

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT

Type of Survey Hydrographic
Field No. AHP2-10-10-93
Office No..... H-10493

LOCALITY

State Florida
General Locality Biscayne Bay
Locality .. Key Biscayne to Biscayne Flats

19 93

CHIEF OF PARTY
LCDR James E. Waddell, Jr., NOAA

LIBRARY & ARCHIVES

DATE OCT 3 1995

H10493

HYDROGRAPHIC TITLE SHEET

H-10493

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 NO.

AHP2-10-10-93

State Florida

General locality Biscayne Bay

Locality Key Biscayne to Biscayne Flats

Scale 1:10,000 Date of survey August 12-September 20, 1993

Instructions dated April 6, 1993 Project No. S-H901

Vessel 0518 and 0519 (21-Foot MonArk's)

Chief of party LCDR James E. Waddell, NOAA

Surveyed by Dave Elliott, Bob Ramsey, Larry Martinez, Gene Parker

Soundings taken by echo sounder, hand lead, and Innerspace Model 448 And pole soundings.

Graphic record scaled by Dave Elliott, Bob Ramsey

Graphic record checked by Larry Martinez, Gene Parker

Verification by: Gordon E. Kay Automated plot by PHS Xynetics Plotter

Evaluation by: Gordon E. Kay

Soundings in meters and decimeters at ~~XXX~~ MLLW

REMARKS: Time in UTC. Revisions and marginal notes in black were generated
during office processing. All separates are filed with the
hydrographic data, as a result page numbering may be interrupted
or non-sequential.

All depths listed in this report are referenced to mean lower
low water unless otherwise noted.

1-38-97
OCT 3 1995 SC

DESCRIPTIVE REPORT TO ACCOMPANY
HYDROGRAPHIC SURVEY H-10493
FIELD NO. AHP2-10-10-93
SCALE: 1:10,000
1993
ATLANTIC HYDROGRAPHIC PARTY TWO
CHIEF OF PARTY: LCDR James E. Waddell Jr., NOAA

A. PROJECT

This survey was conducted according to Hydrographic Project Instructions S-H901-AHP, Biscayne Bay, Florida, dated April 6, 1993; and change No.1 dated 13 July 1993. ✓

The purpose of project S-H901-AHP is to evaluate and ascertain any changes as a result of damages suffered by hurricane Andrew, in the fall of 1992. Prior surveys in this area were conducted in 1919, 1930, 1934, and 1946. ✓

The sheet letter is "A" as specified by the project instructions. ✓

B. AREA SURVEYED See Eval Rpt, section 8

The area surveyed for H-10493 covers Biscayne National Monument. The approximate survey limits are as follows:

Lat. North: 25°41.5'N ✓
Lat. South: 25°37.5'N ✓
Long. East: 080°06.7'W ✓
Long. West: 080°13.5'W ✓

This survey was conducted from August 12, 1993 (DN 224) to September 20, 1993 (DN 263). ✓

C. SURVEY VESSELS

Vessel 0518 (EDP No. 0518) and 0519 (EDP No. 0519), 21-foot MonArk's, were used to collect all survey data. There were no unusual vessel configurations nor problems encountered. ✓

D. AUTOMATED DATA ACQUISITION AND PROCESSING

Version 4.03 of the PC-DAS programs was used for on-line data acquisition. A list of all HP-DPS programs and versions used for data processing can be found in Appendix VI.* The NOS program VELOCITY (Ver. 2.0) and WordPerfect (Ver. 5.1) were also used during this survey.

** filed with the survey records*

E. SONAR EQUIPMENT

Not Applicable. ✓

F. SOUNDING EQUIPMENT

Innerspace model 448 depth sounders were used to collect all echo soundings on this survey. Depth sounder S/N 175 was used on launch 0518, while S/N 186 was used on launch 0519. ✓

Two standard lead lines calibrated in meters, S/N 0518 and 0519, were used during this survey for comparison readings with the echo sounder. Five-meter long, wooden sounding poles, constructed according to HSG No. 69, were used to obtain all pole soundings. ✓

No problems were encountered with any of the sounding equipment. ✓

G. CORRECTIONS TO ECHO SOUNDINGS

Corrections for the speed of sound through the water column were computed from data obtained with an Odom Hydrographic Systems Digibar (Model DB1100) speed of sound probe, S/N 155. This instrument was calibrated by the manufacturer on May 3, 1993 and data quality assurance tests were performed before each cast. Program VELOCITY was used for computing the speed of sound correctors. Speed of sound corrections were applied to the sounding plot using the HDAPS Reapply Depth Correctors function. Copies of the tables and support documentation are in the Survey Separates.* The following speed of sound casts were taken on this survey: ✓

<u>Cast</u>	<u>DN</u>	<u>Date</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Depth</u>	
					<u>Actual</u>	<u>Extended</u>
09	225	08/13/93	25°39'30"N	080°08'00"W	8.0/	10.4
10	237	08/25/93	25°35'30"N	080°08'00"W	8.0/	10.4
11	244	09/01/93	25°35'36"N	080°07'42"W	8.0/	10.4 <i>off sheet limits</i>
12	251	09/08/93	25°41'00"N	080°07'00"W	8.0/	10.4
13	258	09/15/93	25°39'00"N	080°08'00"W	8.0/	10.4
14	264	09/21/93	25°41'55"N	080°05'11"W	12.0/	15.6 <i>off sheet limits</i>

The bracketing days for these casts are outlined in the table below.

<u>Cast No.</u>	<u>Table No.</u>	<u>Used for Days</u>
09	09	224-232
10	10	235-239

** filed with the survey records.*

11	11	242-246	✓
12	12	249-253	✓
13	13	256-260	
14	14	263-267	

Lead line comparisons were taken daily to determine echo sounder error. No echo sounder error was observed. The lead line comparison logs are in the Survey Separates, section IV.*
 The lead lines were calibrated using a steel tape on May 13, 1993 for launch 0518 and on May 14, 1993 for launch 0519. No corrections were necessary. A copy of the calibration form is in the Survey Separates, section IV.*

A static draft of 0.3 meters was applied to the final sounding plot by the HDAPS Reapply Depth Correctors program. The draft was measured by subtracting the difference from a punch mark on the side of launches 0518 and 0519, 0.6 meters above the transducer, to the water surface.

Settlement and squat measurements for launch 0518 were determined on May 13, 1993 (DN 133) and for launch 0519 on May 14, 1993 (DN 134). These measurements were conducted at the Miami, Marine Stadium using the level method; data from this test are included in the Survey Separates. Settlement and squat correctors were applied to the final sounding sheet using the HDAPS Reapply Depth Correctors function. Data from the settlement and squat test is in the Survey Separates, section IV.*

The sounding plot used predicted tides determined from Haulover Pier, Florida, with correctors designated in section 5.9 of the project instructions. Approved water levels were requested from the Product and Services Branch, Datums Section, N/OES231, in a letter dated September 23, 1993. A copy is included in Appendix V* of this report. *Approved Tide Note dated Jan. 7, 1994 is attached.*

H. CONTROL STATIONS *See Eval Rpt., section H*

The horizontal control datum for this project is the North American Datum of 1983. Two horizontal control stations, Key Biscayne Towers Condominium (001), and Key Biscayne Yacht Club Light No.1 (002) were used on this survey. These stations were established to 3rd-order standards with GPS by AHP personnel in May. The Horizontal Control Report and the Horizontal Control Report Addendum for these positions were submitted to N/CG23322 on May 28, 1993. These positions served as our GPS base station sites and also our launch performance checkpoint during work on this survey. Positions for these stations are shown in the Control Station list in Appendix III of this report.

(Attached).

** Filed with the survey records.*

I. HYDROGRAPHIC POSITION CONTROL See Eval Rpt, Section I.

Differential GPS (DGPS) was used for all hydrographic data acquired on this survey. Ashtech M-XII receiver (S/N 700157E1075) and antenna (S/N 700228C1572) were used for the reference station. An Ashtech Sensor (S/N 700417B1207) and antenna (S/N 700378A0232) were used as the remote station on launch 0519. An Ashtech Sensor (S/N 700417A1054) with antenna (S/N 700378A0275) was used as the remote station on launch 0518. Maxon VHF radios were used as the datalink between the base station receiver and the launch sensor. The primary GPS base station site (001) was set at Key Biscayne Towers Condominium. Prior to using the Key Biscayne Towers Condominium base station, the program MONITOR was run for this site to check its susceptibility to multi-path problems; this test indicated 99.9% availability at a 1:10,000 survey scale. Results of this test are included in the Survey Separates. *

Daily DGPS performance checks were conducted in accordance with FPM 3.4.4 by comparing the DGPS position of the vessel to our computed third-order position of Key Biscayne Yacht Club Light No.1. To obtain a performance check, the launch was brought alongside the checkpoint and the Easting, Northing, number of SVs, HDOP, and time of observation were noted on the echogram. These values were then entered into a Lotus spreadsheet table which would compute the acceptable error margin (based on the HDOP) and also our observed difference between our known and observed position. The table of these comparisons is included in the Survey Separates.* All of our observed differences fell well within the allowable limit.

J. SHORELINE

There was no final field sheet for H-10493, as this project was Team Processed with Pacific Hydrographic Section. The shoreline was transferred by hand from a chart enlargement in brown ink, with changes shown in red ink.* Chart No. 11451 (1:40,000, 25th Ed., July 11, 1992) was enlarged to 1:10,000 due to no updated photography being available at the time of this survey. Shoreline verification was accomplished during inshore hydrographic data acquisition and by visual inspection. The reference number descriptions, field notes, explanations of new shoreline features, and photographs of various features are located in the daily log, on the graphic record, and on the boat sheet. Charted shoreline should be revised and superseded only by new photography when available. *Concur, Shoreline has been shown on the smooth sheet in brown. There was no significant revisions to the charted shoreline.*

K. CROSSLINES

A total of 48.8 linear nautical miles of crosslines were run, which represents approximately 11% of the main scheme hydrography. Cross line soundings agree with the main scheme soundings within 0.2 meters inshore to 0.5 meters offshore. The offshore discrepancy is believed due to the difference between predicted and actual tides. This survey's tidal zones

* Filed with the survey records. 4

were divided into three geographic locations and unusual highs and lows were visually noted by launch operators during hydrography. ✓

L. JUNCTIONS *SEE Evaluation Report, section L.*

This survey junctions H-10473 to the south, a 1:10,000 scale survey from S-H901-AHP. ✓

Junction soundings between the present survey and H-10473 are in good agreement, with differences of 0.2 meters or less. ✓

M. COMPARISON WITH PRIOR SURVEYS *SEE Evaluation Report, section M.*

See Pacific Hydrographic Section's Evaluation Report for H-10493. ✓

N. ITEM INVESTIGATION REPORTS *See Eval Rpt, section N.*

All AWOIS reports are filed in the Descriptive Report Appendices, ^{*(Attached)*} ~~within Section VI,~~ Supplemental Correspondence.

