

H13156

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

DESCRIPTIVE REPORT

Type of Survey: Navigable Area

Registry Number: H13156

LOCALITY

State(s): Florida

General Locality: Cape San Blas, Florida

Sub-locality: 3 Miles West of Saint Joseph Peninsula

2019

CHIEF OF PARTY
Dean R. Moyles

LIBRARY & ARCHIVES

Date:

HYDROGRAPHIC TITLE SHEET

H13156

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: **Cape San Blas, Florida**

Sub-Locality: **3 Miles West of Saint Joseph Peninsula**

Scale: **40000**

Dates of Survey: **09/28/2018 to 03/15/2019**

Instructions Dated: **07/11/2018**

Project Number: **OPR-J359-KR-18**

Field Unit: **Fugro Pelagos, Inc.**

Chief of Party: **Dean R. Moyles**

Soundings by: **Multibeam Echo Sounder**

Imagery by: **Multibeam Echo Sounder Backscatter**

Verification by: **Atlantic Hydrographic Branch**

Soundings Acquired in: **meters at Mean Lower Low Water**

Remarks:

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 16N, MLLW. All references to other horizontal or vertical 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 H13156

Project: OPR-J359-KR-18

Locality: Cape San Blas, Florida

Sublocality: 3 Miles West of Saint Joseph Peninsula

Scale: 1:40000

September 2018 - March 2019

Fugro Pelagos, Inc.

Chief of Party: Dean R. Moyles

A. Area Surveyed

Survey H13156 (Table 1 and Figure 1) is located approximately 2.7 linear nautical miles West of Cape San Blas, Florida. The R/V Acadiana, M/V Pelagos, and the M/V MacGinitie acquired full coverage multibeam echosounder (MBES) and multibeam echosounder acoustic backscatter within the assigned survey limits from 28 September 2018 to 15 March 2019.

Most sounding data in this survey predates the arrival of Hurricane Michael. The storm, a high-end Category 4 hurricane, made landfall on October 10, 2018 in Mexico Beach, FL approximately 43 linear nautical miles North of the center of OPR-J359-KR-18.

Fugro was forced to evacuate the area and abandon further operations until post-storm assessments could be made and the area reopened by local and federal authorities. With sustained winds of 155 mph, the area experienced severe damage to infrastructure and utilities.

Given the significance of this weather event, a post-hurricane crossline data set was acquired by a new vessel (M/V Pelagos) on Julian Days: 322, 323, 338, and 340. The vessel used to acquire the majority of the reported soundings herein was unavailable post-storm. These new crosslines spanned the entire data set acquired prior to the hurricane within the sheet limits of H13153, H13154, H13155, and H13156. Due to the significant changes in surveyed depths, NOAA directed no further acquisition in these areas. This mandate directly affected crossline percentage to mainscheme acquisition quotas (Section B.2.1) and small data gaps that would have been achieved otherwise (Section A.4). However, a large section of H13156 was still outstanding post hurricane, and unlike area H13153 its location did not facilitate a combination with a yet to be acquired sheet. It was therefore decided to continue acquisition of H13156 with the M/V Pelagos. The M/V MacGinitie was brought in later for infill purposes in the post hurricane data. The two parts of the sheet, pre and post hurricane, will be submitted as independent datasets. For further information, refer to Appendix II of this report.

A.1 Survey Limits

Data were acquired within the following survey limits:

Northwest Limit	Southeast Limit
29° 48' 2.66" N 85° 31' 3.5" W	29° 34' 9.17" N 85° 23' 15.35" W

Table 1: Survey Limits

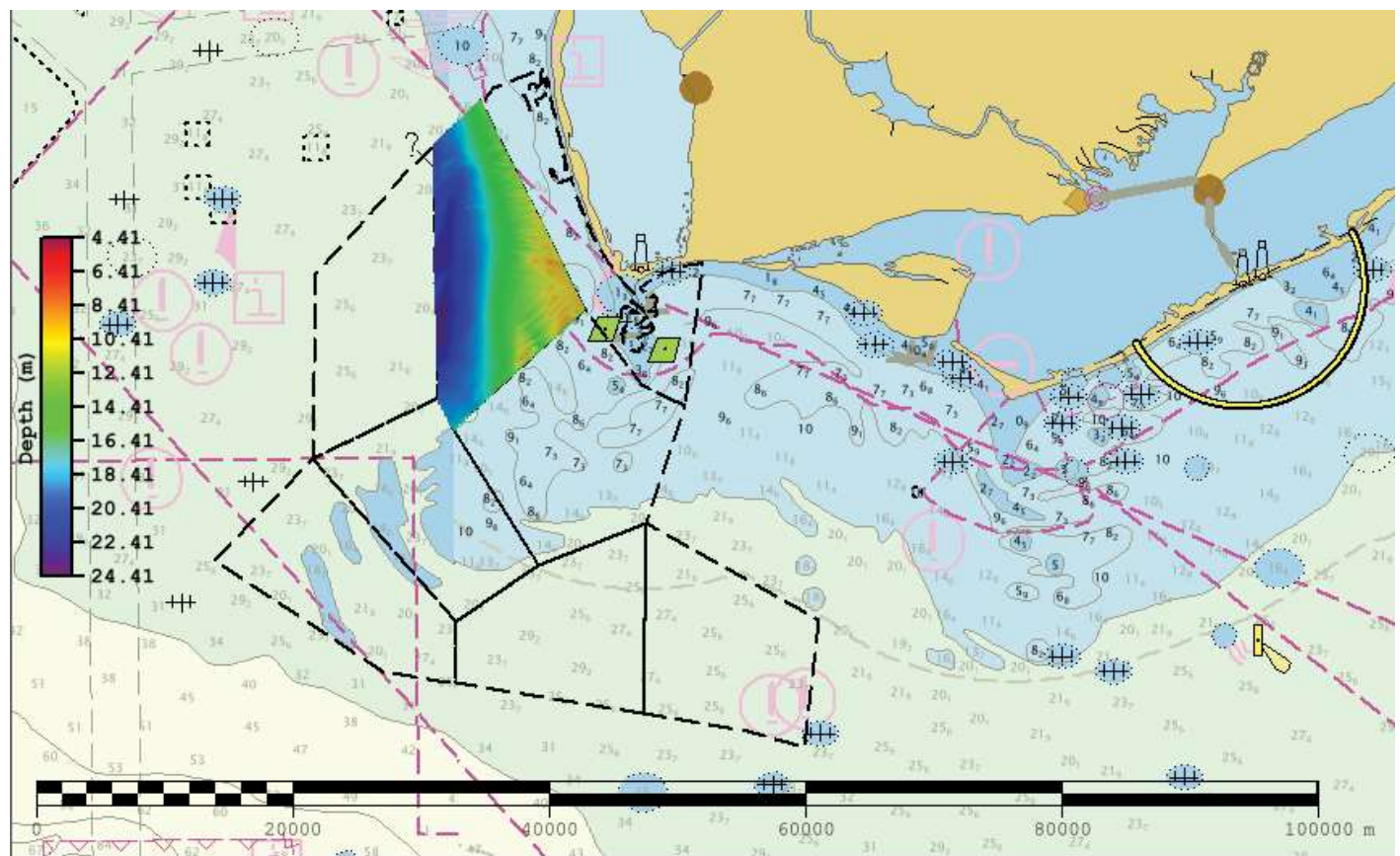


Figure 1: Survey H13156 location relative to overall sheet limits of OPR-J359-KR-18

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

A.2 Survey Purpose

The Vicinity of Apalachicola project will provide contemporary surveys to update National Ocean Service (NOS) nautical charting products. It is offshore of Apalachicola Bay and Joseph Bay, FL. The survey will

provide updated bathymetry and feature data to address concerns of migrating shoals, thus reducing the risk to navigation within the project area.

The Apalachicola Surveys delineate the western extent of the Big Bend Mapping project, a Florida Coastal Mapping Program (FCMaP) priority. This multi-year, multi-agency mapping project will fill in an area in which only 2% of the seafloor is mapped to modern standards. Improving the understanding of the bathymetry, geomorphology, bio-diversity and distribution of habitats in this region will support Floridian fisheries, coastal modeling, and resource management.

The project will cover approximately 323 square nautical miles of high priority survey area identified in the latest iteration of NOAA HSD's risk based prioritization model. Data from this project will supersede all prior survey data providing modern hydrographic survey data for this area and updating the local charting products.

