

H13165

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

**DESCRIPTIVE REPORT**

Type of Survey: Support NMS

Registry Number: H13165

**LOCALITY**

State(s): Florida

General Locality: Florida Keys National Marine Sanctuary and Vicinity

Sub-locality: 4 Nautical Miles North of the Quicksands

**2018**

CHIEF OF PARTY  
David Neff, ACSM C.H.

LIBRARY & ARCHIVES

Date:

**HYDROGRAPHIC TITLE SHEET**

**H13165**

**INSTRUCTIONS:** The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

State(s): **Florida**

General Locality: **Florida Keys National Marine Sanctuary and Vicinity**

Sub-Locality: **4 Nautical Miles North of the Quicksands**

Scale: **40000**

Dates of Survey: **09/07/2018 to 11/19/2018**

Instructions Dated: **07/20/2018**

Project Number: **OPR-H355-KR-18**

Field Unit: **eTrac Inc.**

Chief of Party: **David Neff, ACSM C.H.**

Soundings by: **Multibeam Echo Sounder**

Imagery by: **Multibeam Echo Sounder Backscatter**

Verification by: **Atlantic Hydrographic Branch**

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

**Remarks:**

All times are UTC. The purpose of this survey is to update existing NOS nautical charts. H13165 will cover approximately 31 square nautical miles of survey area 4 nautical miles north of the Quicksands. SUBCONSULTANT: Geodynamics LLC, 310A Greenfield Dr., Newport, NC 98570

*Any revisions to the Descriptive Report (DR) applied during office processing are shown in red italic text. The DR is maintained as a field unit product, therefore all information and recommendations within this report are considered preliminary unless otherwise noted. The final disposition of survey data is represented in the NOAA nautical chart products. All pertinent records for this survey are archived at the National Centers for Environmental Information (NCEI) and can be retrieved via <https://www.ncei.noaa.gov/>. Products created during office processing were generated in NAD83 UTM 17N, MLLW. All references to other horizontal or vertical datums in this report are applicable to the processed hydrographic data provided by the field unit.*

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## Descriptive Report to Accompany Survey H13165

Project: OPR-H355-KR-18

Locality: Florida Keys National Marine Sanctuary and Vicinity

Sublocality: 4 Nautical Miles North of the Quicksands

Scale: 1:40000

September 2018 - November 2018

**eTrac Inc.**

Chief of Party: David Neff, ACSM C.H.

### A. Area Surveyed

eTrac Inc. conducted hydrographic survey operations in the Florida Keys National Marine Sanctuary and surrounding vicinity. H13165 covers approximately 31 square nautical miles of survey area. 1413 linear nautical miles were acquired during the survey. H13165 is located approximately 4 nautical miles north of The Quicksands off the coast of Key West, Florida.

Survey was conducted within these limits between September 7, 2018 (DN250) and November 19, 2018 (DN323).

#### A.1 Survey Limits

Data were acquired within the following survey limits:

Northwest Limit	Southeast Limit
24° 41' 11.27" N 82° 29' 10.72" W	24° 37' 15.59" N 82° 20' 22.89" W

*Table 1: Survey Limits*

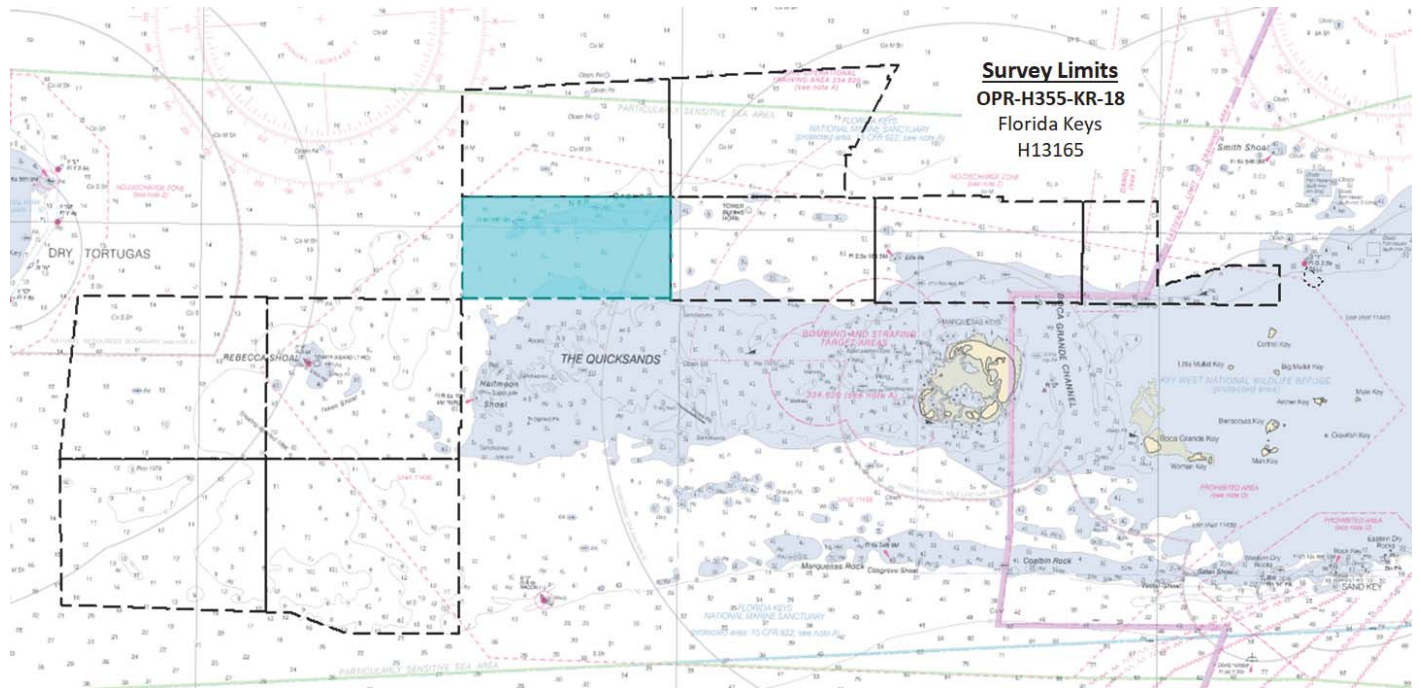


Figure 1: Survey Limits (blue area)

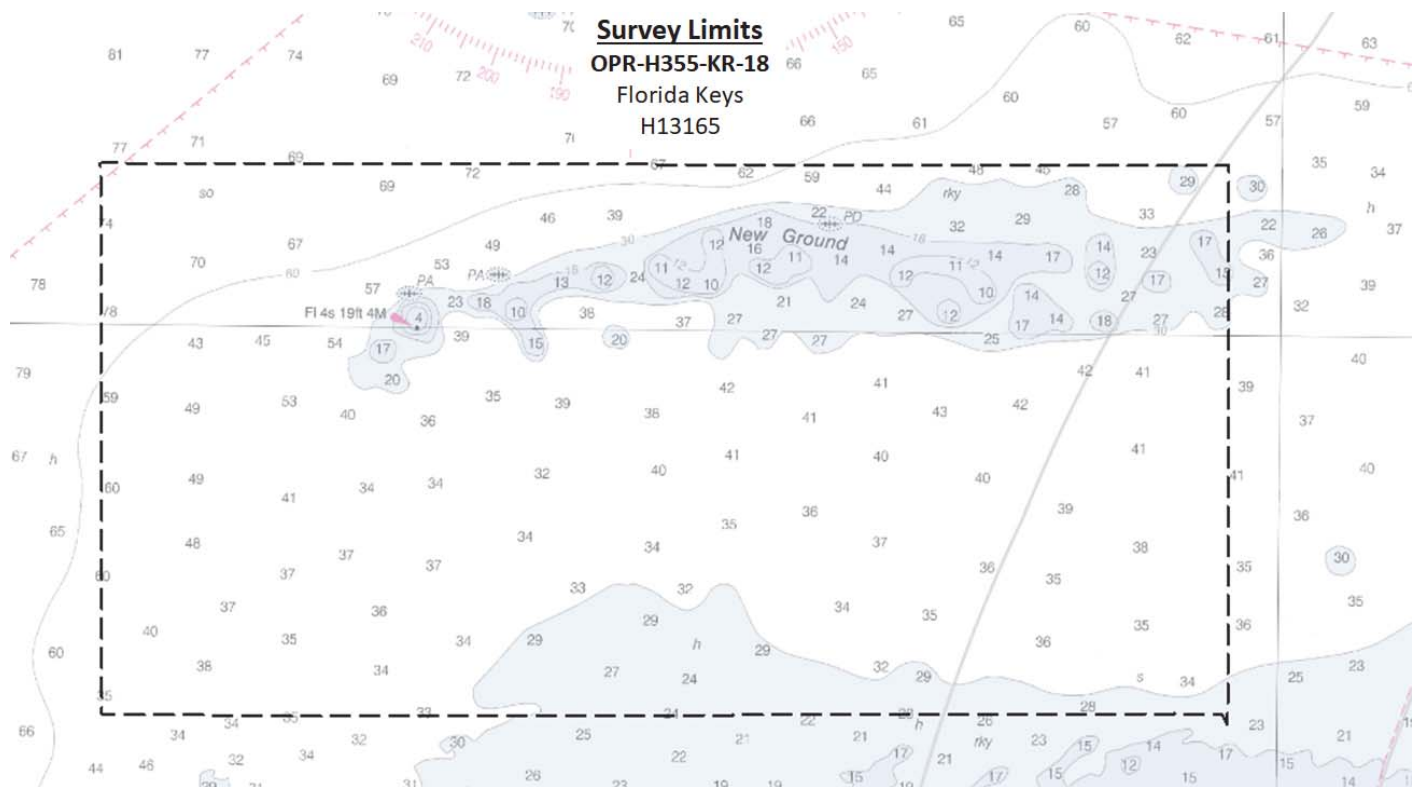


Figure 2: Survey Limits (black line)

All data were acquired in accordance with the requirements in the Project Instructions and specifications set forth in the Hydrographic Survey Specifications and Deliverables 2018 Edition (HSSD 2018).

## **A.2 Survey Purpose**

The purpose of this survey is to update existing National Ocean Service (NOS) nautical charts.

## **A.3 Survey Quality**

The entire survey is adequate to supersede previous data.

Survey H13165 is accurate to International Hydrographic Organization (IHO) Order 1a as required per the HSSD 2018.

## **A.4 Survey Coverage**

Survey Coverage was in accordance with the requirements in the Project Instructions and HSSD 2018. H13165 was surveyed to Complete Coverage with backscatter standards set forth in the HSSD 2018.

Note: There are 3 coverage gaps in the MBES coverage within areas of H13165. All 3 coverage gaps are outside the survey boundary and therefore are not classified as holidays.



