

H12642

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

DESCRIPTIVE REPORT

Type of Survey: Navigable Area

Registry Number: H12642

LOCALITY

State(s): Massachusetts

General Locality: Buzzards Bay and Nantucket Sound

Sub-locality: Approaches to New Bedford

2015

CHIEF OF PARTY
Shepard M. Smith, CAPT/NOAA

LIBRARY & ARCHIVES

Date:

U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION		REGISTRY NUMBER:
HYDROGRAPHIC TITLE SHEET		H12642
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):	Massachusetts	
General Locality:	Buzzards Bay and Nantucket Sound	
Sub-Locality:	Approaches to New Bedford	
Scale:	10000	
Dates of Survey:	09/13/2015 to 10/10/2015	
Instructions Dated:	07/15/2015	
Project Number:	OPR-B367-TJ-15	
Field Unit:	NOAA Ship <i>Thomas Jefferson</i>	
Chief of Party:	Shepard M. Smith, CAPT/NOAA	
Soundings by:	Multibeam Echo Sounder Singlebeam Echo Sounder	
Imagery by:	Side Scan Sonar 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 Centers for Environmental Information (NCEI) and can be retrieved via <https://www.ncei.noaa.gov/>.

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Descriptive Report to Accompany Survey H12642

Project: OPR-B367-TJ-15

Locality: Buzzards Bay and Nantucket Sound

Sublocality: Approaches to New Bedford

Scale: 1:10000

September 2015 - October 2015

NOAA Ship *Thomas Jefferson*

Chief of Party: Shepard M. Smith, CAPT/NOAA

A. Area Surveyed

Survey H12642, as assigned, encompasses approximately 15 square nautical miles of the navigable inshore area between Smith Neck and West Island, Massachusetts (Figure 1). The central area of the survey is divided by the channel of New Bedford and Fairhaven Harbor. At the discretion of the Chief of Party, the channel was included during data acquisition of this survey despite a planned near-future dredging project.

A.1 Survey Limits

Data were acquired within the following survey limits:

Northwest Limit	Southeast Limit
41° 34' 27.07" N 70° 56' 25.42" W	41° 34' 28.96" N 70° 49' 24.22" W

Table 1: Survey Limits

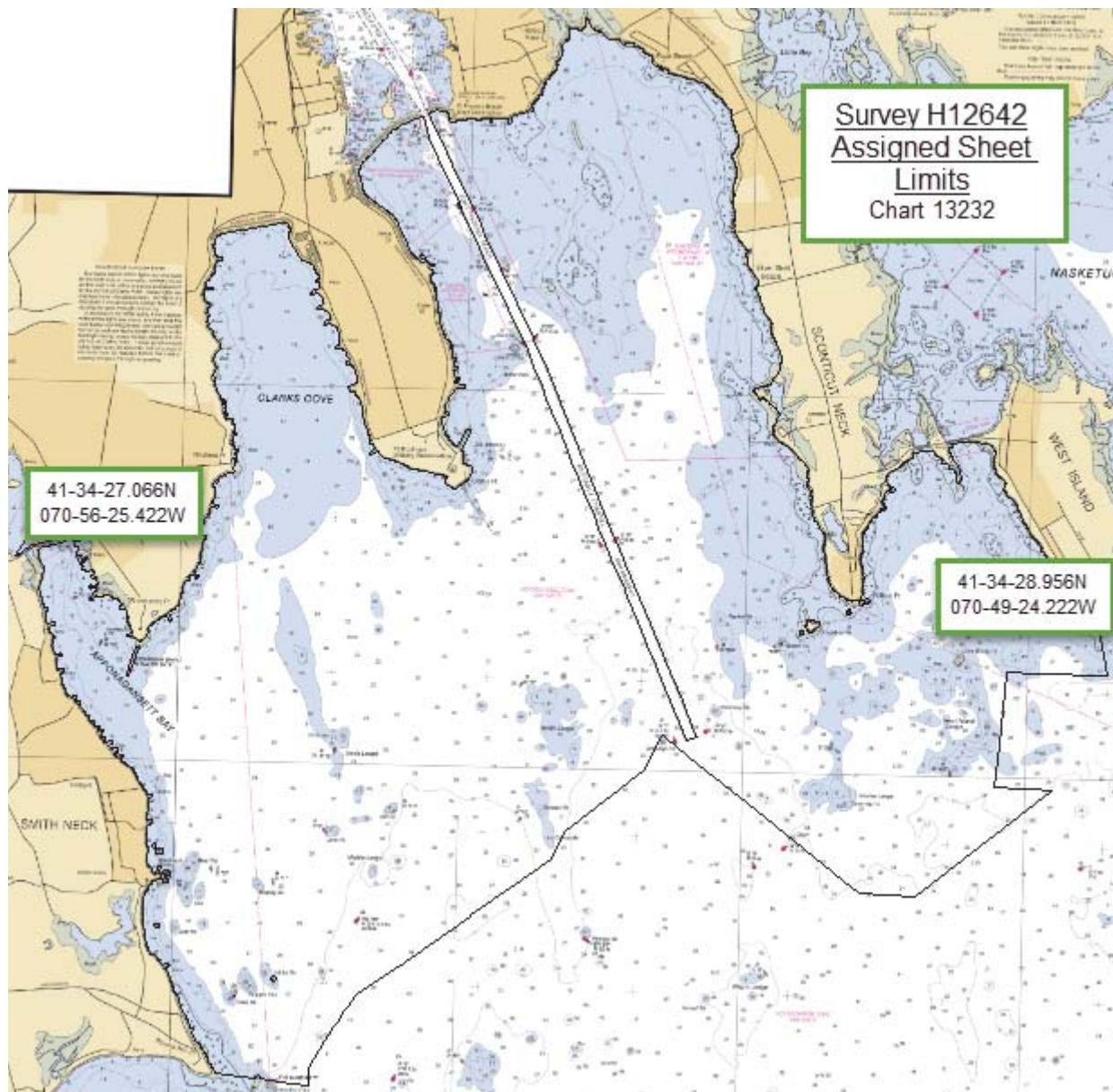


Figure 1: Assigned survey limits of survey H12642 shown in relation to RNC 13232.

The Chief Hydrographer decided to extend data acquisition in the New Bedford Harbor Channel and the southeastern limits of the sheet to include an unassigned section for purposes of efficiency in acquisition (Figures 2-5).

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 within Buzzards Bay and Nantucket Sound. This high traffic area of Massachusetts and Rhode Island has an increasing need for updated soundings due to expanding commerce and modernization of vessel traffic. Single-hull petroleum barges

were prohibited, as of January 1, 2015, which will increase the use of larger deeper draft double-hull barges. In addition, this area has been identified for possible installation of marine transmission cable routes, while offshore waters have been designated for wind energy development. Updated hydrographic surveys will help advance these projects as well as provide updated soundings for related commerce activities, such as equipment transport. Survey H12642 data covers approximately 11 square nautical miles of the 66 square nautical miles of “critical” survey area as identified in 2012 NOAA Hydrographic Survey Priorities. Data from this project is intended to supersede all prior survey data in the common area.

A.3 Survey Quality

~~*The entire survey is adequate to supersede previous data.~~ ****Concur with conditions. H12642 did not entirely achieve object detection requirements throughout the survey area. Areas where object detection requirements were not achieved are represented by an M_QUAL with a category of zone of confidence in data (CATZOC) of B rather than A1.***

A.4 Survey Coverage

The following table lists the coverage requirements for this survey as assigned in the project instructions:

Water Depth	Coverage Required
0-20m	Complete coverage, as defined in section 5.2.2 of the HSSD. The inshore limit of hydrography will be the farthest offshore of the following: (1) the 6-meter depth contour (Figure 4) or (2) the line defined by the distance seaward from the MHW line which is equivalent to 0.8 millimeters at the scale of the largest scale nautical chart. For survey H12642, extend the inshore limit of hydrography to the 4 meter contour in the entrance channel to New Bedford in the area north of Clarks Point (Figure 3). Due to future dredging plans, DO NOT acquire data within the limits of the maintained New Bedford Harbor Channel.

~~*Survey coverage was in accordance with the requirements listed above and in the HSSD.~~ ****Concur with conditions. H12642 did not entirely achieve object detection requirements throughout the survey area. Areas where object detection requirements were not achieved are represented by an M_QUAL with a category of zone of confidence in data (CATZOC) of B rather than A1.***

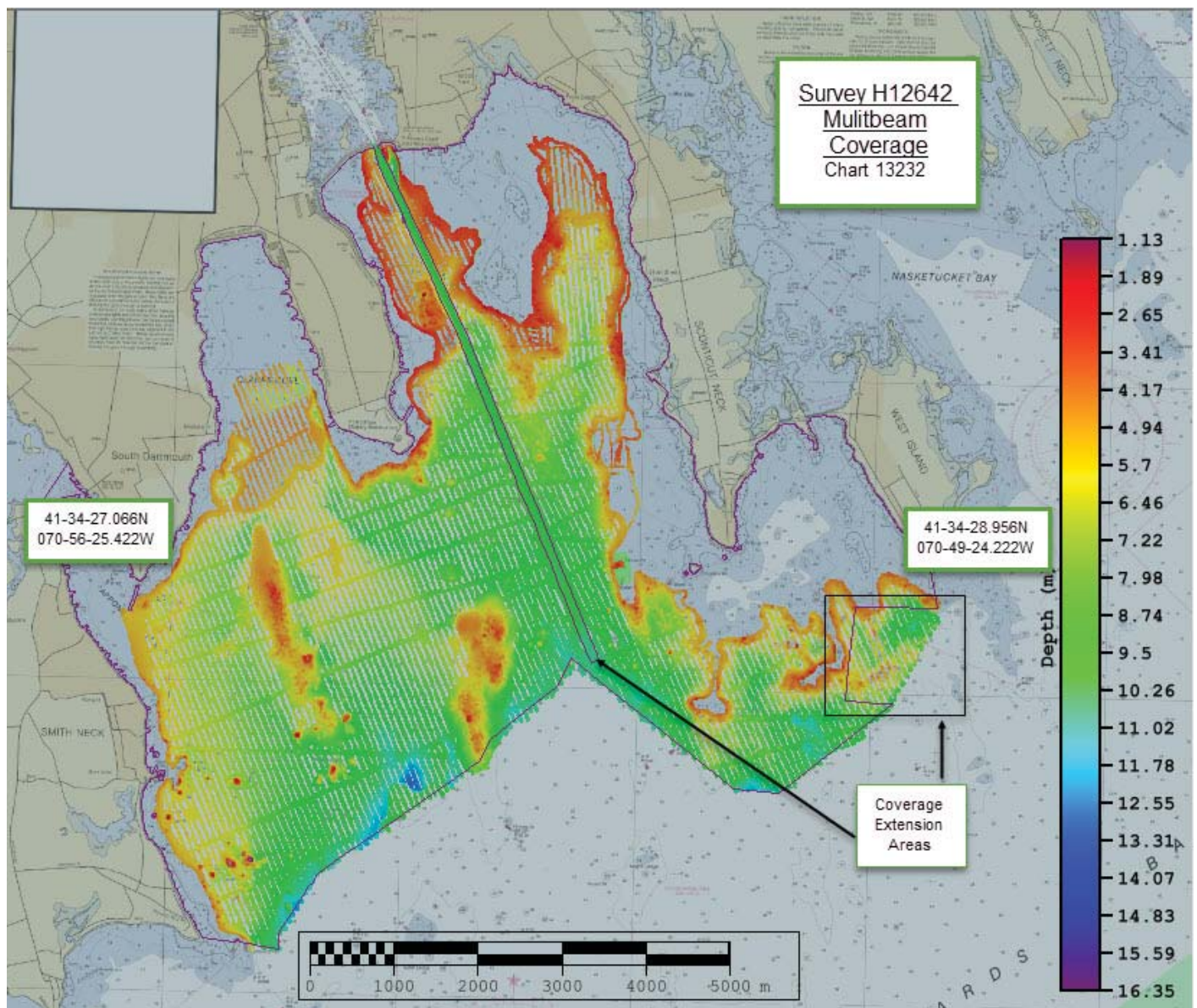


Figure 2: H12642 multibeam coverage area and extents. Note additional coverage acquired in southeast and channel, shown in relation to RNC 13232.

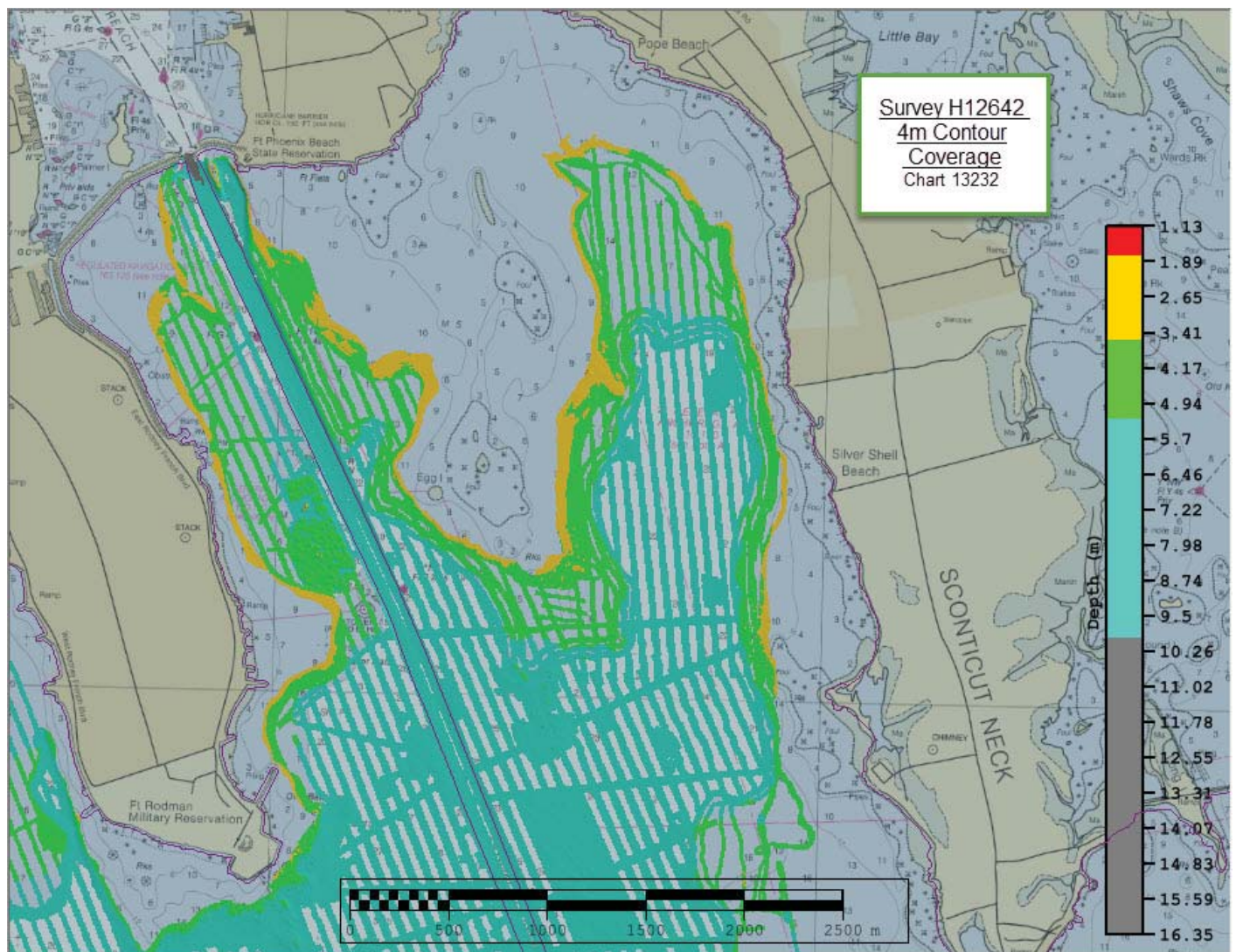


Figure 3: H12642 12ft contour (yellow) coverage requirement shown in relation to RNC 13232.

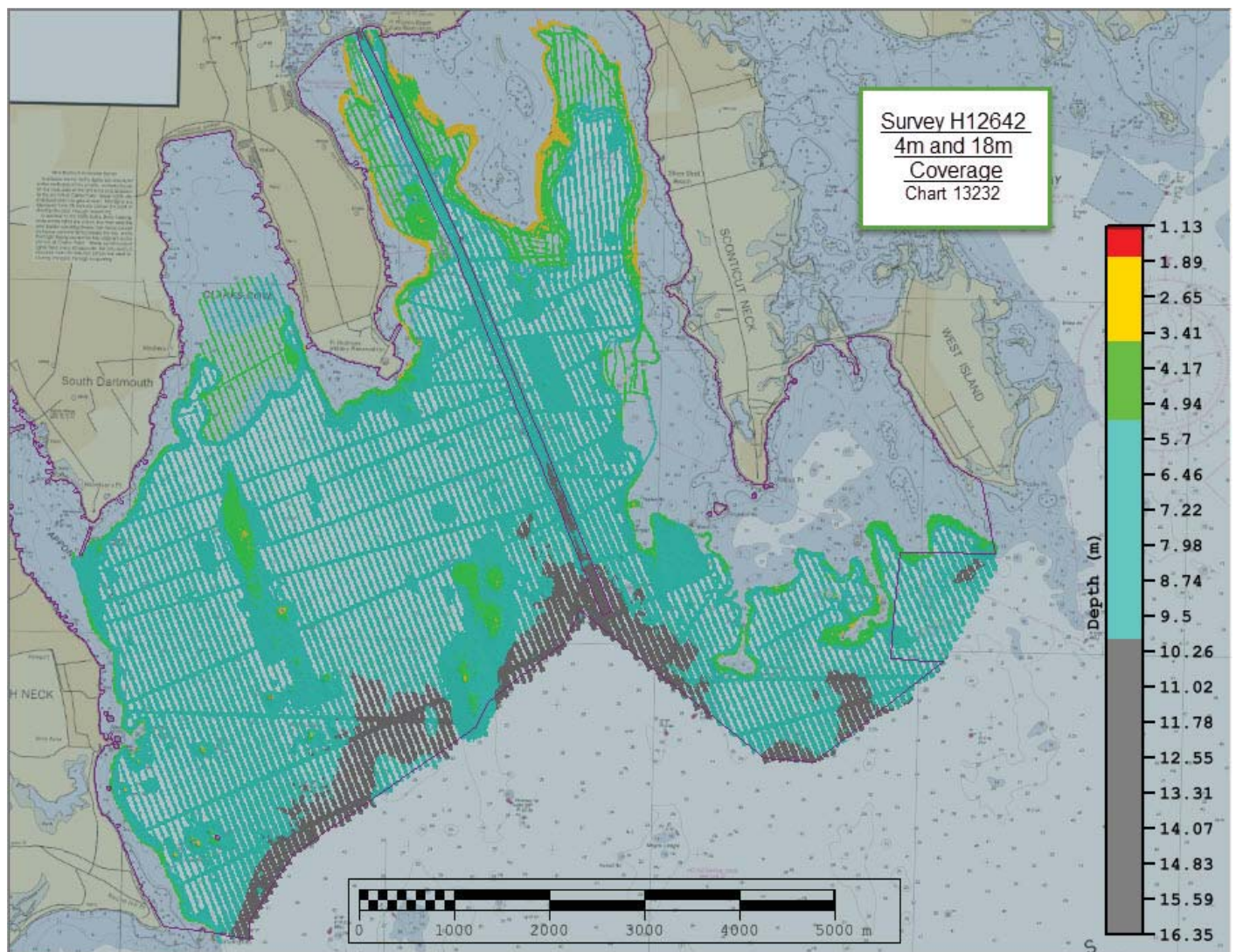


Figure 4: H12642 12ft (yellow) and 18ft (green) contour development shown in relation to RNC 13232.

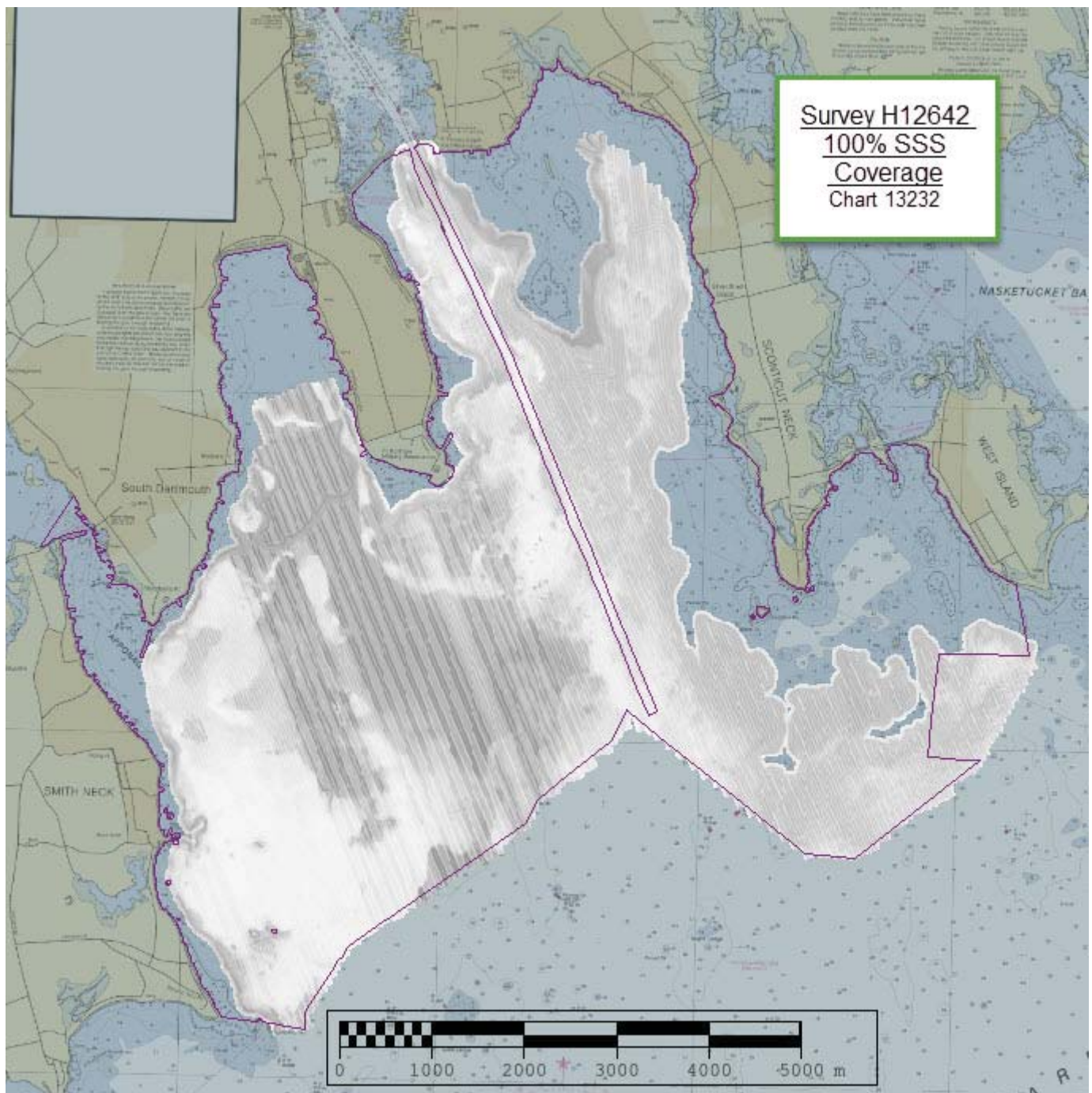


Figure 5: H12642 100% side scan sonar coverage shown in relation to RNC 13232.

