

F00441

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT

Type of Survey **FIELD EXAMINATION**
Field No. **WH-20-5-97**
Registry No. **F00441**

LOCALITY

State **FLORIDA**
General Locality **NORTH ATLANTIC OCEAN**
Sublocality **APPROACHES TO JACKSONVILLE**

19 98

CHIEF OF PARTY
LCDR J.W. HUMPHREY, NOAA

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DATE **OCT. 2 1998**

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* APPENDICES

* SEPARATES

DATA FILED WITH FIELD RECORDS

REGISTRY NUMBER:

F00441

HYDROGRAPHIC TITLE SHEET

FIELD NUMBER:

WH-10-4-98

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

State: Florida

General locality: North Atlantic Ocean

Locality: Approaches to Jacksonville

Scale: 1: 10,000 Date of survey: April 11 - June 21, 1998

Instructions dated: March 20, 1998 Project Number: OPR-G354-WH

Vessel: NOAA Ship WHITING

Chief of Party: LCDR John W. Humphery

Surveyed by: LCDR John W. Humphery, LT J.S. Verlaque, LT(jg) T.A. Haupt, M.J. Annis, R. Corson, F.R. Cruz, U.L. Gardner, P.G. Lewit, K.B. Shaver

Soundings taken by echo sounder, hand lead-line, or pole: DSF 6000N fathometer

Graphic record scaled by: WHITING Personnel

Graphic record checked by: WHITING Personnel

Protracted by: N/A Automated plot by: HP 750 (FIELD) HP DESIGN JET 350C(OFFICE)

Verification by: Hydrographic Surveys Branch PERSONNEL

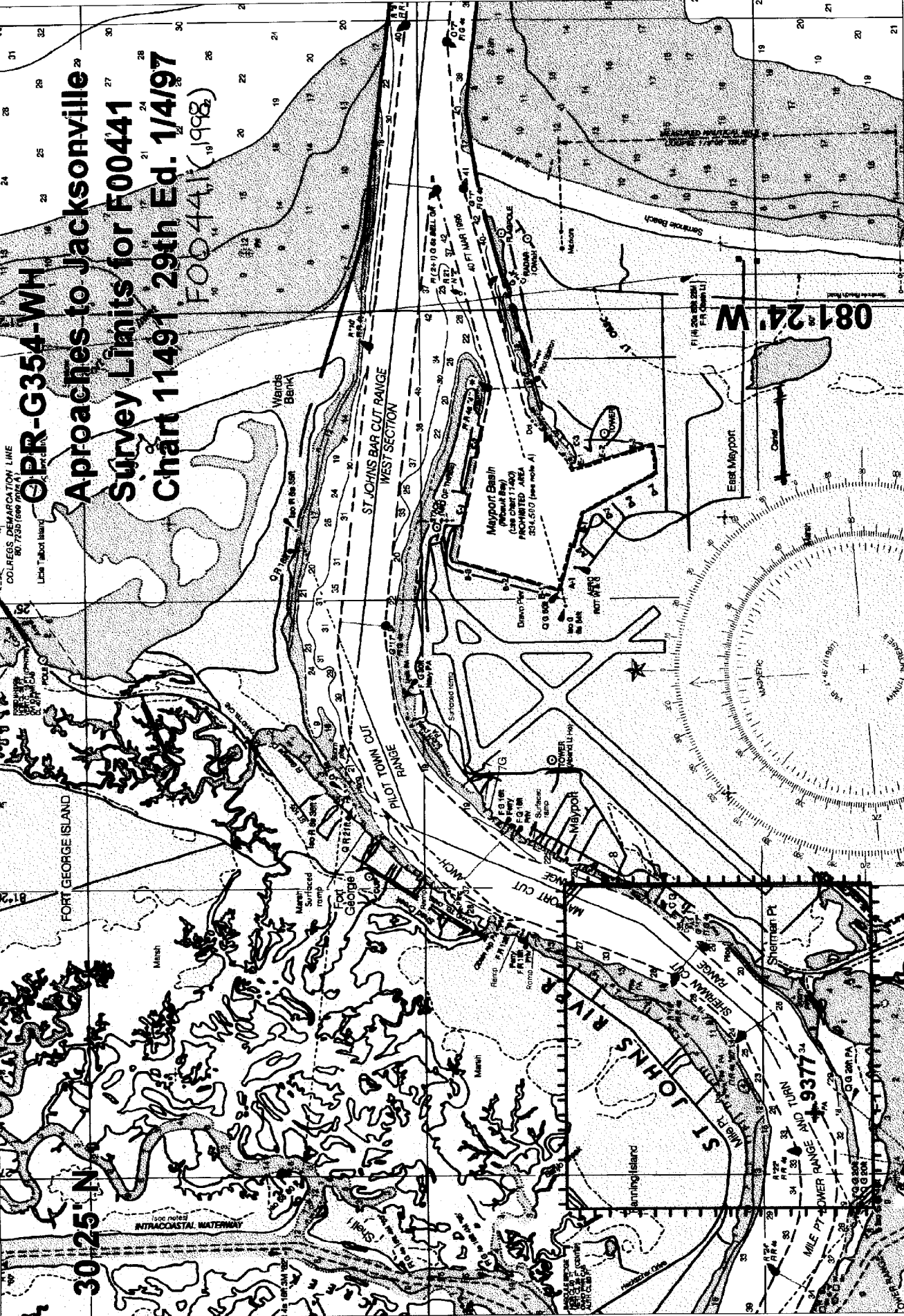
Soundings in: Feet Fathoms: Meters: (*) at MLW: MLLW: (*):

Remarks: Time Zone Used, 0 (UTC)

Field Examination

NOTES IN DESCRIPTIVE REPORT WERE MADE IN RED
DURING OFFICE PROCESSING

AWOIS/SURP ✓ 9/24/98 SJV



OPR-G354-WH
Approaches to Jacksonville
Survey Limits for F00441
Chart 1149 29th Ed. 1/4/97
F00441 (1998)

08124' W

3025' N

COLLEGE DEMARCATION LINE
80 7350 (699) (1981 A)
Line Taboo Island

FORT GEORGE ISLAND

ST. JOHNS RIVER
WEST SECTION

MAYPORT BASIN
(MAYPORT BAY)
PROHIBITED AREA
SEE CHART 11490
554.510 (see note A)

EAST MAYPORT

ST. JOHNS RIVER
SERRANUS CUT
MAYPORT CUT

9377

9377

INTRACOASTAL WATERWAY

500 notes

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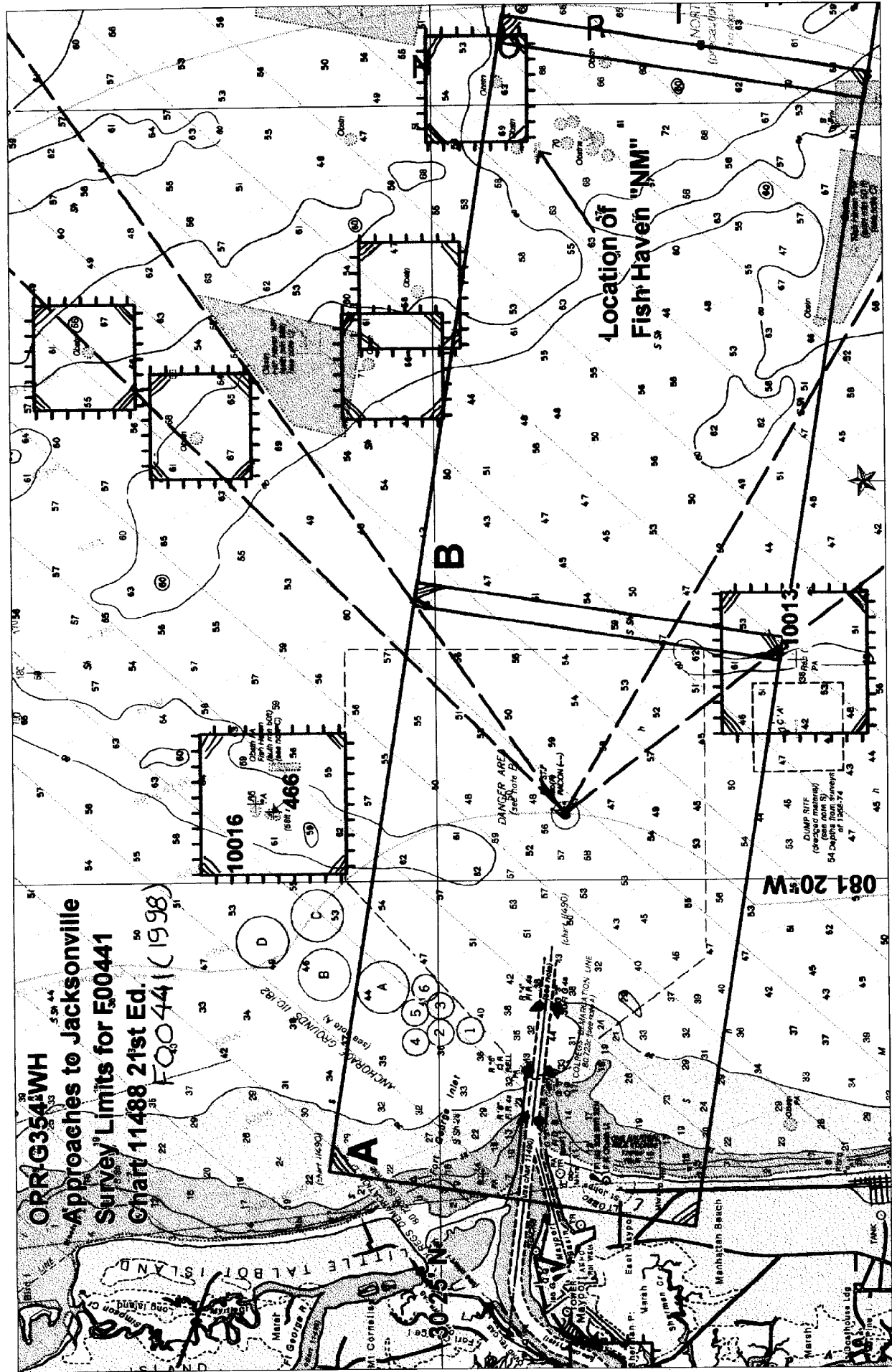
148 100 100 100

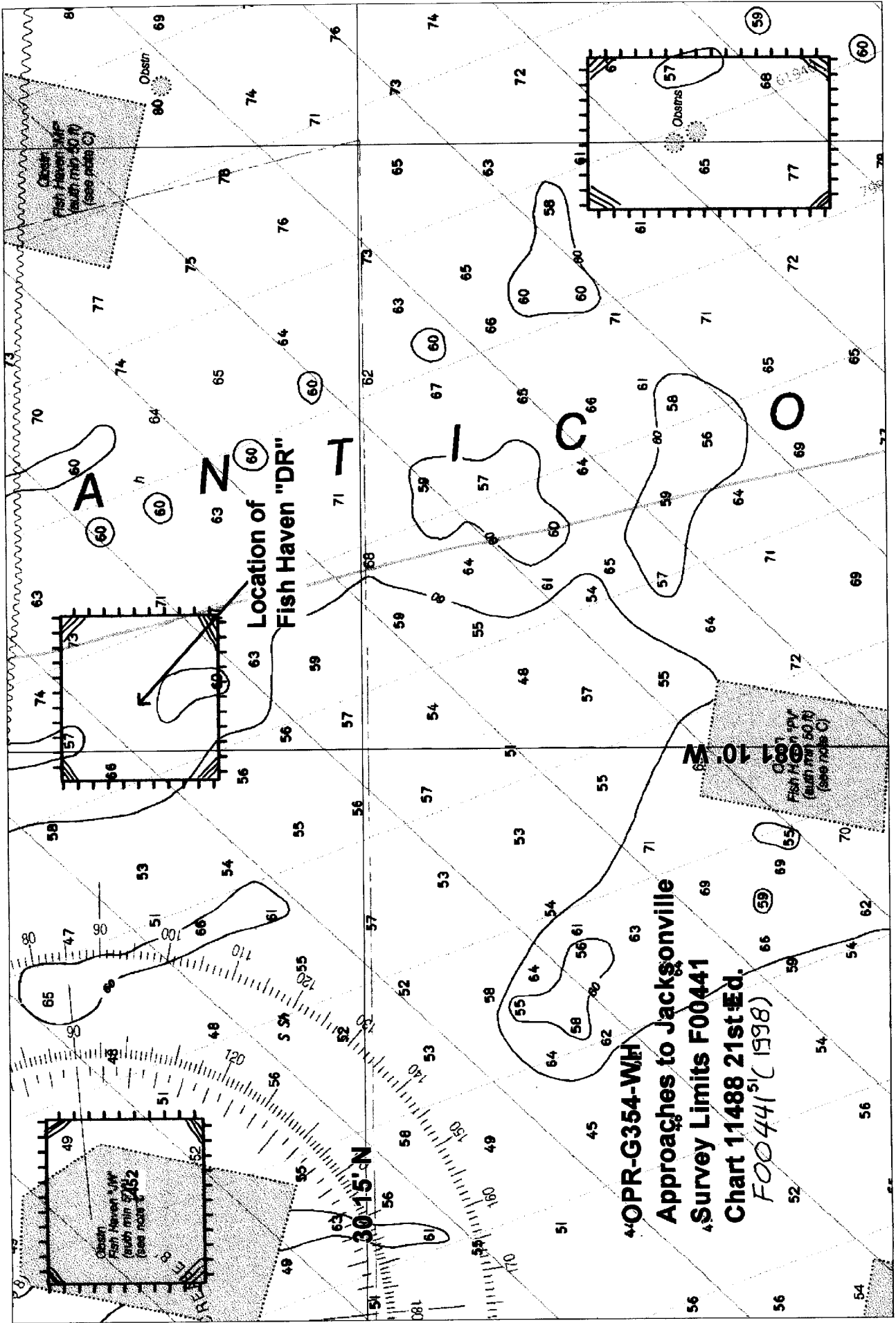
148 100 100 100

148 100 100 100

148 100 100 100

ORR-G3541WH
Approaches to Jacksonville
Survey Limits for F00441
Chart 11488 2nd Ed.
F00441 (1998)





Location of "DR"
Fish Haven "DR"

OPR-G354-WH
Approaches to Jacksonville
Survey Limits F00441
Chart 11488 21st Ed.
F00441 (1998)

Obsn
Fish Haven W
(auth mar 57452)
(base note C)

Obsn
Fish Haven W
(auth mar 5071)
(base note C)

Obsn
Fish Haven W
(auth mar 5071)
(base note C)

