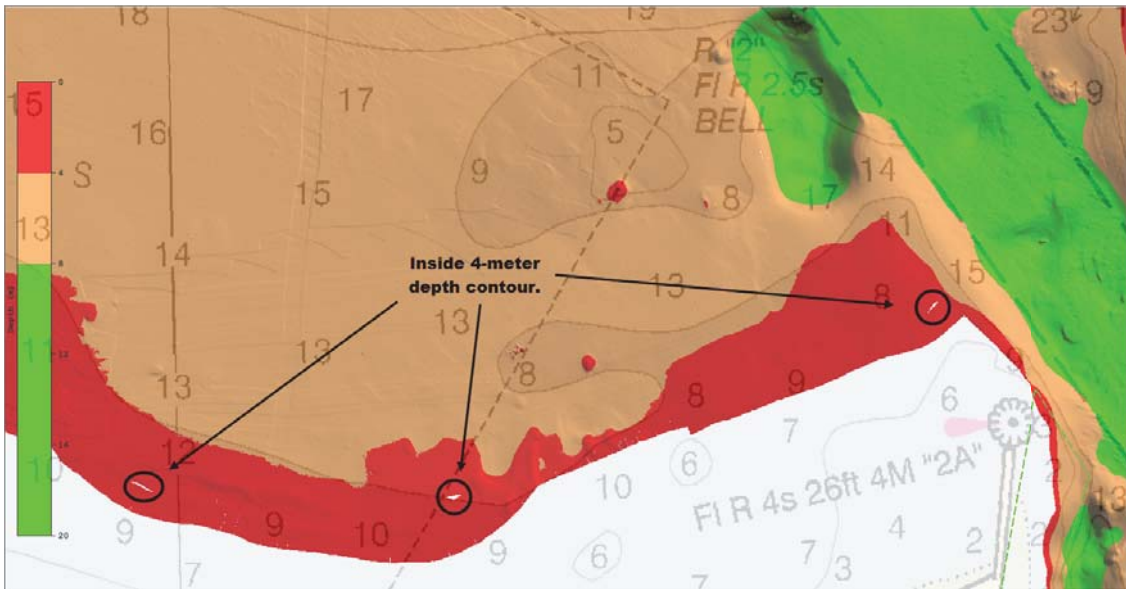


Figure 17: Multiple coverage holidays inside 4-meter depth contour; W of Port Jefferson entrance.

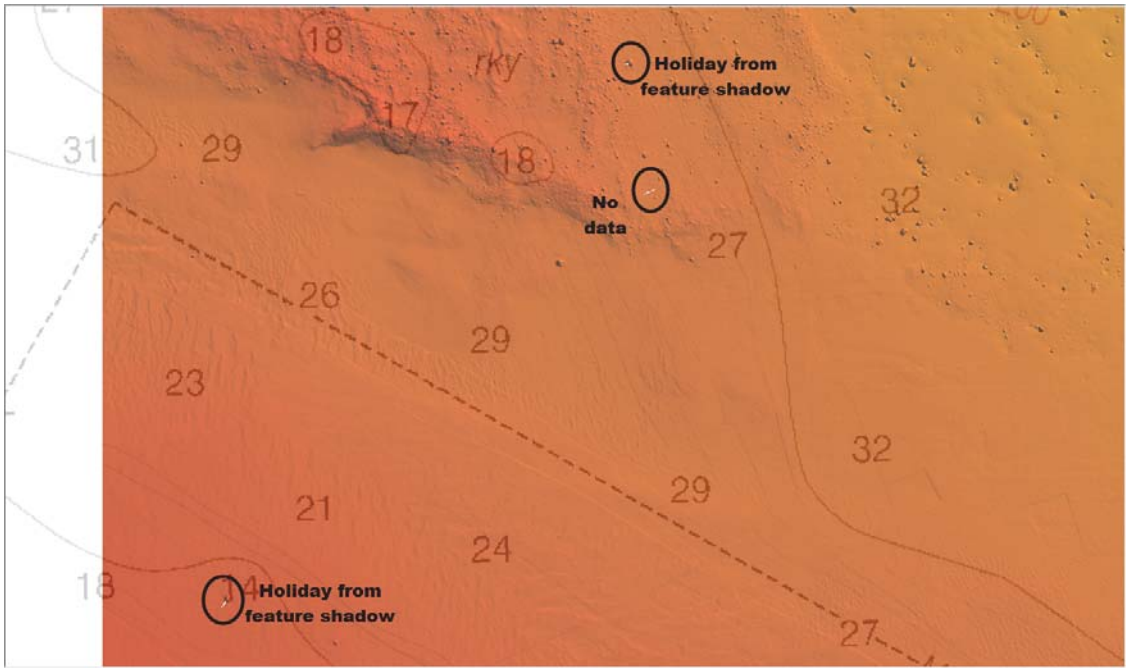


Figure 18: Coverage holidays caused by feature shadows; NW of Port Jefferson entrance.

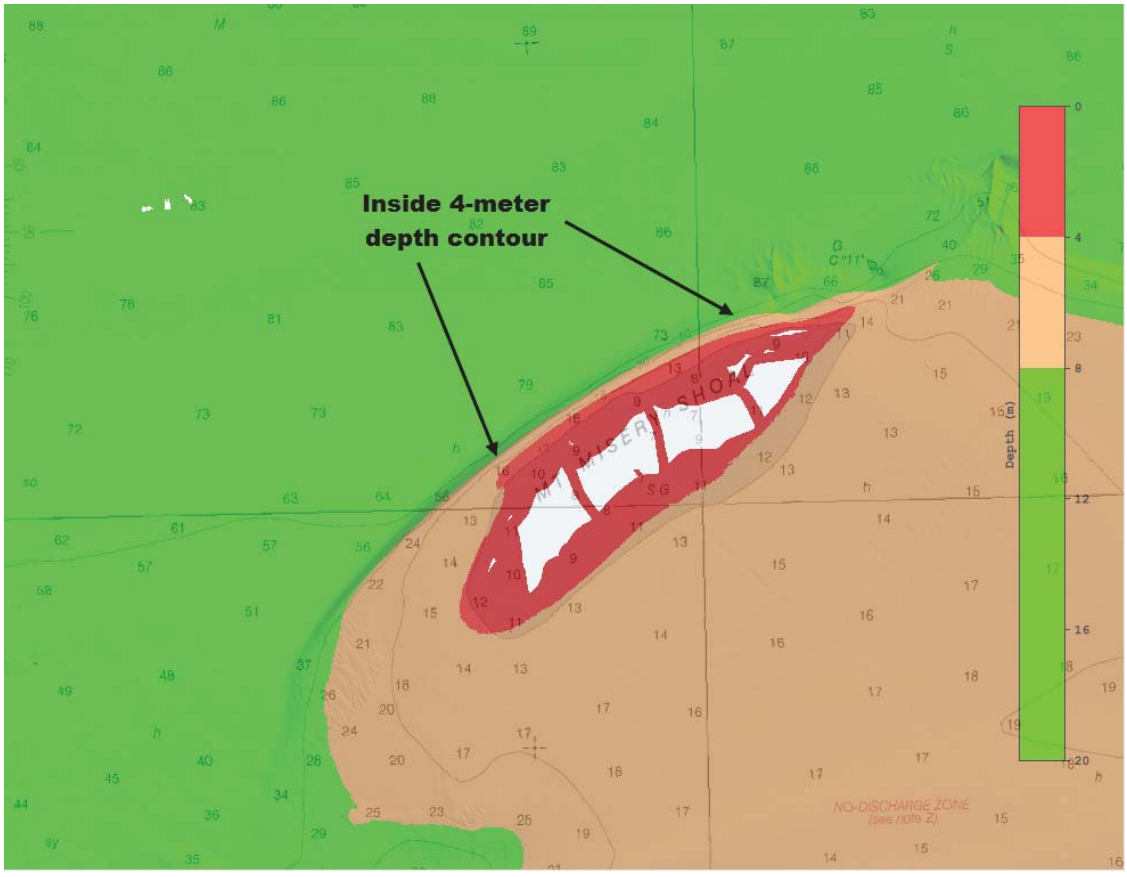


Figure 19: Multiple coverage holidays inside 4-meter depth contour of Mt Misery Shoal.

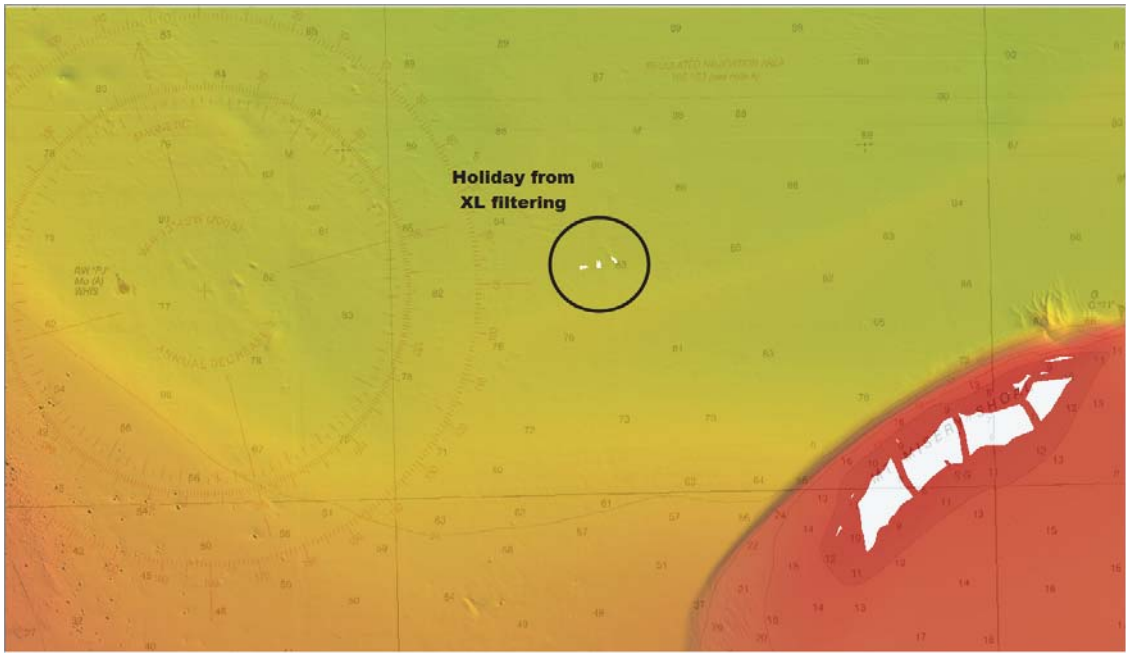


Figure 20: Coverage holiday left from XL filtering; E of Mo (A) buoy.

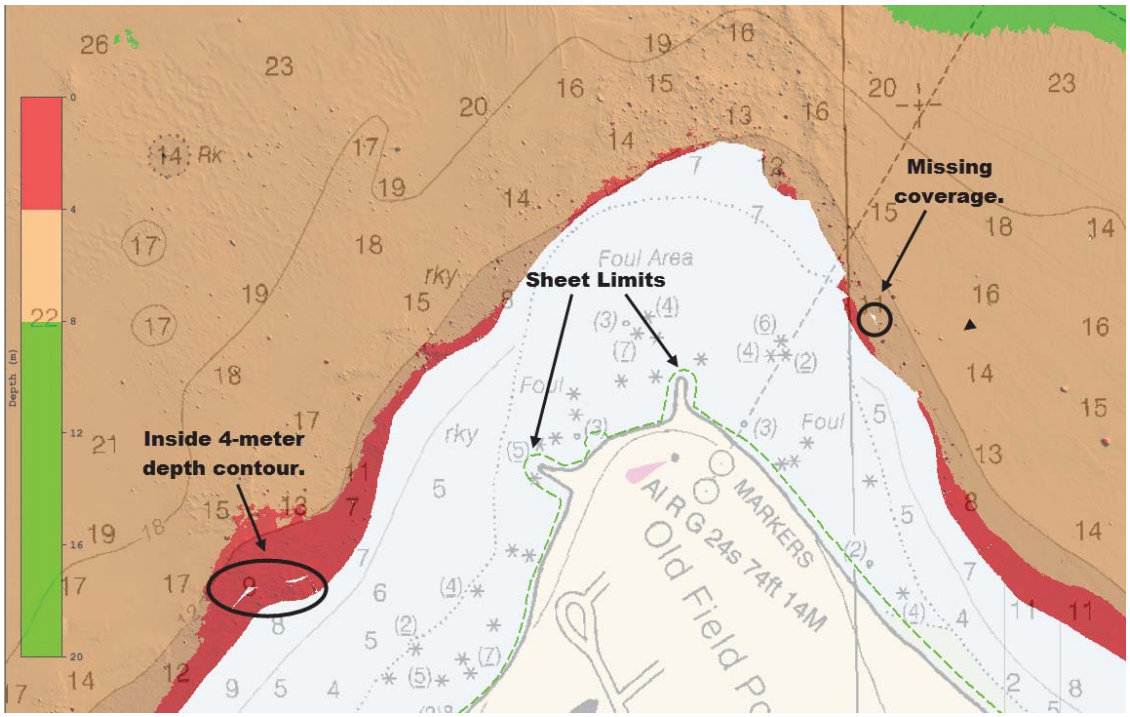


Figure 21: Coverage holidays N of Old Field Point.

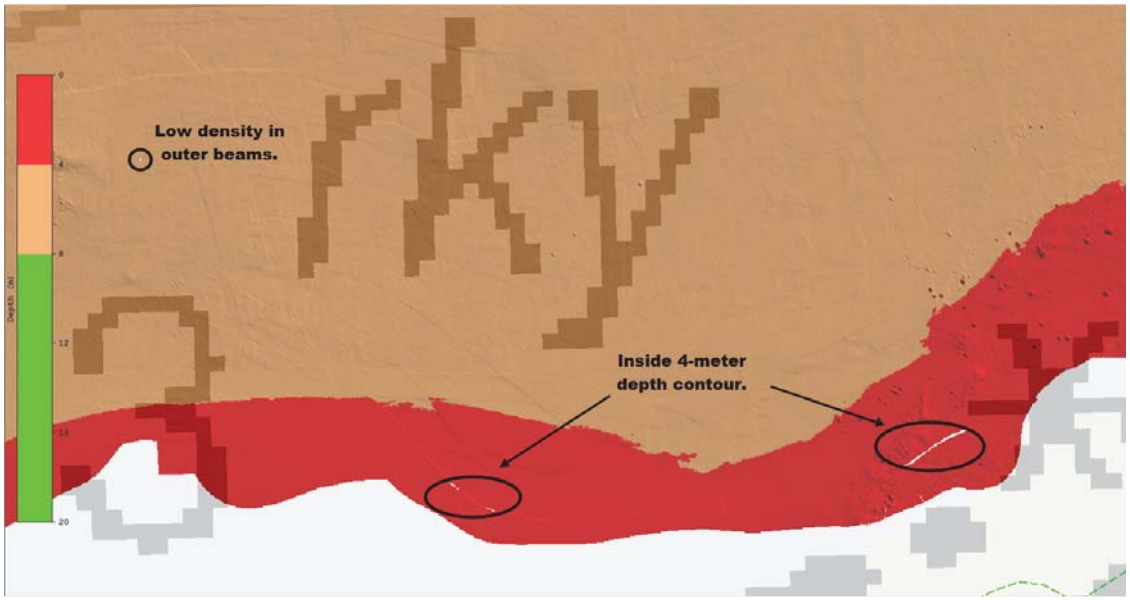


Figure 22: Coverage holidays SW of Old Field Point.

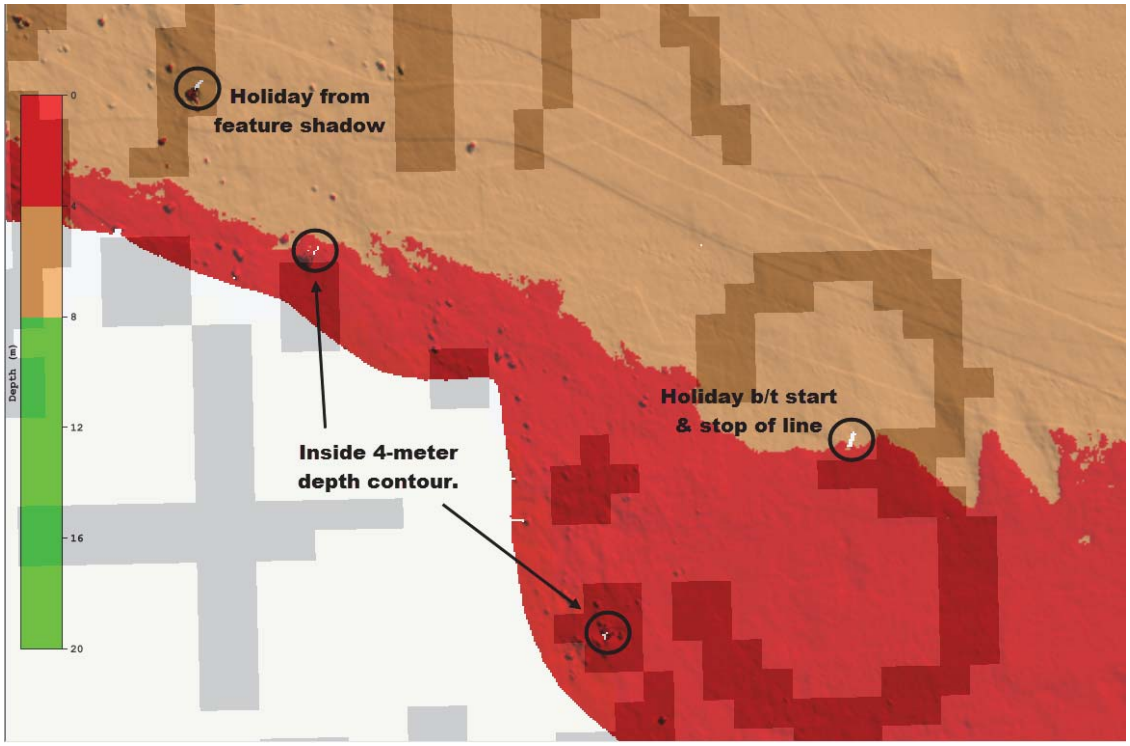


Figure 23: Coverage holidays N of Crane Neck Point.

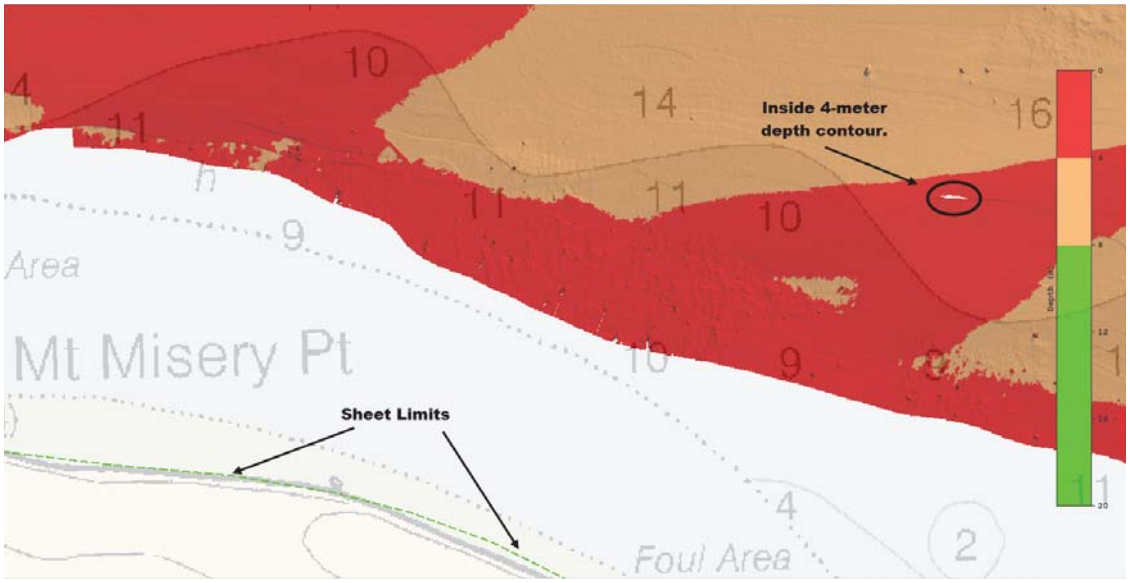


Figure 24: Coverage holiday inside 4-meter depth contour; NE of Mt Misery Point.

B.3 Echo Sounding Corrections

B.3.1 Corrections to Echo Soundings

Trueheave was not applied to four lines from vessel 3101 on DN 171 (Lines: 171_2103, 171A_1333, 171A_1704, and 171A_2059). The hydrographer investigated these lines and found that the lines were in general agreement with the surrounding data and did not exhibit any offsets due to trueheave not being applied.

B.3.2 Calibrations

All sounding systems were calibrated as detailed in the DAPR.

B.4 Backscatter

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

B.5 Data Processing

B.5.1 Software Updates

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

The following Feature Object Catalog was used: NOAAProfileField Version 5.3.2

B.5.2 Surfaces

The following surfaces and/or BAGs were submitted to the Processing Branch:

Surface Name	Surface Type	Resolution	Depth Range	Surface Parameter	Purpose
H12416_MB_50cm_MLLW	CUBE	0.5 meters	0.85 meters - 125.47 meters	NOAA_0.5m	Object Detection
H12416_MB_50cm_MLLW_Final	CUBE	0.5 meters	0 meters - 20 meters	NOAA_0.5m	MBES TracklineSBES Set Line Spacing
H12416_MB_2m_MLLW	CUBE	2 meters	0.85 meters - 54.01 meters	NOAA_2m	Complete MBES
H12416_MB_2m_MLLW_Final	CUBE	2 meters	18 meters - 40 meters	NOAA_2m	Complete MBES
H12416_MB_4m_MLLW	CUBE	4 meters	0.89 meters - 54 meters	NOAA_4m	Complete MBES
H12416_MB_4m_MLLW_Final	CUBE	4 meters	36 meters - 54 meters	NOAA_4m	Complete MBES

Table 9: Submitted Surfaces

The NOAA CUBE parameters mandated in HSSD were used for the creation of all CUBE BASE surfaces in Survey H12416. The surfaces have been reviewed where noisy data, or 'fliers', are incorporated into the gridded solution causing the surface to be shoaler or deeper than the true seafloor. Where these spurious soundings cause the gridded surface to be shoaler or deeper than the reliably measured seabed by greater than the maximum allowable vertical uncertainty at that depth, the noisy data have been rejected and the surface recomputed.

B.5.3 Data Logs

Data acquisition and processing notes are included in the acquisition and processing logs. All data logs are submitted digitally in the Separates I folder.

C. Vertical and Horizontal Control

No HVCR was submitted for H12416 per Section 5.1.2.3 of the NOAA Field Procedures Manual (ed 2012).

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
Bridgeport, CT	8467150
New Haven, CT	8465705
Kings Point, NY	8516945

Table 10: NWLON Tide Stations

File Name	Status
8465705.tid	Final Approved
8467150.tid	Final Approved
8516945.tid	Final Approved

Table 11: Water Level Files (.tid)

File Name	Status
B340TJ2012_Rev.tc	Final

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

A request for final approved tides was sent to N/OPS1 on 07/01/2012. The final tide note was received on 08/10/2012.

TACARI tides were applied to H12416 for initial data analysis. Data for H12416 was reduced to MLLW via VDatum.

Non-Standard Vertical Control Methods Used:

VDatum

Ellipsoid to Chart Datum Separation File:

2012_B340_VDatum_Ellip_MLLW.txt

Per the Project Instructions Appendix I, a VDatum ERS test and evaluation was performed and provided to HSD. VDatum was approved by HSD as the vertical datum reducer to MLLW for survey H12416 on 8/3/2012. Memos have been provided in Appendix I of this report.

C.2 Horizontal Control

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

The projection used for this project is 18N.

The following PPK methods were used for horizontal control:

Smart Base

The following CORS Stations were used for horizontal control:

HVCR Site ID	Base Station ID
CTDA	CTDA
MOR6	MOR6
NYCI	NYCI
NYQN	NYQN
NYRH	NYRH
ZNYI	ZNYI

Table 13: CORS Base Stations

The following DGPS Stations were used for horizontal control:

DGPS Stations
804 Sandy Hook, NJ 286 kHZ
803 Moriches, NY 293 kHz
772 Acushnet, MA 306 kHz

Table 14: USCG DGPS Stations

D. Results and Recommendations

D.1 Chart Comparison

Per Section 4.5 of the Field Procedures Manual (ed 2012), a chart comparison was performed of the largest scale ENC's and raster charts that cover the project area. Survey scale sounding selection and contours made from the combined surface were utilized in CARIS BASE Editor to perform this task.

D.1.1 Raster Charts

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

Chart	Scale	Edition	Edition Date	LNM Date	NM Date
12354	1:80000	44	05/2012	06/26/2012	07/30/2012
12364	1:40000	39	09/2012	06/18/2013	06/29/2013
12364	1:10000	39	09/2012	06/18/2013	06/29/2013
12362	1:10000	17	02/2005	06/26/2012	06/30/2012

Table 15: Largest Scale Raster Charts

12354

Soundings from survey H12416 generally agreed within 3 feet of charted depths on chart 12354. Descriptions of specific feature investigation and shoreline data are included in the Final Feature File submitted with this survey.

12364

Soundings from survey H12416 generally agreed within 3 feet of charted depths on chart 12364. Descriptions of specific feature investigation and shoreline data are included in the Final Feature File submitted with this survey.

12364

Soundings from survey H12416 generally agreed within 3 feet of charted depths on small-craft chart 12364, page H. Notable exceptions to this general agreement are listed and shown in the figures below. Descriptions of specific feature investigation and shoreline data are included in the Final Feature File submitted with this survey.

