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

### **DESCRIPTIVE REPORT**

Type of Survey:	Navigable Area	
Registry Number:	H13287	
	LOCALITY	
State(s):	Florida	
General Locality:	Gulf of Mexico	
Sub-locality:	13 Miles South of St. George Island	
	2019	
	CHIEF OF PARTY	
	Dean R Moyles	
L	JBRARY & ARCHIVES	
Date:		

U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	REGISTRY NUMBER:	
HYDROGRAPHIC TITLE SHEET	H13287	
INSTRUCTIONS: The Understand in Street should be compared the this form filled in a complete to consider when the should be supported by		

State(s): Florida

General Locality: Gulf of Mexico

Sub-Locality: 13 Miles South of St. George Island

Scale: 20000

Dates of Survey: **09/15/2019 to 11/17/2019** 

Instructions Dated: 06/20/2019

Project Number: OPR-J359-KR-19

Field Unit: Fugro Pelagos

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 H13287**

Project: OPR-J359-KR-19

Locality: Gulf of Mexico

Sublocality: 13 Miles South of St. George Island

Scale: 1:20000

September 2019 - November 2019

**Fugro Pelagos** 

Chief of Party: Dean R Moyles

## A. Area Surveyed

Survey H13287 (Table 1) is located 13 miles South of St. George Island (Figure 1). The M/V Go Liberty acquired complete coverage multibeam echosounder (MBES) and multibeam echosounder acoustic backscatter (MBAB) within the assigned survey limits from 15 September 2019 to 10 October 2019. M/V Pelagos acquired complete coverage MBES and MBAB within the assigned survey limits 17 November 2019.

### **A.1 Survey Limits**

Data were acquired within the following survey limits:

Northwest Limit	Southeast Limit
29° 27' 31.85" N	29° 24' 41.41" N
84° 43' 11.7" W	84° 43' 11.7" W

Table 1: Survey Limits

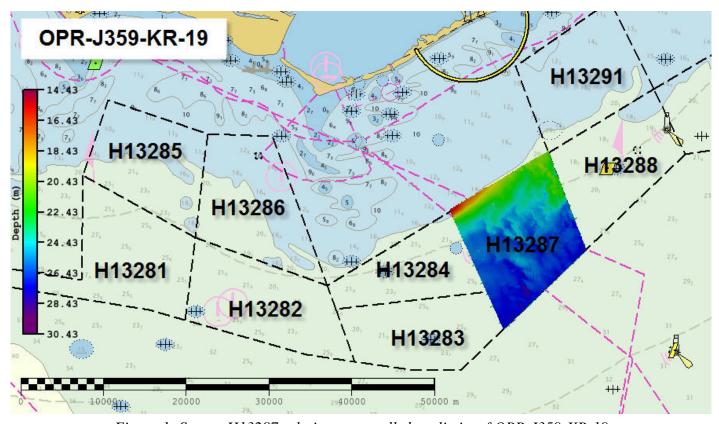


Figure 1: Survey H13287 relative to overall sheet limits of OPR-J359-KR-19

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. The survey areas are 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 to 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.

Full coverage MBES and MBAB (Table 2, Figures 2-4) were achieved within the survey limits of H13287.

### **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 (HSSD 2019 5.2.2.3)

Table 2: Survey Coverage

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

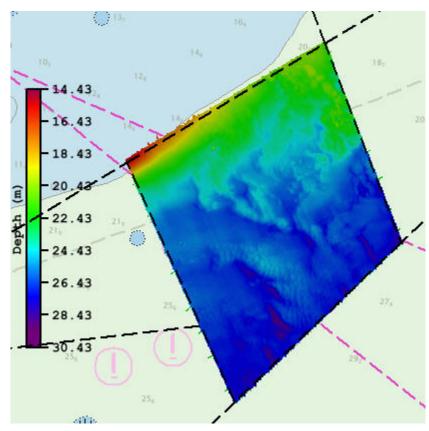


Figure 2: Survey H13287 complete coverage MBES

## **Data Density**

Grid source: H13287\_MB\_1m\_MLLW\_Final

99% pass (5,704,934 of 5,737,206 nodes), min=1.0, mode=12, max=338.0 Percentiles: 2.5%=6, Q1=11, median=14, Q3=18, 97.5%=44 Percentage of nodes in each sounding density group 8.0% 7.0% 6.0% 5.0% 4.0% 3.0% 2.0% 1.0% 0.0% 50 20 10 30 40