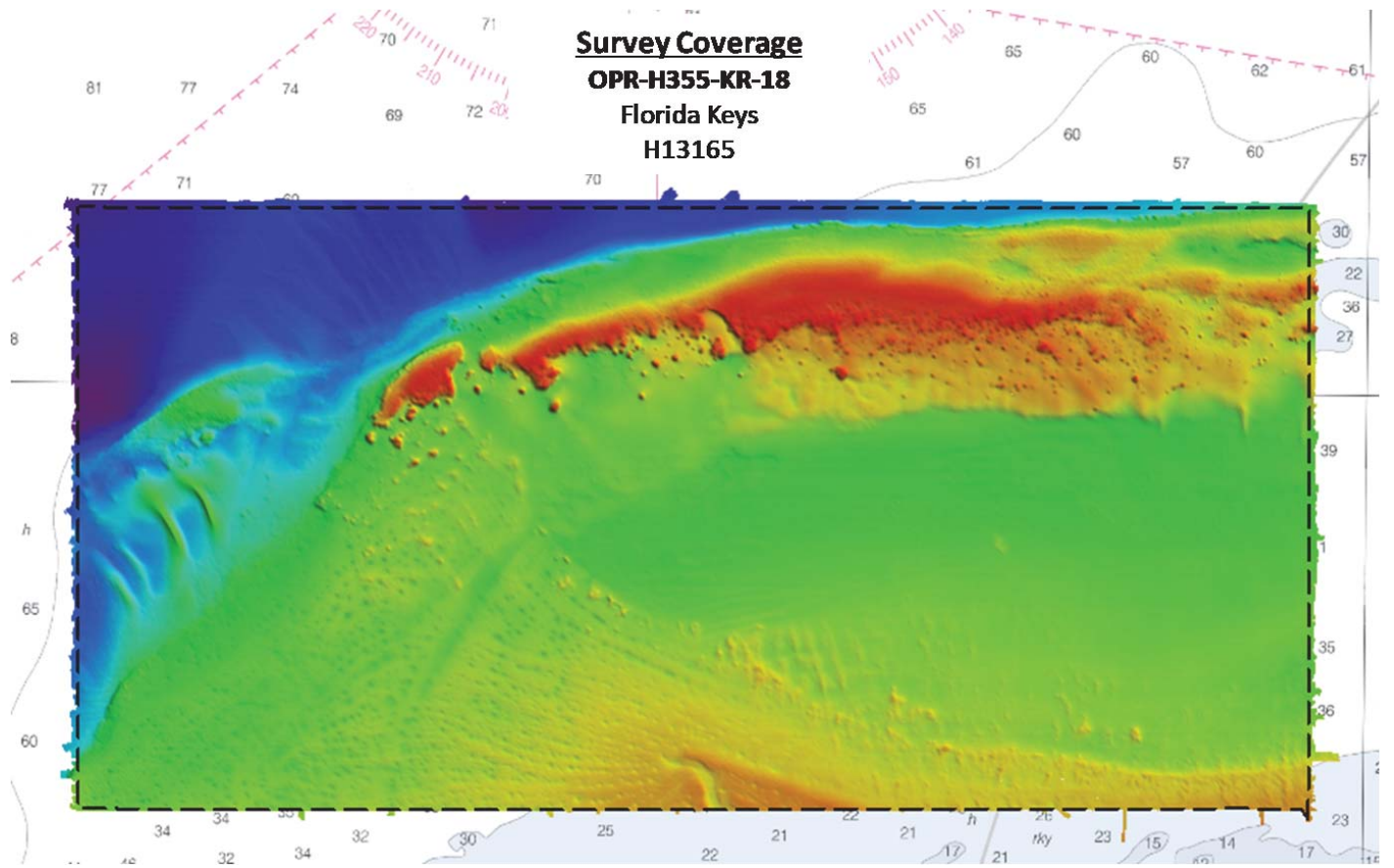


Figure 3: Survey Coverage

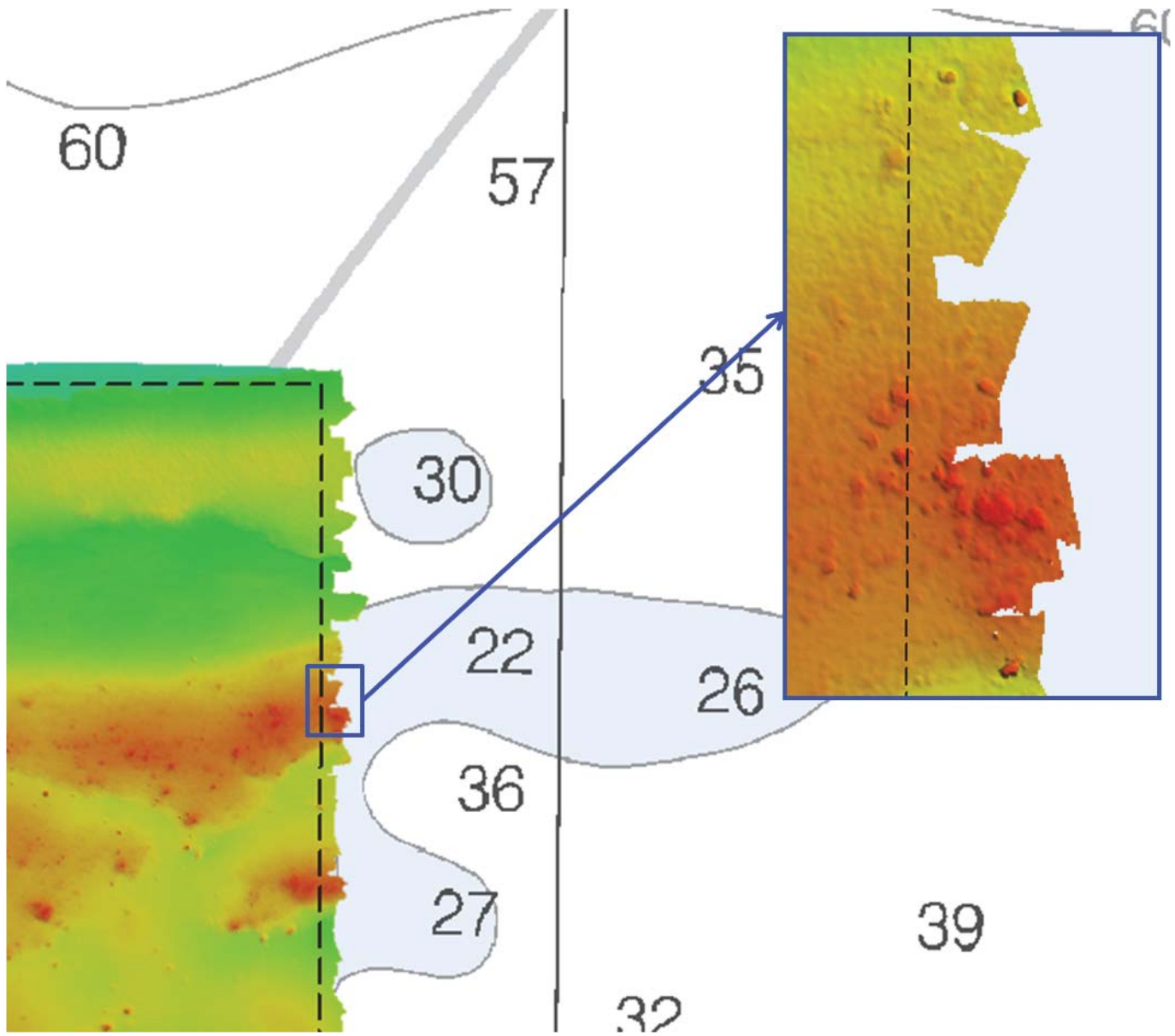
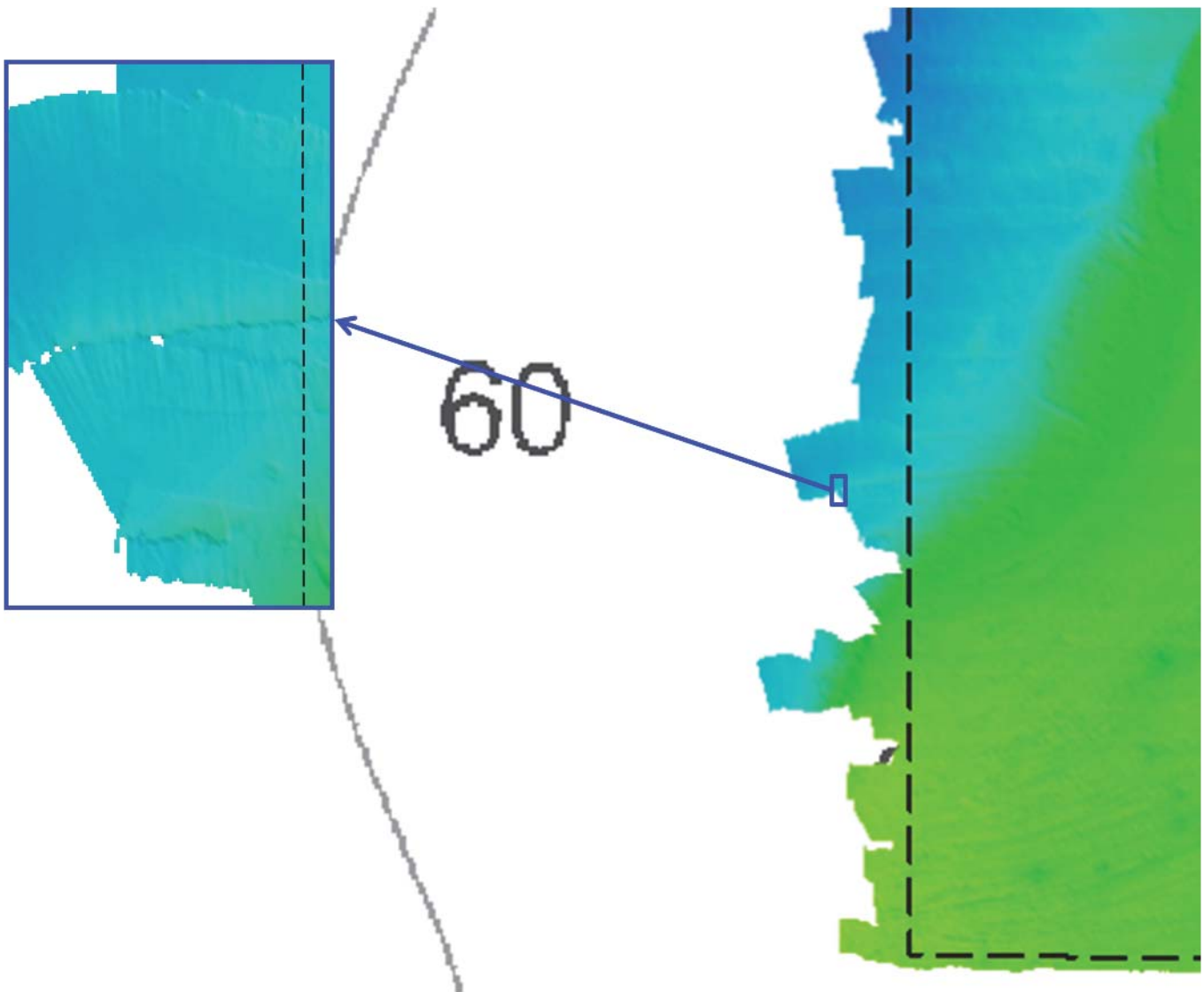


Figure 4: H13165 Survey Coverage Gaps outside survey boundary (area 1)



*Figure 5: H13165 Survey Coverage Gap outside survey boundary (area 2)*

## **A.5 Survey Statistics**

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

	<b>HULL ID</b>	<i>Benthos</i>	<i>Taku</i>	<i>Total</i>
<b>LNM</b>	<b>SBES Mainscheme</b>	0	0	0
	<b>MBES Mainscheme</b>	1025	329	1354
	<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>	39	20	59
	<b>Lidar Crosslines</b>	0	0	0
<b>Number of Bottom Samples</b>				5
<b>Number of AWOIS Items Investigated</b>				0
<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>				<del>35</del> <b>31.15</b>

Table 2: Hydrographic Survey Statistics

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

<b>Survey Dates</b>	<b>Day of the Year</b>
09/07/2018	250
09/08/2018	251
09/09/2018	252
09/10/2018	253
09/11/2018	254
09/12/2018	255
09/13/2018	256
09/14/2018	257
09/15/2018	258
09/16/2018	259
09/17/2018	260
09/19/2018	262
09/20/2018	263
09/22/2018	265
09/23/2018	266
09/24/2018	267
09/25/2018	268
09/26/2018	269
10/12/2018	285
10/13/2018	286
10/14/2018	287
10/20/2018	293
10/21/2018	294
11/13/2018	317
11/19/2018	323

*Table 3: Dates of Hydrography*

## B. Data Acquisition and Processing

### B.1 Equipment and Vessels

Refer to the Data Acquisition and Processing Report (DAPR) for a complete description of data acquisition and processing systems, survey vessels, quality control procedures and data processing methods. Additional information to supplement sounding and survey data are discussed in the following sections.

#### B.1.1 Vessels

The following vessels were used for data acquisition during this survey:

Hull ID	<i>R/V Benthos</i>	<i>R/V Taku</i>
LOA	10 meters	10 meters
Draft	0.6 meters	0.6 meters

*Table 4: Vessels Used*

The R/V Benthos is a 10 meter aluminum catamaran equipped with a custom over-the-side (port) multibeam hydraulic pole mount.

The R/V Taku is a 10 meter aluminum catamaran equipped with a custom stern multibeam pole mount.

#### B.1.2 Equipment

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

Manufacturer	Model	Type
Kongsberg	2040C	MBES
R2Sonic	2024	MBES
Applanix	POSMV 320 V5	Positioning and Attitude System
AML	Base.X	Sound Speed System
AML	Smart.X	Sound Speed System

*Table 5: Major Systems Used*

Note: R/V Benthos utilized a dualhead Kongsberg 2040C multibeam echosounder system, an AML Base.X for the sound speed system and a POSMV 320 V5 for the positioning system. R/V Taku utilized a dualhead

R2Sonic 2024 multibeam echosounder system, an AML Smart.X for the sound speed system and a POSMV 320 V5 for the positioning system.

## B.2 Quality Control

### B.2.1 Crosslines

Crosslines acquired for this survey totaled 4% of mainscheme acquisition.

A comparison of crossline mileage to mainscheme mileage yields a crossline percentage of 4.35%, and is noted to be above the required 4%.

A beam-by-beam statistical analysis was performed using the Cross Check tool in Qimera. A 1 meter Combined Uncertainty and Bathymetric Estimator (CUBE) weighted dynamic surface was created incorporating only the mainscheme lines and excluded crosslines. The Cross Check tool was used to perform the beam-by-beam comparison of the crossline data to the mainscheme surface. Comparisons showed excellent agreement, well above 95% of the allowable TVU.

Note: This surface was created for QC only and is not submitted as a surface deliverable.

The beam-to-beam crossline comparison report generated through the Qimera Cross Check tool is included in Separates II.

Below is a histogram of the crossline comparison statistics showing IHO Order 1a compliance per beam.

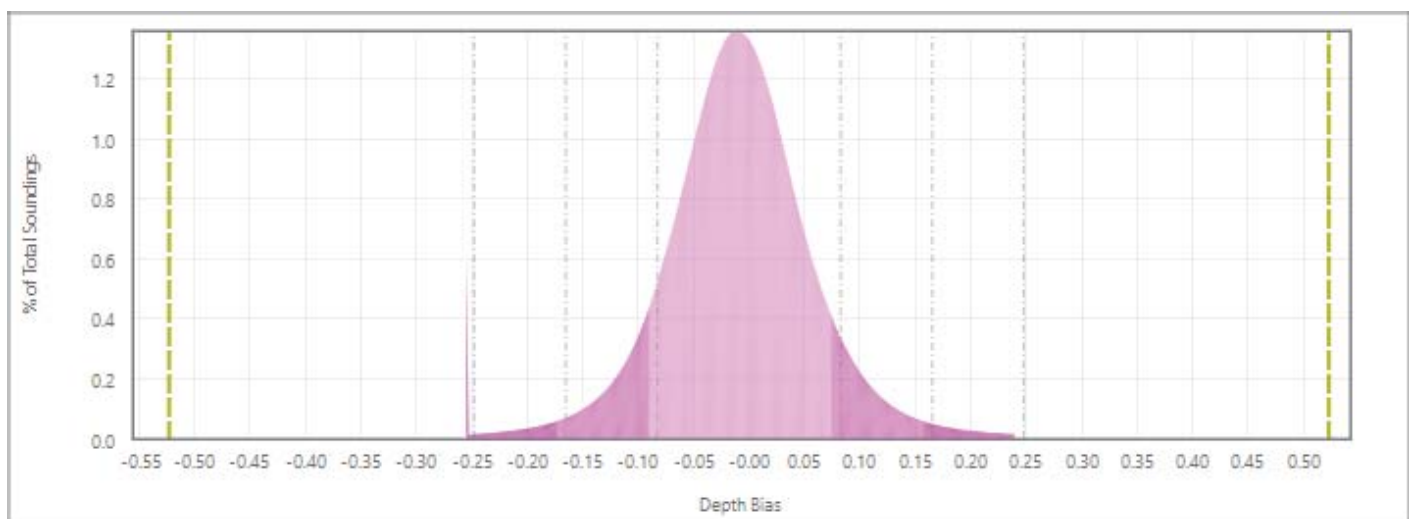


Figure 6: H13165 Crossline Comparison

### B.2.2 Uncertainty

Hull ID	Measured - CTD	Measured - MVP	Surface
R/V Benthos	0.05 meters/second	0 meters/second	0.025 meters/second
R/V Taku	0.05 meters/second	0 meters/second	0.025 meters/second

*Table 6: Survey Specific Sound Speed TPU Values*

Standard deviation and uncertainty layers of the Dynamic Surfaces were utilized during data processing to search for features, water column noise, and systematic errors.