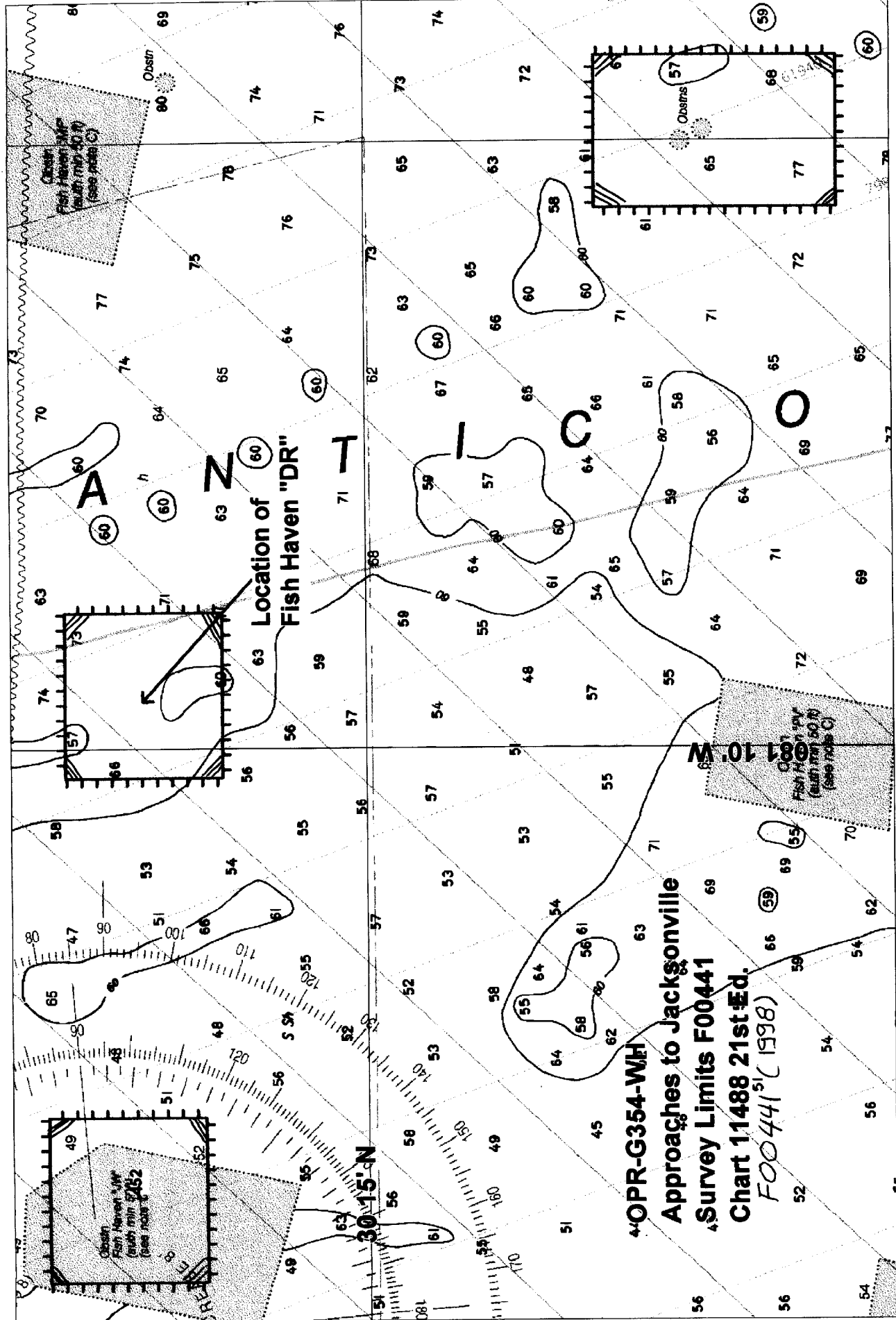
A

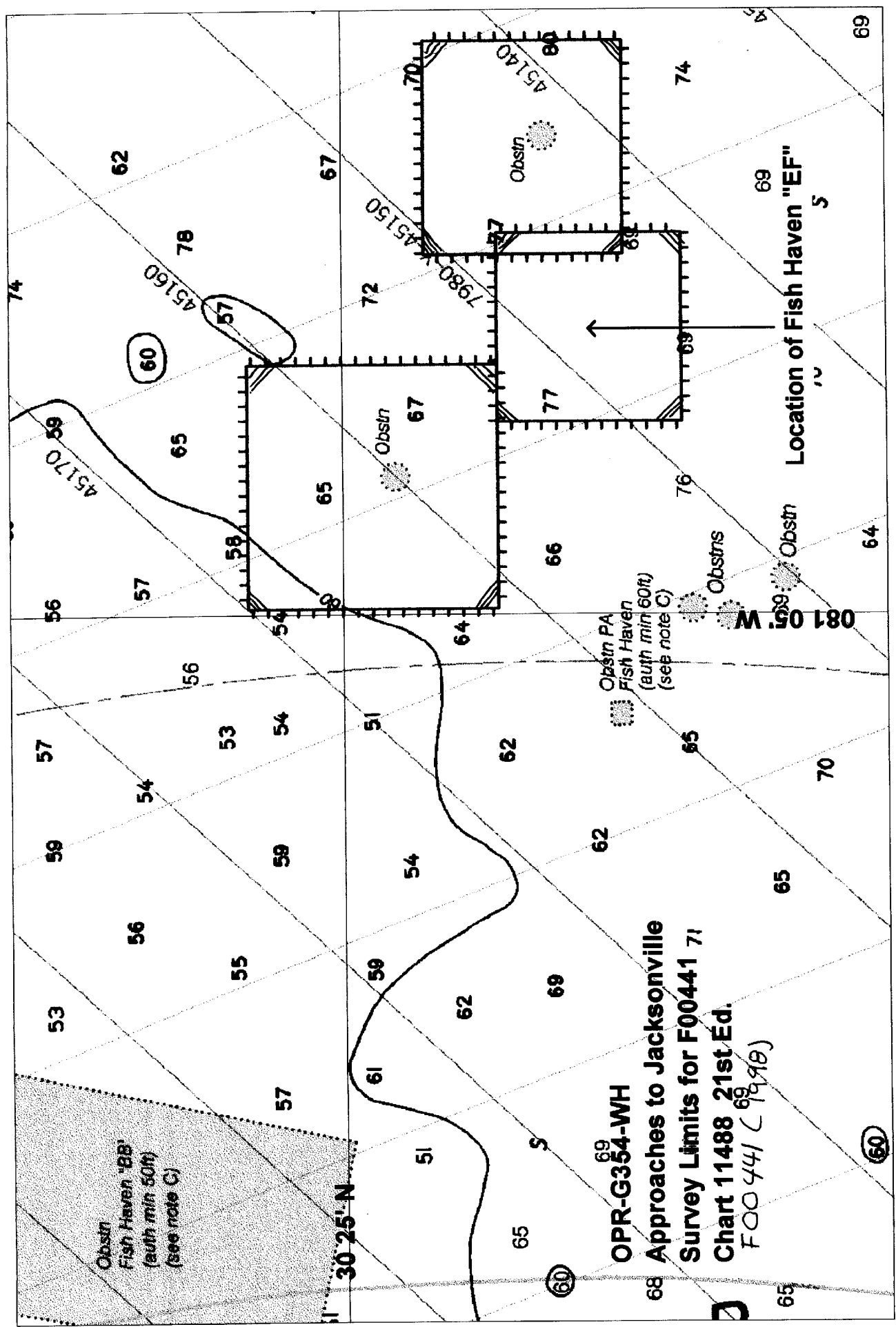
Z

H

30°15'N

10'W





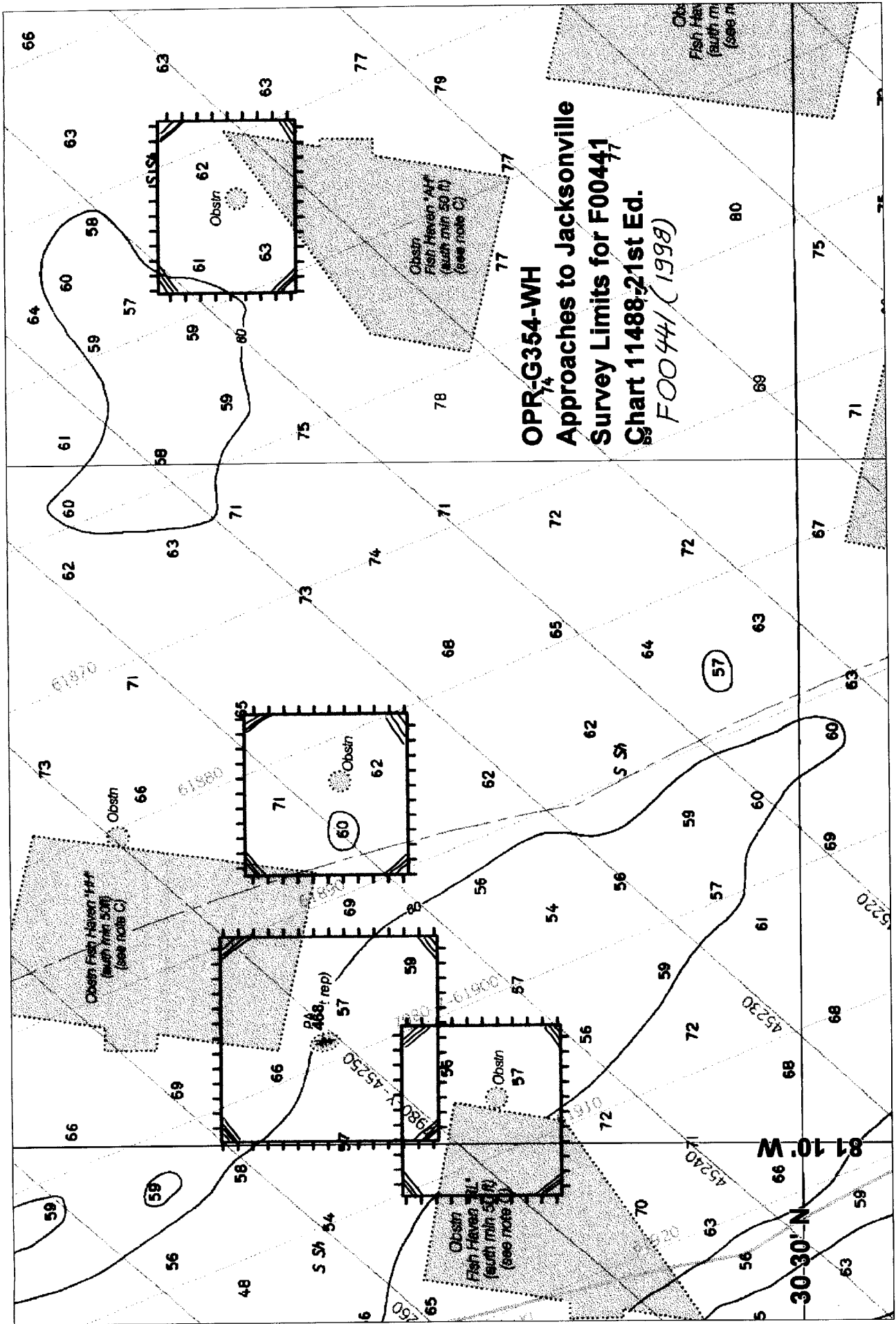
Obstrn
Fish Haven "BB"
(auth min 50ft)
(see note C)

30° 25' N

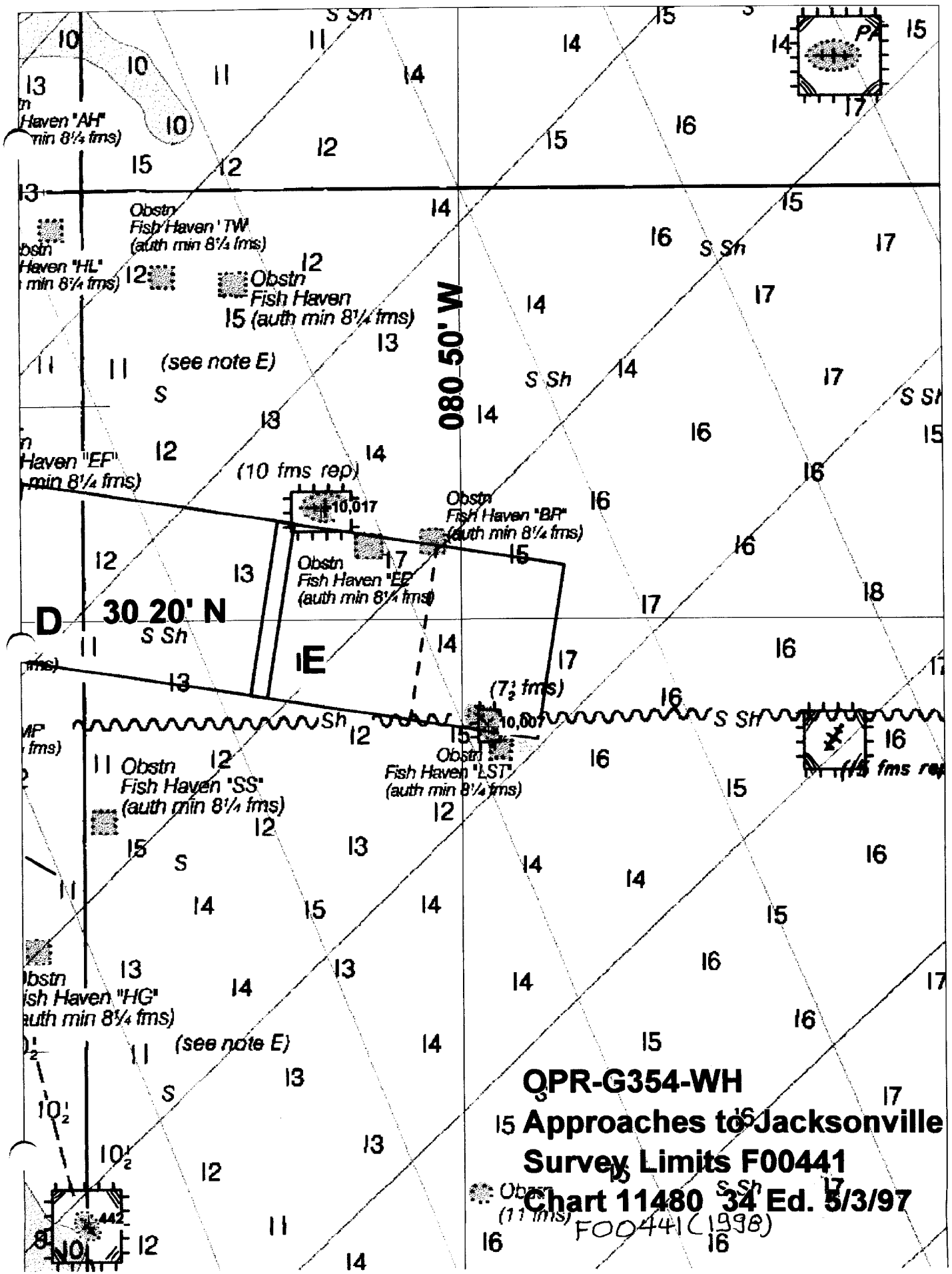
OPR-G354-WH
Approaches to Jacksonville
Survey Limits for F00441 71
Chart 11488 21st Ed.
F00441 (1978)

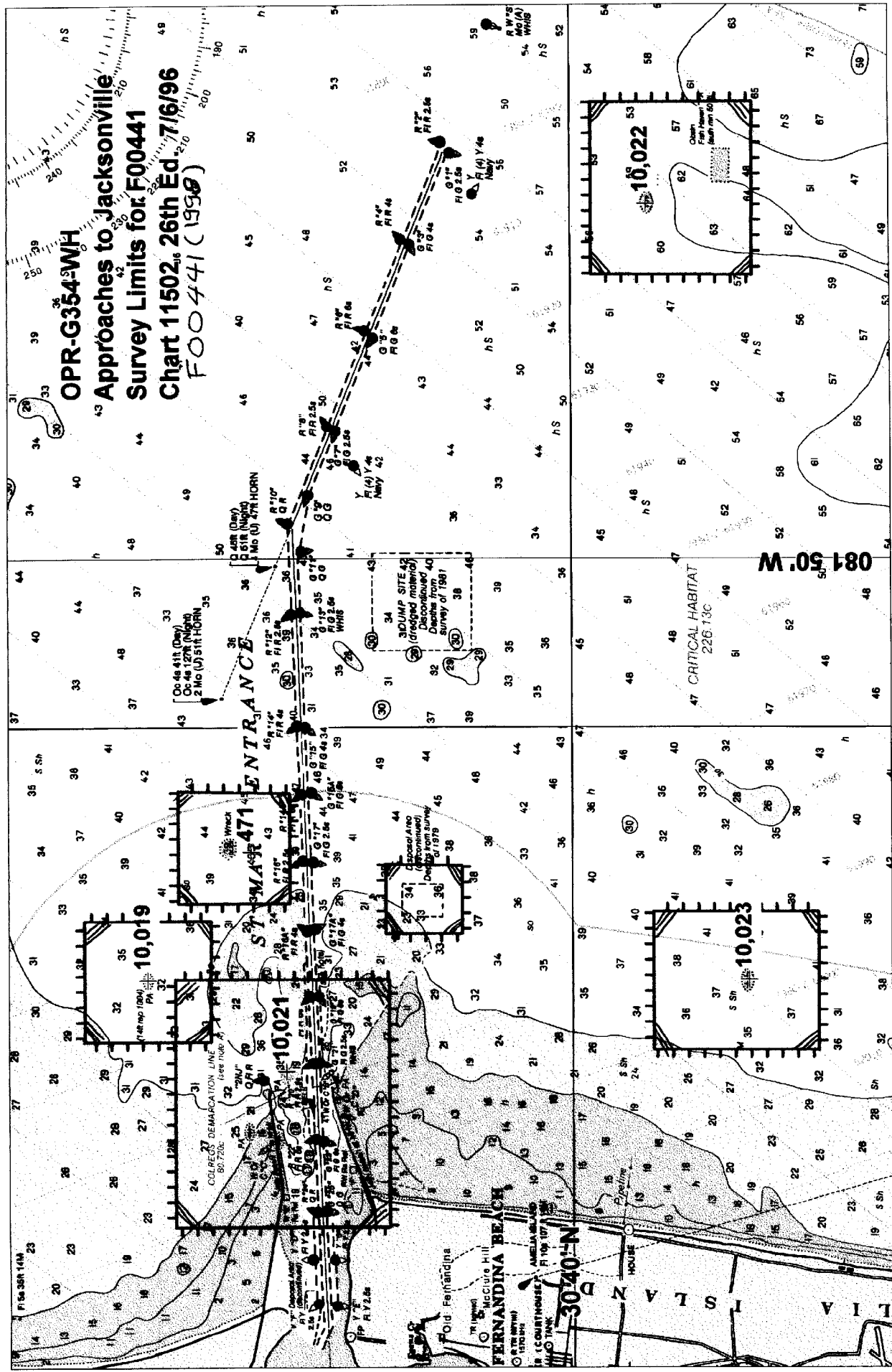
Location of Fish Haven "EF"

