H13081

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

DESCRIPTIVE REPORT

Type of Survey:	Basic Hydrographic Survey
Registry Number:	H13081

LOCALITY

State(s):	Florida
General Locality:	Florida
Sub-locality:	Sarasota to Naples Set Line Spacing

2017

CHIEF OF PARTY
David Neff, ACSM C.H.

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

REGISTRY NUMBER:

HYDROGRAPHIC TITLE SHEET

H13081

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**
Sub-Locality:	**Sarasota to Naples Set Line Spacing**
Scale:	**20000**
Dates of Survey:	**09/19/2017 to 11/09/2017** ***09/20/2017 to 11/10/2017***
Instructions Dated:	**08/11/2017**
Project Number:	**OPR-H358-KR-17**
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. H13081 will cover approximately 73 square nautical miles of survey area from Sarasota, FL to Naples, FL as designated in the NOAA Hydrographic Health Model. SUBCONSULTANT: Geodynamics LLC, 310A Greenfield Dr., Newport, NC 98570 SUBCONSULTANT: Theory Marine, 777 Viewcrest DR., Ventura, CA 93003 Projections: UTM 17N, NAD 83

The purpose of this survey is to provide contemporary surveys to update National Ocean Service (NOS) nautical charts. All separates are filed with the hydrographic data. Any revisions to the Descriptive Report (DR) generated during office processing are shown in bold red italic text. The processing branch maintains the DR as a field unit product, therefore, all information and recommendations within the body of the DR are considered preliminary unless otherwise noted. The final disposition of surveyed features is represented in the OCS nautical chart update products. All pertinent records for this survey, including the DR, are archived at the National Centers for Environmental Information (NCEI) and can be retrieved via https://www.ncei.noaa.gov/.

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Descriptive Report to Accompany Survey H13081

Project: OPR-H358-KR-17

Locality: Florida

Sublocality: Sarasota to Naples Set Line Spacing

Scale: 1:20000

September 2017 - November 2017

eTrac Inc.

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

A. Area Surveyed

eTrac Inc. conducted hydrographic survey operations from Sarasota to Naples, Florida. H13081 covers approximately 73 square nautical miles of survey area. 1535 linear nautical miles were aquired during the survey. H13081 spans from approximately 2.5 nautical miles northwest of Port Boca Grande, FL to approximately 6 nautical miles west of the southern end of Cape Romano, FL.

Survey was conducted within these limits between September 20, 2017 (DN263) and Novemeber 10, 2017 (DN314).

A.1 Survey Limits

Data were acquired within the following survey limits:

Northwest Limit	Southeast Limit
26° 44' 19.96" N 82° 17' 47.26" W	25° 49' 59.71" N 81° 46' 58.65" W

Table 1: Survey Limits

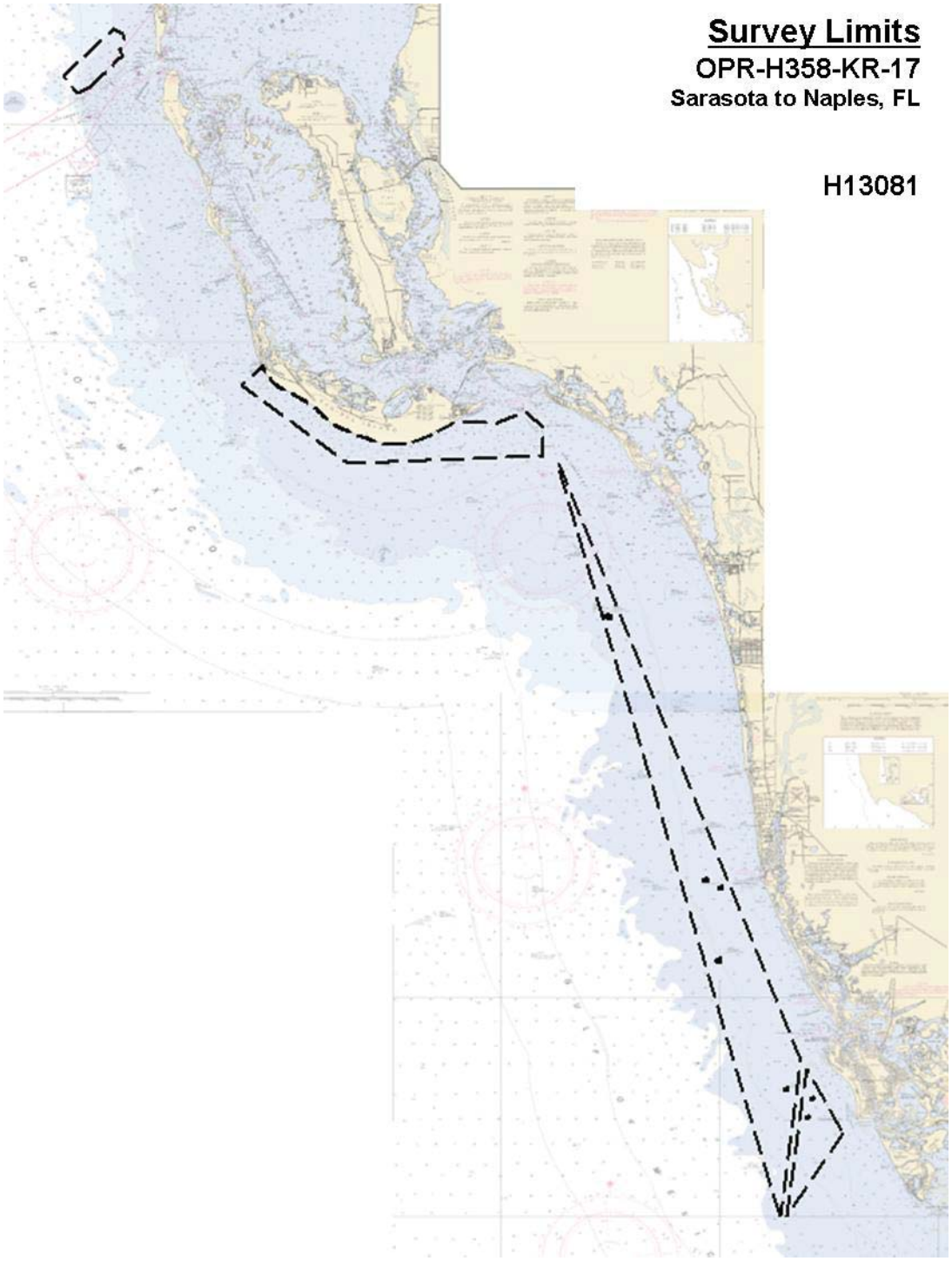

Figure 1: Survey Limits (black line)

All data were acquired in accordance with the requirements in the Project Instructions and specifications set forth in the Hydrographic Survey Specifications and Deliverables 2017 Edition (HSSD 2017).

A.2 Survey Purpose

The purpose of this survey is to update existing NOS nautical charts. H13081 covers approximately 73 square nautical miles of survey area, from Sarasota, Florida to Naples, Florida which was determined and assigned using the NOAA Hydrographic Health Model. The Hydrographic Health Model is due to be released online in a geographic information system (GIS) interface and summarized in a report in FY18.

A.3 Survey Quality

The entire survey is adequate to supersede previous data.

Survey H13081 is accurate to IHO Order 1a as required per the HSSD 2017.

A.4 Survey Coverage

Survey Coverage was in accordance with the requirements in the Project Instructions and HSSD 2017. Depths in H13081 range from 1.9 to 13.7 meters. H13081 was surveyed to Set Line Spacing with backscatter standards set forth in the HSSD 2017, as well as 8 areas of investigation and 2 fish havens surveyed to Complete Coverage MBES with backscatter standards set forth in the HSSD 2017.

Note: Within the survey limits of H13081, the MBES Set Line Spacing partially intersects 5 fishhavens and 1 area feature that are surveyed to Complete Coverage MBES and addressed in H13079. Within this MBES Set Line Spacing data, there are 4 designated soundings that correspond with these features addressed in H13079.

Figure 2: Survey Coverage

A.5 Survey Statistics

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

	HULL ID	*Benthos*	*Taku*	*505*	*Total*
LNM	SBES Mainscheme	0	0	0	0
	MBES Mainscheme	307	209	904	1420
	Lidar Mainscheme	0	0	0	0
	SSS Mainscheme	0	0	0	0
	SBES/SSS Mainscheme	0	0	0	0
	MBES/SSS Mainscheme	0	0	0	0
	SBES/MBES Crosslines	18	10	86	114
	Lidar Crosslines	0	0	0	0
Number of Bottom Samples					5
Number of AWOIS Items Investigated					0
Number Maritime Boundary Points Investigated					0
Number of DPs					0
Number of Items Investigated by Dive Ops					0
Total SNM					73

Table 2: Hydrographic Survey Statistics

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

Survey Dates	Day of the Year
09/19/2017	262
09/20/2017	263
09/28/2017	271
09/29/2017	272
10/01/2017	274
10/02/2017	275
10/03/2017	276
10/06/2017	279
10/10/2017	283
10/12/2017	285
10/13/2017	286
10/14/2017	287
10/15/2017	288
10/16/2017	289
10/17/2017	290
10/18/2017	291
10/19/2017	292
10/20/2017	293
10/21/2017	294
10/23/2017	296
10/25/2017	298
10/26/2017	299
10/27/2017	300
10/29/2017	302
10/30/2017	303
10/31/2017	304
11/01/2017	305
11/02/2017	306
11/03/2017	307
11/04/2017	308
11/05/2017	309
11/06/2017	310
11/07/2017	311
11/08/2017	312
11/09/2017	313

Note: The NOAA XML DR schema does not continue Table 3 Dates of Hydrography onto the next page in the pdf. The table partially cuts off 11/09/2017, Day of the Year number 313 in the PDF. Day number 313 is the last day of survey in H13081. ***November 10, 2017, Day number 314, is the official last day of survey for H13081.***

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	***R/V 505***	***R/V Benthos***	***R/V Taku***
LOA	10 meters	10 meters	10 meters
Draft	0.6 meters	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 two Universal Sonar Mount (USM) over-the-side (port and starboard) multibeam mounts.

The R/V 505 is a 10 meter aluminum catamaran equipped with one Universal Sonar Mount (USM) over-the-side (starboard) multibeam 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: The major systems listed above were used on each vessel. R/V Benthos utilized a Kongsberg 2040C dualhead multibeam echosounder, an AML Base.X for the sound speed system and a POSMV 320 V5 for the positioning system. R/V Taku utilized two R2Sonic 2024 multibeam echosounders, an AML Smart.X for the sound speed system and a POSMV 320 V5 for the positioning system. R/V 505 utilized a R2Sonic 2024 multibeam echosounder, 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 8% of mainscheme acquisition.

A comparison of crossline mileage to mainscheme mileage yields a crossline percentage of 8.02%, and is noted to be above the required 8%.

A beam-by-beam statistical analysis was performed using the Line QC reporting tool in Caris HIPS and SIPS 10.2. A 4 meter CUBE weighted BASE surface was created incorporating only the mainscheme lines and excluded crosslines. The Line QC reporting 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 reports generated through the Caris QC Reporting tool are included in Separate II.

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

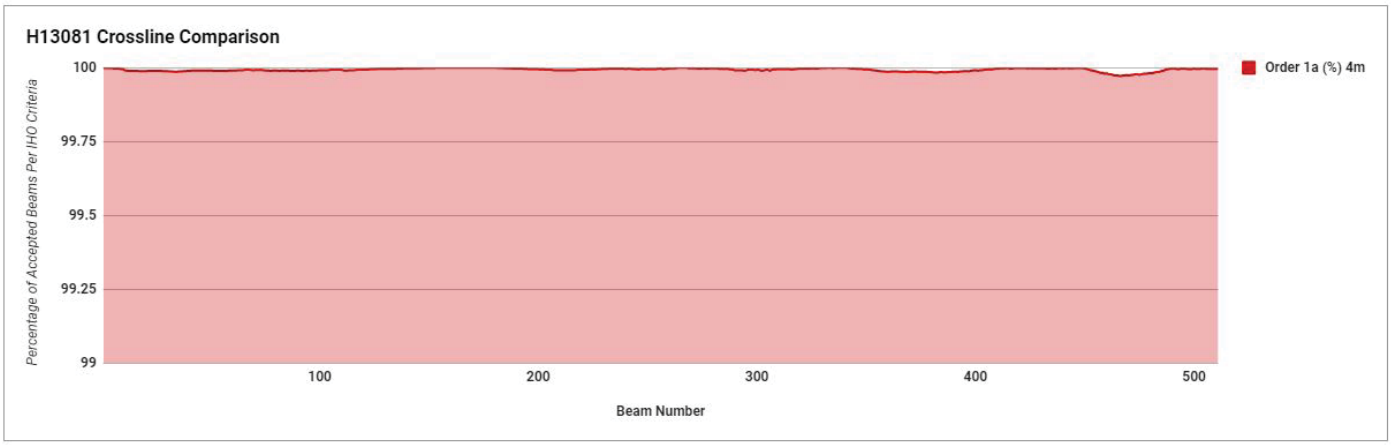

Figure 3: H13081 Crossline Comparison

B.2.2 Uncertainty

Hull ID	Measured - CTD	Measured - MVP	Surface
R/V Benthos	2 meters/second	0 meters/second	2 meters/second
R/V Taku	2 meters/second	0 meters/second	2 meters/second
R/V 505	2 meters/second	0 meters/second	2 meters/second

Table 6: Survey Specific Sound Speed TPU Values

Standard deviation and uncertainty child layers of BASE surfaces were utilized during data processing to search for features, water column noise, and systematic errors.

A custom child layer was created within the BASE surface utilizing the Deep and Shoal layers in the following configuration:

Custom Layer = (Deep - Shoal)^2

By viewing this custom layer, seafloor features, water column noise, and systematic errors are graphically exaggerated and can easily be identified for further examination.

A TVU QC layer was created within the BASE surface utilizing the Uncertainty and Depth child layers in the following configuration:

-Uncertainty/((0.5^2 +((Depth*0.013)^2))^0.5)

By viewing the TVU QC layer, nodes that exceed the IHO Order 1a uncertainty standards can be identified and further analyzed.

Standard deviation and uncertainty were quantified using the QC Reporting tool within Caris HIPS and SIPS 10.2. The option "Greater of the two" was selected in the reporting tool in order to generate statistics quantifying the maximum error occurring within the data. IHO Order 1a uncertainty specification was met by 100% of the nodes. Each BASE surface's uncertainty QC report generated through the Caris QC Reporting tool is included in Separate II.

The Total Propogated Uncertainty (TPU) was evaluated using the TPUTrac program in the AmiTrac program, developed in-house by eTrac Inc. Each finalized BASE surface's nodes were exported to an ASCII CSV file where the fields were (Easting, Northing, Depth, Uncertainty, Density) for each node. The CSV file was then loaded into the TPUTrac program and the TPU statistics were computed. A file was also created in this process to locate any points that exceed the allowable TPU, which was imported into Caris HIPS and SIPS 10.2 and any identified points from TPUTrac were analyzed and evaluated.

For H13081 the following percentages represent the results of the TPU testing:

Complete Coverage MBES (Finalized 1m CUBE weighted BASE Surface) = 100% of nodes are within allowable TPU.

MBES Set Line Spacing (Finalized 4m CUBE weighted BASE Surface) =100% of nodes are within allowable TPU.

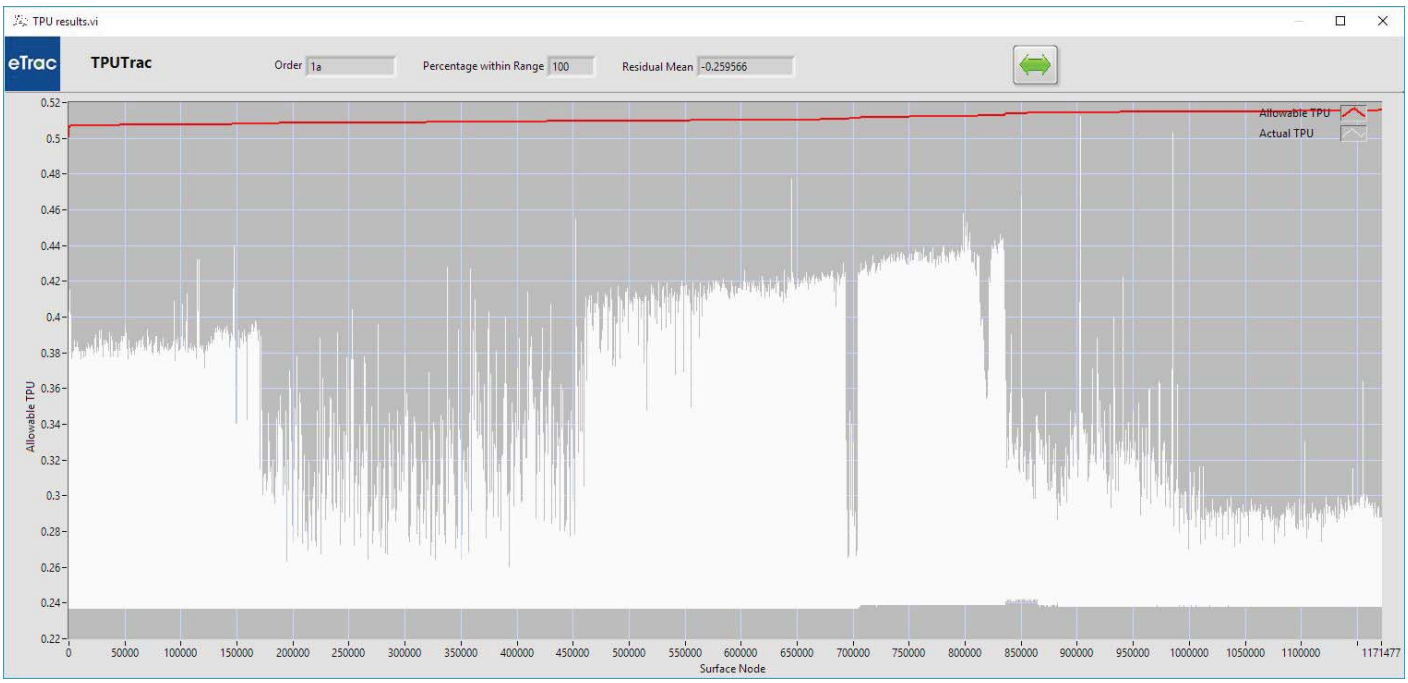

Figure 4: H13081 Finalized 1m Complete Coverage MBES TPU Statistics

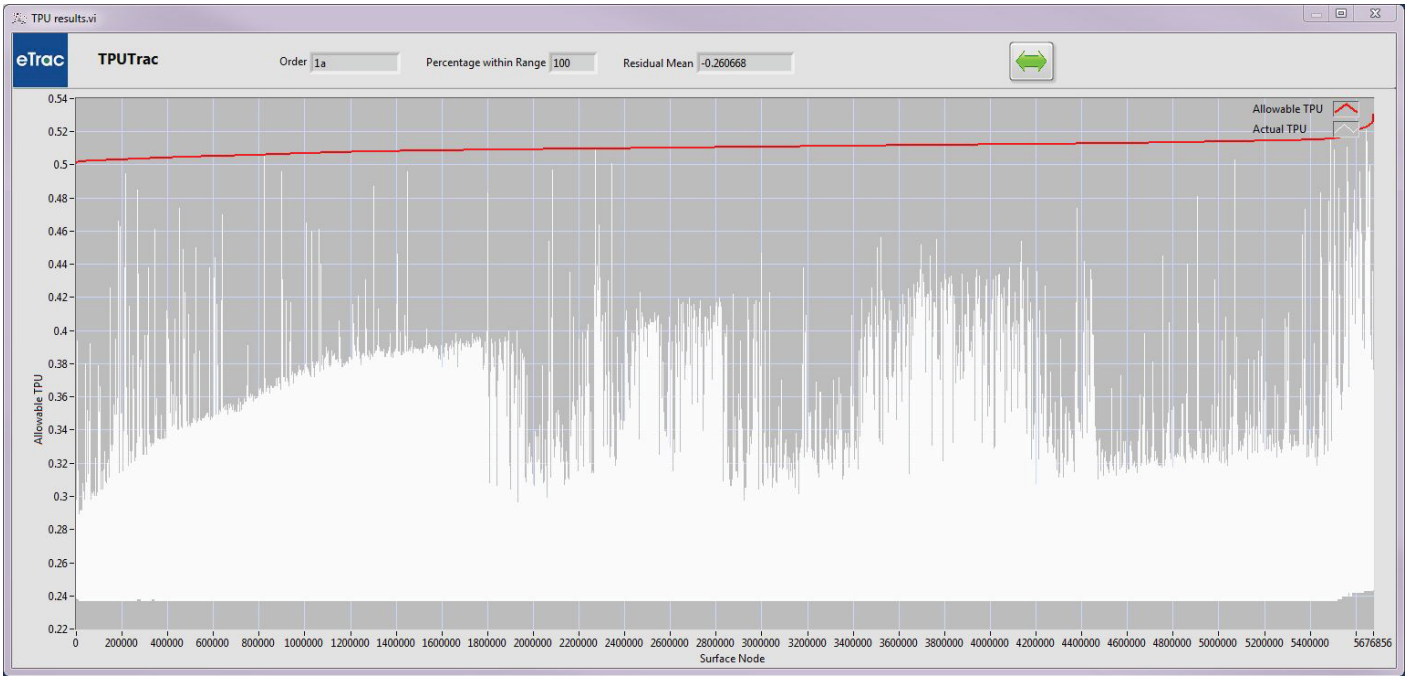

Figure 5: H13081 Finalized 4m Set Line Spacing MBES TPU Statistics

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 BASE surface's nodes were exported to an ASCII CSV file where the fields were (Easting, Northing, Depth) for each node. A 4m 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 Caris HIPS and SIPS 10.2 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
H13079	1:20000	2017	eTrac Inc.	E

Table 7: Junctioning Surveys

H13079

Note: The relative location can not be exculsively defined, as H13079 surrounds most of H13081 and therefore junctions with multiple edges.

The junction comparison was performed using all overlapping data between H13079 and H13081. 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. 99.9922% of nodes were within allowable TVU. Note: the spikes of high surface difference in the image are due to overlaping data on features.
Junction comparison statistics are also included in Separate II.