O. COMPARISON WITH THE CHART *see Evaluation Report section O.*

Comparison is made with the following charts:

<u>Chart No.</u>	<u>Edition</u>	<u>Edition Date</u>
11451	25th	July 11, 1992
11462	21st	August 1, 1992
11463	13th	November 14, 1992
11465	28th	July 11, 1992
11467	29th	August 29, 1992

Three dangers to navigation were identified on this survey. A Danger to Navigation letter was submitted on August 25, 1993 and a copy has been ^{*Attached*} ~~included in Appendix I.~~

Soundings from this survey are within 0.3 meters of those charted.

The following discrepancies were noted: ✓

Notable scouring and minor shoal migration was found to be evident inside of the 5-meter isobath.

Recommendation: The hydrographer recommends that sounding data from this survey be used to update the chart. *CONCUR*

The charted shoal reported in 1979 at 25°38'34"N, 080°08'15"W was found to still exist with slight shoreward migration to approximately 25°38'35"N, 080°08'17"W, with a surveyed depth of ~~5.2~~^{1.5} meters. *done*

Recommendation: The hydrographer recommends that data from this survey be used to update the chart. *CONCUR*

The charted shoal at approximately 25°41'18"N, 080°10'32"W, exists as charted with a shoal depth of 0.3 meters. *done*

Recommendation: The hydrographer recommends that data from this survey be used to update the chart. *CONCUR*

Four charted groin ruins located on the ocean side of Key Biscayne at approximately 25°41'15.7"N, 080°09'22.2"W, were found to be charted south of their surveyed positions by approximately 70 meters at 25°41'12.9"N, 080°09'21.8"W. This position is the southern most of the four groins. *X*

Recommendation: The hydrographer recommends that positioning data from this survey be used to update the chart. *CONCUR*

Red daybeacon #18 (Pos. No. 59) is 225 meters south southeast of the currently charted position at 25°39'20"N, 080°11'00"W. See section Q, LLN 9710, for new position. *N.C.*

Recommendation: The hydrographer recommends that positioning data from this survey be used to update the chart. *do NOT CONCUR. Update with latest US Coast Guard listing.*

The charted "Visible Wreck" at 25°39'01.5"N, 080°10'28.3"W (Pos. No. 94, diver investigation) does not exist. *deleted*

Recommendation: The hydrographer recommends that this wreck be removed from the chart. *CONCUR*

The charted "Piles" at 25°38'57.7"N, 080°10'38.5"W (Pos. No. 95, diver investigation) do not exist. *deleted*

Recommendation: The hydrographer recommends that these piles be removed from the chart. *CONCUR*

The charted "Pile" at 25°38'⁸59.0"N, 080°10'12.9"W (Pos. No. 97, diver investigation) does not exist. *deleted*

Recommendation: The hydrographer recommends that this pile be removed from the chart. *CONCUR*

The charted "Pipe" at 25°38'59.2"N, 080°10'03.5"W (Pos. No. 98, diver investigation) does not exist. *deleted*

Recommendation: The hydrographer recommends that this pipe be removed from the chart. *CONCUR*

The charted "Pile" at 25°38'20.0"N, 080°10'09.8"W (Pos. No. 103, diver investigation) does not exist. *deleted symbol*

Recommendation: The hydrographer recommends that this pile be removed from the chart. *CONCUR*

The charted "Pile" at 25°38'17.5"N, 080°10'15.1"W (Pos. No. 104, diver investigation) does not exist. *deleted*

Recommendation: The hydrographer recommends that this pile be removed from the chart. *CONCUR*

The charted "Pile" at 25°38'01.1"N, 080°11'03.5"W (Pos. No. 105, diver investigation) does not exist. *deleted*

Recommendation: The hydrographer recommends that this pile be removed from the chart. *CONCUR*

Note: Detailed remarks for presently charted visible features, that are not addressed above, and that were addressed by diver investigations can be found in the D.P. editor printouts* and on the fathograms.*

P. ADEQUACY OF SURVEY See Eval Rpt, section P

This survey is a complete basic hydrographic survey and is adequate to supersede all prior surveys within the common area. *Do not Concur*

Q. AIDS TO NAVIGATION

The following fixed aids to navigation are maintained by the U.S. Coast Guard and lie within the survey area. All of the aids serve their intended purpose. Aids to navigation were positioned by DGPS during hydrographic operations. Equipment and resources were not available for 3rd-order positions on these navigation aids.

Pos. No.	USCGLL#	Chart Pos.	Survey Pos.	Distance/Bearing from Charted Position
3055	9645	25°38'20"N 080°07'53"W	25°38'20.5"N 080°07'53.05"W	<i>BISCAYNE CHANNEL Light 1</i> On Station
3054	9650	25°38'40"N	25°38'41.3"N	<i>BISCAYNE CHANNEL Light 1</i> On Station

		080°08'02"W	080°08'02.39"W	
3053	9655	25°38'50"N	25°38'49.96"N	⁶ BISCAYNE CHANNEL Light 2 On Station
		080°08'05"W	080°08'04.36"W	
3052	9660	25°39'04"N	25°39'03.97"N	⁸ BISCAYNE CHANNEL Light 3 On Station
		080°08'40"W	080°08'39.89"W	
3051	9665	25°39'07"N	25°39'06.81"N	⁹ BISCAYNE CHANNEL Daybeacon 4 On Station
		080°08'36"W	080°08'36.78"W	
3050	9670	25°39'14"N	25°39'14.08"N	⁶ BISCAYNE CHANNEL Light 6 On Station
		080°08'58"W	080°08'58.74"W	
3049	9675	25°39'11"N	25°39'10.09"N	¹⁰ BISCAYNE CHANNEL Daybeacon 7 On Station
		080°09'06"W	080°09'06.19"W	
3048	9680	25°39'13"N	25°39'13.26"N	⁶ BISCAYNE CHANNEL Daybeacon 8 On Station
		080°09'10"W	080°09'09.96"W	
3047	9685	25°39'16"N	25°39'16.47"N	⁸ BISCAYNE CHANNEL Daybeacon 10 On Station
		080°09'35"W	080°09'34.99"W	
3046	9690	25°39'16"N	25°39'16.24"N	⁵ BISCAYNE CHANNEL Daybeacon 12 On Station
		080°09'57"W	080°09'57.36"W	
52	9695	25°39'16"N	25°39'15.97"N	⁸ BISCAYNE CHANNEL Daybeacon 14 On Station
		080°10'14"W	080°10'14.14"W	
56	9700	25°39'07"N	25°39'07.24"N	⁵ BISCAYNE CHANNEL Light 15 On Station
		080°10'28"W	080°10'27.98"W	
57	9705	25°39'15"N	25°39'15.37"N	¹ BISCAYNE CHANNEL Daybeacon 16 On Station
		080°10'29"W	080°10'29.20"W	
59	9710	25°39'20"N	25°39'14.72"N	³ BISCAYNE CHANNEL Daybeacon 18 225 meters SSE
		080°11'00"W	080°10'49.89"W	
60	9715	25°39'18"N	25°39'17.70"N	⁶⁰ BISCAYNE CHANNEL Daybeacon 19 On Station
		080°11'05"W	080°11'05.29"W	
61	9720	25°39'24"N	25°39'23.84"N	³⁰ BISCAYNE CHANNEL Daybeacon 20 On Station
		080°11'07"W	080°11'06.76"W	

62	9725	25°39'20"N 080°11'11"W	25°39'20. ³⁰ ₂₉ "N 080°11'10. ⁵⁰ ₄₉ "W	<i>Biscayne Channel Light 21</i> On Station
41	9640	25°41'07"N 080°11'01"W	25°41'06. ⁵⁰ ₇₀ "N 080°11'01. ⁵ ₂₄ "W	<i>Cape Florida Light 4</i> On Station
42	9635	25°41'04"N 080°10'46"W	25°41'04. ⁵ ₁₈ "N 080°10'46. ⁶ ₁₉ "W	<i>Cape Florida Daybeacon 2</i> On Station
50	42585	25°39'50"N 080°11'01"W	25°39'50. ³ ₀₂ "N 080°11'01. ³ ₃₁ "W	<i>Biscayne Flats Daybeacon 3</i> On Station
46	42565	25°40'22"N 080°11'01"W	25°40'22. ³ ₁₂ "N 080°11'01. ⁶ ₆ "W	<i>Biscayne Flats Daybeacon 1</i> On Station
63	42690	25°38'37"N 080°11'30"W	25°38'36. ⁵ ₉₄ "N 080°11'29. ⁸ ₉₁ "W	<i>Safety Valve Bank Light 1</i> On Station

All navigation aid positions were submitted to the Seventh U.S. Coast Guard at the conclusion of S-H901-AHP.

R. STATISTICS ✓

<u>Description</u>	<u>Quantity</u>
Total Number of Positions	4398
Total Lineal Nautical Miles of Hydrography	449.8
Total Lineal Nautical Miles of Cross Lines	48.8
Square Nautical Miles of Hydrography	23
Days of Production	30
Detached Positions	139
Bottom Samples	86
Tide Stations	3
Velocity Casts	6

S. MISCELLANEOUS ✓

There were two to four knot tidal currents evident at all passages in the vicinity of "Biscayne Flats". A note has been added to the Smooth Sheet to reflect this information. ✓

Bottom samples were taken as directed in Section 6.7 of the project instructions. Bottom

sample positions and descriptions are plotted on the overlay submitted with this survey, and are listed on the Oceanographic Log Sheet-M, NOAA Form 75-44, which is included in the Survey Separates, section II. *

No predicted tidal anomalies were observed during this survey.

Shoreline, on the east side of Key Biscayne, is off limits to boaters within 300 yards of shore due to swimmers in the area. This ordinance is enforced by the City of Key Biscayne Police. Park boundaries from "Bill Baggs State Park" extend offshore 400 feet. It is prohibitive to remove any marine life within these limits, except for finfish caught on line and tackle.