60



OPR-G354-WH
Approaches to Jacksonville
Survey Limits for F00441
Chart 11488, 21st Ed.
F00441 (1998)





OPR-G354^{SWH}
Approaches to Jacksonville
Survey Limits for F00441
Chart 11502, 26th Ed 7/6/96
FOO441 (1996)

ENTRANCE

SYMMETRY 471

FERNANDINA BEACH

CRITICAL HABITAT
226-13C

10,019

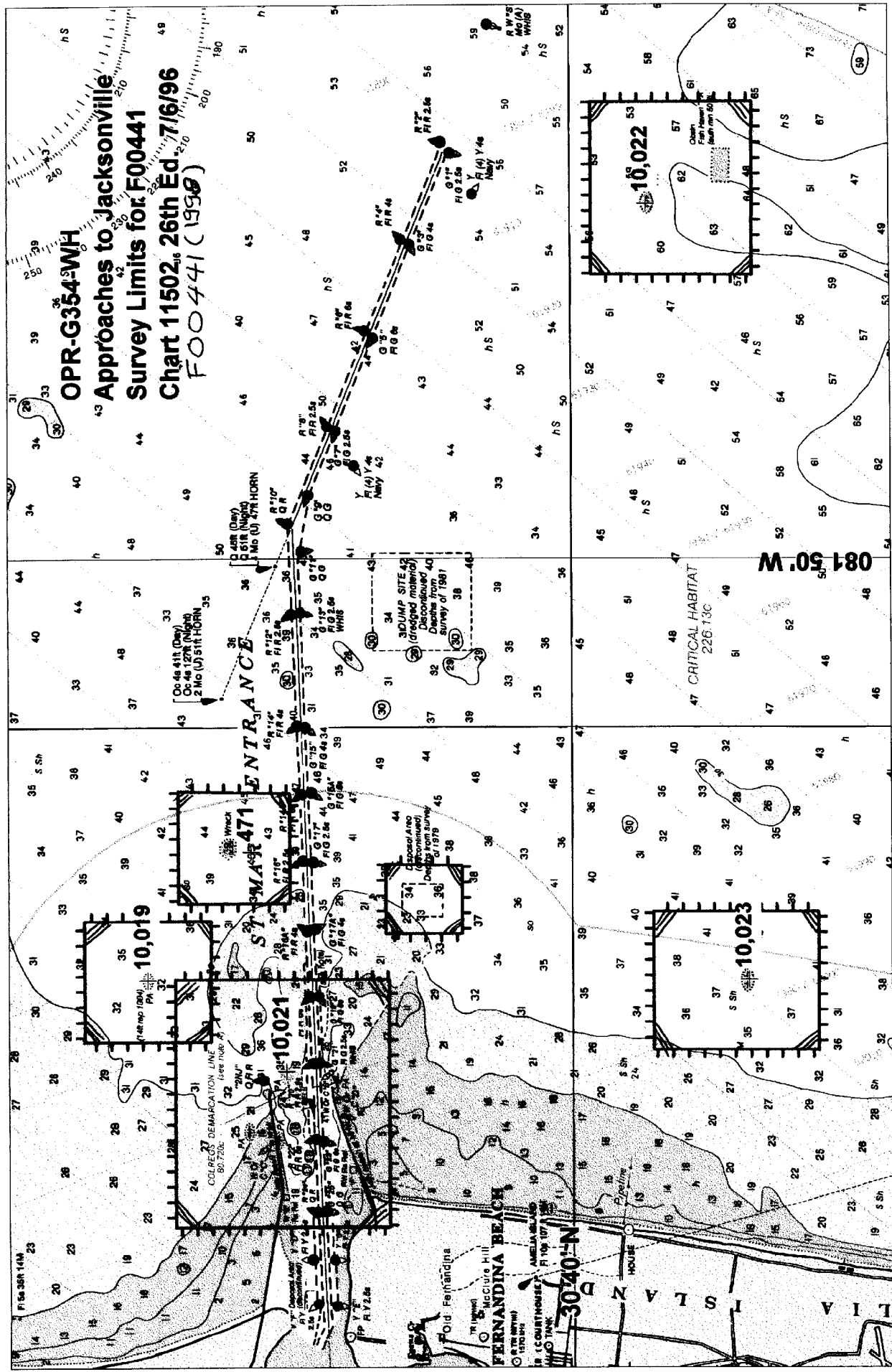
10,021

10,022

10,023

081 50' W

30 40' N



A. PROJECT

A.1 This survey was conducted in accordance with Hydrographic Project Instructions OPR-G354-WH, basic hydrographic survey, Atlantic Ocean, Approaches to Jacksonville, Florida.

A.2 The original instructions are dated March 20, 1998.

A.3 Change no.1 to the original project instructions is dated April 30, 1998.

A.4 This Descriptive Report covers F00441 (Field Examinations) of OPR-G354-WH. F00441 lies 9.5 nautical miles east-southeast of St. Johns Point, Florida. See section B.2 for exact survey boundaries.

A.5 Project OPR-G354-WH responds to requests from the Jacksonville Waterway Management Council. The council is concerned that enhancement and construction of artificial reefs in the approaches to St. Johns River will reduce detail on NOS charts covering the area. This area is host to U.S. Naval vessels, commercial deep-draft vessels and tugs engaged in towing operations.

B. AREA SURVEYED

B.1 This survey covers the navigable area of the Approaches to Jacksonville and Fernandina Beach, Florida. It is bounded on the west by approximate longitude 81°28'W, and on the east by approximate longitude 80°39'W. The northern and southern approximate limits are latitudes 30°45'N and 30°05'N, respectfully.

B.2 The survey comprises one sheet with the following boundaries, starting at the SE corner and proceeding clockwise:

<u>F00441 (Zoned for 8720030)</u>	<u>F00441 (Zoned for 8720220)</u>
1. 30°03'23"N 080°37'13"W	1. 30°22'41"N 081°25'59"W
2. 30°03'23"N 081°28'54"W	2. 30°22'41"N 081°27'07"W
3. 30°46'32"N 081°28'54"W	3. 30°23'36"N 081°27'07"W
4. 30°46'32"N 080°37'13"W	4. 30°23'36"N 080°25'59"W

B.3 Data collection for this survey began on April 11, 1998 (DN 101). Data collection ended on June 21, 1998 (DN 171).

C. SURVEY VESSELS

C.1 The following vessels were used during this survey:

Vessel	EDP Number	Primary Function
NOAA Ship Whiting	2930 (WTEW)	Hydrography and Side Scan Operations
NOAA Launch WH-2	2932 (1014)	Hydrography and Side Scan Operations
NOAA Launch WH-1	2931 (1015)	Hydrography and Side Scan Operations

C.2 No unusual vessel configurations were used during this survey.

D. AUTOMATED DATA ACQUISITION AND PROCESSING *SEE ALSO EVALUATION REPORT*

D.1 All software used for data acquisition and processing are contained on the **HYDROSOFT 8.2 (plus updates as of 4/22/98)** compact disc provided by Atlantic Hydrographic Branch (N/CS33). The following is a list of software used from this disc:

HYPACK for Windows version 7.1a
HSD Utilities
Hydrographic Processing System
HPTools

D.2 The SEABIRD SBE-19 sound velocity profile unit was utilized with **SEASOFT 3.3M** and **SEACAT 2.0** software. The program **VELOCITY** (Version 3.1, February 1998) was used to process the collected data and calculate velocity corrections.

E. SONAR EQUIPMENT

E.1 The WHITING and its launches conducted all side scan sonar operations using an EG&G Model 260 image-corrected side scan sonar recorder and a 100 kHz Model 272-T towfish.

E.2 The towfish was configured with a 20° beam depression, which is the normal setting and yields the optimum beam correction.

E.3 The 100 kHz frequency was used throughout the survey.

E.4 a. During survey preparation, it was determined that the depth of water in the survey area would require many range scales to cover individual investigations. Proper range scales were used to obtain complete (200%) area coverage and provide optimal contact resolution. The line spacing is in accordance with the value specified in section 7.3.2.1 of the Field Procedures Manual (FPM). Data collected with an EPE of 30 or greater was rejected or smoothed during post-processing, so the maximum line spacing was never exceeded.

E.4 b. Confidence checks were obtained during passes by bottom features such as contacts, sand waves, scours and substrate density changes. These features were annotated on the sonargram.

E.4 c. Any holidays with a length of 200 meters or less not covered with 200% side scan sonar were covered with 100% side scan sonar. In all other areas, two hundred percent side scan coverage was completed. All side scan coverage was checked with swath plots to ensure proper overlap between adjoining lines. All relevant and questionable contacts were investigated using a reduced side scan range scale (either 50 or 75-meter range scale, dependent on depth) as well as reduced line spacing echosounder developments.

E.4 d. There were no degraded data returns collected during this survey.

E.4 e. On NOAA Ship WHITING, the SSS towfish was deployed from a Reuland winch using one of two armored cables in conjunction with an A-frame on the stern. A slip-ring assembly connected the armored cable to the SSS recorder. On launches 1014 and 1015 the SSS towfish was deployed using a Superwinch in conjunction with an adjustable davit arm on the stern. The SSS towfish was towed with a vinyl-coated Kevlar cable and was connected to the recorder by a slip-ring assembly.

E.5 Significant side scan sonar contacts were investigated using side scan sonar at a reduced range scale. Singlebeam echosounder was also utilized for contact investigation. Development survey lines were routinely run with side scan sonar at 50 and 75-meter range scale. Detailed descriptions of all AWOIS items and investigated contacts falling within the Navigable Area are addressed in the ITEM INVESTIGATION REPORTS found in section N.

E.6 All overlap was checked and holidays identified during post processing using **HPS_MI**, a MapBasic program provided by Hydrographic Surveys Division (N/CS32) to accompany **MapInfo** software **version 4.5**.

F. SOUNDING EQUIPMENT

F.1 All hydrographic soundings were acquired using a Raytheon Model 6000N Digital Survey Echosounder.

F.2 No other sounding equipment was used.

F.3 There were no faults in sounding equipment that affected the accuracy or quality of the data.

F.4 Both high (100 kHz) and low (24 kHz) frequency sounding data were recorded during data acquisition. Only high frequency soundings were plotted.

G. CORRECTIONS TO SOUNDINGS

G.1 a. Sound Velocity Correctors

The velocity of sound through water was measured using a Sea-Bird SBE 19 Seacat Profiler (s/n 196093-1060). Seacat Data Quality Assurance Tests were conducted after each respective velocity cast to ensure that the unit was operating within tolerance.

All sound velocity data were processed using program **VELOCITY**. Computed velocity correctors were entered into the HPS sound velocity table and re-applied during post-processing to both high and low frequency soundings.

The following is a list of sound velocity casts performed for F00441:

Table Number	Day No.	Vessel Covered	Position of Cast		Days Covered
			Latitude	Longitude	
11	100	WHITING	30°22' 19"N	081°10' 00"W	101
16	112	Launches	30°24' 34"N	081°19' 22"W	107
37	131	WHITING	30°23' 54"N	081°19' 42"W	133-140
38		Launches			
39	131	WHITING	30°23' 52"N	081°01' 44"W	135-138
40		Launches			
41	131	WHITING	30°21' 17"N	080°51' 50"W	135-140
42		Launches			
43	132	WHITING	30°11' 48"N	081°01' 20"W	133-134
44		Launches			
55	148	WHITING	30°41' 12"N	081°17' 54"W	151
57	152	WHITING	30°43' 36"N	081°21' 18"W	148-152
58		Launches			
59	153	WHITING	30°32' 54"N	080°40' 03"W	153
60		Launches			
61	153	WHITING	30°33' 36"N	081°08' 54"W	148-149
62		Launches			
63	153	WHITING	30°38' 54"N	081°13' 36"W	150-153
64		Launches			
65	155	WHITING	30°05' 59"N	080°59' 55"W	154-155
66		Launches			
67	155	WHITING	30°23' 28"N	081°09' 25"W	156
68		Launches			
69	155	Launches	30°22' 06"N	081°26' 03"W	155
70	156	WHITING	30°16' 30"N	081°13' 50"W	156
71		Launches			
72dive	156	Launches	30°17' 09"N	080°49' 18"W	156
73	157	WHITING	30°30' 01"N	080°58' 20"W	156-162
74		Launches			
77	158	Launches	30°37' 27"N	081°22' 41"W	152-161
78	158	Launches	30°41' 56"N	081°24' 27"W	158
82	160	Launches	30°41' 56"N	081°24' 41"W	151-162
83	162	WHITING	30°16' 24"N	081°14' 00"W	162-163
85dive	168	Launches	30°17' 05"N	081°12' 41"W	168
86	169	WHITING	30°23' 54"N	081°03' 48"W	168-171
87		Launches			
88dive	169	Launches	30°32' 57"N	081°07' 24"W	169

d. Leadline Comparison

Dual leadline comparisons with the DSF-6000N were conducted for WHITING during OPR-G354-WH (H-10799) on:

DN 148 at 30°41'06"N and 081°06'36"W (45 ft depths)

Weather and sea conditions were calm and proved ideal for performing the leadline comparison. No corrections to soundings were needed. Leadlines used were calibrated on February 11, 1997, and the calibration confirmed that the leadline error was negligible. See the echosounder record on the above listed days for actual DSF 6000N readings.

A leadline comparison was performed for the launches on:

DN 107 at 30°23'48"N and 081°24'27"W (15-30 ft depths)

DN 133 at 30°23'48"N and 081°24'27"W (15-30 ft depths)

DN 150 at 30°24'15"N and 081°24'26"W (15 ft depths)

DN 151 at 30°42'21"N and 081°18'22"W (45 ft depths)

Weather and sea conditions were fair and proved satisfactory for performing the barcheck and leadline comparisons. No corrections to soundings were needed. Copies of the leadline check data are included in the Separates, section IV. *DATA FILED WITH FIELD RECORDS*

The **DAILYDQA** program used in conjunction with the ship's barometer was used to assure that the MOD III Diver Least Depth Gauge was working properly. Daily results fell within specified operating ranges. CTD casts were used in the **SMLGAUGE** program (v3.1) to calculate least depth measurements.

f. Static Draft

The static draft correction for launches 1014 and 1015 is 0.55 meters, and was measured on July 28, 1993. The corrector was entered into HPS Offset Tables 2* and 1*, respectively. The correction for static draft for WHITING is 3.2 meters, a historical value which WHITING divers confirmed with a MOD III Diver Least Depth Gauge on May 11, 1995. The corrector was entered into Offset Table 9*. Static draft correctors were applied during data processing for each survey platform.

** DATA FILED WITH FIELD RECORDS*

g. Dynamic Draft (Settlement and Squat Correctors)

Settlement and squat values for launch 1014 were determined on March 16, 1998, and were entered into HPS Offset Table 2. Settlement and squat values for launch 1015 were determined on March 16, 1998, and were entered into HPS Offset Table 1. Settlement and squat values for WHITING were determined on March 26, 1996, and were entered into HPS Offset Table 9. The settlement and squat correctors were applied to the sounding data in real time for each survey platform. Refer to Separate IV for data records. **DATA FILED WITH FIELD RECORDS**

h. Heave, Roll, and Pitch Correctors

Heave correctors for data acquired by WHITING, launch 1014, and launch 1015 were determined by a TSS Dynamic Motion Sensor DMS-05. Heave correctors were collected during data acquisition and applied to raw data during the **HPTools** conversion process. Serial numbers for these sensors were as follows:

Vessel	Serial Number
2930	2066
2931	2062
2932	2068

G.6 Tide Correctors

a. The tidal datums for this project are Mean Lower Low Water (MLLW) and Mean High Water (MHW). Soundings are referenced to MLLW. Heights of bridges and cables are referenced to MHW. The operating tide station at Fernandina Beach, Florida (872-0030) served as control for datum determination.

b. Tidal zones are controlled by two primary gauges, Fernandina Beach, Florida (872-0030) and Mayport, Florida (872-0220). Due to the limitations of HPS and for ease of data processing, one tide zone was used for each field examination item, using the predicted tides utility in HPS. All proper zones will be applied through HPS upon receipt of smooth tides from N/OES234. See following page for location of all zones for F00441. The following table shows all tide zones used for F00441: **APPROVED TIDES AND ZONING APPLIED DURING OFFICE PROCESSING**

Zone Name	Water Cor. (ft)	Speed (C)	Zone
SEC 170	-42	X0.91	8720030
SEC 182	-30	X0.94	
SEC 185	-42	X0.84	
SEC 186	-42	X0.81	
SEC 187	-42	X0.78	
SEC 188	-60	X0.78	
SEC 190	-60	X0.74	
SJR6	0	X0.97	8720220

Smooth tides for F00441 were requested from N/OES234 in letters dated July 7, 1998 and July 12, 1998.