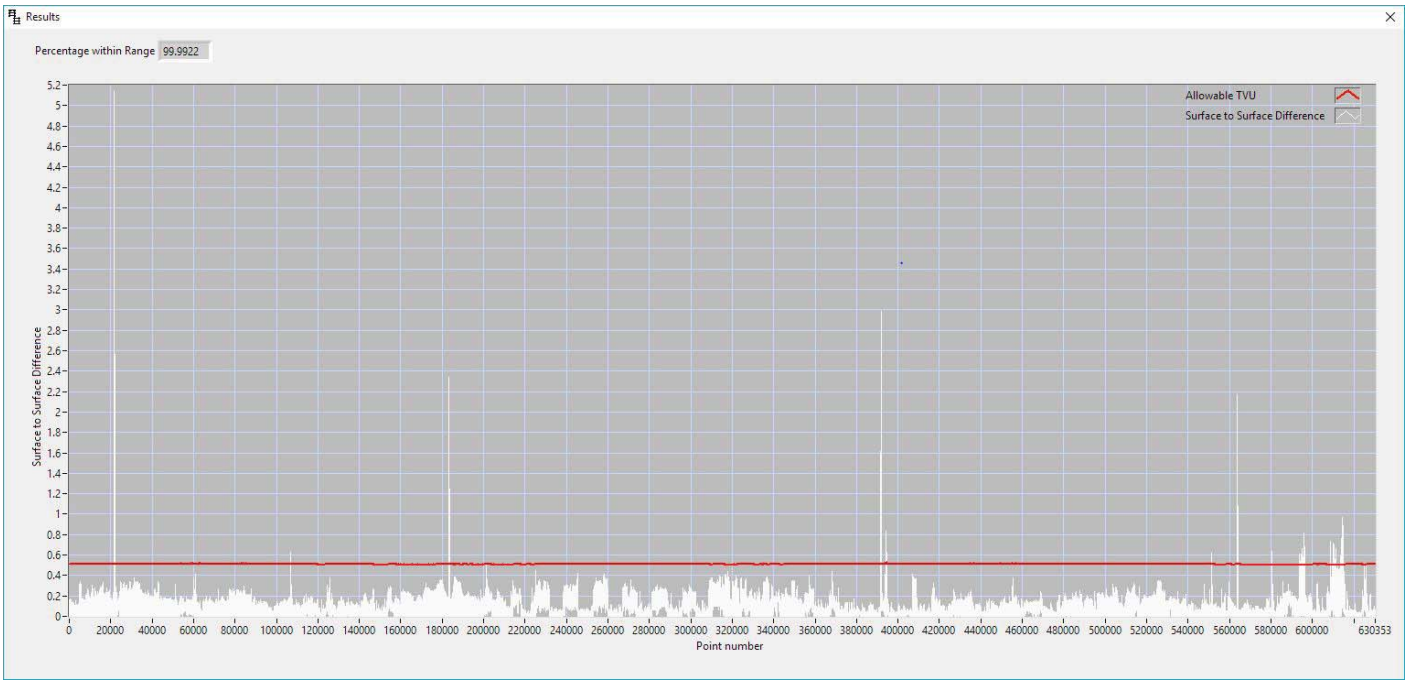

Figure 6: H13079 - H13081 Junction Comparison

Criteria	Number of Nodes	Resulting %
DIFF < 10cm	488501	77.50%
10cm < DIFF < 20cm	120957	19.19%
20cm < DIFF < 30cm	18100	2.87%
DIFF > 30cm	2796	0.44%
Total	630354	100.00%

Figure 7: H13079 - H13081 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

R/V 505 R2Sonic Sonic Controller

On 10/17/2017 (DN290) the R2Sonic Sonic Controller on R/V 505 crashed and reverted to default settings. During data processing it was determined that the default settings registered the sonar as projected forward instead of aft (our project set up). In order to correct this, DN290 was added into the HVF with 180 entered as the azimuth in SVP. The correct project settings were applied to the R2Sonic Sonic Controller the following day (DN291). DN291 was also added to the HVF with 0 entered as the azimuth in SVP.

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. Ocassionally 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 and R/V 505 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.

SVP surface velocities were compared in realtime and profile to profile for each cast on the vessel. Additionally, profiles were compared day-to-day in the field office by bringing each day's cast into Caris 10.2 to check for distribution over surveyed area, 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 BASE surface's nodes were exported to an ASCII CSV file where the fields were (Easting, Northing, Depth, Uncertainty, Density) for each node. The CSV file was then loaded into the DensityTrac program and density statistics were computed.

For H13081 the following percentages represent the results of the density testing:

Complete Coverage MBES (Finalized 1m CUBE weighted BASE Surface) = 99.88% of nodes are composed from at least 5 soundings.

MBES Set Line Spacing (Finalized 4m CUBE weighted BASE Surface) = 99.71% of nodes are composed from at least 5 soundings.

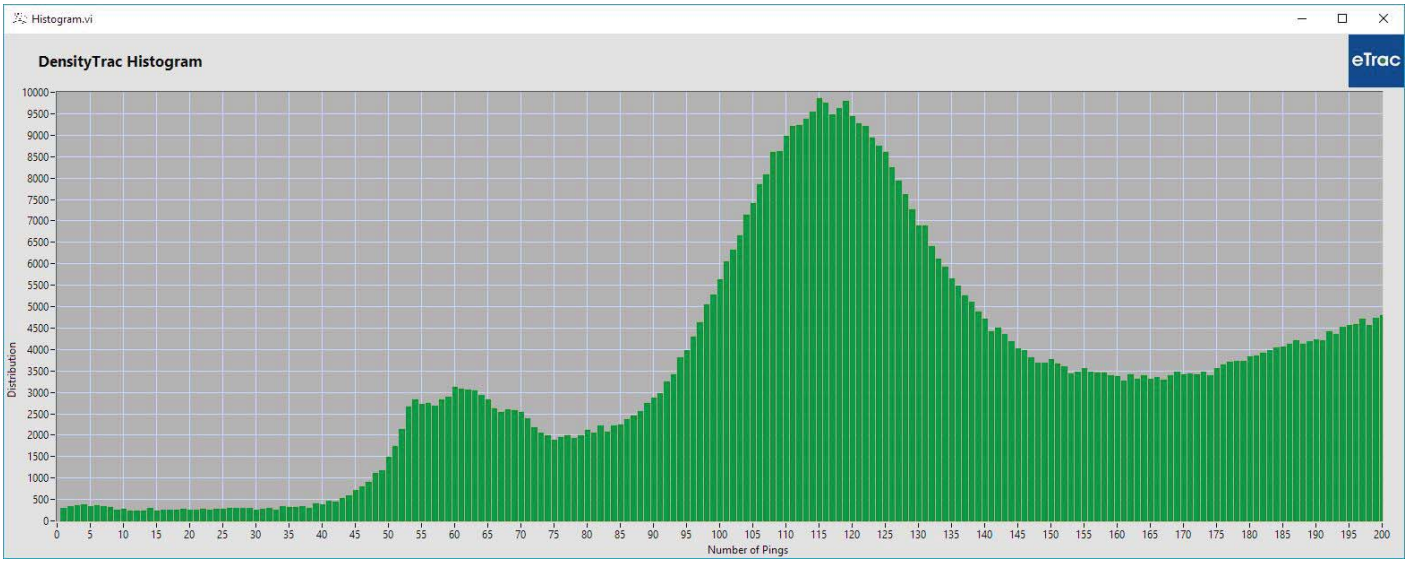

Figure 8: H13081 Finalized 1m Complete Coverage MBES Density Distribution

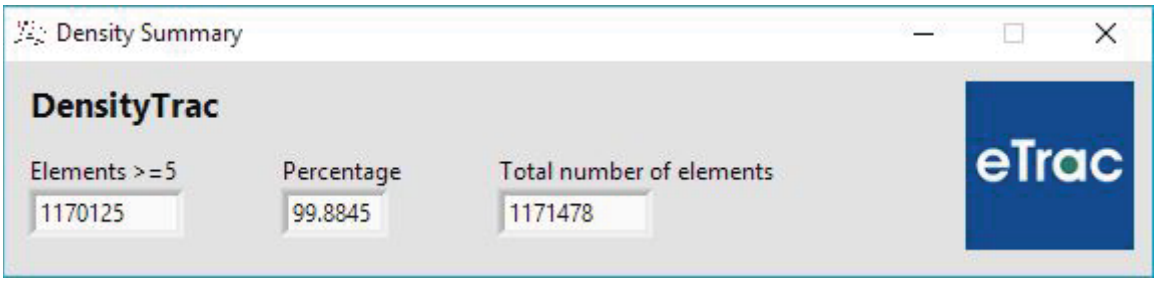

Figure 9: H13081 Finalized 1m Complete Coverage MBES Density Summary

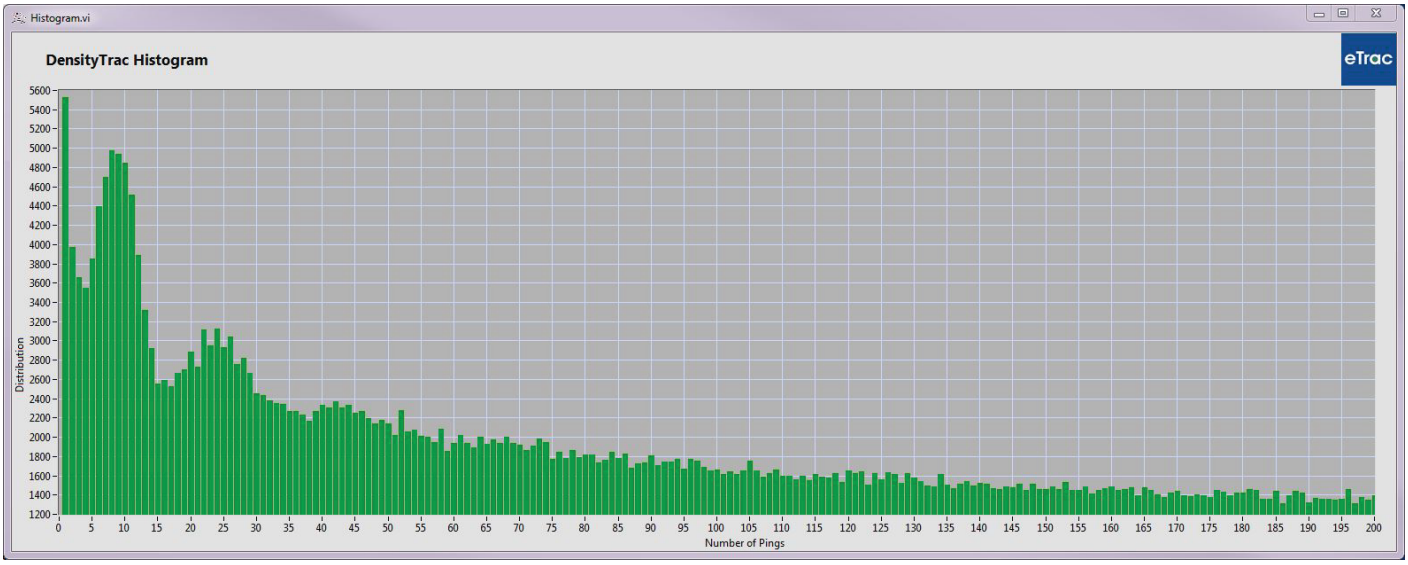

Figure 10: H13081 Finalized 4m Set Line Spacing MBES Density Distribution

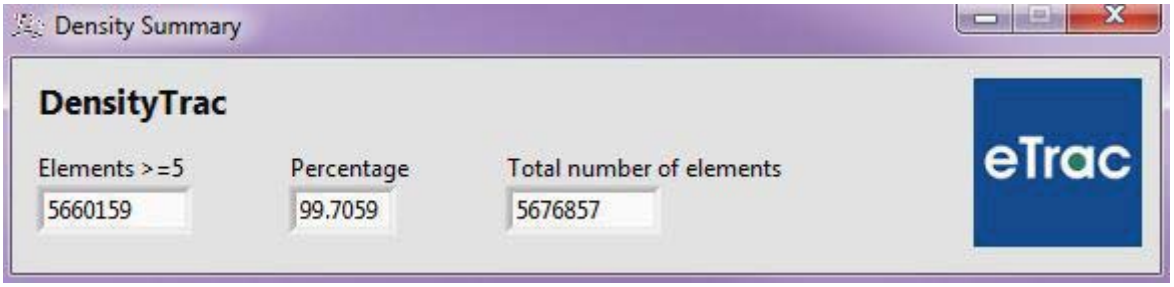

Figure 11: H13081 Finalized 4m Set Line Spacing MBES Density Summary

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 aquisiton 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 H13081 DN288.

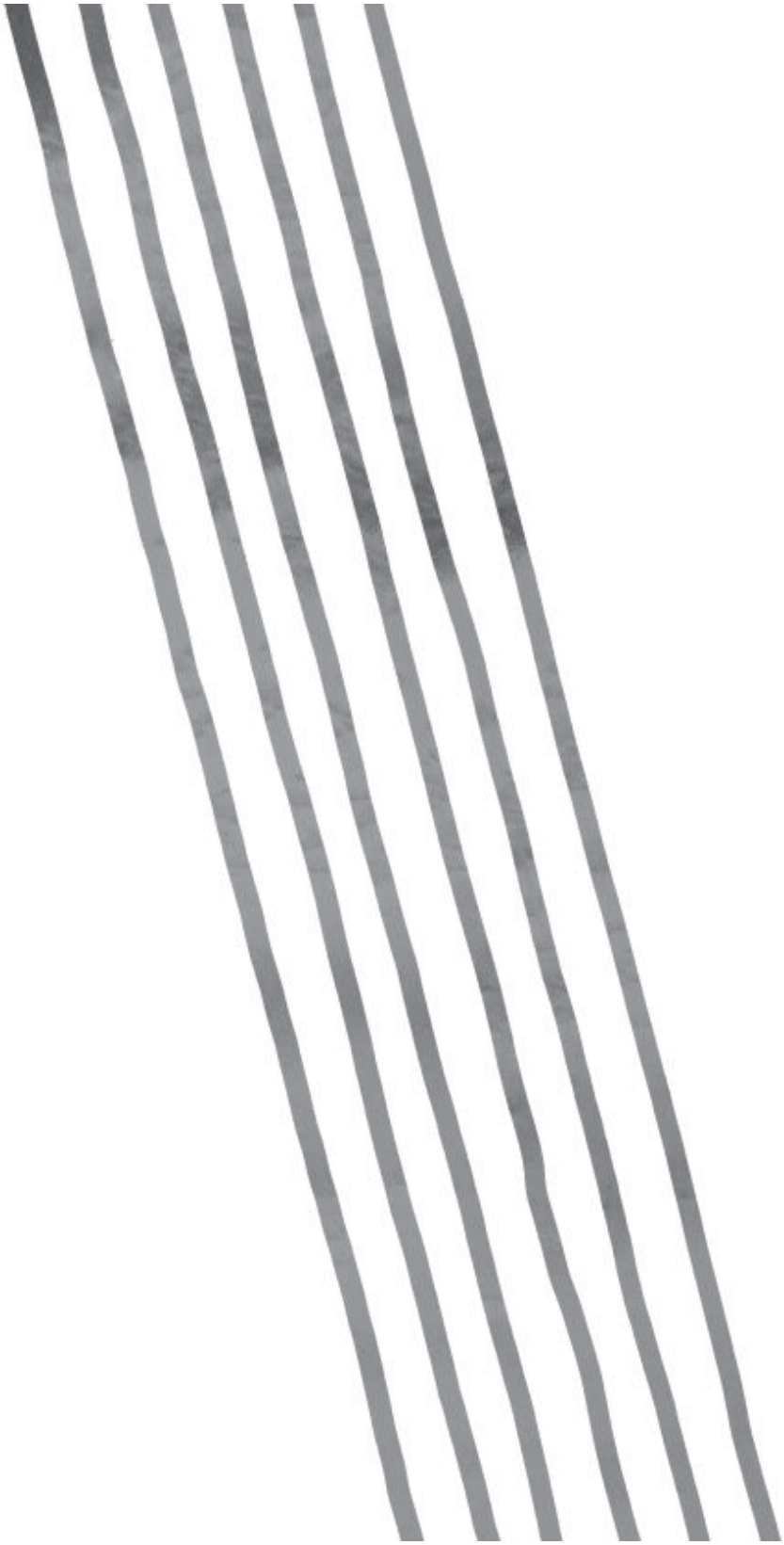

Figure 12: Raw backscatter from R/V 505 (DN288)

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: NOAA Profile V_5_5

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
H13081_MB_1m_MLLW	CUBE	1 meters	2.8 meters - 9.83 meters	NOAA_1m	Complete MBES
H13081_MB_1m_MLLW_FINAL	CUBE	1 meters	2.31 meters - 9.83 meters	NOAA_1m	Complete MBES
H13081_MB_4m_MLLW	CUBE	4 meters	1.91 meters - 13.68 meters	NOAA_4m	MBES TracklineSBES Set Line Spacing
H13081_MB_4m_MLLW_FINAL	CUBE	4 meters	1.91 meters - 13.69 meters	NOAA_4m	MBES TracklineSBES Set Line Spacing

Table 8: Submitted Surfaces

For the survey area of H13081, a 1m surface is provided for the areas meeting complete coverage MBES with backscatter specifications and a 4m surface is provided for the areas meeting MBES set ling spacing with backscatter specifications.

Parent surfaces of the 1m and 4m surfaces are provided covering the survey area of H13081, for the respective suvery coverage requirements of complete coverage MBES and MBES set line spacing.

Figure 13: H13081 Delivered BASE 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:

NOAA_TO7_ITRF_to_MLLW_SEP.csar

In order to reference soundings to MLLW, a VDatum separation method was applied to the HDCS data via a separation file in CARIS 10.2.

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 H13081 using Caris HIPS and SIPS 10.2. Contours and soundings were compared against the largest scale ENCs US5FL19M, US5FL42M, and US5FL45M to accomplish the chart comparison. These ENC's do not cover the entire survey of H13081 and therefore ENC US4FL40M and US4FL44M were included to complete the chart comparison. The methods and results of the comparison are detailed below.

Contour Comparison Method:
Using the 4 meter CUBE weighted BASE surface, the 12 foot, 18 foot, and 30 foot contours were generated and displayed against the charted contour. Additionally, the 4 meter CUBE weighted BASE surface was

viewed by a custom color band range based on the contour intervals (3ft, 6ft, 12ft, 18ft, 30ft, 60ft). The results of the comparison are described below

Sounding Comparison Method:
Using the same 4 meter CUBE weighted BASE surface, soundings were generated in Caris HIPS and SIPS 10.2 for H13081. Soundings were displayed against the charted soundings and a visual comparison was made. The results are described below, followed by 1-2 images of example areas for each chart.

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?
US5FL19M	1:40000	15	04/14/2017	06/25/2017	NO
US5FL42M	1:40000	12	05/31/2017	06/25/2017	NO
US5FL45M	1:40000	7	06/30/2017	06/30/2017	NO
US4FL40M	1:80000	31	06/07/2017	06/26/2017	NO
US4FL44M	1:80000	26	01/30/2017	01/30/2017	NO

Table 9: Largest Scale ENCs

US5FL19M

Contour Comparison Results:
The 18 foot contour has receded shoreward, approximately 1,000 feet on the southwestern end of overlap from the charted contour and approximately 200 feet on the northeastern end of overlap from the charted contour.

The 30 foot contour has receded shoreward, approximately 150 feet on the the southern end of overlap from the charted contour and approximately 800 feet on the northern end of overlap from the charted contour.

Sounding Comparison Results:
In areas where a feature was detected, soundings have significant differences than the charted depths.
All features with their depths are provided in the Final Feature File (FFF). Outside of these features, the soundings are in excellent agreement, with no major discrepancies. Soundings are generally within 1 foot of each other. Occasionally soundings differ by 2 to 3 feet, however depth differences generally appear to be minimal. Depth differences are not biased in any particular direction to support a systematic error.

