

F00533

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|---|-------------------------------|
| NOAA FORM 76-35A | |
| U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY | |
| DESCRIPTIVE REPORT | |
| Type of Survey | Hydrographic / SSS & VBES |
| Registry No. | F00533 |
| LOCALITY | |
| State | Florida |
| General Locality | Miami |
| Sub-locality | North Miami to South of Miami |
| 2007 | |
| CHIEF OF PARTY David B. Elliott - Team Leader | |
| LIBRARY & ARCHIVES | |
| DATE | |

| | |
|--|--|
| NOAA FORM 77-28 U.S. DEPARTMENT OF COMMERCE (11-72) NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION <div style="text-align: center; font-weight: bold; font-size: 1.2em;">HYDROGRAPHIC TITLE SHEET</div> | REGISTRY NUMBER: <div style="text-align: center; font-weight: bold; font-size: 1.2em;">F00533</div> |
| INSTRUCTIONS: The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office. | FIELD NUMBER: N/A |

| | | | |
|----------------------------|---|-----------------|------------------------|
| State/Territory: | Florida | | |
| General Locality: | Miami | | |
| Sub-Locality: | North Miami to South of Miami | | |
| Scale: | 1:10,000 | Date of Survey: | Apr.23 to Apr. 25 2007 |
| Instructions Dated: | April 23, 2007 | Project Number: | OPR-H328-NRT2-07 |
| Vessel: | NOAA Launch 1210 | | |
| Chief of Party: | David B. Elliott - Team Leader | | |
| Surveyed by: | David Elliott, Robert Ramsey & Frank Younger (NRT2) | | |
| Soundings by: | ODOM ECHOTRAC CV | | |
| Graphic record scaled by: | DE, RR, FY | | |
| Graphic record checked by: | DE, RR, FY | | |
| Protracted by: | N/A | Automated Plot: | N/A |
| Verification by: | Atlantic Hydrographic Branch | | |
| Soundings in: | Meters Feet at MLLW | | |

Remarks:

 1) All Times are UTC.

 2) ~~This is a basic Hydrographic Survey under the Navigable Area Concept.~~ **Field Examination**

 3) Projection is UTM Zone 17.

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DESCRIPTIVE REPORT

to accompany

OPR-H328-NRT2-07

FIELD EXAMINATION SURVEY

F00533

MIAMI, FL

Scale of Survey: 1:10,000

Year of Survey: 2007

Navigation Response Team 2 - Launch 1210

David B. Elliott- Team Leader

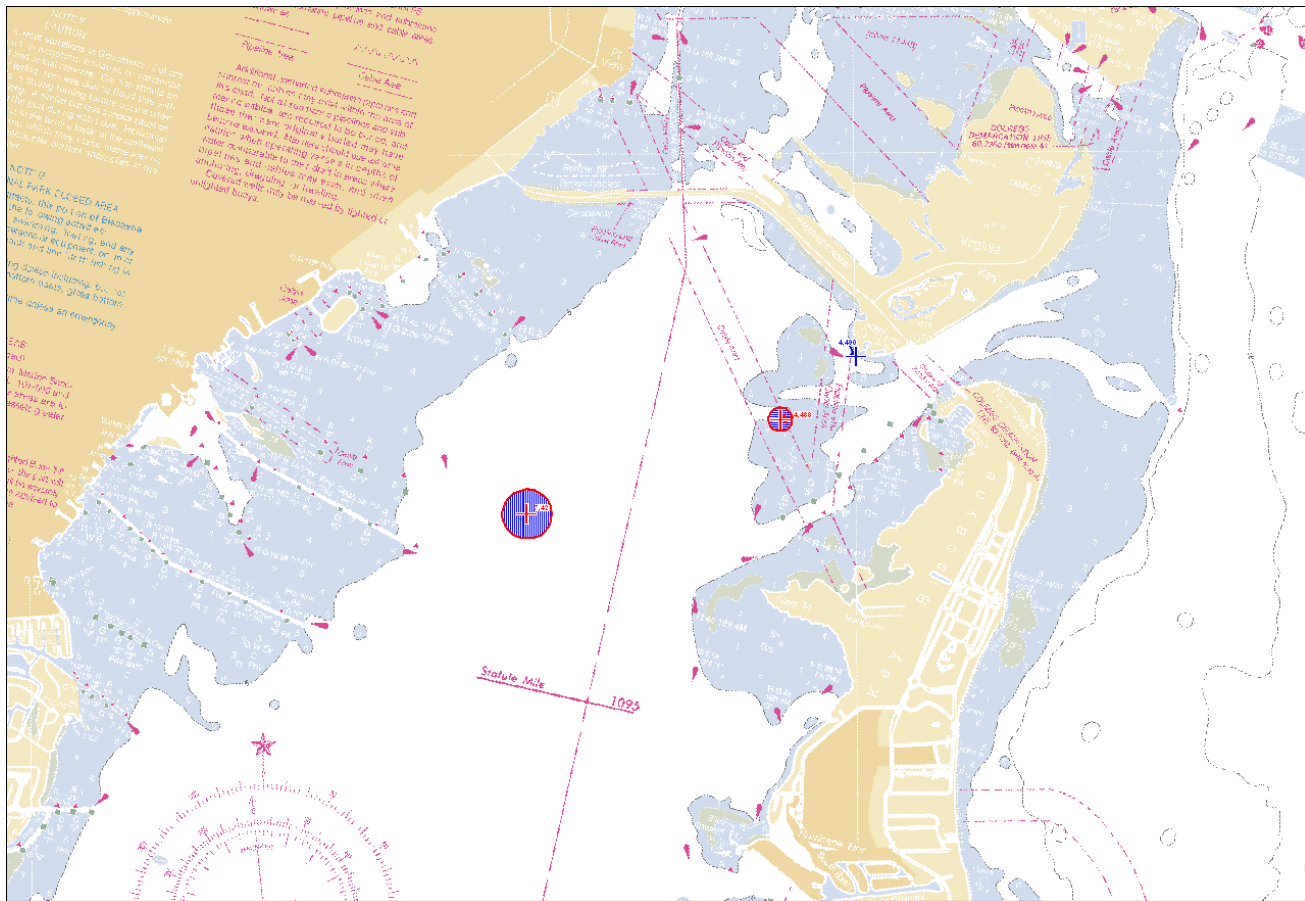
A. AREA SURVEYED

This Field Examination/Hydrographic survey was conducted in accordance with Hydrographic Project Instructions for OPR-H328-NRT2-07, Miami & Ft Lauderdale, FL. The instructions are dated April 23, 2007 and e-mail amendment May 30. *Included in Separates III*

The purpose of this project is to provide NOAA-Remote Sensing Division with a CEF (Chart Evaluation File) for shoreline updates and to collect hydrography for AWOIS with side scan sonar to identify features on the sea floor. *See Evaluation Report Section A.*

Survey Dates: Apr.23, 2007 (DN: 113) to, Apr.25, 2007 (DN: 115)

Survey limits are displayed graphically in the chartlet on the following page .



