

8464

Diag. Cht. No. 1243-2 and 685.

Form 504

U. S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. ECFP-1358 Office No. H-8464

LOCALITY

State Florida

General locality St. Johns River

Locality Vicinity of South Jacksonville

1959

CHIEF OF PARTY

H. S. Cole

LIBRARY & ARCHIVES

DATE September 14, 1960

USCOMM-DC 5087

8464  
00

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

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

REGISTER No. H-8464

Field No. ECEP-1358

State Florida

General locality Florida East Coast - St. Johns River

Locality VICINITY OF S. JACKSONVILLE  
Jacksonville Municipal Area

Scale 1:10,000 Date of survey 19 January- 31 March 1959

Instructions dated 222/ MEK- FP- East Coast 7 August 1958

Vessel CS 168 & CS 183

Chief of party H. S. Cole

Surveyed by A. G. Davis J. J. McCoy & J. D. Wingfield, Jr.

Soundings taken by fathometer, graphic recorder, hand lead, wire

Fathograms scaled by Party Personnel

Fathograms checked by Party Personnel & Norfolk Processing Office

Protracted by W. L. Jonns (Norfolk Processing Office)

Soundings penciled by W. L. Jonns " " "

Soundings in fathoms feet at MLW MLLW and are true depths.

REMARKS:

APPENDIX D

APPROVAL SHEET

To Accompany

Hydrographic Survey H-8464 (ECFP-1358)  
Project 407

The record corrections, fathograms scanning and all field work were supervised by William A. Hughes and Howard S. Cole.

\* The fathograms were scanned prior to plotting the soundings on the boat sheet and no further scanning is necessary.

The descriptive report was made under the supervision of Chief of Party.

The report and the records for this survey are complete and adequate to the best of my knowledge.

*\* Continual spot checking was required during the smooth plot -  
H. L. P.*

Approved and forwarded

*Howard S. Cole*

Howard S. Cole  
IGDR., C&GS  
Chief of Party

DESCRIPTIVE REPORT  
TO ACCOMPANY

Hydrographic Survey H-8464, Field No. ECFP-1358  
St. Johns River, Jacksonville, Fla.

PROJECT: CS-407

SCALE: 1:10,000

EAST COAST FIELD PARTY

1959

HOWARD S. COLE, CH. OF. PTY.

SURVEYED BY: A.G. Davis, John J. McCoy and J.D. Wingfield, Jr.

\* \* \* \* \*

A. PROJECT

Work on Project CS-407 was executed in accordance with Instructions 222/MEK-FP-East Coast dated 7 August 1958. ✓

B. SURVEY LIMITS AND DATES

The area covered by this survey is on the St. Johns River in the vicinity of Jacksonville, Florida. The limits are from ~~a line~~ (lat.  $30^{\circ} 17.5'N$ , long.  $81^{\circ} 38.5'W$  to lat.  $30^{\circ} 19.5'N$ , long.  $81^{\circ} 42.85'W$ . An area (lat.  $30^{\circ} 19.0'$ , long.  $81^{\circ} 40'$ ) was done on an <sup>inset</sup> ~~insert~~ of this sheet, scale 1:5,000 to better delineate the depth curves and docks. ✓  
Work started 19 January 1959, ended 31 March 1959.

This survey makes junction with contemporary survey H-8463, 1959 on the east and north, scale 1:10,000, survey H-8412, 1958; scale 1:20,000 to the south and west.

C. VESSELS AND EQUIPMENT

Launches CS-168 and CS-183 were used for this sheet. CS-168 a 25 ft. aluminum launch has a turning radius of 25 meters at half rudder and standard speed. CS-168 was based at Southern Shipyard. Launch CS-183 a 33 ft. wooden hull has a turning radius of 25 meters at half rudder and standard speed. CS-183 was based at the Army Engineers Depot, Jacksonville, Florida. ✓

The following fathometers were used:

<u>TYPE</u>	<u>SERIAL NO.</u>
808J	#77
808J	#101S
EDO-255-1	#204

 ✓

An EDO fathometer was used in depths to about 85 ft., 808J fathometers were used in depths to about 45 ft.

D. TIDE AND CURRENT STATIONS

Tide stations at Ortega River Bridge lat.  $30^{\circ} 16.8'$ , long.  $81^{\circ} 42.35'$ , at Acosta Bridge lat.  $30^{\circ} 19.39'$ , long.  $81^{\circ} 39.93'$ , were used without time or range correction in reducing soundings for this sheet, see TIDE NOTE, appendix D. Two current stations were occupied on the limits of this sheet. Main St. Bridge, Jacksonville, Florida ✓

#### D. TIDE AND CURRENT STATIONS (CONT'D)

lat.  $30^{\circ} 19.20'$ ; long.  $81^{\circ} 39.72'$ . Fuller Warren Bridge Jacksonville, Florida lat.  $30^{\circ} 18.95'$ , long.  $81^{\circ} 40.36'$ , for further information see Current Report<sup>8</sup> dated 3 December 1958.

#### E. SMOOTH SHEET

The smooth sheet projection, signal transfer and hydrographic plot <sup>was</sup> will be made by the Norfolk Processing Office. It is recommended that the 1:5,000 subplan of Jacksonville, Harbor on sheet H-8464 be smooth plotted on 1:10,000 scale because of the difficulties involved in enlarging the scale of the original manuscript. This section will be covered by a report from their office.

1:5,000 INSET MADE BY NORFOLK  
PROCESSING OFFICE. NO PROBLEM.

#### F. CONTROL STATIONS

The following triangulation control was used on this survey:

<u>STATION</u>	<u>G.P. PAGE</u>	<u>VOL.NO.</u>	<u>CH.OF PTY.</u>
Jacksonville Park Lane Apt. Chimney, 1932	42	1	H.A.P.
Vincent, 1934	267	1	H.A.P.

All topographic control was located on photogrammetric manuscripts T-10828, T-10833 and T-10834 using standard photogrammetric methods. This control was located by Photo Party Sub Unit of Party 7B based at Jacksonville, Florida.

