H12197

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT

Type of Survey: **Navigable Area**

Registry Number: **H12197**

LOCALITY

State: Florida

General Locality: Gulf of Mexico

Sub-locality: 15 NM North of Marquesas Keys

2010

CHIEF OF PARTY
CDR Shepard M. Smith
NOAA

LIBRARY & ARCHIVES

DATE

NOAA FORM 77-28 (11-72) U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	REGISTRY NUMBER:
HYDROGRAPHIC TITLE SHEET	**H12197**

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:	**Florida**
General Locality:	**Gulf of Mexico**
Sub-Locality:	**15 NM North of Marquesas Keys**
Scale:	**1:40,000** Dates of Survey: **8 July 2010 to 31 July 2010**
Instructions Dated:	**7 June 2010** Project Number: **OPR-H355-TJ-10**
Vessel:	**NOAA Ship *Thomas Jefferson***
Chief of Party:	**CDR Shepard M. Smith**
Surveyed by:	***Thomas Jefferson* Personnel**
Soundings by:	**Reson 7125 multibeam echosounder**
Graphic record scaled by:	**N/A**
Graphic record checked by:	**N/A**
Protracted by:	**N/A** Automated Plot: **N/A**
Verification by:	***Atlantic Hydrographic Branch***
Soundings in:	**Meters at MLLW**

Remarks: ***Bold, Italic, Red notes in the Descriptive Report were made during office processing.***
1) All Times are in UTC.
2) This is a Navigable Area Hydrographic Survey.
3) Projection is UTM Zone 17.

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Descriptive Report to Accompany Hydrographic Survey H12197

Project OPR-H355-TJ-10
Gulf of Mexico
15 NM North of Marquesas Keys
Scale 1:40,000
8 July – 31 July 2010
NOAA Ship *Thomas Jefferson*

A. AREA SURVEYED

This hydrographic survey was completed as specified by Hydrographic Survey Project Instructions OPR-H355-TJ-10, dated 7 June 2010. ***Concur.***

Northern Limit	Southern Limit	Western Limit	Eastern Limit
24° 52’ 4.2” N	24° 46’ 17.4” N	082° 10’ 56.28” W	082° 0’ 2.16” W

Data acquisition was conducted from 8 July – 31 July 2010.

This project is being conducted in support of the Office of Coast Survey (OCS) and the Office of National Marine Sanctuary (ONMS) to provide contemporary bathymetric and imagery data of critical benthic habitats within the boundaries of the Florida Keys National Marine Sanctuary (FKNMS) in the Northwest approaches to Key West, FL. Bathymetric and imagery data from this project will be collected utilizing Side Scan Sonar (SSS), Vertical Beam echosounder (VBES), and Multibeam sonar (MB) systems and will be further utilized by OCS to update the nautical charts and products in this area.

	Linear Nautical Miles
LNM Single beam mainscheme only	N/A
LNM Multibeam mainscheme only	1246.49
LNM Lidar mainscheme only	N/A
LNM Side Scan Sonar mainscheme only	N/A
Lineal nautical miles of any combination of the above techniques	N/A
LNM Crosslines	52.59
LNM Lidar Crosslines	N/A
LNM development lines non mainscheme	N/A
LNM shoreline/nearshore investigations	N/A
Number of Bottom Samples	8
Number of items investigated that required additional time/effort in the field beyond the above survey operations	N/A
Total number of square nautical miles	33

Table 1: Hydrographic Survey Statistics

The survey limits of H2197 (Figure 1) are shown below.

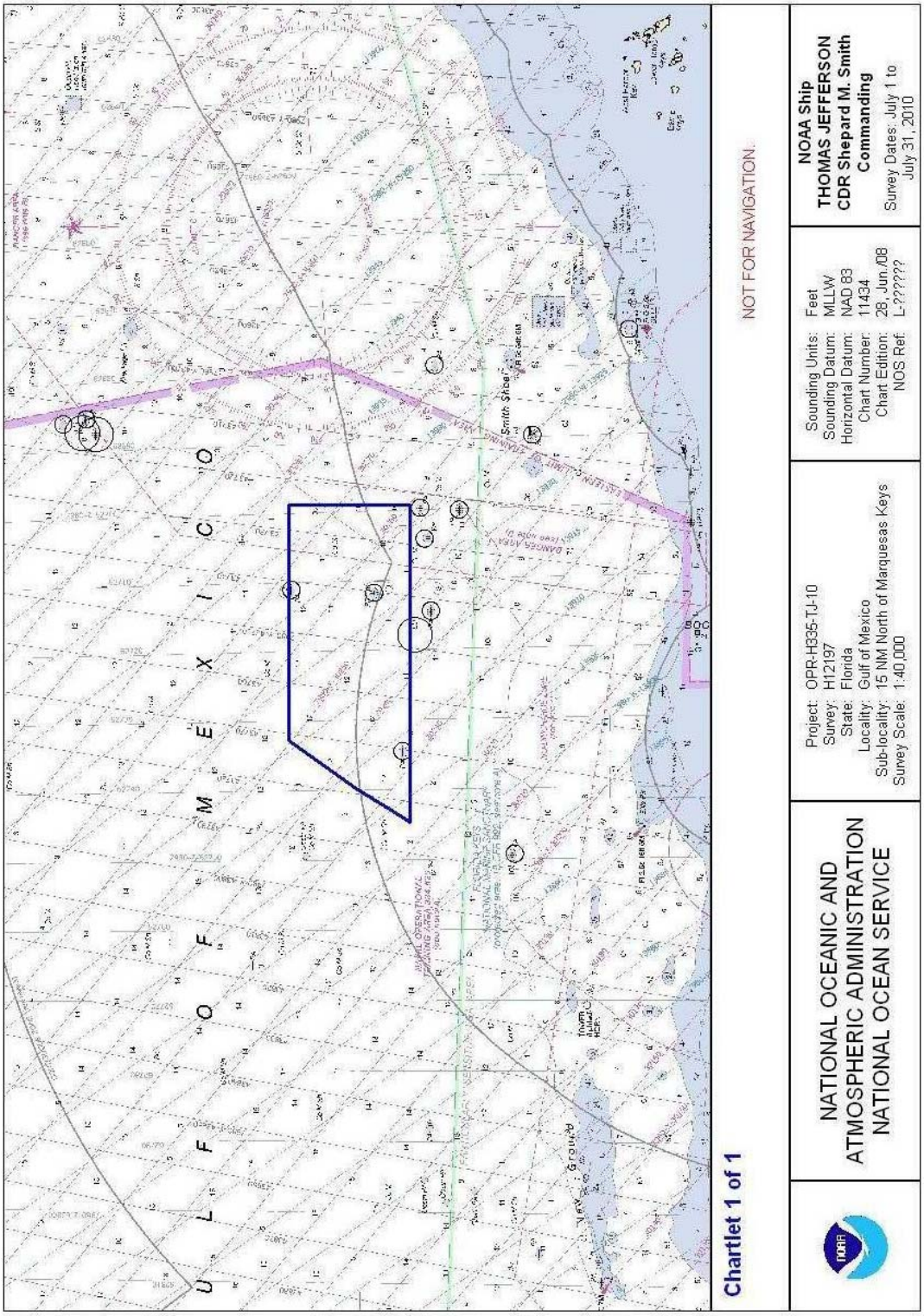


Figure 1: Survey Limits

Calendar Date	Julian Day
8 July 2010	189
9 July 2010	190
10 July 2010	191
11 July 2010	192
12 July 2010	193
13 July 2010	194
14 July 2010	195
15 July 2010	196
16 July 2010	197
29 July 2010	210
30 July 2010	211
31 July 2010	212

Table 2. Dates of Multibeam Data Acquisition in Calendar and Julian Days

B. DATA ACQUISTION AND PROCESSING *See also the H-Cell Report*

Refer to ***OPR-H355-TJ-10 Data Acquisition and Processing Report (DAPR*)*** for a complete description of data acquisition and processing systems, survey vessels, quality control procedures and data processing methods. Additional information to supplement sounding and survey data, and any deviations from the DAPR are included in this descriptive report. ***Concur.***

B 1. EQUIPMENT AND VESSELS

Data were acquired by NOAA Ship *Thomas Jefferson*. NOAA Ship *Thomas Jefferson* acquired Reson 7125 multibeam echosounder soundings, sound velocity profiles, and bottom samples. Vessel configurations, equipment operation, and data acquisition and processing were consistent with the specifications described in the DAPR. ***Concur.***

B 2. QUALITY CONTROL

B 2.1 System Certification and Calibration

Refer to NOAA Ship *Thomas Jefferson* DAPR and Hydrographic Systems Readiness Report (HSRR) for a complete description of system integration and initial calibration results for equipment and sensors used for this survey. ***Concur.***

B.2.2 Sounding Coverage

The *Thomas Jefferson* did not have Sidescan capability during the majority of this survey. As a result, object detection multibeam was acquired for the entire survey area. Backscatter was acquired as well but not used for object detection purposes. Correspondence with the Hydrographic Survey Division covering this deviation from the original Project Instructions is included in Appendix V. ***Concur.***

B 2.3 Crosslines

Multibeam echosounder cross-lines totaling 52.59 lineal nautical miles, comprising 4 percent of main scheme hydrography, were acquired during the course of the survey. As per the HSSD 2010, section 5.2.4.3 the quality control check was done using the standard deviation layer of the survey's uncertainty surface. Areas of unusually high standard deviation were investigated and resolved in processing, except where caused by areas of high bathymetric relief or features or as described in Section 2.5 Systematic Errors. Due to the high disagreement between Crosslines and Main Scheme data, the Crosslines were not incorporated into the final bathymetric surfaces. ***Concur with clarification. Crosslines do present a high disagreement with mainscheme data. Crosslines were submitted into final bathymetric surfaces.***

B 2.4 Junctions and Prior Surveys

The following surveys junction with H12197:

Registry #	Scale	Date	Field Party	Junction side
H12198	1:40,000	2010	*Thomas Jefferson*	North
H12193	1:40,000	2010	*Thomas Jefferson*	East
H12196	1:40,000	2010	*Thomas Jefferson*	South

Survey H1198 junctions with H12197 in the North. The difference in soundings between the two surveys is no greater than one foot.

Survey H12193 junctions with H12197 in the East. The difference in soundings between the two surveys is no greater than one foot.