Total LNM of SB & SSS = 4.0 Crosslines = 0 Total Sq NM = 0.2 Bottom Samples = 0

B. DATA ACQUISITION AND PROCESSING

B.1. EQUIPMENT

Data were acquired by Navigation Response Team 2 and survey Launch 1210. The vessel was configured as described in the Data Acquisition and Processing Report (DAPR) for this project. Major data acquisition systems are summarized below. **2007 DAPR is on file at AHB.**

NOAA launch 1210, a 30-foot SeaArk with a draft of 0.5 meters, was used to collect all survey data. There were no unusual vessel configurations or problems encountered with the vessel.

F00533 / NRT2

An ODOM EchotracCV, Fathometer, was used to collect all echo soundings on this survey

A Klein 3000 side scan sonar, was used throughout this survey. The side scan sonar equipment was used to investigate AWOIS items.

A Trimble DGPS Beacon Receiver was used as the primary navigation station on launch 1210.

A Trimble Pathfinder ProXRS was used for all ENC high accuracy positioning and establishment of calibration points.

The Instruments used for determining corrections for the speed of sound through the water column were an ODOM Digibar Ser # 98295-020606 and a Seabird-Seacat Velocity Profiler, model 19-03, Ser# 198671-1477.

B.2. QUALITY CONTROL

Following the Field Procedures Manual and the NOS Hydrographic Surveys Specifications and Deliverables Manual, June 14, 2006 has insured the integrity of the survey data for F00533.

Differential GPS (DGPS) was used for all hydrographic data acquired on this survey. DGPS performance checks were conducted in accordance with FPM 3.4.4 by comparing the DGPS position of the vessel to a high accuracy (1st order) calibration point weekly.

Echo Sounder Control

Lead line comparisons were conducted daily and compared to the digital depth and draft.

Side Scan Sonar Quality Control

Daily confidence checks were conducted by observing side scan imagery in the vicinity of known contacts, such as buoys or sand waves. Side scan data were considered satisfactory if these contacts could be distinguished throughout the entire range of the side scan trace. The confidence checks were performed daily at 100/500kHz.

A coverage of 200% was obtained wherever possible in the required survey areas and where water depth and/or hazards permitted. Side scan sonar coverage was conducted to the 12-foot depth curve and single beam reduced line spacing was performed in other areas where warranted. The towfish was deployed off the starboard quarter of the vessel, which proved very stable. Distorted images caused by strong tidal currents, or sea state, were seen periodically. Significant contacts and shadows were processed with Caris HIPS/SIPS to determine the height off the bottom. The significant contacts were then compared by

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position, as well as common depth and relationship to channels to determine if further investigations were needed. All areas surveyed were track line/swath line plotted to insure complete coverage.

The system frequencies used were 100kHz and 500kHz. The recorder was set on one of either 50/75/100-meter range scales. There were no water depths greater than 35 meters. *Data used for analysis was 500kHz.*

When operating in shoaler waters (e.g. less than 30 meters deep), a short tow was required for the Klein system. When cable-out was approximately 7 meters or less, minor degradation of the side scan imagery and Innerspace echosounder traces were noted due to cross-talk between the two systems.

Junctions

There were no Junctions for this survey.

B.3. CORRECTIONS TO ECHO SOUNDING

Sound velocity data has been submitted with the digital data package.
There are no deviations to be discussed in this section.

C. VERTICAL AND HORIZONTAL CONTROL

The Instruments used for determining corrections for the speed of sound through the water column were an ODOM Digibar and a Seabird-Seacat Velocity Profiler. CTD casts are downloaded and processed in the Velociwin program supplied by the Hydrographic Systems and Technology Program (HSTP). Corrections were applied to the sounding plot using the Carris HIPS.

Field soundings are corrected by unverified actual heights from NOAA/CO-OPS.

The Real Time Actual 6 min Tides are downloaded from:

"http://co-ops.nos.noaa.gov/data_res.html", for all gauges required in the given projects defined by the ZDF file provided in the project letter, and instruction. Tide values are downloaded in blocks of data that covers the Times of Hydrography, and saved in a text file format. The MapInfo program is then used with the "HYDRO_MI" pre-Survey function, of "Create Cowlis", this function converts the text file into a Caris tide file (.tid).

All elevations and soundings on survey F00533 are based on MLLW unless otherwise specified.

A Request for Approved Tides letter was sent to N/OPS1 on May 30, 2007 (Appendix IV).

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Final tides and zoning were applied by Branch personnel.

Soundings for the three AWOIS investigations were the only data corrected with vertical correctors for use in charting. This data occurred on DN:114 , Apr. 24, 2007. *All data was corrected at the Branch.*

Horizontal Control

The horizontal datum used for this survey is the North American Datum of 1983 (NAD 83), projected using UTM zone 17. The control reference station used for this survey was the USCG DGPS Beacon. *Miami*

Horizontal dilution of precision (HDOP) was monitored on Hypack daily on the survey platform. The value never exceeded 2.5 HDOP, and adequate satellite coverage was maintained throughout the survey period. All positioning equipment was operated in a manner consistent with the manufacturers requirements and as described in the DAPR. There were no equipment malfunctions which affected the positional quality of the data. *Concur.*

D. RESULTS AND RECOMMENDATIONS

D.1 Chart Comparison

There are three charts affected by this survey:

| <u>Chart Number</u> | <u>Edition</u> | <u>Edition Date</u> | <u>Scale</u> |
|---------------------|------------------|---------------------|--------------|
| 11465 | 37 th | Nov. 01, 2004 | 1:40,000 |
| 11467 | 39 th | May. 01, 2005 | 1:40,000 |
| 11466 | 37 th | Aug. 01, 2005 | 1:80,000 |

Chart 11468, Ed 41st, May, 2007, 1:10,000 also partially covered the “survey” area.

General Agreement with Charted soundings

In general survey soundings compared the charted soundings within two feet in the regions where AWOIS investigations were conducted with one exception addressed below. The smooth tides may resolve some of these soundings. All charted soundings should be superseded by this survey where applicable. *Concur.*

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1) A three foot sounding on a charted wreck at 25° 43' 31.84" N, 080° 10' 27.34" W is now eight feet at MLLW. *Concur.*

AWOIS Item Investigations

There were three AWOIS items within the survey limits.

AWOIS 4488 – Does not Exist. *Concur.*

AWOIS 4490 – DTON sent to MCD for correction *Concur.*

AWOIS 7421 – Exists *Concur.*

See PSS for further information. *See Evaluation Report for further discussion.*

Dangers to Navigation

There was one DTON within the confines of F00533, the reference for these features can be found in the Appendices Section I. The geographic location for this DTON are new positions to the chart. This item was submitted in advance to MCD. *Concur.*

D. 2. ADDITIONAL RESULTS

Aids to Navigation and Other Detached Positions

Navigation Aids serve their intended purpose.

Ferry Routes

There are no Ferry routes within the confines of F00533.

Submarine Cables and Pipelines

Not Applicable to this survey.

Bridges

Not Applicable to this survey.

OPR-H328-NRT2-07
Miami, FL
Survey Registry No. F00533

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.