Figure 3: Survey H13287 1m complete coverage MBES density QC

Soundings per node

## **Data Density**

Grid source: H13287\_MB\_2m\_MLLW\_Final

99.5+% pass (47,496,534 of 47,510,592 nodes), min=1.0, mode=37, max=4979.0

Percentiles: 2.5%=21, 01=35, median=46, 03=63, 97.5%=131

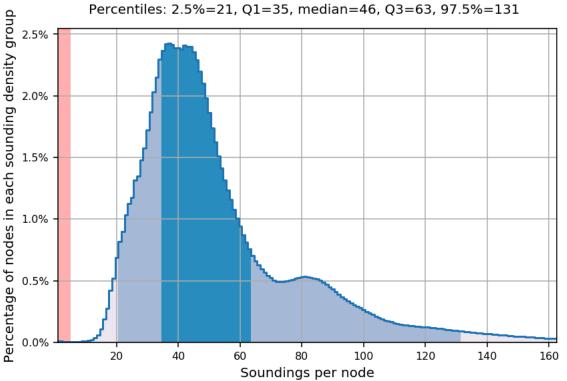


Figure 4: Survey H13287 2m complete coverage MBES density QC

### **A.6 Survey Statistics**

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

	HULL ID	M/V Go Liberty	M/V Pelagos	Total
	SBES Mainscheme	0	0	0
	MBES Mainscheme	1144.53	1.49	1146.02
	Lidar Mainscheme	0	0	0
LNM	SSS Mainscheme	0	0	0
LINIVI	SBES/SSS Mainscheme	0	0	0
	MBES/SSS Mainscheme	0	0	0
	SBES/MBES Crosslines	64.20	0	64.20
	Lidar Crosslines	0	0	0
Numb Botton	er of n Samples			8
1	er Maritime lary Points igated			0
Numb	er of DPs			0
	er of Items igated by Ops			0
Total S	SNM			56.18

Table 3: Hydrographic Survey Statistics

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

Survey Dates	Day of the Year
09/15/2019	258

Survey Dates	Day of the Year
09/16/2019	259
09/17/2019	260
09/18/2019	261
09/19/2019	262
09/20/2019	263
09/22/2019	265
09/23/2019	266
09/24/2019	267
09/26/2019	269
09/27/2019	270
09/28/2019	271
09/29/2019	272
10/01/2019	274
10/10/2019	283
11/17/2019	321

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	M/V Go Liberty	M/V Pelagos
LOA	150 feet	34 feet
Draft	10 feet	2 feet

Table 5: Vessels Used



Figure 5: M/V Go Liberty



Figure 6: M/V Pelagos

M/V Go Liberty (Table 5 and Figure 5) and M/V Pelagos (Table 5 and Figure 6) acquired MBES, MBAB, surface sound velocity, sound velocity profiles, attitude and positioning data within the survey limits of H13287 (Table 6). 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	Туре
Teledyne RESON	SeaBat 7125 SV2	MBES
Teledyne RESON	SVP 70	Sound Speed System
AML Oceanographic	Smart SVP	Conductivity, Temperature, and Depth Sensor
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 5.60% of mainscheme acquisition.

Crosslines for survey H13287 were acquired in accordance with section 5.2.4.2 of the HSSD 2019, with the exception of mileage percentage being 0.6% greater than prescribed (Figure 7). Of the 14,866,806 nodes compared between H13287 mainscheme MBES and MBES crosslines, 99.9% were within 50cm difference. The mean difference is 0.003m, with a standard deviation of 0.07m (Figure 8).