There are two cable crossing areas located within the survey limits. *however the end points were NOT investigated. Retain cable areas as charted.*

T. RECOMMENDATIONS *See Eval Rpt, Section T*

Future chart editions should have printed on them a reordering address and telephone number so when our customers wish to order the same or adjoining charts, they will not need to obtain a chart catalog. This eliminates a step in getting our product to the market place. *CONCUR*

U. REFERRAL TO REPORTS ✓

<u>Title</u>	<u>Transmittal Information</u>
Descriptive Report to Accompany Survey H-10473,	Pacific Hydrographic Section N/CG245, Seattle, WA (8/16/93)
Horizontal Control Report for S-H901-AHP2	Field Photogrammetry Section N/CG23322, Norfolk, VA (5/28/93)
Chart Sales Agent Report	Chart Distribution Branch N/CG33, Rockville, MD (8/17/93)
User Evaluation Report	Pacific Hydrographic Section N/CG245, Seattle, WA (8/17/93)
Chart Inspection Report	Atlantic Hydrographic Section N/CG244, Norfolk, VA (8/17/93)
Coast Pilot Report	Pacific Hydrographic Section N/CG245, Seattle, WA (8/23/93)

Submitted by: Atlantic Hydrographic Party Two

AWOIS NO:4477 ✓

Item Description: Obstruction awash

Source: H9926/80 ✓--OPR-H308-HSB-80; LNM14/81-7th USCGD

AWOIS Position: Lat - 25/38/11.48N ✓ Lon - 080/08/20.22W ✓

Required Investigation: BD,DI,SD -- 100 meters ✓

Charts Affected: 11451, 11465, 11467

INVESTIGATION

Date(s)/DN(s): 8/23/93 (DN:235)

Position Numbers: 3121

Launch Number:0519

Investigation Used: VS, DI ✓

Water Visibility: 5m

Position Determined By: DGPS

Investigation Summary: An 100m radius diver circle search was conducted from the reported position with no snags encountered other than lobster traps at various points. A visual search was conducted of the area as well with no sightings. The area was found to have a hard sand bottom with scattered grass patches. It is believed that the reported debris was either removed, covered over, or dispersed by hurricane " Andrew ", and no longer exist to the point of significance.

CHARTING RECOMMENDATION

The hydrographer recommends that the charted ^{dangerous}wreck be removed, and the currently surveyed contours and soundings be applied to the chart. *Concur*

Recommended Position: Lat - 25/38/11.4N Lon - 080/08/20.2W

Recommended Least Depth: surveyed soundings

CHART AREA AS SHOWN ON SMOOTH SHEET

COMPILATION NOTES

Chart

11465

Applied As

deleted @ abm wk

AWOIS NO: 4478 ✓

Item Description: Wreck awash

Source: CL1943/77--NOS,CAS, H-9926/80--OPR-H308

AWOIS Position: Lat - 25/38/45.53N ✓ Lon - 080/10/29.53W ✓

Required Investigation: BD, SD 100m radius ✓

Charts Affected: 11451, 11465

INVESTIGATION

OUTLINED IN
FOUL AREA

Date(s)/DN(s): 8/18/93 (DN:230)

Position Numbers: 88

Launch Number: 0518

Investigation Used: VS

Water Visibility: 10m

Position Determined By: DGPS

Investigation Summary: The submerged wreck was found visually at the charted location. The wreck is approximately 50 to 60 feet long and 10 feet wide. The wreck is lying NE by SW and was awash at the time of positioning but, is visible at MLLW.

CHARTING RECOMMENDATION

The hydrographer recommends that the charted visible wreck be ~~deleted~~ revised to submerged wreck at the following location.

Chart Wreck

Recommended Position: Lat - 25/38/46.1⁰N Lon - 080/10/29.0W *done*

Recommended Least Depth: awash

COMPILATION NOTES

Chart

11465

Applied As

Moved wk.

AWOIS NO: 4479[✓]

Item Description: Visible wreck

Source: CL1943/77--[✓]NOS, H-9926/80--OPR-H308

AWOIS Position: Lat - 25/38/46.61[✓]N Lon - 080/10/27.53[✓]W

Required Investigation: BD, SD 100m[✓] radius

Charts Affected: 11451, 11465

INVESTIGATION

*OUTLINED IN
FOUL AREA*

Date(s)/DN(s): 8/18/93 (DN:230)

Position Numbers: 86-87

Launch Number: 0518

Investigation Used: VS, DI

Water Visibility: 10m

Position Determined By: DGPS

Investigation Summary: The visible wreck was found visually at the charted location. The wreck is approximately 60 feet long and 20 feet wide. The wreck is lying NNE by SSW and is exposed one meter.

CHARTING RECOMMENDATION

The hydrographer recommends that the charted wreck be ~~retained as~~ ^{*deleted*} charted at the following location:
a wreck (visible)

Recommended Position: Lat - 25/38/46.9[✓]N Lon - 080/10/27.8[✓]W

Recommended Least Depth: exposed/visible *Chart wreck. Ash.*

COMPILATION NOTES

Chart

11465

Applied As

11000d wk.

AWOIS NO: 4480 ✓

Item Description: Wreck awash

Source: CL1943/77 ✓ --NOS,CAS, H-9926/80--OPR-H308

AWOIS Position: Lat - 25/38/48.48N ✓ Lon - 080/10/44.92W ✓

Required Investigation: VS, BD, SD 100m radius

Charts Affected: 11451, 11465

INVESTIGATION

Date(s)/DN(s): 8/18/93 (DN:230)

Position Numbers: 82

Launch Number: 0518

Investigation Used: VS

Water Visibility: 10m

Position Determined By: DGPS

Investigation Summary: The submerged wreck was found visually at the charted location. The wreck is approximately 60 feet long and 20 feet wide. The wreck is lying N to S in 2 to 3 feet of water and is awash at mllw.

CHARTING RECOMMENDATION

The hydrographer recommends that the charted visible wreck be *deleted.*
revised to, *submerged*, at the following location:

Chart Visible Wreck

Recommended Position: Lat - 25/38/48.0N¹ Lon - 080/10/44.3W⁹

-0.3

Actual tide

Recommended Least Depth: *awash* by pole @ *predicted* mllw.

COMPILATION NOTES

Chart
11465

RETAINED AT
POSITION CHART

Applied As
moved wk

AWOIS NO: 4481 ✓

Item Description: Wreck awash

Source: CL1943/77--NOS,CAS, H-9926/80--OPR-H308

AWOIS Position: Lat - 25/38/49.10N ✓ Lon - 080/10/39.69W ✓

Required Investigation: VS, BD, SD 100m ✓ radius

Charts Affected: 11451, 11465

INVESTIGATION

Date(s)/DN(s): 8/18/93 (DN:230)

Position Numbers: 81

Launch Number: 0518

Investigation Used: VS

Water Visibility: 10m

Position Determined By: DGPS

Investigation Summary: The submerged wreck was found visually at the charted location. The wreck is approximately 58 feet long and 16 feet wide. The wreck is lying NW to SE in 2 to 4 feet of water.

↑
03 m
see sheet

CHARTING RECOMMENDATION

The hydrographer recommends that the charted submerged wreck be ~~deleted~~ retained at the following location:

Chart Wreck at
Submerged
Recommended Position: Lat - 25/38/48.9N³ Lon - 080/10/39.0W³

Recommended Least Depth: 0.3m by pole @ *Actual tide* ~~predicted~~ mllw.

*****^{1 foot}*****

COMPILATION NOTES

Chart

11465

Applied As

WK ✓

AWOIS NO: 4483 ✓

Item Description: WRECK-Visible Barge

Source: CL71/68--SP-8-66, CL1278/78--CAS, H-9926/80--OPR-H308

AWOIS Position: Lat - 25/39/16.04N ✓ Lon - 080/10/39.56W ✓

Required Investigation: VS, BD, SD 100m radius

Charts Affected: 11451, 11465
INVESTIGATION

Date(s)/DN(s): 8/18/93 (DN:230)

Position Numbers: 66

Launch Number: 0518

Investigation Used: VS

Water Visibility: 8m

Position Determined By: DGPS

Investigation Summary: The visible wreckage of a barge was found visually at the charted location. The wreck is approximately 85 feet long and 22 feet wide, and was exposed one meter at the time of positioning.

CHARTING RECOMMENDATION

The hydrographer recommends that the charted wreck be ~~retained as~~ *deleted.*
C charted at the following location:
a wreck (visible)

Recommended Position: Lat - 25/39/15.9⁷N Lon - 080/10/39.2⁸W

Recommended Least Depth: ^{-1.0}~~exposed~~/visible *at actual tide MLLW.*

COMPILATION NOTES

Chart

11465

Applied As

11622 wlc ✓

AWOIS NO:4484 ✓

Item Description: Hull ribs

Source: CL1943/77---NOS; H9926/80---OPR-H308-HSB-80

AWOIS Position: Lat - 25/38/48.48N ^{9/16.83} Lon - 080/20/44.92W ^{03/51.08}

Required Investigation: BD, SD, VS, -- 100m radius ✓

Charts Affected: 11451, 11465, 11467

INVESTIGATION

Date(s)/DN(s): 8/18/93 (DN:230)

Position Numbers: 3083

Launch Number: 0519

Investigation Used: VS

Water Visibility: 0m

Position Determined By: DGPS

Investigation Summary: Visual identification of reported feature was located, and a lead line was obtained of 0.9m (raw) on the mid point of a Keel and ribs, lying on a axis of 230 degree, with dimensions of 2 x 10 meters. This wreck debris lies on the north edge of " Biscayne Channel ".

CHARTING RECOMMENDATION

The hydrographer recommends that the charted Wreck be ~~retained~~ ^{deleted.} with revision to position and noted as awash at mllw. ^{Chart A1 wreck at pos 3083, lat 25/39/17.4N, long. 080/09/50.4W, as part of AWOIS 4485,}
Recommended Position: Lat - 25/39/16.7N ^{Visible} Lon - 080/09/51.2W ⁰⁸
Recommended Least Depth: .8 meters mllw ⁴ (Actual tide) [0*] chart ^{Chart A1 as shown on Smooth Sheet. This 04 wk is part of foul with wreckage.}

COMPILATION NOTES

11465

Move vis wk. ✓

AWOIS NO:4485 ✓

Item Description: Two visible wrecks(associated with Awois 4484)

Source: H9926/80--OPR-H308-HSB-80

AWOIS Position: Lat - 25/39/17.15N Lon - 080/09/49.99W

Required Investigation: VS, SD, BD -- 100m radius

Charts Affected: 11451, 11465, 11467

INVESTIGATION

Date(s)/DN(s): 8/18/93 (DN:230)

Position Numbers: 3084, 3085

Launch Number: 0519

Investigation Used: VS

Water Visibility: 20m

Position Determined By: DGPS

Investigation Summary: A visual identification of the reported feature was made at two positions within the search area. Position No. 3084 marks debris that is Foul to 20 meters with a leadline of 1.2m (raw) and position No. 3085 marks debris that is Foul to 10 meters with a leadline of .5 (raw).