This survey is adequate to supersede all prior surveys in common areas, and for application to the relevant NOS nautical charts.

Submitted by:  David B. Elliott
2007.05.31 16:31:25 Z

David B. Elliott - Team Leader
Navigation Response Team 2

APPENDIX I
Danger to Navigation Reports

F00533 DtoN

Registry Number: FE00533
State: Florida
Locality: Miami and Port Everglades, FL
Sub-locality: North Miami to South of Miami
Project Number: OPR-H328-NRT2-07
Survey Date: 04/24/2007

Charts Affected

| Number | Edition | Date | Scale (RNC) | RNC Correction(s)* |
|--------|---------|------------|--|--------------------|
| 11465 | 37th | 11/01/2004 | 1:40,000 (11465_1) | [L]NTM: ? |
| 11467 | 39th | 05/01/2005 | 1:40,000 (11467_6) | [L]NTM: ? |
| 11466 | 37th | 08/01/2005 | 1:80,000 (11466_1) | [L]NTM: ? |
| 11451 | 32nd | 03/01/2005 | 1:495,362 (11451_17) 1:495,362 (11451_16) 1:80,000 (11451_1) | [L]NTM: ? |
| 11460 | 40th | 09/01/2005 | 1:466,940 (11460_1) | [L]NTM: ? |
| 11013 | 46th | 11/01/2005 | 1:1,200,000 (11013_1) | [L]NTM: ? |
| 411 | 51st | 12/01/2006 | 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 | LT White on conc pile | Daybeacon (open) | -4.74 m | 25° 43' 52.8" N | 080° 09' 58.5" W | 4490 |

1 - DR_DToN

1.1) LT White on conc pile

DANGER TO NAVIGATION

Primary Feature for AWOIS Item #4490

Search Position: 25° 43' 53.0" N, 080° 09' 59.1" W
Historical Depth: [None]
Search Radius: 0
Search Technique: [None]
Technique Notes: [None]

History Notes:

CL1872/68--COE PERMIT; PERMIT NO. 616-175; RAW WATER INTAKE CONSTRUCTED AT ■ VIRGINIA KEY. ■ NM20/69--5/17/69; RAW WATER INTAKE STRUCTURE WITH 4 CONCRETE LIGHTED PILES HAS ■ BEEN CONSTRUCTED ABOUT 43 YDS OFF VIRGINIA KEY IN LAT 25-43-52N, ■ LONG 80-10-01W; STRUCTURE IS CONNECTED TO A SUBM PIPE WHICH EXTENDS TO SHORE. ■ H9926/80--OPR-H308-HSB-80; PSR ITEM 2; TELECON WITH CAPT. BUIE (SEE BELOW) ■ CONFIRMED THIS OBTR MAINTAINED BY THE SEAQUARIUM; IT CONSISTS OF A METAL BOX ■ ON THE BOTTOM OF THE BAY WITH 2 STANDPIPES, 6 1/2 FT HIGH, PROTRUDING FROM ■ THE BOX TOWARDS THE SURFACE; BOX AND PIPES ARE BRACKETTED BY 4 PILINGS BARING ■ 8 FT, WITH A LIGHTED (RED) CAUTION SIGN; THE STAND PIPES ARE SALT WATER ■ INTAKES FOR THE SEAQUARIUM; LIGHT IS LOCATED AT LAT 25-43-51.669N, ■ LONG 80-09-59.978W; EVALUATOR RECOMMENDED CHARTING LIGHT WITH A NOTE ■ WARNING OF THE FOUR PILES AND TWO SUBM PIPES. ■ ■ ■ ■ ■ DESCRIPTION ■ ■ ■ ■ ■ TELECON BETWEEN FIELD PARTY AND CAPT. CHARLES BUIE, BOAT OPERATOR FOR THE ■ MIAMI SEAQUARIUM (PHONE 305-361-5705, EXT. 74) 4/17/81. ■ ■ ■ ■ ■ OPR-H328-NRT2-07 // F00533, 2007. CEF and Awois survey addressed the feature on 24 APR 2007. ■ A detached position was acquired on the Light (WT) which marks the offshore end of the raw water intake. ■ In addition to the light, there is a danger beacon attached as well. The currently charted Light QR, no longer ■ exist, it was removed when changes were mad to the intake. 200% sss ops were conducted to verify it ■ no longer exist below water. No contacts were not at the charted position of the light (25.73106235 , -080.16738884). ■ ■ ■ ■ ■ Recommend removing the charted QR LT. Recommend charting the W LT and Danger Beacon at the survey position. ■ Recommend removing the charted obstr. RWR

Survey Summary

Survey Position: 25° 43' 52.8" N, 080° 09' 58.5" W
Least Depth: -4.74 m (= -15.54 ft = -2.590 fm = -2 fm 3.54 ft)
TPU (±1.96σ): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2007-114.15:28:56.000 (04/24/2007)
DP Dataset: f00533 / nrt2_1210_dpnonechosounder / 2007-114 / 04242007_awois 4490
Profile/Beam: 1/1
Charts Affected: 11465_1, 11467_6, 11451_1, 11466_1, 11460_1, 11451_16, 11451_17, 11013_1, 411_1

Remarks:

Offshore end submerged pipeline, white light, concrete pile w. Danger sign. 200% sss ops disproved ruins of the red light charted in the vicinity due WSW at 25.73106235 , -080.16738884.

OPR-H328-NRT2-07 // F00533, 2007. CEF and Awois survey addressed the feature on 24 APR 2007. A detached position was acquired on the Light (WT) which marks the offshore end of the raw water intake. In addition to the light, there is a danger beacon attached as well. The currently charted Light QR, no longer exist, it was removed when changes were mad to the intake. 200% sss ops were conducted to verify it no longer exist below water. No contacts were not at the charted position of the light(25.73106235 , -080.16738884).

Feature Correlation

| Address | Feature | Range | Azimuth | Status |
|--|--------------|-------|---------|-----------|
| f00533/nrt2_1210_dpnonechosounder/2007-114/04242007_awois 4490 | 1/1 | 0.00 | 000.0 | Primary |
| awois | AWOIS # 4490 | 19.98 | 116.9 | Secondary |

Hydrographer Recommendations

Chart white light with danger beacon at 25°43'52.738" , -080°09'58.499". Remove charted Red light at 25.73106235 , -080.16738884. Remove charted obstr.

Cartographically-Rounded Depth (Affected Charts):

-16ft (11465_1, 11467_6, 11451_1, 11466_1, 11451_16, 11451_17)

-2 ½fm (11460_1, 11013_1, 411_1)

S-57 Data

Geo object 1: Beacon, special purpose/general (BCNSPP)

Attributes: BCNSHP - 5:pile beacon
 CATSPM - 39:pipline mark
 SORDAT - 20070425
 SORIND - US,US,survy,F00533
 STATUS - 1:permanent

Geo object 2: Light (LIGHTS)

Attributes: COLOUR - 1:white
 STATUS - 1:permanent

Office Notes

Concur.