A.5 Survey Statistics

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

	HULL ID	<i>3101</i>	<i>3102</i>	<i>Z-1</i>	<i>Total</i>
LNM	SBES Mainscheme	0	0	9.141	9.141
	MBES Mainscheme	88.64	101.29	0	189.93
	Lidar Mainscheme	0	0	0	0
	SSS Mainscheme	0	0	0	0
	SBES/SSS Mainscheme	0	0	0	0
	MBES/SSS Mainscheme	233.08	139.62	0	372.7
	SBES/MBES Crosslines	31.97	0.7	0	32.67
	Lidar Crosslines	0	0	0	0
Number of Bottom Samples					0
Number Maritime Boundary Points Investigated					0
Number of DPs					0
Number of Items Investigated by Dive Ops					0
Total SNM					11.35

Table 2: Hydrographic Survey Statistics

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

Survey Dates	Day of the Year
09/13/2015	256
09/14/2015	257

Survey Dates	Day of the Year
09/15/2015	258
09/16/2015	259
09/17/2015	260
09/21/2015	264
09/22/2015	265
09/23/2015	266
09/24/2015	267
09/25/2015	268
09/26/2015	269
09/27/2015	270
10/07/2015	280
10/08/2015	281
10/10/2015	283

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	<i>HSL 3101</i>	<i>HSL 3102</i>	<i>Z-1</i>
LOA	31 feet	31 feet	5.5 feet
Draft	5.2 feet	5.2 feet	1 feet

Table 4: Vessels Used

In 2015 NOAA Ship Thomas Jefferson acquired two autonomous survey vessels (ASVs), Z1 and Z2. As the draft of an ASV is significantly less than that of a survey launch, these vessels allow the Thomas Jefferson greater access to rocks and other hazardous features to navigation previously unattainable. Survey H12642 was the first Thomas Jefferson survey to utilize single beam data acquired by one of these vessels in order to better assess charted rocks.

B.1.2 Equipment

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

Manufacturer	Model	Type
Reson	7125-SV1	MBES
Reson	7125-SV2	MBES
Reson	SV-71	Sound Speed System
Seabird	Seacat 19+	Conductivity, Temperature, and Depth Sensor
Applanix	POS/V v5	Positioning and Attitude System
Trimble	SPS351 DGPS Beacon Receiver	Positioning System
ODOM	CV100	SBES

Table 5: Major Systems Used

B.2 Quality Control

B.2.1 Crosslines

Crosslines acquired for this survey totaled 5.71% of mainscheme acquisition.

The above percentage is based on total multibeam mileages acquired by both HSL 3101 and 3102. During the planning stages of survey H12642, it was not foreseen that the volume of multibeam developments would be so significant. When crossline mileage was compared to SSS with concurrent multibeam mileage, the 32.67 linear nautical miles of MBES crosslines equates to 11.41% of mainscheme data, which meets specifications.

Crosslines were compared to mainscheme using a difference surface, created in CARIS HIPS 9.0. A 1m CUBE surface was created using strictly mainscheme lines, while a second 1m CUBE surface was created using only crosslines. The two surface were then differenced. 99.99% of nodes agree within 1ft. The mean

was 0.014 m and the standard deviation was 0.073m (Figure 6). Survey H12642 crossline analysis complies with section 5.2.4.3 of the HSSD (2015).

A separate analysis was conducted by comparing only ERS crosslines to TCARI crosslines. The results confirm the decision to use ERS as the method of data reduction to MLLW: the mean difference was -0.32m, with a standard deviation of 0.424m, with a minimum and maximum difference of -4.656m and 5.381m, respectively (Figure 7). The image shown in Figure 8 is a Caris 2D subset cross section of mainscheme data with GPS tide correction versus a crossline with TCARI vertical correction applied. This image is one of the most deviant examples of the difference in post-processed depths for survey H12642. For a more in depth analysis of ERS to TCARI statistics, refer to the ERZT memo submitted in the Project Report folder under Project Correspondence.

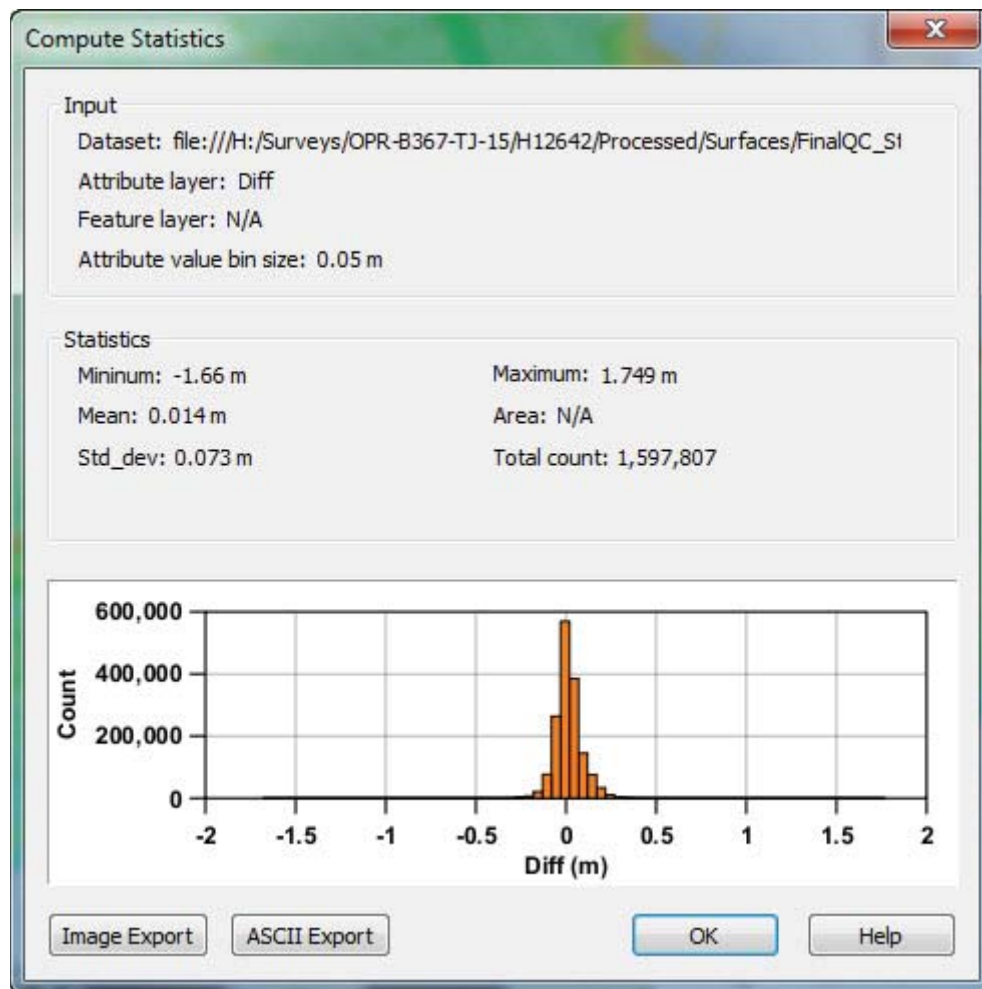


Figure 6: Statistics generated from differencing H12642 ERS crosslines to ERS mainscheme CUBE surfaces.

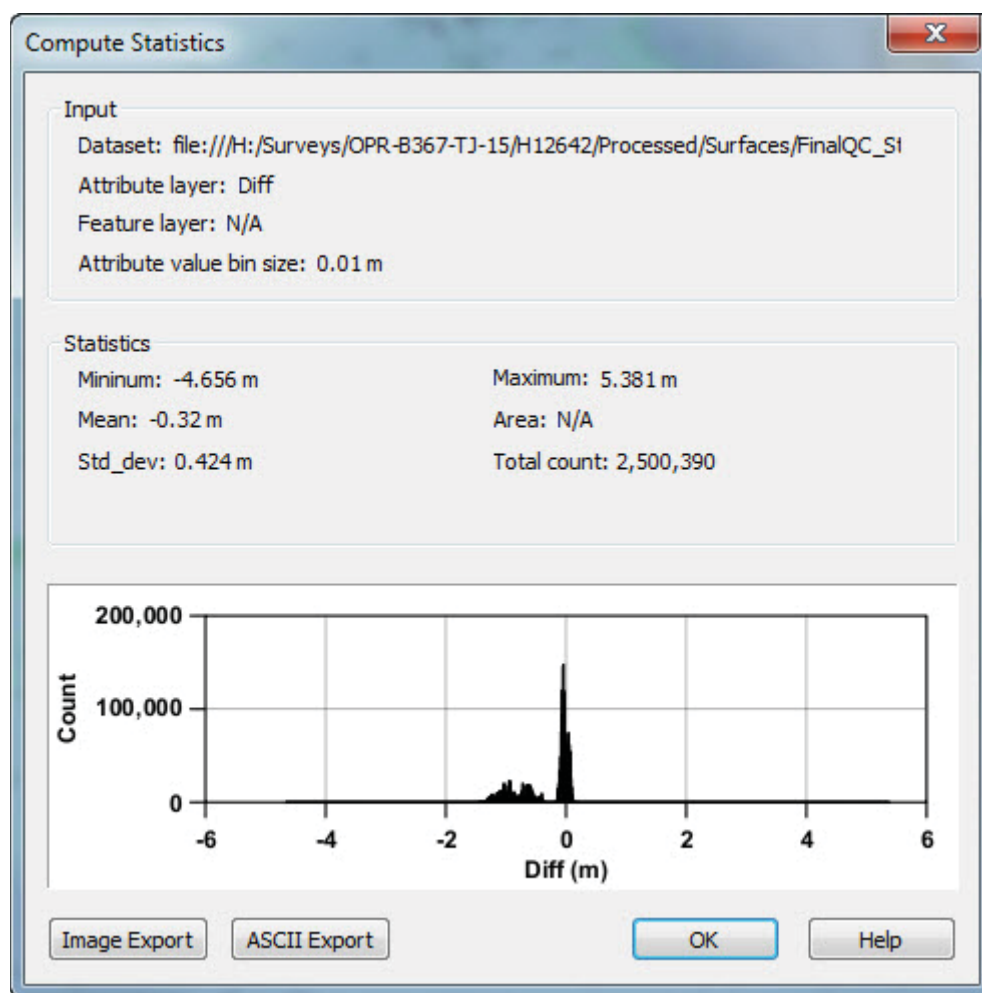


Figure 7: Statistics generated from differencing H12642 ERS crosslines to TCARI crossline CUBE surfaces.

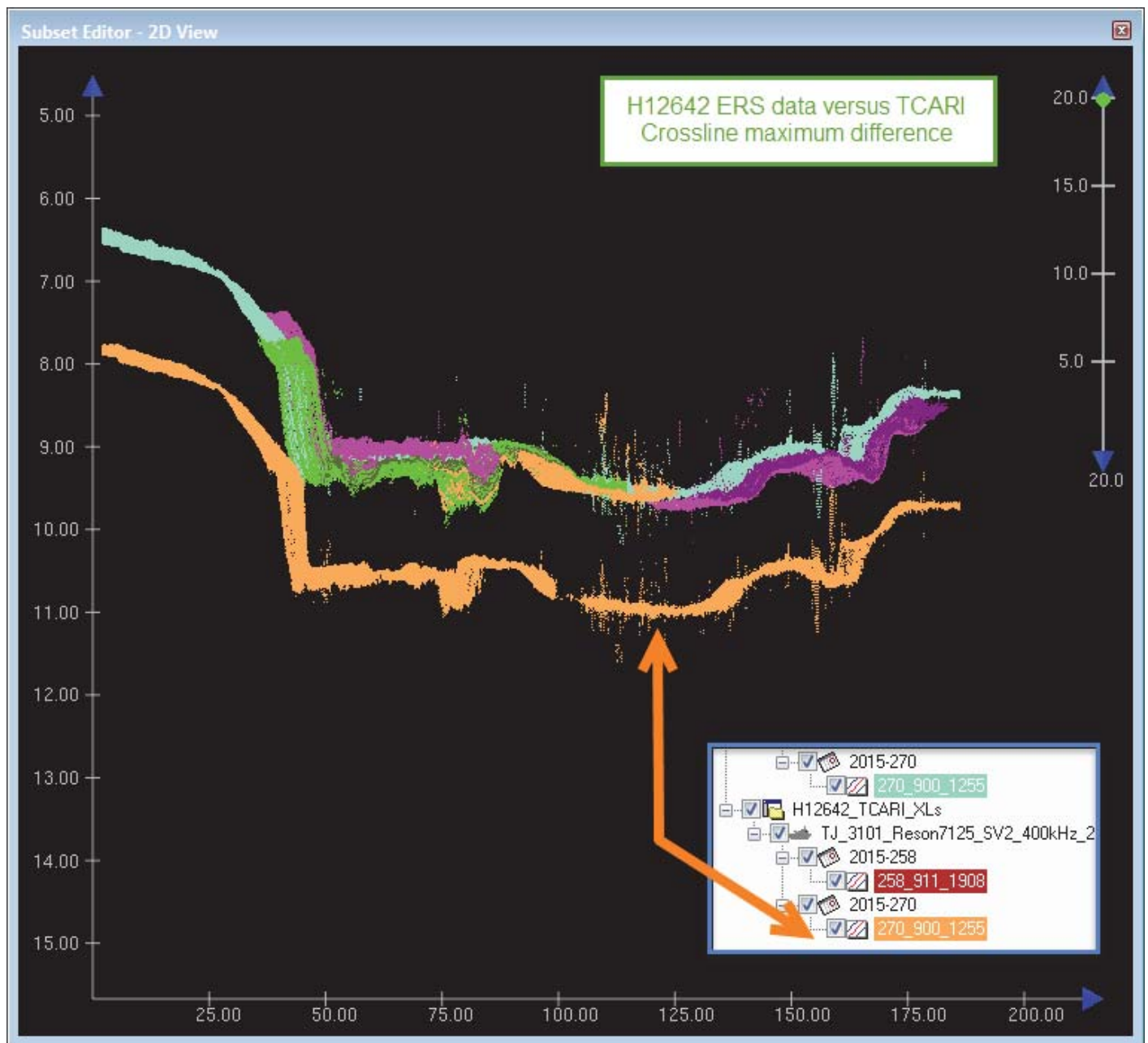


Figure 8: Example of maximum difference between crossline 270_900_1255 with TCARI corrected values versus mainscheme (all other data shown) with ERS corrected values.

B.2.2 Uncertainty

The following survey specific parameters were used for this survey:

Measured	Zoning	Method
0 meters	0.102 meters	VDATUM
0 meters	0 meters	TCARI

Table 6: Survey Specific Tide TPU Values

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

Table 7: Survey Specific Sound Speed TPU Values

Total Propagated Uncertainty values for survey H12642 were derived using a combination of: real time uncertainties for vessel motion; a priori values for equipment and vessel characteristics; an a priori value for the separation model used to reduce soundings to chart datum; and field assigned values for sound speed uncertainties. The realtime uncertainties for vessel motion include roll, pitch, gyro, navigation, and elevation. The uncertainties in these measurements were recorded as part of the POSpac IAPPK 3D positional solution and the Marine Star 5P solution and were applied to the soundings via an SBET RMS file generated by Applanix POSpac. Uncertainties for sonar mounting and vessel speed were based on Appendix 4, table 4.9 of the NOAA Field Procedures Manual (FPM) (ed 2015). These were applied to the data via the CARIS HIPS Hydrographic Vessel File. The uncertainty associated with the VDatum separation model was supplied by the Hydrographic Services Division's Operations Branch, and is listed under the Zoning (see Table 6). Finally, the uncertainty associated with sound speed measurements were based on the frequency and location of CTD casts, in accordance with the guidance set by Appendix 4 of the FPM (ed 2014) (see Table 7).

Both IAPPK and 5P SBET/RMS pairs were applied to survey H12642; the entire data set is an ellipsoidally referenced survey. Initially, all data had 5P SBET solutions applied, but after initial quality analysis of the finalized surface, the decision was made to process and apply IAPPK solutions to data exhibiting particular disharmony within the overall survey data set. For HSL 3101, the following days have an IAPPK solution applied: 256, 257, 258, 265, 267, 268, 279. For HSL 3102, the following days have an IAPPK solution applied: 260, 265, 266, 267, 268, 269, 279. All other days for both vessels have 5P solutions applied to the data. The bimodal distribution seen in Figure 9 and the graphic representation in Figure 10 are the result of the two different ERS solutions applied to the data; as expected, the 5P solution had a greater uncertainty than the IAPPK solution.

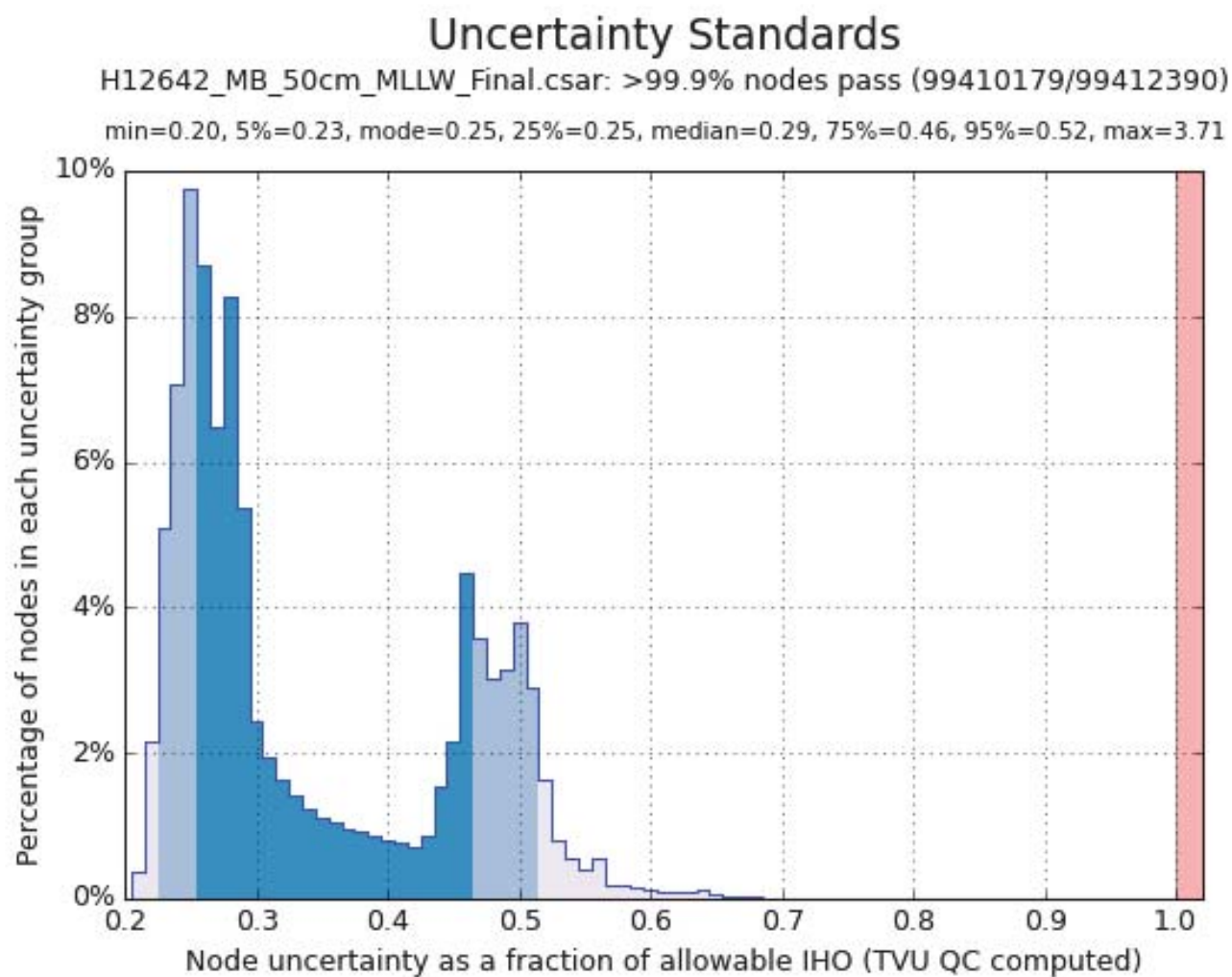


Figure 9: Survey H12642 total vertical uncertainty. Bimodal distribution is present due to two different methods of ERS reduction.

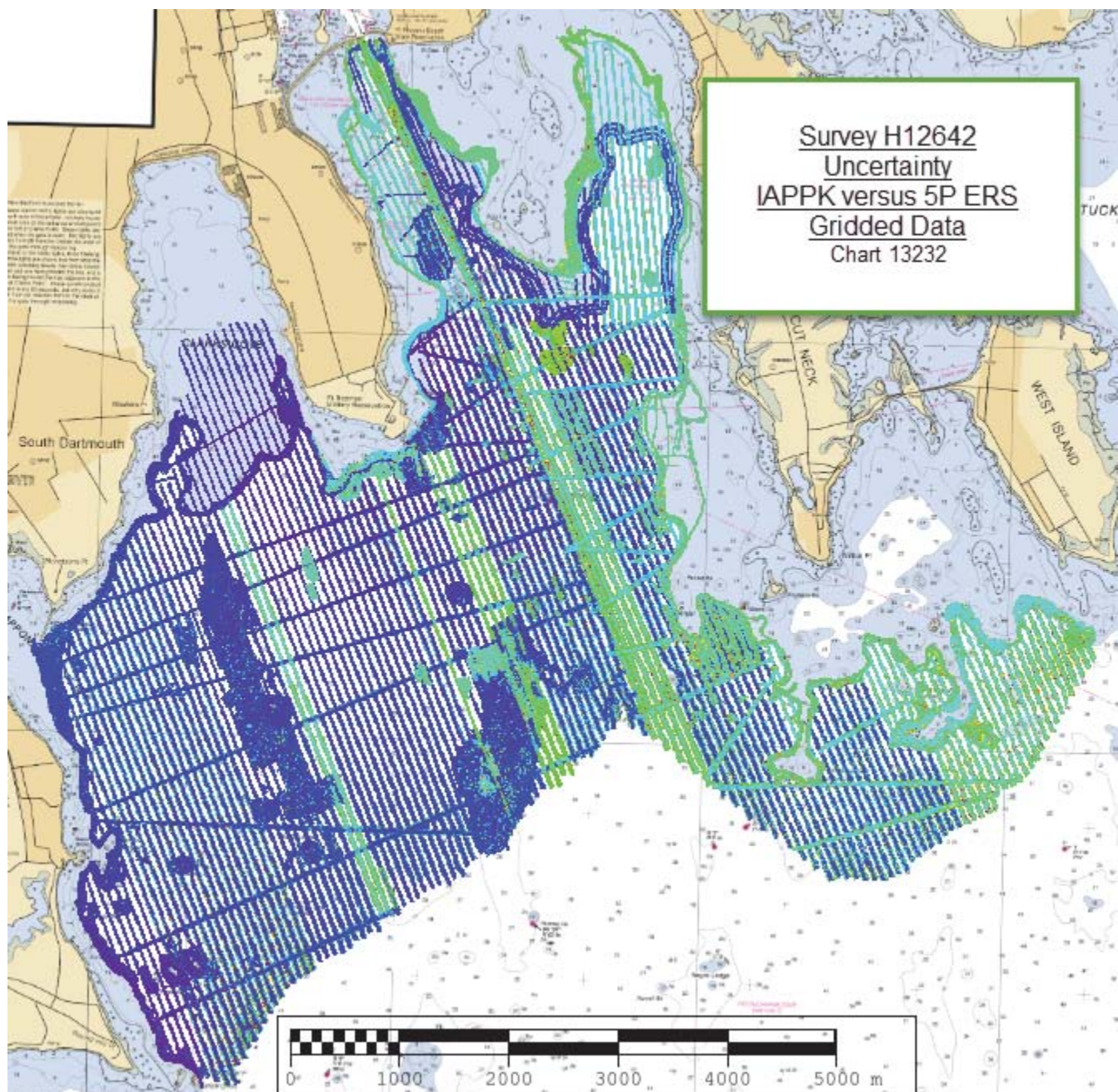


Figure 10: Survey H12642 uncertainty. Blue shade is data vertically corrected using IAPPK solution ($\sim 0.13\text{m}$ uncertainty); green shade is data vertically corrected using 5P solution ($\sim 0.23\text{m}$ uncertainty). Uncertainty layer is filtered from 0.10m - 0.50m with reversed colors.