Survey H12196 junctions with H12197 in the South. The difference in soundings between the two surveys is no greater than one foot for the most part. The east side has some differences of two feet. This is caused by the tides in the area***. Concur.***

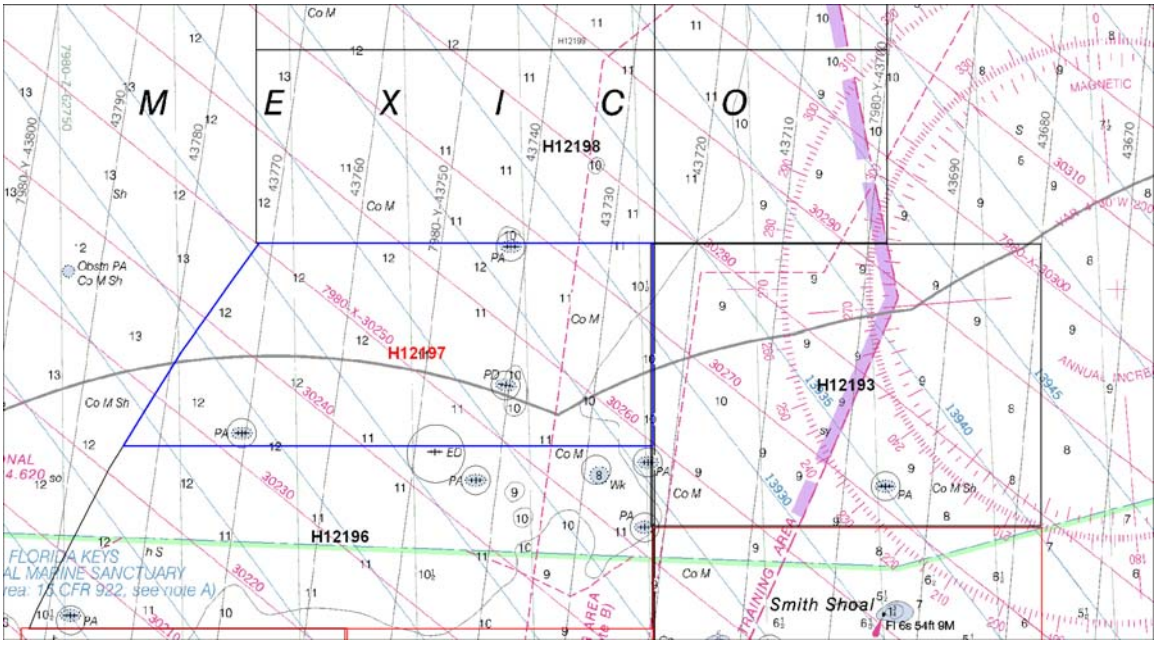


Figure 2: H12197 Junction Surveys.

B 2.5 Systematic Errors

A tide problem exists throughout the entire survey area. The biggest tide error is 0.8 meters. The survey area is about 10 kilometers from the tide gauge. It appears the zoning cannot adequately resolve the diurnal and semidiurnal tides farther from the gauge. Refer to the project DAPR for a complete discussion of this issue. A sound velocity problem is present. This does not exceed 0.2 meters. ***Concur.***

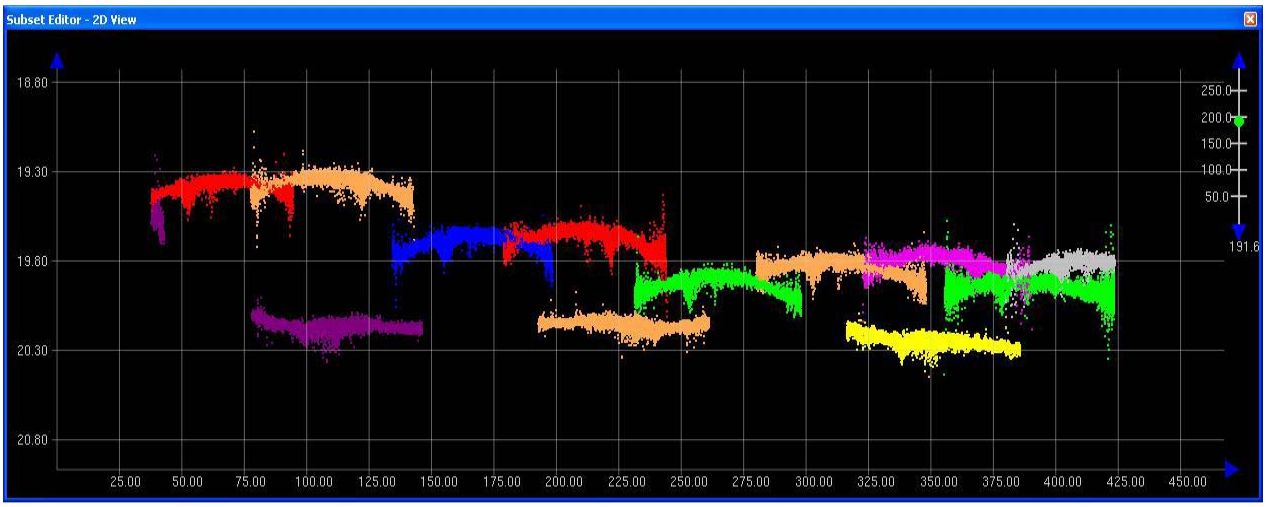


Figure 3: H12197 Tide Problem

On 22 July 2010, a blister on the 7125 MB projector was observed. On 08 August 2010, the 7125 MB transducers were removed and replaced with backup units. A depression in the bathymetry was observed as a result of the blister on the multibeam projector, and is present throughout the survey. This generally does not exceed 0.1 meters. ***Concur.***

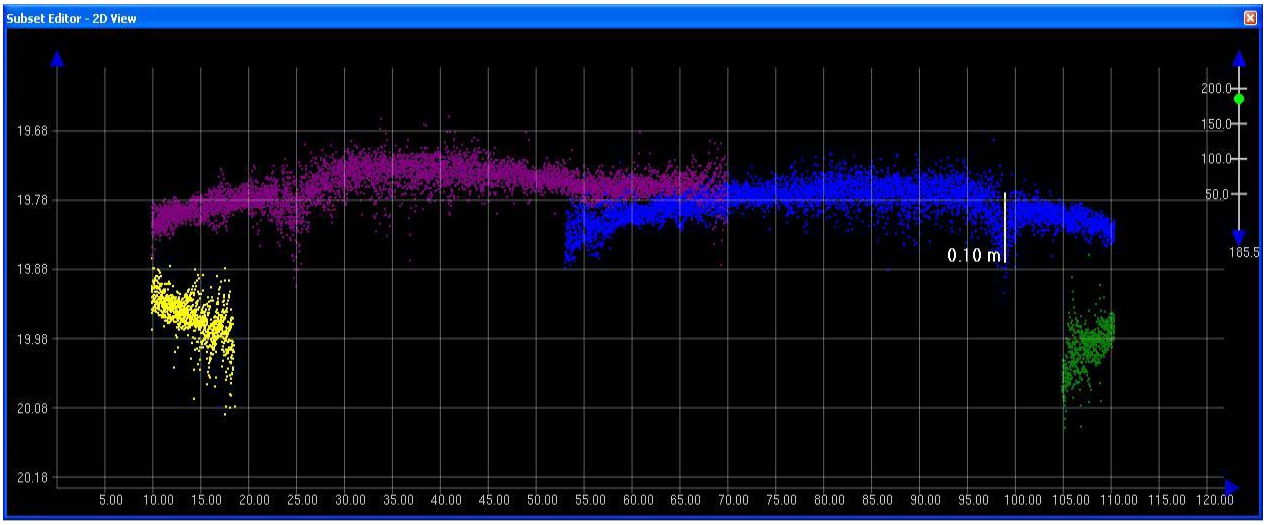


Figure 4: Depression in bathymetry

Another error that may be attributed to the transducer blister was occasional missing pings. These were observed as not only mis-positioned but also at same depth as the transducer, 4.615 meter. It appears on the grid as a small sliver of missing data as shown in figure 5 below. ***Concur.***

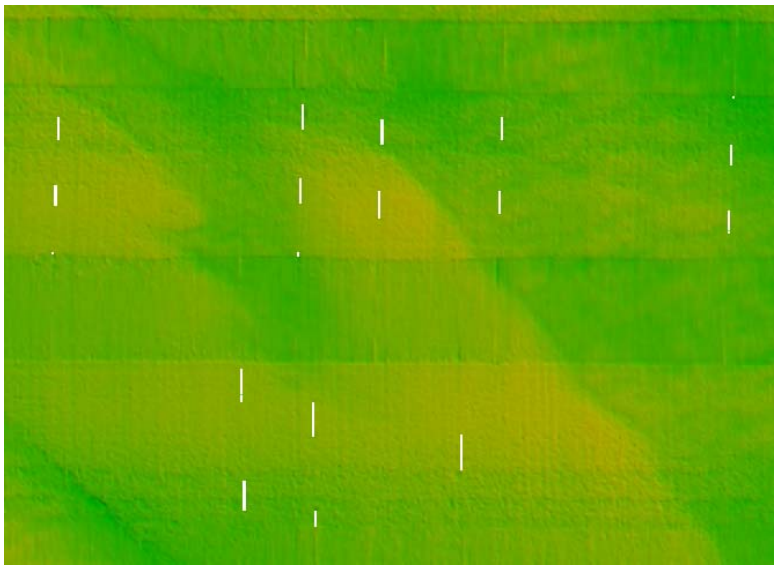


Figure 5: Missing Pings

Areas of high standard deviation occur where there are differences caused by tides. These errors generally do not exceed 0.45 meters. ***Concur.***

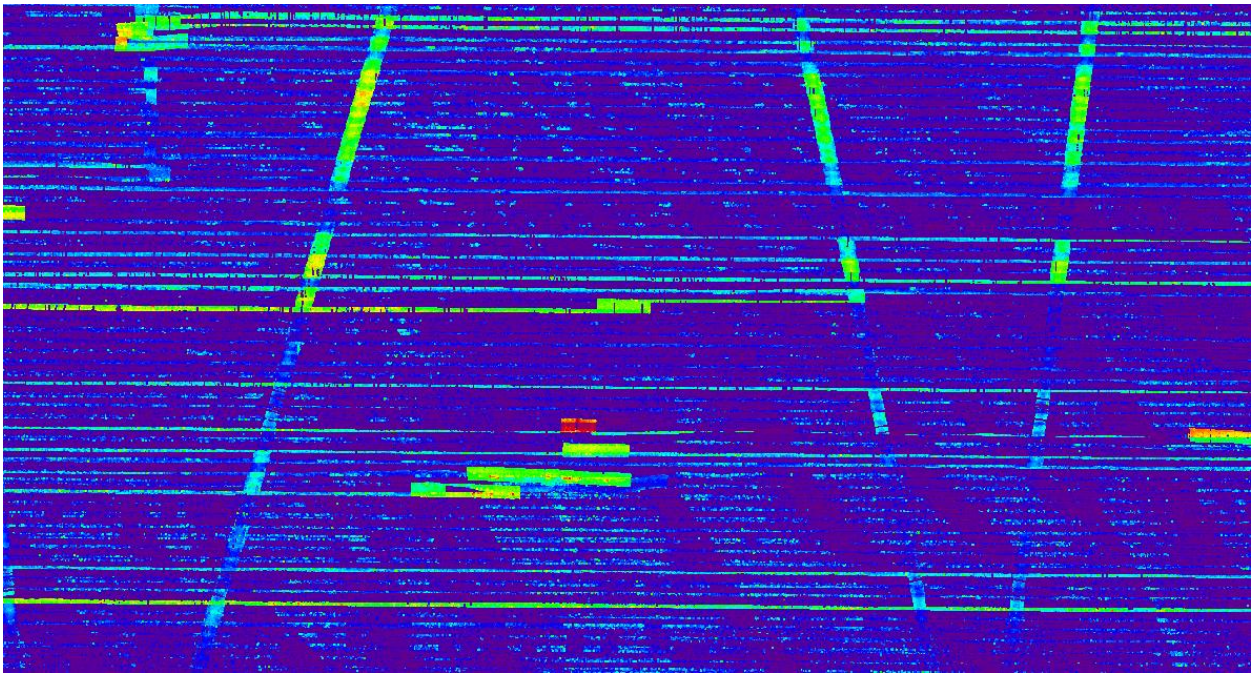


Figure 6: Standard Deviation Layer

B 3. CORRECTIONS TO ECHO SOUNDINGS

HDCS sounding data were reduced to mean lower-low water (MLLW) using verified tides from Smith Shoal Light, FL (872-4671) with final tide zoning applied as provided by CO-OPS in the Tide Note dated 15 December 2010 and illustrated in Figure 7. The Key West, FL (872-4580) tide gauge mentioned in the project instructions was not used for final tides. ***Concur with clarification. HDCS sounding data were reduced to MLLW after applying a correction of 1.451 meters to account for STND – MLLW separation when data was retrieved as verified. See DR, Appendix IV – Tides and Water Levels and SAR Additional Verification Notes.***