The final 1m and 2m BAG surface's uncertainty were generated through the NOAA QC Tools and an image of the results is located below.

Complete Coverage MBES (Finalized 1m CUBE weighted Dynamic Surface in NOAA QC Tools) = + 99.5% of nodes are within the allowable TPU.

Complete Coverage MBES (Finalized 2m CUBE weighted Dynamic Surface in NOAA QC Tools) = + 99.5% of nodes are within the allowable TPU.



## Uncertainty Standards

Grid source: H13165\_MB\_1m\_MLLW\_Final

99.5+% pass (96,410,120 of 96,411,127 nodes), min=0.00, mode=0.07, max=2.36

Percentiles: 2.5%=0.04, Q1=0.08, median=0.12, Q3=0.19, 97.5%=0.44

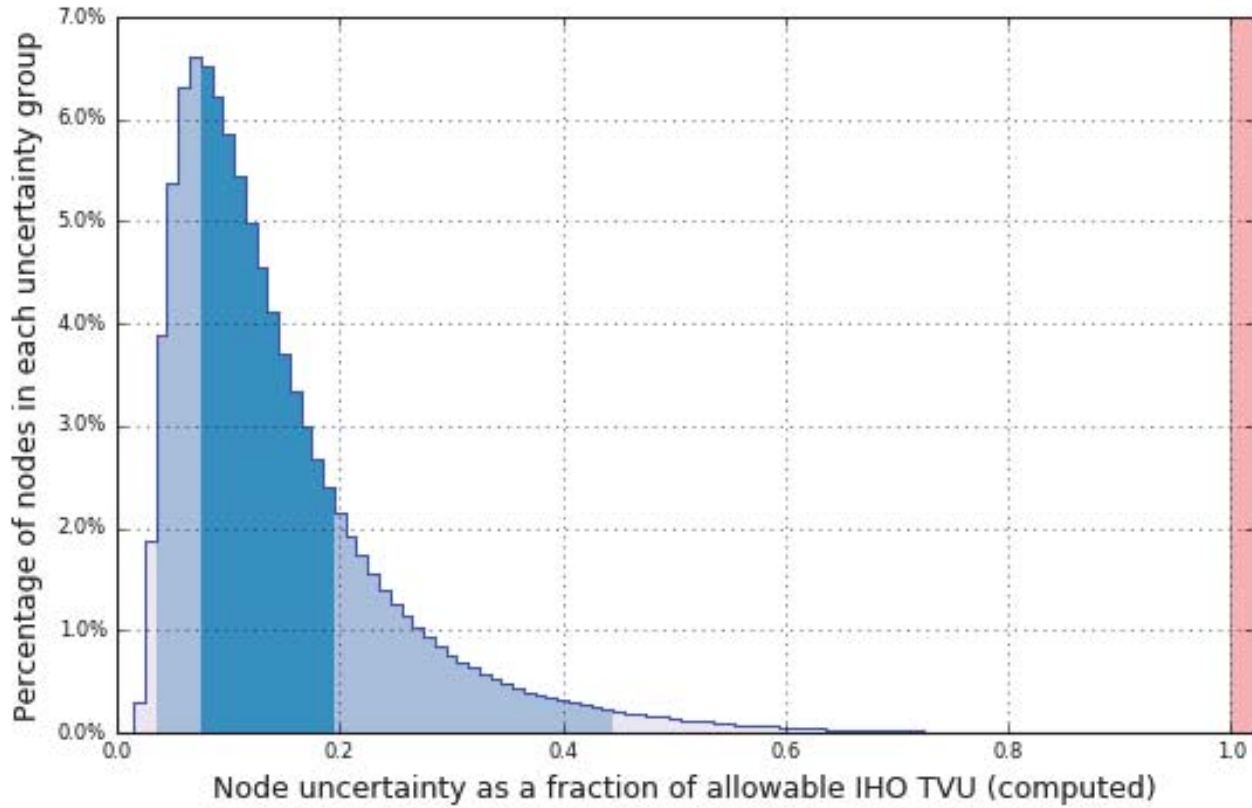


Figure 7: H13165 Finalized 1m Complete Coverage MBES TPU Statistics (NOAA QC Tools)

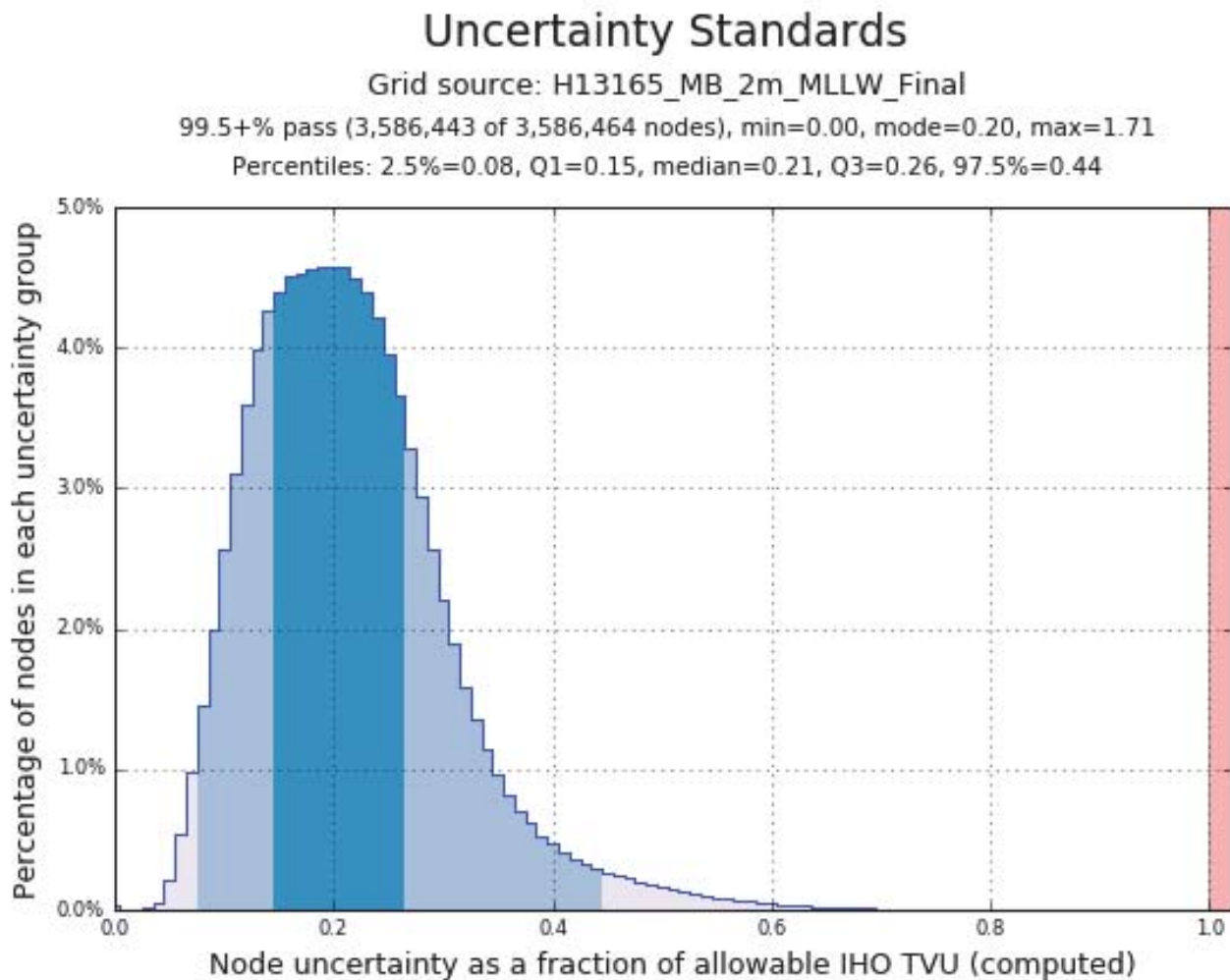


Figure 8: H13165 Finalized 2m Complete Coverage MBES TPU Statistics (NOAA QC Tools)

### B.2.3 Junctions

Depth differences between junctioning surveys were evaluated using the JunctionTrac program, developed in-house by eTrac Inc. For each junction, each CUBE weighted dynamic surface's nodes were exported to an ASCII CSV file where the fields were (Easting, Northing, Depth) for each node. A 1 meter difference surface between the junctioning datasets was also created and exported to an ASCII CSV file where the fields were (Easting, Northing, Diff) for each node. The three ASCII CSV files were then loaded into the JunctionTrac program and junction statistics were computed. A file was also created in this process to locate any nodes from the difference surface that exceed the allowable TVU, which was imported into Qimera and any identified points from JunctionTrac were analyzed. Note: the difference surfaces were created for comparison efforts only and are not submitted as surface deliverables.

The following junctions were made with this survey:

Registry Number	Scale	Year	Field Unit	Relative Location
H13167	1:40000	2018	eTrac Inc.	E
H12384	1:10000	2011	Fugro LADS	S

Table 7: Junctioning Surveys

### H13167

Note: The junction comparison between H13165 and H13167 will be submitted with the H13167 DR.

### H12384

The junction comparison was performed using all overlapping data between H13165 and H12384. Depth differences were evaluated using the JunctionTrac program, developed in-house by eTrac Inc. Below is a histogram of junction comparison statistics showing the difference between the junctioning surfaces and allowable TVU as well as difference statistics. 99.3096% of nodes were within allowable TVU.

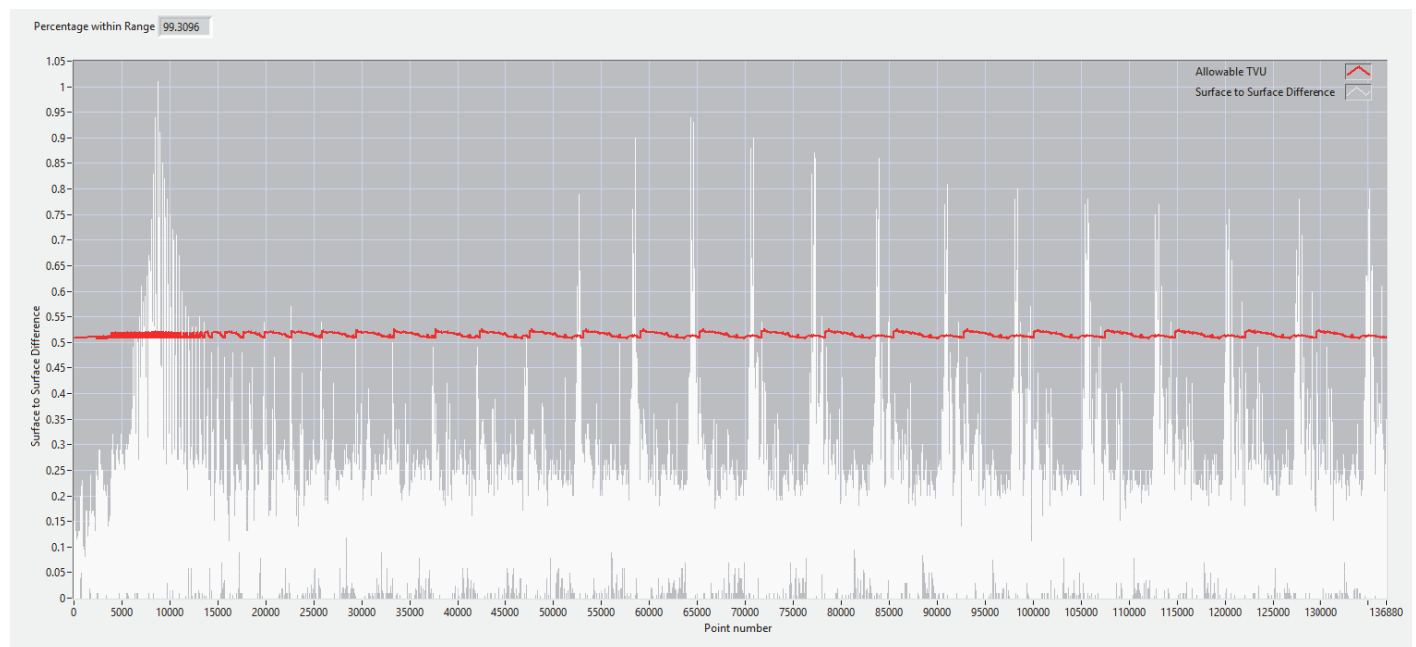


Figure 9: H13165 - H12384 Junction Comparison

<b>Criteria</b>	<b>Number of Nodes</b>	<b>Resulting %</b>
DIFF < 10cm	57704	42.16%
10cm < DIFF < 20cm	61335	44.81%
20cm < DIFF < 30cm	12628	9.23%
DIFF > 30cm	5214	3.81%
<b>Total</b>	<b>136881</b>	<b>100.00%</b>

*Figure 10: H13165 - H12384 Difference Statistics*

#### **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: SVP casts were generally taken every 2 hours. Occasionally casts would exceed a 2 hour frequency, however would never exceed a 4 hour frequency. On R/V Benthos casts were applied in both QPS QINSy and Kongsberg SIS acquisition software at the time of the cast. On R/V Taku casts were applied in QPS QINSy acquisition software at the time of the cast. Surface SVP measured at 1Hz was compared to surface speed from the current profile in realtime. If the surface velocity comparison was in excess of 2m/s at any time during survey operations, a new cast was taken.