B.2.3 Junctions

No concurrent junctions exist for survey H12642.

There are no contemporary surveys that junction with this survey.

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: Conductivity, Temperature, and Depth (CTD) casts were conducted and processed on board hydrographic survey launches 3101 and 3102 every 2 to 4 hours, or approximately every quarter mile traveled during data acquisition using a Seabird 19+ apparatus. As single beam requires SVP only once per week, casts were taken from one of the launches during Z boat operations with consideration heavily placed on temporal and spatial work areas of the Z boat.

B.2.8 Coverage Equipment and Methods

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

B.2.9 Final Grid Density

Though the majority of survey H12642 data was side scan sonar imagery with concurrent multibeam, HSLs 3101 and 3102 acquired 189.93 LNM of multibeam developments. A 50cm final grid was submitted as the final product of this survey. Refer to section B.5.2 of this report for a discussion of why a 50cm grid was submitted, as well as Appendix II for correspondence between HSD OPS and the operations unit.

~~*Coverage density meets object detection quality requirements for hydrographic chart updates: 99.1% of all nodes meet object detection standards (Figure 11).~~ ****Concur with conditions. H12642 did not entirely achieve object detection requirements throughout the survey area. Areas where object detection requirements were not achieved are represented by an M_QUAL with a category of zone of confidence in data (CATZOC) of B rather than A1.***

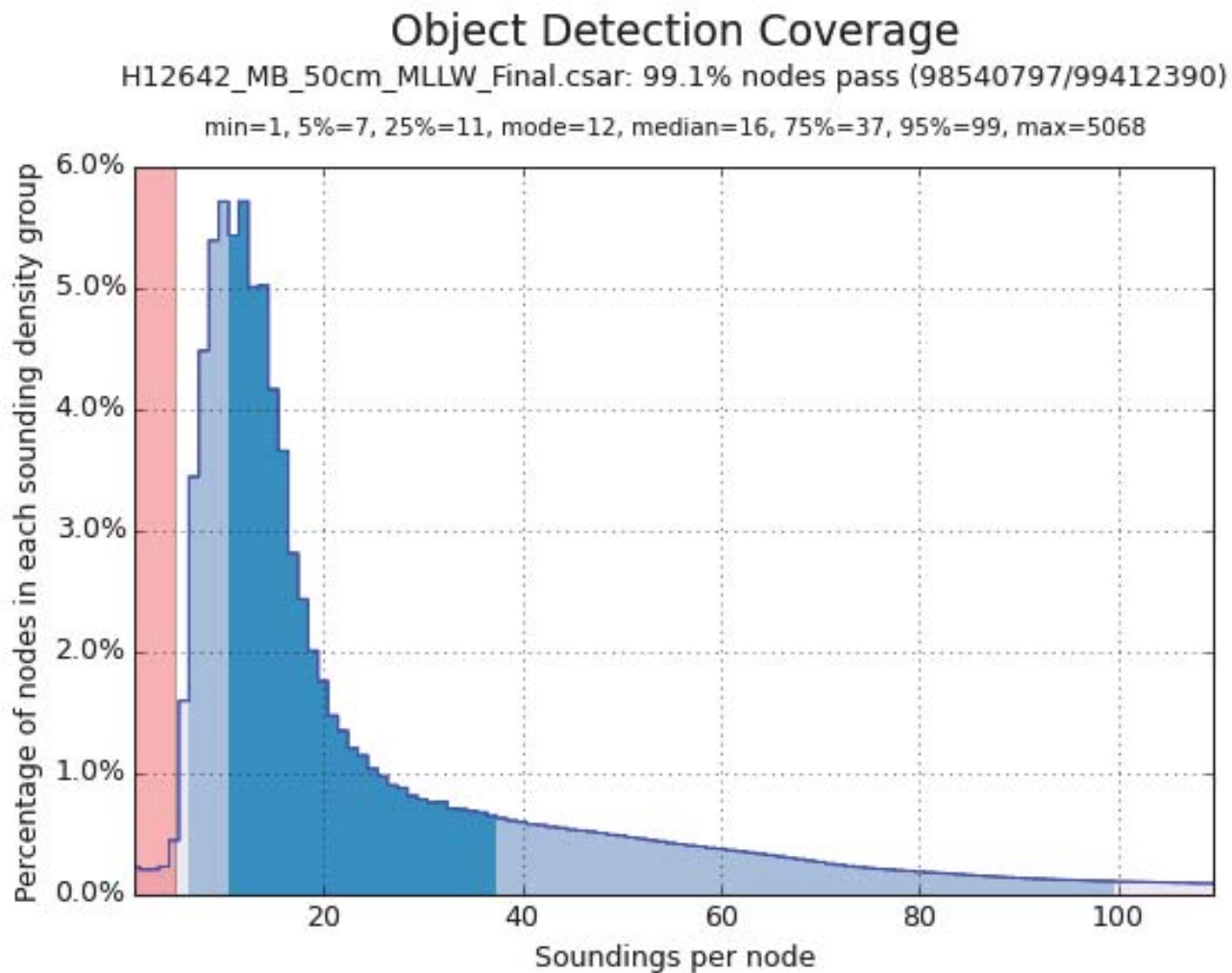


Figure 11: Survey H12642 object detection density results.

B.2.10 Holidays and Outer Beam Density

Several hundred holidays exist within survey H12642. Object detection multibeam development areas show several areas of no data, acoustic shadow, or areas where noise was cleaned out of the data leaving a hole. After examination, the hydrographer believes the gridded multibeam data accurately and sufficiently honors the least depths of all significant features within the bounds of Survey H12642. Side scan sonar coverage is complete and clearly depicts significant features, and shall be referred to if multibeam data provides questionable results. As this survey was assigned as 100% SSS coverage with concurrent multibeam for full coverage, the outer beams of many mainscheme lines show outer beam tearing or sparseness (Figure 12). Outer beam issues relate to multiple factors: multibeam power and gain settings, vessel speed, and sea state being the primary.



Figure 12: Example of minor density failure, generally occurring along the outer edges of multibeam lines and in areas of little to no data overlap.

B.3 Echo Sounding Corrections

B.3.1 Corrections to Echo Soundings

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

B.3.2 Calibrations

All sounding systems were calibrated as detailed in the DAPR.

B.4 Backscatter

Raw Backscatter was logged as a 7k file and is to be submitted to the Atlantic Hydrographic Branch. One line of backscatter per vessel per day was processed and examined onboard the NOAA Ship Thomas Jefferson to ensure quality control.

B.5 Data Processing

B.5.1 Primary Data Processing Software

The following software program was the primary program used for bathymetric data processing:

Manufacturer	Name	Version
CARIS	HIPS/SIPS	v17-20

Table 8: Primary bathymetric data processing software

The following software program was the primary program used for imagery data processing:

Manufacturer	Name	Version
CARIS	HIPS/SIPS	v17-20

Table 9: Primary imagery data processing software

The following Feature Object Catalog was used: NOAA Profile V_5_3_3

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
H12642_SSS_100	SSS Mosaic	0.5 meters	0 meters - 0 meters	N/A	100% SSS
H12642_MB_50cm_MLLW	CUBE	0.5 meters	1.38 meters - 16.41 meters	NOAA_0.5m	Object Detection
H12642_MB_50cm_MLLW_Final	CUBE	0.5 meters	1.38 meters - 16.41 meters	NOAA_0.5m	Object Detection
H12642_VB_4m_MLLW	CUBE	4.0 meters	2.11 meters - 7.68 meters	NOAA_32m	MBES TracklineSBES Set Line Spacing
H12642_VB_4m_MLLW_Final	CUBE	4.0 meters	2.11 meters - 7.68 meters	NOAA_4m	MBES TracklineSBES

Surface Name	Surface Type	Resolution	Depth Range	Surface Parameter	Purpose
					Set Line Spacing

Table 10: Submitted Surfaces

Per an allowance from AHB, a 50cm multibeam grid was submitted for the entire survey area. Though the project instructions called for a minimum of a 4m grid, the hydrographer noted the resolution was not honoring the least depths of rocks in several dense rocky seabed areas; a 1m grid was not succeeding either. After some deliberation, the Chief of Party, hydrographer, and Field Operations Officers requested a 50cm grid be allowed. The 50cm grid detected and honored the majority of, but not every, rock that had been well developed by soundings. To present the data as accurately as possible, the hydrographer selected the most significant rock within 20 square meters to represent the least depth in the area, per section 5.2.1.2 of the HSSD 2015. This method significantly increased the number of designated soundings.

C. Vertical and Horizontal Control

No HVCR will be submitted for this report.

C.1 Vertical Control

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

Standard Vertical Control Methods Used:

TCARI

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

Station Name	Station ID
Newport, RI	8452660
Nantucket Island, MA	8449130

Table 11: NWLON Tide Stations

File Name	Status
8452660	Final Approved
8449130	Final Approved

Table 12: Water Level Files (.tid)

File Name	Status
B367TJ2015.tc	Final

Table 13: Tide Correctors (.zdf or .tc)

A request for final approved tides was sent to N/OPS1 on 10/22/2015. The final tide note was received on 10/29/2015.

Non-Standard Vertical Control Methods Used:

VDatum

Ellipsoid to Chart Datum Separation File:

Version: 3.2; Geoid: 2012; Area: NY, CT, RI; Area Version:2; Sep Uncertainty: 10.2cm

C.2 Horizontal Control

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

The projection used for this project is UTM Zone 19 North.

The following PPK methods were used for horizontal control:

Single Base

The following CORS Stations were used for horizontal control:

HVCR Site ID	Base Station ID
2013260	Dartmouth, MA

Table 14: CORS Base Stations

The following DGPS Stations were used for horizontal control:

DGPS Stations

Table 15: USCG DGPS Stations

C.3 Additional Horizontal or Vertical Control Issues

3.3.1 Methods of Ellipsoidally Referenced Survey

Refer to the DAPR and Section B.2.2 of this report for further explanation of why both IAPPK and 5P solutions were processed and applied to data.

3.3.2 Residual ERS Uncertainty Issues

Both IAPPK and 5P ERS solutions were applied to H12642 data. The data was processed this way due to a systematic vertical offset among 5P processed data. The offset occurred most significantly along shoreline contours and development areas. After correcting these offsets by applying IAPPK correctors, some residual vertical agreement still remains in the submitted data. Figures 13 and 14 show minor error in the Node Standard Deviation child layer of the final submitted grid, as well as multiple hypotheses in the CUBE grid.

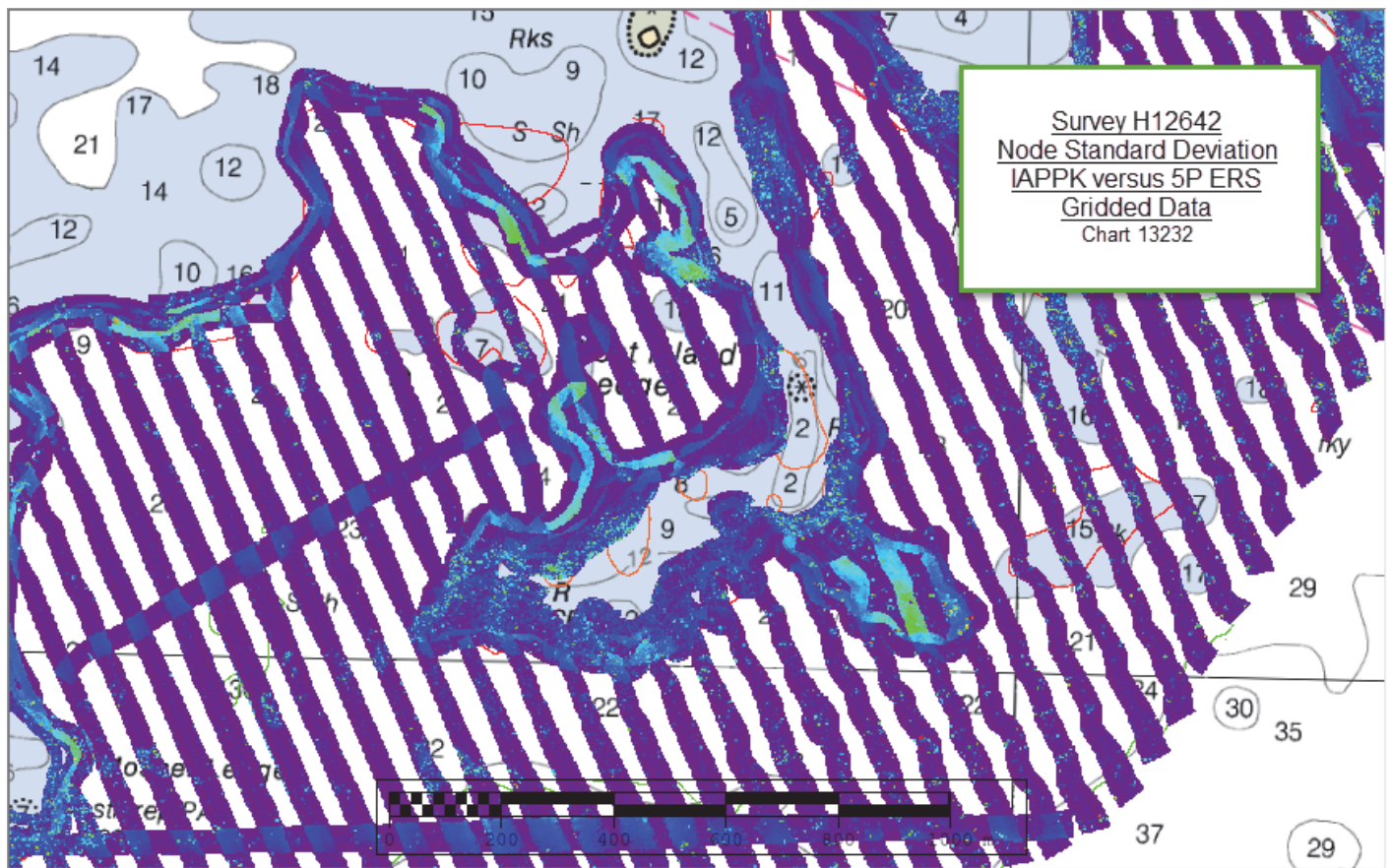


Figure 13: H12642 Residual ERS disagreement shown in Node Standard Deviation child layer, filtered 0.0m-0.5m and reversed colors.



Figure 14: H12642 Residual ERS disagreement shown in Hypothesis Count child layer, filtered 1.0-5.0 and reversed colors.

D. Results and Recommendations

D.1 Chart Comparison

A chart comparison for survey H12642 was conducted to the largest scale raster chart, 13232, and ENC US5MA26M. Contours were created from an interpolated TIN surface of the surveyed soundings and compared to charted contours. Features and specific rocks or surveyed soundings shoal to charted values are highlighted in Figures 15 to 23 below. Overall, contours based on surveyed values agree with charted values.

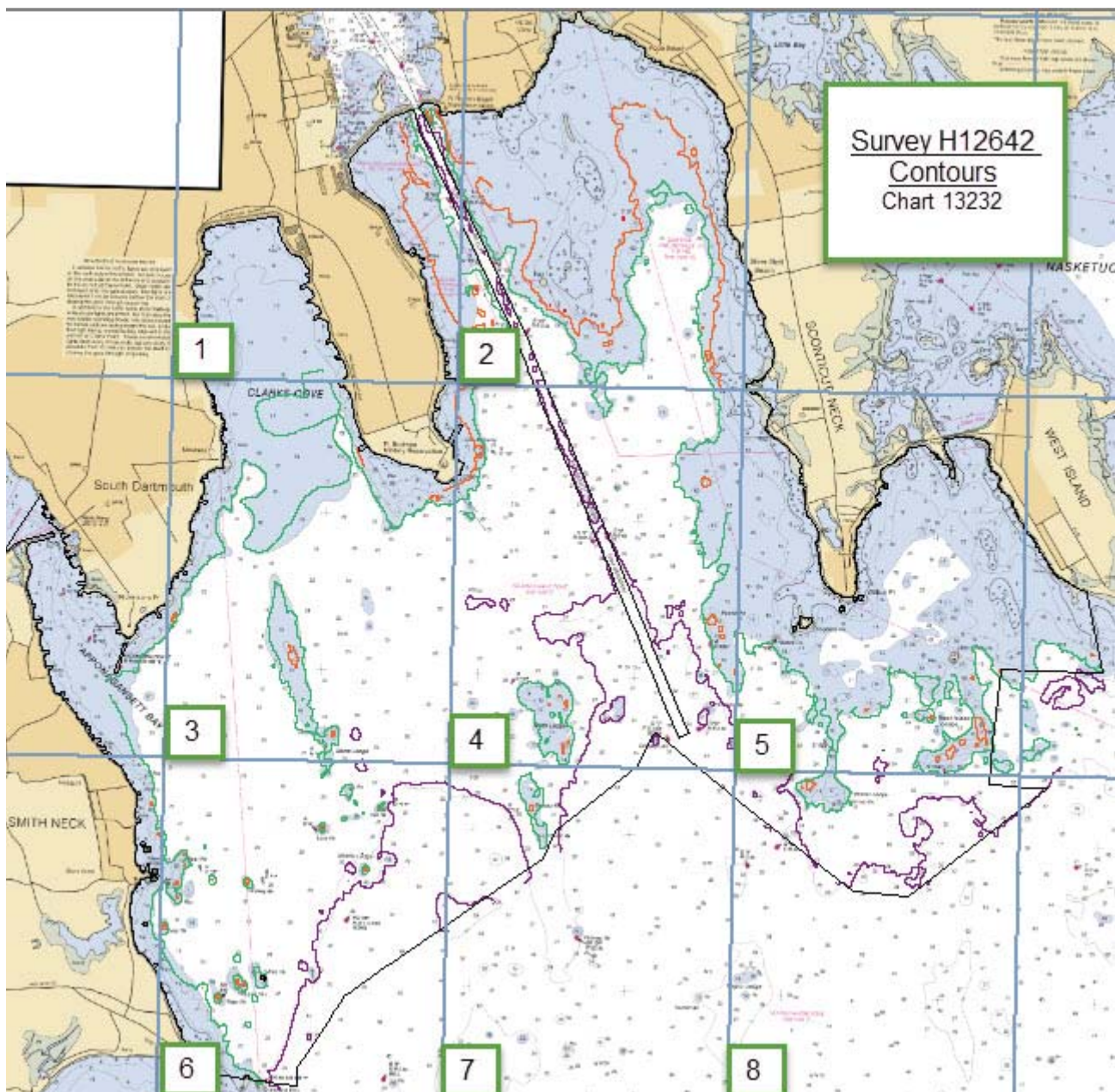
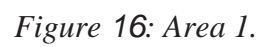


Figure 15: Overview of contours from H12642 on chart 13232, including designated soundings from finalized surface.



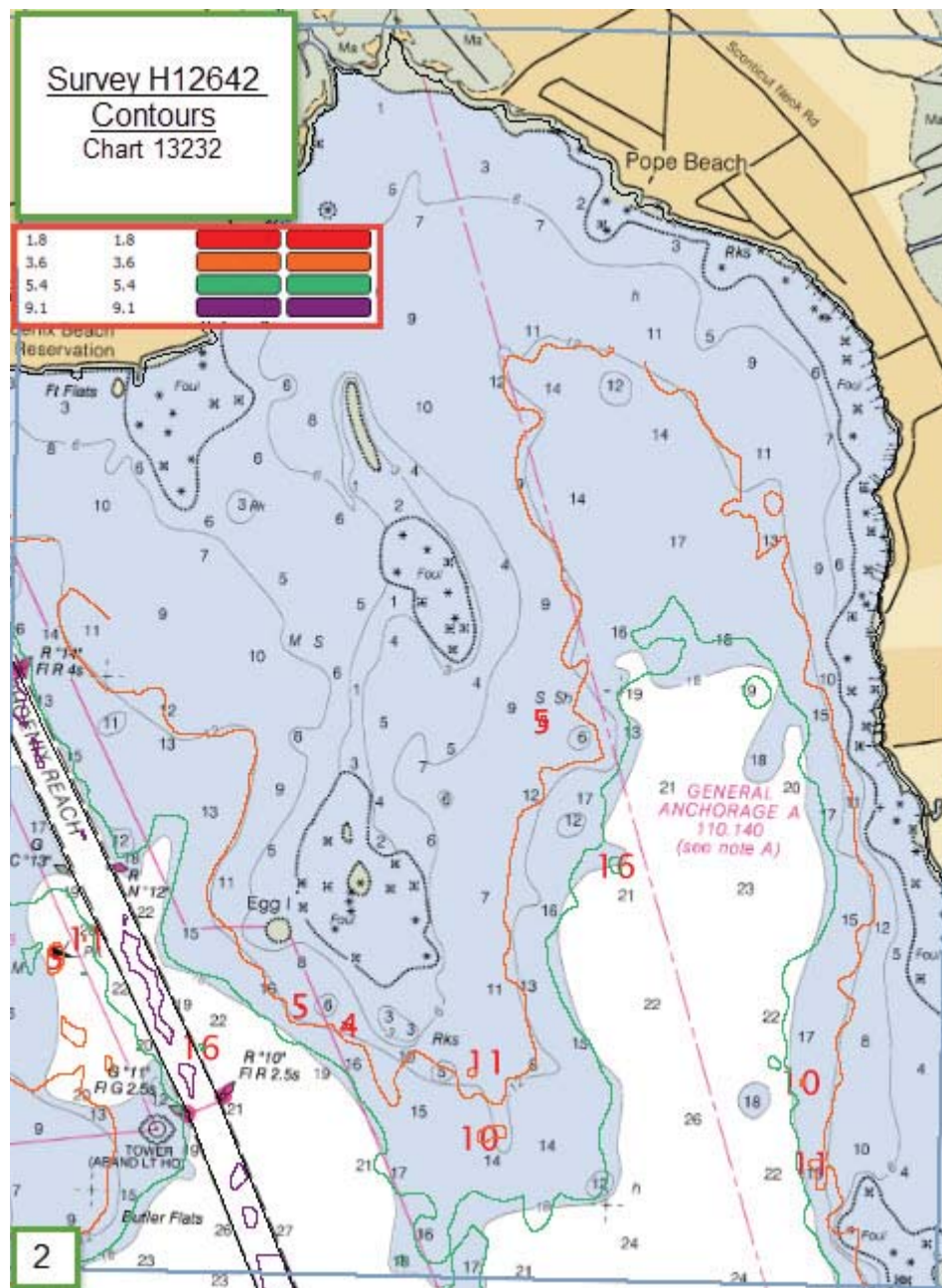


Figure 17: Area 2.