#### G. SHORELINE AND TOPOGRAPHY

Shoreline and topographic detail was obtained from <sup>preliminary</sup> photogrammetric manuscripts T-10828, T-10833 and T-10834. The shoreline and topographic detail shows a difference in the following:

PIER RUINS - lat.  $30^{\circ} 16.69'$ , long.  $81^{\circ} 39.98'$  plotted wrong on manuscript T-10834 and in wrong position. *Not shown on reviewed manuscript T-10934. Hydro. location accepted.*

PIER RUINS - lat.  $30^{\circ} 15.99'$ , long.  $81^{\circ} 41.91'$  plotted wrong on manuscript T-10833, and in wrong position. *Position checks on reviewed manuscript T-10833.*

PIER RUINS - lat.  $30^{\circ} 18.48'$ , long.  $81^{\circ} 41.12'$  plotted wrong on manuscript T-10833. *o.k. on reviewed manuscript T-10834.*

WRECK - lat.  $30^{\circ} 17.19'$ , long.  $81^{\circ} 42.56'$ , wrong symbol and in wrong position on manuscript T-10833. *Not shown on reviewed manuscript T-10833. Hydro location accepted.*

All other shoreline and topographic detail was in agreement with the above mentioned manuscripts. The low waterline is defined as close as safety permits.

#### H. SOUNDINGS

All soundings on this sheet were made by fathometers as listed in section C, except for a few detached soundings taken in connection with bottom sampling or shoal investigation when a leadline was used.

Soundings shown on the boat sheet did not have velocity corrections

applied, and predicted tides were used for tides reducers. ✓

#### I. CONTROL OF HYDROGRAPHY

All hydrographic control was by standard visual methods with sextant angles taken on shore objects. Positions were usually taken at one and one half intervals.

MINUTE

#### J. ADEQUACY OF SURVEY

This survey is complete within the limits defined and adequate to supercede all prior surveys for charting purposes. ✓

Junctions with adjoining surveys appears to be in good agreement and depth curves may be drawn.

#### K. CROSSLINES

Crosslines were run at about 8½% to 9% depending on the area, crossings were in good agreement considering the use of predicted tides and uncorrected soundings on the boat sheet. ✓

#### L. COMPARISON WITH PRIOR SURVEYS

The present survey was compared with prior survey No.-6296, 1934 and 1935, scale 1:20,000 and H-1542b, 1883, scale 1:10,000. There are differences in depths of soundings and extent of shoals between the present and the prior surveys. In general, the soundings on the new are shoaler. ✓

1. The shoal on Prior Survey 6296 lat, 30°17.6', long. 81°40.85', has moved south approximately 200 meters and west 200 meters. The southern end of the shoal has moved in a southwestward direction while the east side is in fair agreement. Also the shoal shows a lesser depth than previous surveys. ✓

2. The soundings obtained at the entrance to the Ortega River indicate shoaling in all areas. ✓

3. The 12 foot curve south of lat. 30°17.5', long. 81°40.65', shows a movement to the east approximately 300 meters. ✓

4. The hole lat. 30°16.75' long. 81°40.7', is filling in and at the same time is getting smaller. ✓

5. The 6 foot curve lat. 30°18.5', long. 81°40' shows a ~~westward~~ <sup>east</sup> movement and filling due to the dumping of spoil. ✓

6. The 6 foot shoal lat. 30°18.5', long. 81°40.2' has moved south 600 meters. The deeper depths on the west side of this shoal are due to the dredging of the shoal to supply fill at new A. C. Line Railroad Terminal. ✓

7. In general the overall depths on the (east side of channel appear to be deepening) while the west section of the channel seems to be shoaling. Dumping of spoil and the cutting away of the shoal seems to have caused a different direction of the current flow. <sup>POSSIBLY</sup> ✓

The difference <sup>is</sup> of soundings between prior Survey H-6296 and the present is caused by the dredging and current erosion. The bottom characteristics were a factor also, as it was predominantly soft black mud. ✓

A comparison with United States Corps of Engineers Survey July 1951, scale 1:6,000 #3 shows no important changes other than those listed in section L. of this report. ✓

The comparison of subplan 1:5,000 with survey H-1542b shows that the shoreline along the Jacksonville Municipal area is in no agreement ✓

L. COMPARISON WITH PRIOR SURVEYS (CONT'D)

<sup>IN SHORELINE</sup>  
^ at all due to the filling and building of bulkheads. Soundings in the channel and adjacent area are in agreement. ✓

M. COMPARISON WITH CHART

A comparison with Chart No. 685 print date 3/17/58 shows that the charted location of the following fixed Aids to Navigation are not in agreement with the position determined by the present survey H-8464. Ortega River Day Beacon #3, Ortega River Day Beacon #2, Winter Point Light #2, Winter Point Light #3, Winter Point Day Beacon. After these discrepancies have been verified by the smooth plot it is recommended that the necessary chart corrections be made. None of these corrections constitute a danger to navigation and therefore no immediate action is considered necessary. *Chart 685, 3<sup>d</sup> Ed., Sept. 2, 1963 shows good agreement.* ✓

N. DANGERS AND SHOALS

There are no new dangers or shoals to report other than those listed in section L. of this report. All charted dangers and shoals were found as charted except for slightly shoaler depths as listed in section L. ✓

O. COAST PILOT INFORMATION

The following additions and changes should be made to the Coast Pilot (Atlantic Coast - Section D - Cape Henry to Key West - Fifth (1948) Edition).

page 279, line 12-15; read: Johns River between the mouth of Ortega River and Winter Point. The target at the northeast end of the course consists of two piles 8 feet apart having a steel rod at the top of each pile. An observer's platform connects the two pilings. This marker is perpendicular to the course. The target at the southwest end of the course is a single pile. ✓

Supplement - 3 January 1959 - Fifth (May, 1948) Edition - Section D -

page 59, line 8; add: Fuller Warren ✓

P. AIDS TO NAVIGATION

Fixed Aids to Navigation were submitted during the field season by Photo Party under command of Lt. j. g. Weber, on Form 567 to the Director. ✓

There are no floating aids to navigation.