CHARTING RECOMMENDATION

① -# 3084 = 0.7
② -# 3085 = 0.0

The hydrographer recommends that the charted wreck symbol be removed and that a Foul notation, and associated limits listed above be applied. *Concur, area should be charted as foul with wreckage. Chart Visible Wreck (D) at lat. 25/39/17.4N, long. 80/09/50.4W.*

Recommended Position: Lat - 25/39/16.2N Lon - 080/09/49.6W
25/39/17.4N 080/09/50.4W

Recommended Least Depth: 0.7, 0.0, 5m, 2m, awash actual tide, MLLW

Chart Area as shown on Smooth Sheet

COMPILATION NOTES

11465

*Revise area to Foul ✓
add foul pile symbols in area*

AWOIS NO: 4486 ✓

Item Description: Submerged Wreck

Source: LNM50/79--7th CGD, H-9926/80--OPR-H308

AWOIS Position: Lat - 25/41/09.90N ✓ Lon - 080/10/48.54W ✓

Required Investigation: BD, DI, SD ✓ 100m radius ✓

Charts Affected: 11451, 11465
INVESTIGATION

Date(s)/DN(s): 8/18/93 (DN:230)

Position Numbers: 90

Launch Number: 0518

Investigation Used: VS

Water Visibility: 10m

Position Determined By: DGPS

Investigation Summary: The submerged wreck was found visually at the charted location. The wreck is approximately 50 to 60 feet long and 20 feet wide. The wreck is lying East to West in one to two foot of water.

CHARTING RECOMMENDATION

The hydrographer recommends that the charted submerged wreck be *deleted.*
~~retained as charted~~ at the following location:
wreck (visible)

Recommended Position: Lat - 25/41/09.4N¹ Lon - 080/10/48.8W⁶

Recommended Least Depth: *-0.1 actual tide*
~~wash @ predicted~~ mllw

Chart area as shown on smooth sheet.

COMPILATION NOTES

Chart

11465

Applied As ✓

revised to vis wk.

AWOIS NO: 4487 ✓

Item Description: Submerged Wreck

Source: LNM50/79--7th CGD, H-9926-OPR-H308.

AWOIS Position: Lat - 25/41/11.39N ✓ Lon - 080/10/48.91W ✓

Required Investigation: BD, DI, SD 100m radius

Charts Affected: 11451, 11465

INVESTIGATION

Date(s)/DN(s): 8/18/93 (DN:230)

Position Numbers: 91

Launch Number: 0518

Investigation Used: VS ✓

Water Visibility: 10m

Position Determined By: DGPS

Investigation Summary: The submerged wreck was found visually at the charted location. The wreck is approximately 75 to 80 feet long and 25 feet wide. The wreck is lying East to West in one to two foot of water.

CHARTING RECOMMENDATION

The hydrographer recommends that the charted submerged wreck be *deleted.* retained as *Wreck (submerged)* charted at the following location:

Recommended Position: Lat - 25/41/11.0N² Lon - 080/10/48.9W²

Recommended Least Depth: 0.7m by pole @ *Actual tide* predicted mllw

Chart Area As shown on Smooth Sheet.

COMPILATION NOTES

Chart

11405

Applied As

*moved Subm. Wk. /
Revised to 2:*

AWOIS NO:7420 ✓

Item Description: Tug wreck ✓

Source: LNM19/65; LNM20/65; NM24/65; NM24/66; CL71/68; CL1943/78 ✓

AWOIS Position: Lat - 25/38/04.37N ✓ Lon - 080/07/18.16W ✓

Required Investigation: S2, SD, DI -- 500m radius

Charts Affected: 11451, 11465, 11467

INVESTIGATION

Date(s)/DN(s): 8/20/93 (DN:232)

Position Numbers: 3118

Launch Number: 0519

Investigation Used: VS, DI

Water Visibility: 10m

Position Determined By: DGPS

Investigation Summary: A 100m diver circle search and a 500m diver towed search was conducted at the reported position, both with negative results. Visibility was excellent. The above negative results coupled with the previous reported searches by Helicopter (CL71/68--SP-9-66), and 200 meter otter board drags (CL1943/76--CES), and contact with local salvage firms, have **strongly** indicated that this reported "Tug" was salvaged.

CHARTING RECOMMENDATION

The hydrographer recommends that the charted submerged wreck be removed. *CONCUR*

Recommended Position: Lat - 25/38/04.4⁶N Lon - 080/07/18.1⁴W

Recommended Least Depth: surveyed soundings

CHART AREA AS SHOWN ON SYMBOL SHEET.

COMPILATION NOTES

Chart

11467

Applied As

deleted.

AWOIS NO:7423 ✓

Item Description: 25-35'LOA cabin cruiser sunk and breaking up

Source: LNM12/81(3/25/81) ✓

AWOIS Position: Lat - 25/39/01.37N ✓ Lon - 080/08/39.16W ✓

Required Investigation: BD, DI, SD -- 500m radius ✓

Charts Affected: 11451, 11465, 11467

INVESTIGATION

Date(s)/DN(s): 8/20/93 (DN:232)

Position Numbers: 3119

Launch Number: 0519

Investigation Used: VS, DI

Water Visibility: 10m

Position Determined By: DGPS

Investigation Summary: A 100m diver circle search and a 500m ✓
diver towled search was conducted at the reported position, both
with negative results. Visibility was excellent.

CHARTING RECOMMENDATION

The hydrographer recommends that the charted submerged wreck be
removed. *Concur*

Recommended Position: Lat - 25/39/01.3⁹N Lon - 080/08/39.0⁴W

Recommended Least Depth: surveyed soundings

CHART AREA AS SHOWN ON SMOOTH SHEET.

COMPILATION NOTES

11465

deleted.

AWOIS NO: 7427 ✓

Item Description: Partially submerged Barge.

Source: LNM21/87--7th CGD. ✓

AWOIS Position: Lat - 25/40/01.37N ✓ Lon - 080/10/59.17W ✓

Required Investigation: BD, DI, SD ✓ 500m radius ✓

Charts Affected: 11451, 11465

INVESTIGATION

Date(s)/DN(s): 8/20/93 (DN:232)

Position Numbers: 108

Launch Number: 0518

Investigation Used: VS, DI

Water Visibility: 15-20m

Position Determined By: DGPS

Investigation Summary: A buoy was dropped at the center of AWOIS 7427 and a diver was deployed with the Aqua Sled to conduct a 500 meter radius diver tow search. The vessel travelled at 2 to 3 knots with a diver in tow on 20 meter line spacing. The HDAPS target feature was used to insure the area was adequately searched. After a two hour and 45 minute search in this area there were no signs of any wreckage or features found. The water visibility was excellent (50 to 60 feet) and the bottom was clearly visible throughout the search. The results of this search was nothing found!

CHARTING RECOMMENDATION

The hydrographer recommends that the charted visible wreck be removed from the chart at the following location: CONCUR

Recommended Position: Lat - 25/40/01.3⁷N Lon - 080/10/59.2⁸W

Recommended Least Depth: n/a

CHART AREA As Shown on Smooth Sheet.

COMPILATION NOTES

Chart

11465

Applied As

deleted.

AWOIS NO: 8484 ✓

Item Description: Ruins baring 4 feet.

Source: CL1943/78--CAS ✓

AWOIS Position: Lat - 25/38/47.32N ✓ Lon - 080/10/26.57W ✓

Required Investigation: VS, BD, SD. 100m radius ✓

Charts Affected: 11451, 11465

INVESTIGATION

Date(s)/DN(s): 8/18/93 (DN:230)

Position Numbers: 89

Launch Number: 0518

Investigation Used: VS

Water Visibility: 10m

Position Determined By: DGPS

Investigation Summary: The ruins were found visually at the charted location. The ruins ^{lie} are at the eastern end of AWOIS 4479 and are exposed approximately one meter. The ruins are in 3 to 4 foot of water and appear to be that of a wheelhouse.

CHARTING RECOMMENDATION

The hydrographer recommends that the charted ruins be retained as charted at the following location: ^{Do not} Two visible wrecks were located within the ^{Concur} ruins. Due to chart scale, the wrecks should be charted in lieu of ruins.

Recommended Position: Lat - 25/38/47.4N Lon - 080/10/26.6W

Recommended Least Depth: exposed/visible
CHART AREA AS SHOWN -1.2 at MLLW (Actual fides)

ON SHOOTING SHEET.

COMPILATION NOTES

Chart

Applied As

11465

AREA REVISED TO EOWL

✓

AWOIS NO:8485 ✓

Item Description: House foundation ruins

Source: CL1943/78---CES ✓

AWOIS Position: Lat - 25/38/49.87N ✓ Lon - 080/09/47.37W ✓

Required Investigation: VS, SD, BD -- 100m radius ✓

Charts Affected: 11451, 11465, 11467

INVESTIGATION

Date(s)/DN(s): 8/17/93 (DN:229)

Position Numbers: 3060-3064

Launch Number: 0519

Investigation Used: VS

Water Visibility: 5m

Position Determined By: DGPS

Investigation Summary: A pile (1m) (FX:3060) ✓, was located to the NW of the main body of ruins associated with this feature. The remainder of the Foul area associated with this item is bracketed on for points by a subm pile (.3m) (FX:3061) ✓ located at the SE corner, NE (FX:3062) ✓, NW (FX:3063) ✓, SW (FX:3064) ✓ corners, and considered Foul within these ^{four} points.

CHARTING RECOMMENDATION

The hydrographer recommends that the charted ruins and piles be removed, and that an exposed pile, and foul limits depicted above, be applied to the chart. Concur

Recommended (Position) No.	Lat	Lon	Feature
3060	25/38/51.4N	080/09/49.7W	Feature
3061	25/38/50.0N	080/09/44.6W	Sub. pile
3062	25/38/51.1N	080/09/44.1W	—
3063	25/38/51.4N	080/09/47.9W	—
3064	25/38/49.6N	080/09/47.9W	—

Recommended Least Depth: pile(1m), "Foul"
CHART AREA As Shown on SYDRA Sheet

COMPILATION NOTES

11465

Chart as foul area with pile symbols within

AWOIS NO: 8488 ✓

Item Description: Submerged Stump/ Obstr.

Source: CL1943/78 ✓ --CES

AWOIS Position: Lat - 25/38/52.57N ✓ Lon - 080/10/18.82W ✓

Required Investigation: VS, BD, SD ✓ 100m radius

Charts Affected: 11451, 11465

INVESTIGATION

Date(s)/DN(s): 8/18/93 (DN:230)

Position Numbers: 77

Launch Number: 0518

Investigation Used: VS

Water Visibility: 10m

Position Determined By: DGPS

Investigation Summary: The stump/obstruction was found visually at the charted location. The stump was approximately one meter in diameter and posed no danger to navigation as it is located close to visible ruins.

CHARTING RECOMMENDATION

The hydrographer recommends that the charted obstruction be ~~retained as charted~~ *deleted.* at the following location:

obstruction (09)

Recommended Position: Lat - 25/38/51.8N ✓ Lon - 080/10/18.6W ✓

Recommended Least Depth: 0.9m by pole @ *Actual tide* ~~predicted~~ mlw

COMPILATION NOTES

Chart

11465

Applied As

*REVISED TO
PORT AREA*

AWOIS NO: 8489 ✓

Item Description: Submerged Stump/ Obstr.

