

H13147

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

**DESCRIPTIVE REPORT**

Type of Survey: Navigable Area

Registry Number: H13147

**LOCALITY**

State(s): Puerto Rico

General Locality: San Juan and Ponce and Vicinities

Sub-locality: Bahia de Jobos

**2018**

CHIEF OF PARTY  
Christiaan van Westendorp, CAPT/NOAA

**LIBRARY & ARCHIVES**

Date:

U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION		REGISTRY NUMBER:
<b>HYDROGRAPHIC TITLE SHEET</b>		<b>H13147</b>
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):	<b>Puerto Rico</b>	
General Locality:	<b>San Juan and Ponce and Vicinities</b>	
Sub-Locality:	<b>Bahia de Jobos</b>	
Scale:	<b>5000</b>	
Dates of Survey:	<b>09/08/2018 to 09/20/2018</b>	
Instructions Dated:	<b>06/18/2018</b>	
Project Number:	<b>OPR-I369-TJ-18</b>	
Field Unit:	<b>NOAA Ship <i>Thomas Jefferson</i></b>	
Chief of Party:	<b>Christiaan van Westendorp, CAPT/NOAA</b>	
Soundings by:	<b>Multibeam Echo Sounder</b>	
Imagery by:	<b>Multibeam Echo Sounder Backscatter</b>	
Verification by:	<b>Atlantic Hydrographic Branch</b>	
Soundings Acquired in:	<b>meters at Mean Lower Low Water</b>	
Remarks: <i>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 <a href="https://www.ncei.noaa.gov/">https://www.ncei.noaa.gov/</a>.</i>  <i>Products created during office processing were generated in NAD83 UTM 19N, MLLW. All references to other horizontal or vertical datums in this report are applicable to the processed hydrographic data provided by the field unit.</i>		

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## Descriptive Report to Accompany Survey H13147

Project: OPR-I369-TJ-18

Locality: San Juan and Ponce and Vicinities

Sublocality: Bahia de Jobos

Scale: 1:5000

September 2018 - September 2018

**NOAA Ship *Thomas Jefferson***

Chief of Party: Christiaan van Westendorp, CAPT/NOAA

### A. Area Surveyed

Survey H13147 is located in and around the Bahia de Jobos and near Las Mareas on the southern coast of Puerto Rico (Figure 1).

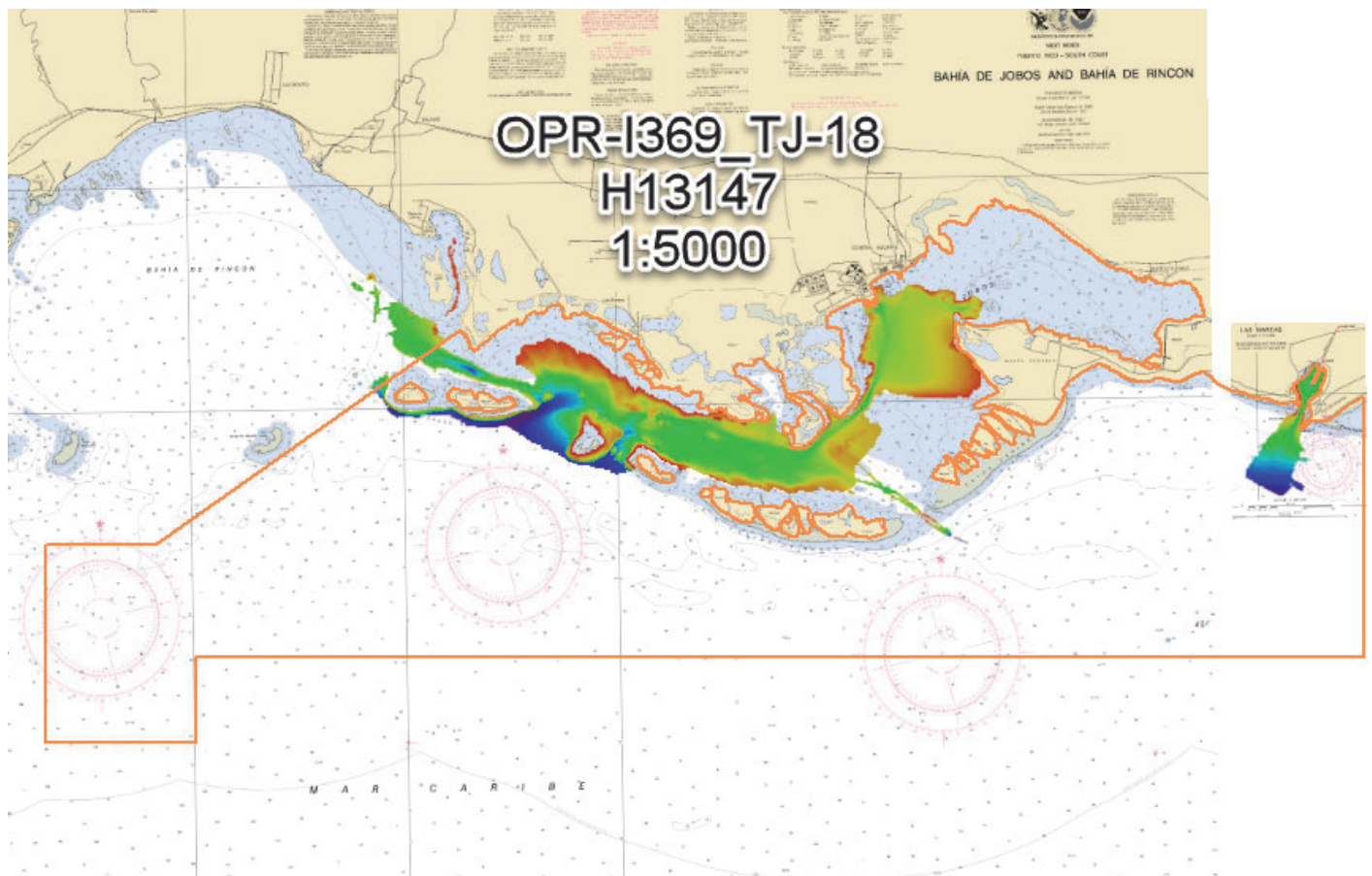
Survey data were acquired in accordance with the requirements set forth by the Project Instructions (PI) OPR-I369-TJ-18 and the Hydrographic Surveys Specifications and Deliverables (HSSD) dated April 2018.

#### A.1 Survey Limits

Data were acquired within the following survey limits (Table 1):

Northwest Limit	Southeast Limit
17° 57' 30.86" N 66° 18' 14.08" W	17° 55' 6.19" N 66° 9' 33.45" W

*Table 1: Survey Limits*



*Figure 1: Survey layout for H13147, plotted over RNC 25677\_2 and 25687\_1. Orange outline represents the survey limits set forth by the Project Instructions.*

Only high priority areas of the assigned sheet area were surveyed. The areas surveyed reflect the priorities of the local pilot association and areas most used by local marine traffic.

The near shore extent of survey was adjusted based on available US Army Corps of Engineers (USACE) Light Detection and Ranging (LiDAR) data. MBES data from H13147 junctions with available USACE LiDAR coverage (Figure 2).

The decision to limit survey to locally prioritized areas in conjunction with USACE LiDAR coverage was approved by the Project Manager.

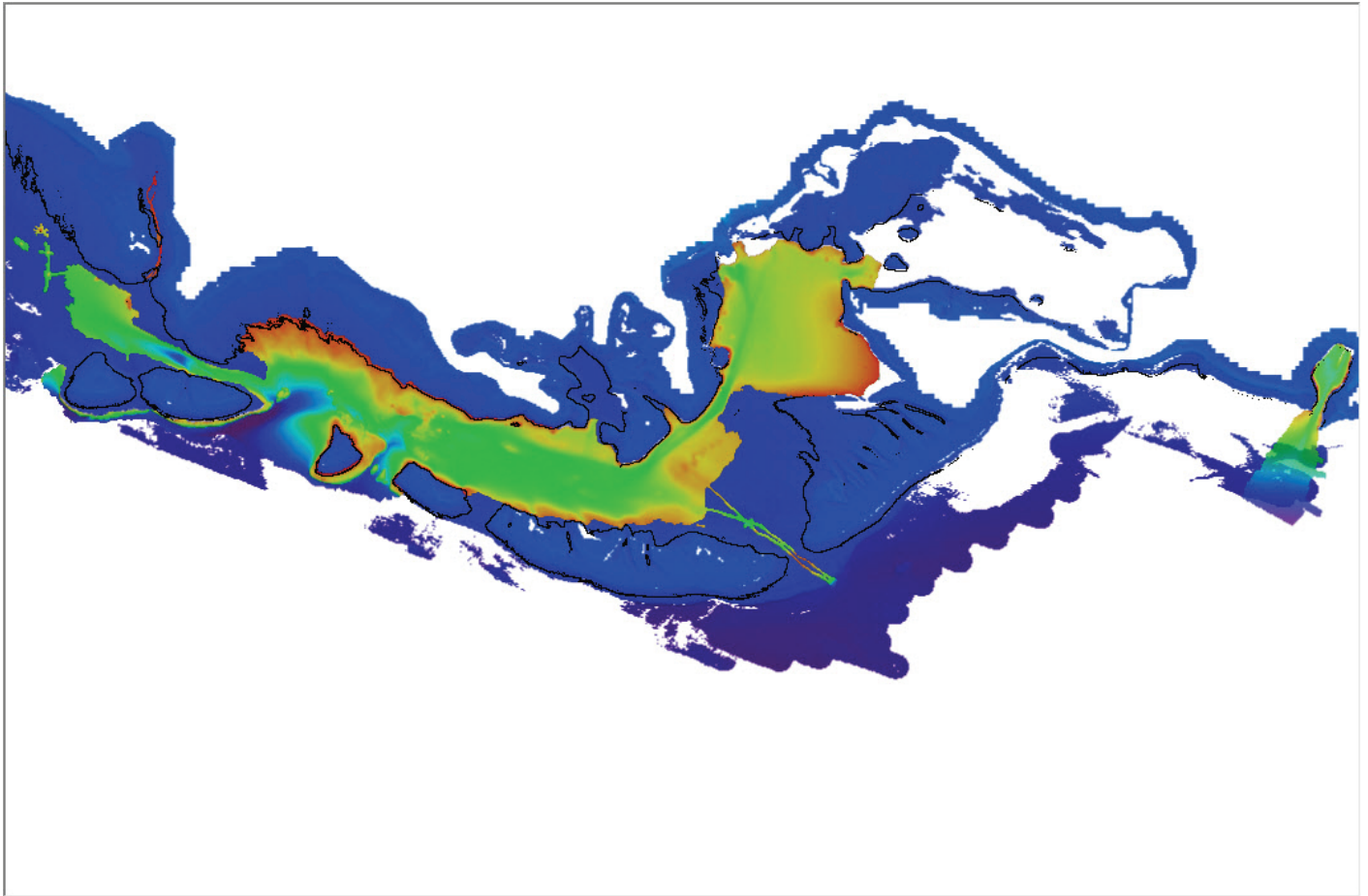


Figure 2: Survey H13147 data overlaid on USACE LiDAR data.

## A.2 Survey Purpose

The economy for the 3.3 million Americans in the territory of Puerto Rico is largely ocean dependent. Approximately 7% of the jobs in Puerto Rico are directly involved in ocean related services accounting for over \$920 million in wages. The island also imports 85% of its foodstuffs and virtually all of its energy products. Currently, only a small percentage of its coasts and critical harbors have been surveyed with modern, high-resolution sounding or hydrographic LiDAR devices. In 2017 the island was damaged by two major hurricanes; in response, the NOAA ship *Thomas Jefferson* conducted emergency sidescan and multibeam surveys of seven port facilities to locate storm related obstructions and damage to the channels. A follow up to some of these ports and pilot areas, combined with a survey of the surrounding coastline, is necessary to verify that dangerous obstructions have been removed prior to updating nautical charts.

## A.3 Survey Quality

The entire survey is adequate to supersede previous data.



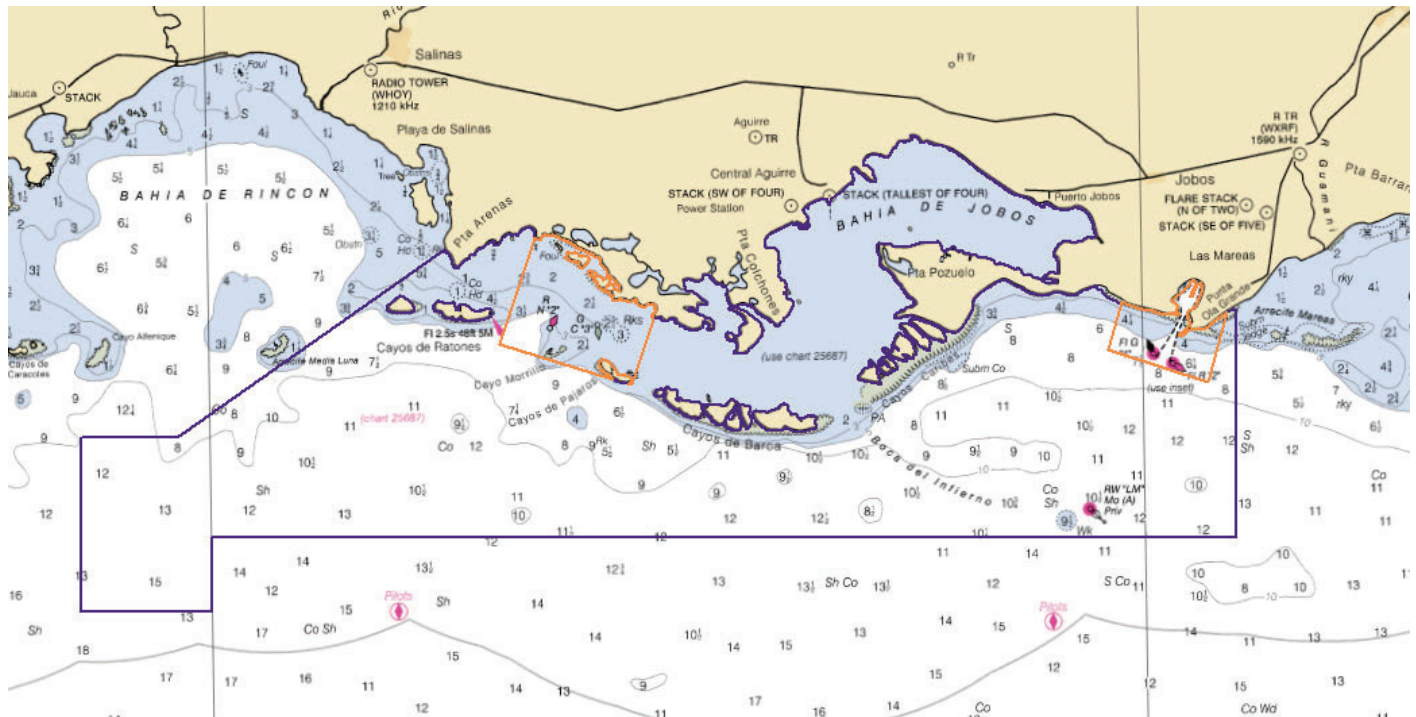
## A.4 Survey Coverage

The following table lists the coverage requirements for this survey as assigned in the project instructions (Table 2):

Water Depth	Coverage Required
Varying waters in the survey area	Object Detection Coverage (Refer to HSSD Section 5.2.2.2)
Varying waters in the survey area	Complete Coverage (Refer to HSSD Section 5.2.2.3)

*Table 2: Survey Coverage*

Per the OPR-I396-TJ-18 Project Instructions (PI), there are two coverage requirements assigned for survey H13147 (Figure 3). H13147 multibeam echo sounding (MBES) data meets the density requirements set forth in the HSSD (2018) for Object Detection coverage (see section B.5.2 of this descriptive report for H13147 data density statistics). H13147 products were produced at the Object Detection coverage specifications.



*Figure 3: Survey H13147 sheet limits as set forth in the PI, plotted over RNC 25677\_1. The areas outlined in orange indicate Object Detection Coverage, whereas the area outlined in purple indicate Complete Coverage.*

## A.5 Survey Statistics

The following table lists the mainscheme and crossline acquisition mileage for this survey (Table 3):

	<b>HULL ID</b>	<b>2903</b>	<b>2904</b>	<b><i>Total</i></b>
<b>LNM</b>	<b>SBES Mainscheme</b>	0	0	0
	<b>MBES Mainscheme</b>	204.88	181.36	386.24
	<b>Lidar Mainscheme</b>	0	0	0
	<b>SSS Mainscheme</b>	0	0	0
	<b>SBES/SSS Mainscheme</b>	0	0	0
	<b>MBES/SSS Mainscheme</b>	0	0	0
	<b>SBES/MBES Crosslines</b>	1.68	18.59	20.27
	<b>Lidar Crosslines</b>	0	0	0
<b>Number of Bottom Samples</b>				10
<b>Number Maritime Boundary Points Investigated</b>				0
<b>Number of DPs</b>				0
<b>Number of Items Investigated by Dive Ops</b>				0
<b>Total SNM</b>				3.64

*Table 3: Hydrographic Survey Statistics*

The following table lists the specific dates of data acquisition for this survey (Table 4):

<b>Survey Dates</b>	<b>Day of the Year</b>
09/08/2018	251
09/09/2018	252
09/10/2018	253
09/11/2018	254
09/18/2018	261
09/19/2018	262
09/20/2018	263

*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. 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 (Table 5):

<b>Hull ID</b>	<b>2903</b>	<b>2904</b>
<b>LOA</b>	8.5 meters	8.5 meters
<b>Draft</b>	1.2 meters	1.2 meters

*Table 5: Vessels Used*



### B.1.2 Equipment

The following major systems were used for data acquisition during this survey (Table 6):

<b>Manufacturer</b>	<b>Model</b>	<b>Type</b>
Applanix	POS MV 320 v5	Positioning and Attitude System
Sea-Bird Scientific	SBE 19plus V2	Conductivity, Temperature, and Depth Sensor
Teledyne RESON	SVP 70	Sound Speed Sensor
Teledyne RESON	SVP 71	Sound Speed Sensor
Kongsberg Maritime	EM 2040	MBES

*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 5.25% of mainscheme acquisition.

Crossline comparisons were conducted in accordance with procedures outlined in the DAPR.

Two final bathymetric surfaces were submitted for this survey (one surface for Bahia de Jobos and one for the harbor at Las Mareas), and comparison routines were conducted on both surfaces. The crossline comparison for the Bahia de Jobos portion of the survey (H13147\_MB\_50cm\_MLLW\_Final\_1of2) yielded a mean difference of 0.04m and a standard deviation of 0.06m (Figure 4). The crossline comparison for the Las Mareas portion of the survey (H13147\_MB\_50cm\_MLLW\_Final\_2of2) yielded a mean difference of 0.01m and a standard deviation of 0.06m (Figure 5).

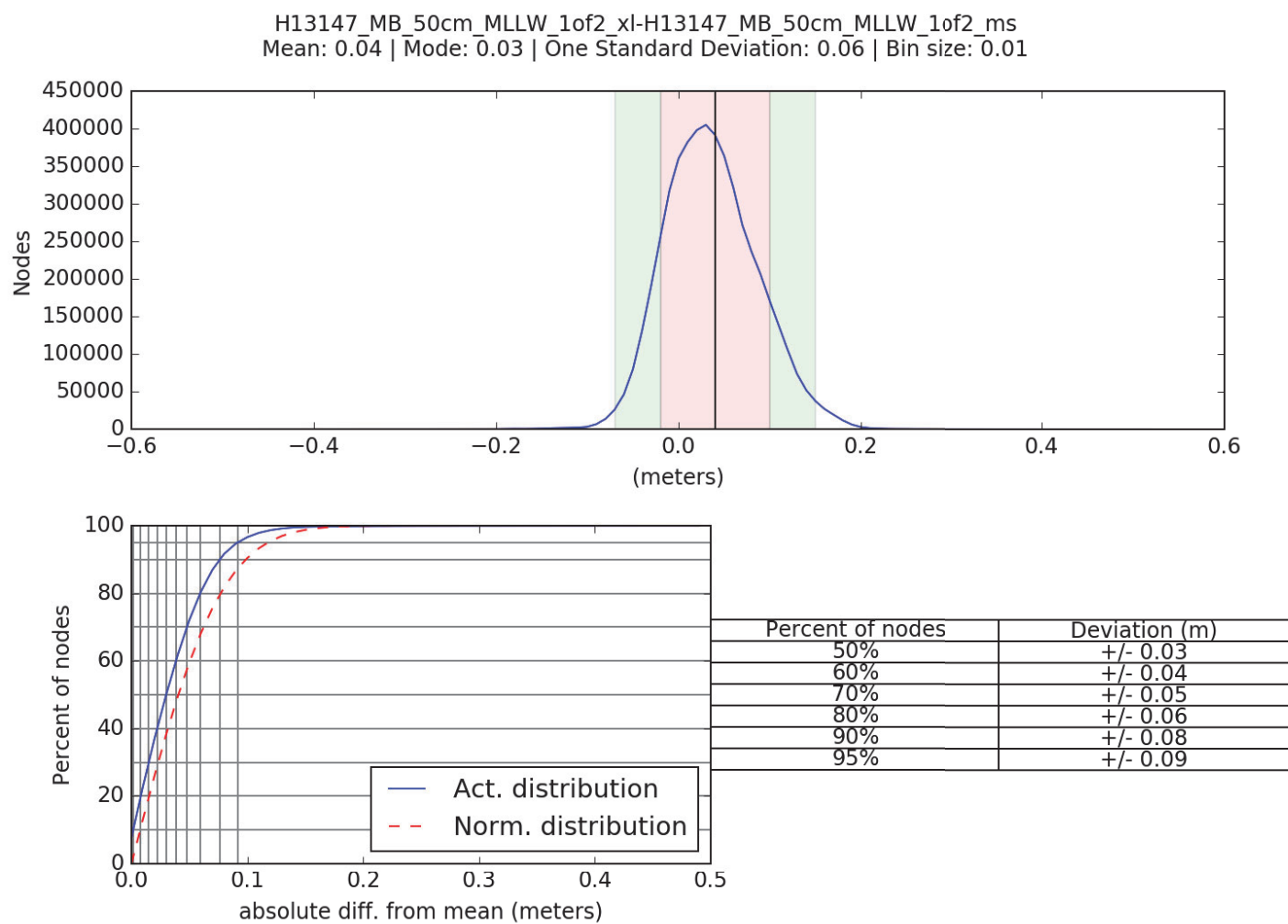


Figure 4: H13147 crossline/mainscheme comparison for surface grid H13147\_MB\_50cm\_MLLW\_Final\_1of2.

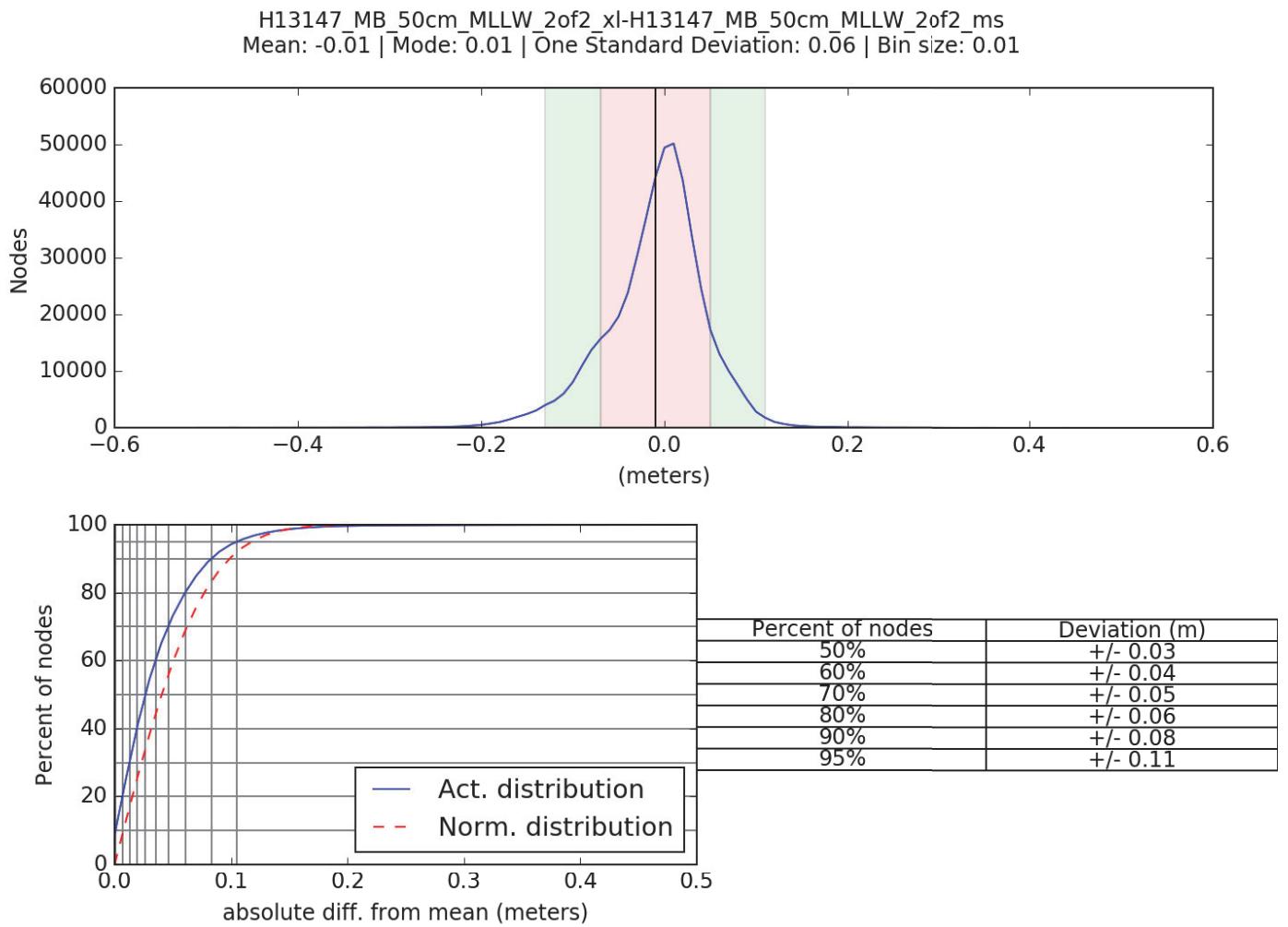


Figure 5: H13147 crossline/mainscheme comparison for surface grid H13147\_MB\_50cm\_MLLW\_Final\_2of2.

### B.2.2 Uncertainty

The following survey specific parameters were used for this survey (Table 7 and 8):

Method	Measured	Zoning
ERS via VDATUM	0.0 meters	0.12 meters

Table 7: Survey Specific Tide TPU Values.

Hull ID	Measured - CTD	Measured - MVP	Surface
2903	4 meters/second		0.2 meters/second
2904	4 meters/second		0.2 meters/second

Table 8: Survey Specific Sound Speed TPU Values.

The bathymetric surface's uncertainty layer is compliant with HSSD 2018 uncertainty standards. Over 99.5% of all nodes pass uncertainty standards (Figures 6-7).

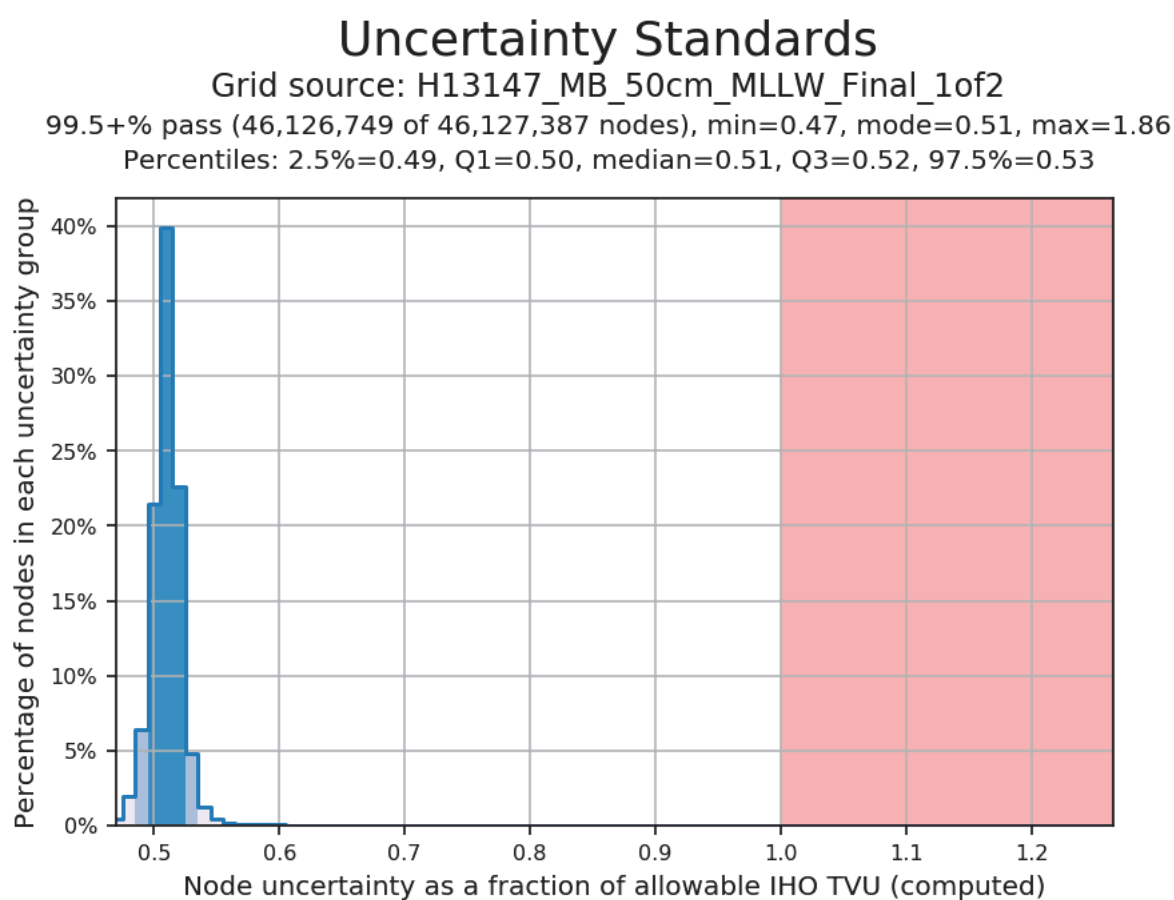


Figure 6: H13147 uncertainty statistics for surface grid H13147\_MB\_50cm\_MLLW\_Final\_1of2.

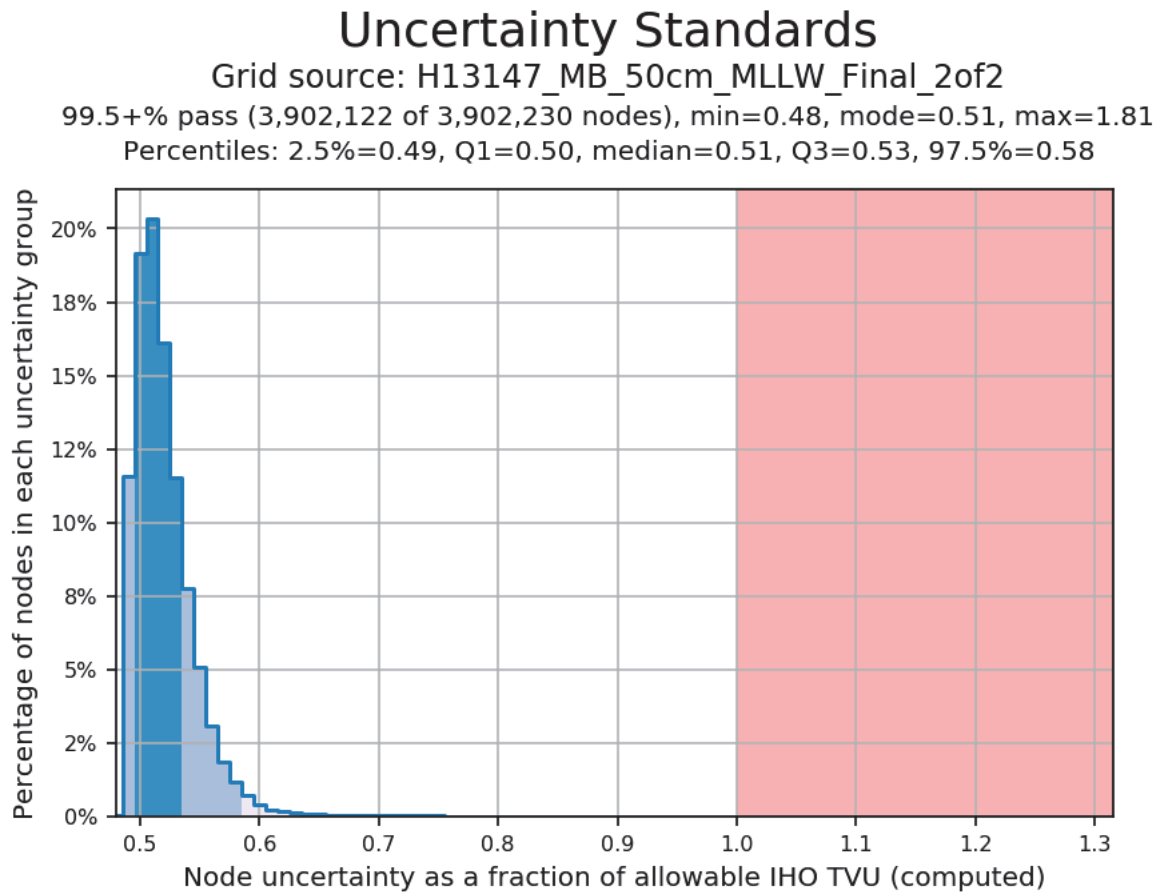


Figure 7: H13147 uncertainty statistics for surface grid H13147\_MB\_50cm\_MLLW\_Final\_2of2.

### B.2.3 Junctions

No hydrographic surveys junctioned with H13147. See section for B.5.3 for a discussion of the LiDAR data used to adjust H13147 survey limits.

There are no contemporary surveys that junction with this survey.

### B.2.4 Sonar QC Checks

Sonar system quality control checks were conducted as detailed in the quality control section of the DAPR.

### B.2.5 Equipment Effectiveness

There were no conditions or deficiencies that affected equipment operational effectiveness.

### B.2.6 Factors Affecting Soundings

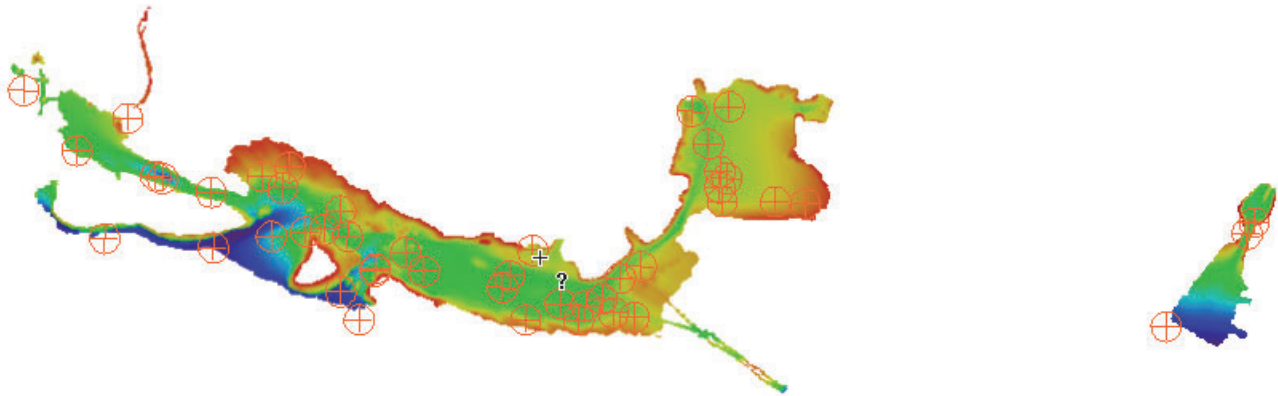
There were no other factors that affected corrections to soundings.

### B.2.7 Sound Speed Methods

Sound Speed Cast Frequency: Casts were conducted at the start of acquisition each day and within four hours of each previous cast.

Cast locations were selected to sample water most representative of local environmental survey conditions (Figure 8).

Several casts were taken outside of MBES surface coverage. No sound speed cast were taken greater than 170 meters from the edge of survey coverage. All casts taken outside of MBES surface coverage represented local water column conditions.



