F00725

NOAA Form 76-35A

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

DESCRIPTIVE REPORT

Type of Survey:	Navigable Area
Registry Number:	F00725

LOCALITY

State:	Maine
General Locality:	Gulf of Maine
Sub-locality:	Bar Harbor

2018

CHIEF OF PARTY
LTJG Dylan Kosten

LIBRARY & ARCHIVES

Date:

NOAA FORM 77-28 (11-72)	U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	REGISTRY NUMBER:
HYDROGRAPHIC TITLE SHEET		**F00725**

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:	**Alaska**
General Locality:	**West of Prince of Wales Island**
Sub-Locality:	**St Nicholas Channel to Siketi Sound**
Scale:	**1: 5,000**
Dates of Survey:	**06/12/2018 to 06/15/2018**
Instructions Dated:	**05/21/2018**
Project Number:	**S-A924-NRT5-18**
Field Unit:	**Navigation Response Team 5**
Chief of Party:	**LTJG Dylan Kosten**
Soundings by:	**Multibeam Echo Sounder**
Imagery by:	**Multibeam Echo Sounder Acoustic Backscatter**
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 F00725

Project: S-A924-NRT5-18

Locality: Gulf of Maine

Sublocality: Bar Harbor

Scale: 1:5000

June 2018 - June 2018

Navigation Response Team 5

Chief of Party: LTJG Dylan Kosten

A. Area Surveyed

This hydrographic survey was acquired in accordance with the requirements defined in the Project Instruction S-A924-NRT5-18 (Figure 1). Three areas were surveyed that fell outside of the assigned survey limits, but were surveyed to meet the same specifications (Figures 2, 3).

A.1 Survey Limits

Data were acquired within the following survey limits:

Northwest Limit	Southeast Limit
44° 24' 33.16" N 68° 13' 9.76" W	43° 58' 23.57" N 68° 19' 25.24" W

Table 1: Survey Limits

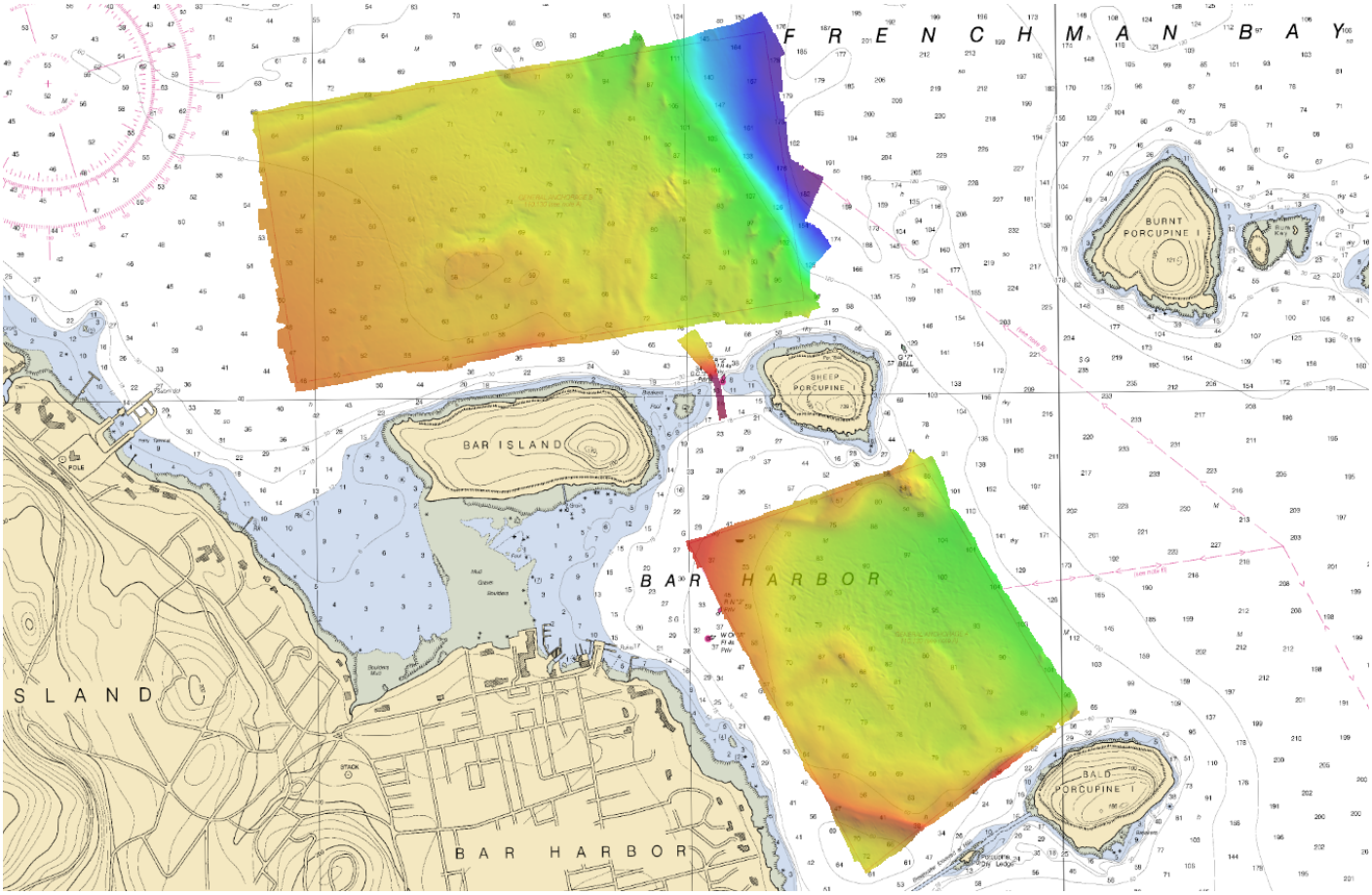


Figure 1: Overview of anchorage areas surveyed (Chart 13323).

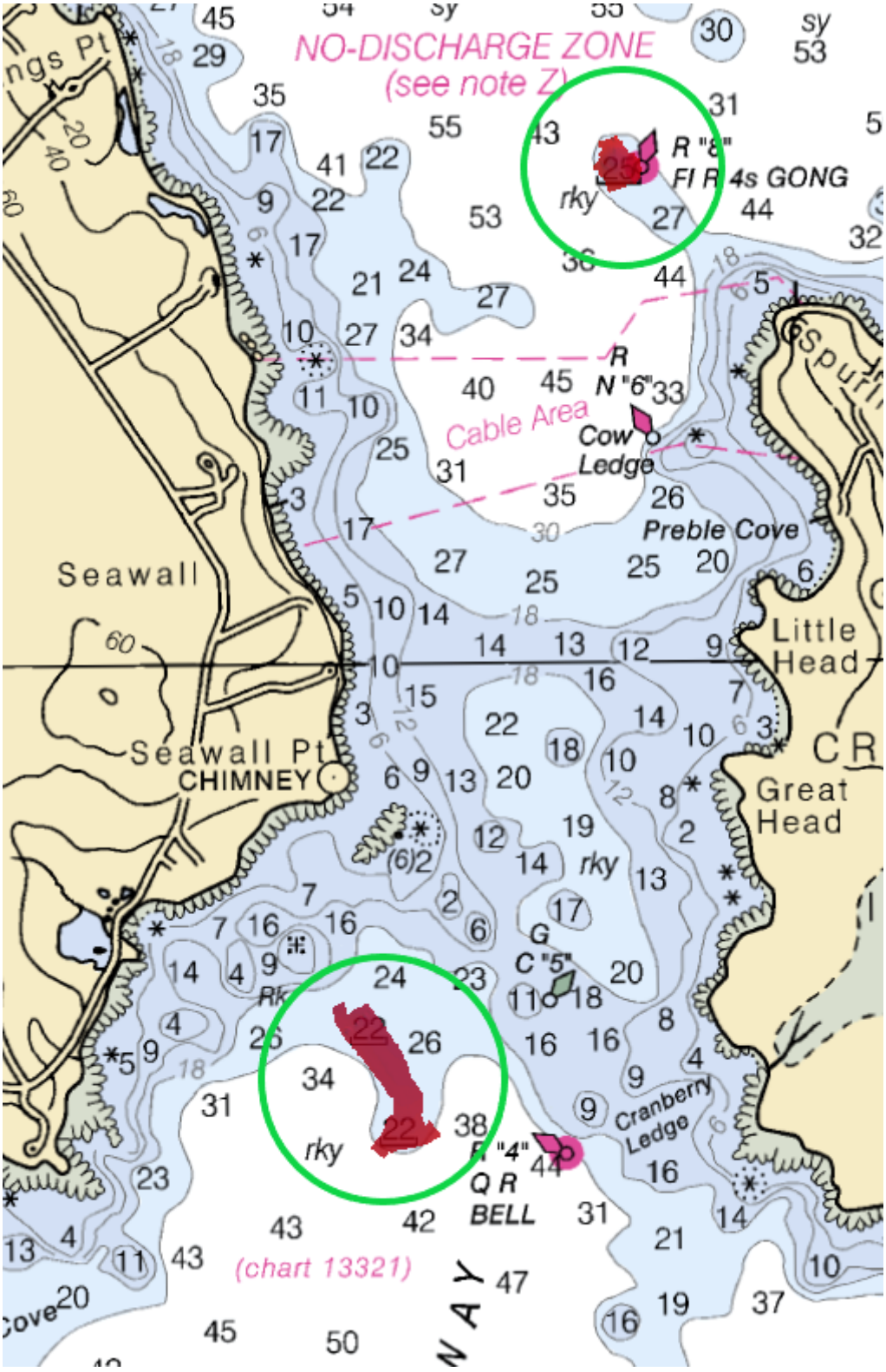


Figure 2: Overview of wire drag investigations in Western Way and to the northwest of Spurling Point (Chart 13318).

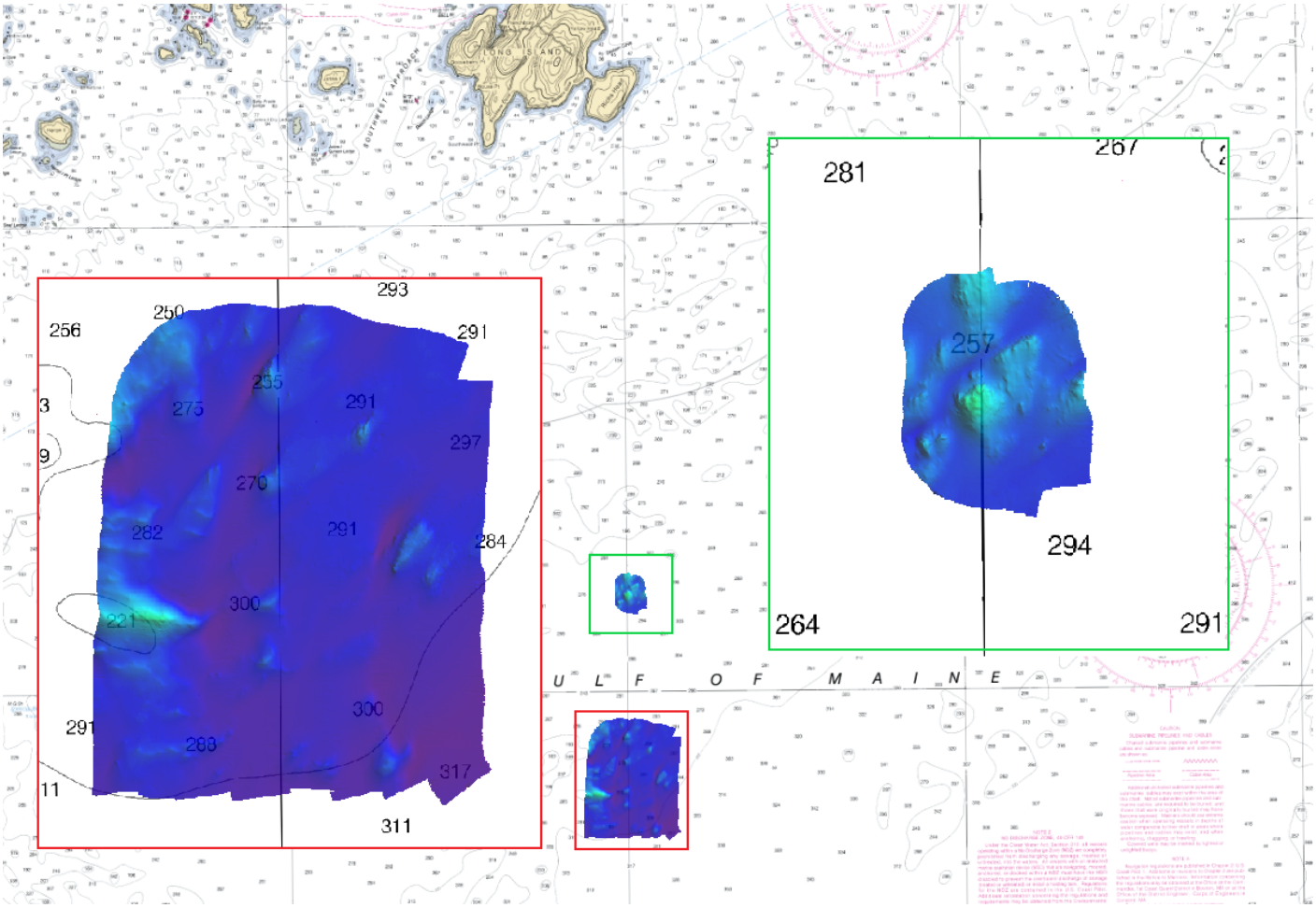


Figure 3: Overview of Cornwallis search area (red) and chart discrepancy investigation (green) (Chart 13313).

Survey Limits were acquired in accordance with the requirements in the Project Instructions and the HSSD, with the some exceptions as noted above.

A.2 Survey Purpose

Captain David Gelinas of the Penobscot Bay Pilots Association has requested a hydrographic survey in Bar Harbor. Bar Harbor expects to have more than 150 large cruise ship that anchor in the two designated anchorage areas. Within anchorage B, there is a submerged wreck PA. Reported by locals, the wreck no longer exists. Survey data from this project is intended to supersede all prior survey data in the common area. If time permits, NRT5 will be assigned to investigation the location of the submerged wreck, Cornwallis. The Cornwallis was sunk in 1944 by a torpedo. The Cornwallis is considered a potential pollution threat due to potential risk of fuel discharge. The location is unknown but NOAA would like to locate the vessel for an Area Contingency Plan if there was a spill or fuel leak.

Additionally, there were two wire-drag obstructions and a chart discrepancy that was investigated when returning back to port after searching for the Cornwallis.

A.3 Survey Quality

The entire survey is adequate to supersede previous data.

Overall, 10 relatively small holidays were identified during grid quality analysis. None of which occur over navigationally significant features. One sounding was designated over a notable shoal in General Anchorage A, and has been added to the Final Feature File.

A.4 Survey Coverage

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

Water Depth	Coverage Required
All waters in survey area	Object Detection Coverage (Refer to HSSD Section 5.2.2.2)

Table 2: Survey Coverage

Survey coverage was in accordance with the requirements listed above and in the HSSD.