The WHITING and its launches employed no unusual or unique methods or instruments to correct echo soundings. All sounding correctors were applied to both the narrow (100 kHz) and wide (24 kHz) DSF-6000N beams. Zoning for this project is consistent with the project instructions.

H. CONTROL STATIONS SEE ALSO EVALUATION REPORT

The horizontal datum for this survey is the North American Datum of 1983 (NAD 83). A horizontal control station was established at St. Johns Lighthouse for the use of a NOAA VHF "Fly-Away" station. Ashtech software **GPSS**, along with NGS software **FORWARD3D** and **INVERSE3D** were used to compute the station position. NGS program **MONITOR** was used as a quality check for the computed position. Geographic position and DQA results of **MONITOR** for this station can be found in appendix III of this report.

I. HYDROGRAPHIC POSITION CONTROL

I.1 This survey was conducted using the Global Positioning System (GPS) corrected by the U.S. Coast Guard (USCG) Differential GPS reference station network and NOAA-established VHF "Fly-Away" station. The launches and the ship used an Ashtech Sensor GPS receiver with a CSI MBX1 beacon receiver supplying USCG correctors for DGPS navigation. When the NOAA VHF station was used, DGPS correctors were received with Maxon or TAD VHF radios on all platforms. HSDutils automatically initialized Ashtech receivers and the CSI MBX1 units were preset to the appropriate station and frequency.

I.2 Accuracy requirements were met as specified by the Hydrographic Manual and Field Procedures Manual (FPM). The Horizontal Dilution of Precision (HDOP) and Expected Position Error (EPE) specified by the FPM were monitored during on-line data collection. If the positioning degraded beyond the acceptable limits while on-line, the data were either smoothed or rejected.

I.3 Differential GPS Equipment:

The serial numbers of the Ashtech Sensor and CSI MBX1 receivers on the data acquisition platforms are as follows:

<u>Vessel</u>	<u>Device</u>	<u>Serial Number</u>
2930 (WTEW)	Ashtech Sensors	700417B1203 (system A) 700417B1191 (system B)
	CSI MBX1	X-1318 (system A) X-1081 (system B)
2931 (1015)	Ashtech Sensor	700417B1194
	CSI MBX1	X-1088
2932 (1014)	Ashtech Sensor	700417B1055
	CSI MBX1	X-1079

I.4 Correctors were received from the Cape Canaveral, FL, Charleston, SC and NOAA VHF radiobeacons.

I.5 a. DGPS performance checks on NOAA Ship WHITING were determined by using Shipboard Data Integrity Monitor program ("**SHIPDIM**", Version 2.1), according to section 3.4.5 of the FPM. The position determined using correctors from the Cape Canaveral, FL DGPS beacon were compared to the position determined using correctors from the Charleston, SC or the NOAA VHF DGPS beacon using two independent DGPS systems. SHIPDIM routinely showed the positions given by the two systems to be within 2-4 meters of each other.

I.5 b. DGPS performance checks for launch 1014 and launch 1015 were conducted while secured in the WHITING davits using correctors from the Cape Canaveral, FL or Charleston, SC DGPS towers. Simultaneous HYPACK positions were compared with WHITING. An offset in distance and azimuth was then calculated between the ship and launch system. A summary of the DGPS performance checks is included in the Separates, section III. ** All DGPS performance checks confirmed that the equipment was working properly.*

I.7 a. There were no unusual methods used to operate or calibrate electronic positioning equipment.

I.7 b. There were no equipment malfunctions.

** DATA FILED WITH FIELD RECORDS*

I.7 c. No unusual atmospheric conditions affected data quality.

I.7 d. No systematic errors were detected which required adjustments.

I.7 e. The maximum allowed HDOP value of 4.0 was never exceeded.

I.8 f. DGPS antenna offsets were measured on March 19, 1993, for WHITING. Offsets and laybacks were measured using the high frequency echosounder transducer as the reference. Correctors were entered into Offset Table 9. The DGPS antennae were installed on launches 1014 and 1015 on April 2, 1996, directly over the echosounder transducer. Antenna height was also measured on the same respective dates shown above, using the water line as the reference. Correctors were entered into Offset Table 1 for launch 1015 and Table 2 for launch 1014. A minimum of four satellites were used during survey H-10799 providing altitude unconstrained positioning.

I.9.g. Offset, layback and height corrections for the launches aft towing boom were measured on July 28, 1993, verified on April 5, 1994, and applied by HPS during post processing. Correctors were entered into Offset Table 1 for launch 1015 and Table 2 for launch 1014. Offset, layback and height for WHITING's A-frame was measured on March 18, 1998, using the forward high frequency transducer as the reference. Correctors were entered into Offset Table 9.

These offsets, along with the cable length, towfish height, and depth of water, were used by the HPS system to compute the position of the towfish. Copies of HPS Offset Tables 1, 2 and 9 are contained in Separate III. *DATA FILED WITH FIELD RECORDS*

J. SHORELINE

No shoreline is contained within the boundaries of this survey.

K. CROSSLINES

K.1 Not applicable.

L. JUNCTIONS

L.1 F00441 does not junction with any other surveys.

M. COMPARISON WITH PRIOR SURVEYS

M.1 Not applicable.

N. ITEM INVESTIGATION REPORTS

N.1 During the course of survey F00441 charted fish havens "DR" and "EF" were covered by 200% side scan sonar.

AWOIS NO: 442
(FE_Sthwk)

Item Description: Wreck

Source: NM66/43

AWOIS Position: Lat. 30°06'00.88"N Lon. 080°59'59.23"W

Required Investigation: Unassigned **Radius:** 1000

Charts Affected: 11480, 11009

INVESTIGATION

Date(s): 3-4 June 1998 (DN 154, 155)

Position Numbers: 45078 - 45936

Investigation Used: S2

Surveyed Position:

Position Determined By: Differential GPS

Investigation Summary: During the field examination, AWOIS 442 was covered with 200% side scan sonar. Nothing was found.

CHARTING RECOMMENDATION

Recommendation: Based on the results of this survey, the hydrographer recommends removal of charted "dangerous wreck, depth unknown" at lat. 30°03'⁰⁸54'⁵⁰32"⁸⁸N, lon. 081°06'⁰²00'⁵⁷20"³W. *CONCUR*

DELETE (H)

AWOIS NO: 466
(FE_A_Northwks)

Item Description: Wreck

Source: NM9/44

AWOIS Position: Lat. 30°26'48.86"N Lon. 081°19'05.30"W

Required Investigation: SD, S2, DI Radius: 500

Charts Affected: 11490, 11488, 11480

INVESTIGATION

Date(s): 12 May 1998 (DN 132)

Position Numbers: 42.²~~3~~

Investigation Used: S2, ES

Surveyed Position: Lat. 30°27'09.722"N Lon. 081°19'19.278"W

Position Determined By: Differential GPS

Investigation Summary: During the field examination, AWOIS 466 was found with singlebeam echosounder. A least depth, corrected with ~~predicted~~ tides, of 54.²~~3~~ feet (16.54 meters) was found. APPROVED

CHARTING RECOMMENDATION

Recommendation: Based on the results of this survey, the hydrographer recommends removal of charted "dangerous wreck, depth unknown" and associated "58ft Reported" at lat. 30°26'48.⁸⁶~~354~~"N, lon. 081°19'05.³⁰~~664~~"W. Also, recommend charting a "wreck, least depth known" with a least depth (corrected with ~~predicted~~ tides) of 54.²~~3~~ feet at the surveyed position. APPROVED

CONCUR SHEET 1 OF 15
CHART (54) WK
DELETE (58) (58ft reported)

AWOIS NO: 468
(FE_Fswwk)

Item Description: Wreck

Source:

AWOIS Position: Lat. 30°33'00.86"N Lon. 081°09'14.28"W

Required Investigation: Unassigned **Radius:** 1000

Charts Affected: 11488, 11480

INVESTIGATION

Date(s): 28-29 May 1998 (DN 148, 149)

Position Numbers: *41476-41720*
41703-42741

Investigation Used: S2

Surveyed Position:

Position Determined By: Differential GPS

Investigation Summary: During the field examination, AWOIS 468 was covered with 200% side scan sonar. Nothing was found.

CHARTING RECOMMENDATION

Recommendation: Based on the results of this survey, the hydrographer recommends removal of charted "dangerous wreck, depth unknown" at lat. 30°33'00.86"N lon. 081°09'14.28"W.

CONCUR

DELETE (H) PA (42 ft rep)

AWOIS NO: 471
(FE_Gnw6)

Item Description: Wreck

Source: NM35/50, NM33/53

AWOIS Position: Lat. 30°43'29.75"N Lon. 081°21'25.42"W

Required Investigation: SD, S2, DI **Radius:** 500

Charts Affected: 11503, 11502, 11480

INVESTIGATION

Date(s): 28,30-31 May 1998; 1 June 1998 (DN 148, 150-152)

Position Numbers: 21703 - 22517
22518 - 22565
44238 - 44565

Investigation Used: S2, DI

Surveyed Position:

Position Determined By: Differential GPS

Investigation Summary: During the field examination, AWOIS 471 was covered with 200% side scan sonar. Divers also conducted a 30m search radius. Nothing was found.

CHARTING RECOMMENDATION

Recommendation: Based on the results of this survey, the hydrographer recommends removal of charted "wreck, least depth known, swept by wire drag or diver" at lat. 30°43'29.75"N, lon. 081°21'25.42"W. *CONCUR*

DELETE (39) Wreck

AWOIS NO: 9377
(RiverAwois)

Item Description: "Ah Honey" - Wreck

Source: LNM20/81

AWOIS Position: Lat. 30°22'50.86"N Lon. 081°26'47.31"W

Required Investigation: Unassigned **Radius:** 300

Charts Affected: 11491

INVESTIGATION

Date(s): 27 May 1998, 4 June 1998 (DN 147, 155)

Position Numbers: ^{961 - 1259}
25628 - 25869

Investigation Used: S2

Surveyed Position:

Position Determined By: Differential GPS

Investigation Summary: During the field examination, AWOIS 9377 was covered with 200% side scan sonar. Nothing was found.

CHARTING RECOMMENDATION

Recommendation: Based on the results of this survey, the hydrographer recommends removal of charted "dangerous wreck, depth unknown" at lat. 30°22'50.86"N, lon. 081°26'47.31"W.

CONCUR

DELETE (HH) PA

AWOIS NO. 10007
(FE_10007)

Item Description: Wreck

Source: H9373/73, LNM35/73

AWOIS Position: Lat. 30°17'30.00"N Lon. 080°49'18.00"W

Required Investigation: SD, S2, DI **Radius:** 100

Charts Affected: 11480, 11009

INVESTIGATION

Date(s): 5 June 1998 (DN 156)

Position Numbers: 2806

Investigation Used: S1, ES, DI

Surveyed Position: Lat. 30°17'31.312"N Lon. 080°49'16.704"W

Position Determined By: Differential GPS

Investigation Summary: During the field examination, AWOIS item 10007 was found. During an investigation of associated contacts, divers found a deteriorated steel hull wreck, 200 to 250 feet long. It was resting upright and slightly to port. Approximate orientation is east-west. A least depth, corrected with ~~predicted~~ ^{APPROVED} tides, of 83.9 feet (25.13 meters) was taken on the bow (east end).

CHARTING RECOMMENDATION

Recommendation: Based on the results of this survey, the hydrographer recommends removal of charted "dangerous wreck, depth unknown" at lat. 30°17'32.453"N, lon. 080°49'18.150"W. Also recommend charting a "sunken wreck, not dangerous to surface navigation" with a least depth (corrected with ~~predicted~~ ^{APPROVED} tides) of 83.9 feet at the surveyed position. ^{25.3 METERS} **CONCUR WITH CLARIFICATION**

SHEET 2 OF 15

DO NOT CHART WRECK - FALLS
WITHIN CHARTED FISH HAVEN

AWOIS NO: 10013
(FE_A_38)

Item Description: Wreck

Source: CL535/74, LNM23/74

AWOIS Position: Lat. 30°21'00.86"N Lon. 081°17'10.29"W

Required Investigation: S2, ES, DI Radius: 1000

Charts Affected: 11490, 11488, 11480

INVESTIGATION

Date(s): 11,17 April 1998; 12-13 May 1998 (DN 101,107,132-133)

Position Numbers: ²⁰⁰⁰⁻²⁰⁷⁴⁶
³⁰⁰⁷¹⁻³⁰⁶⁸²
⁴⁰⁰⁰⁻⁴⁰⁴⁶

Investigation Used: S2, ES

Surveyed Position:

Position Determined By: Differential GPS

Investigation Summary: During the field examination, AWOIS 10013 was covered with 200% side scan sonar and echosounder where required. Nothing was found.

CHARTING RECOMMENDATION

Recommendation: Based on the results of this survey, the hydrographer recommends removal of charted "38 Rep 1974 PA" at lat. 30°20'56.81"N, lon. 081°17'23.79"W. CONCUR
^{1 00 16} ^{10 29}

DELETE 38 REP (1974) PA

AWOIS NO: 10016
(FE_A_Northwks)

Item Description: "Sea Witch" Wreck

Source: LNM30/80

AWOIS Position: Lat. 30°27'00.86"N Lon. 081°18'59.30"W

Required Investigation: SD, S2, DI **Radius:** 500

Charts Affected: 11490, 11488, 11480

INVESTIGATION

Date(s): 12-13, 20 May 1998 (DN 132-133, 140)

Position Numbers: ¹⁻²⁰⁷
208-711
41220-41266

Investigation Used: S2

Surveyed Position:

Position Determined By: Differential GPS

Investigation Summary: During the field examination, AWOIS 10016 was covered with 200% side scan sonar. No contacts were found that were associated with the charted wreck "PA".

CHARTING RECOMMENDATION

Recommendation: Based on the results of this survey, the hydrographer recommends removal of charted "dangerous wreck, depth unknown" and associated "PA" at lat. 30°27'00.055"N, lon. 081°19'^{00.127}_{59 30}"W. CONCUR

DELETE (H): PA

AWOIS NO: 10017
(FE_E_Northwks)

Item Description: "Roslyn B. Hudgins" - Wreck

Source: NM8/86

AWOIS Position: Lat. 30°22'32.00"N Lon. 080°53'42.00"W

Required Investigation: SD, S2, DI Radius: 500

Charts Affected: 11480, 11009

INVESTIGATION

Date(s): 16 May 1998 (DN 136)

Position Numbers: 21415.0

Investigation Used: S2, ES

Surveyed Position: Lat. 30°22'21.682"N Lon. 080°53'59.285"W

Position Determined By: Differential GPS

Investigation Summary: During the field examination, AWOIS 10017 was found. During an echosounder investigation, a least depth, corrected with ^{APPROVED} predicted tides, of 80.0⁰ feet (24.54 meters) ~~was taken on a towing bit on the stern.~~

CHARTING RECOMMENDATION

Recommendation: Based on the results of this survey, the hydrographer recommends removal of charted "dangerous wreck, 10 fms rep" at lat. 30°22'38.18⁰N, lon. 080°53'36.02⁰W. Also, recommend charting a "sunken wreck, not dangerous to surface navigation" with a least depth (corrected with ~~predicted~~ ^{APPROVED} tides) of 80.0⁰ feet at the surveyed position. ^{24.4 METERS} CONCUR WITH CLARIFICATION

SHEET 3 of 15

DO NOT CHART-WRECK FALLS WITHIN THE
LIMITS OF THE CHARTED OBSTN FISH HAVEN
"HL" (AUTH MIN 8 1/4 FMS)

AWOIS NO: 10019
(FE_Gnwwk)

Item Description: "Raptor" - Wreck

Source: LNM27/94, LNM29/94

AWOIS Position: Lat. 30°44'19.20"N Lon. 081°23'00.00"W

Required Investigation: SD, S2, DI Radius: 500

Charts Affected: 11503, 11502, 11480

INVESTIGATION

Date(s): 30-31 May 1998 (DN 150-151)

Position Numbers: ^{22566 - 23313}
23433 - 23909

Investigation Used: S2

Surveyed Position:

Position Determined By: Differential GPS

Investigation Summary: During the field examination, AWOIS 10019 was covered with 200% side scan sonar. Nothing was found.

