

H13131

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

DESCRIPTIVE REPORT

Type of Survey: Basic Hydrographic Survey Navigable Area

Registry Number: H13131

LOCALITY

State(s): Florida

General Locality: Northeast Florida

Sub-locality: 14NM East of Amelia Island

2018

CHIEF OF PARTY
LCDR Mark Blankenship, NOAA

LIBRARY & ARCHIVES

Date:

HYDROGRAPHIC TITLE SHEET

H13131

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): **Florida**

General Locality: **Northeast Florida**

Sub-Locality: **14NM East of Amelia Island**

Scale: **40000**

Dates of Survey: **09/06/2018 to 09/27/2018**

Instructions Dated: **08/06/2018**

Project Number: **OPR-G343-FH-18**

Field Unit: **NOAA Ship *Ferdinand R. Hassler***

Chief of Party: **LCDR Mark Blankenship, NOAA**

Soundings by: **Multibeam Echo Sounder**

Imagery by: **Multibeam Echo Sounder Backscatter**

Verification by: **Atlantic Hydrographic Branch**

Soundings Acquired in: **meters at Ellipsoidally Referenced Survey**

Remarks: *Any revisions to the Descriptive Report (DR) applied during office processing are shown in red italic text. The DR is maintained as a field unit product, therefore all information and recommendations within this report are considered preliminary unless otherwise noted. The final disposition of survey data is represented in the NOAA nautical chart products. All pertinent records for this survey are archived at the National Centers for Environmental Information (NCEI) and can be retrieved via <https://www.ncei.noaa.gov/>.*

Products created during office processing were generated in NAD83 UTM 17N, MLLW. All references to other horizontal or vert cal datums in this report are applicable to the processed hydrographic data provided by the field unit.

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Descriptive Report to Accompany Survey H13131

Project: OPR-G343-FH-18

Locality: Northeast Florida

Sublocality: 14NM East of Amelia Island

Scale: 1:40000

September 2018 - September 2018

NOAA Ship *Ferdinand R. Hassler*

Chief of Party: LCDR Mark Blankenship, NOAA

A. Area Surveyed

This survey was conducted northeast of the entrance to Jacksonville, approximately 14 nautical miles offshore of Amelia Island, FL. Data were acquired to the survey limits in accordance with the requirements in the Project Instructions and the 2018 Hydrographic Surveys Specifications and Deliverables (HSSD).

A.1 Survey Limits

Data were acquired within the following survey limits:

Northwest Limit	Southeast Limit
30° 37' 40.44" N 81° 10' 11.64" W	30° 30' 6.05" N 81° 2' 38.76" W

Table 1: Survey Limits

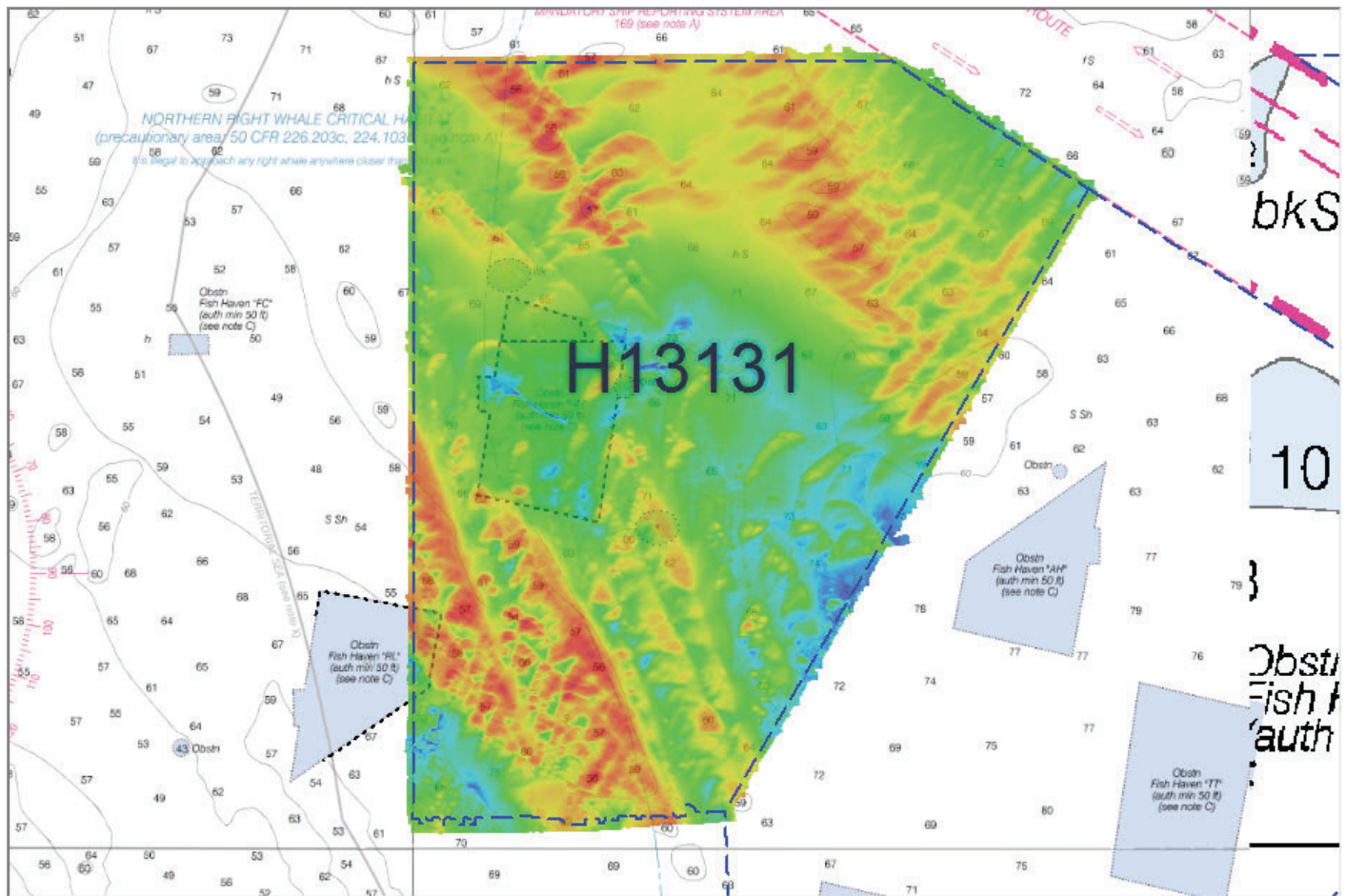


Figure 1: H13131 survey extents with respect to survey limits.

Complete Coverage requirements were met for data acquisition on the entirety of the H13131 survey area as specified in the 2018 HSSD.

A.2 Survey Purpose

Maintaining maritime commerce to the Port of Jacksonville is critical for the economic vitality and security of the region. In 2013, shipping activity directly provided over 9,600 jobs and either induced or indirectly produced more than 14,000 more amounting to an estimated \$1.8 billion in personal wages. In 2016, more than 18 million tons of waterborne commerce and almost 800,000 containers moved through the port. As well, the Naval Station Mayport, home of the Navy's 4th Fleet is located near the mouth of the St. Johns River and provides for national defense and brings an additional 17,000 military and civilian jobs to the region.

To accommodate anticipated growth, the harbors undergoing a greater than \$700 million expansion project which will widen the river channel and turning basin, deepening them from 40 to 47 feet to support fully-loaded new Panamax class vessels. To assure adequate underkeel clearance for these deeper draft vessels,

this survey will provide modern bathymetry to update 1970s vintage surveys in the approaches to the harbor. The data acquired will supersede Coast Survey charts and products, improving maritime safety and enhancing the regional economy and protecting the environment. 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.

All MBES data were acquired to Complete Coverage requirement as specified in the 2018 HSSD

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	Complete Coverage (refer to HSSD Section 5.2.2.3)
All waters in survey area	All MBES acquisition requires backscatter (refer to HSSD Section 6.2)

Table 2: Survey Coverage

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

A.5 Survey Statistics

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

	HULL ID	<i>S250</i>	<i>2702</i>	<i>Total</i>
LNM	SBES Mainscheme	0	0	0
	MBES Mainscheme	921.9	11.1	933
	Lidar Mainscheme	0	0	0
	SSS Mainscheme	0	0	0
	SBES/SSS Mainscheme	0	0	0
	MBES/SSS Mainscheme	0	0	0
	SBES/MBES Crosslines	53.7	0	53.7
	Lidar Crosslines	0	0	0
Number of Bottom Samples				5
Number Maritime Boundary Points Investigated				0
Number of DPs				0
Number of Items Investigated by Dive Ops				0
Total SNM				33

Table 3: Hydrographic Survey Statistics

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

Survey Dates	Day of the Year
09/06/2018	249
09/07/2018	250

Survey Dates	Day of the Year
09/08/2018	251
09/09/2018	252
09/10/2018	253
09/23/2018	266
09/24/2018	267
09/25/2018	268
09/27/2018	270

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	<i>S250</i>	<i>2702</i>
LOA	37.7 meters	8.4 meters
Draft	3.77 meters	0.76 meters