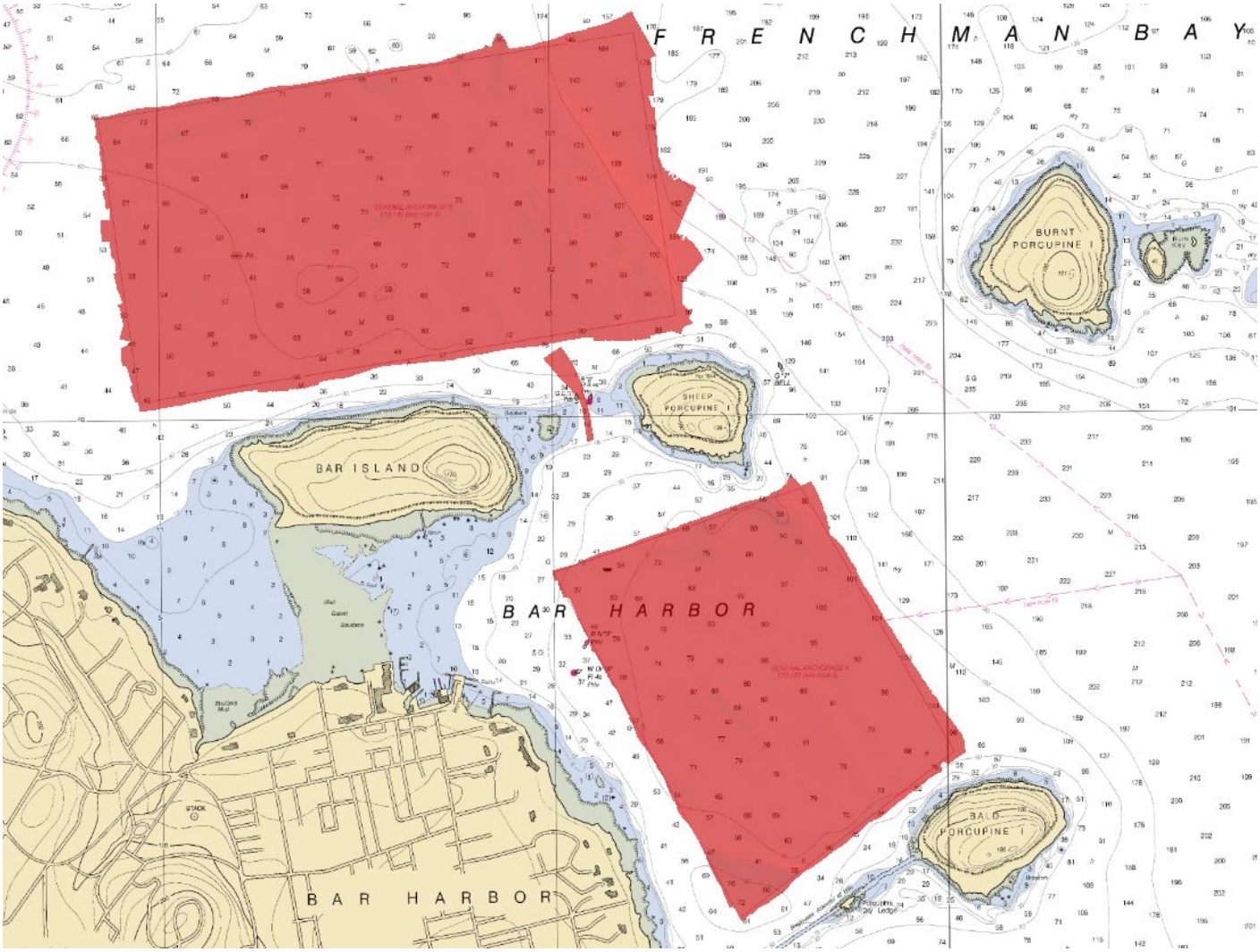


Figure 4: General anchorage area survey coverage (Chart 13323).

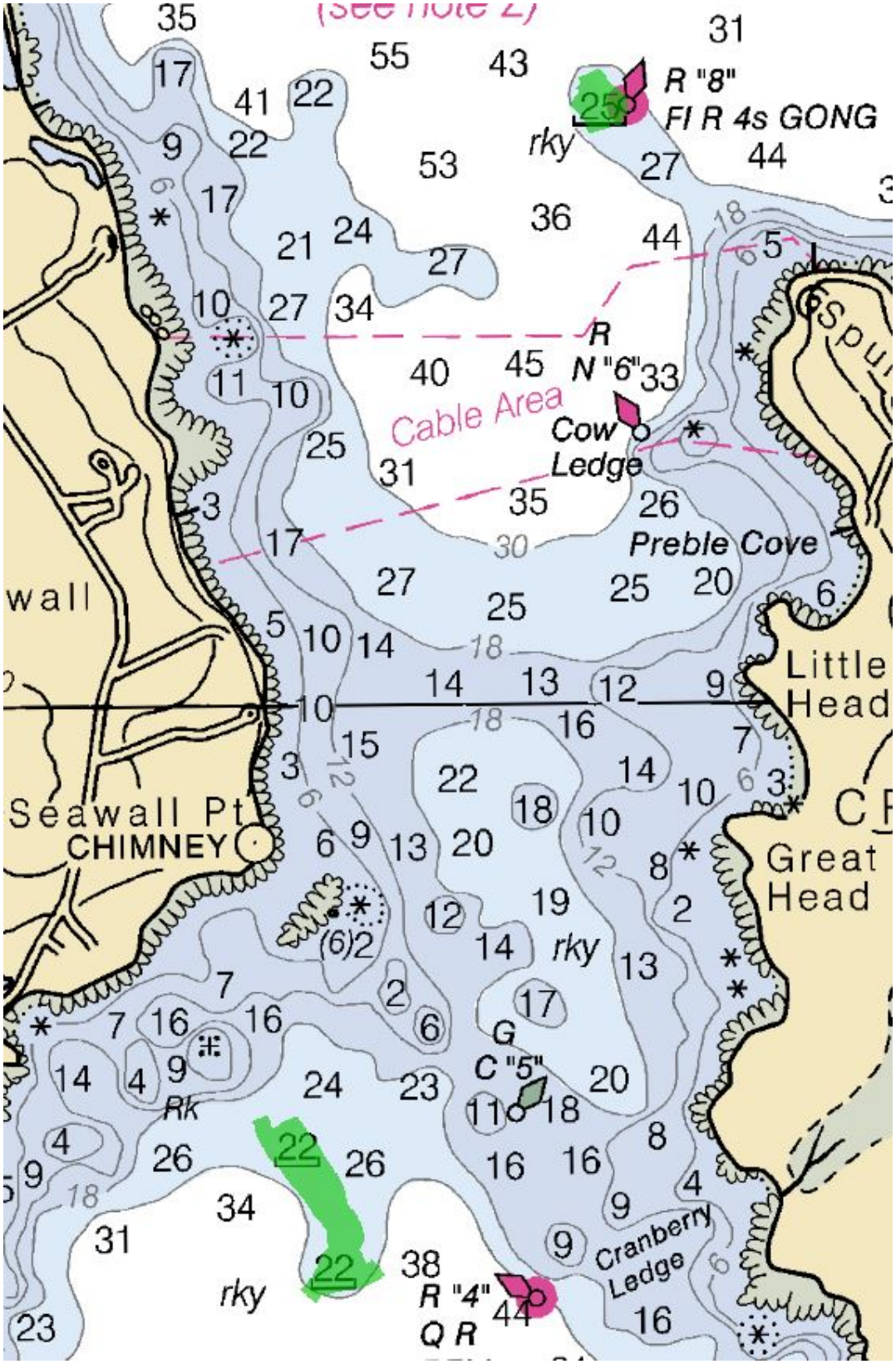


Figure 5: Wire drag investigation survey coverage (Chart 13318).

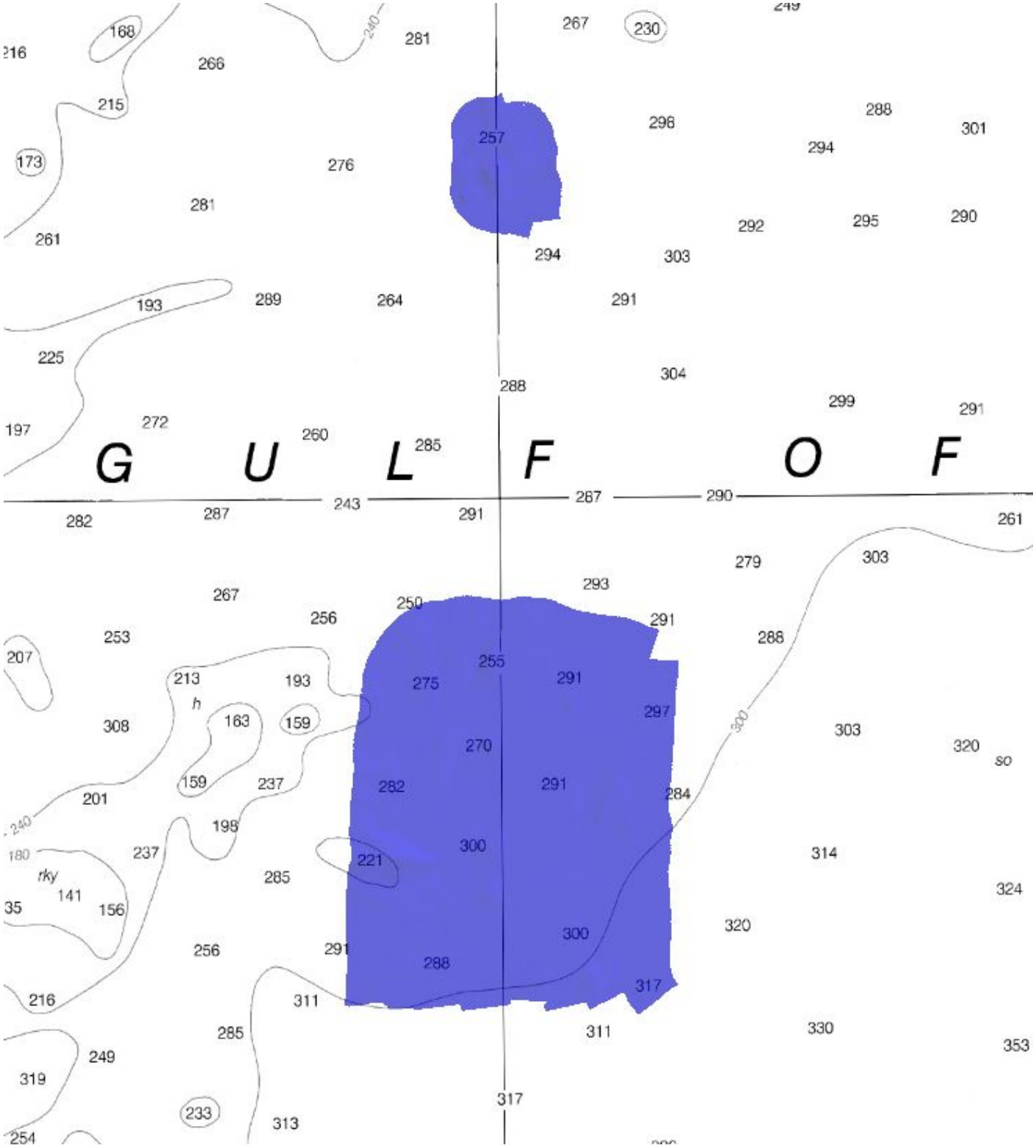


Figure 6: Cornwallis search area and chart discrepancy investigation survey coverage (Chart 13313).

A.5 Survey Statistics

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

	HULL ID	*S3007*	*Total*
LNM	**SBES Mainscheme**	0	0
	MBES Mainscheme	39.912	39.912
	Lidar Mainscheme	0	0
	SSS Mainscheme	0	0
	SBES/SSS Mainscheme	0	0
	MBES/SSS Mainscheme	0	0
	SBES/MBES Crosslines	4.379	4.379
	Lidar Crosslines	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			44.291

Table 3: Hydrographic Survey Statistics

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

Survey Dates	Day of the Year
06/12/2018	163
06/13/2018	164
06/15/2018	166

Table 4: 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	***S3007***
LOA	10.38 meters
Draft	0.6 meters

Table 5: Vessels Used

Figure 7: S3007 moored at USCG Southwest Harbor during low and high tides.

B.1.2 Equipment

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

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

Table 6: Major Systems Used

B.2 Quality Control

B.2.1 Crosslines

Multibeam/single beam echo sounder/side scan sonar crosslines acquired for this survey totaled 10.97% of mainscheme acquisition.

S3007 acquired 39.912 linear nautical miles of mainscheme bathymetry and 4.379 linear nautical miles of crosslines (Figure 8). 1-meter CUBE surfaces of mainscheme and crossline coverage were compared using the Pydro Compare Grids tool (Figures 9, 10).

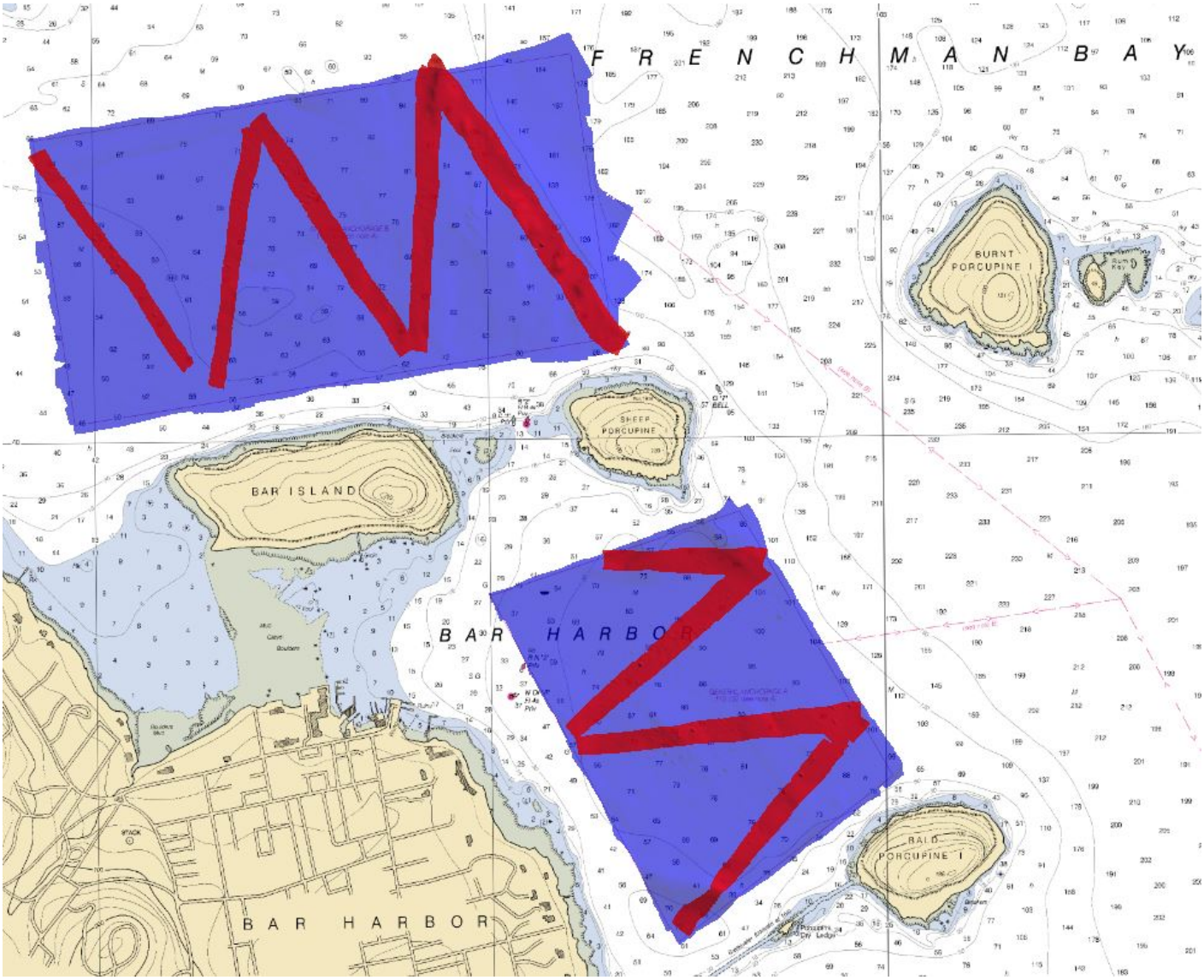
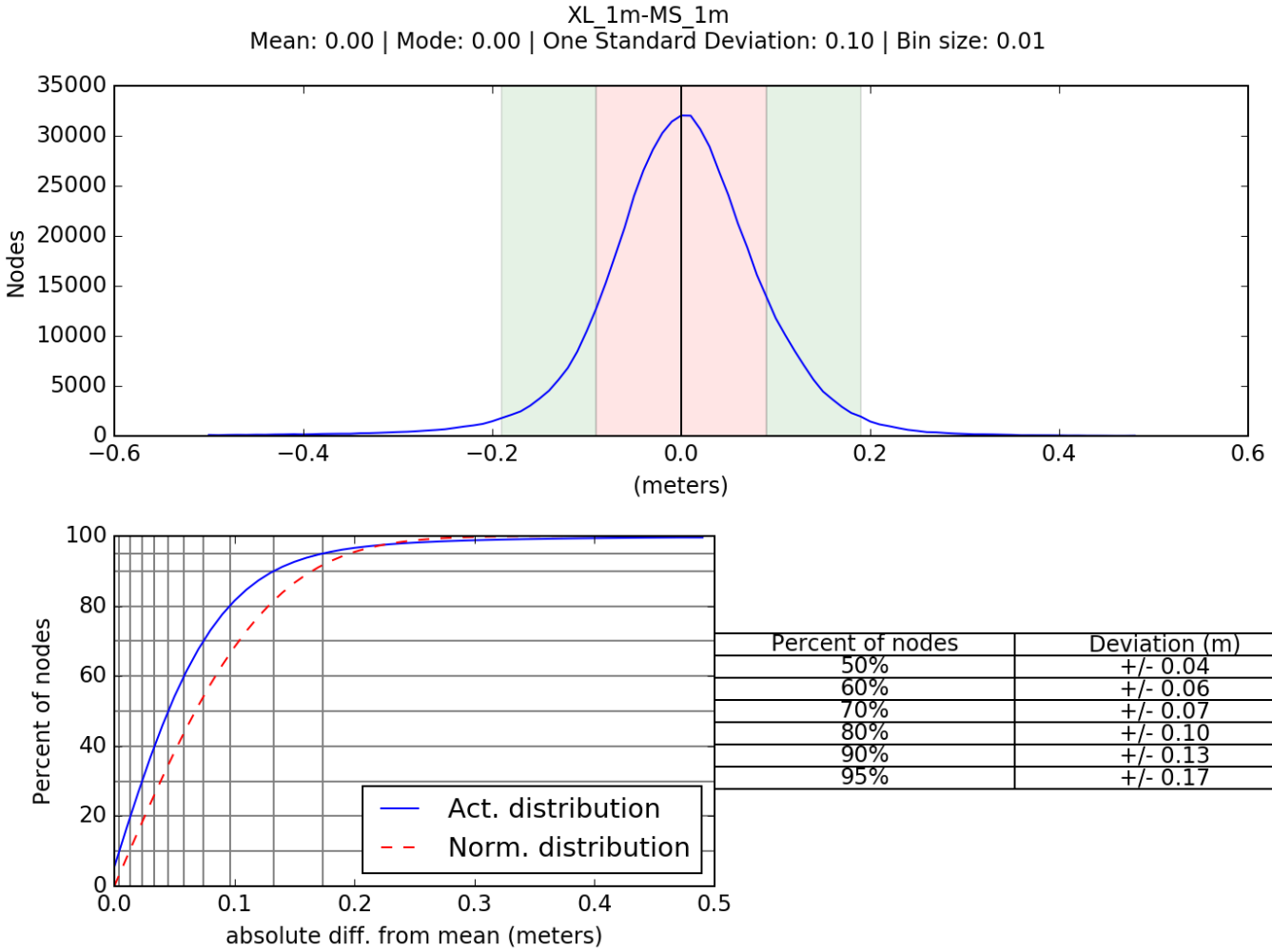