*Figure 8: SVP cast distribution.*

## B.2.8 Coverage Equipment and Methods

H13147 was surveyed in accordance with Object Detection standards using Object Detection MBES coverage (HSSD 2018, Section 5.2.2.2, Option A). HSLs 2903 and 2904 with Kongsberg EM2040 MBESs were used to achieve coverage.

## 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

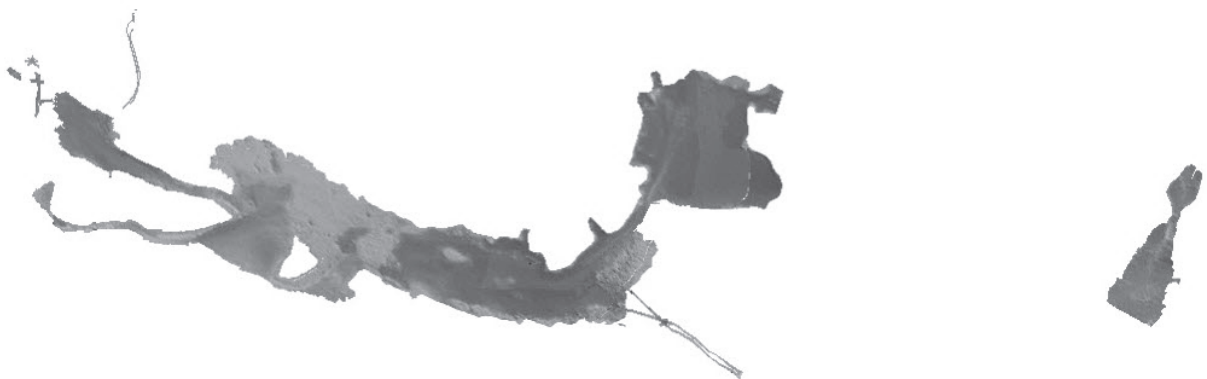
Raw MBES backscatter was logged as part of the .all file of the Kongsberg EM2040 systems. Backscatter was processed in QPS Fledermaus GeoCoder Toolbox (FMGT) software, and the exported geotiff's are included in the final processed data package (Figures 9-11).



*Figure 9: HSL 2903's 300kHz multibeam acoustic backscatter at 1m resolution.*



*Figure 10: HSL 2904's 300kHz multibeam acoustic backscatter at 1m resolution.*



*Figure 11: Combined multibeam acoustic backscatter at 1m resolution.*

## **B.5 Data Processing**

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



The following Feature Object Catalog was used: NOAA Profile V\_5\_8.

### B.5.2 Surfaces

The following surfaces and/or BAGs were submitted to the Processing Branch (Table 9):

Surface Name	Surface Type	Resolution	Depth Range	Surface Parameter	Purpose
H13147_MB_50cm_MLLW_1of2.	CARIS Raster Surface (CUBE)	0.5 meters	1.2414 meters - 17.9732 meters	NOAA_0.5m	Object Detection
H13147_MB_50cm_MLLW_2of2.	CARIS Raster Surface (CUBE)	0.5 meters	1.1234 meters - 19.7870 meters	NOAA_0.5m	Object Detection
H13147_MB_50cm_MLLW_Final_1of2	CARIS Raster Surface (CUBE)	0.5 meters	0.8780 meters - 17.9732 meters	NOAA_0.5m	Object Detection
H13147_MB_50cm_MLLW_Final_2of2	CARIS Raster Surface (CUBE)	0.5 meters	1.1234 meters - 19.7870 meters	NOAA_0.5m	Object Detection
H13147_MBAB_1m_TJ2903_300kHz_1of2	MB Backscatter Mosaic Geotiff	1 meters	-	N/A	Object Detection
H13147_MBAB_1m_TJ2904_300kHz_2of2	MB Backscatter Mosaic Geotiff	1 meters	-	N/A	Object Detection

*Table 9: Submitted Surfaces*

Object Detection coverage requirements were met by 100% Object Detection multibeam coverage as specified under section 5.2.2.2 of the HSSD (2018). All bathymetric grids for H13147 meet density requirements per the HSSD 2018 (Figures 12-13).

38 holidays were identified in H13147 bathymetric surfaces using procedures outlined in the DAPR. Surface H13147\_MB\_50cm\_MLLW\_1of2 had a total of 34 holidays (Figures 14-25) and surface H13147\_MB\_50cm\_MLLW\_2of2 had a total of 4 holidays (Figures 26-27); however, only six holidays existed when bathymetric surfaces are combined with the 2018 USACE LiDAR data (Figures 23-25, 27). Seven of the 34 holidays in surface H13147\_MB\_50cm\_MLLW\_1of2 are present within data acquired for reconnaissance and LiDAR verification (Figures 14 and 15). All holidays are shown below.

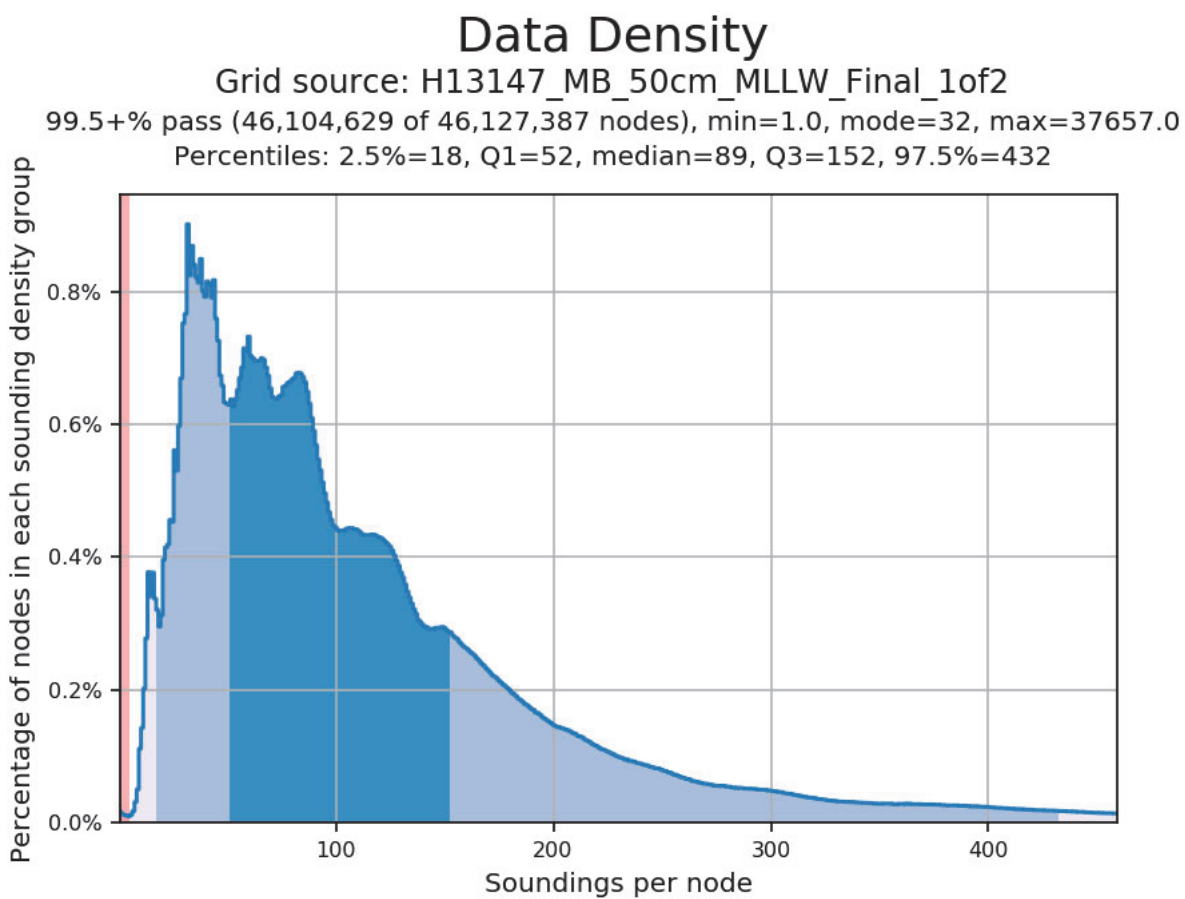


Figure 12: H13147 density statistics for surface grid H13147\_MB\_50cm\_MLLW\_Final\_1of2.

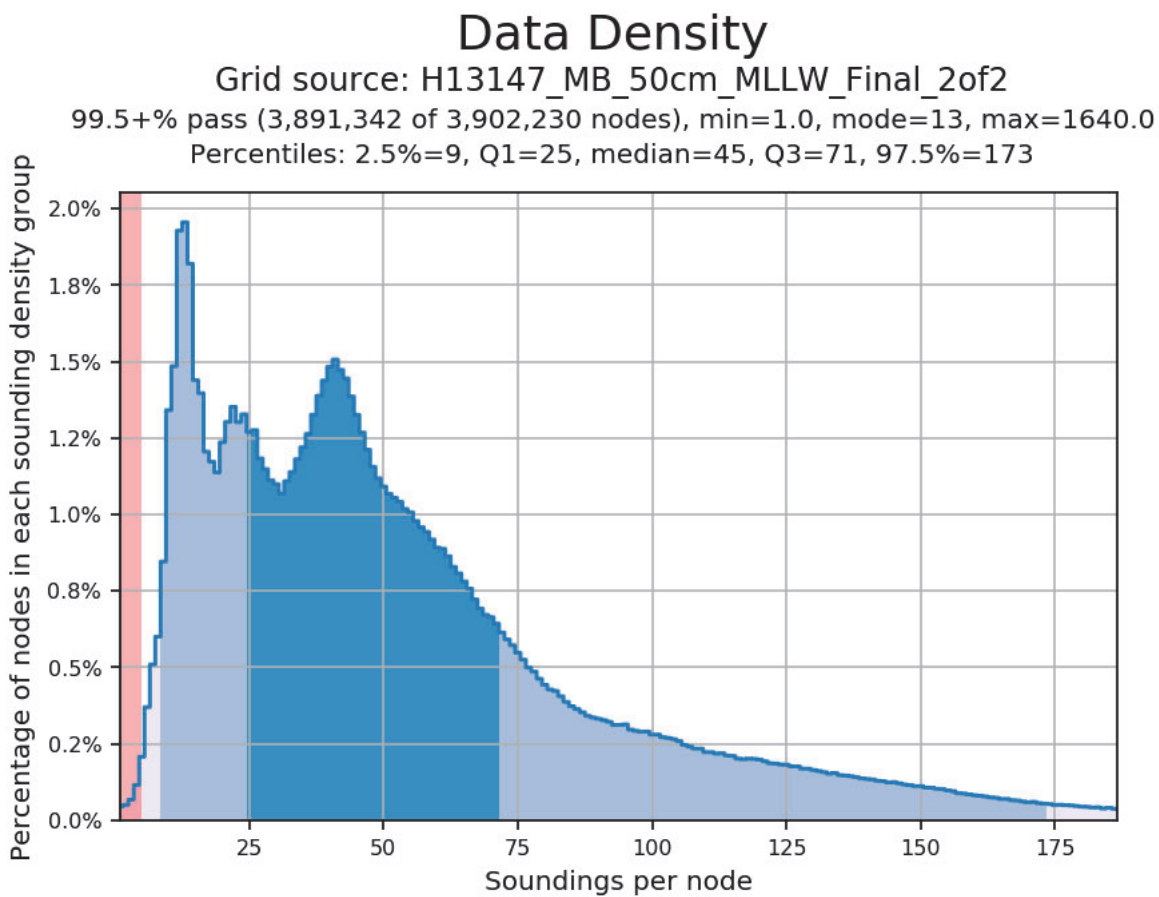
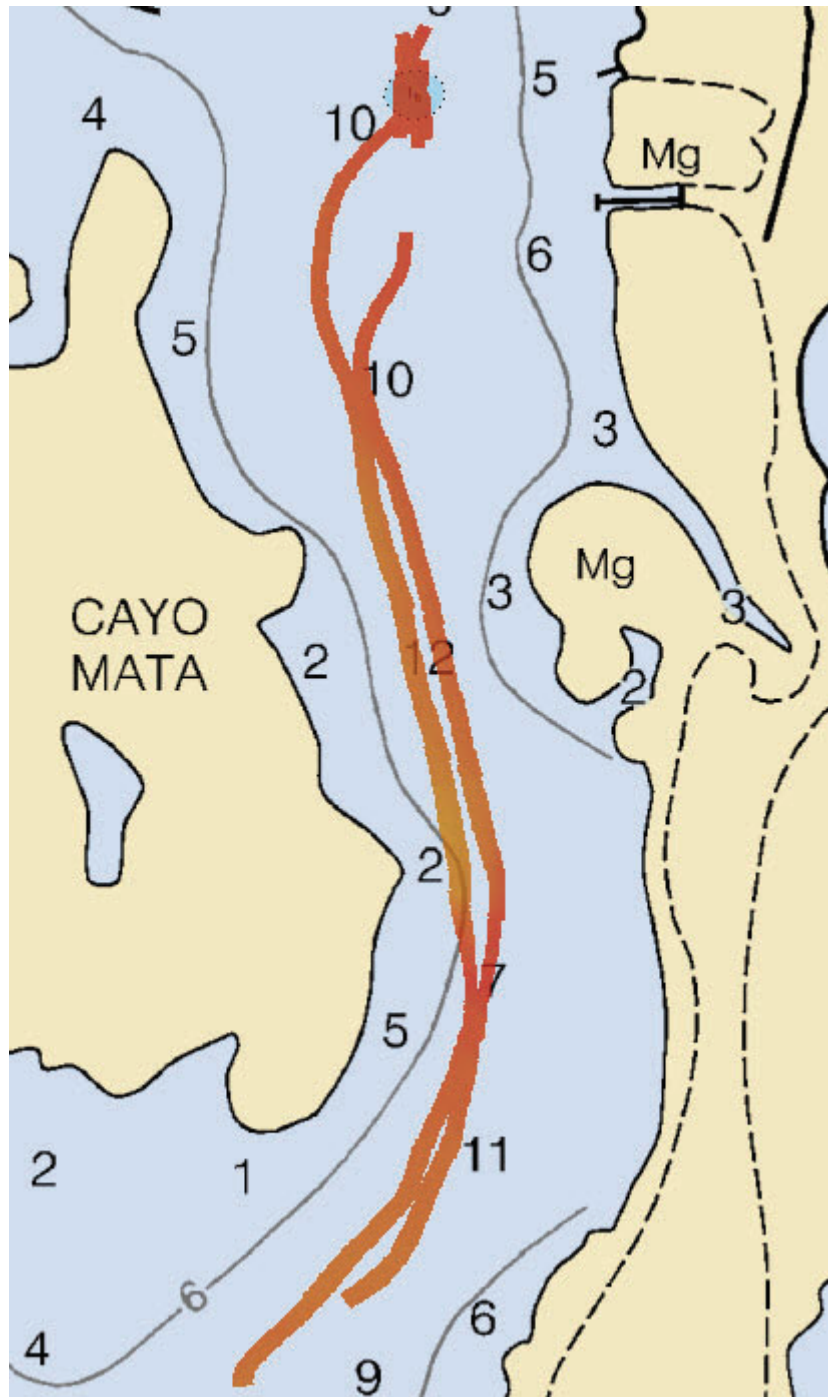


Figure 13: H13147 density statistics for surface grid H13147\_MB\_50cm\_MLLW\_Final\_2of2.



*Figure 14: Two holidays in surface H13147\_MB\_50cm\_MLLW\_1of2 are present within data acquired for reconnaissance and LiDAR verification. These holidays are located within the Bahia de Rincon, east of Cayo Mata.*

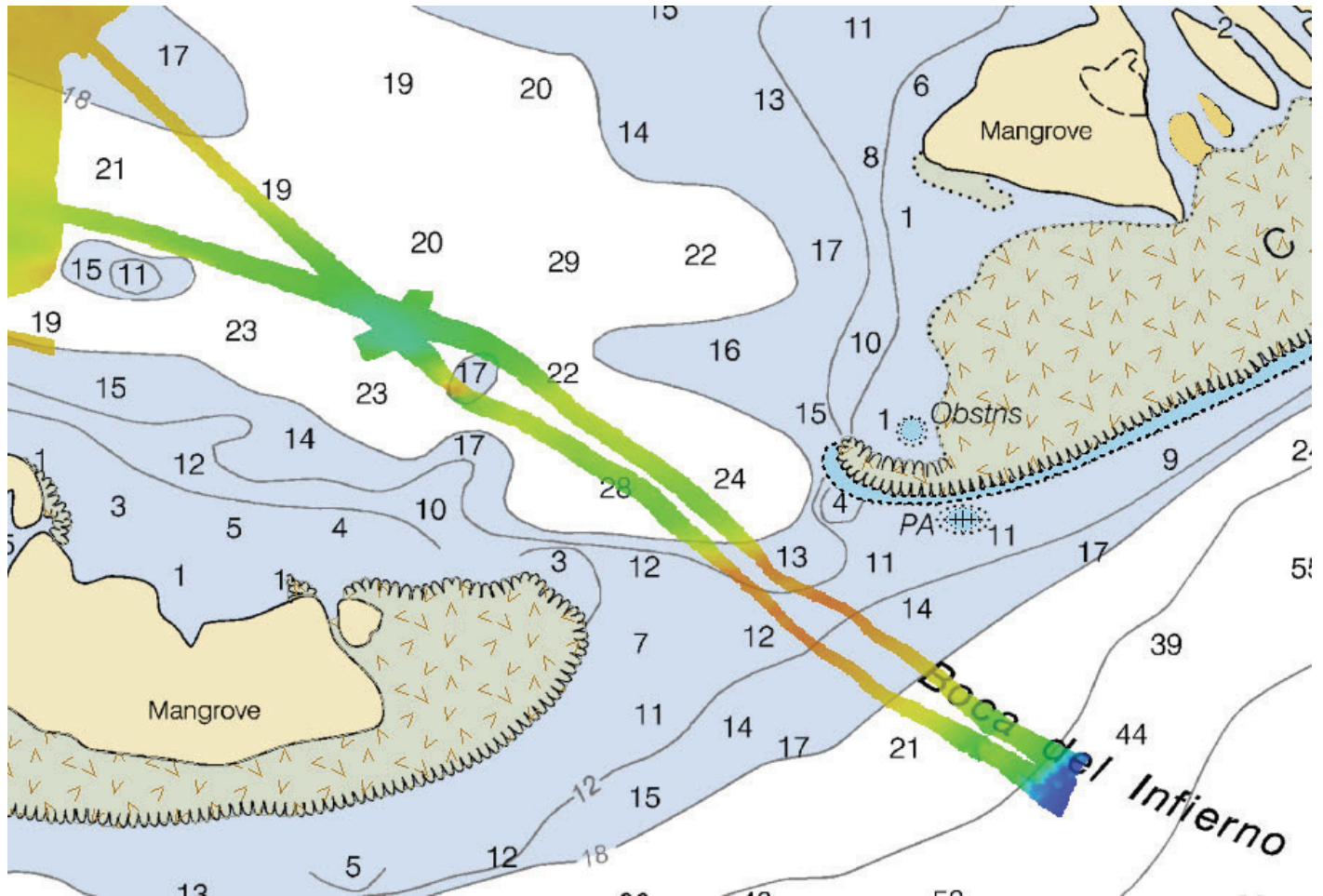
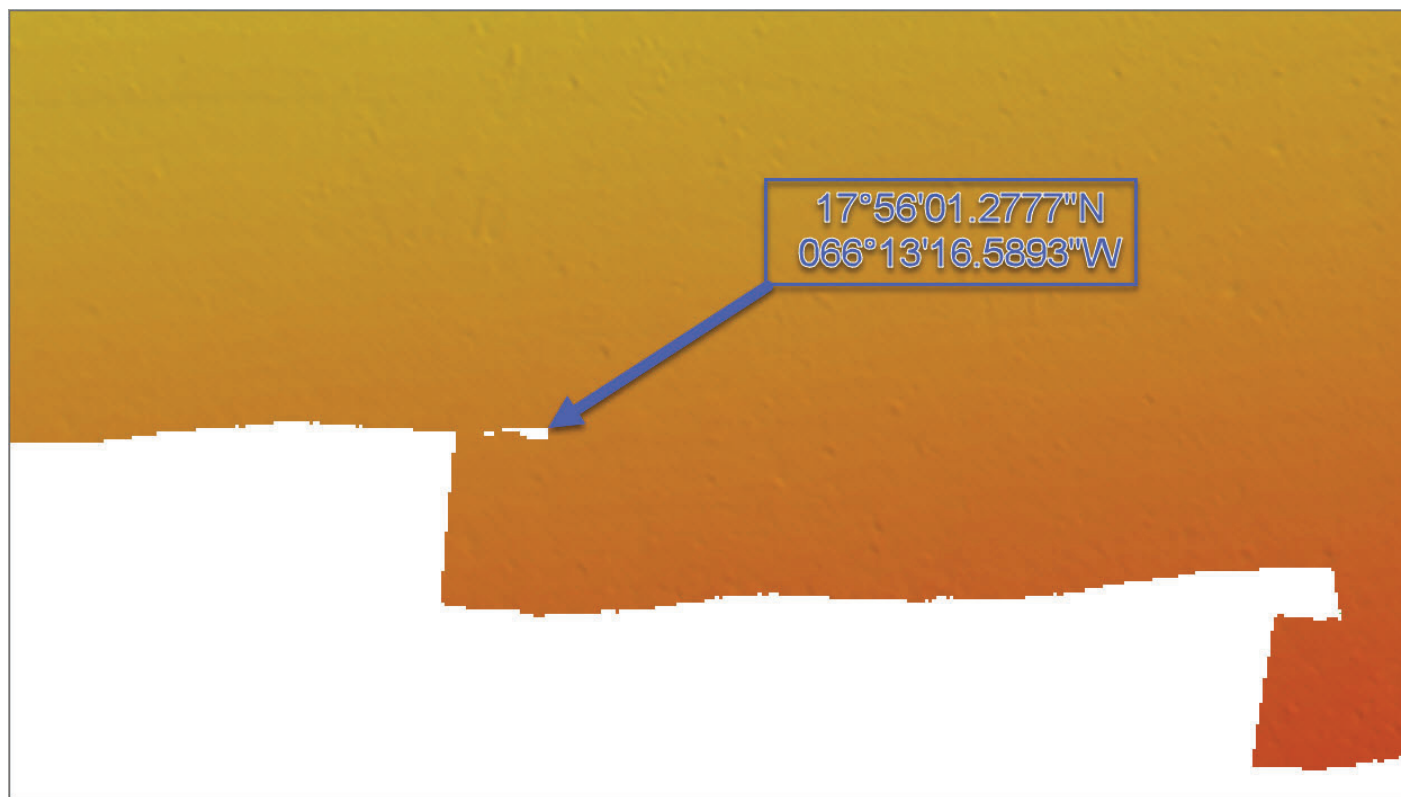
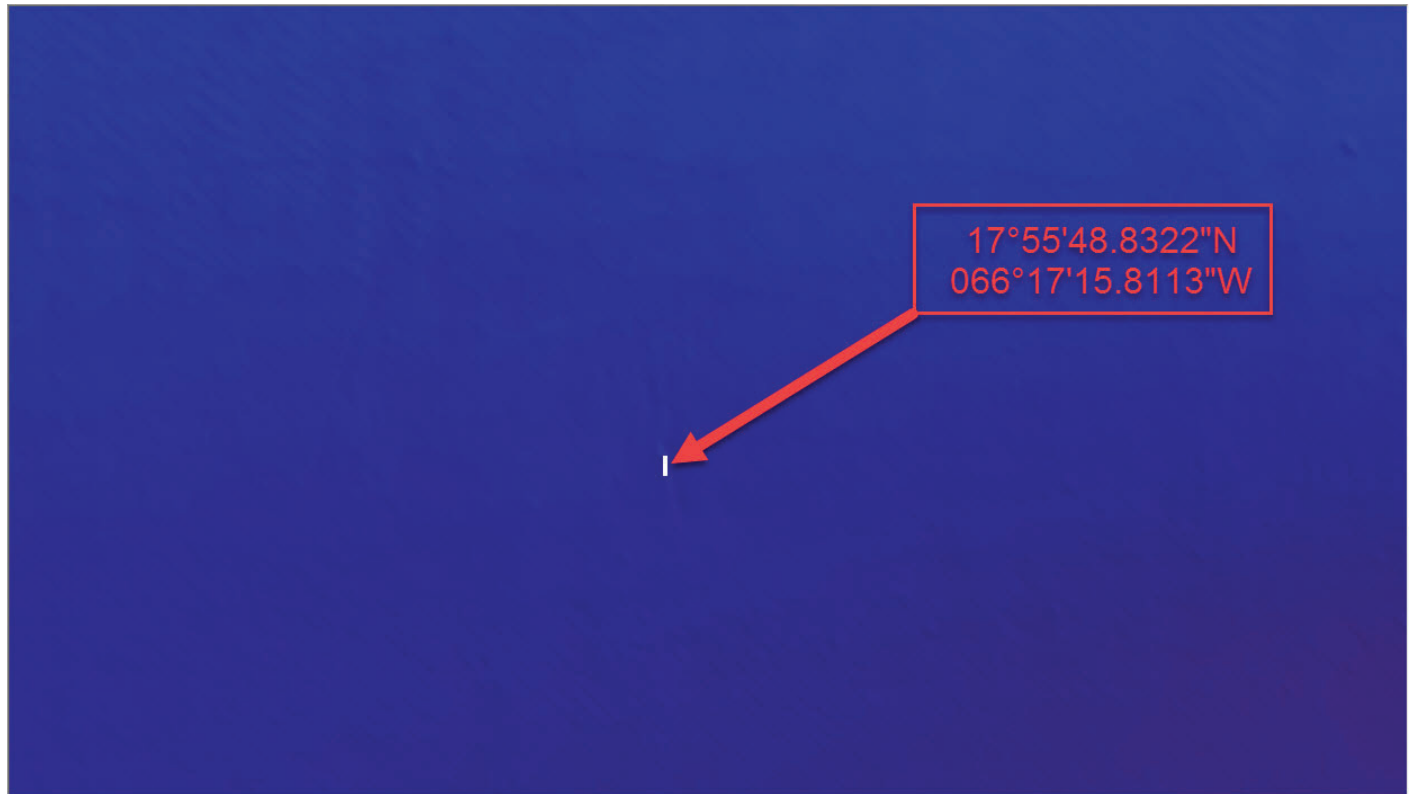


Figure 15: Five holidays in surface H13147\_MB\_50cm\_MLLW\_1of2 are present within data acquired for reconnaissance and LiDAR verification. These holidays are located east of Cayos de Barca, southwest of Cayos Caribes, and within the Boca del Infierno.



*Figure 16: Two Holidays in surface H13147\_MB\_50cm\_MLLW\_1of2. Located within the southern section of Bahia de Jobos and east of Punta Pozuelo.*

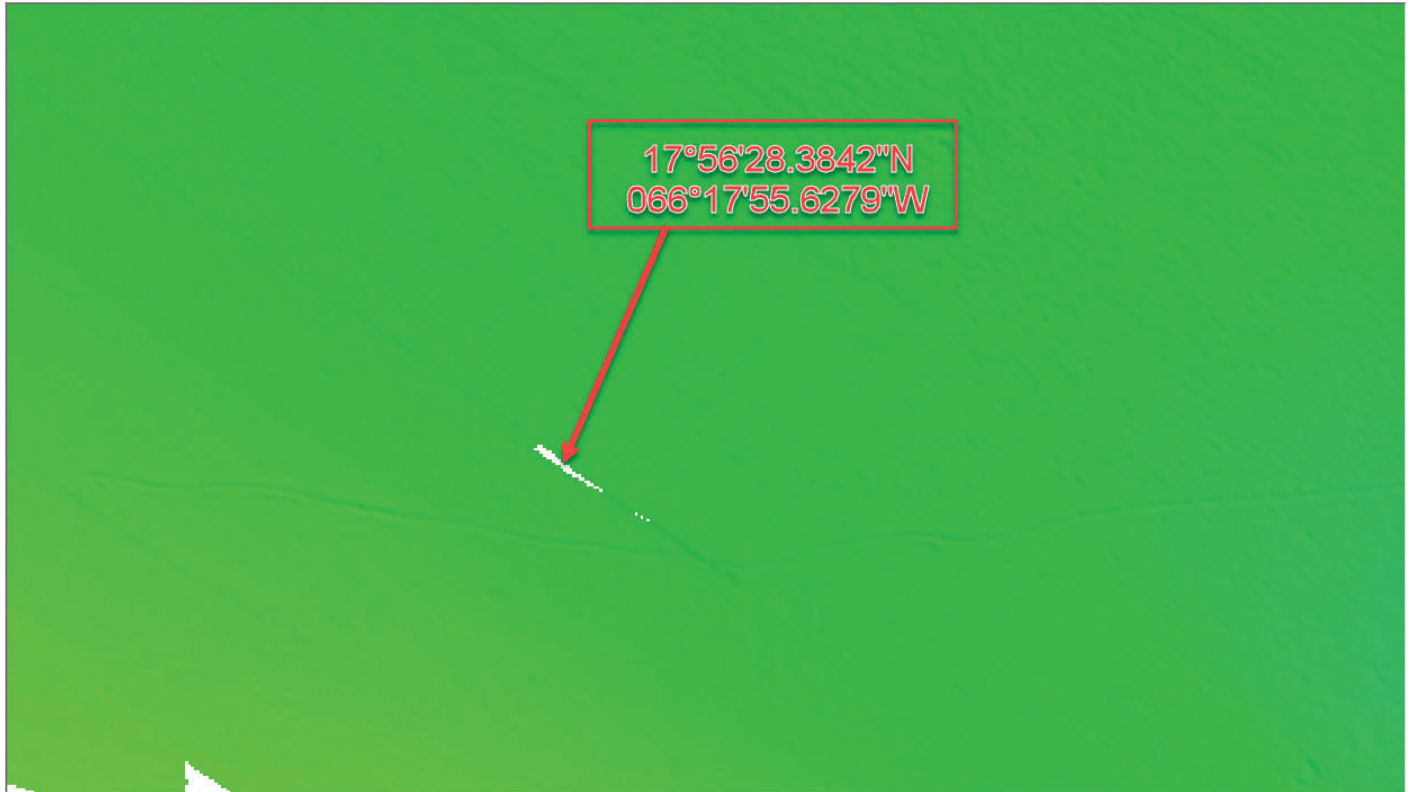




*Figure 17: H13147\_MB\_50cm\_MLLW\_1of2 holiday located south of Cayos de Ratones.*

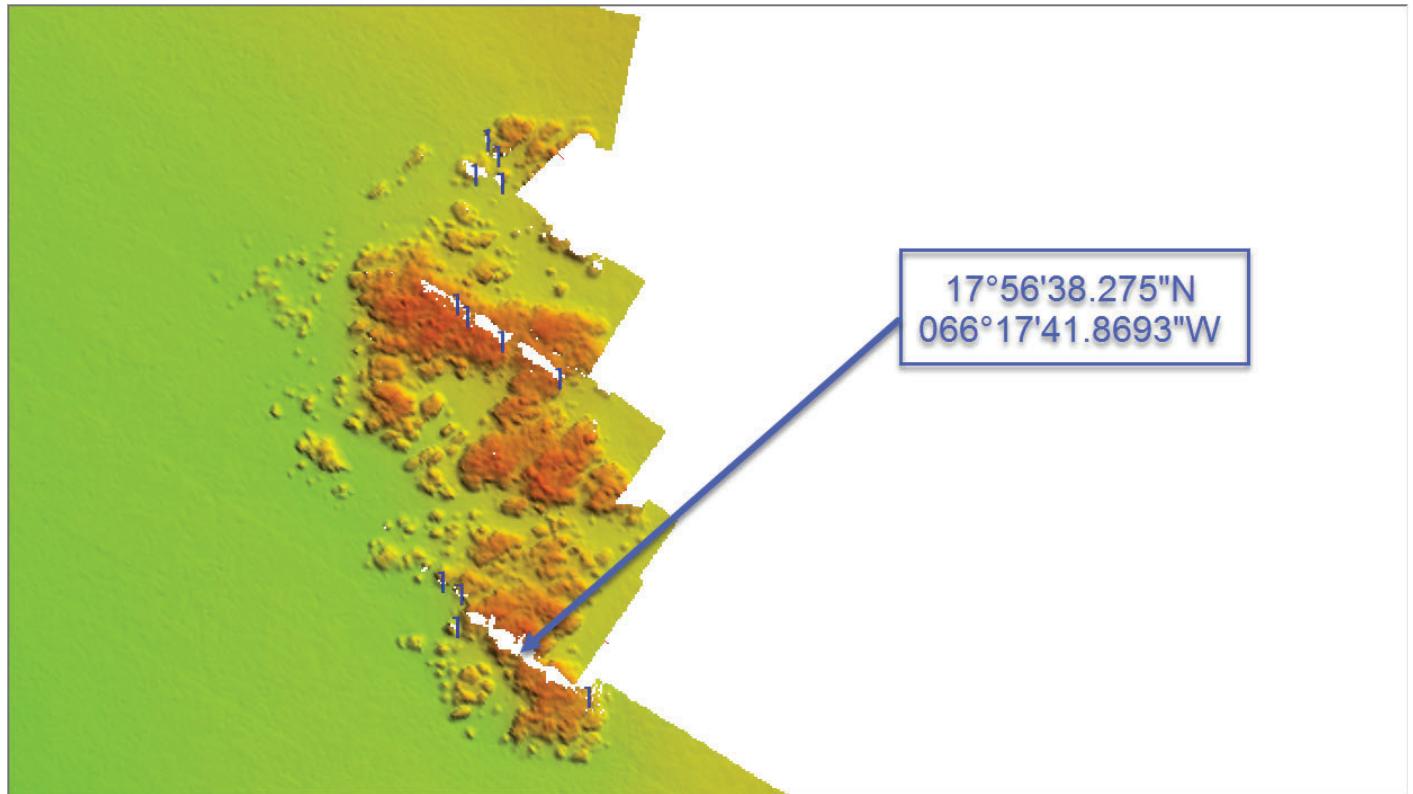


*Figure 18: H13147\_MB\_50cm\_MLLW\_1of2 holiday located south of Cayos de Ratones and northeast of the holiday mentioned in Figure 17.*



*Figure 19: H13147\_MB\_50cm\_MLLW\_1of2 holiday located south of Cayo Mata and north of the most western island of the Cayos de Ratones.*