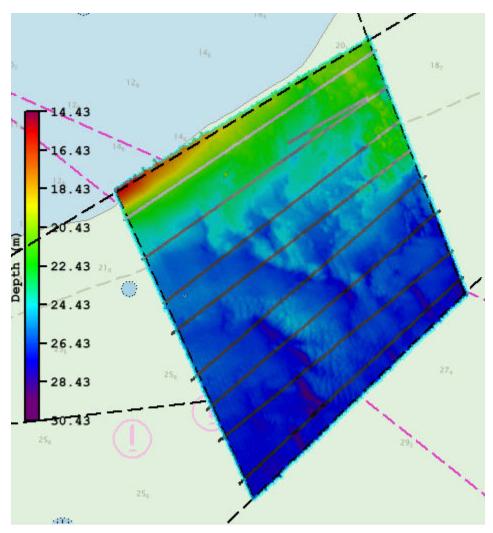


Figure 7: H13287 MBES mainscheme and MBES crossline distribution

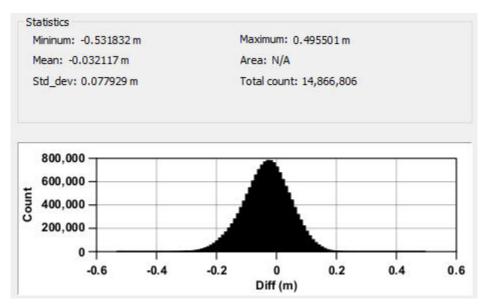


Figure 8: H13287 MBES mainscheme differenced from MBES crosslines statistical output

### **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	Measured - XBT	Surface
M/V Go Liberty	0.818 meters/second	N/A meters/second	N/A meters/second	0.25 meters/second
M/V Pelagos	4.275 meters/second	N/A meters/second	N/A meters/second	0.25 meters/second

Table 8: Survey Specific Sound Speed TPU Values.

Survey H13287 uncertainty values (Tables 7 and 8) were evaluated both in CARIS HIPS 9.1 and via Pydro QC Tools v3.0.19. The finalized 1m (Figure 9) and 2m (Figure 10) bathymetric grids both meet uncertainty standards with a minimum of 99.5% of nodes passing.

# **Uncertainty Standards**

Grid source: H13287\_MB\_1m\_MLLW\_Final

99.5+% pass (5,737,197 of 5,737,206 nodes), min=0.54, mode=0.55, max=1.34 Percentiles: 2.5%=0.54, Q1=0.55, median=0.55, Q3=0.56, 97.5%=0.57

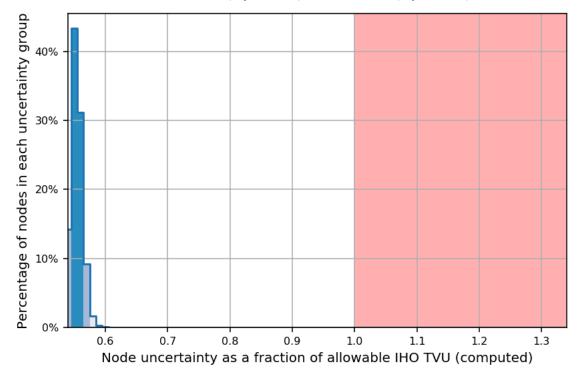


Figure 9: H13287 1m finalized grid TPU QC

## **Uncertainty Standards**

Grid source: H13287\_MB\_2m\_MLLW\_Final

99.5+% pass (47,510,585 of 47,510,592 nodes), min=0.49, mode=0.51, max=1.10 Percentiles: 2.5%=0.50, Q1=0.51, median=0.52, Q3=0.53, 97.5%=0.55

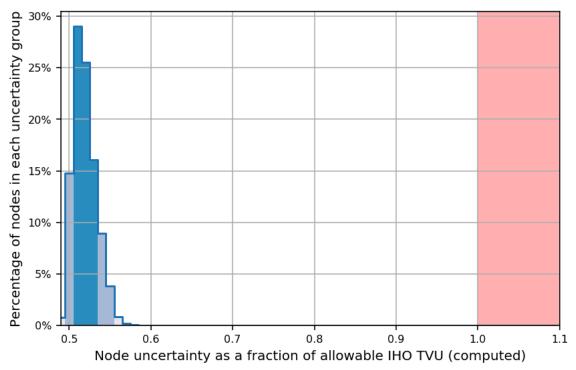


Figure 10: H13287 2m finalized grid TPU QC

#### **B.2.3 Junctions**

A total of 3 contemporary surveys are available to compare to H13287: H13183, H13284, and and H13288 (Table 9).

The following junctions were made with this survey:

Registry Number	Scale	Year	Field Unit	Relative Location
H13283	1:40000	2019	Fugro Pelagos, Inc.	W
H13284	1:20000	2019	Fugro Pelagos, Inc.	W
H13288	1:20000	2019	Fugro Pelagos, Inc.	NE

### Table 9: Junctioning Surveys

### H13283

Survey H13283 was acquired by Fugro Pelagos in 2019 as a part of OPR-J359-KR-19. Of the 159,205 grid nodes compared between H13287 and H13283, 100% agree within 50cm (Figure 11).