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:

Water Depth	Coverage Required
All waters in survey area	Complete coverage MBES with acoustic backscatter

Table 2: Survey Coverage

Two coverage holidays exist within the sheet limits of H13156*:

29-37-22.856520N 085-26-17.416320W

29-37-23.634840N 085-26-17.292480W

****Coverage gap not observed within the submitted bathymetric grid.***

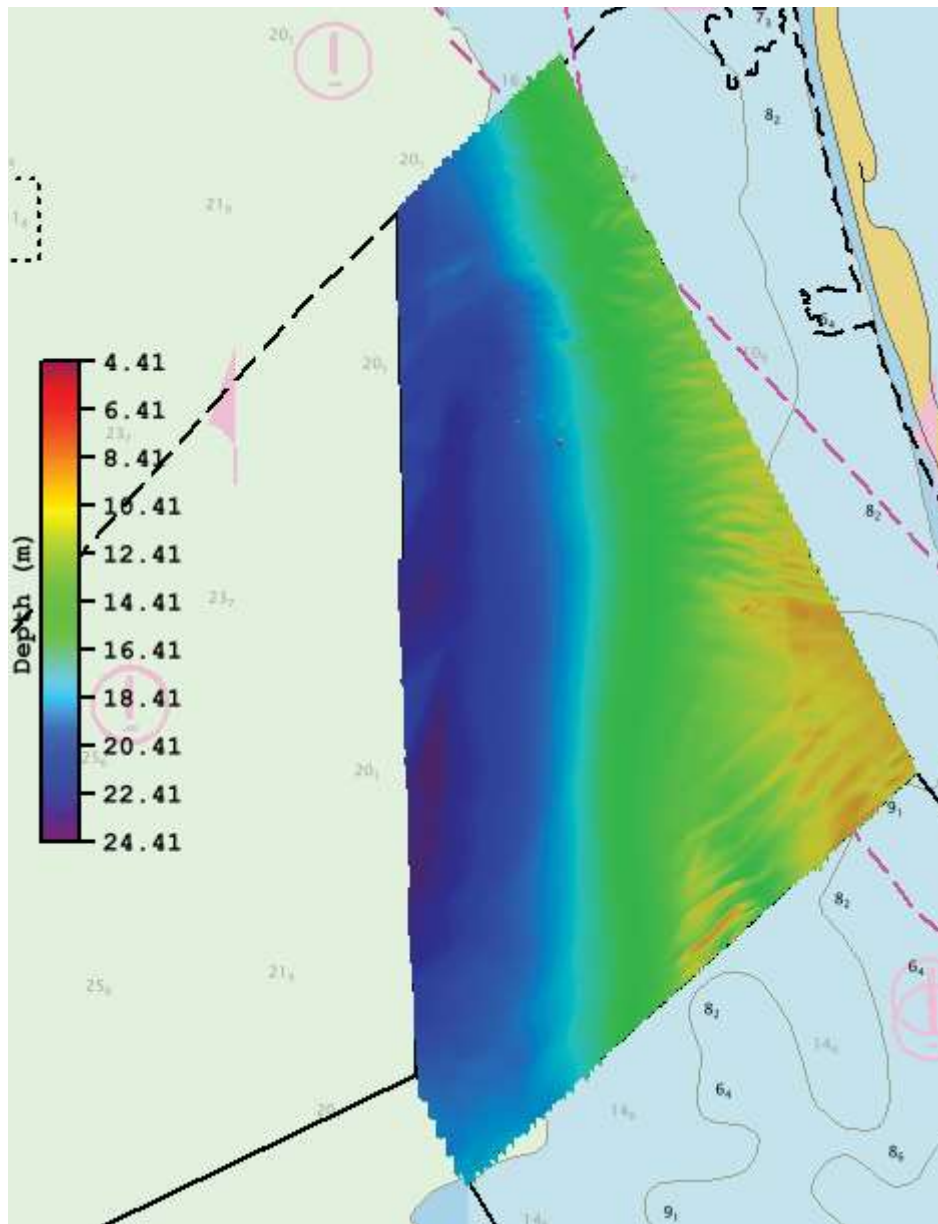


Figure 2: Survey H13156 full coverage MBES

A.5 Survey Statistics

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

	HULL ID	<i>R/V Acadiana</i>	<i>M/V Pelagos</i>	<i>M/V MacGinitie</i>	Total
LNM	SBES Mainscheme	0	0	0	0
	MBES Mainscheme	1010.37	489.19	0.13	1499.69
	Lidar Mainscheme	0	0	0	0
	SSS Mainscheme	0	0	0	0
	SBES/SSS Mainscheme	0	0	0	0
	MBES/SSS Mainscheme	0	0	0	0
	SBES/MBES Crosslines	0	27.21	0	27.21
	Lidar Crosslines	0	0	0	0
Number of Bottom Samples					9
Number Maritime Boundary Points Investigated					0
Number of DPs					0
Number of Items Investigated by Dive Ops					0
Total SNM					51.80729

Table 3: Hydrographic Survey Statistics

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

Survey Dates	Day of the Year
09/28/2018	271

Survey Dates	Day of the Year
09/29/2018	272
09/30/2018	273
10/01/2018	274
10/02/2018	275
10/03/2018	276
10/04/2018	277
10/05/2018	278
10/06/2018	279
10/07/2018	280
12/05/2018	339
12/07/2018	341
12/08/2018	342
12/10/2018	344
12/11/2018	345
12/12/2018	346
12/13/2018	347
12/16/2018	350
12/17/2018	351
12/18/2018	352
12/19/2018	353
12/23/2018	357
03/15/2019	74

Table 4: Dates of Hydrography

R/V Acadiana acquired full coverage MBES and acoustic backscatter between 9 September 2018 and 10 October 2018. M/V Pelagos acquired full coverage MBES and acoustic backscatter between 5 December 2018 and 23 December 2018. Data were acquired by the M/V Pelagos and M/V MacGintie after Hurricane Michael passed through the area, and as such those bathymetric grids will be analyzed separately from any data acquired previous to the arrival of the the storm. Separate grids will be submitted for pre and post storm data. The M/V MacGinitie collected a small infill line on 15 March 2019 to ensure all post-hurricane collected data met specifications.

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>R/V Acadiana</i>	<i>M/V Pelagos</i>	<i>M/V MacGinitie</i>
LOA	57 feet	34 feet	32 feet
Draft	4.5 feet	2 feet	1.5 feet

Table 5: Vessels Used

The R/V Acadiana, M/V Pelagos, and M/V MacGinitie acquired multibeam echosounder, acoustic backscatter, surface sound velocity, sound velocity profiles, attitude and positioning data within the survey limits of H13156. For a detailed listing of equipment used to acquire survey data, refer to the DAPR submitted with this report under Project Reports.

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
Teledyne RESON	SVP 70	Sound Speed System
AML Oceanographic	SV&P	Sound Velocity and Pressure Sensor
Teledyne Oceanscience	Underway CTD	Conductivity, Temperature, and Depth Sensor
Applanix	POS MV 320 v4	Positioning and Attitude System
Applanix	POS MV 320 v5	Positioning and Attitude System

Table 6: Major Systems Used

For a detailed listing of equipment, refer to the DAPR submitted with this report.

B.2 Quality Control

B.2.1 Crosslines

Multibeam/single beam echo sounder/side scan sonar crosslines acquired for this survey totaled 1.81% of mainscheme acquisition.

No crosslines were acquired by the R/V Acadiana within the survey limits of H13156 due to survey interruptions by Hurricane Michael.

The M/V Pelagos acquired crosslines in accordance with section 5.2.4.3 of the HSSD 2018 upon completion of mainscheme acquisition. Crosslines were only run over mainscheme data collected post-hurricane per NOAA HSSD (Figure 3).

Of the 3,057,414 nodes available for comparison, 99.99% agreed within 0.2m. The minimum and maximum differences are -0.8m and 0.5m with a mean difference of 0.0m (Figure 4).