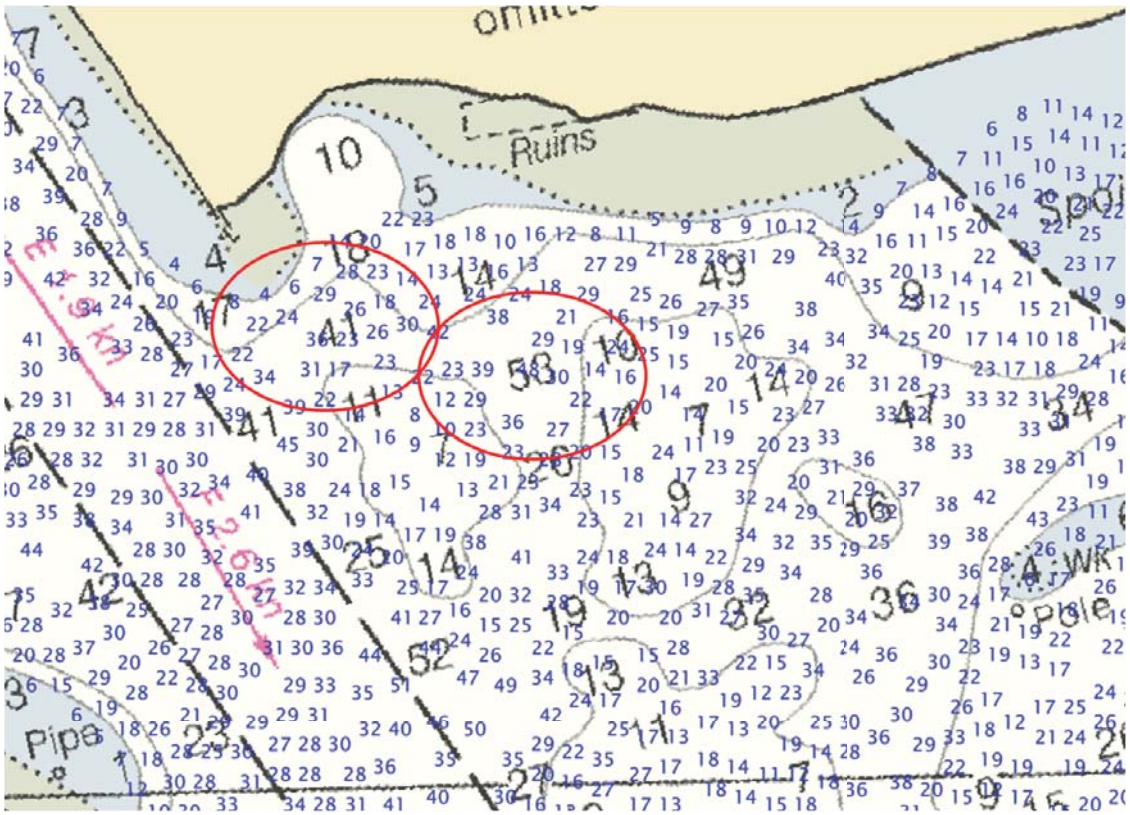


Figure 25: Survey soundings significantly shoaler in NE Port Jefferson.

12362

Soundings from survey H12416 generally agreed within 3 feet of charted depths on Chart 12362. Descriptions of specific feature investigation and shoreline data are included in the Final Feature File submitted with this survey.

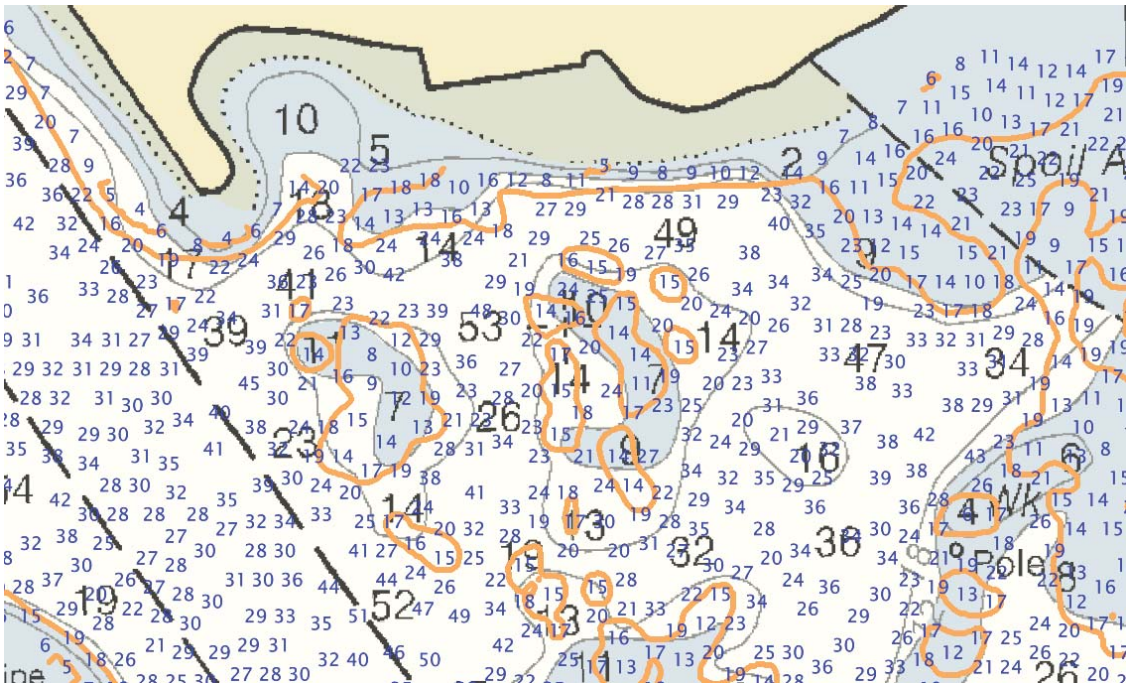


Figure 26: Multiple discrepancies were found between charted and survey data in the NE section of Port Jefferson.

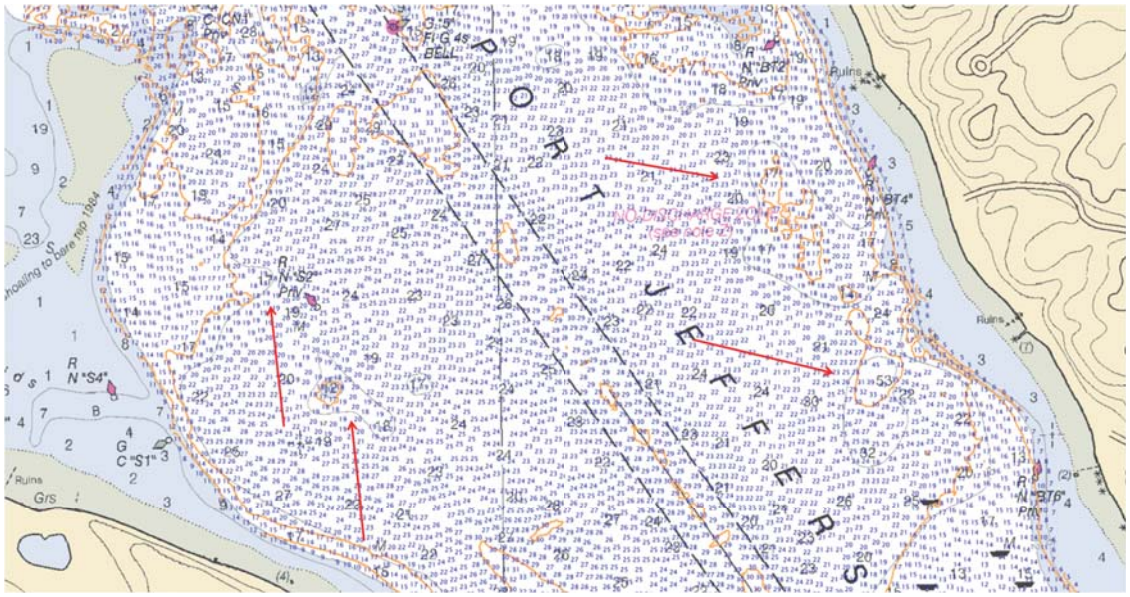


Figure 27: Shifting of contours within Port Jefferson.

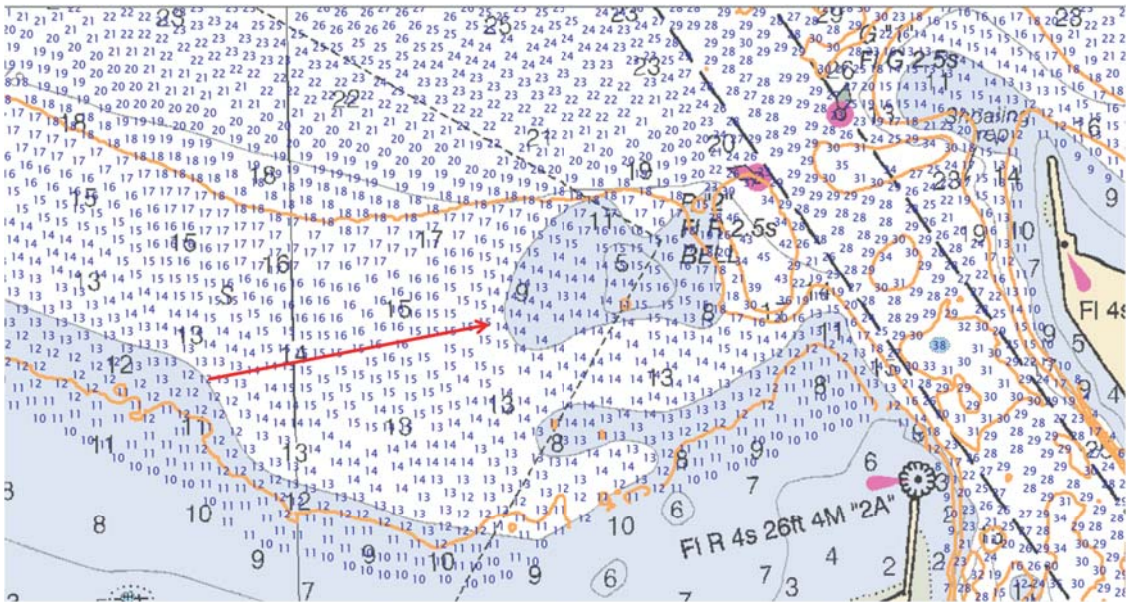


Figure 28: Shoal at the mouth of the entrance to Jefferson Harbor was disproved by survey data.

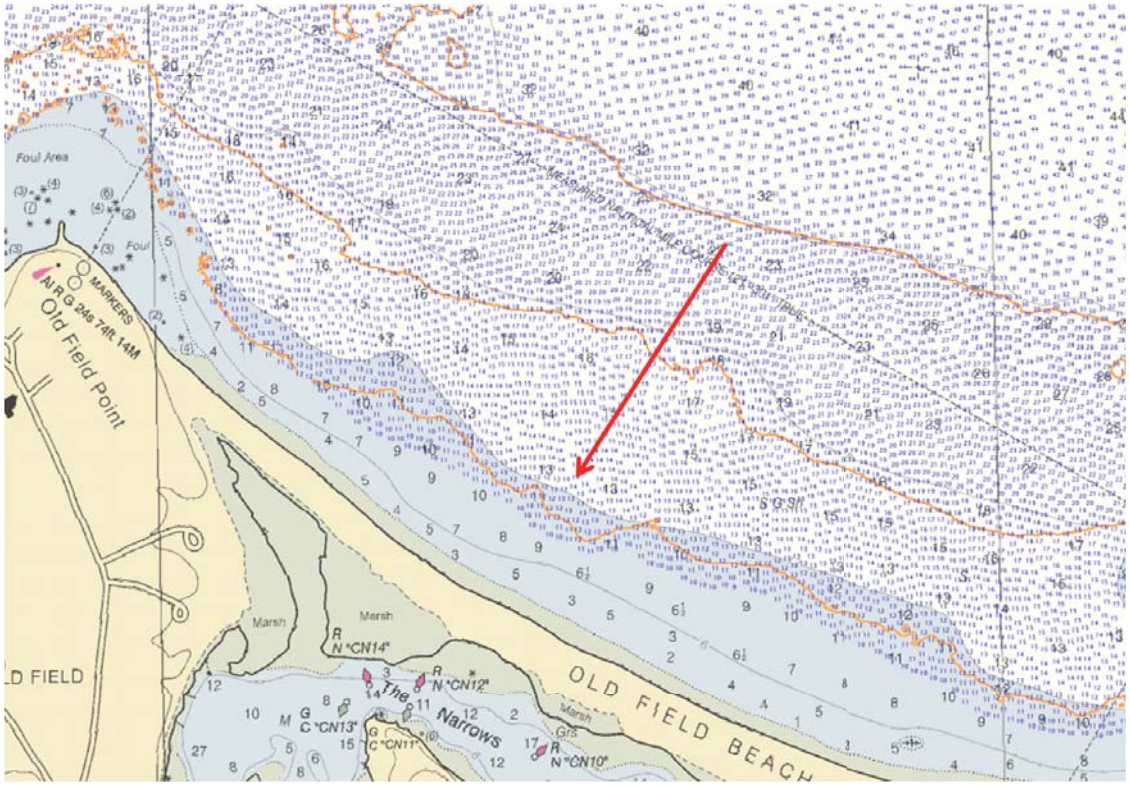


Figure 29: The 12 foot contour has shifted shoreward along Old Field Beach.

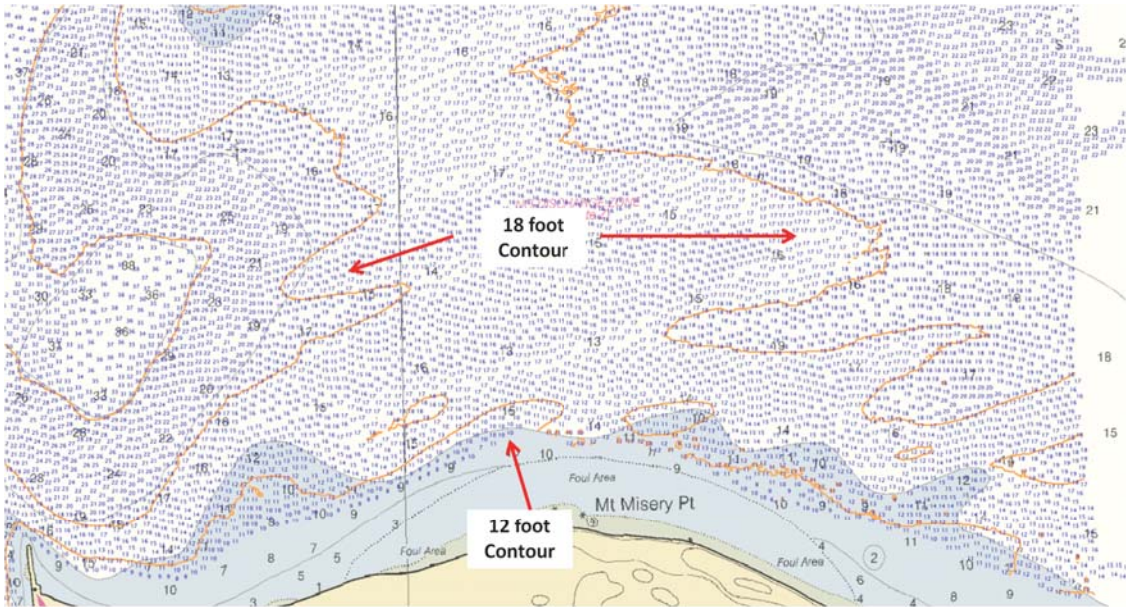


Figure 30: 18 and 12 foot contours have shifted along Mt Misery Pt.

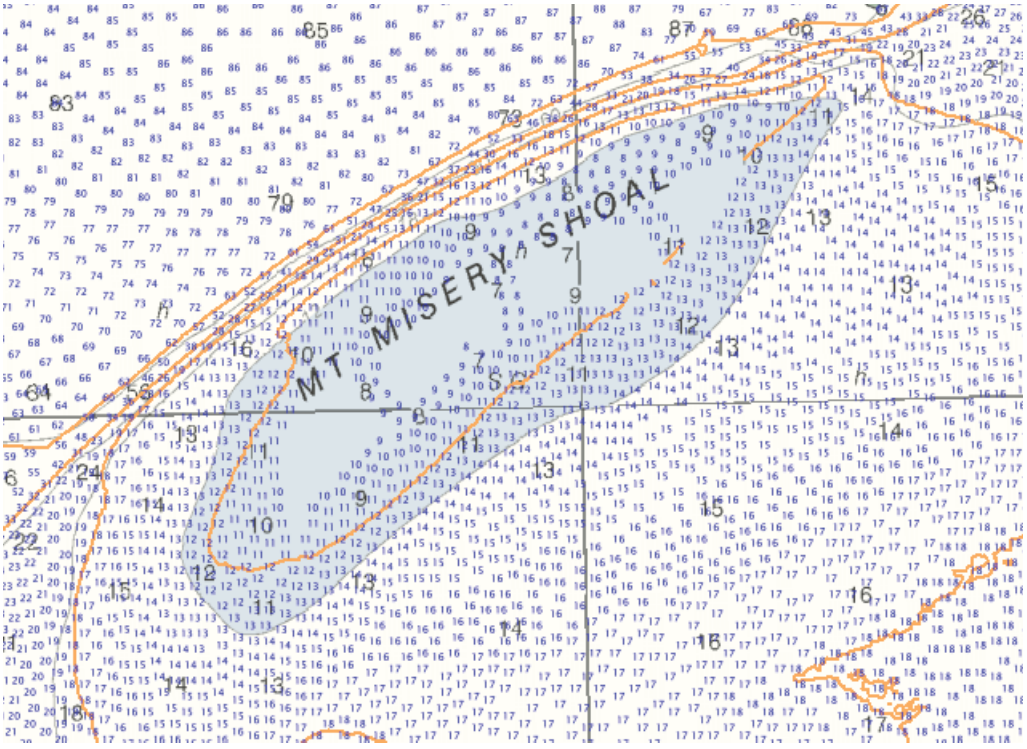


Figure 31: Mt Misery Shoal has shifted to the NW by 80 meters.

D.1.2 Electronic Navigational Charts

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

ENC	Scale	Edition	Update Application Date	Issue Date	Preliminary?
US4NY1GM	1:80000	24	12/06/2012	04/12/2013	NO
US5NY17M	1:10000	9	05/22/2012	03/11/2012	NO
US5CN10M	1:40000	4	07/24/2013	05/14/2013	NO

Table 16: Largest Scale ENCs

US4NY1GM

ENC US4NY1GM depths match RNC 12354; therefore, all RNC comparisons stated in D.1.1 apply to US4NY1GM.

US5NY17M

ENC US5NY17M depths match RNC 12362; therefore, all RNC comparisons stated in D.1.1 apply to US5NY17M.

US5CN10M

ENC US5CN10M depths match RNC 12364; therefore, all RNC comparisons stated in D.1.1 apply to US5CN10M.

D.1.3 AWOIS Items

2 AWOIS items were assigned for verification and 2 AWOIS items were provided as "Information Only". All AWOIS items were addressed in the Final Feature File.

D.1.4 Maritime Boundary Points

No Maritime Boundary Points were assigned for this survey.

D.1.5 Charted Features

No charted PA, ED, PD or Rep were found within the survey area of H12416. It was observed during survey operations that there are numerous private mooring buoys found on the west side of Port Jefferson. It is

recommended to retain annotation on the chart. The annotation was not present in the Composite Source File, therefore was not added to the Final Feature File for this survey.

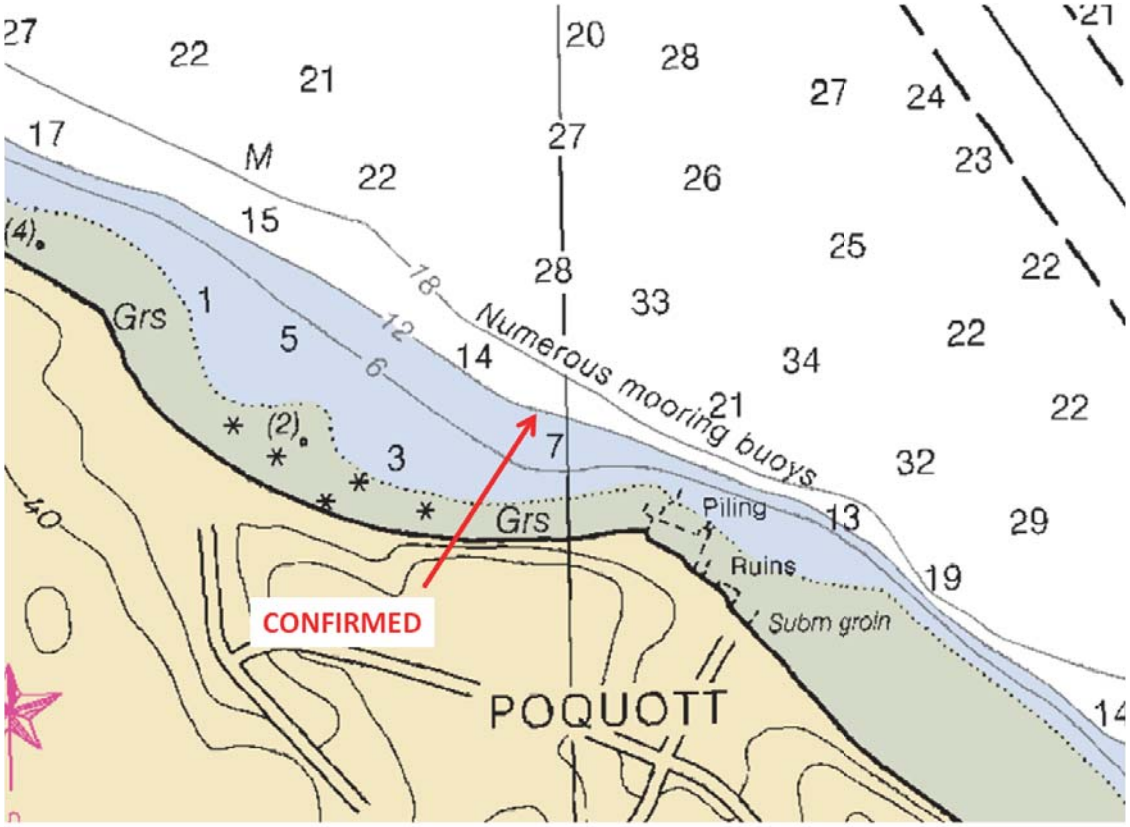


Figure 32: Annotation on chart 12362.

D.1.6 Uncharted Features

Survey H12416 contains 12 new wrecks, 19 new underwater rocks, 21 new obstructions and 3 new mooring buoys. Descriptions of specific feature investigation and shoreline data are included in the Final Feature File submitted with this survey.

D.1.7 Dangers to Navigation

The following DTON reports were submitted to the processing branch:

DTON Report Name	Date Submitted
H12416_DTON1	2012-06-22
H12416_DTON2	2012-09-11

Table 17: DTON Reports

A total number of two DTON reports were submitted to the Marine Charting Branch for survey H12416. For further information, please refer to Appendix II of this report.

D.1.8 Shoal and Hazardous Features

Charted "Mt Misery Shoal" was confirmed with multibeam data. Full multibeam coverage was not obtained over the shoal due to safety.

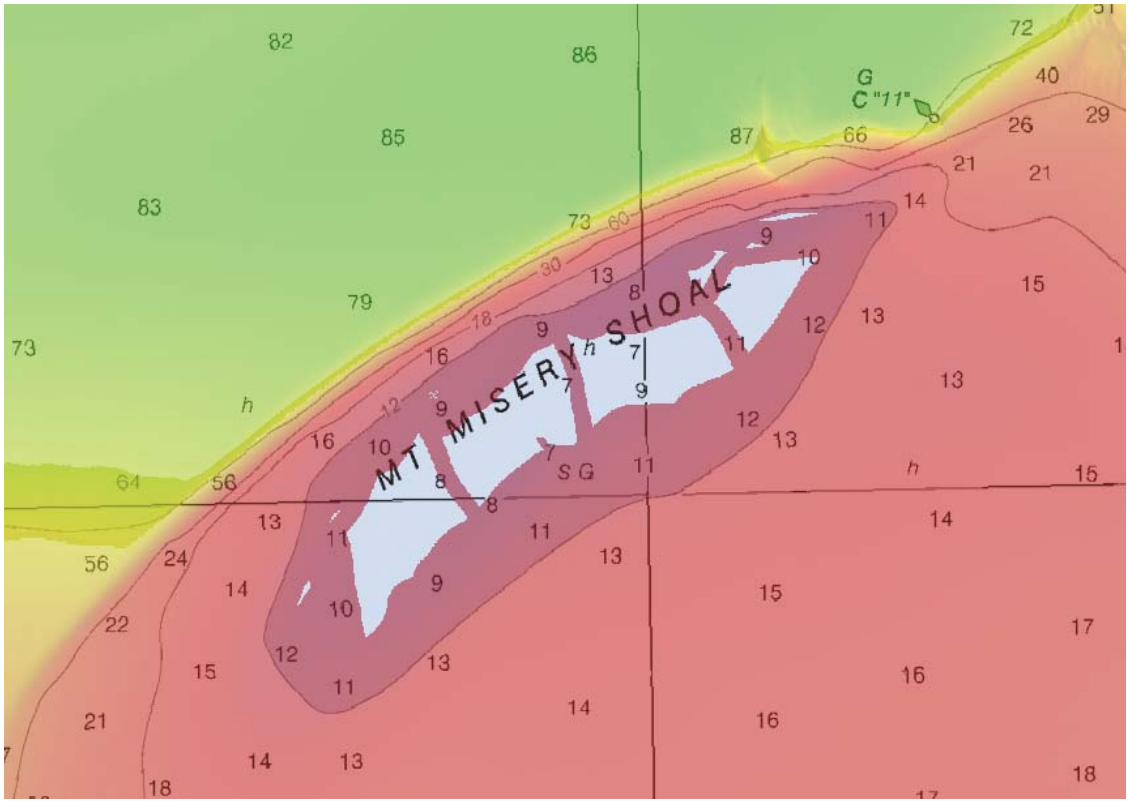


Figure 33: Charted Mt Misery Shoal with multibeam coverage.

D.1.9 Channels

According to the coast pilot, a Federal project provides for a channel 26 feet deep from Long Island Sound to the south end of Port Jefferson Harbor. A 24 foot sounding was located in the channel. The location of this discrepancy is 300 meters southwest of the northeast breakwater.