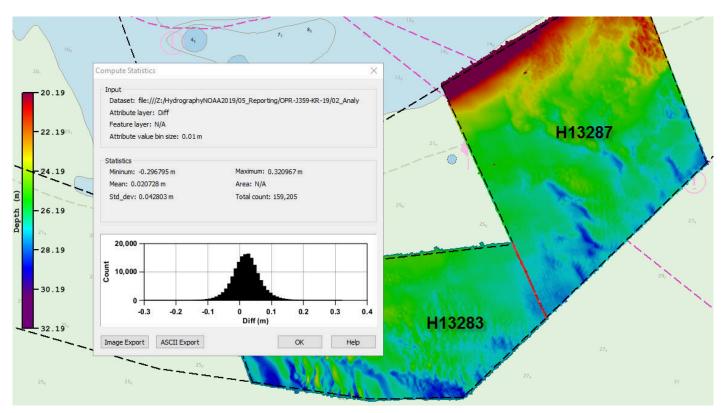


Figure 11: Survey H13287 junction with Survey H13283

#### H13284

Survey H13284 was acquired by Fugro Pelagos in 2019 as a part of OPR-J359-KR-19. Of the 460,274 grid nodes compared between H13287 and H13284, 100% agree within 50cm (Figure 12).

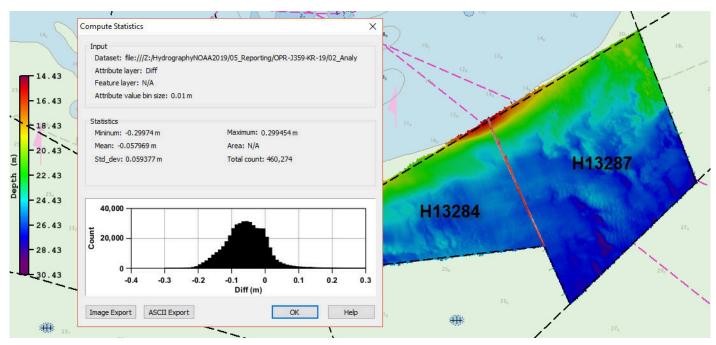


Figure 12: Survey H13287 junction with Survey H13284

### H13288

Survey H13288 was acquired by Fugro Pelagos in 2019 as a part of OPR-J359-KR-19. Of the 319,022 grid nodes compared between H13287 and H13288, 99.9% agree within 50cm (Figure 13).

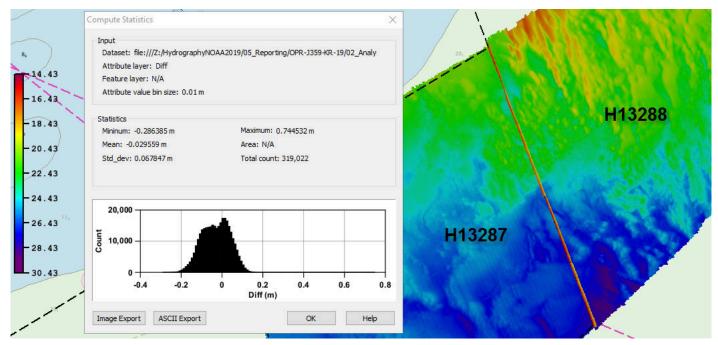


Figure 13: Survey H13287 junction with Survey H13288

### **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 the M/V Go Liberty and M/V Pelagos using an AML SV&P (Figure 14).

Refer to the DAPR for additional information.

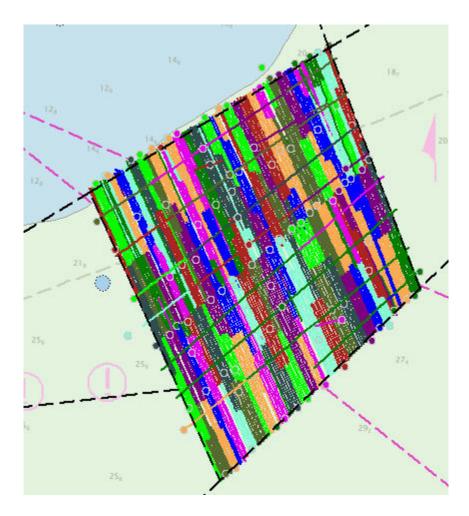


Figure 14: Temporal and geographic distribution of SVP casts within survey H13287

### **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 utilized in the acquisition and processing of Survey H13287 backscatter (Figure 15) are detailed in the DAPR.