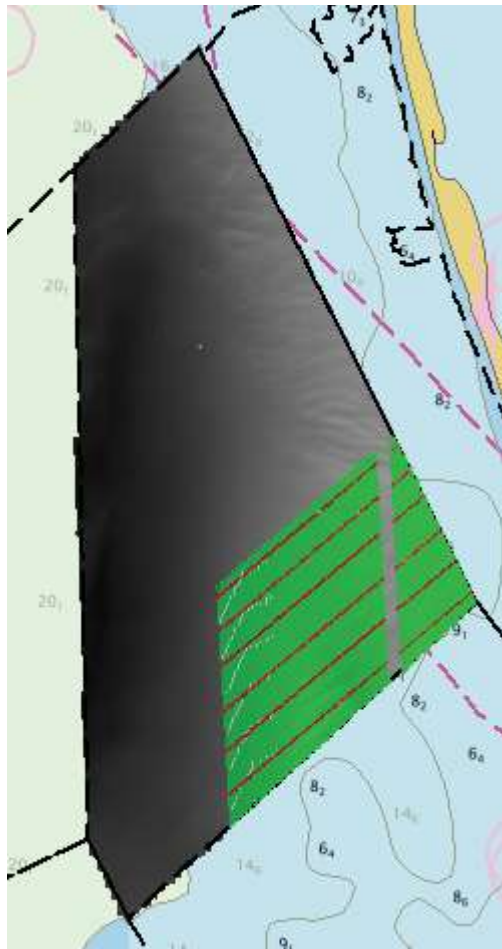


Figure 3: Crossline distribution of data acquired by M/V Pelagos

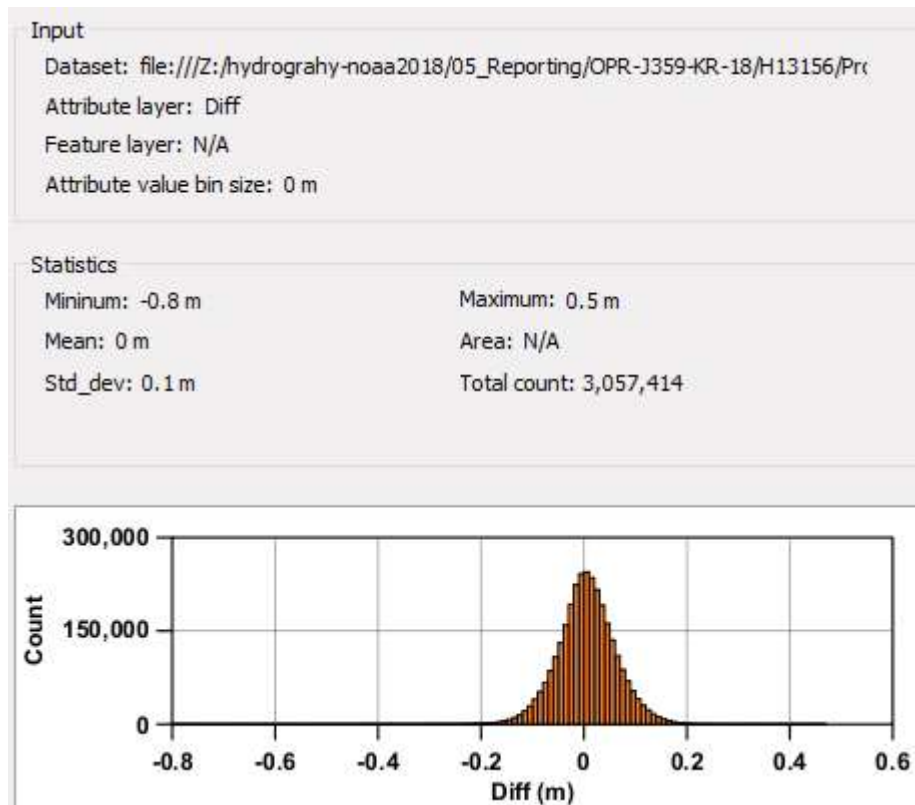


Figure 4: H13156 M/V Pelagos crossline comparison statistics

B.2.2 Uncertainty

The following survey specific parameters were used for this survey:

Method	Measured	Zoning
ERS via VDATUM	0.1 meters	0.101 meters

Table 7: Survey Specific Tide TPU Values.

Hull ID	Measured - CTD	Measured - MVP	Surface
R/V Acadiana	1.957 meters/second	N/A meters/second	0.25 meters/second
M/V Pelagos	4.759 meters/second	N/A meters/second	0.25 meters/second
M/V MacGinitie	0.111 meters/second	N/A meters/second	0.25 meters/second

Table 8: Survey Specific Sound Speed TPU Values.

Survey H13156 uncertainty values were evaluated both in CARIS HIPS and SIPS and via Pydro QC tools v2.7.5. Both the 1m (Figures 5 and 7) and 2m (Figure 6) finalized grids meet uncertainty standards with 99.5% of nodes exceeding minimum requirements.

