

**F00731**

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

**DESCRIPTIVE REPORT**

Type of Survey: Navigable Area

Registry Number: F00731

**LOCALITY**

State(s): North Carolina

General Locality: Beaufort, NC

Sub-locality: Beaufort, NC

**2018**

CHIEF OF PARTY  
James Kirkpatrick

LIBRARY & ARCHIVES

Date:

**HYDROGRAPHIC TITLE SHEET**

**F00731**

**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): **North Carolina**

General Locality: **Beaufort, NC**

Sub-Locality: **Beaufort, NC**

Scale: **10000**

Dates of Survey: **07/10/2018 to 07/11/2018**

Instructions Dated: **07/02/2018**

Project Number: **S-F933-NRT2-18**

Field Unit: **Navigation Response Team 2**

Chief of Party: **James Kirkpatrick**

Soundings by: **Multibeam Echo Sounder**

Imagery by: **Side Scan Sonar**

Verification by: **Pacific 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 <http://www.ncei.noaa.gov/>.*

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## Descriptive Report to Accompany Survey F00731

Project: S-F933-NRT2-18

Locality: Beaufort, NC

Sublocality: Beaufort, NC

Scale: 1:10000

July 2018 - July 2018

**Navigation Response Team 2**

Chief of Party: James Kirkpatrick

### A. Area Surveyed

Survey limits include Town Creek and portions of Gallant's Channel in Beaufort, NC.

#### A.1 Survey Limits

Data were acquired within the following survey limits:

<b>Northwest Limit</b>	<b>Southeast Limit</b>
34° 43' 44.77" N 76° 40' 11.74" W	34° 43' 9.53" N 76° 39' 44.86" W

*Table 1: Survey Limits*

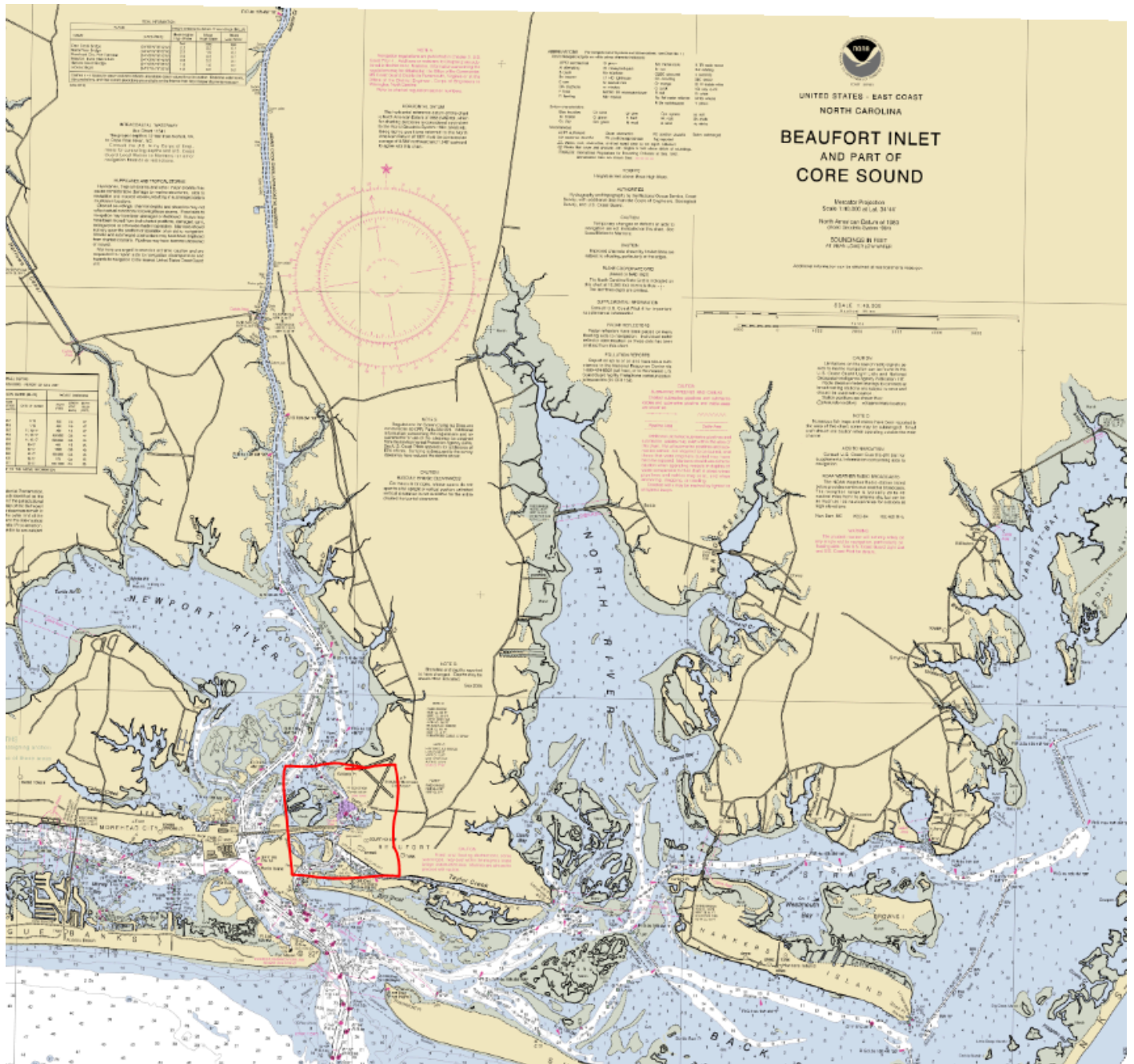


Figure 1: F00731 Area Overview

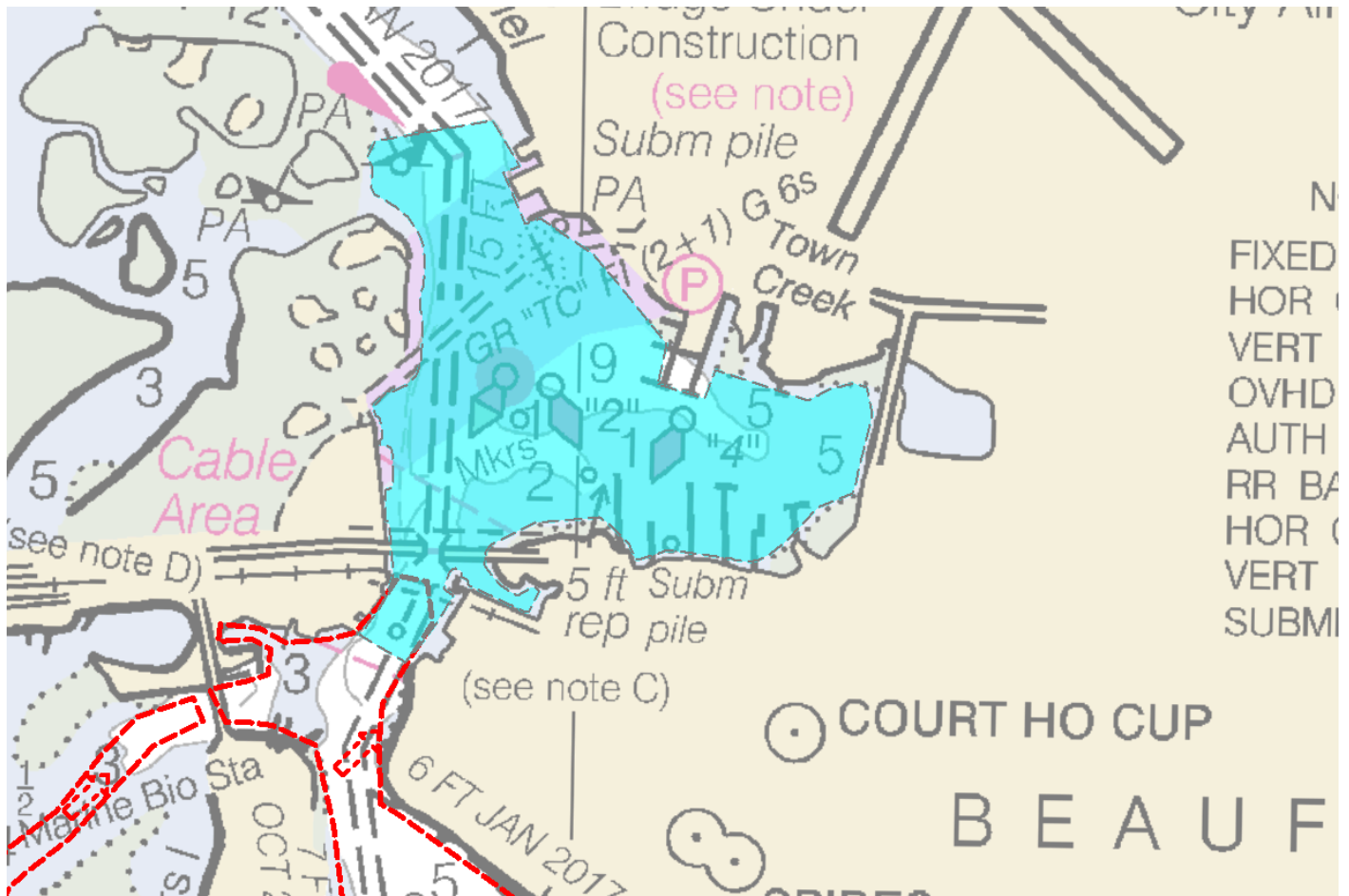


Figure 2: F00731 Survey Area

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

## A.2 Survey Purpose

There have been recent reports of vessels grounding in the Gallants Channel and Town Creek at Beaufort NC. This is a very high traffic area and a key waterway for the local economy. Survey 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.



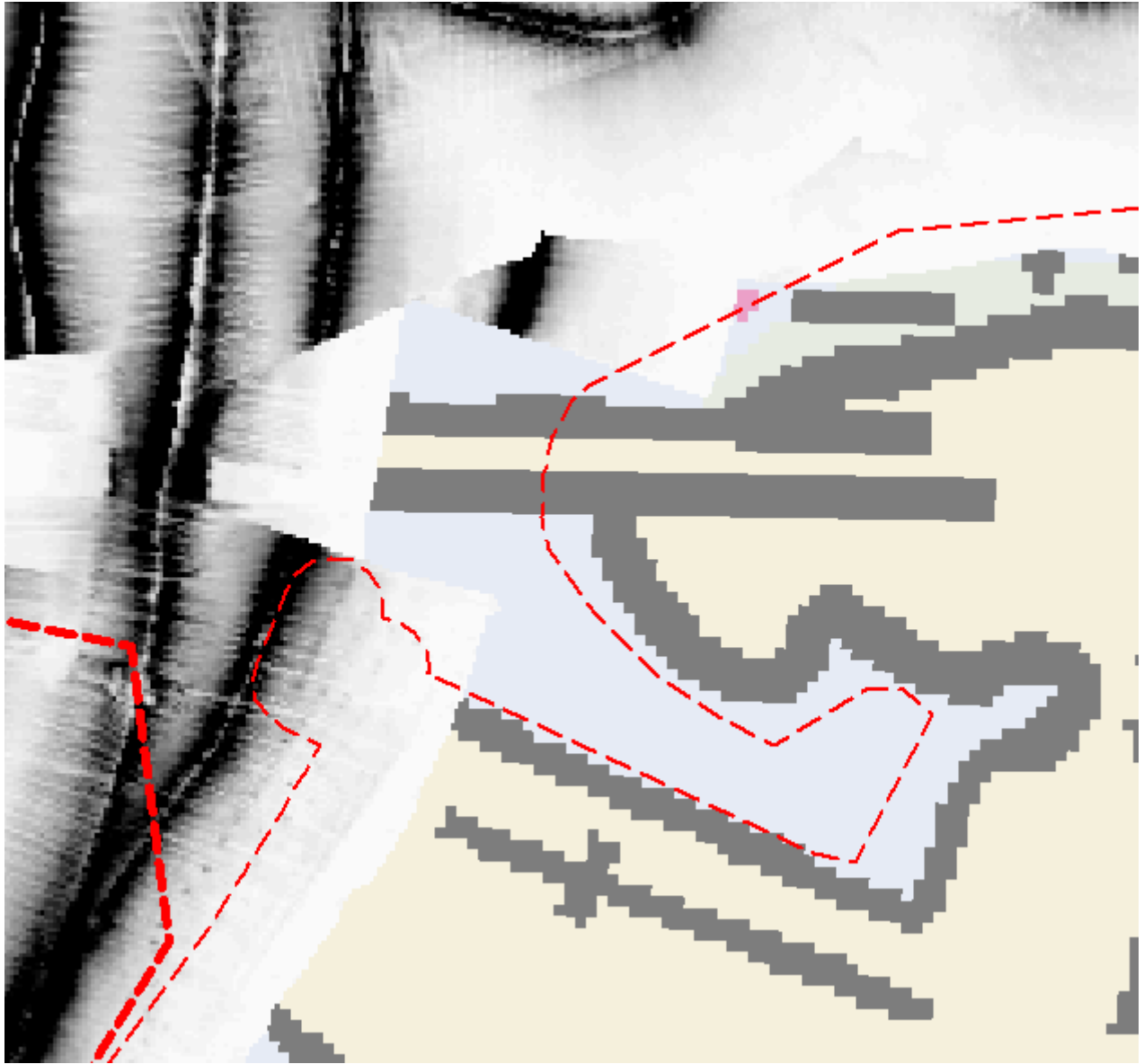
## A.4 Survey Coverage

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

<b>Water Depth</b>	<b>Coverage Required</b>
All navigable waters	Object Detection

*Table 2: Survey Coverage*

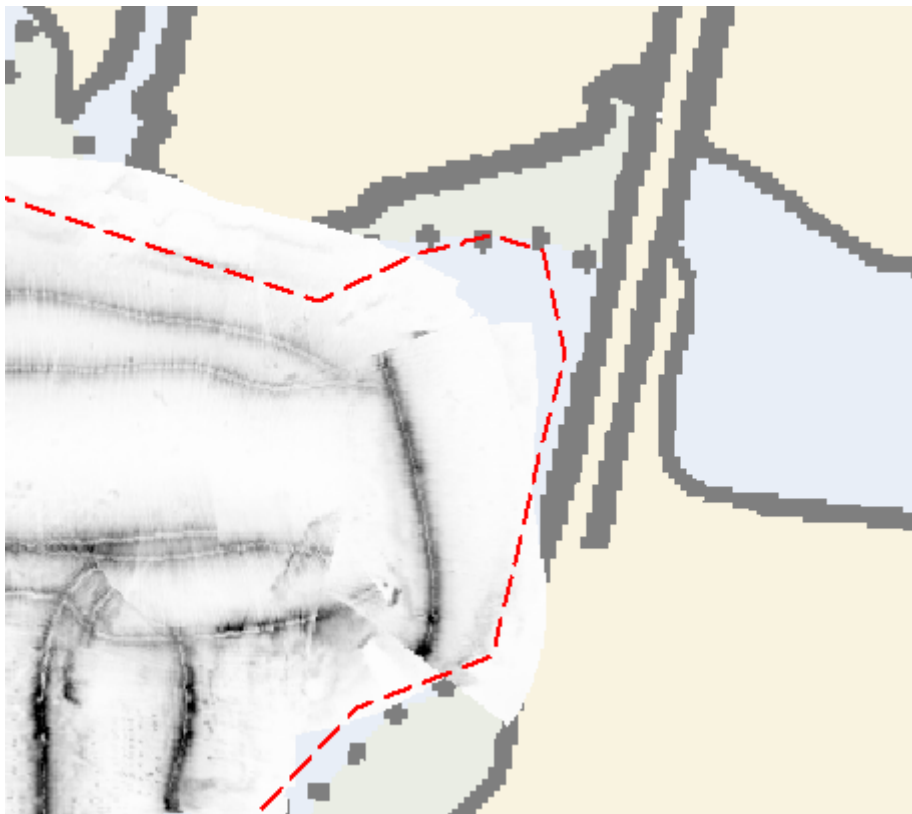
The assigned survey limits were completed with 200% SSS and concurrent MBES except for the areas listed below. These areas were determined to be too shoal for safe operations.