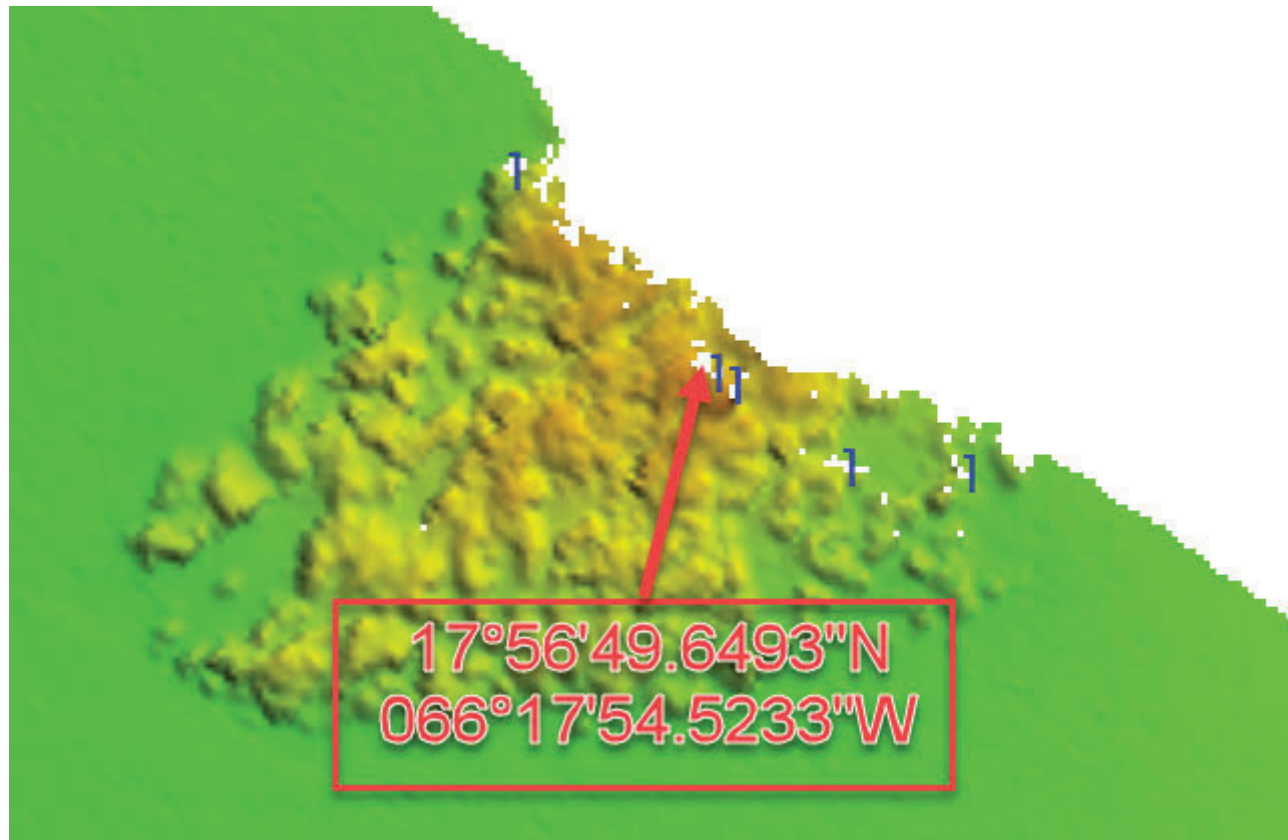




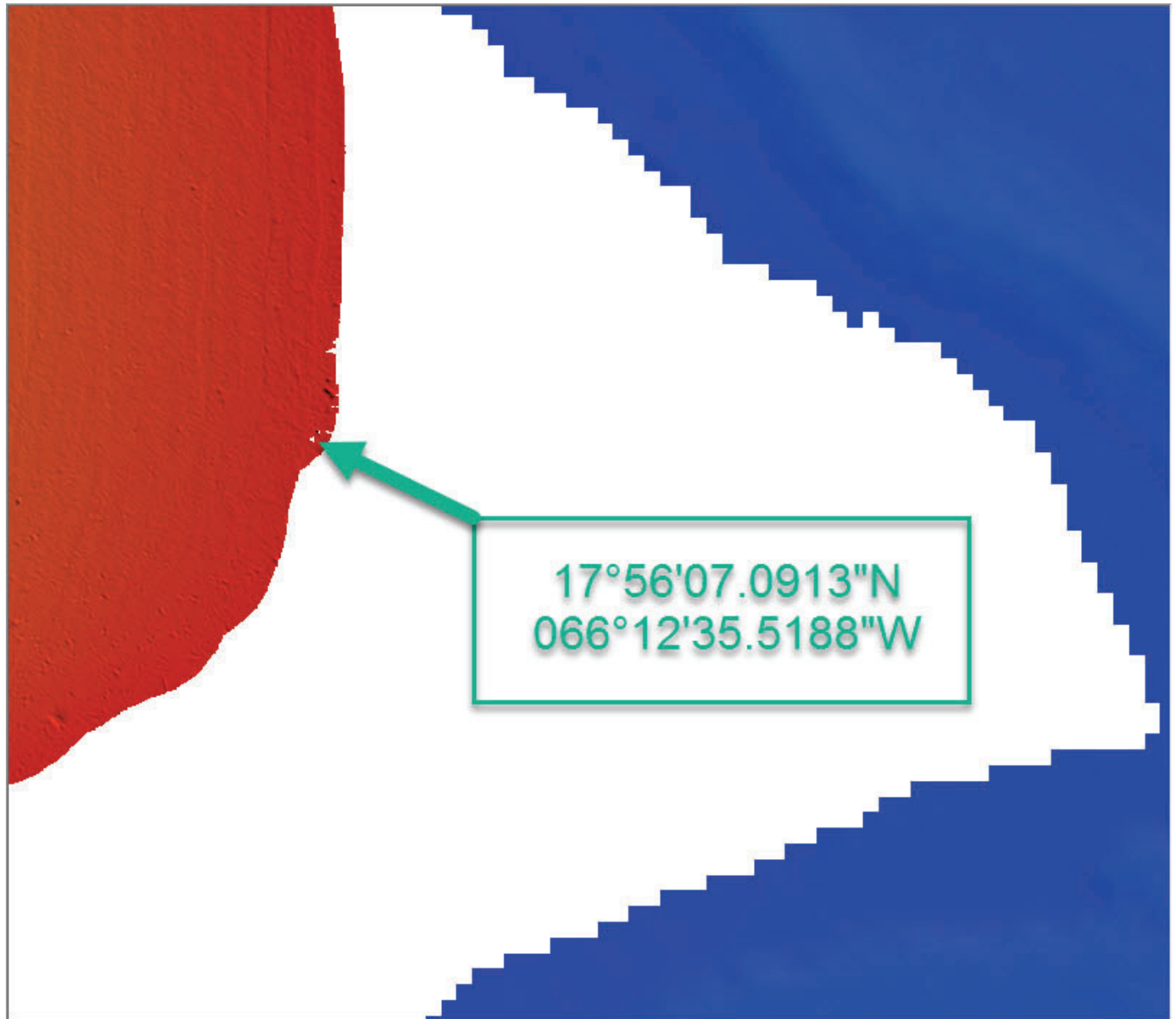
*Figure 20: H13147\_MB\_50cm\_MLLW\_1of2 holidays represented with a blue number 1. Located south of Cayo Mata and north of the most western island of the Cayos de Ratones. Northeast of the holiday mentioned in Figure 19.*



*Figure 21: H13147\_MB\_50cm\_MLLW\_1of2 holiday located south of Cayo Mata and north of the most western island of the Cayos de Ratones. Northwest of the holiday mentioned in Figure 19.*



*Figure 22: H13147\_MB\_50cm\_MLLW\_1of2 holidays represented with a blue number 1. Located south of Cayo Mata and north of the most western island of the Cayos de Ratones. Northeast of the holiday mentioned in Figure 21.*



*Figure 23: H13147\_MB\_50cm\_MLLW\_1of2 holiday as well as a holiday for a combined surface with 2018 USACE LiDAR data. Located within the southern section of the named sea area Bahia de Jobos and east of Punta Pozuelo.*



Figure 24: H13147\_MB\_50cm\_MLLW\_1of2 holiday as well as a holiday for a combined surface with 2018 USACE LiDAR data. Located within the southern section of the named sea area Bahia de Jobos and east of Punta Pozuelo. Southwest of the holiday mentioned in Figure 23.

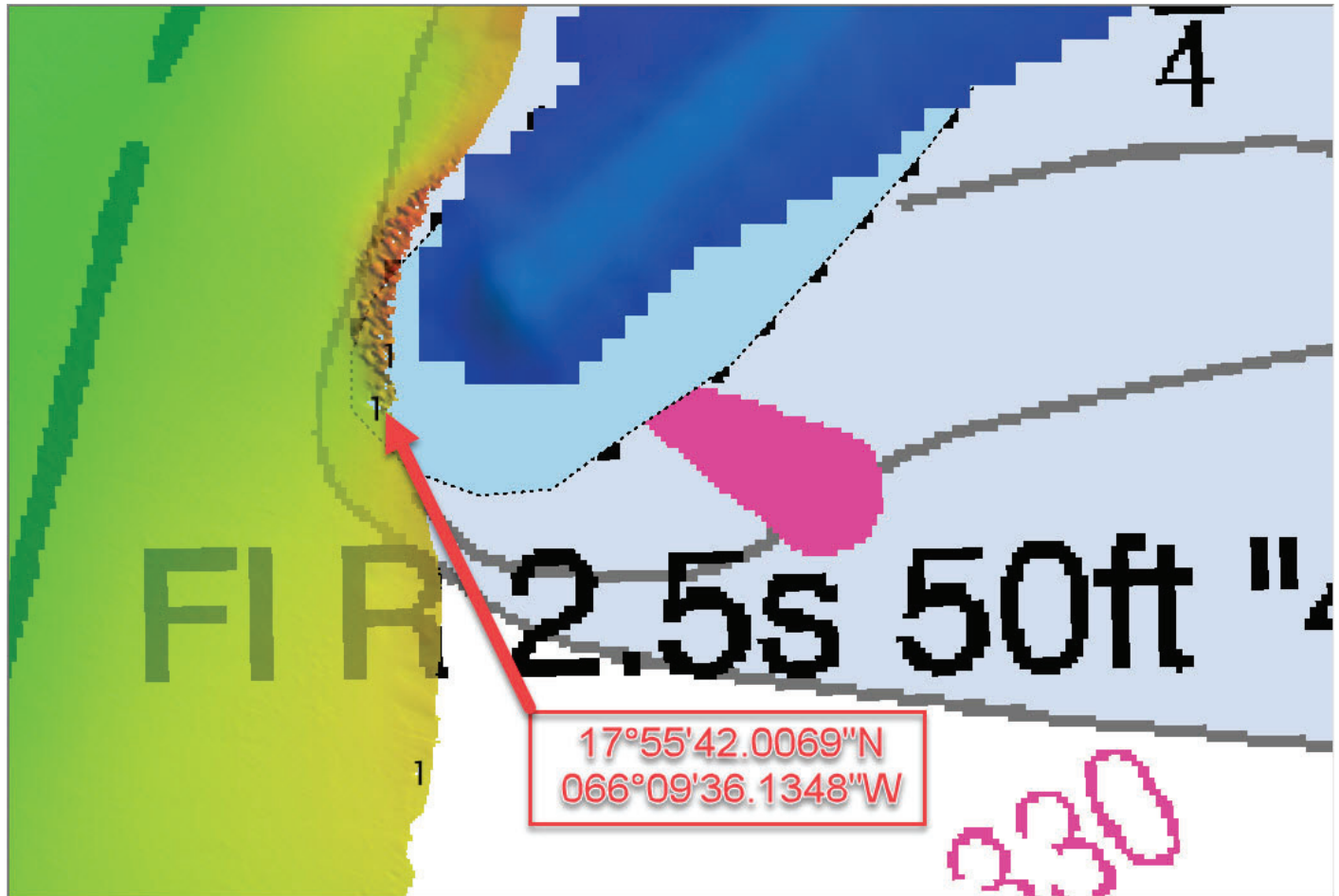


Figure 25: H13147\_MB\_50cm\_MLLW\_1of2 holiday as well as a holiday for a combined surface with 2018 USACE LiDAR data. Located southwest of the most western island of the Cayos de Ratones.



*Figure 26: H13147\_MB\_50cm\_MLLW\_2of2 holiday located south of Punta Ola Grande.*





*Figure 27: H13147\_MB\_50cm\_MLLW\_2of2 holidays represented with a black number one. 2018 USACE LiDAR data represented as dark blue surface. Located south of Punta Ola Grande and north of the holiday mentioned in figure 26.*

### B.5.3 LiDAR junction analysis

A junction analysis was conducted between 2018 USACE LiDAR data and survey H13147 CUBE surfaces.

The comparison between the Bahia de Jobos portion of the survey (H13147\_MB\_50cm\_MLLW\_Final\_1of2) and the 2018 USACE LiDAR data yielded a mean difference of 0.3288m and a standard deviation of 0.3018m. The range of differences was -4.5912m to 8.9093m (Figure 28). The comparison for the Las Mareas portion of the survey (H13147\_MB\_50cm\_MLLW\_Final\_2of2) yielded a mean difference of 0.2027m and a standard deviation of 0.2958m. The range of differences was -2.0985m to 4.7661m (Figure 29).

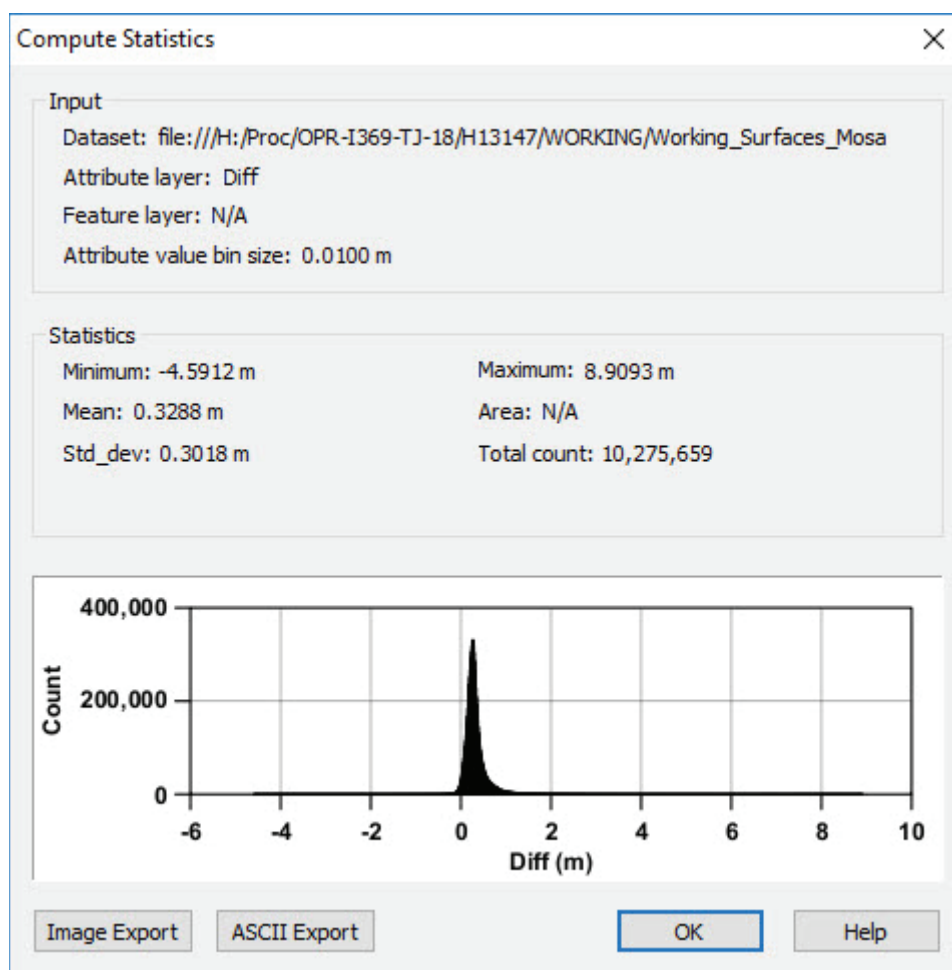
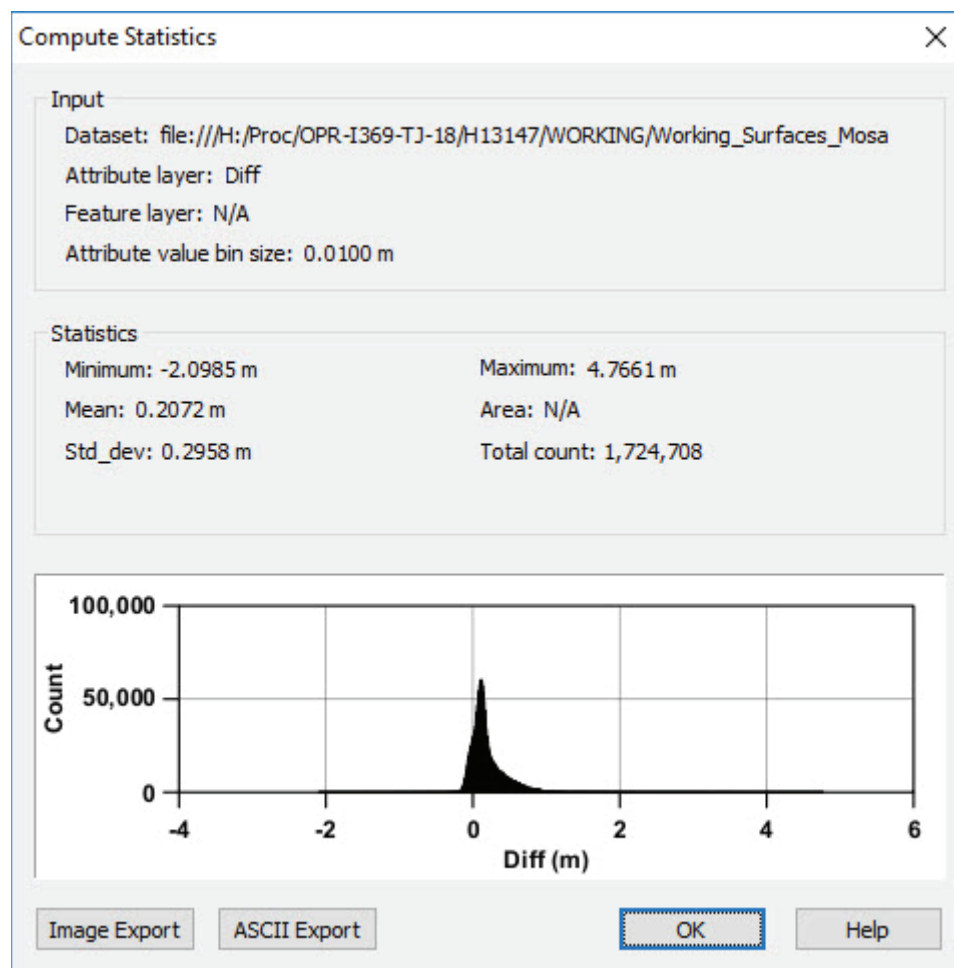


Figure 28: Difference statistics between 2018 USACE LiDAR geotiff and H13147\_MB\_50cm\_MLLW\_Final\_1of2 CUBE surface.





*Figure 29: Difference statistics between 2018 USACE LiDAR geotiff and H13147\_MB\_50cm\_MLLW\_Final\_2of2 CUBE surface.*

## C. Vertical and Horizontal Control

No Horizontal and Vertical Control Report (HVCR) is required for this survey.

### 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:

VDatum-WGS84\_ACHARE\_Polygon\_ACHARE\_Polygon\_xyWGS84-MLLW\_geoid12b.csar

## C.2 Horizontal Control

The horizontal datum for this project is North American Datum 1983 (NAD 83). Survey H13147 data were acquired in the World Geodetic System of 1984 (WGS 84). Processing and product creation was done in NAD 83.

The projection used for this project is UTM Zone 19N.

Trimble-RTX service was used with an Applanix POS MVv5 GNSS-INS system to obtain highly accurate ellipsoidally referenced position data to meet ERS specifications for H13147 MBES data.

## D. Results and Recommendations

### D.1 Chart Comparison

Comparisons were made between H13147 survey data and Electronic Navigation Chart (ENC) US5PR46M and ENC US5PR41M in accordance with methods outlined in the DAPR.

#### D.1.1 Electronic Navigational Charts

The following are the largest scale ENCs, which cover the survey area (Table 10):

ENC	Scale	Edition	Update Application Date	Issue Date	Preliminary?
US5PR46M	1:20000	6	12/19/2016	12/19/2016	NO
US5PR41M	1:20000	3	03/18/2015	03/18/2015	NO

*Table 10: Largest Scale ENCs*

#### US5PR46M

14 soundings generated from H13147\_MB\_50cm\_MLLW\_1of2 soundings were significantly shoaler than soundings from ENC US5PR46M (Figures 30-34).

A comparison of depth contours was conducted between H13147 and ENC US5PR46M at the depths specified within the ENC (Figures 35-43). The hydrographer recommends that the contours and soundings for ENC US5PR46M be reviewed and updated.

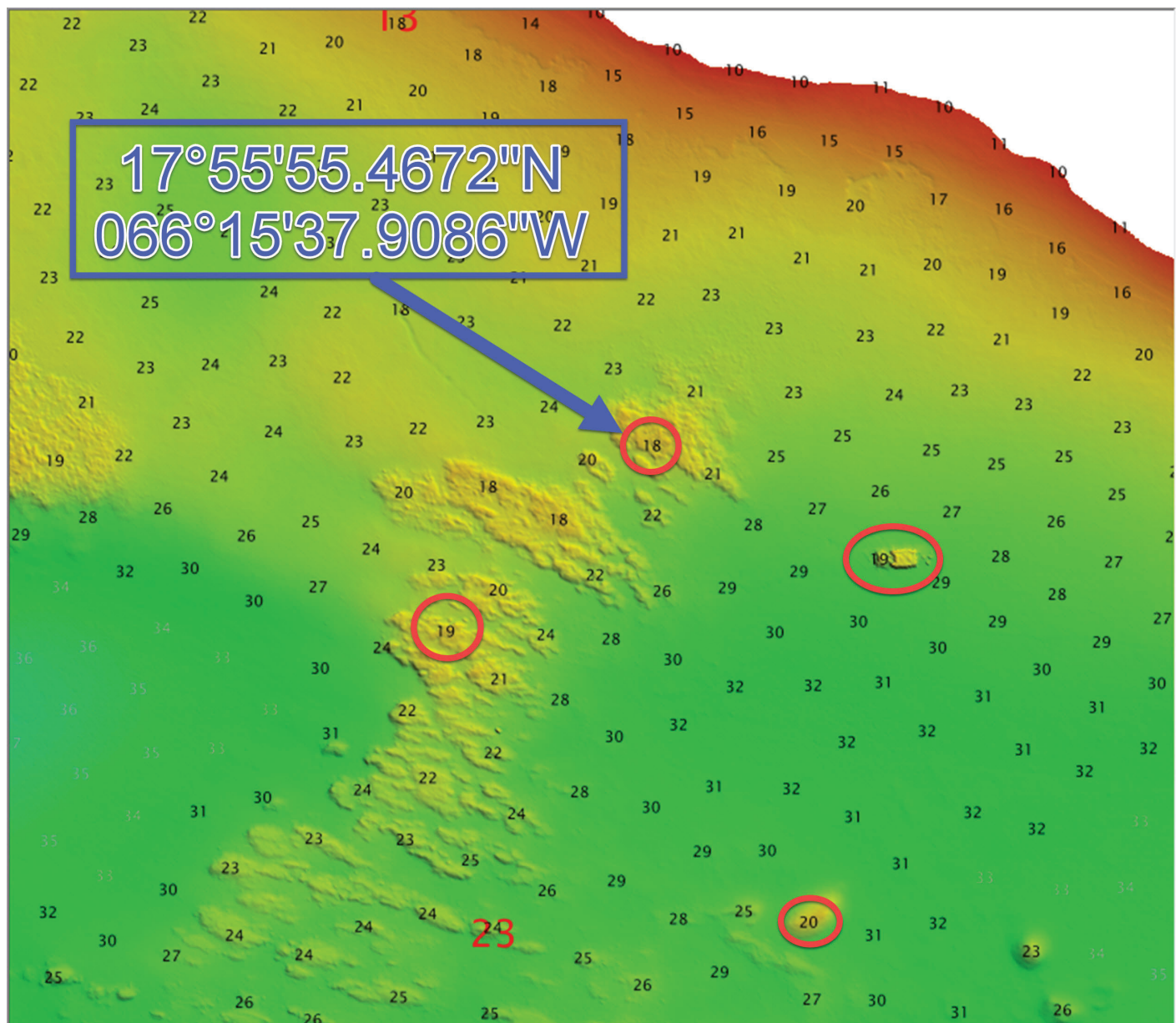


Figure 30: ENC US5PR46M soundings in red, survey H13147 soundings in black. Circled soundings shown to be shallower than charted soundings. Located north of Cayos de Pajaros.

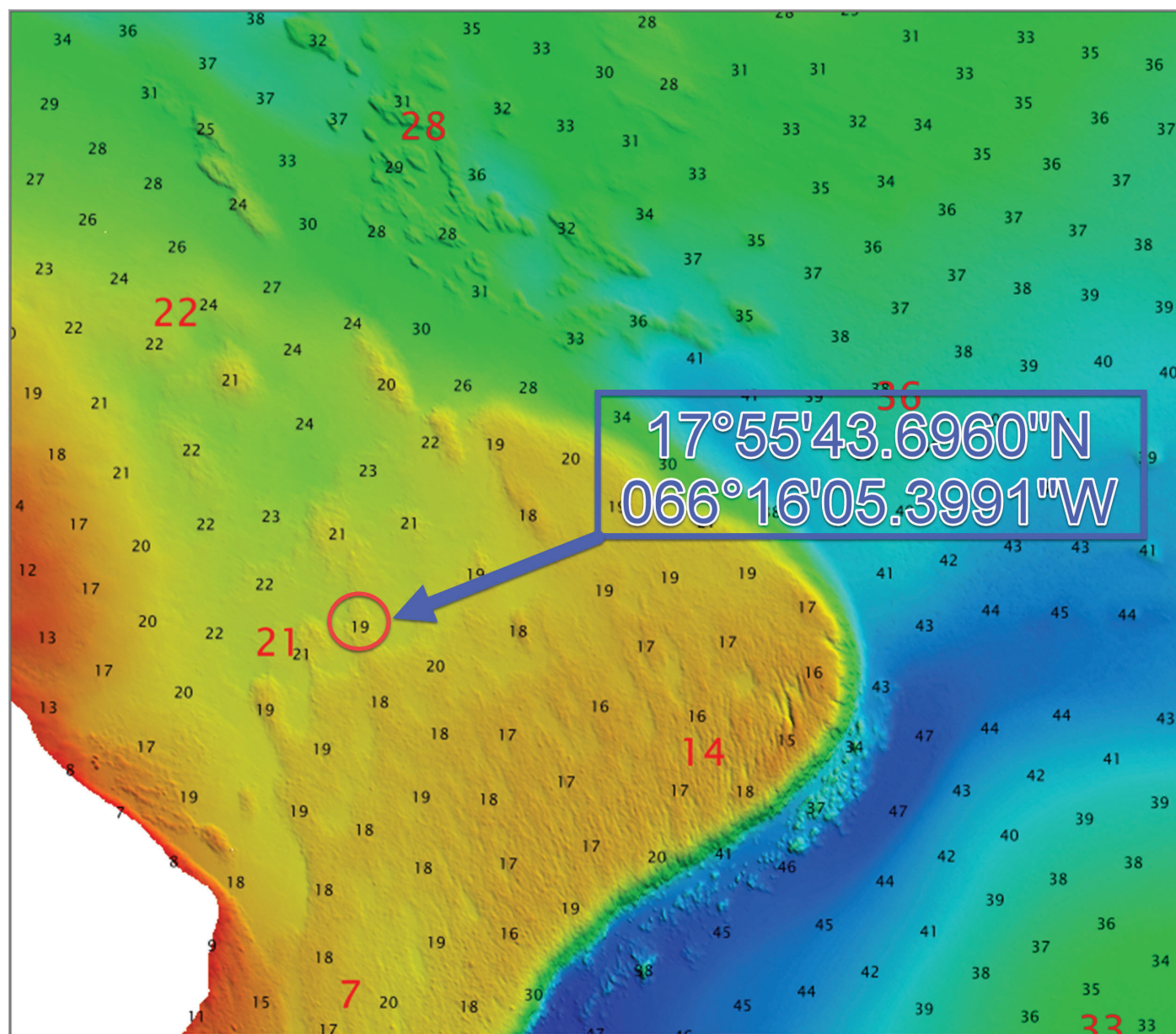


Figure 31: ENC US5PR46M soundings in red, survey H13147 soundings in black. Circled soundings shown to be shoaler than charted soundings. Located northwest of Cayos de Pajaros, northeast of Cayo Morrillo, and southwest of the soundings mentioned in figure 30.



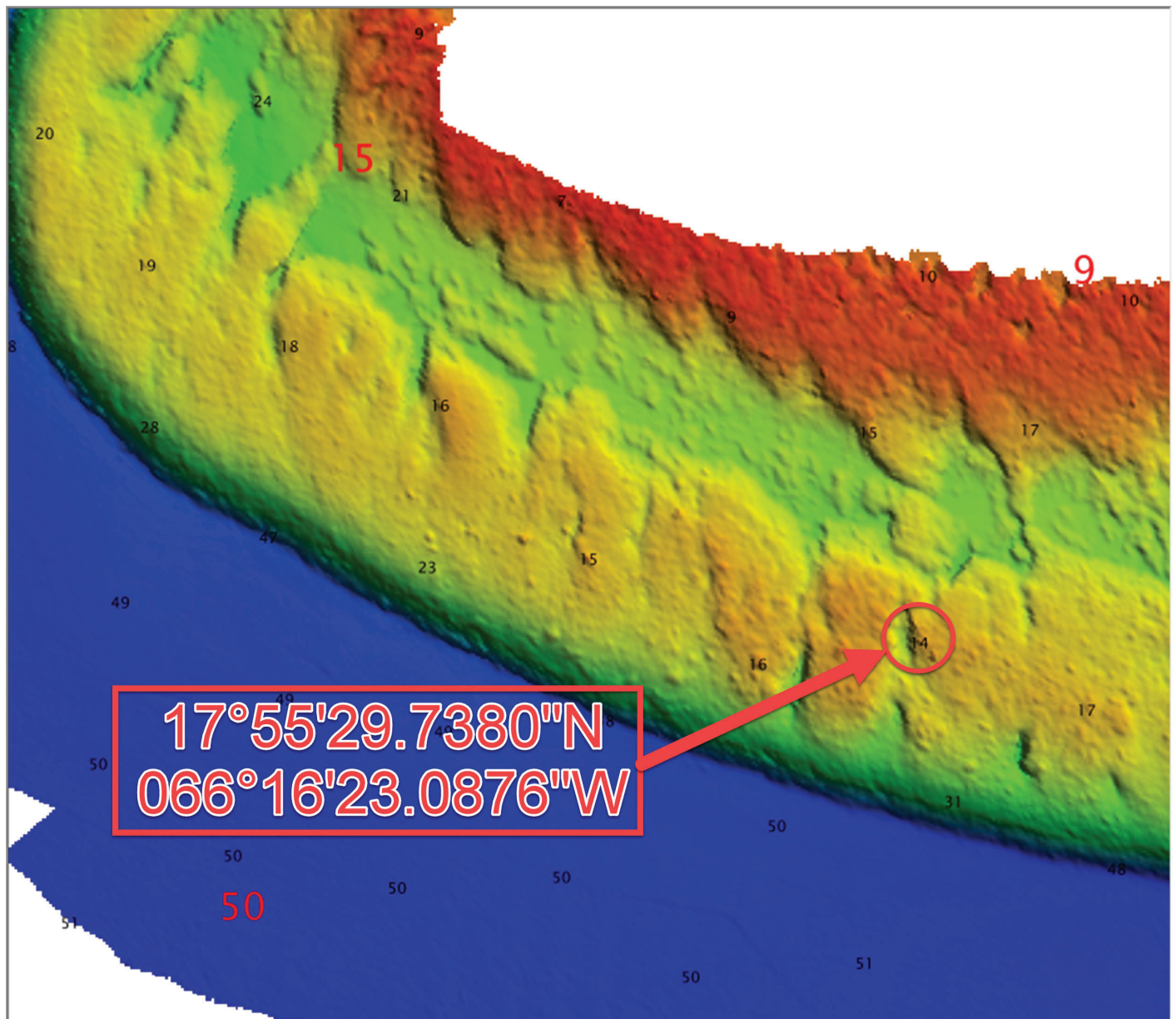
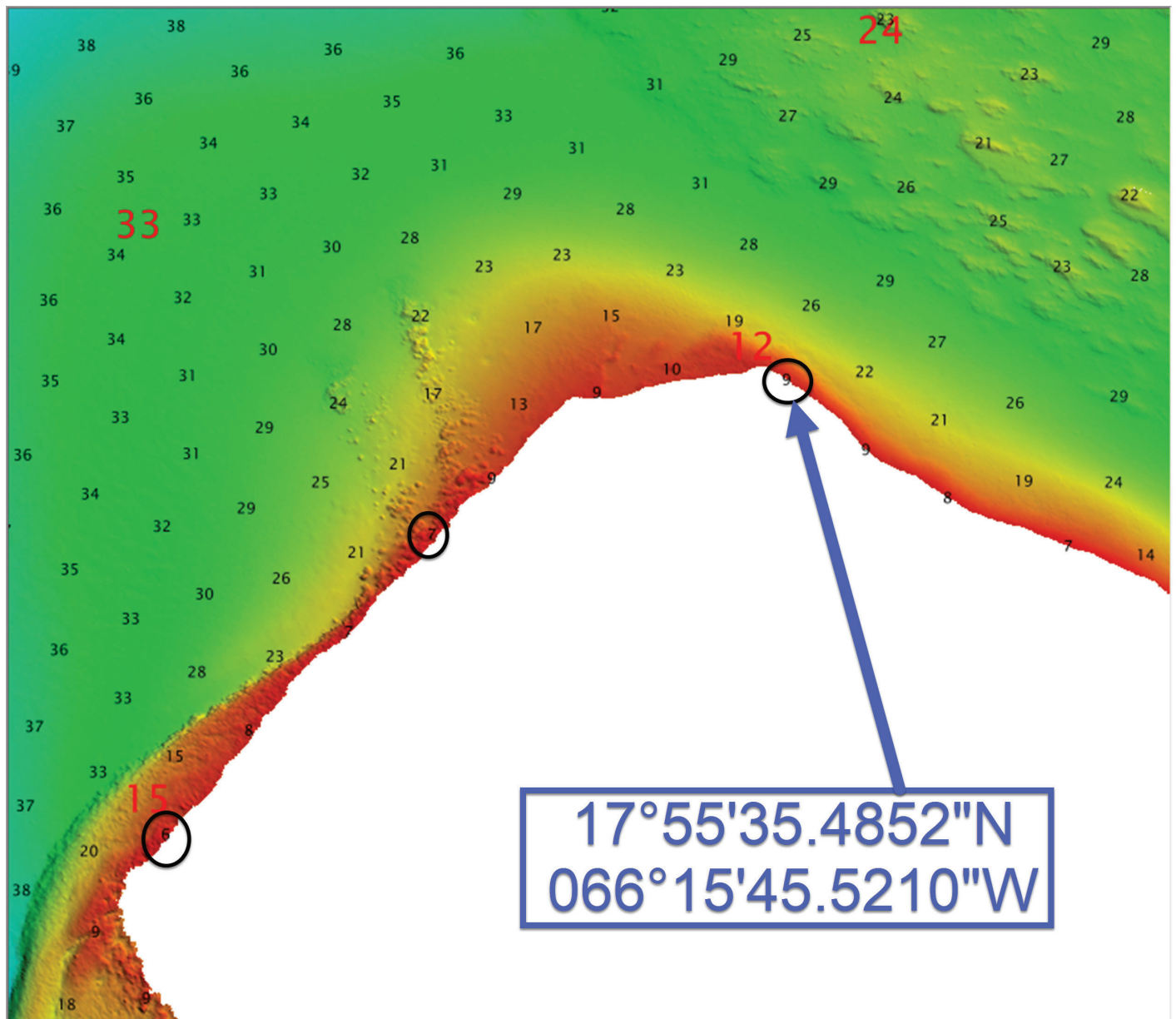


Figure 32: ENC US5PR46M soundings in red, survey H13147 soundings in black. Circled soundings shown to be shoaler than charted soundings. Located south, southwest of Cayo Morrillo.



