

# 8634

Diag. Cht. No. 1266-2.

Form 504

U. S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY

## DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. ECP 10-4-63 Office No. H-8634

### LOCALITY

State Alabama

General locality Mobile Bay

Locality Bon Secour Bay

1961

### CHIEF OF PARTY

J. R. Plaggmier & S. L. Hollis

### LIBRARY & ARCHIVES

DATE April 2, 1963

USCOMM-DC 5087

# 8634

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-8634

Field No. ECFP 10-4-61

State Alabama

General locality Mobile Bay

Locality Bon Secour Bay

Scale 1:10,000 Date of survey 24 April 1961 to 18 July 1961

Instructions dated 18 September 1961 (<sup>59</sup>22/MUK, ECFP)

Vessel Skiff No. 758, Launch 1177 and Skiff No. 2.

Chief of party LCDR. John R. Plaggner & S.L. Hollis

Surveyed by LT(JG) J.G. LABastie and LT(JG). R.R. Floyd

Soundings taken by fathometer, graphic recorder, hand lead, ~~and~~ Sounding Pole (12 ft.)

Fathograms scaled by Party Personnel

Fathograms checked by Party Personnel

Protracted by Fred Bean (Norfolk Processing Office)

Soundings penciled by Ens. D. G. Hickerson " "

Soundings in ~~XXXXX~~ feet at MLW ~~XXXXX~~ are true depths

REMARKS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

U.S.

DESCRIPTIVE REPORT  
TO ACCOMPANY HYDROGRAPHIC SURVEY H-8634  
(Field No. ECFP 10-4-61)

PROJECT OPR-410

SCALE: 1:10,000

EAST COAST FIELD PARTY

LCDR JOHN R. FLAGGMIER,  
Officer-in-Charge

\* \* \* \* \*

A. PROJECT

Work on Project OPR-410 was executed in accordance with instructions 22/MEK, ECFP, dated 18 September 1959.

B. AREA SURVEYED

The area covered by this survey is Bon Secour River and Approaches, Bon Secour Bay, Alabama. The limits are from Lat. 30°15'30" to Lat. 30°20'00" and from Long. 87°40'30" to Long. 87°49'30".

The survey began April 24, 1961 and was completed July 18, 1961.

This survey makes junction with contemporary surveys ECFP 10-7-61 (H-8633) on the west and ECFP 10-5-61 (H-8635) on the northwest.

Prior surveys of this area are Registry No. 5707, scale 1:10,000 and Registry No. 4023, scale 1:40,000 dated 1918. (1935)

C. SOUNDING VESSELS

Identifying Colors

Skiff 758	Red
Launch 1177	Blue
Skiff #2	Green

D. SOUNDING EQUIPMENT

Fathometer Type 808j No. 113 was used on Skiff 758 on "c" day through "j" day and "l" day through "p" day. A sounding pole was used for all depths on "a", "b", and "k" days.

Echo Recorders Type EDO 255c Nos. 13 and 16 with static inverters were used on Launch 1177. Echo Recorder No. 16 was used on "a", "b", and "j" days. Echo Recorder No. 13 was used on "c" day through "f" days, "h" day and "l" day through "r" days. A leadline was used for all depths on "g" day. A sounding pole was used for all depths on "k" day.

Fathometer Type 808j No. 113 was used on "a" day on Skiff #2. A sounding pole was generally used for depths of less than 3 feet on Skiff 758 and Skiff #2.

Velocity curves were drawn from data obtained during daily Bar Checks or Simultaneous Comparisions of leadline or sounding pole.

### E. SMOOTH SHEET

The smooth sheet was ~~projected~~<sup>computed</sup> and ruled in the Washington Office.

### F. CONTROL

Horizontal control was obtained by standard three-point visual fix methods as described in the Hydrographic Manual. Positioning by estimates from shoreline detail or signal control points were used in some area where three-point fixes were unattainable. This method was used in the northeast section of Bon Secour River and its tributaries.

Triangulation Stations were located by J. K. Wilson in 1959. ✓

Photo-Hydro signals were located from Planimetric Manuscripts T-10990, T-10991, and advance Manuscripts T-10992 and T-10993.

See Appendix C of this report for a complete list of control stations.

### G. SHORELINE

Shoreline was transferred from blue-line prints of the manuscripts which are listed in Section F of this report. No noticeable change in shoreline was observed. ✓

### H. CROSSLINES

Crosslines were run in excess of 10% and the crossing of the regular system of lines ~~were~~<sup>was</sup> in good agreement. ✓

### I. JUNCTIONS

Junctions made with contemporary surveys listed in Section "B" of this report are satisfactory and the depth curves can be adequately drawn. ✓

### J. COMPARISON WITH PRIOR SURVEY

#### Pre-Survey Review Item No. 16

The submerged piles, Lat.  $30^{\circ}17.77'$ , Long.  $87^{\circ}44.89'$ , located by Skiff No. 758 using wiredrag, Volume 3, page 29, Position 2 k, are probably ruins of Beacon No. 14 (Triangulation Station FOUR 1934). The least depth on the sub-piles is 3.8 feet at MLW. The above location verifies the charted position of the item and it is recommended its position be retained on the chart, *AND CHANGED TO A SUBMERGED OBSTRUCTION.* ✓  
*Applied to 872-5  
7-27-68 DWA*