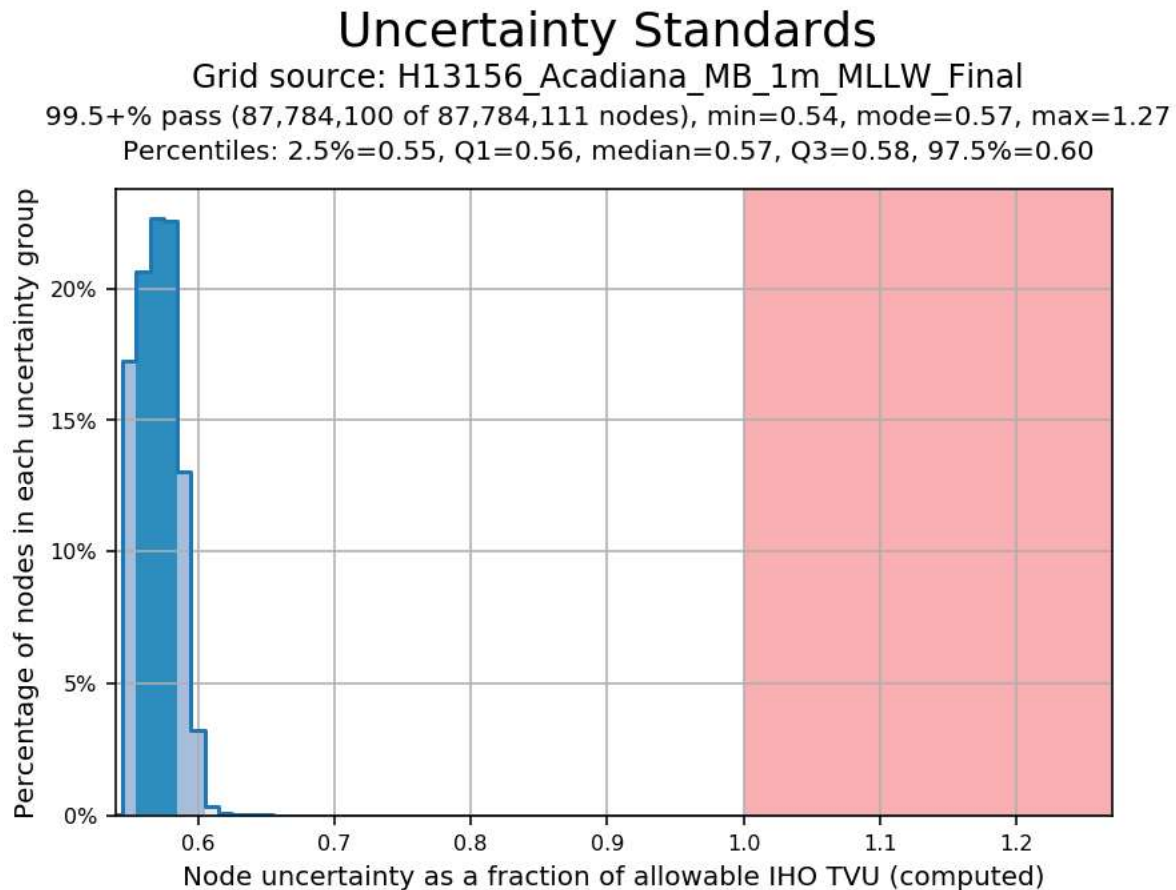


Figure 5: H13156 Acadiana 1m finalized grid TPU QC

Uncertainty Standards

Grid source: H13156_Acadiana_MB_2m_MLLW_Final

99.5+% pass (20,376,343 of 20,376,344 nodes), min=0.52, mode=0.55, max=1.29

Percentiles: 2.5%=0.53, Q1=0.54, median=0.55, Q3=0.56, 97.5%=0.58

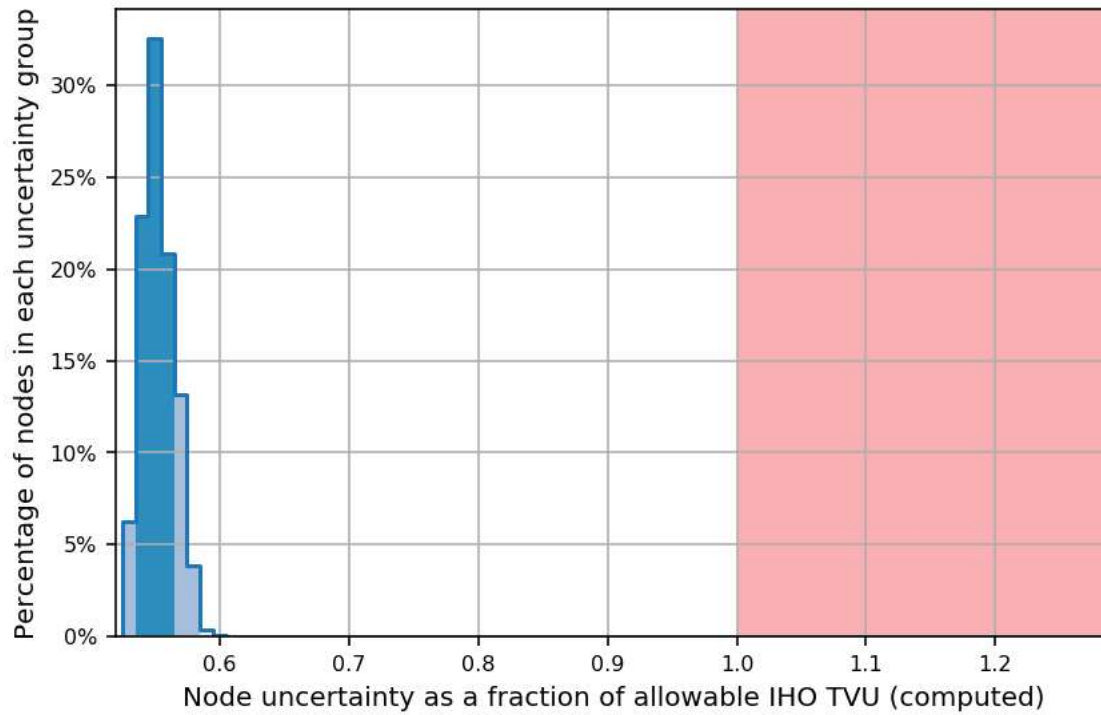


Figure 6: H13156 Acadiana 2m finalized grid TPU QC

Uncertainty Standards

Grid source: H13156_Pelagos_MB_1m_MLLW_Final

100% pass (43,397,925 of 43,397,925 nodes), min=0.58, mode=0.60, max=0.98

Percentiles: 2.5%=0.59, Q1=0.59, median=0.60, Q3=0.61, 97.5%=0.63

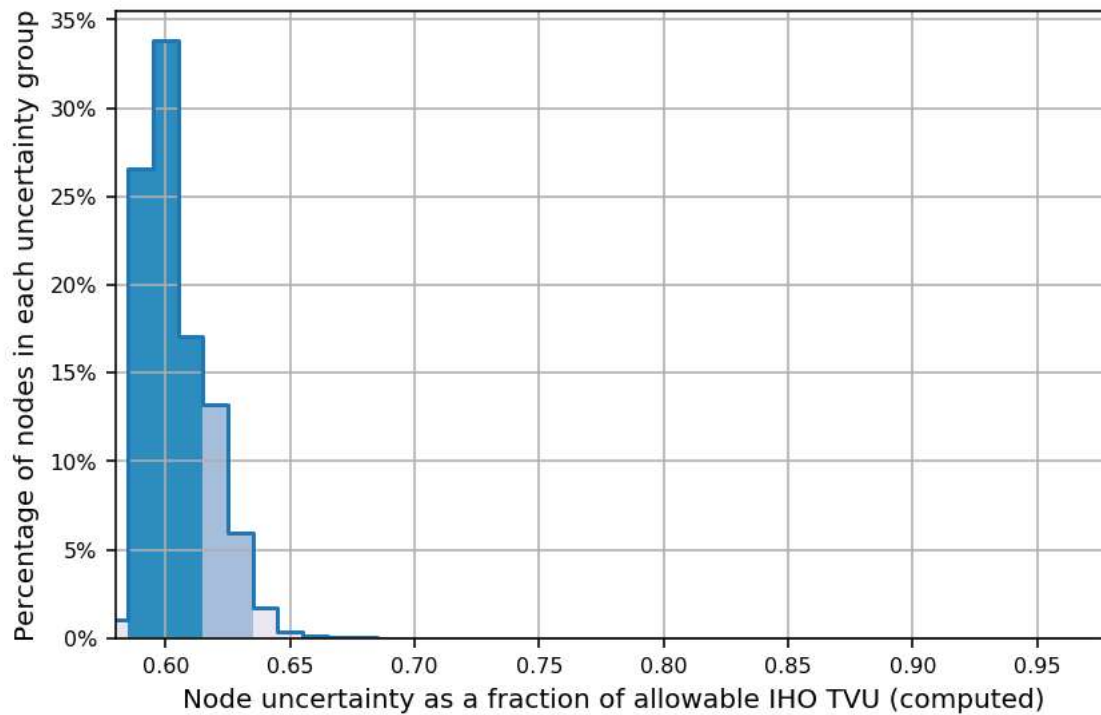


Figure 7: H13156 Pelagos 1m finalized grid TPU QC

B.2.3 Junctions

Data from contemporary junction surveys H13157, H13153, H13154 and H13158 were compared to survey H13156 by running a difference surface in CARIS HIPS and SIPS on finalized 1m surfaces for each survey (Figure 8). Discrepancies are expected to be most significant between soundings in H13157, as the entire data set for H13157 was acquired post-hurricane.

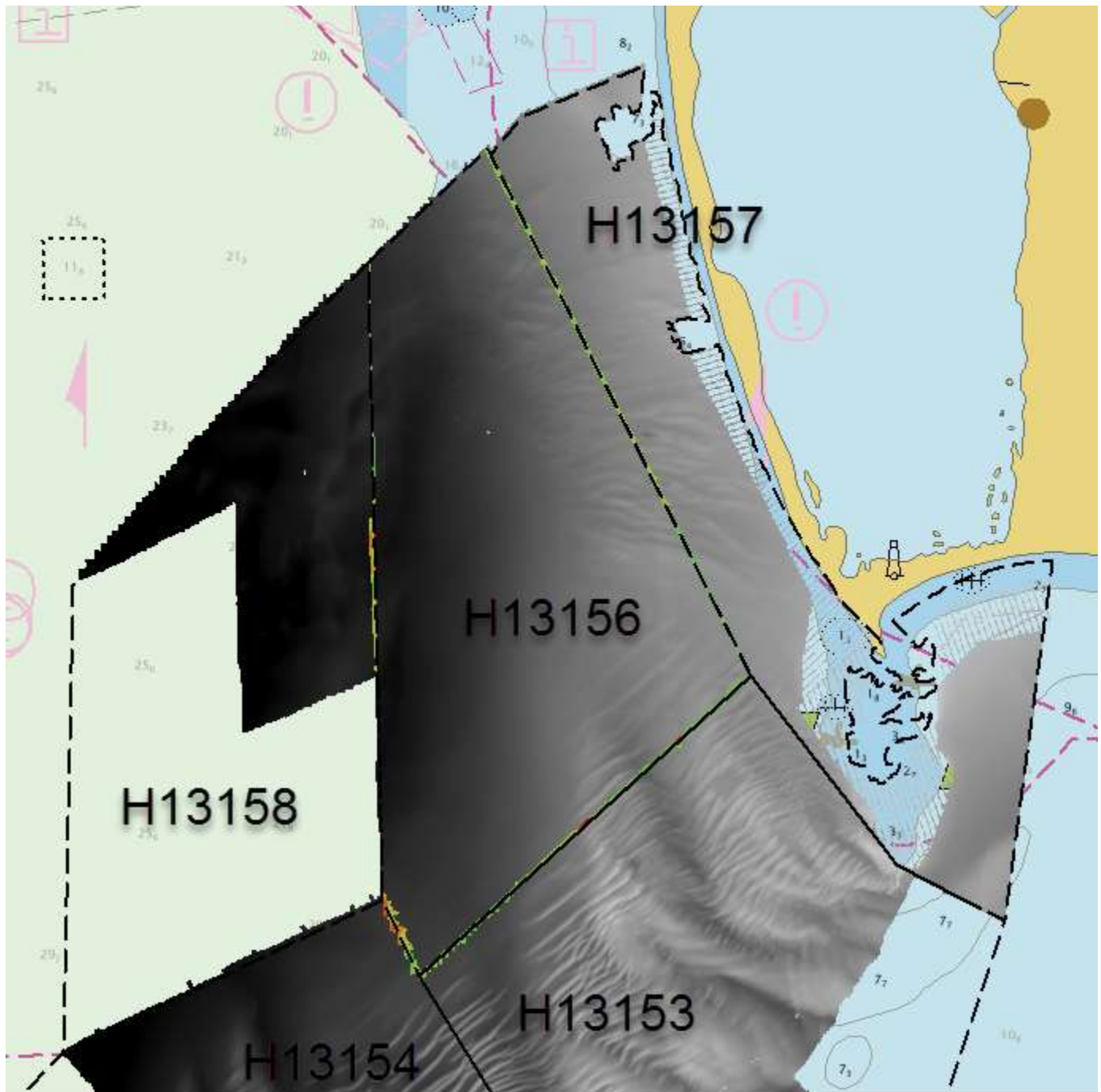


Figure 8: H13156 contemporary junctions

The following junctions were made with this survey:

Registry Number	Scale	Year	Field Unit	Relative Location
H13157	1:20000	2018	M/V Pelagos	NE
H13158	1:40000	2019	M/V Pelagos	E
H13154	1:40000	2018	R/V Acadiana	SW
H13153	1:20000	2018	R/V Acadiana	S

Table 9: Junctioning Surveys

H13157

Of the 2,953,817 nodes differenced between survey H13156 and H13157 99.9% agree within 1m. The minimum difference is -2.1m, the maximum difference is 2.6m, with a mean difference of -0.1m and standard deviation of 0.1m (Figure 9).

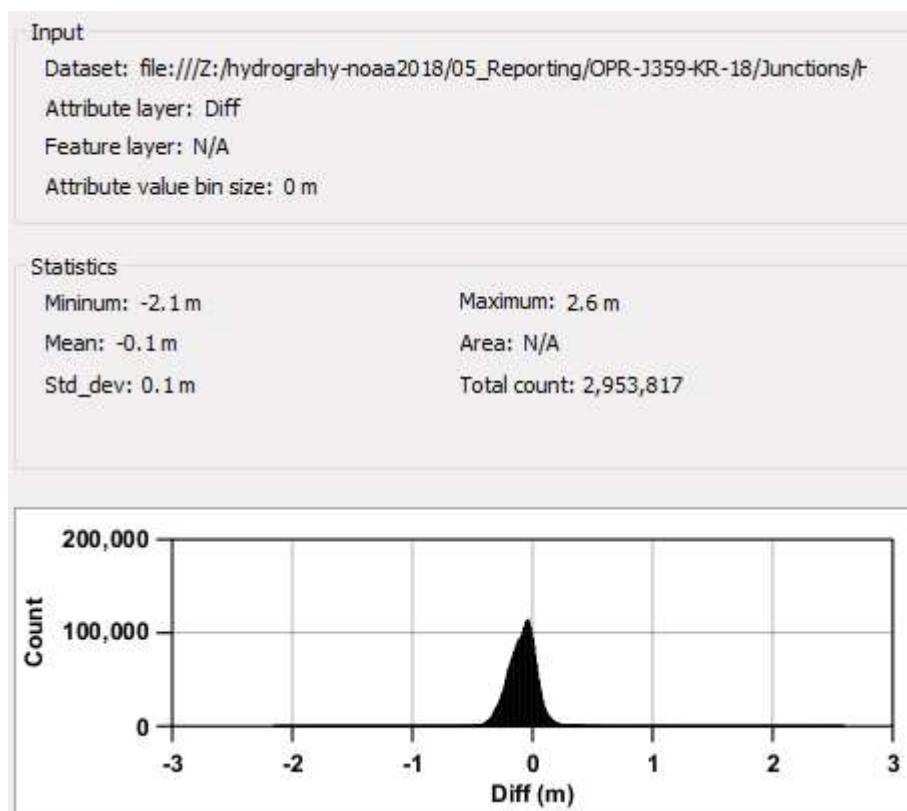


Figure 9: H13156 differenced to H13157 statistics output

H13158

Of the 1,085,796 nodes differenced between survey H13156 and H13158 100% agree within 1m. The minimum difference is -0.5m, the maximum difference is 0.1m with a mean difference of -0.1m and standard deviation of 0.1m (Figure 10).

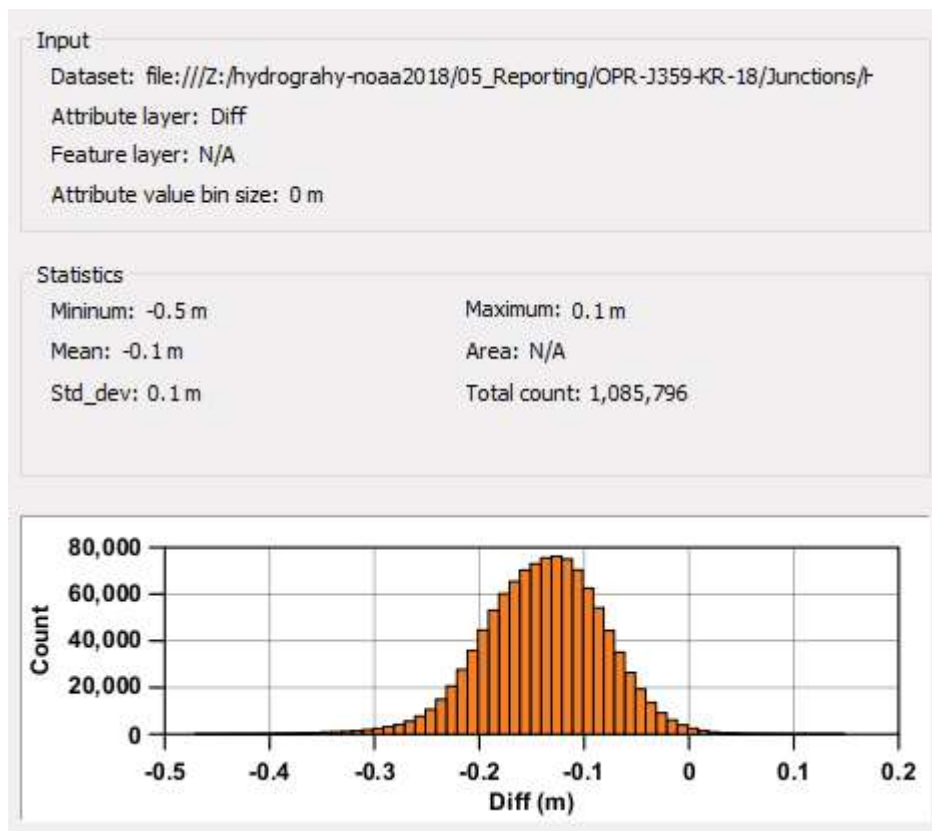


Figure 10: H13156 differenced to H13158 statistics output

H13154

Of the 670,247 nodes differenced between survey H13156 and H13154 100% agree within 1m. The minimum difference is -0.3m, the maximum difference is 0.3m with a mean difference of 0m and standard deviation of 0.1m (Figure 11).