Surface sound speeds were compared in realtime and profile to profile for each cast on the vessel. Additionally, the processor reviewed profiles in Qimera to remove spurious readings within a cast, compare day-to-day casts, and to check distribution over the surveyed area, in order to better understand trends for efficient acquisition planning.

## B.2.8 Coverage Equipment and Methods

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

## B.2.9 Data Density Evaluation

In order to determine if the density of the data met the specified 5 soundings per node, data density was evaluated using DensityTrac in the AmiTrac program, developed in-house by eTrac Inc. Each finalized CUBE weighted dynamic surface's nodes were exported to a BBH file. The BBH file was then loaded into the DensityTrac program and density statistics were computed.

For H13165 the following percentages represent the results of the density query:

Complete Coverage MBES (Finalized 1m CUBE weighted Dynamic Surface ) = 99.9382% of nodes are composed from at least 5 soundings.

Complete Coverage MBES (Finalized 2m CUBE weighted Dynamic Surface ) = 99.9071% of nodes are composed from at least 5 soundings.

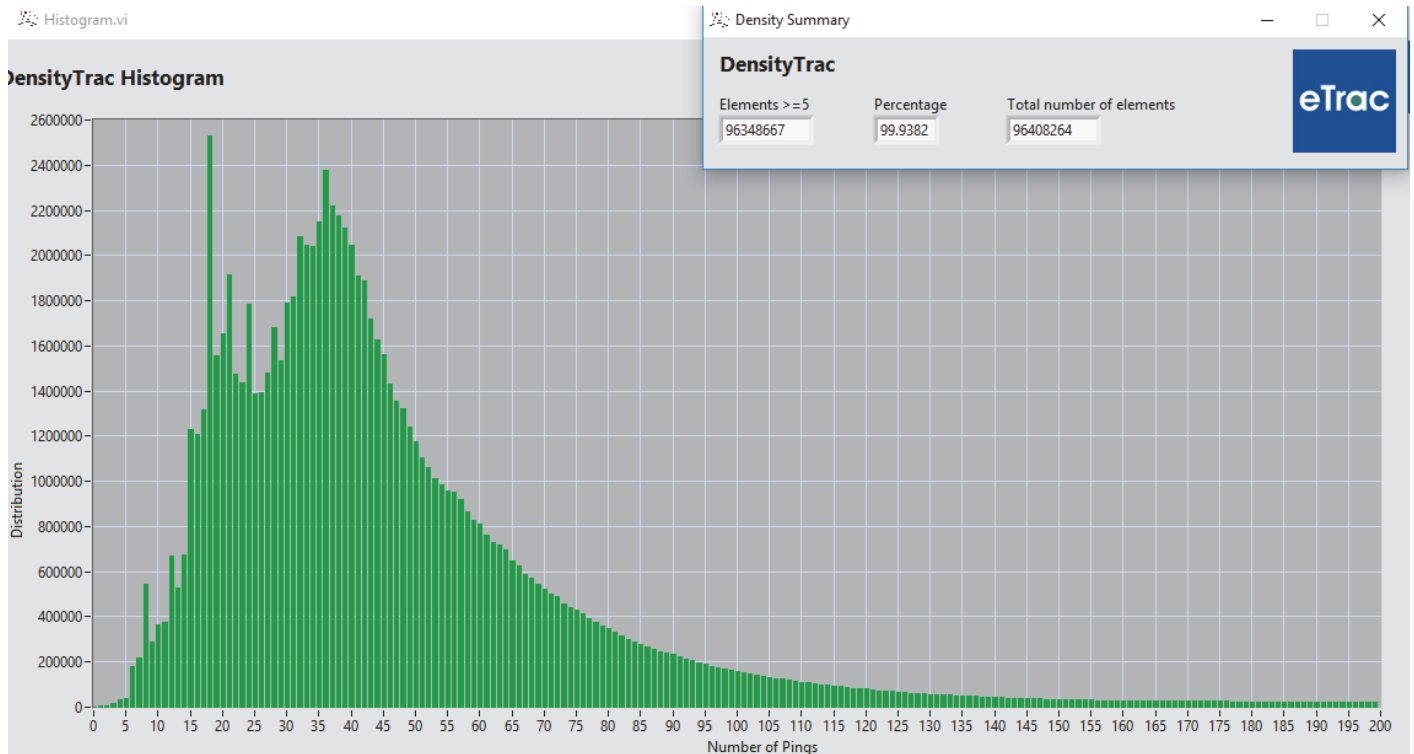


Figure 11: H13165 Finalized 1m Complete Coverage MBES Density Distribution

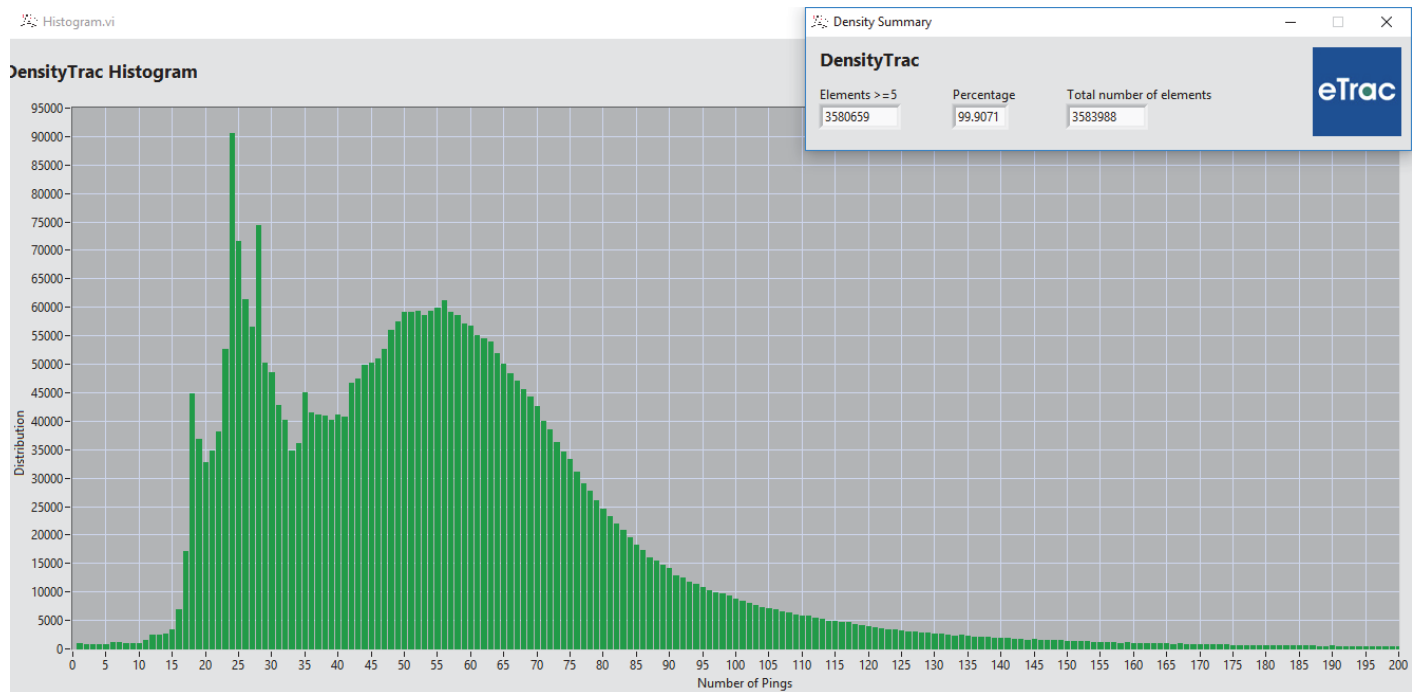


Figure 12: H13165 Finalized 2m Complete Coverage MBES Density Distribution

## B.3 Echo Sounding Corrections

### B.3.1 Corrections to Echo Soundings

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

### B.3.2 Calibrations

All sounding systems were calibrated as detailed in the DAPR.

## B.4 Backscatter

Backscatter data were collected throughout the survey and are retained in the raw ALL and DB files. Every effort was made in the field to collect quality backscatter data while maintaining the primary mandate of high quality bathymetric data. While no processing or analysis of backscatter was required, eTrac Inc. verified coverage and general quality of the backscatter data collected. A beam intensity window was monitored in Qinsy during acquisition to ensure backscatter data collection. Raw backscatter data were viewed in QPS FMGeocoder to further confirm collection criteria had been met. Shown below is an example of the unprocessed backscatter mosaic from H13165 DN265.



*Figure 13: Raw backscatter from R/V Taku (DN265)*

## B.5 Data Processing

### B.5.1 Software Updates

There were no software configuration changes after the DAPR was submitted.

The following Feature Object Catalog was used:

No Feature Object Catalog was used. Qimera was used as the primary processing software, which included feature management.

### B.5.2 Surfaces

The following surfaces and/or BAGs were submitted to the Processing Branch:

Surface Name	Surface Type	Resolution	Depth Range	Surface Parameter	Purpose
H13165_MB_1m_MLLW_Final	BAG	1 meters	2.2 meters - 20 meters	NOAA_1m	Complete MBES
H13165_MB_2m_MLLW_Final	BAG	2 meters	18 meters - 23.7 meters	NOAA_2m	Complete MBES

*Table 8: Submitted Surfaces*

A 1m surface and 2m surface are provided meeting complete coverage MBES with backscatter specifications for H13165. These surfaces have been thresholded based on the specifications set forth in the HSSD.





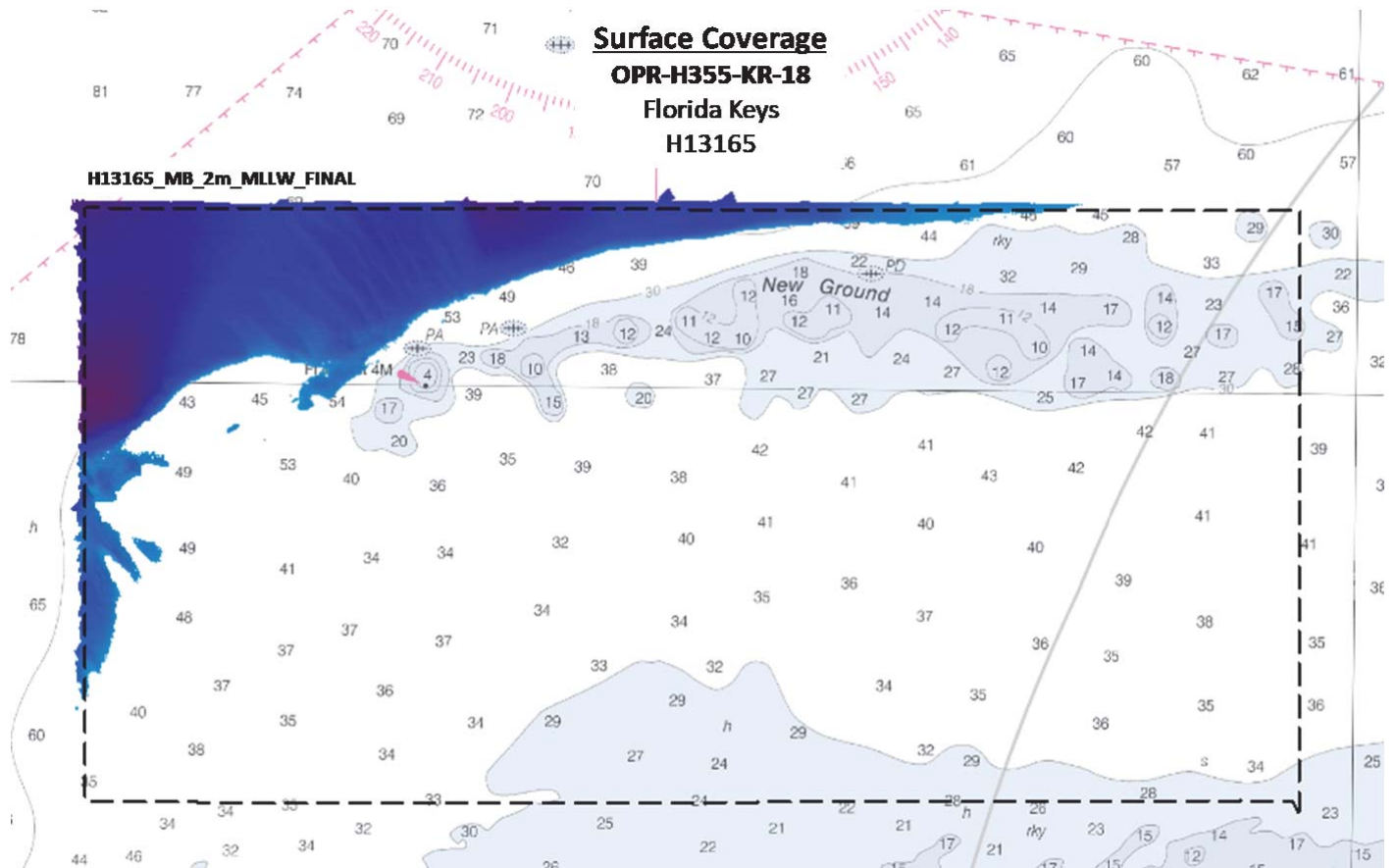


Figure 15: H13165 Delivered 2m CUBE Surface Coverage Graphic

## C. Vertical and Horizontal Control

### C.1 Vertical Control

The vertical datum for this project is Mean Lower Low Water.