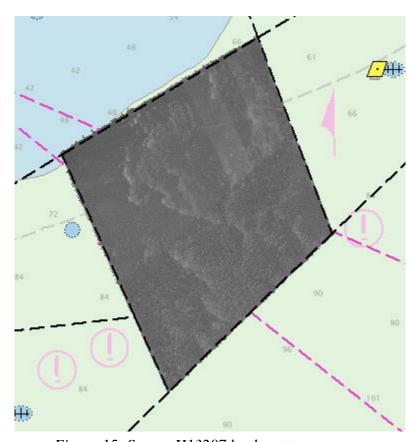


Figure 15: Survey H13287 backscatter coverage

### **B.5 Data Processing**

### **B.5.1 Primary Data Processing Software**

The following Feature Object Catalog was used: NOAA Profile Version 2019.

### **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
H13287_MB_1m_MLLW	CARIS Raster Surface (CUBE)	1 meters	15.00 meters - 29.39 meters	CMC_1m	Complete MBES
H13287_MB_1m_MLLW_Final	CARIS Raster Surface (CUBE)	1 meters	15.00 meters - 20.00 meters	CMC_1m	Complete MBES
H13287_MB_2m_MLLW	CARIS Raster Surface (CUBE)	2 meters	14.43 meters - 29.37 meters	CMC_2m	Complete MBES
H13287_MB_2m_MLLW_Final	CARIS Raster Surface (CUBE)	2 meters	18.00 meters - 29.37 meters	CMC_2m	Complete MBES
H13287_MBAB_1m_400kHz	MB Backscatter Mosaic	1 meters	-	N/A	Complete MBES
H13287_MBAB_2m_400kHz	MB Backscatter Mosaic	2 meters	-	N/A	Complete MBES

Table 10: 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 Datum Transformation**

The following ellipsoid-to-chart vertical datum transformation was used:

Method	Ellipsoid to Chart Datum Separation File
ERS via VDATUM	EC_Apalachicola_xyNAD83-MLLW_geoid12b.csar

Table 11: ERS method and SEP file

#### C.2 Horizontal Control

The horizontal datum for this project is North American Datum of 1983 (NAD 83).

The projection used for this project is Universal Transverse Mercator (UTM) Zone 16.

#### PPP

All positioning and attitude data associated with OPR-J359-KR-19 was post-processed in POSPac MMS using PP-RTX methods. For further discussion, reference the HVCR and or DAPR submitted with this report.

## D. Results and Recommendations

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

A chart comparison was conducted using the Triangle Rule script within the Chart Review Tool of Pydro QC Tools. A combined s57 file of charted soundings extracted from ENCs listed in the project instructions and an s57 file of surveyed soundings were compared with the following results (Figure 16):

Survey H13287 surveyed soundings show frequent variance of shoaling of 1-3ft to charted soundings due to shifting sandwave areas (Figure 17). Of 2,306 surveyed soundings flagged by QC Tools as being shoal to charted depths 2,301 were shoal by 1-3ft; 3 surveyed soundings were shoal to charted by 4ft.

One survey sounding located 29-27-47.43N 084-50-08.01W exceeds charted depths by 12ft. This sounding is located on the least depth of an uncharted wreck approximately 30m outside of the boundaries of a charted obstruction area. The least depth of the wreck does not exceed the minimum authorized depth of the obstruction area (Figure 18). For further detail, refer to the final feature file submitted with this report.

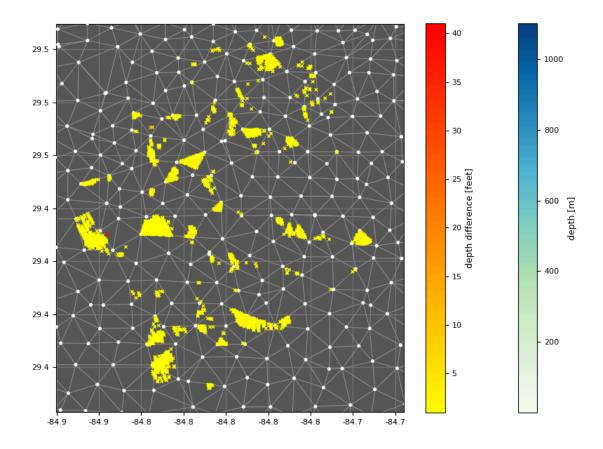


Figure 16: Pydro QC Tools chart review output of H13287 surveyed soundings shoal to charted soundings