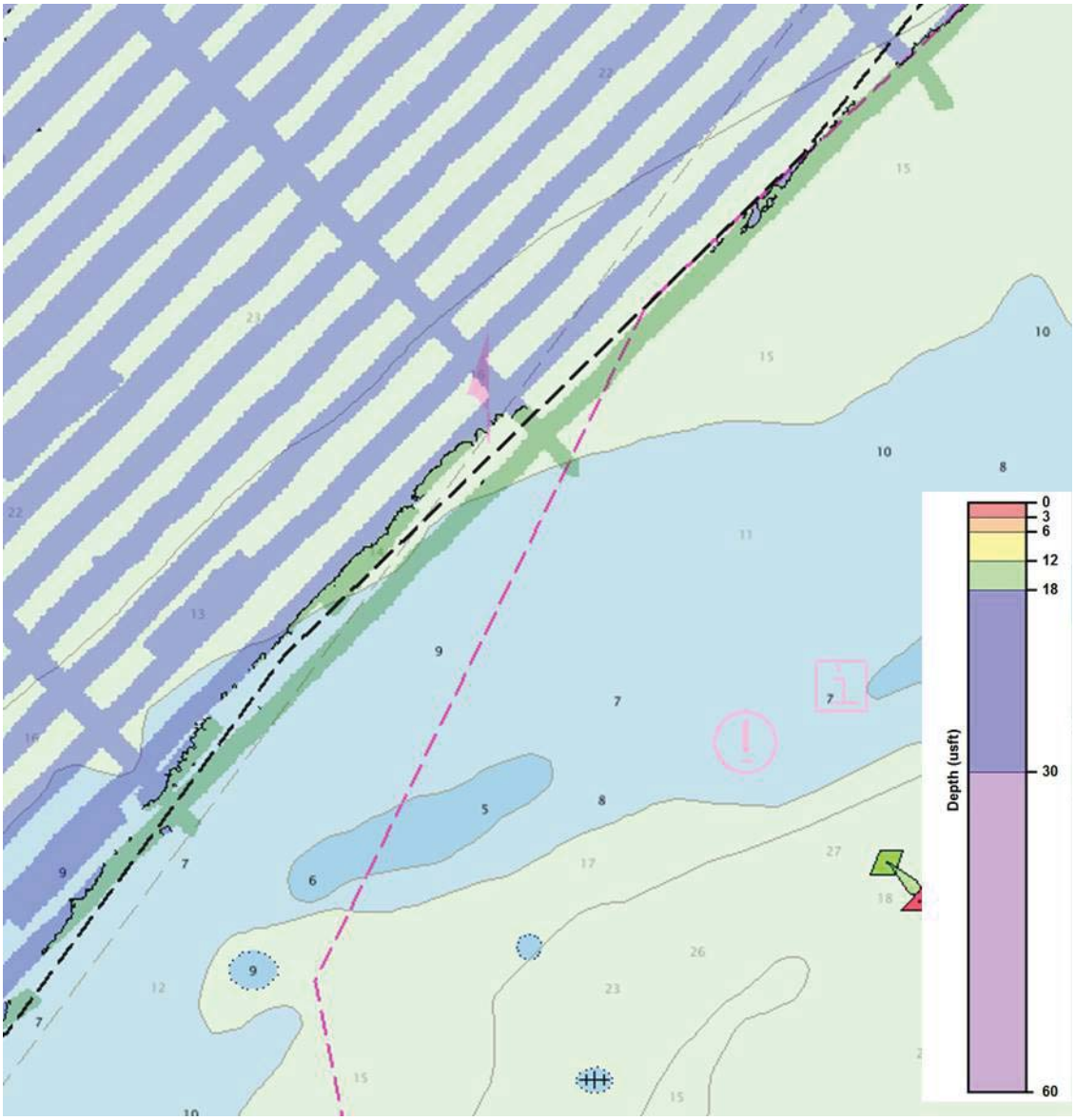

Figure 14: H13081 18ft Contour Comparison (ENC US5FL19M)

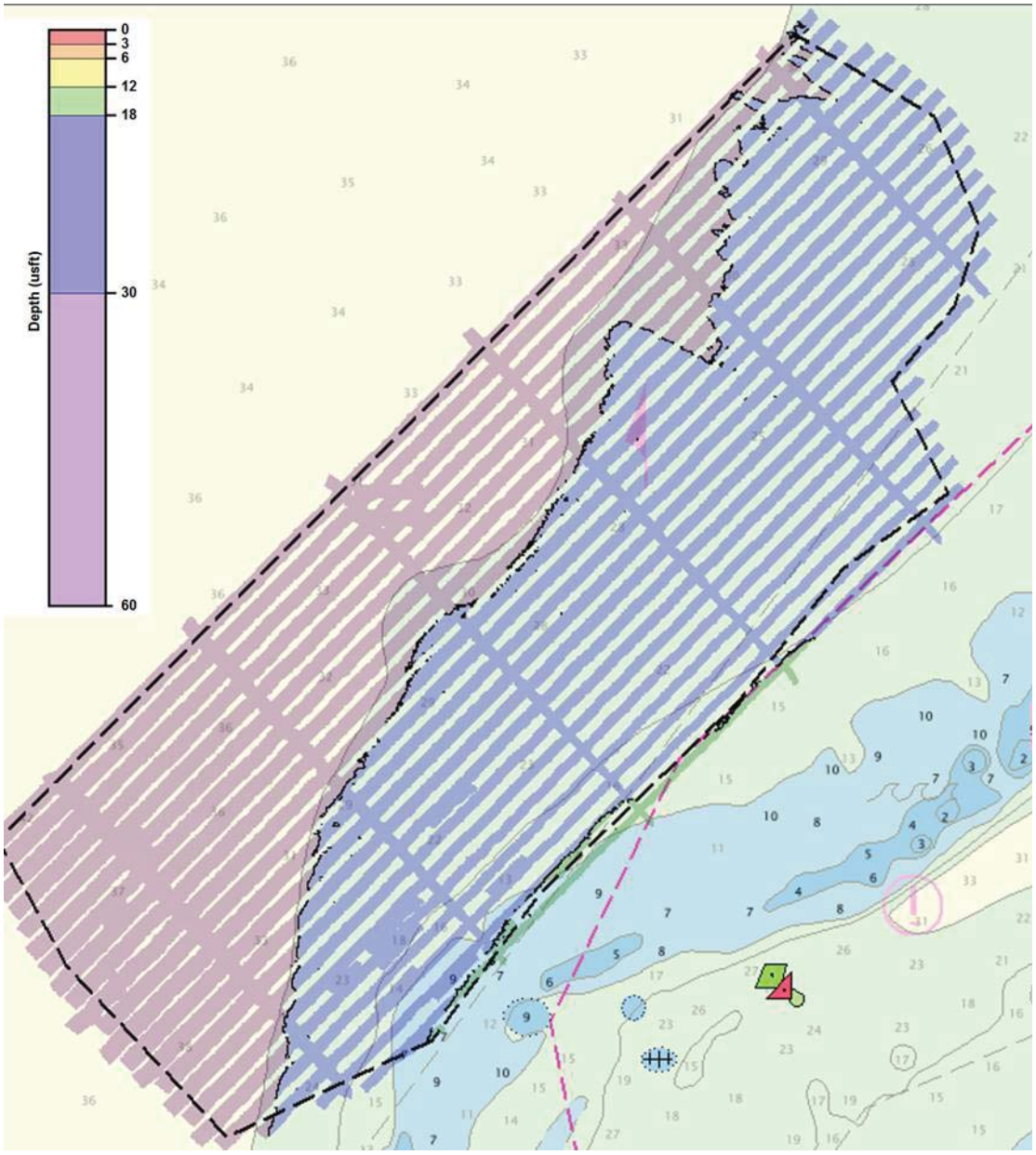

Figure 15: H13081 30ft Contour Comparison (ENC US5FL19M)

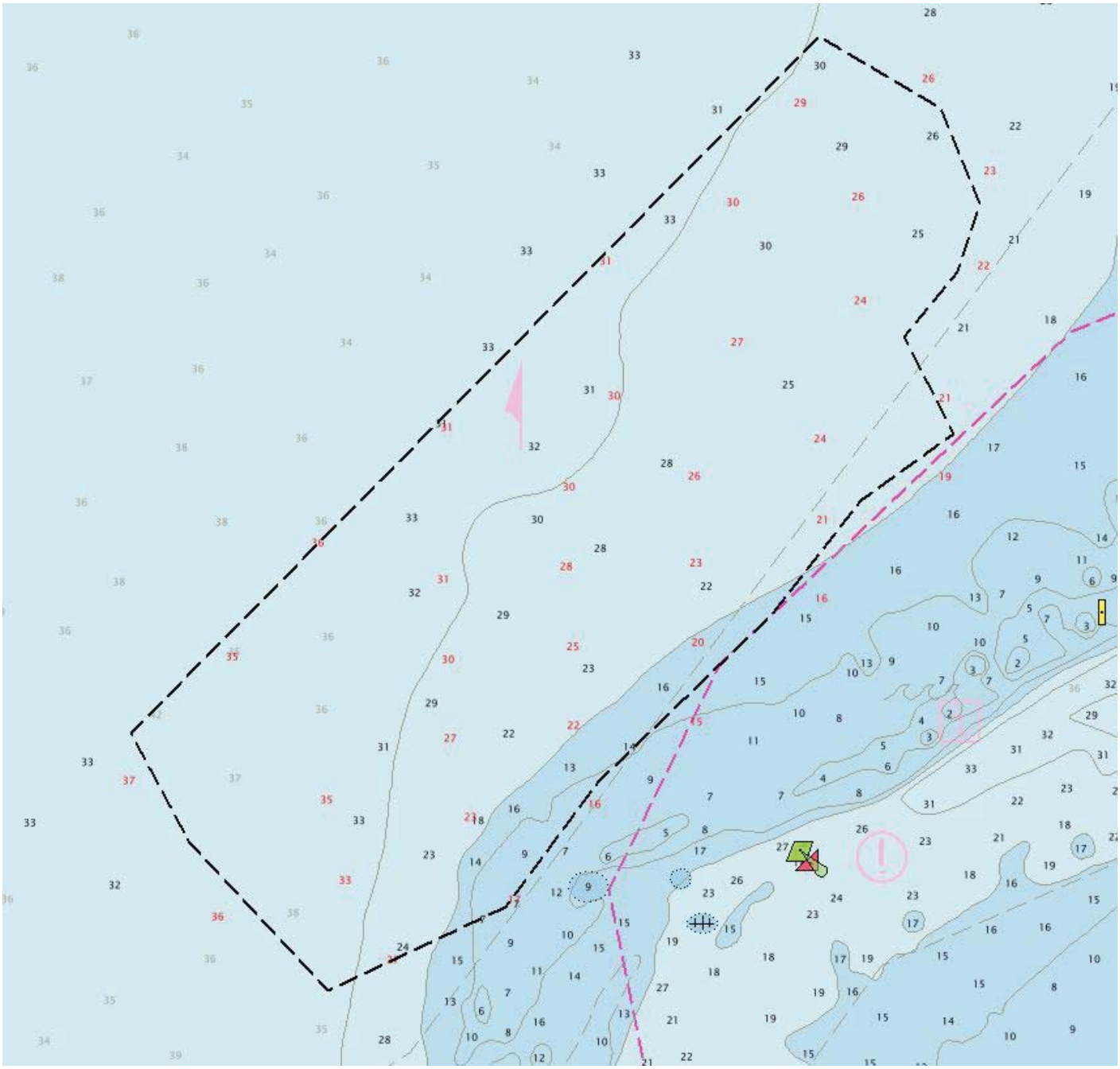

Figure 16: H13081 Sounding Comparison (ENC US5FL19M)

US5FL42M

Contour Comparison Results:
The 12 foot contour on the western side of Sanibel Island has receded shoreward, ranging from approximately 100 feet to 1000 feet from the charted contour. The 12 foot contour around the middle of Sanibel Island has progressed seaward approximately 500 feet from the charted contour. The 12 foot contour east of Sanibel Island has transitioned east, ranging from approximately 200 feet to 1,000 feet from the charted contour.

The 18 foot contour both recedes shoreward and progresses seaward between approximately 100 feet to 1,000 feet from the charted contour.

The 30 foot contour has receded shoreward, on average, approximately 7,000 feet from the charted contour.

Sounding Comparison Results:
In areas where a feature was detected, soundings have significant differences than the charted depths. All features with their depths are provided in the Final Feature File (FFF). Outside of these features, the soundings are in excellent agreement, with no major discrepancies. Soundings are generally within 1 foot of each other. Occasionally soundings differ by 2 to 3 feet, however depth differences generally appear to be minimal. Depth differences are not biased in any particular direction to support a systematic error.

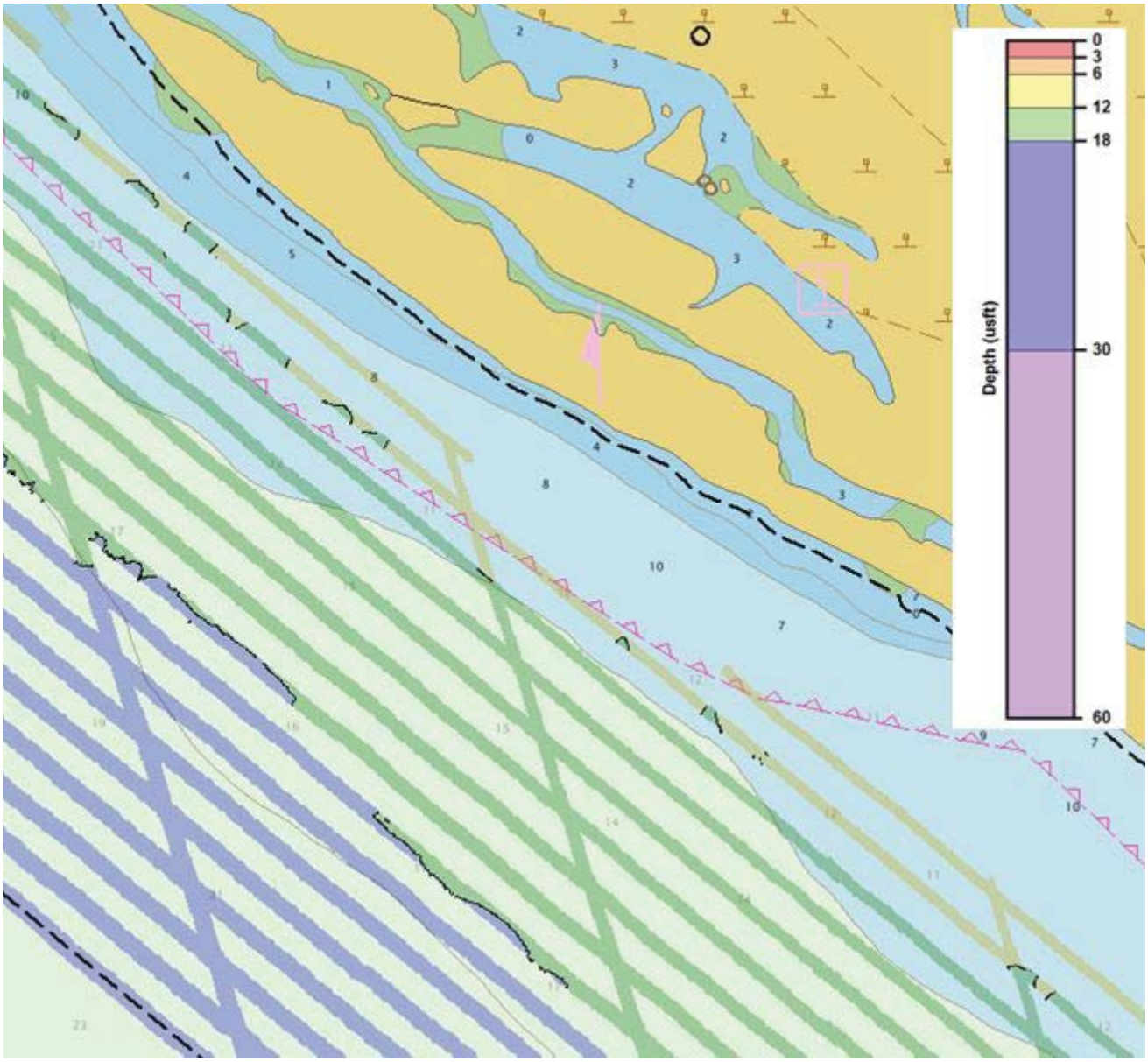

Figure 17: H13081 12ft Contour Comparison western end of Sanibel Island (ENC US5FL42M)

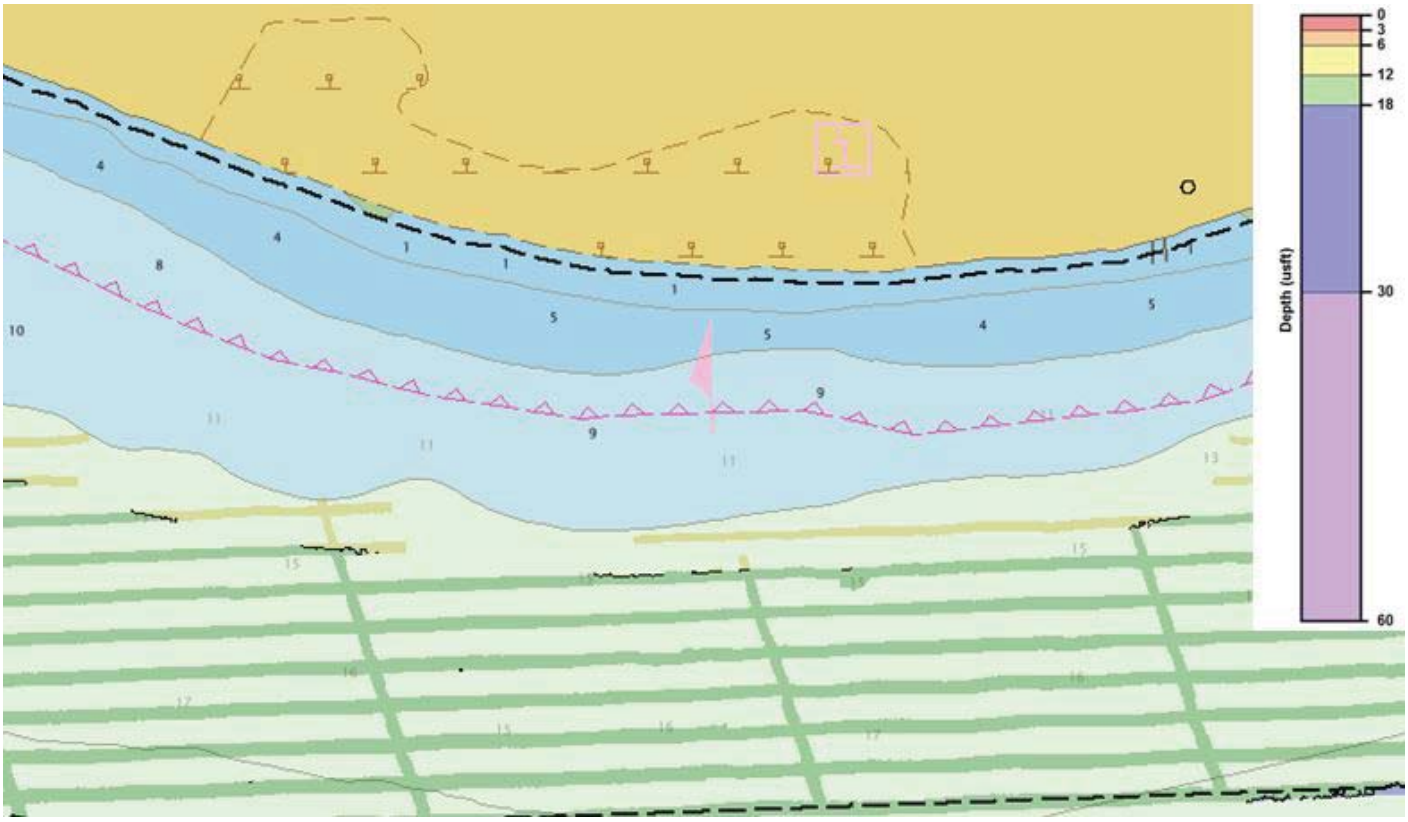

Figure 18: H13081 12ft Contour Comparison middle of Sanibel Island (ENC US5FL42M)

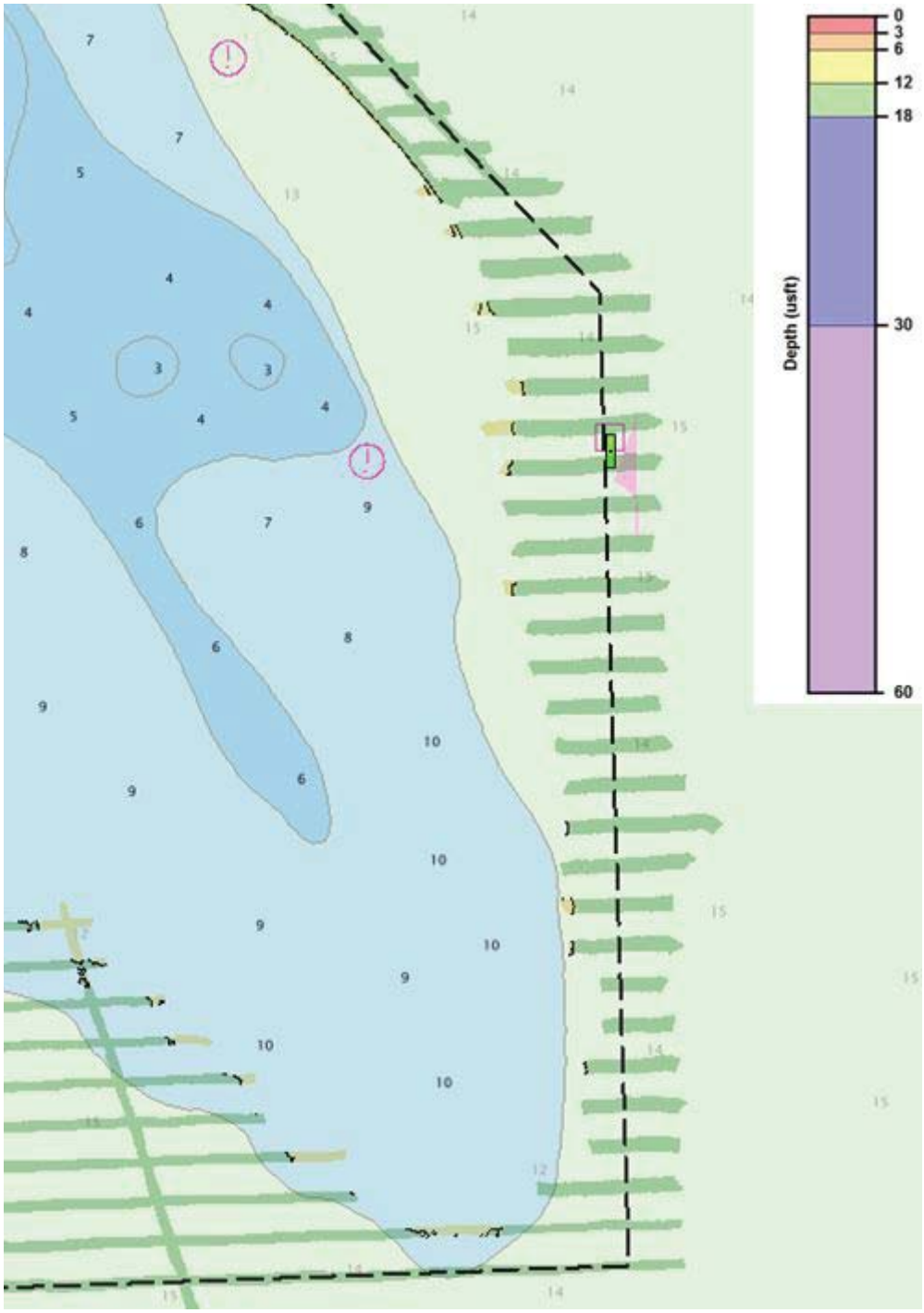

Figure 19: H13081 12ft Contour Comparison east of Sanibel Island (ENC US5FL42M)