Non-Standard Vertical Control Methods Used:

VDatum

Ellipsoid to Chart Datum Separation File:

ITRF\_to\_MLLW\_FL\_KEYS.bin

In order to reference soundings to MLLW, a VDatum separation method was applied to the Qinsy DB files via a separation file in the acquisition softwares.

Note: The vertical control methods are further addressed in the HVCR and DAPR.

## C.2 Horizontal Control

The horizontal datum for this project is North American Datum of 1983 (NAD83).

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

## D. Results and Recommendations

### D.1 Chart Comparison

A chart comparison was conducted for H13165 using Qimera and Caris HIPS and SIPS. Contours and soundings were compared against the largest scale ENC US4FL92M to accomplish the chart comparison. The methods and results of the comparison are detailed below.

Contour Comparison Method: Using the 1 meter CUBE weighted Dynamic Surface, the 6 foot, 12 foot, 18 foot, 30 foot and 60 foot contours were generated in Qimera and displayed against the charted contour. Additionally, the 1 meter CUBE weighted Dynamic Surface was viewed by a custom color band range based on the contour intervals (6ft, 12ft, 18ft, 30ft, 60ft). The results of the comparison are described below, followed by 1-2 images of example areas.

Sounding Comparison Method: Using the same 1 meter CUBE weighted Dynamic surface, soundings were generated in Caris HIPS and SIPS. Soundings were displayed against the charted soundings and a visual comparison was made. The results of the comparison are described below, followed by 1-2 images of example areas.

#### D.1.1 Electronic Navigational Charts

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

ENC	Scale	Edition	Update Application Date	Issue Date	Preliminary?
US5FL92M *	1:80000	10	12/05/2016	12/05/2016	NO

Table 9: Largest Scale ENCs

\* **US4FL92M**

US5FL92M \***\* US4FL92M**

## Contour Comparison Results:

New Ground Shoal has predominantly receded inward. The 6 foot and 12 foot contours charted on and around New Ground no longer exist. 18 foot contour has receded inward approximately 250 feet from the charted contour. The 30 foot contour has receded approximately 350 feet from the charted contour.

The 30 foot contour at the southern end of H13165 has receded shoreward on average 550 feet from the charted contour.

The 60 foot contour has receded shoreward on average 760 feet from the charted contour.

## Sounding Comparison Results:

In areas where the contour has changed, as noted above, and where a feature was detected, soundings differ from the charted depths. In general for H13165, the soundings are in excellent agreement with the chart with no major discrepancies. Soundings are generally within 1 to 2 feet of each other. Occasionally soundings differ by 3 to 4 feet, however depth differences generally appear to be minimal. Depth differences are not biased in any particular direction to support a systematic error.

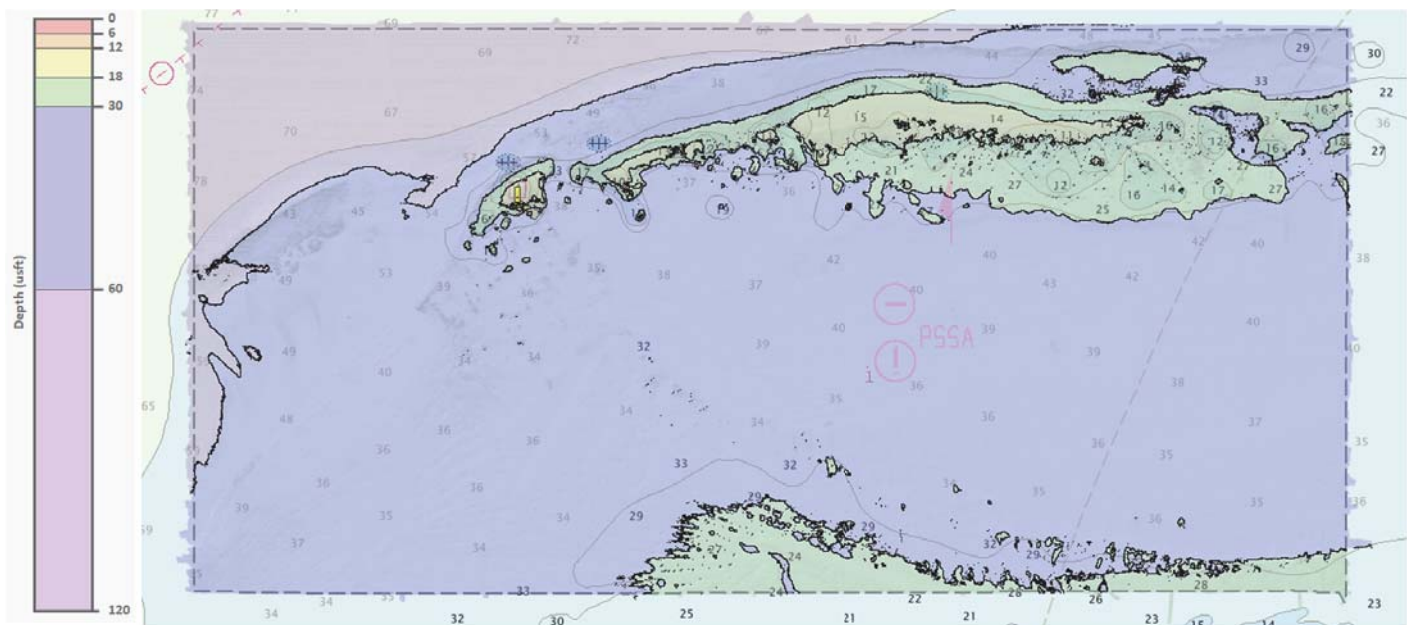


Figure 16: H13165 12ft, 18ft, 30ft, and 60ft Contour Comparison (US5FL92M)



Figure 17: Detailed View of H13165 12ft and 18ft Contour Comparison on on New Ground (US5FL92M)

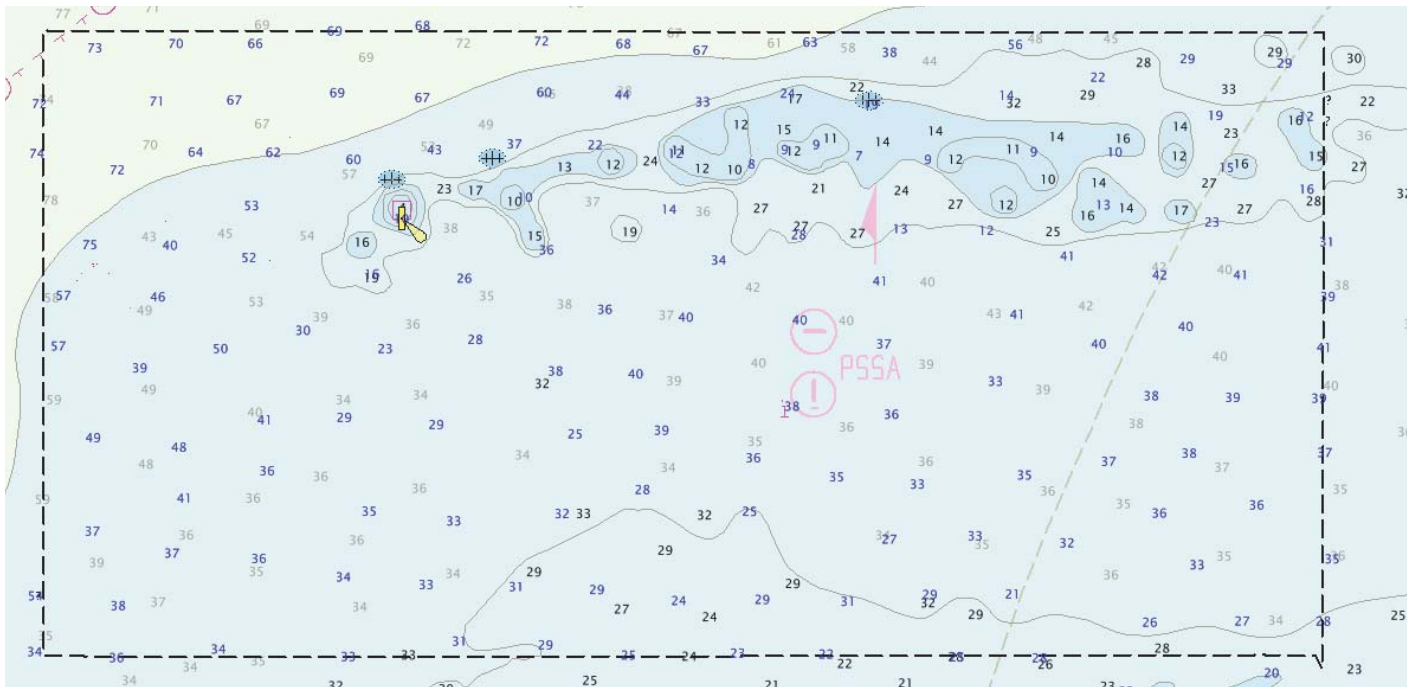


Figure 18: H13165 Sounding Comparison (ENC US5FL92M)

**D.1.2 AWOIS Items**

No AWOIS Items were assigned for this survey.

**D.1.3 Maritime Boundary Points**

No Maritime Boundary Points were assigned for this survey.

#### D.1.4 Charted Features

There were 6 charted features assigned to H13165. The assigned features are retained in the Final Feature File (FFF). Each feature in the FFF has been given a unique identifier in the "userid" field of the .000 S-57 file (format 5XXX). Refer to the FFF for determinations and recommendations of each feature.

#### D.1.5 Uncharted Features

There were 40 new features found in H13165 and added to the Final Feature File (FFF). Each feature was given a unique identifier in the "userid" field of the .000 S-57 file (format 5XXX). Refer to the FFF for determinations and recommendations of each feature.

#### D.1.6 Dangers to Navigation

The following DTON reports were submitted to the processing branch:

DTON Report Name	Date Submitted
H13165_DtoN_01	2018-09-25
H13165_DtoN_02_03	2018-12-04
H13165_DtoN_04	2018-12-04
H13165_DtoN_05	2018-12-04
H13169_DtoN_06	2018-12-04

*Table 10: DTON Reports*

There were 6 DtoNs which included 40 features in total, found in H13165, and added to the Final Feature File (FFF). Each feature in the FFF has been given a unique identifier in the "userid" field of the .000 S-57 file (format H13165\_DtoN\_XX). Refer to the FFF for determinations and recommendations of each feature. Note: All DtoNs were included in the number of new, uncharted features within section D.1.5.

#### D.1.7 Shoal and Hazardous Features

No shoals or hazardous features exist for this survey.

#### D.1.8 Channels

No channels exist for this survey.

## D.1.9 Bottom Samples

5 locations of drop camera imagery were obtained in accordance with Appendix I of the Project Instructions in areas designated by the feature object class springs (SPRING) in the Project Reference File (PRF). Drop camera imagery was obtained instead of physical bottom samples due to the vicinity of the National Marine Sanctuary. Drop camera imagery was used to define the NATSUR but was insufficient for defining the NATQUA and COLOUR.

A brief description of the results is listed below.

F1: coral, sand  
F2: coral  
F3: coral, sand  
F4: sand, shells  
F5: coral, sand

Detailed information and images of the bottom samples listed above are located in the Final Feature File (FFF). Each bottom sample has been given a unique identifier in the "userid" field of the .000 S-57 file (format FX).

## D.2 Additional Results

### D.2.1 Shoreline

No shoreline exists for this survey.

### D.2.2 Prior Surveys

No prior surveys exist for with survey.

### D.2.3 Aids to Navigation\*

There were 3 charted AtoNs assigned in H13165. The 3 AtoNs were found to serve their intended purpose and are retained in the Final Feature File (FFF). 1 AtoN although serving its intended purpose appears to be damaged. This was noted in the FFF and an image of the damaged AtoN is displayed below. Each feature was given a unique identifier in the "userid" field of the .000 S-57 file (format 5XXX). Refer to the FFF for determinations and recommendations of each feature. Note: All AtoNs were included in the number of charted features within section D.1.4.

***\*The referenced three Aids to Navigation are not separate aids, rather the same feature that is represented as three object types, DAYMAR, BCNSPP, and LIGHTS.***



*Figure 19: H13165 Visual Observation of Damaged AtoN*

#### **D.2.4 Overhead Features**

No overhead features exist for with survey.

### D.2.5 Submarine Features

No submarine features exist for this survey.

### D.2.6 Ferry Routes and Terminals

1 uncharted ferry route is located within the survey limits of H13165. The ferry route is called Key West-Fort Jefferson or Dry Tortugas Ferry. The ferry terminals for this route are located at the Key West Ferry Building in Key West, Florida and the Fort Jefferson Boat Dock in Dry Tortugas, Florida.