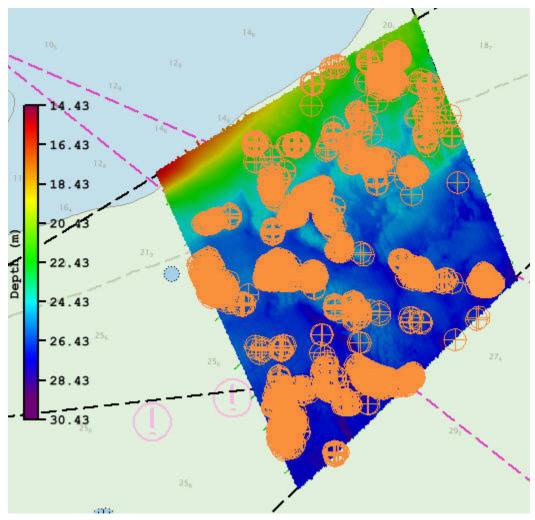


Figure 17: Pydro QC Tools output of areas with H13287 of shoaling greater than 1ft

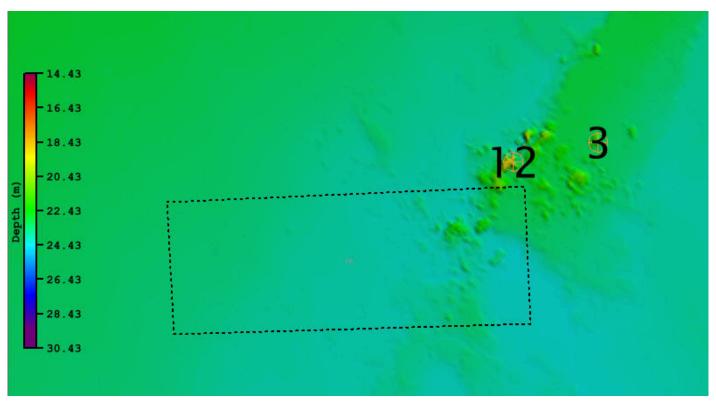


Figure 18: Survey H13287 sounding shoal to charted by 12ft

### **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?
US4FL68M	1:80000	15	02/15/2019	02/15/2019	NO
US3GC06M	1:456394	26	09/27/2019	10/21/2019	NO

Table 12: Largest Scale ENCs

### US4FL68M

### US3GC06M

### **D.1.2 Maritime Boundary Points**

No Maritime Boundary Points were assigned for this survey.

#### **D.1.3 Charted Features**

One obstruction area, one charted tower, and two submerged features were assigned for investigation within the survey limits of H13287. Reference the Final Feature File associated with this survey for further details.

#### **D.1.4 Uncharted Features**

A group of 8 uncharted obstructions were ensonified along the northern boundary of survey H13287 in the vicinity of 29-29-59.51N 084-48-17.51W. The obstructions appear to be uniform in size and shape, with an average length of 20m, average width of 10m, and average height of 1.3m.

An uncharted wreck, located 29-27-47.43N 084-50-08.01W, is shoal to charted depths in the general vicinity by 12ft. The least depth on this uncharted wreck is approximately 30m outside of the boundaries of a nearby obstruction area. The least depth of the wreck does not exceed the minimum authorized depth of the obstruction area.

Reference the Final Feature File associated with this survey for further details.

#### **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 8 bottom samples were assigned and investigated within the survey limits of survey H13287. Reference the Final Feature File associated with this survey for further detail.

### **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** Aids to Navigation

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

#### **D.2.3** Overhead Features

No overhead features exist for this survey.

#### **D.2.4 Submarine Features**

No submarine features exist for this survey.

#### **D.2.5 Platforms**

No platforms exist for this survey.

#### **D.2.6 Ferry Routes and Terminals**

No ferry routes or terminals exist for this survey.

#### D.2.7 Abnormal Seafloor and/or Environmental Conditions

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

#### **D.2.8 Construction and Dredging**

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

### **D.2.9** New Survey Recommendation

The group of 8 uncharted obstructions ensonified in the vicinity of 29-29-59.51N 084-48-17.51W are not sufficiently captured within survey H13287 to update the chart with a new obstruction area. Further

investigation should be conducted to ensure all features are captured and the applicable nautical charts reflect the current position of all obstructions within the area in question.