Q. LANDMARKS FOR CHARTS

Landmarks <sup>for</sup> charts were submitted by Photo Party. ✓

R. GEOGRAPHICAL NAMES

There are no new geographical names to report. ✓

S. SILTED AREAS  
Not applicable.

*Some silting evident.  
See Part 6, REVIEW.*

T. BY PRODUCT INFORMATION  
Not applicable. ✓

U-Y MISCELLANEOUS  
No difficulties were encountered. ✓

Z. TABULATION OF APPLICABLE DATA  
The bar check tabulation is listed under appendix B. ✓

Respectfully submitted,

*Allen G. Davis*  
Allen G. Davis, C&GS

APPENDIX ATTACHMENTS

- A. LIST OF CONTROL STATIONS
- B. ABSTRACT OF VELOCITY CORRECTIONS
- C. STATISTICS
- D. TIDAL NOTE
- E. APPROVAL SHEET



APPENDIX A

LIST OF CONTROL STATIONS  
Hydrographic Sheet H-8464 (ECFP\*1358)

STATION	ORIGIN		
ACE	T-10828	LET	T-10833
AND	T-10834	LIZ	T-10828
ANN	T-10834	MAC	Hydro. vol.9 pg.35
ALP	T-10834	MOP	T-10833
BAT	T-10833	NIL	T-10828
BON	T-10834	NOR	T-10833
BOX	T-10828	NOR	T-10833
BUS	T-10834	NOW	T-10828
CAR	T-10834 (sextant)	OHM	T-10828
CAT	T-10834	OIL	T-10828
COP	T-10828	ORA	T-10833
CUR	T-10833	OUT	T.V. twr. (WFGA) <i>Landmark</i>
DEB	T-10833		Ch.12, 1958-T-10828
DUD	Tank 1958, T-10834	PIE PIN	Hydro. vol.9 pg. 19 VINCENT, 1934 T-10834 <i>Landmark</i>
DUN	Hydro. VOL.9 pg.19	PIT	T.V. twr. (WMBR CH.4) <i>Landmark</i>
DUO	T-10828		1958- T-10828
EAR	T-10833	RAM	T-10828
EAT	T-10833	RUM	Jacksonville Park <i>Landmark</i>
EIM	Tank 1958, T-10834	SIR	Lane Apt. CHY, 1932
FAR	T-10833	SIS	T-10828
FOR	T-10828	TOY	T-10828
GAD	T-10833	TRY	T-10828
GET	T-10828	WAX	Southside Baptist Ch. <i>landmark</i>
GUM	T-10828		Spire, 1958-T-10834
HAT	T-10828	WEB	Hydro vol.7, pg.22 & 25
HID	T-10833	TON	T-10828
JAW	T-10833		
JUT	T-10828		
KED	T-10828		
KIN	T-10828		

APPENDIX B  
 ABSTRACT OF VELOCITY CORRECTIONS  
 PROJECT 407  
 Hydrographic Sheet H-8464 (ECFP-1358)

GROUP 1

Launch CS-168 Fathometer No. 808j #77  
 1/19, 1/20, 1/27, 1/28, 2/4

Tabulations of Results (See note below)

DEPTHS (ft.)	CORRECTIONS
0.0 to 3.0	0.0
3.1 to 10.0	+0.2
10.1 to 42.0	0.0
42.1 to 49.0	-0.2
49.1 to 54.0	-0.4
54.1 to 58.0	-0.6
58.1 to 66.0	-0.8

NOTE: Various initial settings were used throughout the season to keep the velocity correction at zero.

GROUP II

Launch CS-168 Fathometer No. 808j #101s  
 2/5, 2/6, 2/11, 2/12, 2/13, 2/16, 2/24, 3/11, 3/13,  
 3/16, 3/18, 3/19

Tabulations of Results

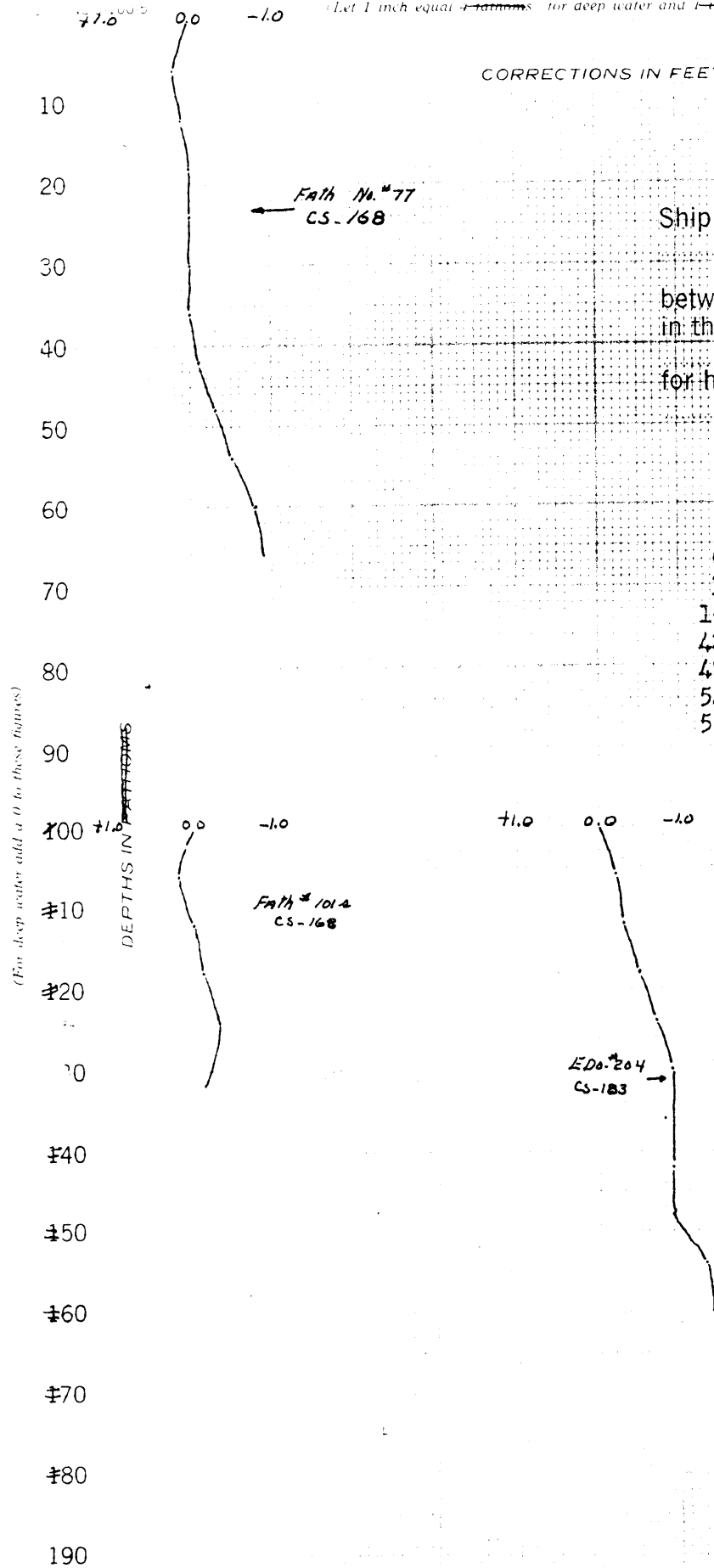
DEPTHS (ft.)	CORRECTIONS
0.0 to 4.0	0.0
4.1 to 9.0	+0.2
9.1 to 18.0	0.0
18.1 to 30.0	-0.2

GROUP III

Launch CS-183 Fathometer No. EDO 255-1 #204  
 3/18, 3/19, 3/23, 3/27, 3/31

Tabulations of Results

DEPTHS (ft.)	CORRECTIONS
0.0 to 3.0	0.0
3.1 to 12.0	-0.2
12.1 to 19.0	-0.4
19.1 to 24.0	-0.6
24.1 to 48.0	-0.8
48.1 to 51.0	-1.0
51.1 to 54.0	-1.2
54.1 to 60.0	-1.4



CORRECTIONS IN FEET, ~~FATHOMS~~

VELOCITY CORRECTIONS

U.S. Coast and Geodetic Survey

Ship EAST COAST FIELD PARTY

Howard S. Cole Comdg.