Figure 8: Crosslines acquired over mainscheme coverage (Chart 13323).



Percent of nodes	Deviation (m)
50%	+/- 0.04
60%	+/- 0.06
70%	+/- 0.07
80%	+/- 0.10
90%	+/- 0.13
95%	+/- 0.17

Figure 9: Statistics and distribution summary plots

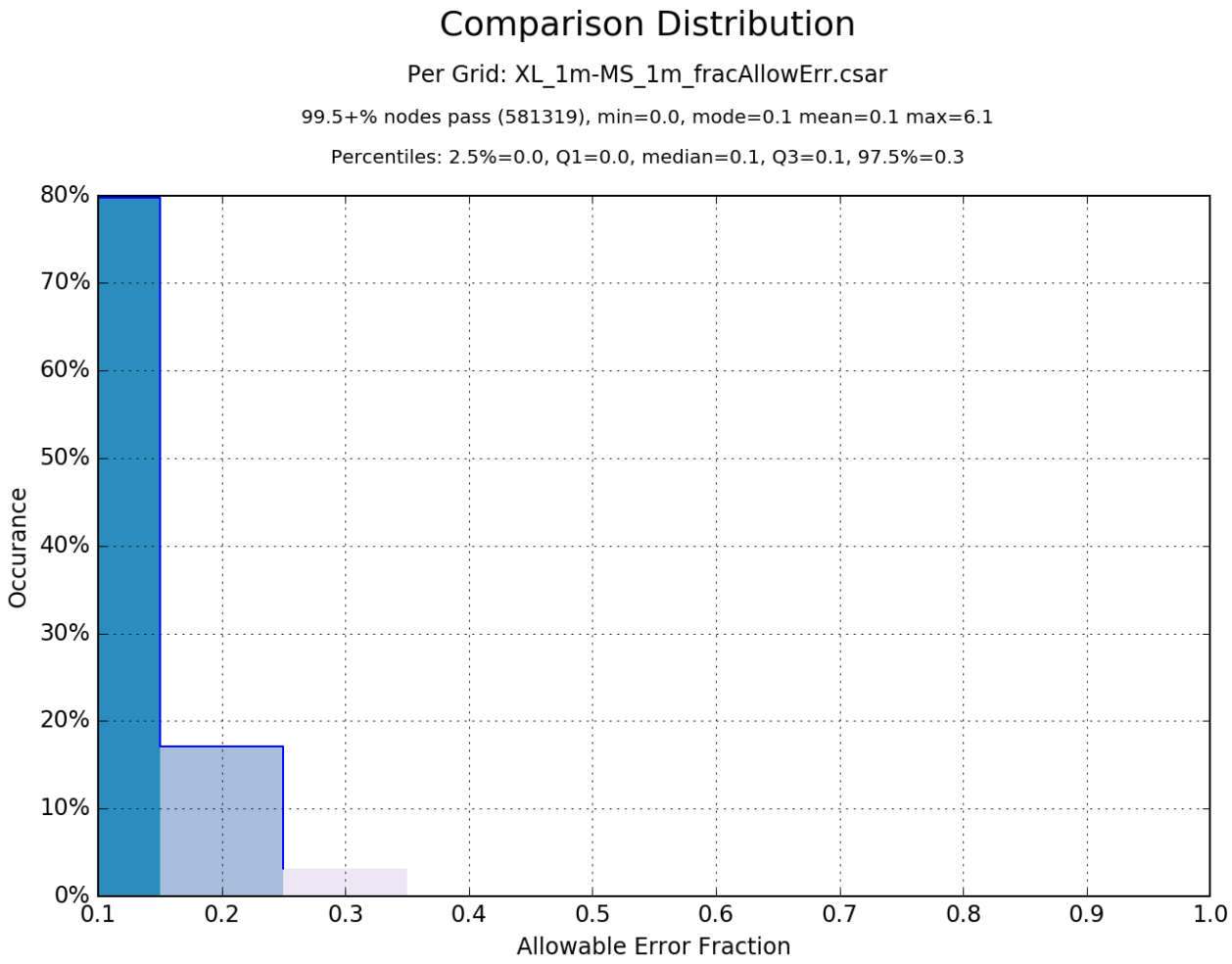


Figure 10: Distribution statistics

B.2.2 Uncertainty

The following survey specific parameters were used for this survey:

Method	Measured	Zoning
ERS via VDATUM	0.134 meters	0 meters

Table 7: Survey Specific Tide TPU Values.

Total Propagated Uncertainty (TPU) values for F00725 were derived from a combination of fixed values or equipment and vessel characteristics, as well as field assigned values for sound speed uncertainties. A visual inspection of the Uncertainty layer revealed fairly consistent and IHO passing uncertainty across the surface, and a visual inspection of the Density layer revealed the areas of lowest density are in deeper waters. In addition to the usual a priori estimates of uncertainty, some real time and post processed uncertainty sources were also incorporated into the depth estimates of the survey. Real-time uncertainties from the Kongsberg MBES sonar were incorporated and applied during post processing. The recorded delayed heave Applanix files included an estimate of the heave uncertainty and were applied during post-processing. All of the aforementioned uncertainties were applied in CARIS. As stated, F00725 is an ellipsoidally referenced survey (ERS) and the tidal component was accomplished with a VDatum separation model.

QC Tools' Grid QA application was run and showed that the grids passed the assessments for uncertainty and density requirements. Results from analysis are shown below (Figures 11-22).

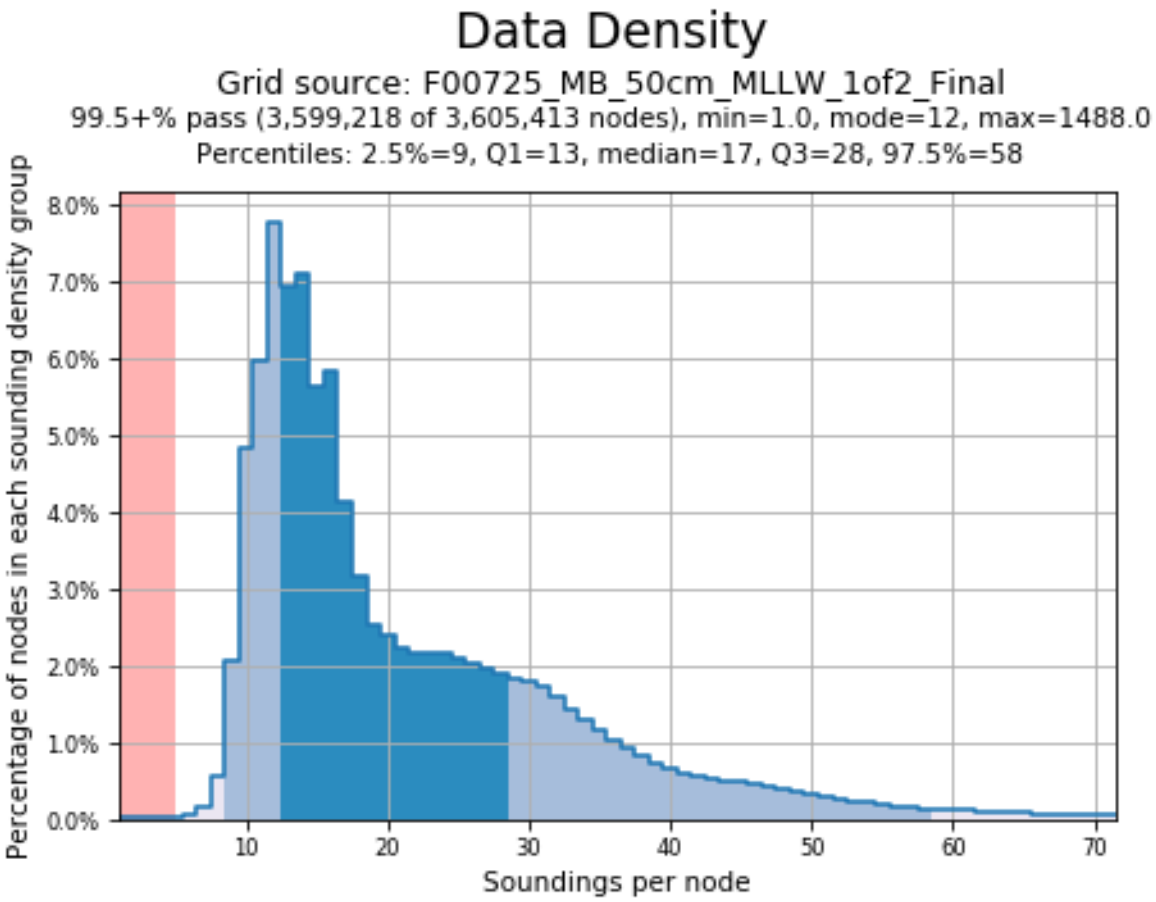


Figure 11: Density analysis for 0.5m finalized surface (1 of 2)

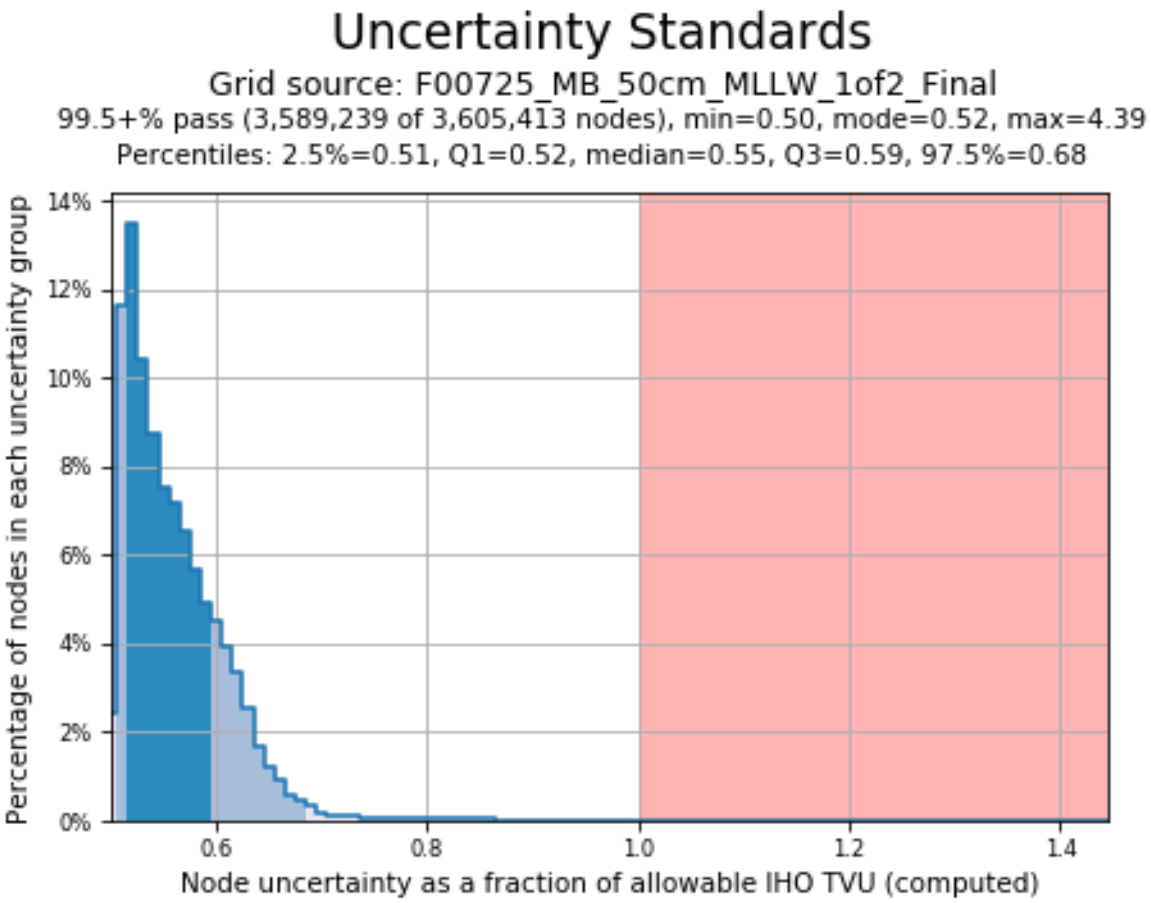


Figure 12: Uncertainty analysis for 0.5m finalized surface (1 of 2)