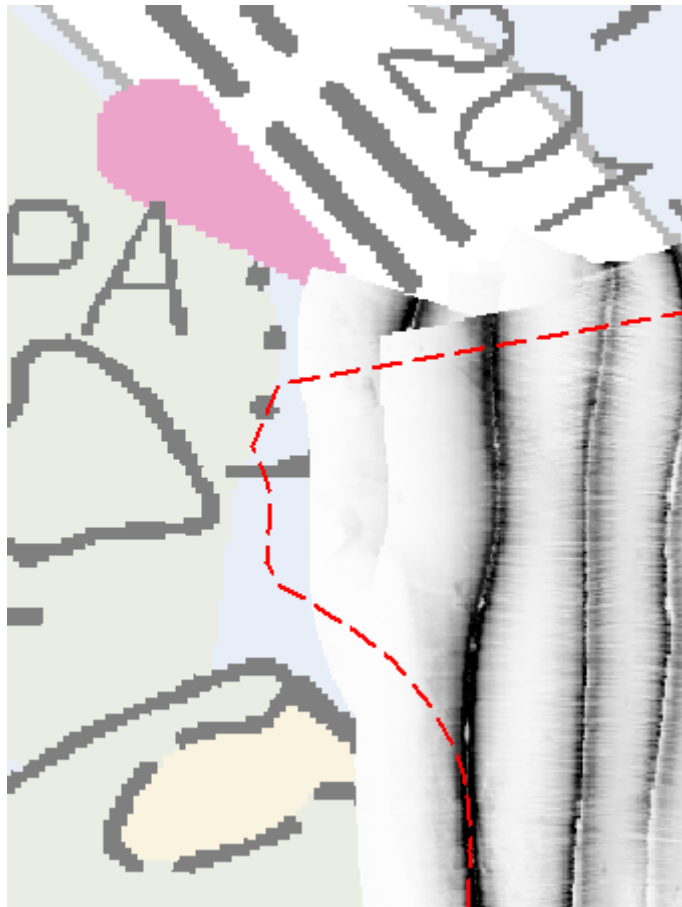
*Figure 3: Non object detection area 1*



*Figure 4: Non object detection area 2*



*Figure 5: Non object detection area 3*



*Figure 6: Non object detection area 4*

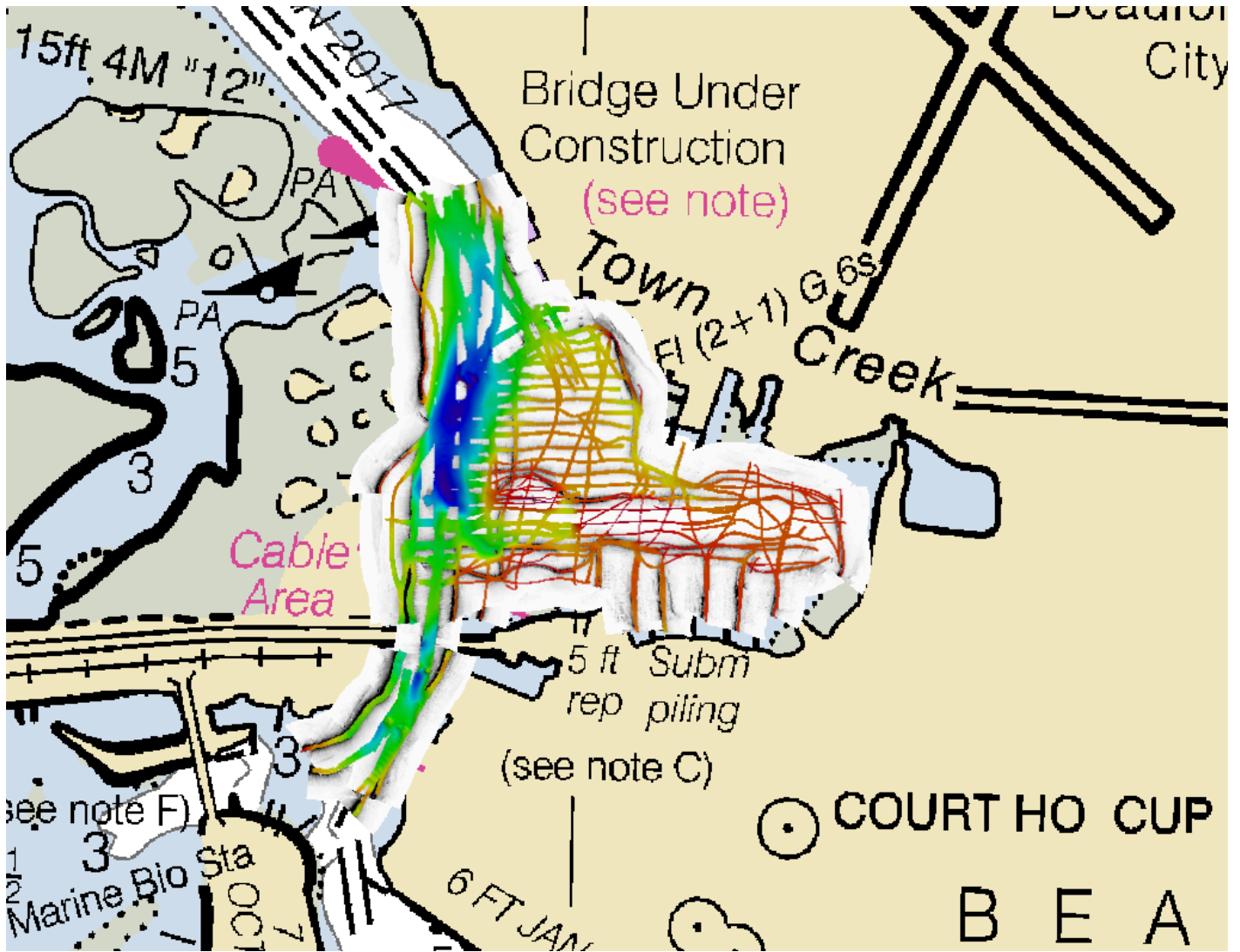


Figure 7: F00731 Coverage Graphic

### A.5 Survey Statistics

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

	<b>HULL ID</b>	<i>S3009</i>	<i>Total</i>
<b>LNM</b>	<b>SBES Mainscheme</b>	0	0
	<b>MBES Mainscheme</b>	0	0
	<b>Lidar Mainscheme</b>	0	0
	<b>SSS Mainscheme</b>	0	0
	<b>SBES/SSS Mainscheme</b>	0	0
	<b>MBES/SSS Mainscheme</b>	15.398	15.398
	<b>SBES/MBES Crosslines</b>	3.744	3.744
	<b>Lidar Crosslines</b>	0	0
<b>Number of Bottom Samples</b>			0
<b>Number Maritime Boundary Points Investigated</b>			0
<b>Number of DPs</b>			0
<b>Number of Items Investigated by Dive Ops</b>			0
<b>Total SNM</b>			0.09

*Table 3: Hydrographic Survey Statistics*

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

<b>Survey Dates</b>	<b>Day of the Year</b>
07/10/2018	191
07/11/2018	192

*Table 4: Dates of Hydrography*

Survey operations for F00731 were performed on July 10th and July 11th of 2018.

## **B. Data Acquisition and Processing**

### **B.1 Equipment and Vessels**

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

#### **B.1.1 Vessels**

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

<b>Hull ID</b>	<i>S3009</i>
<b>LOA</b>	30 feet
<b>Draft</b>	2 feet

*Table 5: Vessels Used*



*Figure 8: S3009*



S3009 is a 30 foot survey vessel used for inshore and near shore hydrographic surveys, homeported in Fernandina Beach, FL and operated by Navigation Response Team 2.

### B.1.2 Equipment

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

<b>Manufacturer</b>	<b>Model</b>	<b>Type</b>
Kongsberg Maritime	EM 2040C	MBES
EdgeTech	4125	SSS
AML Oceanographic	MicroX SVS	Sound Speed System
Applanix	POS MV 320 v5	Positioning and Attitude System
YSI	CastAway-CTD	Conductivity, Temperature, and Depth Sensor

*Table 6: Major Systems Used*

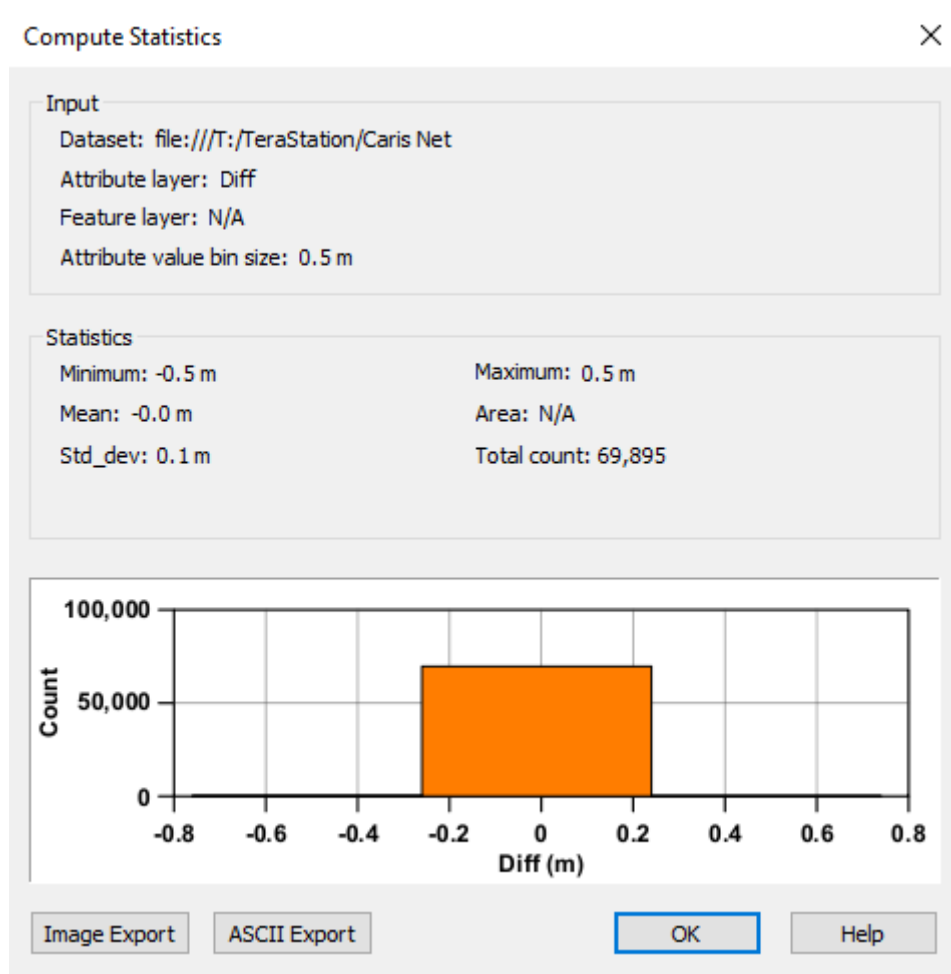
See DAPR for system specifications.

## B.2 Quality Control

### B.2.1 Crosslines

Multibeam/single beam echo sounder/side scan sonar crosslines acquired for this survey totaled 24.31% of mainscheme acquisition.

Survey day number 192 consisted of crosslines and developments which equaled 24% of the mainscheme MBES. A separate surface was created for the crosslines and it was directly compared to the Mainscheme surface using Caris HIPS "Difference Surface" tool. A total count of 69,895 soundings yielded a standard deviation of 0.1 meters, with a minimum difference of -0.5 meters and a maximum difference of 0.5 meters. Overall crosslines were in general agreement with mainscheme data.



*Figure 9: Crossline difference surface statistics*

### B.2.2 Uncertainty

The following survey specific parameters were used for this survey:

Method	Measured	Zoning
ERS via VDATUM	0 meters	9.7 centimeters

*Table 7: Survey Specific Tide TPU Values.*

Hull ID	Measured - CTD	Measured - MVP	Surface
S3009	2 meters/second	0 meters/second	0.5 meters/second

*Table 8: Survey Specific Sound Speed TPU Values.*

Tide uncertainty was derived from the VDatum text file included with the project instructions. Sound speed uncertainty was derived from manufacturers specifications.