These corrections are to be used  
between 1 - 19 1959 and 3 - 31 1959  
in the locality St. Johns River, Florida

for hydrographic surveys Nos. E-8464

FATH. 808j No. #77

Launch CS-168

Depth	Correction
0.0 to 3.0	0.0
3.1 to 10.0	+0.2
10.1 to 42.0	0.0
42.1 to 49.0	-0.2
49.1 to 54.0	-0.4
54.1 to 58.0	-0.6
58.1 to 66.0	-0.8

FATH. 808j No. #101S

Launch CS-168

Depth	Correction
0.0 to 4.0	0.0
4.1 to 9.0	+0.2
9.1 to 18.0	0.0
18.1 to 30.0	-0.2

Launch CS-183

FATH. EDO NO. 255-1

#204

Depth	Correction
0.0 to 3.0	0.0
3.1 to 12.0	-0.2
12.1 to 19.0	-0.4
19.1 to 24.0	-0.6
24.1 to 48.0	-0.8
48.1 to 51.0	-1.0
51.1 to 54.0	-1.2
54.1 to 60.0	-1.4

APPENDIX C  
 STATISTICS TO ACCOMPANY  
 Hydrographic Survey H-8464 (ECFP-1358)

LAUNCH CS-168

DATE 1959	VOL. NO.	DAY LTR.	NO. D.P.	POSITS. FATH.	NAUT. MI. SDG. LINES
Jan. 19	1	a	4	85	12.9
Jan. 20	1&2	b	6	139	20.4
Jan. 21	2	c	0	70	10.6
Jan. 27	2	d	0	56	8.2
Jan. 28	2	e	8	29	3.7
Feb. 4	3	f	4	40	4.4
Feb. 5	3	g	2	83	12.0
Feb. 6	3&4	h	2	115	14.7
Feb. 11	4	j	3	159	21.4
Feb. 12	5	k	1	123	16.0
Feb. 13	5&6	l	2	108	14.1
Feb. 16	6	m	3	134	14.1
Feb. 24	6&7	n	5	105	11.8
Mar. 11	7	p	10	64	6.8
Mar. 13	7&8	q	6	99	10.2
Mar. 16	8	r	0	55	4.3
Mar. 18	8	s	5	54	4.5
Mar. 19	8	t	0	19	2.4
			<u>61</u>	<u>1537</u>	<u>192.5</u>

LAUNCH CS-183

Mar. 18	9	a	7	69	4.7
Mar. 19	9	b	3	129	8.6
Mar. 23	9&10	c	0	172	11.5
Mar. 27	10	d	0	74	7.1
Mar. 31	10	e	<u>14</u>	<u>19</u>	<u>1.2</u>
			24	463	33.1

Totals, both launches      85      2000      225.6

Area square naut. miles 6.0

APPENDIX D

TIDAL NOTE FOR HYDROGRAPHIC SURVEY  
H-8464 (ECFP-1358)

All tidal data for reduction of soundings were obtained from portable tide gages at Ortega River Highway Bridge and Acosta Bridge, Jacksonville, Florida.

ORTEGA RIVER

Gage location: Lat.  $30^{\circ}-16.8'$   
Long.  $81^{\circ}-42.35'$

Staff: Mean low water corresponds to  
3.4 feet on staff.

Correction: No time or height correction were  
applied to the results obtained  
from the gage in reducing soundings

ACOSTA BRIDGE

Gage location: lat.  $30^{\circ}-19.38'$   
long.  $81^{\circ}-39.93'$

Staff: Mean low water corresponds to  
3.3 feet on staff

Correction: No time or height correction were  
applied to the results obtained  
from the gage in reducing soundings

The method of determining tide reducers is in accordance with  
letter;

36-38-15d1 dated 13 February 1959.

NORFOLK PROCESSING OFFICE  
ADDENDUM  
To Accompany

HYDROGRAPHIC SURVEY H-8464 (ECFP-1358)

GENERAL

Soundings are in good agreement at crossings considering the irregularities in the bottom in the vicinity of channels, which were presumably caused by dredging operations.

There are numerous indications that the right angle sextant was out of adjustment on all work done by Launch 168 until position 121k, volume 5, where the sextant was readjusted. This condition is noticeable when a comparison is made between the sextant and photo-grammetric locations of the south mile marker and the wreck near the entrance to Big Fishweir Creek. Also, Note the consistent differences between the positions of piers located by the two survey methods. Agreement between topographic features and sextant fixes was much better after the adjustment noted at position 121k.

Sextant error only temporary. Much better agreement obtained with topo features when hydro compared with reviewed manuscripts.

INSERT

In order to show bottom features clearly, it was considered necessary to plot the congested harbor area on a 1:5,000 scale <sup>INSET</sup> insert. This required a complete reprocessing of the soundings in the area to obtain the proper spacing. The rescanning and reduction of soundings was accomplished with templates at  $7\frac{1}{2}$ " intervals. Final soundings were recorded in the "office column".

The placement of the <sup>INSET</sup> insert made it necessary to make a temporary plot of topographic station "Elm" in order to plot the main part of the sheet, and of triangulation station "RUM" to plot positions on the insert. The arrangement of the <sup>INSET</sup> insert caused both stations to fall in areas covered by hydrography.

37° 15.6'  
81° 40.7'

↑ IMPORTANT  
NOTE

DISCREPANCIES

Descriptive data on position 1e, Launch 183, were not entered on the smooth sheet. The "railroad trestle overpass" mentioned in the volume, probably refers to an opening in the trestle for the passage of small boats. It is not charted.