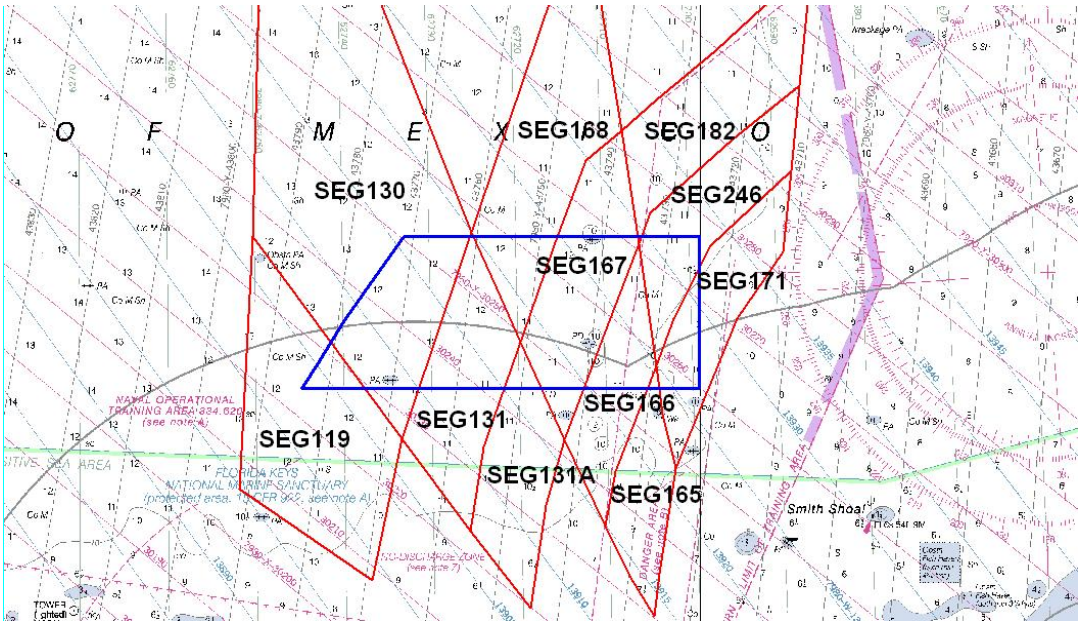


Figure 7: Final Tide Zoning

All other datum reduction procedures conform to those outlined in the DAPR**.**

All methods and instruments used for sound velocity correction were as described in the DAPR. SVP casts were loaded using nearest in time. A table detailing all sound velocity casts is located in Separate II of this Descriptive Report. ***Concur.***

B 4. DATA PROCESSING

B 4.1 Total Propagated Error

For the 2010 field season, Total Propagated Error (TPE) parameters for sound speed and tides are calculated separately for each project. The project-specific parameters for OPR-H355-TJ-10, Survey H12197 are as follows:

Vessel	Tide Values*		Sound Speed Values	
	Measured	Zoning	Measured	Surface
S222	0.05 m	0.22 m	1 m/s	0.2 m/s

Table 3: TPE Parameters

***** Error value not provided by CO-OPS, estimated value.

These values were calculated for all MBES data immediately following CARIS merge. ***Concur.***

B 4.2 BASE Surfaces and Mosaics

The following table describes all BASE Surfaces and Mosaics submitted as part of Survey H12197:

Name of Surfaces and/or Mosaics	Resolution	Type	Purpose
H12197_1_CUBE_NOAA_2m_Final	2 meter	CUBE	Coverage
H12197_2_CUBE_NOAA_2m_Final	2 meter	CUBE	Coverage
H12197_3_CUBE_NOAA_2m_Final	2 meter	CUBE	Coverage
H12197_4_CUBE_NOAA_2m_Final	2 meter	CUBE	Coverage
H12197_5_CUBE_NOAA_50cm_Final	50 cm	CUBE	Coverage
H12197_6_CUBE_NOAA_50cm_Final	50 cm	CUBE	Coverage
H12197_7_CUBE_NOAA_50cm_Final	50 cm	CUBE	Coverage
H12197_8_CUBE_NOAA_50cm_Final	50 cm	CUBE	Coverage
H12197_9_CUBE_NOAA_50cm_Final	50 cm	CUBE	Coverage
H12197_10_CUBE_NOAA_50cm_Final	50 cm	CUBE	Coverage
H12197_11_CUBE_NOAA_50cm_Final	50 cm	CUBE	Coverage
H12197_12_CUBE_NOAA_50cm_Final	50 cm	CUBE	Coverage
H12197_13_CUBE_NOAA_50cm_Final	50 cm	CUBE	Coverage

H12197_14_CUBE_NOAA_50cm_Final	50 cm	CUBE	Coverage
H12197_15_CUBE_NOAA_50cm_Final	50 cm	CUBE	Coverage
H12197_16_CUBE_NOAA_50cm_Final	50 cm	CUBE	Coverage
H12197_17_CUBE_NOAA_50cm_Final	50 cm	CUBE	Coverage
H12197_AWOIS_63_Cube_MLLW_50cm_Final	0.5 meter	CUBE	Object Detection
H12197_AWOIS_14762_Cube_MLLW_50cm_Final	0.5 meter	CUBE	Object Detection
H12197_AWOIS_14765_Cube_MLLW_50cm_Final	0.5 meter	CUBE	Object Detection
H12197_AWOIS_14769_Cube_MLLW_50cm_Final	0.5 meter	CUBE	Object Detection

Table 4: Field sheets

This survey was processed using the Combined Uncertainty and Bathymetry Estimator (CUBE) algorithm for multibeam data and Uncertainty for single beam data. The CUBE configuration was set to NOAA 0.5m. Refer to the 2010 Data Acquisition and Processing Report, 2010 Field Procedures Manual, and CARIS HIPS/SIPS manual for further discussion. ***Concur.***

B 4.3 Data Cleaning

The survey was cleaned using the swath and subset editor tools in CARIS. All areas of the BASE surface that indicated a high standard deviation were examined and cleaned as required such that no residual errors exist in the surface that exceed the IHO order 1 depth accuracy requirements. ***Concur.***

C. VERTICAL AND HORIZONTAL CONTROL

As per FPM section 5.2.3.2.3 a HVCR report was not filed as no horizontal and vertical control stations were established by the field party for this survey. A summary of horizontal and vertical control for this survey follows. ***Concur.***

C 1.1 Horizontal Control

The horizontal datum for this project is the North American Datum of 1983 (NAD83). Differential GPS (DGPS) was the sole method of positioning. Differential corrections from U.S. Coast Guard beacon at Key West, FL (286 kHz) were used during this survey.

No horizontal control stations were established by the field party for this survey. ***Concur.***

C 1.2 Vertical Control

The vertical datum for this project is Mean Lower-Low Water (MLLW). The operating National Water Level Observation Network (NWLON) station at Smith Shoal Light, FL (872-4671), will serve as datum control for H12197. Verified tides with Final zoning were applied to all sounding data.

A request for delivery of final approved (verified) tides for this survey was forwarded to N/OPS1 on 10 August 2010 in accordance with the FPM and project letter instructions. Final smooth tide

letter is dated 15 December 2010. ***Concur with clarification. See DR, Appendix IV, Tides and Water Levels.***

D. RESULTS AND RECOMMENDATIONS

D.1 Chart Comparison

Survey H12197 was compared with chart 11434 (28th Ed.; June 2008, 1:180,000), chart 11439 (26th Ed.; July 2004, 1:80,000), and ENCs US4FL92M and US3FL90M. Chart comparisons were performed in CARIS Base Editor. ***Concur.***

D.1.1 Chart 11434 Comparison

In general the soundings agree within one fathom. ***Concur.***

D.1.2 Chart 11439 Comparison

In general the soundings agree within two feet. Where there are differences they tend to be deeper. In the vicinity of wreck PD, 24^0 47’ 25.44”, -082^0 03’ 01.01”, there is up to a 5 foot difference where it is deeper. ***Concur.***

D1.3 ENC US4FL92M Comparison

In general the soundings agree within one meter. ***Concur.***

D1.4 ENC US3FL90M Comparison

In general the soundings agree within one meter. ***Concur.***

D.2 Additional Results

D.2.1 Automated Wreck and Obstruction Information Service (AWOIS) Items

A total of 4 assigned AWOIS items were located within the limits of H12197 and investigated during this survey. AWOIS items were investigated with complete object detection multibeam over the search radius. All AWOIS items are described in detail in Appendix II of this report. ***Concur.***

D.2.2 Shoreline

Shoreline was not investigated during survey H12197. ***Concur.***

D.2.3 Charted Features

All charted features are described in appendix II. ***Concur.***

D.2.4 Charted Pipelines and Cables

There are no charted pipelines or cables in the survey area. ***Concur.***

D.2.5 Bridges, Ferry Routes, and Overhead Cables

There are no ferry routes, bridges, or overhead cable crossings within the limits of the survey. ***Concur.***

D.3 Dangers to Navigation and Shoals

D 3.1 Dangers to Navigation

There are no dangers to navigation within the survey limits of H12197. ***Concur.***

D 3.2 Shoals

There are no Shoals within the limits of H12197. *Concur.*

D.4 Aids to Navigation

There are no charted Aids to Navigation (ATONs) within the limits of H12197. ***Concur.***

D.5 Coast Pilot Information

The Hydrographer has no recommendations for changes or addenda to the Coast Pilot. ***Concur.***

D.6 Miscellaneous

Bottom Samples

Eight bottom samples were acquired with this survey in accordance with section 7.1 of the NOS Hydrographic Survey Specifications and Deliverables, dated April 2010 A feature file (H12197_Bottomsamples.hob) of all bottom samples acquired during Survey H12197 is provided in the this survey's Pydro PSS folder. A listing of bottom samples is contained in Appendix V. ***Concur.***

D.7 Adequacy of Survey

This survey is considered complete and adequate to supersede charted depths within the survey outline area except as noted in this report. ***Concur.***

Summary and Recommendations for Additional Work

No additional work is needed to complete this survey. ***Concur.***

E. APPROVAL

As Lead Hydrographer, I have ensured that standard field surveying and processing procedures were followed in producing this examination in accordance with the Office of Coast Survey Hydrographic Surveys Division's *Field Procedures Manual*, and NOS *Hydrographic Surveys Specifications and Deliverables*. Field operations for this basic hydrographic survey were conducted under my daily supervision with frequent checks of progress and adequacy.