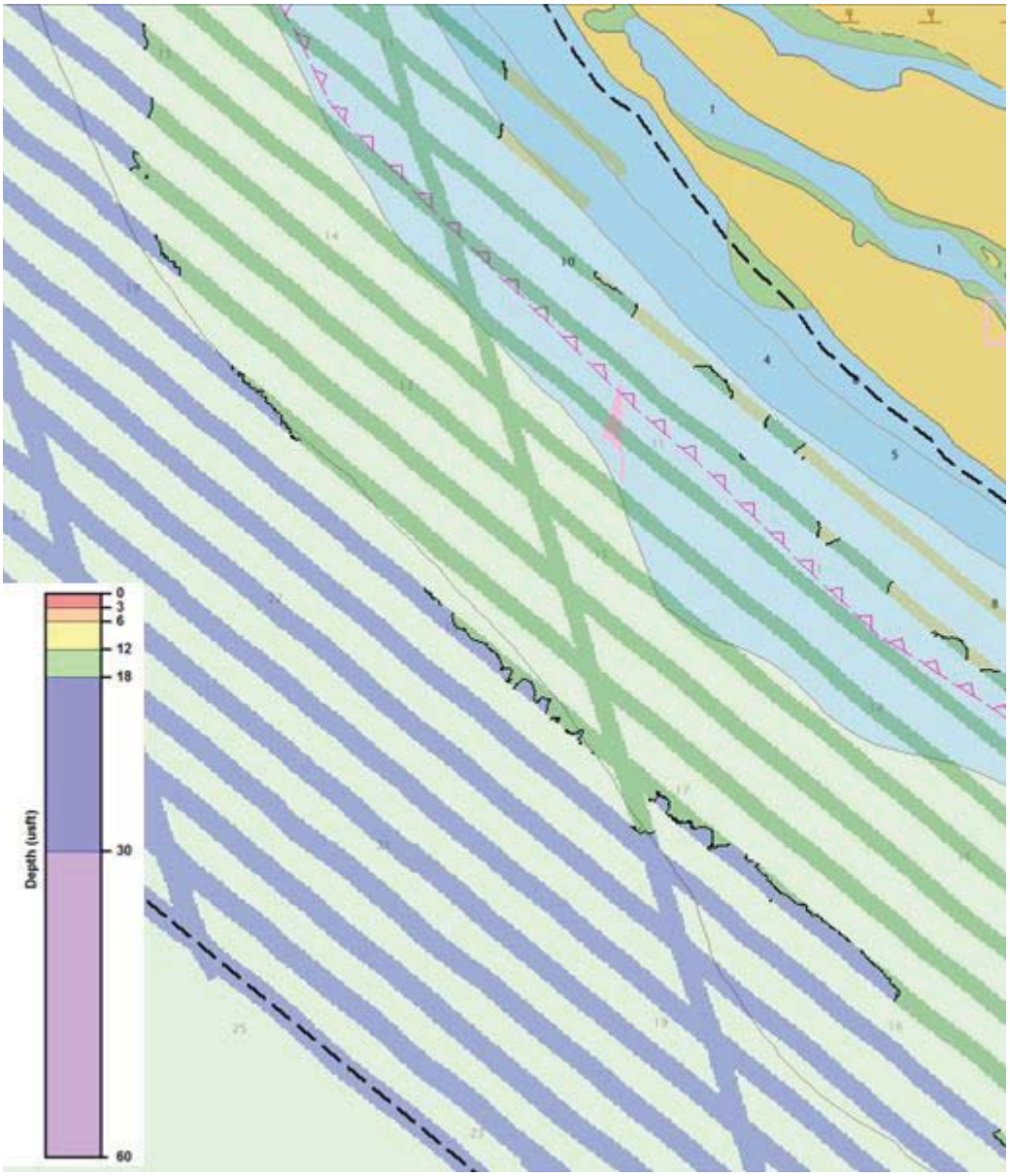

Figure 20: H13081 18ft Contour Comparison (ENC US5FL42M Example 1)

Figure 21: H13081 18ft Contour Comparison (ENC US5FL42M Example 2)

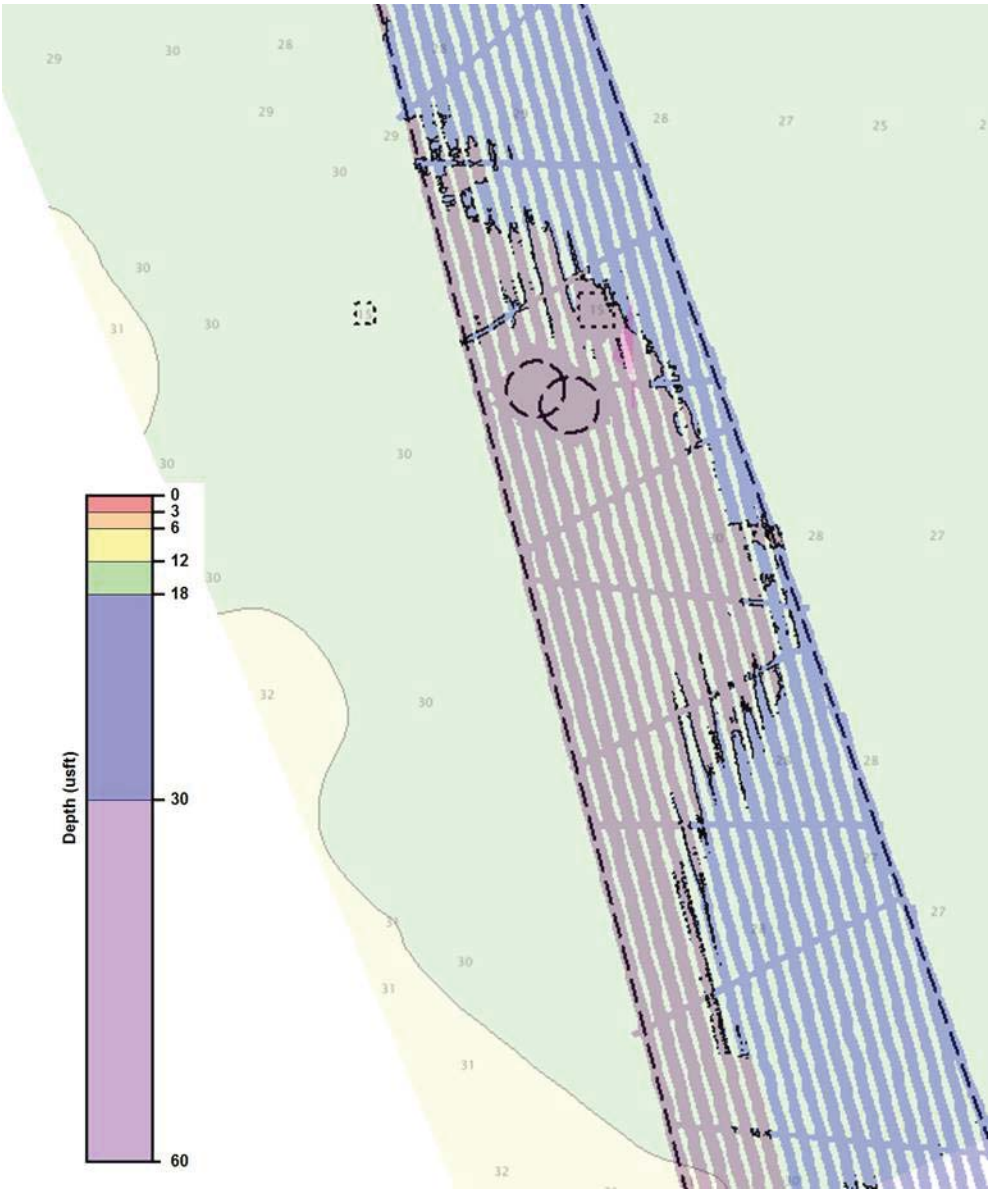

Figure 22: H13081 30ft Contour Comparison (ENC US5FL42M)

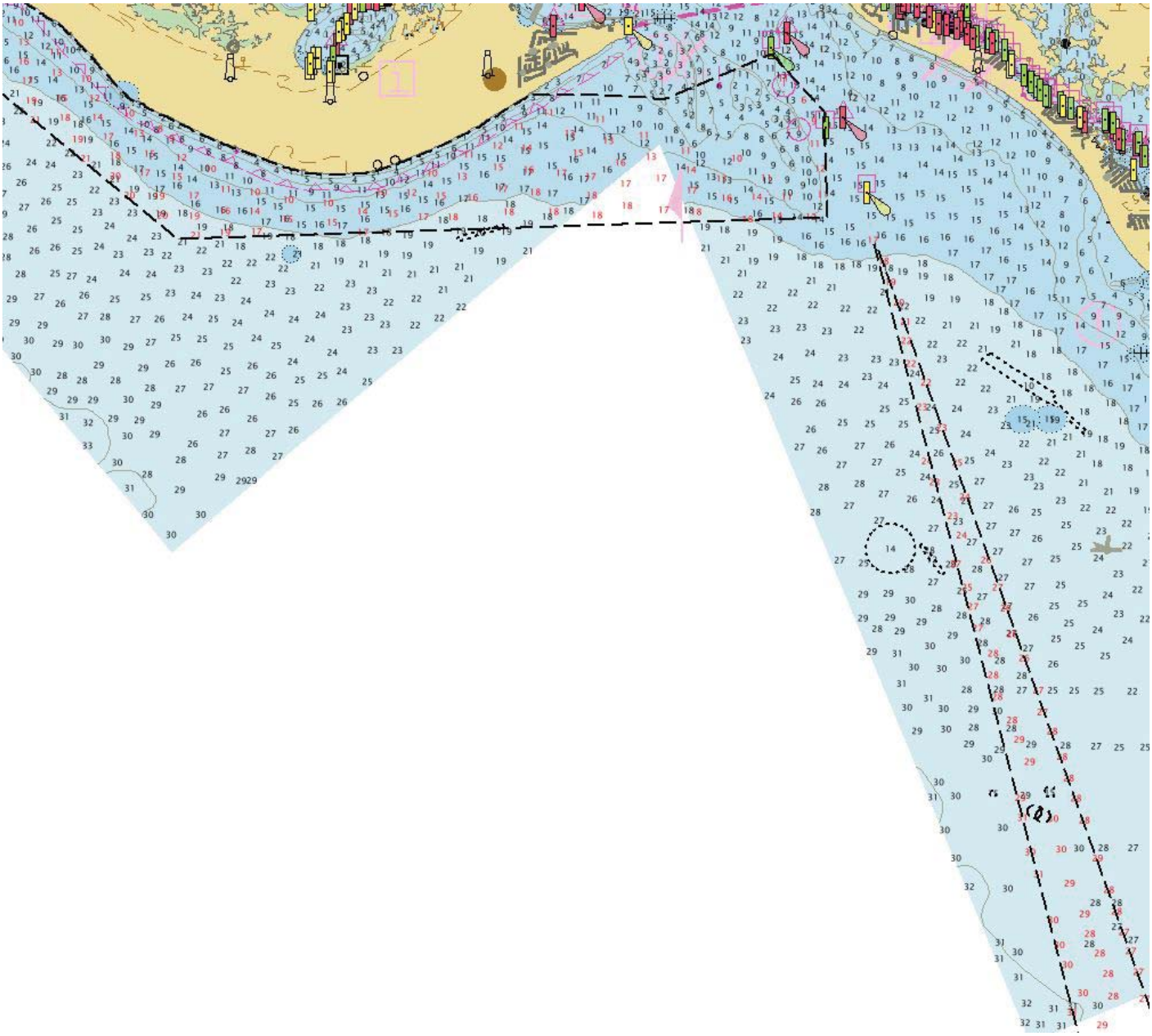

Figure 23: H13081 Sounding Comparison (ENC US5FL42M Example 1)

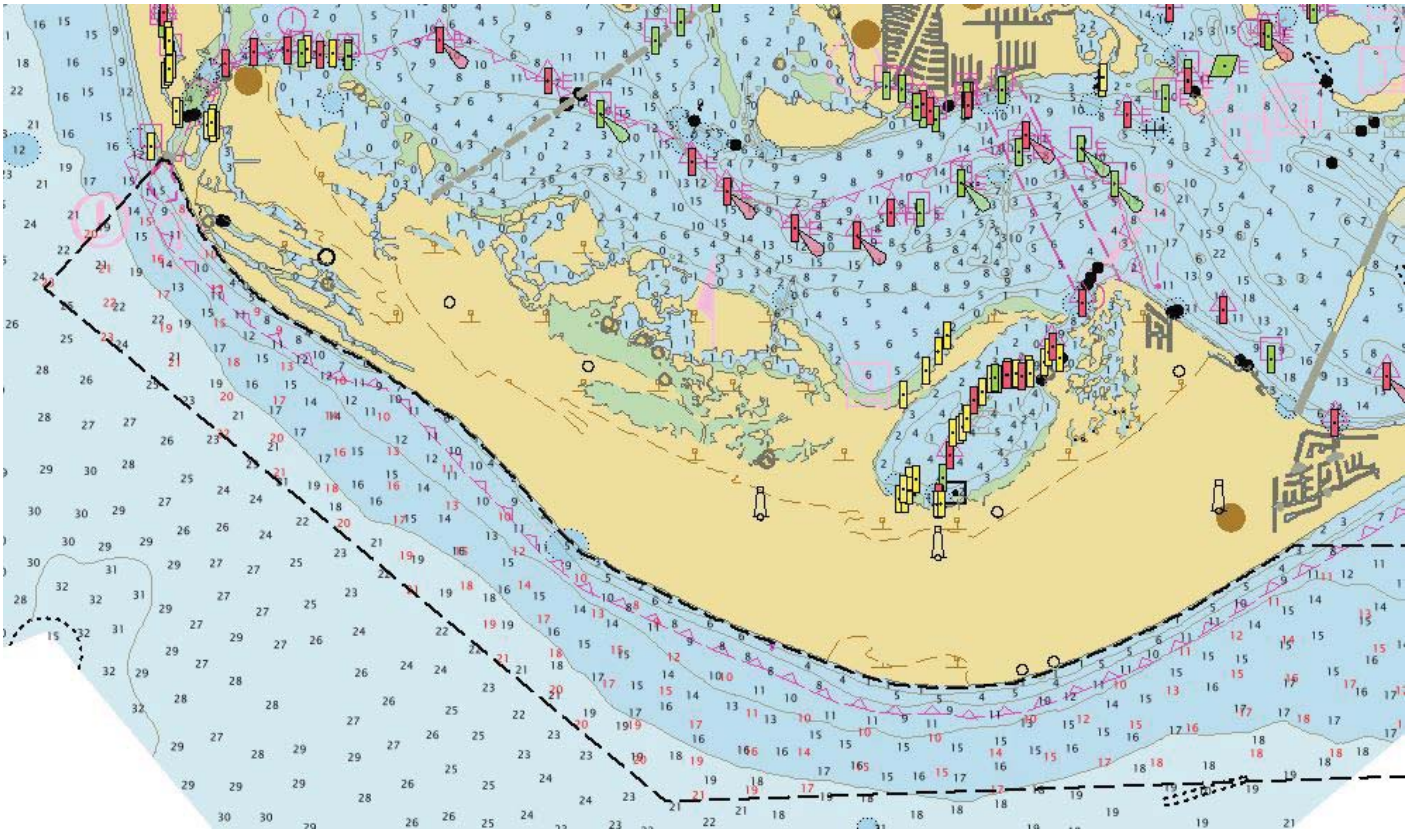

Figure 24: H13081 Sounding Comparison (ENC US5FL42M Example 2)

US5FL45M

Contour Comparison Results:
In average the 18 foot contour has neither receded nor progressed from the charted contour.

Sounding Comparison Results:
In areas where a feature was detected, soundings have significant differences than the charted depths. All features with their depths are provided in the Final Feature File (FFF). Outside of these features, the soundings are in excellent agreement, with no major discrepancies. Soundings are generally within 1 foot of each other. Occasionally soundings differ by 2 to 3 feet, however depth differences generally appear to be minimal. Depth differences are not biased in any particular direction to support a systematic error.

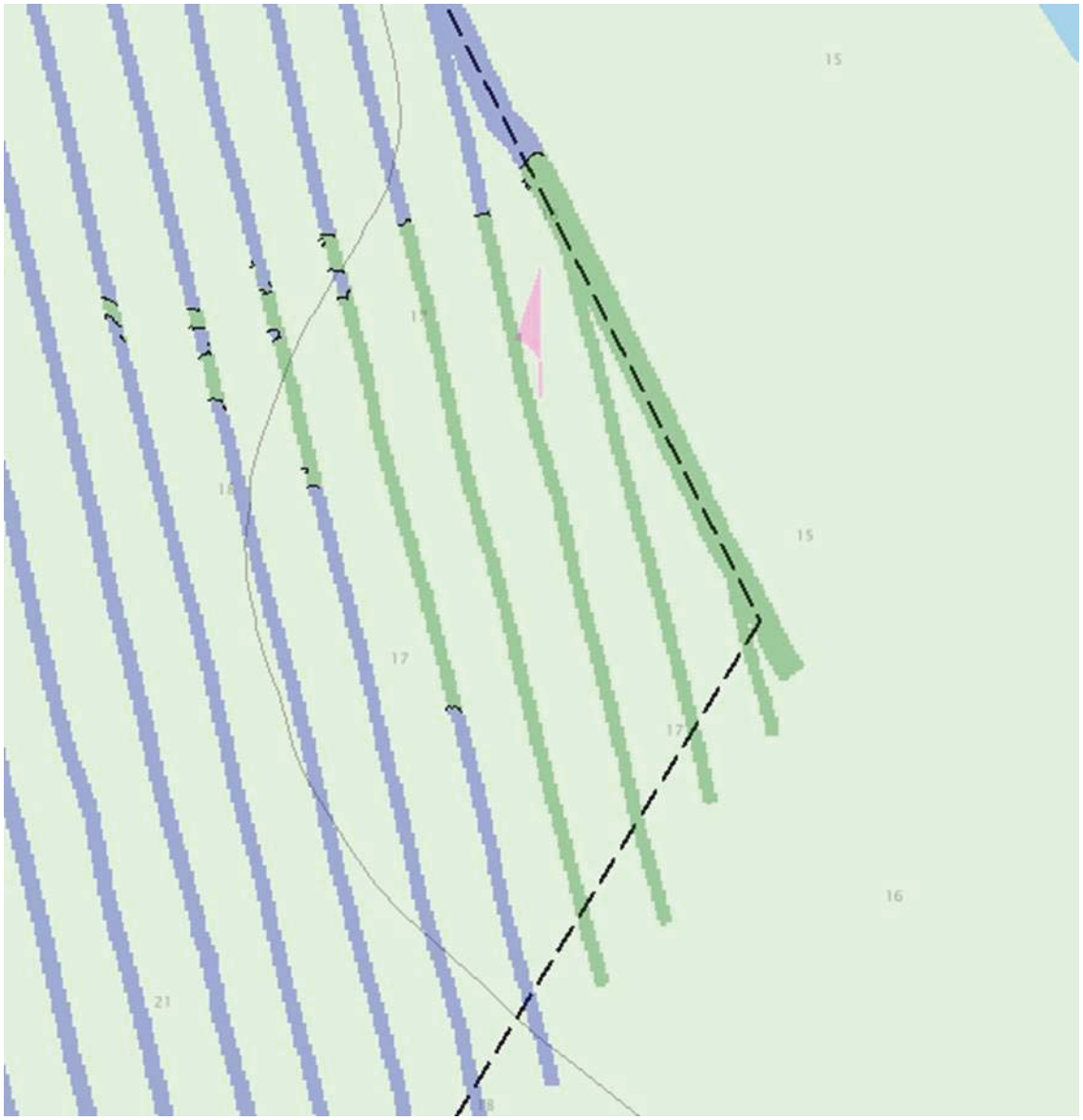

Figure 25: H13081 18ft Contour Comparison (ENC US5FL45M)

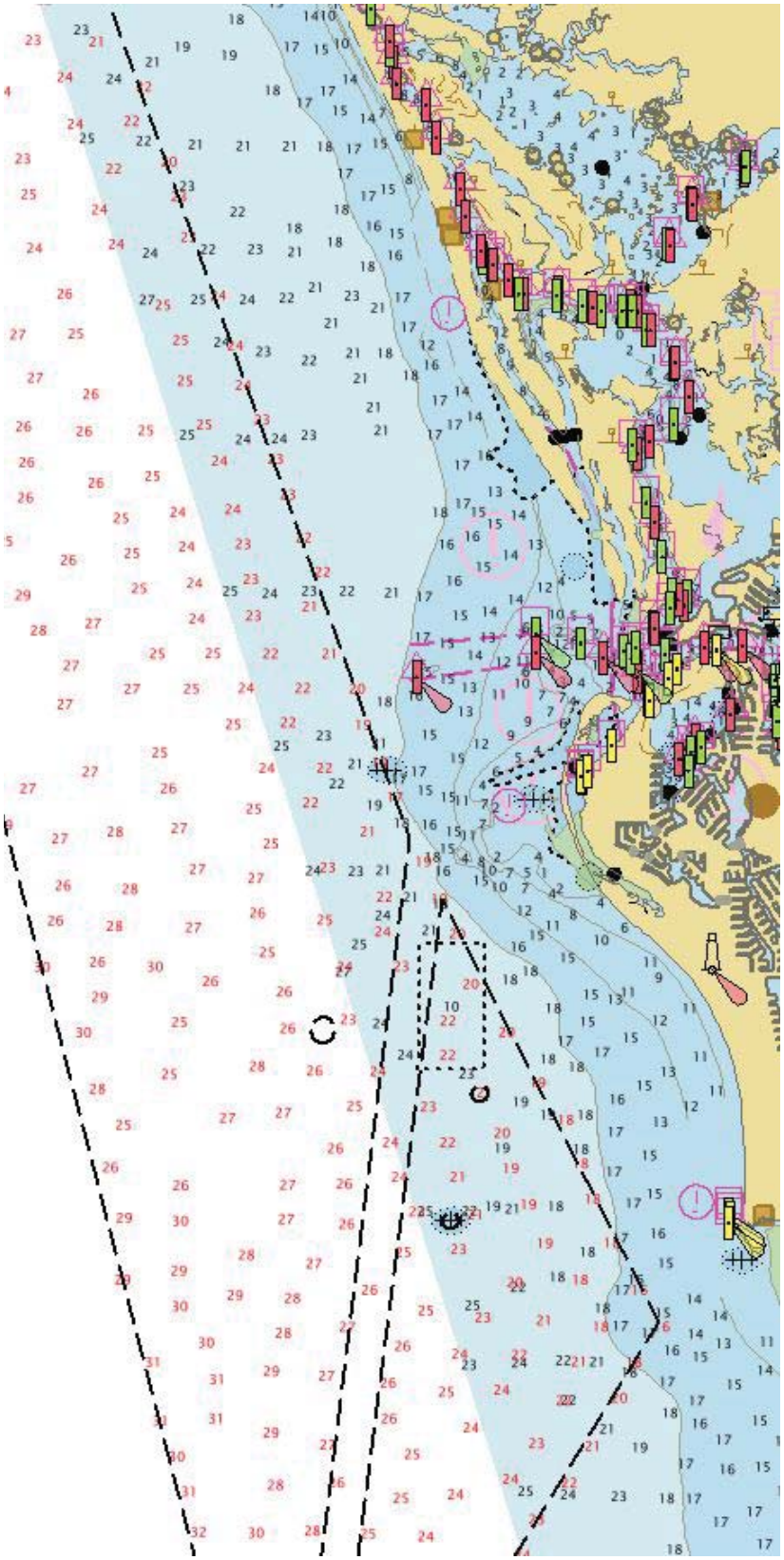

Figure 26: H13081 Sounding Comparison (ENC US5FL45M Example 1)

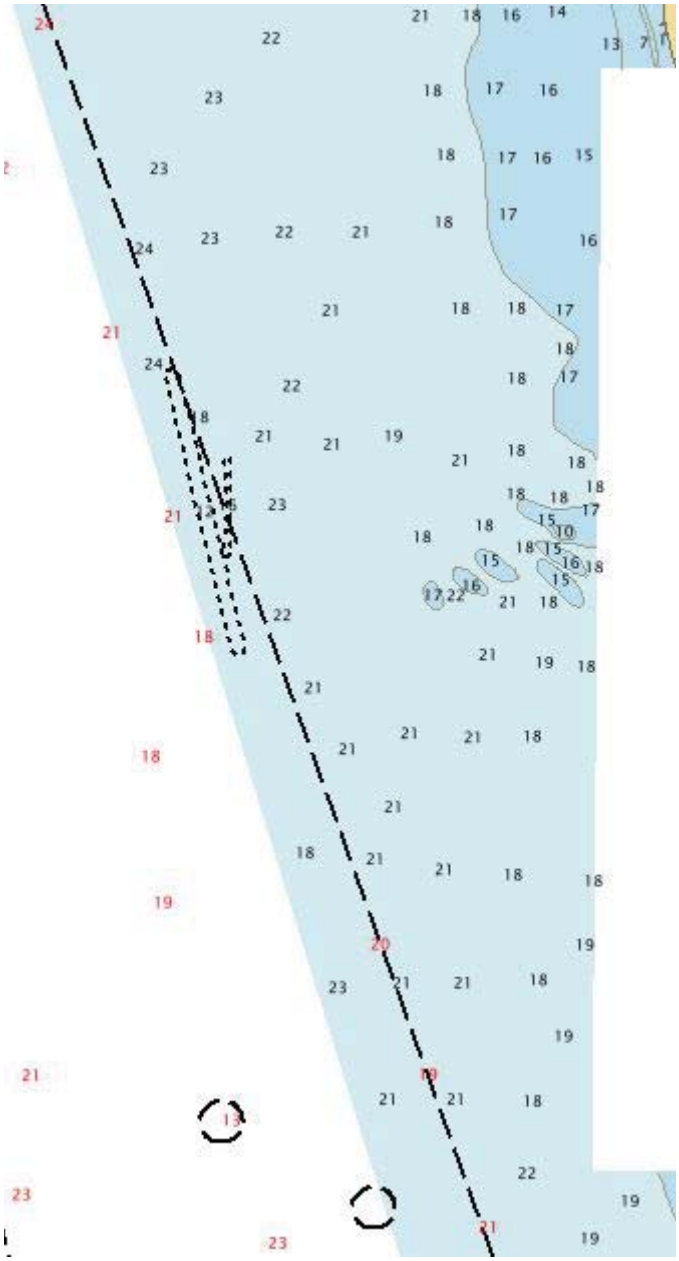

Figure 27: H13081 Sounding Comparison (ENC US5FL45M Example 2)

US4FL40M

Contour Comparison Results:
The 30 foot contour has receded shoreward, on average, approximately 2,000 feet from the charted contour.