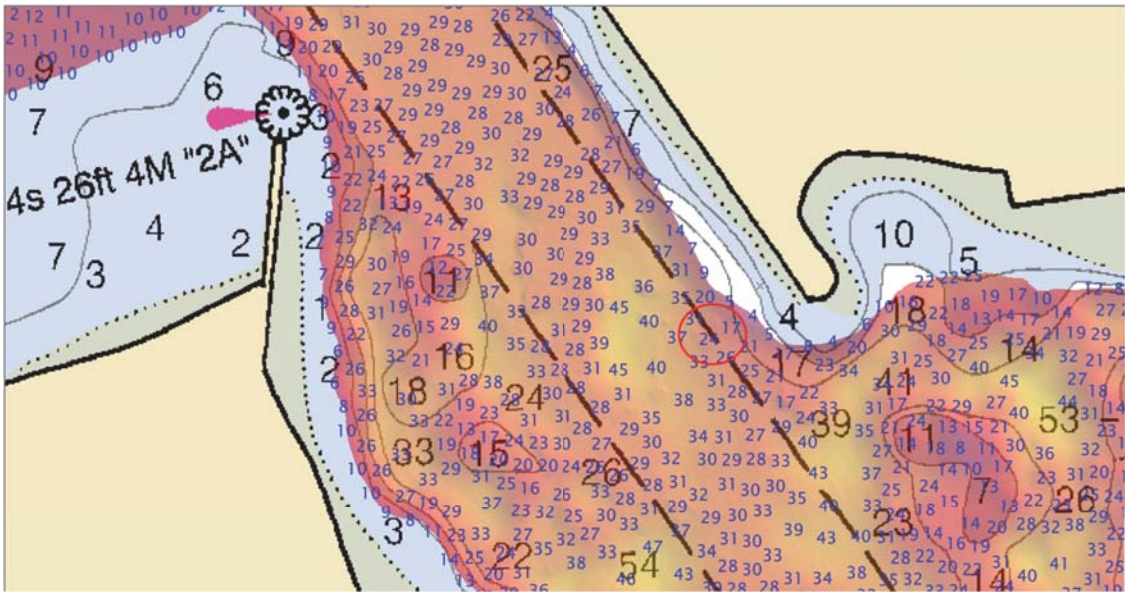


Figure 34: 24ft sounding found within the USCG maintained channel.

D.1.10 Bottom Samples

21 bottom samples were collected were collected for H12416.

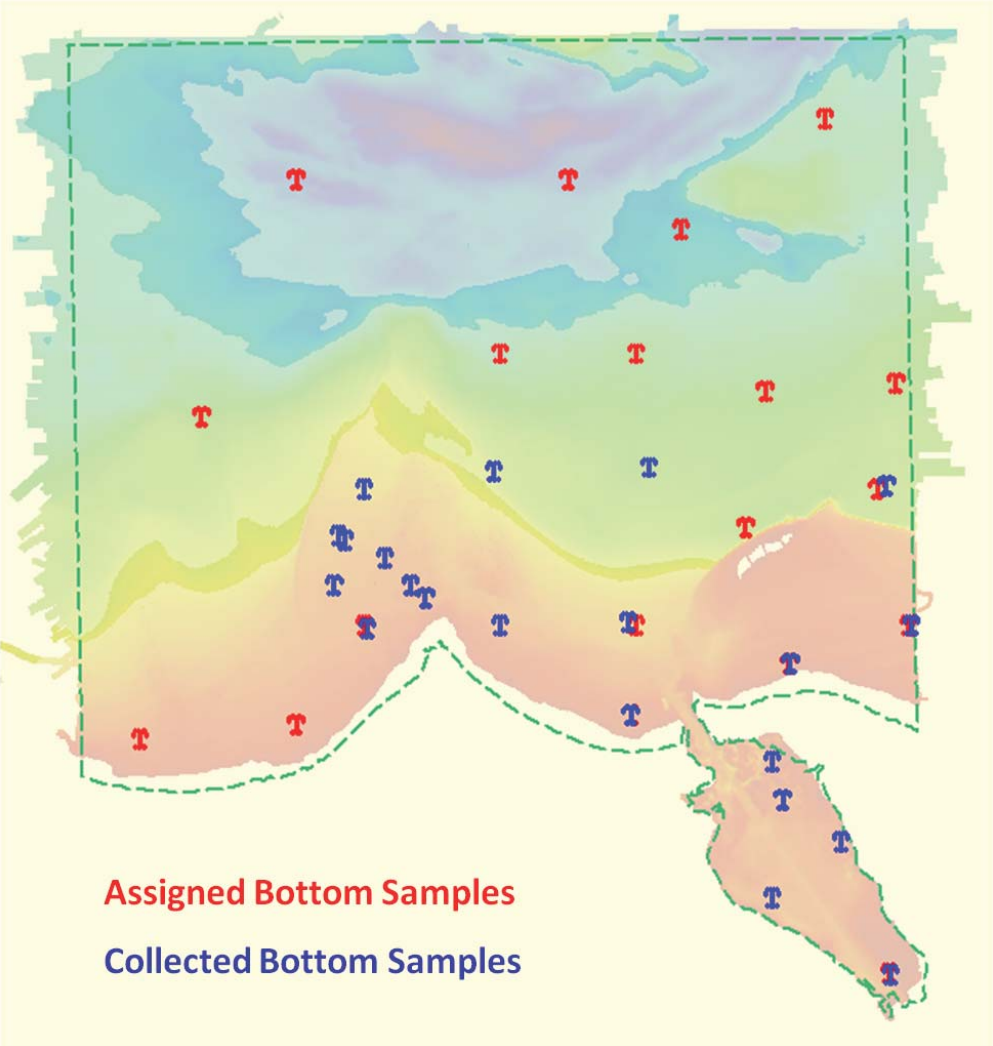


Figure 35: Locations of bottom samples for survey H12416.

D.2 Additional Results

D.2.1 Shoreline

Limited shoreline verification was accomplished using the composite source file provided with the Project Instructions. Of the 130 features assigned to H12416, 85 of the features were in areas too shallow to be safely developed. These features were not addressed. Descriptions of specific feature investigation and shoreline data are included in the Final Feature File submitted with this survey.

21 charted mooring buoys were identified for investigation. During feature investigation, it was found that these charted mooring buoys were private buoys of a seasonal nature. With guidance of the AHB's Hydrographic Team Lead, Gene Parker, it was determined that a buoy area would be used to outline the extents of the mooring field. It is recommended that the chart be updated with this area with a notation indicating “seasonal mooring buoys.” Correspondence has been provided on this subject in Appendix II.

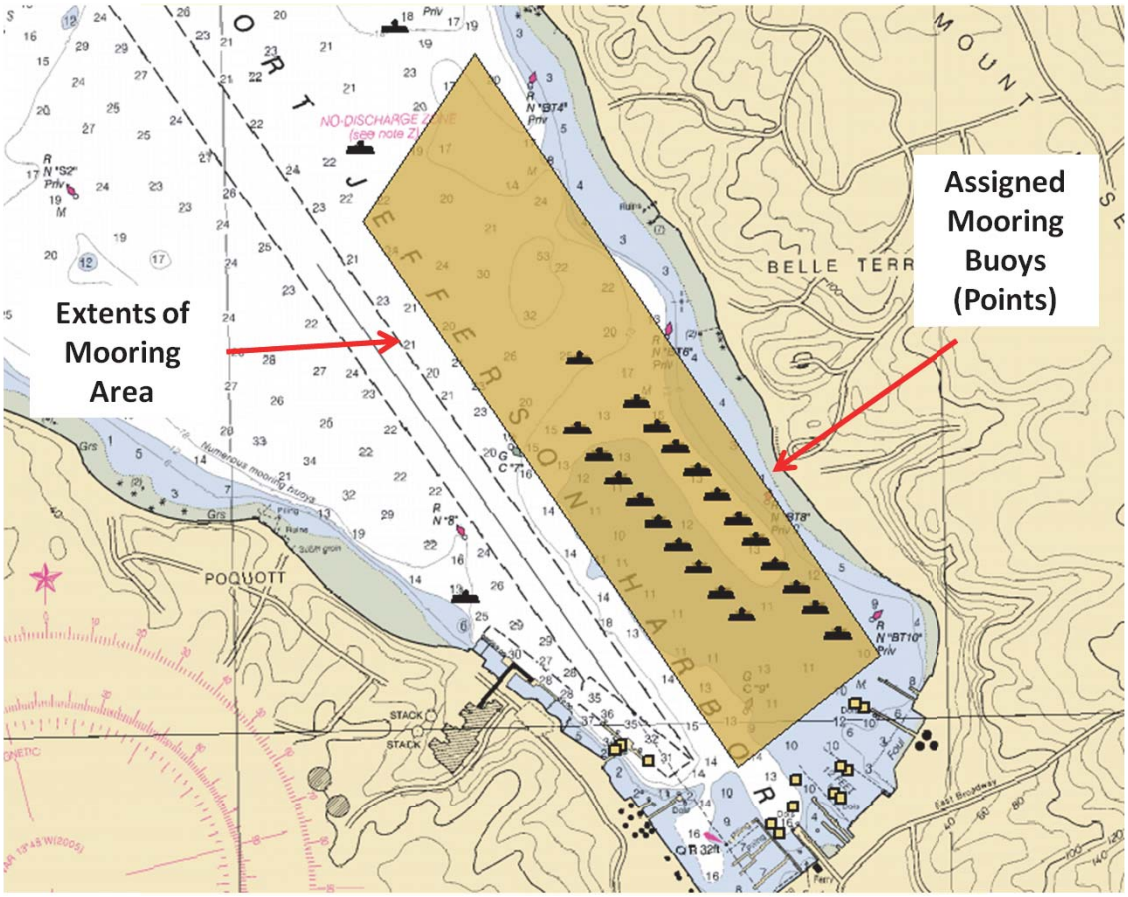


Figure 36: Extents of New Mooring Area and assigned Buoys.

D.2.2 Prior Surveys

No prior survey comparisons exist for this survey.

D.2.3 Aids to Navigation

All ATONs were found to be on station and serving their intended purpose.

D.2.4 Overhead Features

No overhead features exist for this survey.

D.2.5 Submarine Features

No submarine features exist for this survey.

D.2.6 Ferry Routes and Terminals

Ferry routes and/or terminals exist for this survey, but were not investigated.

D.2.7 Platforms

No platforms exist for this survey.

D.2.8 Significant Features

Five new sandwave areas were created during review of the high resolution mutlibeam data collected for H12416. The new sandwave areas have been provided in the final feature file for compilation purposes.

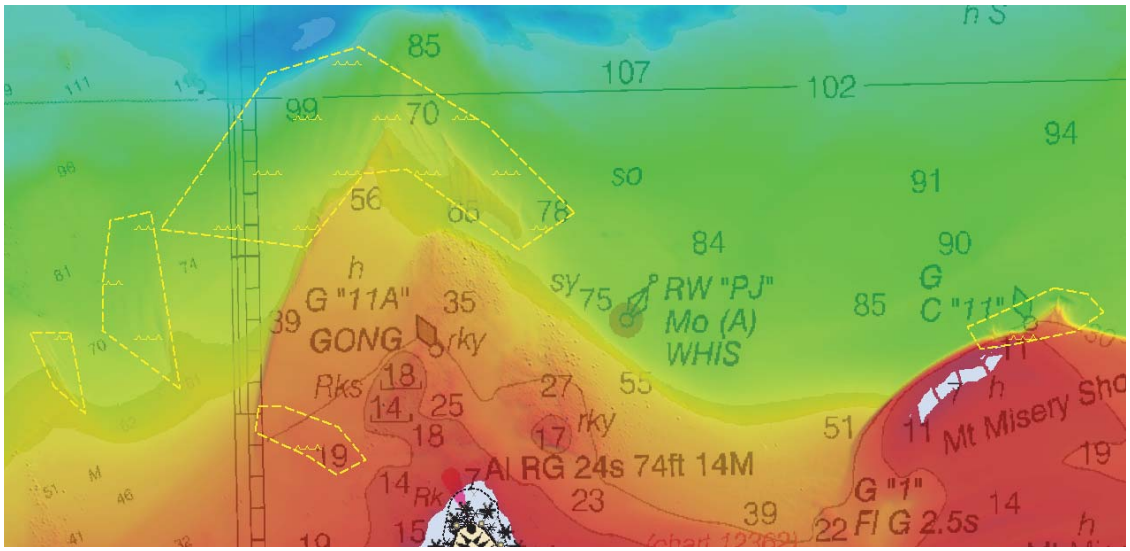


Figure 37: Sandwaves seen in the surfaces with their corresponding new features for charting purposes.

D.2.9 Construction and Dredging

No present or planned construction or dredging exist 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.

Approver Name	Approver Title	Approval Date	Signature
Commander Lawrence T. Krepp	Commanding Officer	08/27/2013	
Lieutenant Megan R. Guberski	Field Operations Officer	08/27/2013	

F. Table of Acronyms

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

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

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

APPENDIX I

TIDES AND WATER LEVELS

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

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE : October 10, 2012

HYDROGRAPHIC BRANCH: Atlantic
HYDROGRAPHIC PROJECT: OPR-B340-TJ-2012
HYDROGRAPHIC SHEET: H12416

LOCALITY: Crane Neck Point to Port Jefferson, Long Island Sound, NY
TIME PERIOD: June 06 - June 28, 2012

TIDE STATION USED: New Haven, CT 846-5705
Lat.41° 17.0' N Long. 72° 54.5' W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 1.946 meters

TIDE STATION USED: Bridgeport, CT 846-7150
Lat. 41° 10.4' N Long. 73° 10.9' W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 2.129 meters

Tide STATION USED: Kings Point, NY 851-6945
Lat. 40° 48.6' Long. 73° 45.9' W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 2.268 meters

REMARKS: RECOMMENDED GRID

Please use the TCARI grid "B340TJ2012_Rev.tc" as the final grid for project OPR-B340-TJ-2012, Registry No. H12416, during the time period between June 06 and June 28, 2012.

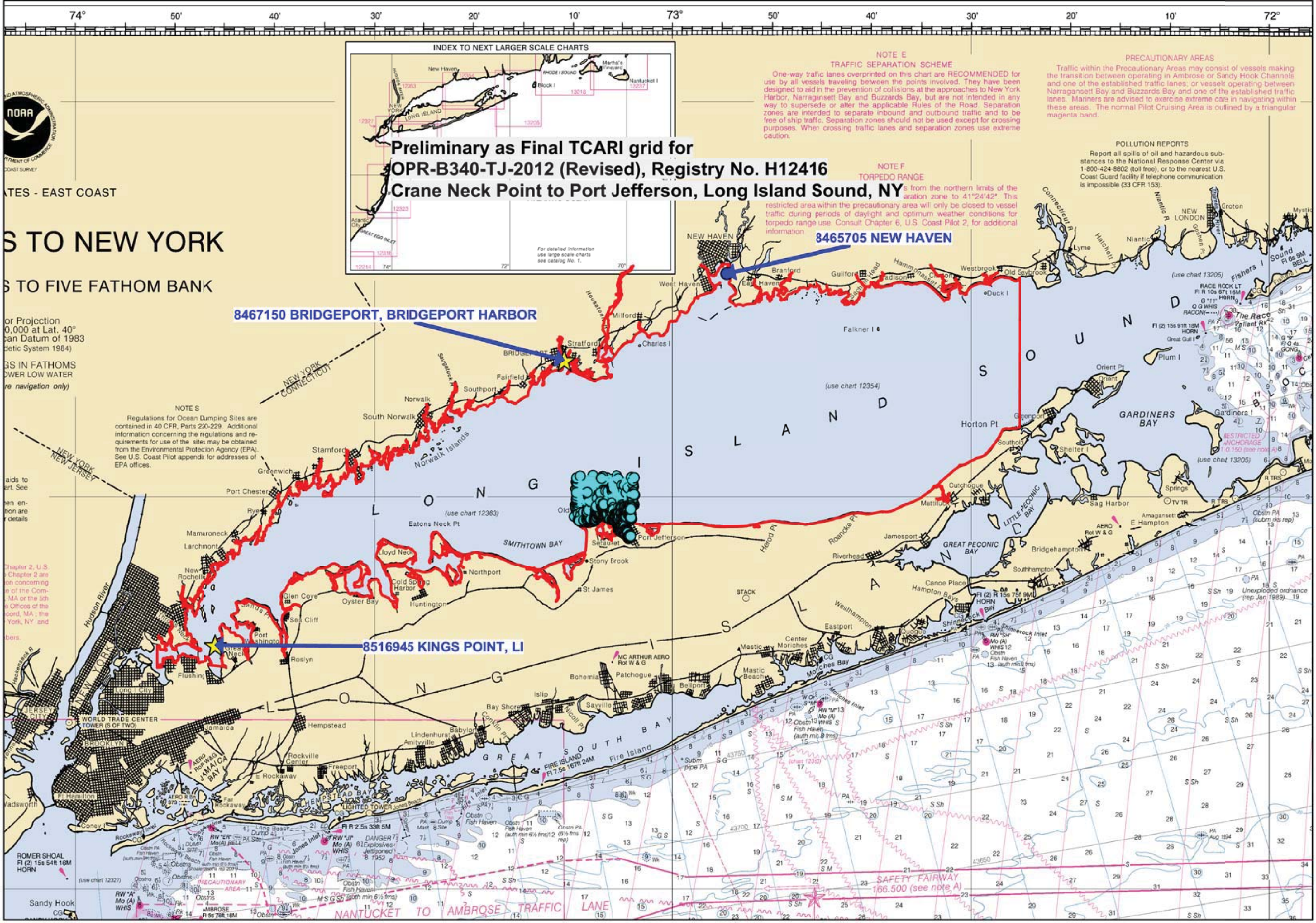
Refer to attachments for grid information.

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).

HOVIS.GERALD.THOMAS.1365860250

Digitally signed by HOVIS.GERALD.THOMAS.1365860250
DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=OTHER, cn=HOVIS.GERALD.THOMAS.1365860250
Date: 2012.10.11 08:33:54 -04'00'

CHIEF, PRODUCTS AND SERVICES BRANCH


Preliminary as Final TCARI grid for
OPR-B340-TJ-2012 (Revised), Registry No. H12416
Crane Neck Point to Port Jefferson, Long Island Sound, NY
8465705 NEW HAVEN
8467150 BRIDGEPORT, BRIDGEPORT HARBOR
8516945 KINGS POINT, LI
INDEX TO NEXT LARGER SCALE CHARTS
NOTE E
TRAFFIC SEPARATION SCHEME
NOTE F
TORPEDO RANGE
PRECAUTIONARY AREAS
POLLUTION REPORTS
NOTE S
LONG ISLAND SOUND
LONG ISLAND
GREAT SOUTH BAY
GARDINERS BAY
SMITHTOWN BAY
SAFETY FAIRWAY
NANTUCKET TO AMBROSE TRAFFIC LANE
Formerly C&GS 1108, 1st Ed., May 1913

APPENDIX II

SUPPLEMENTAL SURVEY RECORDS AND CORRESPONDENCE

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Office of Coast Survey
Silver Spring, Maryland 20910-3282

August 3, 2012

MEMORANDUM FOR: CDR Larry Krepp, NOAA
Commanding Officer, NOAA Ship *Thomas Jefferson*

FROM: Jeffrey Ferguson
Chief, Hydrographic Surveys Division

SUBJECT: Vertical Datum Transformation Technique,
OPR-B340-TJ-12, Long Island Sound, NY

Hydrographic survey H12416 is approved for vertical reduction to chart datum, Mean Lower Low Water (MLLW), using the NOAA Vertical Datum Transformation (VDatum) (http://vdatum.noaa.gov) derived separation (SEP) model provided on the project CD/DVD.

Approval of VDatum, in lieu of the NOAA Center for Operational Oceanographic Products and Services (CO-OPS) TCARI package as per the Project Instructions, is based on your recommendation and the review of comparison results you included in your memo from August 1, 2012, Subject "H12416 Interim Deliverables".

The results of the data analysis show that ellipsoidally referenced survey (ERS) techniques with VDatum used as the vertical datum reducer to MLLW in this area indicate a better internal consistency of the survey data and produces final sounding values that meet or exceed horizontal and vertical specifications for hydrographic surveys.

The comparison techniques are in line with the procedures that were developed and approved as part of the CSDL Ellipsoidally Referenced Survey (ERS) project. These procedures and deliverables were added to the April 2012 edition of the NOS Hydrographic Surveys Specifications and Deliverables Manual and Field Procedures Manual documents.

You shall include a description of your ERS processing procedures and the comparisons you conducted between ERS and traditional tides in the appropriate Descriptive Report (DR), Horizontal and Vertical Control Report and/or Data Acquisition and Processing Report.

This memo and your memo, shall be included in the supplemental correspondence Appendix of the DR.

Tyanne Faulkes - NOAA Federal <tyanne.faulkes@noaa.gov>

Seasonal Mooring Buoys in Jefferson Harbor

3 messages

Tyanne Faulkes - NOAA Federal <tyanne.faulkes@noaa.gov> Fri, Aug 16, 2013 at 6:31 PM
To: Castle Parker - NOAA Federal <castle.e.parker@noaa.gov>, _OMAO MOA OPS Thomas Jefferson <ops.thomas.jefferson@noaa.gov>

Good afternoon Gene,

I am helping Megan on survey H12416 in Jefferson Harbor. I need your great hydro knowledge. They were assigned about 20 buoys in the harbor by OPS. The field delineated an area of what appears to be seasonal mooring buoys.

How should we handle this situation? Should these assigned buoys get a "retained" description and provide the office/cartographer with the mooring area for their charting purposes?

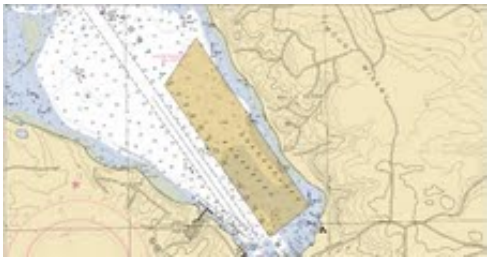
I have **attached a snag of the chart and proposed mooring area** in addition to a picture of Jefferson Harbor. Pictures tell a thousand words....

Thanks for the help,

Tyanne

--
Tyanne Faulkes
Physical Scientist
NOAA's National Ocean Service
Office of Coast Survey, Hydrographic Surveys Division
Atlantic Hydrographic Branch
757.441.6746 x 110

2 attachments



MooringBuoys.jpg
375K

SE_Mooring_Field_lookingSE.jpg
1413K

Castle Parker - NOAA Federal <castle.e.parker@noaa.gov> Fri, Aug 16, 2013 at 8:08 PM
To: Tyanne Faulkes - NOAA Federal <tyanne.faulkes@noaa.gov>

Hey Tyanne,

First ?, is the proposed polygon what the field delineated? Or is it what OPS provided? The field should delineate what is existing; the purpose of the survey is to document what exists at the time of survey. Run a track line around the existing buoy to define the limits as existing. Or, they could obtain detached positions on each one, then create a polygon based upon those data points. The chart image appears to have the polygon cover a portion of which there is no charted mooring buoys… so it makes me wonder what is the source of the polygon limits. I think the easiest method to define what exists is to run a VBES line keeping the outermost buoys to one side of the survey vessel; acquisition logs include comments such as " mooring buoy 10m to STBD" or whichever side of the survey vessel the buoys are located. Then generate a polygon based upon the trackline.

Concerning the charted buoys, they may not correlate to the location of this year's buoy location. So, if one verifies the existence of each mooring buoy, there would be potentially 20 deletes and 20 new buoys. I don't think this is the best method of documenting the survey area. This method would entail more attribution and single point data collection. The marina that places the buoys on location each spring does not necessarily place them in the same location from year to year, or in the charted location.

I have seen and dealt with this up in Maine; what I did there was define the outermost limits (polygon) using the survey boat and drive the outermost limits of the buoys. When charted the polygon would be portrayed with a dashed line, which means approximate, and MCD added chart notation indicating "seasonal mooring buoys."

Does this help?

Gene

PS: oh yeah, take out the TJ's helicopter and fly overhead and take a geo-reference photo. Or send out the remote control helicopter to take the photo! Or get yer wings on and fly it yourself! LOL another

thought…. Take a deep breath of helium and float up! Jes kiddin!!

From: Tyanne Faulkes - NOAA Federal [mailto:tyanne.faulkes@noaa.gov]
Sent: Friday, August 16, 2013 2:31 PM
To: Castle Parker - NOAA Federal; _OMAO MOA OPS Thomas Jefferson
Subject: Seasonal Mooring Buoys in Jefferson Harbor

[Quoted text hidden]

Tyanne Faulkes - NOAA Federal <tyanne.faulkes@noaa.gov> Fri, Aug 16, 2013 at 8:20 PM
To: Castle Parker - NOAA Federal <castle.e.parker@noaa.gov>, _OMAO MOA OPS Thomas Jefferson <ops.thomas.jefferson@noaa.gov>

The polygon is delineated by the field by taking DPs on the outer most corners of the buoy field. All of those points you see are what is charted. The field did not address each one of the buoys, that would have been a mess.

With your guidance I will suggest that the field does the following:
1) Provide the new polygon with the appropriate attribution and the recommendation to AHB to have MCD note that the area has seasonal mooring buoys.
2) Attribute "Delete" on all those point object because we are replacing it with a new polygon.

This survey is a year old and we are trying to get it off the ship. Sadly we cannot go back out there with VBES and get a more accurate delineation for the chart.

Tyanne
[Quoted text hidden]

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Office of Marine and Aviation Operations,
Marine Operation Center-Atlantic,
NOAA Ship *Thomas Jefferson*
Norfolk, Virginia 23510

1 August 2012

MEMORANDUM TO: Jeffrey Ferguson
Chief, Hydrographic Surveys Division

FROM: Lawrence T. Krepp, CDR/NOAA
Commanding Officer

SUBJECT: H12416 Interim Deliverables

As per the project instructions for OPR-B340-TJ-12, NOAA Ship *Thomas Jefferson* was tasked with providing a recommendation on the vertical transformation technique to be used for each sheet. This recommendation is based upon an analysis of crossline data processed with TCARI tidal zoning and VDatum ERS. This analysis was performed using Pydro's Post Acquisition Tools.