All field sheets, this Descriptive Report, and all accompanying records and data are approved. All records are forwarded for final review and processing to N/CS33, Atlantic Hydrographic Branch.

The Data Acquisition and Processing Report for OPR-H355-TJ-10 is submitted separately and contains additional information relevant to this survey.

Approved and Forwarded:

Mark Blankenship
2011.04.04
16:25:22 -04'00'

LT Mark Blankenship, NOAA
Field Operations Officer

Digitally signed by Shepard Smith
Date: 2011.04.04 16:50:08 -04'00'

CDR Shepard M. Smith, NOAA
Commanding Officer

In addition, the following individual was also responsible for overseeing data acquisition and processing of this survey:

Survey Manager:

Kim Glomb
2011.04.04
16:24:34 -04'00'

Kimberly Glomb
Survey Technician, NOAA

Appendix I

Dangers to Navigation

none

Appendix II

Survey Features Report

1. **AWOIS Items**

   - four

2. **Charted Features**

   -none

3. **Uncharted Features**

   - none

4. **Seabed Characteristics**

   - eight

H12197 AWOIS

Registry Number: H12197
State: Florida
Locality: Gulf of Mexico
Sub-locality: 15 NM North of Marquesas Keys
Project Number: OPR-H335-TJ-10
Survey Date:

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
11439	26th	07/01/2004	1:80,000 (11439_1)	[L]NTM: ?
11434	28th	06/01/2008	1:180,000 (11434_1)	[L]NTM: ?
1113A	28th	07/01/2005	1:470,940 (1113A_1)	[L]NTM: ?
11420	28th	07/01/2005	1:470,940 (11420_1)	[L]NTM: ?
11451	33rd	09/01/2007	1:495,362 (11451_17) 1:495,362 (11451_16)	[L]NTM: ?
11006	32nd	08/01/2005	1:875,000 (11006_1)	[L]NTM: ?
11013	47th	02/01/2008	1:1,200,000 (11013_1)	[L]NTM: ?
411	52nd	09/01/2007	1:2,160,000 (411_1)	[L]NTM: ?

* Correction(s) - *source: last correction applied (last correction reviewed--"cleared date")*

Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	CAPT CHRIS	AWOIS	[no data]	[no data]	[no data]	---
1.2	CAPT CRAIG	AWOIS	[no data]	[no data]	[no data]	---
1.3	WRECK	AWOIS	[no data]	[no data]	[no data]	---

1 - AWOIS

1.1) AWOIS #14762 - CAPT CHRIS

No Primary Survey Feature for this AWOIS Item

Search Position: 24° 46' 30.7" N, 082° 08' 28.9" W

Historical Depth: 21.95 m

Search Radius: 500

Search Technique: SSS, MB, SB

Technique Notes: [None]

History Notes:

LNM-43/81; The fishing vessel CAPT CHRIS was reported to have burned to the water line and was anchored in 12 fathoms of waters in approximate position 24° 46' 30.7" N / 082° 08' 28.9" W. (PTT, 3/3/10)

Survey Summary

Charts Affected: 11439_1, 11434_1, 1113A_1, 11420_1, 11451_16, 11451_17, 11006_1, 11013_1, 411_1

Remarks:

WRECKS/remrks: AWOIS 14762 was investigated with complete object detection Reson 7125 multibeam. A hole with scour that could be the remains of the wreck was found just outside of the search radius. A small portion of the search radius falls onto sheet H12196. Nothing was found on that sheet.

Feature Correlation

Source	Feature	Range	Azimuth	Status
AWOIS_EXPORT	AWOIS # 14762	0.00	000.0	Primary

Hydrographer Recommendations

Move wreck symbol to new position.

S-57 Data

[None]

Office Notes

SAR: Scour verified. Junction H12196 needs to be investigated regarding the WRECK PA.

COMPILE NOTES: Delete wreck PA.

1.2) AWOIS #14765 - CAPT CRAIG

No Primary Survey Feature for this AWOIS Item

Search Position: 24° 49' 59.6" N, 082° 02' 56.9" W

Historical Depth: 18.29 m

Search Radius: 500

Search Technique: SSS, MB, SB

Technique Notes: [None]

History Notes:

LNM-4/78; The 72ft vessel, CAPT CRAIG reported to have burned to the water line and sink in approximate position: 24° 49' 59.6" N / 082° 02' 56.9" W in roughly 60ft. of water. (PTT, 3/3/10)

Survey Summary

Charts Affected: 11439_1, 11434_1, 1113A_1, 11420_1, 11451_16, 11451_17, 11006_1, 11013_1, 411_1

Remarks:

WRECKS/remrks: AWOIS 14765 was investigated with complete object detection Reson 7125 multibeam. A hole that could be the remains of the wreck was found within the search radius. Survey H12198 covers the other portion of the search radius. Nothing was found on that sheet.

Feature Correlation

Source	Feature	Range	Azimuth	Status
AWOIS_EXPORT	AWOIS # 14765	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

SAR NOTE: A scour is present at at 24°49'49.235"N , -082°03'08.061"W which could be the remains of the wreck. Entire search radius not covered. Sheet H12198 covers the remaining portion. No features were identified in search radius on either sheet.

COMPILE NOTES: Delete charted wreck.

1.3) AWOIS #14769 - WRECK

No Primary Survey Feature for this AWOIS Item

Search Position: 24° 47' 24.3" N, 082° 03' 03.1" W

Historical Depth: 16.46 m

Search Radius: 500

Search Technique: SSS, MB, SB

Technique Notes: [None]

History Notes:

L-906-75, BP-92353; This one of a series of wrecks added to chart 11434 from BP-92353 and referenced in L-906-75. Uncharted wreck located during NOAA survey OPR-511-PE-75 from NOAA Vessel PEIRCE in roughly 9 fathoms of water in approximate position: 24 47 524.3N / 082 03 03.1W. (PTT 3/4/10).

Survey Summary

Charts Affected: 11439_1, 11434_1, 1113A_1, 11420_1, 11451_16, 11451_17, 11006_1, 11013_1, 411_1

Remarks:

WRECKS/remrks: AWOIS 14769 was investigated with complete object detection Reson 7125 multibeam. Nothing was found within the search radius.

Feature Correlation

Source	Feature	Range	Azimuth	Status
AWOIS_EXPORT	AWOIS # 14769	0.00	000.0	Primary

Hydrographer Recommendations

Remove from the chart.

S-57 Data

[None]

Office Notes

SAR NOTE: Item not found.

COMPILE NOTES: Delete Wreck PD from chart.

H12197 Seabed Characteristics

Registry Number: H12197
State: Florida
Locality: Gulf of Mexico
Sub-locality: 15 NM North of Marquesas Keys
Project Number: OPR-H335-TJ-10
Survey Date: 07/31/2010

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
11439	26th	07/01/2004	1:80,000 (11439_1)	[L]NTM: ?
11434	28th	06/01/2008	1:180,000 (11434_1)	[L]NTM: ?
1113A	28th	07/01/2005	1:470,940 (1113A_1)	[L]NTM: ?
11420	28th	07/01/2005	1:470,940 (11420_1)	[L]NTM: ?
11451	33rd	09/01/2007	1:495,362 (11451_17) 1:495,362 (11451_16)	[L]NTM: ?
11006	32nd	08/01/2005	1:875,000 (11006_1)	[L]NTM: ?
11013	47th	02/01/2008	1:1,200,000 (11013_1)	[L]NTM: ?
411	52nd	09/01/2007	1:2,160,000 (411_1)	[L]NTM: ?

* Correction(s) - *source: last correction applied (last correction reviewed--"cleared date")*

Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	Seabed Characteristic	GP	[None]	24° 46' 36.0" N	082° 09' 38.0" W	---
1.2	Seabed Characteristic	GP	[None]	24° 48' 26.0" N	082° 08' 36.0" W	---
1.3	Seabed Characteristic	GP	[None]	24° 47' 11.0" N	082° 06' 46.0" W	---
1.4	Seabed Characteristic	GP	[None]	24° 48' 50.0" N	082° 05' 52.0" W	---
1.5	Seabed Characteristic	GP	[None]	24° 47' 39.0" N	082° 04' 05.0" W	---
1.6	Seabed Characteristic	GP	[None]	24° 47' 21.0" N	082° 03' 41.0" W	---
1.7	Seabed Characteristic	GP	[None]	24° 49' 18.0" N	082° 03' 41.0" W	---
1.8	Seabed Characteristic	GP	[None]	24° 48' 56.0" N	082° 02' 01.0" W	---

1 - Seabed Characteristic

1.1) Seabed Characteristic

Survey Summary

Survey Position: 24° 46' 36.0" N, 082° 09' 38.0" W

Least Depth: [None]

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2010-212.00:00:00.000 (07/31/2010)

Dataset: H12197_Features_ForReport.000

FOID: US 0000208317 00001(022600032DBD0001)

Charts Affected: 11439_1, 11434_1, 1113A_1, 11420_1, 11451_16, 11451_17, 11006_1, 11013_1, 411_1

Remarks:

[None]

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12197_Features_ForReport.000	US 0000208317 00001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Seabed area (SBDARE)

Attributes:

NATQUA - 6:soft

NATSUR - 1:mud

NINFOM - Chart seabed characteristic

SORDAT - 20100731

SORIND - US,US,graph,H12197

WATLEV - 3:always under water/submerged

Office Notes

Chart seabed characterisic

1.2) Seabed Characteristic

Survey Summary

Survey Position: 24° 48' 26.0" N, 082° 08' 36.0" W

Least Depth: [None]

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2010-212.00:00:00.000 (07/31/2010)

Dataset: H12197_Features_ForReport.000

FOID: US 0000208326 00001(022600032DC60001)

Charts Affected: 11439_1, 11434_1, 1113A_1, 11420_1, 11451_16, 11451_17, 11006_1, 11013_1, 411_1

Remarks:

[None]

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12197_Features_ForReport.000	US 0000208326 00001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Seabed area (SBDARE)