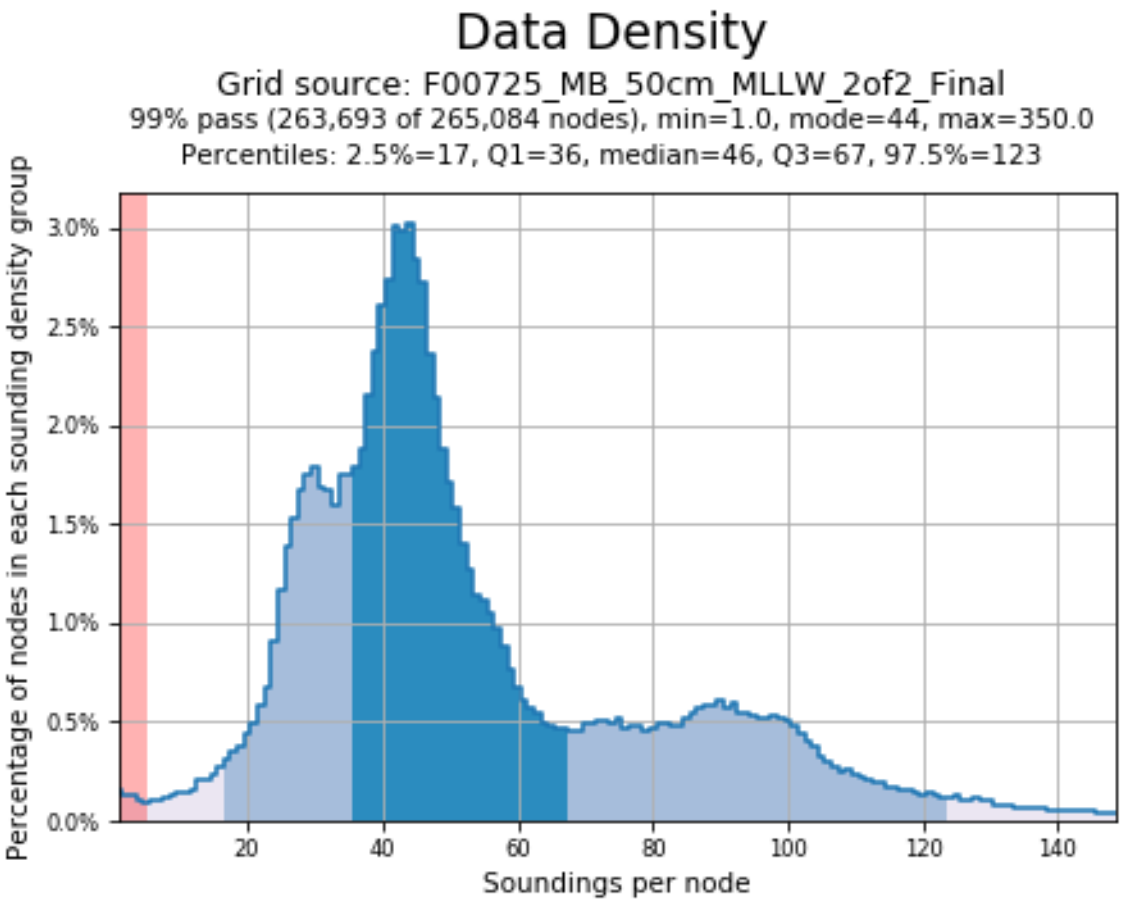


Figure 13: Density analysis for 50 cm finalized surface (2 of 2)

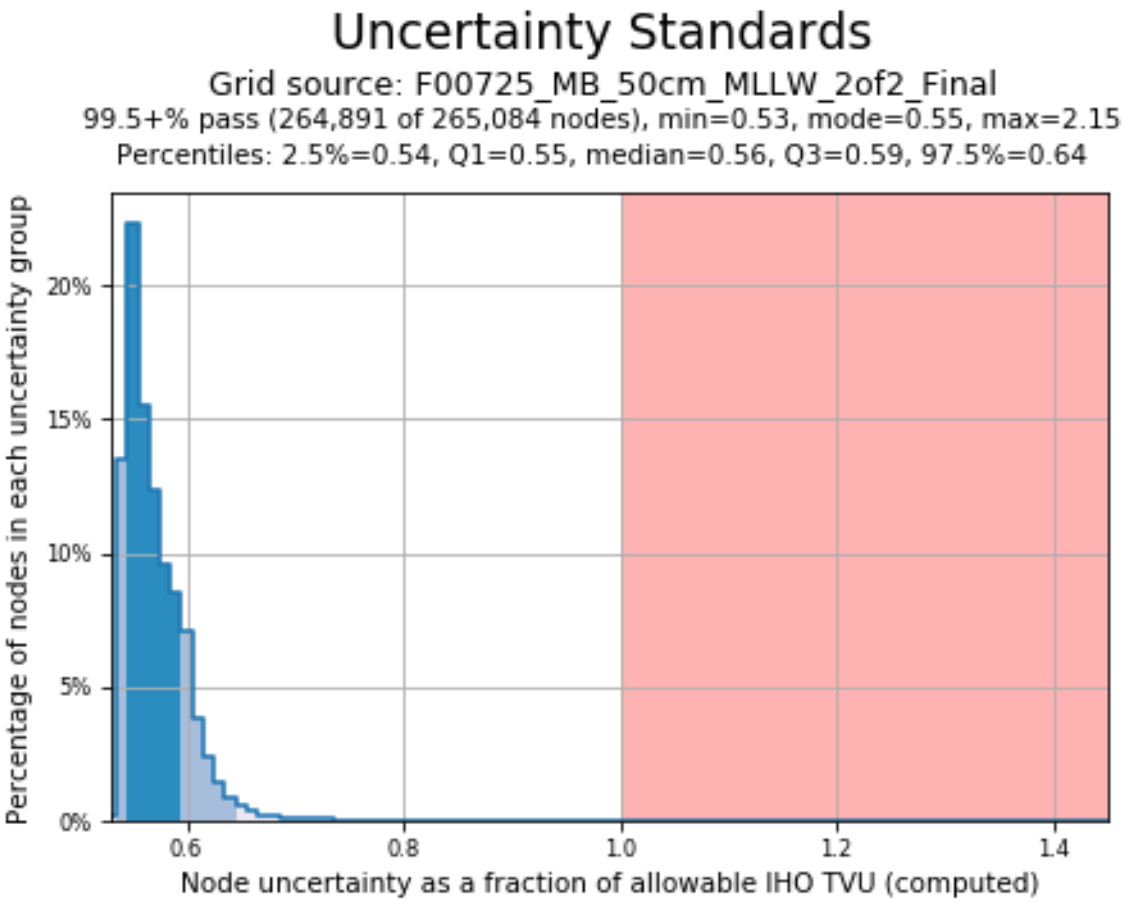


Figure 14: Uncertainty analysis for 50 cm finalized surface (2 of 2)

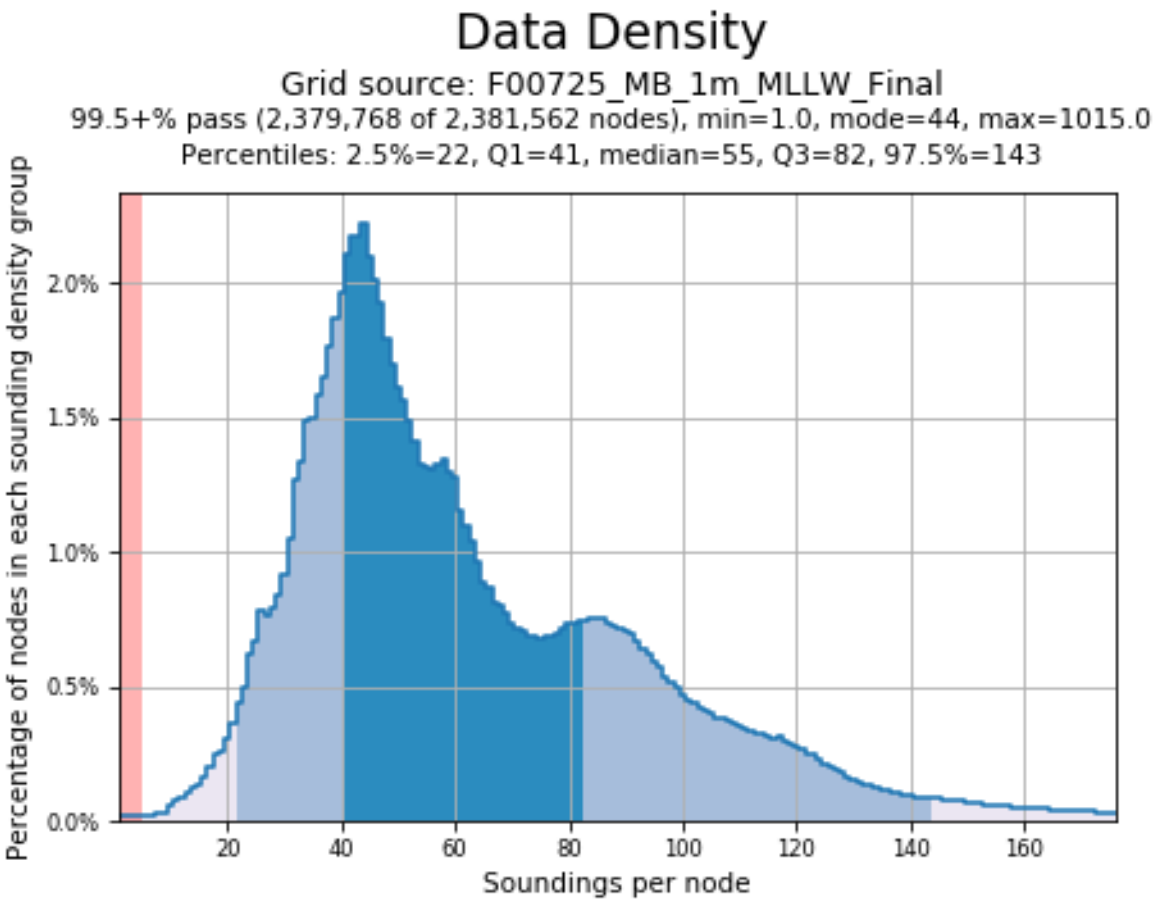


Figure 15: Density analysis for 1m finalized surface

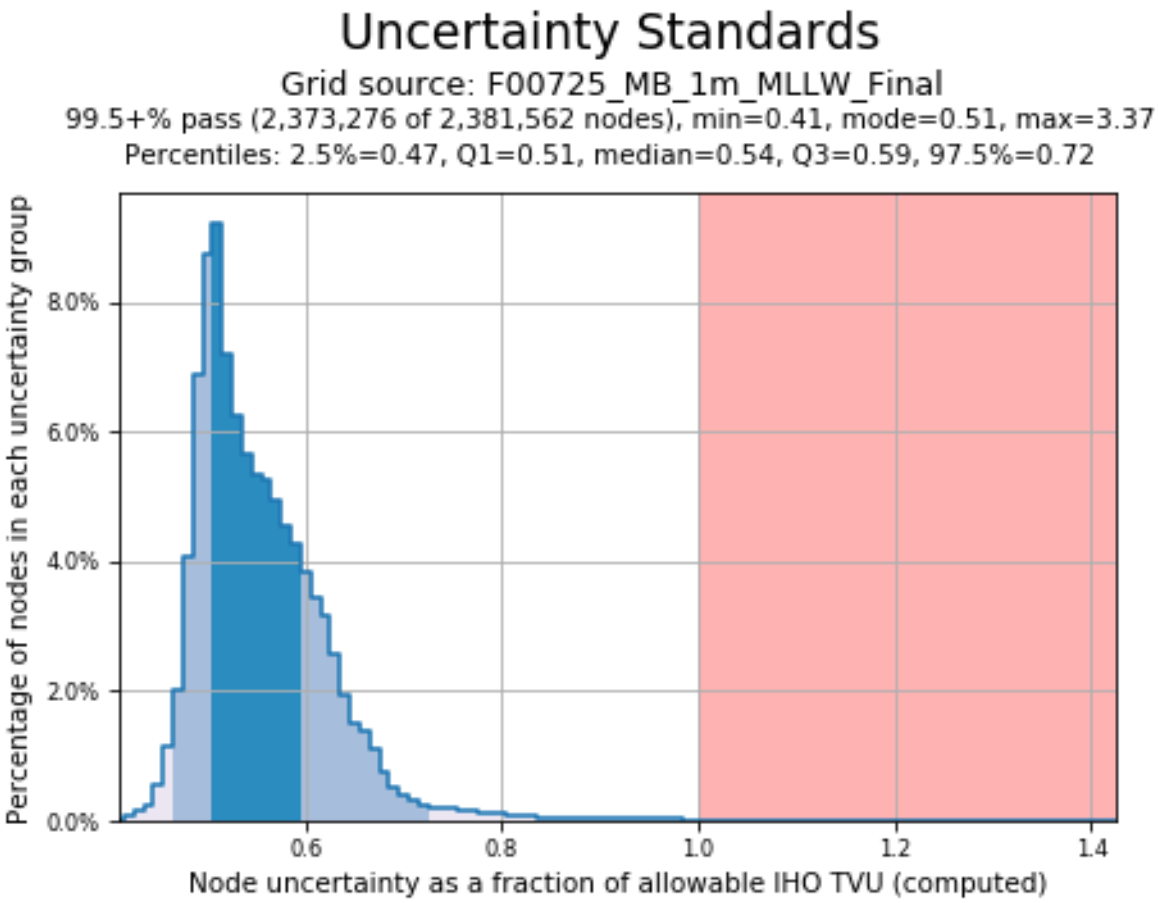


Figure 16: Uncertainty analysis for 1m finalized surface

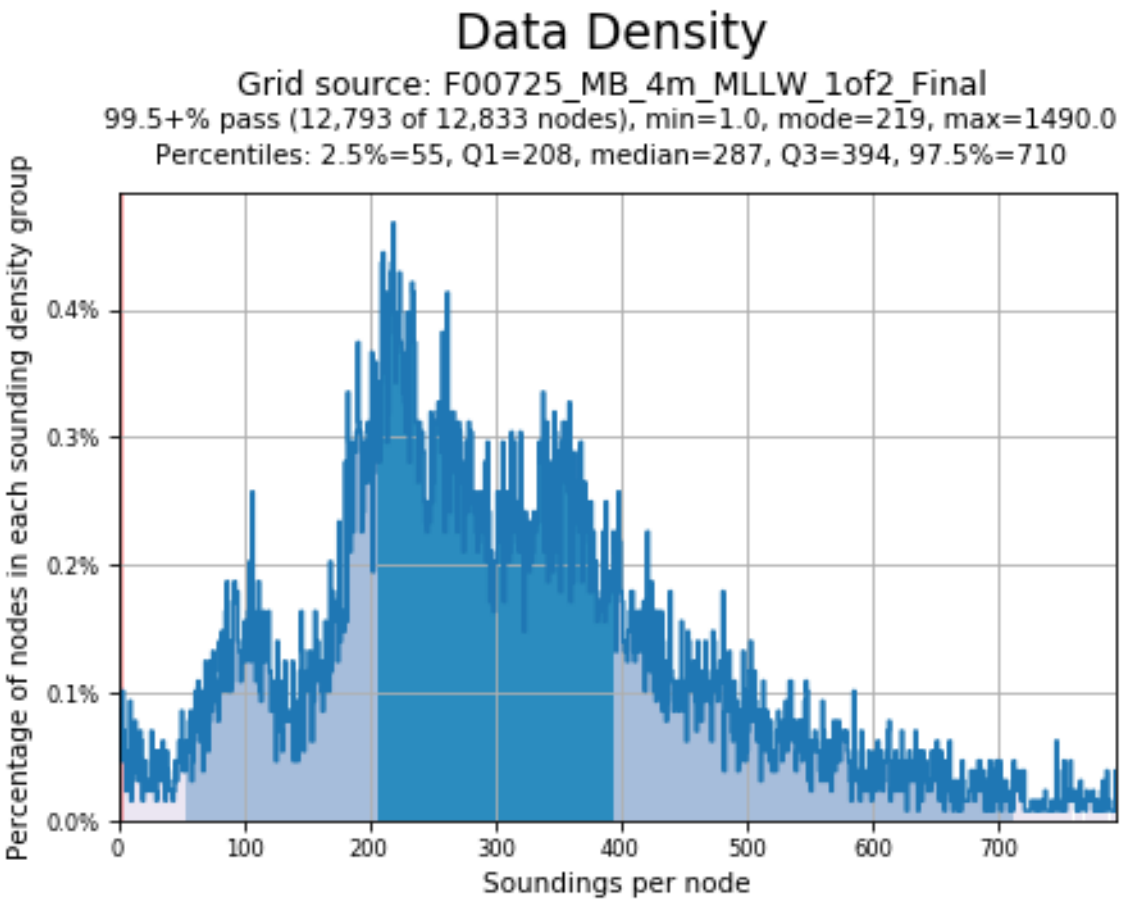


Figure 17: Density analysis for 4m finalized surface (1 of 2)