Table 5: Vessels Used

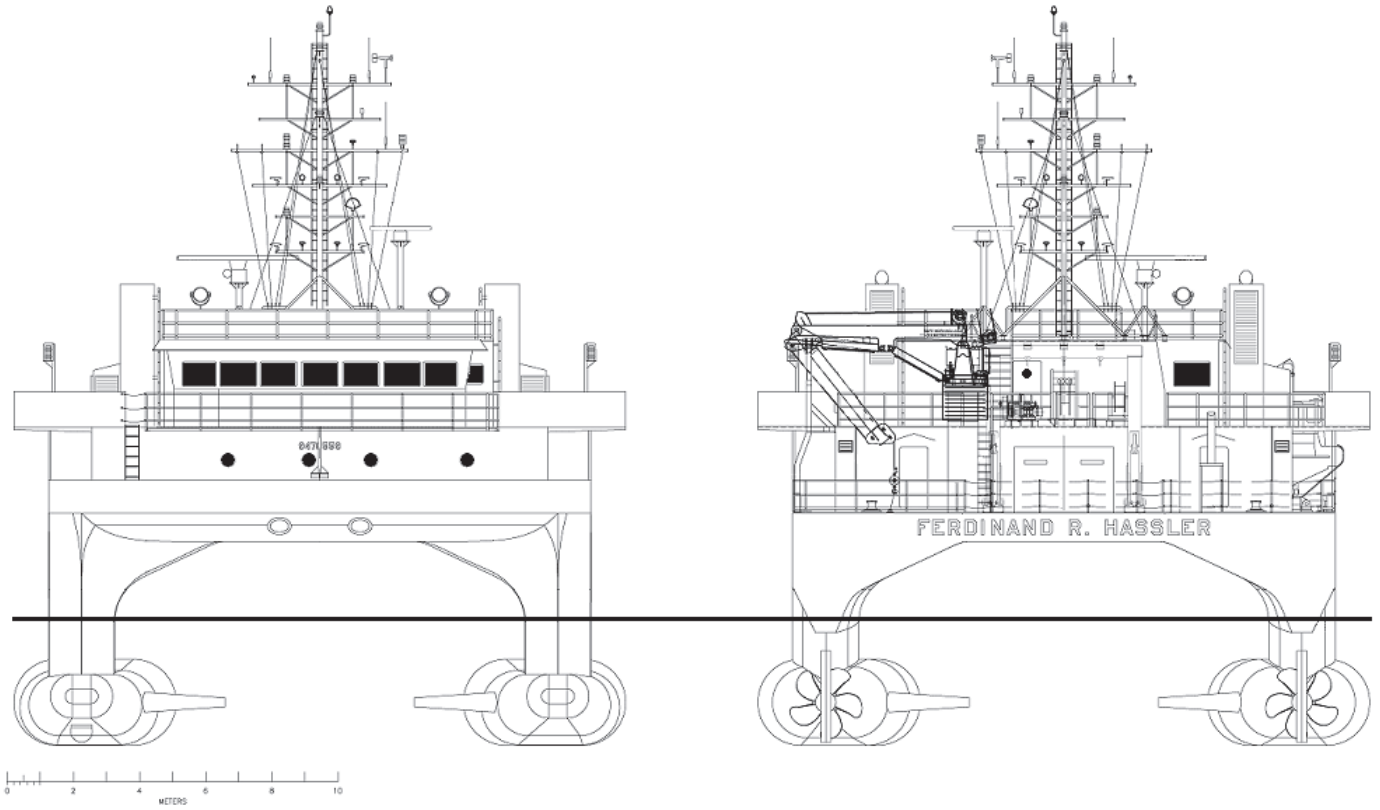


Figure 2: NOAA Ship FERDINAND R. HASSLER

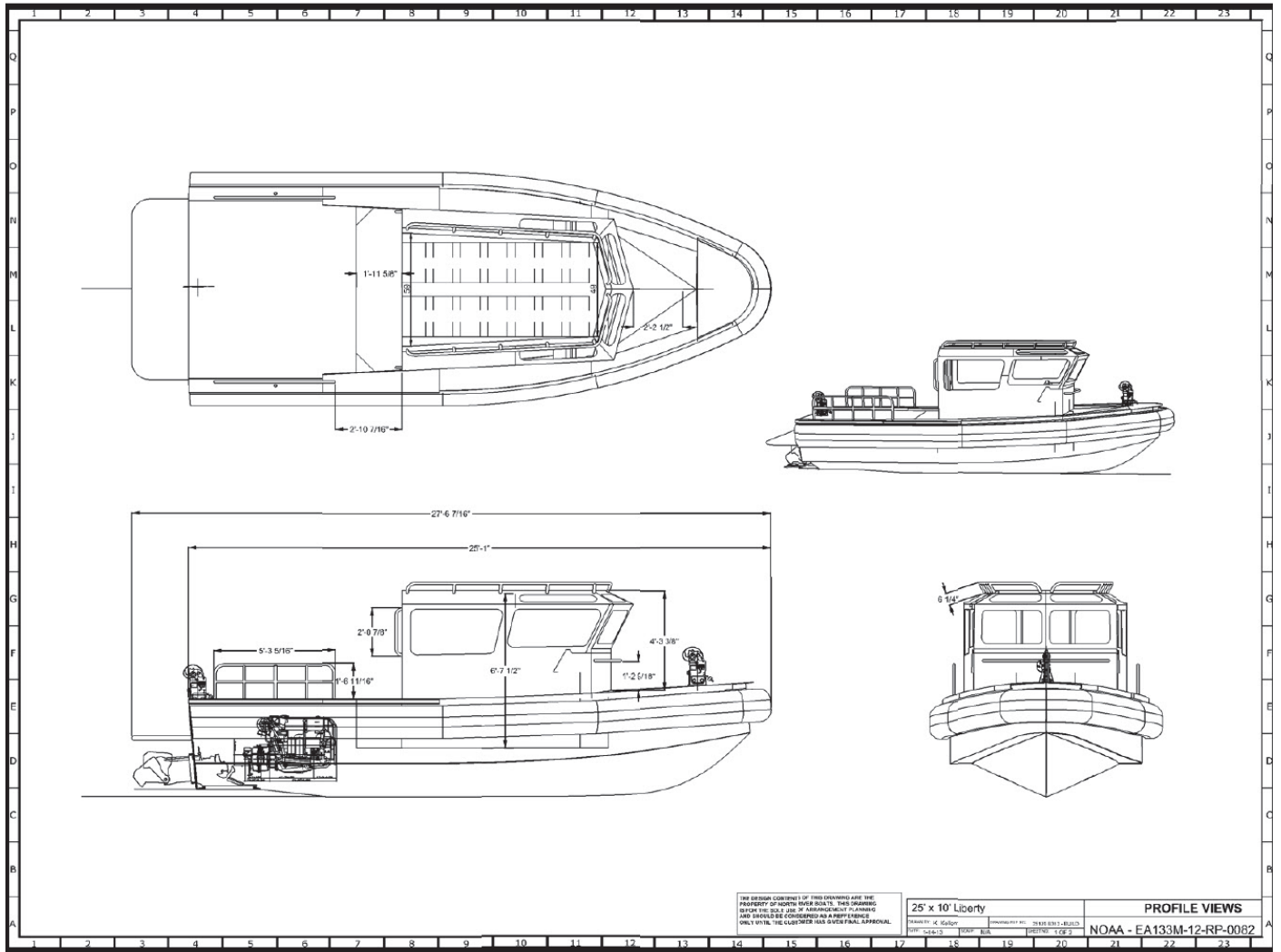


Figure 3: NOAA Ship *FERDINAND R. HASSLER* launch 2702

NOAA Ship *FERDINAND R. HASSLER* (S250) and her launch 2702 acquired all soundings during operations for H13131.

B.1.2 Equipment

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

Manufacturer	Model	Type
Teledyne RESON	SeaBat 7125 SV2	MBES
ODIM Brooke Ocean	MVP200	Sound Speed System
ODIM Brooke Ocean	Micro-CTD	Conductivity, Temperature, and Depth Sensor
Applanix	POS MV 320 v5	Positioning and Attitude System
Teledyne RESON	SVP 70	Sound Speed System
R2Sonic	Sonic 2022	MBES
Valeport	MiniSVS	Sound Speed System
Sea-Bird Scientific	SBE 19plus	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 5.76% of mainscheme acquisition.

To evaluate crossline agreement, two surfaces of 2-meter grid resolution were created; one from the crossline depths, the other from the mainscheme depths. These two surfaces were differenced and statistics generated using the Pydro Compare Surfaces tool and results reviewed in CARIS HIPS & SIPS. The statistical analysis of the differences between the mainscheme and crossline surfaces is shown below. The average difference between the surfaces is -0.01 meters with a standard deviation of 0.06 meters; 95% of nodes agree within +/- 0.10 meters of the mean.

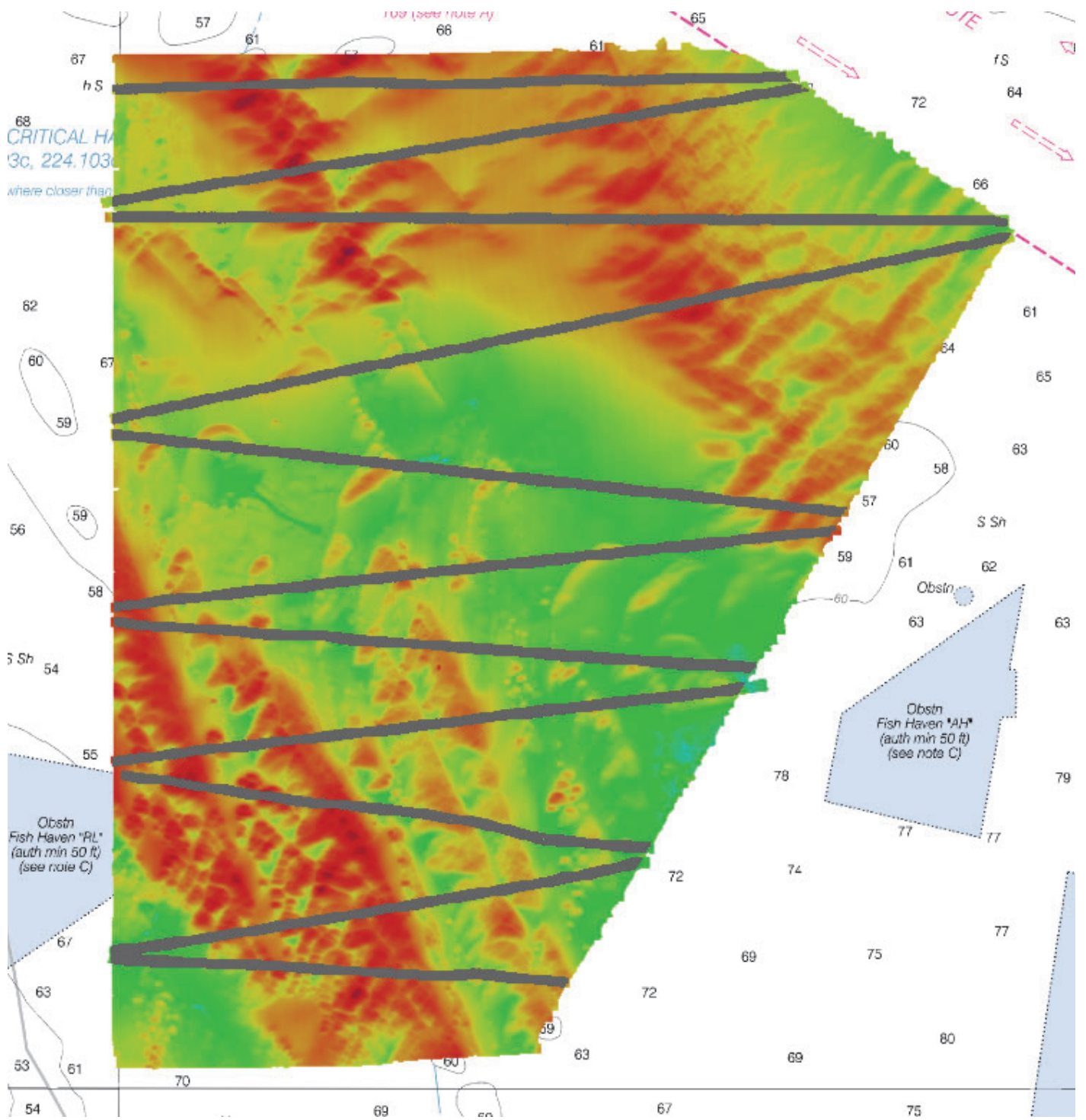


Figure 4: H13131 Crossline Coverage

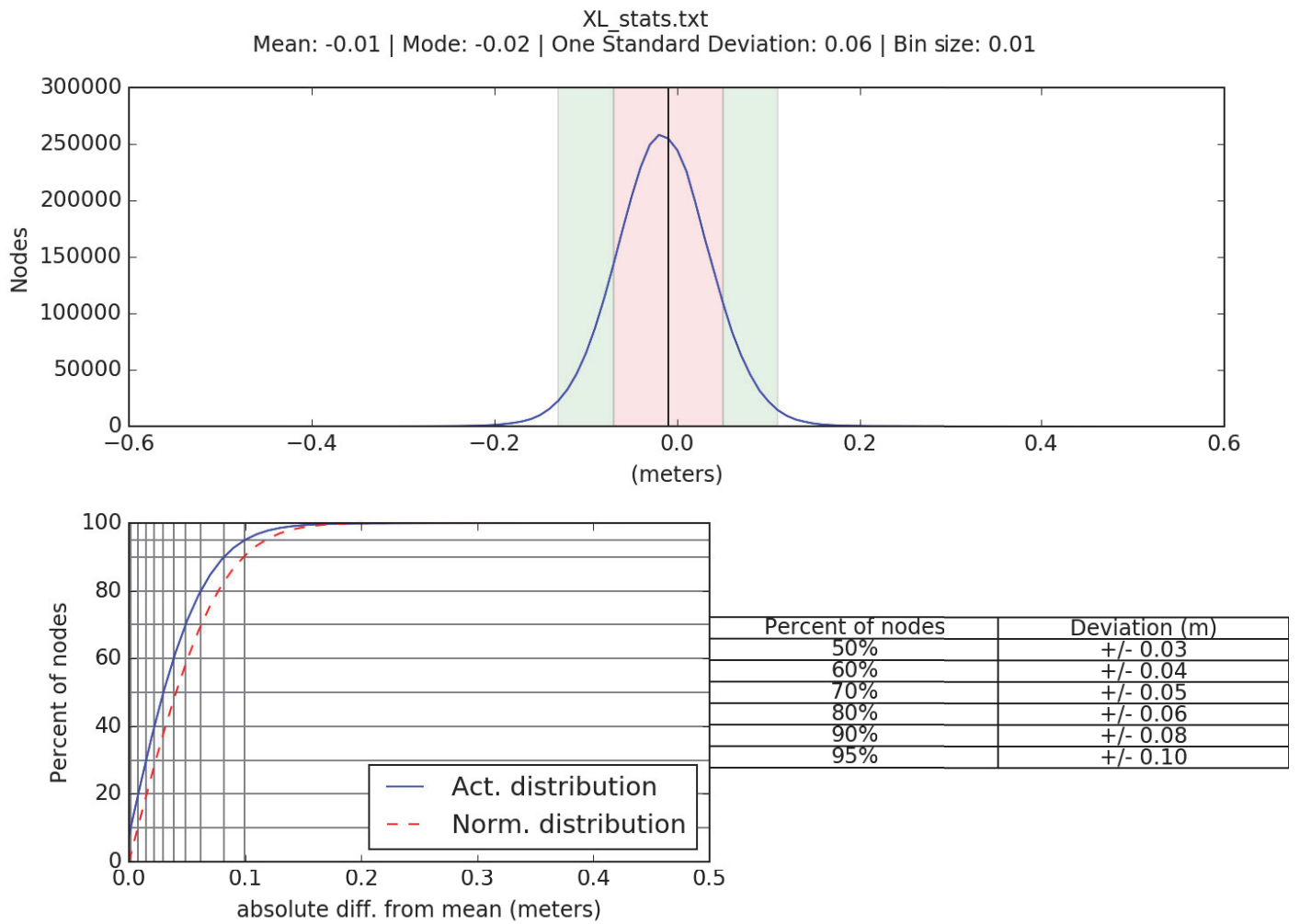


Figure 5: H13131 Crossline difference statistical analysis

B.2.2 Uncertainty

Hull ID	Measured - CTD	Measured - MVP	Surface
S250	NA meters/second	1 meters/second	0.5 meters/second
2702	1 meters/second	NA meters/second	0.5 meters/second

Table 7: Survey Specific Sound Speed TPU Values.

B.2.3 Junctions

H13131 junctions with H12978 and H12979, which was acquired by the Ferdinand R. Hassler. H12978 was acquired in 2017 and H12979 is part of the current project. H13131 also junctions with prior survey H12099, conducted by SAIC in 2009.

To evaluate junction agreement, the two surfaces were differenced and statistics generated using the Pydro Compare Surfaces tool and results reviewed in CARIS HIPS & SIPS. The statistical analysis of the differences between the mainscheme and crossline surfaces are reported below.