Sounding Comparison Results:
In areas where a feature was detected, soundings have significant differences than the charted depths. All features with their depths are provided in the Final Feature File (FFF). Outside of these features, the soundings are in excellent agreement, with no major discrepancies. Soundings are generally within 1 foot of each other. Occasionally soundings differ by 2 to 3 feet, however depth differences generally appear to be minimal. Depth differences are not biased in any particular direction to support a systematic error.

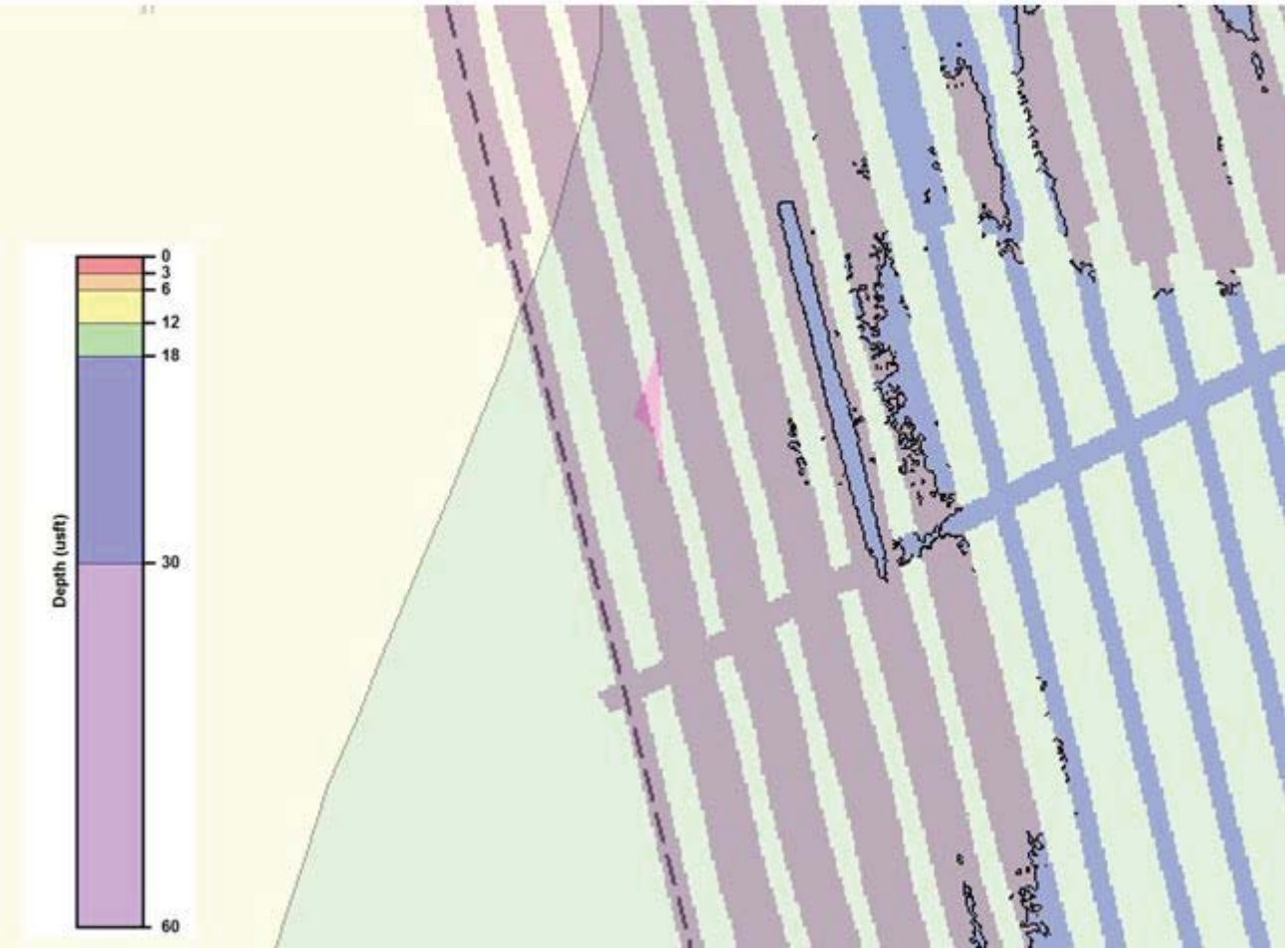

Figure 28: H13081 30ft Contour Comparison (ENC US4FL40M)

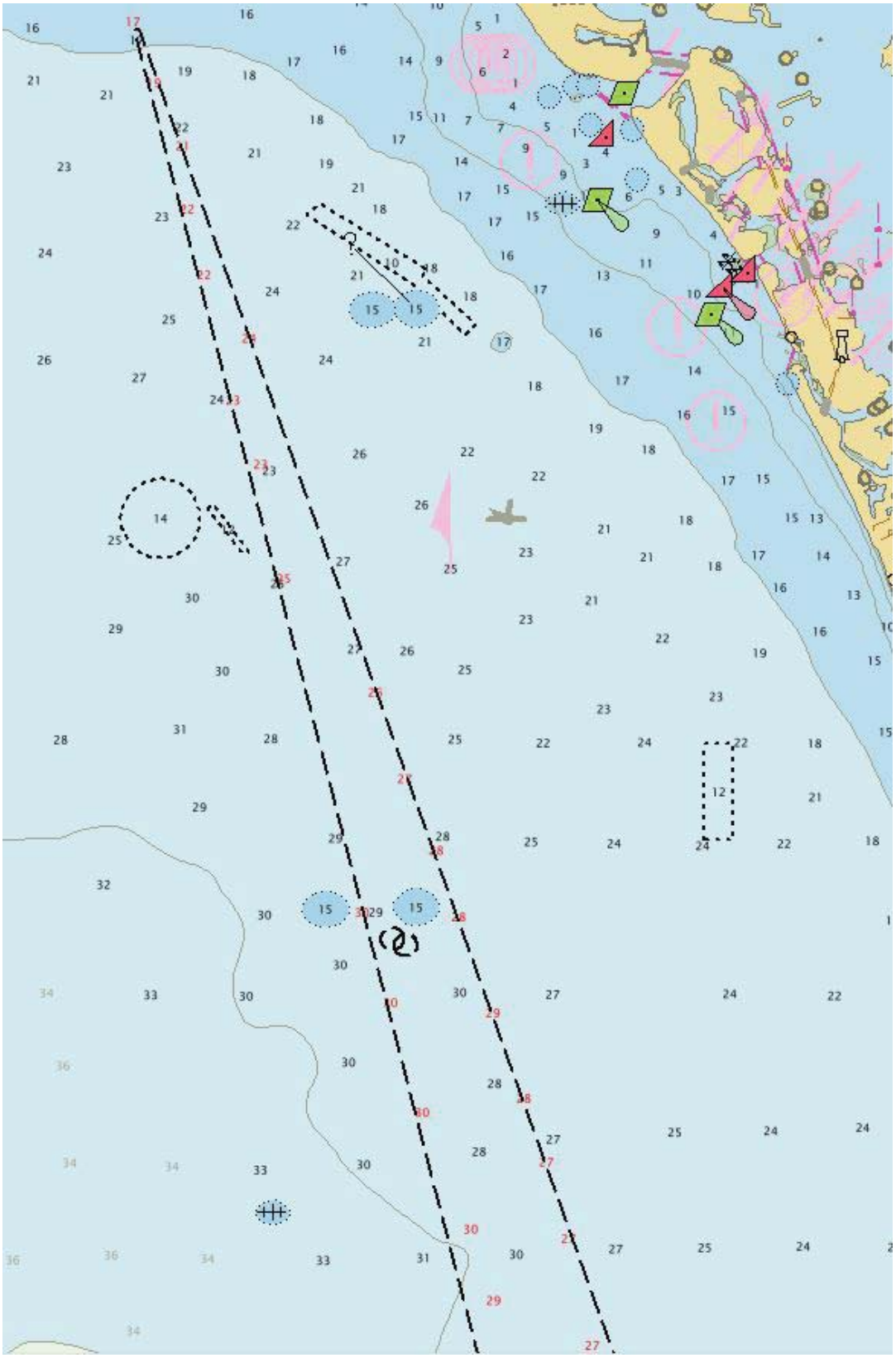

Figure 29: H13081 Sounding Comparison (ENC US4FL40M Example 1)

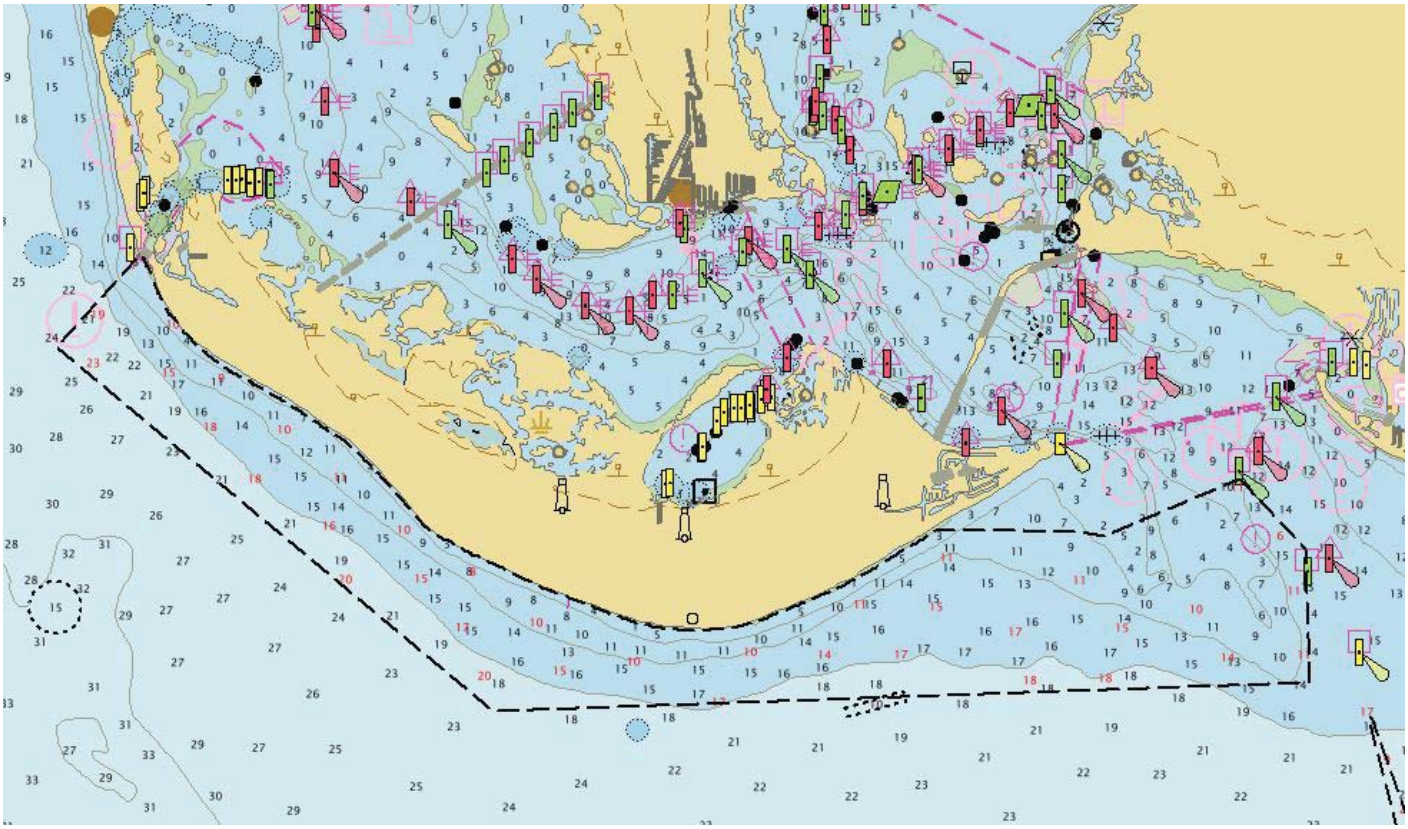

Figure 30: H13081 Sounding Comparison (ENC US4FL40M Example 2)

US4FL44M

Contour Comparison Results:
The 18 foot contour has receded shoreward ranging between approximately 100 feet to 900 feet from the charted contour.
The 30 foot contour has receded shorward ranging between approximately 500 feet to 7,000 feet from the charted contour.

Sounding Comparison Results:
In areas where a feature was detected, soundings have significant differences than the charted depths.
All features with their depths are provided in the Final Feature File (FFF). Outside of these features, the soundings are in excellent agreement, with no major discrepancies. Soundings are generally within 1 foot of each other. Occasionally soundings differ by 2 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.

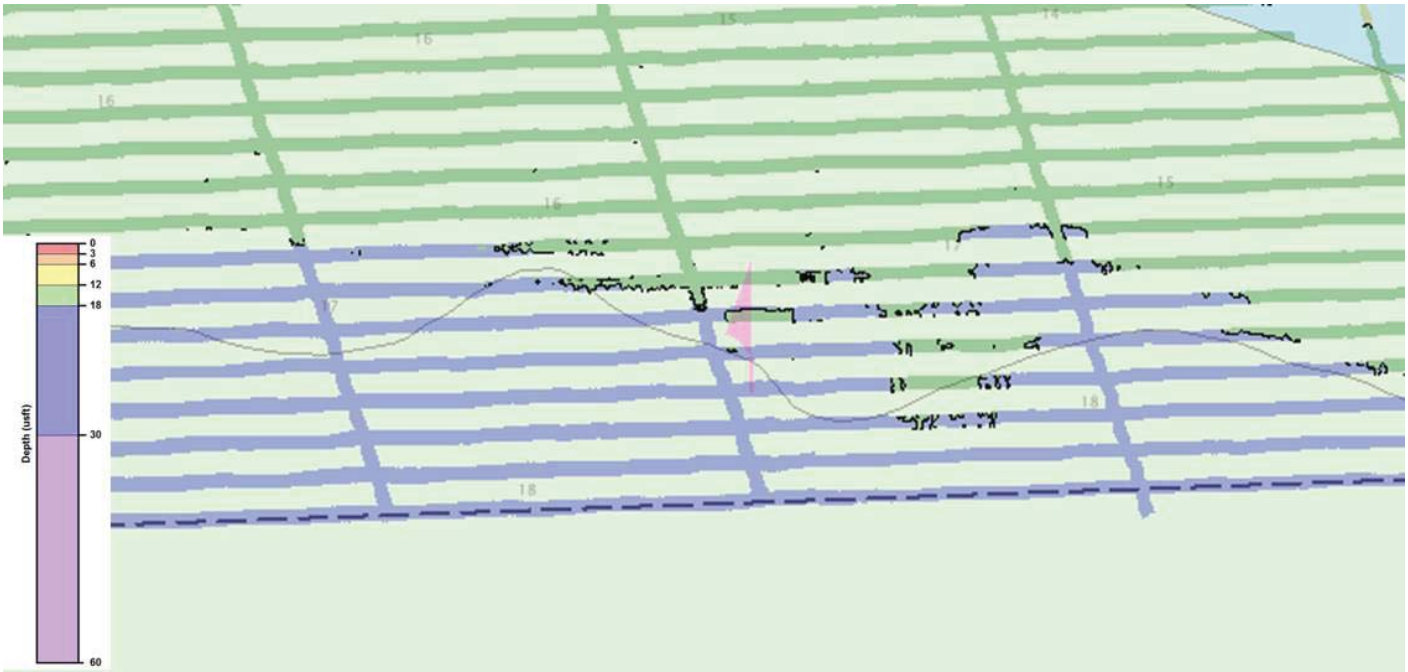

Figure 31: H13081 18ft Contour Comparison (ENC US4FL44M)

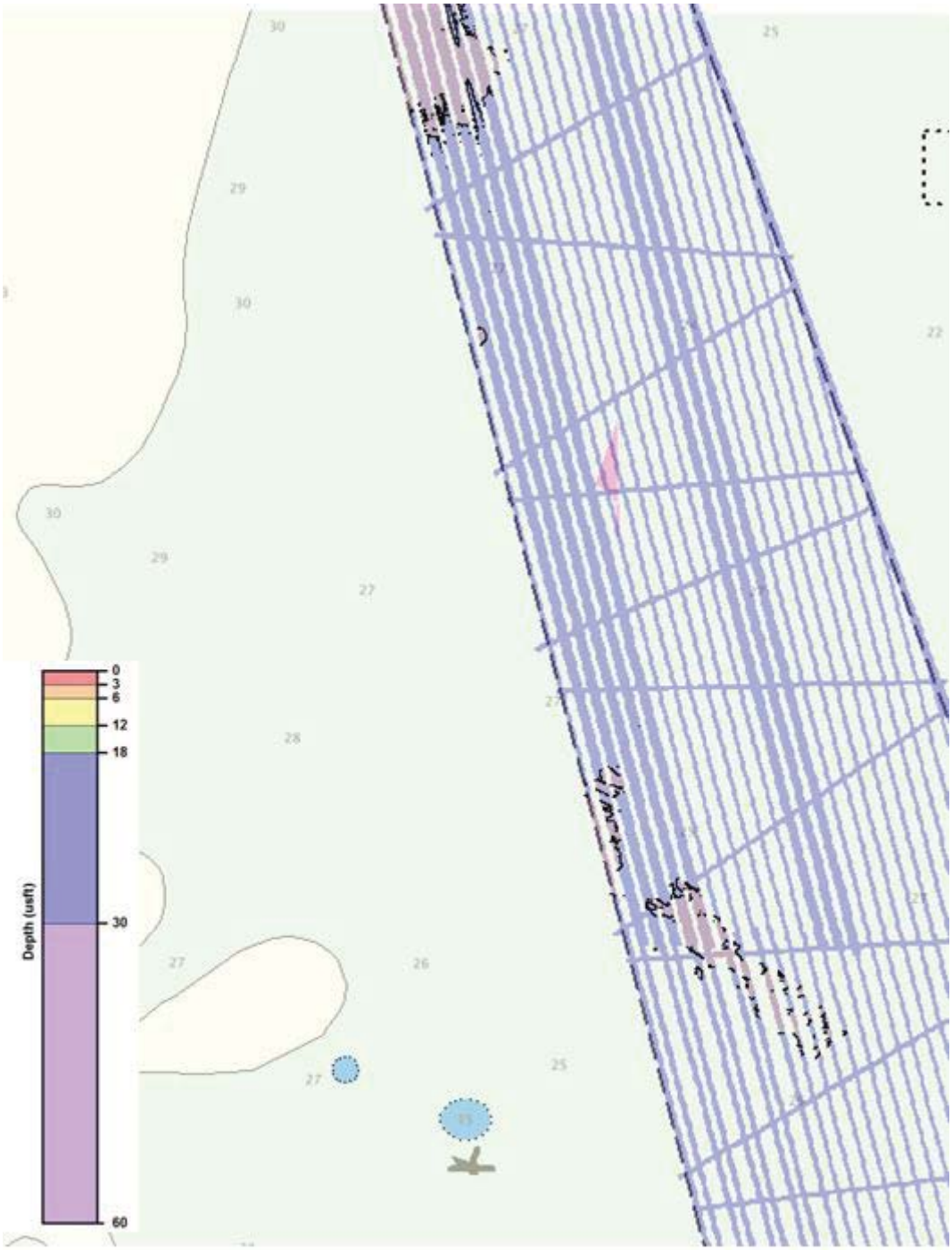

Figure 32: H13081 30ft Contour Comparison (ENC US4FL44M Example 1)