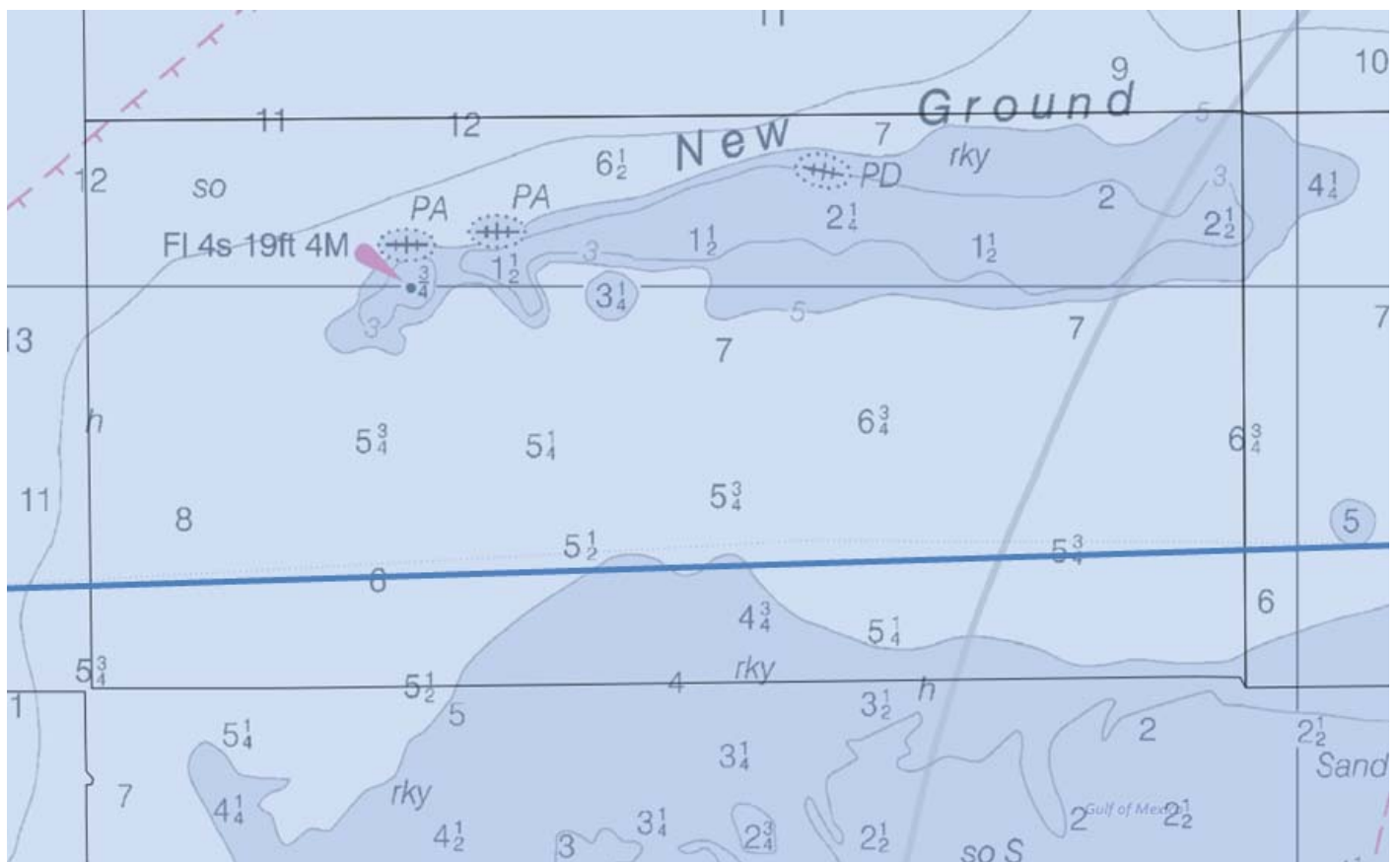


Figure 20: Ferry Route (blue line)



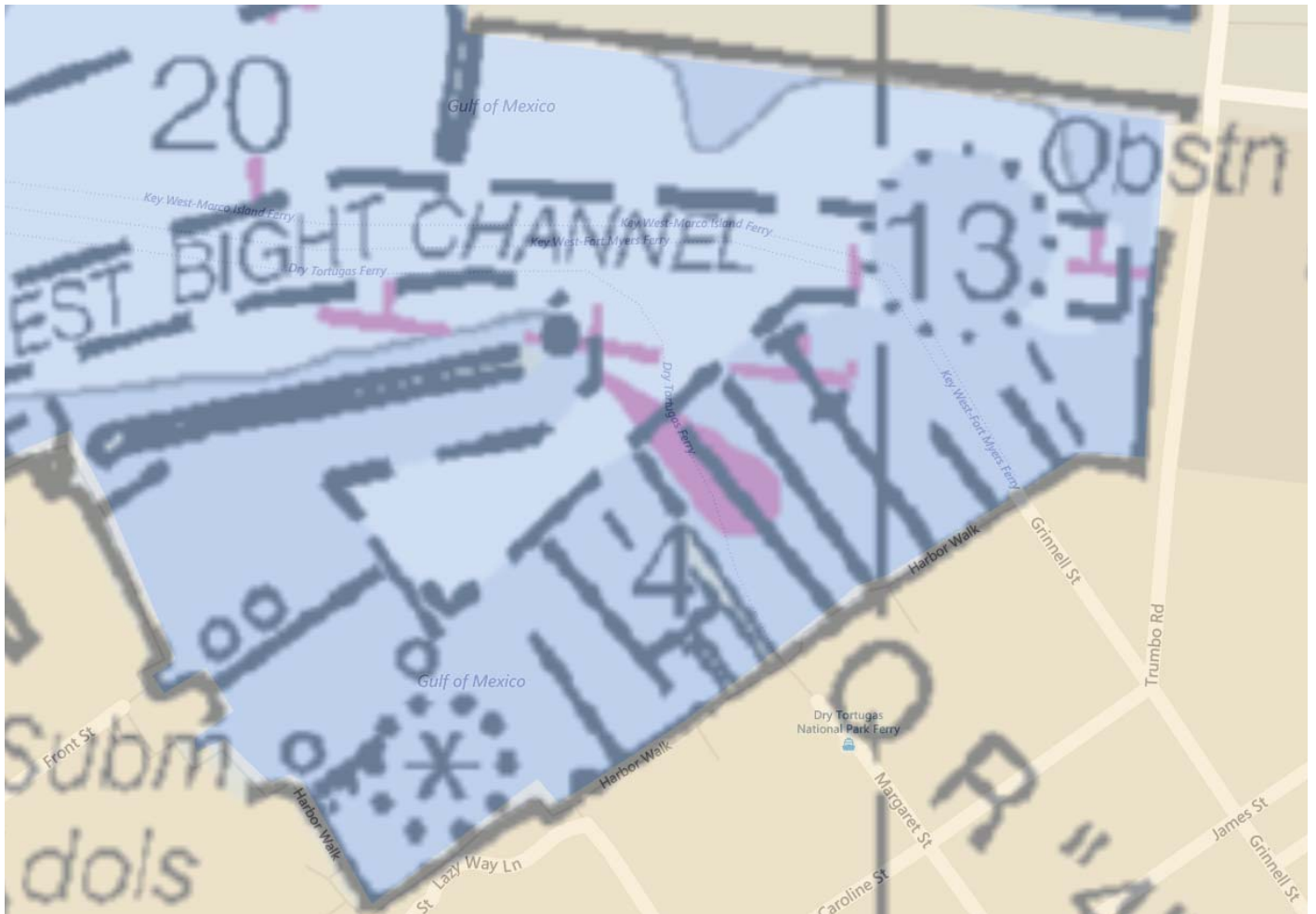


Figure 21: Ferry Terminal - Key West Ferry Building



Figure 22: Ferry Terminal - Fort Jefferson Boat Dock

### D.2.7 Platforms

No platforms exist for this survey.

### D.2.8 Significant Features

No significant features exist for this survey.

### D.2.9 Construction and Dredging

No construction or dredging exist for this survey.

**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 CUBE surfaces, 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 and Specifications Deliverables Manual, 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
David R. Neff, C.H.	VP of Survey, eTrac Inc.	01/30/2019	 



Isadora Kratchman &lt;izzy@etracinc.com&gt;

---

## Other DtoN Clusters in H13165

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**Isadora Kratchman** <izzy@etracinc.com>

Tue, Dec 4, 2018 at 9:48 AM

To: Castle Parker - NOAA Federal &lt;castle.e.parker@noaa.gov&gt;

Cc: David Neff &lt;dave@etracinc.com&gt;, Jacklyn James - NOAA Federal &lt;jacklyn.c.james@noaa.gov&gt;, Kathryn Pridgen - NOAA Federal &lt;kathryn.pridgen@noaa.gov&gt;

Gene,

Please find attached in the zip folder the standard DtoN package for H13165 DtoN 2-3.

Best regards,  
Izzy

On Fri, Nov 30, 2018 at 5:35 PM Isadora Kratchman &lt;izzy@etracinc.com&gt; wrote:

Thank you Gene,

I should be able to send the file back to you early next week.

Have a great weekend,  
Izzy

On Fri, Nov 30, 2018 at 10:32 AM Castle Parker - NOAA Federal &lt;castle.e.parker@noaa.gov&gt; wrote:

Hello Izzy,

Apologies for my delayed response. I am sending back an S57 file and CARIS HOB file with the selected features for DtoN submission. Within the image below, the selected features are highlighted in green and the one red object. I have populated certain attributes that I could and have information. The source date, observed time, image, remarks, and recommendation for the selected objects will need to be completed by eTrac.

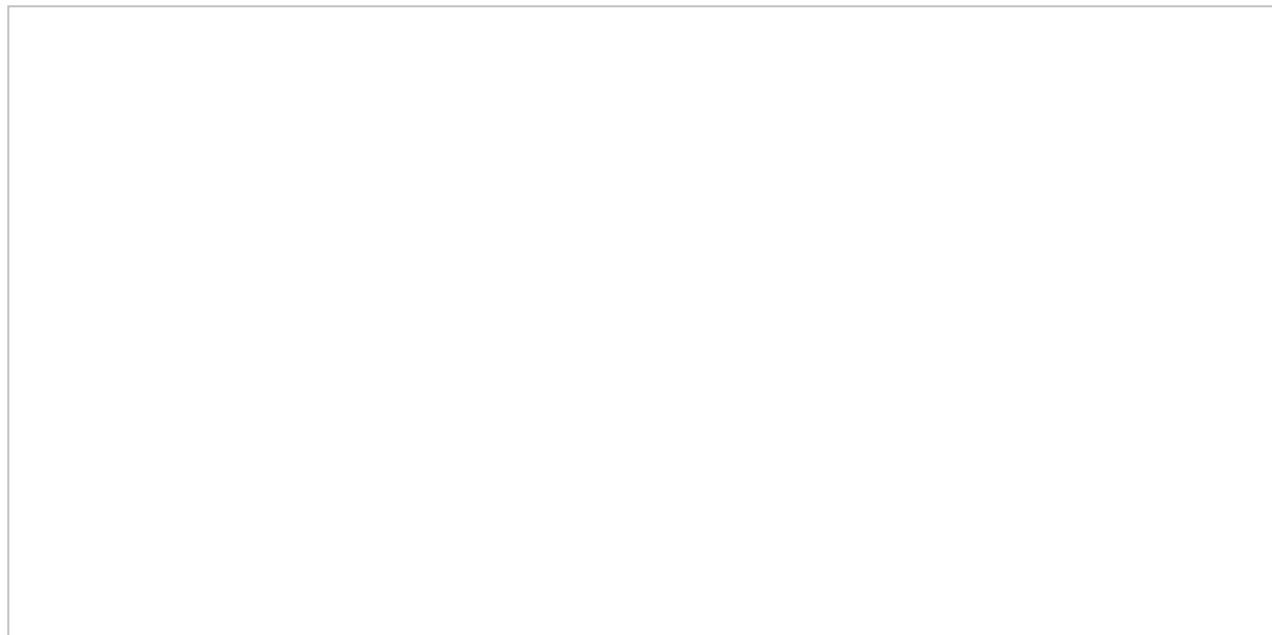
The submission selections were also reviewed and approved by AHB Chief. I chose to combine both sets in order to process and submit together. Please populate the attributes and send either the HOB or S57 file(s) back to me.

Thanks for your patience.

Regards,

Gene

*Castle Eugene Parker**NOAA Office of Coast Survey**Atlantic Hydrographic Branch**Hydrographic Team Lead / Physical Scientist*[castle.e.parker@noaa.gov](mailto:castle.e.parker@noaa.gov)*office (757) 364-7472*



**From:** Isadora Kratchman <[izzy@etracinc.com](mailto:izzy@etracinc.com)>

**Sent:** Monday, November 26, 2018 8:15 PM

**To:** Castle Parker - NOAA Federal <[castle.e.parker@noaa.gov](mailto:castle.e.parker@noaa.gov)>; David Neff <[dave@etracinc.com](mailto:dave@etracinc.com)>; Jacklyn James - NOAA Federal <[jacklyn.c.james@noaa.gov](mailto:jacklyn.c.james@noaa.gov)>; Kathryn Pridgen - NOAA Federal <[kathryn.pridgen@noaa.gov](mailto:kathryn.pridgen@noaa.gov)>

**Subject:** Other DtoN Clusters in H13165

Gene,

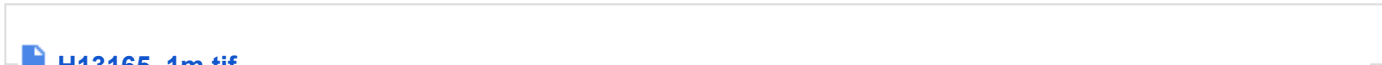
Per our conversation this afternoon and detailing our correspondence for the project COR:

Two other DtoN clusters have been identified in H13165. Following HSSD there are 7 DtoNs in one cluster and 20 DtoNs in the other cluster. We felt this warranted a consult with the Branch before creating individual reports for each feature in these 2 areas.

To mimic our delivery guidance of the first cluster of DtoNs (H13165\_DtoN\_01\_01-45), we have:

- Packaged 7 features into one .000 file (H13165\_DtoN\_02\_01\_07)
- Packaged 20 features into one .000 file (H13165\_DtoN\_03\_01-20)
- Provided images of sub-groups of the identified features against the surface
- Provided a 1m tiff image of the area

These products are attached to this email for your review with the branch.