CHARTING RECOMMENDATION

Recommendation: Based on the results of this survey, the hydrographer recommends removal of charted "dangerous wreck, depth unknown" at lat. 30°44'19.09"N, lon. 081°22'59.64"W.
20 3 00.00

CONCUR

DELETE ~~HH~~ (14 ft REP 1994), PA

AWOIS NO: 10021
(FE_GChan)

Item Description: "Drummer" - Wreck

Source: LNM14/81

AWOIS Position: Lat. 30°42'54.85"N Lon. 081°24'05.32"W

Required Investigation: SD, S2, DI Radius: 250

Charts Affected: 11503, 11502

INVESTIGATION

Date(s): 2-3,7,9-11,19 June 1998 (DN 153-154,158,160-162,170)

BUOYS - 1305-1306

Position Numbers: *2650911 Obsta (SEE PAGE 27)*
1307-2805, 27599-27616, 2806-2864
3153-3191, 25870-25978, 26481-26569

Investigation Used: S2 *27186 & 27222*

Surveyed Position:

Position Determined By: Differential GPS

Investigation Summary: During the field examination, AWOIS 10021 was covered with 200% side scan sonar. No significant contacts were found.

CHARTING RECOMMENDATION

Recommendation: Based on the results of this survey, the hydrographer recommends removal of charted "dangerous wreck, depth unknown" at lat. 30°42'54.^{*8*}5"N, lon. 081°24'0^{*8*}5.32"W.

CONCUR

DELETE (H) PA

AWOIS NO: 10022
(FE_Gsewk)

Item Description: Tug

Source: LNM18/90

AWOIS Position: Lat. 30°39'13.80"N Lon. 081°13'47.40"W

Required Investigation: SD, S2, DI Radius: 1000

Charts Affected: 11502, 11488, 11480

INVESTIGATION

Date(s): 18 June 1998 (DN 169)

Position Numbers: 3201

Investigation Used: S2, DI

Surveyed Position: Lat. 30°39'21.506"N Lon. 081°14'06.583"W

Position Determined By: Differential GPS

Investigation Summary: During the field examination, contact 43049.0c was found and determined to be AWOIS 10022. During an investigation of 43049.0c, divers found a tug, with most of the superstructure missing, sitting upright on the bottom. A least depth, corrected with ^{APPROVED} predicted tides, of ~~42.6~~^{42.3} feet (13.02 meters) was taken on the remaining superstructure.

CHARTING RECOMMENDATION

Recommendation: Based on the results of this survey, the hydrographer recommends removal of charted "wreck, 50 ft rep 1990" and associated "PA" at lat. 30°39'13.446⁸⁰"N, lon. 081°13'48.456⁹⁰"W. Also recommend charting a "wreck, least depth known" with a least depth (corrected with ~~predicted~~ ^{APPROVED} tides) of ~~42.6~~^{42.3} feet at the surveyed position. ~~CONCUR~~
13.2 METERS

SHEET 4 OF 15
CHART 43 WK

DELETE (H) (50 FT REP 1990) PA

AWOIS NO: 10023
(FE_Gswwk)

Item Description: "Miss Anya" - Wreck

Source: NM24/90

AWOIS Position: Lat. 30°38'12.70"N Lon. 081°22'59.80"W

Required Investigation: SD, S2, DI **Radius:** 1000

Charts Affected: 11488, 11480, 11502

INVESTIGATION

Date(s): 3-4 June 1998 (DN 154, 155)

Position Numbers: 25979 - 26483
26570 - 27185
27617 - 27778

Investigation Used: S2, ES

Surveyed Position:

Position Determined By: Differential GPS

Investigation Summary: During the field examination, AWOIS 10023 was covered with 200% side scan sonar. Two contacts were investigated and found to be insignificant. Nothing was found.

CHARTING RECOMMENDATION

Recommendation: Based on the results of this survey, the hydrographer recommends removal of charted "dangerous wreck, depth unknown" and associated "PA" at the AWOIS position.

CONCUR

DELETE (H) PA

CONTACT NO: 765.6p
(EF-Fishhaven/Gatorbowl)

Item Description: Steel Frame Press Boxes

Source:

AWOIS Position:

Required Investigation: None **Radius:** 400

Charts Affected: 11480, 11488, 11490

INVESTIGATION

Date(s): 21 June 1998 (DN 172)

Position Numbers: 3401

Investigation Used: S2, DI

Surveyed Position: Lat. 30°23'49.899"N Lon. 081°03'32.988"W

Position Determined By: Differential GPS

Investigation Summary: During the field examination, contact 765.6p was found. During an investigation of 765.6p, divers found two steel frame structures, rising 30-35 feet off the bottom. They consisted of three levels each, with no floor in the top levels. The least depth was taken on the top of the larger structure. The smaller structure was located 120 feet from the larger, bearing 220°. A least depth, corrected with ~~predicted~~ tides, of $5\frac{7}{8}$ feet (17.7 meters) was taken.
APPROVED

CHARTING RECOMMENDATION

Recommendation: Based on the results of this survey, the hydrographer recommends charting an "obstruction, least depth known" with a least depth (corrected with ~~predicted~~ tides) of $5\frac{7}{8}$ feet at the surveyed position. *APPROVED*
17.7 METERS

SHEET 5 of 15
CHART (58) OBSTN

CONTACT NO: 2848.0p
(FE_Gchan)

Item Description: Obstruction

Source:

AWOIS Position:

Required Investigation: None Radius: None

Charts Affected: 11503, 11502

INVESTIGATION

Date(s): 10 June 1998 (DN 161)

Position Numbers: 26509 +1

Investigation Used: S2, ES

Surveyed Position: Lat. 30°42'23.743"N Lon. 081°23'54.425"W

Position Determined By: Differential GPS

Investigation Summary: During the field examination, contact 2848.0p was found. During an echosounder investigation of 2848.0p, a least depth, corrected with predicted tides, of ~~31.8~~²⁷ feet (9.~~6~~⁹⁷ meters) was found. APPROVED

CHARTING RECOMMENDATION

Recommendation: Based on the results of this survey, the hydrographer recommends charting an "obstruction, least depth known" with a least depth (corrected with predicted tides) of ~~31.8~~²⁷ feet at the surveyed position. APPROVED
27 9.97 METERS CONCUR

SHEET 6 OF 15
CHART (32) OBSTN

CONTACT NO: 3120.9s
(FE_J)

Item Description: Barge

Source:

AWOIS Position:

Required Investigation: None Radius: 750

Charts Affected: 11480, 11488

INVESTIGATION

Date(s): 18 June 1998 (DN 169)

Position Numbers: 3¹/98

Investigation Used: S2, DI

Surveyed Position: Lat. 30°32'59.951"N Lon. 081°07'22.942"W

Position Determined By: Differential GPS

Investigation Summary: During the field examination, contact 3120.9s was found. During an investigation of 3120.9s, divers found a barge, mostly intact. There was a large section of collapsed deck about midship. A least depth, corrected with predicted tides, of 58.1 feet (~~16.8~~ ^{17.1} meters) was taken on a bit rising off the top deck.

CHARTING RECOMMENDATION

Recommendation: Based on the results of this survey, the hydrographer recommends removal of charted "obstruction, depth unknown" at position 30° 32'53.73"N, 081°07'19.84"W. Also recommend charting a "wreck, least depth known" with a least depth (corrected with predicted tides) of 58.1 feet at the surveyed position. CONCUR ^{APPROVED} 6 17.1 METERS

SHEET 7 of 15

CHART (56) WK

DELETE () OBSTN

CONTACT NO: 24889.2p
(FE_Gjety)

Item Description: Wreck

Source:

AWOIS Position:

Required Investigation: None Radius: 500

Charts Affected: 11503, 11502

INVESTIGATION

Date(s): 3 June 1998 (DN 154)

Position Numbers: 25214, ~~1~~ +1

Investigation Used: ES, S1

Surveyed Position: Lat. 30°43'16.390"N Lon. 081°24'44.650"W

Position Determined By: Differential GPS

Investigation Summary: During the field examination, contact 21889.2p was found with 100% side scan sonar. During an echosounder investigation of 21889.2p a least depth, corrected with ~~predicted~~ APPROVED tides, of 17.0~~0~~⁸ feet (5.4~~4~~⁴ meters) was taken.

CHARTING RECOMMENDATION

Recommendation: Based on the results of this survey, the hydrographer recommends removal of charted "dangerous wreck, depth unknown" and associated "PA" at lat. 30°43'17.964"N, lon. 081°24'48.048"W. Also recommend charting a "wreck, least depth known" with a least depth (corrected with ~~predicted~~ APPROVED tides) of 17.0~~0~~⁸ feet at the surveyed position.
5.4 METERS

SHEET 6 of 15

CHART 18 WK

DELETE (H) PA

CONTACT NO: 27239.8s
(FE_RL6)

Item Description: Obstruction

Source:

AWOIS Position:

Required Investigation: NONE Radius: 750

Charts Affected: 11488, 11480

INVESTIGATION

Date(s): 6,11 June 1998 (DN 157, 162)

Position Numbers: ^{27223 - 27275}
^{47548 - 48216}

Investigation Used: S2

Surveyed Position:

Position Determined By: Differential GPS

Investigation Summary: During the field examination, the area known as "RL6" was covered with 200% side scan sonar. Several contacts were found and determined to be an insignificant debris field. Nothing significant was found.

CHARTING RECOMMENDATION

Recommendation: Based on the results of this survey, the hydrographer recommends removal of charted "obstruction, depth unknown" at lat. 30°31'55.53"N, lon. 081°09'39.66 "W. *CONCUR*

DELETE () OBSTN

CONTACT NO: 41102.7s
(2_Southwks)

Item Description: Barge

Source:

AWOIS Position:

Required Investigation: None Radius: 500

Charts Affected: 11488, 11480

INVESTIGATION

Date(s): 14 May 1998 (DN 134)

Position Numbers: 41029.8 +1

Investigation Used: S1, ES

Surveyed Position: Lat. 30°12'48.950"N Lon. 081°05'01.712"W

Position Determined By: Differential GPS

Investigation Summary: During the field examination, contact 41102.7 was found. During an echsounder development a least depth, corrected with ~~predicted~~ tides, of 67.8₂ feet (20.85 meters) was found. APPROVED

CHARTING RECOMMENDATION

Recommendation: Based on the results of this survey, the hydrographer recommends removal of charted "obstruction, depth unknown" at lat. 30°12'44.9"N, lon. 081°05'00.06"W. Also, recommend charting a "wreck, least depth known" with a least depth (corrected with ~~predicted~~ tides) of 67.8₂ feet at the surveyed position. APPROVED 2 20.5 METERS

CONCLR

SHEET 8 of 15

CHART 67WK

DELETE () OBSTNS

CONTACT NO: 41131.9p
(2_Southwks)

Item Description: Obstruction

Source:

AWOIS Position:

Required Investigation: NONE Radius: 500

Charts Affected: 11488, 11480

INVESTIGATION

Date(s): 14 May 1998 (DN 134)

Position Numbers: 41000 - 41138
41015 - 41099
40770 - 41013

Investigation Used: S2

Surveyed Position:

Position Determined By: Differential GPS

Investigation Summary: During the field examination, 200% side scan sonar showed only a debris field. No significant contacts were found.

CHARTING RECOMMENDATION

Recommendation: Based on the results of this survey, the hydrographer recommends removal of charted "obstruction, depth unknown" at lat. 30°12'35.39"N, lon. 081°04'54.37 "W. *CONCUR*

DELETE



Obstns

(SV 9/23/98)

(Chart 11480, 35th Ed.)

CONTACT NO: 44819.4p
(SA_Barge)

Item Description: Barge

Source:

AWOIS Position:

Required Investigation: None Radius: 100

Charts Affected: 11502, 11488, 11480

INVESTIGATION

Date(s): 18 June 1998 (DN 169)

Position Numbers: 3200

Investigation Used: S2, DI

Surveyed Position: Lat. 30°38'44.131"N Lon. 081°12'52.214"W

Position Determined By: Differential GPS

Investigation Summary: During the field examination, contact 44819.4p was found. During an investigation of 44819.4p, divers found a deteriorated barge with collapsed decking. A least depth, corrected with ^{APPROVED} predicted tides, of ³52.8' feet (16.1 meters) was taken on a port towing bit near the bow.

CHARTING RECOMMENDATION

Recommendation: Based on the results of this survey, the hydrographer recommends charting a "wreck, least depth known" with a least depth (corrected with ^{APPROVED} predicted tides) of ³52.8' feet at the surveyed position. CONCUR ^{16.2 METERS}

SHEET 9 OF 15
CHART (53) WK

CONTACT NO: 46423.7s
(FE_NM14)

Item Description: Obstruction

Source:

AWOIS Position:

Required Investigation: NONE **Radius:** 750

Charts Affected: 11488, 11480

INVESTIGATION

Date(s): 14 May 1998 (DN 134)

Position Numbers: 3276-3367
46047-46434
50687-50738

Investigation Used: S2

Surveyed Position:

Position Determined By: Differential GPS

Investigation Summary: During the field examination, 200% side scan sonar was acquired for the item. All significant contacts were developed with echosounder lines, spaced 10-50 meters in a "star" pattern. Nothing was found.

CHARTING RECOMMENDATION

Recommendation: Based on the results of this survey, the hydrographer recommends removal of charted "obstruction, depth unknown" at lat. 30°24'16.82"N, lon. 081°09'42.34"W. *CONCUR*

DELETE [] OBSTN

CONTACT NO: 46552.4s
(FE_MR2)

Item Description: Barge

Source:

AWOIS Position:

Required Investigation: None Radius: 750

Charts Affected: 11490, 11488, 11480

INVESTIGATION

Date(s): 18 June 1998 (DN 169)

Position Numbers: 3194

Investigation Used: S1, DI

Surveyed Position: Lat. 30°27'42.502"N Lon. 081°14'15.613"W

Position Determined By: Differential GPS

Investigation Summary: During the field examination, contact 46552.4s was found. During an investigation of 46552.4s, divers found a deteriorated barge, approximately 100 feet ⁴⁰ long. A least depth, corrected with ^{APPROVED} predicted tides, of ~~68.8~~ ^{64.8} feet (19.~~5~~ ⁵ meters) was taken on a remaining bit on the top deck.

CHARTING RECOMMENDATION

Recommendation: Based on the results of this survey, the hydrographer recommends removal of charted "obstruction, depth unknown" at lat. 30°27'37.91"N, lon. 081°14'15.38"W. Also recommend charting a "wreck, ^{APPROVED} least depth known" with a least depth (corrected with ^{APPROVED} predicted tides) of ~~68.8~~ ^{64.8} feet at the surveyed position. ^{19.5 METERS} CONCUR

SHEET 10 of 15
CHART 64 WK
DELETE () OBSTN

CONTACT NO: 48363.2p
(FE_MR1)

Item Description: Steel Lattice

Source:

AWOIS Position:

Required Investigation: None Radius: 750

Charts Affected: 11490, 11488, 11480

INVESTIGATION

Date(s): 18 June 1998 (DN 169)

Position Numbers: 3197

Investigation Used: ES, S2, DI

Surveyed Position: Lat. 30°28'53.940"N Lon. 81°13'16.152"W

Position Determined By: Differential GPS

Investigation Summary: During the field examination, contact 48363.2p was found. During an investigation of 48363.2p, divers found a steel lattice framework, made up of 3-4 inch I-beams. There were many scattered culverts in the area. A least depth, corrected with ^{APPROVED} predicted tides, of ⁵5.8 feet (~~17.8~~ meters) was taken on the top of the structure.

CHARTING RECOMMENDATION

Recommendation: Based on the results of this survey, the hydrographer recommends removal of charted "obstruction, depth unknown" at lat. 30°28'48.95"N, lon. 081°13'07.46"W. Also recommend charting an "obstruction, least depth known" with a least depth (corrected with ^{APPROVED} predicted tides) of ²5.8 feet at the surveyed position. CONCUR ² 16.1 METERS

SHEET 11 of 15
CHART (53): OBSTN
DELETE (): OBSTN

CONTACT NO: 48658.88
(JW_Fishaven)

Item Description: Barge

Source:

AWOIS Position:

Required Investigation: None Radius: 450

Charts Affected: 11490, 11488, 11480

INVESTIGATION

Date(s): 17 June 1998 (DN 168)

Position Numbers: 3193

Investigation Used: S2, DI

Surveyed Position: Lat. 30°16'33.239"N Lon. 081°13'51.856"W

Position Determined By: Differential GPS

Investigation Summary: During the field examination, contact 48658.88 was found. During an investigation of 48658.88, divers found a deteriorated barge, approximately 100 feet long. There were large scours at both ends of the wreck. A least depth, corrected with ^{APPROVED} predicted tides, of 58.47 feet (17.6 meters) was taken on a bit near midship. 7.7

CHARTING RECOMMENDATION

Recommendation: Based on the results of this survey, the hydrographer recommends no charting change. This item is located within charted fish haven "JW" and does not exceed the authorized minimum depth. CONCUR

SHEET 12 of 15
SEE ALSO SECTION O. OF THE EVALUATION REPORT

CONTACT NO: 50278.5s
(FE_MR11Obst)

Item Description: Barge

Source:

AWOIS Position:

Required Investigation: None Radius: 750

Charts Affected: 11490, 11488, 11480

INVESTIGATION

Date(s): 21 June 1998 (DN 172)

Position Numbers: 3402

Investigation Used: S1, DI

Surveyed Position: Lat. 30°25'16.979"N Lon. 081°12'27.149"W

Position Determined By: Differential GPS

Investigation Summary: During the field examination, contact 50278.5s was found. During an investigation of 50278.5s, divers found a large steel hull barge, approximately 175 feet long. A least depth, corrected with ^{APPROVED} predicted tides, of 47.79 feet (14.6 meters) was taken on a vertical metal post near midship.