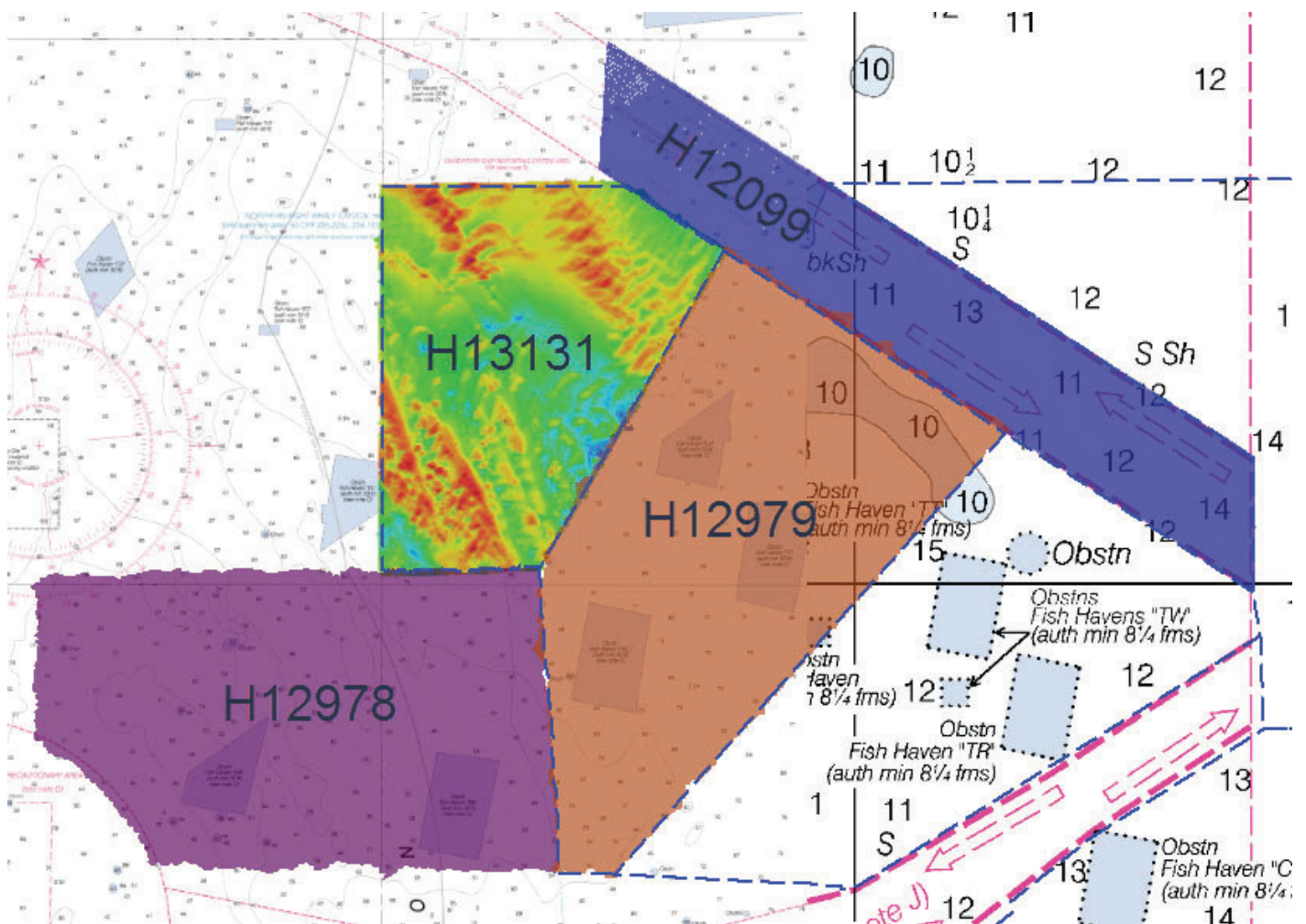


Figure 6: H13131 Junction Overview

The following junctions were made with this survey:

Registry Number	Scale	Year	Field Unit	Relative Location
H12978	1:40000	2017	NOAA Ship FERDINAND R. HASSLER	S
H12979	1:40000	2017	NOAA Ship FERDINAND R. HASSLER	SE
H12099	1:20000	2009	SAIC	NE

Table 8: Junctioning Surveys

H12978

The minimum and maximum depth difference between H13131 and H12978 is -0.39 and 0.49 meters respectively. The average difference is -0.02 meters with a standard deviation of 0.08 meters; 95% of the differenced nodes are within +/- 0.15 meters of the mean. Junction overlap ranges from ~100m to ~300m.