*Figure 33: ENC US5PR46M soundings in red, survey H13147 soundings in black. Circled soundings shown to be shoaler than charted soundings. Located north of Cayos de Pajaros.*

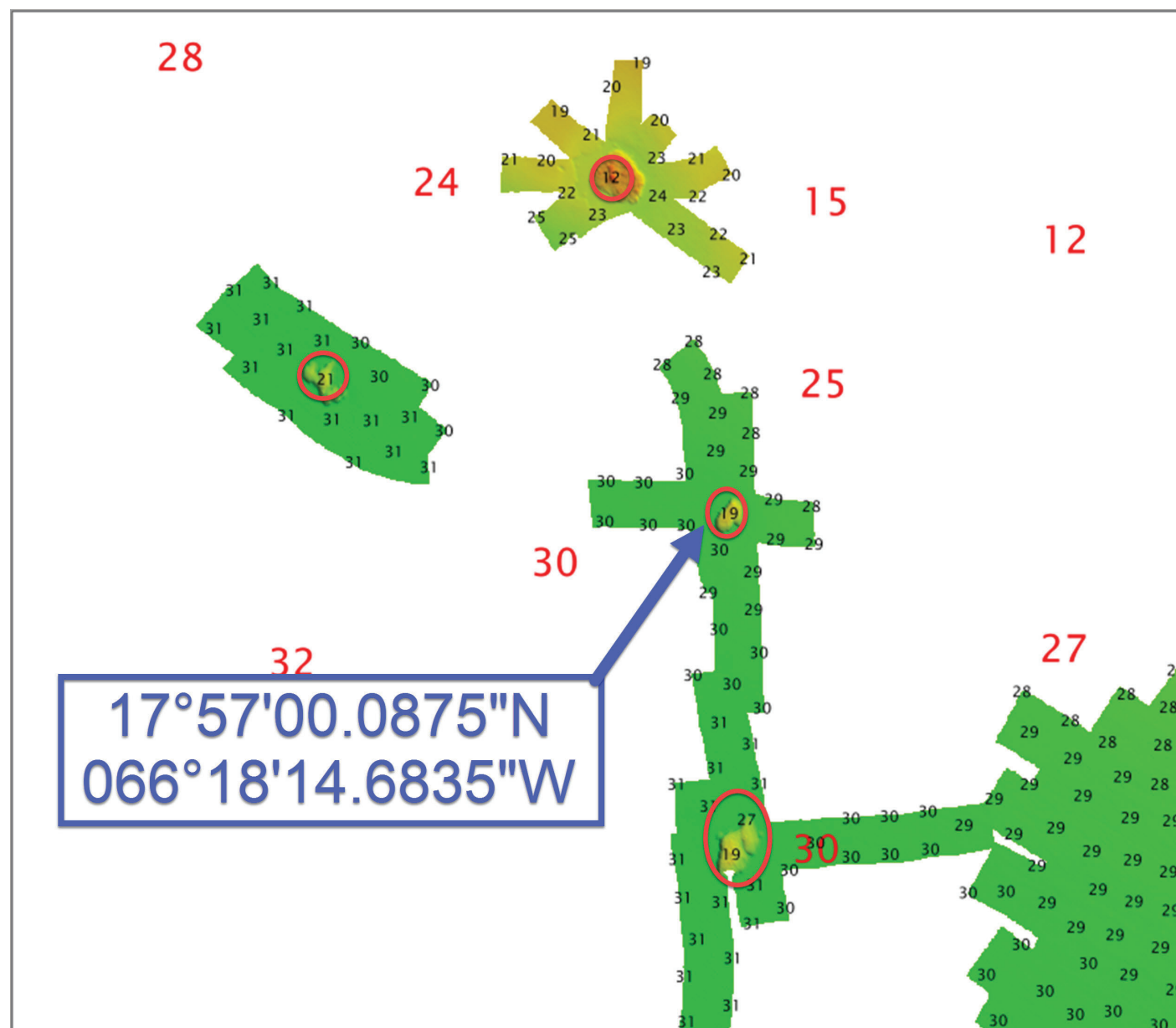
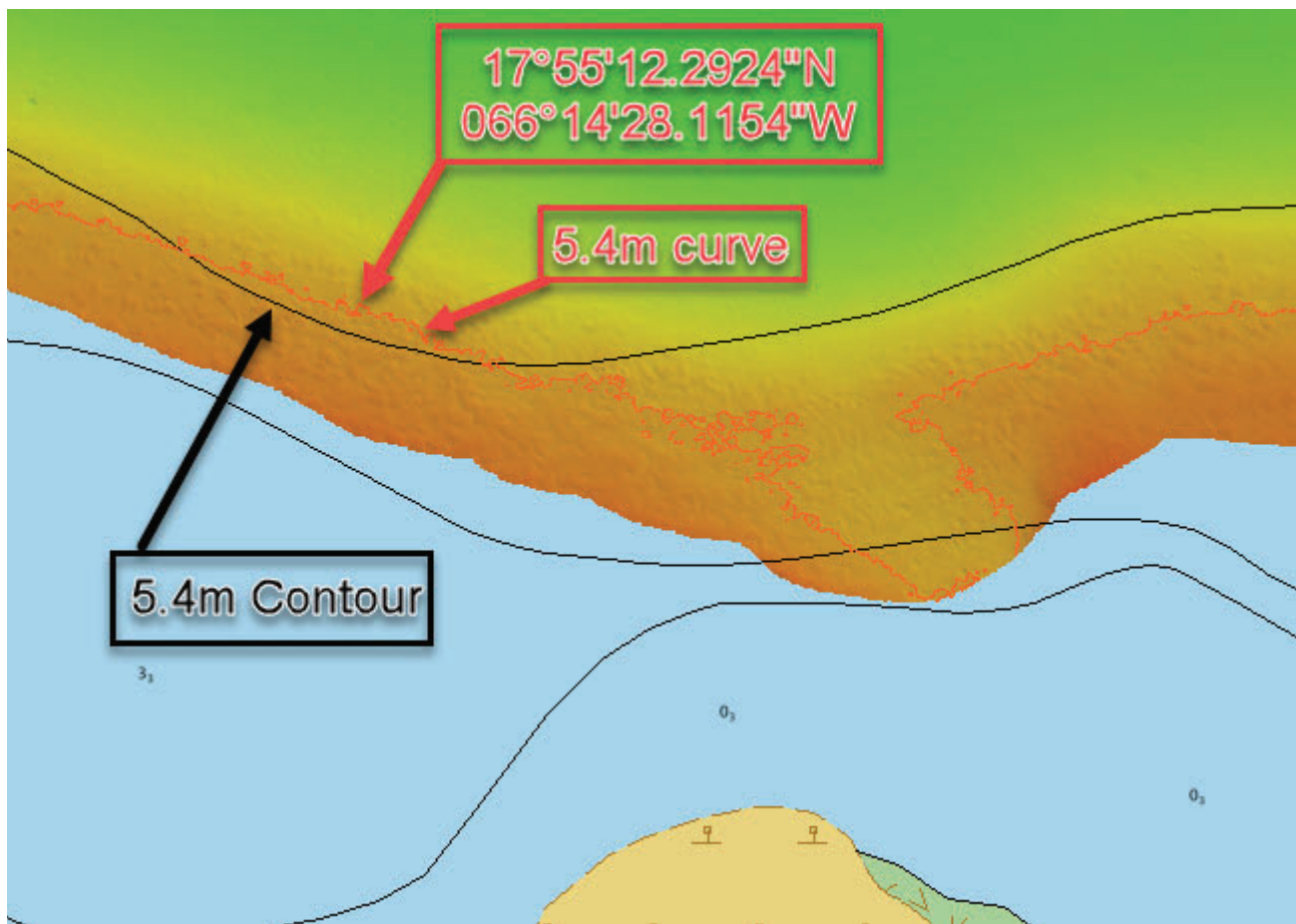


Figure 34: ENC US5PR46M soundings in red, survey H13147 soundings in black. Circled soundings shown to be shallower than charted soundings. Located east, southeast of Cayo Mata.





*Figure 35: Contour discrepancies between field created contours and ENC US5PR46M contours. ENC US5PR46M contours represented in black. Survey H13147 contours represented in orange. Located north of Cayos de Barca.*

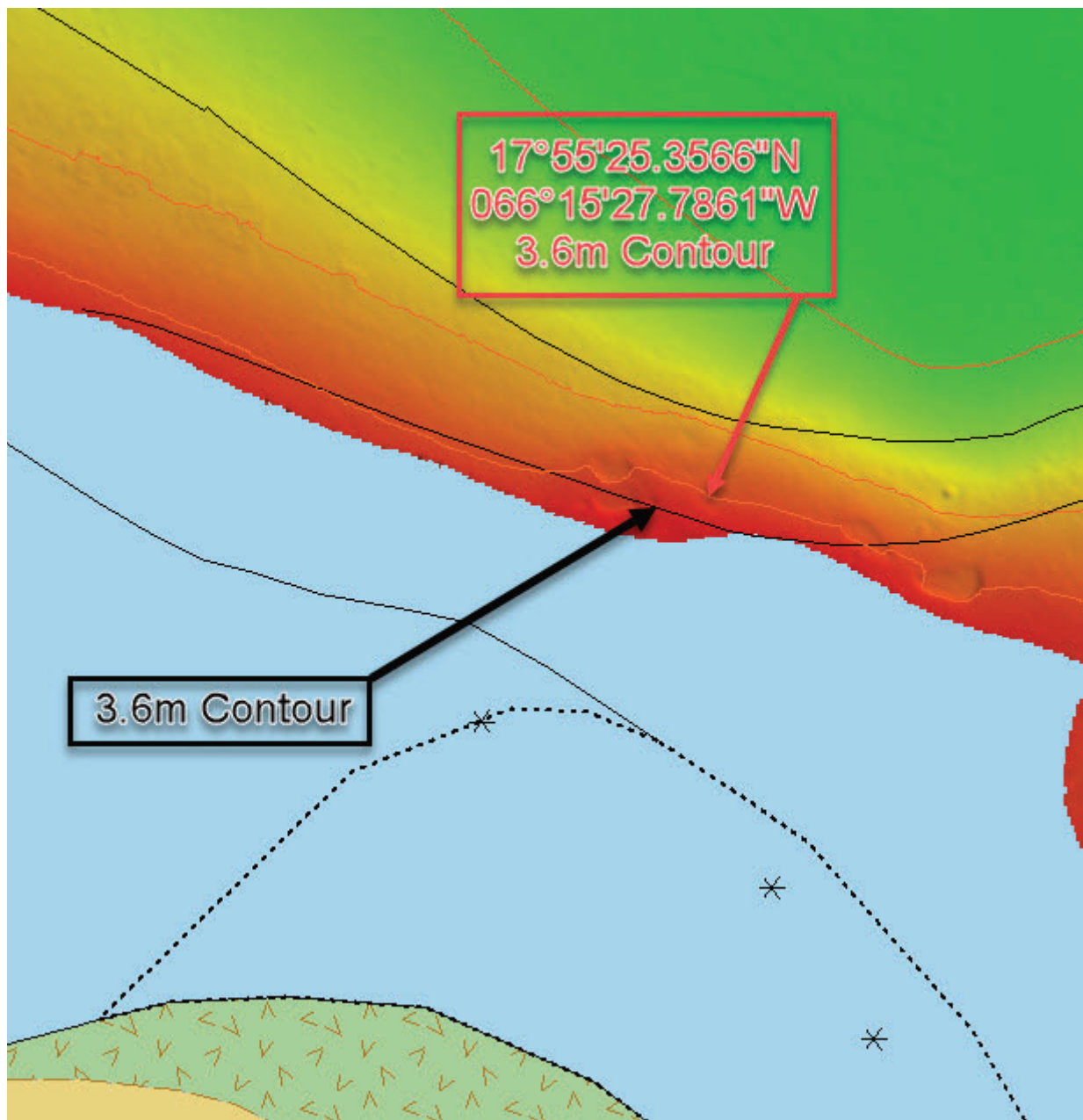


Figure 36: Contour discrepancies between field created contours and ENC US5PR46M contours. ENC US5PR46M contours represented in black. Survey H13147 contours represented in orange. Located north of the eastern side of Cayos de Pajaros.

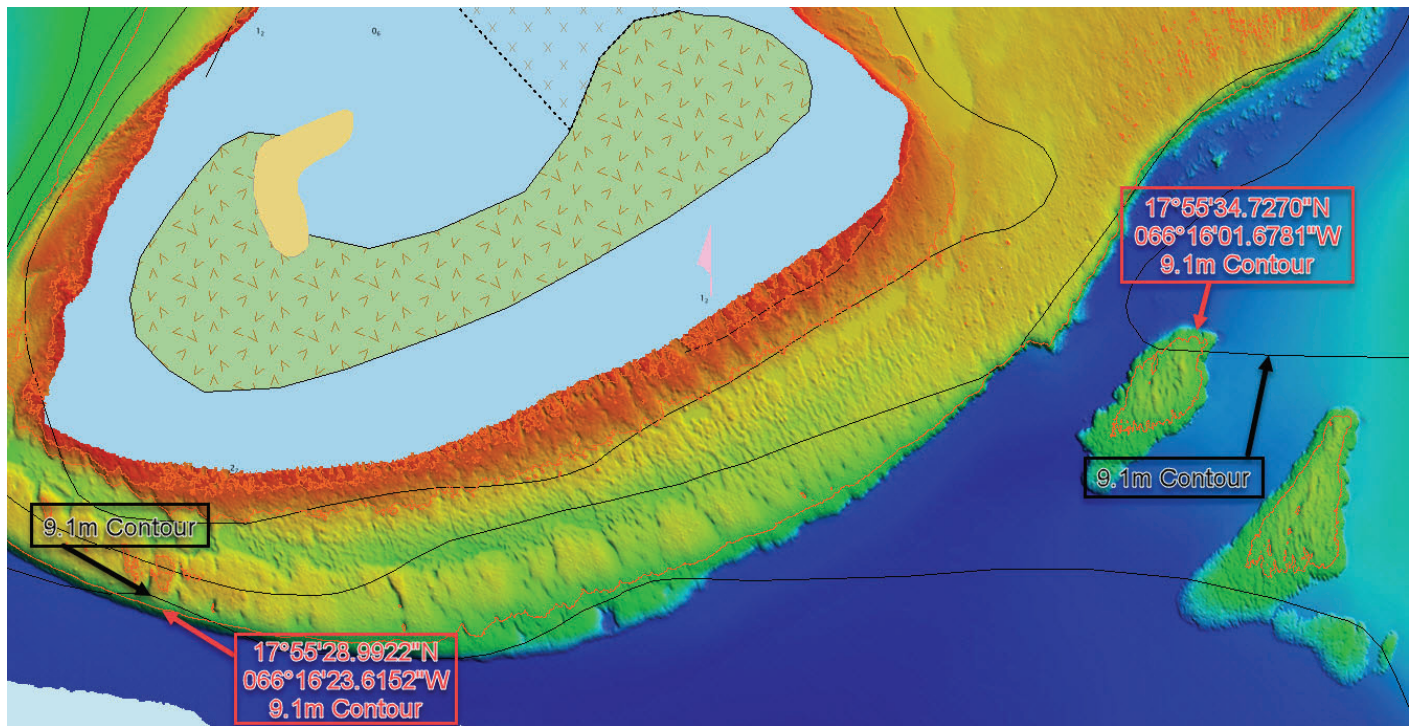
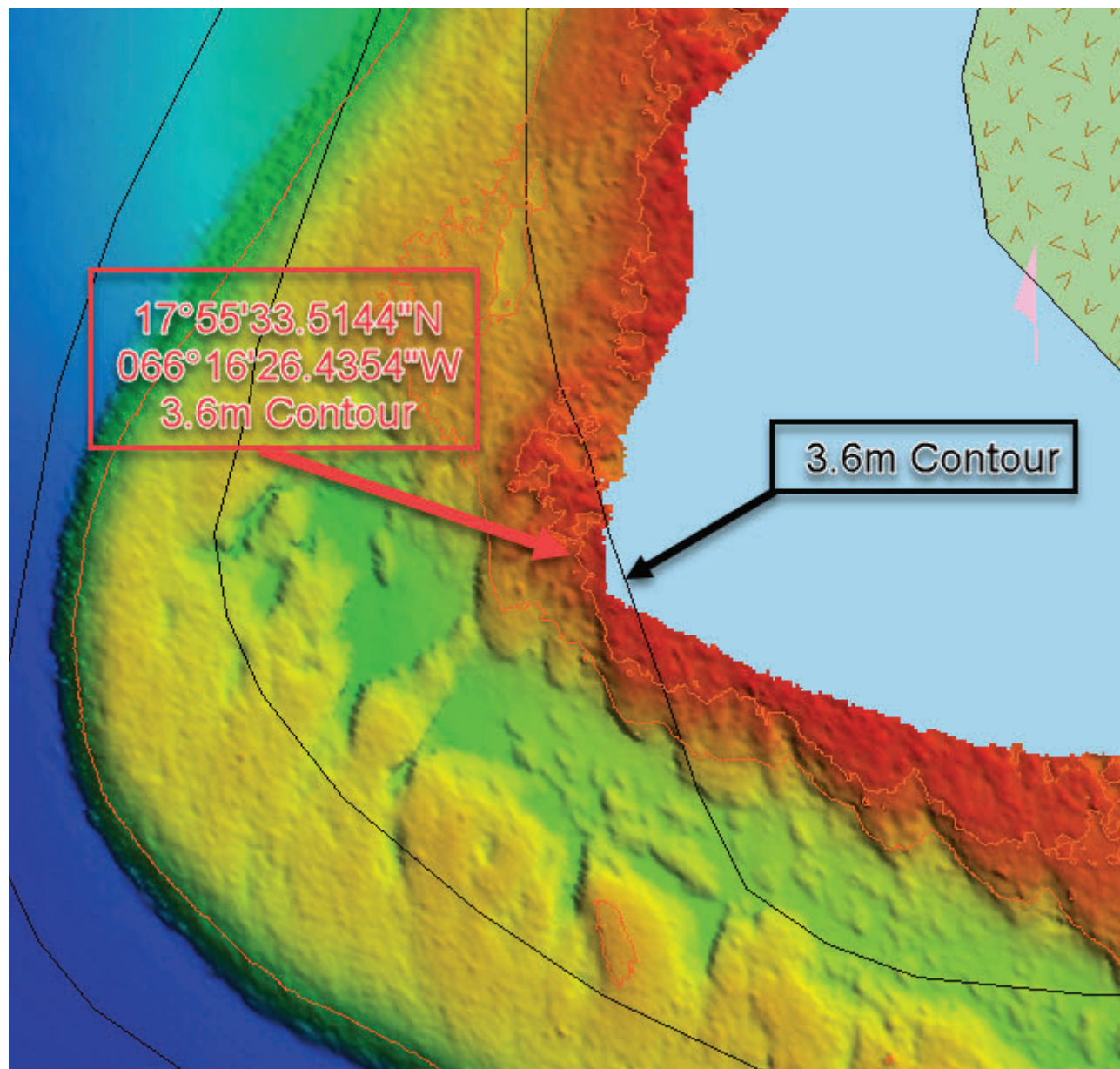
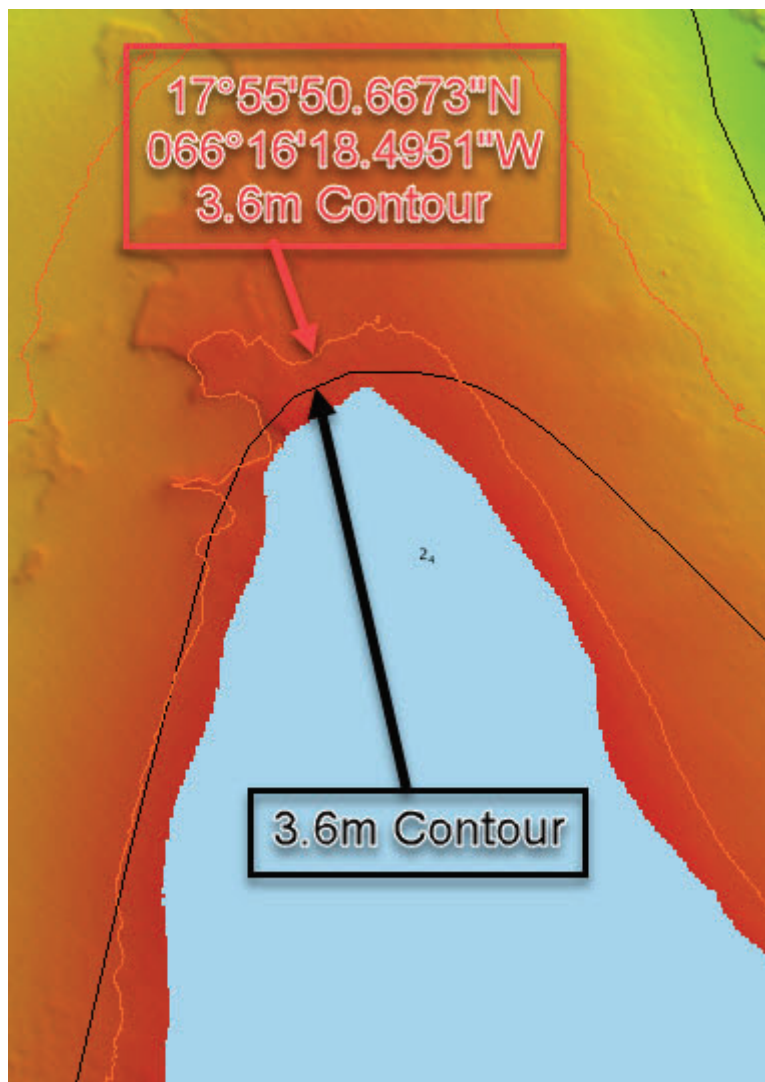


Figure 37: Contour discrepancies between field created contours and ENC US5PR46M contours. ENC US5PR46M contours represented in black. Survey H13147 contours represented in orange. Located southeast of Cayo Morrillo.

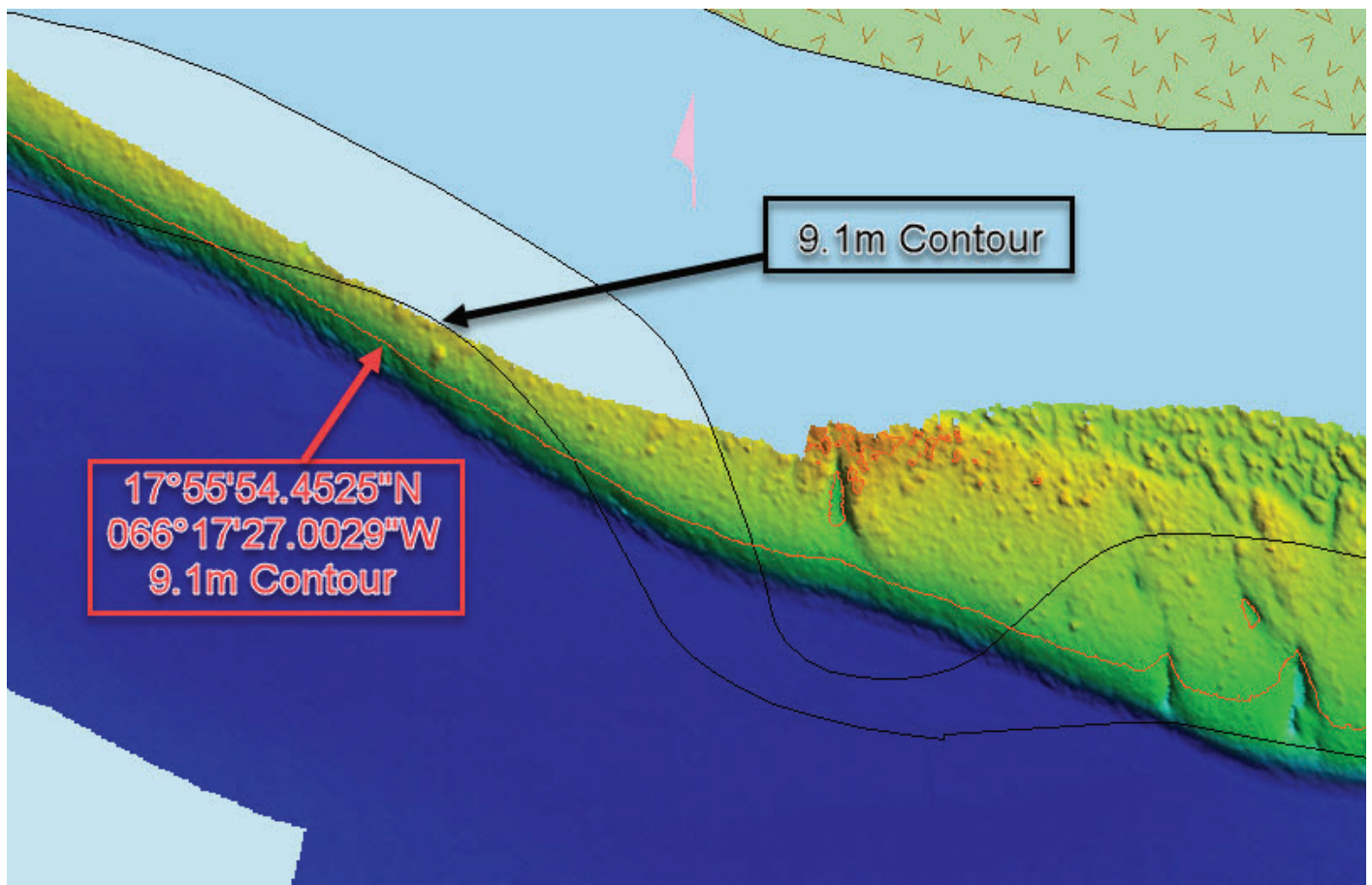




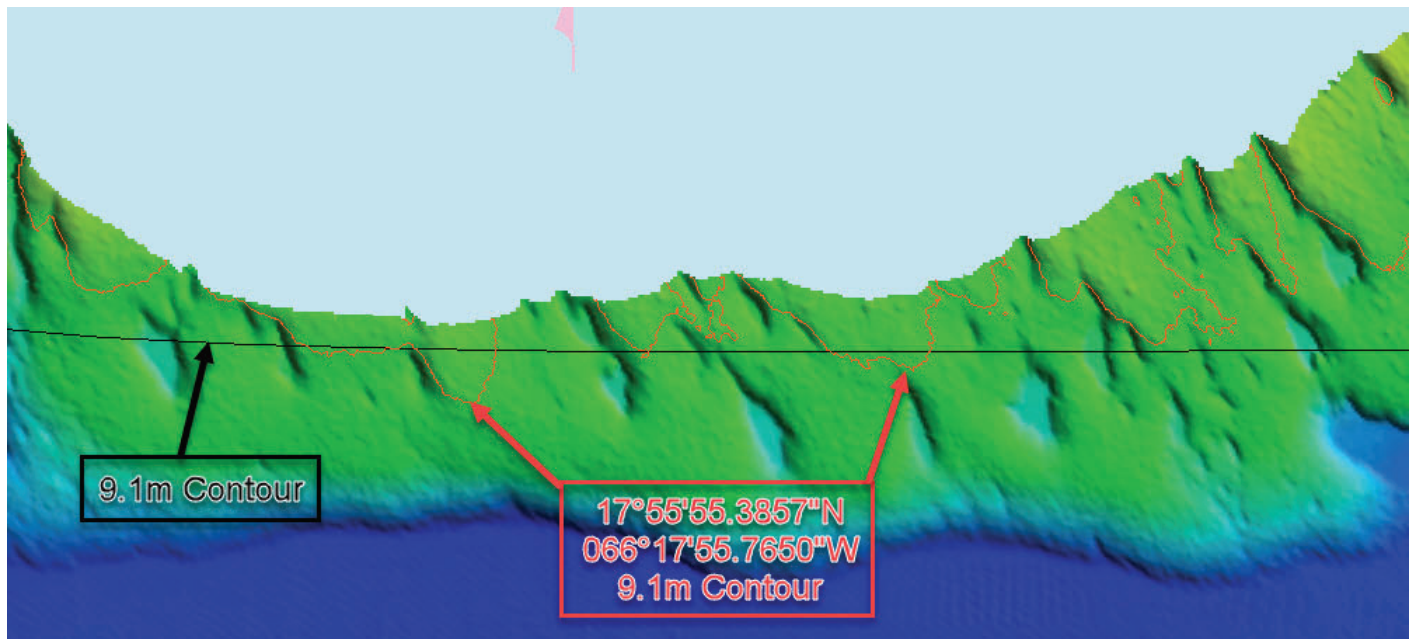
*Figure 38: Contour discrepancies between field created contours and ENC US5PR46M contours. ENC US5PR46M contours represented in black. Survey H13147 contours represented in orange. Located southwest of Cayo Morrillo.*



*Figure 39: Contour discrepancies between field created contours and ENC US5PR46M contours. ENC US5PR46M contours represented in black. Survey H13147 contours represented in orange. Located north of Cayo Morrillo.*



*Figure 40: Contour discrepancies between field created contours and ENC US5PR46M contours. ENC US5PR46M contours represented in black. Survey H13147 contours represented in orange. Located south of Cayos de Ratones.*



*Figure 41: Contour discrepancies between field created contours and ENC US5PR46M contours. ENC US5PR46M contours represented in black. Survey H13147 contours represented in orange. Located south of the most western island of Cayos de Ratones.*



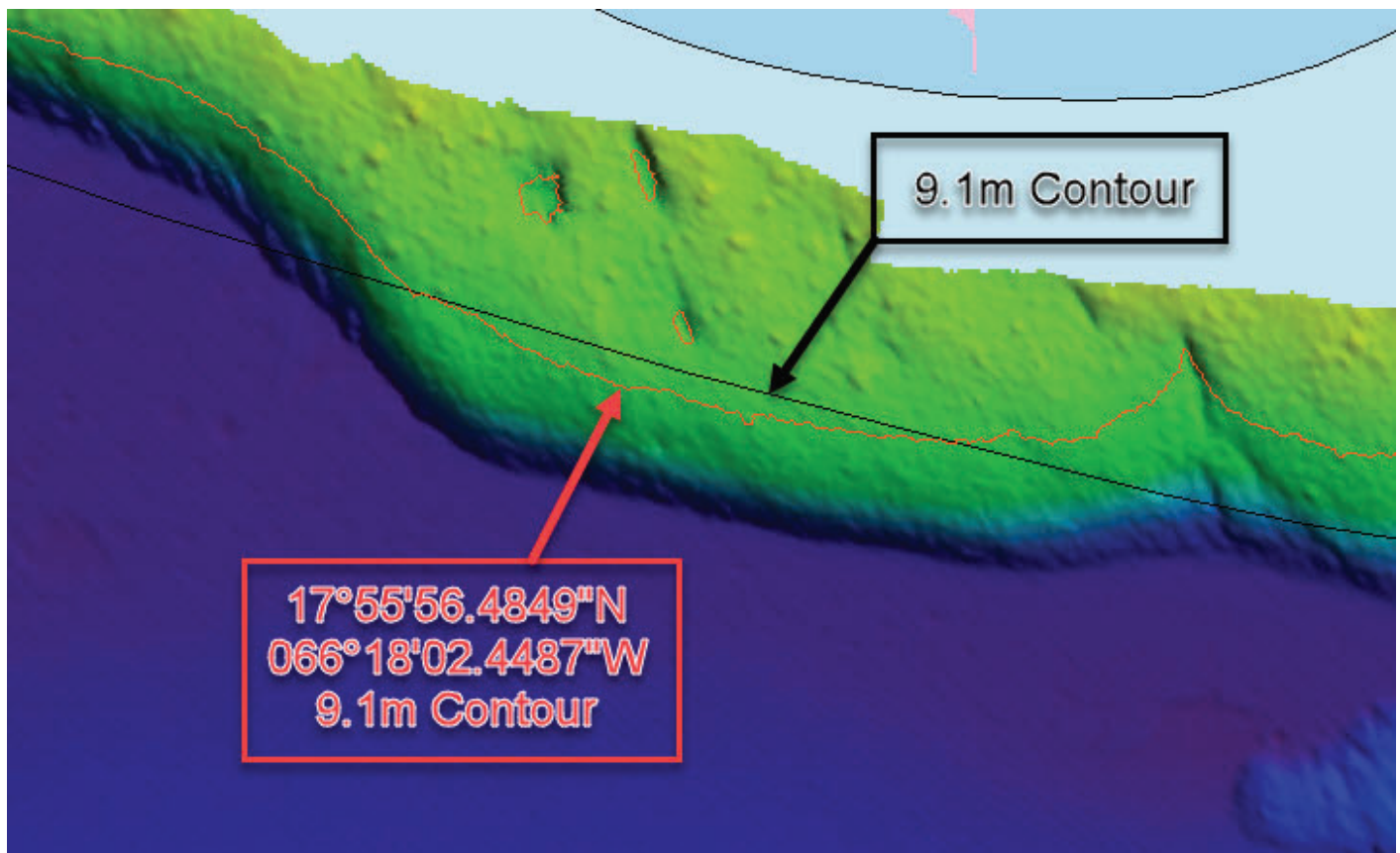
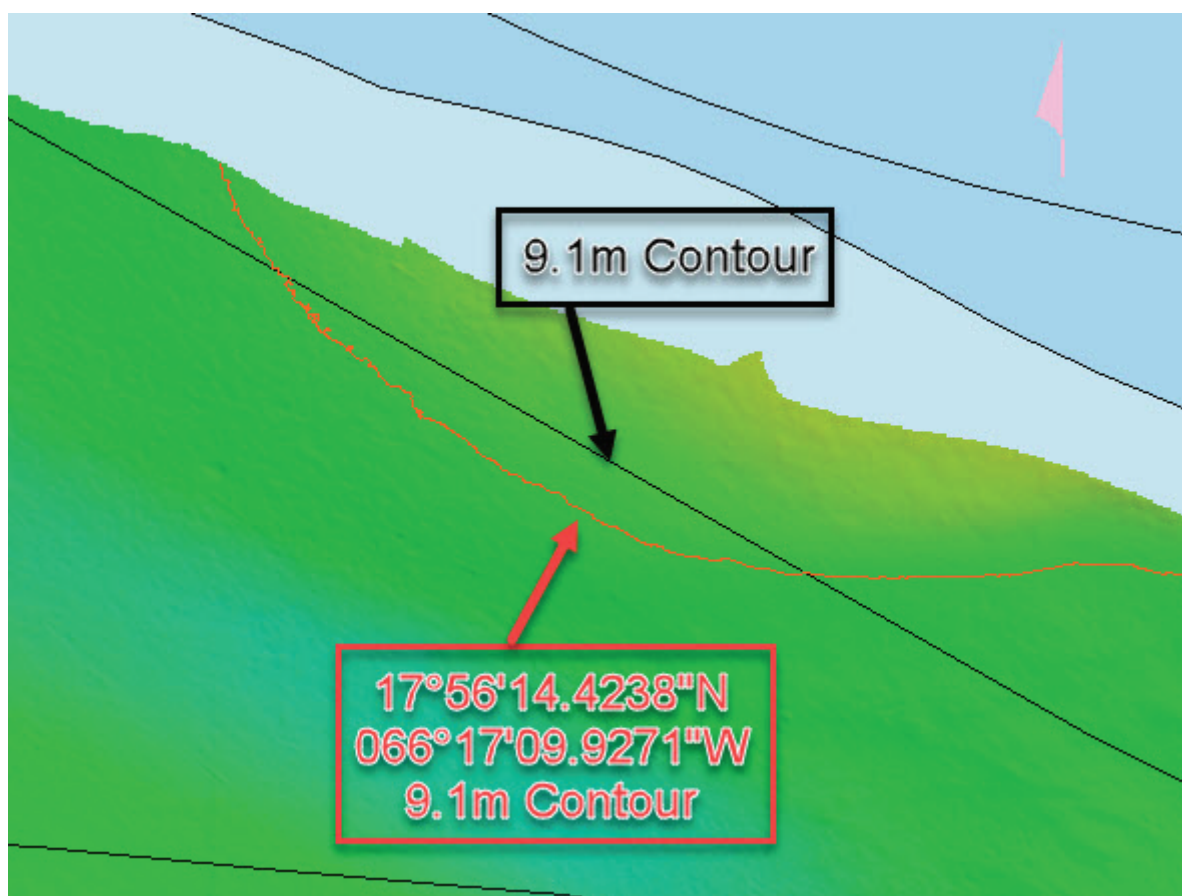


Figure 42: Contour discrepancies between field created contours and ENC US5PR46M contours. ENC US5PR46M contours represented in black. Survey H13147 contours represented in orange. Located south of the most western island of Cayos de Ratones.



*Figure 43: Contour discrepancies between field created contours and ENC US5PR46M contours. ENC US5PR46M contours represented in black. Survey H13147 contours represented in orange. Located south of Cayos de Ratones and southeast of Punta Arenas.*

#### US5PR41M

A comparison of depth contours was conducted between H13147 and ENC US5PR46M at the depths specified within the ENC (Figure 44). The hydrographer recommends that the contours for ENC US5PR41M be reviewed and updated.