Crossline Analysis
Crosslines from H12416 were parallel processed with one set of depths reduced to MLLW via TCARI tidal zoning and the other set reduced via VDatum ERS. Pydro's Post Acquisition Tool "Compare Time Series Data" yielded the following results:

File-wise Statistics

H12416_ERS_Crosslines_TJ_3101_Reson7125_400khz_MiddlePD.txt |
H:\Surveys\H12416\Descriptive Report\Separates\IV_Crossline_Comparisons\ERSvTCARI
- (minus)
H12416_TCARI_Crosslines_TJ_3101_Reson7125_400khz_MiddlePD.txt |
H:\Surveys\H12416\Descriptive Report\Separates\IV_Crossline_Comparisons\ERSvTCARI
=====
N,mean,stdev = 29132,-0.007,0.042

H12416_ERS_Crosslines_TJ_3102_Reson7125_400KHZ_MiddlePD.txt |
H:\Surveys\H12416\Descriptive Report\Separates\IV_Crossline_Comparisons\ERSvTCARI
- (minus)
H12416_TCARI_Crosslines_TJ_3102_Reson7125_400KHZ_MiddlePD.txt |
H:\Surveys\H12416\Descriptive Report\Separates\IV_Crossline_Comparisons\ERSvTCARI
=====
N,mean,stdev = 88131,0.066,0.081

H12416_ERS_Crosslines_TJ_S222_RESON7125_STBD_MiddlePD.txt |
H:\Surveys\H12416\Descriptive Report\Separates\IV_Crossline_Comparisons\ERSvTCARI
- (minus)
H12416_TCARI_Crosslines_TJ_S222_RESON7125_STBD_MiddlePD.txt |
H:\Surveys\H12416\Descriptive Report\Separates\IV_Crossline_Comparisons\ERSvTCARI
=====
N,mean,stdev = 16852,-0.090,0.042

Sensor-wise Statistics

MiddlePD: N,mean,stdev = 134115,0.031,0.089

Discussion
Results of the analysis showed that the mean difference between ERS and TCARI tidal corrections was 3.1cm with a standard deviation of 8.9cm.

Recommendation
Our recommendation is to utilize ERS VDatum for tidal corrections for this survey. The results of the analysis show that there are only minor differences between sounding data reduced to MLLW using TCARI and ERS VDatum. This difference is less than the uncertainty of the VDatum model (10.2cm).

Port Jefferson Channel Wreck

Kolleen Mortimer - NOAA Federal <kolleen.mortimer@noaa.gov> Wed, Oct 1, 2014 at 12:04 PM
To: Meghan McGovern - NOAA Federal <meghan.mcgovern@noaa.gov>
Cc: Matthew Jaskoski - NOAA Federal <matthew.jaskoski@noaa.gov>, Edward Owens - NOAA Federal <edward.owens@noaa.gov>, Megan Guberski - NOAA Federal <megan.guberski@noaa.gov>

Meghan,

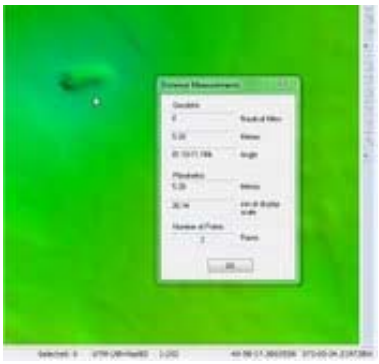
I am working on survey compilation H12416: Crane Neck Point to Port Jefferson, Long Island Sound, New York. There was a wreck that was identified within the Port Jefferson Harbor Channel. The wreck is about 17 feet in length and has a surveyed least depth of 38 feet, while the channel has a minimum depth of 28 feet. I have been unable to find any documentation or correspondence regarding this wreck. I am wondering if you have any information on the wreck or if the Army Corps of Engineers is aware of it.

Thank you in advance!

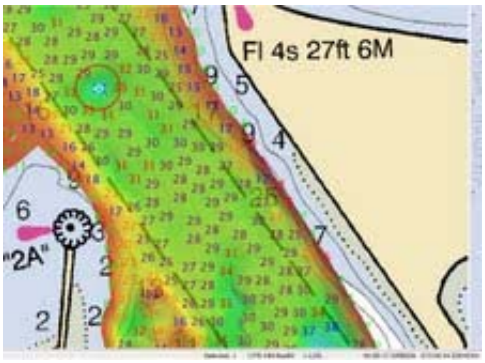
--
Kolleen Mortimer
Physical Scientist
NOAA's National Ocean Service
Office of Coast Survey, Hydrographic Surveys Division
Atlantic Hydrographic Branch
436 West York Street
Norfolk, VA 23510

(757) 441-6746

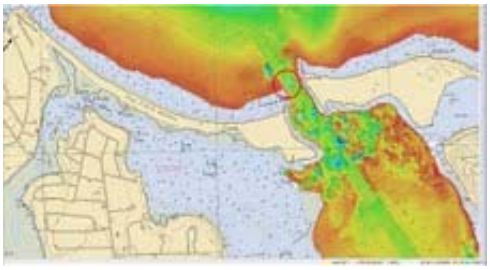
3 attachments



H12416_wreck_length.jpg
37K



H12416_wreck_position1.jpg
150K



H12416_wreck_position2.jpg
130K

Fwd: [EXTERNAL] Fwd: Port Jefferson Channel Wreck (UNCLASSIFIED)

Meghan McGovern - NOAA Federal <meghan.mcgovern@noaa.gov> Thu, Oct 2, 2014 at 3:57 PM
To: Kolleen Mortimer - NOAA Federal <kolleen.mortimer@noaa.gov>
Cc: Matthew Jaskoski - NOAA Federal <matthew.jaskoski@noaa.gov>, Edward Owens - NOAA Federal <edward.owens@noaa.gov>, Megan Guberski - NOAA Federal <megan.guberski@noaa.gov>, Brent Pounds - NOAA Federal <brent.pounds@noaa.gov>, Chris Libeau - NOAA Federal <chris.libeau@noaa.gov>

Kolleen,

Please see response below from USACE. Looks like they know about it already and are not concerned, but no additional information. Please let me know if I can assist further.

Regards,
Meghan

---------- Forwarded message ----------
From: **Tavolaro, John F NAN02** <John.F.Tavolaro@usace.army.mil>
Date: Thu, Oct 2, 2014 at 3:35 PM
Subject: RE: [EXTERNAL] Fwd: Port Jefferson Channel Wreck (UNCLASSIFIED)
To: Meghan McGovern - NOAA Federal <meghan.mcgovern@noaa.gov>
Cc: Chris Libeau - NOAA Federal <chris.libeau@noaa.gov>, Brent Pounds - NOAA Federal <brent.pounds@noaa.gov>, "Hintz, Randall G NAN02" <Randall.G.Hintz@usace.army.mil>

Classification: UNCLASSIFIED
Caveats: NONE

Meghan,

Yes we know about it but have no additional information on it. It has turned up on our surveys but it appears not to me moving around and is well below the project depth, so it is not an issue for the navigability of the channel.

John F. Tavolaro
Deputy Chief, Operations Division

-----Original Message-----
From: Meghan McGovern - NOAA Federal [mailto:meghan.mcgovern@noaa.gov]
Sent: Wednesday, October 01, 2014 6:19 PM
To: Tavolaro, John F NAN02
Cc: Chris Libeau - NOAA Federal; Brent Pounds - NOAA Federal
Subject: [EXTERNAL] Fwd: Port Jefferson Channel Wreck

Hi John,

Our processing branch has identified a wreck in Port Jefferson Harbor Channel and they were wondering if you were aware of it and if you had any information. The wreck has a least depth of 38 feet and the controlling depth for the channel is 28 feet. Images attached.

Regards,
Meghan

---------- Forwarded message ----------

From: Kolleen Mortimer - NOAA Federal <kolleen.mortimer@noaa.gov>
Date: Wednesday, October 1, 2014
Subject: Port Jefferson Channel Wreck
To: Meghan McGovern - NOAA Federal <meghan.mcgovern@noaa.gov>
Cc: Matthew Jaskoski - NOAA Federal <matthew.jaskoski@noaa.gov>, Edward Owens - NOAA Federal <edward.owens@noaa.gov>, Megan Guberski - NOAA Federal <megan.guberski@noaa.gov>

Meghan,

I am working on survey compilation H12416: Crane Neck Point to Port Jefferson, Long Island Sound, New York. There was a wreck that was identified within the Port Jefferson Harbor Channel. The wreck is about 17 feet in length and has a surveyed least depth of 38 feet, while the channel has a minimum depth of 28 feet. I have been unable to find any documentation or correspondence regarding this wreck. I am wondering if you have any information on the wreck or if the Army Corps of Engineers is aware of it.

Thank you in advance!

--

Kolleen Mortimer
Physical Scientist
NOAA's National Ocean Service
Office of Coast Survey, Hydrographic Surveys Division
Atlantic Hydrographic Branch
436 West York Street
Norfolk, VA 23510

(757) 441-6746

--

Meghan McGovern, LT/NOAA
Office of Coast Survey
Navigation Services Division
28 Tarzwell Drive
Narragansett, RI 02882
Tel: 401-782-3252
Cell: 401-545-0174
Fax: 401-782-3292
nauticalcharts.noaa.gov <http://nauticalcharts.noaa.gov/>

Classification: UNCLASSIFIED
Caveats: NONE

--

Meghan McGovern, LT/NOAA
Office of Coast Survey

Navigation Services Division
28 Tarzwell Drive
Narragansett, RI 02882
Tel: 401-782-3252
Cell: 401-545-0174
Fax: 401-782-3292
nauticalcharts.noaa.gov

APPENDIX III

SURVEY FEATURES REPORT

DtoNs - nine
AWOIS - four
Maritime Boundary - none
Wrecks - thirteen

H12416 DtoNs

Registry Number: H12416
State: New York
Locality: Long Island Sound
Sub-locality: Crane Neck Point to Port Jefferson, NY
Project Number: OPR-B340-TJ-12
Survey Date: 06/06/2012 - 06/28/2012

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
12364	38th	07/01/2008	1:40,000 (12364_21) 1:10,000 (12364_22)	[L]NTM: ?
12362	17th	02/01/2005	1:10,000 (12362_1)	[L]NTM: ?
12363	40th	06/01/2005	1:80,000 (12363_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.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	DtoN 1.3 18.9 ft rock	Rock	5.77 m	40° 58' 15.9" N	073° 09' 20.7" W	---
1.2	DtoN 1.2 14 ft rock	Rock	4.34 m	40° 58' 46.3" N	073° 07' 26.0" W	---
1.3	8 ft obstuction	Obstruction	2.49 m	40° 57' 22.6" N	073° 04' 36.8" W	---
1.4	18 ft obstruction	Obstruction	5.52 m	40° 57' 25.7" N	073° 04' 33.9" W	---
1.5	12 ft obstruction	Obstruction	3.65 m	40° 57' 26.2" N	073° 04' 30.4" W	---
1.6	12 ft obstruction 2	Obstruction	3.87 m	40° 57' 29.2" N	073° 04' 29.2" W	---
1.7	DtoN 2.1 6 ft obstruction	Obstruction	1.92 m	40° 56' 54.1" N	073° 04' 16.9" W	---
1.8	9 ft sounding	Shoal	2.92 m	40° 56' 59.6" N	073° 04' 16.6" W	---
1.9	4 ft obstruction	Obstruction	1.21 m	40° 57' 06.6" N	073° 04' 10.4" W	---

1 - DTON

1.1) DtoN 1.3 18.9 ft rock

DANGER TO NAVIGATION

Survey Summary

Survey Position:	40° 58' 15.9" N, 073° 09' 20.7" W
Least Depth:	5.77 m (= 18.94 ft = 3.156 fm = 3 fm 0.94 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2012-180.00:00:00.000 (06/28/2012)
Dataset:	H12416_Compile_DtoNs_report.000
FOID:	US 0000142552 00001(022600022CD80001)
Charts Affected:	12364_21, 12363_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

UWTROC/remrks: DTON #1.3. New rock found with SWMB

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12416_Compile_DtoNs_report.000	US 0000142552 00001	0.00	000.0	Primary

Hydrographer Recommendations

Chart new rock

Cartographically-Rounded Depth (Affected Charts):

19ft (12364_21, 12363_1)

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

5.7m (5161_1)

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	NINFOM - Chart rock
	QUASOU - 6:least depth known
	SORDAT - 20120628
	SORIND - US,US,graph,H12416

TECSOU - 3:found by multi-beam

VALSOU - 5.772 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Confirmed with SWMB.

COMPILE Submitted as DtoN 1.3. Delete charted 19 foot rock. Chart new 18.94 foot rock at survey position.

Feature Images

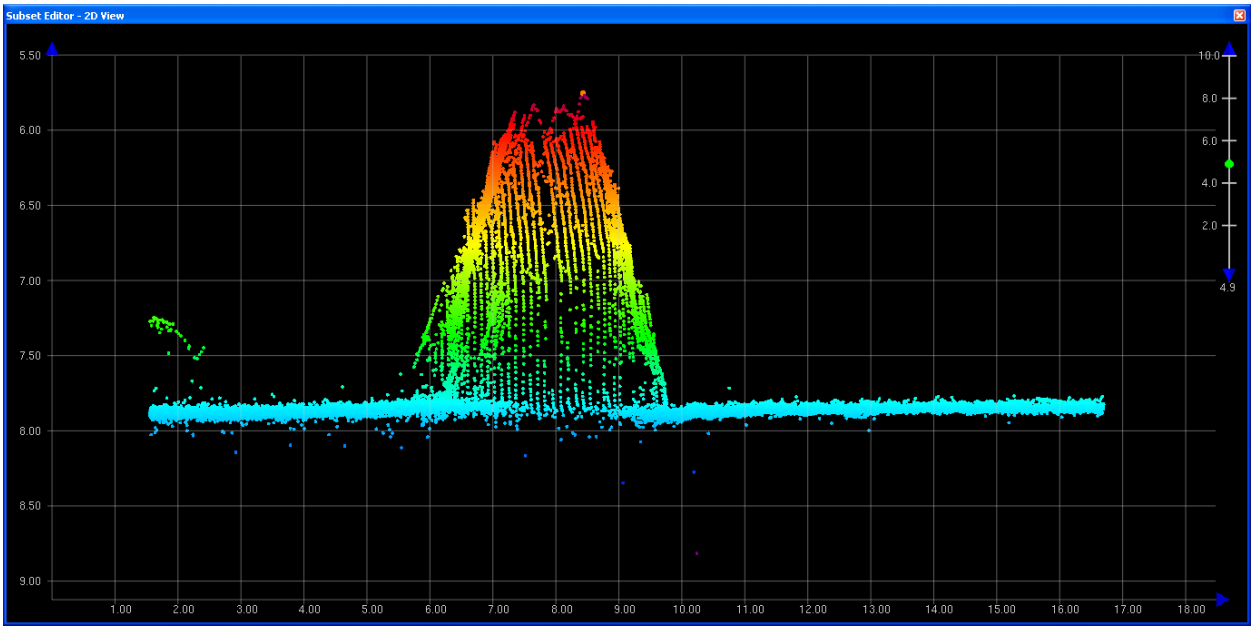


Figure 1.1.1

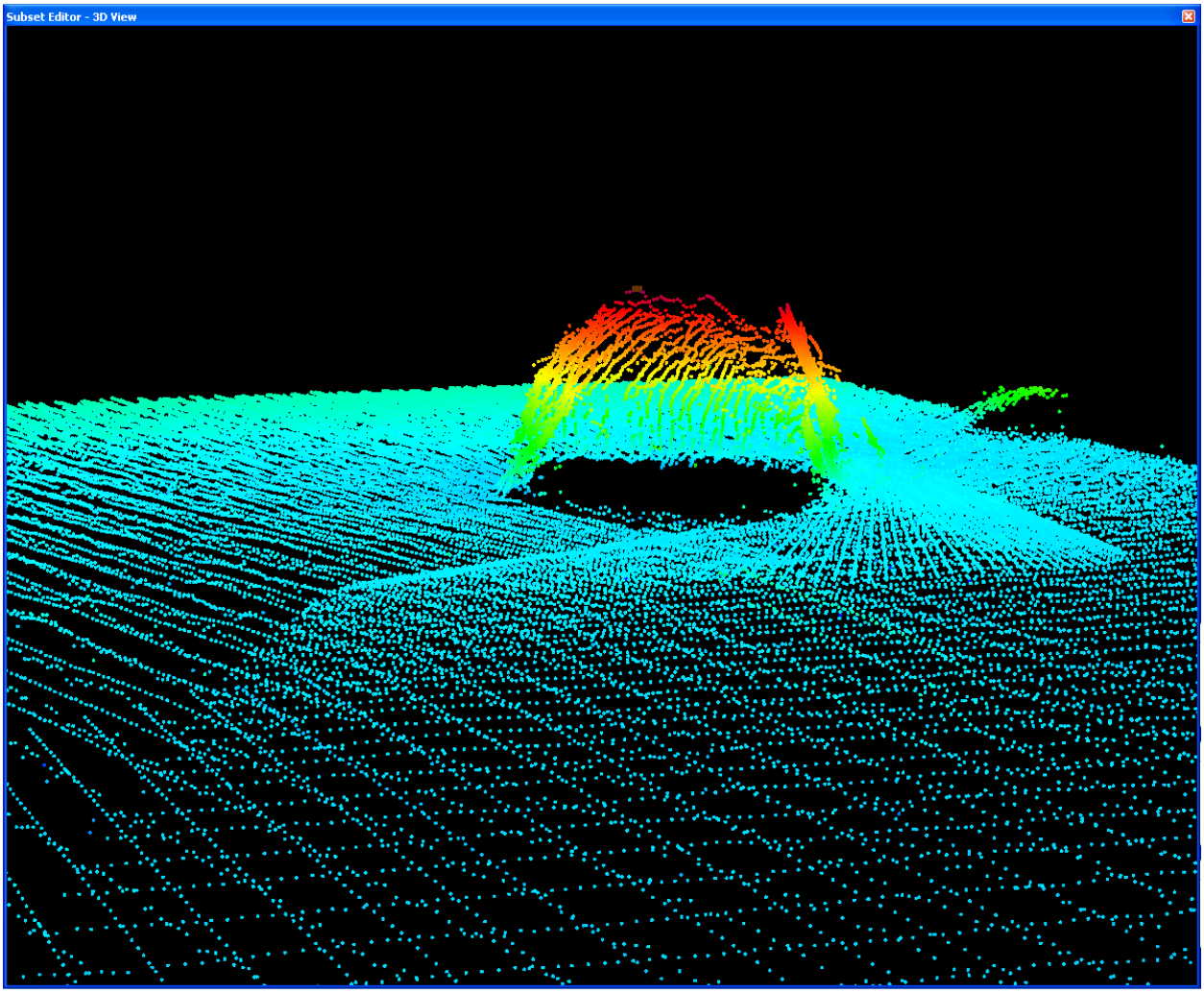


Figure 1.1.2

1.2) DtoN 1.2 14 ft rock

DANGER TO NAVIGATION

Survey Summary

Survey Position:	40° 58' 46.3" N, 073° 07' 26.0" W
Least Depth:	4.34 m (= 14.24 ft = 2.374 fm = 2 fm 2.24 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2012-180.00:00:00.000 (06/28/2012)
Dataset:	H12416_Compile_DtoNs_report.000
FOID:	US 0000142349 00001(022600022C0D0001)
Charts Affected:	12362_1, 12364_21, 12354_1, 12363_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

UWTROC/remrks: DTON #1.2. Found with SWMB.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12416_Compile_DtoNs_report.000	US 0000142349 00001	0.00	000.0	Primary

Hydrographer Recommendations

Chart new rock

Cartographically-Rounded Depth (Affected Charts):

14ft (12362_1, 12364_21, 12354_1, 12363_1)

2 ¼fm (12300_1, 13006_1, 13003_1)

4.3m (5161_1)

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	NINFOM - Chart rock
	QUASOU - 6:least depth known
	SORDAT - 20120628
	SORIND - US,US,graph,H12416

TECSOU - 3:found by multi-beam

VALSOU - 4.341 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Rk confirmed with SWMB.

COMPILE: Submitted as DtoN 1.2. Delete charted 14 foot rock. Chart new 14.24 foot rock at survey position.

Feature Images

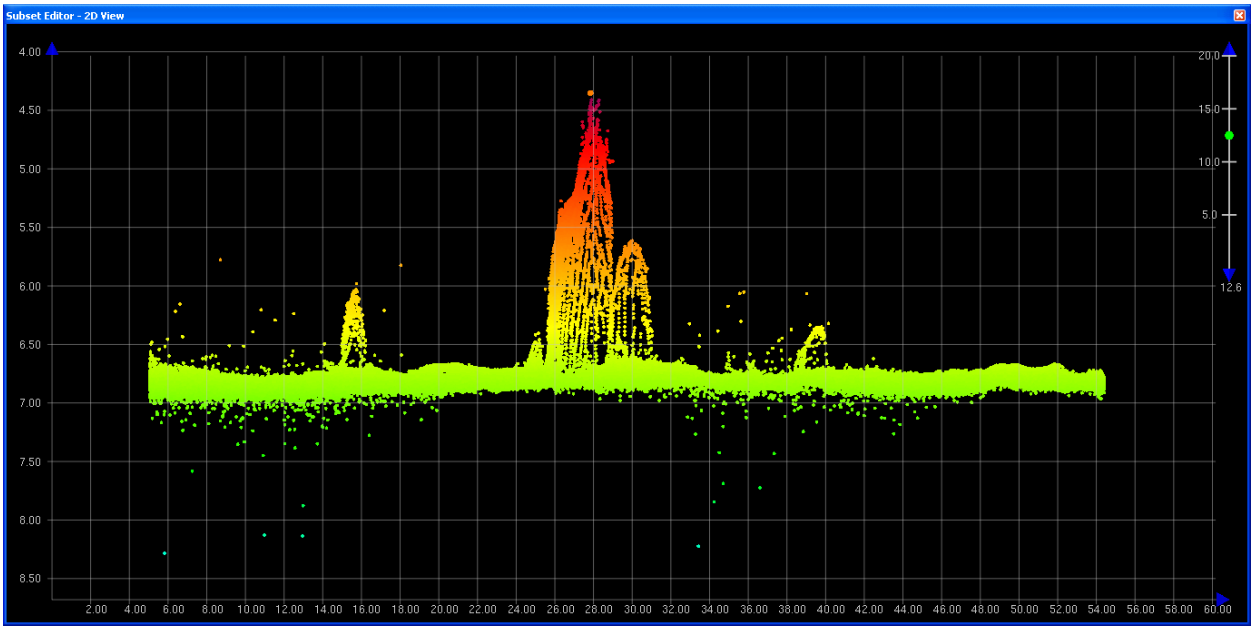


Figure 1.2.1

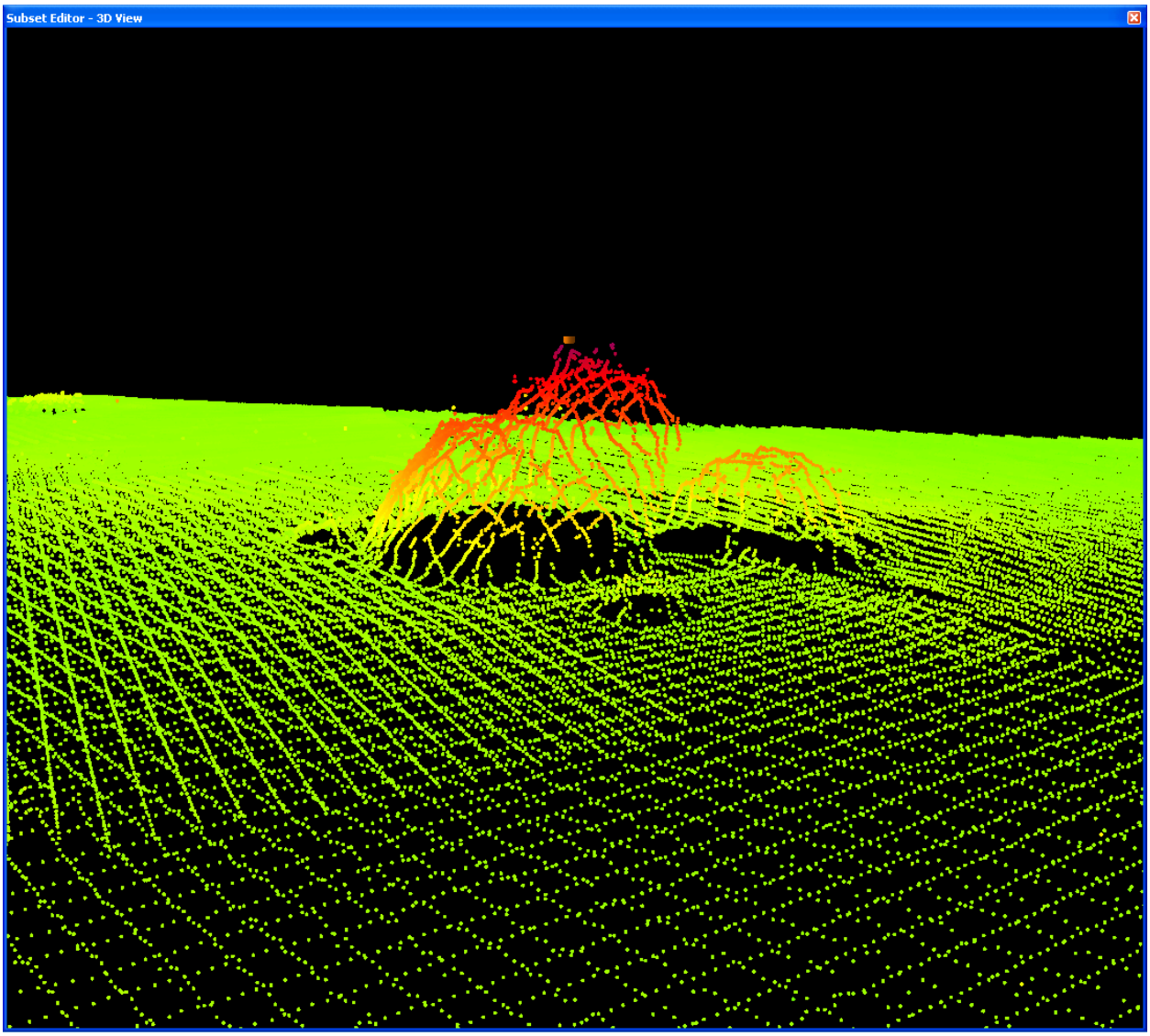


Figure 1.2.2

1.3) 8 ft obstuction

DANGER TO NAVIGATION

Survey Summary

Survey Position:	40° 57' 22.6" N, 073° 04' 36.8" W
Least Depth:	2.49 m (= 8.18 ft = 1.363 fm = 1 fm 2.18 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2012-180.00:00:00.000 (06/28/2012)
Dataset:	H12416_Compile_DtoNs_report.000
FOID:	US 0000142173 00001(022600022B5D0001)
Charts Affected:	12362_1, 12364_22, 12364_21, 12354_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

OBSTRN/remrks: Found new obstruction with 100% SWMB

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12416_Compile_DtoNs_report.000	US 0000142173 00001	0.00	000.0	Primary

Hydrographer Recommendations

Chart new obstruction

Cartographically-Rounded Depth (Affected Charts):

8ft (12362_1, 12364_22, 12364_21, 12354_1)

1 ¼fm (12300_1, 13006_1, 13003_1)

2.5m (5161_1)

S-57 Data

Geo object 1:	Obstruction (OBSTRN)
Attributes:	NINFOM - Chart obstruction
	QUASOU - 6:least depth known
	SORDAT - 20120628
	SORIND - US,US,graph,H12416

TECSOU - 3:found by multi-beam

VALSOU - 2.492 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Confirmed with SWMB.