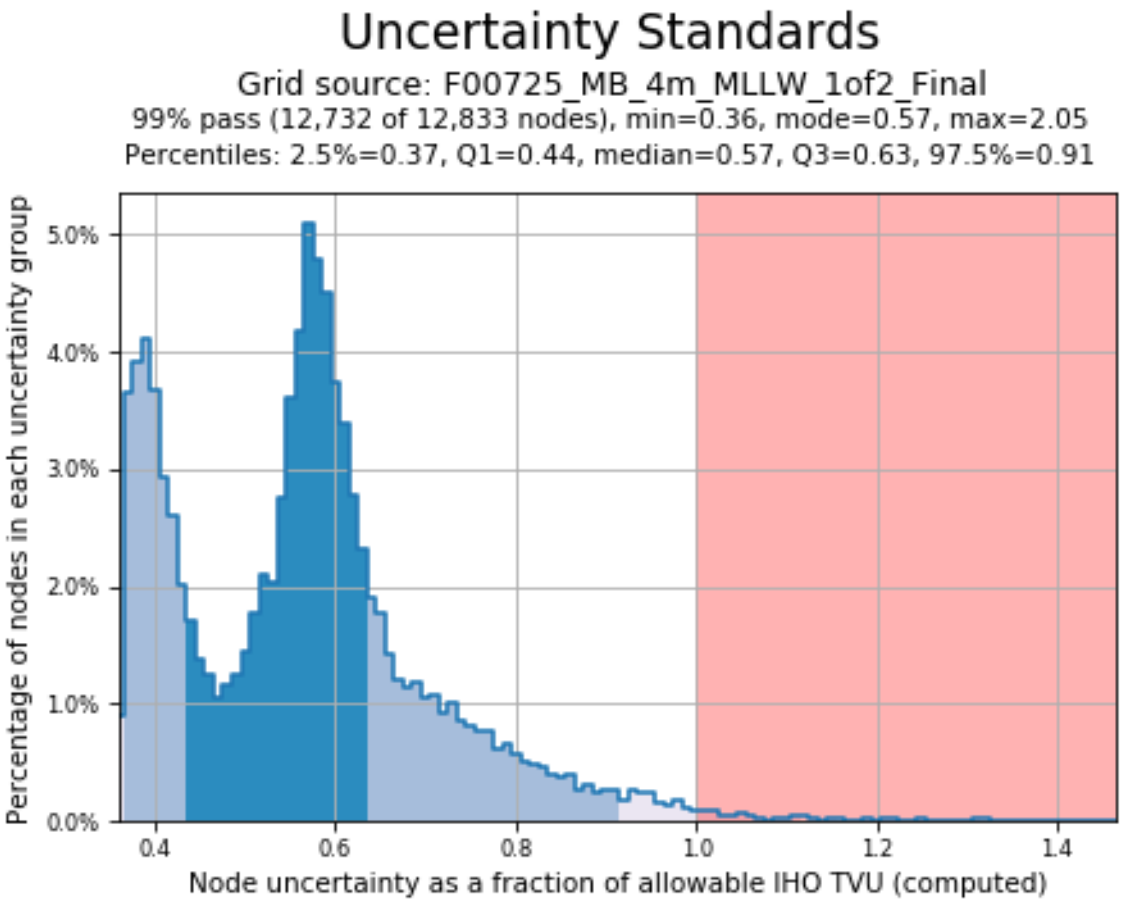


Figure 18: Uncertainty analysis for 4m finalized surface (1 of 2)

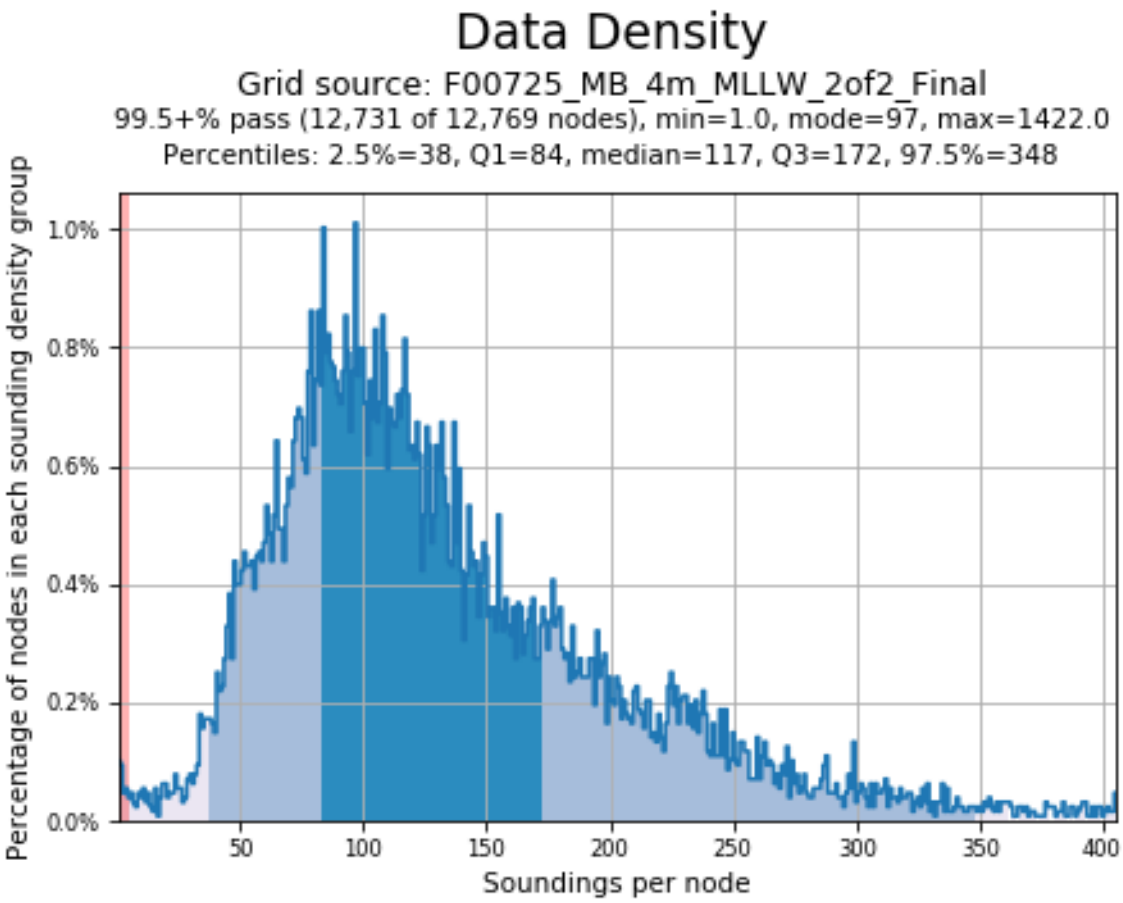


Figure 19: Density analysis for 4m finalized surface (2 of 2)

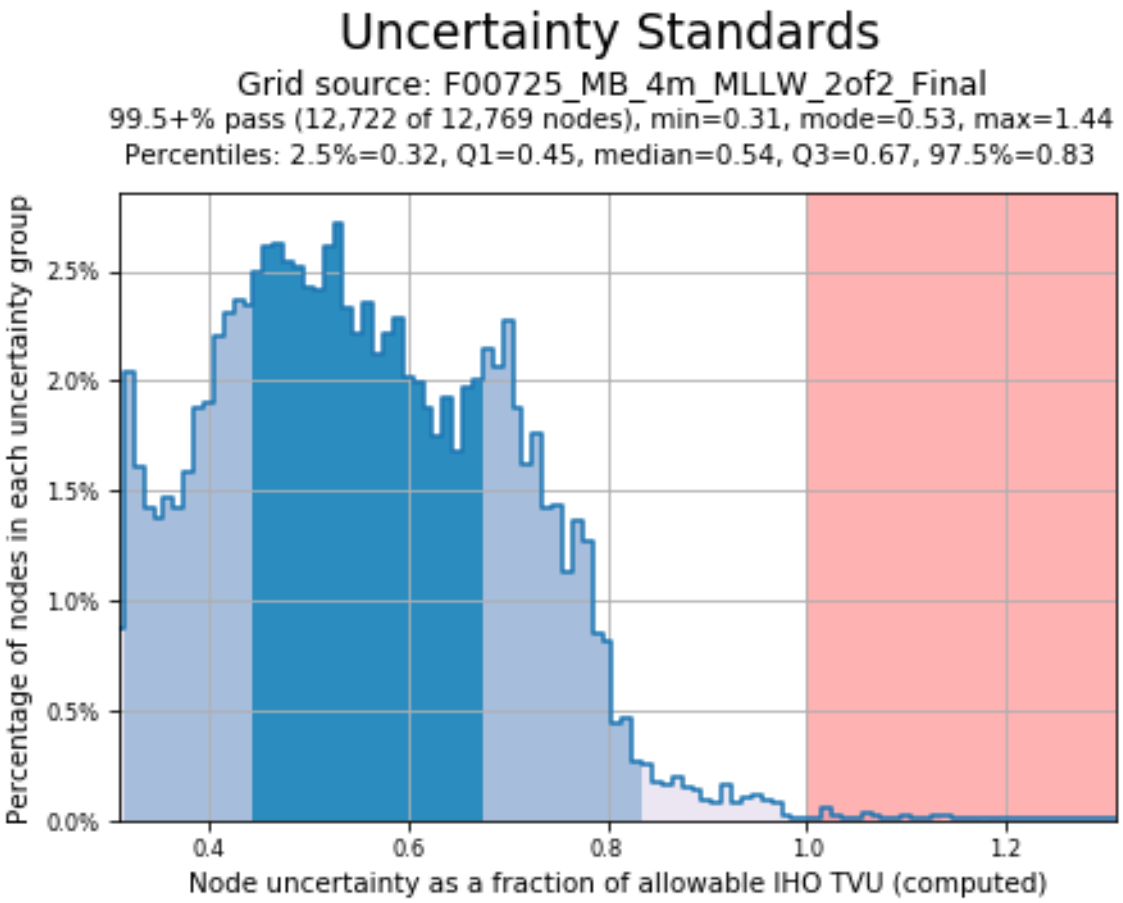


Figure 20: Uncertainty analysis for 4m finalized surface (2 of 2)

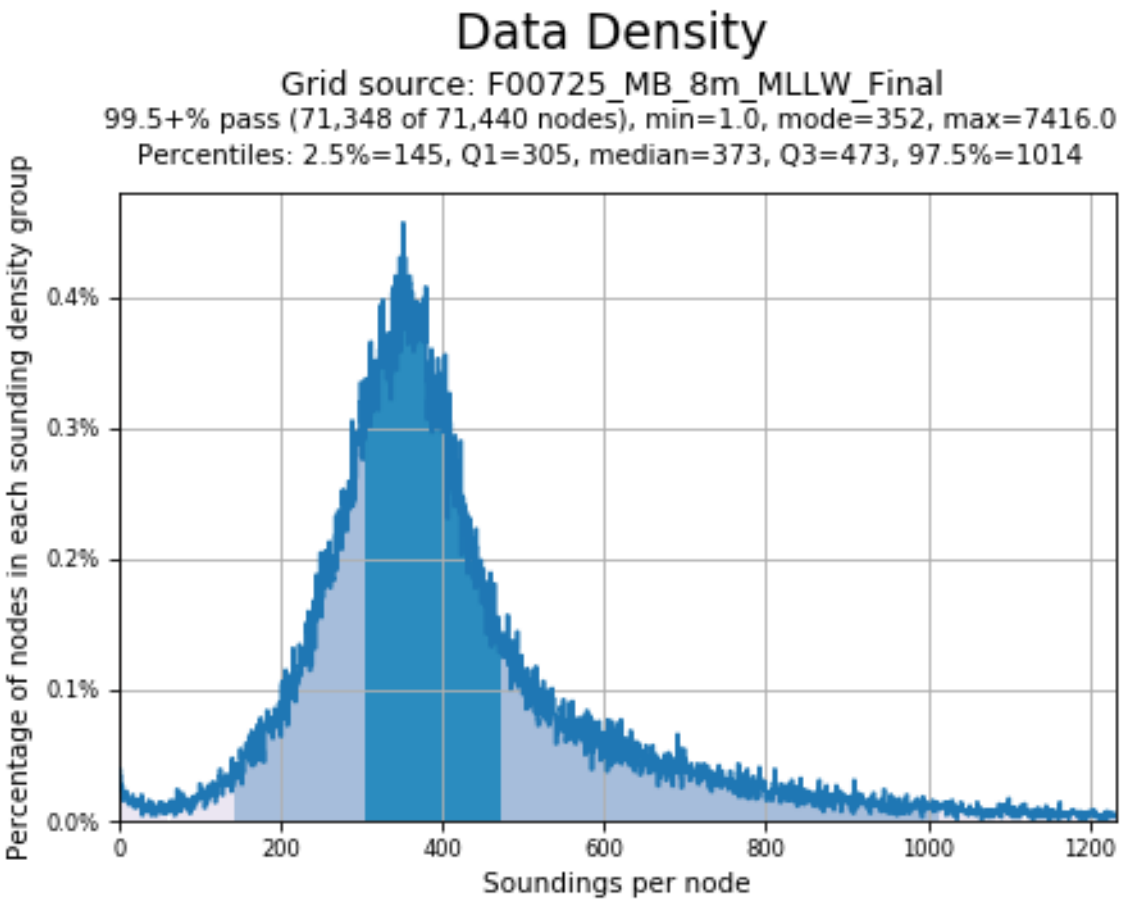


Figure 21: Density analysis for 8m finalized surface

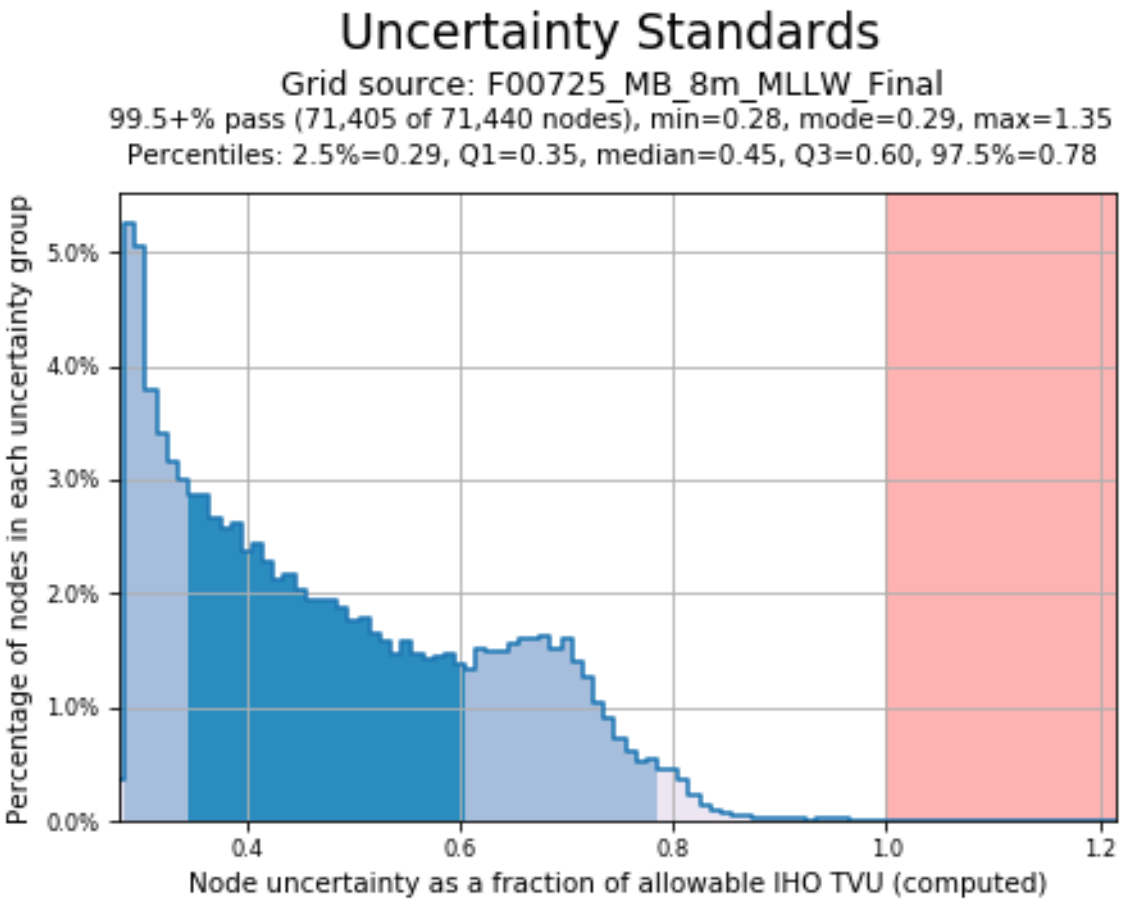


Figure 22: Uncertainty analysis for 8m finalized surface

B.2.3 Junctions

No junctions exist for this survey.