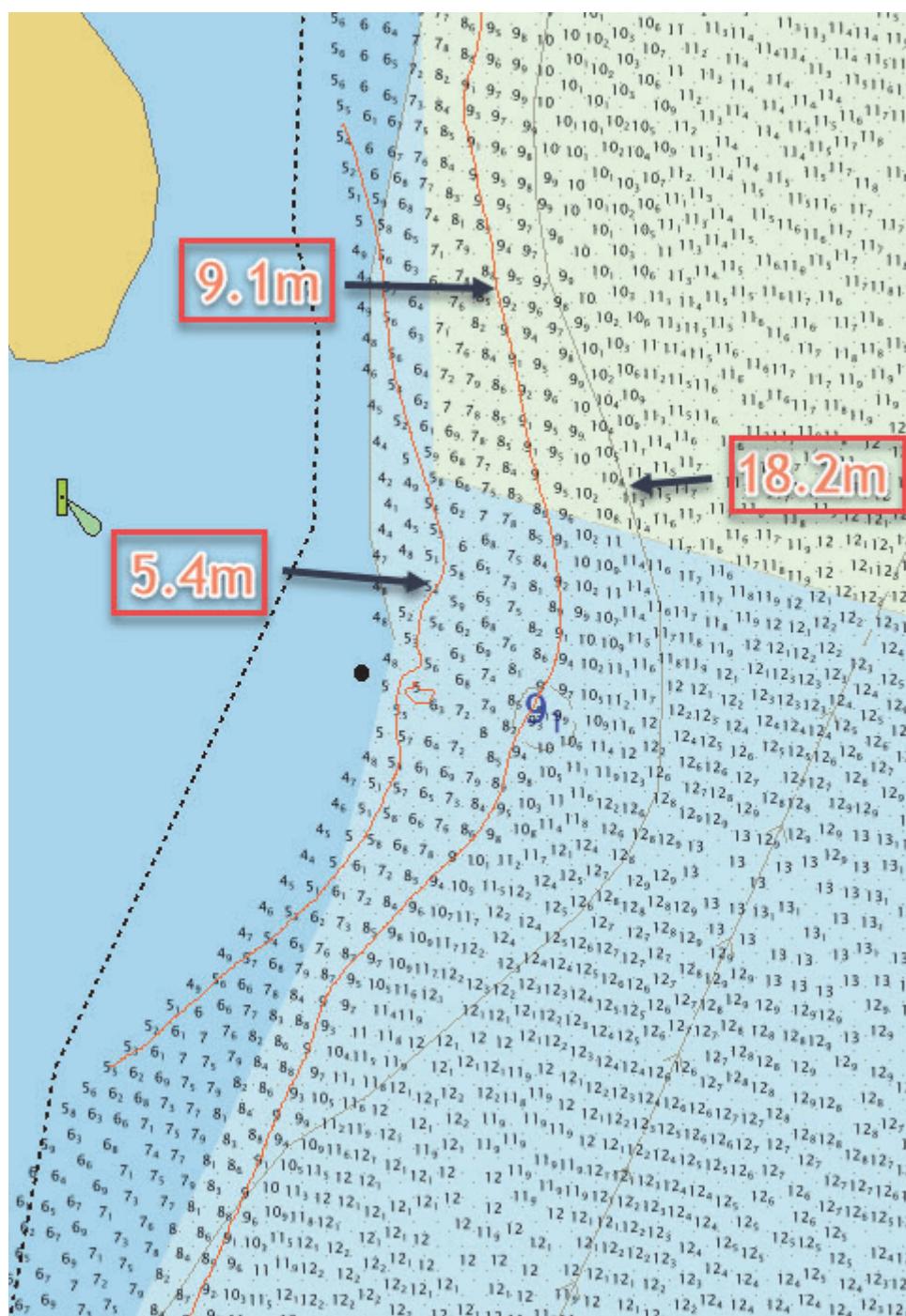


Figure 44: Field created contours within Laguna de las Mareas, located in the northwestern section of the entrance channel to Las Mareas, are shown in orange. Charted 18.2m contour that is not present, as shown by soundings created from H13147 MBES data.

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

No Maritime Boundary Points were assigned for this survey.

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

50 charted features were investigated. Four features were deemed appropriate for updating, nine features were deemed appropriate for deletion, and 37 features were deemed appropriate to be retained. The four features deemed appropriate for updating are obstruction areas outlining reef areas. Reference the Final Feature File for further information.

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

13 uncharted features were identified and investigated. Three of the uncharted features were considered dangerous to navigation (see D.1.5). Reference the Final Feature File for further information.

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

One obstruction and two wrecks were deemed dangers to navigation.

Reference the Final Feature File and relevant DtoN Report documents for further information.

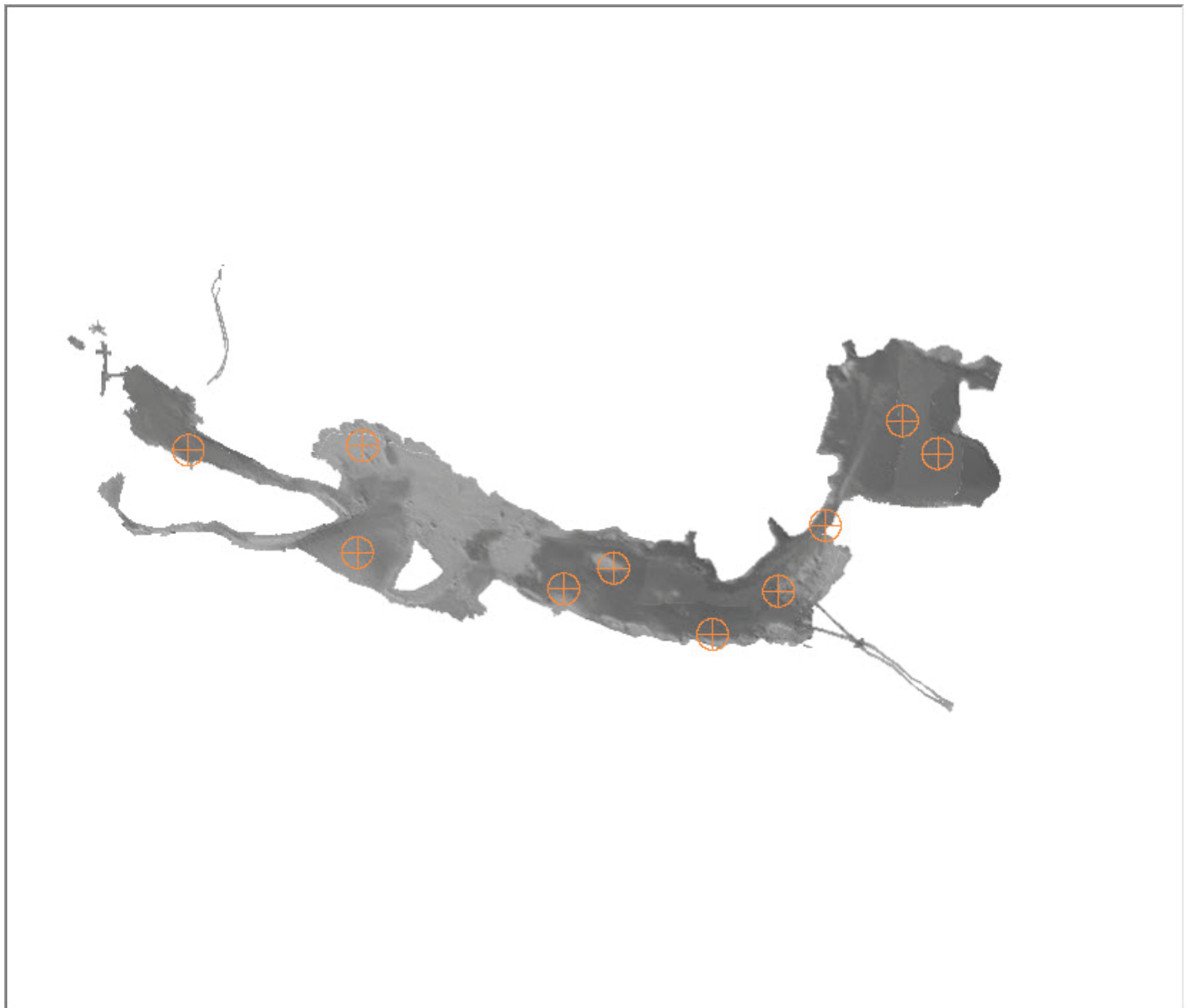
### **D.1.6 Channels**

An 18.2m charted contour on ENC US5PR41M within Laguna de las Mareas Channel is not present within survey H13147 MBES data and appears to be erroneously included on the ENC (see section D.1.1, ENC US5PR41M).

Portions of the Laguna de las Mareas channel are shoaler than indicated by the depth value associated with the two channel sections. Field created soundings are not significantly shoaler than the associated depth value and are not regarded as DtoN's by the hydrographer. The hydrographer recommends channel extents or depths be updated.

### **D.1.7 Bottom Samples**

The bottom sample plan was designed to cover the distinct bottom types within the survey sheet limits after an analysis of preliminary backscatter mosaics (Figure 45). 10 bottom samples were collected by HSL 2903. Reference the Final Feature File for further information.



*Figure 45: H13147 revised bottom sample plan plotted over H13147 backscatter data.*

## **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**

Aids to navigation (ATONs) exist for this survey, but were not investigated. Contact United States Coast Guard for information about ATON features.

**D.2.4 Overhead Features**

No overhead features exist for this survey.

**D.2.5 Submarine Features**

Three submarine pipeline features exist for this survey, but were not investigated due to their location.

**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 activities are known to 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
CAPT Christiaan van Westendorp, NOAA	Commanding Officer / Chief of Party	04/09/2019	 <small>VAN WESTENDORP.CHRISTIAAN.HENRY.1012828175 c=US, ou=U.S. Government, ou=DOD, ou=PR, ou=NOAA, cn=VAN WESTENDORP.CHRISTIAAN.HENRY.1012828175 2019.04.10 18:05:21 -04'00'</small>
LT Charles J. Wisotzkey, NOAA	Field Operations Officer	04/09/2019	 <small>Digitally signed by WISOTZKEY.CHARLES.JUSTIN.1300 819660 Date: 2019.04.12 08:16:32 -04'00'</small>
Joshua Hiteshew	Chief Hydrographic Survey Technician	04/09/2019	HITESHEW.JOSHUA. TAYLOR.153793965 2 <small>Digitally signed by HITESHEW.JOSHUA.TAYLOR .1537939652 Date: 2019.04.11 12:41:11 Z</small>

## F. Table of Acronyms

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

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

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



Anthony Klemm - NOAA Federal <anthony.r.klemm@noaa.gov>

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## Modification of H13147 sheet limits

2 messages

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**Anthony Klemm - NOAA Federal** <anthony.r.klemm@noaa.gov>

Wed, Oct 10, 2018 at 4:50 PM

To: Christina Belton - NOAA Affiliate <christina.belton@noaa.gov>

Cc: Douglas Wood <douglas.wood@noaa.gov>, \_OMAO MOA OPS Thomas Jefferson <ops.thomas.jefferson@noaa.gov>, \_OMAO MOA CO Thomas Jefferson <co.thomas.jefferson@noaa.gov>

Good afternoon Christina,

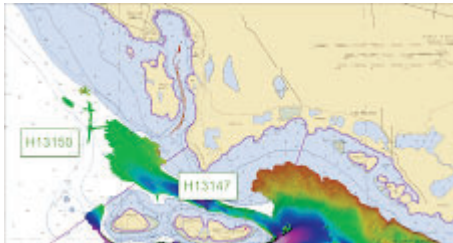
We intend to include the small amount of data we acquired within sheet H13150 with the submission of H13147. We will not return to finish H13150 this year due to the remaining work left on higher priority sheets. The data acquired on H13150 in Bahia de Rincon and Salinas Harbor were feature investigations identified in lidar data from US Army Corps of Engineers. Please let me know if you concur, or if you would like us to handle the data within H13150 in a different way.

Attached is an image illustrating the location of the H13150 investigations neighboring the junction with H13147.

Best regards,  
Anthony

LT Anthony Klemm, NOAA  
Field Operations Officer  
NOAA Ship *Thomas Jefferson*  
439 W York Street  
Norfolk, VA 23510  
757-647-0187

Learn about NOAA nautical charts - [www.nauticalcharts.noaa.gov](http://www.nauticalcharts.noaa.gov)



**modify coverage of H13147.png**  
463K

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**Christina Belton - NOAA Federal** <christina.belton@noaa.gov>

Wed, Oct 10, 2018 at 4:57 PM

To: Anthony Klemm - NOAA Federal <anthony.r.klemm@noaa.gov>

Cc: Douglas Wood - NOAA Affiliate <douglas.wood@noaa.gov>, "OPS.Thomas Jefferson - NOAA Service Account" <ops.thomas.jefferson@noaa.gov>, \_OMAO MOA CO Thomas Jefferson <co.thomas.jefferson@noaa.gov>

Anthony,  
Yes, I concur. We can treat the H13150 data as investigations to H13147.  
Thank You,  
Christina

Christina Belton  
Physical Scientist  
Operations Branch  
Hydrographic Surveys Division  
Office of Coast Survey, NOAA



ChiefST.Thomas Jefferson - NOAA Service Account <chiefst.thomas.jefferson@noaa.gov>

---

## Fwd: DTON Report for H13147 from NOAA Ship Thomas Jefferson

1 message

---

**Charles Wisotzkey - NOAA Federal** <charles.j.wisotzkey@noaa.gov>

Fri, Mar 22, 2019 at 1:55 PM

To: \_OMAO MOA ChiefST Thomas Jefferson <chiefst.thomas.jefferson@noaa.gov>

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

From: **Anthony Klemm - NOAA Federal** <anthony.r.klemm@noaa.gov>

Date: Thu, Oct 4, 2018 at 5:55 PM

Subject: DTON Report for H13147 from NOAA Ship Thomas Jefferson

To: NDB E-Mailbox <OCS.NDB@noaa.gov>, Corey personal cell Allen <corey.allen@noaa.gov>, \_OMAO MOA CO Thomas Jefferson <co.thomas.jefferson@noaa.gov>, Douglas Wood <douglas.wood@noaa.gov>, \_OMAO MOA OPS Thomas Jefferson <ops.thomas.jefferson@noaa.gov>, Christina Belton - NOAA Affiliate <christina.belton@noaa.gov>, AHB Chief <ahb.chief@noaa.gov>

Good evening Cartographers,

Attached is the DTON Report for H13147 (Bahia de Jobos). Please let us know if you have any questions or concerns.

Best regards,  
Anthony

LT Anthony Klemm, NOAA  
Field Operations Officer  
NOAA Ship *Thomas Jefferson*  
439 W York Street  
Norfolk, VA 23510  
757-647-0187

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--

LT Charles J. Wisotzkey, NOAA  
NOAA Ship Thomas Jefferson (S-222)

---

 **H13147\_DTON\_1.zip**  
7728K



ChiefST.Thomas Jefferson - NOAA Service Account <chiefst.thomas.jefferson@noaa.gov>

---

## Fwd: H13147\_DTON\_1 updated

1 message

---

**Charles Wisotzkey - NOAA Federal** <charles.j.wisotzkey@noaa.gov>  
To: \_OMAO MOA ChiefST Thomas Jefferson <chiefst.thomas.jefferson@noaa.gov>

Fri, Mar 22, 2019 at 1:56 PM

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

From: **Anthony Klemm - NOAA Federal** <anthony.r.klemm@noaa.gov>  
Date: Thu, Oct 4, 2018 at 5:51 PM  
Subject: Re: H13147\_DTON\_1 updated  
To: Rita Bowker - NOAA Federal <rita.s.bowker@noaa.gov>  
Cc: \_OMAO MOA OPS Thomas Jefferson <ops.thomas.jefferson@noaa.gov>

Perfect. CO has approved it for submission. I'll take care of that now. Thanks so much. You're pretty much a rock star.

LT Anthony Klemm, NOAA  
Field Operations Officer  
NOAA Ship *Thomas Jefferson*  
[439 W York Street](#)  
[Norfolk, VA 23510](#)  
757-647-0187

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On Thu, Oct 4, 2018 at 3:19 PM Rita Bowker - NOAA Federal <rita.s.bowker@noaa.gov> wrote:

Please see below.

H:\Proc\OPR-I369-TJ-18\H13147\WORKING\DTON

Cheers

Rita

*Rita Bowker*

*NOAA Office of Coast Survey*

*Atlantic Hydrographic Branch*

*Physical Scientist*

[rita.s.bowker@noaa.gov](mailto:rita.s.bowker@noaa.gov)

*office (757) 364-7469*

--

LT Charles J. Wisotzkey, NOAA  
NOAA Ship Thomas Jefferson (S-222)





Charles Wisotzkey - NOAA Federal <charles.j.wisotzkey@noaa.gov>

---

## Additional USACE Lidar from 2018

2 messages

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**Anthony Klemm - NOAA Federal** <anthony.r.klemm@noaa.gov> Mon, Sep 10, 2018 at 1:34 PM  
To: Christina Belton - NOAA Affiliate <christina.belton@noaa.gov>, Corey personal cell Allen <corey.allen@noaa.gov>  
Cc: \_OMAO MOA CO Thomas Jefferson <co.thomas.jefferson@noaa.gov>, \_OMAO MOA OPS Thomas Jefferson <ops.thomas.jefferson@noaa.gov>, James Miller <james.j.miller@noaa.gov>, Olivia Hauser - NOAA Federal <olivia.hauser@noaa.gov>, Joshua Witmer - NOAA Federal <joshua.d.witmer@noaa.gov>

Hi Christina,

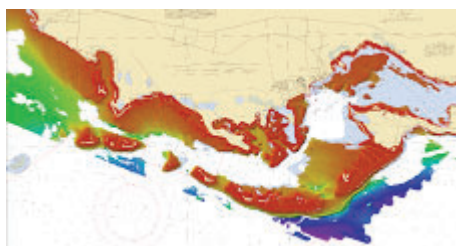
We were recently forwarded a lidar bathymetry dataset from the USACE flown in June 2018. This dataset covers parts of our southern sheets, and is of high quality based on comparisons to our MBES data. In line with the sheet limit waiver request referencing 2016 lidar data, we intend to junction to the 2018 lidar data in sheets with complete coverage and 200m set line spacing requirements. For areas of object detection, such as the entrance to Bahia de Jobos and Las Mareas on H13147, we will collect MBES to the 3.5m NALL, and use the lidar as reconnaissance data. We also intend to investigate any potential features detected in the lidar coverage with MBES where it is safe and practicable to do so.

Please let me know if you have any questions or concerns.

Best regards,  
Anthony

LT Anthony Klemm, NOAA  
Field Operations Officer  
NOAA Ship *Thomas Jefferson*  
439 W York Street  
Norfolk, VA 23510  
757-647-0187

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**2018 lidar.PNG**  
921K

---

**Christina Belton - NOAA Federal** <christina.belton@noaa.gov> Mon, Sep 10, 2018 at 2:30 PM  
To: Anthony Klemm - NOAA Federal <anthony.r.klemm@noaa.gov>  
Cc: Corey personal cell Allen <corey.allen@noaa.gov>, \_OMAO MOA CO Thomas Jefferson <co.thomas.jefferson@noaa.gov>, \_OMAO MOA OPS Thomas Jefferson <ops.thomas.jefferson@noaa.gov>, James Miller <james.j.miller@noaa.gov>, Olivia Hauser - NOAA Federal <olivia.hauser@noaa.gov>, Joshua Witmer - NOAA Federal <joshua.d.witmer@noaa.gov>

Hi Anthony,  
I was just looking at the 8/7 waiver to see if we have to have another one. It seems we don't.  
Sounds good.  
Many thanks,  
Christina

Christina Belton  
Physical Scientist  
Operations Branch

4/12/2019

National Oceanic and Atmospheric Administration Mail - Additional USACE Lidar from 2018

Hydrographic Surveys Division  
Office of Coast Survey, NOAA

**240-533-0057**

[christina.belton@noaa.gov](mailto:christina.belton@noaa.gov)

[Quoted text hidden]



Charles Wisotzkey - NOAA Federal <charles.j.wisotzkey@noaa.gov>

---

## Bahia de Jobos Chartlet

1 message

---

**Anthony Klemm - NOAA Federal** <anthony.r.klemm@noaa.gov>

Sun, Sep 30, 2018 at 10:59 PM

To: Alex Cruz <capt.acruz@gmail.com>

Cc: Christina Belton - NOAA Affiliate <christina.belton@noaa.gov>, \_OMAO MOA CO Thomas Jefferson <co.thomas.jefferson@noaa.gov>, \_OMAO MOA OPS Thomas Jefferson <ops.thomas.jefferson@noaa.gov>, Kyle Ward - NOAA Federal <kyle.ward@noaa.gov>, Joshua Witmer - NOAA Federal <joshua.d.witmer@noaa.gov>

Captain Cruz,

Good evening, sir. Attached is the link to download the chartlet of Bahia de Jobos. It contains soundings from NOAA Ship *Thomas Jefferson* and Airborne Lidar Bathymetry from the US Army Corps of Engineers. Soundings from *Thomas Jefferson* supersede soundings from lidar where observations are co-located.

Please let me know if you have any questions.

 [Bahia\\_de\\_Jobos\\_Chartlet\\_2018.pdf](#)

Best regards,  
Anthony

LT Anthony Klemm, NOAA  
Field Operations Officer  
NOAA Ship *Thomas Jefferson*  
[439 W York Street](#)  
[Norfolk, VA 23510](#)  
[757-647-0187](#)

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Charles Wisotzkey - NOAA Federal &lt;charles.j.wisotzkey@noaa.gov&gt;

---

**DTON Report for H13147 from NOAA Ship Thomas Jefferson**

3 messages

**Anthony Klemm - NOAA Federal** <anthony.r.klemm@noaa.gov>

Thu, Oct 4, 2018 at 5:54 PM

To: NDB E-Mailbox <OCS.NDB@noaa.gov>, Corey personal cell Allen <corey.allen@noaa.gov>, \_OMAO MOA CO Thomas Jefferson <co.thomas.jefferson@noaa.gov>, Douglas Wood <douglas.wood@noaa.gov>, \_OMAO MOA OPS Thomas Jefferson <ops.thomas.jefferson@noaa.gov>, Christina Belton - NOAA Affiliate <christina.belton@noaa.gov>, AHB Chief <ahb.chief@noaa.gov>

Good evening Cartographers,

Attached is the DTON Report for H13147 (Bahia de Jobos). Please let us know if you have any questions or concerns.

Best regards,  
Anthony

LT Anthony Klemm, NOAA  
Field Operations Officer  
NOAA Ship *Thomas Jefferson*  
439 W York Street  
Norfolk, VA 23510  
757-647-0187

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**H13147\_DTON\_1.zip**  
7728K

---

**OCS NDB - NOAA Service Account** <ocs.ndb@noaa.gov>

Tue, Oct 9, 2018 at 2:18 PM

To: Anthony Klemm <anthony.r.klemm@noaa.gov>

Cc: Corey Allen <Corey.Allen@noaa.gov>, \_NMAO MOA CO Thomas Jefferson <CO.Thomas.Jefferson@noaa.gov>, Douglas Wood - NOAA Federal <douglas.wood@noaa.gov>, \_OMAO MOA OPS Thomas Jefferson <OPS.Thomas.Jefferson@noaa.gov>, Christina Belton - NOAA Federal <christina.belton@noaa.gov>, AHB Chief <AHB.Chief@noaa.gov>, \_NOS OCS PBA Branch <ocs.pba@noaa.gov>, \_NOS OCS PBB Branch <ocs.pbb@noaa.gov>, \_NOS OCS PBC Branch <ocs.pbc@noaa.gov>, \_NOS OCS PBD Branch <ocs.pbd@noaa.gov>, \_NOS OCS PBE Branch <ocs.pbe@noaa.gov>, \_NOS OCS PBG Branch <ocs.pbg@noaa.gov>, Castle E Parker <Castle.E.Parker@noaa.gov>, Charles Porter - NOAA Federal <charles.porter@noaa.gov>, Chris Libeau <Chris.Libeau@noaa.gov>, James M Crocker <James.M.Crocker@noaa.gov>, Ken Forster <Ken.Forster@noaa.gov>, Kevin Jett - NOAA Federal <kevin.jett@noaa.gov>, Matt Kroll <Matt.Kroll@noaa.gov>, Michael Gaeta <Michael.Gaeta@noaa.gov>, NSD Coast Pilot <coast.pilot@noaa.gov>, PHB Chief <PHB.Chief@noaa.gov>, Tara Wallace <Tara.Wallace@noaa.gov>

DD-29947 has been registered by the Nautical Data Branch and directed to Products Branch G for processing.

The Dtons reported are three obstructions in Bahia de Rincon, Puerto Rico.

The following charts are affected:  
25687 kapp 410  
25677 kapp 412

The following ENCs are affected:  
US5PR46M  
US4PR41M

References:  
H13147  
OPR-I369-TJ-18

This information was discovered and submitted by the crew of the NOAA Ship Thomas Jefferson.

Nautical Data Branch/[Marine Chart Division](#)/  
Office of Coast Survey/[National Ocean Service](#)/  
Contact: [ocs.ndb@noaa.gov](mailto:ocs.ndb@noaa.gov)



[Quoted text hidden]

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 **H13147\_DTON\_1.zip**  
7728K

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**Charles Wisotzkey - NOAA Federal** <[charles.j.wisotzkey@noaa.gov](mailto:charles.j.wisotzkey@noaa.gov)>  
To: \_OMAO MOA ChiefST Thomas Jefferson <[chiefst.thomas.jefferson@noaa.gov](mailto:chiefst.thomas.jefferson@noaa.gov)>

Fri, Mar 22, 2019 at 9:55 AM

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

From: **Anthony Klemm - NOAA Federal** <[anthony.r.klemm@noaa.gov](mailto:anthony.r.klemm@noaa.gov)>  
Date: Thu, Oct 4, 2018 at 5:55 PM  
Subject: DTON Report for H13147 from NOAA Ship Thomas Jefferson  
To: NDB E-Mailbox <[OCS.NDB@noaa.gov](mailto:OCS.NDB@noaa.gov)>, Corey personal cell Allen <[corey.allen@noaa.gov](mailto:corey.allen@noaa.gov)>, \_OMAO MOA CO Thomas Jefferson <[co.thomas.jefferson@noaa.gov](mailto:co.thomas.jefferson@noaa.gov)>, Douglas Wood <[douglas.wood@noaa.gov](mailto:douglas.wood@noaa.gov)>, \_OMAO MOA OPS Thomas Jefferson <[ops.thomas.jefferson@noaa.gov](mailto:ops.thomas.jefferson@noaa.gov)>, Christina Belton - NOAA Affiliate <[christina.belton@noaa.gov](mailto:christina.belton@noaa.gov)>, AHB Chief <[ahb.chief@noaa.gov](mailto:ahb.chief@noaa.gov)>

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LT Charles J. Wisotzkey, NOAA  
NOAA Ship Thomas Jefferson (S-222)

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 **H13147\_DTON\_1.zip**  
7728K



Charles Wisotzkey - NOAA Federal <charles.j.wisotzkey@noaa.gov>

---

## Preliminary Chartlet of Las Mareas from Sept 2018 survey by NOAA Ship Thomas Jefferson

4 messages

---

**Anthony Klemm - NOAA Federal** <anthony.r.klemm@noaa.gov>

Mon, Sep 24, 2018 at 10:09 AM

To: Alex Cruz <capt.acruz@gmail.com>, gabriel.sanabria@aes.com, csaba.little@aes.com, franciscor.gonzalez@aes.com  
Cc: \_OMAO MOA OPS Thomas Jefferson <ops.thomas.jefferson@noaa.gov>, \_OMAO MOA CO Thomas Jefferson <co.thomas.jefferson@noaa.gov>, Christina Belton - NOAA Affiliate <christina.belton@noaa.gov>, Kyle Ward - NOAA Federal <kyle.ward@noaa.gov>

Gentlemen,

Attached is a preliminary chartlet of Las Mareas. We found a 33ft obstruction on the east side of the basin, a 34ft obstruction on the north side of the basin, and a 35ft obstruction on the southeast side of the basin.

Further, there are a few 31ft soundings on the eastern edge of the approach channel that may be of concern.

Depending on their navigational significance, we can submit these obstructions or shoals as dangers to navigation to be included in the Coast Guards Local Notice to Mariners. In your opinion, do any of these pose a danger to navigation? What are the deepest draft vessels that call on Las Mareas?

Remember, the preliminary information provided in this chartlet is not for navigation.

Please let me know if you have any questions.

Best regards,  
Anthony

LT Anthony Klemm, NOAA  
Field Operations Officer  
NOAA Ship *Thomas Jefferson*  
439 W York Street  
Norfolk, VA 23510  
757-647-0187

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---

**Las\_Mareas\_Chartlet\_2018\_1.pdf**  
18600K

---

**Gabriel Sanabria** <gabriel.sanabria@aes.com>

Mon, Sep 24, 2018 at 10:37 AM

To: Anthony Klemm - NOAA Federal <anthony.r.klemm@noaa.gov>, Alex Cruz <capt.acruz@gmail.com>, Csaba Little <csaba.little@aes.com>, "Francisco R. Gonzalez" <franciscor.gonzalez@aes.com>  
Cc: \_OMAO MOA OPS Thomas Jefferson <ops.thomas.jefferson@noaa.gov>, \_OMAO MOA CO Thomas Jefferson <co.thomas.jefferson@noaa.gov>, Christina Belton - NOAA Affiliate <christina.belton@noaa.gov>, Kyle Ward - NOAA Federal <kyle.ward@noaa.gov>

Good morning LT Klemm,

Thanks for sharing your preliminary chartlet of Las Mareas. The shallow spots found inside the turning basin and entrance channel have been identified previously; and as a consequence of this the USCG imposed the following draft restrictions on vessels for Las Mareas:

- Vessels that navigate directly to AES PR docking facilities (without needing to use the turning basing before berthing) are allowed a maximum draft of 33ft.
- Vessels that need to turn before berthing at AES PR docking facility are allowed a maximum draft of 32 ft.

In our opinion the findings that you bring up don't pose a danger to navigation as they have been previously identified and preventive measures have been applied by the USCG.

Thanks for your help.

Regards,



*Gabriel E. Sanabria, PE, PMP, MBA*

**AES Puerto Rico, L.P.**

**Senior Technical Services Engineer / APEX & MOC Lead**

PO Box 1890

Guayama, PR 00785

✉ **E-mail:** [gabriel.sanabria@aes.com](mailto:gabriel.sanabria@aes.com)

☎ **Tel:** (787) 866-8117 Ext. 2260

📠 **Fax:** (787) 866-8139

📱 **Mobile:** (787) 438-4500

**[www.aespuertorico.com](http://www.aespuertorico.com)**

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---

**From:** Anthony Klemm - NOAA Federal [mailto:[anthony.r.klemm@noaa.gov](mailto:anthony.r.klemm@noaa.gov)]

**Sent:** Monday, September 24, 2018 10:09 AM

**To:** Alex Cruz <[capt.acruz@gmail.com](mailto:capt.acruz@gmail.com)>; Gabriel Sanabria <[gabriel.sanabria@aes.com](mailto:gabriel.sanabria@aes.com)>; Csaba Little <[csaba.little@aes.com](mailto:csaba.little@aes.com)>; Francisco R. Gonzalez <[franciscor.gonzalez@aes.com](mailto:franciscor.gonzalez@aes.com)>

**Cc:** \_OMAO MOA OPS Thomas Jefferson <[ops.thomas.jefferson@noaa.gov](mailto:ops.thomas.jefferson@noaa.gov)>; \_OMAO MOA CO Thomas Jefferson <[co.thomas.jefferson@noaa.gov](mailto:co.thomas.jefferson@noaa.gov)>; Christina Belton - NOAA Affiliate <[christina.belton@noaa.gov](mailto:christina.belton@noaa.gov)>; Kyle Ward - NOAA Federal <[kyle.ward@noaa.gov](mailto:kyle.ward@noaa.gov)>

**Subject:** Preliminary Chartlet of Las Mareas from Sept 2018 survey by NOAA Ship Thomas Jefferson



**USE CAUTION: External Sender**

[Quoted text hidden]

**Anthony Klemm - NOAA Federal** <anthony.r.klemm@noaa.gov>

Mon, Sep 24, 2018 at 11:23 AM

To: gabriel.sanabria@aes.com

Cc: Alex Cruz <capt.acruz@gmail.com>, csaba.little@aes.com, franciscor.gonzalez@aes.com, \_OMAO MOA OPS Thomas Jefferson <ops.thomas.jefferson@noaa.gov>, \_OMAO MOA CO Thomas Jefferson <co.thomas.jefferson@noaa.gov>, Christina Belton - NOAA Affiliate <christina.belton@noaa.gov>, Kyle Ward - NOAA Federal <kyle.ward@noaa.gov>

Good morning Mr. Sanabria,

Thank you for the information. We are glad no new dangers have been identified.

Best regards,  
Anthony

LT Anthony Klemm, NOAA  
Field Operations Officer  
NOAA Ship *Thomas Jefferson*  
439 W York Street  
Norfolk, VA 23510  
757-647-0187

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## 2 attachments



image001.jpg  
2K



image001.jpg  
2K

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**Alex Cruz** <capt.acruz@gmail.com>

Mon, Sep 24, 2018 at 12:15 PM

To: Anthony Klemm - NOAA Federal <anthony.r.klemm@noaa.gov>

Cc: gabriel.sanabria@aes.com, csaba.little@aes.com, franciscor.gonzalez@aes.com, \_OMAO MOA OPS Thomas Jefferson <ops.thomas.jefferson@noaa.gov>, \_OMAO MOA CO Thomas Jefferson <co.thomas.jefferson@noaa.gov>, Christina Belton - NOAA Affiliate <christina.belton@noaa.gov>, Kyle Ward - NOAA Federal <kyle.ward@noaa.gov>

Thanks Anthony  
I will discuss it with the other Pilot  
And come with an answer if it is a concern or not for navigation

From the desk of Capt. Alex E. Cruz  
West Indies Marine Services

[Quoted text hidden]



Charles Wisotzkey - NOAA Federal &lt;charles.j.wisotzkey@noaa.gov&gt;

## Adjustment #2 to sheet acquisition plan & prioritization (OPR-I369-TJ-18 - Puerto Rico)

3 messages

**CO Thomas Jefferson** <co.thomas.jefferson@noaa.gov>

Mon, Aug 27, 2018 at 12:33 PM

To: Christina Belton - NOAA Federal &lt;christina.belton@noaa.gov&gt;

Cc: Kyle Ward - NOAA Federal &lt;kyle.ward@noaa.gov&gt;, Corey Allen - NOAA Federal &lt;corey.allen@noaa.gov&gt;, Douglas Wood - NOAA Affiliate &lt;douglas.wood@noaa.gov&gt;, "OPS.Thomas Jefferson - NOAA Service Account" &lt;ops.thomas.jefferson@noaa.gov&gt;, Kathryn Pridgen - NOAA Federal &lt;kathryn.pridgen@noaa.gov&gt;

Christina, et al,

FYSA, we hosted Capt Alex Cruz (Puerto Rico South Coast pilot) aboard for a ship tour and project discussion on 22 August 2018. After hearing his thoughts and recommendations on our work along the south shore, as well as consulting with PS Pridgen, we intend/propose to accomplish the following in order of priority:

- Complete Bahia de Guayanilla (H13141, in progress, expected completion sometime next week)
- Acquire critical UKC zones as outlined by PR South Coast pilots in the following order:
  - Ponce (H13143, Bahia de Ponce)
  - Approaches to and channel/pier basin of Jobos (H13147, Bahia de Jobos)
  - Approach channel and pier basin of Las Mareas (H13147, Bahia de Jobos)
  - Yabucoa (F00729)
- Complete acquisition in Bahia de Ponce sheet (H13143)
- Complete acquisition in Bahia de Jobos sheet (H13147)
- Continue acquisition of sheets in remaining PI order of priority with one exception:
  - Guanica (Punta Brea to Punta Verraco, H13142) shifted to last in project priority

### Supporting notes:

- The subsidiary bays of each primary UKC area are very exposed to prevailing weather and seas, as well as generally too shallow/confined for effective ship survey. Additionally, daily weather patterns have forced us to begin launch operations early (~0615) in order to take advantage of a limited 3-hour window of reduced wind/seas for less protected work (safety and data quality consideration).
- The above conditions elevate the risk of TJ not completing pilot-priority areas prior to departure in November if we collect/complete surveys in the current PI order.
- Our intended approach shifts the Guanica survey priority, as well as opens multiple survey sheets with a possibility of not completing each sheet's coverage as originally assigned. However, it does virtually guarantee that areas of prime local concern are covered prior to our planned departure.

This plan does not change our intentions for San Juan (H13141, first project priority), to be completed per the waiver re: incorporating Lidar coverage.

Please let us know if you have any questions/concerns. If desired, we can discuss over the phone.

R/

Chris

--

**CDR Chris van Westendorp, NOAA**Commanding Officer, NOAA Ship *Thomas Jefferson* (S-222)[co.thomas.jefferson@noaa.gov](mailto:co.thomas.jefferson@noaa.gov)

Ship Cell1: (757)647-0187 Cell2: (757)418-0629

VoIP: (541)867-8927/8928 Iridium: (808)434-2706

In-Port Norfolk: (757)441-6322/6323

**Christina Belton - NOAA Federal** <christina.belton@noaa.gov>

Thu, Aug 30, 2018 at 6:01 PM

To: CO Thomas Jefferson <co.thomas.jefferson@noaa.gov>

Cc: Kyle Ward - NOAA Federal <kyle.ward@noaa.gov>, "OPS.Thomas Jefferson - NOAA Service Account" <ops.thomas.jefferson@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>, Kathryn Pridgen - NOAA Federal <kathryn.pridgen@noaa.gov>, Douglas Wood - NOAA Affiliate <douglas.wood@noaa.gov>

Chris, et al,

It all makes sense to me.