CHARTING RECOMMENDATION

Recommendation: Based on the results of this survey, the hydrographer recommends removal of charted "obstruction, depth unknown" at lat. 30°25'10.240"N, lon. 081°12'23.230"W. Also recommend charting a "wreck, least depth known" with a least depth (corrected with ^{APPROVED} predicted tides) of 47.79 feet at the surveyed position. CONCUR 14.6 METERS

SHEET 13 of 15

CHART 48 WK

DELETE () OBSTN

CONTACT NO: 50441.1
(FE_MR10)

Item Description: Barge

Source:

AWOIS Position:

Required Investigation: None Radius: 750

Charts Affected: 11490, 11488, 11480

INVESTIGATION

Date(s): 21 June 1998 (DN 172)

Position Numbers: 3405

Investigation Used: S1, DI

Surveyed Position: Lat. 30°25'48.741"N Lon. 081°13'22.396"W

Position Determined By: Differential GPS

Investigation Summary: During the field examination, contact 50441.1 was found. During an investigation of 50441.1, divers found a barge, approximately 110 feet long, resting upside down. A least depth, corrected with ^{APPROVED} predicted tides, of 62.6⁰ feet (19.2² meters) was taken on the exposed hull.

CHARTING RECOMMENDATION

Recommendation: Based on the results of this survey, the hydrographer recommends no charting change due to the proximity to position number 3404 (contact 50459.8). *DO NOT CONCUR*

*SHEET 14 OF 15
CHART 63 WK*

*DO NOT CHART ON CHART 11488
AND 11480 DUE TO CHART SCALE*

CONTACT NO: 50459.8
(FE_MR10)

Item Description: Barge

Source:

AWOIS Position:

Required Investigation: None Radius: 750

Charts Affected: 11490, 11488, 11480

INVESTIGATION

Date(s): 21 June 1998 (DN 172)

Position Numbers: 3404

Investigation Used: S1, DI

Surveyed Position: Lat. 30°25'44.172"N Lon. 081°13'25.489"W

Position Determined By: Differential GPS

Investigation Summary: During the field examination, contact 50459.8 was found. During an investigation of 50459.8, divers found a severely deteriorated barge, approximately 100 feet long. Some of the deck was completely collapsed. A least depth, corrected with ~~predicted~~ ^{APPROVED} tides, of 58.7 ~~feet~~ ^{feet} (17.89 meters) was taken on a angled pipe structure attached to the deck.

CHARTING RECOMMENDATION

Recommendation: Based on the results of this survey, the hydrographer recommends removal of charted "obstruction, depth unknown" at lat. 30°25'43.35"N, lon. 081°13'19.34"W. Also recommend charting a "wreck, least depth known" with a least depth (corrected with predicted tides) of 58.7 ~~feet~~ ^{feet} at the surveyed position. CONCUR ^{17.9 METERS}

SHEET 14 OF 15
CHART 58 WK
DELETE () OBSTN

CONTACT NO: 50585.9
(FE_MR10)

Item Description: Barge

Source:

AWOIS Position:

Required Investigation: None Radius: 750

Charts Affected: 11490, 11488, 11480

INVESTIGATION

Date(s): 21 June 1998 (DN 172)

Position Numbers: 3403

Investigation Used: S1, DI

Surveyed Position: Lat. 30°25'21.538"N Lon. 081°13'29.351"W

Position Determined By: Differential GPS

Investigation Summary: During the field examination, contact 50585.9 was found. During an investigation of 50585.9, divers found a small tug, approximately 55 feet long, with propeller intact. A least depth, corrected with ^{APPROVED} predicted tides, of 56.71 feet (17.4 meters) was taken on a towing bit on the stern.

CHARTING RECOMMENDATION

Recommendation: Based on the results of this survey, the hydrographer recommends charting a "wreck, least depth known" with a least depth (corrected with predicted tides) of 56.71 feet at the surveyed position. CONCUR 17.4 METERS

SHEET 14 of 15
CHART 57 WK

Charted Wreck
(FE_E_Eastwk)

Item Description: Wreck

Source:

AWOIS Position:

Required Investigation: NONE **Radius:** 500

Charts Affected: 11480, 11009

INVESTIGATION

Date(s): 5 June 1998 (DN 156)

Position Numbers: 46628- 46936

Investigation Used: S2

Surveyed Position:

Position Determined By: Differential GPS

Investigation Summary: During the field examination, the charted non-dangerous wreck was covered with 200% side scan sonar. Nothing was found.

CHARTING RECOMMENDATION

Recommendation: Based on the results of this survey, the hydrographer recommends removal of charted "sunken wreck, not dangerous to surface navigation" and associated "15 fms rep" at lat. 30°17'12.84"N, lon. 080°40'10.56"W. *CONCUR*

DELETE HH (15 fms Rep)

Charted Wreck "PA"
(FE_Fsewk)

Item Description: Wreck

Source:

AWOIS Position:

Required Investigation: NONE **Radius:** 1000

Charts Affected: 11480, 11009

INVESTIGATION

Date(s): 31 May 1998, 3 June 1998 (DN 151, 153)

Position Numbers: 43202 - 44018
44566 - 44816

Investigation Used: S2

Surveyed Position:

Position Determined By: Differential GPS

Investigation Summary: During the field examination, the charted dangerous wreck "PA" was covered with 200% side scan sonar. Nothing was found.

CHARTING RECOMMENDATION

Recommendation: Based on the results of this survey, the hydrographer recommends removal of charted "dangerous wreck, depth unknown" and associated "PA" at lat. 30°32'59.65"N, lon. 080°40'02.32"W. *CONCUR*

DELETE (---) PA

Charted Visible Wreck (1)
(FE_Gchan)

Item Description: Visible Wreck

Source:

AWOIS Position:

Required Investigation: NONE **Radius:** 400

Charts Affected: 11503, 11502

INVESTIGATION

Date(s): 2-3,7,9-11,19 June 1998 (DN 153-154,158,160-162,170)

Position Numbers: 27599 - 27616
25670 - 25978
27186 - 27222
26484 - 26569

Investigation Used: S2

Surveyed Position:

Position Determined By: Differential GPS

Investigation Summary: During the field examination, the charted visible wreck was covered with 200% side scan sonar. No significant contacts were found.

CHARTING RECOMMENDATION

Recommendation: Based on the results of this survey, the hydrographer recommends removal of charted visible wreck at lat. 30°42'37.75"N, lon. 081°24'29.97"W. ***Note: This visible wreck has already been removed from 11503 via USACE survey data. Reference Local Notice to Mariners 19/89. Information provided by Hydrographic Surveys Branch, POC Steve Verry, N/CS31. CONCUR**

Charted Visible Wreck (2)
(FE_Gchan)

Item Description: Visible Wreck

Source:

AWOIS Position:

Required Investigation: NONE **Radius:** 250

Charts Affected: 11503, 11502

INVESTIGATION

Date(s): 2-3,7,9-11,19 June 1998 (DN 153-154,158,160-162,170)

Position Numbers: ~~26484~~ - 26569
27186 - 27220
25870 - 25978

Investigation Used: S2

Surveyed Position:

Position Determined By: Differential GPS

Investigation Summary: During the field examination, the charted visible wreck was covered with one line of side scan sonar. This wreck is not visible at low water.

CHARTING RECOMMENDATION

Recommendation: Based on the results of this survey, the hydrographer recommends changing of charted visible wreck at lat. 30°42'23.31"N, lon. 081°24'12.08"W to "dangerous wreck, depth unknown". *CONCUR*

REVISE ~~PA~~ TO (H) PA

Discontinued Disposal Area
(Disp_Gwest)

Item Description: Discontinued disposal area

Source:

AWOIS Position:

Required Investigation: NONE **Radius:** 300

Charts Affected: 11503, 11502, 11480

INVESTIGATION

Date(s): 31 May 1998 (DN 151)

Position Numbers: 44019 - 44229

Investigation Used: S2

Surveyed Position:

Position Determined By: Differential GPS

Investigation Summary: During the field examination, the discontinued disposal area was covered with 200% side scan sonar. No significant contacts were found.

CHARTING RECOMMENDATION

Recommendation: Based on the results of this survey, the hydrographer recommends removal of charted "Disposal Area (discontinued) Depths from survey of 1979" at lat. 30°41'30.78"N, lon. 081°22'03.40"W. and update charted depths with survey data. *CONCUR*

SHEET 15 of 15

*REMOVE DISCONTINUED DISPOSAL AREA
LIMITS AND ASSOCIATED NOTES*

O. COMPARISON WITH THE CHART

O.1 Seven charts are affected by this survey (F00441):

Chart 11480
"Charleston Light to Cape Canaveral"
34th Ed. 3 May 1997
Scale: 1:449,659

Chart 11488
"Ameila Island to St. Augustine"
20th Ed. 9 March 1996
Scale: 1:80,000

Chart 11490
"Approaches to St. Johns River"
14th Ed. 30 March 1996
Scale: 1:40,000

Chart 11491
"St. Johns River - Atlantic Ocean to Jacksonville"
29th Ed. 4 January 1997
Scale: 1:20,000

Chart 11502
"Doboy Sound to Fernandina"
26th Ed. 6 July 1996
Scale: 1:80,000

Chart 11503
"Cumberland Sound - Fernandina Harbor to Kings Bay"
36th Ed. 14 January 1995
Scale: 1:20,000

Chart 11009
"Cape Hatteras to Straits of Florida"
34th Ed. 23 January 1993
Scale: 1:1,200,000

O.2 A Danger to Navigation report was submitted for this survey. A description of the items contained in that report is as follows:

Description	Latitude	Longitude	Fix #	Least Depth
Wreck	30°39'21.506"N	81°14'06.583"W	3201	42'
Obstruction	30°23'49.899"N	81°03'32.988"W	3401	58'

3201: Divers found a large tug, intact with most of the superstructure missing.

3401: Divers found a steel three level structure, believed to be the remains of press boxes from a demolished stadium.

See appendix A of this report for complete danger to navigation letter.

0.3 a. Except in the areas of discontinued dumpsite "DISP_GWEST" comparison of soundings is not applicable as the investigations were for point features. Overall, the soundings collected for this survey correlated well with charted depths. Survey depths were converted from meters to feet and overlaid on the largest scale chart of the area using MapInfo software. Depending on geographic area, depths generally showed minor shoaling and deepening when compared to charted soundings.

0.3 b. Due to the large geographic area of this survey, no general statement can be made about differences between charted and surveyed depths.

0.3 c. During the period this sheet was being processed, the 21st edition of NOS Chart 11488 dated May 9, 1998 was released. Through Chart Letter L-528/98, a group of 38 obstructions charted as "OBSTN" with the related symbol for a "submerged obstruction, depth unknown" were applied to the 21st edition. The positions for the obstructions were supplied to Coast Survey Marine Chart Division, Nautical Data Branch from the Jacksonville Sport Fishing Club. The obstructions were listed as a variety of debris including culverts and barges intended as fish haven replenishment. The supplied positions were converted from LORAN-C Time Delays to latitude/longitude positions by the Nautical Data Branch. Positions that fell outside of the existing charted fish havens were charted as individual obstructions as mentioned above.

Within the limits of this field examination sheet 12 of the new obstructions compiled on the 21st edition of 11488 were investigated. The area encompassing these 12 obstructions was surveyed with 200% side scan sonar coverage. All charted obstructions were surveyed with a minimum of a 750m radius about the center position of the obstruction. Hydrographic Survey Operations Branch concurs that the 750 meter radius is sufficient to disprove an item of this positional accuracy.

Six previously uncharted wrecks or obstructions were found in the vicinity of these 12 charted obstructions. Disproval requirements were met over the area of the newly charted obstructions. It recommended that the charted "OBSTN" and related symbol for a "submerged obstruction depth unknown" be removed from the chart and the wrecks and obstructions found during this survey (See Section N.) be charted with a "dangerous wreck symbol, least depth known" or "obstruction, least depth known". Survey data from FF00441 should supercede all sounding, wreck and obstruction data in the common area of charts 11480, 11488, 11490, 11502, 11503 and 11009.

O.3.d Charted fish haven "DR", located at lat. 30°16'25.11"N lon. 081°09'36.05"W was covered with 200% side scan sonar. No contacts were found in this area.

P. ADEQUACY OF SURVEY SEE ALSO EVALUATION REPORT

P.1. This survey is complete and fully adequate to supersede prior survey data within common areas.

Q. AIDS TO NAVIGATION

Q.1 No charted aids to navigation are located within F00411.

R. STATISTICS

R.1 a.	Number of Non-Rejected Positions	22870
b.	Linear Nautical Miles of Sounding Lines:	
	Nautical Miles of Side Scan Sonar	464.60
	Nautical Miles Hydrography	80.04
R.2 a.	Square Nautical Miles of Hydrography	20
b.	Days of Production	19
c.	Detached Positions	8
d.	Bottom Samples	24
e.	Tide Stations.	2
g.	Velocity Casts	21

S. MISCELLANEOUS

S.1 Not applicable. *SEE ALSO EVALUATION REPORT*

T. RECOMMENDATIONS *SEE ALSO SECTION T OF THE EVALUATION REPORT*

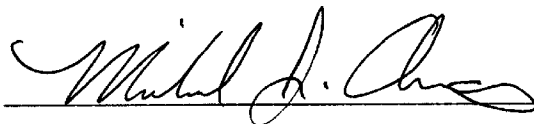
T.1 No further survey work is recommended.

T.2 See Section 0.3 c.

U. REFERRAL TO REPORTS

No reports or data are referred to in this Descriptive Report that are not included with this survey.

This report and the accompanying field sheets are respectfully submitted.

A handwritten signature in cursive script, reading "Michael J. Annis", written over a horizontal line.

Michael J. Annis
Physical Scientist
Atlantic Hydrographic Branch



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE, Office of Coast Survey
Atlantic Hydrographic Branch
439 W. York Street
Norfolk, VA 23510-1114

June 29, 1998

Commander (oan)
Seventh Coast Guard District
Brickell Plaza Building
909 SE 1st Avenue
Miami, Florida 33131-3050

Dear Sir,

While undergoing hydrographic survey operations at the entrance to St. Johns River, Mayport, Florida, (project OPR-G354-WH-98, registry F00441) the NOAA Ship WHITING discovered two items identified as hazards to navigation. I recommend that these items be included in the next Local Notice to Mariners. These items were located using Differential GPS and are based on NAD83 datum. The soundings have been reduced to Mean Lower Low Water (MLLW) using predicted tides. All depth data is preliminary pending actual tides.

Depth	Geographic Position	
	Latitude	Longitude
42'	30°39'21.506"N	081°14'06.583"W
58'	30°23'49.899"N	081°03'32.988"W

Affected Nautical Charts:

Chart Number	Edition Number	Date	Horizontal Datum
11480	35 th	5/09/98	NAD 83
11488	21 st	5/09/98	NAD 83
11009	34 th	1/23/93	NAD 83

The attached chartlet depicts the position of depths to be added.

Questions concerning this report should be directed to the Atlantic Hydrographic Branch by calling 757-441-6746.