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: At least once every 4 hours

SVP casts were taken at least once every four hours in the deepest water nearest to the survey area being worked on. The SVP casts were applied to the MBES lines in CARIS using the "nearest in distance within time of 4 hours" method.

B.2.8 Coverage Equipment and Methods

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

B.3 Echo Sounding Corrections

B.3.1 Corrections to Echo Soundings

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

B.3.2 Calibrations

All sounding systems were calibrated as detailed in the DAPR.

B.4 Backscatter

Backscatter was not acquired for this survey.

Backscatter data was acquired during survey operations, and backscatter mosaics were created during survey review.

B.5 Data Processing

B.5.1 Primary Data Processing Software

The following Feature Object Catalog was used: NOAA Profile V_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
F00725_MB_50cm_MLLW_1of2	CARIS Raster Surface (CUBE)	0.5 meters	8.13 meters - 59.04 meters	NOAA_0.5m	Object Detection
F00725_MB_50cm_MLLW_1of2_Final	CARIS Raster Surface (CUBE)	0.5 meters	8.13 meters - 20 meters	NOAA_0.5m	Object Detection
F00725_MB_50cm_MLLW_2of2	CARIS Raster Surface (CUBE)	0.5 meters	6.61 meters - 13.03 meters	NOAA_0.5m	Object Detection
F00725_MB_50cm_MLLW_2of2_Final	CARIS Raster Surface (CUBE)	0.5 meters	6.61 meters - 13.03 meters	NOAA_0.5m	Object Detection
F00725_MB_1m_MLLW	CARIS Raster Surface (CUBE)	1 meters	8.55 meters - 58.48 meters	NOAA_1m	Object Detection
F00725_MB_1m_MLLW_Final	CARIS Raster Surface (CUBE)	1 meters	18 meters - 40 meters	NOAA_1m	Object Detection
F00725_MB_4m_MLLW_1of2	CARIS Raster Surface (CUBE)	4 meters	8.69 meters - 58.36 meters	NOAA_4m	Object Detection
F00725_MB_4m_MLLW_1of2_Final	CARIS Raster Surface (CUBE)	4 meters	36 meters - 58.36 meters	NOAA_4m	Object Detection
F00725_MB_4m_MLLW_2of2	CARIS Raster Surface (CUBE)	4 meters	62.55 meters - 100.99 meters	NOAA_4m	Object Detection

Surface Name	Surface Type	Resolution	Depth Range	Surface Parameter	Purpose
F00725_MB_4m_MLLW_2of2_Final	CARIS Raster Surface (CUBE)	4 meters	62.55 meters - 80 meters	NOAA_4m	Object Detection
F00725_MB_8m_MLLW	CARIS Raster Surface (CUBE)	8 meters	62.79 meters - 99.68 meters	NOAA_8m	Object Detection
F00725_MB_8m_MLLW_Final	CARIS Raster Surface (CUBE)	8 meters	72 meters - 99.68 meters	NOAA_8m	Object Detection

Table 8: Submitted Surfaces

Due to processing complications with this non-continuous data set, a group of six separate grids were created to prevent lengthy processing times. Grids have been named with the affix "#of#" to designate each grid made for the discrete survey areas.

C. Vertical and Horizontal Control

Field installed tide or GPS stations were not utilized for this survey, so no HVCR report is included

C.1 Vertical Control

The vertical datum for this project is Ellipsoidally Referenced Survey.

ERS Methods Used:

ERS via VDATUM

Ellipsoid to Chart Datum Separation File:

Bar Harbor_Limits_xyNAD83-MLLW_geoid12b
F00725 VDatum Extension_SLCONS_Polygon_xyNAD83-MLLW_geoid12b

A VDatum model, Bar Harbor_Limits_xyNAD83-MLLW_geoid12b, was provided to the field unit to use in processing. A separate VDatum separation model (F00725 VDatum Extension_SLCONS_Polygon_xyNAD83-MLLW_geoid12b) was made to cover the survey areas that fell outside of the assigned project area.

C.2 Horizontal Control

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

The projection used for this project is 19N.

The following PPK methods were used for horizontal control:

Smart Base

The following CORS Stations were used for horizontal control:

HVCR Site ID	Base Station ID
MECC	Bangor
MEMA	Machias
MEWA	Waldo
PNB6	Penebscot 6
BARH	Bar Harbor
MATU	Truro

Table 9: CORS Base Stations

WAAS was used for real-time corrections.

D. Results and Recommendations

D.1 Chart Comparison

Chart comparisons were made using a CARIS sounding layers derived from CUBE surfaces. The contours and soundings were overlaid on the latest ENC and compared for general agreement and to identify areas of significant change.

D.1.1 Electronic Navigational Charts

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

ENC	Scale	Edition	Update Application Date	Issue Date	Preliminary?
US5ME38M	1:10000	10	02/01/2018	07/10/2018	NO
US5ME31M	1:40000	13	06/19/2018	07/30/2018	NO
US5ME36M	1:10000	10	02/01/2018	02/01/2018	NO

Table 10: Largest Scale ENCs

US5ME38M

Derived soundings and contours from a 4-meter CUBE surface agree well with the latest ENC. Any differences in soundings are typically around 1 meter or less. Some minor deepening can be seen along the 18-meter depth contour, however no significant changes are present.

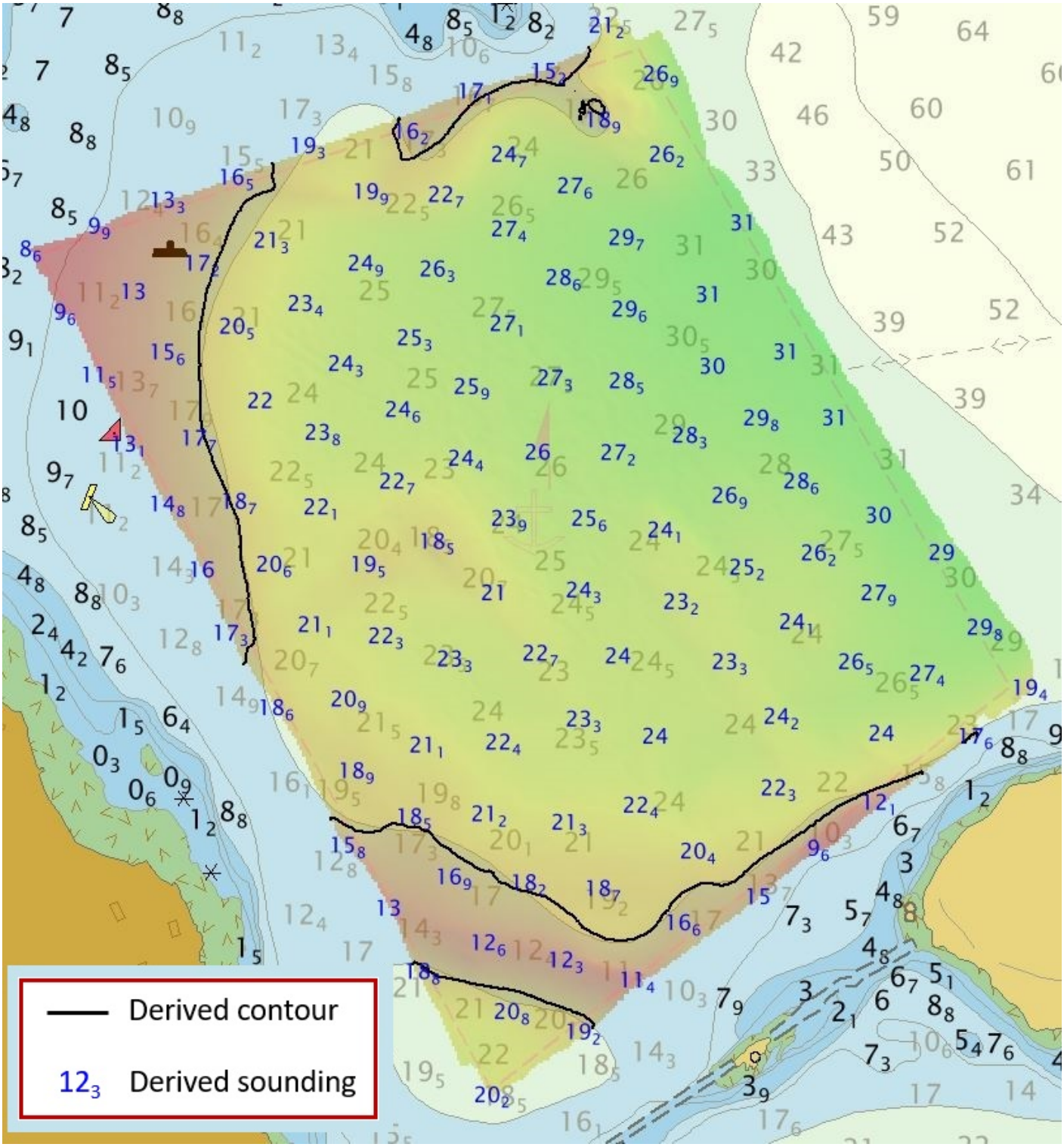


Figure 23: General Anchorage A survey data compared with ENC US5ME38M

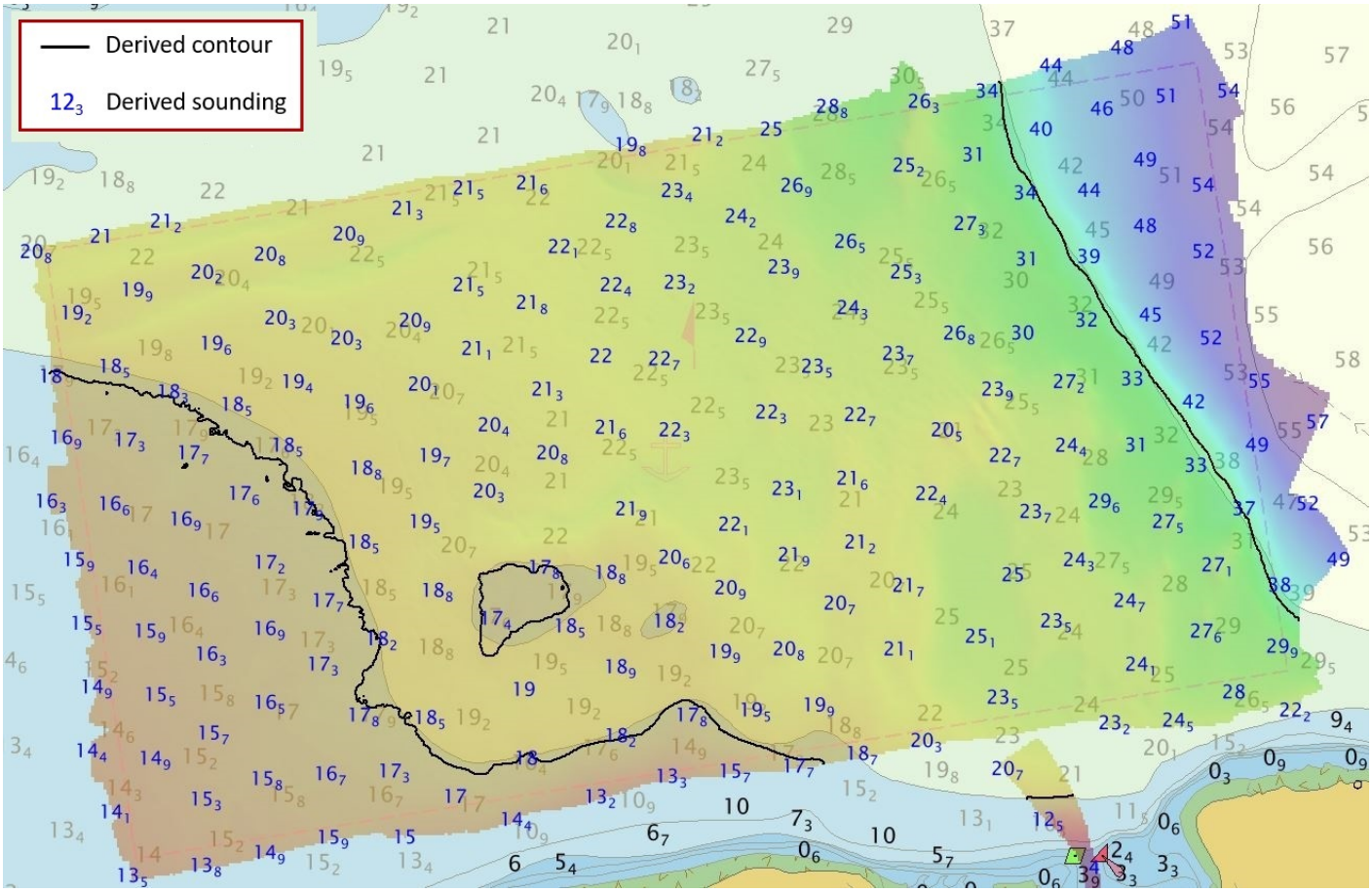


Figure 24: General Anchorage B survey data compared with ENC US5ME38M

US5ME31M

Derived soundings and contours from a 4-meter CUBE surface agree well with the latest ENC. Any differences in soundings are typically around 1 meter, although sounding density is thin on the chart and a more detailed comparison is not practical. The derived contours highlight more detail in depth variation, but generally they agree well with what is represented on the chart. No wreck was seen in small survey area to the north of the Cornwallis search area.

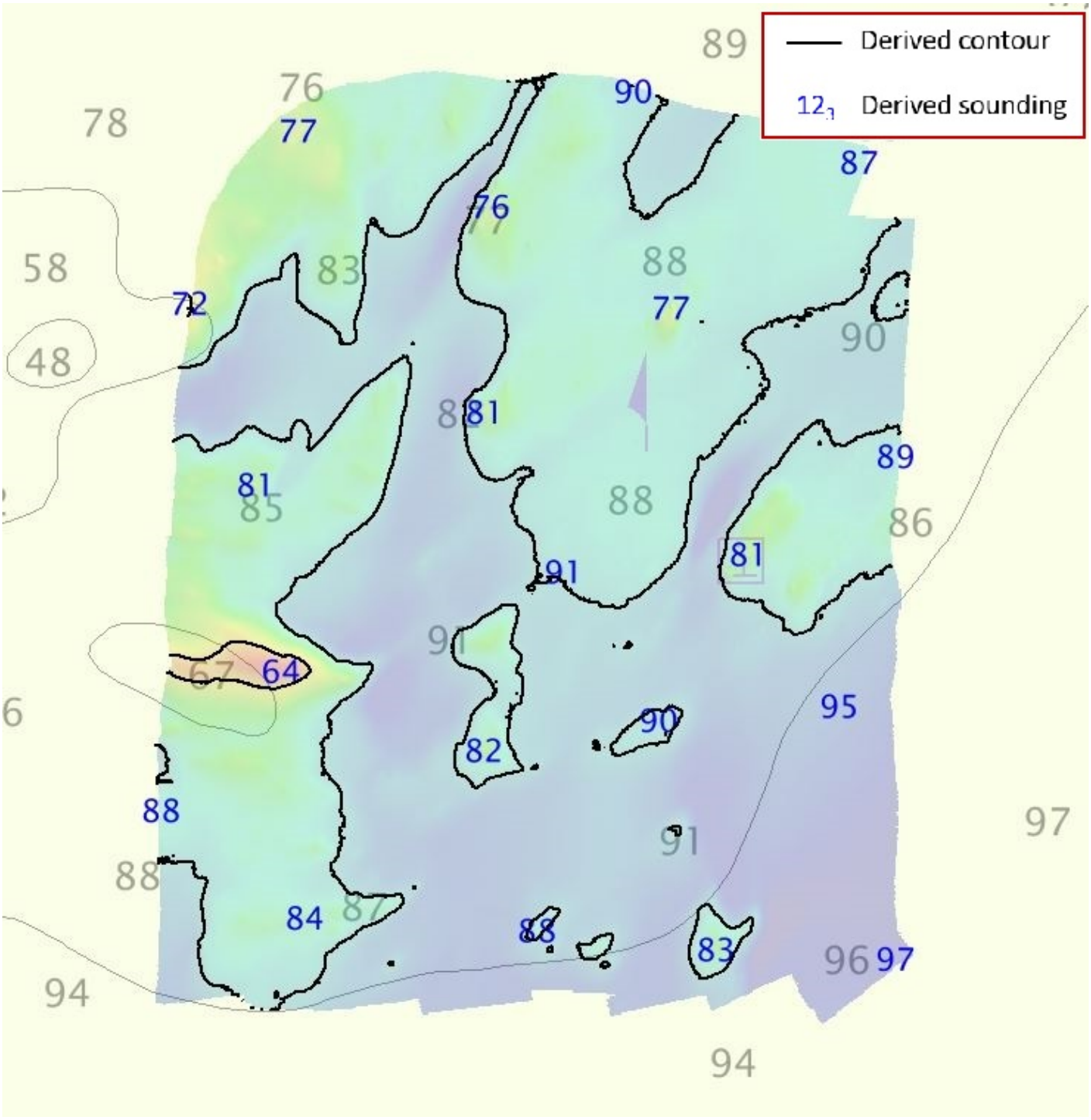


Figure 25: Cornwallis search area survey data compared with ENC US5ME31M.