A bit of background: the pilotage areas were added very late in the planning process. When we had the project pre-brief on June 14, I had only just received the areas a couple of days prior.

In the follow-up report to TJ on June 19th, I included a map of the areas there. the Project Instructions were also completed and signed on the June 18th.

Based on the traffic patterns plus the pilotage areas, it was clear to me that sheet priority 8, H13147, could have had equal or greater priority to H13141 and H13143. Without knowing which direction TJ may travel around the island, I planned the sheets in a logical order based on the O.D., Hydrohealth, and distance efficiency. The middle of the south side, H13150, had the lowest priority all along.

Thank you for taking care of the local high priority ares.

Good luck and let me know if you need anything.

Christina

Christina Belton  
Physical Scientist  
Operations Branch  
Hydrographic Surveys Division  
Office of Coast Survey, NOAA  
**240-533-0057**  
[christina.belton@noaa.gov](mailto:christina.belton@noaa.gov)

[Quoted text hidden]

---

**CO Thomas Jefferson** <co.thomas.jefferson@noaa.gov>

Mon, Sep 3, 2018 at 7:48 PM

To: Christina Belton - NOAA Federal <christina.belton@noaa.gov>

Cc: Kyle Ward - NOAA Federal <kyle.ward@noaa.gov>, "OPS.Thomas Jefferson - NOAA Service Account" <ops.thomas.jefferson@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>, Kathryn Pridgen - NOAA Federal <kathryn.pridgen@noaa.gov>, Douglas Wood - NOAA Affiliate <douglas.wood@noaa.gov>, Olivia Hauser - NOAA Federal <olivia.hauser@noaa.gov>

Copy all, Christina, and thank you for the background. We will proceed as planned below.

V/r,

Chris

**CDR Chris van Westendorp, NOAA**

**Commanding Officer, NOAA Ship *Thomas Jefferson* (S-222)**

[co.thomas.jefferson@noaa.gov](mailto:co.thomas.jefferson@noaa.gov)

Ship Cell1: (757)647-0187 Cell2: (757)418-0629

VoIP: (541)867-8927/8928 Iridium: (808)434-2706

In-Port Norfolk: (757)441-6322/6323

[Quoted text hidden]



Charles Wisotzkey - NOAA Federal &lt;charles.j.wisotzkey@noaa.gov&gt;

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## Blog entry - PR South Coast HSSC meeting

5 messages

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**CO Thomas Jefferson** <co.thomas.jefferson@noaa.gov>

Sun, Sep 9, 2018 at 6:44 PM

To: Kyle Ward - NOAA Federal &lt;kyle.ward@noaa.gov&gt;, Christina Belton - NOAA Federal &lt;christina.belton@noaa.gov&gt;

Cc: "OPS.Thomas Jefferson - NOAA Service Account" &lt;ops.thomas.jefferson@noaa.gov&gt;, Sydney Catoire - NOAA Federal &lt;sydney.catoire@noaa.gov&gt;, Kristen Crossett &lt;kristen.crossett@noaa.gov&gt;, Julia Wallace - NOAA Affiliate &lt;julia.wallace@noaa.gov&gt;, Briana Hillstrom &lt;briana.hillstrom@noaa.gov&gt;

Kyle / Christina,

Please see the attached proposed blog entry for my presentation at the PR South Coast Harbor Safety & Security Committee meeting in Salinas, PR. Many thanks to HSD/AHB for lending me ERT Wallace to attend and support the visit. She's done an outstanding job supporting the ship over the last year or so, and her assistance on this day trip was no exception.

V/R,

Chris

--

**CDR Chris van Westendorp, NOAA**Commanding Officer, NOAA Ship *Thomas Jefferson* (S-222)[co.thomas.jefferson@noaa.gov](mailto:co.thomas.jefferson@noaa.gov)

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In-Port Norfolk: (757)441-6322/6323

**20180907 - PR Harbor Safety & Security Meeting blog entry.docx**

3115K

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**Kristen Crossett - NOAA Federal** <kristen.crossett@noaa.gov>

Mon, Sep 10, 2018 at 8:14 AM

To: CO Thomas Jefferson &lt;co.thomas.jefferson@noaa.gov&gt;

Cc: Kyle Ward - NOAA Federal &lt;kyle.ward@noaa.gov&gt;, Christina Belton - NOAA Federal &lt;christina.belton@noaa.gov&gt;, "OPS.Thomas Jefferson - NOAA Service Account" &lt;ops.thomas.jefferson@noaa.gov&gt;, Sydney Catoire - NOAA Federal &lt;sydney.catoire@noaa.gov&gt;, Julia Wallace - NOAA Affiliate &lt;julia.wallace@noaa.gov&gt;, Briana Hillstrom &lt;briana.hillstrom@noaa.gov&gt;

Hi Chris,

Thank you for sending! I would like to post this to the blog this week and use it for the Coast Survey newsletter and NOAA AA weekly email. Please let me know if anyone has major edits to the write-up before I proceed.

Thanks again,  
Kristen

[Quoted text hidden]

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Kristen Crossett

Communications Specialist

[Office of Coast Survey](#), NOAA

Office phone: 240-533-0113

Cell phone: 301-325-2113

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---

**Christina Belton - NOAA Federal** <christina.belton@noaa.gov>

Mon, Sep 10, 2018 at 1:06 PM

To: Kristen Crossett - NOAA Federal &lt;kristen.crossett@noaa.gov&gt;

Cc: CO Thomas Jefferson &lt;co.thomas.jefferson@noaa.gov&gt;, Kyle Ward - NOAA Federal &lt;kyle.ward@noaa.gov&gt;, "OPS.Thomas Jefferson - NOAA Service Account" &lt;ops.thomas.jefferson@noaa.gov&gt;, Sydney Catoire - NOAA Federal &lt;sydney.catoire@noaa.gov&gt;, Julia Wallace - NOAA Affiliate &lt;julia.wallace@noaa.gov&gt;, Briana Hillstrom &lt;briana.hillstrom@noaa.gov&gt;, Corey Allen - NOAA Federal &lt;corey.allen@noaa.gov&gt;

All,

Thank you for sharing your newsletter article. I don't have any editing suggestions. I do see further development stories from this one. For instance, referencing the third and fourth paragraphs, how new nautical chart data helps to recover businesses effected by the storm. This being DOC, there ought to be someone covering those metrics if not already within OCS. Do we know who that is? Will they include the specific work of *TJ*?

My second thought has to do with the concluding sentence. Perhaps there is another blurb, to include with the economics blog that can be written specifically from the point of view of a local business person and there direct experience with *TJ* data effecting their business. Those are follow up ideas.

Regards,

Christina

Christina Belton

Physical Scientist

Operations Branch

Hydrographic Surveys Division

Office of Coast Survey, NOAA

**240-533-0057**[christina.belton@noaa.gov](mailto:christina.belton@noaa.gov)

[Quoted text hidden]

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**Kristen Crossett - NOAA Federal** <kristen.crossett@noaa.gov>

Wed, Sep 12, 2018 at 1:40 PM

To: CO Thomas Jefferson &lt;co.thomas.jefferson@noaa.gov&gt;

Cc: Kyle Ward - NOAA Federal &lt;kyle.ward@noaa.gov&gt;, Christina Belton - NOAA Federal &lt;christina.belton@noaa.gov&gt;, "OPS.Thomas Jefferson - NOAA Service Account" &lt;ops.thomas.jefferson@noaa.gov&gt;, Sydney Catoire - NOAA Federal &lt;sydney.catoire@noaa.gov&gt;, Julia Wallace - NOAA Affiliate &lt;julia.wallace@noaa.gov&gt;, Briana Hillstrom &lt;briana.hillstrom@noaa.gov&gt;

Chris,

Thanks again for the great blog post. It is now [live](#) and highlighted in our [newsletter](#). We also shared it on [FB](#) and [Twitter](#).

Kristen

On Sun, Sep 9, 2018 at 6:44 PM, CO Thomas Jefferson <co.thomas.jefferson@noaa.gov> wrote:

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**CO Thomas Jefferson** <co.thomas.jefferson@noaa.gov>

Wed, Sep 12, 2018 at 2:28 PM

To: Kristen Crossett - NOAA Federal &lt;kristen.crossett@noaa.gov&gt;

Cc: Kyle Ward - NOAA Federal &lt;kyle.ward@noaa.gov&gt;, Christina Belton - NOAA Federal &lt;christina.belton@noaa.gov&gt;, "OPS.Thomas Jefferson - NOAA Service Account" &lt;ops.thomas.jefferson@noaa.gov&gt;, Sydney Catoire - NOAA Federal &lt;sydney.catoire@noaa.gov&gt;, Julia Wallace - NOAA Affiliate &lt;julia.wallace@noaa.gov&gt;, Briana Hillstrom &lt;briana.hillstrom@noaa.gov&gt;

Many thanks, Kristen!

V/R,

Chris

**CDR Chris van Westendorp, NOAA**Commanding Officer, NOAA Ship *Thomas Jefferson* (S-222)

4/12/2019

National Oceanic and Atmospheric Administration Mail - Blog entry - PR South Coast HSSC meeting

[co.thomas.jefferson@noaa.gov](mailto:co.thomas.jefferson@noaa.gov)

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In-Port Norfolk: (757)441-6322/6323

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Charles Wisotzkey - NOAA Federal <charles.j.wisotzkey@noaa.gov>

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## Coast Pilot Review Report for OPR-I369-TJ-18 Puerto Rico Ports

1 message

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**Charles Wisotzkey - NOAA Federal** <charles.j.wisotzkey@noaa.gov>

Fri, Apr 12, 2019 at 10:54 AM

To: OCS NDB - NOAA Service Account <ocs.ndb@noaa.gov>, \_NOS OCS NSD Coast Pilot <coast.pilot@noaa.gov>

Cc: Christina Belton - NOAA Federal <christina.belton@noaa.gov>, \_OMAO MOA OPS Thomas Jefferson <ops.thomas.jefferson@noaa.gov>, \_OMAO MOA ChiefST Thomas Jefferson <chiefst.thomas.jefferson@noaa.gov>

All,

Please see attached Coast Pilot Review Notes (OPR-I369-TJ-18\_Coast Pilot Review Report.pdf).

The only suggested edits concern the entry for the port of Las Mareas and are in Paragraph 508.

Entries referencing depths should be updated in accordance with submitted bathy grids.

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LT Charles J. Wisotzkey, NOAA  
NOAA Ship Thomas Jefferson (S-222)

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### 2 attachments



**OPR-I369-TJ-18CoastPilotReport\_original.pdf**

2311K



**OPR-I369-TJ-18\_Coast Pilot Review Report.pdf**

2264K





ChiefST.Thomas Jefferson - NOAA Service Account <chiefst.thomas.jefferson@noaa.gov>

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## Survey Outlines for project OPR\_I369\_TJ\_18

1 message

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**Charles Wisotzkey - NOAA Federal** <charles.j.wisotzkey@noaa.gov>

Wed, Nov 7, 2018 at 7:30 PM

To: survey.outlines@noaa.gov

Cc: Christina Belton - NOAA Federal <christina.belton@noaa.gov>, \_OMAO MOA OPS Thomas Jefferson <ops.thomas.jefferson@noaa.gov>, \_OMAO MOA ChiefST Thomas Jefferson <chiefst.thomas.jefferson@noaa.gov>, michael hewlett - NOAA Federal <michael.hewlett@noaa.gov>, Joshua Hiteshew - NOAA Federal <joshua.hiteshew@noaa.gov>, Kevin Brown - NOAA Federal <kevin.w.brown@noaa.gov>, Sydney Catoire - NOAA Federal <sydney.catoire@noaa.gov>, Jacquelyn Putnam - NOAA Federal <jacquelyn.putnam@noaa.gov>

All concerned,

Survey outlines for all surveys conducted by TJ on project OPR\_I369\_TJ\_18 attached; the files can also be downloaded from the following link:

<https://drive.google.com/open?id=1QDb9YsXRQvIXX8y6o0ct2bMhJjQ-uhfm>

- Charles

--

LT Charles J. Wisotzkey, NOAA  
NOAA Ship Thomas Jefferson (S-222)

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**OPR\_I369\_TJ\_18\_Survey\_Outlines\_20181107.zip**  
8471K



Charles Wisotzkey - NOAA Federal <charles.j.wisotzkey@noaa.gov>

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## Fwd: CO of TJ presenting at PR Harbor Safety & Security Committee tomorrow

3 messages

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**Kyle Ward - NOAA Federal** <kyle.ward@noaa.gov>

Thu, Sep 6, 2018 at 4:02 PM

To: \_NMAO MOA OPS Thomas Jefferson <CO.Thomas.Jefferson@noaa.gov>, \_NMAO MOA OPS Thomas Jefferson <OPS.Thomas.Jefferson@noaa.gov>

FYI.

Kyle R. Ward  
Southeast Navigation Manager  
NOAA Office of Coast Survey  
301.651.4852 cell

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

From: **Kyle Ward - NOAA Federal** <kyle.ward@noaa.gov>

Date: Thu, Sep 6, 2018 at 3:58 PM


Subject: Re: CO of TJ presenting at PR Harbor Safety & Security Committee tomorrow

To: Kristen Crossett - NOAA Federal <kristen.crossett@noaa.gov>

Cc: Richard T Brennan <richard.t.brennan@noaa.gov>, Shep Smith <shep.smith@noaa.gov>

Kristen,

I presented to this committee at their last meeting. They were very thankful for the work the TJ did post storm and were very excited to learn about the planned surveys. I don't think there are any red flags. Two items that may come are getting access to preliminary plots of the data and use of CiraCOOS survey assets being used to open ports after a storm.

We have already received request for preliminary data from [Inchcape Shipping Services](#)  and I am working with Christina Belton to meet their request.

The USCG has close ties the [CariCOOS](#). They are doing some pretty cool operational forecasting for the pilots. They also have a nice recreational SSS system. The USCG wants to be able to use it to open port after an storm. I had a chance to look at their set up on my last visit and did not feel it was worth pursuing based on the type of gear they had.

The Ships command has already met the South Coast Pilot Capt. Cruz and I provided them info and pictures of the USCG command and staff that may be at the meeting. I think this meeting should go well and build a lot of goodwill.

Let me know if you have any questions.

Regards,

Kyle R. Ward  
Southeast Navigation Manager  
NOAA Office of Coast Survey  
301.651.4852 cell

On Thu, Sep 6, 2018 at 1:37 PM Kristen Crossett - NOAA Federal <kristen.crossett@noaa.gov> wrote:

TJ CO emailed to see if there are any specific points OCS HQ feels need to be made during his presentation of TJ's survey work in PR as well as any sensitive issues he should be aware of. I am not aware of any but wanted to check in with you before responding.

Thanks,  
Kristen

--

Kristen Crossett  
Communications Specialist  
[Office of Coast Survey, NOAA](#)  
Office phone: 240-533-0113  
Cell phone: 301-325-2113  
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 **image001.png**  
1K

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**CO Thomas Jefferson** <co.thomas.jefferson@noaa.gov>

Sun, Sep 9, 2018 at 7:09 PM

To: Kyle Ward - NOAA Federal <kyle.ward@noaa.gov>, Christina Belton - NOAA Federal <christina.belton@noaa.gov>

Cc: "OPS.Thomas Jefferson - NOAA Service Account" <ops.thomas.jefferson@noaa.gov>, Richard Brennan - NOAA Federal <Richard.T.Brennan@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>

Kyle / Christina,

Some additional notes (not for public consumption) from my visit to the PR South Coast HSSC meeting:

- Very productive meeting and a worthwhile visit. Very tight group of attendees that appear to communicate and coordinate well with each other
- My presentation was the last of the morning (just before lunch) but appeared to garner the most interest/attention (not tooting my own horn here - ask Julia)
- South Coast stakeholders were interested in our preliminary products, and I broadcast that we would be happy to provide similar preliminary / not for navigation use products upon completion and shipboard QA/QC of each survey
- Gave a brief overview of our intended plan to survey pilot-identified critical areas before going back and filling in remainder of the applicable open survey sheets.
- I did mention the overlapping LIDAR surveys that would likely complete bottom coverage in the areas not picked up by TJ on this project.
- CariCOOS was only lightly represented at the meeting by Capt Cruz and Mr Torres. No questions from them or USCG re: suitability of recreational SSS for port surveys. However, I spoke with Dr. Miguel Canals Silander over the phone, and we will try to find an in-port Friday for he and members of his team to come and tour the ship; very thankful (along with Mr. Torres) for recovering their buoy last year.
- Mr. Ernesto Diaz (PR DNER Director of Coastal Zone Management Program) was very excited about our work and its applicability to shoreline erosion, the topic of his presentation to the group (more specifically Climate Change impact on PR)
- Coast Guard Captain of the Port and staff interested in potentially getting some sort of basic channel clearance survey capability, as pre-storm communication and resource planning from USCG D7 is normally behind real-time needs on the island and normally conflicts with higher priority resource needs and staging on mainland U.S.
- Numerous industry representatives and other port stakeholders offered their services to us and our small boats if needed.
- Maritime and economic politics here are a bit interesting. As San Juan is the power center for the island, the South Coast, while very tight knit, seems to harbor a bit of competition bordering on resentment for the North Coast. Lots of talk of corruption in the capital. No action required, just an observation.
- One Customs and Border Protection officer described to me a privately-funded (XPrize?) local competition with a \$6M prize to develop autonomous underwater survey technology for deep water work.
- One gentleman (owns a cable laying/finding business I believe) solicited me for possible recommendations on a good deep water system to find underwater cables. I told him that TJ is very happy with our current Kongsberg systems, but they would likely not be sufficient for his needs (>3000 meters). Sounds like he is looking at ROV systems, supported by his Dynamic Positioning vessel(s).

Please let me know if you have any questions / concerns.

V/R,

Chris

**CDR Chris van Westendorp, NOAA**

**Commanding Officer, NOAA Ship *Thomas Jefferson* (S-222)**

[co.thomas.jefferson@noaa.gov](mailto:co.thomas.jefferson@noaa.gov)

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VoIP: (541)867-8927/8928 Iridium: (808)434-2706

In-Port Norfolk: (757)441-6322/6323

[Quoted text hidden]

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**Christina Belton - NOAA Federal** <christina.belton@noaa.gov>

Sun, Sep 9, 2018 at 8:17 PM

To: \_OMAO MOA CO Thomas Jefferson &lt;co.thomas.jefferson@noaa.gov&gt;

Cc: Kyle Ward - NOAA Federal &lt;kyle.ward@noaa.gov&gt;, "OPS.Thomas Jefferson - NOAA Service Account" &lt;ops.thomas.jefferson@noaa.gov&gt;, Richard Brennan &lt;richard.t.brennan@noaa.gov&gt;, Corey Allen - NOAA Federal &lt;corey.allen@noaa.gov&gt;

CO,

I recognize Mr. Ernesto Diaz's name from the Planning Board's CZMA concurrence I received in July (attached). I am relieved to know he was present at the South Coast HSSC meeting and even more so that he was enthusiastic. The environmental compliance HSD sought for NHPA, CZMA, and USFWS took longer than usual and Jay Nunenkamp told me that Office of Coast Survey had never sought EC with Puerto Rico until this project. Concurrence was not automatic as it often has been in other states. The agencies had additional questions and some additional forms to complete. I was asked to correspond by USPS. Letters from P.R. were stamped six weeks prior to me receiving them. I sought concurrence three times: once initially through our standard email procedures; a second time to follow up on their additional question and to reply by USPS, and a third time for Yabucoa because that was an additional area added several weeks later. After the third determination, we received concurrence.

Your meeting seems very positive. Thank you for the update.

Christina

Christina Belton  
Physical Scientist  
Operations Branch  
Hydrographic Surveys Division  
Office of Coast Survey, NOAA  
**240-533-0057**  
[christina.belton@noaa.gov](mailto:christina.belton@noaa.gov)

[Quoted text hidden]

**CZ-2018-0611-040 (FCC).pdf**

769K



Charles Wisotzkey - NOAA Federal <charles.j.wisotzkey@noaa.gov>

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## Fwd: RE: PROGRESS NOAA SHIP THOMAS JEFFERSON

5 messages

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**Kyle Ward - NOAA Federal** <kyle.ward@noaa.gov>

Fri, Aug 31, 2018 at 9:45 AM

To: Christina Belton - NOAA Affiliate <christina.belton@noaa.gov>, \_NMAO MOA OPS Thomas Jefferson  
<CO.Thomas.Jefferson@noaa.gov>, \_NMAO MOA OPS Thomas Jefferson <OPS.Thomas.Jefferson@noaa.gov>

Hi Christina,

We are getting some good feedback from our maritime stake holders on the South Coast of PR. I forwarded the progress sketch and folks are already itching for the data. What is our current policy for providing preliminary data so I can get back with them?

Best Regards,  
Kyle

Kyle R. Ward  
Southeast Navigation Manager  
NOAA Office of Coast Survey  
301.651.4852 cell

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

From: **ISS San Juan ISS-San Juan** <ISS.SanJuan@iss-shipping.com>

Date: Thu, Aug 30, 2018 at 4:48 PM

Subject: RE: RE: PROGRESS NOAA SHIP THOMAS JEFFERSON

To: kyle.ward@noaa.gov <kyle.ward@noaa.gov>

Cc: Recursos Externos Municipio Ponce <ponce\_externalresources@yahoo.com>, ISS San Juan ISS-San Juan  
<ISS.SanJuan@iss-shipping.com>, Eric Gonzalez ISS-San Juan <Eric.Gonzalez@iss-shipping.com>

Good Afternoon Kyle,

Trust everything is going well.

We are wondering when could we expect final reports for sounding in Guayanilla area.

We have a few clients asking for the updated soundings and we would like to give the estimated date for the availability of the same.

Looking forward to hear from you soon

Best regards,

Ángel T. Colón González

Marine Service Coordinator

Inchcape Shipping Services 🇵🇷

(As Agents Only)

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Fax: +1 787 620 0001

Mobile: +1 787 679 3151

Email: [iss.sanjuan@iss-shipping.com](mailto:iss.sanjuan@iss-shipping.com)

Website: [www.iss-shipping.com](http://www.iss-shipping.com)

Address: 1064 Ave.Ponce de Leon,

Suite 301 San Juan, PR 00907



---

**From:** Recursos Externos Municipio Ponce [mailto:[ponce\\_externalresources@yahoo.com](mailto:ponce_externalresources@yahoo.com)]

**Sent:** Thursday, August 30, 2018 2:55 PM

**To:** ISS San Juan ISS-San Juan <[ISS.SanJuan@iss-shipping.com](mailto:ISS.SanJuan@iss-shipping.com)>

**Subject:** Re: RE: PROGRESS NOAA SHIP THOMAS JEFFERSON

Hello!

You will have to ask Mr. Kyle Ward, Southeast Navigation Manager from NOAA Office of Coast Survey. His email is [kyle.ward@noaa.gov](mailto:kyle.ward@noaa.gov)

V/r

Maria

***RECURSOS EXTERNOS***

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TEL. (787) 284-4141 Tere Ext. 2013

FAX. (787)842-4282

E-MAIL: [ponce\\_externalresources@yahoo.com](mailto:ponce_externalresources@yahoo.com)

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On Thursday, August 30, 2018, 2:18:26 PM AST, ISS San Juan ISS-San Juan <[ISS.SanJuan@iss-shipping.com](mailto:ISS.SanJuan@iss-shipping.com)> wrote:

Good Day Maria,

Below noted and well received.


When could we expect final reports?

Thanks for usual cooperation

Best regards,

Ángel T. Colón González

Marine Service Coordinator

Inchcape Shipping Services 

(As Agents Only)

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Mobile: +1 787 679 3151

Email: [iss.sanjuan@iss-shipping.com](mailto:iss.sanjuan@iss-shipping.com)



Website: [www.iss-shipping.com](http://www.iss-shipping.com)

Address: 1064 Ave.Ponce de Leon,

Suite 301 San Juan, PR 00907



---

**From:** Recursos Externos Municipio Ponce [[mailto:ponce\\_externalresources@yahoo.com](mailto:ponce_externalresources@yahoo.com)]  
**Sent:** Thursday, August 30, 2018 9:16 AM  
**To:** Hans Rutzen <[hrutzen@buckeye.com](mailto:hrutzen@buckeye.com)>; [r.iglesias@bts-pr.com](mailto:r.iglesias@bts-pr.com); Luis O Marini <[lmardini67@hotmail.com](mailto:lmardini67@hotmail.com)>; [papoacosta46@hotmail.com](mailto:papoacosta46@hotmail.com); [jbanch@gmail.com](mailto:jbanch@gmail.com); [pedrofrivera@americantugspr.com](mailto:pedrofrivera@americantugspr.com); Gilberto Espinosa <[ponce@gulpharbor.com](mailto:ponce@gulpharbor.com)>; [ponce@gulpharbor.com](mailto:ponce@gulpharbor.com); Daniel Montes <[capitanmontes@yahoo.com](mailto:capitanmontes@yahoo.com)>; [operpce@ayacol.com](mailto:operpce@ayacol.com); [charlietequila@yahoo.com](mailto:charlietequila@yahoo.com); Eric Gonzalez ISS-San Juan <[Eric.Gonzalez@ISS-Shipping.com](mailto:Eric.Gonzalez@ISS-Shipping.com)>; Zaham Rubio <[zaham\\_rubio@hotmail.com](mailto:zaham_rubio@hotmail.com)>; [ocatinchi.uscgaux@gmail.com](mailto:ocatinchi.uscgaux@gmail.com); [agency.mgr.pce@ayacol.com](mailto:agency.mgr.pce@ayacol.com); Julito Martinez <[agency.pce@ayacol.com](mailto:agency.pce@ayacol.com)>; [southeastpilots@gmail.com](mailto:southeastpilots@gmail.com); [hector.colon@ponce.pr.gov](mailto:hector.colon@ponce.pr.gov); [cepadillarodz@hotmail.com](mailto:cepadillarodz@hotmail.com); [sea1dragon@aol.com](mailto:sea1dragon@aol.com); [rafael\\_rafael53@hotmail.com](mailto:rafael_rafael53@hotmail.com); [sprtowing@coqui.net](mailto:sprtowing@coqui.net); [operations@bts-pr.com](mailto:operations@bts-pr.com); Luis A. Delgado-Guzmán <[luis.delgado@ponce.pr.gov](mailto:luis.delgado@ponce.pr.gov)>; ISS San Juan ISS-San Juan <[ISS.SanJuan@iss-shipping.com](mailto:ISS.SanJuan@iss-shipping.com)>; [jeff@matspr.com](mailto:jeff@matspr.com); [e.braffett@perezyciapr.com](mailto:e.braffett@perezyciapr.com); Juan B. Nieves <[jbnieves16@gmail.com](mailto:jbnieves16@gmail.com)>; Jose A Martinez <[mtzcspr@gmail.com](mailto:mtzcspr@gmail.com)>; Nestor Rivera <[riverane@esi-energy.com](mailto:riverane@esi-energy.com)>; [cxacosta@gmail.com](mailto:cxacosta@gmail.com); [jim@matspr.com](mailto:jim@matspr.com); Luis H Gonzalez <[l.gonzalez@bts-pr.com](mailto:l.gonzalez@bts-pr.com)>; [ehbusquets@gmail.com](mailto:ehbusquets@gmail.com); [tomp@morantug.com](mailto:tomp@morantug.com); [capt.iglesias@bts-pr.com](mailto:capt.iglesias@bts-pr.com); [anavitatemarine@aol.com](mailto:anavitatemarine@aol.com)  
**Subject:** PROGRESS NOAA SHIP THOMAS JEFFERSON

Good morning,

Included please find a PDF document provided by Mr. Kyle Ward, Southeast Navigation Manager from NOAA Office of Coast Survey, of the progress made so far by the crew of the NOAA Ship Thomas Jefferson.

Best regards,

Maria T. Vicens

Secretary SCHSSC

**OFICINA DE RECURSOS EXTERNOS**

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E-MAIL: [ponce\\_externalresources@yahoo.com](mailto:ponce_externalresources@yahoo.com)

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(As Agents Only)

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v1.02 MC-EOL [iss-shipping.com](http://iss-shipping.com) default

---

**CO Thomas Jefferson** <[co.thomas.jefferson@noaa.gov](mailto:co.thomas.jefferson@noaa.gov)>

Wed, Sep 5, 2018 at 8:48 PM

To: Kyle Ward - NOAA Federal <[kyle.ward@noaa.gov](mailto:kyle.ward@noaa.gov)>, Christina Belton - NOAA Affiliate <[christina.belton@noaa.gov](mailto:christina.belton@noaa.gov)>

Cc: \_NMAO MOA OPS Thomas Jefferson <[OPS.Thomas.Jefferson@noaa.gov](mailto:OPS.Thomas.Jefferson@noaa.gov)>

Hi, Kyle,

I will be attending the South Coast Harbor Safety & Security Meeting this coming Friday (7 Sept), and I intend to bring a couple of plots of our preliminary data for Bahia de Guayanilla and Bahia de Tallaboa. We usually provide a chartlet that incorporates a transparent DTM and preliminary sounding set labeled NOT FOR NAVIGATION or something to that effect. If there are specific requests, we can certainly work with Christina to determine what's appropriate and releasable.

Thanks,

Chris

**CDR Chris van Westendorp, NOAA**

**Commanding Officer, NOAA Ship *Thomas Jefferson* (S-222)**

[co.thomas.jefferson@noaa.gov](mailto:co.thomas.jefferson@noaa.gov)

Ship Cell1: (757)647-0187      Cell2: (757)418-0629

VoIP: (541)867-8927/8928      Iridium: (808)434-2706

In-Port Norfolk: (757)441-6322/6323

[Quoted text hidden]

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**Christina Belton - NOAA Federal** <christina.belton@noaa.gov>

Wed, Sep 5, 2018 at 9:48 PM

To: CO Thomas Jefferson <co.thomas.jefferson@noaa.gov>, Kyle Ward - NOAA Federal <kyle.ward@noaa.gov>, \_NMAO MOA OPS Thomas Jefferson <OPS.Thomas.Jefferson@noaa.gov>

Good Evening All,

If there are normal products you provide, and comfortable the products are safe to deliver publicly, then it seems it would be very helpful and good for future project communication as well.

I did follow up on standard policy for HSD to release data early. It would depend on the data but the the formal policy is CAPT Brennan would have to sign a release statement. He will want to know who are the exact stakeholders and what exactly is being released. But then again, that is without know what data HSD is considering.

In hurricane response situations, the data will go to stakeholders directly from the ship. For an early release of data that is not response, data would still come from the ship because AHB will not have received the data yet to generate products in an early release.

But it seems you are providing standard printed products only in this case.

You might also consider providing a GeoPDFs or GEOTiff that is correctly referenced to the location, if you have not already, if you want to provide survey area electronically.

If you have data you are not sure about releasing, and wish for HSD OPS to consider, then please let me know and I will follow up.

Regards,  
Christina

Christina Belton  
Physical Scientist  
Operations Branch  
Hydrographic Surveys Division  
Office of Coast Survey, NOAA

**240-533-0057**

[christina.belton@noaa.gov](mailto:christina.belton@noaa.gov)

[Quoted text hidden]

---

**Kyle Ward - NOAA Federal** <kyle.ward@noaa.gov>

Thu, Sep 6, 2018 at 8:04 AM

To: Christina Belton - NOAA Affiliate <christina.belton@noaa.gov>

Cc: \_NMAO MOA OPS Thomas Jefferson <co.thomas.jefferson@noaa.gov>, \_NMAO MOA OPS Thomas Jefferson <OPS.Thomas.Jefferson@noaa.gov>

CO,

I think the normal (Not for Navigation) plots with DTM and soundings will meet their needs. The meeting goes for awhile so there is time during the breaks to look over plotter sized images. They also usually have a projector so you could put together a few slides if you have found anything interesting. The food is always good, most everyone speaks English but if you have a Spanish speaker on board to bring with you it would build plenty of good will and make it easier to mingle.

FYI on some personnel you may meet. The command staff know me but have not spend much time with them. The other USCG staff know me well and they were the ones I was passing most of your information to during the storm last year. You will probably have lots to talk about with them. I will give them a heads up you will be in attendance and send you a picture so you can put names with faces.

[USCG Sector San Juan Command](#)

Prevention Chief is CDR Janet Espino-Young  
Waterways Chief LCDR David Otani  
USCG Port Recovery Specialist Civilian (he know everyone) Izzy Torrez

Kyle R. Ward

Southeast Navigation Manager  
NOAA Office of Coast Survey  
301.651.4852 cell

[Quoted text hidden]

---

**2 attachments**



image002.jpg  
7K



image001.png  
1K

---

**Kyle Ward - NOAA Federal** <kyle.ward@noaa.gov>

Thu, Sep 6, 2018 at 9:25 PM

To: Christina Belton - NOAA Affiliate <christina.belton@noaa.gov>

Cc: \_NMAO MOA OPS Thomas Jefferson <co.thomas.jefferson@noaa.gov>, \_NMAO MOA OPS Thomas Jefferson  
<OPS.Thomas.Jefferson@noaa.gov>

They have a new Prevention Chief as of today. The new one is [LCDR Jose Rosario](#).

Kyle R. Ward  
Southeast Navigation Manager  
NOAA Office of Coast Survey  
301.651.4852 cell

[Quoted text hidden]



Charles Wisotzkey - NOAA Federal <charles.j.wisotzkey@noaa.gov>

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## Maersk 2pm 10/26

8 messages

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**Christina Belton - NOAA Federal** <christina.belton@noaa.gov>

Fri, Oct 26, 2018 at 11:18 AM

To: \_OMAO MOA CO Thomas Jefferson <co.thomas.jefferson@noaa.gov>

Cc: "XO.Thomas Jefferson - NOAA Service Account" <xo.thomas.jefferson@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>, Kyle Ward - NOAA Federal <kyle.ward@noaa.gov>, Charles Wisotzkey - NOAA Federal <charles.j.wisotzkey@noaa.gov>, Anthony Klemm - NOAA Federal <anthony.r.klemm@noaa.gov>

CO,

Rob Towley from Maersk will join a call with James Miller, Kyle Ward and myself at 2pm.

James will present his data findings on what exists for the two new F sheets already.

Our aim is to find out a bit more about what Maersk needs for data.

Maybe we already have much of what they need.

According to AIS ship traffic, *TJ* is alongside in San Juan right now. I am not sure how accurate that is.

Would you like to join the call today at 2pm, or would you prefer to receive a summary after the call?

Thank You,  
Christina Belton

Christina Belton  
Physical Scientist  
Operations Branch  
Hydrographic Surveys Division  
Office of Coast Survey, NOAA  
**240-533-0057**  
[christina.belton@noaa.gov](mailto:christina.belton@noaa.gov)

---

**Christina Belton - NOAA Federal** <christina.belton@noaa.gov>

Fri, Oct 26, 2018 at 11:20 AM

To: \_OMAO MOA CO Thomas Jefferson <co.thomas.jefferson@noaa.gov>

Cc: "XO.Thomas Jefferson - NOAA Service Account" <xo.thomas.jefferson@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>, Kyle Ward - NOAA Federal <kyle.ward@noaa.gov>, Charles Wisotzkey - NOAA Federal <charles.j.wisotzkey@noaa.gov>, Anthony Klemm - NOAA Federal <anthony.r.klemm@noaa.gov>

\*\* Townley

Christina Belton  
Physical Scientist  
Operations Branch  
Hydrographic Surveys Division  
Office of Coast Survey, NOAA  
**240-533-0057**  
[christina.belton@noaa.gov](mailto:christina.belton@noaa.gov)

[Quoted text hidden]

---

**CO Thomas Jefferson** <co.thomas.jefferson@noaa.gov>

Fri, Oct 26, 2018 at 11:31 AM

To: Christina Belton - NOAA Federal <christina.belton@noaa.gov>

Cc: "XO.Thomas Jefferson - NOAA Service Account" <xo.thomas.jefferson@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>, Kyle Ward - NOAA Federal <kyle.ward@noaa.gov>, Charles Wisotzkey - NOAA Federal <charles.j.wisotzkey@noaa.gov>, Anthony Klemm - NOAA Federal <anthony.r.klemm@noaa.gov>

Christina,

I'm going on leave at 1400, but I will pass on to Meghan (ACO) to call-in. She will be monitoring the CO email account while I'm away.