COMPILE: Chart new 8.18 foot obstruction at survey position.

Feature Images

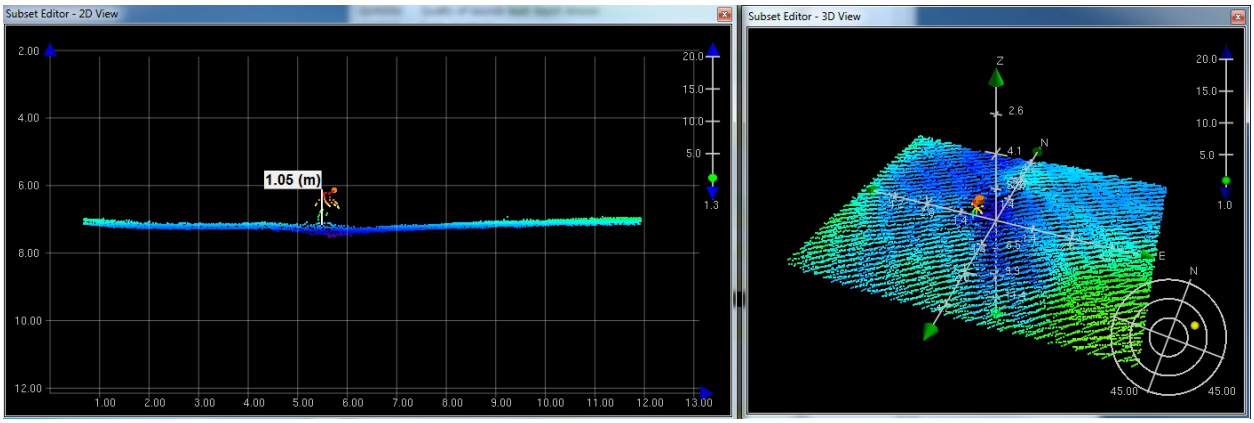


Figure 1.3.1

1.4) 18 ft obstruction

DANGER TO NAVIGATION

Survey Summary

Survey Position:	40° 57' 25.7" N, 073° 04' 33.9" W
Least Depth:	5.52 m (= 18.10 ft = 3.017 fm = 3 fm 0.10 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2012-180.00:00:00.000 (06/28/2012)
Dataset:	H12416_Compile_DtoNs_report.000
FOID:	US 0000142694 00001(022600022D660001)
Charts Affected:	12362_1, 12364_22, 12364_21, 12354_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

OBSTRN/remrks: New obstruction found with 100% SWMB

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12416_Compile_DtoNs_report.000	US 0000142694 00001	0.00	000.0	Primary

Hydrographer Recommendations

Chart new obstruction

Cartographically-Rounded Depth (Affected Charts):

18ft (12362_1, 12364_22, 12364_21, 12354_1)

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

5.5m (5161_1)

S-57 Data

Geo object 1:	Obstruction (OBSTRN)
Attributes:	NINFOM - Chart obstruction
	QUASOU - 6:least depth known
	SORDAT - 20120628
	SORIND - US,US,graph,H12416

TECSOU - 3:found by multi-beam

VALSOU - 5.517 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Confirmed with SWMB.

COMPILE: Chart new 18.10 foot obstruction at survey position.

Feature Images

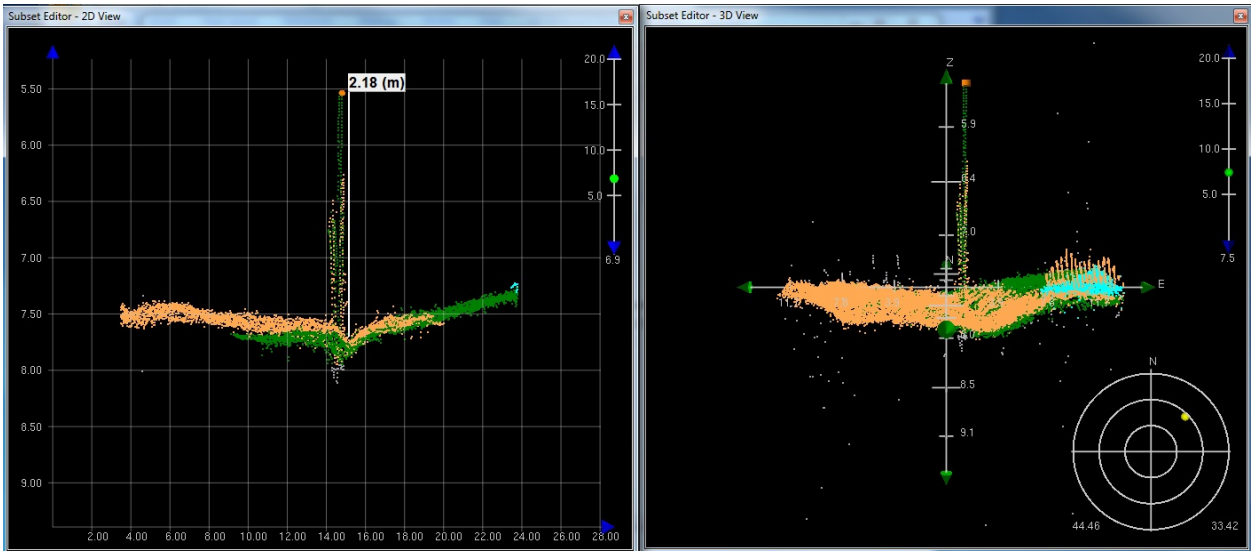


Figure 1.4.1

1.5) 12 ft obstruction

DANGER TO NAVIGATION

Survey Summary

Survey Position:	40° 57' 26.2" N, 073° 04' 30.4" W
Least Depth:	3.65 m (= 11.99 ft = 1.998 fm = 1 fm 5.99 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2012-180.00:00:00.000 (06/28/2012)
Dataset:	H12416_Compile_DtoNs_report.000
FOID:	US 0000142695 00001(022600022D670001)
Charts Affected:	12362_1, 12364_22, 12364_21, 12354_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

OBSTRN/remrks: New obstruction found with 100% SWMB

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12416_Compile_DtoNs_report.000	US 0000142695 00001	0.00	000.0	Primary

Hydrographer Recommendations

Chart new obstruction

Cartographically-Rounded Depth (Affected Charts):

12ft (12362_1, 12364_22, 12364_21, 12354_1)

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

3.6m (5161_1)

S-57 Data

Geo object 1:	Obstruction (OBSTRN)
Attributes:	NINFOM - Chart obstruction
	QUASOU - 6:least depth known
	SORDAT - 20120628
	SORIND - US,US,graph,H12416

TECSOU - 3:found by multi-beam

VALSOU - 3.654 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Confirmed with MBES.

COMPILE: Chart new 11.99 foot obstruction at survey position.

Feature Images

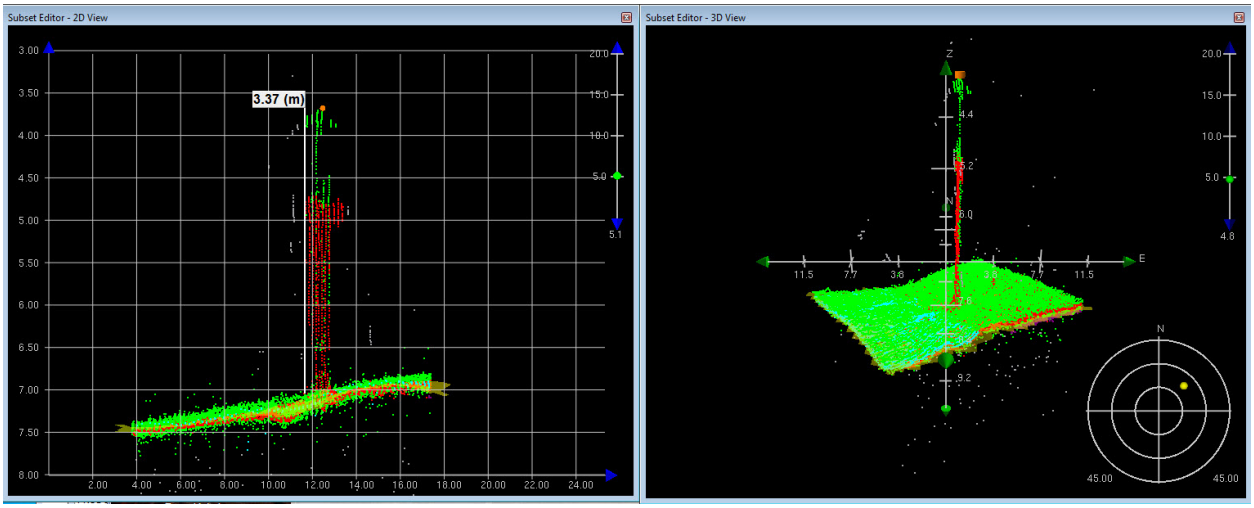


Figure 1.5.1

1.6) 12 ft obstruction 2

DANGER TO NAVIGATION

Survey Summary

Survey Position:	40° 57' 29.2" N, 073° 04' 29.2" W
Least Depth:	3.87 m (= 12.70 ft = 2.117 fm = 2 fm 0.70 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2012-180.00:00:00.000 (06/28/2012)
Dataset:	H12416_Compile_DtoNs_report.000
FOID:	US 0000142696 00001(022600022D680001)
Charts Affected:	12362_1, 12364_22, 12364_21, 12354_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

OBSTRN/remrks: New obstruction found with 100% SWMB

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12416_Compile_DtoNs_report.000	US 0000142696 00001	0.00	000.0	Primary

Hydrographer Recommendations

Chart new obstruction.

Cartographically-Rounded Depth (Affected Charts):

12ft (12362_1, 12364_22, 12364_21, 12354_1)

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

3.8m (5161_1)

S-57 Data

Geo object 1:	Obstruction (OBSTRN)
Attributes:	NINFOM - Chart obstruction
	QUASOU - 6:least depth known
	SORDAT - 20120628
	SORIND - US,US,graph,H12416

TECSOU - 3:found by multi-beam

VALSOU - 3.872 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Confirmed with SWMB.

COMPILE: Chart new 12.70 foot obstruction at survey position.

Feature Images

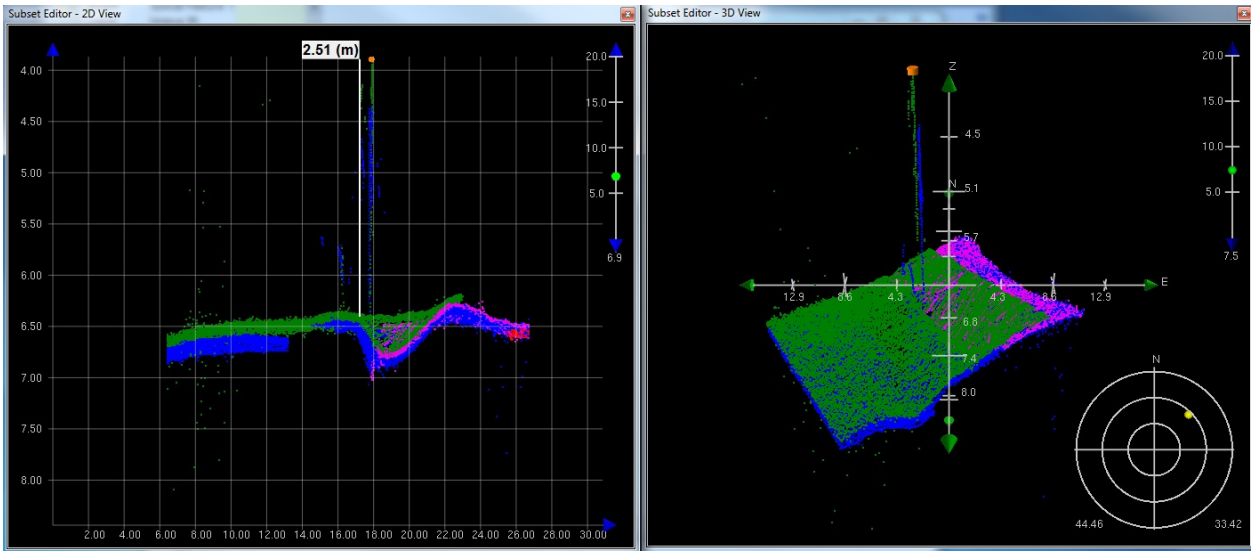


Figure 1.6.1

1.7) DtoN 2.1 6 ft obstruction

DANGER TO NAVIGATION

Survey Summary

Survey Position:	40° 56' 54.1" N, 073° 04' 16.9" W
Least Depth:	1.92 m (= 6.30 ft = 1.050 fm = 1 fm 0.30 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2012-180.00:00:00.000 (06/28/2012)
Dataset:	H12416_Compile_DtoNs_report.000
FOID:	US 0000142284 00001(022600022BCC0001)
Charts Affected:	12362_1, 12364_22, 12364_21, 12354_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

OBSTRN/remrks: DTON #2.1. New obstruction found with SWMB

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12416_Compile_DtoNs_report.000	US 0000142284 00001	0.00	000.0	Primary

Hydrographer Recommendations

Chart new obstruction.

Cartographically-Rounded Depth (Affected Charts):

6ft (12362_1, 12364_22, 12364_21, 12354_1)

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

1.9m (5161_1)

S-57 Data

Geo object 1:	Obstruction (OBSTRN)
Attributes:	NINFOM - Chart obstruction
	QUASOU - 6:least depth known
	SORDAT - 20120628
	SORIND - US,US,graph,H12416

TECSOU - 3:found by multi-beam

VALSOU - 1.921 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Confirmed with SWMB.

COMPILE: Submitted by field unit as a DtoN. DtoN was applied to raster 12362, but not to ENC US5NY17M. Delete charted 6 foot obstruction. Chart new 6.30 foot obstruction at survey position.

Feature Images

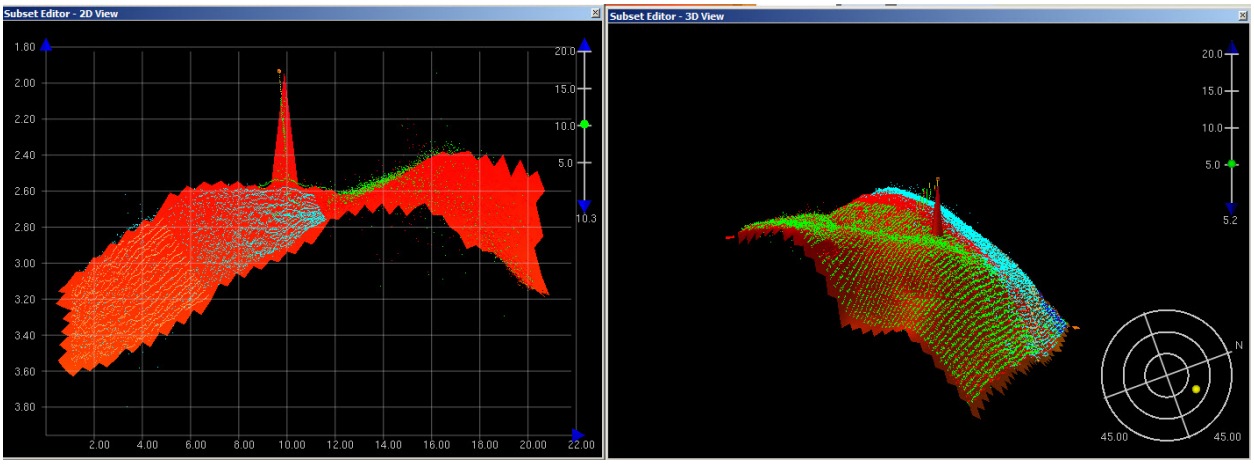


Figure 1.7.1

1.8) 9 ft sounding

DANGER TO NAVIGATION

Survey Summary

Survey Position:	40° 56' 59.6" N, 073° 04' 16.6" W
Least Depth:	2.92 m (= 9.58 ft = 1.597 fm = 1 fm 3.58 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2012-180.00:00:00.000 (06/28/2012)
Dataset:	H12416_Compile_DtoNs_report.000
FOID:	US 0000142268 00001(022600022BBC0001/1)
Charts Affected:	12362_1, 12364_22, 12364_21, 12354_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

SOUNDG/remrks: DTON #1.1. Found with 100% SWMB.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12416_Compile_DtoNs_report.000	US 0000142268 00001	0.00	000.0	Primary

Hydrographer Recommendations

Chart sounding

Cartographically-Rounded Depth (Affected Charts):

9ft (12362_1, 12364_22, 12364_21, 12354_1)

1 ½fm (12300_1, 13006_1, 13003_1)

2.9m (5161_1)

S-57 Data

Geo object 1:	Sounding (SOUNDG)
Attributes:	QUASOU - 6:least depth known
	SORDAT - 20120628
	SORIND - US,US,graph,H12416
	TECSOU - 3:found by multi-beam

Office Notes

SAR: Original depth of this sounding was 2.7m. After application of tides, the sounding was adjusted to 2.921m upon office review to reflect the current least depth captured by the multibeam data.

COMPILE: Delete charted 9 foot sounding. A new 8 foot wreck is 36 meters to the west of the charted sounding.

1.9) 4 ft obstruction

DANGER TO NAVIGATION

Survey Summary

Survey Position:	40° 57' 06.6" N, 073° 04' 10.4" W
Least Depth:	1.21 m (= 3.97 ft = 0.662 fm = 0 fm 3.97 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2012-180.00:00:00.000 (06/28/2012)
Dataset:	H12416_Compile_DtoNs_report.000
FOID:	US 0000142286 00001(022600022BCE0001)
Charts Affected:	12362_1, 12364_22, 12364_21, 12354_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

OBSTRN/remrks: New obstruction found with 100% SWMB

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12416_Compile_DtoNs_report.000	US 0000142286 00001	0.00	000.0	Primary

Hydrographer Recommendations

Chart new obstruction

Cartographically-Rounded Depth (Affected Charts):

4ft (12362_1, 12364_22, 12364_21, 12354_1)

0 ½fm (12300_1, 13006_1, 13003_1)

1.2m (5161_1)

S-57 Data

Geo object 1:	Obstruction (OBSTRN)
Attributes:	NINFOM - Chart obstruction
	QUASOU - 6:least depth known
	SORDAT - 20120628
	SORIND - US,US,graph,H12416

TECSOU - 3:found by multi-beam

VALSOU - 1.210 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Confirmed with SWMB.

COMPILE: Chart new 3.97 foot obstruction at survey position.

Feature Images

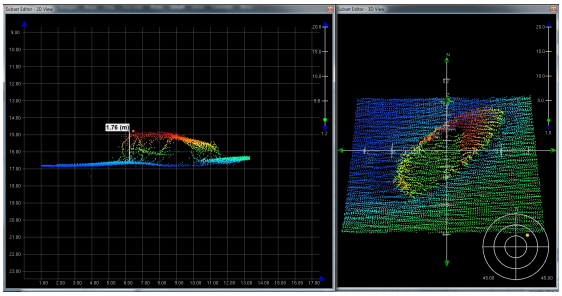


Figure 1.9.1

H12416 AWOIS

Registry Number: H12416
State: New York
Locality: Long Island Sound
Sub-locality: Crane Neck Point to Port Jefferson, NY
Project Number: OPR-B340-TJ-12
Survey Date: 06/06/2012 - 06/28/2012

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
12362	17th	02/01/2005	1:10,000 (12362_1)	[L]NTM: ?
12364	38th	07/01/2008	1:40,000 (12364_21)	[L]NTM: ?
12363	40th	06/01/2005	1:80,000 (12363_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.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	AWOIS 13226	Rock	3.77 m	40° 59' 01.2" N	073° 07' 28.1" W	13226
1.2	AWOIS 13225	Rock	5.79 m	40° 59' 04.5" N	073° 07' 25.5" W	13225
1.3	AWOIS 6933	Wreck	34.82 m	41° 00' 33.0" N	073° 06' 51.9" W	6933
1.4	AWOIS 6930	Wreck	38.65 m	41° 00' 41.7" N	073° 06' 06.1" W	6930

1 - AWOIS

1.1) AWOIS 13226

Primary Feature for AWOIS Item #13226

Search Position: 40° 59' 01.1" N, 073° 07' 27.5" W

Historical Depth: 4.27 m

Search Radius: 50

Search Technique: S2, SWMB, DI

Technique Notes: [None]

History Notes:

F00067/48 (FORMERLY F00004/48) -- 14 FT WIRE DRAG CLEARANCE DEPTH NOW CHARTED IN POSITION: 40 59 01.1 N, 073 07 27.5 W [NAD 83]. UPDATED JCM 4/21/2005.

Survey Summary

Survey Position: 40° 59' 01.2" N, 073° 07' 28.1" W

Least Depth: 3.77 m (= 12.38 ft = 2.063 fm = 2 fm 0.38 ft)

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

Timestamp: 2012-180.00:00:00.000 (06/28/2012)

Dataset: H12416_AWOIS.000

FOID: 0_ 0001743826 00001(FFFE001A9BD20001)

Charts Affected: 12362_1, 12364_21, 12354_1, 12363_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

UWTROC/remrks: AWOIS Item #13226. New position and depth found with 100% SWMB.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12416_AWOIS.000	0_ 0001743826 00001	0.00	000.0	Primary
AWOIS_EXPORT	AWOIS # 13226	14.31	277.1	Secondary (grouped)

Hydrographer Recommendations

Update AWOIS database and chart with new position and depth of boulder.

Cartographically-Rounded Depth (Affected Charts):

12ft (12362_1, 12364_21, 12354_1, 12363_1)

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

3.8m (5161_1)

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	NINFOM - Chart rock
	QUASOU - 6:least depth known
	SORDAT - 20120628
	SORIND - US,US,graph,H12416
	TECSOU - 3:found by multi-beam
	VALSOU - 3.773 m
	WATLEV - 3:always under water/submerged

Office Notes

SAR: Confirmed with SWMB.

COMPILE: AWOIS item 13226. Delete charted 14 foot boulders. Add new 12.38 foot rock. Update AWOIS database with changes from Survey H12416.

Feature Images

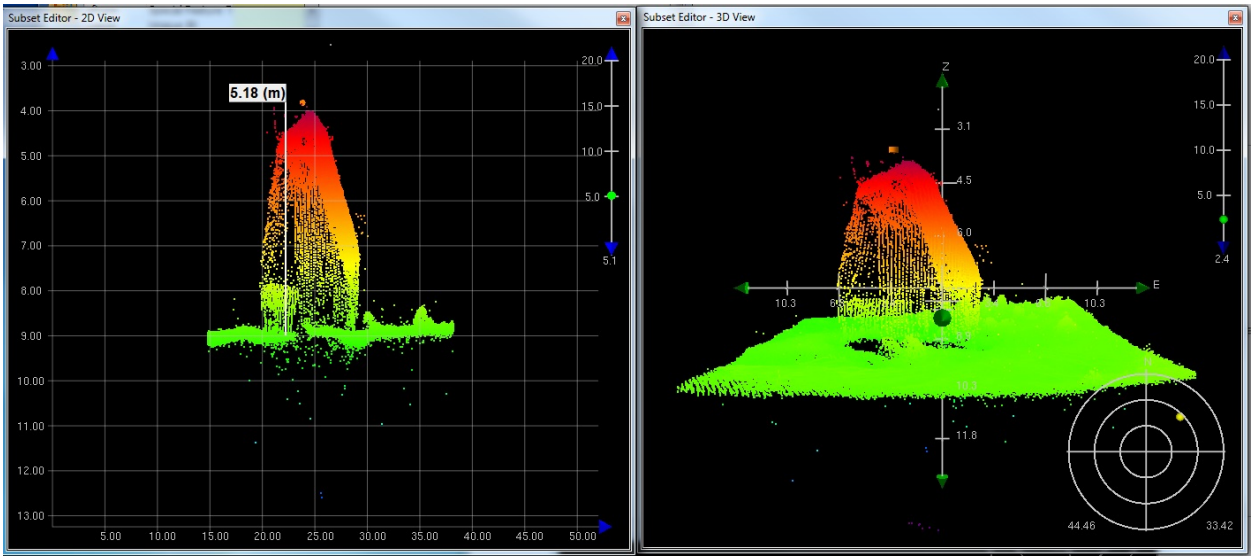


Figure 1.1.1

1.2) AWOIS 13225

Primary Feature for AWOIS Item #13225

Search Position: 40° 59' 05.7" N, 073° 07' 23.9" W

Historical Depth: 5.49 m

Search Radius: 50

Search Technique: S2, SWMB, DI

Technique Notes: [None]

History Notes:

F00067/48 (FORMERLY F00004/48) -- 18 FT WIRE DRAG CLEARANCE DEPTH NOW CHARTED IN POSITION: 40 59 05.7 N, 073 07 23.9 W [NAD 83]. UPDATED JCM 4/21/2005.

Survey Summary

Survey Position: 40° 59' 04.5" N, 073° 07' 25.5" W

Least Depth: 5.79 m (= 18.98 ft = 3.164 fm = 3 fm 0.98 ft)

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

Timestamp: 2012-180.00:00:00.000 (06/28/2012)

Dataset: H12416_AWOIS.000

FOID: 0_ 0001743827 00001(FFFE001A9BD30001)

Charts Affected: 12362_1, 12364_21, 12354_1, 12363_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

UWTROC/remrks: AWOIS Item #13225. Least depth of new rock found with 100% SWMB. Shoalest point of three boulders

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12416_AWOIS.000	0_ 0001743827 00001	0.00	000.0	Primary
AWOIS_EXPORT	AWOIS # 13225	51.82	225.4	Secondary (grouped)

Hydrographer Recommendations

Update AWOIS database and chart with new position and depth of boulders.