### **D.2.10 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	01/17/2020	Dean Moyles  Digitally signed by Dean Moyles Date: 2020.03.30 13.41:36-0230'

# 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	Continuously 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
ERTDM	Ellipsoidally Referenced Tidal Datum Model
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

Acronym	Definition
HSSD	Hydrographic Survey Specifications and Deliverables
HSTB	Hydrographic Systems Technology Branch
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
NALL	Navigable Area Limit Line
NTM	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
РНВ	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
RNC	Raster Navigational Chart
RTK	Real Time Kinematic
RTX	Real Time Extended
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
TPU	Total Propagated Uncertainty
USACE	United States Army Corps of Engineers
USCG	United States Coast Guard
UTM	Universal Transverse Mercator
XO	Executive Officer
ZDF	Zone Definition File

From: Moyles, Dean

To: NODC.submissions@noaa.gov
Cc: Starla Robinson - NOAA Federal
Subject: NCEI Sound Speed Data

**Date:** Wednesday, March 25, 2020 2:03:00 PM

Attachments: OPR-J359-KR-19 20200325.zip

Please find the attached Sound Speed Data for OPR-J359-KR-19 in the NetCDF template format. I apologize this was omitted from the final deliverables, please let me know if you have any questions.

#### **Dean Moyles**

*Marine Hydrographic Manager (*NSPS/THSOA *cert. No. 226)* Fugro

**T** +1709 726-4252x263 | **C** +1858 945-6378 | **E** dmoyles@fugro.com | **W** https://www.fugro.com/ **A** 25 Pippy Place, St. John's, NL Canada A1B 3X2

From: Stone, Allison

To: <u>survey.outlines@noaa.gov</u>

Cc: <u>Starla Robinson - NOAA Federal</u>; <u>Moyles, Dean</u>

**Subject**: OPR-J359-KR-19 Survey Outlines

Date: Wednesday, November 27, 2019 5:22:16 PM

Attachments: <u>H13281 SurveyOutline.000</u>

H13282 SurveyOutline.000 H13284 SurveyOutline.000 H13285 SurveyOutline.000 H13286 SurveyOutline.000 H13287 SurveyOutline.000 H13288 SurveyOutline.000

#### Good Afternoon,

Please find attached survey outlines associated with OPR-J359-KR-19:

H13281

H13282

(H13283-submitted 10/4/19, not submitted herein)

H13284

H13285

H13286

H13287

H13288

A copy of this correspondence will be saved and submitted with the reporting package for this project. Please confirm receipt.

Kind regards,

#### **Allison Stone**

*Hydrographer* Fugro

**T** +1 713 346 4084 | **C** +1 843 607 9980 | **E** al.stone@fugro.com | **W** https://www.fugro.com/ **A** 6100 Hillcroft St Houston, TX 77081

From: Stone, Allison

To: OCS.NDB@noaa.goy; Coast.Pilot@noaa.gov
Cc: Starla Robinson - NOAA Federal; Moyles, Dean
Subject: OPR-J359-KR-2019 Coast Pilot Report Review Report

Date: Monday, December 2, 2019 1:38:33 PM
Attachments: OPR J359 KR 19 CoastPilotReviewReport.pdf

OPR-J359-KR-19CoastPilotReport.pdf

#### Good afternoon,

Please find attached CP Review Report for project OPR-J359-KR-19. This review was conducted on the most recent Ch 6 of CP5 (24 Nov 2019).

CP5 Ch6 provided by HSD with Project Instructions was dated 20 May 2018.

In reference to the highlighted update requests, the wreck PA at the outer entrance to Government Cut was not included for investigation in the Project Instructions for investigation.

An additional comment was added relating to the prominence of the Highway 98 Bridge over the Gulf County Canal as a visual reference for approach.

If you have any additional comments or considerations, please do not hesitate to reach out.

#### **Allison Stone**

*Hydrographer* Fugro

**T** +1 713 346 4084 | **C** +1 843 607 9980 | **E** al.stone@fugro.com | **W** https://www.fugro.com/ **A** 6100 Hillcroft St Houston, TX 77081

From: <u>Laura Jeffery - NOAA Federal</u>

To: Stone, Allison

Cc: OCS.NDB@noaa.gov; Coast.Pilot@noaa.gov; Starla Robinson - NOAA Federal; Moyles, Dean

Subject: Re: OPR-J359-KR-2019 Coast Pilot Report Review Report

**Date:** Monday, December 2, 2019 3:50:29 PM

Thank you very much Allison! We will have this made into a source doc and process it for CP5 soon.