Sincerely,

Andrew Beaver, LCDR, NOAA
Acting Chief, Atlantic Hydrographic Branch

Attachment

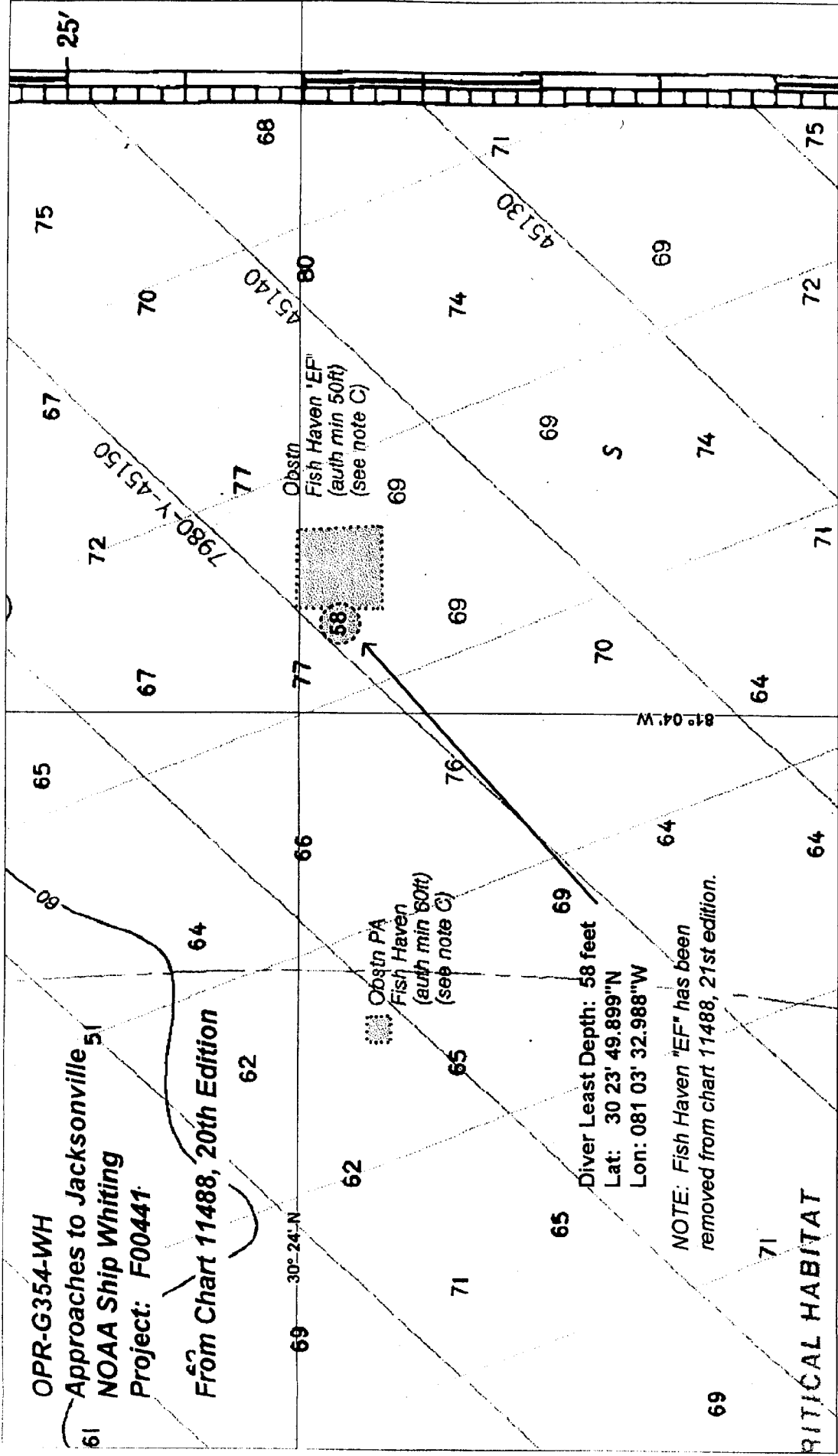
cc: NIMA-NIS
N/CS26
N/CS31
SJBPA
NAVSTA Mayport



OPR-G354-WH

Approaches to Jacksonville 51
NOAA Ship Whiting
Project: F00441

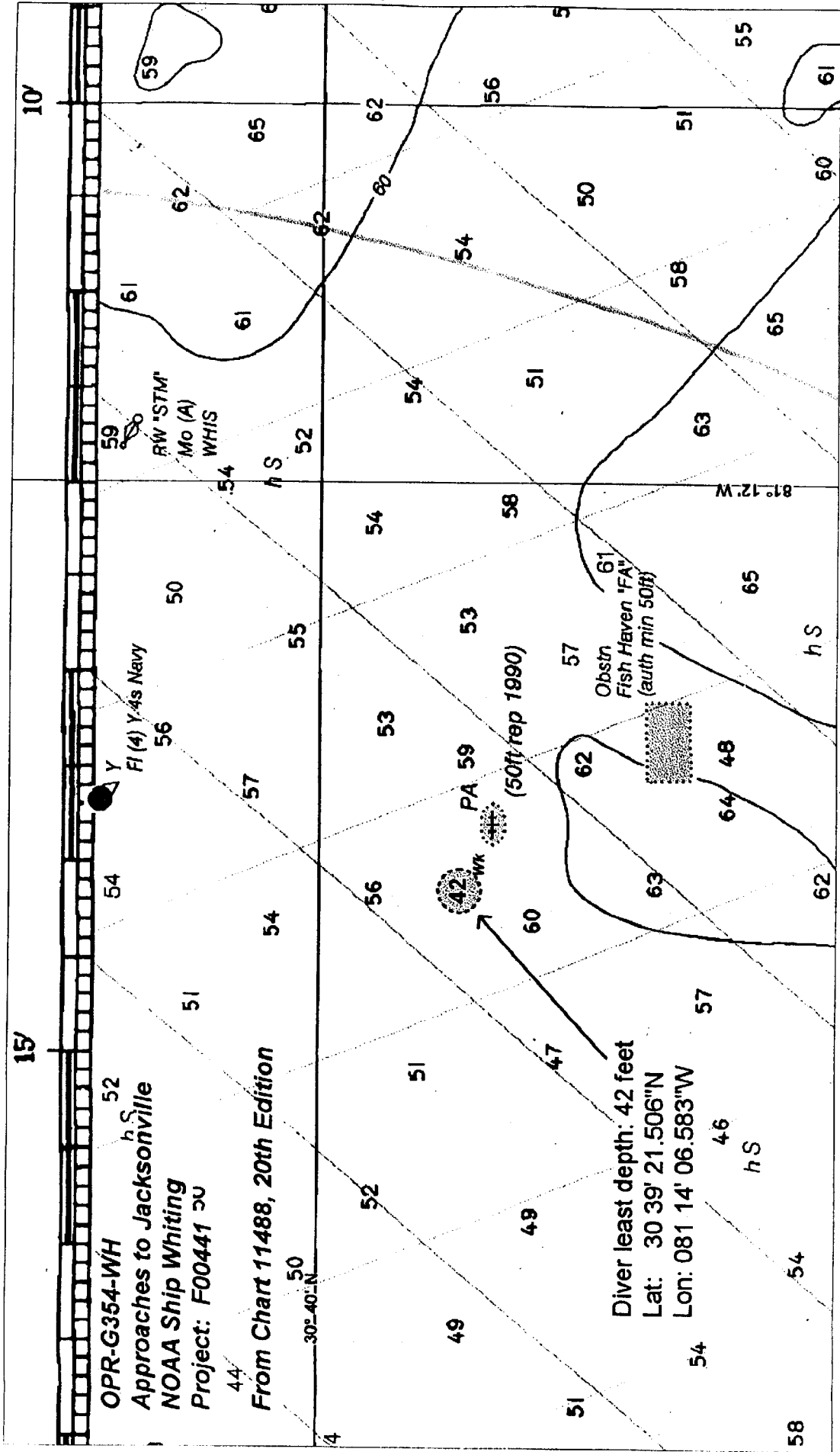
From Chart 11488, 20th Edition



Diver Least Depth: 58 feet
Lat: 30 23' 49.899"N
Lon: 081 03' 32.988"W

NOTE: Fish Haven 'EF' has been removed from chart 11488, 21st edition.

CRITICAL HABITAT



APPENDIX III

LIST OF HORIZONTAL CONTROL STATIONS & MONITOR Output Plots

The geographic positions for the differential GPS stations used during this survey are as follows:

Charleston, SC 298 KHz	Lat. 32° 45.5 N Long. 079° 50.6 W
Cape Canaveral, FL 289 KHz	Lat. 28° 27.6 N Long. 080° 32.6 W
NOAA VHF "Fly Away" 171.2 MHz	Lat. 30° 23.169 N Long. 081° 23.875 W

APPENDIX VII

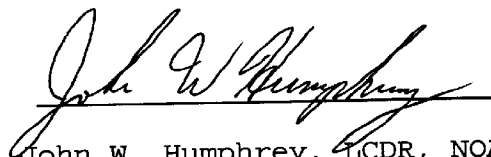
APPROVAL SHEET

LETTER OF APPROVAL

REGISTRY NO. F00441

Field operations contributing to the accomplishment of this basic hydrographic survey were conducted under my direct supervision with frequent personal checks of progress and adequacy. All field sheets and reports were reviewed in their entirety and all supporting records were checked as well.

This survey is more than adequate to supersede ALL prior surveys in common areas. This survey is considered complete and adequate for nautical charting.


John W. Humphrey, LCDR, NOAA
Commanding Officer
NOAA Ship WHITING



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

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: August 10, 1998

HYDROGRAPHIC BRANCH: Atlantic

HYDROGRAPHIC PROJECT: OPR-G354-WH
HYDROGRAPHIC SHEET: F00441

LOCALITY: Atlantic Ocean, Approaches to Jacksonville, FL

TIME PERIOD: April 11 - June 21, 1998

TIDE STATION USED: 872-0030 Fernandina Beach, FL
Lat. 30° 40.5'N Lon. 81° 27.9'W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 1.908 meters

TIDE STATION USED: 872-0220 Mayport, FL
Lat. 30° 23.6'N Lon. 81° 25.9'W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 1.421 meters

TIDE STATION USED: 872-0587 St. Augustine Beach, FL
Lat. 29° 51.4'N Lon. 81° 15.8'W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 1.466 meters

REMARKS: RECOMMENDED ZONING
Use zone(s) identified as:
SJR6, SJR7, SEC170, SEC182, SEC183, SEC184, SEC185,
SEC186, SEC187, SEC188, SEC190 & SEC209

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.



CHIEF, OPERATIONAL ANALYSIS BRANCH



Final tide zone node point locations for OPR G354-WH-98,
Field Examination F00441.

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

	Tide Station Order	AVG Time Correction	Range Correction
Zone SEC170			
-81.307354 30.527636	872-0030	-42	0.91
-81.272817 30.720991			
-80.943948 31.072817			
-80.943948 31.072817			
-80.843639 31.198624			
-80.868145 31.019904			
-81.307354 30.527636			
Zone SEC182			
-81.44972 30.717596	872-0030	-30	0.94
-81.218542 30.940138			
-81.272817 30.720991			
-81.448563 30.549619			
-81.428028 30.699065			
-81.434639 30.701509			
-81.44972 30.717596			
Zone SEC183			
-81.412904 30.479789	872-0030	-30	0.91
-81.411846 30.426852			
-81.408447 30.413717			
-81.307354 30.527636			
-81.272904 30.721046			
-81.448563 30.549619			
-81.437839 30.518337			
-81.412904 30.479789			
Zone SEC184			
-81.401903 30.357144	872-0587	+6	1.14
-81.397001 30.387894			
-81.390515 30.397344			
-81.37651 30.396205			
-81.375843 30.400869			
-81.388581 30.401762			
-81.400017 30.403815			
-81.404348 30.404954			
-81.408447 30.413717			
-81.307354 30.527636			

Zone SJR6				0.97
-81.432579 30.403089	872-0220		0	
-81.437226 30.394832				
-81.448682 30.384857				
-81.450191 30.372193				
-81.447677 30.371539				
-81.444774 30.373343				
-81.433045 30.377813				
-81.432897 30.38842				
-81.432579 30.403089				

Zone SJR7				0.94
-81.448682 30.384857	872-0220		+6	
-81.465049 30.391417				
-81.465005 30.373382				
-81.463536 30.37014				
-81.45467 30.369441				
-81.450191 30.372193				
-81.448682 30.384857				

GEOGRAPHIC NAMES

F00441

Name on Survey	<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">A ON CHART NO. 11480</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">B ON PREVIOUS SURVEY NO.</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">C ON U.S. QUADRANGLE MAPS</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">D FROM LOCAL INFORMATION</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">E ON LOCAL MAPS</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">F P.O. GUIDE OR MAP</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">G RAND McNALLY ATLAS</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">H U.S. LIGHT LIST</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">K</div> </div>										
	FLORIDA (title)	X		X							
JACKSONVILLE (title)	X		X								2
NORTH ATLANTIC OCEAN	X		X								3
											4
											5
											6
											7
											8
											9
											10
											11
											12
											13
											14
											15
											16
											17
											18
											19
											20
											21
											22
											23
											24
											25

Dennis Ramesburg
Chief Geographer

SEP 17 1998

09/21/98

HYDROGRAPHIC SURVEY STATISTICS
REGISTRY NUMBER: F00441

NUMBER OF CONTROL STATIONS	2
NUMBER OF POSITIONS	22564
NUMBER OF SOUNDINGS	22564

	TIME-HOURS	DATE COMPLETED
PREPROCESSING EXAMINATION	73	08/14/98
VERIFICATION OF FIELD DATA	90	09/11/98
EVALUATION AND ANALYSIS	17	
FINAL INSPECTION	25	09/11/98
COMPILATION	65	09/19/98
TOTAL TIME	270	
ATLANTIC HYDROGRAPHIC BRANCH APPROVAL		09/11/98

**ATLANTIC HYDROGRAPHIC BRANCH
EVALUATION REPORT FOR F00441 (1998)**

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.

D. AUTOMATED DATA ACQUISITION AND PROCESSING

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

Hydrographic Processing System
NADCON, version 2.10
SiteWorks, version 2.01
MicroStation 95, version 5.05
I/RAS B, version 5.01

The smooth sheet was plotted using an Hewlett Packard Design Jet 350C plotter.

H. CONTROL STATIONS

Horizontal control used for this survey during data acquisition is based upon the North American Datum of 1983 (NAD 83). Office processing of this survey is based on these values. The smooth sheet has been annotated with ticks showing the computed mean shift between the NAD 83 and the North American Datum of 1927 (NAD 27).

To place this survey on the NAD 27, move the projection lines 0.869 seconds (26.751 meters or 2.679 mm at the scale of the survey) north in latitude, and 0.719 seconds (19.179 meters or 1.91 mm at the scale of the survey) east in longitude.

COMPARISON WITH PRIOR SURVEYS

A comparison with prior surveys was not done during office processing in accordance with section 4. of the memorandum titled, "Changes to Hydrographic Survey Processing", dated May 24, 1995.

- O. COMPARISON WITH CHART 11480 (34th Edition, May 3/96)**
11488 (20th Edition, March 9/96)
11490 (14th Edition, March 30/96)
11491 (29th Edition, January 4/97)
11502 (26th Edition, July 6/96)
11503 (36th Edition, January 14/95)



Hydrography

The charted hydrography originates with prior surveys and requires no further consideration. The hydrographer makes adequate chart comparison in section O. of the Descriptive Report.

The present survey is adequate to supersede the charted hydrography within the common area.

P. ADEQUACY OF SURVEY

This is an adequate hydrographic/side scan sonar survey. No additional work is recommended.

S. 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.

The following NOS charts were used for compilation of the present survey:

11480	(34 th Edition, May 3/96)
11488	(20 th Edition, March 9/96)
11490	(14 th Edition, March 30/96)
11491	(29 th Edition, January 4/97)
11502	(26 th Edition, July 6/96)
11503	(36 th Edition, January 14/95)
11009	(34 th Edition, January 23/93)


Franklin L. Saunders

Franklin L. Saunders
Cartographic Technician
Verification of Field Data
Evaluation and Analysis

APPROVAL SHEET
F00441

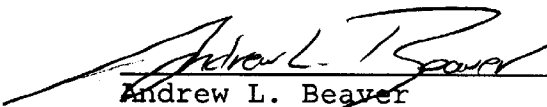
Initial Approvals:

The completed survey has been inspected with regard to survey coverage, delineation of depth curves, development of critical depths, cartographic symbolization, and verification or disproof of charted data. The digital data have been completed and all revisions and additions made to the smooth sheet during survey processing have been entered in the digital data for this survey. The survey records and digital data comply with NOS requirements except where noted in the Evaluation Report.



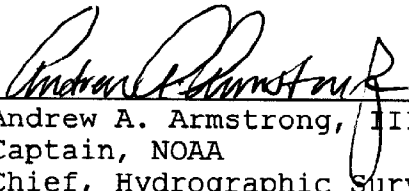
Norris A. Wike
Cartographer
Atlantic Hydrographic Branch
Date: 11 SEP 98

I have reviewed the smooth sheet, 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.