Feature Images



Figure 1.1.1



Figure 1.1.2

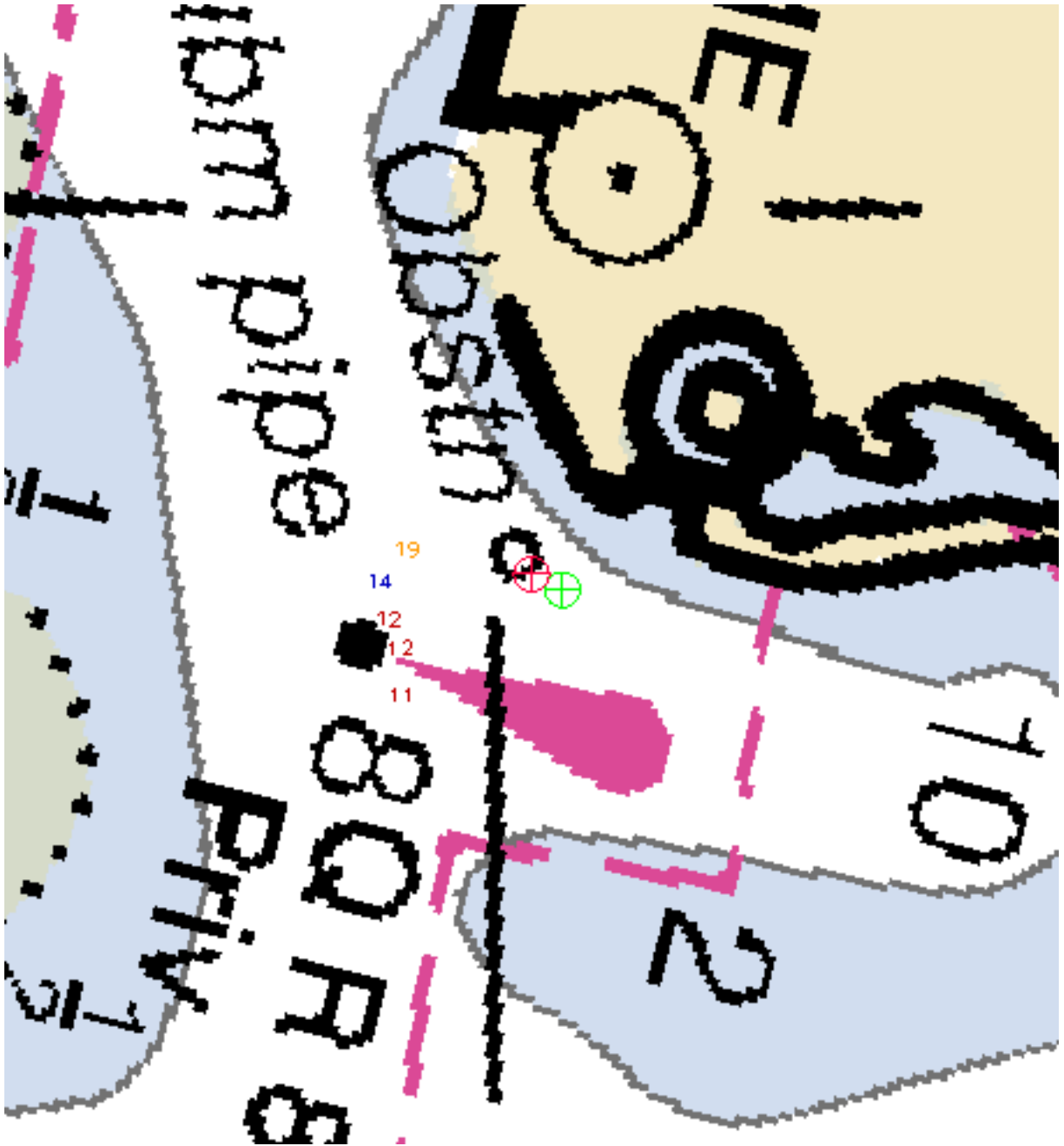


Figure 1.1.3

APPENDIX II

Survey Feature Report

F00533 AWOIS / Charted Features

Registry Number: FE00533
State: Florida
Locality: Miami and Port Everglades, FL
Sub-locality: North Miami to South of Miami
Project Number: OPR-H328-NRT2-07
Survey Date: 04/24/2007

Charts Affected

| Number | Edition | Date | Scale (RNC) | RNC Correction(s)* |
|--------|---------|------------|--|--------------------|
| 11465 | 37th | 11/01/2004 | 1:40,000 (11465_1) | [L]NTM: ? |
| 11467 | 39th | 05/01/2005 | 1:40,000 (11467_6) | [L]NTM: ? |
| 11466 | 37th | 08/01/2005 | 1:80,000 (11466_1) | [L]NTM: ? |
| 11451 | 32nd | 03/01/2005 | 1:495,362 (11451_17) 1:495,362 (11451_16) 1:80,000 (11451_1) | [L]NTM: ? |
| 11460 | 40th | 09/01/2005 | 1:466,940 (11460_1) | [L]NTM: ? |
| 11013 | 46th | 11/01/2005 | 1:1,200,000 (11013_1) | [L]NTM: ? |
| 411 | 51st | 12/01/2006 | 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 | 331/1 LD=9 ft @ mllw on subm wrk (AWOIS 7421) | Wreck | 2.85 m | 25° 43' 03.6" N | 080° 11' 57.8" W | 7421 |
| 1.2 | 1198/1 LD= 8ft @ mllw. NO SUBM WRK EXIST. | Shoal | 2.45 m | 25° 43' 31.8" N | 080° 10' 27.3" W | 4488 |

1 - DR_AWOIS

1.1) 331/1 LD=9 ft @ mllw on subm wrk (AWOIS 7421)**Primary Feature for AWOIS Item #7421**

Search Position: 25° 43' 01.4" N, 080° 11' 59.2" W
Historical Depth: [None]
Search Radius: 250
Search Technique: S2, ES, DI
Technique Notes: [None]

History Notes:

LNM19/81 (5/13/81); 7TH CG DIST.-- A 40-FT WOODEN HULL BOAT REP. SUNK IN ■APPROX. POS. LAT. 25-43-00N, LONG. 80-12-00W WITH ABOUT 3 FEET OF BOW ■VISIBLE. (ENT 5/89 MJF)■
 ***UNKNOWN SOURCE-- UNKNOWN SOURCE REVISED THE VISIBLE WRECK TO SUBMERGED WRECK.■■OPR-H328-NRT2-07 // F00533, 2007. CEF and Awois survey addressed the feature on 24 APR 2007.■■200% sss ops were conducted on this feature. The SUBM Wrk was identified to the North of the currently charted■■position.■■Recommend adjusting position of subm wrk , and adding depth.RWR

Survey Summary

Survey Position: 25° 43' 03.6" N, 080° 11' 57.8" W
Least Depth: 2.85 m (= 9.36 ft = 1.560 fm = 1 fm 3.36 ft)
TPU ($\pm 1.96\sigma$): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2007-114.14:34:42.289 (04/24/2007)
Survey Line: f00533 / nrt2_1210_sb / 2007-114 / 035_1434
Profile/Beam: 331/1
Charts Affected: 11465_1, 11467_6, 11451_1, 11466_1, 11460_1, 11451_16, 11451_17, 11013_1, 411_1

Remarks:

Awois 7421 subm wrk.OPR-H328-NRT2-07 // F00533, 2007. CEF and Awois survey addressed the feature on 24 APR 2007. 200% sss ops were conducted on this feature. The SUBM Wrk was identified to the North of the currently charted position.