Attributes: NATQUA - 4:broken

NATSUR - 17:shells

NINFOM - Chart seabed area characteristic

SORDAT - 20100731

SORIND - US,US,graph,H12197

Office Notes

Chart seabed characteristic

1.3) Seabed Characteristic

Survey Summary

Survey Position: 24° 47' 11.0" N, 082° 06' 46.0" W

Least Depth: [None]

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2010-212.00:00:00.000 (07/31/2010)

Dataset: H12197_Features_ForReport.000

FOID: US 0000208320 00001(022600032DC00001)

Charts Affected: 11439_1, 11434_1, 1113A_1, 11420_1, 11451_16, 11451_17, 11006_1, 11013_1, 411_1

Remarks:

[None]

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12197_Features_ForReport.000	US 0000208320 00001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Seabed area (SBDARE)

Attributes:

NATQUA - 6:soft

NATSUR - 1:mud

NINFOM - Chart seabed characteristic

SORDAT - 20100731

SORIND - US,US,graph,H12197

WATLEV - 3:always under water/submerged

Office Notes

Chart seabed characteristic

1.4) Seabed Characteristic

Survey Summary

Survey Position: 24° 48' 50.0" N, 082° 05' 52.0" W

Least Depth: [None]

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2010-212.00:00:00.000 (07/31/2010)

Dataset: H12197_Features_ForReport.000

FOID: US 0000208323 00001(022600032DC30001)

Charts Affected: 11439_1, 11434_1, 1113A_1, 11420_1, 11451_16, 11451_17, 11006_1, 11013_1, 411_1

Remarks:

[None]

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12197_Features_ForReport.000	US 0000208323 00001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Seabed area (SBDARE)

Attributes: NATQUA - 4,3:broken,coarse

NATSUR - 17,4:shells,sand

NINFOM - Chart seabed characteristic

SORDAT - 20100731

SORIND - US,US,graph,H12197

WATLEV - 3:always under water/submerged

Office Notes

Chart seabed characteristic

1.5) Seabed Characteristic

Survey Summary

Survey Position: 24° 47' 39.0" N, 082° 04' 05.0" W

Least Depth: [None]

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2010-212.00:00:00.000 (07/31/2010)

Dataset: H12197_Features_ForReport.000

FOID: US 0000208325 00001(022600032DC50001)

Charts Affected: 11439_1, 11434_1, 1113A_1, 11420_1, 11451_16, 11451_17, 11006_1, 11013_1, 411_1

Remarks:

[None]

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12197_Features_ForReport.000	US 0000208325 00001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Seabed area (SBDARE)

Attributes:

NATQUA - 6,4:soft,broken

NATSUR - 1,17:mud,shells

NINFOM - Chart seabed characteristic

SORDAT - 20100731

SORIND - US,US,graph,H12197

WATLEV - 3:always under water/submerged

Office Notes

Chart seabed characteristic

1.6) Seabed Characteristic

Survey Summary

Survey Position: 24° 47' 21.0" N, 082° 03' 41.0" W

Least Depth: [None]

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2010-212.00:00:00.000 (07/31/2010)

Dataset: H12197_Features_ForReport.000

FOID: US 0000208322 00001(022600032DC20001)

Charts Affected: 11439_1, 11434_1, 1113A_1, 11420_1, 11451_16, 11451_17, 11006_1, 11013_1, 411_1

Remarks:

[None]

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12197_Features_ForReport.000	US 0000208322 00001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Seabed area (SBDARE)

Attributes: NATQUA - 4,3:broken,coarse

NATSUR - 17,4:shells,sand

NINFOM - Chart seabed characteristic

SORDAT - 20100731

SORIND - US,US,graph,H12197

WATLEV - 3:always under water/submerged

Office Notes

Chart seabed characteristic

1.7) Seabed Characteristic

Survey Summary

Survey Position: 24° 49' 18.0" N, 082° 03' 41.0" W

Least Depth: [None]

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2010-212.00:00:00.000 (07/31/2010)

Dataset: H12197_Features_ForReport.000

FOID: US 0000208319 00001(022600032DBF0001)

Charts Affected: 11439_1, 11434_1, 1113A_1, 11420_1, 11451_16, 11451_17, 11006_1, 11013_1, 411_1

Remarks:

[None]

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12197_Features_ForReport.000	US 0000208319 00001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Seabed area (SBDARE)

Attributes:

NATQUA - 6,4:soft,broken

NATSUR - 1,17:mud,shells

NINFOM - Chart seabed characteristic

SORDAT - 20100731

SORIND - US,US,graph,H12197

WATLEV - 3:always under water/submerged

Office Notes

Chart seabed characteristic

1.8) Seabed Characteristic

Survey Summary

Survey Position: 24° 48' 56.0" N, 082° 02' 01.0" W

Least Depth: [None]

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2010-212.00:00:00.000 (07/31/2010)

Dataset: H12197_Features_ForReport.000

FOID: US 0000208316 00001(022600032DBC0001)

Charts Affected: 11439_1, 11434_1, 1113A_1, 11420_1, 11451_16, 11451_17, 11006_1, 11013_1, 411_1

Remarks:

[None]

Feature Correlation

Source	Feature	Range	Azimuth	Status
H12197_Features_ForReport.000	US 0000208316 00001	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Seabed area (SBDARE)

Attributes: NATQUA - 6,1:soft,fine

NATSUR - 1,4:mud,sand

NINFOM - Chart seabed characteristic

SORDAT - 20100731

SORIND - US,US,graph,H12197

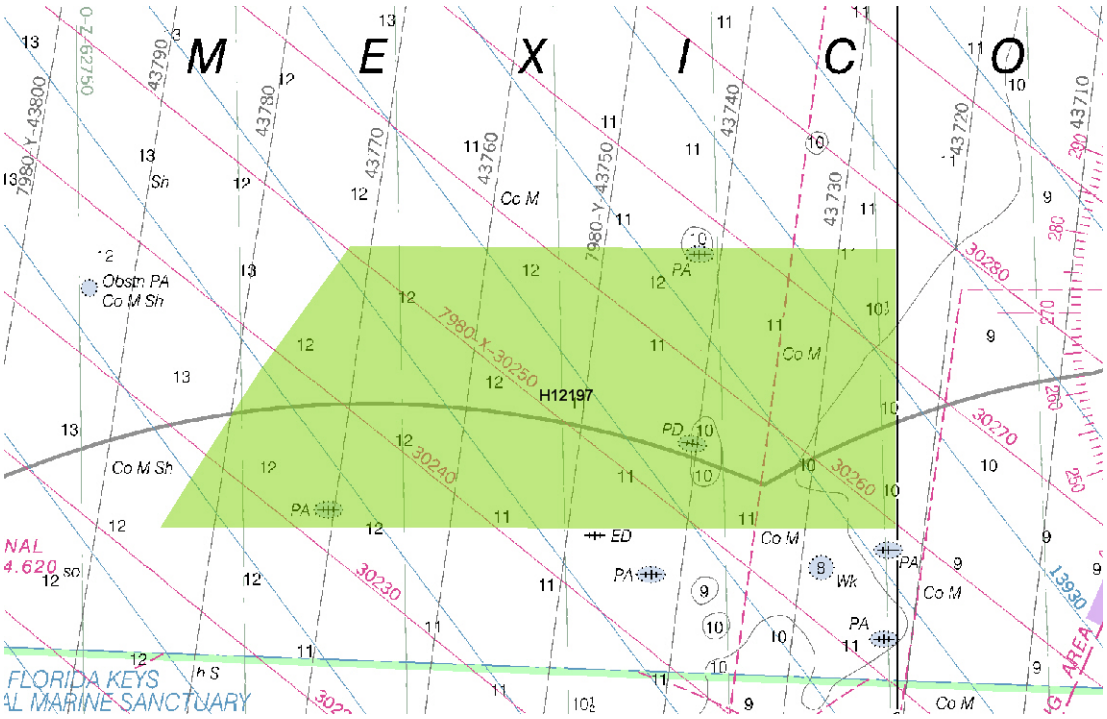
WATLEV - 3:always under water/submerged

Office Notes

Chart seabed characteristic

Appendix III

Progress Sketch



Project Number and Name	Sheet Identifier	Registry Number	HQ Estimated SNM	SNM Completed Survey Outline	Date Field Work Began	Date Field Work Completed	Final Tides Request Date	Final Tides Received Date	Estimated Date of Survey Submission	March Cumulative % Complete	April Cumulative % Complete	May Cumulative % Complete	June Cumulative % Complete	July Cumulative % Complete	August Cumulative % Complete	September Cumulative % Complete
OPR-H355, NW App to Key West, FL	1	H12191	28		7/2/10	8/24/10	8/25/10	12/17/10						48%	100%	
	2	H12192	28		8/9/10	8/24/10	8/28/10	12/17/10							100%	
	3	H12193	28		7/9/10	8/24/10	8/28/10	12/17/10						95%	100%	
	4	H12194	28		8/2/10	8/25/10	8/27/10	12/17/10							100%	
	5	H12195	28												0% (consolidated into H12194)	
	6	H12196	46		7/16/10	8/24/10	8/25/10	12/17/10						5%	100%	
	7	H12197	48		7/8/10	8/24/10	8/10/10	12/17/10	9/17/10					98%	100%	
	8	H12198	46		7/16/10	7/31/10	8/5/10	12/17/10	9/17/10					20% squared off	100%	
	9	H12199	48													
	10	F00606			7/1/10	8/23/10	8/25/10	10/20/10							100%	

Appendix IV

Tides and Water Levels

1. **Request for Approved Tides**

2. **Final Tide Notes**

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NOAA Ship THOMAS JEFFERSON (MOA-TJ)
439 West York St
Norfolk, VA 23510-1145

August 06, 2010

MEMORANDUM FOR: Chief, Requirements and Development Division, N/OPS1

FROM: CDR Shepard M. Smith, NOAA Ship THOMAS JEFFERSON (MOA-TJ)

SUBJECT: Request for Approved Tides/Water Levels

Please provide the following data:

1. Tide Note
2. Final TCARI grid
3. Final zoning in MapInfo and .MIX format
4. Six Minute Water Level data (Co-ops web site)

Transmit data to the following:

NOAA/NOS/Atlantic Hydrographic Branch
N/CS33, Building #2
439 West York Street
Norfolk, VA 23510
ATTN: Chief AHB

These data are required for the processing of the following hydrographic survey:

Project No.:	OPR-H355-TJ-10
Registry No.:	H12197
State:	Florida
Locality:	Gulf of Mexico
Sublocality:	15 NM North of Marquesas Keys

Attachments containing:

1) an Abstract of Times of Hydrography,
2) digital MID MIF files of the track lines from Pydro

cc: N/CS33

Year_DOY	Min Time	Max Time
2010_189	05:24:03	23:53:20
2010_190	00:36:42	23:56:46
2010_191	00:11:16	23:50:15
2010_192	00:19:01	23:56:47
2010_193	00:09:00	23:57:43
2010_194	00:09:01	23:57:35
2010_195	00:09:14	23:57:58
2010_196	00:28:36	23:48:11
2010_197	00:28:13	06:39:48
2010_210	13:39:12	21:27:12
2010_211	12:13:08	20:22:11
2010_212	04:17:01	12:24:55

UNITED STATES DEPARMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Ocean Service
Silver Spring, Maryland 20910

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE : December 15, 2010

HYDROGRAPHIC BRANCH: Atlantic
HYDROGRAPHIC PROJECT: OPR-H355-TJ-2010
HYDROGRAPHIC SHEET: H12197

LOCALITY: 15 NM North of Marquesas Keys, FL
TIME PERIOD: July 8 - July 31, 2010

TIDE STATION USED: 872-4671 Smith Shoal Light, FL
Lat. 24° 43.1'N Long. 81° 55.3' W

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 1.002 meters

REMARKS: RECOMMENDED ZONING
Use zone(s) identified as: SEG119, SEG130, SEG131, SEG131A, SEG165, SEG166, SEG167, SEG168, SEG171, SEG182, and SEG246

Refer to attachments for zoning information.