Source: CL1943/78--CES ✓

AWOIS Position: Lat - 25/38/51.97N ✓ Lon - 080/10/27.37W ✓

Required Investigation: VS, BD, SD ✓ 100m radius

Charts Affected: 11451, 11465

INVESTIGATION

Date(s)/DN(s): 8/18/93 (DN:230)

Position Numbers: 78

Launch Number: 0518

Investigation Used: VS

Water Visibility: 10m

Position Determined By: DGPS

Investigation Summary: The stump/obstruction was found visually at the charted location. The stump was approximately 1.5 meter in diameter and posed no danger to navigation as it is located close to visible ruins.

CHARTING RECOMMENDATION

The hydrographer recommends that the charted obstruction be ~~retained as charted~~ *deleted.* at the following location:
obstruction (stump)

Recommended Position: Lat - 25/38/51.5³N Lon - 080/10/27.5³W

Recommended Least Depth: awash @ predicted mllw
Chart Area as shown on the SMOOTH SHEET

COMPILATION NOTES

Chart

Applied As

11465

SHOWN AS
FOUL AREA

AWOIS NO: 8491 ✓

Item Description: Obstr. 70 ft. length of cable. ✓

Source: LNMI7/91 ✓

AWOIS Position: Lat - 25/40/54.00N ✓ Lon - 080/11/04.20W ✓

Required Investigation: BD, DI, SD ✓ 500m radius

Charts Affected: 11451, 11465

INVESTIGATION

Date(s)/DN(s): 8/19/93 (DN:231)

Position Numbers: 92 ✓

Launch Number: 0518

Investigation Used: VS

Water Visibility: 6-8m

Position Determined By: DGPS

Investigation Summary: A buoy was dropped at the center of the charted location for AWOIS 8491 and a 100 meter diver circle search was started for an obstruction. During the sweep several hangs were encountered. Halfway thru the search a 50 to 60 foot length of cable was found with a trawl board. There was assorted debris throughout the search radius as well as lobster traps found as the search continued. At the end of the search a least depth was taken by leadline at the highest point with one diver at the surface and one on the obstruction.

CHARTING RECOMMENDATION

The hydrographer recommends that the charted submerged obstruction be revised at the following location:

deleted. CHART obstruction (3')

Recommended Position: Lat - 25/40/52.9N Lon - 080/11/05.0W⁸

Recommended Least Depth: 3.7m by leadline @ *Actual tide* predicted mllw.

CHART AREA AS SHOWN ON SMOOTH SHEET

COMPILATION NOTES

Chart
11465

Applied As
Revised to 10' Obstr ✓

CONTROL STATIONS as of 23 Aug 1993

No	Type	Latitude	Longitude	H	Cart	Freq	Vel Code	MM/DD/YY	Station Name
001	0	025°41'00.774	080°09'27.976	49	250	0.0	0.0	05/11/93	Key Biscayne Towers Condo,1993
002	0	025°41'59.448	080°10'46.331	4	139	0.0	0.0	05/11/93	KBYC#1*
003	0	025°39'20.340	080°11'10.428	4	139	0.0	0.0	05/11/93	BC LT#21*
		025°36'54.468	080°09'48.100	0	0	0.0	0.0	03/01/92	



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Coast and Geodetic Survey
Norfolk, Virginia 23510-1114

Atlantic Hydrographic Party
439 West York Street
Norfolk, Virginia 23510-1114

26 August 1993

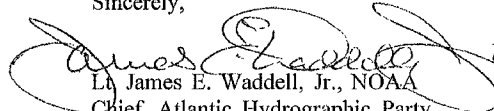
**ADVANCE
INFORMATION**

Director
DMAHTC
Attn: MCNM
6500 Brookes Lane
Washington, D.C. 20315-0030

Dear Sir:

While conducting hydrographic survey operations in Biscayne Bay, Florida, the Atlantic Hydrographic Party discovered 3 dangers to navigation. They have been reported to the Seventh Coast Guard District. A copy of the correspondence describing the dangers is enclosed.

Sincerely,


Lt James E. Waddell, Jr., NOAA
Chief, Atlantic Hydrographic Party





UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Coast and Geodetic Survey
Norfolk, Virginia 23510-1114

Atlantic Hydrographic Party
439 West York Street
Norfolk, VA 23510-1114

26 August 1993

Commander
Seventh U.S. Coast Guard District
Brickell Plaza, Federal Bldg.
909 S.E. 1st Ave., Room 406
Miami, FL 33131-5621

**ADVANCE
INFORMATION**

Dear Sir:

Three dangers to navigation were found while conducting a basic hydrographic survey (Registry No. H-10493) in Biscayne Bay, Florida. The following information is provided for publication in Local Notice to Mariners:

Charts affected: 11451 25th Ed Nov./92 1:80,000 NAD83
11467 29th Ed Aug. 29/92 1:40,000 NAD83

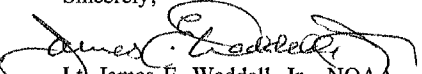
Heights are reduced to MLLW based on predicted tides.

- A. Uncharted concrete piles were positioned at 25/38/50.2N, 080/09/59.0W and bare 2.8 meters. This area is foul with debris for a radius of approximately 50 meters around the noted position. *WITHIN FOUL AREA*
- B. An uncharted submerged 12' x 8' steel box was positioned at 25/38/45.1N, 080/10/46.9W and has a least depth of 0.4 meters. *SHOWN AS 1' OBSTN*
- C. The charted pile positioned at 25/38/33.8N, 080/11/07.8W was found to be awash at MLLW. *SHOWN AS 0 SUBM PILE*

A copy of the chart showing the areas in which the dangers exist is attached.

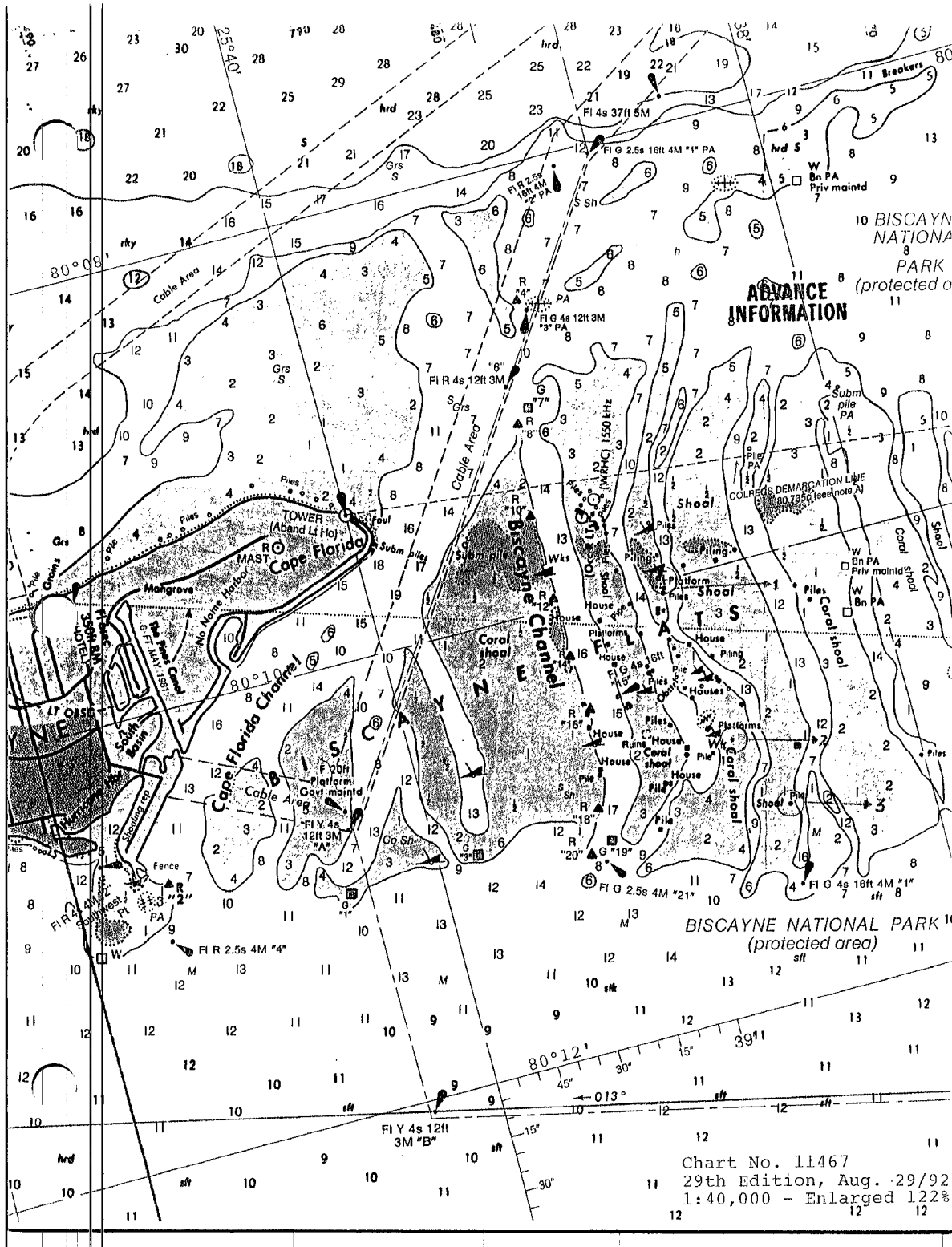
This is advance information subject to office review. Questions concerning this message should be directed to myself at (904) 492-1050 or to the Chief, Pacific Hydrographic Section at (206) 526-6835.

Sincerely,


Lt. James E. Waddell, Jr., NOAA
Chief, Atlantic Hydrographic Party

Enclosure
cc: DMAHTC, N/CG245, N/CG221





ADVANCE INFORMATION

BISCAYNE NATIONAL PARK
(protected area)

Chart No. 11467
29th Edition, Aug. 29/82
1:40,000 - Enlarged 1228



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Coast and Geodetic Survey
Norfolk, Virginia 23510-1114

Atlantic Hydrographic Party
439 West York St.
Norfolk, VA 23510-1114

August 25, 1993

**ADVANCE
INFORMATION**

Commander, 7th U.S. Coast Guard District
Brickell Plaza, Federal Bldg.
909 SE 1st Ave., Room:406
Miami, FL(33131-3050)
305-536-5621

Dear Sir:

While conducting a basic hydrographic survey (Registry No. H-10493) of Biscayne Bay, Florida, the following items were identified as a dangers to navigation and are recommended for inclusion in the Local Notice to Mariners. The position is in NAD 83 datum and the sounding has been reduced to Mean Lower Low Water (MLLW) using predicted tides. This information affects Charts 11451, 25th Edition/Nov 1992, and 11467, 29th Edition/Aug. 29,1992, NAD 83 datum. All items are survey positions by DGPS.

▶1 Uncharted, House ruins of submerged and exposed concrete piles and debris . This item is Foul to ≈50 meters of a position at 25°38'50.2"N latitude and 080°09'59.0"W longitude, and bares 2.8 meters.

▶2 Uncharted, submerged steel box, 12' x 8'wide with a least depth of .4 meters at mllw at positioned at 25°38'45.1"N latitude 080°10'46.9"W longitude.