Feature Correlation

| Address | Feature | Range | Azimuth | Status |
|--|---------|-------|---------|-----------|
| f00533/nrt2_1210_sb/2007-114/035_1434 | 331/1 | 0.00 | 000.0 | Primary |
| f00533/nrt2_1210_klein3000hf_200sss/2007-114/sss070424142400 | 0001 | 1.18 | 117.0 | Secondary |
| f00533/nrt2_1210_klein3000hf_200sss/2007-114/sss070424142700 | 0001 | 3.59 | 232.3 | Secondary |
| f00533/nrt2_1210_klein3000hf_100sss/2007-114/sss070424135200 | 0001 | 7.43 | 170.9 | Secondary |

| | | | | |
|-------|--------------|-------|-------|-----------|
| awois | AWOIS # 7421 | 80.41 | 029.2 | Secondary |
|-------|--------------|-------|-------|-----------|

Hydrographer Recommendations

Revise charted position of subm wk with depth of 9 ft. Remove text "PA."

Cartographically-Rounded Depth (Affected Charts):

9ft (11465_1, 11467_6, 11451_1, 11466_1, 11451_16, 11451_17)

1 ½fm (11460_1, 11013_1, 411_1)

S-57 Data

Geo object 1: Wreck (WRECKS)

Attributes: CATWRK - 2:dangerous wreck

QUASOU - 1:depth known

TECSOU - 1,2:found by echo-sounder,found by side scan sonar

VALSOU - 2.853 m

WATLEV - 3:always under water/submerged

Office Notes

Concur.

Feature Images



Figure 1.1.1

1.2) 1198/1 LD= 8ft @ mllw. NO SUBM WRK EXIST.**Primary Feature for AWOIS Item #4488**

Search Position: 25° 43' 32.3" N, 080° 10' 26.9" W
Historical Depth: [None]
Search Radius: 120
Search Technique: S2, ES, DI
Technique Notes: [None]

History Notes:

LNM11/78--7TH CGD; 27 FT SHRIMP BOAT REP SUNK IN PA LAT 25-43-18N, LONG ■ 80-10-24W; ALL ATTEMPT TO LOCATE HAVE FAILED; MAY BE ADRIFT. ■CL894/79--NOS; DADE COUNTY PUBLIC SAFETY OFFICE AVIATION HELICOPTER LED FIELD ■ PARTY TO WK WHERE IT LAY IN A 10 FT DEEP TROUGH; VERIFIED THAT THERE WERE NO ■ OTHER WKS IN CUT; DIVERS OBTAINED LEAST DEPTH AND POSITION; WOODEN WK, 25 FT ■ LONG, LEANING ON A TRAWL BOOM OFF ITS STARBOARD SIDE; BOW FACING SOUTH; ■ COVERED 3 FT IN LAT 25-43-30.9N, LONG 80-10-27.7W. ■H9926/80--OPR-H308-HSB-80; PSR ITEM 3; DURING RUNNING OF NORMAL HYDRO LINES ■ THE AREA AROUND POSITION OF WRECK WAS SURVEYED AS CLOSE AS 50 M; FATHOGRAMS ■ SCANNED FOR PEAKS; NEGATIVE RESULTS; RETAIN AS CHARTED. (ENTERED MSM 11/86) ■■SURVEY REQUIREMENTS■NOT ASSIGNED■■OPR-H328-NRT2-07 // F00533, 2007. CEF and Awois survey addressed the feature on 24 APR 2007.■This area is shoal. SSS ops were ran where allowed in water depths of less than 3m, with no contacts■to support this feature.■■Recommend REMOVAL.RWR

Survey Summary

Survey Position: 25° 43' 31.8" N, 080° 10' 27.3" W
Least Depth: 2.45 m (= 8.03 ft = 1.338 fm = 1 fm 2.03 ft)
TPU (±1.96σ): THU (TPEh) [None] ; TVU (TPEv) [None]
Timestamp: 2007-114.15:02:27.424 (04/24/2007)
Survey Line: f00533 / nrt2_1210_sb / 2007-114 / 032_1501
Profile/Beam: 1198/1
Charts Affected: 11465_1, 11467_6, 11451_1, 11466_1, 11460_1, 11451_16, 11451_17, 11013_1, 411_1

Remarks:

OPR-H328-NRT2-07 // F00533, 2007. CEF and Awois survey addressed the feature on 24 APR 2007. This area is shoal. SSS ops were ran where allowed in water depths of less than 3m, with no contacts to support this feature.

Feature Correlation

| Address | Feature | Range | Azimuth | Status |
|---------------------------------------|---------|-------|---------|---------|
| f00533/nrt2_1210_sb/2007-114/032_1501 | 1198/1 | 0.00 | 000.0 | Primary |

| | | | | |
|-------|--------------|-------|-------|-----------|
| awois | AWOIS # 4488 | 18.43 | 225.2 | Secondary |
|-------|--------------|-------|-------|-----------|

Hydrographer Recommendations

Recommend REMOVAL. RWR

Cartographically-Rounded Depth (Affected Charts):

8ft (11465_1, 11467_6, 11451_1, 11466_1, 11451_16, 11451_17)

1 ¼fm (11460_1, 11013_1, 411_1)

S-57 Data

[None]

Office Notes

Concur.