### **B.2.3 Junctions**

A junction from survey H12266 completed by NRT2 in 2010 overlaps the southernmost portion of the survey. A 3m singlebeam bag was created with the data retrieved from NOAA's Bathymetric Data Viewer. This 3m bag was differenced directly with F00731\_MB\_50cm\_MLLW\_Final.csar. Results were in general agreement and no significant changes to bathymetry were noted. Standard deviation between the two surfaces was calculated to be 0.3 meters.

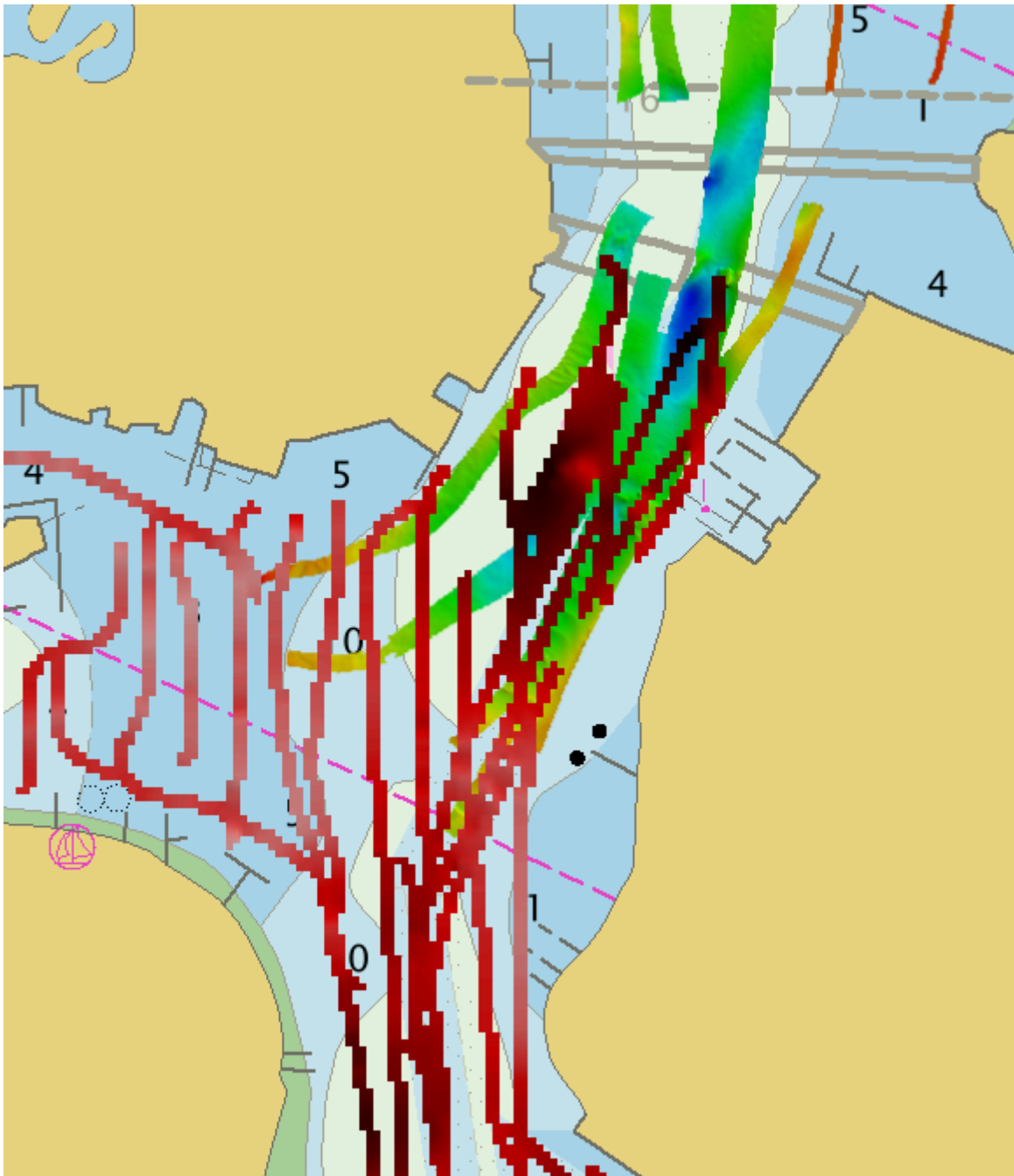
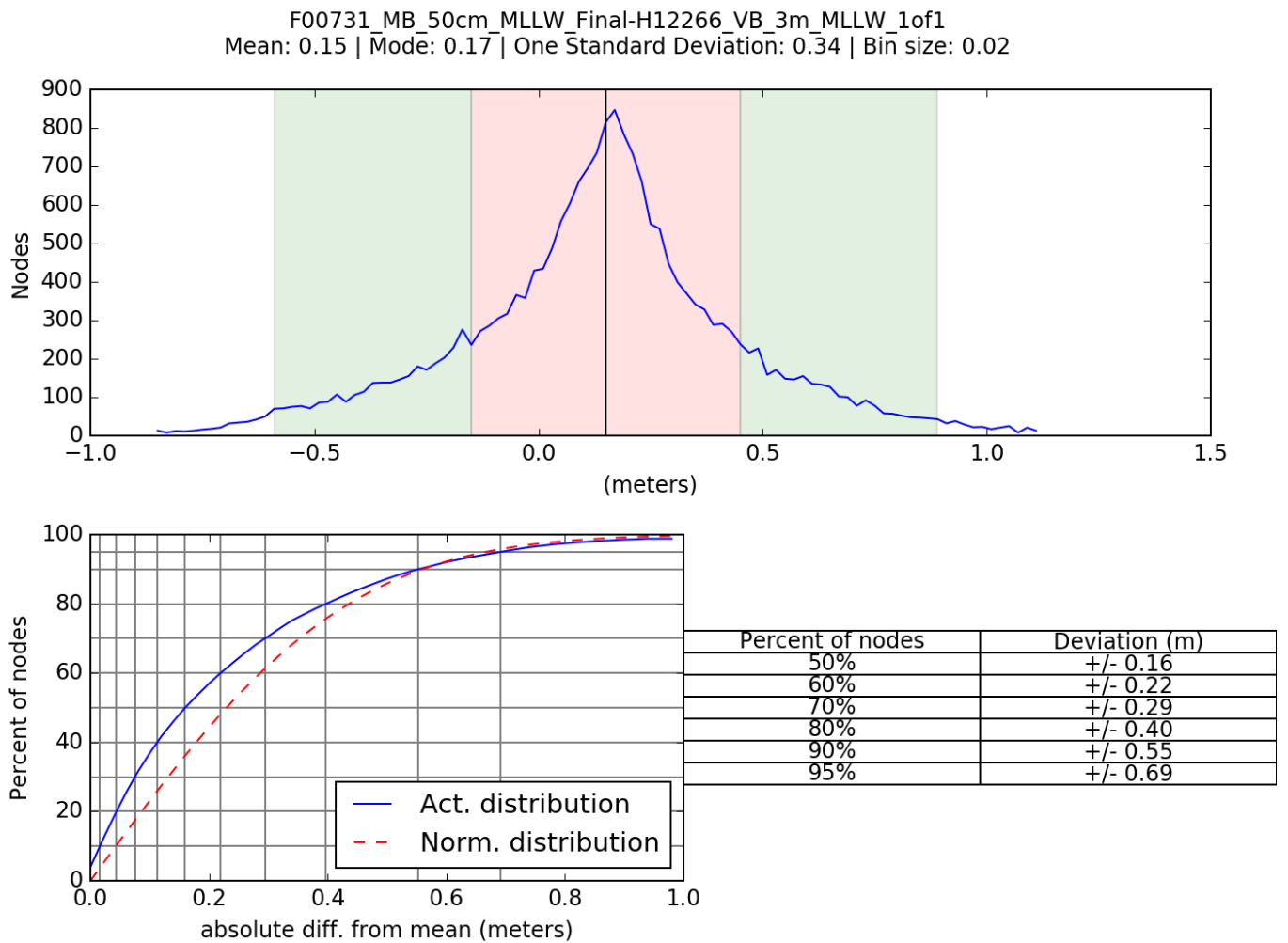


Figure 10: Junction overlap area.



*Figure 11: Junction Depth Delta analysis.*

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: Three sound velocity casts were acquired each survey day. An average of 2 hours lapsed between each cast.

Sound velocity samples were collected using the YSI Castaway CTD described in the accompanying DAPR. Most casts were intentionally taken in deep water portions of the survey area to more accurately portray the full water column.

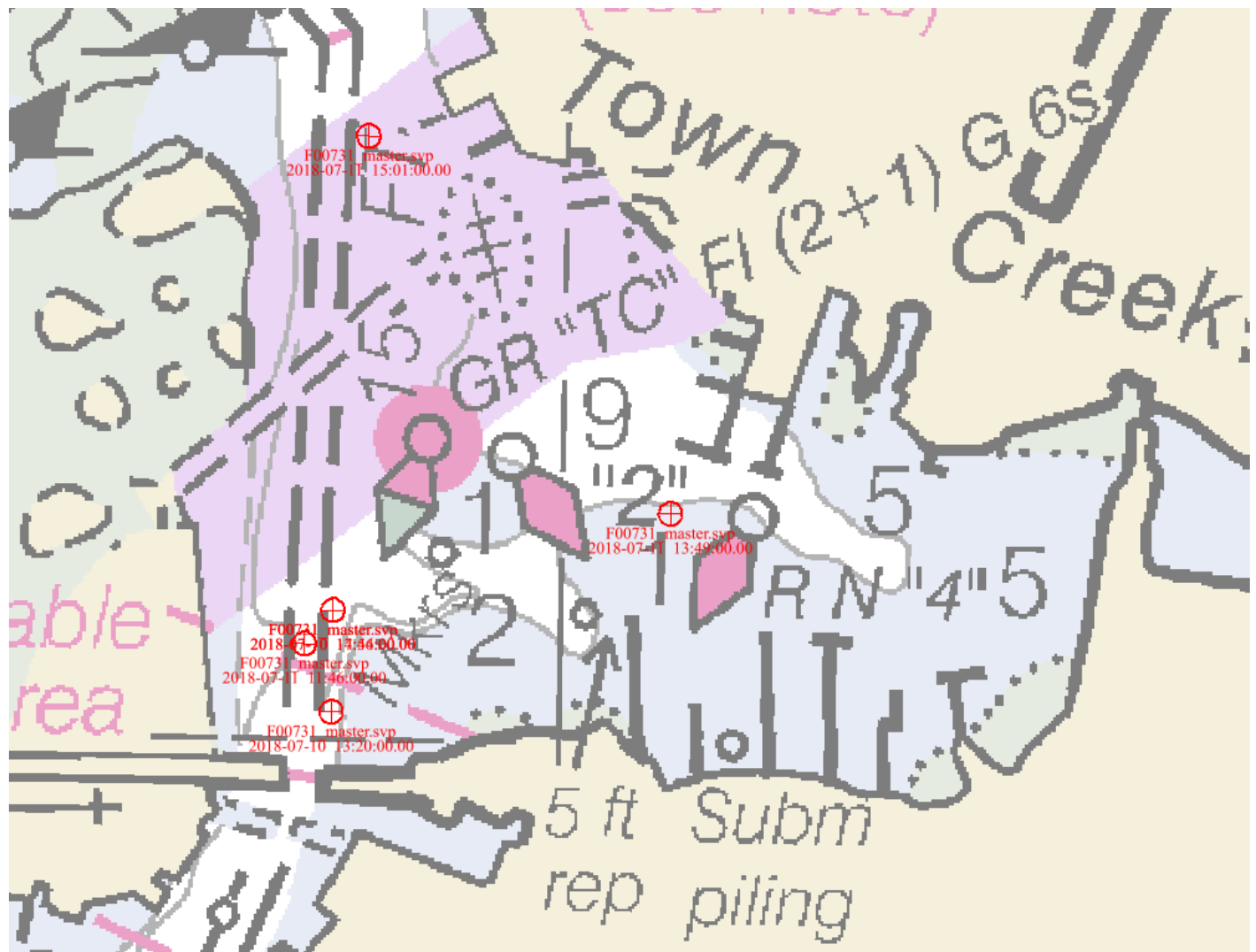


Figure 12: F00731 Distribution of Sound Velocity Samples

### **B.2.8 Coverage Equipment and Methods**

The object detection requirement required for F00731 was achieved across the survey limits, with the exception of the areas already discussed. 200% SSS with concurrent MBES, or "skunk-striping" was employed throughout the survey area. Line planning was based on a 50 meter range scale with the SSS. Two line plans with 40 meter spacing were created, one in the North to South direction and one in the East to West direction. The two line plans were intended to reduce turning time and increase survey efficiency. Shoal areas and SSS contacts were developed with 100% MBES where depths allowed safe operation.