Thanks,

Chris

**CAPT Chris van Westendorp, NOAA**

**Commanding Officer, NOAA Ship *Thomas Jefferson* (S-222)**

[co.thomas.jefferson@noaa.gov](mailto:co.thomas.jefferson@noaa.gov)

Ship Cell1: (757)647-0187 Cell2: (757)418-0629

VoIP: (541)867-8927/8928 Iridium: (808)434-2706

In-Port Norfolk: (757)441-6322/6323

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**Christina Belton - NOAA Federal** <christina.belton@noaa.gov>

Fri, Oct 26, 2018 at 11:33 AM

To: \_OMAO MOA CO Thomas Jefferson <co.thomas.jefferson@noaa.gov>

Cc: "XO.Thomas Jefferson - NOAA Service Account" <xo.thomas.jefferson@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>, Kyle Ward - NOAA Federal <kyle.ward@noaa.gov>, Charles Wisotzkey - NOAA Federal <charles.j.wisotzkey@noaa.gov>, Anthony Klemm - NOAA Federal <anthony.r.klemm@noaa.gov>, James Miller - NOAA Federal <james.j.miller@noaa.gov>

Ok, sounds good. James is setting up the call.

[Quoted text hidden]

---

**Charles Wisotzkey - NOAA Federal** <charles.j.wisotzkey@noaa.gov>

Fri, Oct 26, 2018 at 11:35 AM

To: \_OMAO MOA CO Thomas Jefferson <co.thomas.jefferson@noaa.gov>

Cc: Christina Belton - NOAA Federal <christina.belton@noaa.gov>, "XO.Thomas.Jefferson" <xo.thomas.jefferson@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>, Kyle Ward - NOAA Federal <kyle.ward@noaa.gov>, Anthony Klemm <anthony.r.klemm@noaa.gov>

Christina,

I doubt we will make that call.

From an ops perspective, it makes most sense for us to try these surveys on Tuesday 30 OCT. We can leave as scheduled on Monday and be back on project south of Ponce on Wednesday morning. Waiting until later in the leg will mean an extra night off project. We have personnel transfers in Ponce on 05 NOV before departing Puerto Rico, so we can't do it then. Please factor this in for planning and EC purposes.

- Charles

On Fri, Oct 26, 2018 at 11:31 AM CO Thomas Jefferson <co.thomas.jefferson@noaa.gov> wrote:

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LT Charles J. Wisotzkey, NOAA

[Quoted text hidden]

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**Christina Belton - NOAA Federal** <christina.belton@noaa.gov>

Fri, Oct 26, 2018 at 11:54 AM

To: Charles Wisotzkey - NOAA Federal <charles.j.wisotzkey@noaa.gov>

Cc: \_OMAO MOA CO Thomas Jefferson <co.thomas.jefferson@noaa.gov>, "XO.Thomas Jefferson - NOAA Service Account" <xo.thomas.jefferson@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>, Kyle Ward - NOAA Federal <kyle.ward@noaa.gov>, Anthony Klemm - NOAA Federal <anthony.r.klemm@noaa.gov>, James Miller - NOAA Federal <james.j.miller@noaa.gov>

Received.



Given that FEMA is requesting, we'll assume EC concurrence by Monday. We've reached out to all concerned.

Christina Belton  
Physical Scientist  
Operations Branch  
Hydrographic Surveys Division  
Office of Coast Survey, NOAA  
**240-533-0057**  
[christina.belton@noaa.gov](mailto:christina.belton@noaa.gov)

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**Christina Belton - NOAA Federal** <[christina.belton@noaa.gov](mailto:christina.belton@noaa.gov)> Mon, Oct 29, 2018 at 11:12 AM  
To: Charles Wisotzkey - NOAA Federal <[charles.j.wisotzkey@noaa.gov](mailto:charles.j.wisotzkey@noaa.gov)>  
Cc: \_OMAO MOA CO Thomas Jefferson <[co.thomas.jefferson@noaa.gov](mailto:co.thomas.jefferson@noaa.gov)>, "XO.Thomas Jefferson - NOAA Service Account" <[xo.thomas.jefferson@noaa.gov](mailto:xo.thomas.jefferson@noaa.gov)>, Corey Allen - NOAA Federal <[corey.allen@noaa.gov](mailto:corey.allen@noaa.gov)>, Kyle Ward - NOAA Federal <[kyle.ward@noaa.gov](mailto:kyle.ward@noaa.gov)>, Anthony Klemm - NOAA Federal <[anthony.r.klemm@noaa.gov](mailto:anthony.r.klemm@noaa.gov)>

All,  
Here is our finalized NEPA compliance for the new areas east of the main island Puerto Rico.  
Thank you for addressing this short-order work.  
Let us know we can help.  
Christina

Christina Belton  
Physical Scientist  
Operations Branch  
Hydrographic Surveys Division  
Office of Coast Survey, NOAA  
**240-533-0057**  
[christina.belton@noaa.gov](mailto:christina.belton@noaa.gov)

On Fri, Oct 26, 2018 at 11:35 AM Charles Wisotzkey - NOAA Federal <[charles.j.wisotzkey@noaa.gov](mailto:charles.j.wisotzkey@noaa.gov)> wrote:  
[Quoted text hidden]

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 **Env Review - Fuel Delivery PR-USVI Maria response.Signed.pdf**  
2049K

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**Charles Wisotzkey - NOAA Federal** <[charles.j.wisotzkey@noaa.gov](mailto:charles.j.wisotzkey@noaa.gov)> Mon, Oct 29, 2018 at 11:45 AM  
To: Christina Belton - NOAA Federal <[christina.belton@noaa.gov](mailto:christina.belton@noaa.gov)>  
Cc: \_OMAO MOA CO Thomas Jefferson <[co.thomas.jefferson@noaa.gov](mailto:co.thomas.jefferson@noaa.gov)>, "XO.Thomas.Jefferson" <[xo.thomas.jefferson@noaa.gov](mailto:xo.thomas.jefferson@noaa.gov)>, Corey Allen - NOAA Federal <[corey.allen@noaa.gov](mailto:corey.allen@noaa.gov)>, Kyle Ward - NOAA Federal <[kyle.ward@noaa.gov](mailto:kyle.ward@noaa.gov)>, Anthony Klemm <[anthony.r.klemm@noaa.gov](mailto:anthony.r.klemm@noaa.gov)>

Got it. Thanks Christina. - Charles  
[Quoted text hidden]



Charles Wisotzkey - NOAA Federal <charles.j.wisotzkey@noaa.gov>

---

## OPR-I369-TJ\_18 Puerto Rico CHANGE 1\_Project Instructions

1 message

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**Christina Belton - NOAA Federal** <christina.belton@noaa.gov>

Tue, Nov 6, 2018 at 3:13 PM

To: ChiefOps MOA - NOAA Service Account <chiefops.moa@noaa.gov>, DeputyOps MOA - NOAA Service Account <DeputyOps.MOA@noaa.gov>

Cc: OMAO MOA CO Thomas Jefferson <co.thomas.jefferson@noaa.gov>, "XO.Thomas Jefferson - NOAA Service Account" <xo.thomas.jefferson@noaa.gov>, "OPS.Thomas Jefferson - NOAA Service Account" <ops.thomas.jefferson@noaa.gov>, "ChiefST.Thomas Jefferson - NOAA Service Account" <chiefst.thomas.jefferson@noaa.gov>, Kyle Ward - NOAA Federal <kyle.ward@noaa.gov>, Jay Nunenkamp - NOAA Federal <jay.nunenkamp@noaa.gov>, James Crocker - NOAA Federal <james.m.crocker@noaa.gov>, Rachel Medley - NOAA Federal <rachel.medley@noaa.gov>, Richard Brennan <richard.t.brennan@noaa.gov>, Lorraine Robidoux - NOAA Federal <lorraine.robidoux@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>, Castle Parker - NOAA Federal <castle.e.parker@noaa.gov>, Briana Welton <Briana.Hillstrom@noaa.gov>, John Nyberg - NOAA Federal <john.nyberg@noaa.gov>, Tara Wallace - NOAA Federal <tara.wallace@noaa.gov>, David Lane - NOAA Federal <david.lane@noaa.gov>, Jerry Hovis <gerald.hovis@noaa.gov>, "\_NOS.CO-OPS.HPT" <NOS.COOPS.HPT@noaa.gov>, Christopher Hare - NOAA Federal <Christopher.Hare@noaa.gov>, Kristen Crossett - NOAA Federal <kristen.crossett@noaa.gov>, Douglas Wood - NOAA Affiliate <douglas.wood@noaa.gov>

Good Afternoon Chief Ops MOA, Deputy Ops MOA,

I am following up with some recently changed project instructions. Please find attached the Change 1 Project Instructions for OPR-I369-TJ\_18 Puerto Rico.

The change is that we added two last minute urgent surveys for FEMA/MAERSK: F00758 and F00759. *Thomas Jefferson* conducted these surveys last week.

Otherwise there are only a couple of minor edits in the document title and PS Support.

Please be in touch with any questions.

Best Regards,  
Christina Belton

Christina Belton  
Physical Scientist  
Operations Branch  
Hydrographic Surveys Division  
Office of Coast Survey, NOAA  
**240-533-0057**  
[christina.belton@noaa.gov](mailto:christina.belton@noaa.gov)



**OPR-I369-TJ-18\_PuertoRico\_ProjectInstructions\_Change1\_signed.pdf**

2054K



Charles Wisotzkey - NOAA Federal <charles.j.wisotzkey@noaa.gov>

## OPR-I369-TJ\_18 Puerto Rico Follow up Points to TJ from OCS conference call with Maersk Group

3 messages

**Christina Belton - NOAA Federal** <christina.belton@noaa.gov>

Fri, Oct 26, 2018 at 5:43 PM

To: \_OMAO MOA CO Thomas Jefferson <co.thomas.jefferson@noaa.gov>, "XO.Thomas Jefferson - NOAA Service Account" <xo.thomas.jefferson@noaa.gov>, Charles Wisotzkey - NOAA Federal <charles.j.wisotzkey@noaa.gov>, Anthony Klemm - NOAA Federal <anthony.r.klemm@noaa.gov>

Cc: Kyle Ward - NOAA Federal <kyle.ward@noaa.gov>, Briana Welton <Briana.Hillstrom@noaa.gov>, James Miller - NOAA Federal <james.j.miller@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>

Good Evening TJ,

These are the points of discussion from our call today with Rob Townley from Maersk.

Conference Call Attendees:

Rob Townley, Maersk Group  
Kyle Ward, Southeast Navigation Manager, Customer Affairs Branch  
James Miller, HSD AHB  
Christina Belton, PM, HSD OPS

Follow up Points from Maersk con call:

1) Bahia de Sardinias polygon, Culebra Survey F00758

- i. There is a revised polygon extending approximately 45 meters to the northwest in Bahia de Sardinias capturing deeper channel portions. Please cover this area. Revised polygon is attached to this email with the suffix R1.
- ii. The most important area to survey is the pier face in the area 2017 TJ MBES did not reach, to the extent TJ launch can safely survey.
- iii. In all other areas within polygon, it is acceptable to only fill in 2017 gaps in the MBES coverage.
- iv. Please see the three accompanying graphics of Sardinias, generated by James. MBES coverage is visible but all soundings shown are from the 2018 USACE LiDAR data. The LiDAR data is served publicly on Digital Coast <https://coast.noaa.gov/digitalcoast/>.

2) Enighed Pond, USVI, Survey F00759

- i. As in Sardinias, the pier faces within the polygon are the most important areas to cover to the extent that TJ launch can safely survey.
- ii. In all other areas within polygon, it is acceptable to only fill in 2017 gaps in the MBES coverage

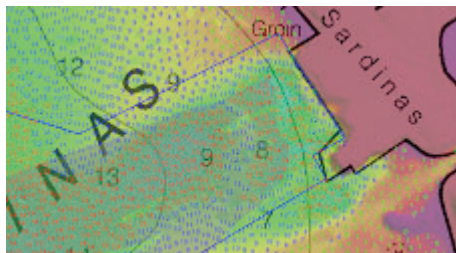
3) Ensenada Honda – South Coast Pilot Request Survey F00758

- i. The LiDAR coverage for this area is good and the 2018 LiDAR depths match well to chart.
- ii. The priority area is the deeper channel portion within the polygon, outside of the blue tint seen on 1:6,500 RNC 25654 Ensenada Honda.
- iii. Within the blue tint area, please only survey as much as extra time allows and to the extent that is safe to survey.

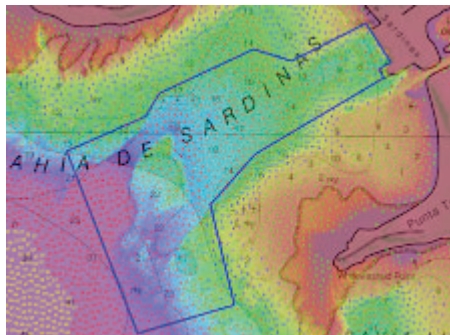
Please be in touch with any questions.

Have a nice weekend,  
Christina

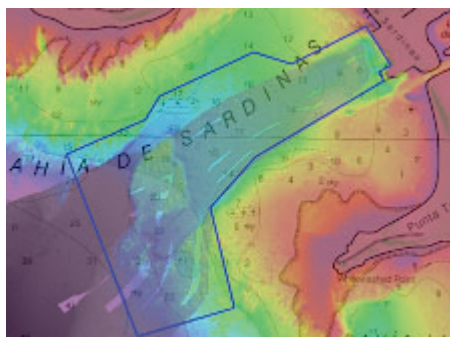
Christina Belton  
Physical Scientist  
Operations Branch  
Hydrographic Surveys Division  
Office of Coast Survey, NOAA  
**240-533-0057**  
[christina.belton@noaa.gov](mailto:christina.belton@noaa.gov)

**6 attachments**

**F00758 - Bahia de Sardinias - lidar soundings along pier.png**  
1242K



**F00758 - Bahia de Sardinias - lidar soundings overview.png**  
1699K



**F00758 - Bahia de Sardinias - multibeam and lidar coverage.png**  
1404K

 **SardiniasHonda\_R1.zip**  
4K

 **OPR-I369-TJ-18\_SardiniasHonda\_R1.pdf**  
353K

 **Follow Up Points from Maersk con call.pdf**  
287K

---

**Charles Wisotzkey - NOAA Federal** <charles.j.wisotzkey@noaa.gov>

Mon, Oct 29, 2018 at 9:19 AM

To: \_OMAO MOA OPS Thomas Jefferson <ops.thomas.jefferson@noaa.gov>, Anthony Klemm  
<anthony.r.klemm@noaa.gov>

Anthony,

Can you try to download this? I can't get the new shape file to download to my computer.

[Quoted text hidden]

--

LT Charles J. Wisotzkey, NOAA  
NOAA Ship Thomas Jefferson (S-222)

---

**Anthony Klemm - NOAA Federal** <anthony.r.klemm@noaa.gov>

Mon, Oct 29, 2018 at 10:07 AM

To: Charles Wisotzkey <charles.j.wisotzkey@noaa.gov>

Cc: \_OMAO MOA OPS Thomas Jefferson <ops.thomas.jefferson@noaa.gov>

4/12/2019

National Oceanic and Atmospheric Administration Mail - OPR-I369-TJ\_18 Puerto Rico Follow up Points to TJ from OCS conference call ...

Done. K:\Project\_Instructions\2018\OPR-I369-TJ-18\_PuertoRico\GIS Files\Culebra updated polygons

LT Anthony Klemm, NOAA

Field Operations Officer

NOAA Ship *Thomas Jefferson*

439 W York Street

Norfolk, VA 23510

757-647-0187

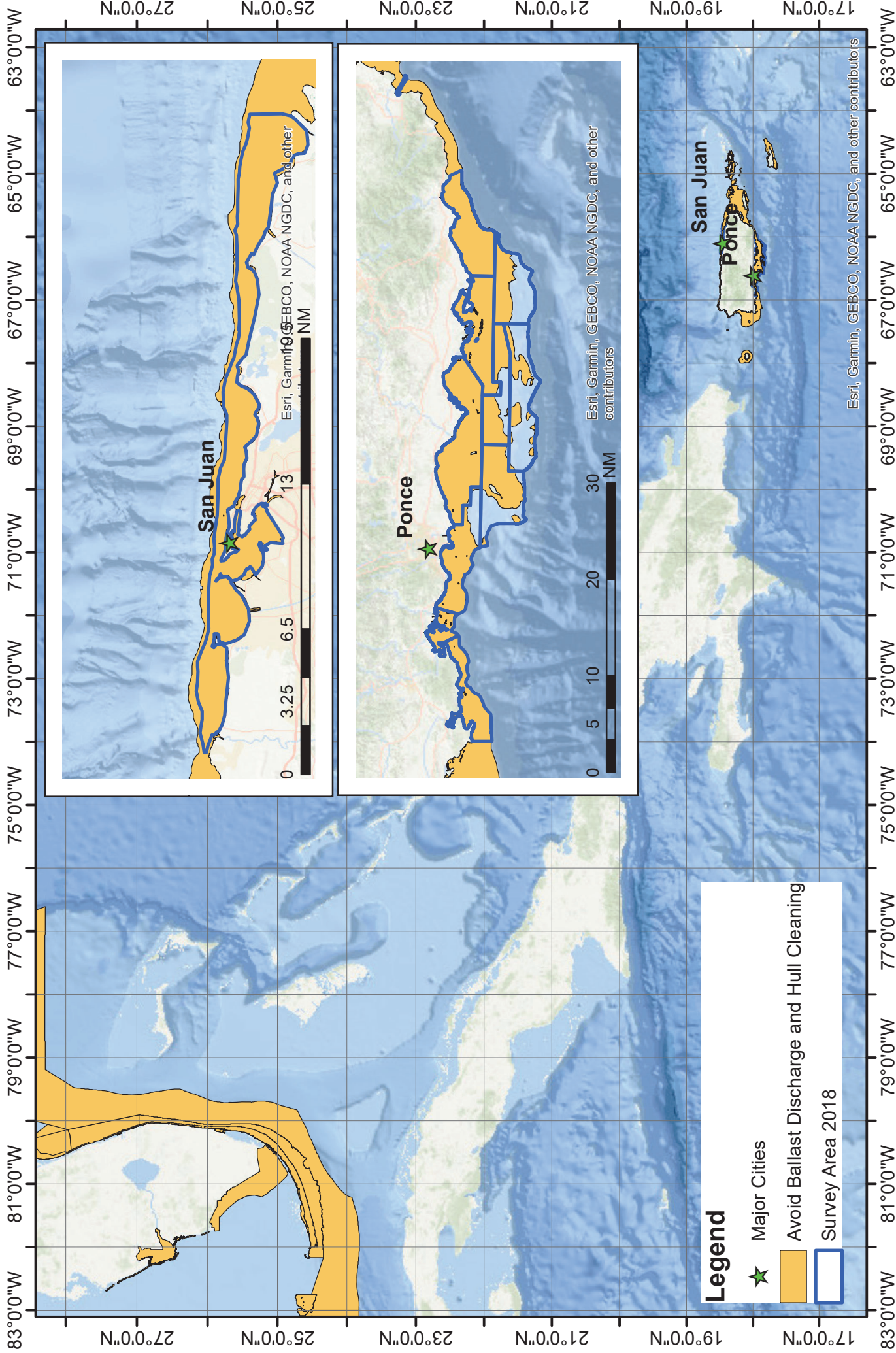
Learn about NOAA nautical charts - [www.nauticalcharts.noaa.gov](http://www.nauticalcharts.noaa.gov)

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**OPR-I369-TJ\_18**  
**Puerto Rico Hydrographic Survey**  
**Total SNM 309**  
**August 13 - November 5, 2018**

Endangered Species Act (ESA) and  
Marine Mammal Protection Act (MMPA)  
Compliance for  
National Marine Fisheries Service Species (NMFS).







Charles Wisotzkey - NOAA Federal <charles.j.wisotzkey@noaa.gov>

---

## OPR-I369-TJ-18 NCEI Data

2 messages

---

**Calandria DeCastro** <calandria.m.decastro@noaa.gov>

Thu, Mar 21, 2019 at 1:43 PM

To: \_NODC Submissions <nodc.submissions@noaa.gov>

Cc: ops.thomas.jefferson@noaa.gov, Christina Belton - NOAA Federal <christina.belton@noaa.gov>

Good afternoon,

Attached is the NCEI Sound Speed Data for Project OPR-I369-TJ-18.

V/r,

--

LT Calandria DeCastro, NOAA  
OPS in Training, NOAA Ship *Thomas Jefferson*  
Ship Land Line: 757-441-6322  
Ship Cell: 757-647-0187  
Ship Iridium: 808-434-2706



**OPR-I369\_TJ-18\_20190321.zip**  
1582K

---

**Charles Wisotzkey - NOAA Federal** <charles.j.wisotzkey@noaa.gov>

Fri, Apr 5, 2019 at 10:58 AM

To: \_OMAO MOA ChiefST Thomas Jefferson <chiefst.thomas.jefferson@noaa.gov>

[Quoted text hidden]

--

LT Charles J. Wisotzkey, NOAA  
NOAA Ship Thomas Jefferson (S-222)



**OPR-I369\_TJ-18\_20190321.zip**  
1582K



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
Office of Marine and Aviation Operations  
NOAA Ship *Thomas Jefferson* (S222)  
439 West York St, Norfolk, VA 23510

August 7, 2018

MEMORANDUM FOR: Christina Belton  
Project Manager, OPR-I369-TJ-18  
Hydrographic Surveys Division Operations Branch

FROM: Commander Chris van Westendorp, NOAA  
Commanding Officer, NOAA Ship *Thomas Jefferson*

SUBJECT: Waiver request to modify OPR-I369-TJ-18 sheet extents

*Thomas Jefferson* requests a waiver of Project Instructions OPR-I369-TJ-18 based on available lidar.

#### Justification

In consultation with the Chief of AHB and with assistance from AHB's PS James Miller in planning for OPR-I369-TJ-18 (Puerto Rico), we discovered high quality topobathy lidar datasets (1m DEMs) from the USACE CZMIL system, flown in 2016. Combined with the RSD lidar datasets also available on NOAA's Digital Coast data repository, we created a 5m lidar DEM in common areas with our assigned project. We assess that existing lidar coverage satisfies Coast Survey's requirements in non-object detection areas of OPR-I369-TJ-18 due to observed high quality of existing and relatively recently acquired datasets available, especially in 200m set line spacing requirement areas (outlined green in Figure 1).

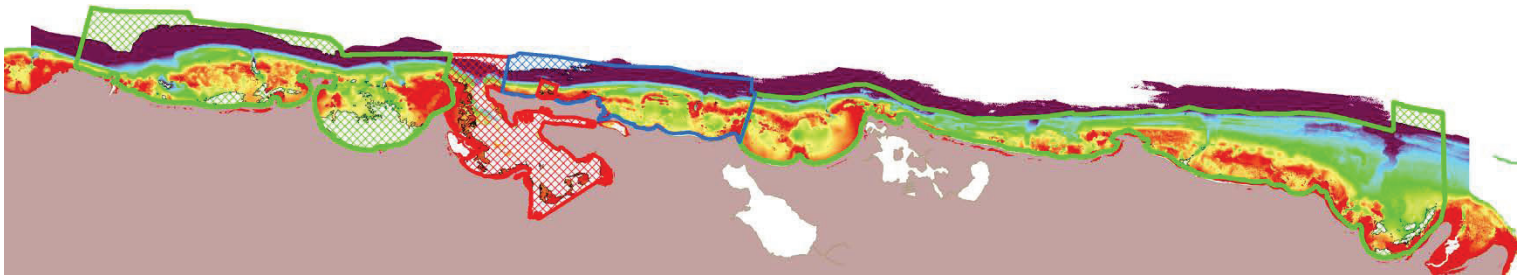


Figure 1: Extents of USACE and RSD lidar coverage overlapping H13041

We intend/propose to clip the assigned sheets with set line spacing and complete coverage requirements to existing lidar coverage extents that have been preliminarily reviewed (ESDRed) by PS James Miller and deemed suitable for charting. For sheets with object detection requirements, the lidar will be used for reconnaissance and to outline the 3.5m NALL. In the areas clipped to lidar coverage, we will identify assigned features to investigate where safe and practicable to do so, more fully developing significant features and providing proper hydrographic feature attribution.



We also intend to collect adequate overlap in junction areas, and identify lidar data areas for small reference surfaces and further empirical accuracy evaluation.

Similarly, one southern assigned complete coverage sheet significantly overlaps with the eastern edge of recently acquired EM710 MBES from a *Nancy Foster* mapping project (NCCOS, preliminary products shared by Tim Battista). We intend to junction with the NF survey data and clip our sheet extent accordingly (Figure 2):

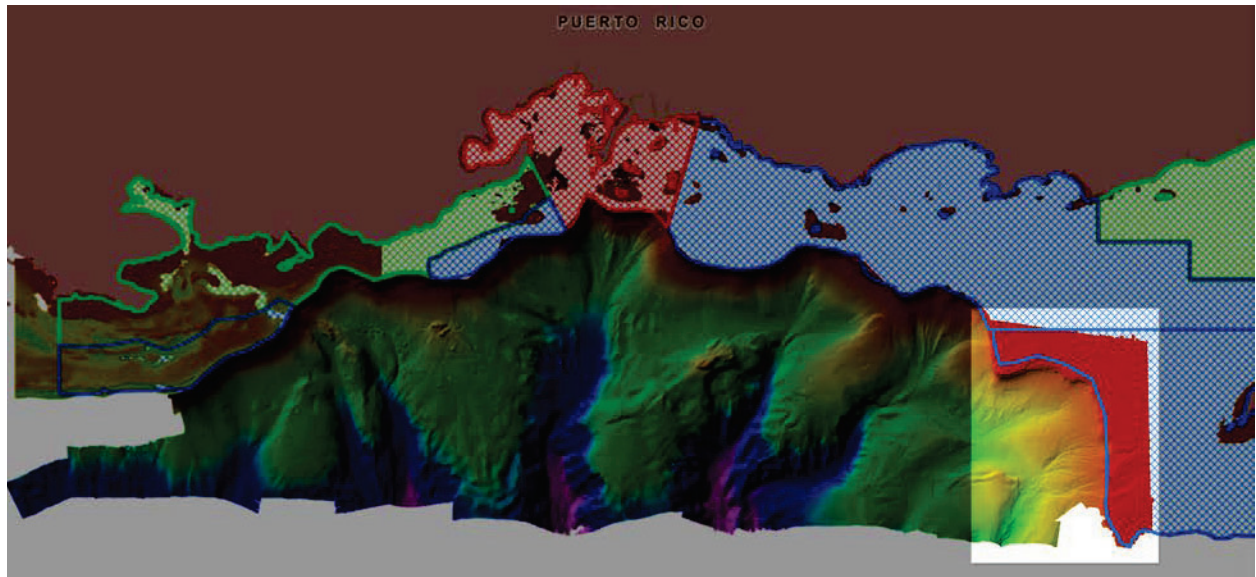


Figure 2: *Nancy Foster* survey extents overlapping H13144

These actions will reduce the assigned project area from 308 SNM to ~250 SNM. The Chief of AHB and I agree that using this existing high quality data increases operational safety, efficiency, and overall productivity.

### Decision

Waiver is:

\_\_\_\_\_  
Granted

\_\_\_\_\_  
Denied

cc: Chief, HSD OPS  
Chief, AHB  
OPS, *Thomas Jefferson*  
HCST, *Thomas Jefferson*



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
Office of Marine and Aviation Operations,  
Marine Operation Center-Atlantic, NOAA Ship *Thomas Jefferson*  
Norfolk, Virginia 23510

April 16, 2018

MEMORANDUM FOR: Jay Nunenkamp  
Environmental Compliance Coordinator, NOAA Office of Coast  
Survey

FROM: ENS Jacquelyn Putnam, NOAA  
Junior Officer, NOAA Ship *Thomas Jefferson*

SUBJECT: Recipients of Marine Species Awareness Training

The following personnel of NOAA Ship *Thomas Jefferson* completed the required Marine Species Awareness Training (MSAT) on April 4, 2018:

- LCDR Meghan McGovern
- LT Anthony Klemm
- LT Charles Wisotzkey
- ENS Dale Gump
- ENS Sydney Catoire
- ENS Garrison Grant
- ENS Jacquelyn Putnam
- ENS Taylor Krabiel
- JUE Sharon Gilliam
- EU Andy Medina
- WP Michael Wilson
- ET Thomas Loftin
- ET Richard Conway
- CHST Allison Stone
- HST Kim Glomb
- HST Joshua Hiteshew
- HST Tracey McMillan
- HAST Kevin Brown
- CB Bernard Pooser
- BGL Robert Bayliss
- SS Francine Grains
- SS James Brzostek



- AB Patrick Osborn
- AB Tom Bascom
- AB Stephen Lovett
- GVA Joshua Thompson
- CC Ace Burke
- 2C Patrick Fennel
- 2C Nester Poblete



Charles Wisotzkey - NOAA Federal <charles.j.wisotzkey@noaa.gov>

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## TJ-18-03: San Juan, Ponce and Vicinities, Puerto Rico Final Signed Instructions

2 messages

---

**ChiefOps MOA - NOAA Service Account** <chiefops.moa@noaa.gov>

Wed, Jun 27, 2018 at 3:55 PM

To: \_OMAO MOA CO Thomas Jefferson <co.thomas.jefferson@noaa.gov>

Cc: \_OMAO MOA OPS Thomas Jefferson <ops.thomas.jefferson@noaa.gov>, "CO.MOC Atlantic"

<co.moc.atlantic@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>, DeputyOps MOA - NOAA Service Account <deputyops.moa@noaa.gov>, Richard Brennan <richard.t.brennan@noaa.gov>, Christina Belton - NOAA Federal <christina.belton@noaa.gov>

CDR,

Attached are your signed and final project instructions for Puerto Rico.

Respectfully,  
Joe

Joseph K. Carrier III, LCDR/NOAA  
Chief of Operations  
Marine Operations Center - Atlantic  
439 West York Street  
Norfolk, VA 23510  
Office: (757) 441-6842  
Alt Email: [joseph.carrier@noaa.gov](mailto:joseph.carrier@noaa.gov)  
<http://www.moc.noaa.gov/MOC-A/index.html>



TJ-18-03 v3.1 Final project instruction, OPR-I369-TJ-18 (Puerto Rico) sk.pdf  
7417K

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**CO Thomas Jefferson** <co.thomas.jefferson@noaa.gov>

Wed, Jun 27, 2018 at 10:41 PM

To: DeputyOps MOA - NOAA Service Account <deputyops.moa@noaa.gov>

Cc: "OPS.Thomas Jefferson - NOAA Service Account" <ops.thomas.jefferson@noaa.gov>

MOC-A,

PIs received and acknowledged.

R/

CO TJ

**CDR Chris van Westendorp, NOAA**

Commanding Officer, NOAA Ship *Thomas Jefferson* (S-222)

[co.thomas.jefferson@noaa.gov](mailto:co.thomas.jefferson@noaa.gov)

Ship Cell1: (757)647-0187 Cell2: (757)418-0629

VoIP: (541)867-8927/8928 Iridium: (808)434-2706

In-Port Norfolk: (757)441-6322/6323

[Quoted text hidden]





Charles Wisotzkey - NOAA Federal <charles.j.wisotzkey@noaa.gov>

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## OPR-I369-TJ-PuertoRico\_FinalProject Instructions

1 message

---

**Christina Belton - NOAA Federal** <christina.belton@noaa.gov>

Tue, Jun 19, 2018 at 6:03 PM

To: ChiefOps MOA - NOAA Service Account <chiefops.moa@noaa.gov>, DeputyOps MOA - NOAA Service Account <DeputyOps.MOA@noaa.gov>

Cc: \_OMAO MOA CO Thomas Jefferson <co.thomas.jefferson@noaa.gov>, "XO.Thomas Jefferson - NOAA Service Account" <xo.thomas.jefferson@noaa.gov>, "OPS.Thomas Jefferson - NOAA Service Account" <ops.thomas.jefferson@noaa.gov>, "ChiefST.Thomas Jefferson - NOAA Service Account" <chiefst.thomas.jefferson@noaa.gov>, Kyle Ward - NOAA Federal <kyle.ward@noaa.gov>, Jay Nunenkamp - NOAA Federal <jay.nunenkamp@noaa.gov>, James Crocker - NOAA Federal <james.m.crocker@noaa.gov>, Rachel Medley - NOAA Federal <rachel.medley@noaa.gov>, Richard Brennan <richard.t.brennan@noaa.gov>, Lorraine Robidoux - NOAA Federal <lorraine.robidoux@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>, Kathryn Pridgen - NOAA Federal <kathryn.pridgen@noaa.gov>, Briana Welton <Briana.Hillstrom@noaa.gov>, John Nyberg - NOAA Federal <john.nyberg@noaa.gov>, Tara Wallace - NOAA Federal <tara.wallace@noaa.gov>, David Lane - NOAA Federal <david.lane@noaa.gov>, Jerry Hovis <gerald.hovis@noaa.gov>, "\_NOS.CO-OPS.HPT" <NOS.COOPS.HPT@noaa.gov>, Christopher Hare - NOAA Federal <Christopher.Hare@noaa.gov>, Kristen Crossett - NOAA Federal <kristen.crossett@noaa.gov>

Good Evening Chief Ops MOA, Deputy Ops MOA,

I attached the Final Project Instructions for the project OPR-I369-TJ-18\_Puerto Rico to this email.

Please let us know if you have any questions.

Best Regards,  
Christina

Christina Belton  
Physical Scientist  
Operations Branch  
Hydrographic Surveys Division  
Office of Coast Survey, NOAA  
**240-533-0057**  
[christina.belton@noaa.gov](mailto:christina.belton@noaa.gov)

---

### 2 attachments



**OPR-I369-TJ-18\_PuertoRico\_ProjectInstructions\_Final\_signed.pdf**  
3413K



**TJ-18-03\_OMAO\_ProjectInstruction\_Final.docx**  
129K



Charles Wisotzkey - NOAA Federal <charles.j.wisotzkey@noaa.gov>

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## PR Priorities

1 message

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**Corey Allen - NOAA Federal** <corey.allen@noaa.gov>

Mon, Aug 13, 2018 at 5:42 PM

To: "CO.Thomas Jefferson - NOAA Service Account" <co.thomas.jefferson@noaa.gov>

Cc: Christina Belton - NOAA Federal <christina.belton@noaa.gov>, "OPS.Thomas Jefferson - NOAA Service Account" <ops.thomas.jefferson@noaa.gov>

CO,

Thank you for your call today. In summary, we discussed the 1. shift in order of planned survey completion and 2. likelihood for planned operations in Sheet 1 to occur with ship pier-side.

1. CO acknowledged sheet 1 as highest priority for project, requested ability to begin operations in sheet 2 and save sheet 1 in the event staffing, weather or mechanical results in the ship alongside in San Juan harbor. Ops agrees as long as ship commits to completing Sheet 1 prior to departing at end of season.

2. No concerns.

Regards, Corey

--

J. Corey Allen

Chief (acting), Operations Branch

Office of Coast Survey, NOAA

[Corey.Allen@noaa.gov](mailto:Corey.Allen@noaa.gov)

240.533.0037 (Office)

301.717.7271 (Cell)

[Click here for information on our planned survey activities](#)

Find us on [Facebook](#), [Twitter](#) and the [NOAA Coast Survey](#) blog



Charles Wisotzkey - NOAA Federal <charles.j.wisotzkey@noaa.gov>

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## Puerto Rico

12 messages

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**Joshua Witmer - NOAA Federal** <joshua.d.witmer@noaa.gov>

Sat, Jul 28, 2018 at 1:56 PM

To: Anthony Klemm <anthony.r.klemm@noaa.gov>, Charles Wisotzkey <charles.j.wisotzkey@noaa.gov>, \_OMAO MOA XO Thomas Jefferson <xo.thomas.jefferson@noaa.gov>

Cc: Max Andersen - NOAA Federal <max.andersen@noaa.gov>, Gretchen Imahori <gretchen.imahori@noaa.gov>, "Stephen A. White" <Stephen.A.White@noaa.gov>

Hello all,

Max and I got the go ahead to both join the TJ during your 04-14Sep cruise. This is with the understanding that RSD will pay for my travel and OMAO/TJ will pay for Max's travel as an augmener.

I know we initially talked about joining you in August, so does this plan still interest you if we join in September instead?