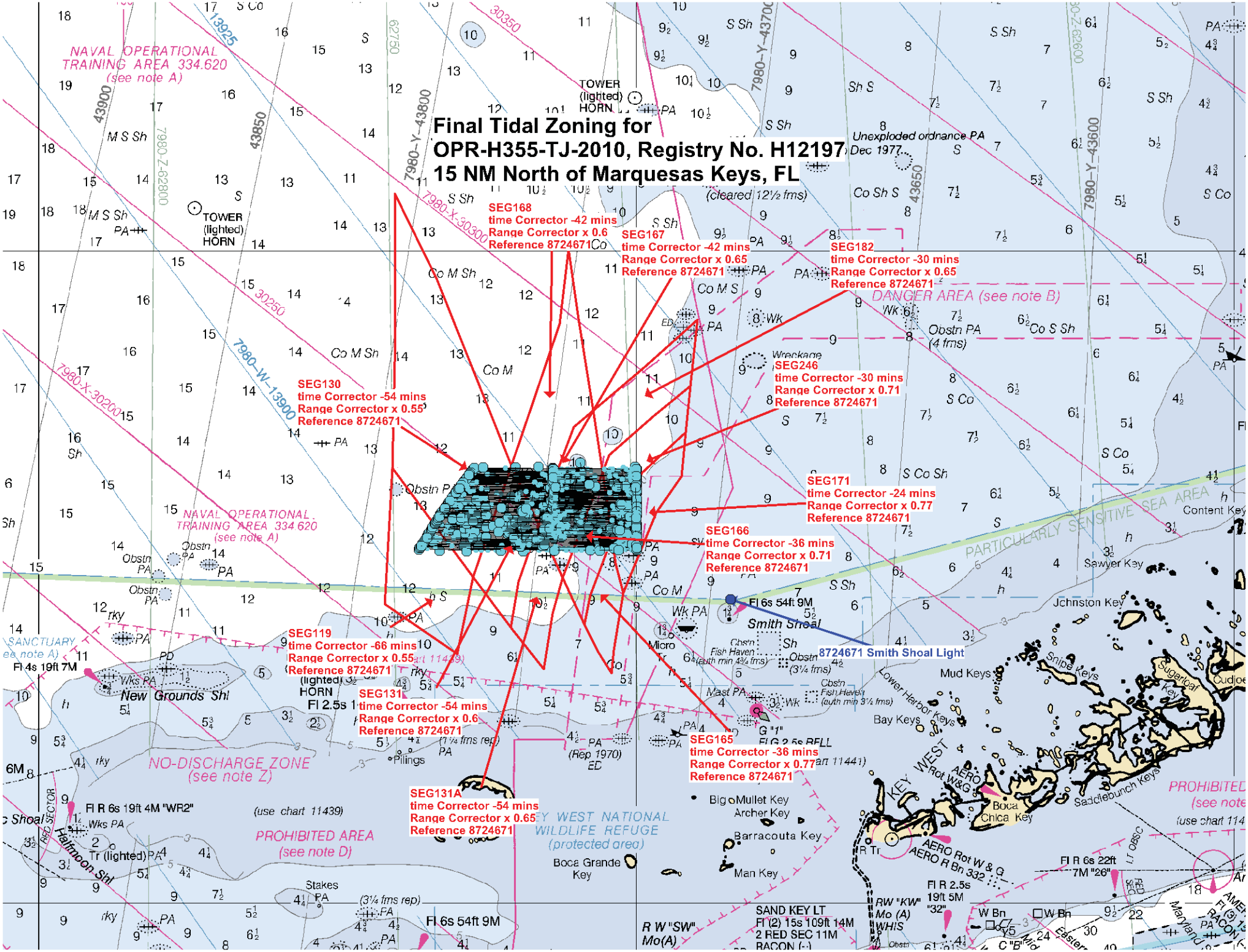
Note 1: Provided time series data are tabulated in metric units (meters), relative to MLLW and on Greenwich Mean Time on the 1983-2001 National Tidal Datum Epoch (NTDE).

Note 2: **The datum at 8724671 Smith Shoal Light will not be accepted. Accordingly, six-minute data cannot be retrieved from the opendap.co-ops.nos.noaa.gov website relative to MLLW. It must be retrieved relative to Station Datum. Please apply a correction of 1.451 meters to account for the STND - MLLW separation when retrieving the data.**

Peter J. Stone

Digitally signed by Peter J. Stone
DN: cn=Peter J. Stone, o=NOAA/NOS/CO-OPS, ou=Oceanographic Division, email=peter.stone@noaa.gov, c=US
Date: 2010.12.17 12:46:13 -05'00'

CHIEF, OCEANOGRAPHIC DIVISION


Final Tidal Zoning for
OPR-H355-TJ-2010, Registry No. H12197
15 NM North of Marquesas Keys, FL
SEG168
time Corrector -42 mins
Range Corrector x 0.6
Reference 8724671
SEG167
time Corrector -42 mins
Range Corrector x 0.65
Reference 8724671
SEG182
time Corrector -30 mins
Range Corrector x 0.65
Reference 8724671
SEG246
time Corrector -30 mins
Range Corrector x 0.71
Reference 8724671
SEG130
time Corrector -54 mins
Range Corrector x 0.55
Reference 8724671
SEG171
time Corrector -24 mins
Range Corrector x 0.77
Reference 8724671
SEG166
time Corrector -36 mins
Range Corrector x 0.71
Reference 8724671
SEG119
time Corrector -66 mins
Range Corrector x 0.55
Reference 8724671
SEG131
time Corrector -54 mins
Range Corrector x 0.6
Reference 8724671
SEG165
time Corrector -36 mins
Range Corrector x 0.77
Reference 8724671
SEG131A
time Corrector -54 mins
Range Corrector x 0.65
Reference 8724671
8724671 Smith Shoal Light
NAVAL OPERATIONAL TRAINING AREA 334.620 (see note A)
DANGER AREA (see note B)
PARTICULARLY SENSITIVE SEA AREA
NO-DISCHARGE ZONE (see note Z)
PROHIBITED AREA (see note D)
KEY WEST NATIONAL WILDLIFE REFUGE (protected area)
Smith Shoal
New Grounds Shl
Halfmoon Shl
Unexploded ordnance PA Dec 1977
(cleared 12½ fms)
Obstn PA (4 fms)
Wreckage
Obstn Fish Haven (auth min 4¾ fms)
Obstn (3¼ fms)
Obstn Fish Haven (auth min 3¼ fms)
Mast PA
Pilings
Stakes
Big Mullet Key
Archer Key
Barracouta Key
Man Key
Boca Grande Key
Boca Chica Key
Key West
Johnston Key
Sawyer Key
Content Key
Mud Keys
Bay Keys
Lower Harbor Keys
Snipe Keys
Sugarloaf Key
Cudjoe
Saddlebunch Keys
TOWER (lighted) HORN
Fl 6s 54ft 9M
Fl 4s 19ft 7M
Fl 2.5s 1
Fl R 6s 19ft 4M "WR2"
Tr (lighted) PA
Fl R 6s 22ft 7M "26"
Fl R 2.5s 19ft 5M "32"
SAND KEY LT Fl (2) 15s 109ft 14M 2 RED SEC 11M RACON (-)
R W "SW" Mo(A)
RW "KW" Mo (A) WHIS
G "1" Fl G 2.5s BELL
AERO Rot W&G
AERO R Bn 332
W Bn
C "B"
(use chart 11439)
(use chart 11441)
(use chart 114
(Rep 1970)
(1¼ fms rep)
(3¼ fms rep)
13925
30350
30250
7980-Y-43800
7980-Y-43700
7980-Y-43600
7980-X-30300
7980-X-30200
7980-W-13900
7980-Z-62800
43900
43850
43650

Appendix V

Supplemental Survey Records & Correspondence

Subject: Re: Crossline comparison
From: Chris van Westendorp <Christiaan.VanWestendorp@noaa.gov>
Date: Thu, 10 Sep 2009 13:00:35 -0400
To: "mark.blankenship" <Mark.Blankenship@noaa.gov>
CC: LCDR Rick Brennan <Richard.T.Brennan@noaa.gov>, Castle Parker <Castle.E.Parker@noaa.gov>, Edward Owens <Edward.Owens@noaa.gov>, LT Jasper Schaer <jasper.schaer@noaa.gov>, CDR Shep Smith <Shep.Smith@noaa.gov>, Daniel Wright <Daniel.Wright@noaa.gov>

Mark,

Per 5.1.4.3 of the HSSD, AHB authorizes TJ to use the Standard Deviation layer to conduct surface difference comparison and analysis on future survey submissions of multibeam data. This meets the crossline comparison requirement laid out in HSSD.

Please let me know if you have any questions or need for further clarification.

R/
LCDR Chris van Westendorp, NOAA

mark.blankenship wrote:

> Chris,
> You mentioned in the meeting today that AHB was not going to require the multiple CUBE surface comparison, instead allowing us to use a single surface standard deviation layer to do our checks with. Is there any memo coming out for that?
> Mark

LCDR Chris van Westendorp <christiaan.vanwestendorp@noaa.gov>
Atlantic Hydrographic Branch
NOAA OCS

Subject: Re: Bottom Sample submission
From: Gene Parker <Castle.E.Parker@noaa.gov>
Date: Mon, 31 Jan 2011 11:47:48 -0500
To: "ops.thomas.jefferson" <OPS.Thomas.Jefferson@noaa.gov>

Good day Mark,
Submit both. HSSD specifies both in two areas of the document. First one needs to comply with HSSD; if the TJ wants to make the Hob file, then they have gone beyond the minimum requirements. If the TJ doesn't do it, then AHB would have to as long as the BS is within the Pydro PSS. Reference HSSD Section 8.2 S57 Feature File, paragraph 6:

> The S-57 feature file contains all the attributed information on specific objects that cannot be portrayed in a simple depth grid. Features to include in the S-57 feature file include; wrecks, obstructions, shoreline, rocks, islets, oil platforms, nature of seabed (bottom samples) and all other objects that may need to be compiled to a navigational product and require additional information that cannot be included in the BAG.