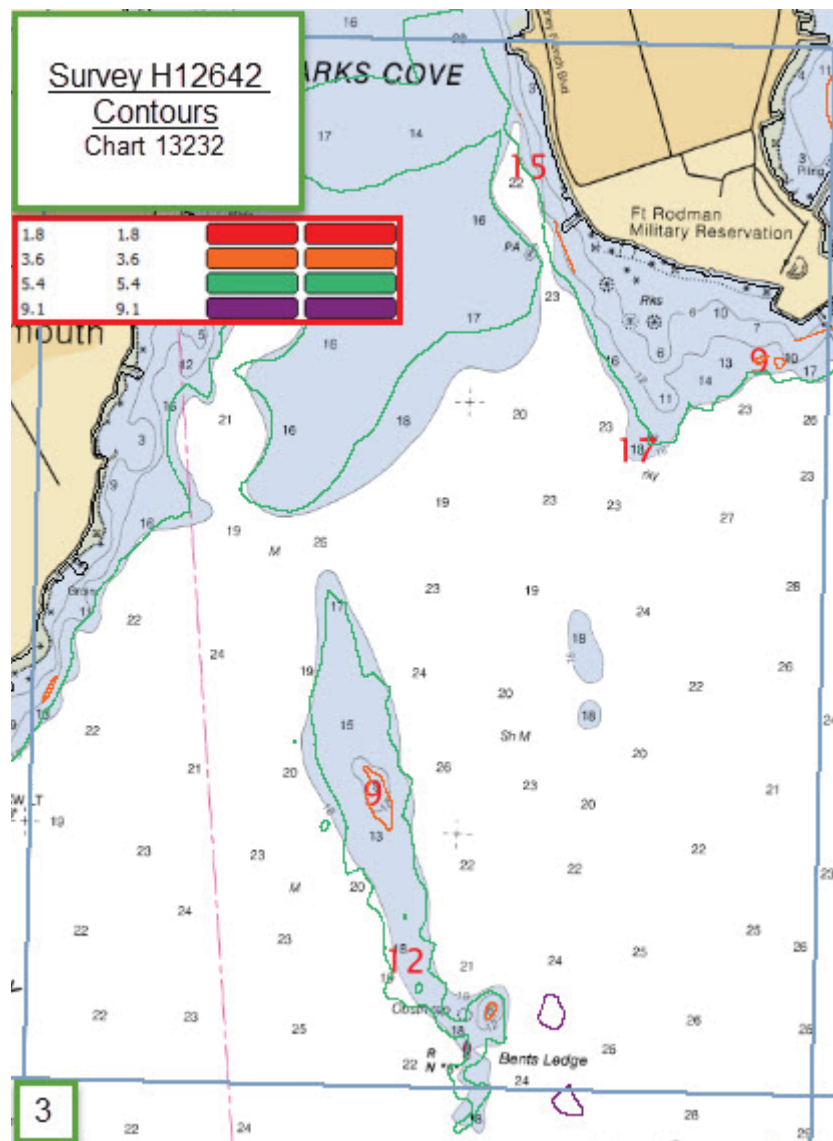


Figure 18: Area 3.

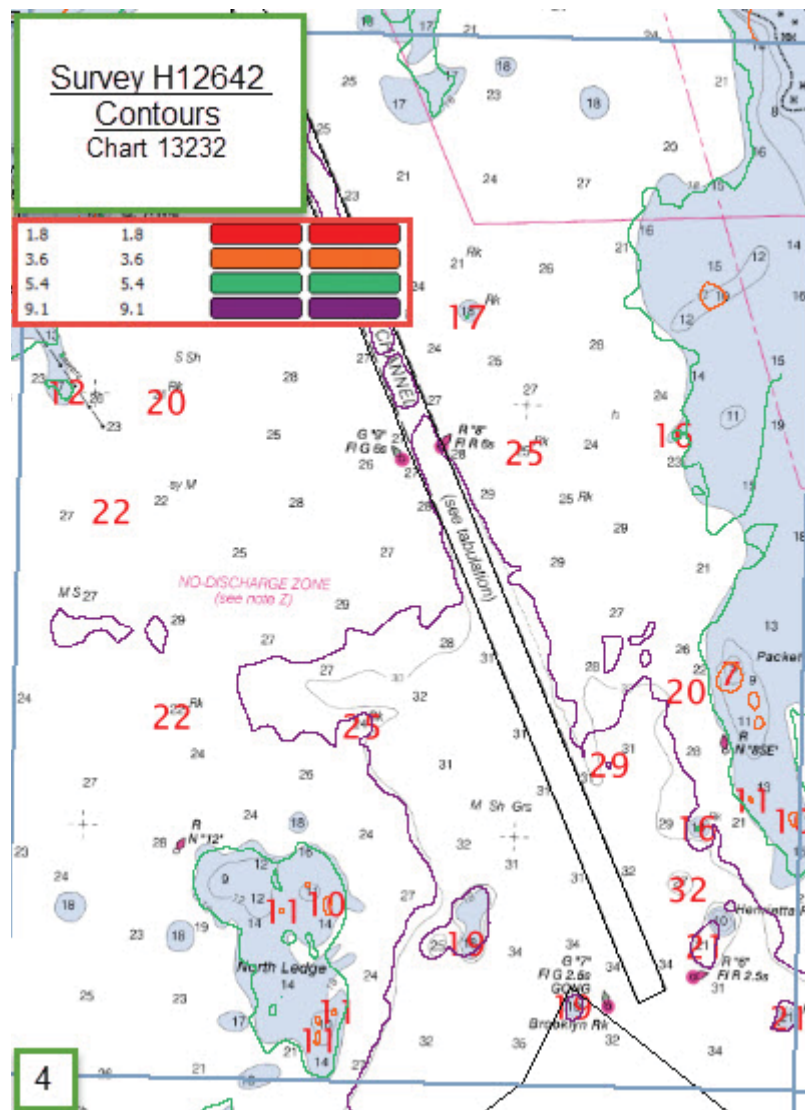


Figure 19: Area 4.

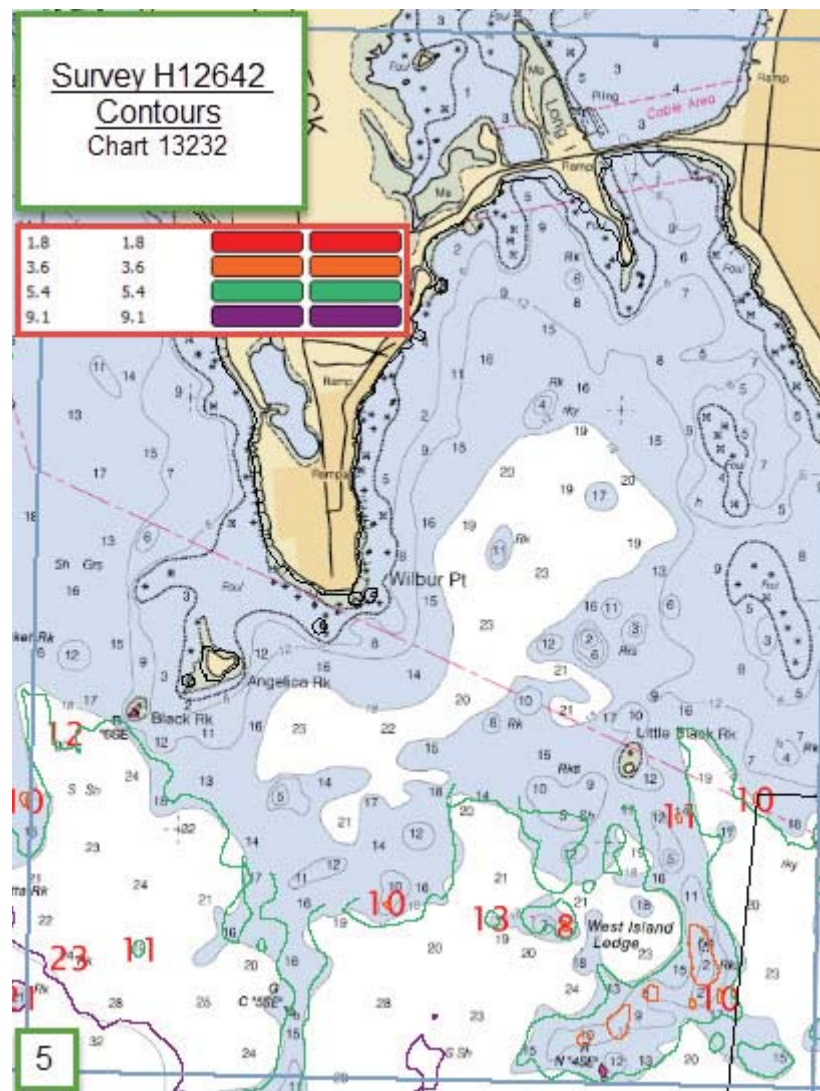


Figure 20: Area 5.

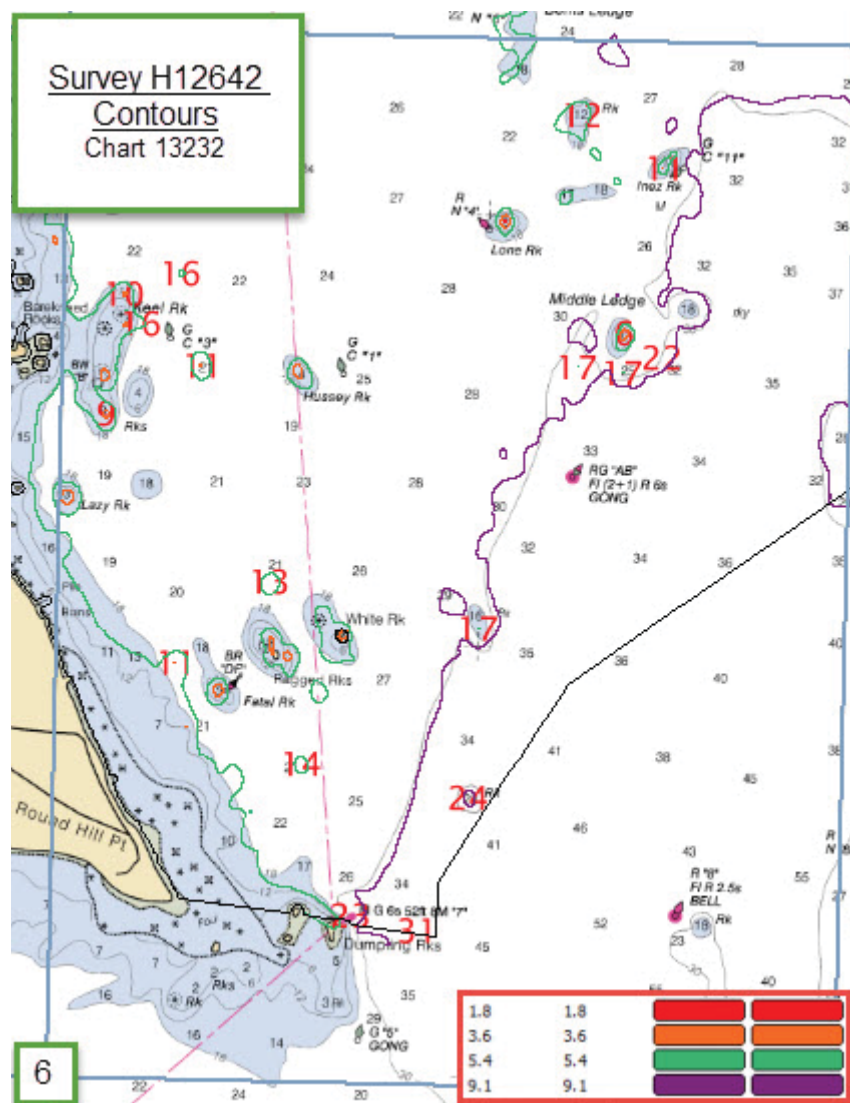


Figure 21: Area 6.

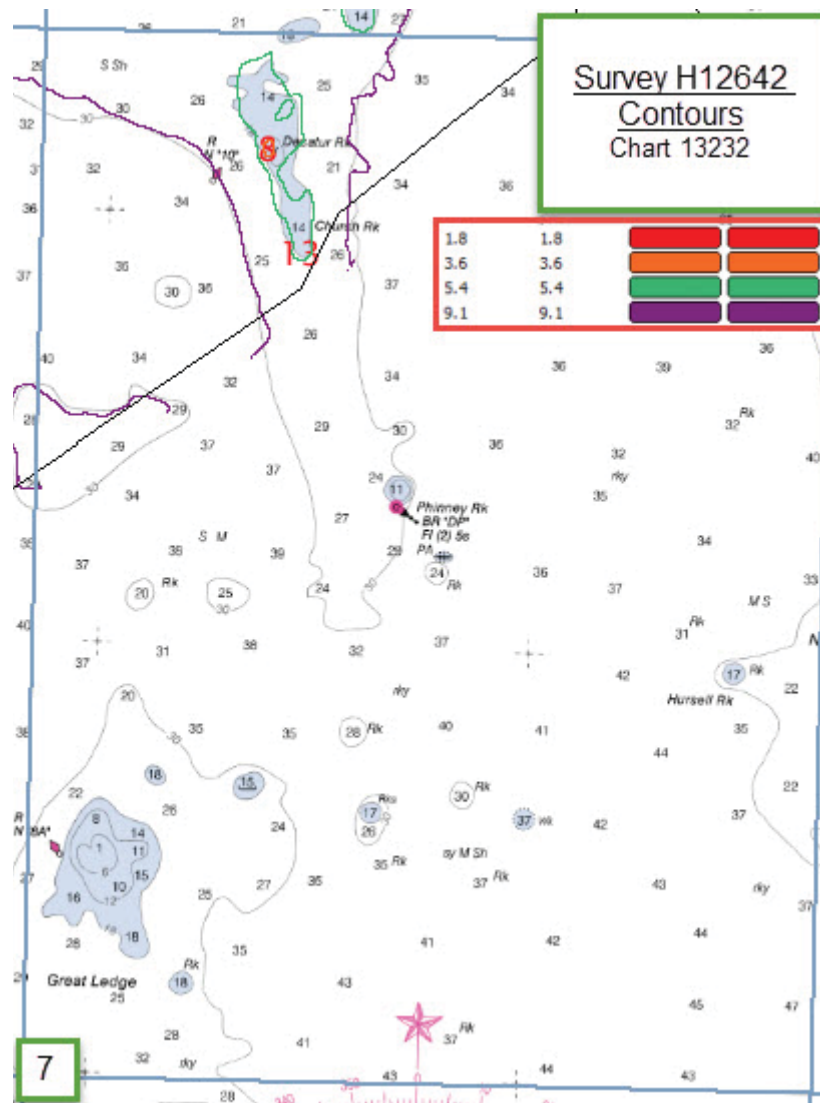


Figure 22: Area 7.

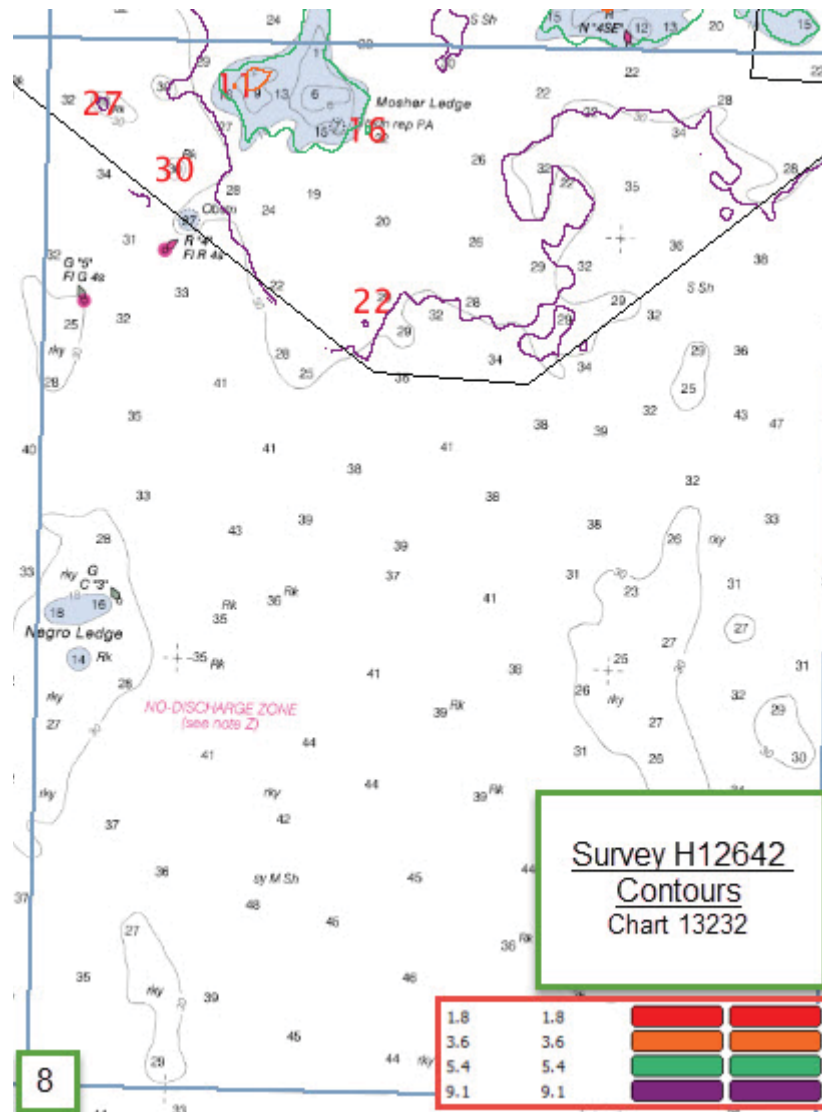


Figure 23: Area 8.

D.1.1 Raster Charts

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

Chart	Scale	Edition	Edition Date	LNМ Date	NM Date
13232	1:20000	5	11/2009	01/27/2015	02/07/2015

Table 16: Largest Scale Raster Charts

13232

Features and specific rocks or surveyed soundings shoal to charted values are highlighted in figures 15 to 23 above. Overall, contours based on surveyed values agree with charted values.

D.1.2 Electronic Navigational Charts

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

ENC	Scale	Edition	Update Application Date	Issue Date	Preliminary?
US5MA26M	1:20000	15	07/23/2014	02/03/2015	NO

Table 17: Largest Scale ENC's

US5MA26M

Features and specific rocks or surveyed soundings shoal to charted values are highlighted in figures 10 to 18 above. Overall, contours based on surveyed values agree with charted values.

D.1.3 Maritime Boundary Points

No Maritime Boundary Points were assigned for this survey.

D.1.4 Charted Features

Three charted features within the limits of H12642 contain PA, ED, PD, or Rep: two charted PA wrecks and one Obstruction rep. Refer to the final feature file submitted with this project for a full description.

D.1.5 Uncharted Features

No uncharted features exist for this survey.

D.1.6 Dangers to Navigation

The following DTON reports were submitted:

DTON Report Name	Date Submitted
H12642_DTON_1	2015-09-21

Table 18: DTON Reports

Danger to Navigation Report is included in Appendix II of this report.

D.1.7 Shoal and Hazardous Features

Several named rock ledges and rocks are present in survey H12642. HSLs were required to exercise extreme caution around these features and feature areas, but the data acquired is valid to supersede all previous surveys. Refer to the final feature file submitted with this project for a full description.

D.1.8 Channels

Contrary to project instructions, New Bedford Harbor Channel was included in survey H12642. Plans exist to dredge the channel in the near future. Sounding data from survey H12642 should not be charted.

D.1.9 Bottom Samples

No bottom samples were required for this survey.

D.2 Additional Results

D.2.1 Shoreline

Shoreline was assigned in the Hydrographic Survey Project Instructions, but was not investigated. Refer to the final feature file submitted with this report for a full description.

D.2.2 Prior Surveys

Part of survey H12642 was overlapped by survey H10530, which was surveyed by NOAA Ship RUDE in 1994 (Figure 24). Acknowledging charted soundings were updated from this prior survey, no further sounding comparison was conducted.

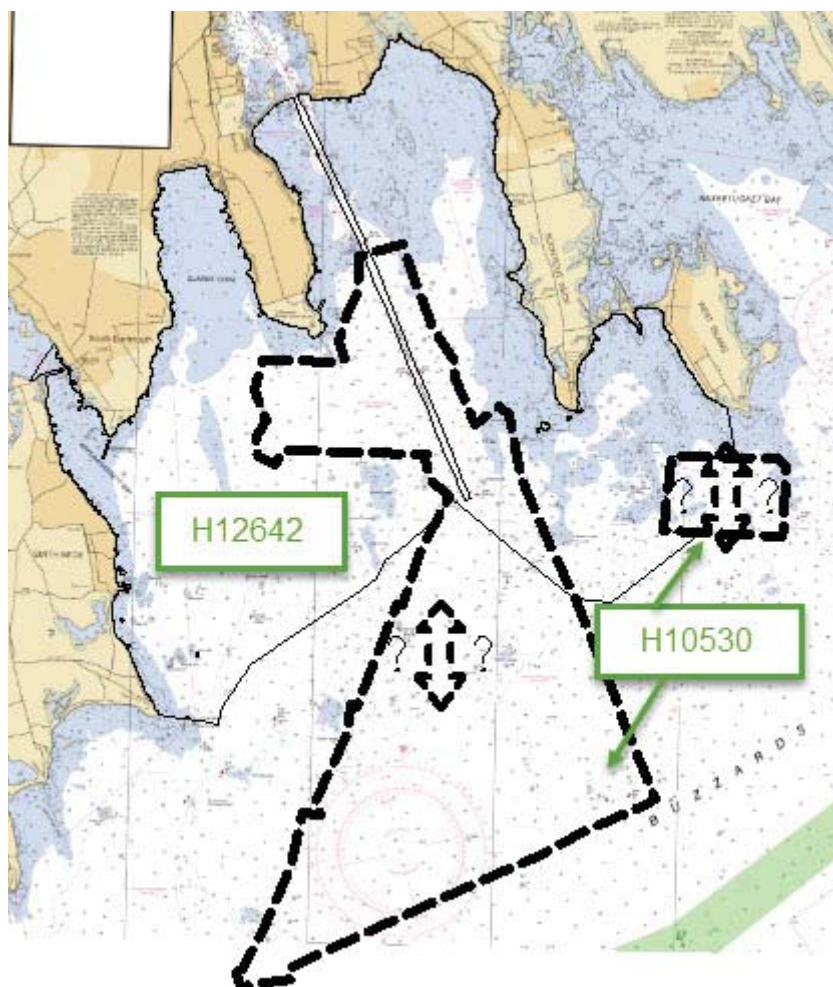


Figure 24: Prior survey H10530 (NOAA Ship RUDE, 1994) in relation to Survey H12642.