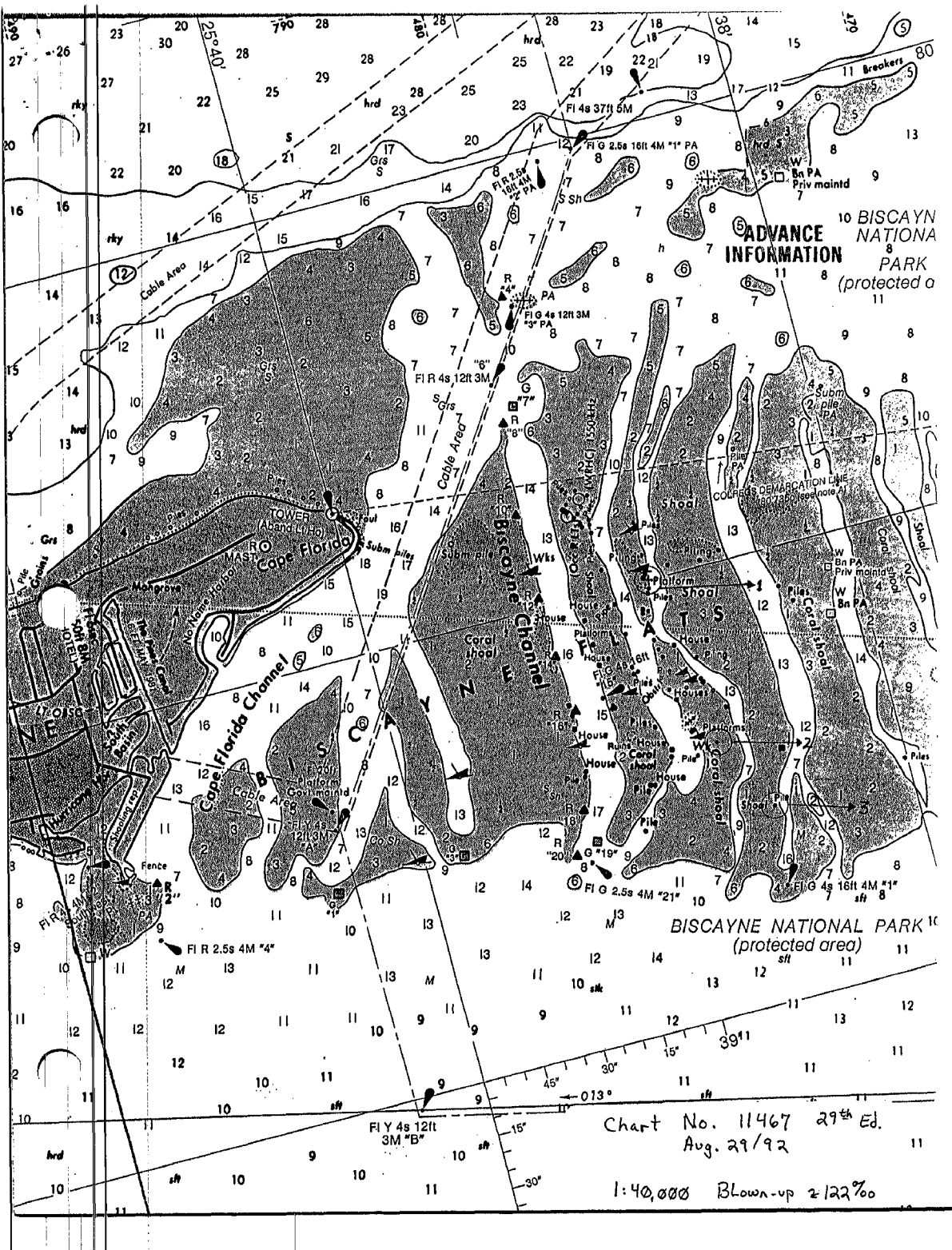
▶3 Charted pile, found to be submerged piles with a least depth awash at mllw. This item was positioned at 25°38'33.8"N latitude, 080°11'07.8"W longitude.

A chart section of this area, showing the location of this danger, is also included. Questions concerning this report should be directed to myself at 904/492-1050 or to the Pacific Hydrographic Section at 206/526-6853.

Sincerely,

LT James Waddell, NOAA
Chief, Atlantic Hydrographic Party





ADVANCE INFORMATION

10 BISCAYNE NATIONAL PARK (protected area)

BISCAYNE NATIONAL PARK (protected area)

Chart No. 11467 29th Ed. Aug. 29/92

1:40,000 Blown-up 2/22%



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Coast and Geodetic Survey
Norfolk, Virginia 23510-1114

Coast and Geodetic Survey
Atlantic Hydrographic Party Two
439 W. York Street
Norfolk, Virginia 23510

September 29, 1993

MEMORANDUM FOR: Lt. Commander Howard N. Van Houten (OAN)
USCG, Asst. Branch Chief to ATON.
FROM: *David B. Elliott*
David B. Elliott
Atlantic Hydrographic Party Two
SUBJECT: New positions for Nav. Aids by DGPS.

For the past five months the Atlantic Hydrographic Party has been conducting a nautical chart survey of Biscayne Bay. The survey numbered S-H901 has been completed and the enclosed attachment is a list of new geographic positions requested by the 7th Coast Guard District prior to the survey commencing. A list was provided by the 7th CGD and AHP has compiled the new listing in the same order as requested for your convenience. The list was created on Word Perfect 5.0 and a disk is likewise included with this package. It should be noted that Coral Gables Waterway Light No. 1 has been replaced by a green Daybeacon. Therefore the position on the new listing is for Coral Gables Waterway Light No. 2 which is newly established. The radio mast at Virginia Key could not be positioned by AHP because it is energised and fenced off. Several attempts were made by AHP in contacting the radio engineer at WQAM radio but, no one returned our calls. Our unit will be moving back to Pensacola, Florida on October 1, 1993 and we would like to extend our gratitude to the 7th CGD for its cooperation and help with Local Notice to Mariners during the course of this project.

enclosures: 1) Position listings
2) Floppy disk



NOAA SURVEY POSITIONS IN THE VICINITY OF BISCAYNE NATIONAL PARK
 Compiled during Project S-H901-AHP

Radio Mast - Virginia Key	25-44-40.000N	080-09-15.000W	*
Radio Mast - Cape Florida	25-40-18.453N	080-09-25.394W	
Cape Fl Ch DBN 2	25-41-04.156N	080-10-46.125W	
Hurricane Hbr LT 2	25-41-19.775N	080-10-37.097W	
Cape Fl LT 4	25-41-06.704N	080-11-01.244W	
SW Shls DBN	25-41-24.508N	080-11-01.151W	
Key Biscayne Yacht Club LT 3	25-41-51.409N	080-10-27.700W	
Key Biscayne Yacht Club LT 1	25-41-59.448N	080-10-46.331W	
Coral Gables WW LT 2	25-41-26.564N	080-14-38.079W	**
Biscayne Bay DBN 69	25-44-31.513N	080-10-59.637W	
Biscayne Ch DBN 14	25-39-15.978N	080-10-14.141W	
Biscayne Ch DBN 16	25-39-15.370N	080-10-29.200W	
Biscayne Ch LT 15	25-39-07.407N	080-10-27.963W	
Biscayne Ch DBN 18	25-39-14.725N	080-10-49.597W	
Biscayne Ch DBN 19	25-39-17.694N	080-11-05.402W	
Biscayne Ch LT 21	25-39-20.340N	080-11-10.428W	
Biscayne Flats DBN 3	25-39-49.932N	080-11-01.183W	
Biscayne Ch DBN 12	25-39-16.248N	080-09-57.361W	
Biscayne Ch DBN 20	25-39-23.815N	080-11-06.765W	
Biscayne Ch DBN 4	25-39-06.811N	080-08-36.774W	
Biscayne Ch LT 3	25-39-03.978N	080-08-39.893W	
Biscayne Ch LT 6	25-39-14.054N	080-08-58.747W	
Biscayne Ch DBN 7	25-39-10.097N	080-09-06.198W	
Biscayne Ch DBN 8	25-39-13.253N	080-09-09.959W	
Biscayne Ch DBN 10	25-39-16.478N	080-09-34.902W	
Biscayne Ch LT 1	25-38-41.346N	080-08-02.390W	

Safety Valve Bank LT 1	25-38-36.979N	080-11-29.938W
Biscayne Ch LT 2	25-38-49.955N	080-08-04.367W
Safety Valve Bank LT 1A	25-37-01.040N	080-11-31.557W
Fowey Rocks DBN 3	25-35-41.529N	080-06-56.948W
Soldier Key DBN 2	25-35-46.633N	080-07-33.456W
Blackledge LT 2	25-35-57.717N	080-14-11.054W
Safety Valve Bank LT 1B	25-34-13.093N	080-11-30.977W
Soldier Key DBN 4	25-34-12.898N	080-07-57.003W
Featherbed Bank E DBN 1	25-32-21.803N	080-12-30.354W
Featherbed Bank E LT 2	25-32-18.633N	080-12-49.459W
Featherbed Bank LT 6	25-31-00.109N	080-14-21.911W
Sands Key DBN 2	25-31-18.501N	080-11-36.445W
Featherbed Bank LT 3	25-31-17.502N	080-14-19.441W
Featherbed Bank DBN 5	25-31-00.702N	080-14-19.907W
Sands Key LT 3	25-31-14.441N	080-11-34.425W
Sands Key DBN 4	25-31-12.388N	080-11-36.730W
Ragged Key DBN 7	25-31-01.084N	080-08-16.077W
Featherbed Bank DBN 4	25-31-17.577N	080-14-21.715W
Featherbed Bank Shl DBN X	25-30-41.974N	080-13-36.539W
Bowles Bank LT 8	25-30-26.252N	080-08-44.057W
Featherbed Bank Shl DBN S	25-30-07.678N	080-13-14.886W
Biscayne Nat'l Park Boundry LT A	25-40-18.727N	080-10-44.268W
Biscayne Nat'l Park Boundry LT B	25-40-16.346N	080-12-03.334W
Biscayne Nat'l Park Boundry LT C	25-36-05.147N	080-13-04.374W
Boca Chita Key (Abn. LT House)	25-31-29.003N	080-10-33.830W

* Position not obtainable.

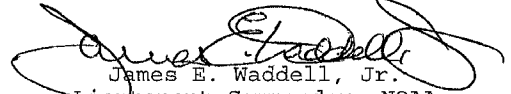
** Changed from Coral Gables Waterway Light No. 1.

APPROVAL SHEET

BASIC HYDROGRAPHIC SURVEY
S-H901-AHP
AHP2-10-10-93
H-10493
1993

This basic hydrographic survey was conducted in accordance with the project instructions for S-H901-AHP, the hydrographic manual, the hydrographic survey guidelines, and the field procedures manual. The survey data and reports were completed under frequent supervision. All sounding plots were reviewed in their entirety and all supporting records were also checked.