The Pydro PSS is in lieu of the S57 format file.

We could make the hob from the table, but since the TJ has done this, submit both the Hob file and the table contained in DR Appendix 5. Place the Hob file in the PSS directory which has contained all features in NOAA PSS format as in the past. If the TJ is going to submit the hob file, the source would be the table, so HSSD specifies delivery of both. If the TJ only submitted the table, AHB would have to generate the feature objects. If the TJ creates the hob file, then submit it.
gene

ops.thomas.jefferson wrote:

> Gene,
> We will be submitting .HOB files for the bottom samples in addition to the summary table found in the supplemental survey records and correspondence section of the DR. It is my understanding that the table is only used to create the .HOB anyways. A recommendation will need to be made that either the table either be omitted or be used in place of the .hob file. Only the summary table is mention in the HSSD april 2010 version. If there are any other issues with this idea please let us know.
> Mark

Castle Eugene Parker <castle.e.parker@noaa.gov>
Physical Scientist - Hydrographic Team Lead
Atlantic Hydrographic Branch
NOAA Office of Coast Survey

U.S. DEPARTMENT OF COMMERCE
(10-95)NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

VESSEL No. S222	PROJECT NO. OPR- H335- TJ-10 FIELD NO. N/A SHEET LETTER: "N/A"	YEAR 2010	SURVEY TITLE: OPR-H335-TJ-10	SURVEY NO: H12197	CHECKED BY:	DATE CHECKED:

POSITION NUMBERS	DAY OF THE YEAR	SAMPLE POSITION		DEPTHS (METERS)	TYPE OF SAMPLER	APPROXIMATE PENETRATION (CENTIMETERS)	LENGTH OF CORE	FIELD DESCRIPTION SIZE OR CONSISTENCY COLOR-NOUN (USE STANDARD ABBREVIATIONS)	REMARKS (Unusual conditions ,cohesiveness, dented cutter, stat.no.,type of bottom, relief .i.e slope plain disposition etc.)
		LATITUDE (o ' ") North	LONGITUDE (o ' ") West						
1	229	24/49/18	082/03/41				5 cm	sft stk M brk Sh	
2	230	24/47/21	082/02/15				5 cm	brk Sh crs S	
3	230	24/48/56	082/02/01				5 cm	sft stk M fne S	
4	230	24/47/39	082/04/05				5 cm	sft stk M brk Sh	
5	230	24/48/50	082/05/52				5 cm	sft stk M brk Sh	
6	230	24/47/11	082/06/46				5 cm	sft stk M	
7	230	24/48/26	082/08/36				5 cm	brk Sh	
8	230	24/46/36	082/09/38				5 cm	sft stk M	

From	David Wolcott <David.Wolcott@noaa.gov>
Sent	Friday, December 17, 2010 9:30 pm
To	Norris A Wike <Norris.A.Wike@noaa.gov> , _OMAO MOA OPS Thomas Jefferson <OPS.Thomas.Jefferson@noaa.gov>
Cc	Kyle Ward <Kyle.Ward@noaa.gov> , "_NOS.CO-OPS.HTP" <NOS.COOPS.HPT@noaa.gov>
Bcc	
Subject	Final Tide Note for OPR-H355-TJ-2010, Registry No. H12197
Attachments	H12197.zip 472K

Dear Norris,

Attached is a zipped folder containing all of the final tide files for project OPR-H355-TJ-2010, Registry No. H12197. Below is a description of those files. If you have any problems retrieving any of the information please give me a call. The following files are included in the zipped attachment H12197.zip for project OPR-H355-TJ-2010:

H12197.pdf
H12197CORF.zdf

There is one (1) final tide note for H12197 in this email. Tide station data for Smith Shoal Light, FL (872-4671) may be retrieved via the Internet from the CO-OPS SOAP web services at http://opendap.co-ops.nos.noaa.gov/axis/text.html . [NOTE: The datum at Smith Shoal Light may not be accepted. Accordingly, data can only be retrieved relative to station datum. Please apply a correction of 1.451m to account for the STND-MLLW difference when retrieving the data.] The *.pdf file is the tide note in Adobe Acrobat format with the graphic.

The following files are the MapInfo zoning files:

H12197CORF.DAT
H12197CORF.ID
H12197CORF.MAP
H12197CORF.TAB
H12197LABF.DAT
H12197LABF.MAP
H12197LABF.TAB
H12197LABF.ID
H12197STNF.DAT
H12197STNF.ID
H12197STNF.IND
H12197STNF.MAP
H12197STNF.TAB

Please e-mail me when you have captured all files successfully. Call me at (301)713-2890 x153, if there are any problems.

--

David Wolcott
Hydrographic Planning Team
NOS/CO-OPS
p: (310) 713-2890 x 153

Castle Parker

Gene,

I reviewed the survey submission for H12197 after receiving your call this afternoon. Attached is an email that should have been included in Appendix V that directs us to use Full MB coverage (without the 100% SSS requirement) on H12193, H12197, and H12198 (also included H12199, but we didn't get to that one...).

We have 50cm grids in all areas less than 20m and we have 2m grids for the entire area greater than 20m, with a sufficient overlap on the shallow side to prevent thresholding/grid resolution issues. There may still be the question about the requirement for OD to 22m instead of 20m. This is a valid point. However, the intent of the change to HSSD in 2010 was to correct the overlap issues in the overlap areas that are experienced in steep and deep areas. The intent wasn't to burden operations by making the object detection requirements more stringent, but this was the result if we followed the 2010 specs as written. The 2011 HSSD have corrected this issue and have the overlap on the shoal side where it should be. I looked back through emails to see if HSD Ops approved our use of 20m, but didn't find anything from CDR Crocker. I know it was discussed during phone calls and we got concurrence to use 20m instead. I will look further to see if the concurrence came from Jeff Ferguson or someone else instead of CDR Crocker if necessary.

If you would like to discuss this further, feel free to give me a call.

Thanks,
Mike

Subject:
Re: H355 questions
From:
"Paul.Turner" <Paul.Turner@noaa.gov>
Date:
7/1/2010 10:48 AM
To:
"daniel.wright" <Daniel.Wright@noaa.gov>
CC:
James M Crocker <James.M.Crocker@noaa.gov>, "ops.thomas.jefferson" <OPS.Thomas.Jefferson@noaa.gov>

Hi Dan-

In regards to the coverage requirements:

For the sheets within the Florida Keys National Marine Sanctuary (H12191, H12192, H12194, H12195, H12196) run 200% SSS with either concurrent SB, or MB (skunk stripe) following the Additional Tasks requirements from page 7 of the Project Instructions.

For the offshore sheets (H12193, H12197, H12198, H12199) run EITHER 200% SSS with concurrent SB or MB; OR Complete MB - which ever method is most efficient for the ship.

You are correct in regards to the Casitas/Fish Trap development - ONMS would also like to utilize the SSS imagery from this project for benthic habitat classification in GEO-CODER and has indicted that it is most beneficial to run the survey lines for 100% all in the same azimuth and all the 200% in an opposing azimuth (for example - all the 100% towards the East and all the 200% towards the West.)

I will get back to you about the bottom samples in the Prohibited Area - I would like to double check with the Sanctuary folks.

Paul
daniel.wright wrote:
> Hi Paul,
>
> Could you clarify a couple items in the project instructions for H355?
>
> 1.) Coverage requirements call out for SS for all types, SB, complete MB and object detection. Is this a requirement for the habitat mapping, and if so would backscatter be a substitute if we acquired object detection?
>
> 2.) The Casitas/Fish trap development reads 100% SS in one azimuth and 200% in opposing, which I take to mean we run them in opposite directions? (eg 100% at 90, 200% at 270)
>
> 3.If I read the cruise instructions correctly, no bottom samples are to be taken in the "Prohibited area"?.
>
>

Attachments:
OPR_H355_TJ_10_updated_coverage_guidance.pdf 15.5 KB
Re: H355 questions.eml 1.7 KB

Subject: Fwd: Re: [Fwd: [Fwd: Re: Logistics -TJ/ Foster usage]]
From: CO Thomas Jefferson <CO.Thomas.Jefferson@noaa.gov>
Date: Mon, 07 Mar 2011 11:28:45 -0500
To: _NMAO MOA OPS Thomas Jefferson <OPS.Thomas.Jefferson@noaa.gov>, daniel wright <Daniel.Wright@noaa.gov>

Correspondence regarding MB in lieu of SSS for H355.

CO

-------- Original Message --------
Subject: Re: [Fwd: [Fwd: Re: Logistics -TJ/ Foster usage]]
Date: Mon, 28 Jun 2010 11:39:05 -0400
From:james.m.crocker <James.M.Crocker@noaa.gov>
To:CO Thomas Jefferson <CO.Thomas.Jefferson@noaa.gov>
CC: Jeffrey Ferguson <Jeffrey.Ferguson@noaa.gov>

Shep,

The ship work for Key West can be completed by MB alone. Not the most preferred since it will require more LNM and potential effort in processing. Also, without SSS, MB snippet backscatter will be required to meet NCCOS and Sanctuary requests for imagery.