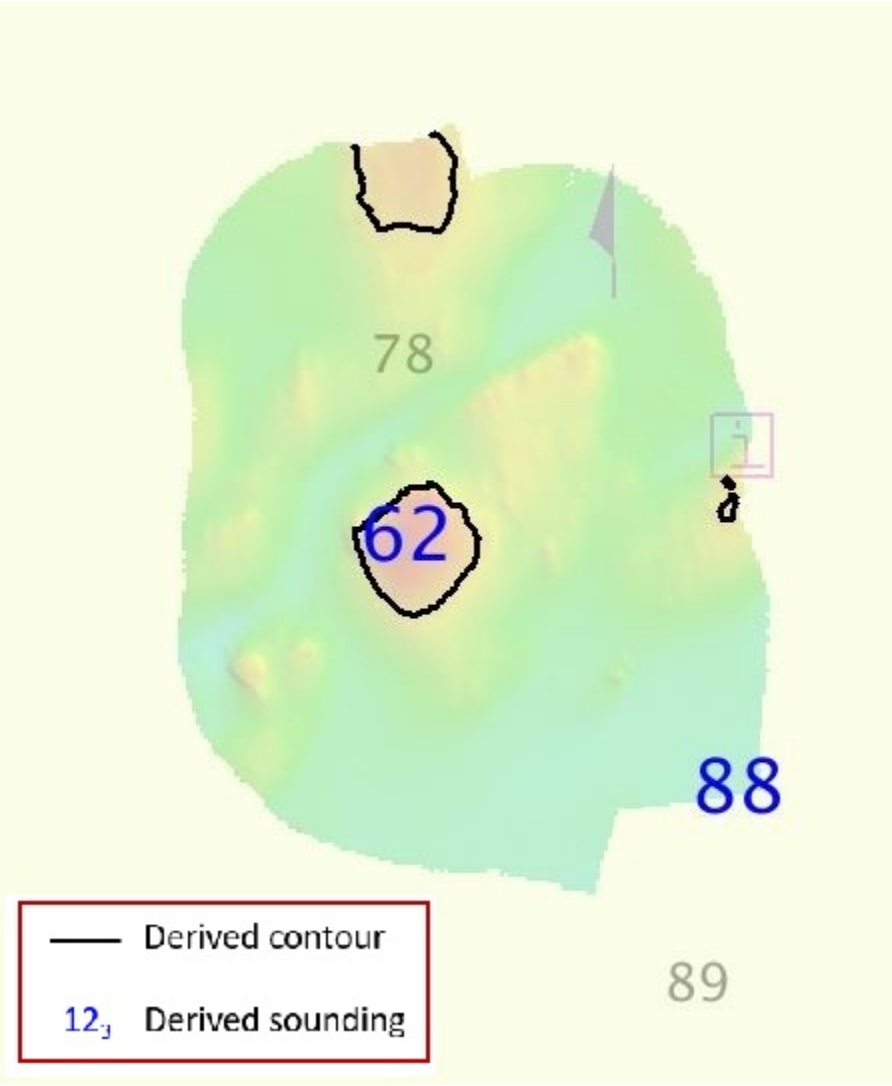


Figure 26: Chart discrepancy survey data compared with ENC US5ME31M.

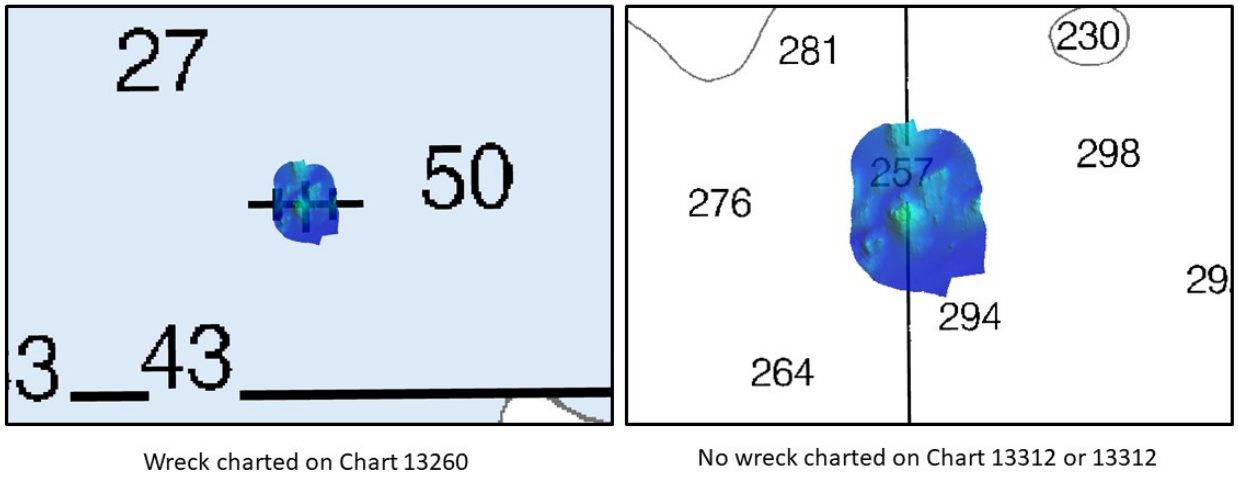


Figure 27: Wreck on Chart 13260 does not appear in the data acquired over the area.

US5ME36M

Derived soundings and contours from a 0.5-meter CUBE surface agree well with the latest ENC. Any differences in soundings are typically around 2 meters or less. Two rocky shoals were identified as the charted wire drag obstructions, but they do not pose an immediate threat to surface navigation. One wire drag obstruction was not seen in the surveyed area.

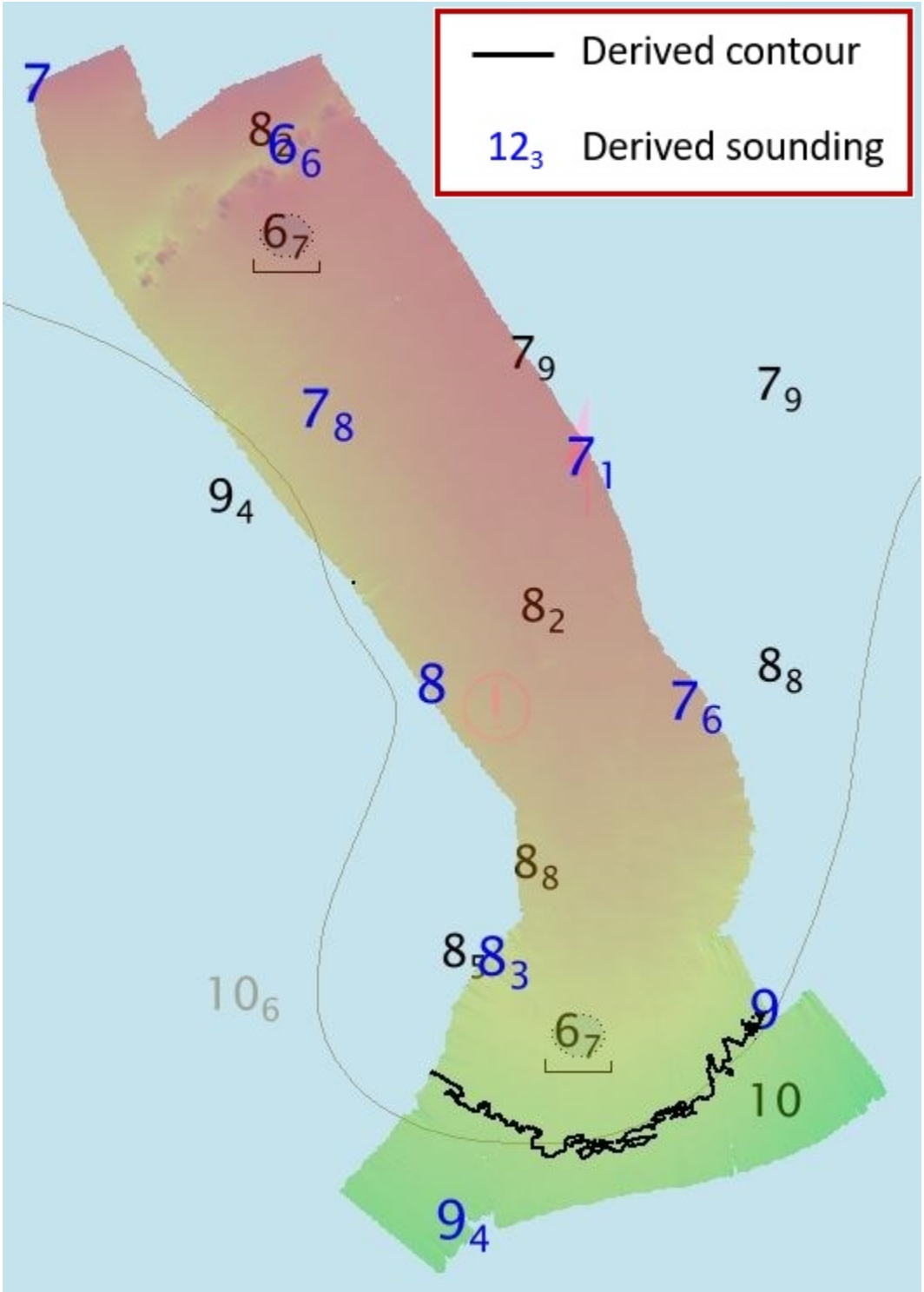


Figure 28: Western Way: The southern shoal, charted 6.7 meters, was not observed in the surveyed area. The northern shoal, also charted 6.7 meters, was observed. The shoalest point occurs just north of where the obstruction is charted.

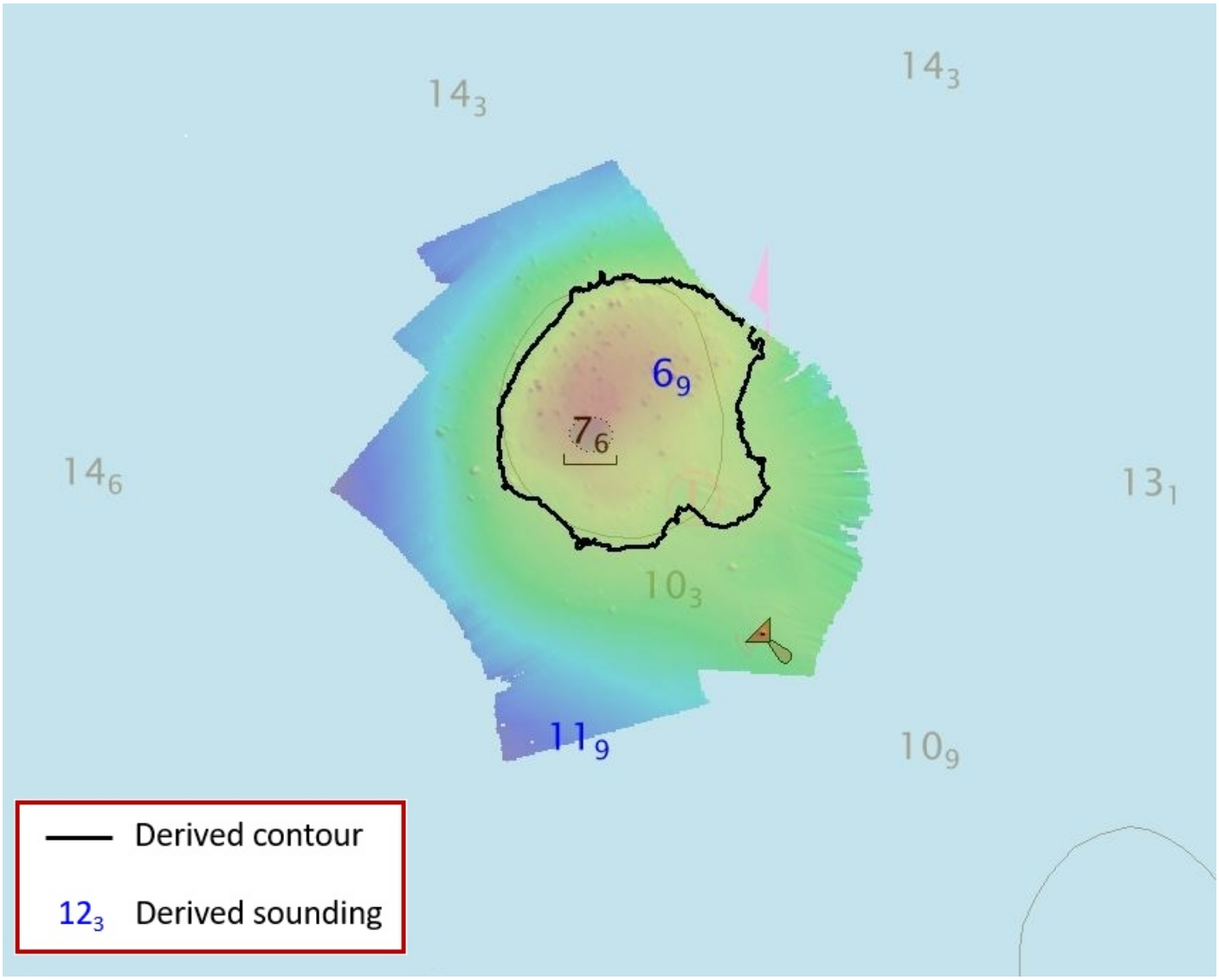


Figure 29: Spurling Point: The charted shoal agrees well with the acquired survey data, although a shoaler point than what is represented on the chart was identified.

D.1.2 Maritime Boundary Points

No Maritime Boundary Points were assigned for this survey.

D.1.3 Charted Features

No charted features exist for this survey.

D.1.4 Uncharted Features

No uncharted features exist for this survey.

D.1.5 Shoal and Hazardous Features

No shoals or potentially hazardous features exist for this survey.

D.1.6 Channels

As discussed previously, the surveyed soundings agree well with what is charted in the general anchorage areas. One notable shoal was discovered in General Anchorage A, and the hydrographer recommends adding this sounding to the chart (see Final Feature File and DR Appendix II).

D.1.7 Bottom Samples

Bottom samples were assigned for this survey, but were not acquired due to the depth limitations of bottom sampling equipment.

D.2 Additional Results

D.2.1 Shoreline

There was 1 wreck, 1 mooring buoy, and 14 bottom samples assigned for investigation. The wreck was found to be charted in error, the mooring buoy was on station and in good working order, and bottom samples were not acquired as previously mentioned. See Final Feature File for more information.

D.2.2 Prior Surveys

No prior survey comparisons exist for this survey.

D.2.3 Aids to Navigation

One mooring buoy in General Anchorage A was investigated. The mooring buoy was found to be charted accurately and in good, working condition.

Figure 30: General Anchorage A mooring buoy with the town of Bar Harbor in the background.

D.2.4 Overhead Features

No overhead features exist for this survey.

D.2.5 Submarine Features

No submarine features exist for this survey.