Feature Images

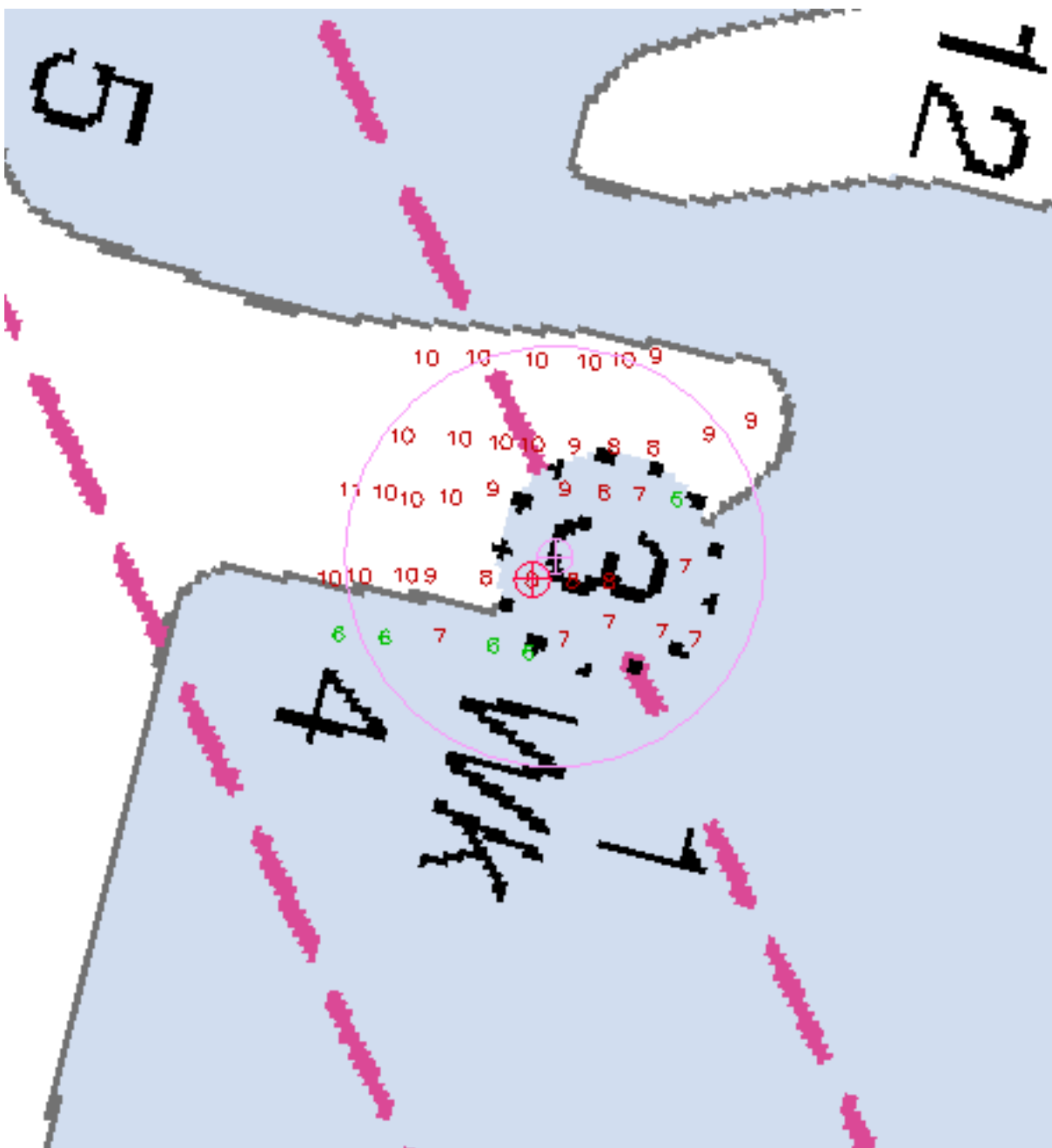


Figure 1.2.1

APPENDIX III
Final Progress Sketch and Survey Outline

There is no formal survey outline or progress report to be submitted due to the sparse nature of this survey. See earlier in this Descriptive Report for area of work.

APPENDIX IV
Tide and Water Levels

May 30, 2007

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

FROM: D.B. Elliott, NOAA // NRT2

SUBJECT: Request for Approved Tides/Water Levels

Please provide the following data:

1. Tide Note
2. Final zoning in MapInfo and .MIX format
3. 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-H328-NRT2-07

Registry No.: FE00533

State: Florida

Locality: Miami and Port Everglades, FL

Sublocality: North Miami to South of Miami

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 |
|----------|----------|----------|
| 2007_113 | 13:52:54 | 16:18:45 |
| 2007_114 | 13:18:54 | 15:28:56 |
| 2007_115 | 16:55:02 | 16:59:09 |
| 2007_116 | 16:01:00 | 16:01:00 |



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

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE : June 6, 2007

HYDROGRAPHIC BRANCH: Atlantic
HYDROGRAPHIC PROJECT: OPR-H328-NRT2-2007
HYDROGRAPHIC SHEET: F00533

LOCALITY: North Miami to South Miami, FL
TIME PERIOD: April 23 - April 26, 2007

TIDE STATION USED: 872-3214 Virginia Key, FL
Lat. 25° 43.9'N Long. 80°9.7' W

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 0.662 meters

REMARKS: RECOMMENDED ZONING

Use zone(s) identified as: FSE22, FSE23, FSE24, FSE32, FSE33, FSE38
and FSE62

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).

Fa

D. J. Hall

CHIEF, PRODUCTS AND SERVICES DIVISION



Final tide zone node point locations for OPR-H328-NRT2-2007, F00533

Format: Tide Station (in recommended order of use)
Average Time Correction (in minutes)
Range Correction
Longitude in decimal degrees (negative value denotes Longitude West),
Latitude in decimal degrees

| | Tide Station Order | AVG Time Correction | Range Correction |
|----------------------|-----------------------|------------------------|---------------------|
| Zone FSE22 | 8723214 | +24 | 1.00 |
| -80.204978 25.750545 | | | |
| -80.211269 25.746278 | | | |
| -80.205935 25.713667 | | | |
| -80.201473 25.711899 | | | |
| -80.185567 25.706939 | | | |
| -80.165726 25.701351 | | | |
| -80.1629 25.706073 | | | |
| -80.175453 25.709067 | | | |
| -80.182368 25.718537 | | | |
| -80.184139 25.728496 | | | |
| -80.182797 25.738699 | | | |
| -80.177482 25.746178 | | | |
| -80.199436 25.746062 | | | |
| -80.204978 25.750545 | | | |
| Zone FSE23 | 8723214 | +12 | 1.00 |
| -80.161259 25.714368 | | | |
| -80.167759 25.721927 | | | |
| -80.16979 25.728313 | | | |
| -80.169411 25.733999 | | | |
| -80.165903 25.738403 | | | |
| -80.172215 25.743876 | | | |
| -80.177482 25.746178 | | | |
| -80.182797 25.738699 | | | |
| -80.184139 25.728496 | | | |
| -80.182368 25.718537 | | | |
| -80.175453 25.709067 | | | |
| -80.1629 25.706073 | | | |
| -80.158696 25.711574 | | | |
| -80.161259 25.714368 | | | |
| Zone FSE24 | 8723214 | 0 | 1.00 |
| -80.161942 25.732706 | | | |
| -80.164274 25.73505 | | | |
| -80.165903 25.738403 | | | |
| -80.169411 25.733999 | | | |

| | | | |
|----------------------|---------|-----|------|
| -80.16979 25.728313 | | | |
| -80.167759 25.721927 | | | |
| -80.161259 25.714368 | | | |
| -80.151819 25.722946 | | | |
| -80.154408 25.727639 | | | |
| -80.157093 25.726856 | | | |
| -80.161942 25.732706 | | | |
| Zone FSE32 | 8723214 | -6 | 1.07 |
| -80.139498 25.775444 | | | |
| -80.143652 25.786113 | | | |
| -80.150201 25.784279 | | | |
| -80.156074 25.781396 | | | |
| -80.160403 25.776413 | | | |
| -80.163467 25.77084 | | | |
| -80.158146 25.768421 | | | |
| -80.150032 25.768684 | | | |
| -80.148145 25.772156 | | | |
| -80.139498 25.775444 | | | |
| FSE33 | 8723214 | +6 | 1.05 |
| -80.143652 25.786113 | | | |
| -80.150201 25.784279 | | | |
| -80.156074 25.781396 | | | |
| -80.160403 25.776413 | | | |
| -80.163467 25.77084 | | | |
| -80.171084 25.773928 | | | |
| -80.179884 25.77632 | | | |
| -80.177691 25.778639 | | | |
| -80.173481 25.786206 | | | |
| -80.167002 25.791256 | | | |
| -80.15746 25.796594 | | | |
| -80.145839 25.798578 | | | |
| -80.136554 25.798732 | | | |
| -80.143652 25.786113 | | | |
| FSE38 | 8723214 | +60 | 1.02 |
| -80.142436 25.86411 | | | |
| -80.143392 25.851106 | | | |
| -80.129339 25.853577 | | | |
| -80.126512 25.84671 | | | |
| -80.13057 25.841091 | | | |
| -80.120527 25.840956 | | | |
| -80.121289 25.864103 | | | |
| -80.142436 25.86411 | | | |
| FSE62 | 8723214 | +60 | 1.00 |
| -80.121139 25.938582 | | | |
| -80.120026 25.960159 | | | |
| -80.129551 25.961559 | | | |