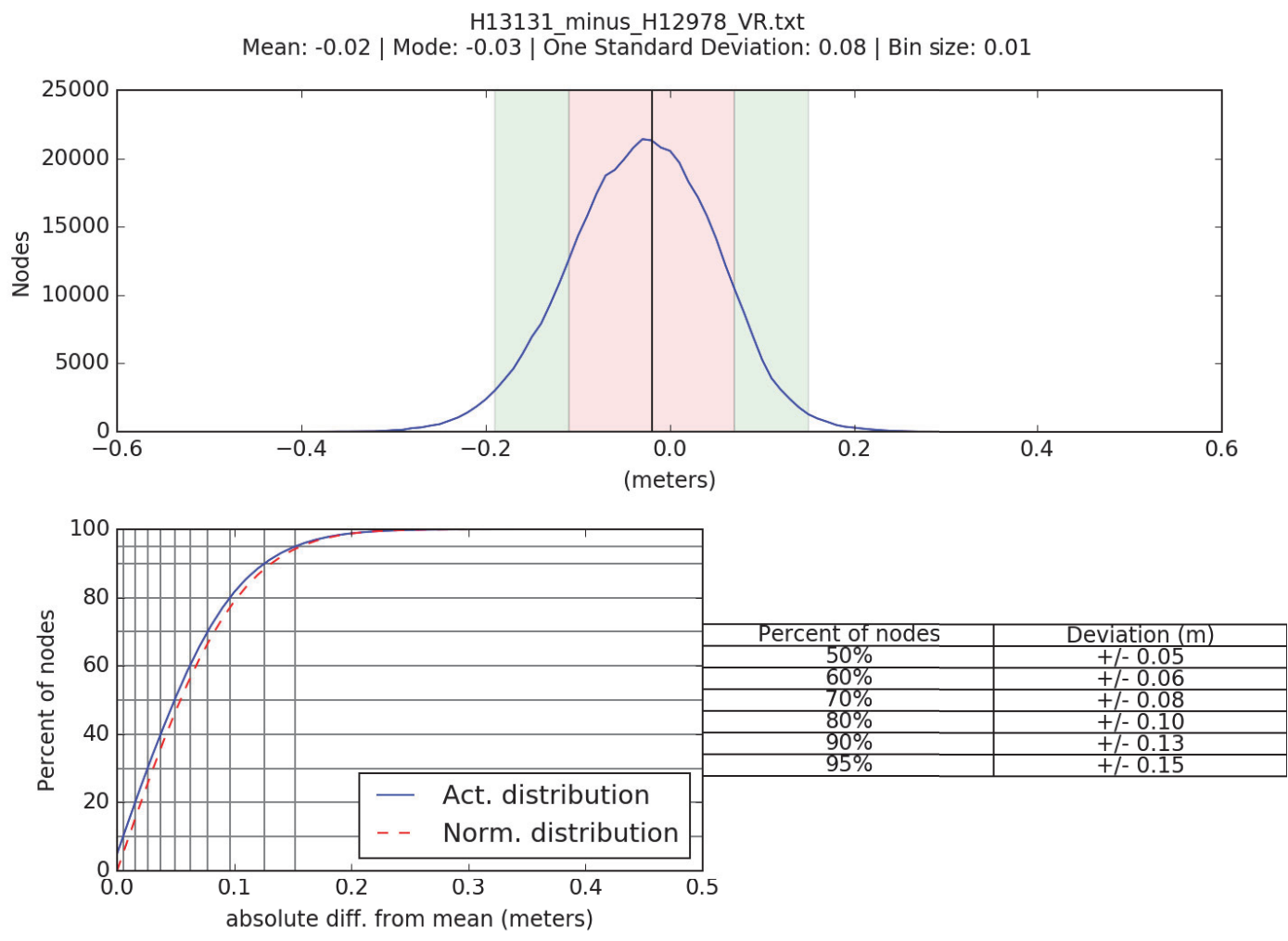


Figure 7: Difference Surface Statistics for H13131 and H12978

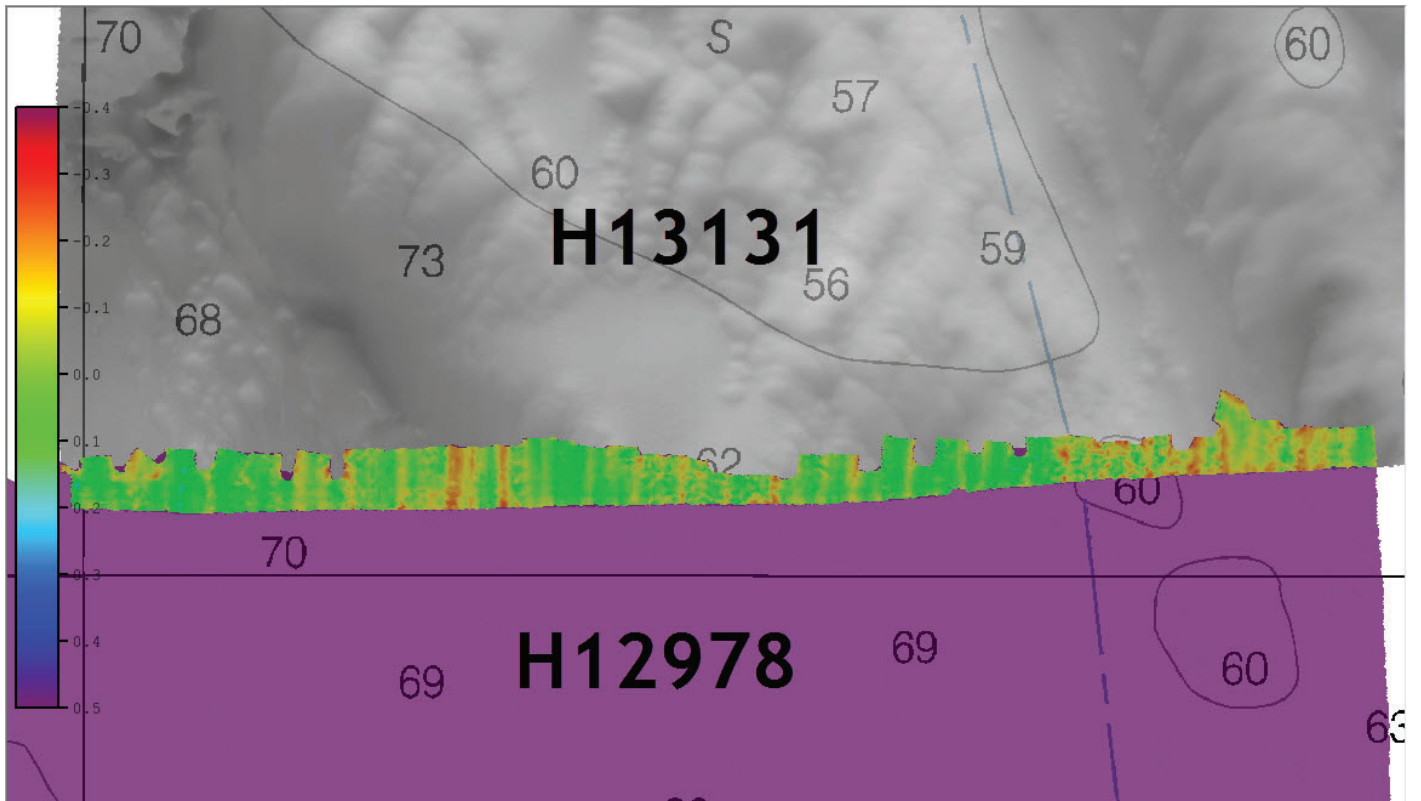


Figure 8: Junction between H13131 and H12978

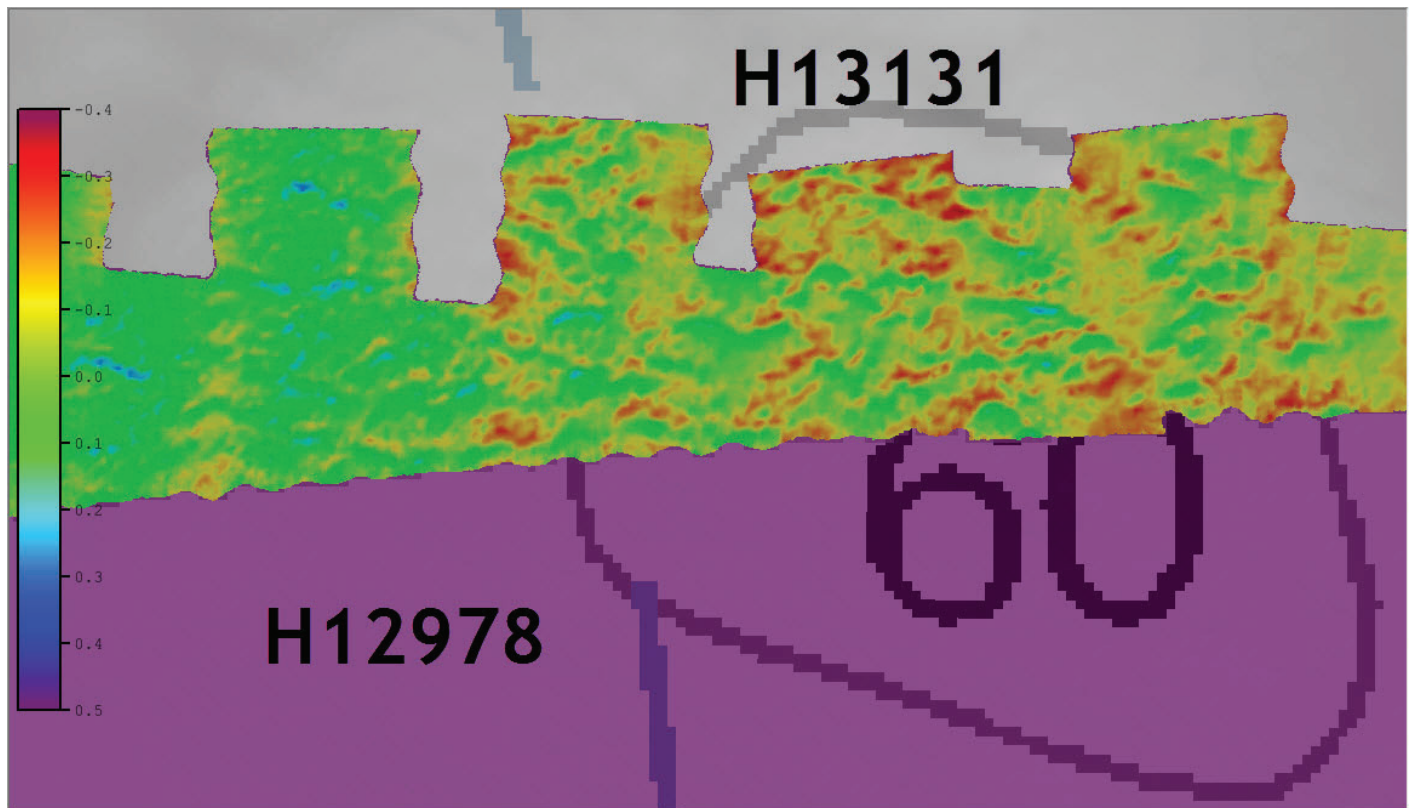


Figure 9: Junction between H13131 and H12978, zoomed. Differences shown indicate moving sand waves.

H12979

The minimum and maximum depth difference between H13131 and H12979 is -0.92 and 0.64 meters respectively. The average difference is -0.01 meters with a standard deviation of 0.04 meters; 95% of the differenced nodes are within +/- 0.08 meters of the mean. Junction overlap ranges from ~150m to ~400m.

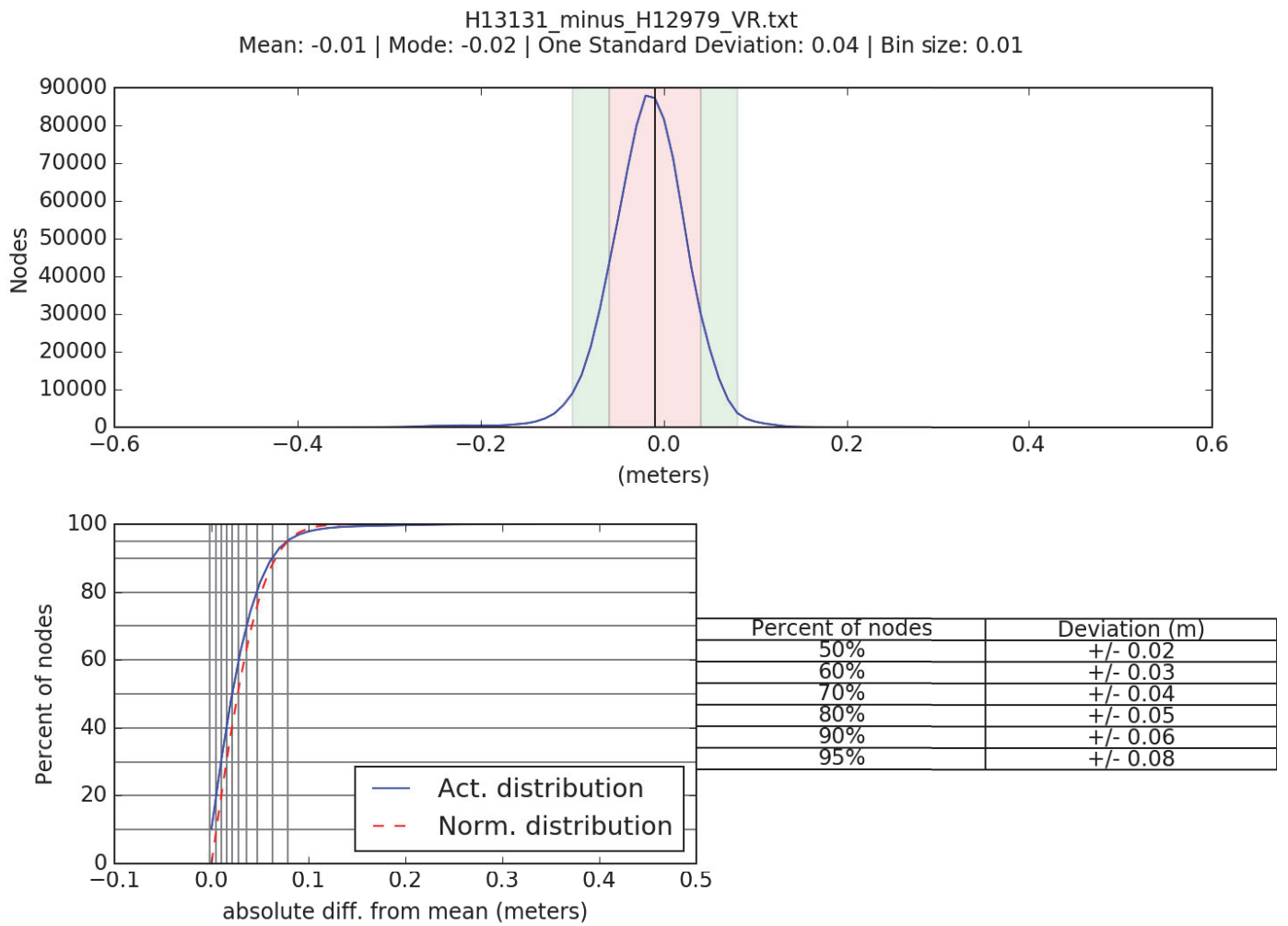


Figure 10: Difference Surface Statistics for H13131 and H12979



Figure 11: Junction between H13131 and H12979, northern section

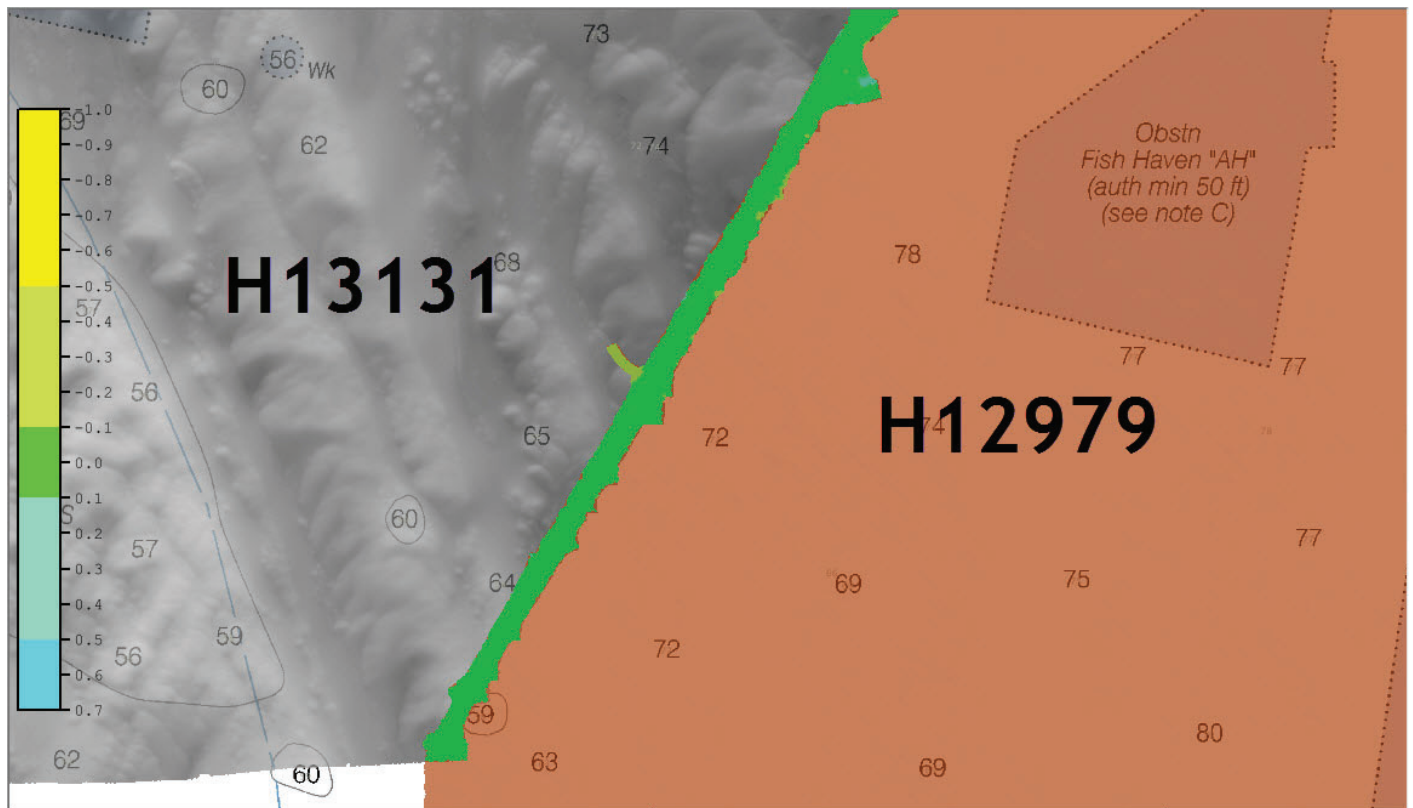


Figure 12: Junction between H13131 and H12979, southern section

H12099

The minimum and maximum depth difference between H13131 and H12099 is -0.41 and 0.32 meters respectively. The average difference is -0.07 meters with a standard deviation of 0.07 meters; 95% of the differenced nodes are within +/- 0.14 meters of the mean. Junction overlap ranges from ~80m to ~180m.