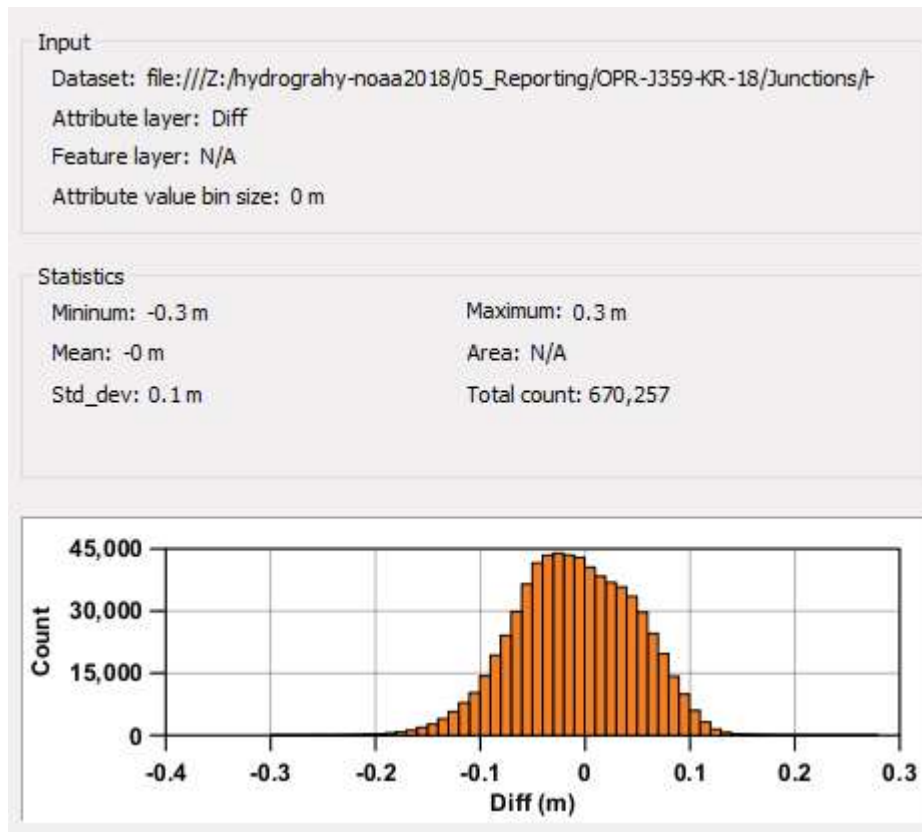


Figure 11: H13156 differenced to H13154 statistics output

H13153

Of the 1,055,947 nodes differenced between survey H13156 and H13153 99.9% agree within 1m. The minimum difference is -1m, the maximum difference is 1.3m with a mean difference of 0.1m and standard deviation of 0.1m (Figure 12).

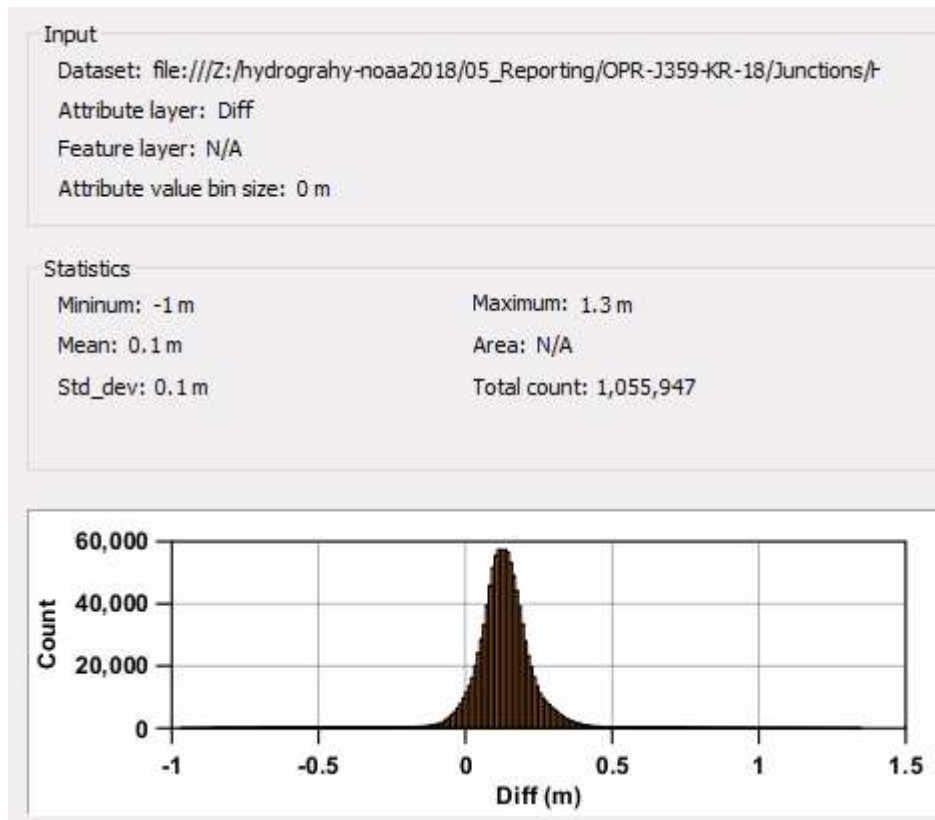


Figure 12: H13156 differenced to H13153 statistics output

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: Sound velocity profiles were acquired every two hours from all of the vessels. The R/V Acadiana used either a Teledyne Oceanscience underway CTD, or an AML Sound Velocity & Pressure (AML SV&P) sensor to collect profiles, while both the M/V Pelagos and the M/V MacGinitie collected sound velocity profiles using an AML SV&P sensor (Figure 13).

Refer to the DAPR for additional information.

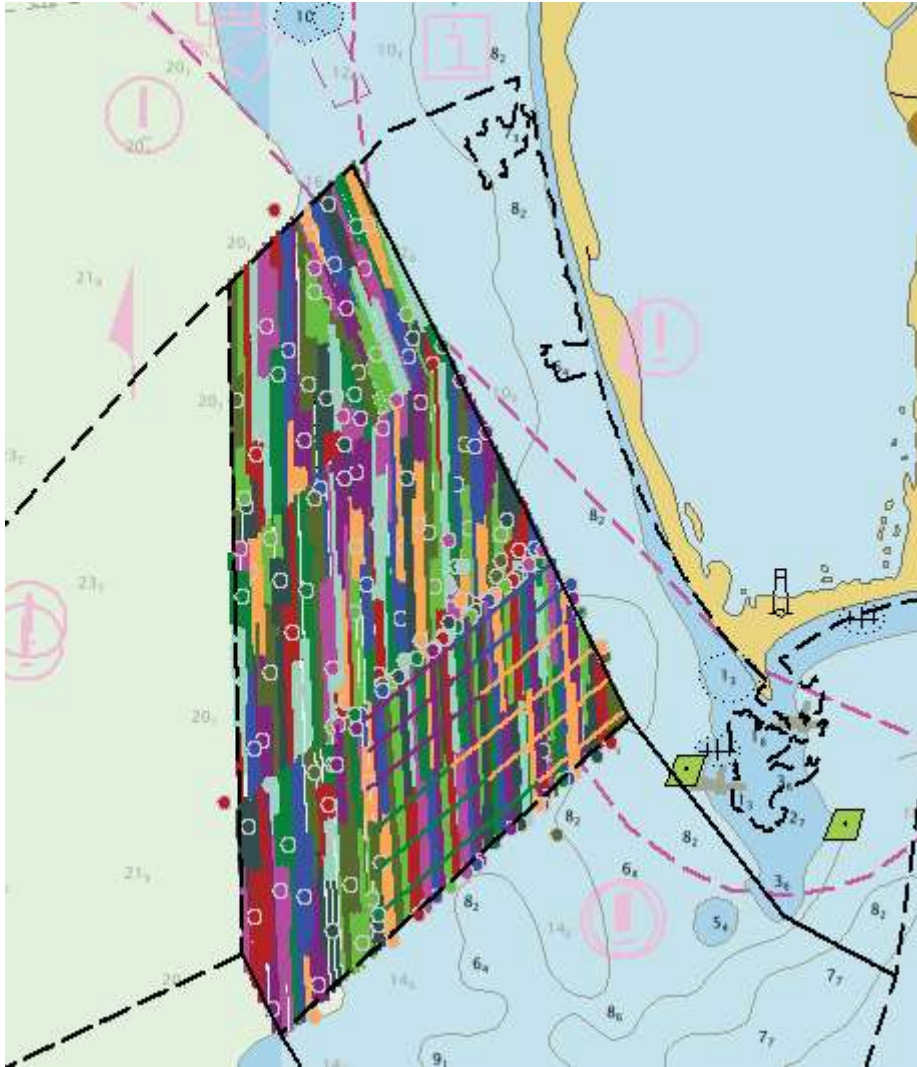


Figure 13: Temporal and geographic distribution of SVP casts within survey H13156

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

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

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
Teledyne CARIS	HIPS & SIPS	9.1.9

Table 10: Primary bathymetric data processing software

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

Manufacturer	Name	Version
QPS	FMGT	7.8.7

Table 11: Primary imagery data processing software

The following Feature Object Catalog was used: NOAA Extended Attribute File V5_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
H13156_Acadiana_MB_1m_MLLW.csar	CARIS Raster Surface (CUBE)	1 meters	4.95 meters - 24.12 meters	NOAA_1m	Complete MBES
H13156_Acadiana_MB_1m_MLLW_Final.csar	CARIS Raster Surface (CUBE)	1 meters	4.41 meters - 20 meters	NOAA_1m	Complete MBES
H13156_Acadiana_MB_2m_MLLW.csar	CARIS Raster Surface (CUBE)	2 meters	5.07 meters - 24.11 meters	NOAA_2m	Complete MBES
H13156_Acadiana_MB_2m_MLLW_Final	CARIS Raster Surface (CUBE)	2 meters	18 meters - 24.11 meters	NOAA_2m	Complete MBES
H13156_Pelagos_MB_1m_MLLW.csar	CARIS Raster Surface (CUBE)	1 meters	9.38 meters - 18.56 meters	NOAA_1m	Complete MBES
H13156_Pelagos_MB_1m_MLLW_Final.csar	CARIS Raster Surface (CUBE)	1 meters	9.38 meters - 18.56 meters	NOAA_1m	Complete MBES
H13156_MBAB_2m_400kHz	MB Backscatter Mosaic	2 meters	0 N/A - 0 N/A	N/A	Complete MBES

Table 12: 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:

J359_Buffer1mi_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 Projected UTM 16.