D.2.3 Aids to Navigation

All Aids to Navigation are positioned as charted and serving their intended purpose.

D.2.4 Overhead Features

No overhead features exist for this survey.

D.2.5 Submarine Features

Two charted sewer pipes run out southeasterly from the southern end of Clark's Point. Survey H12642 confirms they are charted correctly. Refer to the final feature file submitted with this project for a full description.

D.2.6 Ferry Routes and Terminals

No ferry routes or terminals exist for this survey.

D.2.7 Platforms

No platforms exist for this survey.

D.2.8 Significant Features

No significant features exist for this survey.

D.2.9 Construction and Dredging

Present and/or planned construction or dredging exists within the survey limits, specifically in the New Bedford Harbor Channel.

D.2.10 New Survey Recommendation

No new surveys or further investigations are recommended for this area.

D.2.11 Inset Recommendation




No new insets are recommended for this area.

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, 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
Shepard M. Smith, CAPT NOAA	Chief of Party	01/01/2016	 c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=NOAA, cn=SMITH.SHEPARD.M.10067789 30 2016.02.03 16:40:33 -05'00'
Joseph K. Carrier, LT NOAA	Field Operations Officer	01/01/2016	 DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=NOAA, cn=CARRIER.JOSEPH.KELSO.III.1 155373152 Date: 2016.02.04 13:59:55 Z
Allison C. Stone	Sheet Manager	01/01/2016	Allison Clare Stone  Digitally signed by Allison Clare Stone DN: cn=Allison Clare Stone, o=NOAA, ou=NOAA Ship Thomas Jefferson, email=allison.c.stone@noaa.gov, c=US Date: 2016.02.04 13:02:46 Z

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 Station
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
TPE	Total Propagated Error
TPU	Topside Processing Unit
USACE	United States Army Corps of Engineers
USCG	United States Coast Guard
UTM	Universal Transverse Mercator
XO	Executive Officer
ZDA	Global Positioning System timing message
ZDF	Zone Definition File

APPENDIX I

TIDES AND WATER LEVELS



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

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE : October 29, 2015

HYDROGRAPHIC BRANCH: Atlantic
HYDROGRAPHIC PROJECT: OPR-B367-TJ-2015 (Revised)
HYDROGRAPHIC SHEET: H12642

LOCALITY: Approaches to New Bedford, Buzzards Bay and Nantucket Sound, MA
TIME PERIOD: September 13 - October 10, 2015

TIDE STATION USED: 8449130 Nantucket Island, MA
Lat. 41° 17.1' N Long. 70° 05.8' W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 0.985 meters

TIDE STATION USED: 8452660 Newport, RI
Lat. 41° 30.3' N Long. 71° 19.6' W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 1.099 meters

REMARKS: RECOMMENDED GRID

Please use the TCARI grid "B367TJ2015_FTN.tc" as the final grid for project OPR-B367-TJ-2015 (Revised), H12642, during the time period of September 13 and October 10, 2015.

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.JR.1365860250

Digitally signed by
HOVIS.GERALD.THOMAS.JR.1365860250
DN: c=US, o=U.S. Government, ou=DoD, ou=PKI,
ou=OTHER,
cn=HOVIS.GERALD.THOMAS.JR.1365860250
Date: 2015.11.03 07:52:49 -05'00'

CHIEF, PRODUCTS AND SERVICES BRANCH



**Final TCARI Grid for
OPR-B367-TJ-2015 (Revised), H12642
Approaches to New Bedford, MA**

8452660 NEWPORT

8449130 NANTUCKET ISLAND



APPENDIX II

SUPPLEMENTAL SURVEY RECORDS
AND CORRESPONDENCE



Allison Stone - NOAA Federal <allison.c.stone@noaa.gov>

H12642 4m quandry

2 messages

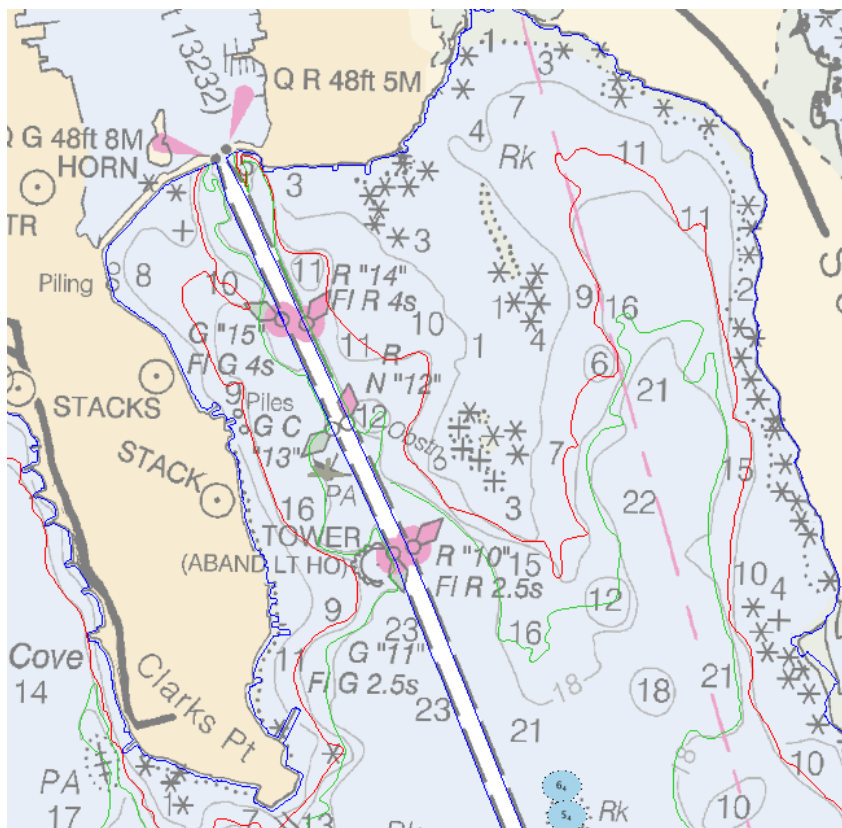
Allison Stone - NOAA Federal <allison.c.stone@noaa.gov>
To: Joseph Carrier - NOAA Federal <joseph.carrier@noaa.gov>

Tue, Jul 28, 2015 at 3:17 PM

FOO-

PI states to extend inshore coverage to the 4m contour North of Clark's Pt. Is this the extent of area of the channel or the whole area shown below?

Also, eventually we are going to need length and draft of the Z-boat and associated equipment for the DR.



V/r,

—
Allison C. Stone
Hydrographic Senior Survey Technician
NOAA Ship *Thomas Jefferson*

"Twenty years from now you will be more disappointed by the things that you didn't do than by the ones you did do. So throw off the bowlines. Sail away from the safe harbor. Catch the trade winds in your sails. Explore. Dream. Discover." Mark Twain

Joseph Carrier - NOAA Federal <joseph.carrier@noaa.gov>
To: Allison Stone - NOAA Federal <allison.c.stone@noaa.gov>

Tue, Jul 28, 2015 at 8:38 PM

FYI, Please put this in project correspondence and we can get more clarity on Sunday or Monday when Patrick

is on board TJ.

Very respectfully,
Joe Carrier, LT/NOAA

Field Operation's Officer, NOAA Ship *Thomas Jefferson*
439 West York Street
Norfolk, VA 23510
cell: (757) 647-0187
voip: (301) 713-7782
fax: (757) 512-8295
<http://www.moc.noaa.gov/tj/>

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

From: **Patrick Keown - NOAA Federal** <patrick.keown@noaa.gov>
Date: Tue, Jul 28, 2015 at 5:20 PM
Subject: Re: H12642 4m quandry
To: Joseph Carrier - NOAA Federal <joseph.carrier@noaa.gov>

Joe,

We would like to have both the left and right of the channel covered to the 4m curve. So this image would reflect the whole area that should be to 4m. Let me know if you have any other questions.

Thanks,

Patrick A. Keown
Chief (Acting), Customer Affairs Branch
NOS - OCS - NSD
National Oceanic Atmospheric Administration
Office: 301-713-2702 x 107
Cell: 301-789-3075
"Don't taunt the alligator until you've crossed the creek"

On Tue, Jul 28, 2015 at 12:32 PM, Joseph Carrier - NOAA Federal <joseph.carrier@noaa.gov> wrote:
Patrick,

TJ could use a little more guidance on the BB project. Where the PI's state to go to the 4m curve north of Clarks Point, does that only include the area adjacent to the channel or does it include the area to the right too?

Very respectfully,
Joe Carrier, LT/NOAA

Field Operation's Officer, NOAA Ship *Thomas Jefferson*
439 West York Street
Norfolk, VA 23510
cell: (757) 647-0187
voip: (301) 713-7782
fax: (757) 512-8295
<http://www.moc.noaa.gov/tj/>
[Quoted text hidden]

H12642 DtoN Report 1

Registry Number: H12642
State: Massachusetts
Locality: Buzzards Bay
Sub-locality: Approaches to New Bedford
Project Number: OPR-B367-TJ-15
Survey Dates: 13 September 2015 - September/ October 2015

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
13232	4th	06/30/2001	1:20,000 (13232_1)	[L]NTM: ?
13229	30th	04/01/2008	1:40,000 (13229_15) 1:40,000 (13229_10)	[L]NTM: ?
13230	49th	08/01/2008	1:40,000 (13230_1)	[L]NTM: ?
13218	40th	02/01/2008	1:80,000 (13218_1)	[L]NTM: ?
13200	36th	11/01/2008	1:400,000 (13200_1)	[L]NTM: ?
13009	33rd	05/01/2007	1:500,000 (13009_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	0_ 0000241996 00001	Wreck	1.67 m	41° 36' 30.1" N	070° 53' 53.5" W	---

1 - Dangers To Navigation

1.1) 0_ 0000241996 00001**DANGER TO NAVIGATION****Survey Summary**

Survey Position: 41° 36' 30.1" N, 070° 53' 53.5" W
Least Depth: 1.67 m (= 5.47 ft = 0.912 fm = 0 fm 5.47 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2015-260.17:46:37.000 (09/17/2015)
Dataset: H12642_DTON_1.000
FOID: 0_ 0000241996 00001(FFFE0003B14C0001)
Charts Affected: 13232_1, 13229_10, 13229_15, 13230_1, 13218_1, 13200_1, 13009_1, 13006_1, 5161_1, 13003_1

Remarks:

WRECKS/remrks: Update position and category of charted shipwreck. Wreck is no longer partially submerged, rather completely covered. New position found by side scan sonar and with new least depth found by object detection multibeam on Sept. 17th, 2015.

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12642_DTON_1.000	0_ 0000241996 00001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

5ft (13232_1, 13229_10, 13229_15, 13230_1, 13218_1)

0 ¾fm (13200_1, 13009_1, 13006_1, 13003_1)

1.6m (5161_1)

S-57 Data

Geo object 1: Wreck (WRECKS)
Attributes: CATWRK - 2:dangerous wreck
 QUASOU - 6:least depth known

SORDAT - 20150917

SORIND - US,US,graph,H12642

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

VALSOU - 1.668 m

WATLEV - 3:always under water/submerged

Feature Images

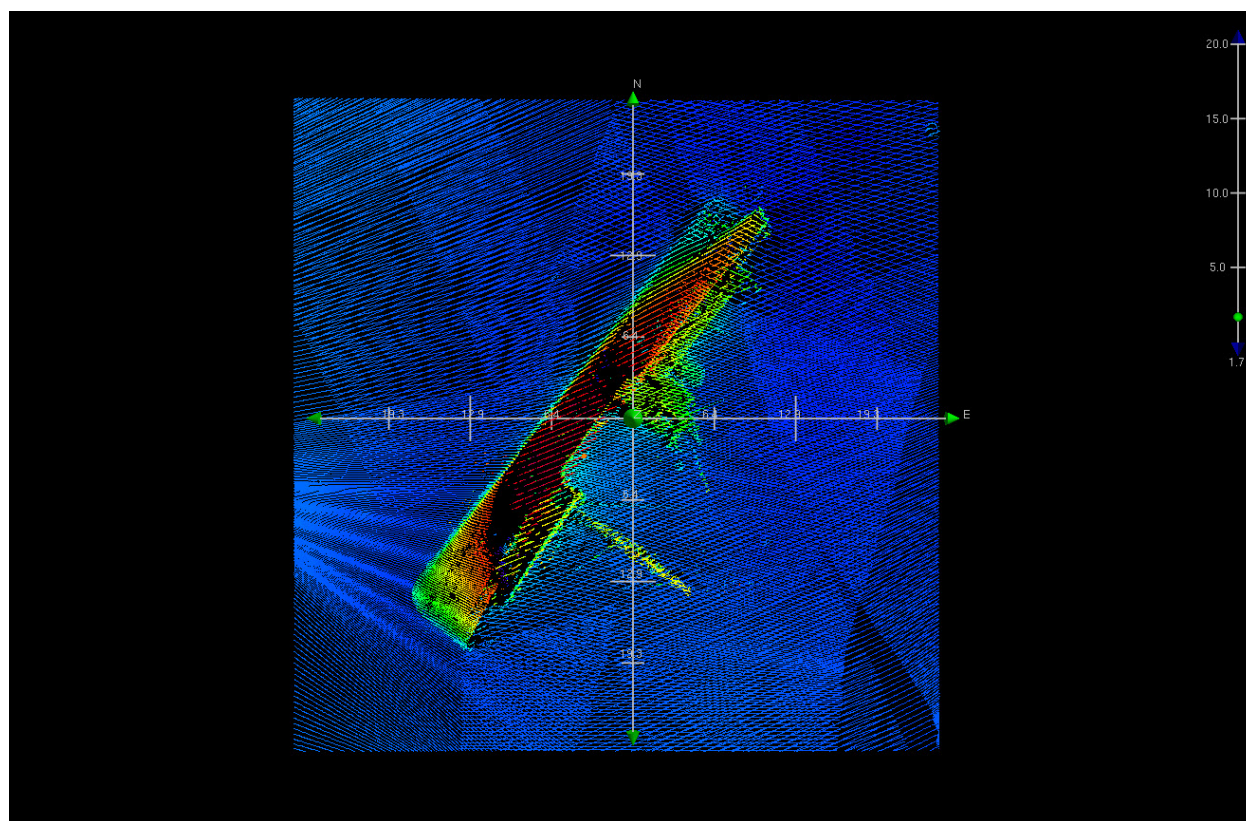


Figure 1.1.1

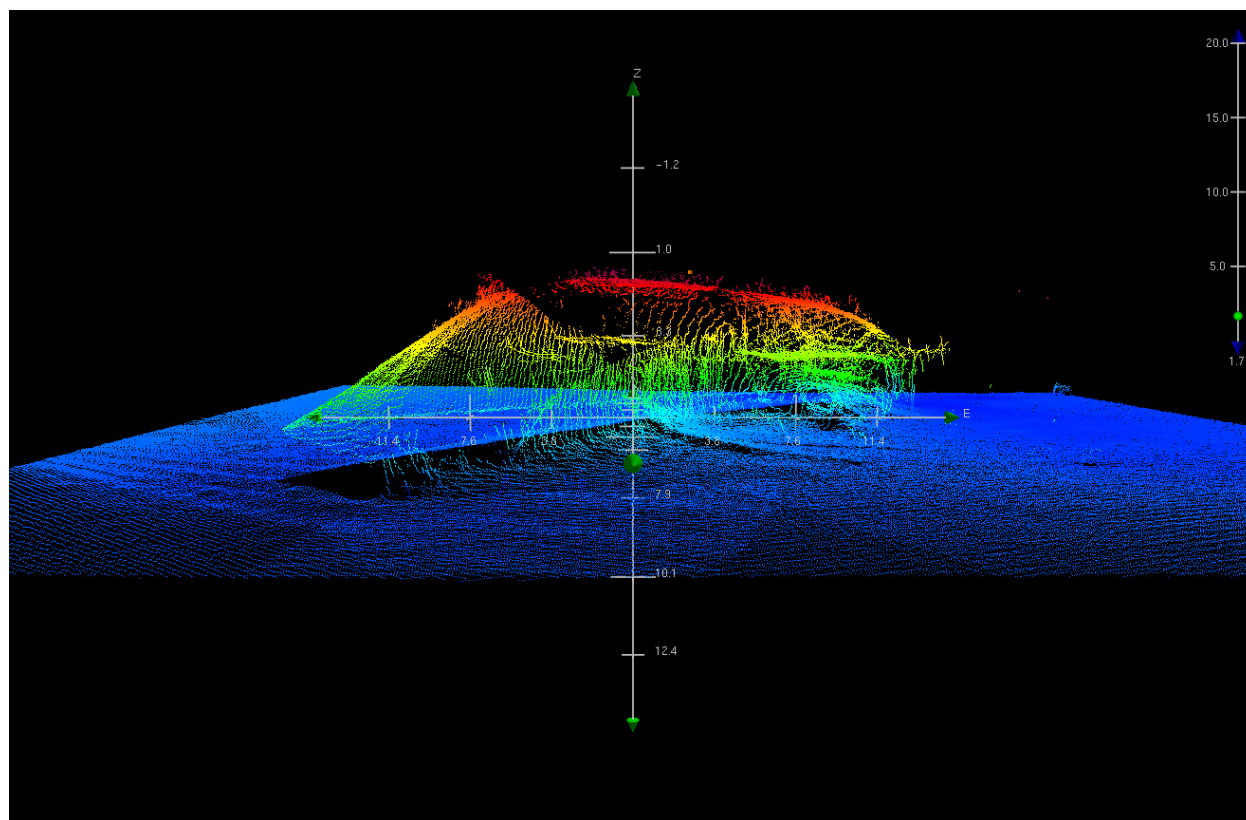


Figure 1.1.2

**Allison Stone - NOAA Federal** <allison.c.stone@noaa.gov>

H12642 - Request for Change to Requirements

7 messages

Matthew Forrest - NOAA Federal <matthew.r.forrest@noaa.gov>

Mon, Jan 11, 2016 at 4:18 PM

To: Patrick Keown - NOAA Federal <patrick.keown@noaa.gov>

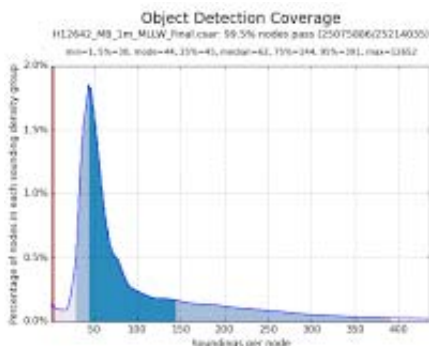
Cc: Matthew Jaskoski - NOAA Federal <matthew.jaskoski@noaa.gov>, Shep Smith - NOAA Federal <shep.smith@noaa.gov>, "OPS.Thomas Jefferson - NOAA Service Account" <ops.thomas.jefferson@noaa.gov>, "ChiefST.Thomas Jefferson - NOAA Service Account" <chiefst.thomas.jefferson@noaa.gov>, Allison Stone - NOAA Federal <allison.c.stone@noaa.gov>

Patrick,

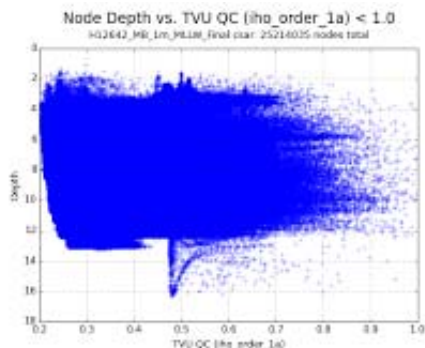
Upon discussion with LCDR Jaskoski, we would like to request an allowance for deviation from specifications for survey H12642, part of B-367-TJ-15.

It has been observed by the sheet manager that the 1m surface required by specs is not accurately honoring depths. A 50cm grid, however, was found to more accurately model the least depths over objects. While the normal course of action in this situation is to designate soundings over those areas, such action would result in 70-100 designated soundings throughout the survey. While density requirements for object detection were not met in deeper areas, there exists 200% side scan over these areas to show a lack of features, as well as sufficient soundings to accurately represent depths. In shallower areas, density specifications were exceeded, and features were developed appropriately. Our request, therefore, is to deliver to AHB a 50cm surface for H12642. There are no depths greater than 17m on the survey. In addition, I would like to inquire whether this 50cm surface is sufficient for charting purposes, or, should you approve this step, if we should deliver an additional 1m surface. I have attached the density histogram for a 50cm surface for the whole survey, showing 99.5% of nodes passing density requirements, as well as the plot of the uncertainty for the surface. Finally, there is attached a screengrab of the density layer, with the minimum value set to 1 and the maximum to 5 (the purple areas shown in it being areas where density exceeds 5 pings/node). Thank you!

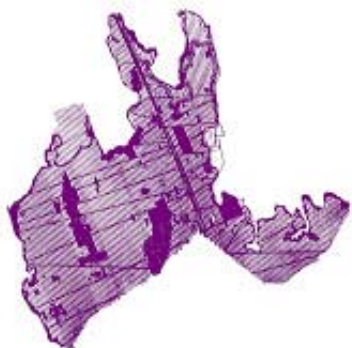
—
LT Matthew Forrest, NOAA
Operations Officer in Training
NOAA Ship Thomas Jefferson
439 W York St
Norfolk, VA 23510
Tel: (757) 647-0187
Iridium: (808) 434-2706

3 attachments

H12642_MB_1m_MLLW_Final_Density.png
44K



H12642_MB_1m_MLLW_Final_DepthVsTVU_QC.png
87K



H12642 Density.jpg
377K

Patrick Keown - NOAA Federal <patrick.keown@noaa.gov>

Wed, Jan 13, 2016 at 2:15 PM

To: Matthew Forrest - NOAA Federal <matthew.r.forrest@noaa.gov>

Cc: Matthew Jaskoski - NOAA Federal <matthew.jaskoski@noaa.gov>, Shep Smith - NOAA Federal <shep.smith@noaa.gov>, "OPS.Thomas Jefferson - NOAA Service Account" <ops.thomas.jefferson@noaa.gov>, "ChiefST.Thomas Jefferson - NOAA Service Account" <chiefst.thomas.jefferson@noaa.gov>, Allison Stone - NOAA Federal <allison.c.stone@noaa.gov>

Forrest,

One quick question...The first attachment shows the 99.5% of nodes passing like you stated but the file name in front of that is the 1m. Is that a typo?

Thanks,

Patrick A. Keown
Physical Scientist
Hydrographic Surveys Division
Office of Coast Survey, NOAA
Office: 301-713-2702 x 107
"Don't taunt the alligator until you've crossed the creek"
[Quoted text hidden]

LT Matthew Forrest, NOAA <matthew.r.forrest@noaa.gov>

Wed, Jan 13, 2016 at 4:10 PM

To: Patrick Keown - NOAA Federal <patrick.keown@noaa.gov>

Cc: Matthew Jaskoski - NOAA Federal <matthew.jaskoski@noaa.gov>, Shep Smith - NOAA Federal <shep.smith@noaa.gov>, "OPS.Thomas Jefferson - NOAA Service Account" <ops.thomas.jefferson@noaa.gov>, "ChiefST.Thomas Jefferson - NOAA Service Account" <chiefst.thomas.jefferson@noaa.gov>, Allison Stone - NOAA Federal <allison.c.stone@noaa.gov>

Patrick,

The wrong ones were originally produced; we'll have the correct ones shortly (we don't have power at the moment). Sorry about the mix-up.