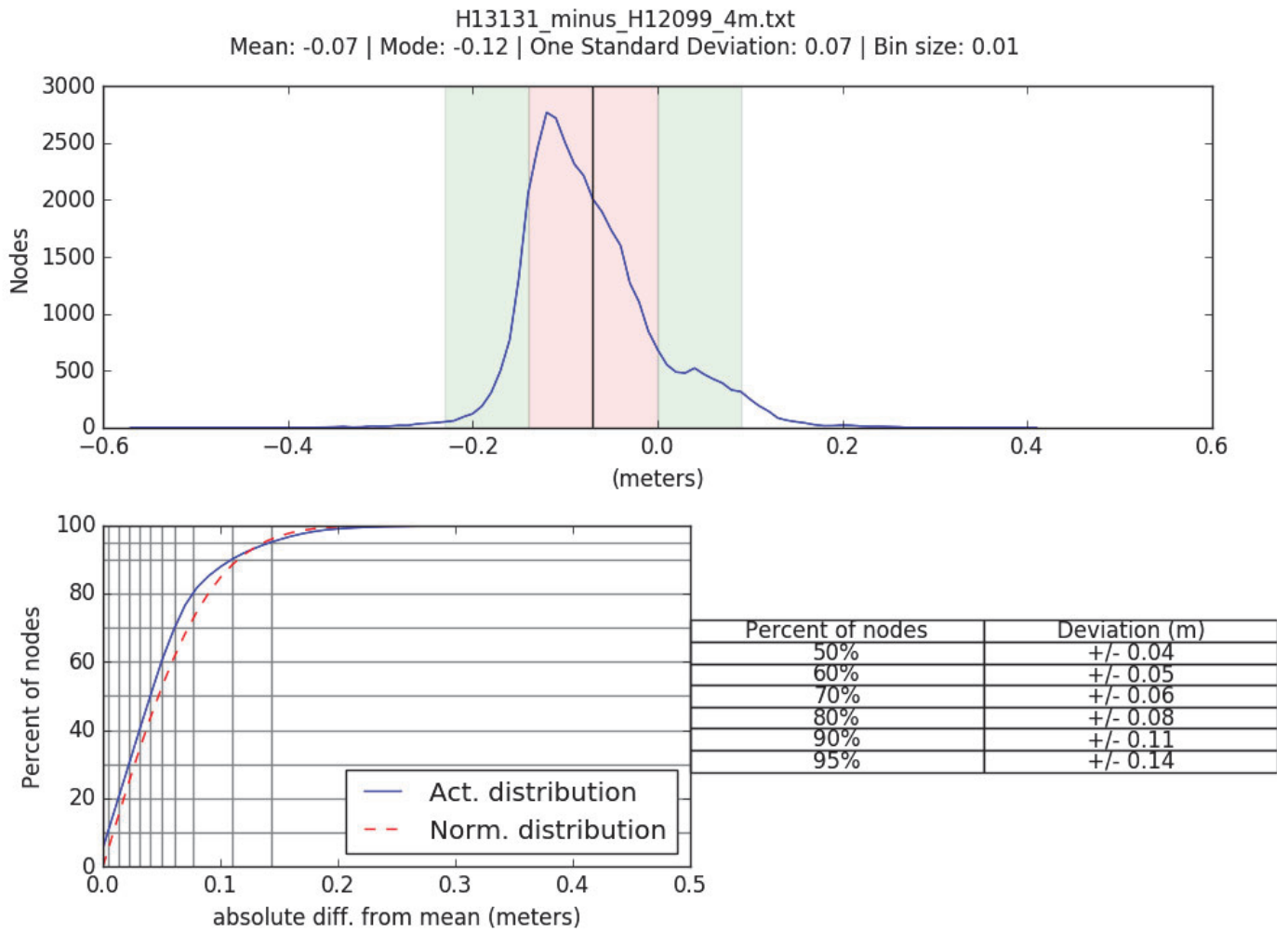


Figure 13: Difference Surface Statistics for H13131 and H12099

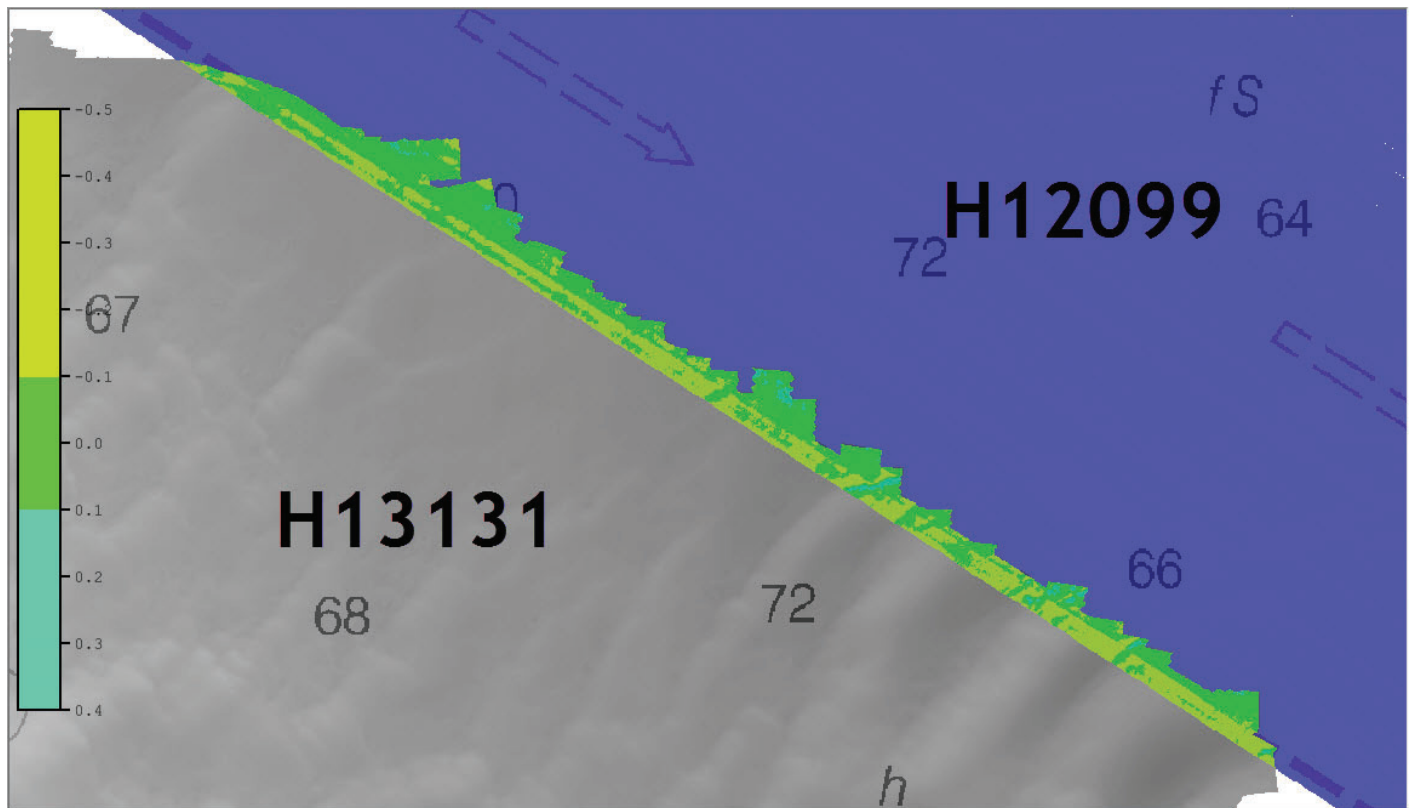


Figure 14: Junction between H13131 and H12099

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: The mean time taken between casts is 1 hr: 45 minutes with a standard deviation of 57 minutes. There is one period of 4hr 20 minutes between casts on DN 250, otherwise all casts were made within the 4 hr maximum allowed window.

During MBES acquisition a total of 89 casts were made with the MVP from the ship and 3 CTD profiles were made with launch 2702.

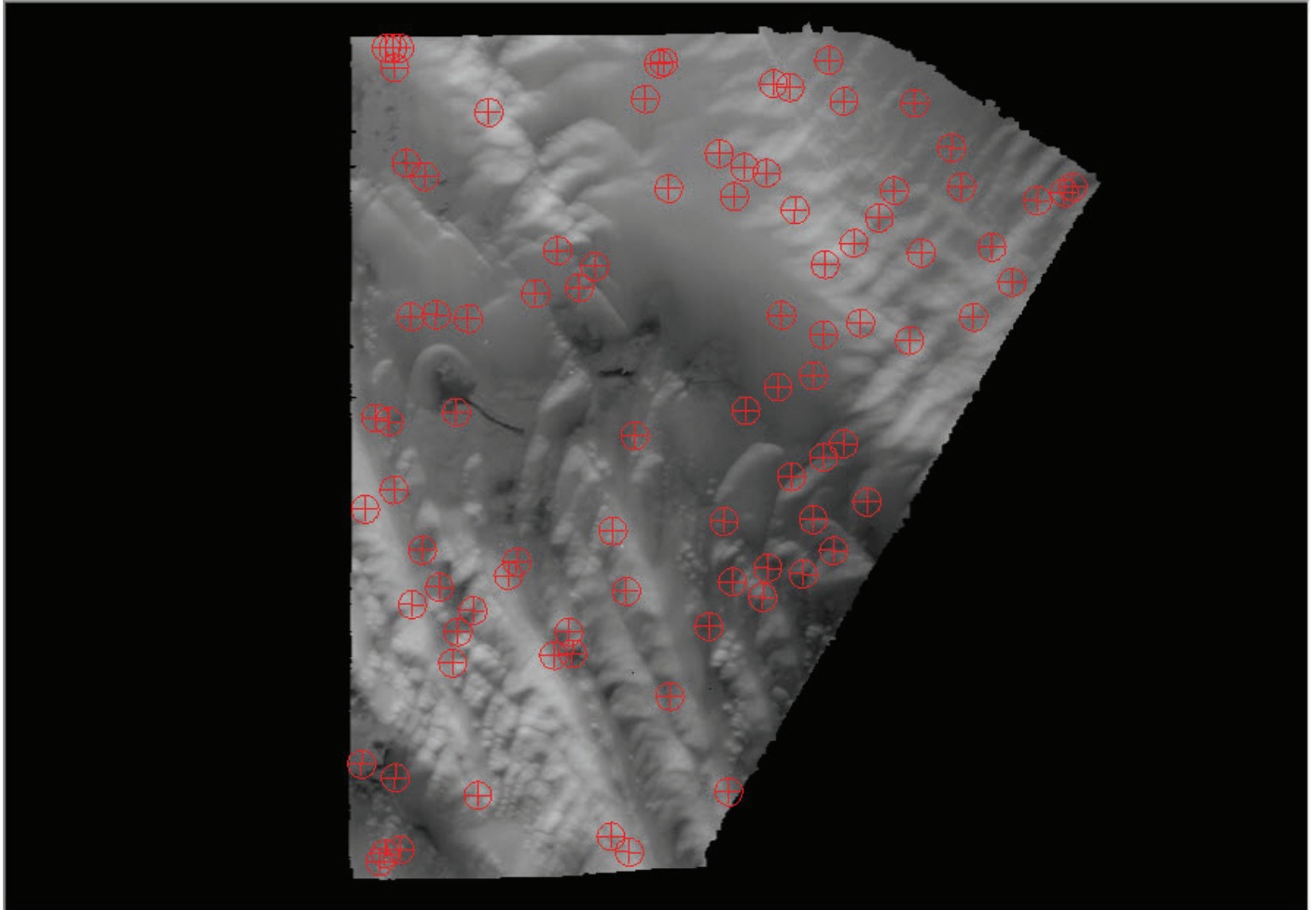


Figure 15: H13131 sound speed profile locations

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

Raw Backscatter was recorded within the Reson .s7k files. Backscatter was processed in accordance with Hydrographic Technical Directive (HTD) 2018-3 using the QPS Fledermaus GeoCoder Toolbox software.

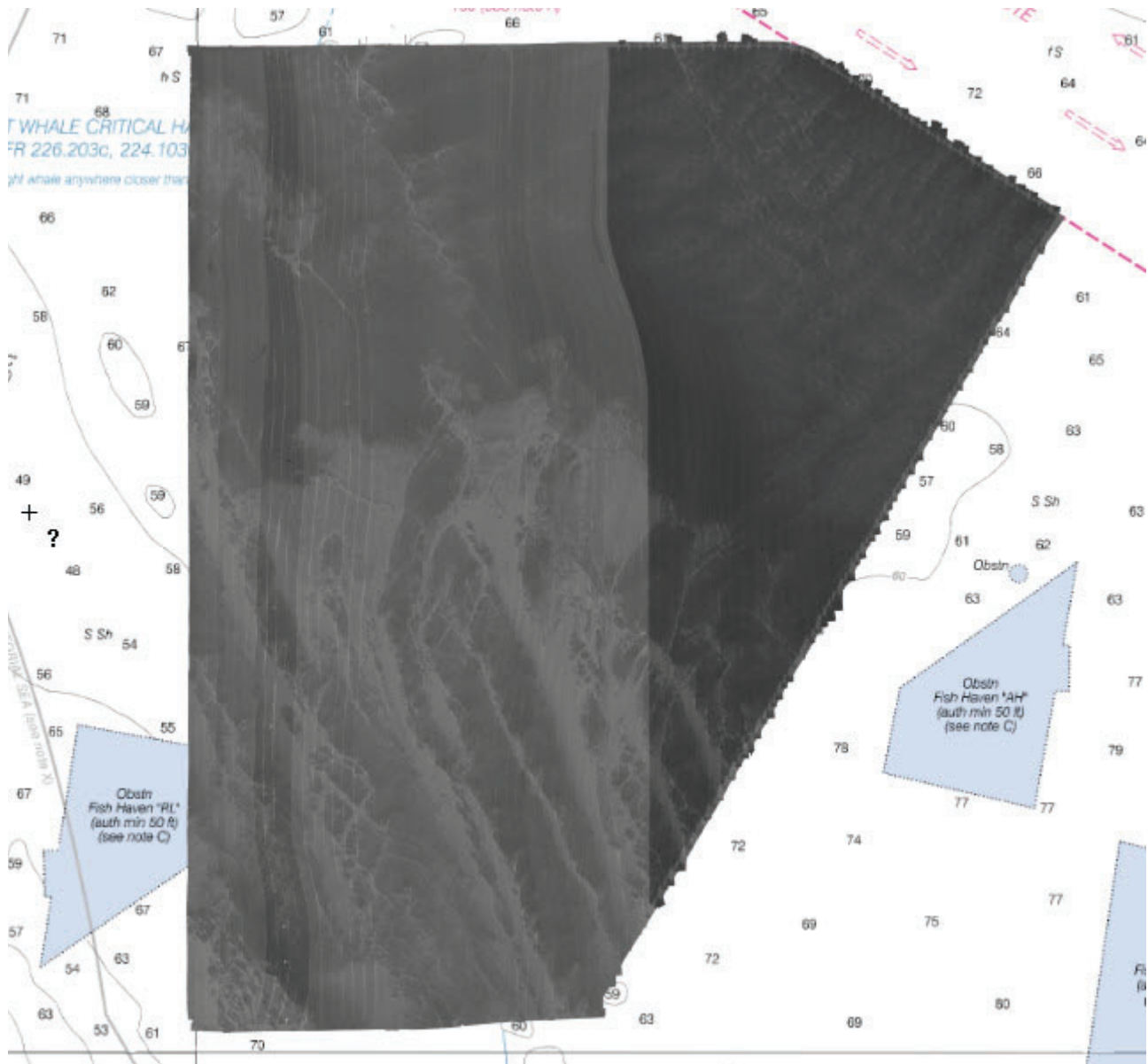


Figure 16: Backscatter coverage for H13131

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	10.4.4

Table 9: Primary bathymetric data processing software

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

Manufacturer	Name	Version
QPS	Fledermaus - FMGT	7.8.3

Table 10: Primary imagery data processing software

The following Feature Object Catalog was used: NOAA Profile Version 5.8.