CHART COMPARISONS

Several floating drydocks shown on the boat sheet were not transferred to the smooth sheet. *Drydocks transferred during review.*

The pier at Lat. 30-17.12", Long. 81-39.75", is now in ruins. ✓

Continued-

φ 30° 17.5'  
λ 81° 40.9'

The 6 foot curve in the vicinity of station "Car" has moved North approximately 600 meters. *Due to corrections to soundings made in normal processing.*

The following are pier ruins which are not shown on the air-photo compilations:

Lat.	30-16.61'	Longi	81-41.86'	Position	78n ✓
"	<del>30-17.07</del> 30-18.07	"	81-41.72 <sup>168</sup>	"	20e ✓
"	<del>30-18.02</del> 18.32	"	81-41.42'	"	73 & 74q ✓
"	30-18.78'	"	81-40.60'	"	107n ✓
"	30-17.76'	"	81-39.28'	"	57s ✓

*Not a complete list.*

Norfolk, Va.  
6 Sept. 1960

Respectfully submitted,

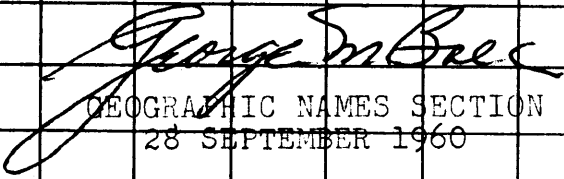


Hugh L. Proffitt  
Cartographer

GEOGRAPHIC NAMES

Survey No. H-8464

Name on Survey	<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">On Chart No. 685</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">On previous survey No.</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">On U. S. quadrangle Maps</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">From local information</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">On local Maps</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">P. O. Guide or Map</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Rand McNally Atlas</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">U. S. Light List</div> </div>										K	B&N		
	A	B	C	D	E	F	G	H						
✓ Craig Creek	x												1	
✓ Hendricks Point	x											x	2	
✓ Jacksonville	x											x	3	
✓ Marco Lake	x												4	
✓ McCoy Creek	x											x	5	
✓ Ortega River	x											x	6	
✓ Ortega Terrace	x												7	
✓ Point La Vista	x											x	8	
✓ Sadler Point	x												9	
✓ St. Johns Park	x												10	
St. Johns River	x											x	11	
✓ South Jacksonville	x												12	
✓ Venetia Peninsula	x												13	
✓ Winter Point	x											x	14	
✓ Big Fishweir Cr.	x												15	
✓ Little Fishweir Cr.	x												16	
													17	
													18	
													19	
													20	
													21	
													22	
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													26	
													27	

  
 GEOGRAPHIC NAMES SECTION  
 28 SEPTEMBER 1960



Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. *8464*

Records accompanying survey: Smooth sheets *1*;  
 boat sheets *1 (2-parts)*; sounding vols. *10*; wire drag vols. ....;  
 Descriptive Reports *1*; graphic recorder envelopes *10*;  
 special reports, etc. *1-Each, Blackline impressions T-10823*  
*24 (2 parts), 27, 29, 32, 33, 34, 35, 28, 36. 2-Blue lines T-10828.*

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

Number of positions on sheet		<i>2,000</i>
Number of positions checked		<i>89</i>
Number of positions revised		<i>0</i>
Number of soundings revised (refers to depth only)		<i>17</i>
Number of soundings erroneously spaced		<i>0</i>
Number of signals erroneously plotted or transferred		<i>0</i>
Topographic details	Time	<i>9 hrs.</i>
Junctions	Time	<i>3 hrs.</i>
Verification of soundings from graphic record	Time	<i>2 hrs.</i>
Special adjustments	Time	<i>2 hrs.</i>

*John T. Callahan* 151 hr (vols. 1, 2, 3, 4) + 207 hrs by S.R. *Apr 1/26, 1963*  
 Verification by *A. Roe* (vols. 5 thru 10) Total time *358* (358 hrs) Date *7-19-63*  
 Reviewed by *Paul E. Westbrook* Time *7.8 hrs.* Date *6/2/64*

OFFICE OF CARTOGRAPHY

REVIEW SECTION -- NAUTICAL CHART DIVISION

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8464

FIELD NO. ECFP-1358

Florida, St. Johns River, Vicinity of South Jacksonville

SURVEYED: January-March 1959

SCALE: 1:10,000

PROJECT NO. CS-407

SOUNDINGS: 808J and EDO  
Depth Recorders

CONTROL: Sextant fixes  
on shore objects

Chief of Party-----H. S. Cole  
Surveyed by-----A. G. Davis  
  J. J. McCoy  
  J. D. Wingfield, Jr.  
Protracted by-----W. L. Jonns  
Soundings Plotted by-----W. L. Jonns  
Verified and Inked by-----J. T. Gallahan  
  S. Rose  
Reviewed by-----D. E. Westbrook  
Inspected by-----R. H. Carstens

Date: 6/2/64

1. Description of the Area

The present survey covers that portion of the St. Johns River in the vicinity of South Jacksonville, and the area south to Point LaVista.

In the northern portion of the area, the river is relatively narrow and deep, and is confined by the many piers, docks, and bulkheads of both Jacksonville and South Jacksonville. The deep water channel is positioned on the northerly side of the river. The few shoals that exist make out from the south side, probably due to the weaker currents that exist here as the river makes a sharp bend to the right.

The southern portion of the river, south of South Jacksonville, is much wider and shallower than the north portion, and clearly shows that deep draft vessels cannot navigate beyond South Jacksonville. This part of the river is marked by shoal banks, spoil areas, and dredged areas. To the west of South Jacksonville, for example, the bottom configuration is particularly rugged and unnatural due to dredging of material from the shoals.

In general, the bottom in the southern portion of the area is composed of black mud, while in the northern portion of the area, where the river narrows, the bottom is composed of both sand and mud.

## 2. Control and Shoreline

The origin of the control is adequately described in the Descriptive Report (Par. F.).

The Norfolk Processing Office notes in the Descriptive Report that a temporary plot of signals ELM and RUM was necessary because of the arrangement of the inset on the smooth sheet. With the information shown on the survey, however, these signals could be replotted if deemed necessary at some future time.

The shoreline originates with reviewed photogrammetric manuscripts T-10828, T-10833, and T-10834, at 1:10,000 scales and dated 1958-59.

Two piers and a jetty were added by the hydrographer and are shown in red ink on the present survey.

Shoreline changes on the Jacksonville waterfront have been approximately indicated on the hydrographic survey by dashed red lines. These changes have occurred due to construction work in the area.