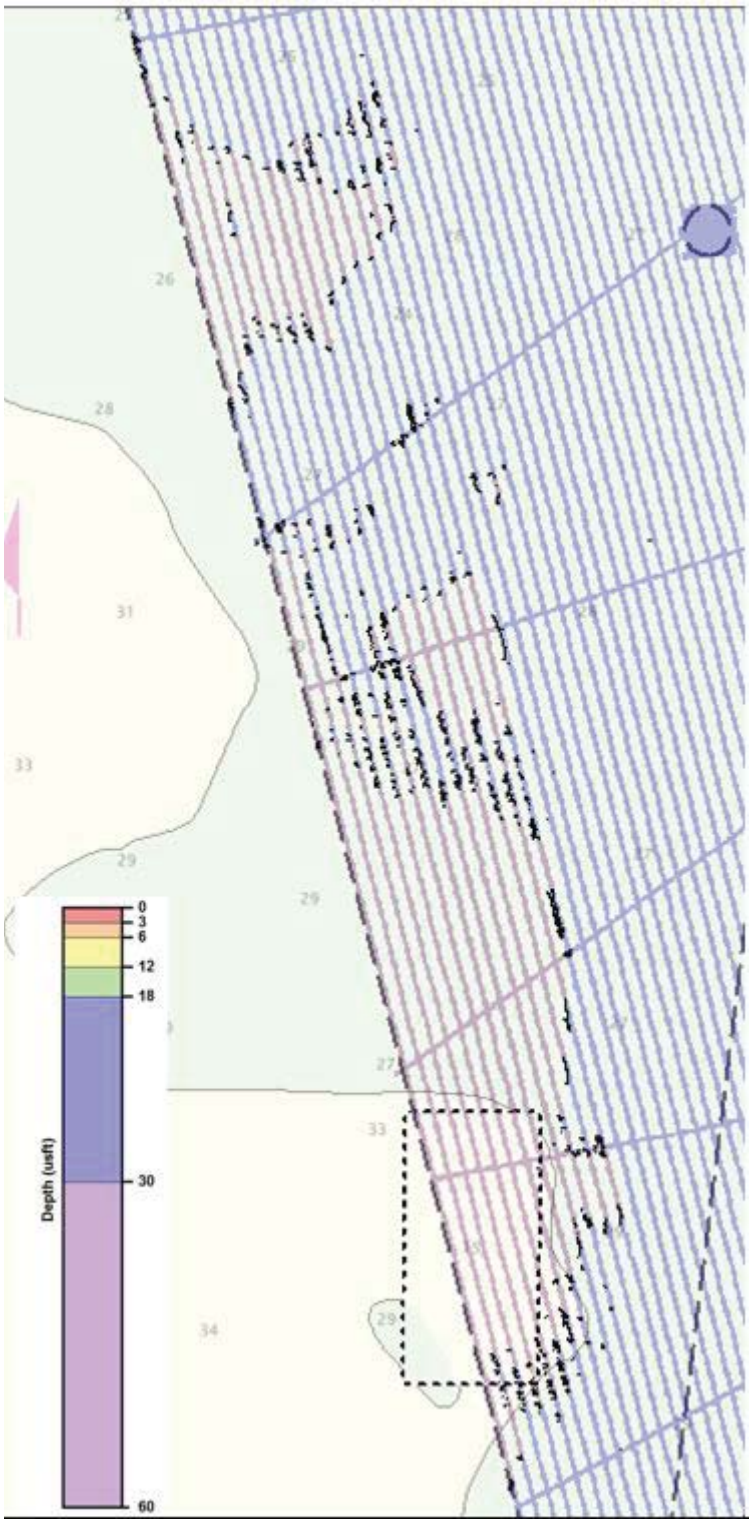

Figure 33: H13081 30ft Contour Comparison (ENC US4FL44M Example 2)

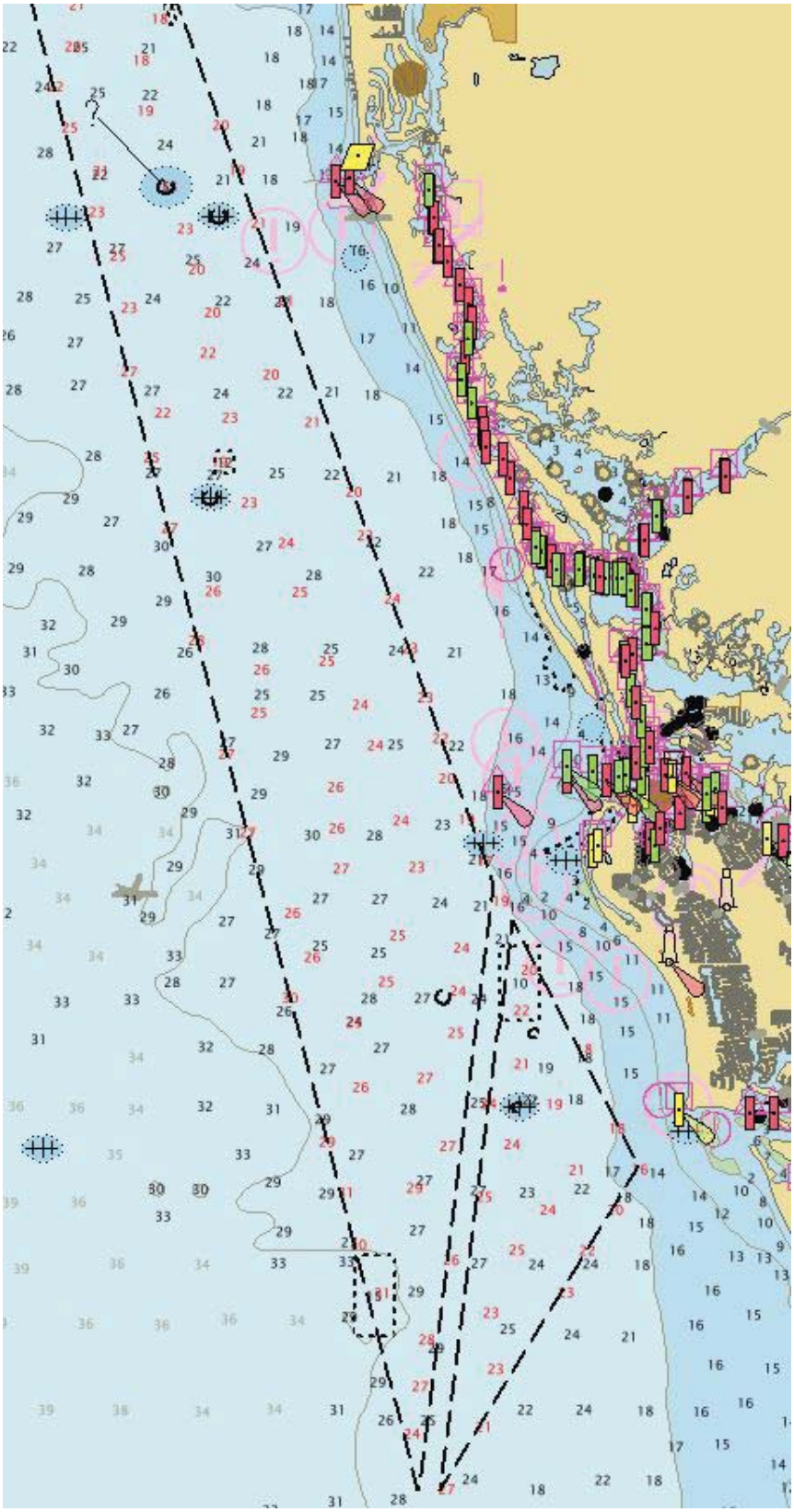

Figure 34: H13081 Sounding Comparison (ENC US4FL44M Example 1)

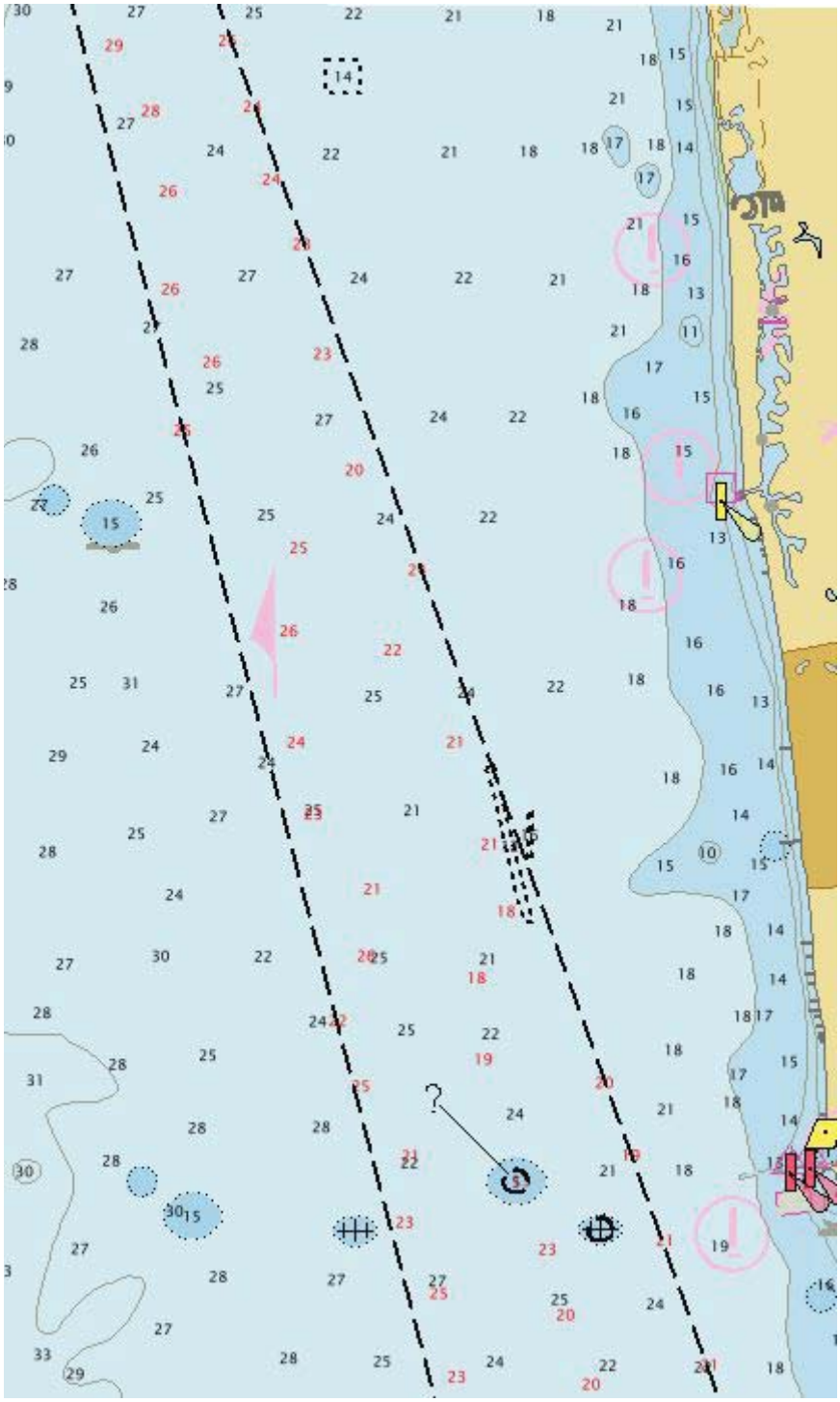

Figure 35: H13081 Sounding Comparison (ENC US4FL44M Example 2)

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 11 charted features assigned to H13081. 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 3XXX). Refer to the FFF for determinations and recommendations of each feature.

D.1.5 Uncharted Features

There were 9 new features found in H13081, 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 3XXX). Refer to the FFF for determinations and recommendations of each feature.

There were 2 uncharted features assigned to H13081. Each assigned feature is retained in the FFF. Each feature in the FFF has been given a unique identifier in the "userid" field of the .000 S-57 file (format 3XXX). Refer to the FFF for determination 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
H13081_DtoN_01	2017-11-30
H13081_DtoN_02	2017-11-30
H13081_DtoN_03	2017-11-30
H13081_DtoN_04	2017-11-30

Table 10: DTON Reports

There were 4 DtoNs found in H13081, 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 H13081_DtoN_XX). Refer to the FFF for determinations and recomendations of each feature. Note: The 4 DtoNs were included in the number of new, uncharted features within section D.1.6. Note: As of the delivery date of this report, AHB has not submitted a DtoN Report for DtoNs 01-04.

D.1.7 Shoal and Hazardous Features

No shoals or potentially hazardous features exist for this survey.

D.1.8 Channels

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

D.1.9 Bottom Samples

5 bottom samples were obtained in accordance with sections 7.2 and 7.2.3 of the HSSD 2017 in areas designated by the feature object class springs (SPRING) in the Project Reference File (PRF).
A brief description of the results is listed below.

C001: shells, broken, white
C002: sand, medium, grey
C003: mud, fine, brown ; shells, broken, white
C004: sand, medium, brown ; shells, broken, white
C005: mud, soft, grey ; sand, fine, brown ; shells, broken, white

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 CXXX).

D.2 Additional Results

D.2.1 Shoreline

No shoreline exists for this survey.

D.2.2 Prior Surveys

No prior survey comparisons exist for this survey.

D.2.3 Aids to Navigation

No AtoNs exist for this survey.

D.2.4 Overhead Features

No overhead features exist for this survey.

D.2.5 Submarine Features

There were 2 submarine features assigned to H13081. The assigned features are retained in the FFF. Each feature in the FFF has been given a unique identifier in the "userid" field of the .000 S-57 file (format 3XXX). Both submarine features were not safe to address, as they were inshore of NALL. The 2 submarine features were included in the number of charted features within section D.1.4.

D.2.6 Ferry Routes and Terminals

No ferry routes or terminals exist for this survey.

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

There were 2 shoreline construction features assigned to H13081. The assigned features are retained in the FFF. Each feature in the FFF has been given a unique identifier in the "userid" field of the .000 S-57 file (format 3XXX). Both shoreline construction features were not safe to address, as they were inshore of NALL. The 2 shoreline construction features were included in the number of charted features within section D.1.4.

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 BASE 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.	03/13/2018	Digitally signed by David Neff Date: 2018.03.13 10:24:12-07'00'

APPENDIX I

TIDES AND WATER LEVELS

Appendix I –Water Levels

- Correspondence relating to water levels

Isadora Kratchman <izzy@etracinc.com>

NOAA OCS Visit Discussion Points - 9/26/17

Dave Bernstein <dave@geodynamicsgroup.com> Wed, Oct 4, 2017 at 10:44 AM
To: Martha Herzog - NOAA Federal <martha.herzog@noaa.gov>
Cc: Corey Allen <corey.allen@noaa.gov>, Jacklyn James - NOAA Federal <jacklyn.c.james@noaa.gov>, David Neff <david@etracinc.com>, Isadora Kratchman <izzy@etracinc.com>

Thanks Martha!

We'll have a good look and let you know if there's any further questions.

-Dave B.

On Tue, Oct 3, 2017 at 5:19 PM, Martha Herzog - NOAA Federal <martha.herzog@noaa.gov> wrote:

> Dave,
>
> Sorry for the delay in response to your ERS questions. We consulted our experts and have some clarifications and questions following your original questions from the PDF'ed Google doc.
>
> 1. ERS Survey and VDatum model zones:
> Our work covers 2 VDatum zones. Each has a different uncertainty associated. The southern zone has uncertainty of 0.096m and the northern zone has an uncertainty of 0.130m. This "hard line" would require us to break lines and input values for TPU based on the zone break. This is easy and no problem, but is this what NOAA would do?
>
> eTrac has option to to break line at the regional grid boundary and use the applicable uncertainty value (Floride - South Florida, Naples to Fort Lauderdale (17.7cm & Florida - Anclote Key to Naples 15.1cm) or to use a 70/30 weighted average for all areas of 15.8cm. Please document the uncertainty value used.
>
> 2. With respect to Vertical Uncertainty:
> For an ERS survey, we have 2 components to include for the GPS side (SEP model uncertainty and realtime GPS error). We would typically put the SEP model uncertainty into the static tide portion for uncertainty. Does NOAA include some sort of average for the days GPS error? (as it's not possible to
> add the full record of V_RMS into the uncertainty model.
>
> We would like a little clarification. Jack Riley asks, "why it's not possible to use V_RMS -- is that because it's inaccurate? (e.g. Marinestar). Otherwise, where is the [accurate] days GPS error assessment coming from that could be averaged? A priori fixed value in HVF TPU would be used when a more precise value is not available/known;e.g., for Applanic Primary Marinestar Nav SBETs that's 8.5 cm "one sigma" based upon advertised performance and adjusted per NOAA field tests & experience."
> See - CHC 2016 paper "Field Analysis of a Satellite-Base Augmentation System for Vertical Precise Point Positioning in Hydrography" (Greenaway/Faulkes/Riley).
>
> 3. ERS Survey and Marinestar corrections:
> While data may still meet spec, can we access and use the SBET QC tool NOAA typically uses? In general, what is NOAA used to seeing from SBETs using marinestar with respect to line by line gps quality...even thought it all meets spec
>
> We hope to release AutoQC and are looking in to it.
>
> 4. For POSPac Basestation coordinates:
> Does NOAA typically treat ITRF08 and IGS08 as the same coordinate frame. NGS offers the updates coordinates in IGS08 and the superseded coordinated in ITRF05.
>
> Jack Riley states, "Yes, treat IGS08 same as ITRF08. In POSPac MMS Coordinate Manager, IGS08 frame is not listed as choice, only ITRF08, because Applanix have yet to incorporate the change to using absolute antenna calibration models. What you don't want to do is mix antenna calibration models in doing differential/carrier-phase processing between rover and station(s).
>
> ERS survey: Does NOAA typically use delayed heave even when using GPS tides? Any literature on that?

Jack states, "In processing ERS data in HIPS, the same type of heave must be used when any heave compensation is performed; e.g, during SV Correct & Compute GPS Tide, use real-time heave for both steps, or Delayed Heave (DH) for both. The DH flavor of compensation is important when precise reference to water line is needed. For example, precise water line information is not needed for determination of the starting layer during SV Correct; real-time heave suffices."

On Tue, Sep 26, 2017 at 11:57 AM, Dave Bernstein (via Google Sheets) <drive-shares-noreply@google.com> wrote:

Dave Bernstein has attached the following spreadsheet:

NOAA OCS Visit Discussion Points

Google Sheets: Create and edit spreadsheets online.

Google Inc. 1600 Amphitheatre Parkway, Mountain View, CA 94043, USA

You have received this email because someone shared a spreadsheet with you from Google Sheets.

--

Dave Bernstein, C.H, PLS, GISP
Geodynamics
310 A Greenfield Drive
Newport, NC 28570
Mobile: 252-422-8428 (preferred)
Office: 252-247-5785 ext. 102
Email: dave@geodynamicsgroup.com
Web: http://www.geodynamicsgroup.com

Isadora Kratchman <izzy@etracinc.com>

NOAA OCS Visit Discussion Points - 9/26/17

David Neff <david@etracinc.com> Thu, Oct 12, 2017 at 6:43 PM
To: Martha Herzog - NOAA Federal <martha.herzog@noaa.gov>
Cc: Dave Bernstein <dave@geodynamicsgroup.com>, Corey Allen <corey.allen@noaa.gov>, Jacklyn James - NOAA Federal <jacklyn.c.james@noaa.gov>, Isadora Kratchman <izzy@etracinc.com>

Yes Martha, I flipped the weighting. Thank you. 11.98 concur.

On Thu, Oct 12, 2017 at 1:26 PM, Martha Herzog - NOAA Federal <martha.herzog@noaa.gov> wrote:

Hi Dave,

For the 70/30 weighting we came up with 11.98, weighting 70% for Anclote key to Naples and 30% for Naples to Ft. Lauderdale

Thanks for checking,
Martha

On Wed, Oct 11, 2017 at 7:52 PM, David Neff <david@etracinc.com> wrote:

Hi Martha,

Thanks for the clarification. For simplicity we would opt for the 70/30 weighted average across the project. We've computed 10.62cm for this value. Could you confirm you agree with that computation so we are all on the same page?

Dave N.

On Wed, Oct 11, 2017 at 8:50 AM, Martha Herzog - NOAA Federal <martha.herzog@noaa.gov> wrote:

Dave,

I apologize for the (rather wild) typos for the uncertainties. They should 9.6 for Naples to Ft. Lauderdale and and 13.0 for Anclote key to Naples.
https://vdatum.noaa.gov/docs/est_uncertainties.html

Thanks,
Martha

On Tue, Oct 10, 2017 at 5:54 PM, Dave Bernstein <dave@geodynamicsgroup.com> wrote:

Here are a few additional comments in red.

Thanks!
Dave B.

On Tue, Oct 3, 2017 at 5:19 PM, Martha Herzog - NOAA Federal <martha.herzog@noaa.gov> wrote:

Dave,

Sorry for the delay in response to your ERS questions. We consulted our experts and have some clarifications and questions following your original questions from the PDF'ed Google doc.

1. ERS Survey and VDatum model zones:
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eTrac has option to to break line at the regional grid boundary and use the applicable uncertainty value (Floride - South Florida, Naples to Fort Lauderdale (17.7cm & Florida - Anclote Key to Naples 15.1cm) or to use a 70/30

weighted average for all areas of 15.8cm. Please document the uncertainty value used.

This seems like a reasonable solution. When we use VDatum to get uncertainty values for each area, we do not see 17.7 and 15.1. Can you let us know where/how these values came from?

2. With respect to Vertical Uncertainty:
For an ERS survey, we have 2 components to include for the GPS side (SEP model uncertainty and realtime GPS error). We would typically put the SEP model uncertainty into the static tide portion for uncertainty. Does NOAA include some sort of average for the days GPS error? (as it's not possible to add the full record of V_RMS into the uncertainty model.

We would like a little clarification. Jack Riley asks, "why it's not possible to use V_RMS -- is that because it's inaccurate? (e.g. Marinestar). Otherwise, where is the [accurate] days GPS error assessment coming from that could be averaged? A priori fixed value in HVF TPU would be used when a more precise value is not available/known;e.g., for Applanic Primary Marinestar Nav SBETs that's 8.5 cm "one sigma" based upon advertised performance and adjusted per NOAA field tests & experience."
See - CHC 2016 paper "Field Analysis of a Satellite-Base Augmentation System for Vertical Precise Point Positioning in Hydrography" (Greenaway/Faulkes/Riley).

For the clarification...yes in the real-time recorded rms data, we understand that the values do not represent properly. All data should be POSPac'ed so we'll just run in the smrmsg which appears more appropriate. Thank you very much for the literature.

3. ERS Survey and Marinestar corrections:
While data may still meet spec, can we access and use the SBET QC tool NOAA typically uses? In general, what is NOAA used to seeing from SBETs using marinestar with respect to line by line gps quality...even thought it all meets spec

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On Tue, Sep 26, 2017 at 11:57 AM, Dave Bernstein (via Google Sheets) <drive-shares-noreply@google.com> wrote:

Dave Bernstein has attached the following spreadsheet:

NOAA OCS Visit Discussion Points

--

Dave Bernstein, C.H, PLS, GISP
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310 A Greenfield Drive
Newport, NC 28570
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--

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Mobile: (415)-517-0020
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Isadora Kratchman <izzy@etracinc.com>

Abstract Times of Hydrography in Appendix I

Jacklyn <jacklyn.c.james@noaa.gov> Thu, Dec 14, 2017 at 12:39 PM
To: Isadora Kratchman <izzy@etracinc.com>

Izzy,

The table is not required. Still looking into other questions.