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
H13131_MB_VR_MLLW	CARIS VR Surface (CUBE)	Variable Resolution	14.16 meters - 25.79 meters	NOAA_VR	Complete MBES
H13131_MB_VR_MLLW_Final	CARIS VR Surface (CUBE)	Variable Resolution	14.16 meters - 25.79 meters	NOAA_VR	Complete MBES

Table 11: Submitted Surfaces

A density analysis was run using the VR finalized surface to calculate the number of soundings per surface node. The results determined that greater than 99.5% of all nodes contained five or more soundings which meets the data density specifications. A TVU analysis was run using the VR finalized surface. The results determined that greater than 99.5% of nodes were within IHO allowable Total Vertical Uncertainty for Order 1a surveys.

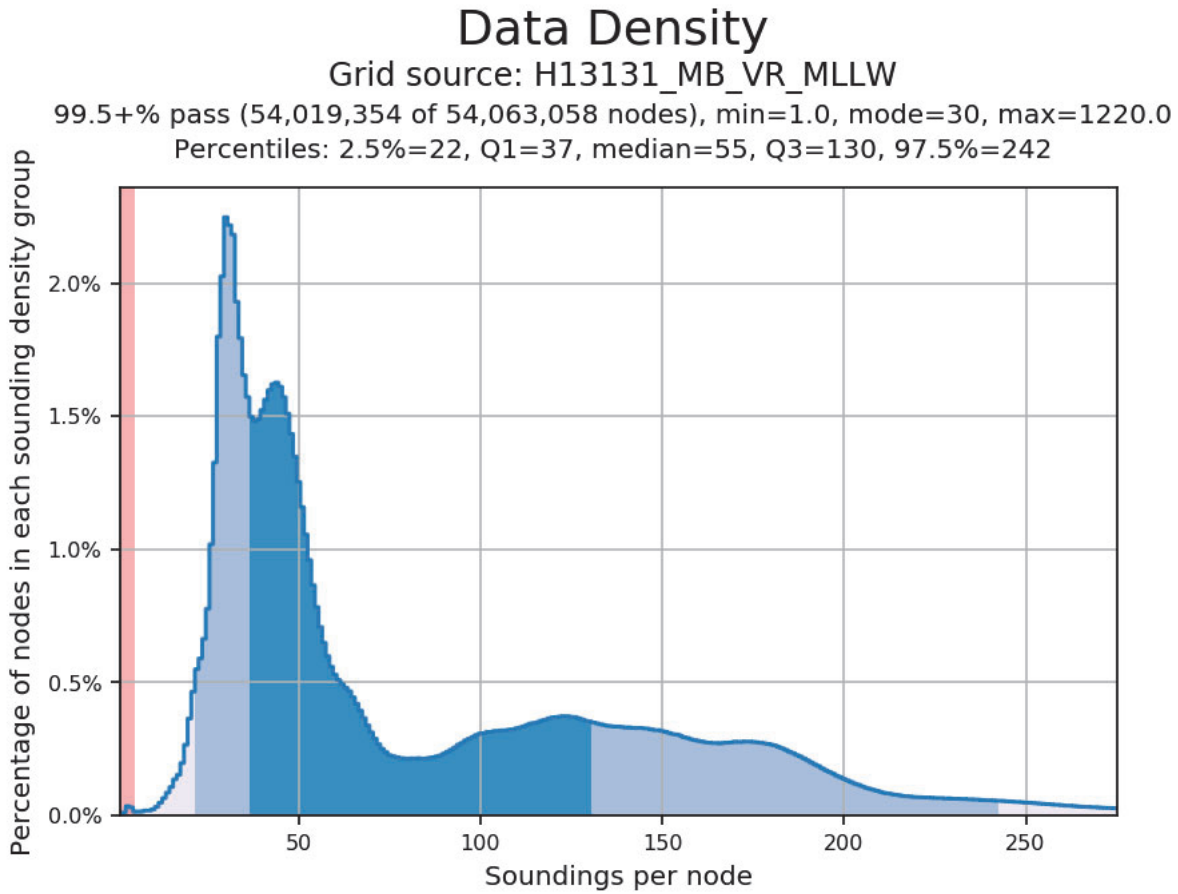


Figure 17: H13131 Data density of the VR finalized surface

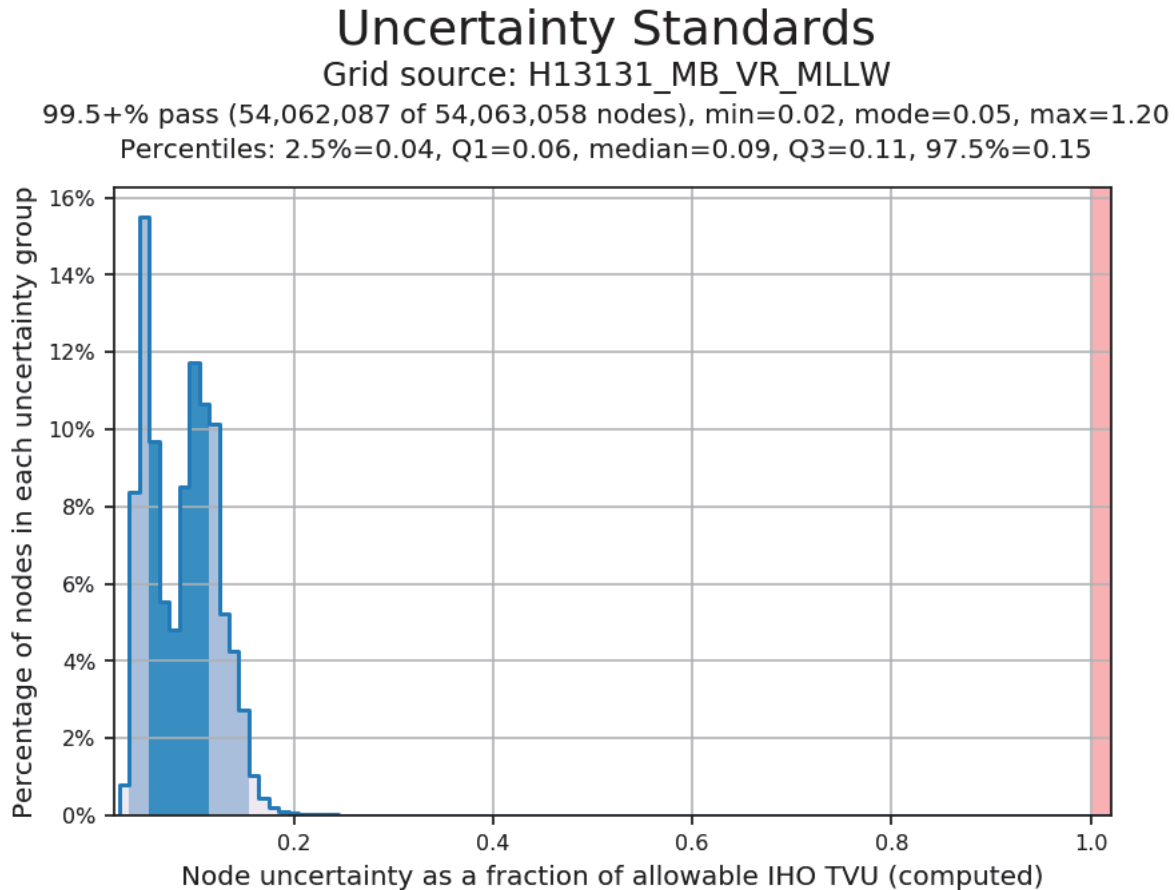


Figure 18: H13131 Total Vertical Uncertainty in the VR finalized surface

B.5.3 Designated Soundings

H13131 contains seven designated soundings in accordance with HSSD Section 5.2.1.2.3. Zero designated soundings represent DTONs, six designated sounding occurs over "New" features that are addressed in the Final Feature File, and one designated sounding occurs over a wreck within a fish haven.

C. Vertical and Horizontal Control

All data for survey H13131 have been reduced to Mean Lower Low Water (MLLW) using documented VDatum techniques documented in the DAPR. The 'Ferdinand R. Hassler' is equipped with Applanix POS/MV position and orientation systems on the port and starboard hulls. Correctors are derived using a Precise Point Positioning (PPP) approach. The POS/MV data was post-processed in Applanix POSpac MMS using the Applanix RTX service to produce Smoothed Best Estimates of Trajectory (SBETs) and RMS uncertainty

files using the method of Post Processed Precise Point Positioning (5P). Additional information discussing the vertical or horizontal control for this survey can be found in the accompanying DAPR.

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:

VDatum_Sep-shapefile_xyNAD83_geoid12b.csar

C.2 Horizontal Control

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

The projection used for this project is Projected UTM 17N.

D. Results and Recommendations

D.1 Chart Comparison

Survey soundings from H13131 were generated from a variable resolution CUBE surface in CARIS HIPS and SIPS and compared with the soundings from the largest scale Electronic Navigational Charts using the QC Tools 2 triangle rule tool. Contours from H13131 were also generated and visually compared with the charted contours from the largest scale Electronic Navigational Charts. One (1) sounding was flagged by using the triangle rule that measured a difference of four (4) feet.

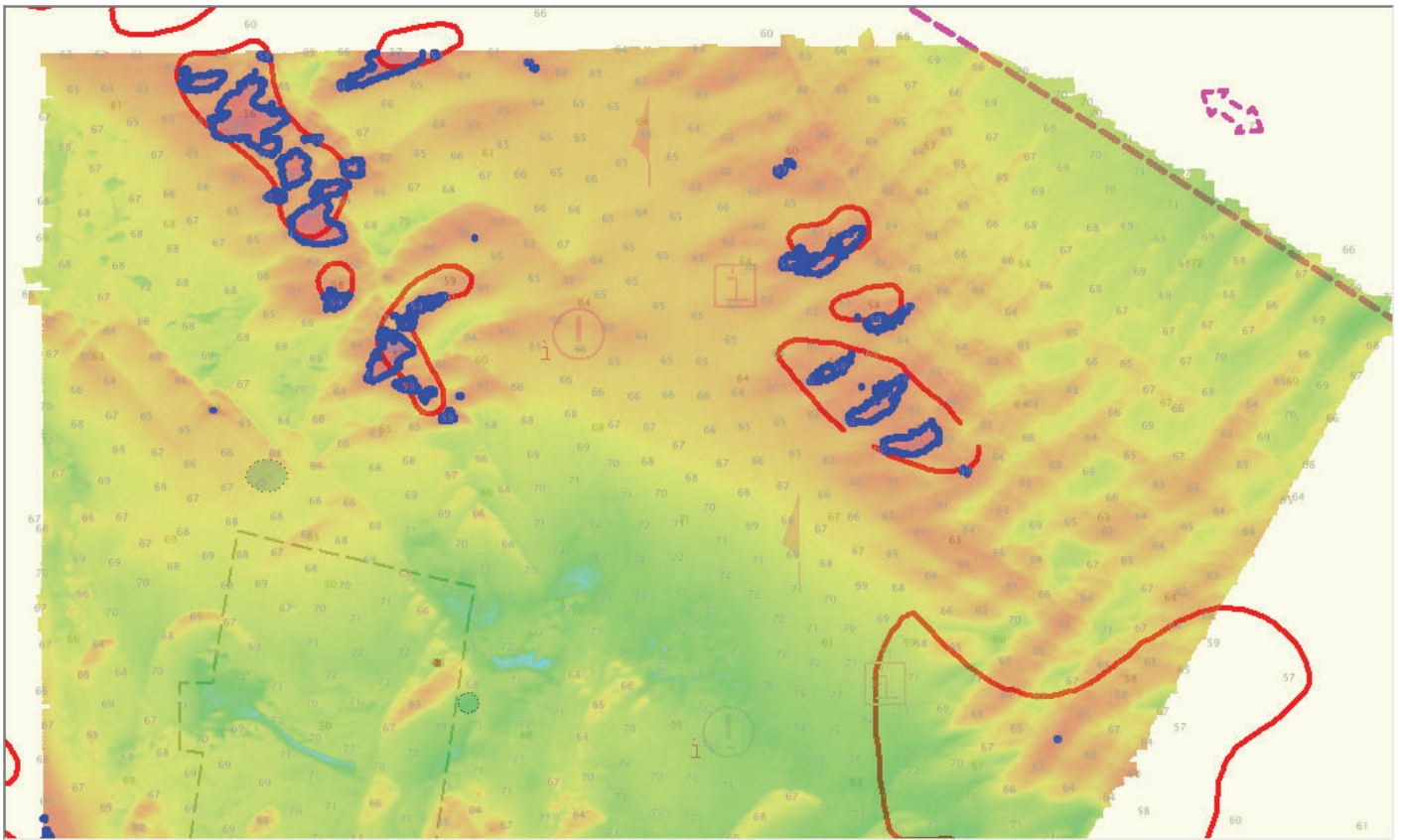


Figure 19: Surveyed contours (blue) as compared to largest scale ENC contours (red) - northern area