Several pier ruins also have been added by the hydrographer in addition to those shown on the photogrammetric manuscripts.

3. Hydrography

- A. Depths at crossings are in good agreement.
- B. The usual depth curves were adequately delineated except that the presence of ships berthed in the slips prevented regular sounding lines, and complete curves could not be drawn in these areas. Leadline soundings were not taken along the faces of the large piers to provide the necessary data.

The zero depth curve was not completely defined due to the small range of tide and the draft of the survey launches.

The 3-ft. and 24-ft. depth curves have been added to more adequately define the bottom configuration. A few shoal soundings were emphasized with brown curves in accordance with Par. 6-64, Hydrographic Manual.

- C. The development of the bottom configuration and the investigation of least depths is considered adequate, except that soundings were not taken in the vicinity of important piers and wharves.

4. Condition of the Survey

The field plotting, records, and reports are adequate and conform to the requirements of the Hydrographic Manual except that:

1. A wristwatch was used instead of a sounding clock on "C" day, Launch 183. The watch time did not check with the time on the fathogram, and no note was found stating which was correct. As no discrepancies resulted, the fathometer time was assumed to be correct.
2. The sounding volumes were not signed as having been inspected by the Chief of Party. |

5. Junctions

Adequate junctions were effected with H-8463 (1958-59) on the northeast, and H-8412 (1958) on the south.

6. Comparison with Prior Surveys

- A. H-484 (1:10,000) 1855  
H-1384a (1:20,000) 1876-77  
H-1542b (1:10,000) 1883  
H-2337 (1:5,000) 1898

The St. Johns River in the Jacksonville area seems to have maintained its general configuration much as it was 100 years ago. The greatest changes have been manmade, in the form of piers, bulkheads, and wharves, which, through the years, have been built outward from the original shoreline.

In the area south of Winter Point, there has been a deposition of sediments ranging from 1-3 feet in general depths of 10-20 feet.

Because of the many changes since the prior surveys, and the fact that generally shoaler depths now exist, the present survey is adequate to supersede these prior surveys within the common area.

- B. H-6296 (1:20,000) 1934-35

This reviewed prior survey has superseded all prior surveys within its area. A critical comparison between it and the present survey reveals marked differences in the bottom configuration.

There has been a great deal of material dredged from the shoal in approximate Lat.  $30^{\circ}18.1'$ , Long.  $81^{\circ}40.3'$ . At the time of the present survey, material was being borrowed for fill at the new A. C. L. Railroad Terminal.

The main channel in the vicinity of Winter Point

Lights 2 and 3 was dredged subsequent to the prior survey, but has shoaled appreciably since that time.

In the Sadler Point and Pt. LaVista areas, sedimentation of from 1-4 feet has occurred, while dumping of spoil accounts for the creation of the extensive shoal in Lat.  $30^{\circ}17.7'$ , Long.  $81^{\circ}39.7'$ .

The present survey supersedes the prior survey within the common area.

7. Comparison with Chart 685 (1:40,000), 3rd Ed., September 2, 1963

A. Hydrography

Most of the charted hydrography originates with the boat sheet and smooth sheet of the present survey before verification and review. A considerable number of these charted soundings have been changed slightly in either depth or position on the present survey subsequent to their application to the chart, and therefore the charted hydrography should be revised, when time allows.

Several charted soundings originate with the previously discussed prior surveys which require no further consideration.

Some of the pier and shoreline information shown on the present survey has been superseded by 1962 air photo revision blueprints of T-10828 (BP-63701) and T-10834 (BP-63699) and Chart Letter 260 of 1963. Many of these revisions are now charted.

The two piles or dolphins charted in Lat.  $30^{\circ}19.06'$ , Long.  $81^{\circ}38.90'$  originate with U. S. Geological Quadrangle, "Jacksonville", 1950 Edition, (BP-54196). These two piles or dolphins should be deleted from the chart and replaced by the concrete wall shown on the present survey in the same location.

The two piers in ruins charted in Lat.  $30^{\circ}19.43'$ , Long.  $81^{\circ}39.36'$  originate with 1962 air photo. revision (BP-63701). The boat sheet of the present survey contains a note that these piers have been removed. It is believed, however, that the area denoted "foul, rubble" on the smooth sheet adequately covers the dangers which may still remain in the area.

Because construction in this area is incomplete, the area should be charted according to the latest information available at the time of chart revision.

The 10-ft. sounding charted in Lat.  $30^{\circ}19.11'$ , Long.  $81^{\circ}39.09'$  originates with the boat sheet of the present survey, and was displaced in charting so that it would not conflict with other features. This sounding was changed to a 14-ft. during the rescanning of fathograms in smooth plotting. The 10-foot sounding should be deleted from the chart and another sounding charted from the present survey which is more representative of the depths in that area.

The two pier ruins charted on Winter Point in Lat.  $30^{\circ}18.60'$ , Long.  $81^{\circ}40.69'$  originate with two piers on T-5667 (1933-39) and were subsequently changed to ruins presumably from aerial photographs between 1949 and 1952. These pier ruins do not appear on either the present survey or T-10834 (1958-59). Since the piers are small and unimportant, since the depths in the area are shallow, and since the pile charted from the present survey provides an adequate danger in the area, the two pier ruins should be deleted from the chart.

The 3-ft. sounding charted in Lat.  $30^{\circ}18.33'$ , Long.  $81^{\circ}40.32'$  originates with H-6296 (1934-35). Dredging and borrowing in this area now provides a least depth of 10 feet nearby as shown on the present survey. Although it was not specifically disproved, it is safe to say that the 3-ft. sounding

no longer exists in the dredged area. It should be deleted from the chart.

The pier ruins charted on Pt. LaVista in Lat.  $30^{\circ}16.71'$ , Long.  $81^{\circ}39.91'$  originate with a preliminary manuscript of T-10834 (1958-59). Probably due to a doubt about their location, the ruins were subsequently removed from the manuscript during later processing. The above pier ruins should be deleted from the chart and the ruins immediately to the southward be retained as charted and shown on the present survey. The location of these ruins is supported by those shown on T-11093 (1957-58).

*appald*

The pier ruins charted in Lat.  $30^{\circ}18.15'$ , Long.  $81^{\circ}41.60'$  originate with a pier on T-5667 (1933-39). This pier was subsequently changed to ruins before 1941. The ruins do not appear on either the present survey or T-10833 (1958-59). Because of the age of the pier, its relatively small size, and the shallow water in the area, it is safe to assume that the pier ruins no longer exist as a danger, and should be deleted from the chart.