V/r,

Forrest

[Quoted text hidden]

Patrick Keown - NOAA Federal <patrick.keown@noaa.gov>

Wed, Jan 13, 2016 at 4:17 PM

To: "LT Matthew Forrest, NOAA" <matthew.r.forrest@noaa.gov>

Cc: Matthew Jaskoski - NOAA Federal <matthew.jaskoski@noaa.gov>, Shep Smith - NOAA Federal <shep.smith@noaa.gov>, "OPS.Thomas Jefferson - NOAA Service Account" <ops.thomas.jefferson@noaa.gov>, "ChiefST.Thomas Jefferson - NOAA Service Account" <chiefst.thomas.jefferson@noaa.gov>, Allison Stone - NOAA Federal <allison.c.stone@noaa.gov>

No problem at all.

Patrick A. Keown
Physical Scientist
Hydrographic Surveys Division
Office of Coast Survey, NOAA
Office: 301-713-2702 x 107
"Don't taunt the alligator until you've crossed the creek"

[Quoted text hidden]

Allison Stone - NOAA Federal <allison.c.stone@noaa.gov>

Thu, Jan 14, 2016 at 12:19 PM

To: Patrick Keown - NOAA Federal <patrick.keown@noaa.gov>

Cc: "LT Matthew Forrest, NOAA" <matthew.r.forrest@noaa.gov>, Matthew Jaskoski - NOAA Federal <matthew.jaskoski@noaa.gov>, Shep Smith - NOAA Federal <shep.smith@noaa.gov>, "OPS.Thomas Jefferson - NOAA Service Account" <ops.thomas.jefferson@noaa.gov>, "ChiefST.Thomas Jefferson - NOAA Service Account" <chiefst.thomas.jefferson@noaa.gov>

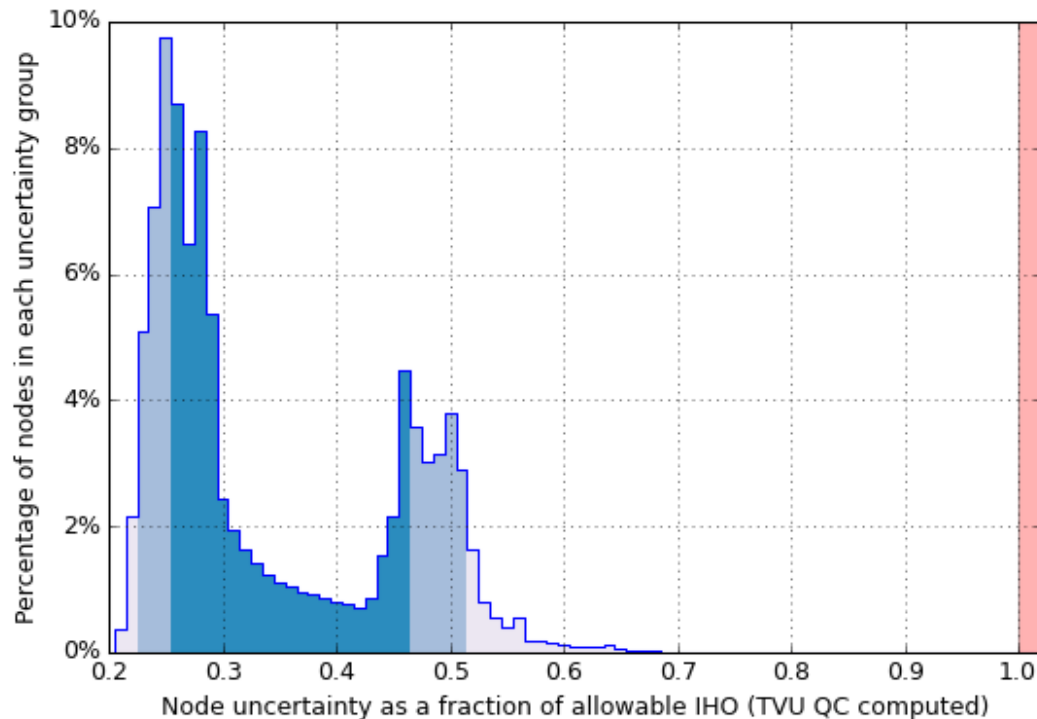
All-

Please find correct stats below. Sorry for the mix up...

Uncertainty Standards

H12642_MB_50cm_MLLW_Final.csar: >99.9% nodes pass (99410179/99412390)

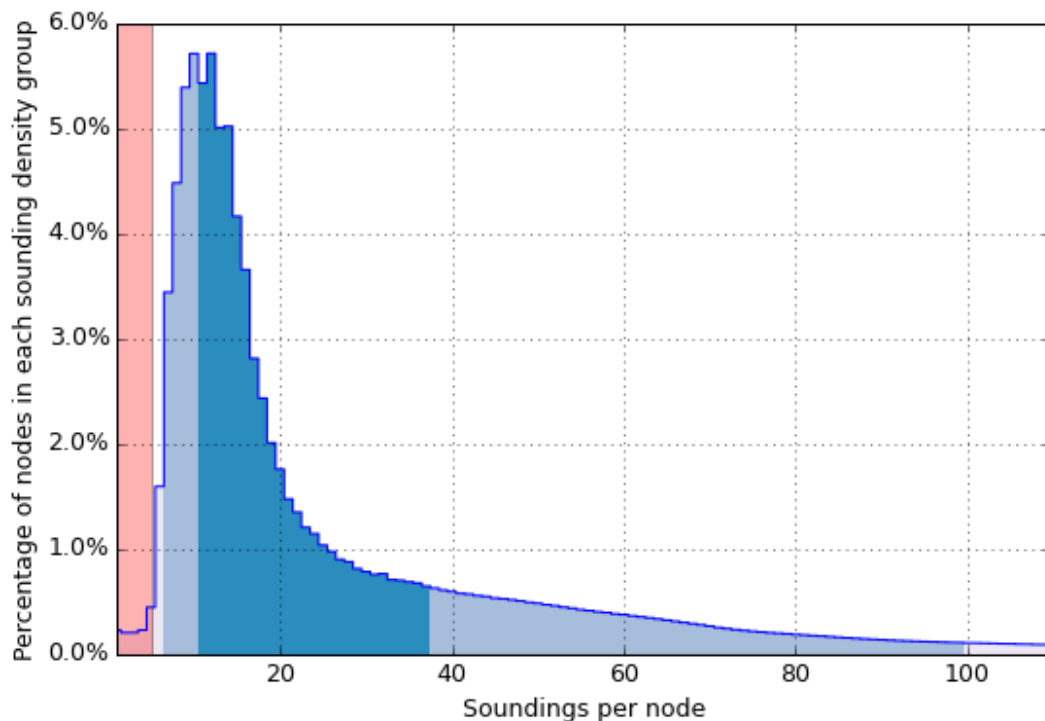
min=0.20, 5%=0.23, mode=0.25, 25%=0.25, median=0.29, 75%=0.46, 95%=0.52, max=3.71



Object Detection Coverage

H12642_MB_50cm_MLLW_Final.csar: 99.1% nodes pass (98540797/99412390)

min=1, 5%=7, 25%=11, mode=12, median=16, 75%=37, 95%=99, max=5068



Respectfully,

[Quoted text hidden]

-

Allison C. Stone
Hydrographic Senior Survey Technician

NOAA Ship Thomas Jefferson*"The sea, once it casts its spell, holds one in its net of wonder forever" Jacques Cousteau***Patrick Keown - NOAA Federal** <patrick.keown@noaa.gov>

Thu, Jan 14, 2016 at 3:09 PM

To: Allison Stone - NOAA Federal <allison.c.stone@noaa.gov>

Cc: "LT Matthew Forrest, NOAA" <matthew.r.forrest@noaa.gov>, Matthew Jaskoski - NOAA Federal <matthew.jaskoski@noaa.gov>, Shep Smith - NOAA Federal <shep.smith@noaa.gov>, "OPS.Thomas Jefferson - NOAA Service Account" <ops.thomas.jefferson@noaa.gov>, "ChiefST.Thomas Jefferson - NOAA Service Account" <chiefst.thomas.jefferson@noaa.gov>

Thanks,

I will get an answer by the end of the day.

Patrick A Keown

Physical Scientist

Hydrographic Surveys Division

Office of Coast Survey, NOAA

Office: 301-713-2702 x 107

"Don't taunt the alligator until you've crossed the creek"

On Jan 14, 2016, at 7:19 AM, Allison Stone - NOAA Federal <allison.c.stone@noaa.gov> wrote:

All-

Please find correct stats below. Sorry for the mix up...

<H12642_MB_50cm_MLLW_Final_TVU_QC.png>

<H12642_MB_50cm_MLLW_Final_Density.png>

Respectfully,

[Quoted text hidden]

Patrick Keown - NOAA Federal <patrick.keown@noaa.gov>

Thu, Jan 14, 2016 at 7:47 PM

To: Allison Stone - NOAA Federal <allison.c.stone@noaa.gov>

Cc: "LT Matthew Forrest, NOAA" <matthew.r.forrest@noaa.gov>, Matthew Jaskoski - NOAA Federal <matthew.jaskoski@noaa.gov>, Shep Smith - NOAA Federal <shep.smith@noaa.gov>, "OPS.Thomas Jefferson - NOAA Service Account" <ops.thomas.jefferson@noaa.gov>, "ChiefST.Thomas Jefferson - NOAA Service Account" <chiefst.thomas.jefferson@noaa.gov>

TJ,

Based on all the information presented, OPS concurs with the submission of the 50cm surface. With that said, all density requirements for the 50cm surface should be adhered to (which based on the stats provided they appear to). Please let me know if you have any other questions.

Thanks,

Patrick A. Keown

Physical Scientist

Hydrographic Surveys Division

Office of Coast Survey, NOAA

Office: 301-713-2702 x 107

"Don't taunt the alligator until you've crossed the creek"

1/20/2016

National Oceanic and Atmospheric Administration Mail - H12642 - Request for Change to Requirements

[Quoted text hidden]

From: [OCS NDB - NOAA Service Account](#)
To: [Joseph Carrier - NOAA Federal](#)
Cc: [Michael Gonsalves - NOAA Federal](#); [Matthew Jaskoski - NOAA Federal](#); [CO.Thomas Jefferson - NOAA Service Account](#); [OPS.Thomas Jefferson - NOAA Service Account](#); [Patrick Keown - NOAA Federal](#); [Meghan McGovern - NOAA Federal](#); [NSD Coast Pilot](#); [Benjamin K Evans - NOAA Federal](#); [Castle Parker - NOAA Federal](#); [James Crocker - NOAA Federal](#); [Matt Kroll - NOAA Federal](#); [Nautical Data Branch](#); [Tara Wallace - NOAA Federal](#); [Pearce Hunt - NOAA Federal](#); [_NOS OCS PBA Branch](#); [_NOS OCS PBB Branch](#); [_NOS OCS PBC Branch](#); [_NOS OCS PBD Branch](#); [_NOS OCS PBE Branch](#); [_NOS OCS PBG Branch](#)
Subject: Re: DTON: OPR-B367
Date: Monday, September 28, 2015 4:27:15 PM
Attachments: [H12642 DTON 1.zip](#)
[H12642 DtoN 1 chartlet.pdf](#)

L-1435/15 and DD-26782 have been registered by the Nautical Data Branch and directed to Products Branch C for processing.

The DtoN reported is a submerged wreck located west of Fort Phoenix Reach of New Bedford Harbor Channel, MA.

The following charts are affected:

13232 kapp 2893

13229 kapp 2122

13230 kapp 2112

13218 kapp 2139

The following ENC's are affected:
US5MA26M

US4MA23M

References:
H12642

OPR-B367-TJ-15

This information was discovered and submitted by the crew of the NOAA Ship *Thomas Jefferson*.

Nautical Data Branch/Marine Chart Division/
Office of Coast Survey/National Ocean Service/
Contact: ocs.ndb@noaa.gov



On Fri, Sep 25, 2015 at 7:49 PM, Joseph Carrier - NOAA Federal <joseph.carrier@noaa.gov> wrote:

Hello,

TJ found a possible DTON on OPR-B367, near the entrance to New Bedford. Attached is the DTON report. The wreck is a known obstruction however it is not marked. The local Marine Patrol unit mentioned that sometimes there are buoys attached to the wreck however they don't last. Below is a news article about the wreck.

<http://www.southcoasttoday.com/article/19990911/News/309119991>

Please let me know if you have any further questions.

Very respectfully,
Joe Carrier, LT/NOAA

Field Operation's Officer, NOAA Ship *Thomas Jefferson*
439 West York Street
Norfolk, VA 23510
cell: [\(757\) 647-0187](tel:(757)647-0187)
voip: [\(541\) 867-8927](tel:(541)867-8927)
fax: [\(757\) 512-8295](tel:(757)512-8295)
<http://www.moc.noaa.gov/tj/>

From: [OCS NDB - NOAA Service Account](#)
To: [Joseph Carrier - NOAA Federal](#)
Cc: [Michael Gonsalves - NOAA Federal](#); [Matthew Jaskoski - NOAA Federal](#); [CO.Thomas Jefferson - NOAA Service Account](#); [OPS.Thomas Jefferson - NOAA Service Account](#); [Patrick Keown - NOAA Federal](#); [Meghan McGovern - NOAA Federal](#); [NSD Coast Pilot](#); [Benjamin K Evans - NOAA Federal](#); [Castle Parker - NOAA Federal](#); [James Crocker - NOAA Federal](#); [Matt Kroll - NOAA Federal](#); [Nautical Data Branch](#); [Tara Wallace - NOAA Federal](#); [Pearce Hunt - NOAA Federal](#); [_NOS OCS PBA Branch](#); [_NOS OCS PBB Branch](#); [_NOS OCS PBC Branch](#); [_NOS OCS PBD Branch](#); [_NOS OCS PBE Branch](#); [_NOS OCS PBG Branch](#)
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H12642

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This information was discovered and submitted by the crew of the NOAA Ship *Thomas Jefferson*.

Nautical Data Branch/Marine Chart Division/
Office of Coast Survey/National Ocean Service/
Contact: ocs.ndb@noaa.gov



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<http://www.southcoasttoday.com/article/19990911/News/309119991>

Please let me know if you have any further questions.

Very respectfully,
Joe Carrier, LT/NOAA

Field Operation's Officer, NOAA Ship *Thomas Jefferson*
439 West York Street
Norfolk, VA 23510
cell: [\(757\) 647-0187](tel:(757)647-0187)
voip: [\(541\) 867-8927](tel:(541)867-8927)
fax: [\(757\) 512-8295](tel:(757)512-8295)
<http://www.moc.noaa.gov/tj/>

From: [Castle Parker - NOAA Federal](#)
To: [David Vejar - NOAA Federal](#)
Cc: [Briana Hillstrom - NOAA Federal \(Briana.Hillstrom@noaa.gov\)](#)
Subject: USACE Inquiry in the New Bedford, MA Channel: Entrance Channel Reach
Date: Thursday, June 7, 2018 10:37:00 AM

Hello and good day David,

I am currently working on a SAR revision of TJ survey H12642, part of project OPR-B367-TJ-15 and have observed a feature that is located in the New Bedford Entrance Channel that exceeds the tabulated depth of 29.4ft, dated 7/19/2015 from a USACE survey MA_60_NBH_20150720_CS_40 dated 7/19/2015. The chart tabulations indicates the source report is OCT 2015 and surveys from SEP 2015. The issue for me is that the TJ survey was dated 9/13/15 to 10/10/15 and includes a side scan contact and MBES data associated with the feature with a least depth of 28.619ft that exceeds the channel depth limit. My inquiry is whether you know or can find out if there is dredging that has occurred, or there is another USACE survey that is dated after the TJ's survey and would supersede the TJ survey depth. I have checked USACE eHydro and found the survey listed above that is prior to the TJ survey.

Information regarding the feature follows:

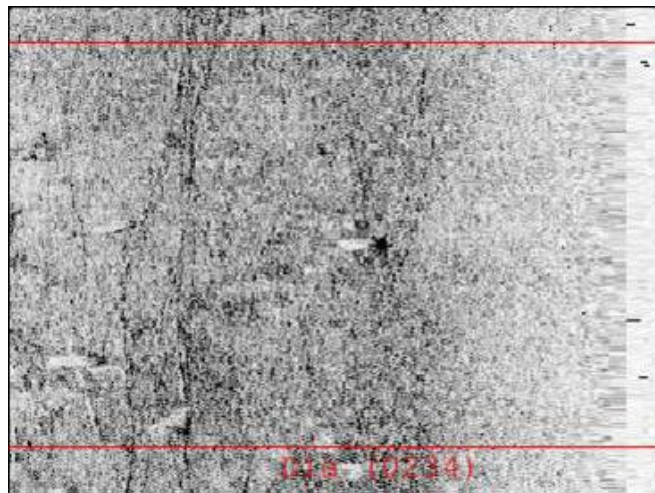
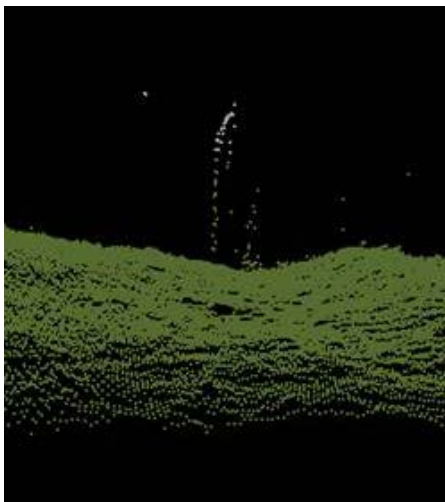
SS contact and MBES feature located in New Bedford Entrance Channel tabulated limit of 29.199ft ENC; RNC 29.4ft date 7/15; survey 10/15. One contact selected by TJ, two selected during SAR-2; top of feature was rejected in swath editor. Located in 41-35-40.460N 070-53-14.424W with a depth of 28.619ft/8.723m; feature rise above the sea floor 0.75m; 0.394m difference between grid and rejected least depth. TPU for 8.723m = 0.513m TPU, sounding designation is 0.256m at the minimum. If there are no other USACE data to supersede the TJ data, proper action would be to reaccept the rejected soundings, designate the least depth, and re-grid.

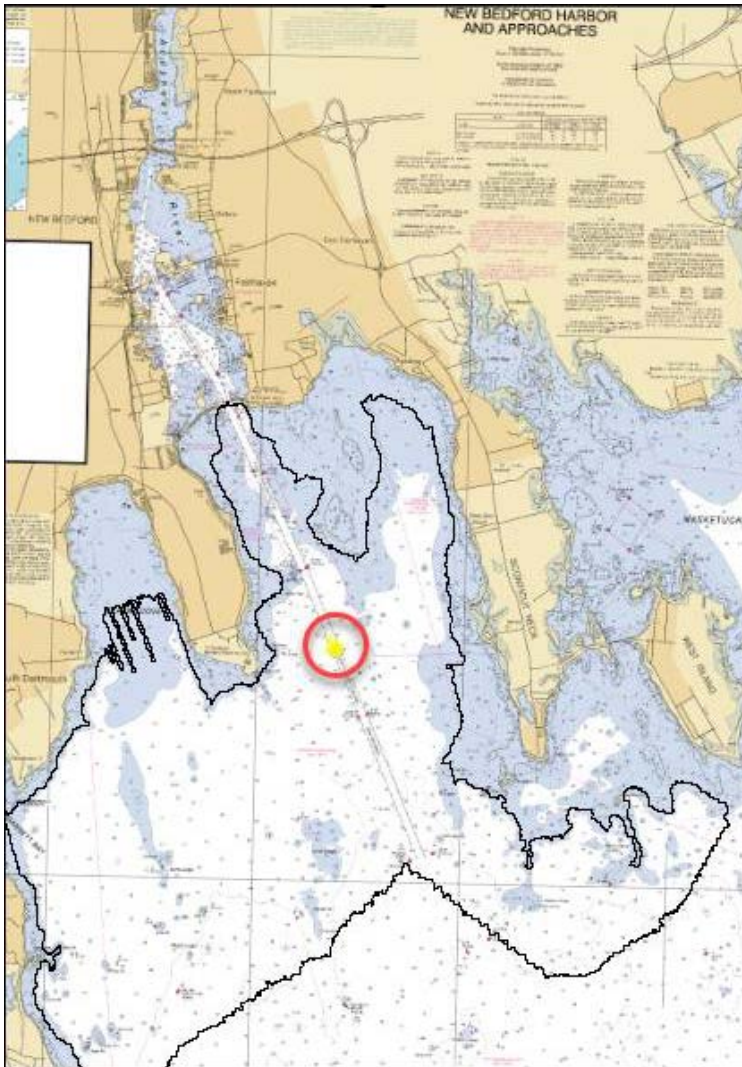
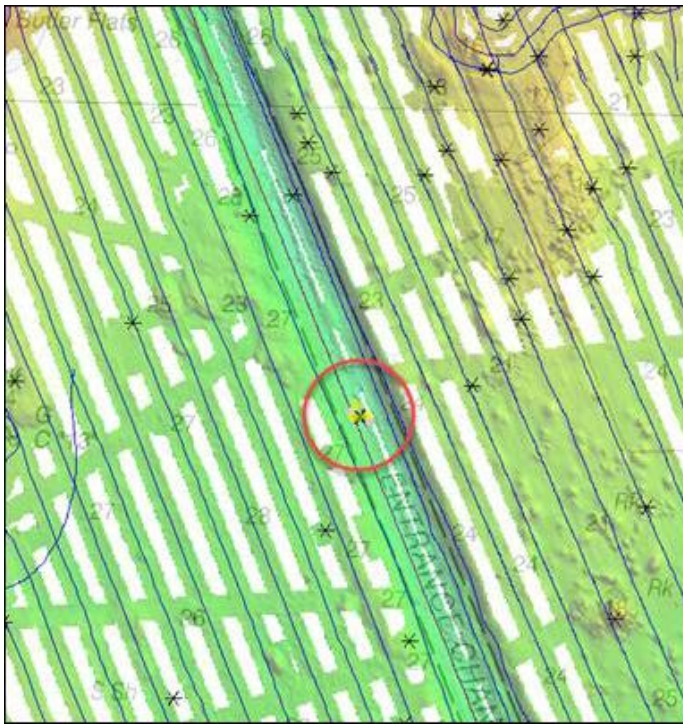
I am requesting that you confer with the USACE New England District about this feature. I need to know a direction to take; if there is not another USACE survey for this area, I will have to reaccept the rejected data, updated the bathymetric grid, and submit a DtoN based upon three year old data.

Appreciate your input with this situation.