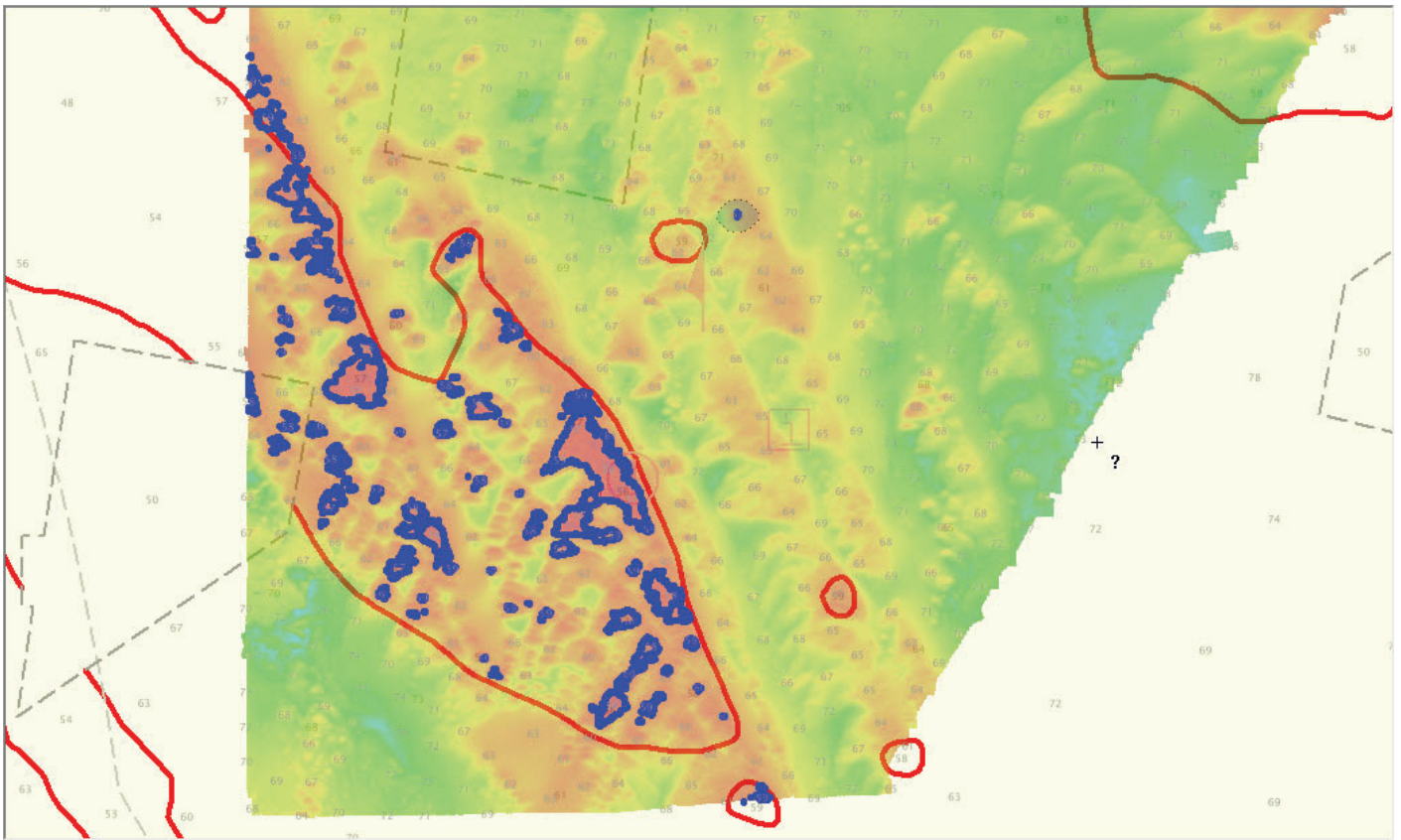


Figure 20: Surveyed contours (blue) as compared to largest scale ENC contours (red) - southern area

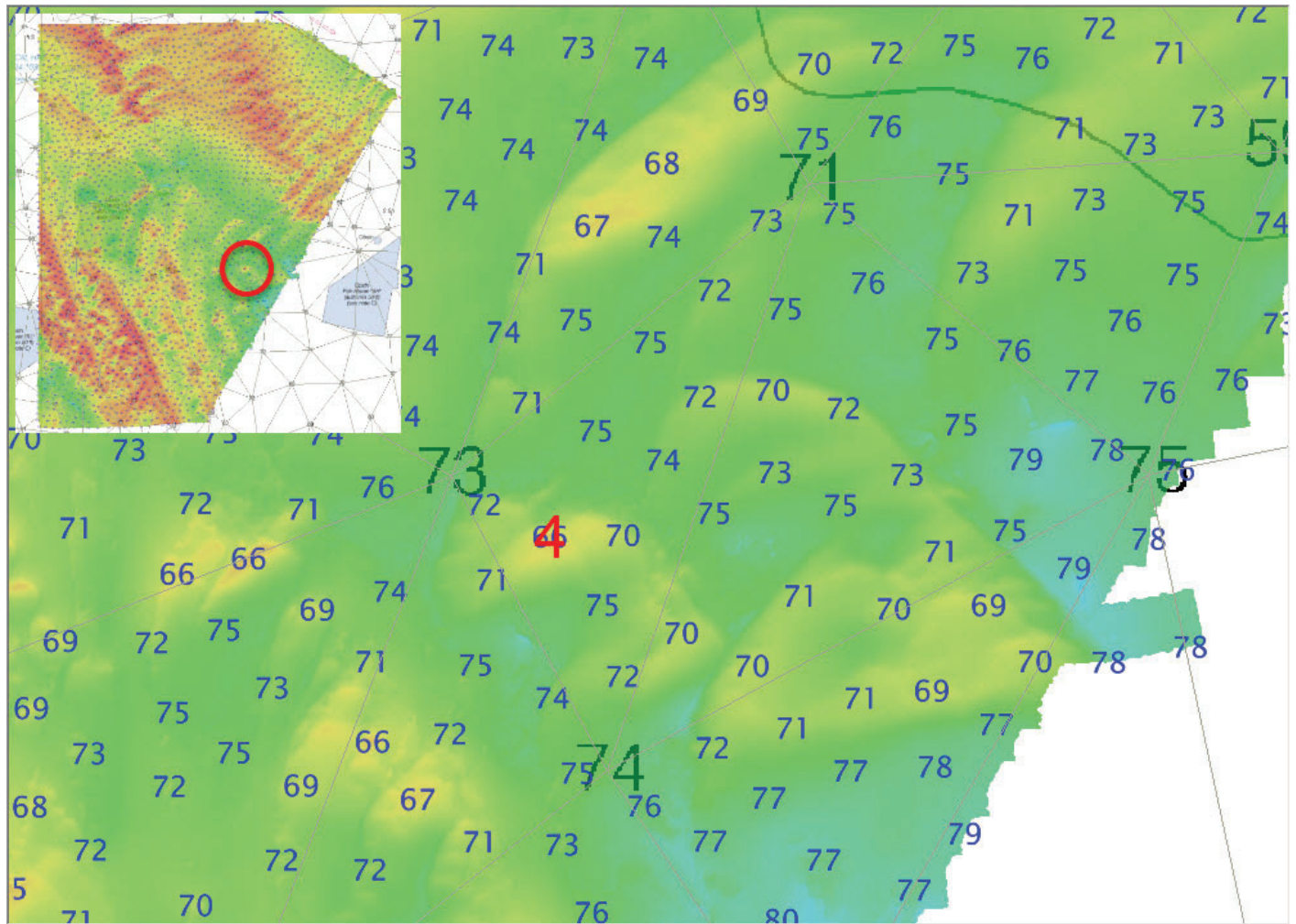


Figure 21: Results from PC Tools 2 'Triangle Rule' showing a 4-foot difference

D.1.1 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?
US4FL50M	1:80000	21	12/21/2018	12/21/2018	NO
US4GA11M	1:80000	36	12/10/2018	12/10/2018	NO

Table 12: Largest Scale ENC's

US4FL50M

ENC US4FL50M generally compares well with survey H13131. Surveyed soundings generally agree to within +/- two (2) feet as compared to currently charted depths.

US4GA11M

ENC US4GA11M generally compares well with survey H13131. Surveyed soundings generally agree to within +/- two (2) feet as compared to currently charted depths.

D.1.2 Maritime Boundary Points

No Maritime Boundary Points were assigned for this survey.

D.1.3 Charted Features

All charted features were investigated as part of H13131 and are addressed in the Final Feature File.

The feature located at position 30-34-21.0N 081-07-42.8W within the charted fish haven is charted with a 48-foot sounding. The least depth for this feature in H13131 is 68 feet, which has been designated in the finalized surface, and therefor does not require a sounding due to it being deeper than the authorized minimum depth of the charted fish haven of 50 feet. The hydrographer recommends deleting the 48-foot sounding.

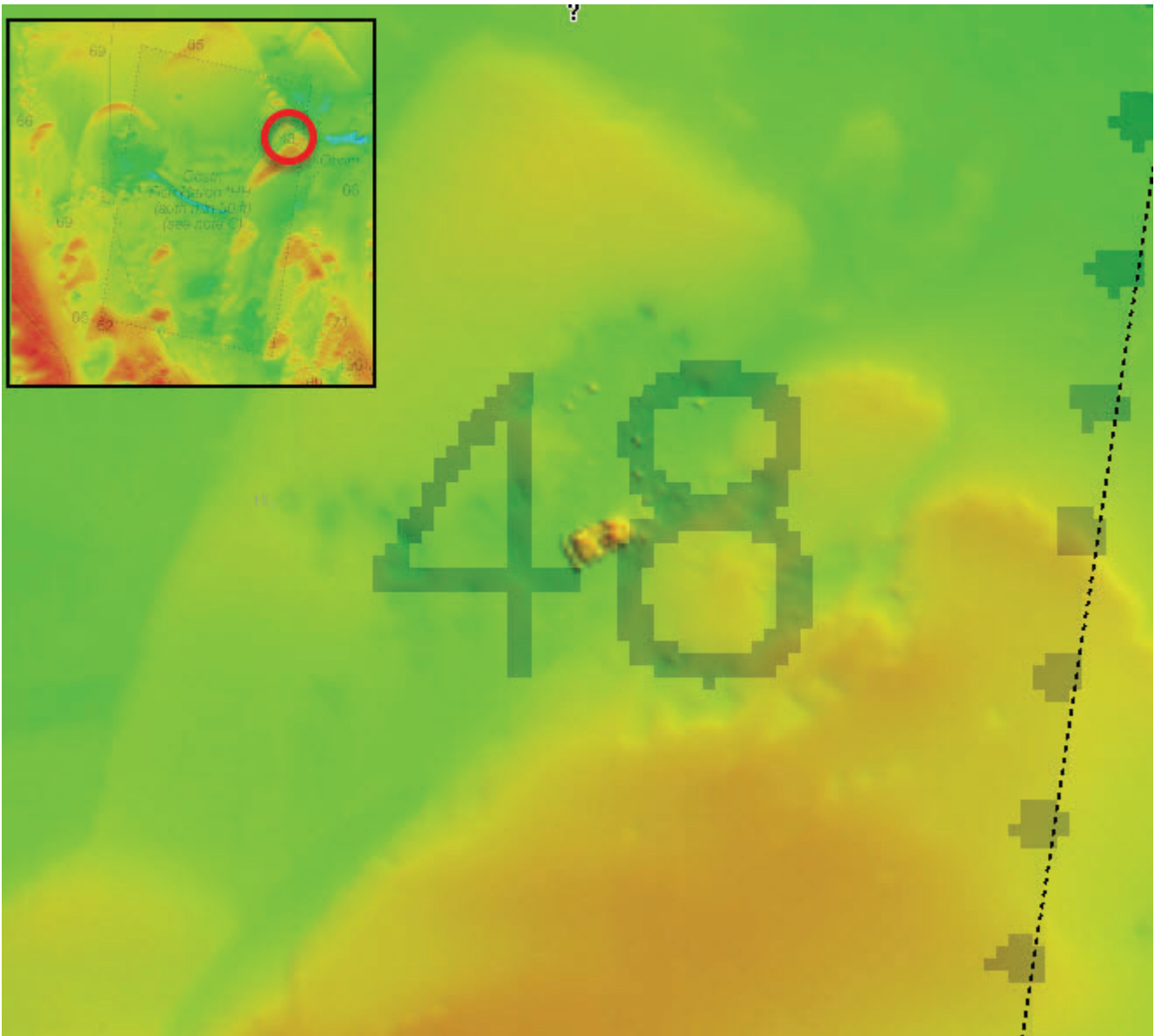


Figure 22: Charted sounding within fish haven

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

No channels exist for this survey. There are no designated anchorages, precautionary areas, safety fairways, traffic separation schemes, pilot boarding areas, or channel and range lines within the survey limits.

D.1.7 Bottom Samples

Five (5) bottom samples were acquired as part of H13131 and are addressed in the Final Feature File.