This survey is a complete basic hydrographic survey for the area described in Section B of this report.


James E. Waddell, Jr.
Lieutenant Commander, NOAA
Chief, Atlantic Hydrographic Party



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Office of Ocean and Earth Sciences
Silver Spring, Maryland 20910

ORIGINAL

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: January 7, 1994

MARINE CENTER: Pacific

HYDROGRAPHIC PROJECT: S-H901-AHP

HYDROGRAPHIC SHEET: H-10493

LOCALITY: Biscayne Bay, Florida, Vicinity of Soldier Key

TIME PERIOD: August 12 - September 20, 1993

TIDE STATION USED: 872-3232 Key Biscayne Yacht Club, Fl.
Lat. $25^{\circ} 41.9'N$ Lon. $80^{\circ} 10.2'W$

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 3.91 ft.

HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 2.2 ft.

TIDE STATION USED: 872-3962 Key Colony Beach, Fl.
Lat. $24^{\circ} 43.1'N$ Lon. $81^{\circ} 1.1'W$

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 3.22 ft.

HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 1.9 ft.



REMARKS: RECOMMENDED ZONING

1. In Biscayne Bay west of $80^{\circ} 9.6'W$ and north of $25^{\circ} 38.0'N$, times and heights are direct on Key Biscayne Yacht Club, Fl. (872-3232).
2. In the Atlantic Ocean, east of $80^{\circ} 9.6'W$, and north of $25^{\circ} 38.0'N$, apply a -45 minute time correction and a X1.50 range ratio to Key Colony Beach, Fl. (872-3962)
3. In the Atlantic Ocean east of $80^{\circ} 9.6'W$, south of $25^{\circ} 38.0'N$ and north of $25^{\circ} 29.0'N$, apply a -45 minute time time correction and a X1.38 range ratio to Key Colony Beach, Fl. (872-3962).

Note: Times are tabulated in Eastern Standard Time.

William M. Allen

CHIEF, DATUMS SECTION

GEOGRAPHIC NAMES

H-10493

Name on Survey	Source of Name									
	A	B	C	D	E	F	G	H	K	
	ON CHART NO.	ON PREVIOUS SURVEY NO.	CON U.S. QUADRANGLE MAPS	FROM LOCAL INFORMATION	ON LOCAL MAPS	P.O. GUIDE OR MAP	GRAND McNALLY ATLAS	U.S. LIGHT LIST		
BISCAYNE BAY	X									1
BISCAYNE CHANNEL	X									2
CAPE FLORIDA CHANNEL	X									3
FLORIDA (title)	X									4
FLORIDA, CAPE	X									5
HARBOR POINT			X							6
HURRICANE HARBOR			X							7
NO NAME HARBOR			X							8
PINES CHANNEL, THE	X									9
SOUTH BASIN			X							10
SOUTHWEST POINT			X							11
										12
										13
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										25

Approved:

Charles E. Harrington
Chief Geographer - NJCG245

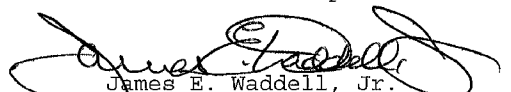
FEB 14 1994

APPROVAL SHEET

BASIC HYDROGRAPHIC SURVEY
S-H901-AHP
AHP2-10-10-93
H-10493
1993

This basic hydrographic survey was conducted in accordance with the project instructions for S-H901-AHP, the hydrographic manual, the hydrographic survey guidelines, and the field procedures manual. The survey data and reports were completed under frequent supervision. All sounding plots were reviewed in their entirety and all supporting records were also checked.

This survey is a complete basic hydrographic survey for the area described in Section B of this report.


James E. Waddell, Jr.
Lieutenant Commander, NOAA
Chief, Atlantic Hydrographic Party

HYDROGRAPHIC SURVEY STATISTICS

RECORDS ACCOMPANYING SURVEY: To be completed when survey is processed.

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET	1	SMOOTH OVERLAYS: POS., ARC, EXCESS	
DESCRIPTIVE REPORT	1	FIELD SHEETS AND OTHER OVERLAYS	

DESCRIPTION	DEPTH/POS RECORDS	HORIZ. CONT. RECORDS	SONAR-GRAMS	PRINTOUTS	ABSTRACTS/SOURCE DOCUMENTS
ACCORDION FILES					
ENVELOPES					
VOLUMES	2				
CARRIERS	1				
BOXES					

SHORELINE DATA	
SHORELINE MAPS (List):	None
PHOTOBATHYMETRIC MAPS (List):	N/A
NOTES TO THE HYDROGRAPHER (List):	N/A
SPECIAL REPORTS (List):	None
NAUTICAL CHARTS (List):	11465 28th Ed., 7/11/92, 1:40,000 NAD83

OFFICE PROCESSING ACTIVITIES

The following statistics will be submitted with the cartographer's report on the survey

PROCESSING ACTIVITY	AMOUNTS		
	VERIFICATION	EVALUATION	TOTALS
POSITIONS ON SHEET			4362
POSITIONS REVISED			1
SOUNDINGS REVISED			1
CONTROL STATIONS REVISED			
	TIME-HOURS		
	VERIFICATION	EVALUATION	TOTALS
PRE-PROCESSING EXAMINATION			
VERIFICATION OF CONTROL			
VERIFICATION OF POSITIONS	64.5		64.5
VERIFICATION OF SOUNDINGS	18.0		18.0
VERIFICATION OF JUNCTIONS			
APPLICATION OF PHOTOBATHYMETRY			
SHORELINE APPLICATION/VERIFICATION			
COMPILATION OF SMOOTH SHEET	80.0		80.0
COMPARISON WITH PRIOR SURVEYS AND CHARTS			
EVALUATION OF SIDE SCAN SONAR RECORDS			
EVALUATION OF WIRE DRAGS AND SWEEPS			
EVALUATION REPORT		56.0	56.0
GEOGRAPHIC NAMES			
OTHER: Digitization	10.0		10.0
*USE OTHER SIDE OF FORM FOR REMARKS			
TOTALS	172.5	56.0	228.50

Pre-processing Examination by Lt D. Haines	Beginning Date 11/9/93	Ending Date 12/27/93
Verification of Field Data by D. Doles, J. Stringham, G. Kay, R. Shipley	Time (Hours) 172.5	Ending Date 8/1/95
Verification Check by J. Stringham, G. Kay	Time (Hours) 4	Ending Date 12/16/93
Evaluation and Analysis by G. Kay	Time (Hours) 56	Ending Date 8/18/95
Inspection by B. Olmstead	Time (Hours) 50	Ending Date 9/22/95

**EVALUATION REPORT
SURVEY H-10493**

A. PROJECT

Project information is discussed in the hydrographer's report.

B. AREA SURVEYED

This survey was conducted in Biscayne Bay, Florida and covers an area within boundaries of the Biscayne National Park. The surveyed area is bounded by latitude 25/41/27N to the north and latitude 25/37/30N to the south. The eastern limit is longitude 80/06/40W. The western limit is longitude 80/13/27W. The bottom consists of mud, sand and coral. Depths range from 0 to 9.2 meters. The shoalest depths are generally found to the north and south of both Biscayne Channel and Biscayne Flats. Generally depths of 5 to 7 meters were found to the east and southeast of Cape Florida.

C. SURVEY VESSELS

Survey vessel information is found in the hydrographer's report.

D. AUTOMATED DATA ACQUISITION AND PROCESSING

Survey data were processed using the same Hydrographic Data Acquisition/Processing System (HDAPS) software used by the hydrographer.

The field sheet parameters have been revised to center the hydrography on the smooth sheet and to change the projection to polyconic. NAD 83 is used as the horizontal datum for plotting and position computation. An accompanying computer printout contains the parameters and the correctors.

A digital file has been generated for this survey that includes categories of information required to comply with Hydrographic Survey Guideline No. 52, Standard Digital Data Exchange Format, April 15, 1986. Certain descriptive information, however, may not be in the digital record due to the restrictions of the presently available cartographic codes. The user should refer to the smooth sheet for a complete depiction of the survey data.

Cartographic codes used to describe the digital data are those authorized by Hydrographic Survey Guideline No. 75.

E. SONAR EQUIPMENT

Side scan sonar was not used.

F. SOUNDING EQUIPMENT

Sounding equipment is discussed in the hydrographer's report.

G. CORRECTIONS TO SOUNDINGS

The sounding data have been reduced to Mean Lower Low Water (MLLW). The reducers include corrections for an actual tide, dynamic draft, and sound velocity. These reducers have been reviewed and are consistent with NOS specifications. Actual tide reduction is derived from Key Biscayne Yacht Club, Florida, gage 872-3232 and Key Colony Beach, Florida, gage 872-3962.

H. CONTROL STATIONS

Control stations are discussed in the hydrographer's report and separates. A list of control stations used on survey H-10493 is attached to this report.

The positions of horizontal control stations used during hydrographic operations are field values based on NAD 83. The geographic positions of all survey data are based on NAD 83. The smooth sheet is annotated with an NAD 27 adjustment tick based on values determined with the NGS program NADCON.

Data based on NAD 27 may be referenced to this survey by applying the following corrections:

Latitude:	1.371 seconds	(42.200 meters)
Longitude:	-0.829 seconds	(-23.130 meters)

The year of establishment of control stations shown on the smooth sheet originates with the previously referenced horizontal control report and the hydrographer's signal list.

I. HYDROGRAPHIC POSITION CONTROL

Differential GPS (DGPS) was used to control this survey. A horizontal dilution of precision (HDOP) not to exceed 3.75 was computed for survey operations. The quality of 197 positions exceeds this limit. These positions are isolated and occur randomly throughout the survey area. A review of the data, however, indicates that none of these fixes are used to position dangers to navigation. The soundings located by these fixes are consistent with the surrounding information. These fixes are considered acceptable.

J. SHORELINE

Shoreline drawn in brown on the smooth sheet originates from chart 11465, and is for orientation purposes only.

K. CROSSLINES

Crosslines are discussed in the hydrographer's report

L. JUNCTIONS

Survey H-10493 junctions with the following surveys.

<u>Survey</u>	<u>Year</u>	<u>Scale</u>	<u>Area</u>
H-9926 *	1980-81	1:10,000	North
H-10473	1993	1:10,000	South

* Project Instructions listed this survey for junctional purposes. Reference Section M of this report concerning discussions with Operations Branch (N/CS31) and disposition of survey H-9926.

Survey H-10493 junctions to the south with survey H-10473. The junction with survey H-10473 is complete. Depth curves and soundings within the common area are in good agreement. However, the user should refer to H-10493 for a more complete depiction of depth curves within the common area.

There are no contemporary surveys to the north, west or east. Comparison with the charted soundings and depth curves within the common area reveal adequate agreement.