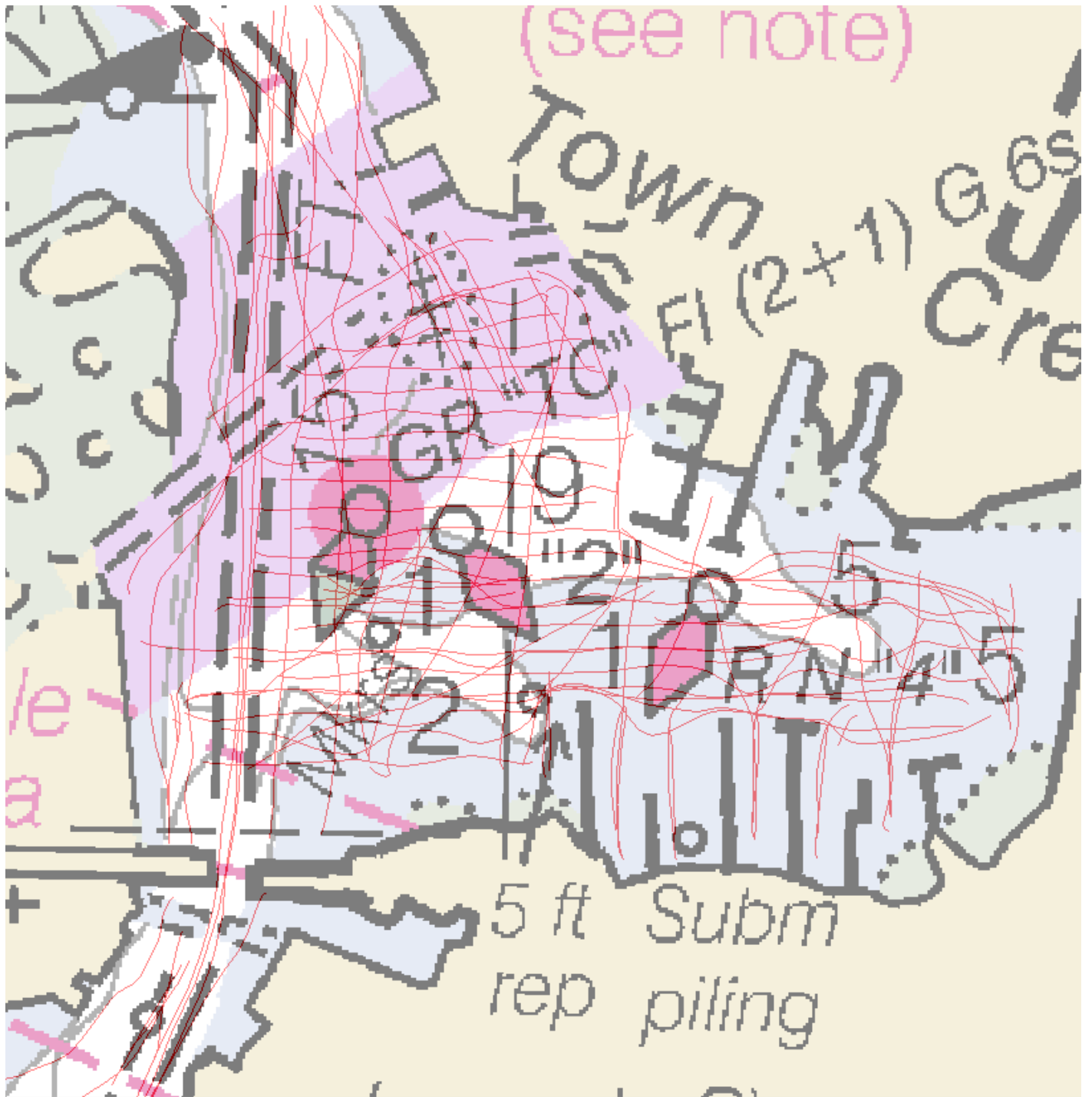


Figure 13: F00731 Survey Lines



## 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

All equipment and survey methods were used as detailed in the DAPR. Backscatter was logged directly in the Kongsberg .all files but not processed per NRB exemption.

## B.5 Data Processing

### B.5.1 Primary Data Processing Software

The following Feature Object Catalog was used: NOAA Extended Attribute File 5.7.

### 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
F00731_MB_50cm_MLLW	CARIS Raster Surface (CUBE)	0.5 meters	0.1 meters - 10.9 meters	NOAA_0.5m	MBES TracklineSBES Set Line Spacing
F00731_MB_50cm_MLLW_Final	CARIS Raster Surface (CUBE)	0.5 meters	0.1 meters - 10.9 meters	NOAA_0.5m	MBES TracklineSBES Set Line Spacing
F00731_SSSAB_1m_400kHz_1of2	SSS Mosaic	1 meters	-	N/A	100% SSS
F00731_SSSAB_1m_400kHz_2of2	SSS Mosaic	1 meters	-	N/A	200% SSS

Surface Name	Surface Type	Resolution	Depth Range	Surface Parameter	Purpose

*Table 9: Submitted Surfaces*

## C. Vertical and Horizontal Control

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

### C.1 Vertical Control

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

#### ERS Methods Used:

ERS via VDATUM

#### Ellipsoid to Chart Datum Separation File:

S-K933\_Limits\_xyNAD83-MLLW\_geoid12b.csar

### C.2 Horizontal Control

The horizontal datum for this project is North American Datum 1983.

The projection used for this project is UTM 18N.

#### The following PPK methods were used for horizontal control:

Single Base

Only one CORS station exists within 40km of the survey area precipitating the decision to use a single base solution. Positional accuracy was calculated in POSPAC MMS 8.3.1 on the order of 0.10 meters.

The following CORS Stations were used for horizontal control:

<b>HVCR Site ID</b>	<b>Base Station ID</b>
NCBE	NCBE

*Table 10: CORS Base Stations*

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

### **C.3.1 Additional Positional Control Issues**

An overhead bridge existed in the survey area and data under and around the bridge displayed some positional degradation. Large spikes were cleaned out of the data using SBET QC tools by interpolating data around the spikes.

## **D. Results and Recommendations**

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

A sounding layer was created from the survey data in Caris HIPS 10.4 using a 50 meter radius and NOAA rounding. This layer was then directly compared with soundings on the largest scale ENC's available. Each ENC sounding was compared to the nearest survey sounding as well as the bathymetric surface created with survey data. Shoreline features from the supplied CSF were also directly compared to the largest scale ENC's.

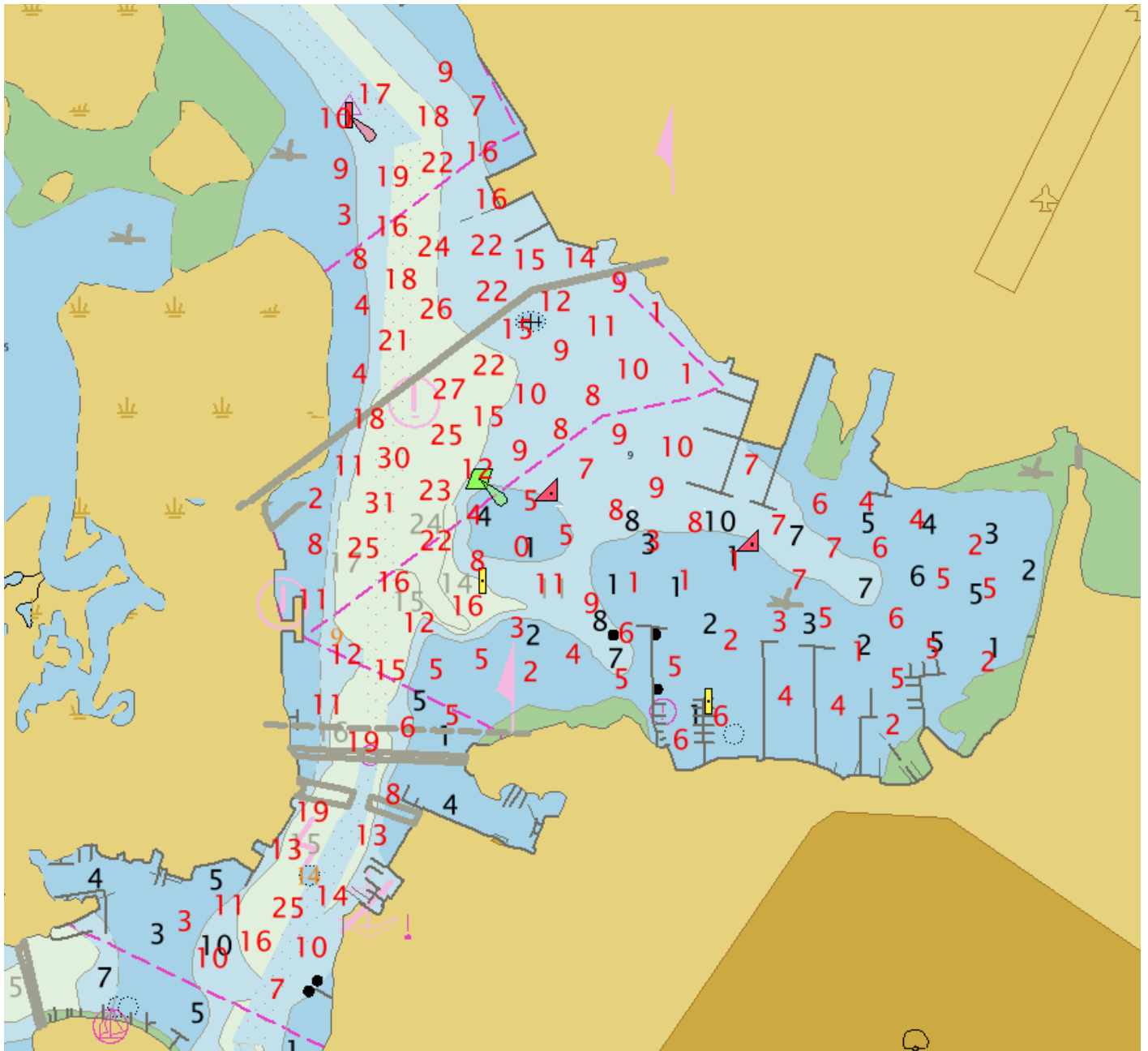


Figure 14: Overview of chart comparison with F00731 sounding layer in red.

### D.1.1 Electronic Navigational Charts

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

<b>ENC</b>	<b>Scale</b>	<b>Edition</b>	<b>Update Application Date</b>	<b>Issue Date</b>	<b>Preliminary?</b>
US5NC17M	1:15000	54	11/05/2018	01/25/2019	NO
US5NC18M	1:40000	19	12/10/2018	12/10/2018	NO

*Table 11: Largest Scale ENC's*

#### US5NC17M

Soundings compared between F00731 survey data and US5NC17M soundings are in good general agreement. No soundings in this comparison were observed to be different by more than 2 feet, none being shoaler than charted with the exception of a 1 foot sounding found to be 0 feet at the time of the survey.

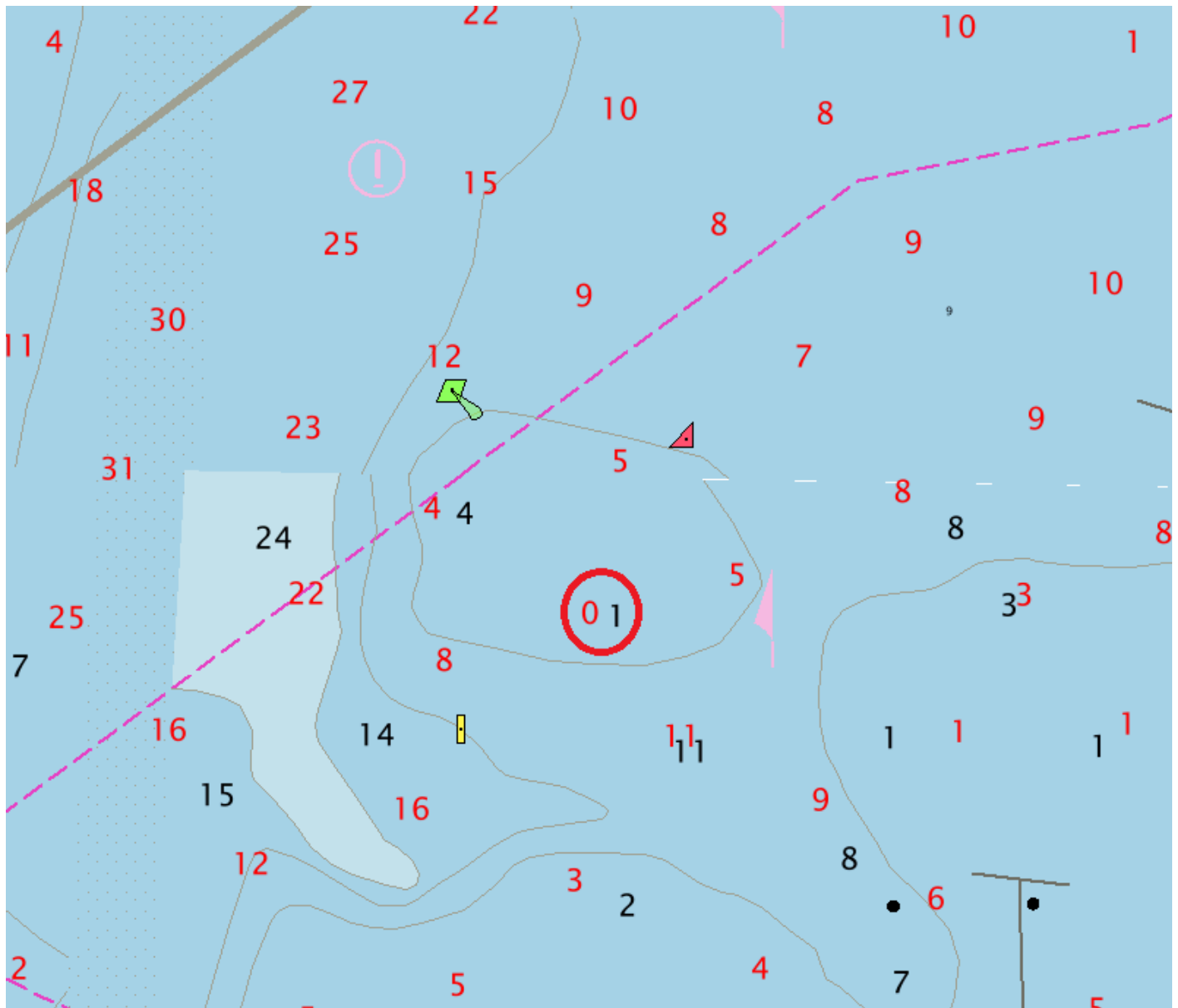


Figure 15: Shoal survey sounding.

#### US5NC18M

US5NC18M unfortunately only contained one sounding in the survey area and it is in agreement with surveyed depths. Recommend new soundings be added to the ENC.