The pile charted in Lat.  $30^{\circ}16.92'$ , Long.  $81^{\circ}42.46'$  originates with a compiler's interpretation of the boat sheet of the present survey. This area is foul and contains pier ruins. Although no individual pile was located on the present survey, it is believed that the pile symbol adequately represents the present survey information and should be retained on the chart.

The pile charted at the end of the pier ruins in Lat.  $30^{\circ}17.05'$ , Long.  $81^{\circ}42.41'$  originates with a compiler's interpretation of the pier ruins on the boat sheet of the present survey. Information in a sounding volume indicates that these pier ruins are composed of piling bare 1 ft. at M.H.W. However, the dashed line indicating the ruins is adequate to represent the danger in this area. Therefore, the pile symbol at the end of the ruins should be deleted from the chart.

*appald,  
Deleted pile*



The trees charted in Lat.  $30^{\circ}15.67'$ , Long.  $81^{\circ}41.78'$  originate with T-11093 (1957-58). The shoreline in this area, according to T-10833 (1958-59), has been built out to include the area covered by the trees, so they should be deleted from the chart.

*applied,  
deleted trees*

The two piles charted in Lat.  $30^{\circ}15.59'$ , Long.  $81^{\circ}41.70'$  are from an undetermined source and were charted about the same time as the trees discussed above. The present survey shows a pile off the end of the pier nearby. This pile should be charted, and the two piles now charted along the southern side of the pier should be deleted.

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

B. Controlling Depths

The controlling depth note which refers to the dredged channel south of Winter Point originates with Chart Letter No. 1070 of 1958 from the C. O. Ship SCOTT, stating that a 14 foot centerline depth was found in September 1958. The controlling depth note should be charted from the present survey information.

C. Aids to Navigation

Aids shown on the present survey are in substantial agreement with the charted positions, and adequately mark the features intended.


8. Compliance with Instructions

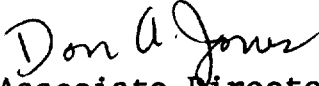
The present survey adequately complies with the Project Instructions, except that soundings were not taken in the vicinity of important piers and wharves in the Jacksonville area. (See Part 3C of this Review).

9. Additional Field Work

This survey is considered to be a good basic survey and no additional field work is necessary. However, if a larger scale chart of the Jacksonville waterfront is contemplated, a closer development of the area in proximity to the wharves and docks will be warranted.

Examined and Approved:

  
Chief, Marine Chart  
Division

  
Associate Director, Office of  
Hydrography and Oceanography

H-8464 (1959)

INFORMATION FOR FUTURE PRE-SURVEY REVIEWS

The future changes to be expected in the area of this survey probably will be manifested in both the Jacksonville shoreline, where constant construction occurs, and in the St. Johns River, where natural changes combined with dredging will materially alter the bottom configuration.

The general configuration of the river is much the same as it was 100 years ago except for wharfs, etc. built out from the shoreline.

The area south of Winter Point shows a deposition of sediment rate of about 1-3 feet in 100 years.

Since the area is now charted at a scale of 1:20,000, any future survey should include a closer development in the vicinity of wharves and docks along with soundings along the faces of those that are important. In addition, an adequate investigation should be made of the "trees" in Lat.  $30^{\circ}16.55'$ , Long.  $81^{\circ}39.79'$  which were carried forward to the present survey from T-11093 (1957-58).

R4c

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~DIVISION OF CHARTS AND CURRENTS~~

5 October 1960

Division of Charts: R.H. Carstens

Plane of reference approved in  
10 volumes of sounding records for

HYDROGRAPHIC SHEET 8464

Locality Jacksonville-Municipal Area, Florida

Chief of Party: H.S. Cole

Plane of reference is mean low water reading.