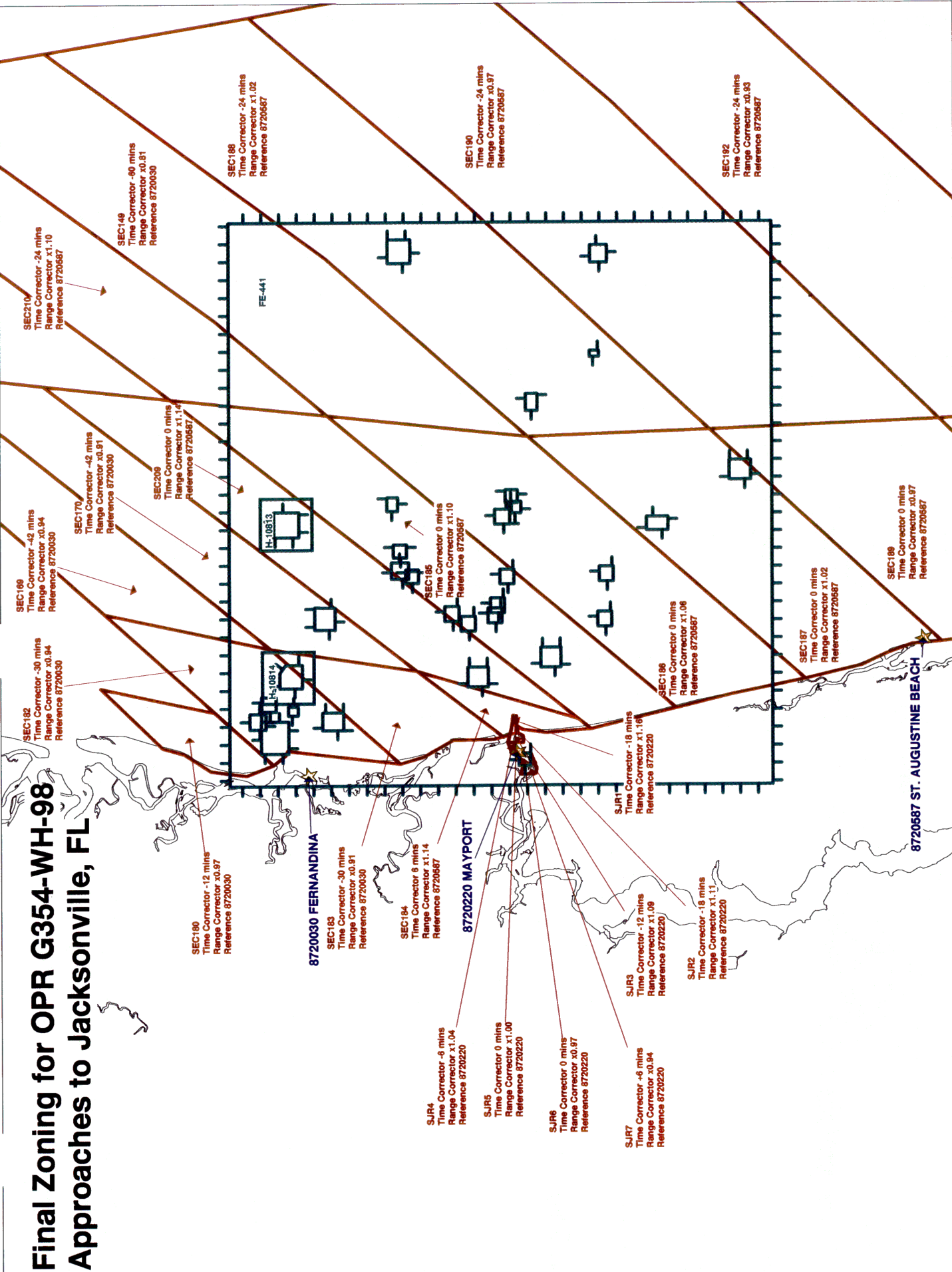
Andrew L. Beaver
Lieutenant Commander, NOAA
Chief, Atlantic Hydrographic Branch
Date: 11 SEP 98

Final Approval:

Approved: 

Andrew A. Armstrong, III
Captain, NOAA
Chief, Hydrographic Surveys Division
Date: Oct 5, 1998

Final Zoning for OPR G354-WH-98 Approaches to Jacksonville, FL



SEC:180
Time Corrector -12 mins
Range Corrector x0.97
Reference 8720030

8720030 FERNANDINA
SEC:183
Time Corrector -30 mins
Range Corrector x0.91
Reference 8720030

SEC:184
Time Corrector 6 mins
Range Corrector x1.14
Reference 8720587

8720220 MAYPORT

SJR4
Time Corrector -6 mins
Range Corrector x1.04
Reference 8720220

SJR5
Time Corrector 0 mins
Range Corrector x1.00
Reference 8720220

SJR6
Time Corrector 0 mins
Range Corrector x0.97
Reference 8720220

SJR7
Time Corrector -4 mins
Range Corrector x0.94
Reference 8720220

SJR3
Time Corrector -12 mins
Range Corrector x1.08
Reference 8720220

SJR2
Time Corrector -18 mins
Range Corrector x1.11
Reference 8720220

SJR1
Time Corrector -18 mins
Range Corrector x1.16
Reference 8720220

SEC:186
Time Corrector 0 mins
Range Corrector x1.08
Reference 8720587

SEC:187
Time Corrector 0 mins
Range Corrector x1.02
Reference 8720587

SEC:188
Time Corrector 0 mins
Range Corrector x0.97
Reference 8720587

SEC:192
Time Corrector -24 mins
Range Corrector x0.85
Reference 8720587

SEC:190
Time Corrector -24 mins
Range Corrector x0.97
Reference 8720587

SEC:188
Time Corrector -24 mins
Range Corrector x1.02
Reference 8720587

SEC:149
Time Corrector -60 mins
Range Corrector x0.81
Reference 8720030

SEC:210
Time Corrector -24 mins
Range Corrector x1.10
Reference 8720587

SEC:170
Time Corrector -42 mins
Range Corrector x0.91
Reference 8720030

SEC:209
Time Corrector 0 mins
Range Corrector x1.14
Reference 8720587

SEC:185
Time Corrector 0 mins
Range Corrector x1.10
Reference 8720587

LH-0813

LH-0814

FE-441

8720587 ST. AUGUSTINE BEACH

81° 19' 30"

81° 19' 00"

081° 19' 00" W

NAD 27 30° 19' 00" N

CHECKED BY: FLS
DATE 08/28/98

54 *wk*

30° 27' 00"

F00441
FLORIDA
NORTH ATLANTIC OCEAN
APPROACHES TO JACKSONVILLE
APRIL - JUNE 1998
SCALE: 1:10000
SOUNDINGS IN FEET AT MLLW
HORIZONTAL DATUM: NAD 83
SHEET 1 OF 15
AWOIS ITEM *466

30° 26' 30"

81° 19' 30"

81° 19' 00"

80° 49' 30"

80° 49' 00"

080° 49' 18" W

NAD 27 30° 49' 00" N

CHECKED BY: FLS
DATE 08/31/98

⁸³ WK (CASABLANCA)

30° 17' 30"

F00441
FLORIDA
NORTH ATLANTIC OCEAN
APPROACHES TO JACKSONVILLE
APRIL - JUNE 1998
SCALE: 1:10000
SOUNDINGS IN FEET AT MLLW
HORIZONTAL DATUM: NAD 83
SHEET 2 OF 15
AWOIS ITEM *10007

30° 17' 00"

80° 49' 30"

80° 49' 00"

30° 23' 00"

80° 54' 30"

80° 54' 00"

80° 53' 30"

080° 54' 00" W

NAD 27

30° 22' 30" N

30° 22' 30"

CHECKED BY: FLS

80 WK (ROSLYN B HUDGENS)

30° 22' 00"

F00441
FLORIDA
NORTH ATLANTIC OCEAN
APPROACHES TO JACKSONVILLE
APRIL - JUNE 1998
SCALE: 1:10000
SOUNDINGS IN FEET AT MLLW
HORIZONTAL DATUM: NAD 83
SHEET 3 OF 15
AWOIS ITEM *10017

80° 54' 30"

80° 54' 00"

80° 53' 30"

81° 14' 30"

81° 14' 00"

81° 13' 30"

30° 40' 00"

080° 14' 00" W

NAD 27 30° 39' 30" N

30° 39' 30"

CHECKED BY: FLS
DATE 08/31/98

43 *WK*

F00441
FLORIDA
NORTH ATLANTIC OCEAN
APPROACHES TO JACKSONVILLE
APRIL - JUNE 1998

30° 39' 00"

SCALE: 1:10000
SOUNDINGS IN FEET AT MLLW
HORIZONTAL DATUM: NAD 83
SHEET 4 OF 15
AWOIS ITEM #10022

81° 14' 30"

81° 14' 00"

81° 13' 30"

81° 03' 30"

81° 03' 00"

081° 03' 30" W

NAD 27

30° 24' 00" N

30° 24' 00"

CHECKED BY: FLS
DATE 08/31/98

58 *Obstr*

30° 23' 30"

F00441
FLORIDA
NORTH ATLANTIC OCEAN
APPROACHES TO JACKSONVILLE
APRIL - JUNE 1998
SCALE: 1:10000
SOUNDINGS IN FEET AT MLLW
HORIZONTAL DATUM: NAD 83
SHEET 5 OF 15
POSITION NUMBER 3401

30° 23' 00"

81° 03' 30"

81° 03' 00"

81° 24' 30"

81° 24' 00"

30° 43' 30"

18 *Wk*

081° 24' 30" W

NAD 27 30° 43' 00" N

30° 43' 00"

CHECKED BY: FLS
DATE 08/31/98

F00441
FLORIDA
NORTH ATLANTIC OCEAN
APPROACHES TO JACKSONVILLE
APRIL - JUNE 1998
SCALE: 1:10000
SOUNDINGS IN FEET AT MLLW
HORIZONTAL DATUM: NAD 83
SHEET 6 OF 15
POSITION NUMBER 25214+1
POSITION NUMBER 26509.1

30° 42' 30"

∅
C "A"

32 *Obstr*

∅
C "D"

81° 24' 30"

81° 24' 00"

81° 07' 30"

81° 07' 00"

081° 07' 30" W

NAD 27 30° 33' 30" N

30° 33' 30"

CHECKED BY: FLS
DATE 08/31/98

30° 33' 00"

⁵⁶ Wk (barge)

F00441
FLORIDA
NORTH ATLANTIC OCEAN
APPROACHES TO JACKSONVILLE
APRIL - JUNE 1998
SCALE: 1:10000
SOUNDINGS IN FEET AT MLLW
HORIZONTAL DATUM: NAD 83
SHEET 7 OF 15
POSITION NUMBER 3198

30° 32' 30"

81° 07' 30"

81° 07' 00"

81° 05' 00"

81° 04' 30"

30° 13' 30"

081° 05' 00" W

NAD 27 30° 13' 00" N

30° 13' 00"

CHECKED BY: FLS
08/31/98

67
Wk (barge)

F00441
FLORIDA
NORTH ATLANTIC OCEAN
APPROACHES TO JACKSONVILLE

30° 12' 30"

APRIL - JUNE 1998
SCALE: 1:10000
SOUNDINGS IN FEET AT MLLW
HORIZONTAL DATUM: NAD 83
SHEET 8 OF 15
POSITION NUMBER 41029+1

81° 05' 00"

81° 04' 30"

81° 13' 00"

81° 12' 30"

081° 13' 00" W

NAD 27 30° 39' 00" N

30° 39' 00"

CHECKED BY: FLS
DATE 08/31/98

53 Wk (barge)

30° 38' 30"

F00441
FLORIDA
NORTH ATLANTIC OCEAN
APPROACHES TO JACKSONVILLE
APRIL - JUNE 1998
SCALE: 1:10000
SOUNDINGS IN FEET AT MLLW
HORIZONTAL DATUM: NAD 83
SHEET 9 OF 15
POSITION 3200

30° 38' 00"

81° 13' 00"

81° 12' 30"

81° 14' 30"

81° 14' 00"

081° 14' 13" W

NAD 27 30° 28' 00" N

30° 28' 00"

CHECKED BY: FLS
DATE 09/02/98

64 Wk (barge)

30° 27' 30"

F00441
FLORIDA
NORTH ATLANTIC OCEAN
APPROACHES TO JACKSONVILLE
APRIL - JUNE 1998
SCALE: 1:10000
SOUNDINGS IN FEET AT MLLW
HORIZONTAL DATUM: NAD 83
SHEET 10 OF 15
POSITION NUMBER 3194

30° 27' 00"

81° 14' 30"

81° 14' 00"

81° 13' 30"

81° 13' 00"

081° 13' 30" W

30° 29' 30"

NAD 27 30° 29' 30" N

CHECKED BY: FLS
DATE 09/02/98

30° 29' 00"

53 *Obstr*

F00441
FLORIDA
NORTH ATLANTIC OCEAN
APPROACHES TO JACKSONVILLE
APRIL - JUNE 1998
SCALE: 1:10000
SOUNDINGS IN FEET AT MLLW
HORIZONTAL DATUM: NAD 83

30° 28' 30"

SHEET 11 OF 15
POSITION NUMBER 3197

81° 13' 30"

81° 13' 00"

81° 14' 00"

81° 13' 30"

081° 14' 00" W

NAD 27 30° 17' 00" N

30° 17' 00"

CHECKED BY: FLS
DATE 09/02/98

57 WK

30° 16' 30"

F00441
FLORIDA
NORTH ATLANTIC OCEAN
APPROACHES TO JACKSONVILLE
APRIL - JUNE 1998
SCALE: 1:10000
SOUNDINGS IN FEET AT MLLW
HORIZONTAL DATUM: NAD 83
SHEET 12 OF 15
POSITION NUMBER 3193

30° 16' 00"

81° 14' 00"

81° 13' 30"

81° 12' 30"

81° 12' 00"

081° 25' 30" W

NAD 27 30° 25' 30" N

30° 25' 30"

CHECKED BY: FLS
DATE 09/02/98

48 WK

30° 25' 00"

F00441
FLORIDA
NORTH ATLANTIC OCEAN
APPROACHES TO JACKSONVILLE
APRIL - JUNE 1998
SCALE: 1:10000
SOUNDINGS IN FEET AT MLLW
HORIZONTAL DATUM: NAD 83
SHEET 13 OF 15
POSITION NUMBERS 3402

30° 24' 30"

81° 12' 30"

81° 12' 00"

81° 13' 30"

81° 13' 00"

081° 13' 30" W

NAD 27 30° 26' 00" N

30° 26' 00"

CHECKED BY: FLS
DATE 09/02/98

63 *wk*

58 *wk*

30° 25' 30"

57 *wk*

F00441
FLORIDA
NORTH ATLANTIC OCEAN
APPROACHES TO JACKSONVILLE
APRIL - JUNE 1998
SCALE: 1:10000
SOUNDINGS IN FEET AT MLLW 30° 25' 00"

HORIZONTAL DATUM: NAD 83

SHEET 14 OF 15

POSITION NUMBERS 3403
3404
3405

81° 13' 30"

81° 13' 00"

81° 22' 30"

81° 22' 00"

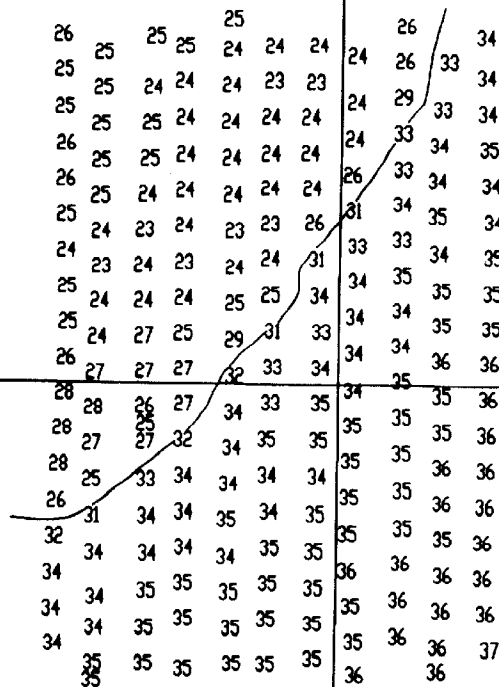
081° 22' 00" W

NAD 27

30° 42' 00" N

30° 42' 00"

CHECKED BY: FLS
DATE 09/02/98



30° 41' 30"

FO0441
FLORIDA
NORTH ATLANTIC OCEAN
APPROACHES TO JACKSONVILLE
APRIL - JUNE 1998
SCALE: 1:10000

30° 41' 00"

SOUNDINGS IN FEET AT MLLW
HORIZONTAL DATUM: NAD 83
SHEET 15 OF 15
POSITIONS 44019 TO 44229

81° 22' 30"

81° 22' 00"