-80.146309 25.949
-80.139144 25.944963
-80.135983 25.944961
-80.135173 25.941541
-80.121139 25.938582

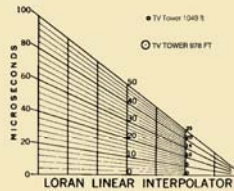
Information concerning the regulations and requirements for use of the data may be obtained from Environmental Protection Agency (EPA). See U.S. Coast Pilot appendix for addresses of EPA offices.

NOTE D
PROHIBITED AREAS
(Areas to be avoided)
Under the Florida Keys National Marine Sanctuary and Protection Act (Pub. L. 101-646 and NOAA Order 740-01), 145, these areas are to be avoided. See chart 11468 for details.

LOTRAN-C FREQUENCY 00Hz:
PULSE REPETITION INTERVAL
7980 79,800 Microseconds
STATION TYPE DESIGNATORS (Not individual station letter designations)
M Master
W Secondary
Y Secondary
Z Secondary
EXAMPLE: 7980-W

RATES ON THIS CHART
7980-W 7980-Z

Loran-C correction tables published by the National Imagery and Mapping Agency or others should not be used with this chart. The lines of position shown have been adjusted based on survey data. Every effort has been made to meet the 1/3 nautical mile accuracy criteria established by the U.S. Coast Guard. Mariners are cautioned not to rely solely on the latitudes in inshore waters.



CAUTION
SUBMARINE PIPELINES AND CABLES
Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:
..... Pipeline Area
..... Cable Area
Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging or trawling. Covered wells may be marked by lighted or unlighted buoys.

FSE33
Time Corrector +6 mins
Range Corrector x1.05
Reference 872-3214

FSE32
Time Corrector -6 mins
Range Corrector x1.07
Reference 872-3214

FSE22
Time Corrector +24 mins
Range Corrector x1.00
Reference 872-3214

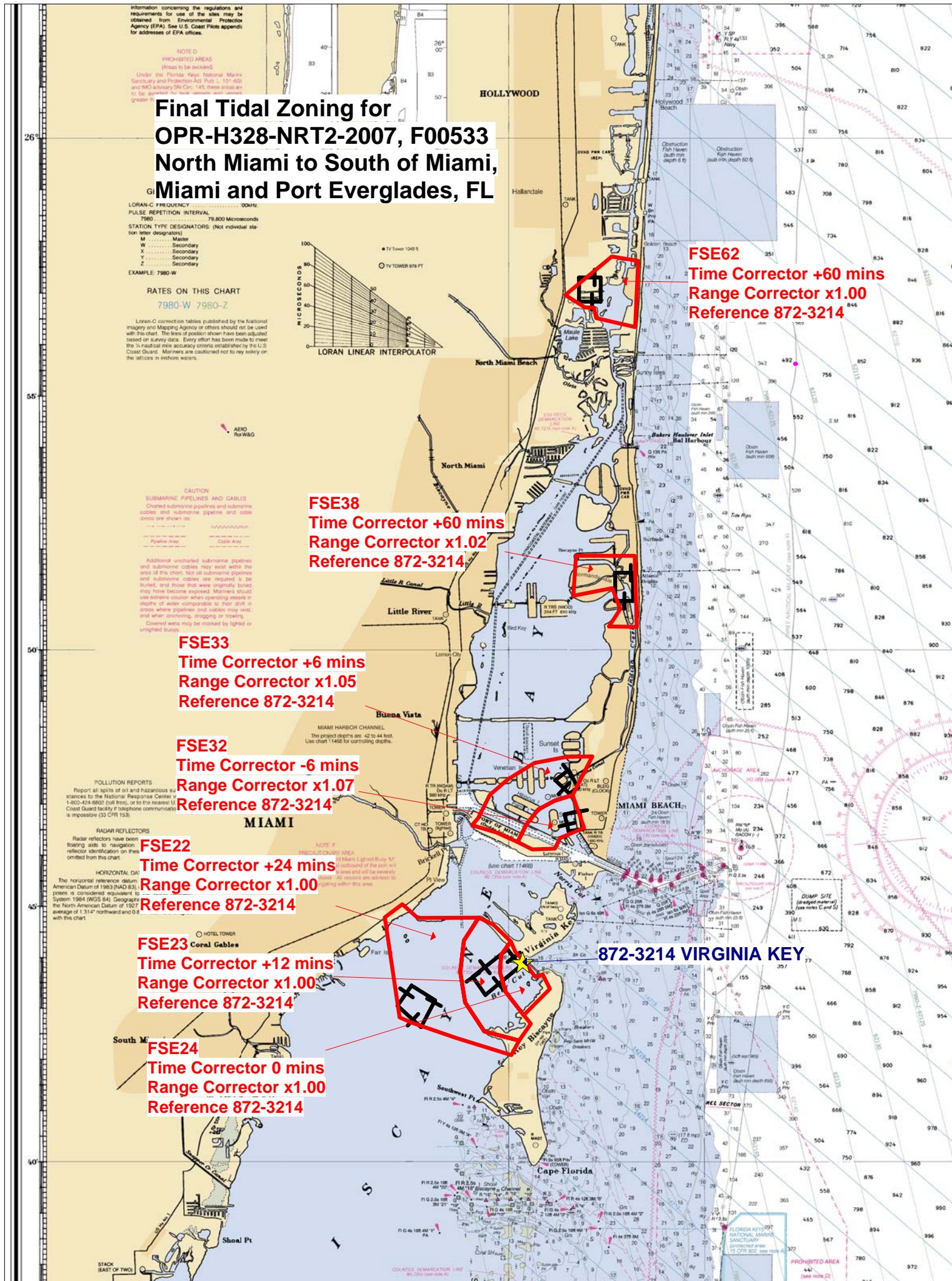
FSE23
Time Corrector +12 mins
Range Corrector x1.00
Reference 872-3214

FSE24
Time Corrector 0 mins
Range Corrector x1.00
Reference 872-3214


FSE38
Time Corrector +60 mins
Range Corrector x1.02
Reference 872-3214

FSE62
Time Corrector +60 mins
Range Corrector x1.00
Reference 872-3214

872-3214 VIRGINIA KEY



APPENDIX V
Supplemental Survey Records

Folders Inbox Sent Trash Drafts Addresses OptionsRobert.Ramsey@noaa.gov: **Inbox** [Compose](#)  [Reply](#)  [Reply All](#)  [Forward](#)  [Delete](#)  [Add Addresses](#)  [Previous](#)  [Next](#)  [Close](#)Move message to folder: From ["David.Elliott" <David.Elliott@noaa.gov>](#)

Sent Wednesday, May 23, 2007 5:59 pm

To [Mike Espey <Mike.Espey@noaa.gov>](#)Cc [Ramsey <Robert.Ramsey@noaa.gov>](#)

Bcc

Subject Re: Received files

Rodger that Mike, Thanks and we will make sure we run those pass Chris on there way to you. Cheers, D.