D. Results and Recommendations

D.1 Chart Comparison

A selected sounding set was made from both the finalized 1m and 2m grids with the following characteristics: shoal biased; 1 to 10,000mm at map scale; defined radius of 5. An overall sounding selection was created from charted soundings from ENC US4FL60M (Table 13). The two sounding sets were then compared with a minimum threshold of 1m survey sounding shoal to charted soundings using the Chart Review feature within Pydro QC tools (Figured 14-16). The greatest value of difference occurs where the least depth of a charted fish haven has moved 18.59m northwest of the currently charted position. Surveyed soundings deeper than charted soundings were not analyzed.

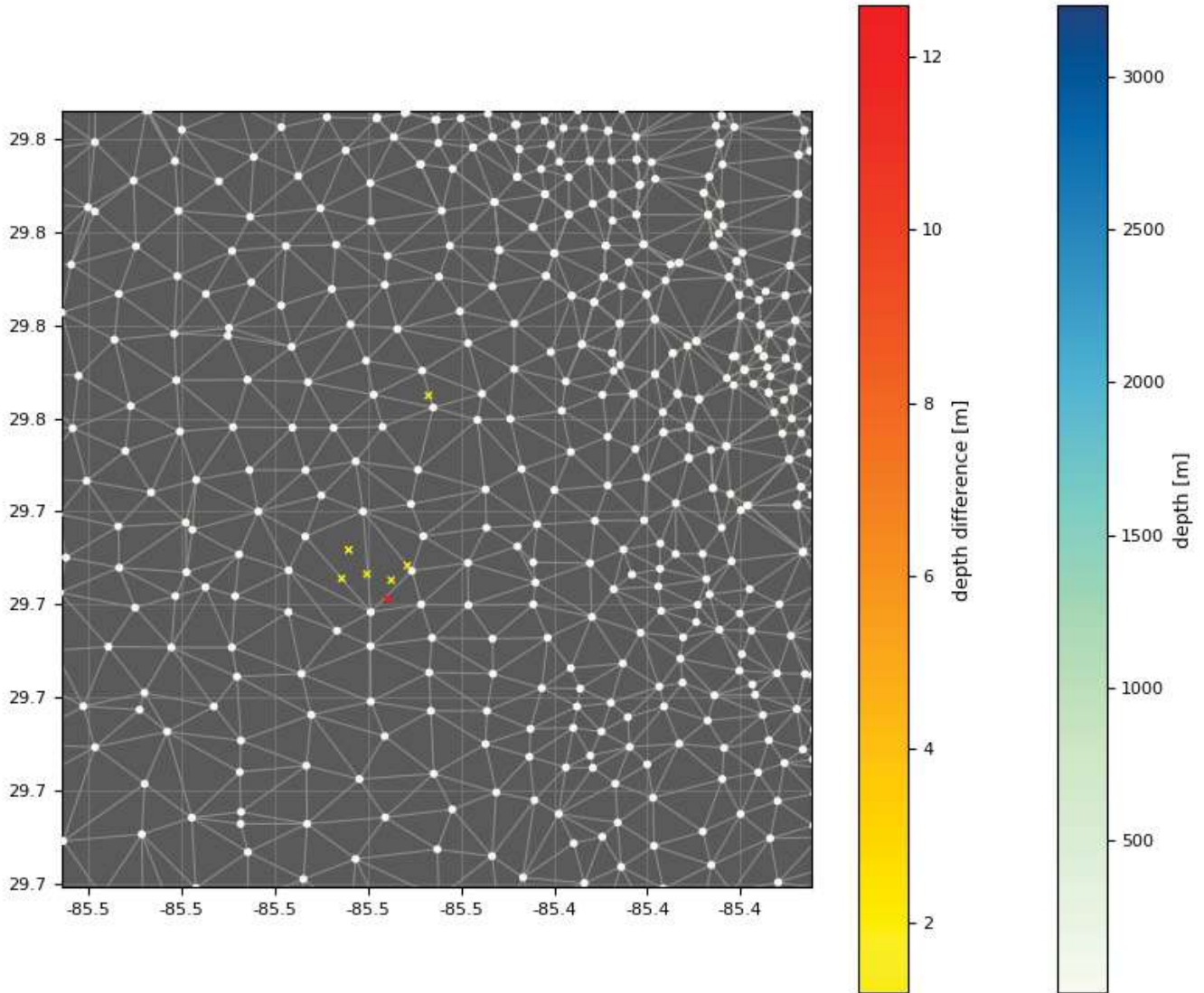


Figure 14: QC tools output instances of surveyed soundings shoal to charted soundings > 1m.

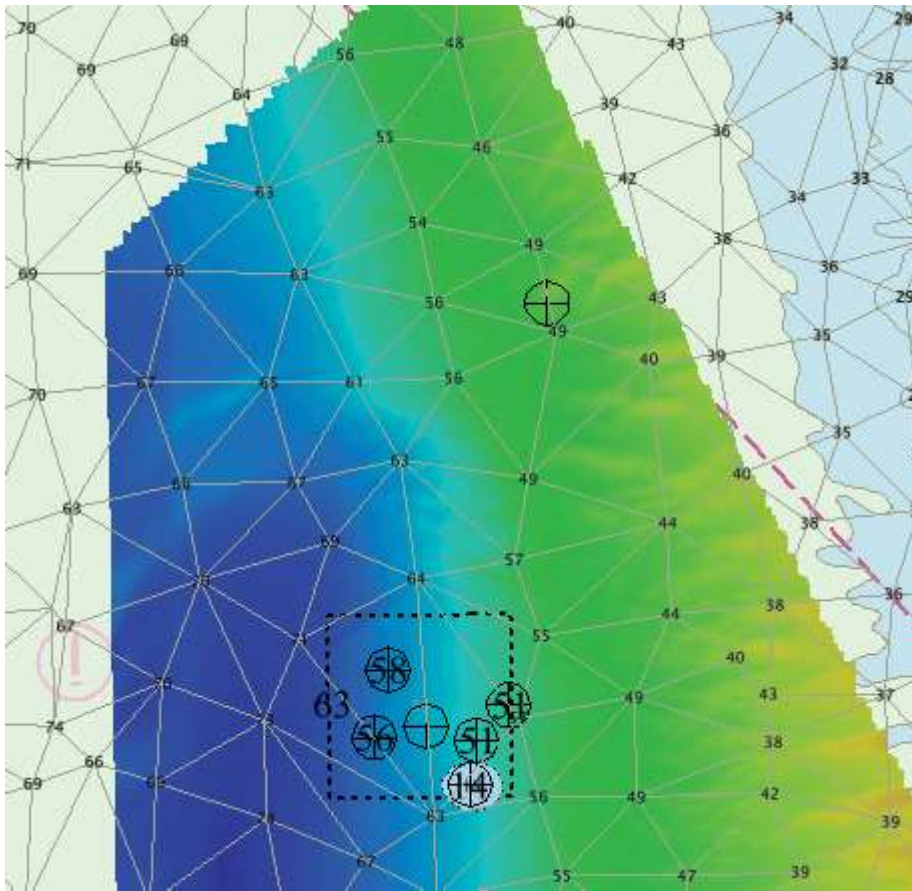


Figure 15: QC tools output instances of surveyed soundings shoal to charted soundings >1m over survey H13156 area with ENC soundings TIN.