On Tue, Dec 12, 2017 at 7:55 PM, Isadora Kratchman <izzy@etracinc.com> wrote:

> Jacklyn,
>
> In appendix I of the DR the HSSD says to include (if applicable) the abstract of times of hydrography. In the past this time table was created and submitted for the final tides request for TCARI.
>
> As we are not using TCARI this year, is it appropriate to exclude this table? Or would you prefer this supplemental information be included?
>
> Best,
> Izzy
>
> --
> Isadora Kratchman
> eTrac Inc.
> izzy@etracinc.com
> Mobile: (301)-706-9246
> www.etracinc.com

--
Jacklyn James
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Silver Spring, MD 20910
(o) 240-533-0036 NEW NUMBER
jacklyn.c.james@noaa.gov

To see live feeds from the NOAA Ship Okeanos Explorer go to the web site below.
http://oceanexplorer.noaa.gov/okeanos/welcome.html#

Isadora Kratchman <izzy@etracinc.com>

DR Appendix I - Water Levels , Vertical Control Memo and VDATUM Validation Report

Jacklyn <jacklyn.c.james@noaa.gov> Tue, Jan 9, 2018 at 3:45 PM
To: Isadora Kratchman <izzy@etracinc.com>

The horizontal control report is referenced in section 8.1.5.2 Horizontal and Vertical Control Reports of the HSSD. VDatum validation report is rnot required.

On Thu, Dec 28, 2017 at 8:05 PM, Isadora Kratchman <izzy@etracinc.com> wrote:

Jacklyn,

I have another question about documents to include in DR Appendix I - Water Levels.

In the HSSD it says to include (if applicable) the Vertical Control Memo and the VDATUM Validation Report.

Are we required to submit these reports? If so, can you explain what needs to be included in these reports? I can not find any further information about these reports in the HSSD.

Below is a screen capture from the HSSD Section 8.1.4

DESCRIPTIVE REPORT APPENDICES

The Appendices shall be submitted as a separate PDF file.

I. WATER LEVELS Include the following (if applicable):

- Field Tide Note (Section 4.6.1).
- Final Tide Note to include the final tidal zoning and final tide reducers used to reduce the data to chart datum (Section 4.6.4)
- Abstract of Times of Hydrography (lists every day during which hydrography was conducted and the start and end times hydrography was conducted each day)
- A copy of the transmittal letter for project water level data submitted to CO-OPS
- A copy of the "Request for Approved Tides/Water Levels" letter
- Any other correspondence directly relating to tides and/or water levels
  - Vertical Control Memo
  - VDATUM Validation Report

112

This question has been added to our project correspondence sheet, issue #22

https://docs.google.com/spreadsheets/d/1atu64uQqwKJIlborma4veWCxn1S9krl-sdr2-q5zc1o/edit#gid=0

Best,
Izzy
--
Isadora Kratchman
eTrac Inc.
izzy@etracinc.com
Mobile: (301)-706-9246
www.etracinc.com

--

Jacklyn James
Physical Scientist/ COR II
Hydrographic Surveys Division
1315 East-West Highway
SSMC3 Room 6114
Silver Spring, MD 20910
(o) 240-533-0036 NEW NUMBER
jacklyn.c.james@noaa.gov

To see live feeds from the NOAA Ship Okeanos Explorer go to the web site below.
http://oceanexplorer.noaa.gov/okeanos/welcome.html#

APPENDIX II

SUPPLEMENTAL SURVEY RECORDS AND CORRESPONDENCE

Appendix II – Supplemental Survey Records and Correspondence

- NOAA Correspondence Google Sheet
- Email Correspondence
- Crossline Waiver

Issue #	Issue Name	Brief Description of issue	Issue Raised with NOAA	Issue Raised By	Date	Method	Response From NOAA	Date	Method	Status	Brief Description of Resolution
1	ERS Survey and Vdatum model zones	Our work covers 2 Vdatum zones. Each has a different uncertainty associated. The southern zone has uncertainty of 0.096m and the northern zone has an uncertainty of 0.130m. This "hard line" would require us to break lines and input values for tpu based on the zone break. This is easy and no problem, but is this what NOAA would do?	YES	Dave B	09/26/17	Phone	YES	10/12/2017	Email	Closed	Martha Herzog verified that 11.98 can be used as the weighted uncertainty average throughout the entire project
2	Vertical Uncertainty	For an ERS survey, we have 2 components to include for the GPS side (SEP model uncertainty and realtime GPS error). We would typically put the SEP model uncertainty into the static tide portion for uncertainty. Does NOAA include some sort of average for the days GPS error? (as it's not possible to add the full record of V_RMS into the uncertainty model	YES	Dave B	09/26/17	Phone	YES	10/3/2017	Email	Closed	Response from NOAA: We would like a little clarification. Jack Riley asks, "why it's not possible to use V_RMS -- is that because it's inaccurate? (e.g. Marinestar). Otherwise, where is the [accurate] days GPS error assessment coming from that could be averaged? A priori fixed value in HVF TPU would be used when a more precise value is not available/known;e.g., for Applanix Primary Marinestar Nav SBETs that's 8.5 cm "one sigma" based upon advertised performance and adjusted per NOAA field tests & experience." See - CHC 2016 paper "Field Analysis of a Satellite-Base Augmentation System for Vertical Precise Point Positioning in Hydrography" (Greenaway/Faulkes/Riley).
3	ERS Survey and Marinestar corrections	While data may still meet spec, can we access and use the SBET QC tool NOAA typically uses? In general, what is NOAA used to seeing from SBETs using marinestar with respect to line by line gps quality...even though it all meets spec	YES	Dave B	09/26/17	Phone	YES	10/3/2017	Email	Closed	We hope to release Auto QC and are looking into it.
4	POSPac Basestation coordinate	Does NOAA typically treat ITRF08 and IGS08 as the same coordinate frame. NGS offers the updates coordinates in IGS08 and the superseded coordinated in ITRF 05.	YES	Dave B	09/26/17	Phone	YES	10/3/2017	Email	Closed	Jack Riley states, "Yes, treat IGS08 same as ITRF08. In POSPac MMS Coordinate Manager, IGS08 frame is not listed as choice, only ITRF08, because Applanix have yet to incorporate the change to using absolute antenna calibration models. What you don't want to do is mix antenna calibration models in doing differential/carrier-phase processing between rover and station(s).
5	ERS survey delayed heave	Does NOAA typically use delayed heave even when using GPS tides? Any literature on that?	YES	Dave B	09/26/17	Phone	YES	10/3/2017	Email	Closed	Jack states, "In processing ERS data in HIPS, the same type of heave must be used when any heave compensation is performed; e.g, during SV Correct & Compute GPS Tide, use real-time heave for both steps, or Delayed Heave (DH) for both. The DH flavor of compensation is important when precise reference to water line is needed. For example, precise water line information is not needed for determination of the starting layer during SV Correct; real-time heave suffices."
6	SVP in sonar	Because of the way our sonars are set up the data has svp in it already. How does noaa look at the svp files	YES	Dave B	09/26/17	Phone	YES	09/26/17	Phone	Closed	Definitely still submit the Caris SVP file with coordinates and time
7	1km spacing crosslines	Distance between XL. HSSD says must be no further than 1km apart. Due to project design, 1km spacing would give us excessive XL %	YES	Dave B	09/26/17	Phone	YES	9/27/2017	Email	Closed	received crossline waiver Crossline Waiver: OPR-H358-KR-17
8	Backscatter in crosslines	Is backscatter required in XLs?	YES	Dave B	09/26/17	Phone	YES	09/26/17	Phone	Closed	yes, backscatter required
9	Sheet distribution	Project layout with 3 sheets and the overall efficiency of working on 3 "sheets" that have a lot of overlap. Seems that final features should be combined into one file as they overlap.	YES	Izzy	09/26/17	Phone	YES	9/27/2017	Email	Closed	received new CSF and PRF
10	Final Feature File	Final Feature File: Would it be acceptable to deliver 1 FFF that covers the 3 assigned sheets?	YES	Izzy	09/26/17	Phone	YES	09/26/17	Phone	Closed	Each sheet needs its own FFF
12	Not all atons within boundary assigned	Some ATONS are within CSF, but not assigned...what to do?	YES	Izzy	09/26/17	Phone	YES	9/27/2017	Email	Closed	received new CSF and PRF all ATONs within sheet boundaries are now assigned
13	Ephemeris	Should we use 17 hour or 15 day?	YES	Dave B	9/26/17	Phone	Cory will consult with Jack R.			Closed	The rapid ephemeris will be used. A comparison of results using both ephemeris was made and improvement did not balance efficiency.
14	5 circles with H13080 requirement inside H13079	Within the boundary of big sarasota pass, five investigation circles are still labeled as H13080 and not H13079 in PRF	YES	Izzy	9/28/17	Email	YES	9/28/2017	Phone	Closed	Jacklyn will send PRF_V3 tomorrow with the 5 circles changed to H13079.
15	Found Features outside of search radius	We are finding obstructions outside of the assigned search radius. Do we need to develop them further? To what extent?	YES	Dave N	10/18/17	Email	YES	10/18/2017	Email	Closed	You may develop any features considered significant or potential dangers to navigation. Any additional work performed on developing these features should not cause any undue burden and will be at no additional cost to the Government. If the effort of work becomes burdensome please contact me before continuing. Thank you.
16	Shoaling in Big Marco Pass	There is a shoaling area in Big Marco Pass. Should this be reported as a DtoN and if so how?	YES	Izzy	10/31/17	Email	YES	10/31/2017	Phone	Closed	will discuss in conference call 11/01/2017. WIll make DtoN and submit a sounding plot and contours of the area.

Issue #	Issue Name	Brief Description of issue	Issue Raised with NOAA	Issue Raised By	Date	Method	Response From NOAA	Date	Method	Status	Brief Description of Resolution
17	Boca Grande dock light 2 mis-charted	Boca Grande dock light 2 incorrectly charted. Most likely located outside of our survey boundary next to dock light 1	YES	Izzy	11/1/17	Email	YES	11/1/2017	Phone	Closed	Page 90 of HSSD 2017 7.3.5 Aids to Navigation The hydrographer shall investigate all U.S. Coast Guard (USCG) and privately maintained fixed and floating aids to navigation located within the survey limits. Upon inspection of the most recent edition of the largest scale chart of the survey area and the latest edition of the USCG Light List (available online at http://www.navcen.uscg.gov/?pageName=lightlists), the hydrographer shall confirm the aid's characteristics at time of investigation and determine whether the aid adequately serves the intended purpose for which it was established. The results of all aid to navigation (ATON) investigations shall be summarized in the DR (Section 8.1.4 D.2). On Station If located on station and serving its intended purpose, USCG maintained aids and privately maintained fixed and floating aids to navigation shall included in the FFF with descrp = retain. Off Station If the hydrographer determines that an aid to navigation is located off station, is damaged to the extent that it does not serve its intended purpose or its characteristics are incorrectly charted, the hydrographer shall report the information in the form of a Danger to Navigation (Section 1.6) and include the ATON in the FFF (Section 7.3.5) with correct attribution. The Navigation Manager for the survey area shall be CC'ed on the Danger to Navigation submission.
18	Reaching the NALL in inlets and passes	Using Caxambas pass as an example, have we completed our coverage requirement, or do we need to approach the boundary from the inshore boundary?	YES	Dave/Izzy	11/1/17	Phone	YES			Closed	Jackie and Martha will check with Corey, but it is anticipated that eTrac has reached their coverage requirement and no additional survey is necessary per spec (Jacklyn spoke with Dave 11/16/17 to determine if there was evidence to support the possibility of deeper water beyond the survey coverage area and to discuss with the Captain to determine if it was safe to navigate beyond the coverage area).
19	Small Wrecks, less than 1m tall in Big Sarasota Pass	Multiple wrecks have been found in Big Sarasota pass that are under a meter tall. From HSSD these should not be features. Does this rule still apply to wrecks?	YES	Izzy	11/13/17	Email	YES	11/16/2017	Phone	Closed	Yes the rule still applies to wrecks. For the wrecks that are .8m tall you may use your own discretion and include those in the final feature file.
20	Project divisions per sheet	We have multiple projects per sheet. These divisions were necessary to process data efficiently	YES	Izzy and Dave	11/29/17	Email	YES	12/21/2017	Email	Closed	As long as the directory structure of the final submission is in accordance with HSSD Appendix J, then it is permitted.
21	Abstract Times of Hydrography	As we are not using TCARI, are we still required to submit an Abstract Times of Hydrography in DR Appendix 1?	YES	Izzy	12/12/2017	Email	YES	12/14/2017	Email	Closed	Table is not required
22	DR Appendix I Water Levels - Vertical Control Memo and VDATUM Validation Report	Are we required to submit the Vertical Control Memo and VDATUM Validation Report in appendix I. What is included in these reports?	YES	Izzy	12/28/2017	Email	YES	1/8/2018	Email	Closed	VDatum Validation report not required

Isadora Kratchman <izzy@etracinc.com>

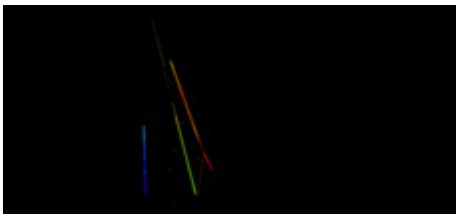
OPR-H358-KR-17 - Weekly Progress Report - 09/18/17 to 09/24/17

David Neff <david@etracinc.com> Tue, Sep 26, 2017 at 12:59 AM
To: Jacklyn James - NOAA Federal <jacklyn.c.james@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>, _NOS OCS HSD Progress Sketches <progress.sketches@noaa.gov>
Cc: Isadora Kratchman <izzy@etracinc.com>

Please find attached the weekly report detailing OPR-H358-KR-17 project completion through 09/24/17 as well as the required TIFF imagery.

Please let me know if there are any issues with the files, this is our first progress submission.
--
Dave Neff, C.H.
Mobile: (415)-517-0020
www.etracinc.com

2 attachments



OPR_H358-KR-17_UTM17N_coverage_as_of_20170924.tif
4044K

OPR-H358-KR-17_UTM17N_WR_20170918_20170924.pdf
2074K

Isadora Kratchman <izzy@etracinc.com>

Fwd: OPR-H358-KR-17, New CSF/PRF

David Neff <david@etracinc.com> Wed, Sep 27, 2017 at 11:22 AM
To: Isadora Kratchman <izzy@etracinc.com>, Verena Kellner <verena@etracinc.com>

---------- Forwarded message ---------
From: Jacklyn <jacklyn.c.james@noaa.gov>
Date: Wed, Sep 27, 2017 at 7:35 AM
Subject: OPR-H358-KR-17, New CSF/PRF
To: Dave Bernstein <dave@geodynamicsgroup.com>
CC: David Neff <david@etracinc.com>, Martha Herzog - NOAA Federal <martha.herzog@noaa.gov>

Dave,

Please find attached a new csf/prf for OPR-H358-KR-17. Martha made the changes to the CSF and PRF we discussed in the meeting on yesterday. The changes to the PRF are moving the H13080 investigation items to the surveys with overlapping boundaries of the investigations. Six investigation items were moved into H13079, and eight investigations were moved to H13081. H13080 now has 14 fewer investigations than the original.

Please include this correspondence in the supplemental correspondence folder. Thank you

--
Jacklyn James
Physical Scientist/ COR II
Hydrographic Surveys Division
1315 East-West Highway
SSMC3 Room 6114
Silver Spring, MD 20910
(o) 240-533-0036 NEW NUMBER
(m) 301-221-7055
jacklyn.c.james@noaa.gov

To see live feeds from the NOAA Ship Okeanos Explorer go to the web site below.
http://oceanexplorer.noaa.gov/okeanos/welcome.html#

--
Dave Neff, C.H.
Mobile: (415)-517-0020
www.etracinc.com

2 attachments

OPR-H358-KR-17_CSF_Final_V2.000
8784K

OPR-H358-KR-17_PRF_Final_V2.000
156K

Isadora Kratchman <izzy@etracinc.com>

Fwd: Crossline Waiver: OPR-H358-KR-17

David Neff <david@etracinc.com> Wed, Sep 27, 2017 at 11:23 AM
To: Isadora Kratchman <izzy@etracinc.com>, Lisa Diamond <lisa@etracinc.com>, Verena Kellner <verena@etracinc.com>

---------- Forwarded message ---------
From: Jacklyn <jacklyn.c.james@noaa.gov>
Date: Wed, Sep 27, 2017 at 7:39 AM
Subject: Crossline Waiver: OPR-H358-KR-17
To: Dave Bernstein <dave@geodynamicsgroup.com>
CC: David Neff <david@etracinc.com>, Martha Herzog - NOAA Federal <martha.herzog@noaa.gov>

Dave,

Please find attached your approved waiver request for OPR-H358-KR-17. Please include this waiver in the supplemental correspondence folder.

--
Jacklyn James
Physical Scientist/ COR II
Hydrographic Surveys Division
1315 East-West Highway
SSMC3 Room 6114
Silver Spring, MD 20910
(o) 240-533-0036 NEW NUMBER
(m) 301-221-7055
jacklyn.c.james@noaa.gov

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--
Dave Neff, C.H.
Mobile: (415)-517-0020
www.etracinc.com

OPR-H538-KR-17_Crossline spacing_Waiver Request.pdf
122K

Isadora Kratchman <izzy@etracinc.com>

OPR-H358-KR-17 - Weekly Progress Report - 09/25/2017 to 10/01/2017

Isadora Kratchman <izzy@etracinc.com> Mon, Oct 2, 2017 at 2:42 PM
To: Jacklyn James - NOAA Federal <jacklyn.c.james@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>
Cc: progress.sketches@noaa.gov, David Neff <dave@etracinc.com>

Please find attached the weekly report detailing OPR-H358-KR-17 project completion through 10/01/2017 as well as the required TIFF imagery.

--
Isadora Kratchman
eTrac Inc.
izzy@etracinc.com
Mobile: (301)-706-9246
www.etracinc.com

2 attachments

OPR_H358-KR-17_UTN17N_coverage_as_of_20171001.tif
2777K

OPR-H358-KR-17_UTM17N_WR_20170925_20171001.pdf
2458K

Isadora Kratchman <izzy@etracinc.com>

Weekly Progress Report Submissions

Jacklyn <jacklyn.c.james@noaa.gov> Tue, Oct 3, 2017 at 5:04 PM
To: Isadora Kratchman <izzy@etracinc.com>, Dave Bernstein <dave@geodynamicsgroup.com>
Cc: Meredith Payne - NOAA Federal <meredith.payne@noaa.gov>

Here is a short list of tips that make a big difference to how the survey progress is reported on our end:

- GeoTiff Backgrounds
  - The GeoTiff image backgrounds should be WHITE. This means that the no data value is 255, 255, 255 for a 3-band RGB image. This will ensure images are being submitted in formats that comply to the Hydrographic Surveys Specifications and Deliverables (HSSD),
- Two-Part Format
  - Please ensure you submitt a two-part format, "Recap" and "Looking Forward" synopsis.
- Use Actual Dates
  - Please use actual dates instead of verbiage such as "yesterday," "today," or "tomorrow." we are left interpreting "today" as being the date we received the report, which may or may not be accurate.
- File Naming Convention
  - The file naming convention is provided in HSSD 8.1.1.1 and should be followed! We should be able to see the project, field unit, and date just by glancing at it. A file simply named "DNXXX" is simply unacceptable. These files have to be archived, aggregated and disseminated and sloppy naming convention can make this extremely difficult.

Please find an example report attached. Please let me know if you have any questions.

V/r

--
Jacklyn James
Physical Scientist/ COR II
Hydrographic Surveys Division
1315 East-West Highway
SSMC3 Room 6114
Silver Spring, MD 20910
(o) 240-533-0036 NEW NUMBER
jacklyn.c.james@noaa.gov

To see live feeds from the NOAA Ship Okeanos Explorer go to the web site below.
http://oceanexplorer.noaa.gov/okeanos/welcome.html#

Weekly Report Example.pdf
137K

Isadora Kratchman <izzy@etracinc.com>

OPR-H358-KR-17 - Weekly Progress Report - 10/02/2017 to 10/08/2017

Isadora Kratchman <izzy@etracinc.com> Mon, Oct 9, 2017 at 3:01 PM
To: Jacklyn James - NOAA Federal <jacklyn.c.james@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>
Cc: progress.sketches@noaa.gov, David Neff <dave@etracinc.com>, Dave Bernstein <dave@geodynamicsgroup.com>

Please find attached the weekly report detailing OPR-H358-KR-17 project completion through 10/08/2017 as well as the required TIFF imagery and PDF of coverage.

--
Isadora Kratchman
eTrac Inc.
izzy@etracinc.com
Mobile: (301)-706-9246
www.etracinc.com

3 attachments

OPR-H358-KR-17_October_8.tif
2688K

OPR-H358-KR-17_WeeklyReport_20171002_20171008.pdf
2180K

OPR-H358-KR-17_October_8.pdf
2084K

Isadora Kratchman <izzy@etracinc.com>

NOAA OCS Visit Discussion Points - 9/26/17

Jacklyn <jacklyn.c.james@noaa.gov> Wed, Sep 27, 2017 at 2:04 PM
To: David Neff <david@etracinc.com>
Cc: Corey Allen - NOAA Federal <corey.allen@noaa.gov>, Dave Bernstein <dave@geodynamicsgroup.com>, Isadora Kratchman <izzy@etracinc.com>

Thank you.

On Wed, Sep 27, 2017 at 1:59 PM, David Neff <david@etracinc.com> wrote:

> Jacklyn,
>
> The eTrac/NOAA correspondence items have been updated in our tracking sheet and shared with you and Corey. It can be view here as well.
>
> https://docs.google.com/spreadsheets/d/1atu64uQqwKJIlborma4veWCxn1S9krl-sdr2-q5zc1o/edit#gid=0
>
> Dave
>
> On Wed, Sep 27, 2017 at 6:45 AM, Jacklyn <jacklyn.c.james@noaa.gov> wrote:
>
>> Hi,
>>
>> Have the questions been updated into a google form? If so, please share. Thank you.
>>
>> --
>> Jacklyn James
>> Physical Scientist/ COR II
>> Hydrographic Surveys Division
>> 1315 East-West Highway
>> SSMC3 Room 6114
>> Silver Spring, MD 20910
>> *(o) 240-533-0036 NEW NUMBER*
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> --
> Dave Neff, C.H.
> Mobile: (415)-517-0020
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Isadora Kratchman <izzy@etracinc.com>

NOAA OCS Visit Discussion Points - 9/26/17

Dave Bernstein <dave@geodynamicsgroup.com> Wed, Oct 4, 2017 at 10:44 AM
To: Martha Herzog - NOAA Federal <martha.herzog@noaa.gov>
Cc: Corey Allen <corey.allen@noaa.gov>, Jacklyn James - NOAA Federal <jacklyn.c.james@noaa.gov>, David Neff <david@etracinc.com>, Isadora Kratchman <izzy@etracinc.com>

Thanks Martha!