Mike Espey wrote:

Hello Dave,
Yes, RSD received the files. We had to pass them back to Chris Hare for conversion to shapefile, as we are unable to read the native MapInfo TAB format here. In the future, NRT project instructions will likely specify that the data follow a path from field thru Chris to RSD.
Thanks Dave,
Mike

David.Elliott wrote:

Hello Mike, Did you receive the files for Miami & Port Everglades from last week. Just wanted to make sure you received them. If you would please send me an e-mail regarding that they are at RSD for our records here. Thanks, D.

**ATLANTIC HYDROGRAPHIC BRANCH
EVALUATION REPORT to ACCOMPANY
SURVEY F00533 (2007)**

This Evaluation Report has been written to supplement and/or clarify the original Descriptive Report. Sections in this report refer to the corresponding sections of the Descriptive Report.

A. AREA SURVEYED

A chart evaluation file was sent from the field to RSD. Any items not addressed in the descriptive report were therefore not investigated by the branch unless warranted by side scan imagery.

B. DATA ACQUISITION AND PROCESSING

B.1 DATA PROCESSING

The following software was used to process data at the Atlantic Hydrographic Branch:

HSTP PYDRO version 8.7 r2586
CARIS HIPS/SIPS version 6.1 SP2 HF 1-7
CARIS Bathy Manager version 2.2 (beta)
CARIS HOM version 3.3 SP3 HF 1-8
CARIS S57 Composer version 2.0 HF 1-2

B.2. QUALITY CONTROL

B.2.1. H-Cell

The AHB source depth grid for the survey's nautical chart update product entailed creating VBES 2m grids, combined at 2 meter resolution. The survey scale selected soundings were extracted from the 2m product surface. The selected sounding set is 1mm to largest chart scale (1:10,000). Due to the sparse nature of data, there were no chart scale soundings selected. However, the complete selected sounding set is provided.

The Stand Alone HOB (SAHOB) files included features and cartographic Blue Notes. The individual SAHOB files were inserted into one BASE Manager feature layer and exported to S57 format in order to create the H-Cell deliverable. There are no META layers included in this H-Cell.

The completed H-Cell was exported as a Base Cell File in S-57 format with all values in metric units. The metric equivalent file was then converted to NOAA chart units (F00533_CS.000) with all values measured in feet following NOAA sounding rounding rules.

Chart compilation was performed by Atlantic Hydrographic Branch personnel in Norfolk, Virginia. Compilation data will be forwarded to Marine Chart Division, Silver Spring, Maryland.

The F00533 CARIS H-Cell final deliverables include the following products:

| | | |
|---------------|----------------|--|
| F00533_CS.000 | 1:10,000 Scale | F00533 H-Cell with Chart Scale Selected features and Cartographic Notes. |
| F00533_SS.000 | 1:10,000 Scale | F00533 Selected Soundings (Survey Scale) |

C. VERTICAL AND HORIZONTAL CONTROL

Final vertical correction processing was completed by. The office personnel applied verified water levels in conjunction with the final tidal zoning which was delivered by N/OPSI CO-OPS for F00533. Sounding datum is Mean Lower Low Water (MLLW). Vertical datum is Mean High Water (MHW)

Horizontal control used for this survey during data acquisition is based upon the North American Datum of 1983 (NAD83), UTM projection zone 17

D. RESULTS AND RECOMMENDATIONS

D.1 CHART COMPARISON

11465 (38th Edition, NOV/07)

Corrected through NM 11/24/2007
Corrected through LNM 11/20/2007
Scale 1:40,000

11467 6 (41st Edition, JUN/08)

Corrected through NM 06/07/2008
Corrected through LNM 06/03/2008
Scale 1:40,000

11467 9 (41st Edition, JUN/08)

Corrected through NM 06/07/2008
Corrected through LNM 06/03/2008
Scale 1:24,000

11468 (41st Edition, MAY/07)

Corrected through NM 05/19/2007
Corrected through LNM 05/15/2007
Scale 1:10,000

ENC Comparison

US5FL21M

Intracoastal Waterway Miami to Elliott Key
Edition 11
Application Date 2009-02-11
Issue Date 2009-02-11
Chart 11465

US5FL33M

Lake Worth to Deerfield Beach Florida
Edition 8
Application Date 2009-01-26
Issue Date 2008-01-26
Chart 11467

US5FL22M

Miami Harbor
Edition 16
Application Date 2009-02-02
Issue Date 2009-02-02
Chart 11468

D.1.1 Hydrography

The charted hydrography originates with prior surveys and requires no further consideration. The hydrographer makes adequate chart comparisons in section “D” and Appendix 1&2 of the Descriptive Report.

D.3. MISCELLANEOUS

Chart compilation was done by Atlantic Hydrographic Branch personnel, in Norfolk, Virginia. Compilation data will be forwarded to Marine Chart Division, Silver Spring, Maryland. See Section D.1. of this report for a list of the Raster Charts and Electronic Navigation Charts (ENC) used for compiling the present survey:

D.4. ADEQUACY OF SURVEY

The present survey is adequate to supersede the charted features within the common area. Any features not specifically addressed either in the H-Cell BASE Cell File or the Blue Notes should be retained as charted. Refer to the Descriptive Report feature reports for further recommendations by the hydrographer.

APPROVAL SHEET
F00533

Initial Approvals:

The completed survey has been inspected with regard to survey coverage, delineation of depth curves, representation of critical depths, cartographic symbolization, and verification or disproval of charted data. All revisions and additions made to the H-Cell files during survey processing have been entered in the digital data for this survey. The survey records and digital data comply with National Ocean Service and Office of Coast Survey requirements except where noted in the Descriptive Report and the Evaluation Report.

All final products have undergone a comprehensive reviews per the Hydrographic surveys Division Office Processing Manual and are verified to be accurate and complete except where noted.

Wesley G Kitt
Physical Scientist
Atlantic Hydrographic Branch

I have reviewed the H-Cell files, accompanying data, and reports. This survey and accompanying Marine Chart Division deliverables meet National Ocean Service requirements and standards for products in support of nautical charting except where noted.

Approved: _____
Shepard Smith
Commander, NOAA
Chief, Atlantic Hydrographic Branch