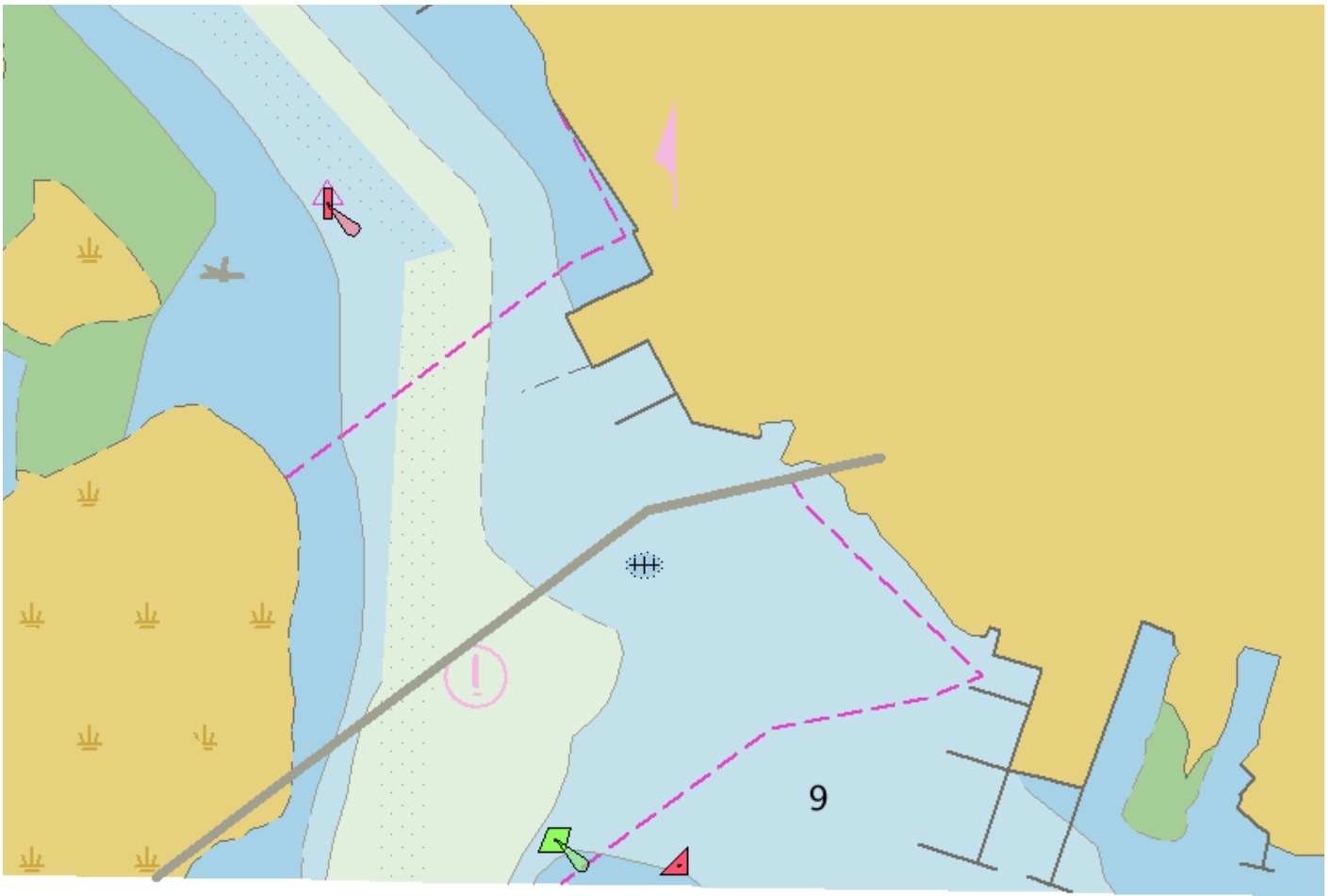


Figure 16: Survey area covered by ENC US5NC18M

### D.1.2 Maritime Boundary Points

No Maritime Boundary Points were assigned for this survey.

### D.1.3 Charted Features

A reported 5 feet exists on Chart 11545 that is not necessary to safe navigation as it is reported under a marina slip. Recommend removing the reported 5 feet and updating bathymetry as needed. The Wreck PA on Chart 11545 and US5NC18M was not surveyed due to the shallow surrounding waters. No visual contact with the wreck was made.

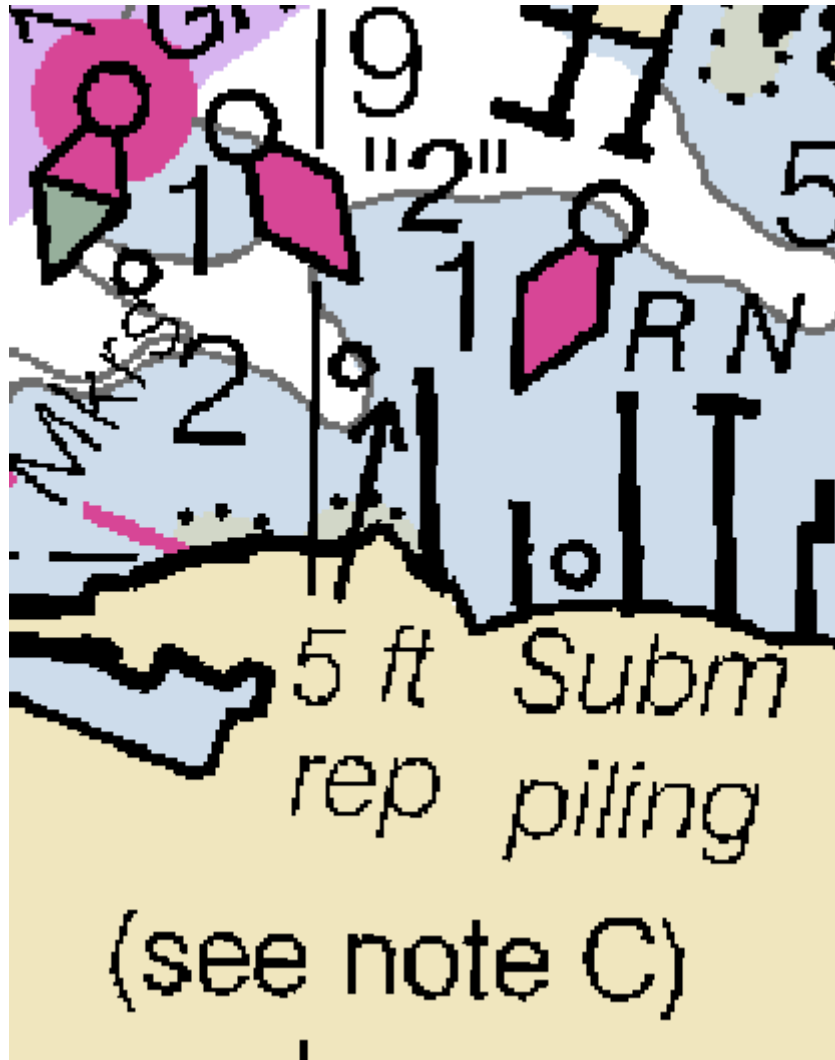


Figure 17: Reported 5 feet.



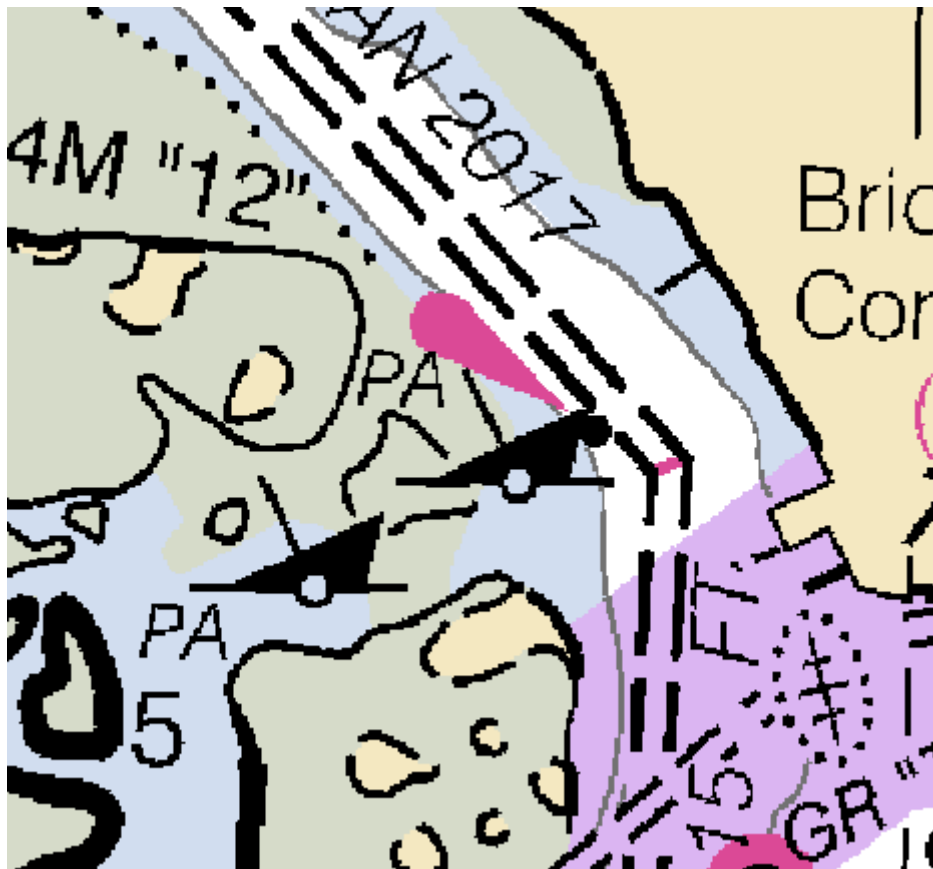
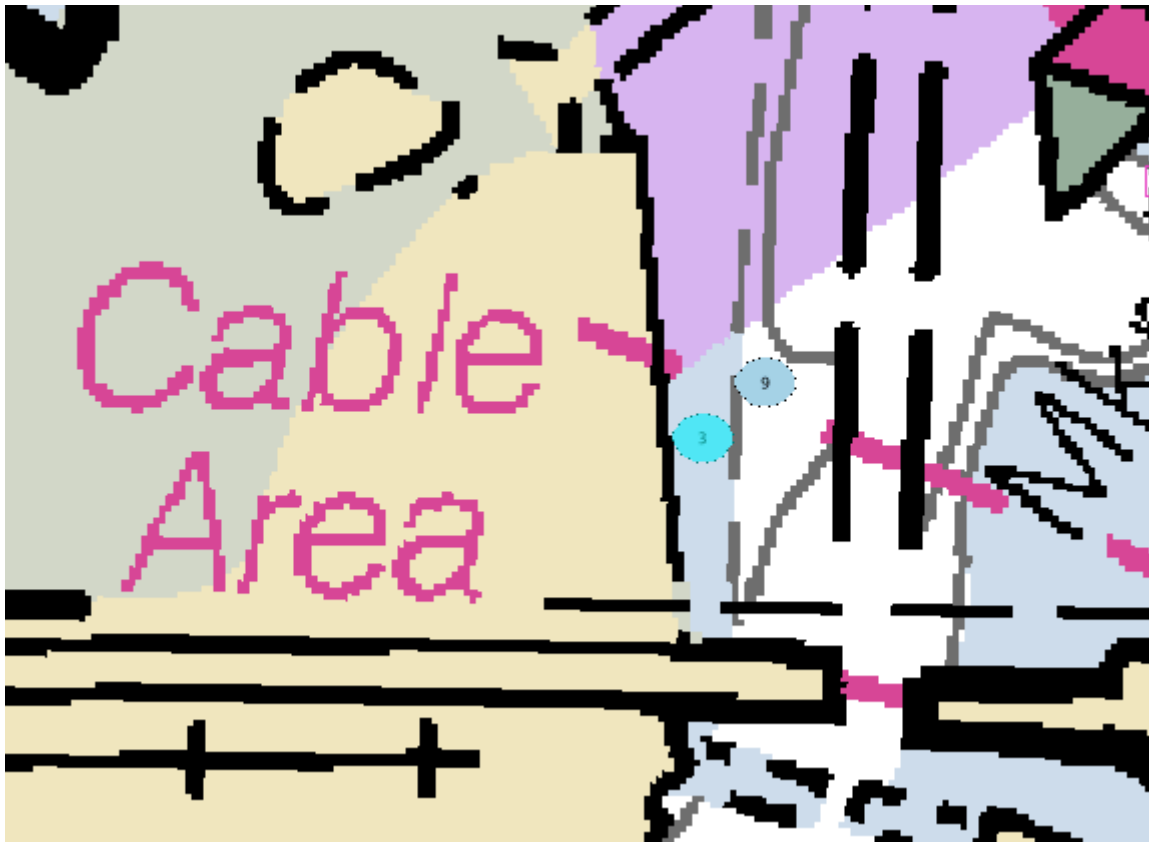


Figure 18: Wreck PA.

#### D.1.4 Uncharted Features

1. A large obstruction was found in the SSS imagery at position 34.723466N / 076.669970W. Due to the shallow surrounding area and potential height of the object a least depth was not determined. Using the closest bathymetry to the object and the shadow height measured in Caris Side Scan Editor an estimated depth of 3 feet was determined. This item is not considered a danger to navigation because of the proximity to shore and distance from charted channel. 2. A 9 foot obstruction was found in the SSS imagery at position 34.723677W / 076.669688W. Least depth was confirmed by 2 passes of MBES bathymetry. This obstruction is not considered a danger to navigation because no vessel with 9 foot draft could transit into the area. Recommend charting new 9 foot obstruction. 3. A new awash wreck was discovered with Side Scan imagery and visual contact at position 34.724886 / 076.662287W. This wreck is not considered a danger to navigation because it is located in a dead end portion of a shallow harbor. Recommend to chart new wreck and possibly chart large foul area because of numerous wrecks and debris in the area.