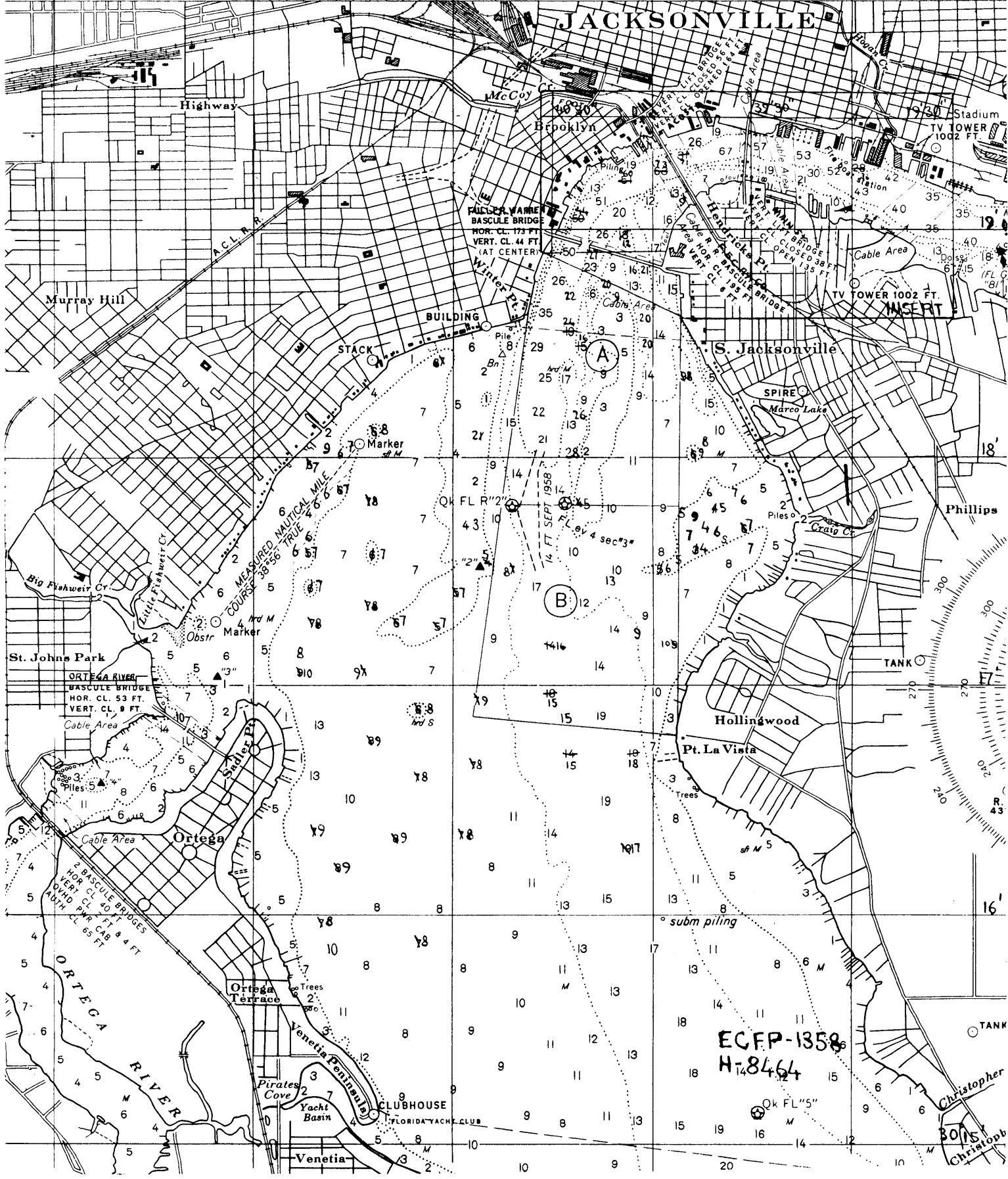
3.3ft. on tide staff at Ortega River

7.3ft. below B. M 1 (1939)

Height of mean high water above plane of reference is: 0.9 ft.

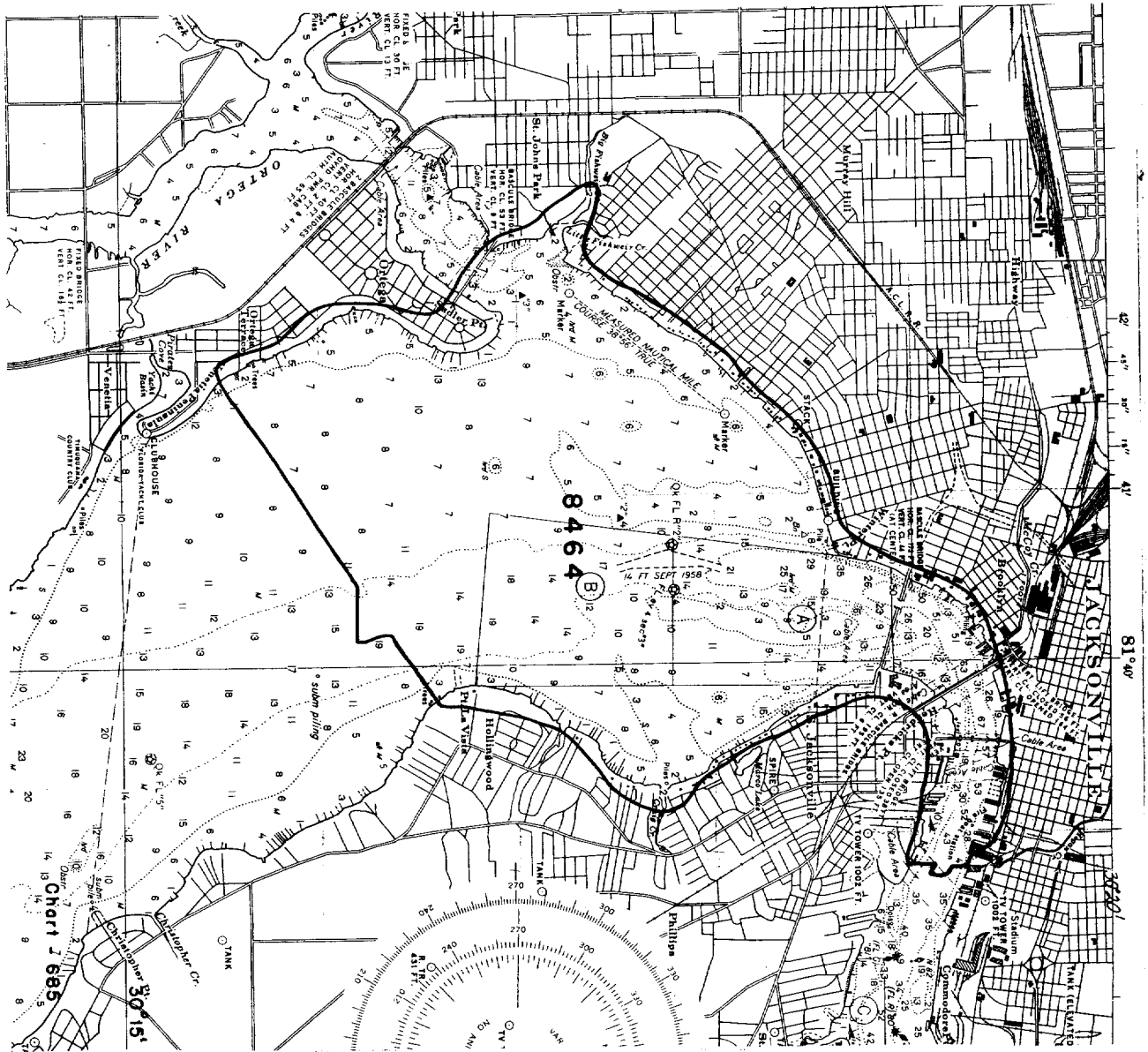
Condition of records satisfactory except as noted below:

*William H. Jones*  
Chief, Tides Branch  
~~Chief, Division of Tides and Currents~~



ECFP-1358  
H-8464

30/5  
Christoph



# NAUTICAL CHARTS BRANCH

SURVEY NO. H-8464

## Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
10/27/60	577	J. P. Walby	Before <del>After</del> Verification and Review <i>Partially</i>
12/5/60	1243	E. E. Thomas	<i>Examined for critical corr., No Revisions</i> Before <del>After</del> Verification and Review
1-11-61	685	Chas. R. Wittmann	Before <del>After</del> Verification and Review <i>Partially</i>
10-14-66	1243	J. L. McMillan	<i>Before</i> After Verification and Review <i>No revisions</i> <i>no hydro shown in area of survey</i>
11/4/66	685	J. L. McMillan	Before After Verification and Review <i>Partial application</i> <i>for review section of descriptive report only</i>
7/15/63	636-SC	J. H. Eaton	Before <del>After</del> Verification and Review
1-29-68	636-SC	P. Van Zant	<sup>FULLY</sup> <del>Before</del> After Verification and Review
10/28/68	685	J. W. Dinsley	<i>Examined for critical corrections only.</i> <del>Before</del> After Verification and Review
5-12-70	685	C. E. Beale	<sup>FULLY Applied</sup> <del>Before</del> After Verification and Review
			Before After Verification and Review

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.