We'll have a good look and let you know if there's any further questions.

-Dave B.

On Tue, Oct 3, 2017 at 5:19 PM, Martha Herzog - NOAA Federal <martha.herzog@noaa.gov> wrote:

> Dave,
>
> Sorry for the delay in response to your ERS questions. We consulted our experts and have some clarifications and questions following your original questions from the PDF'ed Google doc.
>
> 1. ERS Survey and VDatum model zones:
> Our work covers 2 VDatum zones. Each has a different uncertainty associated. The southern zone has uncertainty of 0.096m and the northern zone has an uncertainty of 0.130m. This "hard line" would require us to break lines and input values for TPU based on the zone break. This is easy and no problem, but is this what NOAA would do?
>
> eTrac has option to to break line at the regional grid boundary and use the applicable uncertainty value (Floride - South Florida, Naples to Fort Lauderdale (17.7cm & Florida - Anclote Key to Naples 15.1cm) or to use a 70/30 weighted average for all areas of 15.8cm. Please document the uncertainty value used.
>
> 2. With respect to Vertical Uncertainty:
> For an ERS survey, we have 2 components to include for the GPS side (SEP model uncertainty and realtime GPS error). We would typically put the SEP model uncertainty into the static tide portion for uncertainty. Does NOAA include some sort of average for the days GPS error? (as it's not possible to
> add the full record of V_RMS into the uncertainty model.
>
> We would like a little clarification. Jack Riley asks, "why it's not possible to use V_RMS -- is that because it's inaccurate? (e.g. Marinestar). Otherwise, where is the [accurate] days GPS error assessment coming from that could be averaged? A priori fixed value in HVF TPU would be used when a more precise value is not available/known;e.g., for Applanic Primary Marinestar Nav SBETs that's 8.5 cm "one sigma" based upon advertised performance and adjusted per NOAA field tests & experience."
> See - CHC 2016 paper "Field Analysis of a Satellite-Base Augmentation System for Vertical Precise Point Positioning in Hydrography" (Greenaway/Faulkes/Riley).
>
> 3. ERS Survey and Marinestar corrections:
> While data may still meet spec, can we access and use the SBET QC tool NOAA typically uses? In general, what is NOAA used to seeing from SBETs using marinestar with respect to line by line gps quality...even thought it all meets spec
>
> We hope to release AutoQC and are looking in to it.
>
> 4. For POSPac Basestation coordinates:
> Does NOAA typically treat ITRF08 and IGS08 as the same coordinate frame. NGS offers the updates coordinates in IGS08 and the superseded coordinated in ITRF05.
>
> Jack Riley states, "Yes, treat IGS08 same as ITRF08. In POSPac MMS Coordinate Manager, IGS08 frame is not listed as choice, only ITRF08, because Applanix have yet to incorporate the change to using absolute antenna calibration models. What you don't want to do is mix antenna calibration models in doing differential/carrier-phase processing between rover and station(s).
>
> ERS survey: Does NOAA typically use delayed heave even when using GPS tides? Any literature on that?

Jack states, "In processing ERS data in HIPS, the same type of heave must be used when any heave compensation is performed; e.g, during SV Correct & Compute GPS Tide, use real-time heave for both steps, or Delayed Heave (DH) for both. The DH flavor of compensation is important when precise reference to water line is needed. For example, precise water line information is not needed for determination of the starting layer during SV Correct; real-time heave suffices."

On Tue, Sep 26, 2017 at 11:57 AM, Dave Bernstein (via Google Sheets) <drive-shares-noreply@google.com> wrote:

Dave Bernstein has attached the following spreadsheet:

NOAA OCS Visit Discussion Points

Google Sheets: Create and edit spreadsheets online.

Google Inc. 1600 Amphitheatre Parkway, Mountain View, CA 94043, USA

You have received this email because someone shared a spreadsheet with you from Google Sheets.

--

Dave Bernstein, C.H, PLS, GISP
Geodynamics
310 A Greenfield Drive
Newport, NC 28570
Mobile: 252-422-8428 (preferred)
Office: 252-247-5785 ext. 102
Email: dave@geodynamicsgroup.com
Web: http://www.geodynamicsgroup.com

Isadora Kratchman <izzy@etracinc.com>

NOAA OCS Visit Discussion Points - 9/26/17

David Neff <david@etracinc.com> Thu, Oct 12, 2017 at 6:43 PM
To: Martha Herzog - NOAA Federal <martha.herzog@noaa.gov>
Cc: Dave Bernstein <dave@geodynamicsgroup.com>, Corey Allen <corey.allen@noaa.gov>, Jacklyn James - NOAA Federal <jacklyn.c.james@noaa.gov>, Isadora Kratchman <izzy@etracinc.com>

Yes Martha, I flipped the weighting. Thank you. 11.98 concur.

On Thu, Oct 12, 2017 at 1:26 PM, Martha Herzog - NOAA Federal <martha.herzog@noaa.gov> wrote:

Hi Dave,

For the 70/30 weighting we came up with 11.98, weighting 70% for Anclote key to Naples and 30% for Naples to Ft. Lauderdale

Thanks for checking,
Martha

On Wed, Oct 11, 2017 at 7:52 PM, David Neff <david@etracinc.com> wrote:

Hi Martha,

Thanks for the clarification. For simplicity we would opt for the 70/30 weighted average across the project. We've computed 10.62cm for this value. Could you confirm you agree with that computation so we are all on the same page?

Dave N.

On Wed, Oct 11, 2017 at 8:50 AM, Martha Herzog - NOAA Federal <martha.herzog@noaa.gov> wrote:

Dave,

I apologize for the (rather wild) typos for the uncertainties. They should 9.6 for Naples to Ft. Lauderdale and and 13.0 for Anclote key to Naples.
https://vdatum.noaa.gov/docs/est_uncertainties.html

Thanks,
Martha

On Tue, Oct 10, 2017 at 5:54 PM, Dave Bernstein <dave@geodynamicsgroup.com> wrote:

Here are a few additional comments in red.

Thanks!
Dave B.

On Tue, Oct 3, 2017 at 5:19 PM, Martha Herzog - NOAA Federal <martha.herzog@noaa.gov> wrote:

Dave,

Sorry for the delay in response to your ERS questions. We consulted our experts and have some clarifications and questions following your original questions from the PDF'ed Google doc.

1. ERS Survey and VDatum model zones:
Our work covers 2 VDatum zones. Each has a different uncertainty associated. The southern zone has uncertainty of 0.096m and the northern zone has an uncertainty of 0.130m. This "hard line" would require us to break lines and input values for TPU based on the zone break. This is easy and no problem, but is this what NOAA would do?

eTrac has option to to break line at the regional grid boundary and use the applicable uncertainty value (Floride - South Florida, Naples to Fort Lauderdale (17.7cm & Florida - Anclote Key to Naples 15.1cm) or to use a 70/30

weighted average for all areas of 15.8cm. Please document the uncertainty value used.

This seems like a reasonable solution. When we use VDatum to get uncertainty values for each area, we do not see 17.7 and 15.1. Can you let us know where/how these values came from?

2. With respect to Vertical Uncertainty:
For an ERS survey, we have 2 components to include for the GPS side (SEP model uncertainty and realtime GPS error). We would typically put the SEP model uncertainty into the static tide portion for uncertainty. Does NOAA include some sort of average for the days GPS error? (as it's not possible to add the full record of V_RMS into the uncertainty model.

We would like a little clarification. Jack Riley asks, "why it's not possible to use V_RMS -- is that because it's inaccurate? (e.g. Marinestar). Otherwise, where is the [accurate] days GPS error assessment coming from that could be averaged? A priori fixed value in HVF TPU would be used when a more precise value is not available/known;e.g., for Applanic Primary Marinestar Nav SBETs that's 8.5 cm "one sigma" based upon advertised performance and adjusted per NOAA field tests & experience."
See - CHC 2016 paper "Field Analysis of a Satellite-Base Augmentation System for Vertical Precise Point Positioning in Hydrography" (Greenaway/Faulkes/Riley).

For the clarification...yes in the real-time recorded rms data, we understand that the values do not represent properly. All data should be POSPac'ed so we'll just run in the smrmsg which appears more appropriate. Thank you very much for the literature.

3. ERS Survey and Marinestar corrections:
While data may still meet spec, can we access and use the SBET QC tool NOAA typically uses? In general, what is NOAA used to seeing from SBETs using marinestar with respect to line by line gps quality...even thought it all meets spec

We hope to release AutoQC and are looking in to it.

4. For POSPac Basestation coordinates:
Does NOAA typically treat ITRF08 and IGS08 as the same coordinate frame. NGS offers the updates coordinates in IGS08 and the superseded coordinated in ITRF05.

Jack Riley states, "Yes, treat IGS08 same as ITRF08. In POSPac MMS Coordinate Manager, IGS08 frame is not listed as choice, only ITRF08, because Applanix have yet to incorporate the change to using absolute antenna calibration models. What you don't want to do is mix antenna calibration models in doing differential/carrier-phase processing between rover and station(s).

ERS survey: Does NOAA typically use delayed heave even when using GPS tides? Any literature on that?

Jack states, "In processing ERS data in HIPS, the same type of heave must be used when any heave compensation is performed; e.g, during SV Correct & Compute GPS Tide, use real-time heave for both steps, or Delayed Heave (DH) for both. The DH flavor of compensation is important when precise reference to water line is needed. For example, precise water line information is not needed for determination of the starting layer during SV Correct; real-time heave suffices."

On Tue, Sep 26, 2017 at 11:57 AM, Dave Bernstein (via Google Sheets) <drive-shares-noreply@google.com> wrote:

Dave Bernstein has attached the following spreadsheet:

NOAA OCS Visit Discussion Points

--

Dave Bernstein, C.H, PLS, GISP
Geodynamics
310 A Greenfield Drive
Newport, NC 28570
Mobile: 252-422-8428 (preferred)
Office: 252-247-5785 ext. 102
Email: dave@geodynamicsgroup.com
Web: http://www.geodynamicsgroup.com

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Dave Neff, C.H.
Mobile: (415)-517-0020
www.etracinc.com

--

Dave Neff, C.H.
Mobile: (415)-517-0020
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Isadora Kratchman <izzy@etracinc.com>

OPR-H358-KR-17 - Weekly Progress Report - 10/09/17 to 10/15/17

David Neff <david@etracinc.com> Mon, Oct 16, 2017 at 7:23 PM
To: Jacklyn James - NOAA Federal <jacklyn.c.james@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>, _NOS OCS HSD Progress Sketches <progress.sketches@noaa.gov>, Isadora Kratchman <izzy@etracinc.com>

Please find attached the weekly report detailing OPR-H358-KR-17 project completion through 10/15/17 as well as the required TIFF imagery and PDF of coverage.

--
Dave Neff, C.H.
Mobile: (415)-517-0020
www.etracinc.com

3 attachments

OPR_H358_KR_17_October_15.tif
3190K

OPR-H358-KR-17_October_15.pdf
815K

OPR-H358-KR-17_WeeklyReport_20171009_20171015.pdf
327K

Isadora Kratchman <izzy@etracinc.com>

OPR-H358-KR-17 - Weekly Progress Report - 10/16/17 to 10/2/17

David Neff <david@etracinc.com> Mon, Oct 23, 2017 at 7:46 PM
To: Jacklyn James - NOAA Federal <jacklyn.c.james@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>, _NOS OCS HSD Progress Sketches <progress.sketches@noaa.gov>, Isadora Kratchman <izzy@etracinc.com>

Please find attached the weekly report detailing OPR-H358-KR-17 project completion through 10/22/17 as well as the required TIFF imagery and PDF of coverage.

--
Dave Neff, C.H.
Mobile: (415)-517-0020
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3 attachments

OPR_H358_KR_17_October_22.tif
4098K

OPR_H358_KR_17_WeeklyReport_20171016_20171022.pdf
800K

OPR-H358-KR-17_October_22.pdf
383K

Isadora Kratchman <izzy@etracinc.com>

OPR-H358-KR-17 Weekly Progress Report - 10/23/17 to 10/29/17

Isadora Kratchman <izzy@etracinc.com> Mon, Oct 30, 2017 at 10:57 AM
To: Jacklyn James - NOAA Federal <jacklyn.c.james@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>
Cc: progress.sketches@noaa.gov, David Neff <dave@etracinc.com>, Verena Kellner <verena@etracinc.com>

Please find attached the weekly report detailing OPR-H358-KR-17 project completion through 10/29/2017 as well as the required TIFF imagery and PDF of coverage.

--
Isadora Kratchman
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izzy@etracinc.com
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3 attachments

OPR_H358_KR_17_October_29.tif
1935K

OPR_H358_KR_17_WeeklyReport_20171023_20171029.pdf
2535K

OPR-H358-KR-17_October_29.pdf
2441K

Isadora Kratchman <izzy@etracinc.com>

OPR-H358-KR-17 Weekly Progress Report - 10/30/17 - 11/05/17

Isadora Kratchman <izzy@etracinc.com> Mon, Nov 6, 2017 at 5:42 PM
To: Jacklyn James - NOAA Federal <jacklyn.c.james@noaa.gov>
Cc: Corey Allen - NOAA Federal <corey.allen@noaa.gov>, progress.sketches@noaa.gov, David Neff <dave@etracinc.com>, Verena Kellner <verena@etracinc.com>

Please find attached the weekly report detailing OPR-H358-KR-17 project completion through 11/05/2017 as well as the required TIFF image and PDF of coverage.

Please note - the tiffs and pdfs of coverage are separated between the northern and southern regions of OPR-H358-KR-17.

--
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5 attachments

OPR_H358_KR_17_November_5_Northern.tif
1521K

OPR_H358_KR_17_November_5_Southern.tif
4721K

OPR-H358-KR-17_WeeklyReport_20171030_20171105.pdf
4943K

OPR_H358_KR_17_November_5_Northern.pdf
3930K

OPR_H358_KR_17_November_5_Southern.pdf
4148K

Isadora Kratchman <izzy@etracinc.com>

Fwd: eTrac - OPR-H358-KR-17 - Monthly Report

David Neff <david@etracinc.com> Wed, Jan 10, 2018 at 4:22 PM
To: Isadora Kratchman <izzy@etracinc.com>

November, the issue was sorted.

---------- Forwarded message ---------
From: David Neff <david@etracinc.com>
Date: Mon, Nov 6, 2017 at 11:49 AM
Subject: eTrac - OPR-H358-KR-17 - Monthly Report
To: Jacklyn James - NOAA Federal <jacklyn.c.james@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>

Hi Jacklyn,

Attached is our monthly report in both XLS and XLSX format. I tried uploading to TOMIS, but it will not accept either format. This happened a couple times last project as well and Katrina was able to resolve it. Let me know if you need anything else.

Izzy will be sending our weekly report later today. We are nearing project completion and should be demobilizing within the next approximately the next 10 days.

--
Dave Neff, C.H.
Mobile: (415)-517-0020
www.etracinc.com

--
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2 attachments

etrac_productivity report_october_2017.xls
195K

eTrac_Productivity Report_OCTOBER_2017.xlsx
100K

Isadora Kratchman <izzy@etracinc.com>

OPR-H358-KR-17 Weekly Progress Report - 11/06/17 - 11/12/17

Isadora Kratchman <izzy@etracinc.com> Mon, Nov 13, 2017 at 1:37 PM
To: Jacklyn James - NOAA Federal <jacklyn.c.james@noaa.gov>
Cc: progress.sketches@noaa.gov, Corey Allen - NOAA Federal <corey.allen@noaa.gov>, martha.herzog@noaa.gov, David Neff <dave@etracinc.com>

All,

Please find in the attached in the zip folder the weekly report detailing OPR-H358-KR-17 project completion through 11/12/2017 as well as the required TIFF image and PDF of coverage.

Please note - the tiffs and pdfs of coverage are separated between the northern and southern regions of OPR-H358-KR-17.

--
Isadora Kratchman
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izzy@etracinc.com
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OPR-H358-KR-17_Novemver_12.zip
15657K

Isadora Kratchman <izzy@etracinc.com>

OPR-H358-KR-17 Weekly Progress Report - 11/13/17 - 11/19/17

Isadora Kratchman <izzy@etracinc.com> Mon, Nov 20, 2017 at 2:31 PM
To: Jacklyn James - NOAA Federal <jacklyn.c.james@noaa.gov>
Cc: progress.sketches@noaa.gov, Corey Allen - NOAA Federal <corey.allen@noaa.gov>, martha.herzog@noaa.gov, David Neff <david@etracinc.com>

All,

Please find in the attached zip folder the weekly report detailing OPR-H358-KR-17 project completion through 11/19/2017 as well as the required TIFF images and PDFs of coverage. All in-field operations have been completed.

Please note - the tiffs and pdfs of coverage are separated between the northern and southern regions of OPR-H358-KR-17.

--
Isadora Kratchman
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OPR-H358-KR-17_November_19.zip
15848K

Isadora Kratchman <izzy@etracinc.com>

H13081 DtoN 01 through 04

Isadora Kratchman <izzy@etracinc.com> Fri, Dec 1, 2017 at 5:18 PM
To: Jacklyn James - NOAA Federal <jacklyn.c.james@noaa.gov>
Cc: David Neff <david@etracinc.com>, martha.herzog@noaa.gov, Corey Allen - NOAA Federal <corey.allen@noaa.gov>

All,

Please find attached the standard DtoN packages detailing H13081 DtoN 01 through H13081 DtoN 04.

H13081_DtoN_01 is an uncharted area obstruction.
H13081_DtoN_02 is an uncharted wreck.
H13081_DtoN_03 is an uncharted obstruction.
H13081_DtoN_04 is an uncharted obstruction.

--
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H13081_DtoN_01_through_DtoN_04.zip
2661K

Isadora Kratchman <izzy@etracinc.com>

Abstract Times of Hydrography in Appendix I

Jacklyn <jacklyn.c.james@noaa.gov> Thu, Dec 14, 2017 at 12:39 PM
To: Isadora Kratchman <izzy@etracinc.com>

Izzy,

The table is not required. Still looking into other questions.

On Tue, Dec 12, 2017 at 7:55 PM, Isadora Kratchman <izzy@etracinc.com> wrote:

> Jacklyn,
>
> In appendix I of the DR the HSSD says to include (if applicable) the abstract of times of hydrography. In the past this time table was created and submitted for the final tides request for TCARI.
>
> As we are not using TCARI this year, is it appropriate to exclude this table? Or would you prefer this supplemental information be included?
>
> Best,
> Izzy
>
> --
> Isadora Kratchman
> eTrac Inc.
> izzy@etracinc.com
> Mobile: (301)-706-9246
> www.etracinc.com

--
Jacklyn James
Physical Scientist/ COR II
Hydrographic Surveys Division
1315 East-West Highway
SSMC3 Room 6114
Silver Spring, MD 20910
(o) 240-533-0036 NEW NUMBER
jacklyn.c.james@noaa.gov

To see live feeds from the NOAA Ship Okeanos Explorer go to the web site below.
http://oceanexplorer.noaa.gov/okeanos/welcome.html#

Isadora Kratchman <izzy@etracinc.com>

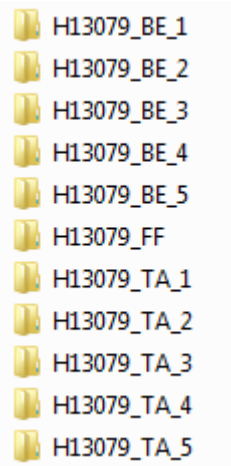
Project Delivery Structure

Jacklyn <jacklyn.c.james@noaa.gov> Thu, Dec 21, 2017 at 1:15 PM
To: Isadora Kratchman <izzy@etracinc.com>

Izzy,

As long as the directory structure of the final submission is in accordance with HSSD Appendix J, then it is permitted.

On Wed, Nov 29, 2017 at 1:42 PM, Isadora Kratchman <izzy@etracinc.com> wrote:

> Jacklyn,
>
> To clarify what Dave mentioned to you about our project structure, an example of our project folder is below. For H13079 we have 11 projects divided by boat and project size (_#). Each _# project has 8 - 15 days of data to control the size of the project. These divisions were necessary for us to process data efficiently.
>
> 
>
>
> I have added this to our NOAA Correspondence sheet.
> https://docs.google.com/spreadsheets/d/1atu64uQqwKJIborma4veWCxn1S9krl-sdr2-q5zc1o/edit#gid=0
>
> Thanks,
> Izzy
>
> --
> Isadora Kratchman
> eTrac Inc.
> izzy@etracinc.com
> Mobile: (301)-706-9246
> www.etracinc.com

--
Jacklyn James
Physical Scientist/ COR II
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(o) 240-533-0036 NEW NUMBER
jacklyn.c.james@noaa.gov

To see live feeds from the NOAA Ship Okeanos Explorer go to the web site below.
http://oceanexplorer.noaa.gov/okeanos/welcome.html#

Isadora Kratchman <izzy@etracinc.com>

eTrac - OPR-H358-KR-17 - Monthly Report - December 2017

1 message

David Neff <david@etracinc.com> Tue, Jan 2, 2018 at 6:19 PM
To: Jacklyn James - NOAA Federal <jacklyn.c.james@noaa.gov>, Corey Allen - NOAA Federal <corey.allen@noaa.gov>, Isadora Kratchman <izzy@etracinc.com>

Jacklyn,

Attached is the monthly progress report for December 2017. I have also successfully loaded this on TOMIS. I hope you had a nice new year and we look forward to seeing you at FPW.

Dave

eTrac_Productivity Report_DECEMBER_2017.xlsx
100K

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Office of Coast Survey
Silver Spring, Maryland 20910-3282

September 26, 2017

MEMORANDUM FOR: Dave Bernstein, eTrac
Hydrographer, Hydrographic Survey and Mapping

FROM: Jacklyn C. James, NOAA *Jacklyn C. James*
Physical Scientist/ COR II, Hydrographic Surveys Division

SUBJECT: Waiver Request

Per the conversation on September 26, 2017, *eTrac* requests a waiver of the Hydrographic Surveys Specifications and Deliverables requirement that crosslines shall be collected within 1 kilometer of each other for project OPR-H538-KR-17. In order to meet this distance requirement, the crossline mileage would exceed more than 10% of the mainscheme lineal mileage, greatly exceeding the Specifications.

Justification

Collecting the HSSD required 4% crosslines of mainscheme lineal mileage will suffice as long as crosslines are spatially distributed throughout the survey area.

Decision

Waiver is: Granted

cc: Chief, HSD OPS
Contracting Officer, NOAA AGO

APPROVAL PAGE

H13081

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
- Bottom samples
- 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: Digitally signed by WARTICK.RYAN.AUGUSTUS.1100903608 Date: 2019.08.02 15:12:14 -04'00'

Lieutenant Commander Ryan Wartick, NOAA
Chief, Atlantic Hydrographic Branch