Regards,
Gene Parker

Castle Eugene Park
NOAA Office of Coast Survey
Atlantic Hydrographic Branch
Hydrographic Team Lead / Physical Scientist
castle.e.parker@noaa.gov
office (757) 364-7472





NEW BEDFORD HARBOR CHANNEL DEPTHS
 TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF OCT 2015
 AND SURVEYS TO SEP 2015

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)					PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)
ENTRANCE CHANNEL	29.4A	29.4	29.3A	7-15	350	2.27	30
FORT PHOENIX REACH	29.3	29.2	29.0	7-15	350-150	1.34	30
NEW BEDFORD REACH	25.8A	26.5B	24.1A	7;9-15	150-350	1.11	30

A. DEPTHS UP TO 2.7 FEET LESS THAN REPORTED EXIST WITHIN 20 FEET OF CHANNEL LIMIT.

B. EXCEPT FOR SHOALING TO 18.3 FEET THROUGH THE WEST DRAW.

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION



Deborah Bland - NOAA Federal <deborah.a.bland@noaa.gov>

Re: USACE Inquiry in the New Bedford, MA Channel: Entrance Channel Reach1 message

Briana Hillstrom - NOAA Federal <briana.hillstrom@noaa.gov>

Tue, Jun 12, 2018 at 7:51 AM

To: David Vejar - NOAA Federal <david.vejar@noaa.gov>

Cc: Castle Parker - NOAA Federal <castle.e.parker@noaa.gov>, Edward Owens - NOAA Federal <edward.owens@noaa.gov>, Deborah Bland - NOAA Federal <deborah.a.bland@noaa.gov>

Thanks for the update, David. This survey is going to compilation this week and we'll need to decide if/how to chart it in the next few weeks.

Many thanks,

Bri

On Mon, Jun 11, 2018 at 4:06 PM, David Vejar - NOAA Federal <david.vejar@noaa.gov> wrote:

Hi Bri

I emailed USACE New England about this last week. I'll follow up with another one if I don't hear back in a couple more days.

VR

David

On Mon, Jun 11, 2018 at 15:55 Briana Hillstrom - NOAA Federal <briana.hillstrom@noaa.gov> wrote:

Hi David,

Are you able to take this issue up with New England district? It's roughly a 28' foot obstruction in a channel with a 29' controlling depth, but the data is fairly old (2015) and USACE may have something more recent though we didn't see it on ehydro.

Thanks,

Bri

On Thu, Jun 7, 2018 at 10:37 AM, Castle Parker - NOAA Federal <castle.e.parker@noaa.gov> wrote:

Hello and good day David,

I am currently working on a SAR revision of TJ survey H12642, part of project OPR-B367-TJ-15 and have observed a feature that is located in the New Bedford Entrance Channel that exceeds the tabulated depth of 29.4ft, dated 7/19/2015 from a USACE survey MA_60_NBH_20150720_CS_40 dated 7/19/2015. The chart tabulations indicates the source report is OCT 2015 and surveys from SEP 2015. The issue for me is that the TJ survey was dated 9/13/15 to 10/10/15 and includes a side scan contact and MBES data associated with the feature with a least depth of 28.619ft that exceeds the channel depth limit. My inquiry is whether you know or can find out if there is dredging that has occurred, or there is another USACE survey that is dated after the TJ's survey and would supersede the TJ survey depth. I have checked USACE eHydro and found the survey listed above that is prior to the TJ survey.

Information regarding the feature follows:

SS contact and MBES feature located in New Bedford Entrance Channel tabulated limit of 29.199ft ENC; RNC 29.4ft date 7/15; survey 10/15. One contact selected by TJ, two selected during SAR-2; top of feature was rejected in swath editor. Located in 41-35-40.460N 070-53-14.424W with a depth of 28.619ft/8.723m; feature rise above the sea floor 0.75m; 0.394m difference between grid and rejected least depth. TPU for 8.723m = 0.513m TPU, sounding designation is 0.256m at

the minimum. If there are no other USACE data to supersede the TJ data, proper action would be to reaccept the rejected soundings, designate the least depth, and re-grid.

I am requesting that you confer with the USACE New England District about this feature. I need to know a direction to take; if there is not another USACE survey for this area, I will have to reaccept the rejected data, updated the bathymetric grid, and submit a DtoN based upon three year old data.

Appreciate your input with this situation.

Regards,

Gene Parker

Castle Eugene Park

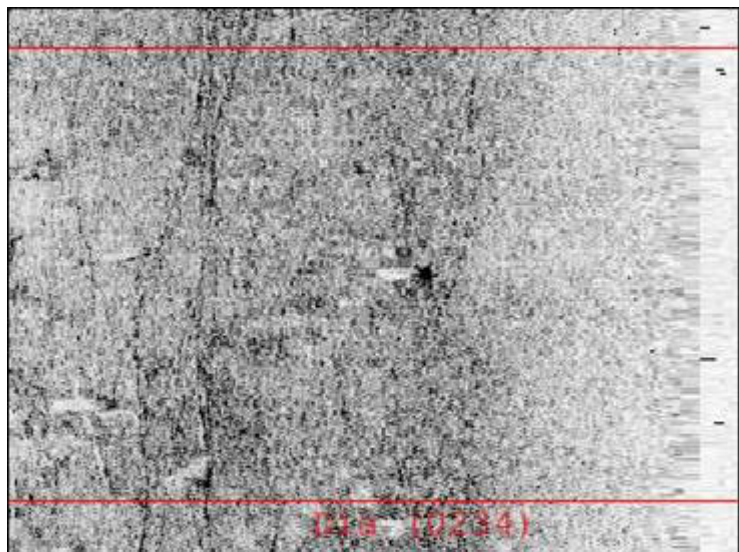
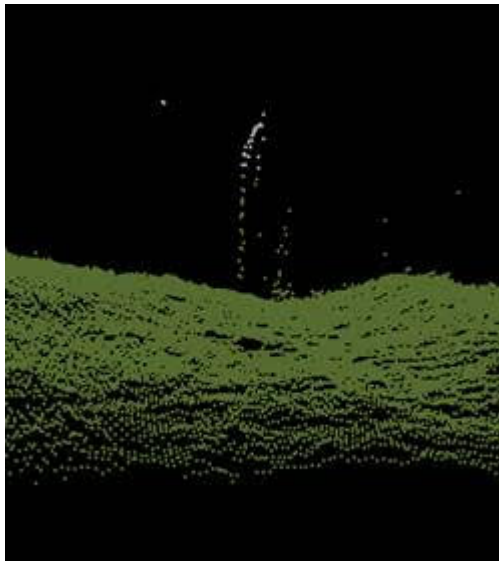
NOAA Office of Coast Survey

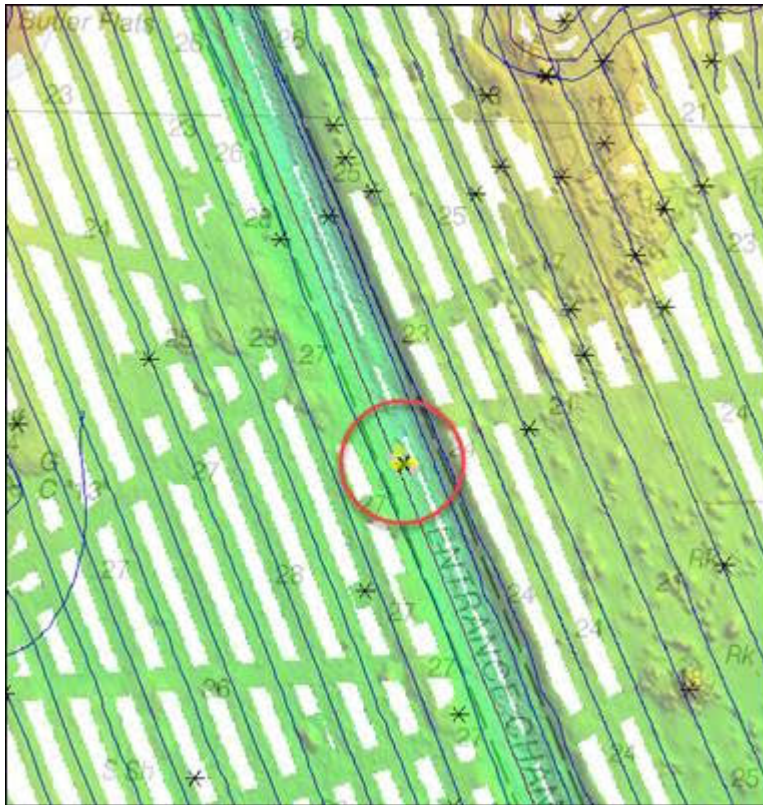
Atlantic Hydrographic Branch

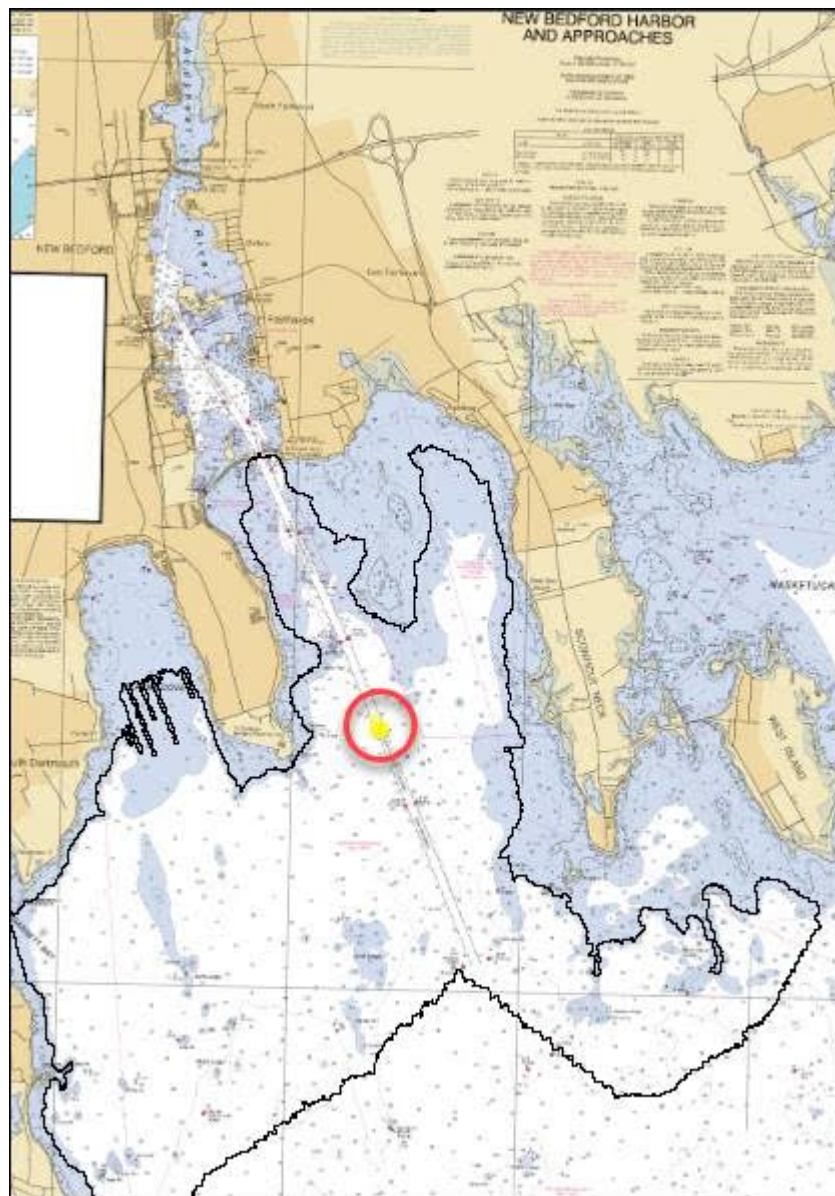
Hydrographic Team Lead / Physical Scientist

castle.e.parker@noaa.gov

office (757) 364-7472







NEW BEDFORD HARBOR CHANNEL DEPTHS TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF OCT 2015 AND SURVEYS TO SEP 2015							
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)					PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)
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A. DEPTHS UP TO 2.7 FEET LESS THAN REPORTED EXIST WITHIN 20 FEET OF CHANNEL LIMIT. B. EXCEPT FOR SHOALING TO 18.3 FEET THROUGH THE WEST DRAW. NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION							

--

CDR Briana Welton Hillstrom, NOAA
Office of Coast Survey
Chief, Atlantic Hydrographic Branch
[439 W York St, Norfolk, VA 23510](#)
[office: 757-364-7460](#)
[cell: 520-227-9269](#)

--

Very Respectfully,

David O. Vejar LT/NOAA
Northeast Navigation Manager
Customer Affairs Branch
Office of Coast Survey
[28 Tarzwell Drive](#)
[Narragansett, RI 02882](#)
Tel: (401) 782-3252
Fax: (401) 782-3292
Cell: (401) 545-0174

--

CDR Briana Welton Hillstrom, NOAA
Office of Coast Survey
Chief, Atlantic Hydrographic Branch
[439 W York St, Norfolk, VA 23510](#)
[office: 757-364-7460](#)
[cell: 520-227-9269](#)



Deborah Bland - NOAA Federal <deborah.a.bland@noaa.gov>

Conflicts in New Bedford Harbor Entrance Channel

7 messages

Deborah Bland - NOAA Federal <deborah.a.bland@noaa.gov>

Tue, Aug 1, 2017 at 3:03 PM

To: Meghan McGovern - NOAA Federal <meghan.mcgovern@noaa.gov>, Owens Edward <Edward.Owens@noaa.gov>, Briana Hillstrom - NOAA Federal <Briana.Hillstrom@noaa.gov>

Good Afternoon Megan,

There were several depth discrepancies between the tabulated depths in the New Bedford Harbor Channel and hydrographic survey H12642. According to the ENC for this area, the dredged depths are from surveys to September 2015. Data for Survey H12642 was collected from September to October 2015. Would you give these a look and notify the Corps of Engineers if deemed necessary and please follow up to let me know how if any of these need to be addressed on our end. Attached is a file outlining the problems found. This survey was compared to NOS Chart 13232.

Thank you,

Deborah A. Bland
Cartographer, NOAA Office of Coast Survey
Atlantic Hydrographic Branch
Office 757-364-7454
Cell 757-636-1265

**Conflicts in the New Bedford Harbor Entrance Channel.docx**796K

Meghan McGovern - NOAA Federal <meghan.mcgovern@noaa.gov>

Wed, Aug 2, 2017 at 8:04 AM

To: Deborah Bland - NOAA Federal <deborah.a.bland@noaa.gov>

Cc: Owens Edward <Edward.Owens@noaa.gov>, Briana Hillstrom - NOAA Federal <Briana.Hillstrom@noaa.gov>

Thank you Deborah,

Just to make sure I'm understanding - there is relatively minor shoaling (less than ~1ft) throughout, with some larger differences at the edges of the channel. Strictly within the channel, the largest differences are those in bold: 24 and 26 on page 6 of the attachment? The rest I'm seeing in the channel are the 29's.

Just want to make sure I understand before I speak with USACE.

Regards,
Meghan

[Quoted text hidden]

--

Meghan McGovern, LCDR/NOAA
Navigation Manager, Northeast Region
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



Deborah Bland - NOAA Federal <deborah.a.bland@noaa.gov>
To: Meghan McGovern - NOAA Federal <meghan.mcgovern@noaa.gov>

Wed, Aug 2, 2017 at 8:08 AM

Good morning,

Yes, most of the shoals are less than 1 foot, but in those specified the shoaling is greater and almost always near the channel edge. I pointed them all out, though, because they are still in conflict with the published depths and just wanted to cover ourselves.

Thank you,

Deborah A. Bland
Cartographer, NOAA Office of Coast Survey
Atlantic Hydrographic Branch
Office 757-364-7454
Cell 757-636-1265

[Quoted text hidden]

Meghan McGovern - NOAA Federal <meghan.mcgovern@noaa.gov>
To: Deborah Bland - NOAA Federal <deborah.a.bland@noaa.gov>

Wed, Aug 2, 2017 at 8:09 AM

Okay great, I'll pass the info to USACE and will loop-back to you if they have any feedback or action for us. Thanks!

[Quoted text hidden]

Deborah Bland - NOAA Federal <deborah.a.bland@noaa.gov>
To: Meghan McGovern - NOAA Federal <meghan.mcgovern@noaa.gov>

Wed, Aug 2, 2017 at 8:11 AM

Ok, Thank you very much.

Thank you,

Deborah A. Bland
Cartographer, NOAA Office of Coast Survey
Atlantic Hydrographic Branch
Office 757-364-7454
Cell 757-636-1265

[Quoted text hidden]

Briana Hillstrom - NOAA Federal <briana.hillstrom@noaa.gov>
To: Meghan McGovern - NOAA Federal <meghan.mcgovern@noaa.gov>
Cc: Deborah Bland - NOAA Federal <deborah.a.bland@noaa.gov>, Owens Edward <Edward.Owens@noaa.gov>

Wed, Aug 2, 2017 at 1:45 PM

The PIs for this survey state the following:

Registry Details:						
General Locality: Buzzards Bay and Nantucket Sound						
Registry Number	Priority	Sublocality	State or Territory	Scale	Estimated SNM	Instructions
H12642	1	Approaches to New Bedford	Massachusetts	10000	15	Extend inshore limit of hydrography to 4m in the entrance channel to New Bedford in the area north of Clarks Pt. Due to future dredging plans, DO NOT acquire data within the limits of the maintained New Bedford Harbor Channel.

On Wed, Aug 2, 2017 at 8:04 AM, Meghan McGovern - NOAA Federal <meghan.mcGovern@noaa.gov> wrote:

[Quoted text hidden]

--

LCDR Briana Welton Hillstrom, NOAA

Office of Coast Survey

Chief, Atlantic Hydrographic Branch

439 W York St, Norfolk, VA 23510

office: **NEW OFFICE PHONE #: 757-364-7460** (old: 757-441-6746, ext 200)

cell: 520-227-9269

Deborah Bland - NOAA Federal <deborah.a.bland@noaa.gov>

Tue, Jul 10, 2018 at 4:17 PM

To: Briana Hillstrom - NOAA Federal <Briana.Hillstrom@noaa.gov>, david.vejar@noaa.gov, Owens Edward <Edward.Owens@noaa.gov>, Parker Castle <Castle.E.Parker@noaa.gov>, "Bland, Deborah" <Deborah.A.Bland@noaa.gov>

David,

These items were brought to the attention of Meghan, but there was never a reply. If you can help me out with how to handle these, it would be greatly appreciated.

Deborah A. Bland
Cartographer, NOAA Office of Coast Survey
Atlantic Hydrographic Branch
Office 757-364-7454
Cell 757-636-1265

[Quoted text hidden]

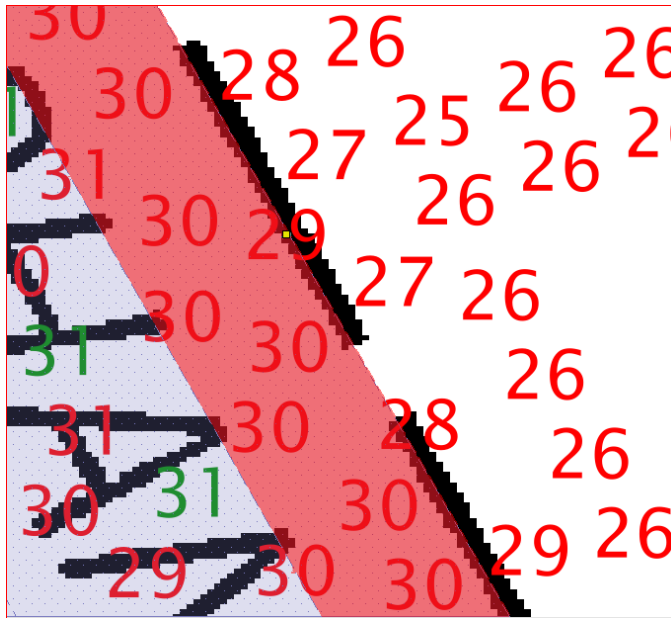


Conflicts in the New Bedford Harbor Entrance Channel.docx
796K

Conflicts exist between present survey depths and tabulated depths in the New Bedford Harbor Entrance Channel. Tabulated depths in the channel are 29.4 in the Left outside Quarter (LOQ) but the present survey found a depth of 26.903 feet in Latitude 41-35-36.1968N, Longitude 070-53-13.7526W.



Conflicts exist between present survey depths and tabulated depths in the New Bedford Harbor Entrance Channel. Tabulated depths in the channel are 29.3 in the Right outside Quarter (ROQ) but the present survey found a depth of 28.871 feet in Latitude 41-35-24.711N, Longitude 070-02.361W and several depths of 29.1 along the outside edge.



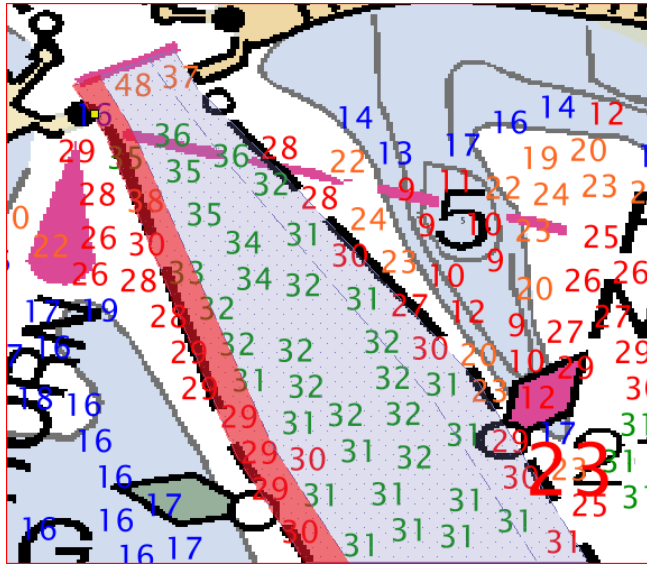
Selection						
Feature ID	Acronym	Name	Geometry	Latitude	Longitude	Depth [^]
US 000198...	DRGARE	Dredged ...	Area			
US 000191...	SOUNDG	Sounding	Sounding	41-35-24.711000N	070-53-02.361120W	28.871
US 000192...	SOUNDG	Sounding	Sounding	41-35-35.630880N	070-53-08.725560W	29.199
US 000191...	SOUNDG	Sounding	Sounding	41-35-52.076760N	070-53-18.189240W	29.199
US 000191...	SOUNDG	Sounding	Sounding	41-35-17.899800N	070-52-58.535400W	29.199
US 000193...	SOUNDG	Sounding	Sounding	41-36-02.610360N	070-53-24.371160W	29.199
US 000193...	SOUNDG	Sounding	Sounding	41-35-59.271000N	070-53-22.373160W	29.199
US 000193...	SOUNDG	Sounding	Sounding	41-36-06.206040N	070-53-26.549520W	29.199
US 000191...	SOUNDG	Sounding	Sounding	41-35-20.599440N	070-52-59.995920W	29.199
US 000191...	SOUNDG	Sounding	Sounding	41-35-15.459360N	070-52-57.082080W	29.199

Conflicts exist between present survey depths and tabulated depths in the New Bedford Harbor Entrance Channel. Tabulated depths in the channel are 29.4 in the Middle Half of the Channel (MH) but the present survey found two depths of 28.543 feet and a depth of 28.871 feet and several depths of 29.1 along the center of the channel.