-Nautical Publications Branch/NOS

On Mon, Dec 2, 2019 at 12:11 PM 'Stone, Allison' via \_NOS OCS NSD Coast Pilot <<u>coast.pilot@noaa.gov</u>> wrote:

Good afternoon,

Please find attached CP Review Report for project OPR-J359-KR-19. This review was conducted on the most recent Ch 6 of CP5 (24 Nov 2019).

CP5 Ch6 provided by HSD with Project Instructions was dated 20 May 2018.

In reference to the highlighted update requests, the wreck PA at the outer entrance to Government Cut was not included for investigation in the Project Instructions for investigation.

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If you have any additional comments or considerations, please do not hesitate to reach out.

#### **Allison Stone**

Hydrographer

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## Together we create a safe and liveable world.

\_\_

Laura B. Jeffery Nautical Publications Branch/NOS Cartographer/Reviewer 240-533-0073

NOAA-NOS-OCS-NSD-NPB 1315 E. West Hwy SSMC3, Station 6315 Silver Spring, MD 20910 From: Moyles, Dean
To: ocs.ecc@noaa.gov

Cc: Starla Robinson - NOAA Federal

Subject: RE: OPR-J359-KR-19 Marine Mammal Sighting Logs

 Date:
 Wednesday, March 25, 2020 2:13:00 PM

 Attachments:
 Marine Mammal Training Video Log 2019.xlsx

Please find the attached Marine Mammal Training Log for OPR-J359-KR-19. I apologize this was omitted from the earlier submission.

#### **Dean Moyles**

*Marine Hydrographic Manager* (NSPS/THSOA *cert. No. 226*) Fugro

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### Together we create a safe and liveable world.

From: Nancy Young - NOAA Federal <nancy.young@noaa.gov>

**Sent:** Tuesday, December 3, 2019 4:36 PM **To:** Moyles, Dean <dmoyles@fugro.com>

Subject: Re: OPR-J359-KR-19 Marine Mammal Sighting Logs

Thanks very much, Dean.

On Mon, Dec 2, 2019 at 11:10 AM 'Moyles, Dean' via \_NMFS AFSC NMML POP INFORMATION <pop.information@noaa.gov> wrote:

Please find the attached marine mammal sighting logs for OPR-J359-KR-19. Please let me know if you have any questions.

### **Dean Moyles**

*Marine Hydrographic Manager* (NSPS/THSOA *cert. No. 226*) Fugro

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Together we create a safe and liveable world.

--

**Nancy Young** 

NOAA Fisheries Alaska Fisheries Science Center Marine Mammal Laboratory (206) 526-4297

Name	Date of Completion
Allison Stone	7/2/2019
Honza Rokyta	7/2/2019
Dean Moyles	7/2/2019
Mike Minton	7/2/2019
Clay Walker	7/2/2019
Patrick Keilen	7/2/2019
Nicholas Burch	7/17/2019
Emanual Byas	7/17/2019
Reed Nelle	7/17/2019
Tiziana Munene	7/17/2019
Dylan Coe	7/17/2019
Matt Green	7/17/2019
Gary Baxter	7/18/2019
Bobby Touchstone	7/19/2019
Honza Rokyta	7/31/2019
Scott Ferguson	7/31/2019
Caroline Bradley	9/23/2019

From: Moyles, Dean

To: "pop.information@noaa.gov"; "ocs.ecc@noaa.gov"

Cc: "Starla Robinson - NOAA Federal"

 Subject:
 OPR-J359-KR-19 Marine Mammal Sighting Logs

 Date:
 Monday, December 2, 2019 3:35:00 PM

 Attachments:
 OPR-J359-KR-19 Marine Mammal Sightings.zip

Please find the attached marine mammal sighting logs for OPR-J359-KR-19. Please let me know if you have any questions.

### **Dean Moyles**

*Marine Hydrographic Manager (*NSPS/THSOA *cert. No. 226)* Fugro

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From: Nancy Young - NOAA Federal

To: Moyles, Dean

Subject: Re: OPR-J359-KR-19 Marine Mammal Sighting Logs

Date: Tuesday, December 3, 2019 4:36:35 PM

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On Mon, Dec 2, 2019 at 11:10 AM 'Moyles, Dean' via \_NMFS AFSC NMML POP INFORMATION pop.information@noaa.gov wrote:

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### **Dean Moyles**

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--

Nancy Young NOAA Fisheries Alaska Fisheries Science Center Marine Mammal Laboratory (206) 526-4297

#### APPROVAL PAGE

#### H13287

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