M. COMPARISON WITH PRIOR SURVEYS

Survey H-10493 was compared with the following prior surveys.

<u>Survey</u>	<u>Year</u>	<u>Scale</u>
H-4075	1919	1:20,000
H-4076	1919	1:20,000
FE-58	1946	1:20,000 (formally FE-3, 1946)
H-9926	1980	1:10,000

Survey H-9926 was originally listed in the project instructions as a "junction survey." However, there is approximately 3.5 NM of overlap over the northern portion of the present survey, (from latitude 25/38/00N, to latitude 25/41/30N). Mr. Steve Verry, 301-713-2702, from the Operations Branch (N/CS31) Silver Springs, Md., was contacted on this matter and verbal permission was given to treat survey H-9926 as a prior survey over their common areas.

Survey H-9926 covers the majority of the survey area. The common area includes Cape Florida, Biscayne Channel and Biscayne Flats. General differences range from 0.3 to 0.6 meters (1 to 2 feet), with the present survey being shoaler. The configuration of the depth contours within Biscayne Channel and Biscayne Flats have remained relatively the same since 1980, but have become elongated and slightly shifted due to shoaling. Because of this shoaling, there are more extensive areas which uncover at MLLW. Changes within the survey area are largely attributed to hurricane activity since 1980.

The following features and soundings were transferred (converted to meters) from prior survey H-9926, in red ink. These features are presently charted (chart 11465, 29th Ed.).

<u>Feature</u>	<u>Latitude North</u>	<u>Longitude West</u>
subm pile	25/40/32	80/09/13
1.0 meters	25/40/27	80/08/31
subm pile	25/40/20	80/09/08
1.5 meters	25/40/16	80/09/54
subm pile	25/40/12	80/09/12
subm pile	25/40/10	80/09/14
1.0 meters	25/40/07	80/08/20
subm pile	25/40/06	80/09/16
subm pile	25/40/02	80/09/19
2.1 meters	25/39/48	80/10/19
1.0 meters	25/39/39	80/08/18
1.0 meters	25/39/36	80/08/18
2.1 meters	25/39/28	80/09/19
2.1 meter	25/39/26	80/09/16
subm ruins	25/39/16	80/10/28
1.0 meters	25/39/15	80/08/12
subm ruins	25/39/06	80/10/32
Radio tower	25/39/05.5	80/09/38.0
subm ruins	25/39/03	80/10/54
Radio Tower	25/39/01.5	80/09/34.5
2.1 meters	25/38/59	80/08/35
2.1 meters	25/38/57	80/09/46
2.0 meters	25/38/55	80/08/17
2.7 meters	25/38/55	80/09/43
subm pile	25/38/52	80/10/10
subm pipe	25/38/52	80/10/23
subm pile	25/38/51	80/10/10
subm pile	25/38/51	80/10/22
subm pile	25/38/50	80/10/06
subm pile	25/38/50	80/09/58
subm ruins	25/38/50	80/09/59
subm pile	25/38/43.5	80/10/26.5
subm pile	25/38/43	80/10/26

Surveys H-4075 and H-4076 essentially the remainder of the survey area. Difference in depth are within 0.3 meters (1-foot), with no apparent trend of either shoaling or being deeper. One sounding, a 9-foot depth (2.9 meters), at latitude 25/41/15N, longitude 80/08/08W has been transferred from H-4075(1919). The different datums, relative accuracy of the data acquisition techniques and hurricane activity account for the depth differences between these surveys.

FE-58 consist of pole soundings that were used to verify the aero-compiled 6-foot curves that are situated around the coral shoal areas in Biscayne Bay. This field examination was plotted on Chart 848, (old numbering system). However, the plotted survey was not available for comparison purposes.

Except as noted above and else where in this report survey H-10493 is adequate to supersede these prior surveys within the area of common coverage.

N. ITEM INVESTIGATIONS

There are seventeen AWOIS items for investigations assigned within the boundaries of survey H-10493. These items are adequately discussed and disposed of in the AWOIS write-ups attached to the descriptive report.

O. COMPARISON WITH CHART

Survey H-10493 was compared with the following charts.

<u>Chart</u>	<u>Edition</u>	<u>Date</u>	<u>Scale</u>	<u>Datum</u>
11463	14th	November 14, 1994	1:40,000	NAD 83
11465	29th	October 30, 1993	1:40,000	NAD 83
11451 SC	26th	February 26, 1994	1:80,000	NAD 83
11462	21st	August 1, 1992	1:80,000	NAD 83

a. Hydrography

Charted hydrography originates with the previously discussed prior surveys and miscellaneous sources. The prior surveys are discussed in section M and require no further discussion.

The following features, come from an unknown source, and were not specifically investigated by the field party. In addition the hydrographer made no recommendations as to whether these features should be removed from the chart. The chart compiler should research the source of these features and if still valid, should remain as charted.

<u>Feature</u>	<u>Latitude North</u>	<u>Longitude West</u>
subm pile	25/40/59	80/09/17 ✓
subm pile	25/40/45	80/09/16 ✓
subm pile	25/40/42	80/09/16 ✓
subm pile	25/40/39	80/09/15 ✓
subm piles (2)	25/39/57	80/09/34.5 ✓
subm wreck	25/39/46	80/10/39 ✓
subm pile	25/39/03	80/10/54

There is one charted controlled channel on this survey. It is "*The Pines Channel*" that has a charted "6 FT MAY 1981" (1.8 meters) controlling depth. The present survey has found a controlling depth of meters 2.8 meters (9.2 feet). The presently charted note should be removed from the chart and replaced with a note, "9 FT September 1993." Chart this area according to this survey.

The chart shows a small section of fence in the water at latitude 25/41/09N, longitude 80/10/42W. This feature is not charted correctly. The chart implies that the fence is perpendicular to the shore. The fence is actually orientated across the waterway extending from each point of land. The presently charted notation should be deleted and the fence charted as shown on the smooth sheet.

Except as noted above, survey H-10493 is adequate to supersede the chart within the area of common coverage.

P. ADEQUACY OF SURVEY

Hydrography contained on survey H-10493 is adequate to:

- a. delineate the bottom configuration, determine least depths, and draw the required depth curves;
- b. reveal there are no significant discrepancies or anomalies requiring further investigation; and
- c. show the survey was properly controlled and soundings are correctly plotted.

Except as noted below, the hydrographic records and reports received for processing are adequate and conform to the requirements of the Hydrographic Manual, 4th Edition, revised through Change No. 3, the Hydrographic Survey Guidelines, and the Field Procedures Manual, March 1993 Edition.

Numerous charted features originating from prior surveys H-9926 (1980-81) and H-4075 (1919), were not adequately investigated during survey operations. Several of these items were carried forward from their source, and are listed in section M.

Q. AIDS TO NAVIGATION

There are twenty-five fixed or floating aids to navigation located within the survey area. Twenty-two of these fixed and floating aids have been adequately addressed by the hydrographer. Refer to section Q of the hydrographer's report. The following fixed aids were not addressed in section Q of the hydrographer's report. These aids were adequately located and agree with the charted positions.

<u>Aid</u>	<u>Light List Number</u>	<u>Latitude North</u>	<u>Longitude West</u>
Biscayne Bay Omnirange Crib Light	42570	25/40/19.11	80/10/39.51
Biscayne National Park Boundary Light A	42575	25/40/18.73	80/10/44.27
Biscayne National Park Boundary Light B	42580	25/40/16.35	80/12/03.34

There are two features of landmark value located within the area of this survey. These landmarks were not investigated and or positioned. These features should remain as charted.

<u>Feature</u>	<u>Latitude North</u>	<u>Longitude West</u>
TOWER (Aband Lt HO)	25/40/19.0	80/09/25.0
Mast	25/39/59.5	80/09/22.0

R. STATISTICS

Statistics are identified in the hydrographer's report.

S. MISCELLANEOUS

Miscellaneous information is discussed in the hydrographer's report. Three dangers to navigation were reported by the hydrographer and are attached. No additional dangers were noted during office processing.

The geographic name for "The Pines Canal" as currently charted, has been changed to "The Pines Channel". See NOAA Form 76-155 attached to this report.

Tidal currents between 2-4 knots exist at all passages in the vicinity of Biscayne Flats. This note has been added to the smooth sheet.

T. RECOMMENDATIONS

This is an adequate hydrographic survey. Additional work is recommended to verify or disprove the features listed in sections M, O, and Q of this report.

U. REFERRAL TO REPORTS

Referral to reports is discussed in the hydrographer's report.

Bruce A. O'Connell
for Gordon E. Kay
Cartographer

APPROVAL SHEET
H-10493

Initial Approvals:

The completed survey has been inspected with regard to survey coverage, delineation of the depth curves, development of critical depths, cartographic symbolization, comparison with prior surveys and verification or disproof of charted data. The digital data have been completed and all revisions and processings have been entered in the magnetic tape record for this survey. Final control, position, and sounding printouts have been made and are included with the survey records. The survey records and digital data comply with NOS requirements except where noted in the Evaluation Report.

Bruce A. Olmstead Date: 9/22/95
Bruce A. Olmstead
Senior Cartographer, Cartographic Section
Pacific Hydrographic Branch

I have reviewed the smooth sounding plot, accompanying data, and reports. This survey and accompanying digital data meet or exceed NOS requirements and standards for products in support of nautical charting except where noted in the Evaluation Report.

Kathy A. Timmons Date: 9/25/95
Kathy A. Timmons
Commander, NOAA
Chief, Pacific Hydrographic Branch

Final Approval

Approved:

Andrew A. Armstrong III Date: 10/4/95
Andrew A. Armstrong III
Captain, NOAA
Chief, Hydrographic Surveys Division

MARINE CHART BRANCH
RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-10493

INSTRUCTIONS

1. A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.
2. Letter all information.
3. In "Remarks" column cross out words that do not apply.
4. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
11460	9/20/93	Gordon E. Kay	Full Part Before After Marine Center Approval Signed Via Drawing No. <i>Examined, no corrections and soundings applied</i>
11013	9/20/93	B.A. Ombresca	Full Part Before After Marine Center Approval Signed Via Drawing No. <i>Examined, no corrections and soundings applied.</i>
11465	9/8/95	Gordon E. Kay <i>R. Blass (initial)</i>	Full Part Before After Marine Center Approval Signed Via Drawing No. <i>Full application of survey from smooth sheet.</i>
11467	10-12/95	<i>R.B. Blass</i>	Full Part Before After Marine Center Approval Signed Via Drawing No. <i>Applied in full thru 11465</i>
11466	10-12/95	<i>R.B. Blass</i>	Full Part Before After Marine Center Approval Signed Via Drawing No. <i>Applied in full thru 11465</i>
11451	10-12-95	<i>R.B. Blass</i>	Full Part Before After Marine Center Approval Signed Via Drawing No. <i>Applied in full thru 11465</i>
			Full Part Before After Marine Center Approval Signed Via Drawing No.
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