Cartographically-Rounded Depth (Affected Charts):

19ft (12362_1, 12364_21, 12354_1, 12363_1)

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

5.8m (5161_1)

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	NINFOM - Chart boulders
	QUASOU - 6:least depth known
	SORDAT - 20120628
	SORIND - US,US,graph,H12416
	TECSOU - 3:found by multi-beam
	VALSOU - 5.786 m
	WATLEV - 3:always under water/submerged

Office Notes

SAR: Confirmed with SWMB.

COMPILE: AWOIS 13225. Delete 18 foot charted boulders. Chart new 18.98 charted boulders at survey position.

Feature Images

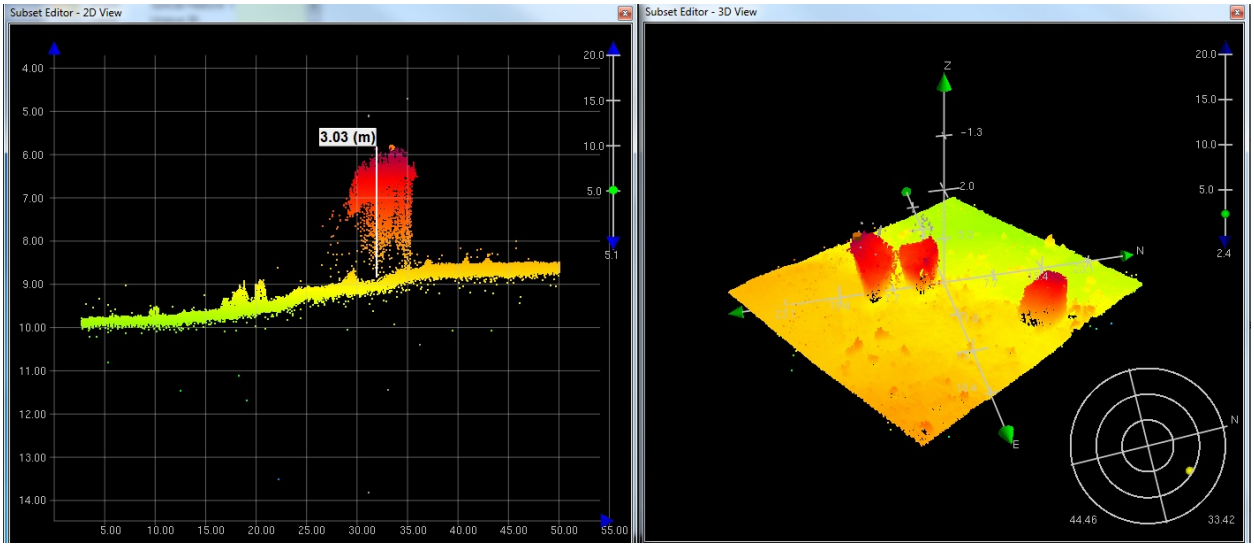


Figure 1.2.1

1.3) AWOIS 6933

Primary Feature for AWOIS Item #6933

Search Position:	41° 00' 33.2" N, 073° 06' 51.7" W
Historical Depth:	34.44 m
Search Radius:	0
Search Technique:	[None]
Technique Notes:	[None]

History Notes:

CL929/50--COE; CODE OF FEDERAL REGULATIONS; PORT JEFFERSON DUMPING GROUND HAS BEEN ESTABLISHED FOR AN AREA ONE NAUTICAL MILE SQUARE (WITH THE SIDES RUNNING TRUE NORTH-SOUTH AND EAST-WEST); CENTERED IN PA LAT 41-00-34N, LONG 73-06-40W (SCALED FROM CHART).

CL1090/77--COE; CODE OF FEDERAL REGULATIONS; DUMPING GROUND HAS BEEN DISCONTINUED.

FE325SS/89--OPR-B660-HE-89; CONTACT 2; WHILE INVESTIGATING THE DISCONTINUED DUMPING, TWO SIGNIFICANT CONTACTS WERE FOUND (ALSO SEE AWOIS #6930); THE CONTACT WAS A VESSEL, APPROXIMATELY 22M LONG, AND IT IS STILL INTACT; ECHOSOUNDER LEAST DEPTH OF 113 FT.; IN LAT 41-00-33.24N, LONG 73-06-51.70W; LORAN RATES NOT TAKEN; EVALUATOR RECOMMENDED CHARTING A SUNKEN WRECK WITH A KNOWN DEPTH (113 WK). (ENTERED MSM 4/90)

Survey Summary

Survey Position:	41° 00' 33.0" N, 073° 06' 51.9" W
Least Depth:	34.82 m (= 114.25 ft = 19.041 fm = 19 fm 0.25 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2012-180.00:00:00.000 (06/28/2012)
Dataset:	H12416_AWOIS.000
FOID:	0_ 0001743815 00001(FFFE001A9BC70001)
Charts Affected:	12364_21, 12354_1, 12363_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

WRECKS/remrks: AWOIS Item #6933. New position and depth of charted wreck found with SWMB

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12416_AWOIS.000	0_ 0001743815 00001	0.00	000.0	Primary

AWOIS_EXPORT	AWOIS # 6933	8.40	219.8	Secondary (grouped)

Hydrographer Recommendations

Update chart and AWOIS database with new position and depth wreck.

Cartographically-Rounded Depth (Affected Charts):

114ft (12364_21, 12354_1, 12363_1)

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

35m (5161_1)

S-57 Data

Geo object 1: Wreck (WRECKS)

Attributes:

CATWRK - 1:non-dangerous wreck

NINFOM - Chart wreck

QUASOU - 6:least depth known

SORDAT - 20120628

SORIND - US,US,graph,H12416

TECSOU - 3:found by multi-beam

VALSOU - 34.822 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Confirmed with SWMB.

COMPILE: Delete charted 113 foot wreck. Chart new 114.26 foot wreck, AWOIS 6693. Update AWOIS database with survey findings.

Feature Images

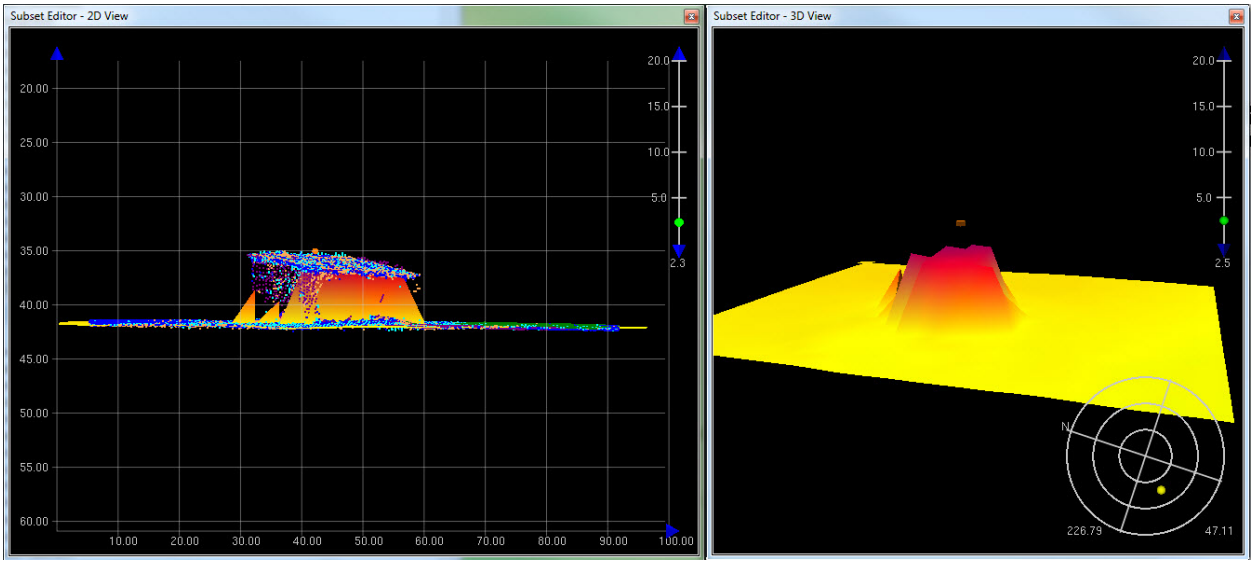


Figure 1.3.1

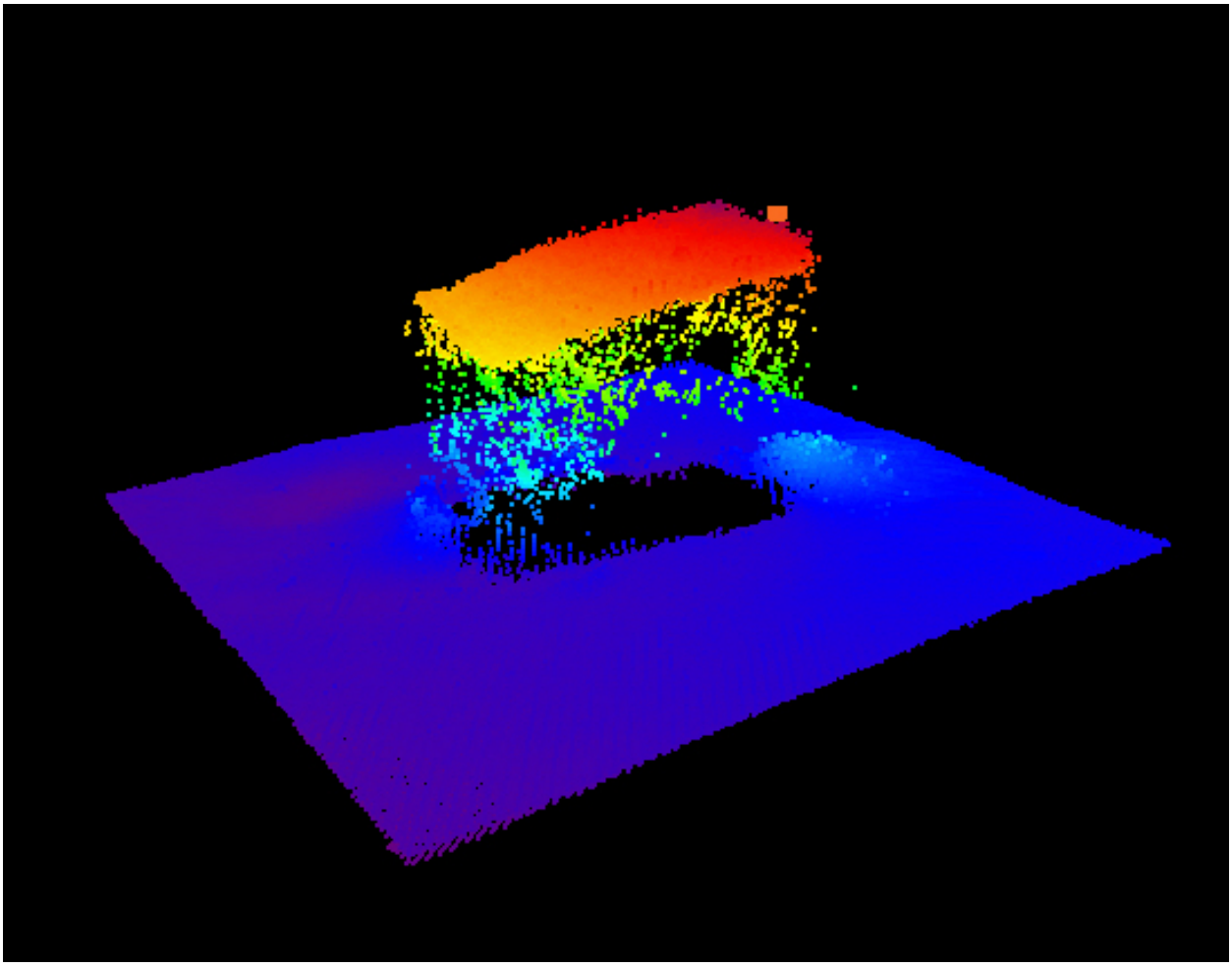


Figure 1.3.2

1.4) AWOIS 6930

Primary Feature for AWOIS Item #6930

Search Position:	41° 00' 41.3" N, 073° 06' 05.7" W
Historical Depth:	36.58 m
Search Radius:	0
Search Technique:	[None]
Technique Notes:	[None]

History Notes:

CL929/50--COE; CODE OF FEDERAL REGULATIONS; PORT JEFFERSON DUMPING GROUND HAS BEEN ESTABLISHED FOR AN AREA ONE NAUTICAL MILE SQUARE (WITH THE SIDES RUNNING TRUE NORTH-SOUTH AND EAST-WEST); CENTERED IN PA LAT 41-00-34N, LONG 73-06-40W (SCALED FROM CHART).

CL1090/77--COE; CODE OF FEDERAL REGULATIONS; DUMPING GROUND HAS BEEN DISCONTINUED.

FE325SS/89--OPR-B660-HE-89; CONTACT 1; WHILE INVESTIGATING THE DISCONTINUED DUMPING GROUND, TWO SIGNIFICANT CONTACTS WERE FOUND (ALSO SEE AWOIS #6933); CONTACT IS A VESSEL APPROXIMATELY 40M LONG AND IT IS STILL INTACT; LEAST DEPTH, DETERMINED BY HYDROGRAPHIC SOUNDING, IS 120 FT.; IN LAT 41-00-41.27N, LONG 73-06-05.71W; NO LORAN RATES WERE TAKEN; EVALUATOR RECOMMENDED CHARTING A SUNKEN WRECK WITH KNOWN DEPTH (120 WK). (ENTERED MSM 4/90)

Survey Summary

Survey Position:	41° 00' 41.7" N, 073° 06' 06.1" W
Least Depth:	38.65 m (= 126.81 ft = 21.135 fm = 21 fm 0.81 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2012-180.00:00:00.000 (06/28/2012)
Dataset:	H12416_AWOIS.000
FOID:	0_ 0001743816 00001(FFFE001A9BC80001)
Charts Affected:	12364_21, 12354_1, 12363_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

WRECKS/remrks: AWOIS Item #6930. New position and least depth of charted (12364) wreck.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12416_AWOIS.000	0_ 0001743816 00001	0.00	000.0	Primary

AWOIS_EXPORT	AWOIS # 6930	16.29	325.8	Secondary (grouped)

Hydrographer Recommendations

Update chart and AWOIS database with new position and depth of wreck.

Cartographically-Rounded Depth (Affected Charts):

127ft (12364_21, 12354_1, 12363_1)

21fm (12300_1, 13006_1, 13003_1)

39m (5161_1)

S-57 Data

Geo object 1: Wreck (WRECKS)

Attributes:

CATWRK - 1:non-dangerous wreck

NINFOM - Chart wreck

QUASOU - 6:least depth known

SORDAT - 20120628

SORIND - US,US,graph,H12416

TECSOU - 3:found by multi-beam

VALSOU - 38.651 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Confirmed in MBES.

COMPILE: Delete charted 120 foot wreck. Chart new 126.81 foot wreck, AWOIS 6930, at survey position. Update AWOIS database to reflect survey findings.

Feature Images

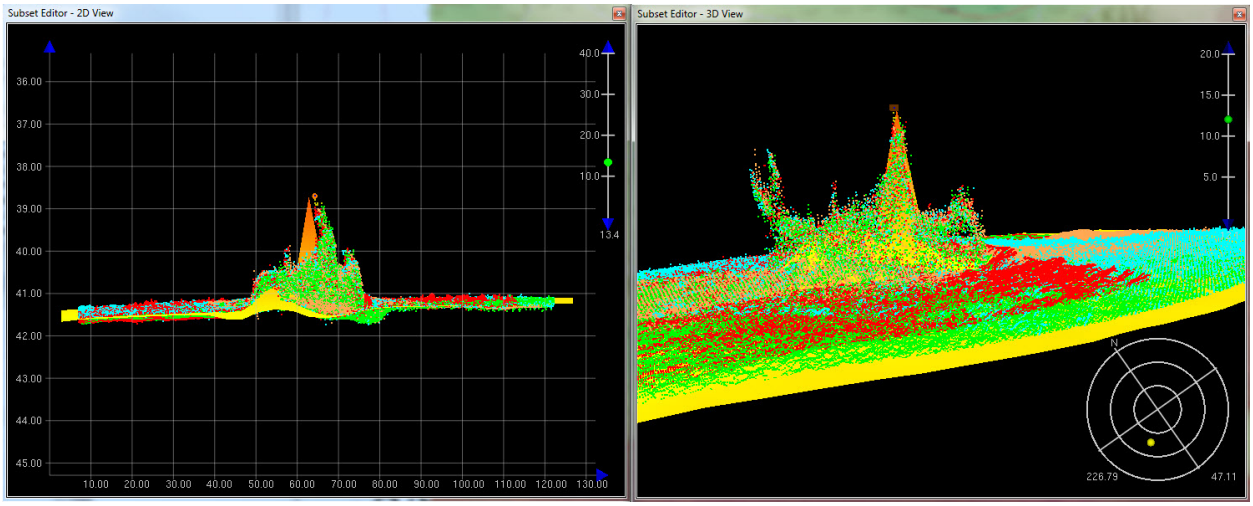


Figure 1.4.1

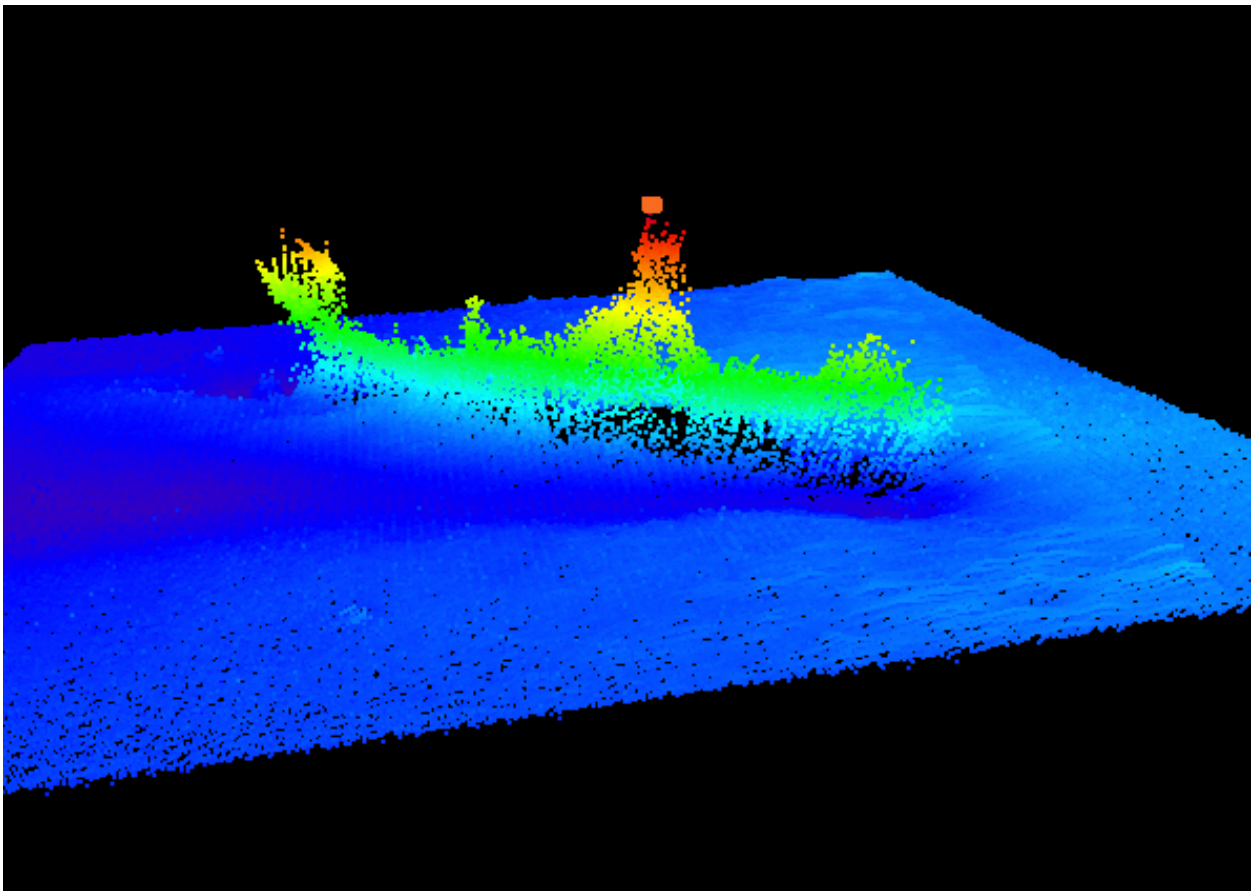


Figure 1.4.2

H12416 Wrecks

Registry Number: H12416
State: New York
Locality: Long Island Sound
Sub-locality: Crane Neck Point to Port Jefferson, NY
Project Number: OPR-B340-TJ-12
Survey Dates: 06/06/2012 - 06/28/2012

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
12364	38th	07/01/2008	1:40,000 (12364_21) 1:10,000 (12364_22)	[L]NTM: ?
12362	17th	02/01/2005	1:10,000 (12362_1)	[L]NTM: ?
12363	40th	06/01/2005	1:80,000 (12363_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.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	120 ft charted wreck	Wreck	36.63 m	41° 01' 32.1" N	073° 07' 04.5" W	---
1.2	120 ft new wreck	Wreck	36.71 m	41° 00' 27.4" N	073° 06' 22.3" W	---
1.3	48 ft new wreck	Wreck	14.73 m	40° 58' 51.9" N	073° 05' 49.5" W	---
1.4	38 ft wreck in channel	Wreck	11.57 m	40° 58' 17.3" N	073° 05' 34.5" W	---
1.5	24 ft wreck	Wreck	7.45 m	40° 58' 08.6" N	073° 05' 31.1" W	---
1.6	7 ft charted wreck	GP	[None]	40° 57' 58.6" N	073° 05' 12.7" W	---
1.7	Charted 4 foot wreck	GP	[None]	40° 58' 03.5" N	073° 05' 03.9" W	---
1.8	15 ft wreck	Wreck	4.81 m	40° 57' 14.7" N	073° 04' 54.6" W	---
1.9	22 ft wreck	Wreck	6.71 m	40° 57' 13.6" N	073° 04' 49.2" W	---

1.10	11 ft wreck	Wreck	3.24 m	40° 57' 14.0" N	073° 04' 18.6" W	---
1.11	8 ft wreck	Wreck	2.46 m	40° 56' 60.0" N	073° 04' 15.1" W	---
1.12	7 ft wreck	Wreck	2.20 m	40° 57' 03.3" N	073° 04' 13.6" W	---
1.13	9 ft wreck	Wreck	2.89 m	40° 57' 07.4" N	073° 04' 09.7" W	---

1 - Wrecks

1.1) 120 ft charted wreck

Survey Summary

Survey Position:	41° 01' 32.1" N, 073° 07' 04.5" W
Least Depth:	36.63 m (= 120.19 ft = 20.032 fm = 20 fm 0.19 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2012-180.00:00:00.000 (06/28/2012)
Dataset:	H12416_wrecks.000
FOID:	0_ 0001743810 00001(FFFE001A9BC20001)
Charts Affected:	12364_21, 12354_1, 12363_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

WRECKS/remrks: New location and depth of charted (12364) wreck.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12416_wrecks.000	0_ 0001743810 00001	0.00	000.0	Primary

Hydrographer Recommendations

Chart wreck.

Cartographically-Rounded Depth (Affected Charts):

120ft (12364_21, 12354_1, 12363_1)

20fm (12300_1, 13006_1, 13003_1)

37m (5161_1)

S-57 Data

Geo object 1:	Wreck (WRECKS)
Attributes:	CATWRK - 1:non-dangerous wreck
	NINFOM - Chart wreck
	QUASOU - 6:least depth known
	SORDAT - 20120628
	SORIND - US,US,graph,H12416
	TECSOU - 3:found by multi-beam

VALSOU - 36.634 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Confirmed with MBES.

COMPILE: Delete charted 121 foot wreck. Add new 120.19 foot wreck at survey position.