Jim

CO Thomas Jefferson wrote:
> Jeff and Jim,
>
> Please advise on what you want us to do with our abbreviated Keys
> work. One issue is that we have the wrong cable on our SSS winch. If
> we need to do SSS ops, we will need to spool it all back off and back
> on.
>
> Shep
>
> -------- Original Message --------
> Subject: [Fwd: Re: Logistics -TJ/ Foster usage]
> Date: Tue, 22 Jun 2010 17:24:28 -0400
> From: Philip M Kenul <Philip.M.Kenul@noaa.gov>
> To: Shep Smith <Shep.Smith@noaa.gov>, Ralph Rogers
> <Ralph.Rogers@noaa.gov>, Karl Mangels <Karl.Mangels@noaa.gov>, Keith W
> Roberts <Keith.W.Roberts@noaa.gov>, Mike Devany
> <Mike.Devany@noaa.gov>, Todd C Stiles <Todd.C.Stiles@noaa.gov>,
> Stephen H Manzo <Stephen.H.Manzo@noaa.gov>, John Lowell
> <John.Lowell@noaa.gov>, Gerd Glang <Gerd.Glang@noaa.gov>, Jeffrey
> Ferguson <Jeffrey.Ferguson@noaa.gov>, Melinda Howell
> <Melinda.Howell@noaa.gov>, Steve Murawski <Steve.Murawski@noaa.gov>,
> Craig McLean <Craig.Mclean@noaa.gov>, Judy Gray <Judy.Gray@noaa.gov>,
> Beth Lumsden <Beth.Lumsden@noaa.gov>, Shelby Walker
> <Shelby.Walker@noaa.gov>, Mike Aslaksen <Mike.Aslaksen@noaa.gov>
>
>
>
> All:
>
> TJ: Upon completion of current cruise the TJ will be released until
> mid - July to conduct hyrographic survey operations. After this period

> it will be tasked to conduct additional DWH Response work in the
> northern GOM and will be outfitted with additional gear to replace the
> WHOI gear.
>
> NF: After departure from Charleston NF will be tasked to conduct loop
> current survey work upon arrival in the GOM. After July 12 the NF will
> conduct Deep Coral surveys. Plans for an in port in Miami en route to
> load science team and gear.
>
> PMK
>
>
> -------- Original Message --------
> Subject: Re: Logistics - Foster usage
> Date: Tue, 22 Jun 2010 10:18:13 -0400
> From: Shelby Walker <Shelby.Walker@noaa.gov>
> To: Todd C Stiles <Todd.C.Stiles@noaa.gov>
> CC: Beth Lumsden <Beth.Lumsden@noaa.gov>, Steve Murawski
> <Steve.Murawski@noaa.gov>, Philip M Kenul <Philip.M.Kenul@noaa.gov>
> References: <4C20B9BA.6070704@noaa.gov> <4C20BAA8.1050200@noaa.gov>
> <4C20C079.20902@noaa.gov>
>
>
>
> Capt. Stiles,
> Thank you for the information. I think we're in a bit of circular loop
> here. My request had been intended to focus on the current planned and
> requested missions for the Foster (dates and missions scope), so
> we(science) could make a recommendation on the next steps for the
> Foster. My apologies if that wasn't conveyed well.
> To clarify, the Foster is scheduled to depart Charleston on Thursday,
> correct? How long is the mission in the Tortugas? Whose mission is this?
> Thanks,
> Shelby
>
>
> Todd C Stiles wrote:
> > Shelby: Admiral Kenul asked Steve to respond by today as far as
> > Foster's cruise (regular ERP schedule off the Tortugas, Deep Coral, or
> > Loop Current. On this am's DWH NOAA leadership call Steve indicated
> > that a decision would be made today and highlighted/suggested it could
> > be some loop current work followed by Deep Coral. Steve commented the
> > later cruise had a start date of approx July 12th, which raises some
> > question as OMAO has been hearing July 6th-ish(????).
> > Steve also highlighted (this am) TJ's post July 2nd uncertainty w/r/t
> > continued DWH or back to survey operations. Steve referenced
> > yesterday's TJ call, which sounded like it's still TBD. Unforunately,
> > both RDML Kenul and I were double and triple booked with other
> > meetings yesterday which precluded us from calling in. Sorry I can't
> > offer more insight. It appears (to me) the final deliberations/reco
> > still reside in the Science Box.
> >
> > RDML Kenul/Steve: Please chime in if I'm missing something or not
> > accurately characterizing where we are on these two ships.
> >
> > Respectfully,
> >
> > Shelby Walker wrote:
> >> Hi Beth,
> >> I inquired with CPT Stiles yesterday regarding the next planned and
> >> potential missions for both the Nancy Foster and the Thomas
> >> Jefferson, per the call yesterday. I've copied him here to see if
> >> there's an update.
> >> Shelby
> >>

> >> Beth Lumsden wrote:
> >>> Hi Shelby
> >>> Steve wanted to know what the latest was with the Nancy Foster.
> >>> OMAO needs to know today what we will do or they will send her on
> >>> her scheduled cruise to the Tortugas. She is supposed to depart on
> >>> Thursday. Thanks
> >>> Beth
> >>>
>
>
> --
> Rear Admiral Philip M. Kenul
> Director, Marine and Aviation Operation Centers
> National Oceanic and Atmospheric Administration
> 8403 Colesville Rd, Suite 500
> Silver Spring MD 20910
> Phone: 301-713-7700 Fax: 301-713-1541
>
> --
> CDR Shepard Smith, NOAA
> Commanding Officer
> NOAA Ship Thomas Jefferson
> 439 West York St
> Norfolk, VA 23510
> 757-647-0187

Subject: Re: H355 coverage requirements
From: CO Thomas Jefferson <CO.Thomas.Jefferson@noaa.gov>
Date: Sun, 27 Jun 2010 13:39:49 -0500
To: "daniel.wright" <Daniel.Wright@noaa.gov>
CC: "OPS.Thomas.Jefferson" <OPS.Thomas.Jefferson@noaa.gov>, "Kimberly.Glomb" <Kimberly.Glomb@noaa.gov>, James M Crocker <James.M.Crocker@noaa.gov>

We will need to engage with OCS on this. Possibility of shifting to OD coverage in lieu of SSS, or just working deeper than 20m with complete coverage.

CDR Shepard Smith, NOAA
Commanding Officer
NOAA Ship Thomas Jefferson
439 West York St
Norfolk, VA 23510
757-647-0187

daniel.wright wrote:

> Hi Mark,
>
> In looking over the project instructions for H355, Kim brought up the detail that both skunk stripe and Complete MB require Side Scan as well. Any thoughts as to how we could accomplish this on the outer sheets, assuming the ship is not rigged for SS. It's mostly too deep for the hull mount systems. Let me know your thoughts.
>
> Br,
> Dan

From "Paul.Turner" <Paul.Turner@noaa.gov>

Sent Thursday, July 1, 2010 10:48 am
To "daniel.wright" <Daniel.Wright@noaa.gov>
Cc James M Crocker <James.M.Crocker@noaa.gov> , "ops.thomas.jefferson" <OPS.Thomas.Jefferson@noaa.gov>
Bcc
Subject Re: H355 questions

Hi Dan-

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> to be taken in the "Prohibited area"?.
>
>

AHB COMPILATION LOG

General Survey Information	
REGISTRY No.	H12197
PROJECT No.	OPR-H355-TJ-10
FIELD UNIT	NOAA SHIP THOMAS JEFFERSON
DATE OF SURVEY	20100708 - 20100731
LARGEST SCALE CHART	***11439, edition 26, 20040701, 1:80,000***
ADDITIONAL CHARTS	***11434, edition 28, 20080601, 1:180,000***
SOUNDING UNITS	**FEET**
COMPILER	Kolleen Mortimer

Source Grids	**File Name** T:\H12197_H355_TJ\AHB_H12197\SAR Final Products\GRIDS
	H12197_1_CUBE_NOAA_2m_Final.csar **H12197_2_CUBE_NOAA_2m_Final.csar** **H12197_3_CUBE_NOAA_2m_Final.csar** **H12197_4_CUBE_NOAA_2m_Final.csar** **H12197_5_CUBE_NOAA_50cm_Final.csar** **H12197_6_CUBE_NOAA_50cm_Final.csar** **H12197_7_CUBE_NOAA_50cm_Final.csar** **H12197_8_CUBE_NOAA_50cm_Final.csar** **H12197_9_CUBE_NOAA_50cm_Final.csar** **H12197_10_CUBE_NOAA_50cm_Final.csar** **H12197_11_CUBE_NOAA_50cm_Final.csar** **H12197_12_CUBE_NOAA_50cm_Final.csar** **H12197_13_CUBE_NOAA_50cm_Final.csar** **H12197_14_CUBE_NOAA_50cm_Final.csar** **H12197_15_CUBE_NOAA_50cm_Final.csar** **H12197_16_CUBE_NOAA_50cm_Final.csar** **H12197_17_CUBE_NOAA_50cm_Final.csar** **H12197_AWOIS_63_Cube_MLLW_50cm_Final.csar** **H12197_AWOIS_14762_Cube_MLLW_50cm_Final.csar** **H12197_AWOIS_14765_Cube_MLLW_50cm_Final.csar** **H12197_AWOIS_14769_NOAA_50cm_Final.csar**
Surfaces	**File Name** T:\H12197_H355_TJ\AHB_H12197\COMPILE\Working
Combined	**H12197_4m_Combined.csar**
Interpolated TIN	\Interpolated TIN**H12197_12m_InterpTIN.csar**
Shifted Interpolated TIN	\Shifted Surface**H12197_12m_InterpTIN_Shifted.csar**
Final HOBs	**File Name** T:\H12197_H355_TJ\AHB_H12197\COMPILE\Final_Hobs
Survey Scale Soundings	**H12197_SS_Soundings.hob**
Chart Scale Soundings	**H12197_CS_Soundings.hob**
Contour Layer	**H12197_Contours.hob**
Feature Layer	**H12197_Features.hob**
Meta-Objects Layer	**H12197_MetaObjects.hob**
Blue Notes	**H12197_BlueNotes.hob**

Meta-Objects Attribution	
Acronym	**Value**
M_COVR	
CATCOV	1 – coverage available
SORDAT	20100731
SORIND	US,US,graph,H12197
M_QUAL	
CATZOC	6 – zone of confidence U (data not assessed)
INFORM	NOAA Ship Thomas Jefferson
POSACC	5.0 m
SORDAT	20100731
SORIND	US,US,graph,H12197
SUREND	20100731
SURSTA	20100708
DEPARE	
DRVALV 1	59.0 ft
DRVALV2	79.0 ft
SORDAT	20100731
SORIND	US,US,graph,H12197

SPECIFICATIONS:

I. COMBINED SURFACE:
- a. Number of SAR Final Grids: 21
- b. Resolution of Combined (m): 4 m

II. SURVEY SCALE SOUNDINGS (SS):
- a. Attribute Name: Depth
- b. Selection criteria: Radius, Shoal bias
- c. Radius value is: mm at map scale
  - i. Use single-defined radius: 1.00
  - ii. And/Or use radius table file: H1XXXX_SS_SSR_XXk.txt [*XXk = chart scale*]
    [*insert SSR table here*]
    H1XXXX_SS_SSR_XXk.txt
    [*insert SSR table here*]
- d. Queried Depth of All Soundings
  - i. Minimum: 18.420 m
  - ii. Maximum: 23.897 m

III. INTERPOLATED TIN SURFACE:
- a. Resolution (m): 12 m
- b. Interpolation method: Natural Neighbor
- c. Shift value: -0.75 ft [*only include applicable shift values*]
  [*-0.75 feet* (And/Or) *-0.75 fathoms*]

IV. CONTOURS:
- a. Attribute Name: Depth
- b. Use a Depth List: H12197_depth_contours.txt
- c. Output Options: Create contour lines
  - i. Line Object: DEPCNT
  - ii. Value Attribute: VALDCO

V. FEATURES:

a.	Number of Chart Features:	0	[*all features included in H-Cell*]
b.	Number of Non-Chart Features:	8	[*all features submitted by field & not included in H-Cell*]

VI. CHART SURVEY SOUNDINGS (CS):

a.	Number of ENC CS Soundings:	60
b.	Attribute Name:	Depth
c.	Selection criteria:	Radius, Shoal bias
d.	Radius value is:	Distance on the ground (m)
	i. Use single-defined radius:	1200 m
e.	Number Survey CS Soundings:	75

VII. NOTES:

[*Type text*]