 **H13165\_1m.tif**

Best Regards,

--

**Isadora Kratchman**

Hydrographic Surveyor

Mobile: (301) 706-9246

[www.etracinc.com](http://www.etracinc.com)

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**Isadora Kratchman**

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 **H13165\_DtoN\_2-3.zip**  
8134K



Isadora Kratchman &lt;izzy@etracinc.com&gt;

---

**H13165 DtoN 04, 05, 06, 07**

1 message

**Isadora Kratchman** <izzy@etracinc.com>

Tue, Dec 4, 2018 at 10:03 AM

To: Jacklyn James - NOAA Federal &lt;jacklyn.c.james@noaa.gov&gt;, Kathryn Pridgen - NOAA Federal

&lt;kathryn.pridgen@noaa.gov&gt;, ahb.dton@noaa.gov

Cc: Corey Allen - NOAA Federal &lt;corey.allen@noaa.gov&gt;, David Neff &lt;dave@etracinc.com&gt;, ahb.dton@noaa.gov, Lisa Diamond &lt;lisa@etracinc.com&gt;, Verena Kellner &lt;verena@etracinc.com&gt;

All,

Please find attached the standard DtoN packages detailing H13165 DtoN 04, 05, 06, and 07.

H13165 DtoN 04 is an uncharted rock

H13165 DtoN 05 is an uncharted rock

H13165 DtoN 06 is an uncharted obstruction

H13165 DtoN 07 is an uncharted obstruction

Best regards,

--

**Isadora Kratchman**

Hydrographic Surveyor

Mobile: (301) 706-9246

[www.etracinc.com](http://www.etracinc.com)

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**4 attachments** **H13165\_DtoN\_04.zip**  
672K **H13165\_DtoN\_05.zip**  
312K **H13165\_DtoN\_06.zip**  
416K **H13165\_DtoN\_07.zip**  
350K





Isadora Kratchman &lt;izzy@etracinc.com&gt;

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## H13065 DtoN #2-3 Submission to NDB

---

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

Fri, Dec 7, 2018 at 7:50 AM

To: Castle E Parker &lt;Castle.E.Parker@noaa.gov&gt;

Cc: Briana Hillstrom - NOAA Federal &lt;Briana.Hillstrom@noaa.gov&gt;, Tim Osborn &lt;Tim.Osborn@noaa.gov&gt;, Jacklyn James - NOAA Federal &lt;Jacklyn.C.James@noaa.gov&gt;, Corey Allen &lt;Corey.Allen@noaa.gov&gt;, Kathryn Pridgen - NOAA Federal &lt;kathryn.pridgen@noaa.gov&gt;, David Neff &lt;dave@etracinc.com&gt;, Isadora Kratchman &lt;izzy@etracinc.com&gt;, Kyle Ward &lt;Kyle.Ward@noaa.gov&gt;, \_NOS OCS PBA Branch &lt;ocs.pba@noaa.gov&gt;, \_NOS OCS PBB Branch &lt;ocs.pbb@noaa.gov&gt;, \_NOS OCS PBC Branch &lt;ocs.pbc@noaa.gov&gt;, \_NOS OCS PBD Branch &lt;ocs.pbd@noaa.gov&gt;, \_NOS OCS PBE Branch &lt;ocs.pbe@noaa.gov&gt;, \_NOS OCS PBG Branch &lt;ocs.pbg@noaa.gov&gt;, Charles Porter - NOAA Federal &lt;charles.porter@noaa.gov&gt;, Chris Libeau &lt;Chris.Libeau@noaa.gov&gt;, James M Crocker &lt;James.M.Crocker@noaa.gov&gt;, Ken Forster &lt;Ken.Forster@noaa.gov&gt;, Kevin Jett - NOAA Federal &lt;kevin.jett@noaa.gov&gt;, Matt Kroll &lt;Matt.Kroll@noaa.gov&gt;, Michael Gaeta &lt;Michael.Gaeta@noaa.gov&gt;, NSD Coast Pilot &lt;coast.pilot@noaa.gov&gt;, PHB Chief &lt;PHB.Chief@noaa.gov&gt;, Tara Wallace &lt;Tara.Wallace@noaa.gov&gt;

DD-30177 has been registered by the Nautical Data Branch and directed to Products Branch B for processing.

The DtoNs reported are several rocks (coral reefs and/or coral heads) 4 nautical miles north of The Quicksands, FL.

The following charts have been assigned to the record:

11439 kapp 356

11434 kapp 373

11420 kapp 374

4148 kapp 420

The following ENC's have been assigned to the record:

US4FL1FR

US4FL92M

US3FL90M

References:

H13165

OPR-H355-KR-18

This information was discovered by a NOAA contractor and was submitted by AHB.

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



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

From: **Castle Parker - NOAA Federal** <castle.e.parker@noaa.gov>

Date: Tue, Dec 4, 2018 at 2:17 PM

Subject: H13065 DtoN #2-3 Submission to NDB

To: OCS NDB - NOAA Service Account &lt;ocs.ndb@noaa.gov&gt;

Cc: Briana Hillstrom - NOAA Federal &lt;Briana.Hillstrom@noaa.gov&gt;, Tim Osborn - NOAA Federal &lt;tim.osborn@noaa.gov&gt;, Jacklyn James - NOAA Federal &lt;jacklyn.c.james@noaa.gov&gt;, Corey Allen - NOAA Federal &lt;corey.allen@noaa.gov&gt;, Kathryn Pridgen - NOAA Federal &lt;kathryn.pridgen@noaa.gov&gt;, David Neff &lt;dave@etracinc.com&gt;, Isadora Kratchman &lt;izzy@etracinc.com&gt;, Kyle Ward - NOAA Federal &lt;kyle.ward@noaa.gov&gt;

Good day,

Please find attached compressed file for H13165 DtoN Report #2-3, part of project OPS-H355-KR-18, containing 14 rocks (coral) in the vicinity of 4nm north of The Quicksands, Florida Keys National Sanctuary. The submission to Nautical Data Branch (NDB) and Marine Chart Division (MCD) is intended for chart application, as they are shoaler than the current charted depths. The features are representative of coral reefs and/or coral heads and are submitted within the DtoN submission as rocks (UWTROC).

The information originates from a NOAA contract field unit and was submitted to the Atlantic Hydrographic Branch (AHB) for review, processing, and submission. The contents of the attached file were generated at AHB. The attached file contains a DtoN Letter (PDF), associated image files, and a Pydro XML file.

If you have any questions, please contact me via email or phone 757-364-7472. Thank you for your assistance with this matter.

Regards,

Gene

*Castle Eugene Parker*

*NOAA Office of Coast Survey*

*Atlantic Hydrographic Branch*

*Hydrographic Team Lead / Physical Scientist*

[castle.e.parker@noaa.gov](mailto:castle.e.parker@noaa.gov)

*office (757) 364-7472*

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 **H13165\_DtoN\_2-3.pdf**  
4024K



Isadora Kratchman &lt;izzy@etracinc.com&gt;

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## H13165 DtoN #4 - #6 Submission to NDB

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

Fri, Dec 7, 2018 at 1:59 PM

To: Castle E Parker &lt;Castle.E.Parker@noaa.gov&gt;

Cc: Briana Hillstrom - NOAA Federal &lt;Briana.Hillstrom@noaa.gov&gt;, Corey Allen &lt;Corey.Allen@noaa.gov&gt;, Jacklyn James - NOAA Federal &lt;Jacklyn.C.James@noaa.gov&gt;, Kathryn Pridgen - NOAA Federal &lt;kathryn.pridgen@noaa.gov&gt;, Tim Osborn &lt;Tim.Osborn@noaa.gov&gt;, Kyle Ward &lt;Kyle.Ward@noaa.gov&gt;, David Neff &lt;dave@etracinc.com&gt;, Isadora Kratchman &lt;izzy@etracinc.com&gt;, Lisa Diamond &lt;lisa@etracinc.com&gt;, Verena Kellner &lt;verena@etracinc.com&gt;, \_NOS OCS PBA Branch &lt;ocs.pba@noaa.gov&gt;, \_NOS OCS PBB Branch &lt;ocs.pbb@noaa.gov&gt;, \_NOS OCS PBC Branch &lt;ocs.pbc@noaa.gov&gt;, \_NOS OCS PBD Branch &lt;ocs.pbd@noaa.gov&gt;, \_NOS OCS PBE Branch &lt;ocs.pbe@noaa.gov&gt;, \_NOS OCS PBG Branch &lt;ocs.pbg@noaa.gov&gt;, Charles Porter - NOAA Federal &lt;charles.porter@noaa.gov&gt;, Chris Libeau &lt;Chris.Libeau@noaa.gov&gt;, James M Crocker &lt;James.M.Crocker@noaa.gov&gt;, Ken Forster &lt;Ken.Forster@noaa.gov&gt;, Kevin Jett - NOAA Federal &lt;kevin.jett@noaa.gov&gt;, Matt Kroll &lt;Matt.Kroll@noaa.gov&gt;, Michael Gaeta &lt;Michael.Gaeta@noaa.gov&gt;, NSD Coast Pilot &lt;coast.pilot@noaa.gov&gt;, PHB Chief &lt;PHB.Chief@noaa.gov&gt;, Tara Wallace &lt;Tara.Wallace@noaa.gov&gt;

DD-30180 has been registered by the Nautical Data Branch and directed to Products Branch B for processing.

The DtoNs reported are a shoal and two rocks 4 nautical miles north of The Quicksands, FL.

The following charts have been assigned to the record:

11439 kapp 356  
11434 kapp 373  
11420 kapp 374  
4148 kapp 420

The following ENC's have been assigned to the record:

US4FL1FR  
US4FL92M  
US3FL90M

References:

H13165  
OPR-H355-KR-18

This information was discovered by a NOAA contractor and was submitted by AHB.

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



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

From: **Castle Parker - NOAA Federal** <castle.e.parker@noaa.gov>

Date: Tue, Dec 4, 2018 at 4:51 PM

Subject: H13165 DtoN #4 - #6 Submission to NDB

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

Cc: Briana Hillstrom - NOAA Federal <Briana.Hillstrom@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>, Jacklyn James - NOAA Federal <jacklyn.c.james@noaa.gov>, Kathryn Pridgen - NOAA Federal <kathryn.pridgen@noaa.gov>, Tim Osborn - NOAA Federal <tim.osborn@noaa.gov>, Kyle Ward - NOAA Federal

<kyle.ward@noaa.gov>, David Neff <dave@etracinc.com>, Isadora Kratchman <izzy@etracinc.com>, Lisa Diamond <lisa@etracinc.com>, Verena Kellner <verena@etracinc.com>

Good day,

Please find attached compressed file for H13165 DtoN Report #4-6, part of project OPS-H355-KR-18, containing 2 rocks (coral) and a 39ft sounding in the vicinity of 4nm north of The Quicksands, Florida Keys National Sanctuary. The submission to Nautical Data Branch (NDB) and Marine Chart Division (MCD) is intended for chart application. The rock features are representative of coral reefs and/or coral heads and are submitted within the DtoN submission as rocks (UWTROC), and the 39ft sounding is the representative depth of a benthic shoal.

The information originates from a NOAA contract field unit and was submitted to the Atlantic Hydrographic Branch (AHB) for review, processing, and submission. The contents of the attached file were generated at AHB. The attached file contains a DtoN Letter (PDF), associated image files, and a Pydro XML file.

If you have any questions, please contact me via email or phone 757-364-7472. Thank you for your assistance with this matter.

Regards,

Gene

*Castle Eugene Parker*

*NOAA Office of Coast Survey*

*Atlantic Hydrographic Branch*

*Hydrographic Team Lead / Physical Scientist*

[castle.e.parker@noaa.gov](mailto:castle.e.parker@noaa.gov)

*office (757) 364-7472*

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 **H13165\_DtoN\_4-6.zip**  
2692K



Isadora Kratchman &lt;izzy@etracinc.com&gt;

---

**DTON Cluster H13165**

1 message

**David Neff** <david@etracinc.com>

Tue, Sep 25, 2018 at 3:55 PM

To: Castle Parker - NOAA Federal &lt;castle.e.parker@noaa.gov&gt;, Isadora Kratchman &lt;izzy@etracinc.com&gt;, Jacklyn James - NOAA Federal &lt;jacklyn.c.james@noaa.gov&gt;, Kathryn Pridgen - NOAA Federal &lt;kathryn.pridgen@noaa.gov&gt;

Gene,

Per our conversation this morning and detailing our correspondence for the project COR:

After fully developing the "New Ground" shoal in H13165, eTrac has identified 45 DTONs per HSSD. There were more, but were reduced to 45 using the 2mm chart scale radius. As this is extreme, we felt it warranted a consult with the Branch before we went and made 45 DTON reports in this one area.

Per your guidance Gene this morning, we have:

- Packaged all 45 features into one .000 file
- Provided images of sub-groups of the identified features against the surface
- Provided a 1m tiff image of the area

These products are attached to this email for your review with the branch chief. Let me know if I should deliver these through the proper DTON channels at this point or await further guidance, should you choose to exclude some features.