Selection						
Feature ID	Acronym	Name	Geometry	Latitude	Longitude	Depth [^]
US 000198...	DRGARE	Dredged ...	Area			
US 000191...	SOUNDG	Sounding	Sounding	41-35-21.968880N	070-53-03.490800W	28.543
US 000193...	SOUNDG	Sounding	Sounding	41-36-10.167840N	070-53-30.121080W	28.543
US 000191...	SOUNDG	Sounding	Sounding	41-36-09.496800N	070-53-31.484040W	28.871
US 000191...	SOUNDG	Sounding	Sounding	41-36-08.465400N	070-53-31.108200W	29.199
US 000191...	SOUNDG	Sounding	Sounding	41-36-12.323160N	070-53-33.121680W	29.199
US 000191...	SOUNDG	Sounding	Sounding	41-36-11.548080N	070-53-32.926200W	29.199
US 000191...	SOUNDG	Sounding	Sounding	41-36-14.890320N	070-53-34.752120W	29.199
US 000191...	SOUNDG	Sounding	Sounding	41-36-07.822800N	070-53-30.743880W	29.199
US 000191...	SOUNDG	Sounding	Sounding	41-36-14.250600N	070-53-34.215000W	29.199
US 000193...	SOUNDG	Sounding	Sounding	41-36-03.455280N	070-53-28.197240W	29.199
US 000191...	SOUNDG	Sounding	Sounding	41-35-26.866680N	070-53-05.361000W	29.199
US 000193...	SOUNDG	Sounding	Sounding	41-36-05.379840N	070-53-29.463000W	29.199
US 000193...	SOUNDG	Sounding	Sounding	41-36-06.537960N	070-53-30.015240W	29.199
US 000193...	SOUNDG	Sounding	Sounding	41-36-07.183440N	070-53-30.206760W	29.199
US 000191...	SOUNDG	Sounding	Sounding	41-36-12.962880N	070-53-33.658800W	29.199
US 000193...	SOUNDG	Sounding	Sounding	41-36-04.740120N	070-53-28.925880W	29.199
US 000193...	SOUNDG	Sounding	Sounding	41-36-04.097520N	070-53-28.561560W	29.199
US 000191...	SOUNDG	Sounding	Sounding	41-36-10.136520N	070-53-32.021160W	29.199
US 000191...	SOUNDG	Sounding	Sounding	41-36-10.773360N	070-53-32.730720W	29.199
US 000191...	SOUNDG	Sounding	Sounding	41-36-13.605120N	070-53-34.023120W	29.199
US 000193...	SOUNDG	Sounding	Sounding	41-36-06.030720N	070-53-29.309280W	29.199
US 000193...	SOUNDG	Sounding	Sounding	41-36-02.812680N	070-53-27.832920W	29.199
US 000191...	SOUNDG	Sounding	Sounding	41-35-33.531360N	070-53-10.219560W	29.199

Conflicts exist between present survey depths and tabulated depths in the New Bedford Harbor Fort

Phoenix Reach Channel. Tabulated depths in the channel are 29.3 in the Left outside Quarter (LOQ) but the present survey found a depth of 16.076 feet in Latitude 41-37-27.261N, Longitude 070-54-21.810W and several depths shoaler than 29.3 throughout the Left Outside Quarter.



Selection						
Feature ID	Acronym	Name	Geometry	Latitude	Longitude	Depth [^]
US 000198...	DRGARE	Dredged ...	Area			
US 000193...	SOUNDG	Sounding	Sounding	41-37-27.261120N	070-54-21.810240W	16.076
US 000193...	SOUNDG	Sounding	Sounding	41-36-39.517920N	070-53-51.371160W	28.215
US 000191...	SOUNDG	Sounding	Sounding	41-36-19.756440N	070-53-38.523120W	28.215
US 000191...	SOUNDG	Sounding	Sounding	41-36-18.978840N	070-53-38.500440W	28.543
US 000191...	SOUNDG	Sounding	Sounding	41-36-29.627280N	070-53-45.551400W	28.543
US 000193...	SOUNDG	Sounding	Sounding	41-36-38.613240N	070-53-51.171720W	28.543
US 000193...	SOUNDG	Sounding	Sounding	41-36-40.284360N	070-53-52.085040W	28.543
US 000193...	SOUNDG	Sounding	Sounding	41-36-41.183280N	070-53-52.629720W	28.543
US 000191...	SOUNDG	Sounding	Sounding	41-36-18.206640N	070-53-38.132160W	28.543
US 000191...	SOUNDG	Sounding	Sounding	41-36-15.769080N	070-53-36.505680W	28.543
US 000193...	SOUNDG	Sounding	Sounding	41-36-35.530560N	070-53-49.353360W	28.543
US 000193...	SOUNDG	Sounding	Sounding	41-36-32.707080N	070-53-47.542560W	28.543
US 000193...	SOUNDG	Sounding	Sounding	41-36-25.141320N	070-53-42.309600W	28.871
US 000191...	SOUNDG	Sounding	Sounding	41-36-15.126840N	070-53-36.141360W	28.871
US 000191...	SOUNDG	Sounding	Sounding	41-36-16.541280N	070-53-36.873960W	28.871
US 000191...	SOUNDG	Sounding	Sounding	41-36-17.440200N	070-53-37.418640W	28.871
US 000193...	SOUNDG	Sounding	Sounding	41-36-43.750080N	070-53-54.260520W	28.871
US 000193...	SOUNDG	Sounding	Sounding	41-36-47.215800N	070-53-56.436000W	28.871
US 000191...	SOUNDG	Sounding	Sounding	41-36-27.967680N	070-53-43.947600W	28.871
US 000191...	SOUNDG	Sounding	Sounding	41-36-28.857960N	070-53-45.010320W	28.871
US 000191...	SOUNDG	Sounding	Sounding	41-36-21.799440N	070-53-40.483680W	28.871
US 000193...	SOUNDG	Sounding	Sounding	41-36-42.597720N	070-53-53.362680W	28.871
US 000191...	SOUNDG	Sounding	Sounding	41-36-21.295080N	070-53-39.604920W	28.871
US 000191...	SOUNDG	Sounding	Sounding	41-36-20.263680N	070-53-39.229080W	28.871
US 000191...	SOUNDG	Sounding	Sounding	41-36-30.272760N	070-53-45.743280W	28.871
US 000193...	SOUNDG	Sounding	Sounding	41-36-41.825520N	070-53-52.994400W	28.871
US 000193...	SOUNDG	Sounding	Sounding	41-36-27.063000N	070-53-43.748160W	28.871
US 000193...	SOUNDG	Sounding	Sounding	41-36-26.423640N	070-53-43.211040W	28.871
US 000193...	SOUNDG	Sounding	Sounding	41-36-23.211000N	070-53-41.389080W	28.871
US 000193...	SOUNDG	Sounding	Sounding	41-36-23.853600N	070-53-41.753400W	28.871
US 000193...	SOUNDG	Sounding	Sounding	41-36-24.499080N	070-53-41.945280W	28.871
US 000193...	SOUNDG	Sounding	Sounding	41-36-25.781040N	070-53-42.846720W	28.871
US 000193...	SOUNDG	Sounding	Sounding	41-36-34.124400N	070-53-48.102360W	28.871
US 000193...	SOUNDG	Sounding	Sounding	41-36-31.171320N	070-53-46.287960W	28.871
US 000193...	SOUNDG	Sounding	Sounding	41-36-31.808160N	070-53-46.997880W	28.871
US 000193...	SOUNDG	Sounding	Sounding	41-36-34.767000N	070-53-48.467040W	28.871
US 000193...	SOUNDG	Sounding	Sounding	41-36-36.308520N	070-53-49.376040W	28.871
US 000193...	SOUNDG	Sounding	Sounding	41-36-33.352560N	070-53-47.734440W	29.199
US 000191...	SOUNDG	Sounding	Sounding	41-36-52.346880N	070-53-59.870040W	29.199
US 000191...	SOUNDG	Soundina	Soundina	41-36-52.989480N	070-54-00.234720W	29.199

Conflicts exist between present survey depths and tabulated depths in the New Bedford Harbor Fort

Phoenix Reach Channel. Tabulated depths in the channel are 29.0 in the Right outside Quarter (ROQ) but the present survey found two depths of 24.606 and several depths shoaler than 29.0 feet mostly along the outer edge.

Selection						
Feature ID	Acronym	Name	Geometry	Latitude	Longitude	Depth [^]
US 000198...	DRGARE	Dredged ...	Area			
US 000191...	SOUNDG	Sounding	Sounding	41-36-20.980080N	070-53-35.102760W	24.606
US 000193...	SOUNDG	Sounding	Sounding	41-36-45.489600N	070-53-51.027720W	24.606
US 000191...	SOUNDG	Sounding	Sounding	41-37-04.481040N	070-54-03.337560W	25.919
US 000193...	SOUNDG	Sounding	Sounding	41-36-37.661760N	070-53-45.959640W	26.247
US 000193...	SOUNDG	Sounding	Sounding	41-36-28.935000N	070-53-40.346880W	27.231
US 000193...	SOUNDG	Sounding	Sounding	41-36-36.506520N	070-53-45.234600W	27.231
US 000193...	SOUNDG	Sounding	Sounding	41-37-03.325800N	070-54-02.612160W	27.887
US 000193...	SOUNDG	Sounding	Sounding	41-36-32.400720N	070-53-42.522000W	27.887
US 000193...	SOUNDG	Sounding	Sounding	41-36-55.754640N	070-53-57.723360W	28.215
US 000191...	SOUNDG	Sounding	Sounding	41-36-58.578120N	070-53-59.534520W	28.215
US 000191...	SOUNDG	Sounding	Sounding	41-36-22.775040N	070-53-36.364920W	28.215
US 000192...	SOUNDG	Sounding	Sounding	41-37-21.418320N	070-54-14.378760W	28.543
US 000193...	SOUNDG	Sounding	Sounding	41-36-38.169000N	070-53-46.665600W	28.871
US 000191...	SOUNDG	Sounding	Sounding	41-36-59.733360N	070-54-00.259920W	28.871

Conflicts exist between present survey depths and tabulated depths in the New Bedford Harbor Fort Phoenix Reach Channel. Tabulated depths in the channel are 29.2 in the Middle Half of the Channel (MH) but the present survey found two depths of 28.543 feet, both at the southern end of the channel and several depths of 28.871 feet throughout the MH.

Selection						
Feature ID	Acronym	Name	Geometry	Latitude	Longitude	Depth [^]
US 000198...	DRGARE	Dredged ...	Area			
US 000191...	SOUNDG	Sounding	Sounding	41-36-31.591800N	070-53-44.399400W	28.543
US 000193...	SOUNDG	Sounding	Sounding	41-36-34.809840N	070-53-45.876120W	28.543
US 000193...	SOUNDG	Sounding	Sounding	41-37-06.210120N	070-54-08.573400W	28.871
US 000191...	SOUNDG	Sounding	Sounding	41-36-29.514600N	070-53-44.511360W	28.871
US 000191...	SOUNDG	Sounding	Sounding	41-36-38.886840N	070-53-50.316000W	28.871
US 000193...	SOUNDG	Sounding	Sounding	41-36-27.592920N	070-53-43.072440W	28.871
US 000191...	SOUNDG	Sounding	Sounding	41-36-49.659120N	070-53-57.717240W	28.871
US 000193...	SOUNDG	Sounding	Sounding	41-37-07.374000N	070-54-08.780400W	28.871



Deborah Bland - NOAA Federal <deborah.a.bland@noaa.gov>

New Bedford Entrance Channel Issues

1 message

Deborah Bland - NOAA Federal <deborah.a.bland@noaa.gov>
To: Owens Edward <Edward.Owens@noaa.gov>

Thu, Jul 13, 2017 at 10:30 AM

Good Afternoon Megan,

There were several depth discrepancies between the tabulated depths in the New Bedford Harbor Channel and hydrographic survey H12642. According to the ENC for this area, the dredged depths are from surveys to September 2015. Data for Survey H12642 was collected from September to October 2015. Would you give these a look and notify the Corps of Engineers if deemed necessary and please follow up to let me know how to handle these on our end. Attached is a file outlining the problems found.

NEW BEDFORD HARBOR CHANNEL DEPTHS TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF OCT 2015 AND SURVEYS TO SEP 2015							
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)					PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)
ENTRANCE CHANNEL	29.4A	29.4	29.3A	7-15	350	2.27	30
FORT PHOENIX REACH	29.3	29.2	29.0	7-15	350-150	1.34	30
NEW BEDFORD REACH	25.8A	26.5B	24.1A	7:9 -15	150-350	1.11	30
A. DEPTHS UP TO 2.7 FEET LESS THAN REPORTED EXIST WITHIN 20 FEET OF CHANNEL LIMIT. B. EXCEPT FOR SHOALING TO 18.3 FEET THROUGH THE WEST DRAW. NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION							

Thanking you in advance,

Deborah A. Bland
Cartographer, NOAA Office of Coast Survey
Atlantic Hydrographic Branch
Office [757-364-7454](tel:757-364-7454)
Cell [757-636-1265](tel:757-636-1265)



Conflicts in the New Bedford Harbor Entrance Channel.docx
572K



Deborah Bland - NOAA Federal <deborah.a.bland@noaa.gov>

Conflicts in New Bedford Harbor Entrance Channel7 messages

Deborah Bland - NOAA Federal <deborah.a.bland@noaa.gov>

Tue, Aug 1, 2017 at 3:03 PM

To: Meghan McGovern - NOAA Federal <meghan.mcgovern@noaa.gov>, Owens Edward <Edward.Owens@noaa.gov>, Briana Hillstrom - NOAA Federal <Briana.Hillstrom@noaa.gov>

Good Afternoon Megan,

There were several depth discrepancies between the tabulated depths in the New Bedford Harbor Channel and hydrographic survey H12642. According to the ENC for this area, the dredged depths are from surveys to September 2015. Data for Survey H12642 was collected from September to October 2015. Would you give these a look and notify the Corps of Engineers if deemed necessary and please follow up to let me know how if any of these need to be addressed on our end. Attached is a file outlining the problems found. This survey was compared to NOS Chart 13232.

Thank you,

Deborah A. Bland
Cartographer, NOAA Office of Coast Survey
Atlantic Hydrographic Branch
Office 757-364-7454
Cell 757-636-1265

**Conflicts in the New Bedford Harbor Entrance Channel.docx**796K

Meghan McGovern - NOAA Federal <meghan.mcgovern@noaa.gov>

Wed, Aug 2, 2017 at 8:04 AM

To: Deborah Bland - NOAA Federal <deborah.a.bland@noaa.gov>

Cc: Owens Edward <Edward.Owens@noaa.gov>, Briana Hillstrom - NOAA Federal <Briana.Hillstrom@noaa.gov>

Thank you Deborah,

Just to make sure I'm understanding - there is relatively minor shoaling (less than ~1ft) throughout, with some larger differences at the edges of the channel. Strictly within the channel, the largest differences are those in bold: 24 and 26 on page 6 of the attachment? The rest I'm seeing in the channel are the 29's.

Just want to make sure I understand before I speak with USACE.

Regards,
Meghan

[Quoted text hidden]

--

Meghan McGovern, LCDR/NOAA
Navigation Manager, Northeast Region
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



Deborah Bland - NOAA Federal <deborah.a.bland@noaa.gov>
To: Meghan McGovern - NOAA Federal <meghan.mcgovern@noaa.gov>

Wed, Aug 2, 2017 at 8:08 AM

Good morning,

Yes, most of the shoals are less than 1 foot, but in those specified the shoaling is greater and almost always near the channel edge. I pointed them all out, though, because they are still in conflict with the published depths and just wanted to cover ourselves.

Thank you,

Deborah A. Bland
Cartographer, NOAA Office of Coast Survey
Atlantic Hydrographic Branch
Office 757-364-7454
Cell 757-636-1265

[Quoted text hidden]

Meghan McGovern - NOAA Federal <meghan.mcgovern@noaa.gov>
To: Deborah Bland - NOAA Federal <deborah.a.bland@noaa.gov>

Wed, Aug 2, 2017 at 8:09 AM

Okay great, I'll pass the info to USACE and will loop-back to you if they have any feedback or action for us. Thanks!

[Quoted text hidden]

Deborah Bland - NOAA Federal <deborah.a.bland@noaa.gov>
To: Meghan McGovern - NOAA Federal <meghan.mcgovern@noaa.gov>

Wed, Aug 2, 2017 at 8:11 AM

Ok, Thank you very much.

Thank you,

Deborah A. Bland
Cartographer, NOAA Office of Coast Survey
Atlantic Hydrographic Branch
Office 757-364-7454
Cell 757-636-1265

[Quoted text hidden]

Briana Hillstrom - NOAA Federal <briana.hillstrom@noaa.gov>
To: Meghan McGovern - NOAA Federal <meghan.mcgovern@noaa.gov>
Cc: Deborah Bland - NOAA Federal <deborah.a.bland@noaa.gov>, Owens Edward <Edward.Owens@noaa.gov>

Wed, Aug 2, 2017 at 1:45 PM

The PIs for this survey state the following:

Registry Details:						
General Locality: Buzzards Bay and Nantucket Sound						
Registry Number	Priority	Sublocality	State or Territory	Scale	Estimated SNM	Instructions
H12642	1	Approaches to New Bedford	Massachusetts	10000	15	Extend inshore limit of hydrography to 4m in the entrance channel to New Bedford in the area north of Clarks Pt. Due to future dredging plans, DO NOT acquire data within the limits of the maintained New Bedford Harbor Channel.

On Wed, Aug 2, 2017 at 8:04 AM, Meghan McGovern - NOAA Federal <meghan.mcgovern@noaa.gov> wrote:
 [Quoted text hidden]

--

LCDR Briana Welton Hillstrom, NOAA
 Office of Coast Survey
 Chief, Atlantic Hydrographic Branch
 439 W York St, Norfolk, VA 23510
 office: **NEW OFFICE PHONE #:** 757-364-7460 (old: 757-441-6746, ext 200)
 cell: 520-227-9269

Deborah Bland - NOAA Federal <deborah.a.bland@noaa.gov>

Tue, Jul 10, 2018 at 4:17 PM

To: Briana Hillstrom - NOAA Federal <Briana.Hillstrom@noaa.gov>, david.vejar@noaa.gov, Owens Edward <Edward.Owens@noaa.gov>, Parker Castle <Castle.E.Parker@noaa.gov>, "Bland, Deborah" <Deborah.A.Bland@noaa.gov>

David,

These items were brought to the attention of Meghan, but there was never a reply. If you can help me out with how to handle these, it would be greatly appreciated.

Deborah A. Bland
 Cartographer, NOAA Office of Coast Survey
 Atlantic Hydrographic Branch
 Office 757-364-7454
 Cell 757-636-1265

[Quoted text hidden]



Conflicts in the New Bedford Harbor Entrance Channel.docx
 796K



Deborah Bland - NOAA Federal <deborah.a.bland@noaa.gov>

FW: New Bedford: H12642 29ft OBSTRN

3 messages

Castle Parker - NOAA Federal <castle.e.parker@noaa.gov>

Fri, Sep 21, 2018 at 9:45 AM

To: Edward Owens - NOAA Federal <edward.owens@noaa.gov>

Cc: Richard Brennan - NOAA Federal <richard.t.brennan@noaa.gov>, Briana Hillstrom - NOAA Federal <Briana.Hillstrom@noaa.gov>, Deborah Bland - NOAA Federal <deborah.a.bland@noaa.gov>

Ed,

Regarding the H12642 29ft OBSTRN within the New Bedford Channel, the feature was validated by the USACE recent survey. Based upon the email info from Katrina Wyllie, not sure if it will be salvaged or left. If left, the USACE may only revise the charted tabulated depth limit. The good thing is that USACE validated the existence of the obstruction. The TJ's data was good and AHB interpreted the data correctly. Bottom line is that the data is only as good as it is interpreted. You should discuss this with AHB Chief and decide how to handle the feature within the HCell.

Regards,

Gene

*Castle Eugene Parker**NOAA Office of Coast Survey**Atlantic Hydrographic Branch**Hydrographic Team Lead / Physical Scientist*castle.e.parker@noaa.gov*office (757) 364-7472*

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

From: Wyllie, Katrina R CIV USARMY CENAE (US) <Katrina.R.Wyllie@usace.army.mil>

Sent: Friday, September 21, 2018 9:13 AM

To: Briana Hillstrom - NOAA Federal <Briana.Hillstrom@noaa.gov>; Castle Parker - NOAA Federal <castle.e.parker@noaa.gov>Cc: Preston, Jeffrey W CIV USARMY CENAE (US) <Jeffrey.W.Preston@usace.army.mil>

Subject: New Bedford

Hi Bri, Gene,

Hope you're both doing well and fared Hurricane Florence okay.

One of our survey crews was in the area of New Bedford yesterday so they went over that target location you had provided a little while back. I attached the 3min xyz and the boat plot. Looks like we're showing a 28.9' least depth right at the target location. We'll load this data up to eHydro shortly but just wanted to reach out and let you know what we found.

Just curious, any news on Boston CATZOC?

Thank you,

Katrina Wyllie


Assistant Chief of Survey Section


USACE New England District

(O) 978-318-8783

(C) 978-770-4029

2 attachments

 **NEW_20180920_OB_2018_03min.xyz**
693K

 **NEW_20180920_OB_2018_plot.pdf**
102K

Edward Owens - NOAA Federal <edward.owens@noaa.gov>

Fri, Sep 21, 2018 at 11:06 AM

To: Castle Parker - NOAA Federal <castle.e.parker@noaa.gov>

Cc: Richard Brennan - NOAA Federal <richard.t.brennan@noaa.gov>, Briana Hillstrom - NOAA Federal <Briana.Hillstrom@noaa.gov>, Deborah Bland - NOAA Federal <deborah.a.bland@noaa.gov>

Gene,

We certainly will. Very glad there was confirmation to close the loop on this.

Appreciatively, Ed

[Quoted text hidden]

--

Edward Owens

Cartographic Team Lead

NOAA's National Ocean Service

Office of Coast Survey, Hydrographic Surveys Division

Atlantic Hydrographic Branch, N/CS33

439 West York Street

Norfolk, Virginia 23510

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Richard Brennan - NOAA Federal <richard.t.brennan@noaa.gov>

Fri, Sep 21, 2018 at 2:03 PM

To: Castle Parker - NOAA Federal <castle.e.parker@noaa.gov>

Cc: Briana Hillstrom - NOAA Federal <Briana.Hillstrom@noaa.gov>, Deborah Bland - NOAA Federal <deborah.a.bland@noaa.gov>, Edward Owens - NOAA Federal <edward.owens@noaa.gov>

Also, the New Bedford Police Dive Team dove on it last week and took video confirming it as fishing gear and other scattered debris. They are sending us a dive report and video.

Rick

[Quoted text hidden]

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12/18/2018

National Oceanic and Atmospheric Administration Mail - FW: New Bedford: H12642 29ft OBSTRN

CAPT Rick Brennan, NOAA

Chief, Hydrographic Surveys Division

[1315 East-West Highway](#), SSMC3 Room 6108

Silver Spring, MD 20910

Work: 240-533-0030 NOTE NEW NUMBER

Cell: 443-994-3301

APPROVAL PAGE

H12642

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 NCEI for archive

- H12642_DR.pdf
- Collection of depth varied resolution BAGS
- Processed survey data and records
- H12642_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: _____

Commander Briana W. Hillstrom, NOAA
Chief, Atlantic Hydrographic Branch