D.2.6 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

No present or planned construction or dredging exist within the survey limits.

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
LTJG Dylan Kosten	Chief of Party	11/20/2018	Dylan Kosten 2018.11.20 14:24:45 -05'00'
Eli Smith	Sheet Manager	11/20/2018	Eli R. Smith Digitally signed by Eli R. Smith Date: 2018.11.20 14:21:28 -05'00'

Eli Smith - NOAA Federal <eli.r.smith@noaa.gov>

Fwd: NRT5 Floatplan 15JUNE2018

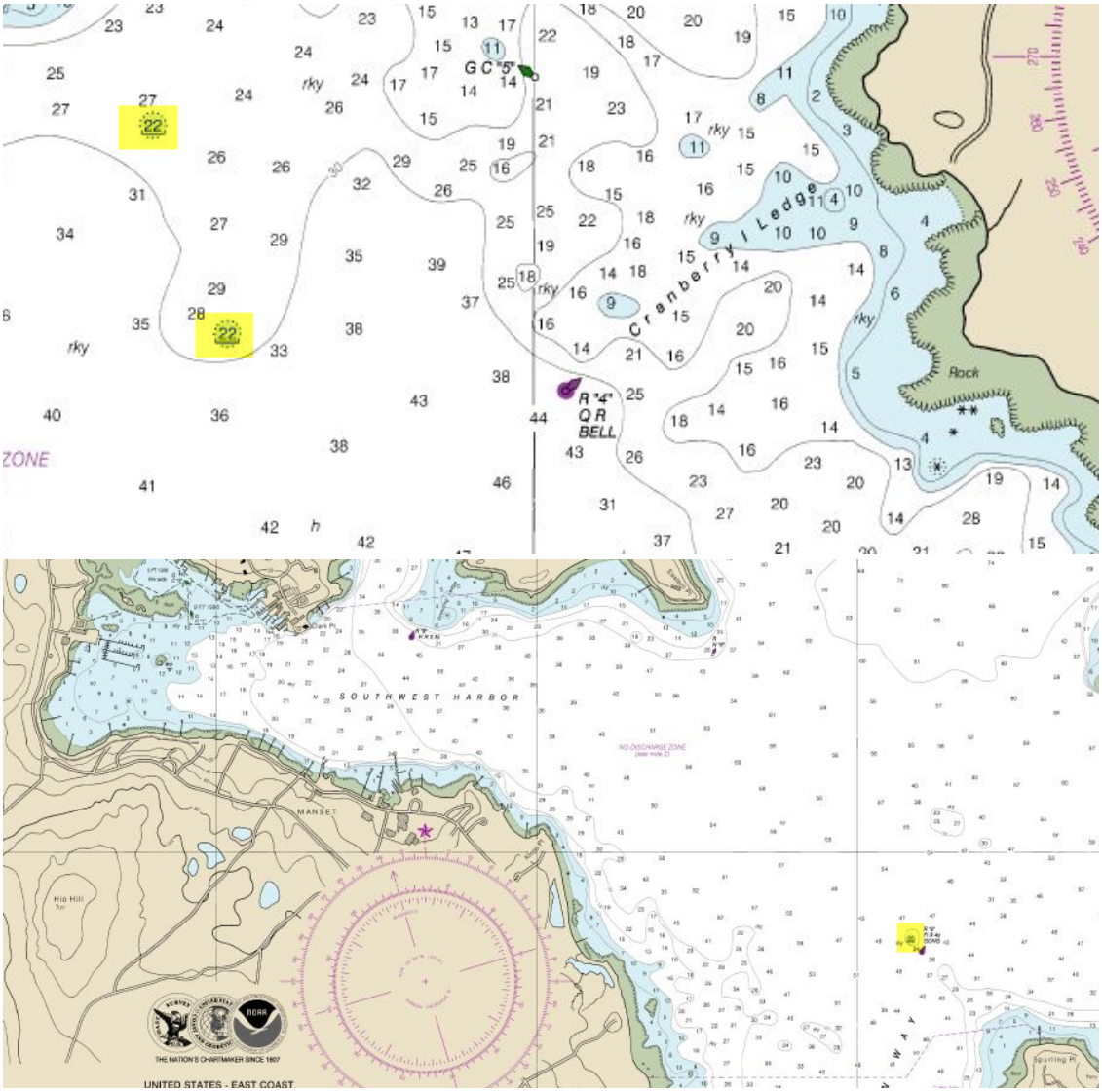
1 message

Dylan Kosten - NOAA Federal <dylan.kosten@noaa.gov> Mon, Aug 20, 2018 at 10:05 AM
To: Eli Smith - NOAA Federal <eli.r.smith@noaa.gov>

Add this email thread in to the project for justification for the wire drag area investigations.
---------- Forwarded message ----------
From: **Dylan Kosten - NOAA Federal** <dylan.kosten@noaa.gov>
Date: Fri, Jun 15, 2018 at 2:34 PM
Subject: Re: NRT5 Floatplan 15JUNE2018
To: Michael Davidson - NOAA Federal <michael.davidson@noaa.gov>
Cc: Chief NRB OCS - NOAA Service Account <chief.nrb.ocs@noaa.gov>, Floatplan <nrb.floatplan@noaa.gov>, Eli Smith - NOAA Federal <eli.r.smith@noaa.gov>, Michael Bloom - NOAA Federal <michael.g.bloom@noaa.gov>

Nothing interesting. Just a slightly shoaler area.

On Friday, June 15, 2018, Michael Davidson - NOAA Federal <michael.davidson@noaa.gov> wrote:
> How did the wire drag areas go? Find anything interesting?
>
> On Fri, Jun 15, 2018 at 1:53 PM, Dylan Kosten - NOAA Federal <dylan.kosten@noaa.gov> wrote:
> > No Cornwallis.
> >
> > On Friday, June 15, 2018, Chief NRB OCS - NOAA Service Account <chief.nrb.ocs@noaa.gov> wrote:
> > > Rgr. Nice work. No Cornwallis, huh?
> > >
> > > Sent from my iPhone
> > >
> > > On Jun 15, 2018, at 1:44 PM, Dylan Kosten - NOAA Federal <dylan.kosten@noaa.gov> wrote:
> > >
> > > > Please close this floatplan. We are going to pull the boat today with the tide window in southwest harbor so we can leave tomorrow.
> > > >
> > > > On Friday, June 15, 2018, Michael Davidson - NOAA Federal <michael.davidson@noaa.gov> wrote:
> > > > > On your way back to Southwest Harbor, there are two items cleared with 22' wire drag and one item cleared with 25' wire drag. These would be easy to pick up. Probably not in our EC, but you will be transiting past them anyway.
> > > > >
> > > > > Chart 13321:



I can look around for other potential items, but we are going to have EC issues, so my recommendation would be to head on back tomorrow.

R,
Mike

On Fri, Jun 15, 2018 at 10:21 AM, Dylan Kosten - NOAA Federal <dylan.kosten@noaa.gov> wrote:

> So we are going to be finished this search area in about 15minutes. We can do an expanding search pattern to just fill inmore area, but I believe the location in the RULET report is incorrect and the wreck is approximately 15NM SW of Mt. Desert Rock. I am not sure how to proceed. I'm thinking we pack up and leave tomorrow, but we would be interested in whether there is any other work for us in the area. Perhaps the pilots have some other things they'd like us to check out?
>
> I did notice that on chart 13260 there is a wreck next to the 50m sounding ~5NM South of Long Island. This wreck is not on chart 13312. We were going to investigate that on the way in.
>
> If there isn't any more work for us in the Bar Harbor area or points south, I would like to depart tomorrow for home.
>
> V/R,
>
> LTJG Kosten

Eli Smith - NOAA Federal <eli.r.smith@noaa.gov>

Object in Bar Harbor Anchorage A

Dylan Kosten - NOAA Federal <dylan.kosten@noaa.gov> Thu, Oct 4, 2018 at 9:47 AM
To: pilots@penbaypilots.com, Michael Davidson <michael.davidson@noaa.gov>, Chief NRB OCS - NOAA Service Account <chief.nrb.ocs@noaa.gov>, Rachel Medley <rachel.medley@noaa.gov>, Eli Smith - NOAA Federal <eli.r.smith@noaa.gov>

Good Morning,

My name is LTJG Dylan Kosten from NOAA's Navigation Response Team 5. We conducted a survey of the Bar Habor Anchorages this spring.

A few weeks ago we attempted to submit our data to the processing branch which is the next step before the new data gets published to the chart. Hopefully you can see that the wreck in anchorage B was removed when we disproved it.

Without delving in the complicated process that is involved with hydrographic data processing, the branch sent back our data and said that we needed to attribute many small boulders we found in the anchorages as obstructions so they could be charted as such. While we disagree with them there is one that I feel prudent running by you before we move forward with the data.

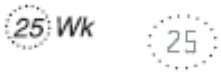
I have attached a few images of the object. Please know that the sounding on the object is in meters, not feet. Its depth in feet is 83.

Here are my thoughts:

1. We cannot tell whether it is man made or not, but my hunch is that it is a rock.
2. It's shoalest point is 26m, still much deeper than any vessel you would bring in to anchor there.
3. I would not consider this a danger to navigation but it could be important to have charted for anchoring purposes.

There are a few ways we could recommend it be charted, and I would like some input from you all on this. I will be getting the CG Waterways opinion on this too. The symbols are taken from Chart #1 for reference, the first symbol is what would go on a paper chart, and the second is what would appear in ECDIS.

If it is thought to be a wreck:
1. Wreck, least depth known



2. Sunken wreck, not dangerous to surface navigation

3. Sunken wreck, covered 20-30meters (same as above)

If it is thought to be a rock or obstruction:
1. Obstruction, least depth known

2. Shoal sounding on isolated rock or rocks

3. Underwater rock with known depth, not dangerous to surface navigation

The final option would have it charted as a shoaler sounding than than the surrounding soundings.

My recommendation would have it charted as an underwater rock with known depth, not dangerous to surface navigation. That would ensure that it is known, but not cause doubt or concern by mariners that there is a hazard within the anchorage.

I look forward to hearing your thoughts, and please call me if you would like to discuss. You can call my personal cell at 609-408-5631.

Very Respectfully,

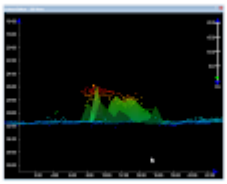
Dylan Kosten

--

LT(jg) Dylan A. Kosten
OIC NRT-5
Office: 860-271-2835
Work Cell: 718-702-8973
P-Cell: 609-408-5631
Address:
NOAA NRT-5
1 Chelsea Street
New London, CT, 06320

---

3 attachments



2D.png
69K

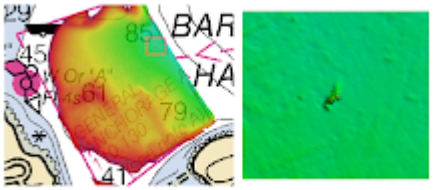
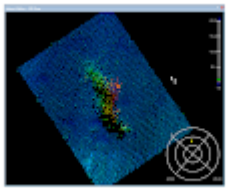


chart view.png
826K



3D.png
233K

Eli Smith - NOAA Federal <eli.r.smith@noaa.gov>

Object in Bar Harbor Anchorage A

Dylan Kosten - NOAA Federal <dylan.kosten@noaa.gov> Fri, Oct 5, 2018 at 11:37 AM
To: Penobscot Bay Pilots <pilots@penbaypilots.com>, Michael Davidson <michael.davidson@noaa.gov>, Chief NRB OCS - NOAA Service Account <chief.nrb.ocs@noaa.gov>, Rachel Medley <rachel.medley@noaa.gov>, Eli Smith - NOAA Federal <eli.r.smith@noaa.gov>

Skip,

Great talking to you this morning. I appreciate your time and your input as the primary user of these charts. As stated at the end of our call this email is just to summarize our talk for our survey correspondence.

In summary:

- None of the pilots or lobster fisherman you know have snagged pots or fouled an anchor on an object in Anchorage Alpha. This leads you to believe there is not an obstruction there.
- Your recommendation is to chart the shoalest point of the object as a shoaler sounding and NOT an obstruction or rock. This is because this object has no history of causing issues for ships, and is not shoal enough to be any sort of danger to navigation. Additionally pilots and ship master's get uneasy when an obstruction is charted in an anchorage, since this object is not deemed dangerous it does not warrant being charted as an obstruction.

Please let me know if this does not accurately summarize our conversation, or there is anything you would like to add.

V/R,

LTJG Kosten

On Fri, Oct 5, 2018 at 9:10 AM Dylan Kosten - NOAA Federal <dylan.kosten@noaa.gov> wrote:
> Sounds good, talk to you then.
>
> On Fri, Oct 5, 2018 at 8:51 AM Penobscot Bay Pilots <pilots@penbaypilots.com> wrote:
> > Hi Dylan,
> >
> > 1100 would be better for me. I'll call your cell at that time.
> >
> > Skip
> >
> > On Fri, Oct 5, 2018 at 8:31 AM, Dylan Kosten - NOAA Federal <dylan.kosten@noaa.gov> wrote:
> > > Hi Skip,
> > >
> > > How about 1000 or 1100
> > >
> > > -Dylan
> > >
> > > On Friday, October 5, 2018, Penobscot Bay Pilots <pilots@penbaypilots.com> wrote:
> > > > Hi Dylan,
> > > >
> > > > Do you have time to talk today? Is there a better time for you?
> > > >
> > > > Best regards,
> > > >
> > > > Skip Strong
> > > >
> > > > [Quoted text hidden]
> > > --

> > > Penobscot Bay and River Pilots Association
> > > 18 Mortland Road
> > > Searsport, ME 04974
> > > 207-548-1077
> > > www.penbaypilots.com
>
> > > --
> > >
> > > LT(jg) Dylan A. Kosten
> > > OIC NRT-5
> > > Office: 860-271-2835
> > > Work Cell: 718-702-8973
> > > P-Cell: 609-408-5631
> > > Address:
> > > NOAA NRT-5
> > > 1 Chelsea Street
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>
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[Quoted text hidden]

Eli Smith - NOAA Federal <eli.r.smith@noaa.gov>

Object in Bar Harbor Anchorage A

Penobscot Bay Pilots <pilots@penbaypilots.com> Fri, Oct 5, 2018 at 2:15 PM
To: Dylan Kosten - NOAA Federal <dylan.kosten@noaa.gov>
Cc: Michael Davidson <michael.davidson@noaa.gov>, Chief NRB OCS - NOAA Service Account <chief.nrb.ocs@noaa.gov>, Rachel Medley <rachel.medley@noaa.gov>, Eli Smith - NOAA Federal <eli.r.smith@noaa.gov>

Dear LT Kosten,

Thanks for taking the time to summarize our conversation from this morning. You covered all the points that I brought up.

In 20 years of piloting ships in Bar Harbor I have never encountered, or fouled an anchor on, the anomaly found in the Bar Harbor "Alpha" Anchorage. We believe it would be appropriate to mark it as a lesser depth, but not an obstruction.

Please let me know if you need anything further from us.

Best regards,

Captain Skip Strong

[Quoted text hidden]

F. Table of Acronyms

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

Acronym	Definition
HSTP	Hydrographic Systems Technology Programs
HSX	Hypack Hysweep File Format
HTD	Hydrographic Surveys Technical Directive
HVCR	Horizontal and Vertical Control Report
HVF	HIPS Vessel File
IHO	International Hydrographic Organization
IMU	Inertial Motion Unit
ITRF	International Terrestrial Reference Frame
LNM	Linear Nautical Miles
MBAB	Multibeam Echosounder Acoustic Backscatter
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
SSSAB	Side Scan Sonar Acoustic Backscatter
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 Stated Coast Guard
UTM	Universal Transverse Mercator
XO	Executive Officer
ZDA	Global Positiong System timing message
ZDF	Zone Definition File

APPROVAL PAGE

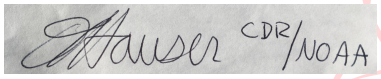
F00725

Data meet or exceed current specifications as certified by the OCS survey acceptance review process. Descriptive Report and survey data 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.



HAUSER.OLIVIA.A.1275636009
2019.10.16 10:38:16 -07'00'

Approved:_____

Commander Olivia Hauser, NOAA
Chief, Pacific Hydrographic Branch