[H13165\\_DtoN\\_01\\_01-45.tif](#) [H13165\\_DtoN\\_01\\_01-45.zip](#)

--

**David Neff, C.H.**

Mobile: (415) 517-0020

[www.etracinc.com](http://www.etracinc.com)



Isadora Kratchman &lt;izzy@etracinc.com&gt;

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**H13165 DtoN #1 Submission to NDB**

2 messages

**Castle Parker - NOAA Federal** <castle.e.parker@noaa.gov>

Thu, Sep 27, 2018 at 5:45 AM

To: OCS NDB - NOAA Service Account &lt;ocs.ndb@noaa.gov&gt;

Cc: Briana Hillstrom - NOAA Federal &lt;Briana.Hillstrom@noaa.gov&gt;, Jacklyn James - NOAA Federal &lt;jacklyn.c.james@noaa.gov&gt;, Kathryn Pridgen - NOAA Federal &lt;kathryn.pridgen@noaa.gov&gt;, David Neff &lt;dave@etracinc.com&gt;, Isadora Kratchman &lt;izzy@etracinc.com&gt;, Kyle Ward - NOAA Federal &lt;kyle.ward@noaa.gov&gt;

Good day,

Please find attached compressed file for H13165 DtoN Report #1, part of project OPS-H355-KR-18, containing 23 shoal rocks (coral) in the vicinity of New Ground, Florida Keys National Sanctuary. The submission to Nautical Data Branch (NDB) and Marine Chart Division (MCD) is intended for chart application, as they are shoaler than the current charted depths. The features are representative of coral reefs and/or coral heads and are submitted within the DtoN submission as rocks (UWTROC). It is recommended that the features be applied to the largest scale chart as soundings (SOUNDG) to reduce chart clutter.

The information originates from a NOAA contract field unit and was submitted to the Atlantic Hydrographic Branch (AHB) for review, processing, and submission. The contents of the attached file were generated at AHB. The attached file contains a DtoN Letter (PDF), associated image files, and a Pydro XML file.

If you have any questions, please contact me via email or phone 757-364-7472. Thank you for your assistance with this matter.

Regards,

Gene

*Castle Eugene Parker**NOAA Office of Coast Survey**Atlantic Hydrographic Branch**Hydrographic Team Lead / Physical Scientist*[castle.e.parker@noaa.gov](mailto:castle.e.parker@noaa.gov)*office (757) 364-7472***H13165\_DtoN\_1.zip**

1643K

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

Thu, Sep 27, 2018 at 10:43 AM

To: Castle E Parker <castle.e.parker@noaa.gov>

Cc: Briana Welton <Briana.Hillstrom@noaa.gov>, Jacklyn James - NOAA Federal <jacklyn.c.james@noaa.gov>, Kathryn Pridgen - NOAA Federal <kathryn.pridgen@noaa.gov>, David Neff <dave@etracinc.com>, Isadora Kratchman <izzy@etracinc.com>, Kyle Ward <kyle.ward@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>, 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>, Nautical Data Branch <OCS.NDB@noaa.gov>, NSD Coast Pilot <coast.pilot@noaa.gov>, PHB Chief <PHB.Chief@noaa.gov>, Tara Wallace <Tara.Wallace@noaa.gov>

DD-29907 has been registered by the Nautical Data Branch and directed to Products Branch B for processing.

The DtoNs reported are 23 submerged rocks near New Ground in the Florida Keys National Sanctuary in the Gulf of Mexico.

The following charts are affected:

11439 kapp 356  
11434 kapp 373  
11420 kapp 374  
4148 kapp 420

The following ENC's are affected:

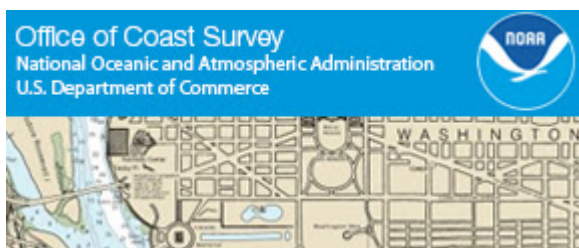
US4FL1FR  
US4FL92M  
US3FL90M

References:


H13165  
OPR-H355-KR-18

This information was discovered by a NOAA contractor and was submitted by AHB.

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



[Quoted text hidden]

 **H13165\_DtoN\_1.zip**  
1643K



Isadora Kratchman &lt;izzy@etracinc.com&gt;

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## H13065 DtoN #2-3 Submission to NDB

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

Fri, Dec 7, 2018 at 7:50 AM

To: Castle E Parker &lt;Castle.E.Parker@noaa.gov&gt;

Cc: Briana Hillstrom - NOAA Federal &lt;Briana.Hillstrom@noaa.gov&gt;, Tim Osborn &lt;Tim.Osborn@noaa.gov&gt;, Jacklyn James - NOAA Federal &lt;Jacklyn.C.James@noaa.gov&gt;, Corey Allen &lt;Corey.Allen@noaa.gov&gt;, Kathryn Pridgen - NOAA Federal &lt;kathryn.pridgen@noaa.gov&gt;, David Neff &lt;dave@etracinc.com&gt;, Isadora Kratchman &lt;izzy@etracinc.com&gt;, Kyle Ward &lt;Kyle.Ward@noaa.gov&gt;, \_NOS OCS PBA Branch &lt;ocs.pba@noaa.gov&gt;, \_NOS OCS PBB Branch &lt;ocs.pbb@noaa.gov&gt;, \_NOS OCS PBC Branch &lt;ocs.pbc@noaa.gov&gt;, \_NOS OCS PBD Branch &lt;ocs.pbd@noaa.gov&gt;, \_NOS OCS PBE Branch &lt;ocs.pbe@noaa.gov&gt;, \_NOS OCS PBG Branch &lt;ocs.pbg@noaa.gov&gt;, Charles Porter - NOAA Federal &lt;charles.porter@noaa.gov&gt;, Chris Libeau &lt;Chris.Libeau@noaa.gov&gt;, James M Crocker &lt;James.M.Crocker@noaa.gov&gt;, Ken Forster &lt;Ken.Forster@noaa.gov&gt;, Kevin Jett - NOAA Federal &lt;kevin.jett@noaa.gov&gt;, Matt Kroll &lt;Matt.Kroll@noaa.gov&gt;, Michael Gaeta &lt;Michael.Gaeta@noaa.gov&gt;, NSD Coast Pilot &lt;coast.pilot@noaa.gov&gt;, PHB Chief &lt;PHB.Chief@noaa.gov&gt;, Tara Wallace &lt;Tara.Wallace@noaa.gov&gt;

DD-30177 has been registered by the Nautical Data Branch and directed to Products Branch B for processing.

The DtoNs reported are several rocks (coral reefs and/or coral heads) 4 nautical miles north of The Quicksands, FL.

The following charts have been assigned to the record:

11439 kapp 356

11434 kapp 373

11420 kapp 374

4148 kapp 420

The following ENC's have been assigned to the record:

US4FL1FR

US4FL92M

US3FL90M

References:

H13165

OPR-H355-KR-18

This information was discovered by a NOAA contractor and was submitted by AHB.

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



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

From: **Castle Parker - NOAA Federal** <castle.e.parker@noaa.gov>

Date: Tue, Dec 4, 2018 at 2:17 PM

Subject: H13065 DtoN #2-3 Submission to NDB

To: OCS NDB - NOAA Service Account &lt;ocs.ndb@noaa.gov&gt;

Cc: Briana Hillstrom - NOAA Federal &lt;Briana.Hillstrom@noaa.gov&gt;, Tim Osborn - NOAA Federal &lt;tim.osborn@noaa.gov&gt;, Jacklyn James - NOAA Federal &lt;jacklyn.c.james@noaa.gov&gt;, Corey Allen - NOAA Federal &lt;corey.allen@noaa.gov&gt;, Kathryn Pridgen - NOAA Federal &lt;kathryn.pridgen@noaa.gov&gt;, David Neff &lt;dave@etracinc.com&gt;, Isadora Kratchman &lt;izzy@etracinc.com&gt;, Kyle Ward - NOAA Federal &lt;kyle.ward@noaa.gov&gt;



Good day,

Please find attached compressed file for H13165 DtoN Report #2-3, part of project OPS-H355-KR-18, containing 14 rocks (coral) in the vicinity of 4nm north of The Quicksands, Florida Keys National Sanctuary. The submission to Nautical Data Branch (NDB) and Marine Chart Division (MCD) is intended for chart application, as they are shoaler than the current charted depths. The features are representative of coral reefs and/or coral heads and are submitted within the DtoN submission as rocks (UWTROC).

The information originates from a NOAA contract field unit and was submitted to the Atlantic Hydrographic Branch (AHB) for review, processing, and submission. The contents of the attached file were generated at AHB. The attached file contains a DtoN Letter (PDF), associated image files, and a Pydro XML file.

If you have any questions, please contact me via email or phone 757-364-7472. Thank you for your assistance with this matter.

Regards,

Gene

*Castle Eugene Parker*

*NOAA Office of Coast Survey*

*Atlantic Hydrographic Branch*

*Hydrographic Team Lead / Physical Scientist*

[castle.e.parker@noaa.gov](mailto:castle.e.parker@noaa.gov)

*office (757) 364-7472*



**H13165\_DtoN\_2-3.pdf**

4024K



Isadora Kratchman &lt;izzy@etracinc.com&gt;

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## H13165 DtoN #4 - #6 Submission to NDB

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

Fri, Dec 7, 2018 at 1:59 PM

To: Castle E Parker &lt;Castle.E.Parker@noaa.gov&gt;

Cc: Briana Hillstrom - NOAA Federal &lt;Briana.Hillstrom@noaa.gov&gt;, Corey Allen &lt;Corey.Allen@noaa.gov&gt;, Jacklyn James - NOAA Federal &lt;Jacklyn.C.James@noaa.gov&gt;, Kathryn Pridgen - NOAA Federal &lt;kathryn.pridgen@noaa.gov&gt;, Tim Osborn &lt;Tim.Osborn@noaa.gov&gt;, Kyle Ward &lt;Kyle.Ward@noaa.gov&gt;, David Neff &lt;dave@etracinc.com&gt;, Isadora Kratchman &lt;izzy@etracinc.com&gt;, Lisa Diamond &lt;lisa@etracinc.com&gt;, Verena Kellner &lt;verena@etracinc.com&gt;, \_NOS OCS PBA Branch &lt;ocs.pba@noaa.gov&gt;, \_NOS OCS PBB Branch &lt;ocs.pbb@noaa.gov&gt;, \_NOS OCS PBC Branch &lt;ocs.pbc@noaa.gov&gt;, \_NOS OCS PBD Branch &lt;ocs.pbd@noaa.gov&gt;, \_NOS OCS PBE Branch &lt;ocs.pbe@noaa.gov&gt;, \_NOS OCS PBG Branch &lt;ocs.pbg@noaa.gov&gt;, Charles Porter - NOAA Federal &lt;charles.porter@noaa.gov&gt;, Chris Libeau &lt;Chris.Libeau@noaa.gov&gt;, James M Crocker &lt;James.M.Crocker@noaa.gov&gt;, Ken Forster &lt;Ken.Forster@noaa.gov&gt;, Kevin Jett - NOAA Federal &lt;kevin.jett@noaa.gov&gt;, Matt Kroll &lt;Matt.Kroll@noaa.gov&gt;, Michael Gaeta &lt;Michael.Gaeta@noaa.gov&gt;, NSD Coast Pilot &lt;coast.pilot@noaa.gov&gt;, PHB Chief &lt;PHB.Chief@noaa.gov&gt;, Tara Wallace &lt;Tara.Wallace@noaa.gov&gt;

DD-30180 has been registered by the Nautical Data Branch and directed to Products Branch B for processing.

The DtoNs reported are a shoal and two rocks 4 nautical miles north of The Quicksands, FL.

The following charts have been assigned to the record:

11439 kapp 356  
11434 kapp 373  
11420 kapp 374  
4148 kapp 420

The following ENC's have been assigned to the record:

US4FL1FR  
US4FL92M  
US3FL90M

References:

H13165  
OPR-H355-KR-18

This information was discovered by a NOAA contractor and was submitted by AHB.

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



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

From: **Castle Parker - NOAA Federal** <castle.e.parker@noaa.gov>

Date: Tue, Dec 4, 2018 at 4:51 PM

Subject: H13165 DtoN #4 - #6 Submission to NDB

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

Cc: Briana Hillstrom - NOAA Federal <Briana.Hillstrom@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>, Jacklyn James - NOAA Federal <jacklyn.c.james@noaa.gov>, Kathryn Pridgen - NOAA Federal <kathryn.pridgen@noaa.gov>, Tim Osborn - NOAA Federal <tim.osborn@noaa.gov>, Kyle Ward - NOAA Federal

<kyle.ward@noaa.gov>, David Neff <dave@etracinc.com>, Isadora Kratchman <izzy@etracinc.com>, Lisa Diamond <lisa@etracinc.com>, Verena Kellner <verena@etracinc.com>

Good day,

Please find attached compressed file for H13165 DtoN Report #4-6, part of project OPS-H355-KR-18, containing 2 rocks (coral) and a 39ft sounding in the vicinity of 4nm north of The Quicksands, Florida Keys National Sanctuary. The submission to Nautical Data Branch (NDB) and Marine Chart Division (MCD) is intended for chart application. The rock features are representative of coral reefs and/or coral heads and are submitted within the DtoN submission as rocks (UWTROC), and the 39ft sounding is the representative depth of a benthic shoal.

The information originates from a NOAA contract field unit and was submitted to the Atlantic Hydrographic Branch (AHB) for review, processing, and submission. The contents of the attached file were generated at AHB. The attached file contains a DtoN Letter (PDF), associated image files, and a Pydro XML file.

If you have any questions, please contact me via email or phone 757-364-7472. Thank you for your assistance with this matter.

Regards,

Gene

*Castle Eugene Parker*

*NOAA Office of Coast Survey*

*Atlantic Hydrographic Branch*

*Hydrographic Team Lead / Physical Scientist*

[castle.e.parker@noaa.gov](mailto:castle.e.parker@noaa.gov)

*office (757) 364-7472*



**H13165\_DtoN\_4-6.zip**  
2692K

APPROVAL PAGE

H13165

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 Grids (BAGs)
- Collection of backscatter mosaics
- Processed survey data and records
- GeoPDF of survey products

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

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

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