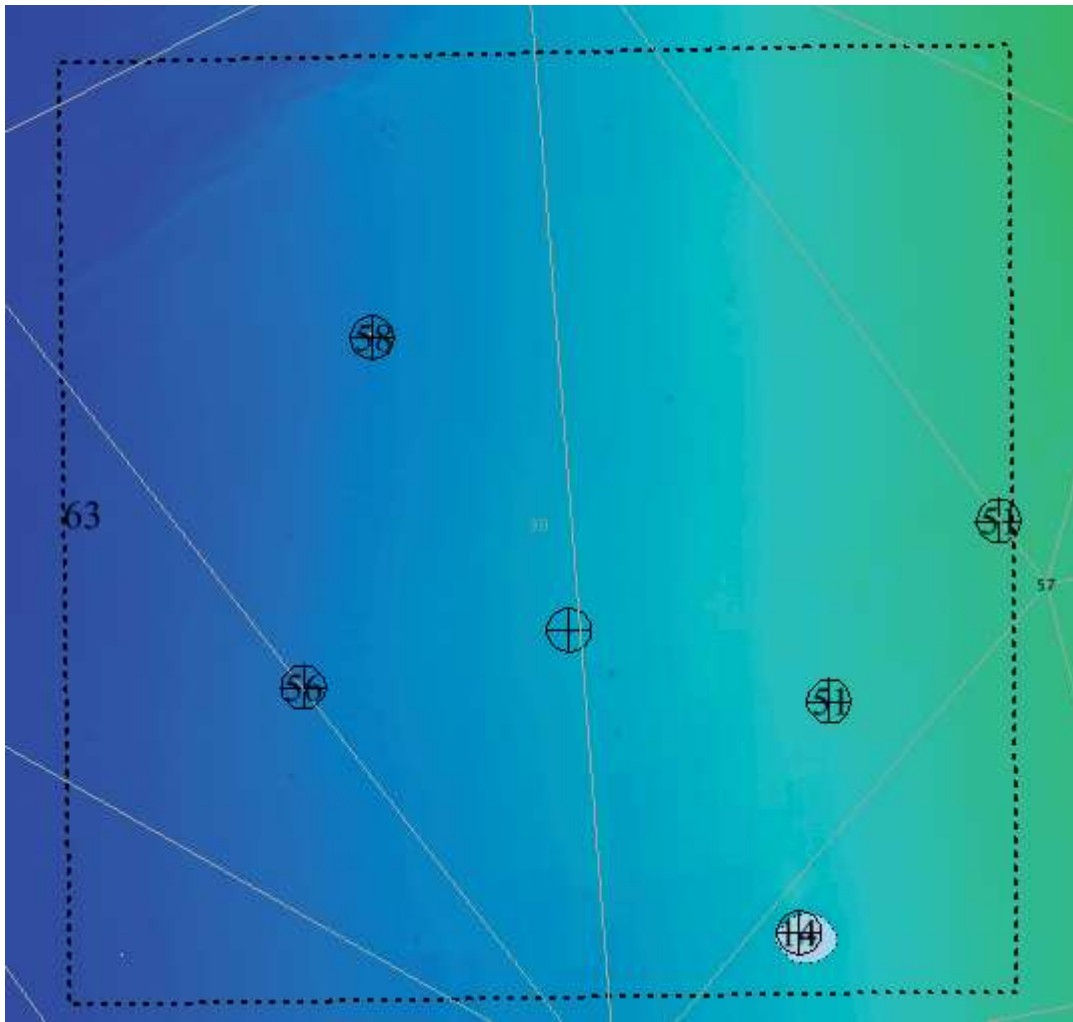


Figure 16: H13156 charted versus surveyed least depth position.

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?
US4FL60M	1:80000	24	03/01/2019	03/01/2019	NO

Table 13: Largest Scale ENC's

US4FL60M**D.1.2 Maritime Boundary Points**

No Maritime Boundary Points were assigned for this survey.

D.1.3 Charted Features

A charted fish haven containing a charted ~~wreck~~ **obstruction** was assigned for investigation within the sheet limits of H13156. For further details, refer to the final feature file submitted with this report.

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

A total of 9 bottom samples were acquired within the sheet limits of survey H13156 per appendix H of the HSSD 2018. For a complete discussion, refer to the final feature file submitted with this report.

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

Large shifting sandwaves exist in the survey area. These were investigated with respect to the relevance of the survey purpose noted in Section A.2.

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
Dean R. Moyles	Chief of Party	04/08/2019	Moyles, Dean <small>Digitally signed by Dean R. Moyles, DN: cn=Dean R. Moyles, o=Fugro Pelagos, ou=Operations, email=Dean.R.Moyles@fugropelagos.com, c=US</small>

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



Date: 4/9/2019

MEMORANDUM FOR: Corey Allen
Chief, Hydrographic Surveys Division Operations Branch

FROM: Starla Robinson
Project Manager, OPR-J359-KR-18
Hydrographic Surveys Division Operations Branch


SUBJECT: Waiver request – Check Sum MD-5 Hash
OPR-J359-KR-18
Contract # EA133C-14-CQ-0032
Project: OPR-J359-KR-18
Task Order: 04

Fugro is granted a waiver from the requirement of performing a check sum per 2018 HSSD Section 8.3.1 *Media*. The contractor remains responsible for ensuring that all files are present and have not become corrupt during transfer. How the field unit chooses to accomplish this left to their professional discretion.

Justification

It is the intent of HSD to ensure that quality data is delivered in a timely and responsible fashion. In this case, the check sums is producing excessive delays, impacting the contractors ability to deliver the data.

Decision

 2019.04.09
15:14:44 -04'00'

Waiver is: Granted Denied

cc: Chief, HSD OPS
Fugro Pelagos
Stacy Dohse, Contract Specialist
Emily Clark, Contract Officer



From: [Moyles, Dean](#)
To: pop.information@noaa.gov; ocs.ecc@noaa.gov
Cc: [Starla Robinson - NOAA Federal](#)
Subject: Marine Mammal Sightings (OPR-J359-KR-18)
Date: Wednesday, April 10, 2019 9:00:00 AM
Attachments: [Marine Mammal Sightings \(OPR-J359-KR-18\).pdf](#)
[image001.png](#)

This project is still ongoing, there could be more forms to follow. Please let me know if you have any questions or comments.

Kind regards,

Dean Moyles
Marine Hydrographic Manager (NSPS/THSOA cert. No. 226)

T +1 713 369-5400 | C +1 858 945-6378
email: dmoyles@fugro.com

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6100 Hillcroft Street, Houston, TX 77081, USA



From: Moyles, Dean
To: ["OCS.NDB@noaa.gov"](mailto:OCS.NDB@noaa.gov); ["Coast.Pilot@NOAA.GOV"](mailto:Coast.Pilot@NOAA.GOV)
Cc: [Starla Robinson - NOAA Federal](#)
Subject: Coast Pilot Review Report
Date: Monday, April 08, 2019 10:49:00 AM
Attachments: [OPR-J359-KR-18_CoastPilotReviewReport.pdf](#)
[OPR-J359-KR-18CoastPilotReport.pdf](#)
[image001.png](#)

Please find the attached Coast Pilot Review Report, please let me know if you have any questions.

Kind regards,

Dean Moyles
Marine Hydrographic Manager (NSPS/THSOA cert. No. 226)

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6100 Hillcroft Street, Houston, TX 77081, USA



From: [Starla Robinson - NOAA Federal](#)
To: [Moyles, Dean](#)
Cc: [Stacy Fullerton - NOAA Federal](#); [Corey Allen - NOAA Federal](#)
Subject: H13156 - Comparison Lines - Follow up
Date: Tuesday, December 04, 2018 5:51:58 PM

Hello Dean,

Since the comparison lines in H13156 (Sheet 4) are within IHO Order 1a, please continue acquisition on the sheet as originally defined originally in the project instructions.

For the other three sheets we would like to look at the 5 km line spacing results before we come to a decision on the post hurricane check lines. If you were to continue mainscheme on sheet 4, when is your estimated time till finish?

Thanks,
Starla

--

Starla D. Robinson, Physical Scientist
NOS - OCS - Hydrographic Survey Division - Operations Branch
National Oceanic Atmospheric Administration
Office: 240-533-0034 (Updated 6/13/17)
Cell: 360-689-1431
Website Acquisition: [HSD Planned Hydrographic Surveys](#)
Website Planning: [OCS Survey Plans](#)

APPROVAL PAGE

H13156

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
- Data Acquisition and Processing Report
- Collection of Bathymetric Attributed Grids (BAGs)
- Processed survey data and records
- GeoPDF of survey products
- Collection of Backscatter mosaics

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 Meghan McGovern, NOAA
Chief, Atlantic Hydrographic Branch