Feature Images

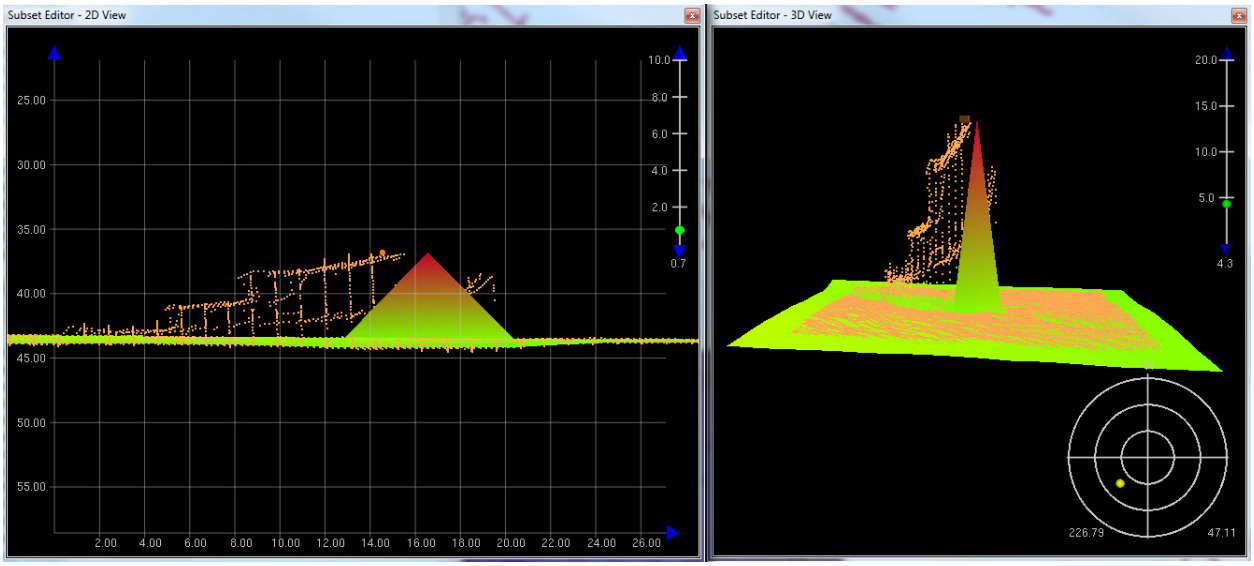


Figure 1.1.1

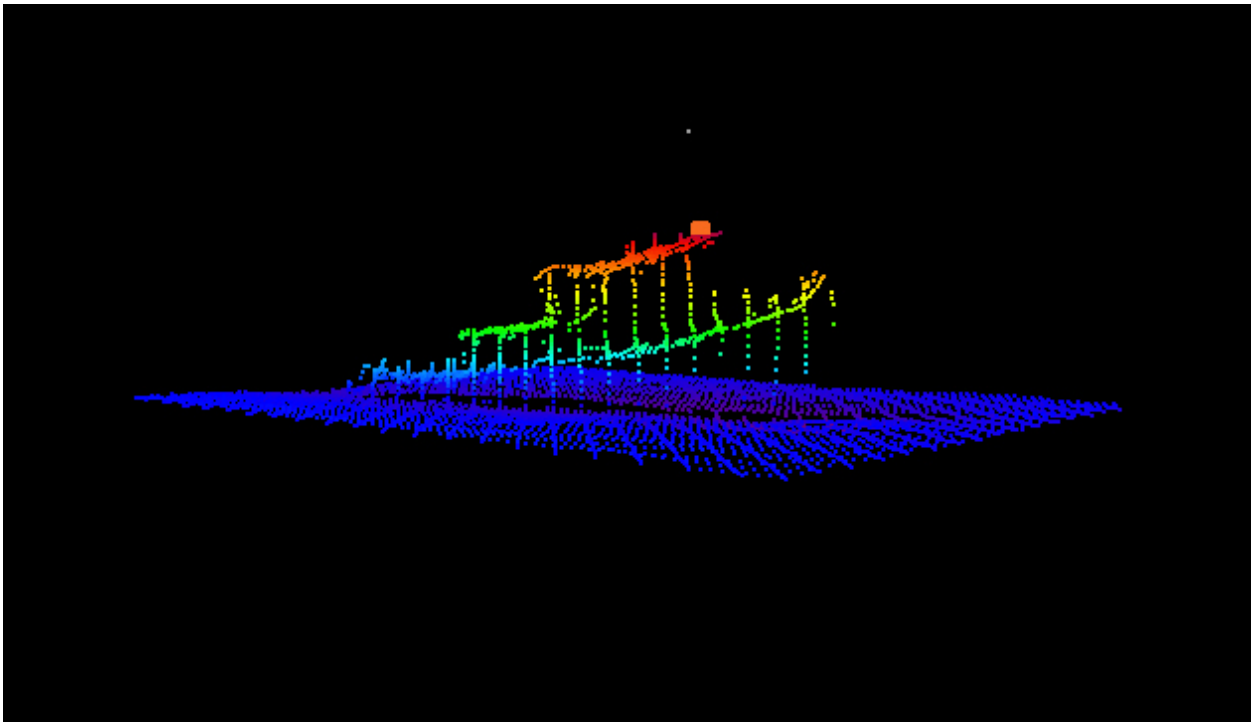


Figure 1.1.2

1.2) 120 ft new wreck

Survey Summary

Survey Position:	41° 00' 27.4" N, 073° 06' 22.3" W
Least Depth:	36.71 m (= 120.45 ft = 20.074 fm = 20 fm 0.45 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2012-180.00:00:00.000 (06/28/2012)
Dataset:	H12416_wrecks.000
FOID:	0_ 0001743802 00001(FFFE001A9BBA0001)
Charts Affected:	12364_21, 12354_1, 12363_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

WRECKS/remrks: New wreck found with 100% SWMB.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12416_wrecks.000	0_ 0001743802 00001	0.00	000.0	Primary

Hydrographer Recommendations

Chart new wreck.

Cartographically-Rounded Depth (Affected Charts):

120ft (12364_21, 12354_1, 12363_1)

20fm (12300_1, 13006_1, 13003_1)

37m (5161_1)

S-57 Data

Geo object 1:	Wreck (WRECKS)
Attributes:	CATWRK - 1:non-dangerous wreck
	NINFOM - Chart wreck
	QUASOU - 6:least depth known
	SORDAT - 20120628
	SORIND - US,US,graph,H12416
	TECSOU - 3:found by multi-beam

VALSOU - 36.712 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Confirmed with SWMB.

COMPILE: Chart 120.45 foot wreck at survey position.

Feature Images

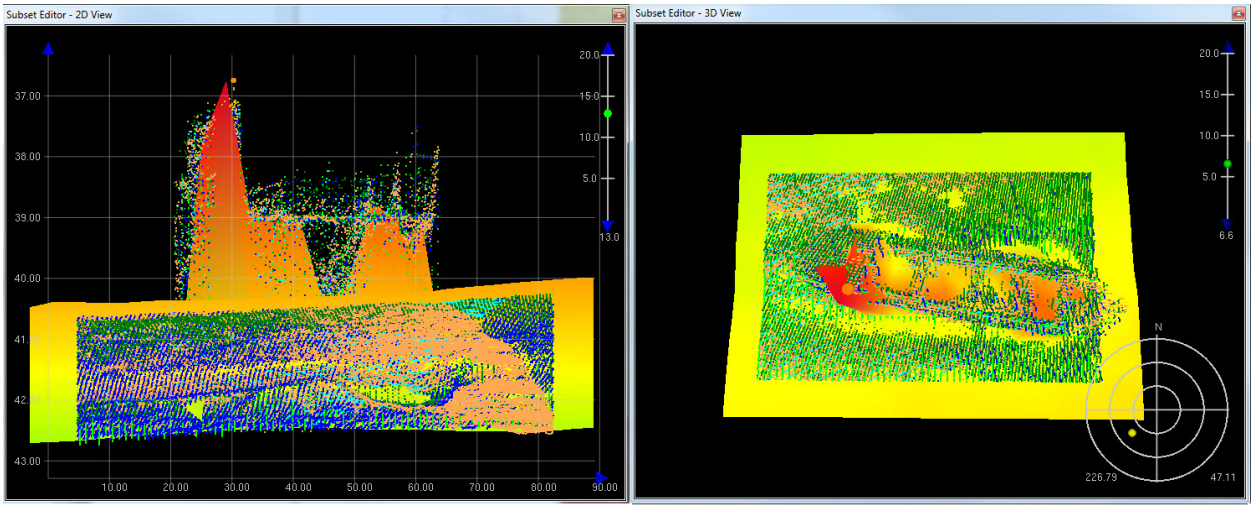


Figure 1.2.1

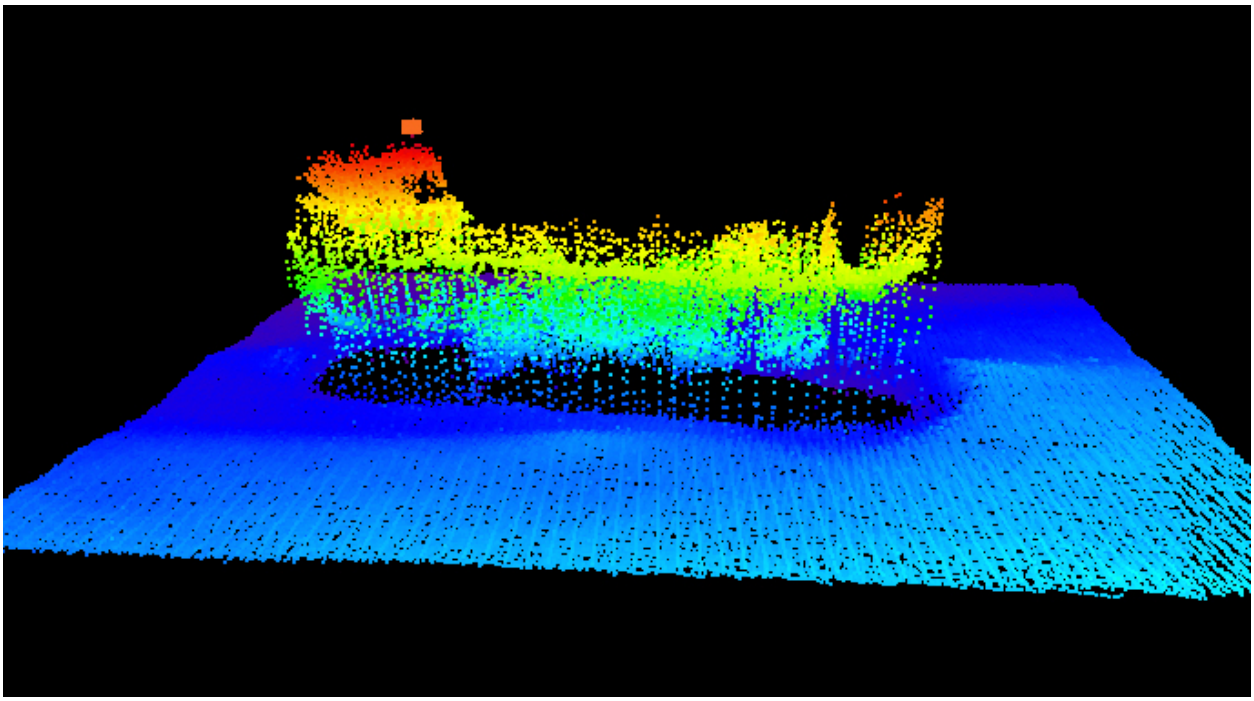


Figure 1.2.2

1.3) 48 ft new wreck

Survey Summary

Survey Position:	40° 58' 51.9" N, 073° 05' 49.5" W
Least Depth:	14.73 m (= 48.32 ft = 8.054 fm = 8 fm 0.32 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2012-180.00:00:00.000 (06/28/2012)
Dataset:	H12416_wrecks.000
FOID:	0_ 0001743803 00001(FFFE001A9BBB0001)
Charts Affected:	12362_1, 12364_21, 12354_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

WRECKS/remrks: Found new wreck with 100% SWMB

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12416_wrecks.000	0_ 0001743803 00001	0.00	000.0	Primary

Hydrographer Recommendations

Chart new wreck

Cartographically-Rounded Depth (Affected Charts):

48ft (12362_1, 12364_21, 12354_1)

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

14.7m (5161_1)

S-57 Data

Geo object 1:	Wreck (WRECKS)
Attributes:	CATWRK - 2:dangerous wreck
	NINFOM - Chart wreck
	QUASOU - 6:least depth known
	SORDAT - 20120628
	SORIND - US,US,graph,H12416
	TECSOU - 3:found by multi-beam

VALSOU - 14.729 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Confirmed with SWMB.

COMPILE: Chart 48.32 foot wreck at survey position.

Feature Images

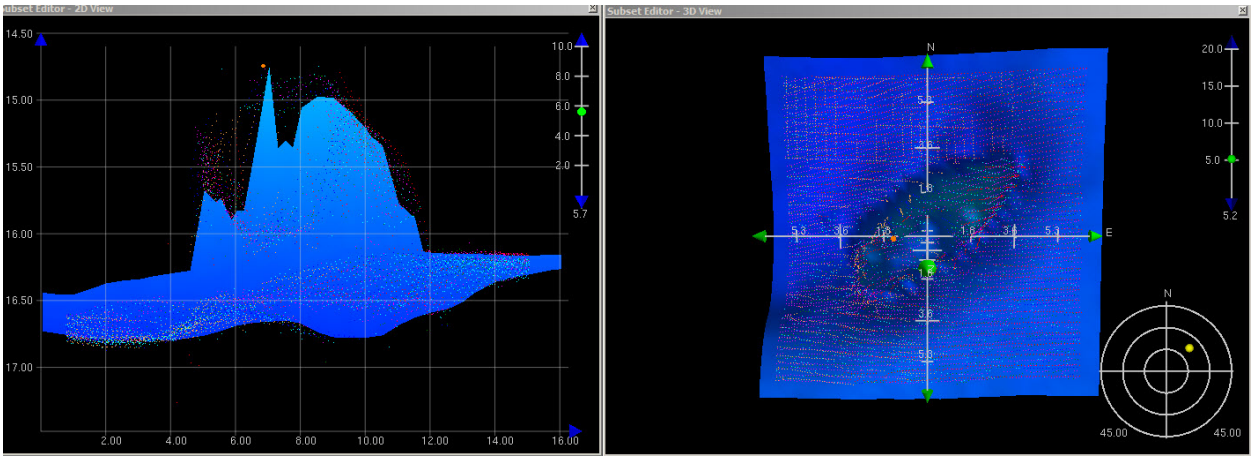


Figure 1.3.1

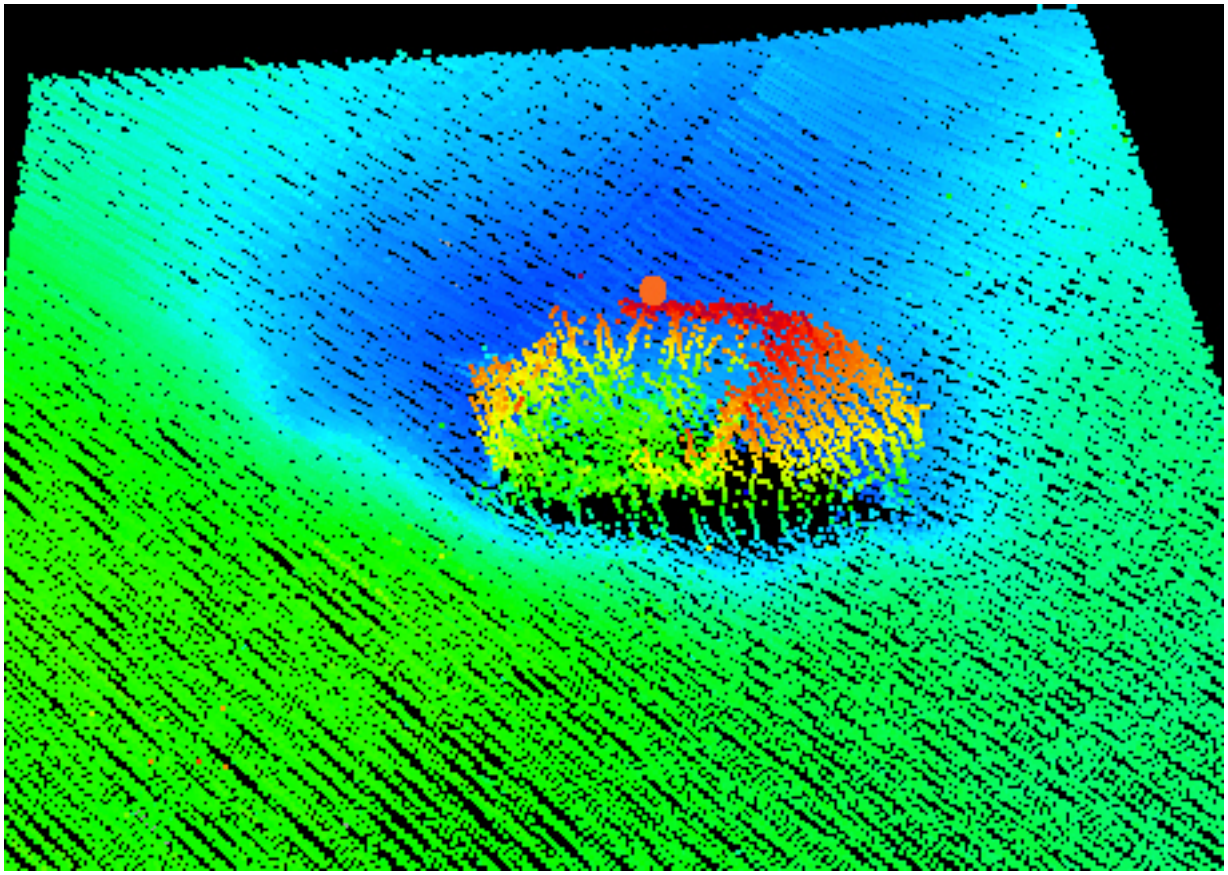


Figure 1.3.2

1.4) 38 ft wreck in channel

Survey Summary

Survey Position:	40° 58' 17.3" N, 073° 05' 34.5" W
Least Depth:	11.57 m (= 37.97 ft = 6.329 fm = 6 fm 1.97 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2012-180.00:00:00.000 (06/28/2012)
Dataset:	H12416_wrecks.000
FOID:	0_ 0001743804 00001(FFFE001A9BBC0001)
Charts Affected:	12362_1, 12364_22, 12364_21, 12354_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

WRECKS/remrks: New wreck found with 100% SWMB.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12416_wrecks.000	0_ 0001743804 00001	0.00	000.0	Primary

Hydrographer Recommendations

Chart new wreck.

Cartographically-Rounded Depth (Affected Charts):

38ft (12362_1, 12364_22, 12364_21, 12354_1)

6 ¼fm (12300_1, 13006_1, 13003_1)

11.6m (5161_1)

S-57 Data

Geo object 1:	Wreck (WRECKS)
Attributes:	CATWRK - 2:dangerous wreck
	NINFOM - Chart wreck, see HR Section 5.1.
	QUASOU - 6:least depth known
	SORDAT - 20120628
	SORIND - US,US,graph,H12416
	TECSOU - 3:found by multi-beam

VALSOU - 11.574 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Confirmed by SWMB.

COMPILE: Chart 37.97 foot wreck. Note that this wreck is postioned in the Port Jefferson Channel. See HR Section 5.1.

Feature Images

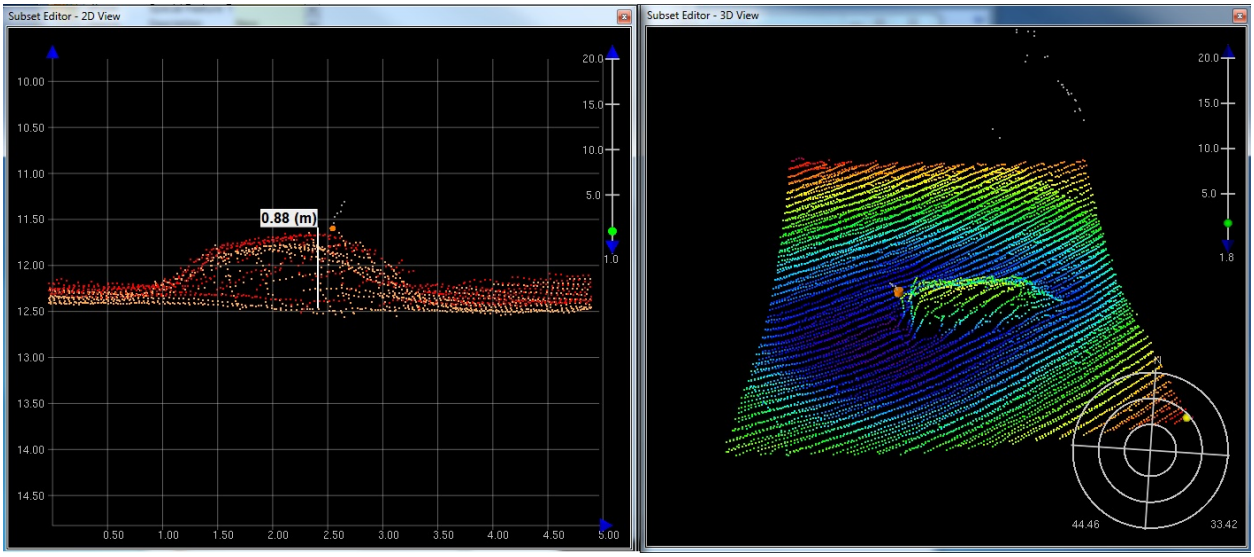


Figure 1.4.1

1.5) 24 ft wreck

Survey Summary

Survey Position:	40° 58' 08.6" N, 073° 05' 31.1" W
Least Depth:	7.45 m (= 24.43 ft = 4.072 fm = 4 fm 0.43 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2012-180.00:00:00.000 (06/28/2012)
Dataset:	H12416_wrecks.000
FOID:	0_ 0001743805 00001(FFFE001A9BBD0001)
Charts Affected:	12362_1, 12364_22, 12364_21, 12354_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

WRECKS/remrks: Found new wreck with 100% SWMB

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12416_wrecks.000	0_ 0001743805 00001	0.00	000.0	Primary

Hydrographer Recommendations

Chart new wreck.

Cartographically-Rounded Depth (Affected Charts):

24ft (12362_1, 12364_22, 12364_21, 12354_1)

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

7.4m (5161_1)

S-57 Data

Geo object 1:	Wreck (WRECKS)
Attributes:	CATWRK - 2:dangerous wreck
	NINFOM - Chart wreck
	QUASOU - 6:least depth known
	SORDAT - 20120628
	SORIND - US,US,graph,H12416
	TECSOU - 3:found by multi-beam

VALSOU - 7.446 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Confirmed with SWMB

COMPILE: Chart 24.43 foot wreck at survey position.

Feature Images

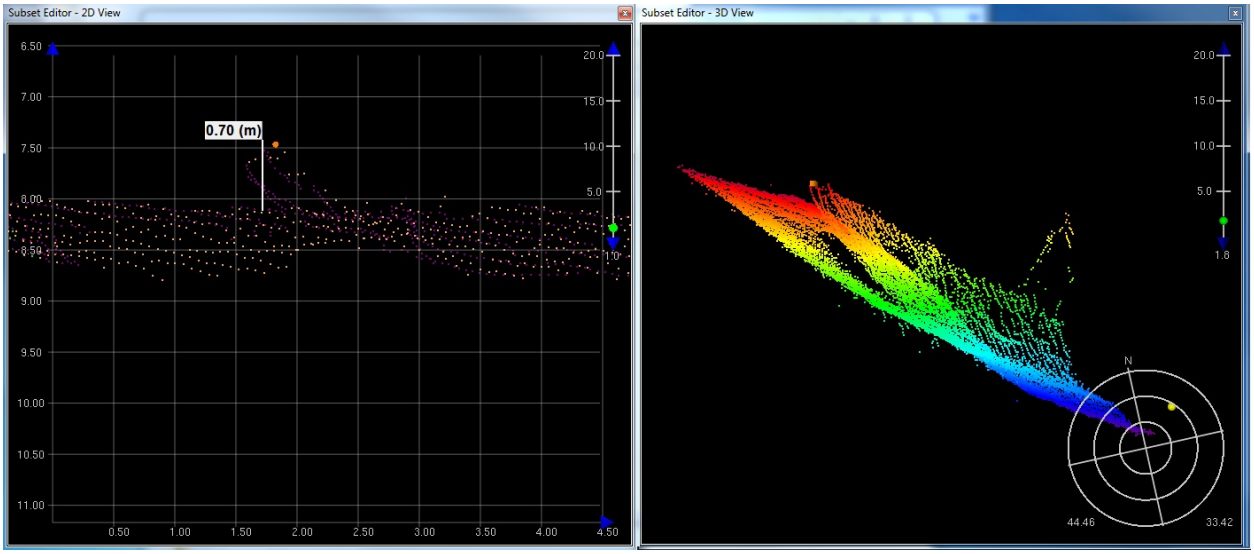


Figure 1.5.1

1.6) 7 ft charted wreck

Survey Summary

Survey Position:	40° 57' 58.6" N, 073° 05' 12.7" W
Least Depth:	[None]
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	1981-001.00:00:00.000 (01/01/1981)
Dataset:	H12416_wrecks.000
FOID:	0_ 0001743828 00001(FFFE001A9BD40001)
Charts Affected:	12362_1, 12364_22, 12364_21, 12354_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

$CSYMB/remrks: Charted wreck disproved with 100% SWMB.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12416_wrecks.000	0_ 0001743828 00001	0.00	000.0	Primary

Hydrographer Recommendations

Remove charted wreck.

S-57 Data

Geo object 1:	Cartographic symbol ($CSYMB)
Attributes:	NINFOM - Delete wreck
	NTXTDS - ENC US5NY17M,ED9,Update 7

Office Notes

SAR: Wreck was not present in object detection MBES.

COMPILE: Concur, delete charted 7 foot wreck.

1.7) Charted 4 foot wreck

Survey Summary

Survey Position:	40° 58' 03.5" N, 073° 05' 03.9" W
Least Depth:	[None]
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	1981-001.00:00:00.000 (01/01/1981)
Dataset:	H12416_wrecks.000
FOID:	0_ 0001743829 00001(FFFE001A9BD50001)
Charts Affected:	12362_1, 12364_22, 12364_21, 12354_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

$CSYMB/remrks: Charted wreck disproved with 100% SWMB.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12416_wrecks.000	0_ 0001743829 00001	0.00	000.0	Primary

Hydrographer Recommendations

Remove charted wreck.

S-57 Data

Geo object 1:	Cartographic symbol ($CSYMB)
Attributes:	NINFOM - Delete wreck
	NTXTDS - ENC US5NY17M,ED9,Update 7

Office Notes

SAR: charted 4ft wreck disproved with MBES. Chart survey data within the common area.

COMPILE: Concur. Delete charted 4 foot wreck and chart survey data within the common area.

1.8) 15 ft wreck

Survey Summary

Survey Position:	40° 57' 14.7" N, 073° 04' 54.6" W
Least Depth:	4.81 m (= 15.79 ft = 2.632 fm = 2 fm 3.79 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2012-180.00:00:00.000 (06/28/2012)
Dataset:	H12416_wrecks.000
FOID:	0_ 0001743806 00001(FFFE001A9BBE0001)
Charts Affected:	12362_1, 12364_22, 12364_21, 12354_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

WRECKS/remrks: Found new wreck with 100% SWMB

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12416_wrecks.000	0_ 0001743806 00001	0.00	000.0	Primary

Hydrographer Recommendations

Chart new wreck

Cartographically-Rounded Depth (Affected Charts):

16ft (12362_1, 12364_22, 12364_21, 12354_1)

2 ½fm (12300_1, 13006_1, 13003_1)

4.8m (5161_1)

S-57 Data

Geo object 1:	Wreck (WRECKS)
Attributes:	CATWRK - 2:dangerous wreck
	NINFOM - Chart wreck
	QUASOU - 6:least depth known
	SORDAT - 20120628
	SORIND - US,US,graph,H12416
	TECSOU - 3:found by multi-beam

VALSOU - 4.813 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Confirmed with SWMB.

COMPILE: Chart 15.79 foot wreck at survey position.