*Figure 19: 1. Large obstruction estimated 3 feet.*

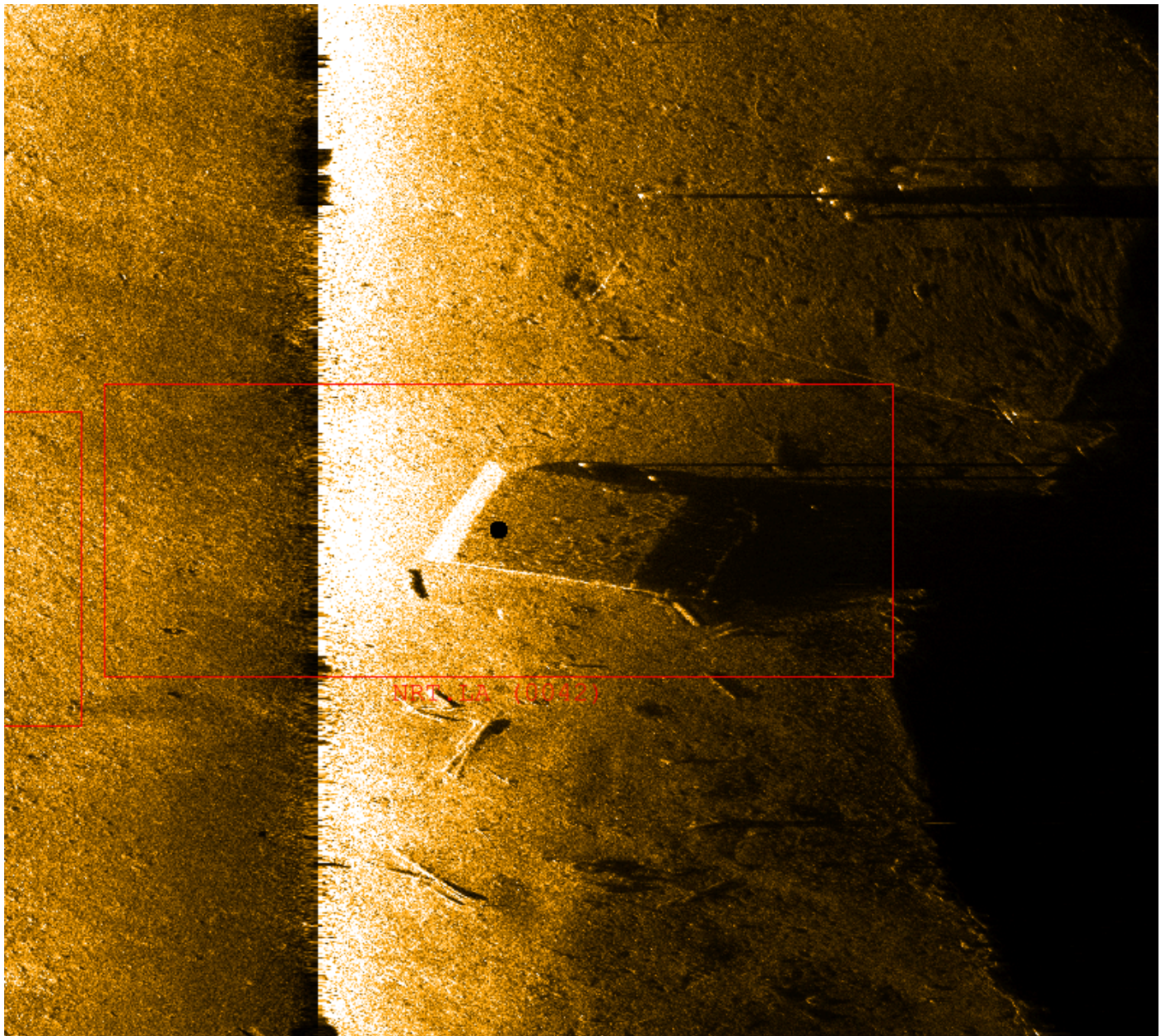


Figure 20: 1. Large obstruction Side Scan image.

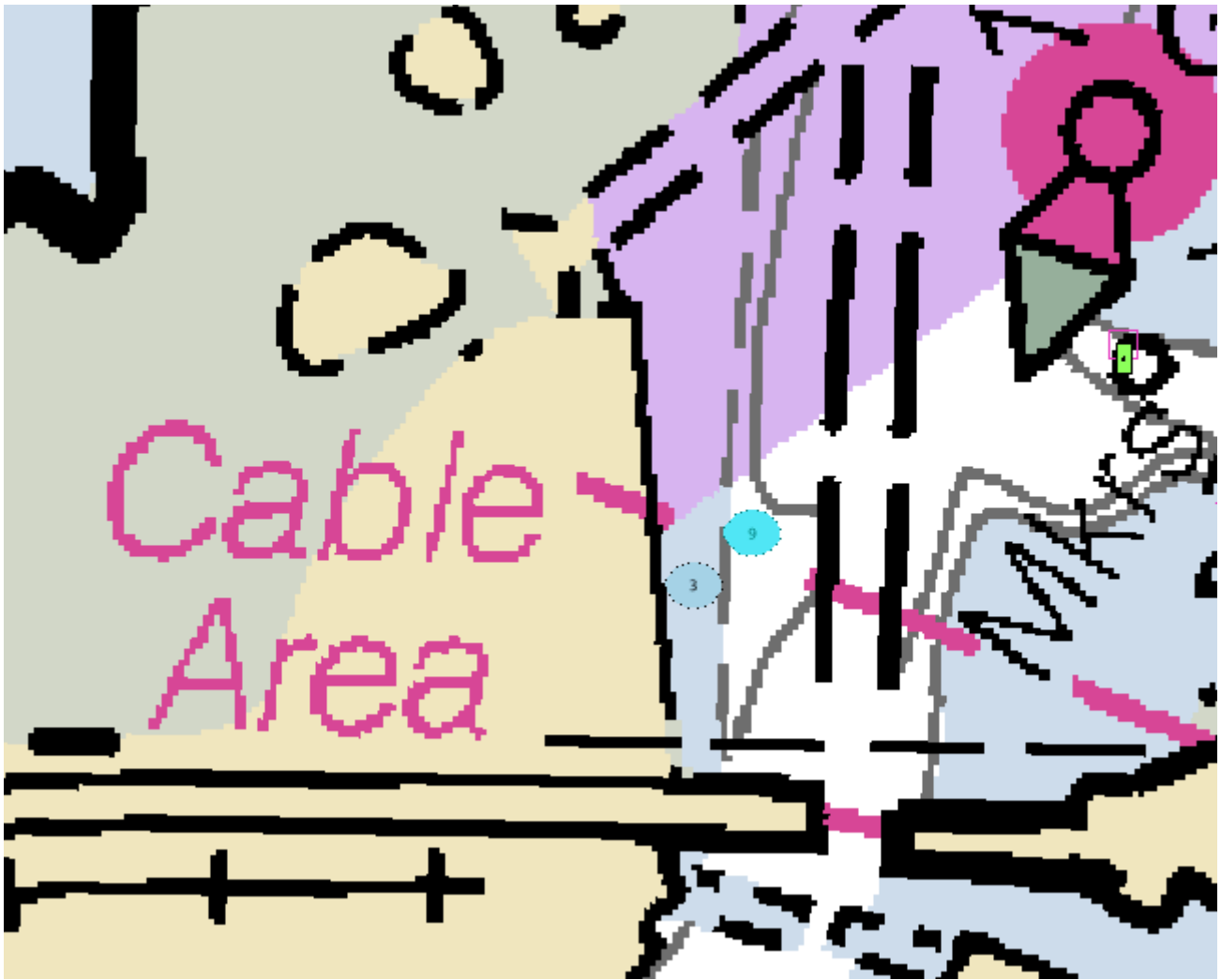
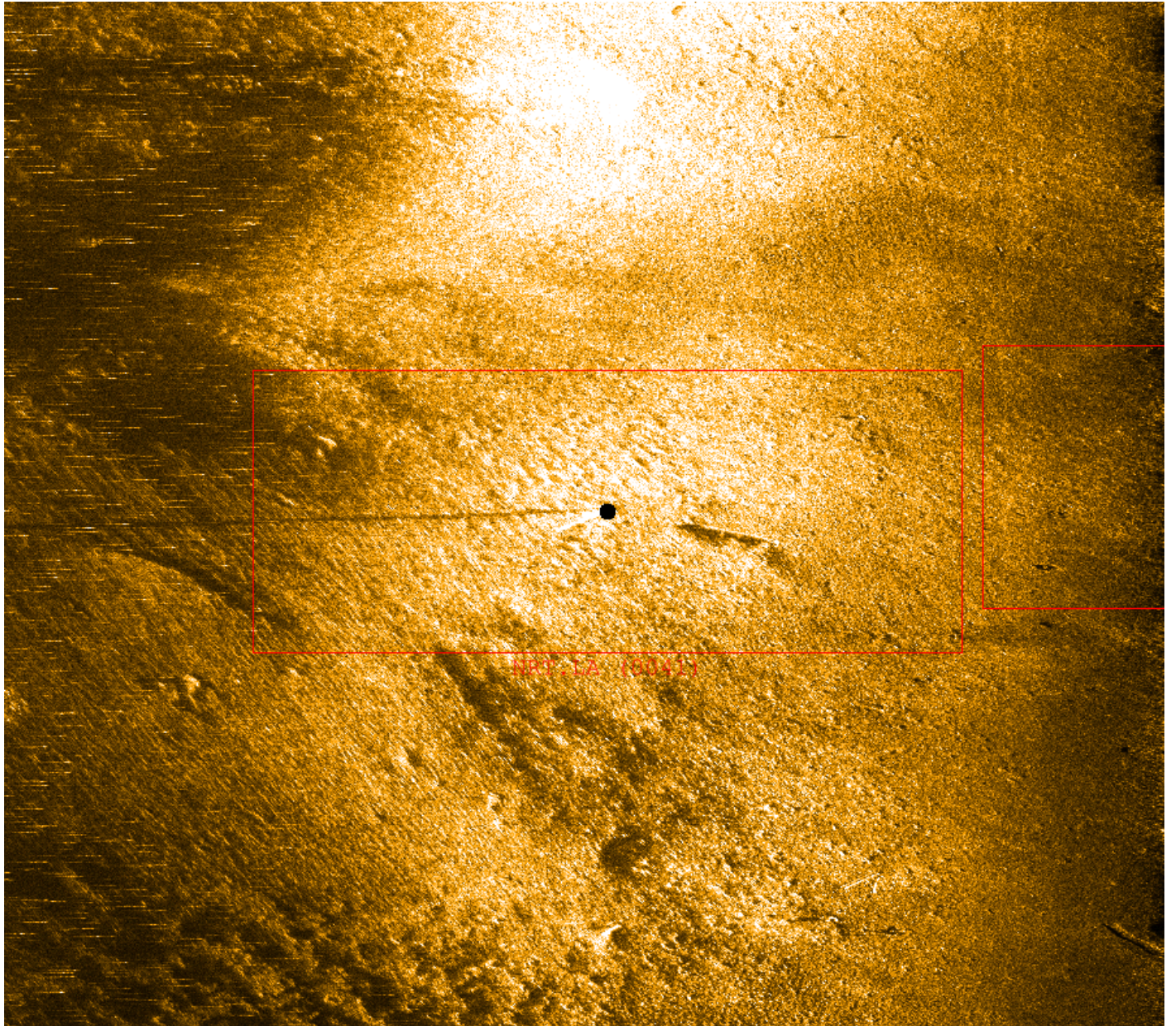


Figure 21: 2.9 foot obstruction.