Regards,  
Josh

--

Joshua D. Witmer  
Remote Sensing Specialist  
NOAA Affiliate - Data Solutions & Technology  
National Geodetic Survey  
717-799-4673

---

**Anthony Klemm - NOAA Federal** <anthony.r.klemm@noaa.gov>

Mon, Jul 30, 2018 at 3:55 PM

To: Joshua Witmer - NOAA Federal <joshua.d.witmer@noaa.gov>

Cc: Charles Wisotzkey <charles.j.wisotzkey@noaa.gov>, \_OMAO MOA XO Thomas Jefferson <xo.thomas.jefferson@noaa.gov>, Max Andersen - NOAA Federal <max.andersen@noaa.gov>, Gretchen Imahori <gretchen.imahori@noaa.gov>, "Stephen A. White" <Stephen.A.White@noaa.gov>

Hi Josh,

This is great news. We are definitely still interested in having you on board in September. I'm not sure how the travel \$\$\$ works. XO would know best, and if we have bunk spaces available for both of you. Charles mentioned you may be able to send us some preliminary coverage products of some of your more recent flights. That'd be helpful for sure.

Best,  
Anthony

LT Anthony Klemm, NOAA  
Field Operations Officer  
NOAA Ship *Thomas Jefferson*  
439 W York Street  
Norfolk, VA 23510  
757-647-0187

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**XO.Thomas Jefferson - NOAA Service Account** <xo.thomas.jefferson@noaa.gov>

Thu, Aug 2, 2018 at 8:35 PM

To: Anthony Klemm - NOAA Federal <anthony.r.klemm@noaa.gov>

Cc: Joshua Witmer - NOAA Federal <joshua.d.witmer@noaa.gov>, Charles Wisotzkey <charles.j.wisotzkey@noaa.gov>, Max Andersen - NOAA Federal <max.andersen@noaa.gov>, Gretchen Imahori <gretchen.imahori@noaa.gov>, "Stephen A.

White" <Stephen.A.White@noaa.gov>

That sounds great. The September 4-14 can fit both, and we should be able to fund Max through the Augmenter pool - barring sticky problems EOFY.

R  
XO

-----  
LCDR Meghan McGovern, NOAA  
Executive Officer, NOAA Ship Thomas Jefferson  
Ship Land Line: 757-441-6322  
Ship Cell: 757-647-0187  
Ship Iridium: 808-434-2706  
Ship VOIP: 541-867-8927

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**Joshua Witmer - NOAA Federal** <joshua.d.witmer@noaa.gov>

Fri, Aug 3, 2018 at 4:26 PM

To: "XO.Thomas Jefferson - NOAA Service Account" <xo.thomas.jefferson@noaa.gov>

Cc: Anthony Klemm - NOAA Federal <anthony.r.klemm@noaa.gov>, Charles Wisotzkey <charles.j.wisotzkey@noaa.gov>, Max Andersen - NOAA Federal <max.andersen@noaa.gov>, Gretchen Imahori <gretchen.imahori@noaa.gov>, "Stephen A. White" <Stephen.A.White@noaa.gov>

Excellent. We will start preparing our travel requests and work at getting them pushed through.

Anthony,  
Do you mind sending your P.R. survey blocks extents? Shapefile or whatever format you have is fine. Just want to make sure we have the latest planned survey areas.

We are inquiring about some shoreline imagery recently collected in P.R. and trying to see if we can get it to you in time. Would this be worth it to you, or is the other imagery you have sufficient enough for you?

Also, once we have your survey sheet areas, we will work at getting you some lidar GeoTiffs that you can hopefully use in Hypack to help navigate the launches in the shallow water areas.

Of course, please let me know of anything else you think of that we can provide to you and let's stay in touch. Looking forward to the trip.

Regards,

Joshua D. Witmer  
Remote Sensing Specialist  
NOAA Affiliate - Data Solutions & Technology  
National Geodetic Survey  
717-799-4673

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**Anthony Klemm - NOAA Federal** <anthony.r.klemm@noaa.gov>

Sat, Aug 4, 2018 at 12:32 PM

To: Joshua Witmer - NOAA Federal <joshua.d.witmer@noaa.gov>, Max Andersen - NOAA Federal <max.andersen@noaa.gov>, Gretchen Imahori - NOAA Federal <gretchen.imahori@noaa.gov>, "Stephen A. White" <stephen.a.white@noaa.gov>

Cc: \_OMAO MOA OPS Thomas Jefferson <ops.thomas.jefferson@noaa.gov>

Hi Josh,

See attached for the sheet boundaries. Just to let you know, we did some more data discovery on DigitalCoast and found some beautiful USACE lidar datasets from 2014 and 2016 (CZMIL) that work very well with the datasets you sent us

earlier. All combined, it may turn out that we won't have to do much work on the north side, except for inside San Juan Harbor. On the first sheet on the north, there are some areas that don't require object detection. They are requiring only 200m set line spacing in some areas, and complete coverage in others. We intend to see how willing HSD Ops is to allow the existing lidar coverage to be good enough in those non-object detection required areas. I believe that this may be the strongest use case for lidar compared to traditional launch survey.

I think any extra high res shoreline imagery would be helpful, especially in resolving some of the dangerous-to-get-to features assigned to us by Ops.

I'll keep you all in touch once we hear back.

Best,  
Anthony

LT Anthony Klemm, NOAA  
Field Operations Officer  
NOAA Ship *Thomas Jefferson*  
439 W York Street  
Norfolk, VA 23510  
757-647-0187

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### 3 attachments



**OPR-I369-TJ-18\_PuertoRico\_ProjectInstructions\_Final\_signed.pdf**  
952K



**CSF\_PRF\_PR.zip**  
2136K



**TJ\_Puerto\_Rico\_Sheets\_2018.zip**  
586K

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**Joshua Witmer - NOAA Federal** <joshua.d.witmer@noaa.gov>

Fri, Aug 10, 2018 at 11:34 AM

To: Anthony Klemm - NOAA Federal <anthony.r.klemm@noaa.gov>

Cc: \_OMAO MOA OPS Thomas Jefferson <ops.thomas.jefferson@noaa.gov>, Gretchen Imahori - NOAA Federal <gretchen.imahori@noaa.gov>, Max Andersen - NOAA Federal <max.andersen@noaa.gov>

Anthony,

I am glad that you found the USACE lidar datasets on DigitalCoast. I wanted to bring that to your attention, hoping that it could be useful for you.

Are you planning to use the datasets as a background in Hypack to aid in navigating the survey launches in the shallow water areas? If so, do you have the proper files you need to do so? Or, should we try to generate something for you?

From what I understand, the lidar DEMs that we sent you are gridded to 5m, shoal biased, and referenced to vertical = MLLW, horizontal = NAD83.

When downloading the USACE DEMs from DigitalCoast, I don't believe you have the option to select grid size or shoal biased. However, I don't see that being an issue to help navigate in Hypack. Perhaps something to consider if doing more in depth comparisons with multibeam that you collect.

Regarding imagery; in the event that processing takes longer than anticipated on our end and it takes until the end of September to complete, is that still of significant value to you? Or, not really so much at that point?

Regards,  
Josh

Joshua D. Witmer  
Remote Sensing Specialist  
NOAA Affiliate - Data Solutions & Technology  
National Geodetic Survey  
717-799-4673

On Wed, Aug 8, 2018 at 3:09 PM, Anthony Klemm - NOAA Federal <[anthony.r.klemm@noaa.gov](mailto:anthony.r.klemm@noaa.gov)> wrote:  
Hi Gretchen,

We've been able to download some WV2/3 data, and also have access to the post Maria imagery you guys posted for the immediate response. Between the two of them, we should be OK, but it wouldn't be as good as what you guys have. I understand if it'll be too heavy of a lift to provide that to us right now. You guys have done so much for us already.

Best,  
Anthony

On Aug 8, 2018, at 11:53, Gretchen Imahori - NOAA Federal <[gretchen.imahori@noaa.gov](mailto:gretchen.imahori@noaa.gov)> wrote:

Hi Anthony,

When do you need the new PR imagery? Mike is pushing back (I think because folks were burned out from Hx response) but Sellars may go rogue for you ;)

g

[Quoted text hidden]

--

Gretchen Imahori  
Remote Sensing Division  
National Geodetic Survey  
(o): 240-533-9586  
(tw): 240-515-6263

<http://www.ngs.noaa.gov/>

---

**XO.Thomas Jefferson - NOAA Service Account** <[xo.thomas.jefferson@noaa.gov](mailto:xo.thomas.jefferson@noaa.gov)>

Mon, Aug 27, 2018 at 8:16 AM

To: Joshua Witmer - NOAA Federal <[joshua.d.witmer@noaa.gov](mailto:joshua.d.witmer@noaa.gov)>

Cc: Anthony Klemm - NOAA Federal <[anthony.r.klemm@noaa.gov](mailto:anthony.r.klemm@noaa.gov)>, Charles Wisotzkey <[charles.j.wisotzkey@noaa.gov](mailto:charles.j.wisotzkey@noaa.gov)>, Max Andersen - NOAA Federal <[max.andersen@noaa.gov](mailto:max.andersen@noaa.gov)>, Gretchen Imahori <[gretchen.imahori@noaa.gov](mailto:gretchen.imahori@noaa.gov)>, "Stephen A. White" <[Stephen.A.White@noaa.gov](mailto:Stephen.A.White@noaa.gov)>

All,

Unfortunately OMAO cannot fund travel for LTJG Andersen. We've tried various hoops and pots of money but the end of the fiscal year has everybody operating on emergency/no-sail requirements only.

I actually have not been able to get a solid 'no' from shoreside, but given our timeline I'm 99% sure we can't make it happen. I'm really sorry; we were pressing on, thinking we might be able to make it work. No joy.

R  
XO

-----  
LCDR Meghan McGovern, NOAA  
Executive Officer, NOAA Ship Thomas Jefferson  
Ship Land Line: 757-441-6322



Ship Cell: 757-647-0187  
Ship Irridium: 808-434-2706  
Ship VOIP: 541-867-8927

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**Joshua Witmer - NOAA Federal** <joshua.d.witmer@noaa.gov>

Tue, Aug 28, 2018 at 5:10 PM

To: Anthony Klemm <anthony.r.klemm@noaa.gov>

Cc: Charles Wisotzkey <charles.j.wisotzkey@noaa.gov>, Gretchen Imahori <gretchen.imahori@noaa.gov>

Anthony,

How is the survey progress going during this first leg? Do you anticipate spending all of the next leg working on the Northern sheet near San Juan?

I'm just trying to get an idea of which areas we may be working during the next Cruise.

Thank you,  
Josh

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**Anthony Klemm - NOAA Federal** <anthony.r.klemm@noaa.gov>

Tue, Aug 28, 2018 at 5:12 PM

To: Joshua Witmer - NOAA Federal <joshua.d.witmer@noaa.gov>

Cc: Charles Wisotzkey <charles.j.wisotzkey@noaa.gov>, Gretchen Imahori - NOAA Federal <gretchen.imahori@noaa.gov>

Hi Josh,

Things are going well. We are working in the south right now, and will work in the south all next leg. The areas we intend to survey next leg are Ponce, button up Guayanilla, and Bahia de Jobos.

Best,  
Anthony

LT Anthony Klemm, NOAA  
Field Operations Officer  
NOAA Ship *Thomas Jefferson*  
439 W York Street  
Norfolk, VA 23510  
757-647-0187

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**Gretchen Imahori - NOAA Federal** <gretchen.imahori@noaa.gov>

Thu, Sep 6, 2018 at 4:56 PM

To: "XO.Thomas Jefferson - NOAA Service Account" <xo.thomas.jefferson@noaa.gov>, Max Andersen - NOAA Federal <max.andersen@noaa.gov>

Cc: Joshua Witmer - NOAA Federal <joshua.d.witmer@noaa.gov>, Anthony Klemm - NOAA Federal <anthony.r.klemm@noaa.gov>, Charles Wisotzkey <charles.j.wisotzkey@noaa.gov>, "Stephen A. White" <Stephen.A.White@noaa.gov>

Hi All,

I just spoke to Mike A. about Max's travel (I was on leave so didn't know about Max). He said he would pay for it. So ...

Max - if you still want to go - you need to get your travel stuff in tomorrow. Mike said he would pay for it.

XO - if this doesn't work/its too late - please let us know.

Thanks,

g

[Quoted text hidden]

[Quoted text hidden]

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**XO.Thomas Jefferson - NOAA Service Account** <xo.thomas.jefferson@noaa.gov>

Thu, Sep 6, 2018 at 5:30 PM

To: Gretchen Imahori - NOAA Federal <gretchen.imahori@noaa.gov>

Cc: Max Andersen - NOAA Federal <max.andersen@noaa.gov>, Joshua Witmer - NOAA Federal <joshua.d.witmer@noaa.gov>, Anthony Klemm - NOAA Federal <anthony.r.klemm@noaa.gov>, Charles Wisotzkey <charles.j.wisotzkey@noaa.gov>, "Stephen A. White" <Stephen.A.White@noaa.gov>

Greetings Gretchen,

Regarding the current leg, it is probably too late as we are already operating on the south side of Puerto Rico and returning to port next Friday.

However - in discussing with CO, FOOs - if Mike A is still willing to pay for travel, we would absolutely get a huge benefit from having Max here next leg: 9/17-9/28 (San Juan to San Juan). FOO was telling me about the positive work Josh has been doing here already, and having that continue with Max next leg would be fantastic. In addition, we will be down one OOD (our Nav-O, which coincidentally used to be Max); it might be a good opportunity for Max to get in some of his required augmentation time while here, and do some mentoring with our new officers. I really do think it would be time & money well spent, and mutually beneficial.

If it sounds like it will work out on your end, best travel dates would probably be 9/16 arriving San Juan, departing 9/29 from San Juan. Let me know what you think!

R

Meghan

-----  
LCDR Meghan McGovern, NOAA  
Executive Officer, NOAA Ship Thomas Jefferson  
Ship Land Line: 757-441-6322  
Ship Cell: 757-647-0187  
Ship Irridium: 808-434-2706  
Ship VOIP: 541-867-8927

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**XO.Thomas Jefferson - NOAA Service Account** <xo.thomas.jefferson@noaa.gov>

Fri, Sep 7, 2018 at 11:19 AM

To: "OPS.Thomas Jefferson - NOAA Service Account" <ops.thomas.jefferson@noaa.gov>, Anthony Klemm - NOAA Federal <anthony.r.klemm@noaa.gov>, Charles Wisotzkey - NOAA Federal <Charles.J.Wisotzkey@noaa.gov>

FYI ☹️

-----  
LCDR Meghan McGovern, NOAA  
Executive Officer, NOAA Ship Thomas Jefferson  
Ship Land Line: 757-441-6322  
Ship Cell: 757-647-0187  
Ship Irridium: 808-434-2706  
Ship VOIP: 541-867-8927

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

From: **Gretchen Imahori - NOAA Federal** <[gretchen.imahori@noaa.gov](mailto:gretchen.imahori@noaa.gov)>  
Date: Fri, Sep 7, 2018 at 11:11 AM  
Subject: Re: Puerto Rico  
To: "XO.Thomas Jefferson - NOAA Service Account" <[xo.thomas.jefferson@noaa.gov](mailto:xo.thomas.jefferson@noaa.gov)>

Hi Meghan,

Max doesn't think he can make those dates work. Sorry :(

Hope all goes well with the surveying,  
g

[Quoted text hidden]



Charles Wisotzkey - NOAA Federal <charles.j.wisotzkey@noaa.gov>

---

## Re: Future PR lidar

11 messages

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**Anthony Klemm - NOAA Federal** <anthony.r.klemm@noaa.gov>

Tue, Jul 3, 2018 at 11:48 AM

To: Gretchen Imahori - NOAA Federal <gretchen.imahori@noaa.gov>, xo.thomas.jefferson@noaa.gov, OPS.Thomas.Jefferson@noaa.gov

Yes, please. This is great news.

On Jul 3, 2018, at 09:36, Gretchen Imahori - NOAA Federal <[gretchen.imahori@noaa.gov](mailto:gretchen.imahori@noaa.gov)> wrote:

Hi Anthony,

Just wanted to touch base with re. our discussion about support from RSD. Mike approved Josh coming to the TJ to help.

Should I touch base with your XO to see if we can make this work?

Thanks and happy 4th!

g

On Tue, May 29, 2018 at 8:05 PM, Anthony Klemm - NOAA Federal <[anthony.r.klemm@noaa.gov](mailto:anthony.r.klemm@noaa.gov)> wrote:

Sorry.... yes, Thursday at 10:30. I routinely forget what day it is out here.... they all seem the same.

LT Anthony Klemm, NOAA  
Field Operations Officer  
NOAA Ship *Thomas Jefferson*  
[439 W York Street](#)  
[Norfolk, VA 23510](#)  
[757-647-0187](#)

Learn about NOAA nautical charts - [www.nauticalcharts.noaa.gov](http://www.nauticalcharts.noaa.gov)

On Tue, May 29, 2018 at 7:03 PM, Gretchen Imahori - NOAA Federal <[gretchen.imahori@noaa.gov](mailto:gretchen.imahori@noaa.gov)> wrote:

Hi Anthony,

Sorry for any confusion - I can't do Wed at 10:30am. Can you do Thursday or Friday ( Thursday at 10:30am or on Friday at 11am or 2pm) to talk to me and Stephen?

Thanks,

g

On Tue, May 29, 2018 at 3:12 PM, Anthony Klemm - NOAA Federal <[anthony.r.klemm@noaa.gov](mailto:anthony.r.klemm@noaa.gov)> wrote:

Hi Gretchen,

I'm available tomorrow at 10:30am (Eastern time, right?)

You can best reach me on the ship through our VOIP system:

541-867-8927

541-867-8928

Best,

Anthony

LT Anthony Klemm, NOAA  
Field Operations Officer  
NOAA Ship *Thomas Jefferson*

439 W York Street  
Norfolk, VA 23510  
757-647-0187

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On Tue, May 29, 2018 at 8:06 AM, Gretchen Imahori - NOAA Federal  
<[gretchen.imahori@noaa.gov](mailto:gretchen.imahori@noaa.gov)> wrote:

Hi Anthony,

Do you have time Thursday at 10:30am or on Friday at 11am or 2pm to talk to me and Stephen?

Thanks,  
g

On Wed, May 23, 2018 at 4:03 PM, Anthony Klemm - NOAA Federal  
<[anthony.r.klemm@noaa.gov](mailto:anthony.r.klemm@noaa.gov)> wrote:

Hi Gretchen,

I will be on the TJ for the Puerto Rico work this fall. It'd be great to hear updates about the work you're doing.

Best regards,  
Anthony

LT Anthony Klemm, NOAA  
Field Operations Officer  
NOAA Ship *Thomas Jefferson*  
[439 W York Street](#)  
[Norfolk, VA 23510](#)  
[757-647-0187](#)

Learn about NOAA nautical charts - [www.nauticalcharts.noaa.gov](http://www.nauticalcharts.noaa.gov)

On Mon, May 21, 2018 at 11:42 AM, Gretchen Imahori - NOAA Federal  
<[gretchen.imahori@noaa.gov](mailto:gretchen.imahori@noaa.gov)> wrote:

Hi Anthony,

Are you going to be FOO during the PR surveys this year? Would like to keep you in the loop with our discussions with HSD on the survey project if you are able/interested. Please let me know.

thanks,  
g

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

From: **Martha Herzog - NOAA Federal** <[martha.herzog@noaa.gov](mailto:martha.herzog@noaa.gov)>

Date: Mon, May 21, 2018 at 12:14 PM

Subject: Re: Future PR lidar

To: Christina Belton - NOAA Federal <[christina.belton@noaa.gov](mailto:christina.belton@noaa.gov)>

Cc: Stephen White - NOAA Federal <[stephen.a.white@noaa.gov](mailto:stephen.a.white@noaa.gov)>, Gretchen Imahori - NOAA Federal <[gretchen.imahori@noaa.gov](mailto:gretchen.imahori@noaa.gov)>, Corey Allen <[corey.allen@noaa.gov](mailto:corey.allen@noaa.gov)>

Thanks Christina. Didn't know (er, or maybe forgot) we had the file.

Stephen and Gretchen - we are planning on setting our inshore limit to 6m depth for hydro acquisition with the hopes the new data will be consistent up to that depth and we can easily junction with it. Please let me know if you think otherwise.

Thanks,  
Martha

On Mon, May 21, 2018 at 11:48 AM, Christina Belton - NOAA Federal  
<[christina.belton@noaa.gov](mailto:christina.belton@noaa.gov)> wrote:

All,

In the polygon Stephan sent to us on May 15, the future LiDAR was for the entire island. I think there was a question of funding, but assuming that is all OK - the plan is for the pink Polygon?  
<image.png>  
Thank You!  
Christina

Christina Belton  
Physical Scientist  
Operations Branch  
Hydrographic Surveys Division  
Office of Coast Survey, NOAA  
**240-533-0057**  
[christina.belton@noaa.gov](mailto:christina.belton@noaa.gov)

On Mon, May 21, 2018 at 11:38 AM, Martha Herzog - NOAA Federal  
<[martha.herzog@noaa.gov](mailto:martha.herzog@noaa.gov)> wrote:  
Hey Stephen,

My memory is fuzzy of where RSD is planning topo-bathy lidar data collection later this year around Puerto Rico. For some reason, I thought it was all of the PR coastline, but checking the RSD plans, it looks like it is just for the area around Vieques. Is this correct?

Thanks,  
Martha

<image.png>

--  
Gretchen Imahori  
Remote Sensing Division  
National Geodetic Survey  
(o): 240-533-9586  
(tw): 240-515-6263  
  
<http://www.ngs.noaa.gov/>

--  
Gretchen Imahori  
Remote Sensing Division  
National Geodetic Survey  
(o): 240-533-9586  
(tw): 240-515-6263  
  
<http://www.ngs.noaa.gov/>

--

Gretchen Imahori  
Remote Sensing Division  
National Geodetic Survey  
(o): 240-533-9586  
(tw): 240-515-6263

<http://www.ngs.noaa.gov/>

--

Gretchen Imahori  
Remote Sensing Division  
National Geodetic Survey  
(o): 240-533-9586  
(tw): 240-515-6263

<http://www.ngs.noaa.gov/>

---

**XO.Thomas Jefferson - NOAA Service Account** <xo.thomas.jefferson@noaa.gov>

Tue, Jul 3, 2018 at 12:38 PM

To: Anthony Klemm - NOAA Federal <anthony.r.klemm@noaa.gov>

Cc: Gretchen Imahori - NOAA Federal <gretchen.imahori@noaa.gov>, "OPS.Thomas Jefferson - NOAA Service Account" <OPS.Thomas.Jefferson@noaa.gov>

Hi all,

Just let me know who/gender and when you would like to join and I'll see if we can accommodate berthing. We're happy to get all the help we can get and we usually have rooms available. Latest schedule attached. Thank you.

R  
Meghan

-----  
LCDR Meghan McGovern, NOAA  
Executive Officer, NOAA Ship Thomas Jefferson  
Ship Land Line: 757-441-6322  
Ship Cell: 757-647-0187  
Ship Iridium: 808-434-2706  
Ship VOIP: 541-867-8927

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<https://www.facebook.com/NOAAShipThomasJefferson>

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**20180627 - TJ Schedule.pdf**

14K

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**Gretchen Imahori - NOAA Federal** <gretchen.imahori@noaa.gov>

Tue, Jul 3, 2018 at 12:50 PM

To: "XO.Thomas Jefferson - NOAA Service Account" <xo.thomas.jefferson@noaa.gov>



Cc: Anthony Klemm - NOAA Federal <anthony.r.klemm@noaa.gov>, "OPS.Thomas Jefferson - NOAA Service Account" <OPS.Thomas.Jefferson@noaa.gov>, Joshua Witmer - NOAA Federal <joshua.d.witmer@noaa.gov>, Max Andersen - NOAA Federal <max.andersen@noaa.gov>

Hi Meghan,

Thanks so much! The visitor will be male and we will work on dates and get those to you.

Happy 4th!  
g

[Quoted text hidden]

---

**Gretchen Imahori - NOAA Federal** <gretchen.imahori@noaa.gov>

Tue, Jul 10, 2018 at 11:02 AM

To: Charles Wisotzkey - NOAA Federal <charles.j.wisotzkey@noaa.gov>

Cc: Joshua Witmer - NOAA Federal <joshua.d.witmer@noaa.gov>, Max Andersen - NOAA Federal <max.andersen@noaa.gov>, "Stephen A. White" <stephen.a.white@noaa.gov>

Hi Charles,

Will Anthony be back next week? Just saw his on leave message.

Thank you,  
g

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

From: **Gretchen Imahori - NOAA Federal** <gretchen.imahori@noaa.gov>

Date: Tue, Jul 10, 2018 at 10:59 AM

Subject: Re: Future PR lidar

To: Anthony Klemm - NOAA Federal <anthony.r.klemm@noaa.gov>

Cc: Joshua Witmer - NOAA Federal <joshua.d.witmer@noaa.gov>, "Stephen A. White" <stephen.a.white@noaa.gov>, Max Andersen - NOAA Federal <max.andersen@noaa.gov>

Hi Anthony,

Do you have time this week or next to talk about logistics?

Thanks,  
g

[Quoted text hidden]

[Quoted text hidden]

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**Charles Wisotzkey - NOAA Federal** <charles.j.wisotzkey@noaa.gov>

Tue, Jul 10, 2018 at 11:19 AM

To: Gretchen Imahori - NOAA Federal <gretchen.imahori@noaa.gov>

Cc: Joshua Witmer - NOAA Federal <joshua.d.witmer@noaa.gov>, Max Andersen - NOAA Federal <max.andersen@noaa.gov>, "Stephen A. White" <stephen.a.white@noaa.gov>

Gretchen,

No, Anthony will be out until 30 JUL. Is there anything I can help you out with?

- Charles

[Quoted text hidden]

--

LT Charles J. Wisotzkey, NOAA  
NOAA Ship Thomas Jefferson (S-222)

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**Gretchen Imahori - NOAA Federal** <gretchen.imahori@noaa.gov>

Fri, Jul 13, 2018 at 12:11 PM

To: Charles Wisotzkey - NOAA Federal <charles.j.wisotzkey@noaa.gov>

Cc: Joshua Witmer - NOAA Federal <joshua.d.witmer@noaa.gov>, Max Andersen - NOAA Federal <max.andersen@noaa.gov>, "Stephen A. White" <stephen.a.white@noaa.gov>, "XO.Thomas Jefferson - NOAA Service

Account" <xo.thomas.jefferson@noaa.gov>

Hi Charles,

Thanks for your offer of help. Could Josh, Stephen, Max and I have a quick call conference with you and the XO today or sometime next week?

Thanks,

g

[Quoted text hidden]

---

**Charles Wisotzkey - NOAA Federal** <charles.j.wisotzkey@noaa.gov>

Thu, Jul 19, 2018 at 5:04 PM

To: Gretchen Imahori - NOAA Federal <gretchen.imahori@noaa.gov>

Cc: Joshua Witmer - NOAA Federal <joshua.d.witmer@noaa.gov>, Max Andersen - NOAA Federal <max.andersen@noaa.gov>, "Stephen A. White" <stephen.a.white@noaa.gov>, "XO.Thomas Jefferson - NOAA Service Account" <xo.thomas.jefferson@noaa.gov>

Gretchen,

Apologies for not getting back to you sooner. Can we try for something tomorrow morning?

- Charles

[Quoted text hidden]

---

**Joshua Witmer - NOAA Federal** <joshua.d.witmer@noaa.gov>

Fri, Jul 20, 2018 at 7:06 AM

To: Charles Wisotzkey - NOAA Federal <charles.j.wisotzkey@noaa.gov>

Cc: Gretchen Imahori - NOAA Federal <gretchen.imahori@noaa.gov>, Max Andersen - NOAA Federal <max.andersen@noaa.gov>, "Stephen A. White" <stephen.a.white@noaa.gov>, "XO.Thomas Jefferson - NOAA Service Account" <xo.thomas.jefferson@noaa.gov>

Hi Charles,

Any chance you would have 15-30 minutes this morning at 1130 for a quick call? If not, let me know what time will work for you.

Thanks,

Josh

Joshua D. Witmer  
Remote Sensing Specialist  
NOAA Affiliate - Data Solutions & Technology  
National Geodetic Survey  
717-799-4673

[Quoted text hidden]

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**Charles Wisotzkey - NOAA Federal** <charles.j.wisotzkey@noaa.gov>

Fri, Jul 20, 2018 at 7:23 AM

To: Joshua Witmer - NOAA Federal <joshua.d.witmer@noaa.gov>

Cc: Gretchen Imahori - NOAA Federal <gretchen.imahori@noaa.gov>, Max Andersen - NOAA Federal <max.andersen@noaa.gov>, "Stephen A. White" <stephen.a.white@noaa.gov>, "XO.Thomas Jefferson - NOAA Service Account" <xo.thomas.jefferson@noaa.gov>

Josh,

Works for me.

XO, will 1030 ship time work for you?

- Charles

[Quoted text hidden]

---

**XO.Thomas Jefferson - NOAA Service Account** <xo.thomas.jefferson@noaa.gov>

Fri, Jul 20, 2018 at 8:40 AM

To: Charles Wisotzkey - NOAA Federal <charles.j.wisotzkey@noaa.gov>  
Cc: Joshua Witmer - NOAA Federal <joshua.d.witmer@noaa.gov>, Gretchen Imahori - NOAA Federal <gretchen.imahori@noaa.gov>, Max Andersen - NOAA Federal <max.andersen@noaa.gov>, "Stephen A. White" <stephen.a.white@noaa.gov>

Yup

-----  
LCDR Meghan McGovern, NOAA  
Executive Officer, NOAA Ship Thomas Jefferson  
Ship Land Line: 757-441-6322  
Ship Cell: 757-647-0187  
Ship Irridium: 808-434-2706  
Ship VOIP: 541-867-8927

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<https://www.facebook.com/NOAAShipThomasJefferson>

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**Joshua Witmer - NOAA Federal** <joshua.d.witmer@noaa.gov>  
To: Charles Wisotzkey - NOAA Federal <charles.j.wisotzkey@noaa.gov>

Mon, Jul 23, 2018 at 7:27 PM

Charles,

I have a couple follow-up questions from our phone call last week.

Since you all will be a little short-handed during that first P.R. cruise in August, how much nearshore launch ops do you think you will actually end up doing? Are you going to be short on watchstanders and coxswains that maybe only send out one launch periodically?

Also, if you had to guess, how long do you think it will take to finish the north coast sheets before moving to the south coast sheets?

I am asking because trying to gauge what impact it may have if RSD is not able to send someone until the first September cruise, instead of the August cruise.

Thanks. Appreciate the help.  
Josh

Joshua D. Witmer  
Remote Sensing Specialist  
NOAA Affiliate - Data Solutions & Technology  
National Geodetic Survey  
717-799-4673

[Quoted text hidden]



Charles Wisotzkey - NOAA Federal <charles.j.wisotzkey@noaa.gov>

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## TJ-18-03: San Juan, Ponce and Vicinities, Puerto Rico Final Signed Instructions

2 messages

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**ChiefOps MOA - NOAA Service Account** <chiefops.moa@noaa.gov>

Wed, Jun 27, 2018 at 3:55 PM

To: \_OMAO MOA CO Thomas Jefferson <co.thomas.jefferson@noaa.gov>

Cc: \_OMAO MOA OPS Thomas Jefferson <ops.thomas.jefferson@noaa.gov>, "CO.MOC Atlantic"

<co.moc.atlantic@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>, DeputyOps MOA - NOAA Service Account <deputyops.moa@noaa.gov>, Richard Brennan <richard.t.brennan@noaa.gov>, Christina Belton - NOAA Federal <christina.belton@noaa.gov>

CDR,

Attached are your signed and final project instructions for Puerto Rico.

Respectfully,  
Joe

Joseph K. Carrier III, LCDR/NOAA  
Chief of Operations  
Marine Operations Center - Atlantic  
439 West York Street  
Norfolk, VA 23510  
Office: (757) 441-6842  
Alt Email: [joseph.carrier@noaa.gov](mailto:joseph.carrier@noaa.gov)  
<http://www.moc.noaa.gov/MOC-A/index.html>



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TJ-18-03 v3.1 Final project instruction, OPR-I369-TJ-18 (Puerto Rico) sk.pdf  
7417K

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**CO Thomas Jefferson** <co.thomas.jefferson@noaa.gov>

Wed, Jun 27, 2018 at 10:41 PM

To: DeputyOps MOA - NOAA Service Account <deputyops.moa@noaa.gov>

Cc: "OPS.Thomas Jefferson - NOAA Service Account" <ops.thomas.jefferson@noaa.gov>

MOC-A,

Pls received and acknowledged.

R/

CO TJ

**CDR Chris van Westendorp, NOAA**

Commanding Officer, NOAA Ship *Thomas Jefferson* (S-222)

[co.thomas.jefferson@noaa.gov](mailto:co.thomas.jefferson@noaa.gov)

Ship Cell1: (757)647-0187 Cell2: (757)418-0629

VoIP: (541)867-8927/8928 Iridium: (808)434-2706

In-Port Norfolk: (757)441-6322/6323

[Quoted text hidden]



Charles Wisotzkey - NOAA Federal <charles.j.wisotzkey@noaa.gov>

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## Waiver request for OPR-I369-TJ-18 sheet limit modification

2 messages

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**Anthony Klemm - NOAA Federal** <anthony.r.klemm@noaa.gov>

Tue, Aug 7, 2018 at 7:25 PM

To: Christina Belton - NOAA Affiliate <christina.belton@noaa.gov>, Corey personal cell Allen <corey.allen@noaa.gov>

Cc: \_OMAO MOA OPS Thomas Jefferson <ops.thomas.jefferson@noaa.gov>, Briana Welton - NOAA Federal <Briana.Hillstrom@noaa.gov>, James Miller <james.j.miller@noaa.gov>

Christina and Corey,

Attached is the waiver request we discussed earlier over the phone. Please let me know if you have any questions or would like more information.

Best regards,  
Anthony

LT Anthony Klemm, NOAA  
Field Operations Officer  
NOAA Ship *Thomas Jefferson*  
439 W York Street  
Norfolk, VA 23510  
757-647-0187

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**OPR-I369-TJ-18 sheet limit waiver request.pdf**  
282K

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**Christina Belton - NOAA Federal** <christina.belton@noaa.gov>

Mon, Aug 13, 2018 at 7:04 AM

To: Anthony Klemm - NOAA Federal <anthony.r.klemm@noaa.gov>

Cc: Corey personal cell Allen <corey.allen@noaa.gov>, \_OMAO MOA OPS Thomas Jefferson <ops.thomas.jefferson@noaa.gov>, Briana Welton - NOAA Federal <Briana.Hillstrom@noaa.gov>, James Miller <james.j.miller@noaa.gov>

Hi Anthony,  
Looks good. The signed waiver is attached.  
Many Thanks,  
Christina

Christina Belton  
Physical Scientist  
Operations Branch  
Hydrographic Surveys Division  
Office of Coast Survey, NOAA  
**240-533-0057**  
[christina.belton@noaa.gov](mailto:christina.belton@noaa.gov)

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**OPR-I369-TJ-18 sheet limit waiver request\_signed.pdf**  
298K



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
Office of Marine and Aviation Operations  
NOAA Ship *Thomas Jefferson* (\$222)  
439 West York St, Norfolk, VA 23510

3/29/2018

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

FROM: Commander Christiaan van Westenaorp, NOAA  
Commanding Officer, NOAA Ship *Thomas Jefferson*

SUBJECT: Waiver request – WGS84 Datum, CY2018 Projects

VAN  
WESTENDORP.CHRISTIAAN.HENRY.1012828175  
c=US, ou=U.S. Government, ou=DoD, ou=PKI  
ou=NOAA, cn=VAN  
WESTENDORP.CHRISTIAAN.HENRY.1012828175  
2018.03.30 09:57:32 -04'00'

*Thomas Jefferson* requests a waiver of the HSSD 2017 and HSSD 2018 Section 2.2 Horizontal Datum requirement to acquire and submit survey data in WGS84 rather than NAD83 for all projects in calendar year 2018.

Justification

Retaining the current procedure and configurations will reduce the possibility of errors.

Decision

Waiver is: Granted

Denied

cc: OPS, *Thomas Jefferson*  
HCST, *Thomas Jefferson*



## APPROVAL PAGE

H13147

Data meet or exceed current specifications as certified by the OCS survey acceptance review process. Descriptive Report and survey data except where noted are adequate to supersede prior surveys and nautical charts in the common area.

The following products will be sent to NCEI for archive

- Descriptive Report
- Collection of Bathymetric Attributed Grid (BAG)
- Processed survey data and records
- Multibeam Acoustic Backscatter Mosaics
- Bottom Samples and Bottom Sample Images
- GeoPDF of survey products

The survey evaluation and verification has been conducted according current OCS Specifications, and the survey has been approved for dissemination and usage of updating NOAA's suite of nautical charts.

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

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