Feature Images

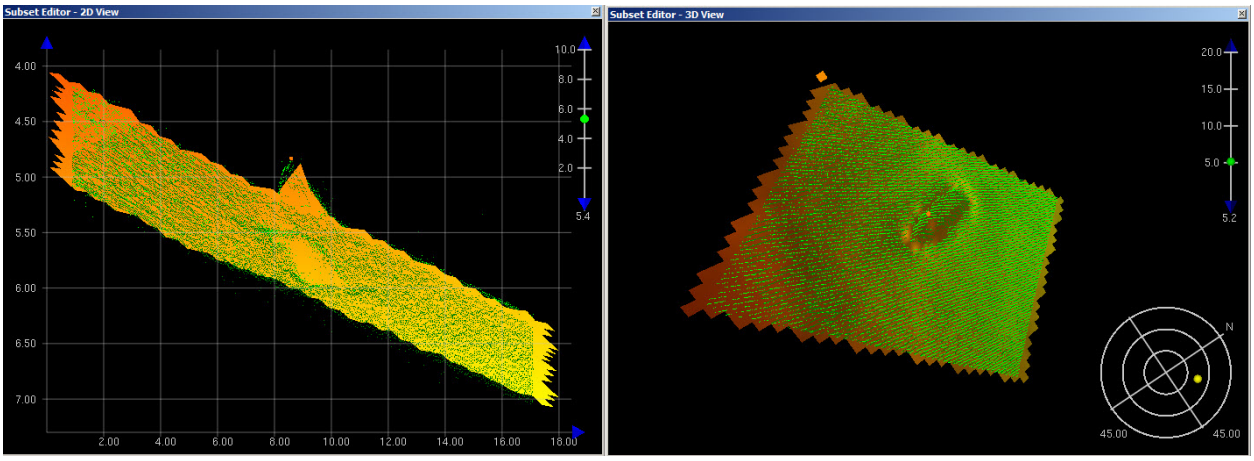


Figure 1.8.1

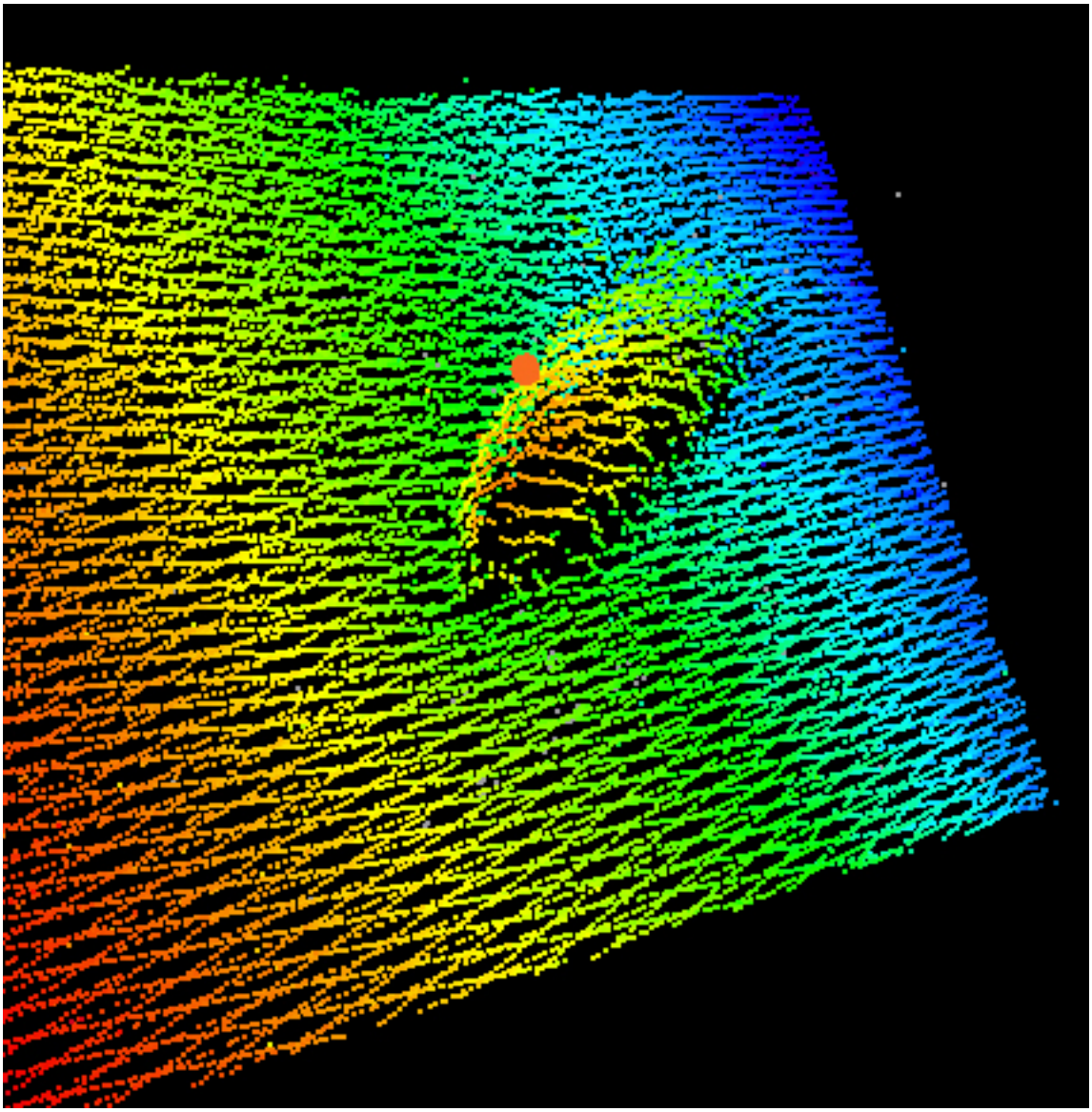


Figure 1.8.2

1.9) 22 ft wreck

Survey Summary

Survey Position:	40° 57' 13.6" N, 073° 04' 49.2" W
Least Depth:	6.71 m (= 22.01 ft = 3.668 fm = 3 fm 4.01 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2012-180.00:00:00.000 (06/28/2012)
Dataset:	H12416_wrecks.000
FOID:	0_ 0001743808 00001(FFFE001A9BC00001)
Charts Affected:	12362_1, 12364_22, 12364_21, 12354_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

WRECKS/remrks: Found new wreck with 100% SWMB.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12416_wrecks.000	0_ 0001743808 00001	0.00	000.0	Primary

Hydrographer Recommendations

Chart new wreck.

Cartographically-Rounded Depth (Affected Charts):

22ft (12362_1, 12364_22, 12364_21, 12354_1)

3 ½fm (12300_1, 13006_1, 13003_1)

6.7m (5161_1)

S-57 Data

Geo object 1:	Wreck (WRECKS)
Attributes:	CATWRK - 2:dangerous wreck
	NINFOM - Chart wreck
	QUASOU - 6:least depth known
	SORDAT - 20120628
	SORIND - US,US,graph,H12416
	TECSOU - 3:found by multi-beam

VALSOU - 6.708 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Confirmed with SWMB.

COMPILE: Chart 22.01 foot wreck found at survey position.

Feature Images

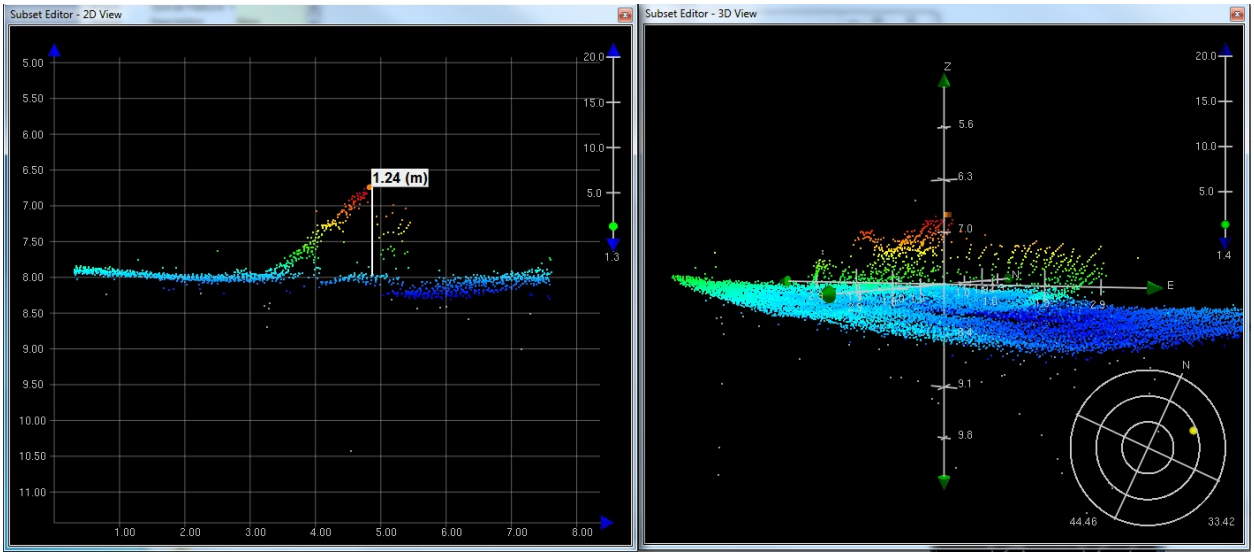


Figure 1.9.1

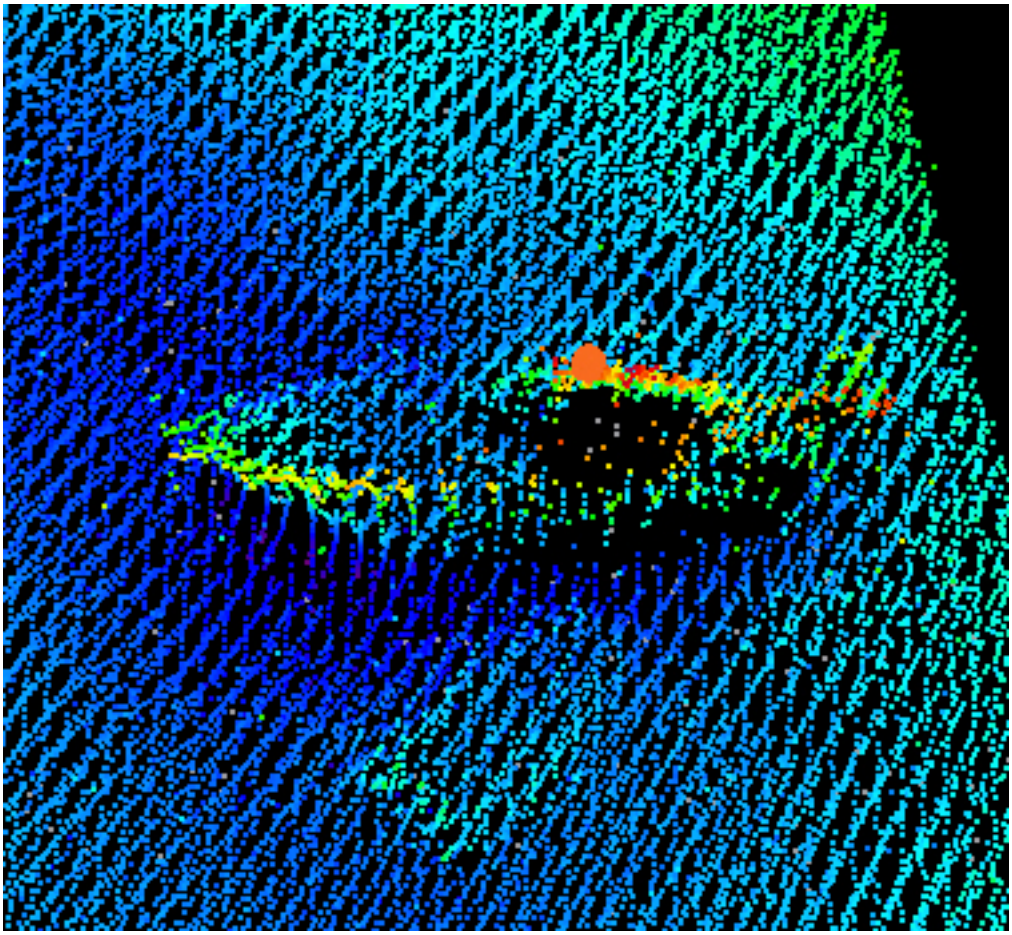


Figure 1.9.2

1.10) 11 ft wreck

Survey Summary

Survey Position:	40° 57' 14.0" N, 073° 04' 18.6" W
Least Depth:	3.24 m (= 10.64 ft = 1.773 fm = 1 fm 4.64 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2012-180.00:00:00.000 (06/28/2012)
Dataset:	H12416_wrecks.000
FOID:	0_ 0001743807 00001(FFFE001A9BBF0001)
Charts Affected:	12362_1, 12364_22, 12364_21, 12354_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

WRECKS/remrks: New wreck found with SWMB

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12416_wrecks.000	0_ 0001743807 00001	0.00	000.0	Primary

Hydrographer Recommendations

Chart new wreck.

Cartographically-Rounded Depth (Affected Charts):

10ft (12362_1, 12364_22, 12364_21, 12354_1)

1 ¾fm (12300_1, 13006_1, 13003_1)

3.2m (5161_1)

S-57 Data

Geo object 1:	Wreck (WRECKS)
Attributes:	CATWRK - 2:dangerous wreck
	NINFOM - Chart wreck
	QUASOU - 6:least depth known
	SORDAT - 20120628
	SORIND - US,US,graph,H12416
	TECSOU - 3:found by multi-beam

VALSOU - 3.243 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Confirmed with SWMB.

COMPILE: Chart 10.64 foot wreck at survey position.

Feature Images

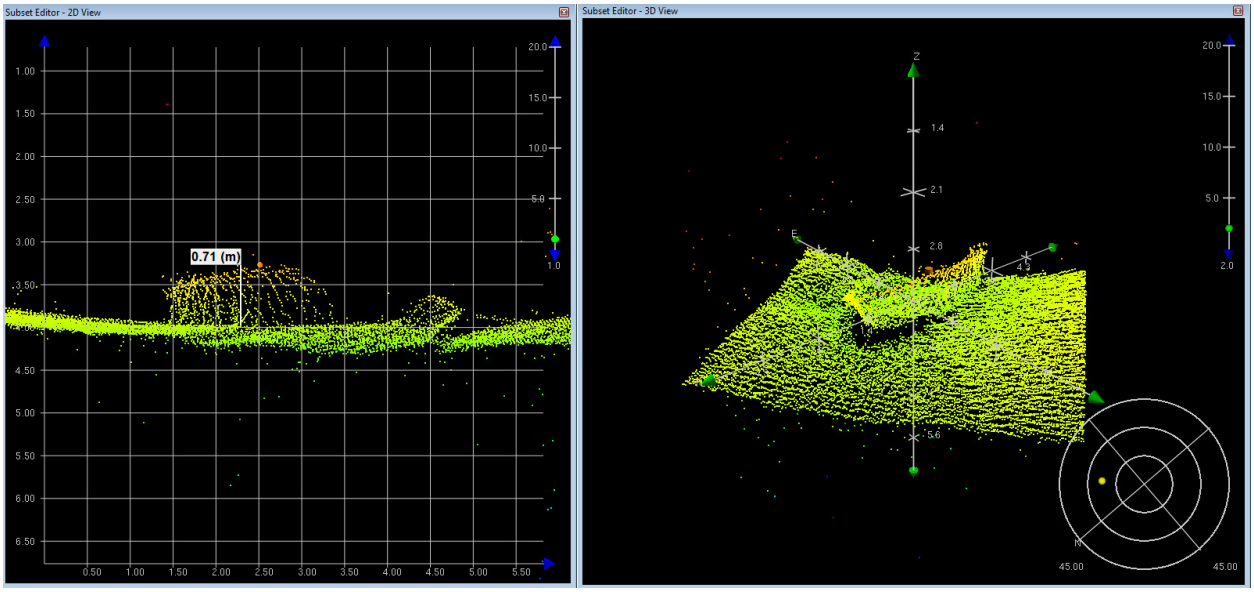


Figure 1.10.1

1.11) 8 ft wreck

Survey Summary

Survey Position:	40° 56' 60.0" N, 073° 04' 15.1" W
Least Depth:	2.46 m (= 8.09 ft = 1.348 fm = 1 fm 2.09 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2012-180.00:00:00.000 (06/28/2012)
Dataset:	H12416_wrecks.000
FOID:	0_ 0001743812 00001(FFFE001A9BC40001)
Charts Affected:	12362_1, 12364_22, 12364_21, 12354_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

WRECKS/remrks: New wreck found with 100% SWMB

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12416_wrecks.000	0_ 0001743812 00001	0.00	000.0	Primary

Hydrographer Recommendations

Chart new wreck

Cartographically-Rounded Depth (Affected Charts):

8ft (12362_1, 12364_22, 12364_21, 12354_1)

1 ¼fm (12300_1, 13006_1, 13003_1)

2.5m (5161_1)

S-57 Data

Geo object 1:	Wreck (WRECKS)
Attributes:	CATWRK - 2:dangerous wreck
	NINFOM - Chart wreck
	QUASOU - 6:least depth known
	SORDAT - 20120628
	SORIND - US,US,graph,H12416
	TECSOU - 3:found by multi-beam

VALSOU - 2.465 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Confirmed with SWMB.

COMPILE: Chart 8.09 foot wreck at survey position.

Feature Images

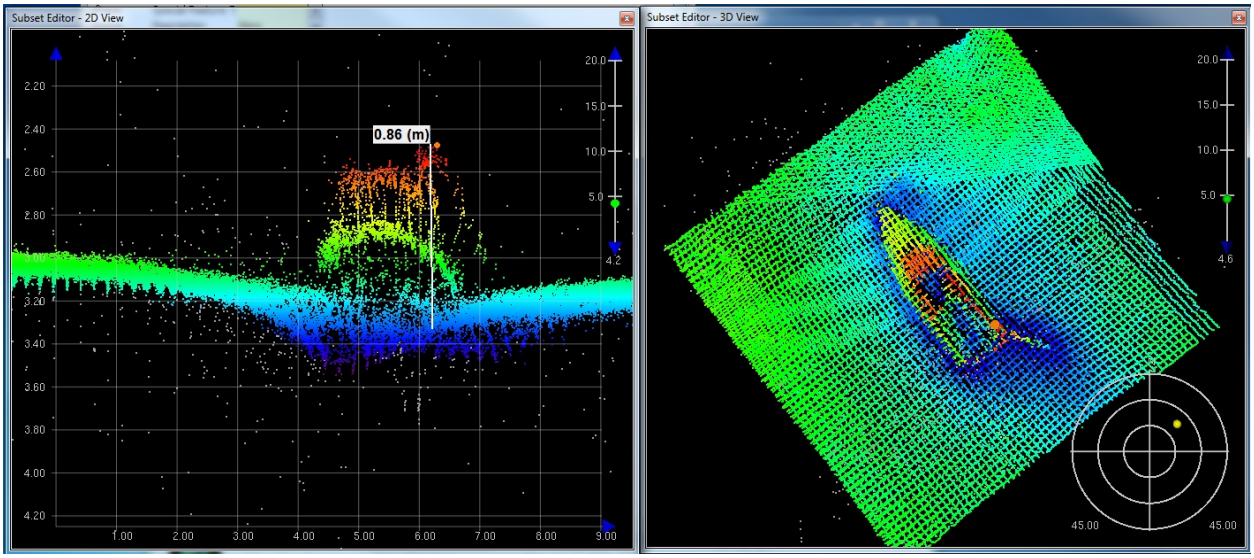


Figure 1.11.1

1.12) 7 ft wreck

Survey Summary

Survey Position:	40° 57' 03.3" N, 073° 04' 13.6" W
Least Depth:	2.20 m (= 7.22 ft = 1.204 fm = 1 fm 1.22 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2012-180.00:00:00.000 (06/28/2012)
Dataset:	H12416_wrecks.000
FOID:	0_ 0001743811 00001(FFFE001A9BC30001)
Charts Affected:	12362_1, 12364_22, 12364_21, 12354_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

WRECKS/remrks: Found new wreck with 100% SWMB

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12416_wrecks.000	0_ 0001743811 00001	0.00	000.0	Primary

Hydrographer Recommendations

Chart new wreck

Cartographically-Rounded Depth (Affected Charts):

7ft (12362_1, 12364_22, 12364_21, 12354_1)

1 ¼fm (12300_1, 13006_1, 13003_1)

2.2m (5161_1)

S-57 Data

Geo object 1:	Wreck (WRECKS)
Attributes:	CATWRK - 2:dangerous wreck
	NINFOM - Chart wreck
	QUASOU - 6:least depth known
	SORDAT - 20120628
	SORIND - US,US,graph,H12416
	TECSOU - 3:found by multi-beam

VALSOU - 2.201 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Confirmed with SWMB.

COMPILE: Chart 7.22 foot wreck at survey position.

Feature Images

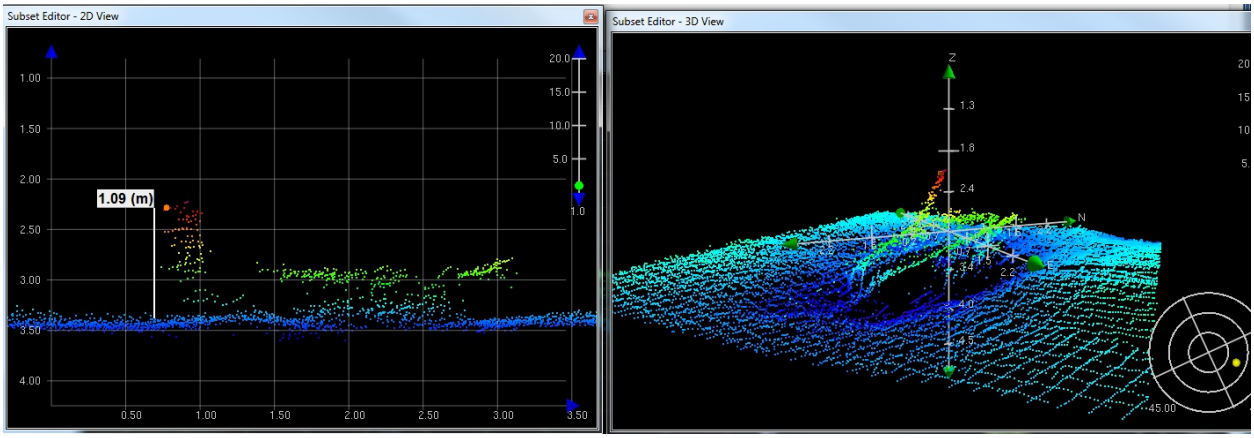


Figure 1.12.1

1.13) 9 ft wreck

Survey Summary

Survey Position:	40° 57' 07.4" N, 073° 04' 09.7" W
Least Depth:	2.89 m (= 9.47 ft = 1.578 fm = 1 fm 3.47 ft)
TPU (±1.96σ):	**THU (TPEh)** [None] ; **TVU (TPEv)** [None]
Timestamp:	2012-180.00:00:00.000 (06/28/2012)
Dataset:	H12416_wrecks.000
FOID:	0_ 0001743809 00001(FFFE001A9BC10001)
Charts Affected:	12362_1, 12364_22, 12364_21, 12354_1, 12300_1, 13006_1, 5161_1, 13003_1

Remarks:

WRECKS/remrks: New wreck found with 100% SWMB.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12416_wrecks.000	0_ 0001743809 00001	0.00	000.0	Primary

Hydrographer Recommendations

Chart new wreck

Cartographically-Rounded Depth (Affected Charts):

9ft (12362_1, 12364_22, 12364_21, 12354_1)

1 ½fm (12300_1, 13006_1, 13003_1)

2.9m (5161_1)

S-57 Data

Geo object 1:	Wreck (WRECKS)
Attributes:	CATWRK - 2:dangerous wreck
	NINFOM - Chart wreck
	QUASOU - 6:least depth known
	SORDAT - 20120628
	SORIND - US,US,graph,H12416
	TECSOU - 3:found by multi-beam

VALSOU - 2.886 m

WATLEV - 3:always under water/submerged

Office Notes

SAR: Confirmed with SWMB.

COMPILE: Chart 9.47 foot wreck at survey position.

Feature Images

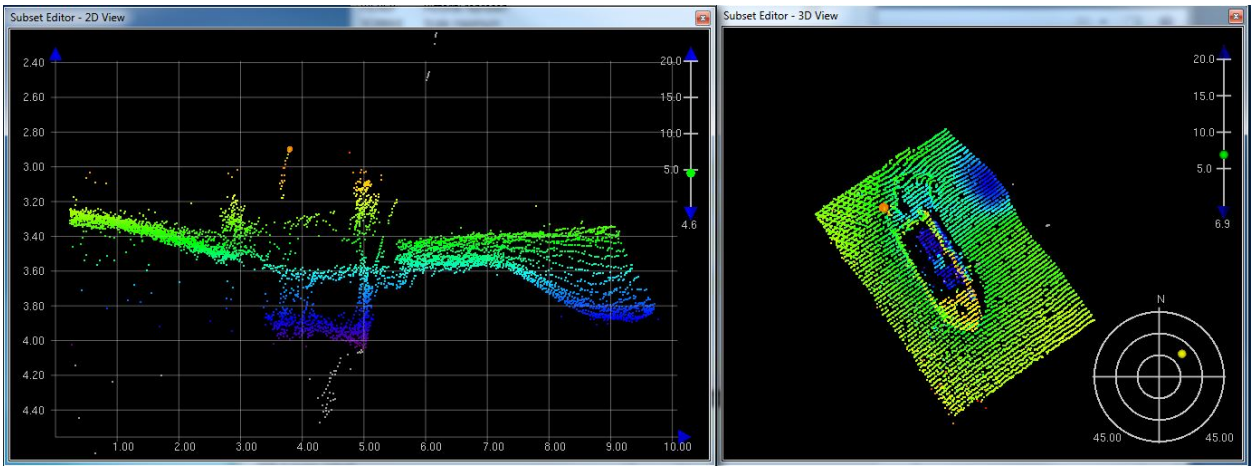


Figure 1.13.1

APPROVAL PAGE

H12416

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

- H12416_DR.pdf
- Collection of depth varied resolution BAGS
- Processed survey data and records
- H12416_GeoImage.pdf

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

Approved:_____

Lieutenant Commander Matthew Jaskoski, NOAA
Chief, Atlantic Hydrographic Branch