*Figure 22: 2.9 foot obstruction Side Scan image.*

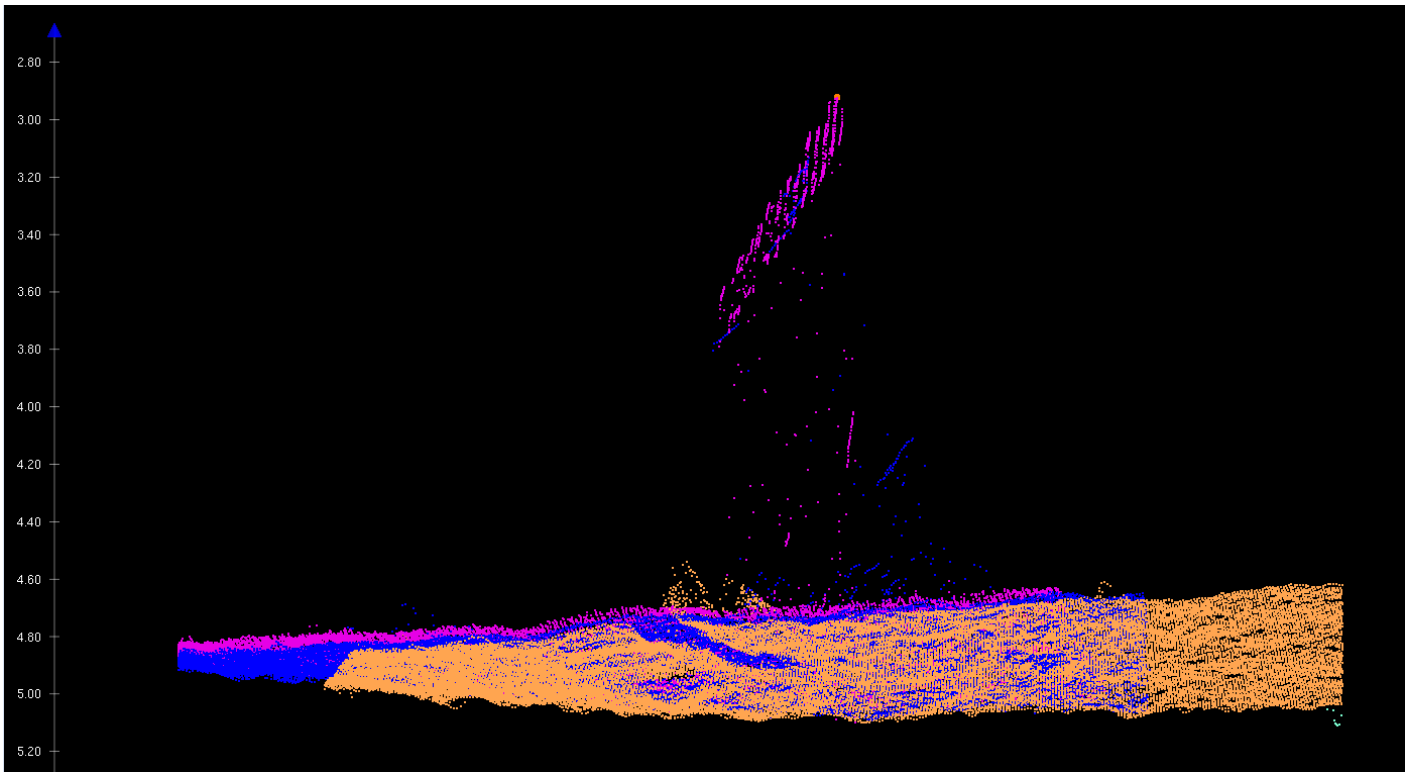


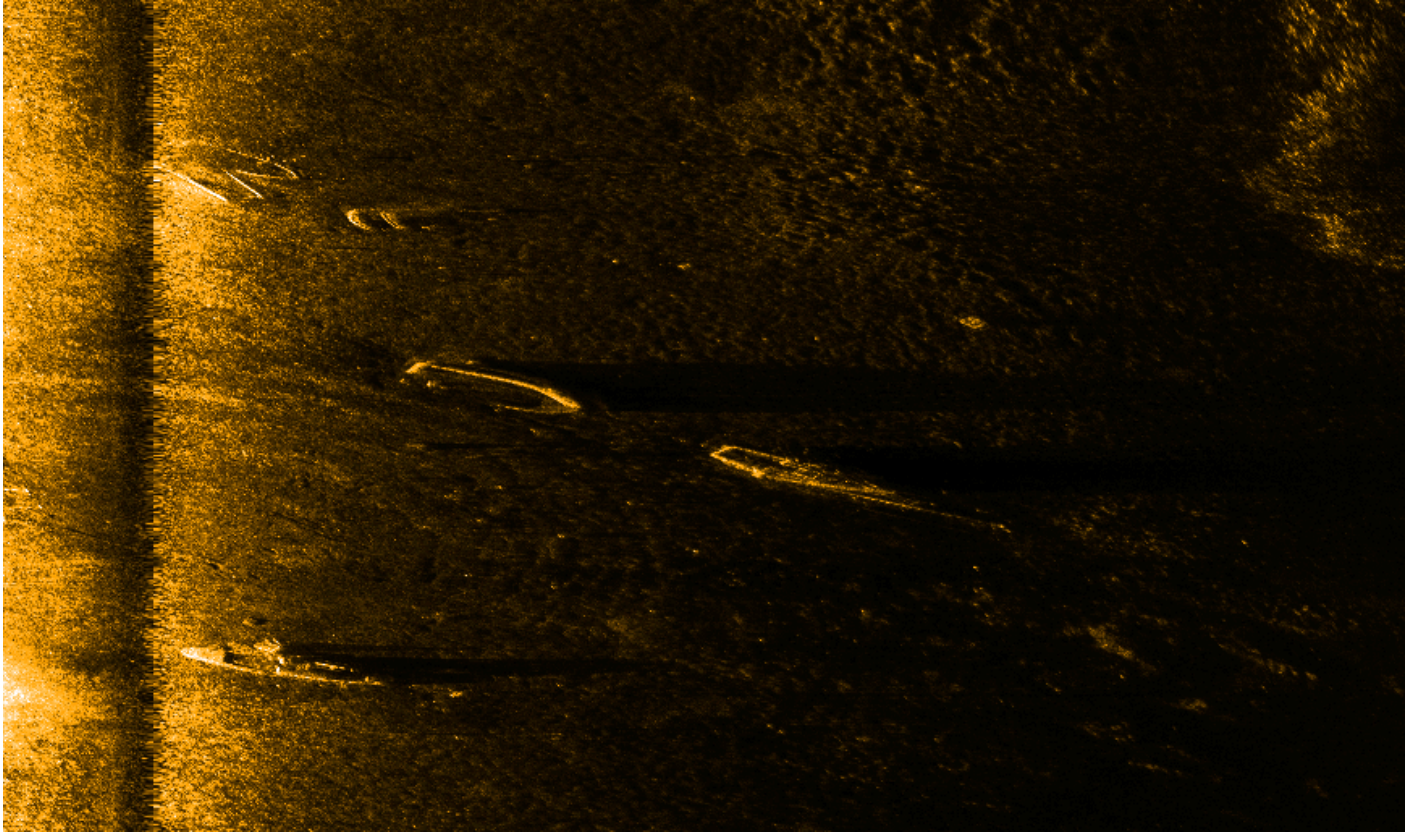
Figure 23: 2.9 foot obstruction Multibeam image.



Figure 24: 3. New awash wreck location.



*Figure 25: 3. New awash wreck image.*



*Figure 26: 3. New awash wreck Side Scan image.*

#### **D.1.5 Shoal and Hazardous Features**

One obstruction on ENC US5NC17M at position 34.721332N / 076.669965W had no least depth reported. A least depth of 14.4 feet was confirmed by MBES. This obstruction is included in the Final Feature File as an update to chart the least depth. One DTON was submitted during F00731. The DTON report and submission email are included in the appendices of this report.



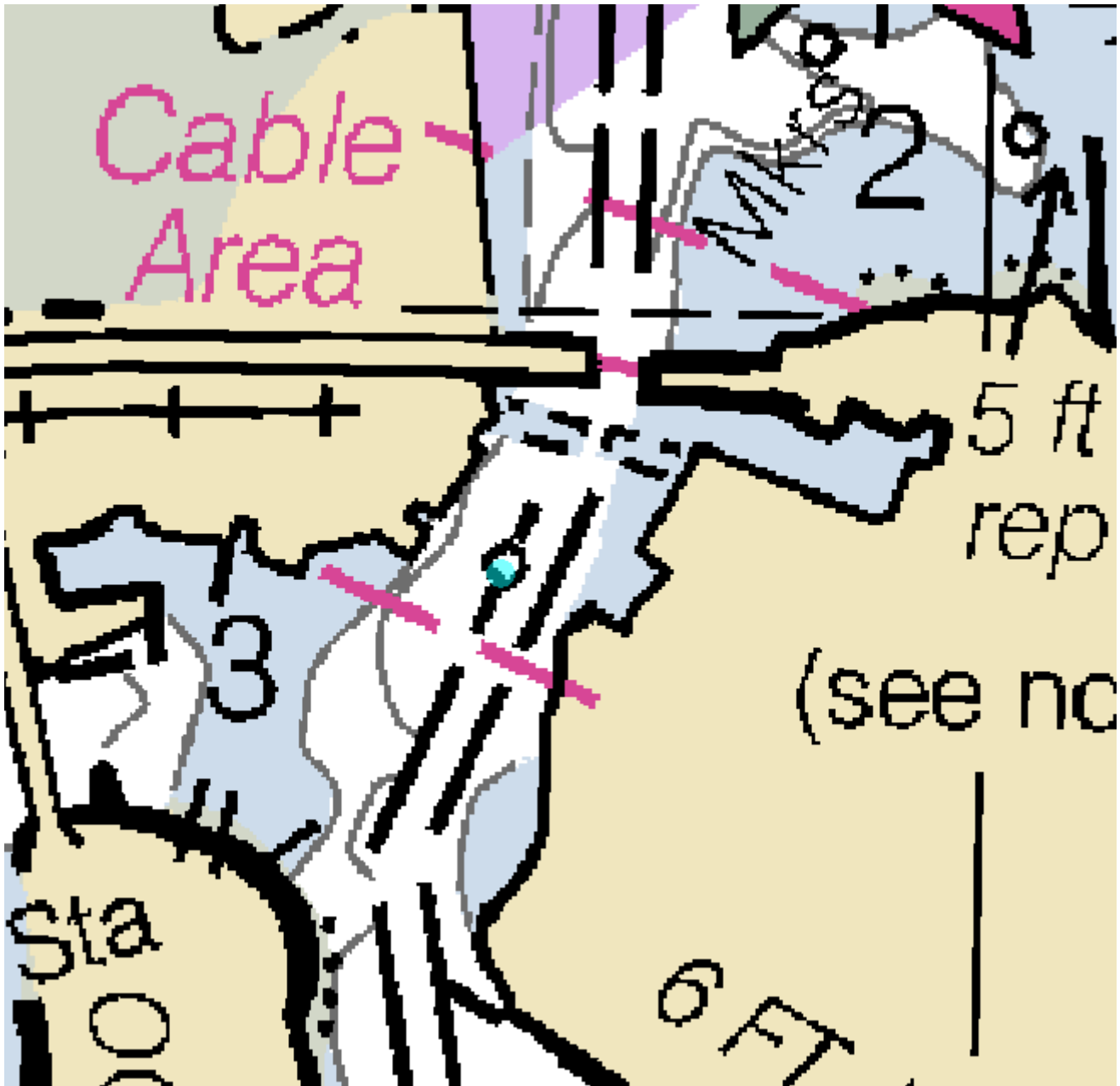
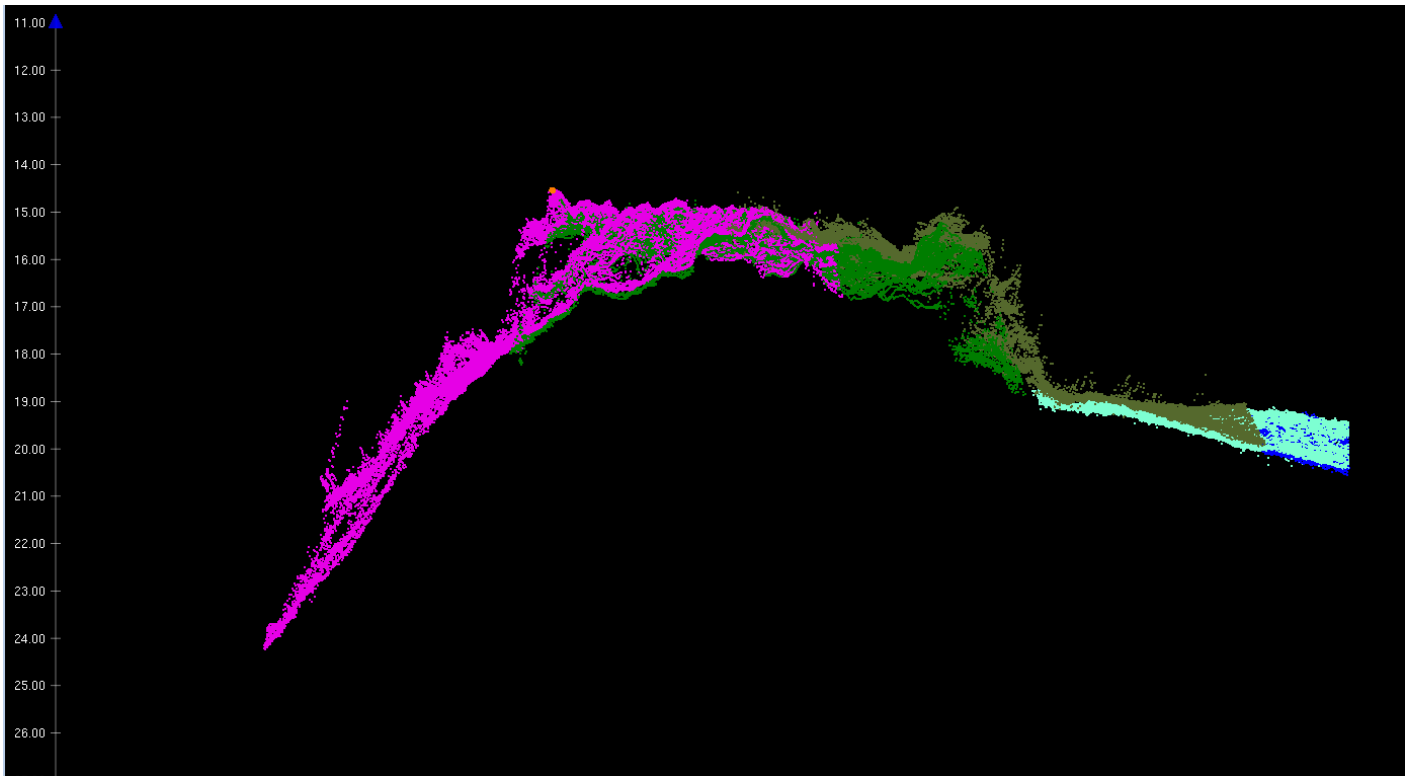


Figure 27: Obstruction recommended for update.



*Figure 28: Obstruction least depth MBES image.*

### **D.1.6 Channels**

Bulkhead Channel Range 6 from ENC US5NC17M was partially included in F00731. Soundings in the charted channel were all deeper than the reported 7.5 feet with the exception of one sounding that measured 7.3 feet. North of the defunct bascule bridge survey soundings are not shoaler than the reported 15 feet in the channel.

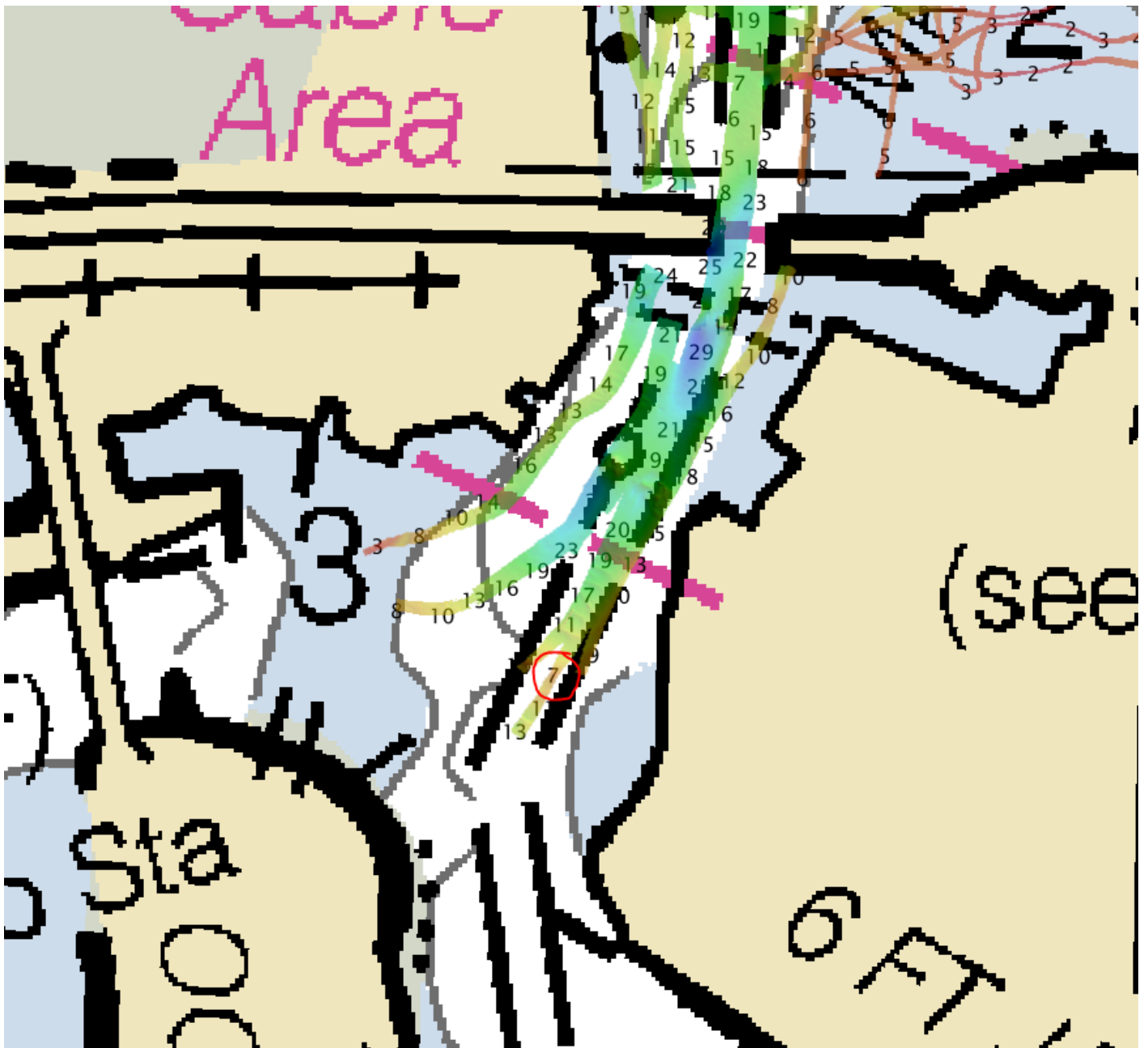


Figure 29: 7 foot sounding in Bulkhead Channel Range 6.