D.2 Additional Results

D.2.1 Shoreline

Shoreline was not assigned in the Hydrographic Survey Project Instructions or Statement of Work.

D.2.2 Prior Surveys

No prior survey comparisons exist for this survey.

D.2.3 Aids to Navigation

No Aids to navigation (ATONs) exist for this survey.

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.

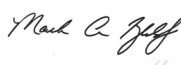

E. Approval Sheet

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.

Report Name	Report Date Sent
Data Acquisition and Processing Report	2019-04-19

Approver Name	Approver Title	Approval Date	Signature
LCDR Mark Blankenship, CO/FH	Chief of Party	05/11/2019	 Digitally signed by BLANKENSHIP.MARK.ANTHONY.10 52425537 Date: 2019.05.24 11:55:54 -04'00'
LT John R. Kidd, OPS/FH	Field Operations Officer	05/11/2019	 KIDD.JOHN.RYAN.1401688524 2019.05.11 10:23:35 -04'00'

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	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
5P	Post Processed Precise Point Positioning

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 States Coast Guard
UTM	Universal Transverse Mercator
XO	Executive Officer
ZDA	Global Positioning System timing message
ZDF	Zone Definition File



OPS.Ferdinand Hassler - NOAA Service Account <ops.ferdinand.hassler@noaa.gov>

H13131 and H12979 Survey Outlines

3 messages



OPS.Ferdinand Hassler - NOAA Service Account <ops.ferdinand.hassler@noaa.gov> Wed, Oct 17, 2018 at 11:57 AM
To: _NOS OCS Survey Outlines <survey.outlines@noaa.gov>
Cc: CO HASSLER <co.ferdinand.hassler@noaa.gov>, Douglas Wood - NOAA Federal <douglas.wood@noaa.gov>

Greetings,

Please see attached survey outlines for OPR-G343-FH-18 H13131 and H12979. Once I receive confirmation that these are received I will archive this correspondence for submission.

LT John Kidd
Field Operations Officer, NOAA Ship FERDINAND R. HASSLER
*ship's cell: 603-812-8748 * VOIP: 541-867-8935 * iridium: 808-851-3826*
Physical Address (UPS/FedEx):
UNH Judd Gregg Marine Research Complex
29 Wentworth Rd
New Castle, NH 03854
Mailing Address: PO Box 638, New Castle, NH 03854

2 attachments

-  **H13131_Survey_Outline.000**
12K
-  **H12979_Survey_Outline.000**
10K

Douglas Wood - NOAA Federal <douglas.wood@noaa.gov> Wed, Oct 17, 2018 at 1:22 PM
To: "OPS.Ferdinand Hassler - NOAA Service Account" <ops.ferdinand.hassler@noaa.gov>

Hi LT Kidd,

the survey outlines for H13131 and H12979 are received in ops.

[Quoted text hidden]

--

Douglas Wood
Physical Scientist
Hydrographic Surveys Division
Office of Coast Survey
National Oceanic and Atmospheric Administration
[1315 East West Highway](#)
[Silver Spring, MD 20910](#)
240-533-0042

Brian Mohr - NOAA Federal <brian.mohr@noaa.gov> Thu, Oct 18, 2018 at 1:46 PM
To: "OPS.Ferdinand Hassler - NOAA Service Account" <ops.ferdinand.hassler@noaa.gov>

Got them, will updated SURDEX shortly with outlines **H12979** and **H13131**.

Brian Mohr
Data Manager
Hydrographic Surveys Division



OPS.Ferdinand Hassler - NOAA Service Account <ops.ferdinand.hassler@noaa.gov>

H12979, H13095, and H13131 Survey Outline

1 message

OPS.Ferdinand Hassler - NOAA Service Account <ops.ferdinand.hassler@noaa.gov>

Thu, Jun 13, 2019 at 6:29 PM

To: _NOS OCS Survey Outlines <survey.outlines@noaa.gov>

Cc: Douglas Wood - NOAA Federal <douglas.wood@noaa.gov>

Greetings

Please see attached survey outlines for OPR-D304-FH-18 H13095 and OPR-G343-FH-18 H13131 and H12979. My apologizes for not sending earlier.

LT John Kidd

Operations Officer, NOAA Ship FERDINAND R. HASSLER

ship's cell: [603-812-8748](tel:603-812-8748) * VOIP: [541-867-8935](tel:541-867-8935) * irridium: [808-851-3826](tel:808-851-3826)

Shipyards Address (UPS/FedEx):

GMD Shipyards Corp. (Atten: NOAA Ship Hassler)

Brooklyn Navy Yard

63 Flushing Ave BLDG # 595 UNIT # 276

Brooklyn, NY 11205-1005

Physical Address (UPS/FedEx):

UNH Judd Gregg Marine Research Complex

[29 Wentworth Rd](#)

[New Castle, NH 03854](#)

Mailing Address:

PO Box 638, New Castle, NH 03854

3 attachments

 **H12979_Survey_Outline.000**
867K

 **H13131_Survey_Outline.000**
2427K

 **H13095_Survey_Outline.000**
2427K



OPS.Ferdinand Hassler - NOAA Service Account <ops.ferdinand.hassler@noaa.gov>

Marine Mammal Observations

2 messages

OPS.Ferdinand Hassler - NOAA Service Account <ops.ferdinand.hassler@noaa.gov> Thu, Jun 13, 2019 at 3:24 PM
To: _NMFS AFSC NMML POP INFORMATION <pop.information@noaa.gov>
Cc: Douglas Wood - NOAA Federal <douglas.wood@noaa.gov>, _NOS OCS ECC <ocs.ecc@noaa.gov>

Greetings,

Please see attached document for marine mammal sightings during the 2018 field season.

LT Steven Wall
Operations Officer in Training, NOAA Ship FERDINAND R. HASSLER
ship's cell: [603-812-8748](tel:603-812-8748) * VOIP: [541-867-8935](tel:541-867-8935) * irridium: [808-851-3826](tel:808-851-3826)

Shipyard Address (UPS/FedEx):
GMD Shipyard Corp. (Atten: NOAA Ship Hassler)
Brooklyn Navy Yard
63 Flushing Ave BLDG # 595 UNIT # 276
Brooklyn, NY 11205-1005

Physical Address (UPS/FedEx):
UNH Judd Gregg Marine Research Complex
[29 Wentworth Rd](#)
[New Castle, NH 03854](#)

Mailing Address:
PO Box 638, New Castle, NH 03854

 **FH_Marine Mammal Sightings_20190613.pdf**
3639K

Blair Delean - NOAA Federal <blair.j.delean@noaa.gov> Thu, Jun 13, 2019 at 5:04 PM
To: "OPS.Ferdinand Hassler - NOAA Service Account" <ops.ferdinand.hassler@noaa.gov>
Cc: _NMFS AFSC NMML POP INFORMATION <pop.information@noaa.gov>, Douglas Wood - NOAA Federal <douglas.wood@noaa.gov>, _NOS OCS ECC <ocs.ecc@noaa.gov>

Excellent, thank you for your POP submission.

Very Respectfully,

LTJG Blair Delean, NOAA
Marine Mammal Laboratory
206.526.4048



[Quoted text hidden]



OPS.Ferdinand Hassler - NOAA Service Account <ops.ferdinand.hassler@noaa.gov>

NCEI Sound Speed Data

1 message

OPS.Ferdinand Hassler - NOAA Service Account <ops.ferdinand.hassler@noaa.gov>

Thu, Jun 13, 2019 at 1:44 PM

To: "NODC.Submissions" <NODC.Submissions@noaa.gov>

Cc: Douglas Wood - NOAA Federal <douglas.wood@noaa.gov>

Greetings,

Please see attached .zip files containing sound speed data collected during last years projects, OPR-G343-FH-18 and OPR-D304-FH-18.

LT Steven Wall

Operations Officer in Training, NOAA Ship FERDINAND R. HASSLER
ship's cell: [603-812-8748](tel:603-812-8748) * VOIP: [541-867-8935](tel:541-867-8935) * irridium: [808-851-3826](tel:808-851-3826)

Shipyards Address (UPS/FedEx):

GMD Shipyards Corp. (Atten: NOAA Ship Hassler)
Brooklyn Navy Yard
63 Flushing Ave BLDG # 595 UNIT # 276
Brooklyn, NY 11205-1005

Physical Address (UPS/FedEx):

UNH Judd Gregg Marine Research Complex
[29 Wentworth Rd](#)
[New Castle, NH 03854](#)

Mailing Address:

PO Box 638, New Castle, NH 03854

2 attachments

 **OPR-G343-FH-18_20190613.zip**
717K

 **OPR-D304-FH-18_20190613.zip**
1900K



OPS.Ferdinand Hassler - NOAA Service Account <ops.ferdinand.hassler@noaa.gov>

Sea Turtle Sightings

3 messages

OPS.Ferdinand Hassler - NOAA Service Account <ops.ferdinand.hassler@noaa.gov> Thu, Jun 13, 2019 at 3:24 PM
To: larisa.avens@noaa.gov, jeffrey.seminoff@noaa.gov, george.balazs@noaa.gov
Cc: Douglas Wood - NOAA Federal <douglas.wood@noaa.gov>, _NOS OCS ECC <ocs.ecc@noaa.gov>

Greetings,

Please see attached document for sea turtle sightings during the 2018 field season.

LT Steven Wall
Operations Officer in Training, NOAA Ship FERDINAND R. HASSLER
ship's cell: 603-812-8748 * VOIP: 541-867-8935 * iridium: 808-851-3826

Shipyard Address (UPS/FedEx):
GMD Shipyard Corp. (Atten: NOAA Ship Hassler)
Brooklyn Navy Yard
63 Flushing Ave BLDG # 595 UNIT # 276
Brooklyn, NY 11205-1005

Physical Address (UPS/FedEx):
UNH Judd Gregg Marine Research Complex
29 Wentworth Rd
New Castle, NH 03854

Mailing Address:
PO Box 638, New Castle, NH 03854

 **FH_Sea Turtle Sightings_20190613.pdf**
947K

Mail Delivery Subsystem <mailer-daemon@googlemail.com>
To: ops.ferdinand.hassler@noaa.gov

Thu, Jun 13, 2019 at 3:24 PM



Message not delivered

There was a problem delivering your message to **george.balazs@noaa.gov**. See the technical details below.

Final-Recipient: rfc822; george.balazs@noaa.gov
Action: failed

Status: 5.0.0

Last-Attempt-Date: Thu, 13 Jun 2019 08:24:16 -0700 (PDT)

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

From: "OPS.Ferdinand Hassler - NOAA Service Account" <ops.ferdinand.hassler@noaa.gov>
To: larisa.avens@noaa.gov, jeffrey.seminoff@noaa.gov, george.balazs@noaa.gov
Cc: Douglas Wood - NOAA Federal <douglas.wood@noaa.gov>, _NOS OCS ECC <ocs.ecc@noaa.gov>
Bcc:
Date: Thu, 13 Jun 2019 15:24:01 +0000
Subject: Sea Turtle Sightings
Greetings,

Please see attached document for sea turtle sightings during the 2018 field season.

LT Steven Wall
Operations Officer in Training, NOAA Ship FERDINAND R. HASSLER
ship's cell: [603-812-8748](tel:603-812-8748) * VOIP: [541-867-8935](tel:541-867-8935) * iridium: [808-851-3826](tel:808-851-3826)

Shipyards Address (UPS/FedEx):
GMD Shipyards Corp. (Atten: NOAA Ship Hassler)
Brooklyn Navy Yard
63 Flushing Ave BLDG # 595 UNIT # 276
Brooklyn, NY 11205-1005

Physical Address (UPS/FedEx):
UNH Judd Gregg Marine Research Complex
[29 Wentworth Rd](#)
[New Castle, NH](#) ----- Message truncated -----

Larisa Avens - NOAA Federal <larisa.avens@noaa.gov>

Thu, Jun 13, 2019 at 6:23 PM

To: "OPS.Ferdinand Hassler - NOAA Service Account" <ops.ferdinand.hassler@noaa.gov>
Cc: Jeffrey Seminoff <jeffrey.seminoff@noaa.gov>, George Balazs - NOAA Federal <george.balazs@noaa.gov>, Douglas Wood - NOAA Federal <douglas.wood@noaa.gov>, _NOS OCS ECC <ocs.ecc@noaa.gov>

Good afternoon,
Thank you for passing along this information!

Best,
Larisa

[Quoted text hidden]

--

~~~~~  
Larisa Avens, Ph.D., Research Fishery Biologist  
National Marine Fisheries Service, NOAA Beaufort Laboratory  
[101 Pivers Island Rd. Beaufort, NC 28516](#)  
Ph: [252-728-8747](tel:252-728-8747)  
<http://www.sefsc.noaa.gov/labs/beaufort/>

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APPROVAL PAGE

H13131

The survey data meet or exceed the current requirements of the Office of Coast Survey hydrographic data review process and may be used to update NOAA products. The following survey products will be archived at the National Centers for Environmental Information:

- Descriptive Report
- Collection of Bathymetric Attributed Grids (BAGs)
- Collection of acoustic backscatter mosaics
- Bottom samples
- Geospatial PDF of survey products

Approved: \_\_\_\_\_

**Commander Meghan McGovern, NOAA**  
Chief, Atlantic Hydrographic Branch