#### D.1.7 Bottom Samples

No bottom samples were required for this survey.

## **D.2 Additional Results**

### **D.2.1 Shoreline**

All features assigned in the CSF, as well as new and updated features are included in the Final Feature File.

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

Prior surveys are discussed in the Junction Survey section of this report.

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

All ATONs not discussed in this section are on station and serving their intended purpose. New private aids marking the entrance to Homer Smith Marina are included in the Final Feature File and are recommended for charting.

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

1. The bascule bridge on ENC US5NC17M is no longer operational due to the opening of the new fixed bridge to the north. Recommend removing the bascule bridge. The new Highrise Bridge has a reported vertical clearance of 65 feet at MHW and a horizontal clearance of 72 feet at the channel span. An email from North Carolina Department of Transportation is included in Project Correspondence.

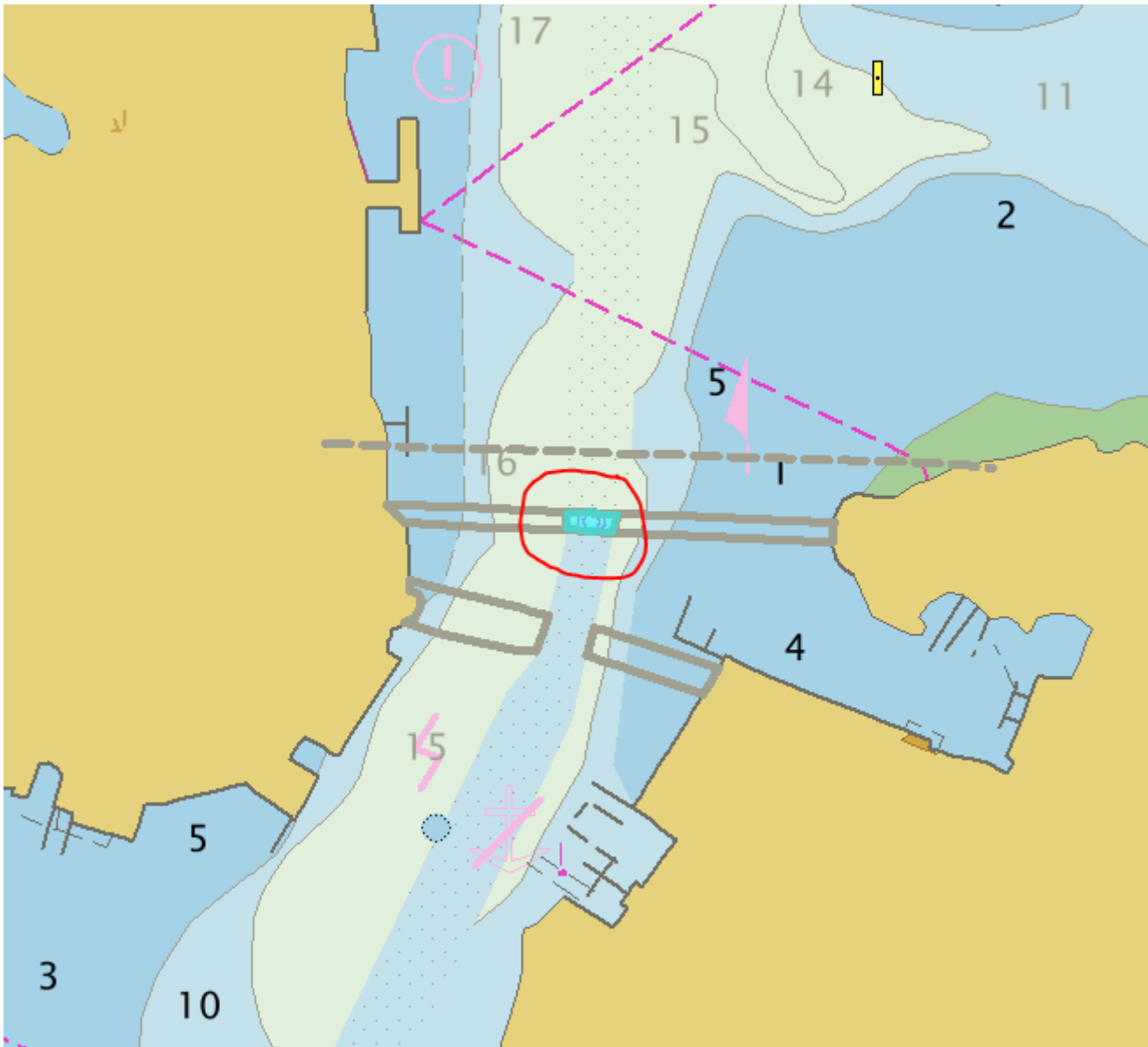


Figure 30: 1. Bascule Bridge recommended for removal.

*The North Carolina Department of Transportation email that is referenced above in section D.2.4 has been appended to this document.*

#### D.2.5 Submarine Features

No submarine features exist for this survey.

#### D.2.6 Platforms

No platforms exist for this survey.

**D.2.7 Ferry Routes and Terminals**

No ferry routes or terminals exist for this survey.

**D.2.8 Abnormal Seafloor and/or Environmental Conditions**

No abnormal seafloor and/or environmental conditions exist for this survey.

**D.2.9 Construction and Dredging**

Chart 11545 still displays the Beaufort Highrise bridge in the survey area as under construction. Construction has been completed on the bridge and this note should be removed from the chart.

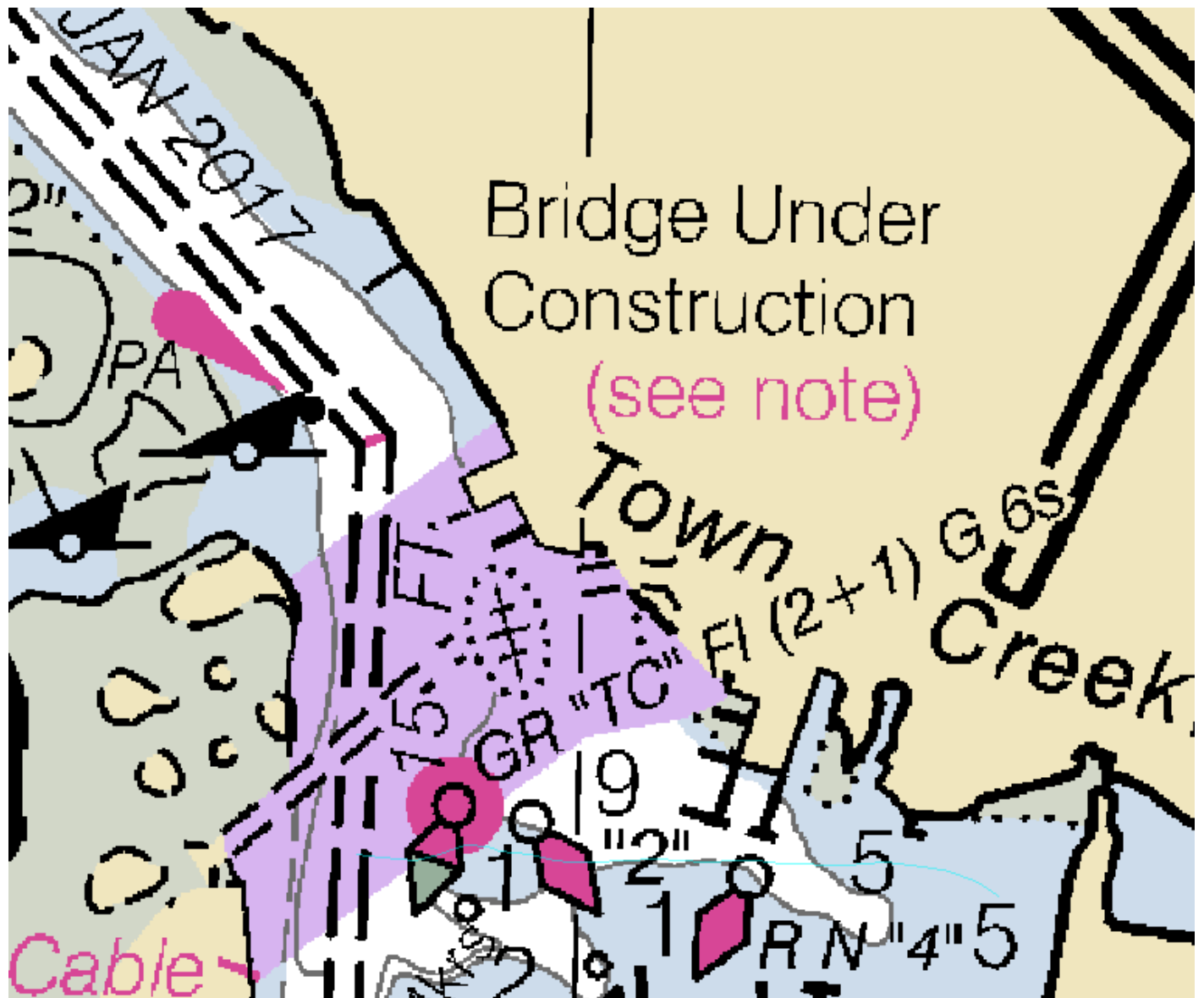


Figure 31: Bridge under construction note.

#### 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 Specifications and Deliverables, 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
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**KIRKPATRICK.JAMES.L  
EROY.IV.1400487398**

Digitally signed by

KIRKPATRICK.JAMES.LEROY.IV.14  
00487398

Date: 2019.03.19 13:44:24 -04'00'

## F. Table of Acronyms

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

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

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



James Kirkpatrick - NOAA Federal <james.kirkpatrick@noaa.gov>

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## Beaufort highrise bridge clearance

3 messages

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**James Kirkpatrick - NOAA Federal** <james.kirkpatrick@noaa.gov>  
To: rgerrald@ncdot.gov

Thu, Feb 7, 2019 at 12:43 PM

Mr. Gerrald,

I am in the process of applying updates to NOAA's nautical charts in the Beaufort/ Morehead City area. Would you be able to provide any information on the vertical and horizontal clearances under the new highrise bridge? Could you also confirm that the old bascule bridge on Cedar street is no longer in use? If you don't have this info would you mind pointing me in the right direction to obtain it?

Best,

James

--

James Kirkpatrick  
Team Lead NRT2  
904-310-9208  
757-903-7199

---

**Gerrald, Rhett** <rgerrald@ncdot.gov>  
To: James Kirkpatrick - NOAA Federal <james.kirkpatrick@noaa.gov>

Thu, Feb 7, 2019 at 3:49 PM

Mr. Kirkpatrick,

The high-rise has a vertical clearance at mean high water of 65-feet and a horizontal clearance of 72-feet. The bascule bridge is no longer in service.

Thank you,

**Rhett Gerrald, PE**

Division Bridge Maintenance Engineer

Division of Highways – Division 2

North Carolina Department of Transportation

252 514 4724 office

252 514 4798 fax

[rgerrald@ncdot.gov](mailto:rgerrald@ncdot.gov)

255 S. Glenburnie Road

New Bern, NC 28560



*Email correspondence to and from this address is subject to the North Carolina Public Records Law and may be disclosed to third parties.*

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**From:** James Kirkpatrick - NOAA Federal <james.kirkpatrick@noaa.gov>  
**Sent:** Thursday, February 7, 2019 12:43 PM  
**To:** Gerrald, Rhett <rgerrald@ncdot.gov>  
**Subject:** [External] Beaufort highrise bridge clearance

**CAUTION:** External email. Do not click links or open attachments unless you verify. Send all suspicious email as an attachment to [report.spam@nc.gov](mailto:report.spam@nc.gov)

[Quoted text hidden]

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Email correspondence to and from this sender is subject to the N.C. Public Records Law and may be disclosed to third parties.

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**James Kirkpatrick - NOAA Federal** <james.kirkpatrick@noaa.gov>  
To: "Gerrald, Rhett" <rgerrald@ncdot.gov>

Thu, Feb 7, 2019 at 3:56 PM

Thanks so much, that's exactly what I needed.

Best,

James

[Quoted text hidden]

APPROVAL PAGE

F00731

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

- Descriptive Report
- Collection of Bathymetric Attributed Grids (BAGs)
- Collection of backscatter mosaics
- Processed survey data and records
- GeoPDF of survey products

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 Olivia Hauser, NOAA**  
Chief, Pacific Hydrographic Branch