The two platforms which are now in ruins and bare at MHW, Lat.  $30^{\circ}18.11'$  Long.  $87^{\circ}44.10'$ , located by Skiff No. 758, Volume 3, page 29, positions 3 and 4 k verify the charted positions of the platforms. It is recommended the charted positions be retained. ✓  
*c/s 9 k*

The piles along the east and south side of the Bon Secour River Channel and the east and west side of Oyster Bay Approach Channel were not verified. There is no information either in the volumes or on the boat sheet concerning these items. All members of the surveying personnel with the exception of the coxswain have been separated from the East Coast Field Party. It is ~~a safe assumption~~ to assume the piles would have been located had they been visible. The piles are remains of Beacon and lights which were maintained until 1943. The ruins of Beacon No. 14 was investigated and located by the surveying crew because of local complaints and ✓

information furnished by fishermen. Since the aids were maintained until a given date and the one aid investigated was found it is logical to assume other aids have deteriorated at the same rate and could still exist at a submerged level. Since wire drag operations were not attempted there is no information to prove these piling no longer exist. Therefore it is recommended all piles, piling and platforms of Pre-Survey Review Item No. 16 be retained on the chart, As **Submerged Obstructions**, With the exception of the Two Platform - Lat.  $30^{\circ}18.11'$  - Long.  $87^{\circ}44.10'$ .

Comparison with ~~Pre~~ Survey Registry No. 5707, Scale 1:10,000, dated 1935:

Oyster Bay is from 1 foot to two feet shallower. Oyster Bay River Channel which junctions from Bon Secour River, now has a controlling depth of 6 feet as compared to an 11 foot controlling depth on the prior survey.

The entrance of the Bon Secour River Channel now has a 5 foot controlled depth as compared to an 11 foot controlled depth on the prior survey.

At the time of the prior survey the above mentioned channels were used as part of the Intercoastal Waterway. Since that time a new channel has been dredged and the Oyster Bay River Channel and Bon Secour River Channel are no longer maintained as part of the waterway. The two channels are gradually filling by current and tide deposits, hence the decreasing depths.

The two shoals which bare at MLW, one on each side of the Bon Secour River Channel at Lat.  $30^{\circ}17.60'$  N, Long.  $87^{\circ}44.58'$  W, are <sup>and Lat.  $30^{\circ}17.84'$  Long.  $87^{\circ}44.70'$</sup>  probably spoil banks. These shoals are not shown by the prior survey or on Chart No. 1266.

The shoal which bares at MLW at Lat.  $30^{\circ}16.90'$ , Long.  $87^{\circ}45.70'$  on the prior survey and chart No. 1266 no longer exists and should be deleted from the chart. Applied to 1-29-68  
712-5C  
Dik

With the exception of the above mentioned items there is generally good agreement with the prior survey.

#### K. COMPARISON WITH THE CHART

A comparison with Chart No. 1266, 16th edition, dated 30 January 1961, Scale 1:80,000 indicates good agreement excluding the exceptions listed in Section "J" and the following:

- (1) The shoal that bares at MLW, Lat.  $30^{\circ}17.60'$ , Long.  $87^{\circ}45.12'$  no longer exists and should be deleted from the chart.
- (2) A small craft slip has been dredged at Lat.  $30^{\circ}17.57'$ , Long.  $87^{\circ}44.53'$ .
- (3) Two piles (bare) were located by Skiff 758, Positions 3 and 4 k, page 29, Volume 3 at Lat.  $30^{\circ}17.90'$ , Long.  $87^{\circ}44.55'$ .

It is recommended Items 2 and 3 be charted.

#### L. ADEQUACY OF SURVEY

This survey is complete and adequate to supercede prior surveys for charting.

#### M. AIDS TO NAVIGATION

The Landmarks for Charts and Fixed Aids to Navigation report was

previously submitted by Photo Party 720.

A comparison was made with the Chart and Light List. All Aids to Navigation adequately serve the purposes for which they were established.

Eleven privately maintained buoys and four channel markers were located within the area of Bon Secour River. These aids are permanently maintained. The date of establishment and the maintenance of the aids are unknown.

<u>Aid Description</u>	<u>Vessel.</u>	<u>Page</u>	<u>Vol.</u>	<u>Page No.</u>	<u>Pos. No.</u>	<u>Lat. &amp; Long.</u>
Private Channel Marker	Skiff No. 758		3	44	40 "l"	30°17.08' ✓ 87°45.23'
Private Channel Marker	Skiff No. 758		3	44	41 "l"	30°17.44' ✓ 87°44.96'
Private Channel Marker	Skiff No. 758		3	<del>44</del> <sup>29</sup>	6 "k"	30°17.96' ✓ 87°44.32'
Private Channel Marker	Skiff No. 758		4	31	1 "p"	30°18.38' ✓ 87°43.62'
Private Nun Buoy	Launch 1177		5	59	1 "k"	30°18.18' ✓ 87°43.82'
	<i>"See N. P. O. List"</i>					
Private Nun Buoy	Launch 1177		5	59	2 "k"	30°18.16' ✓ 87°44.01'
Private Nun Buoy	Launch 1177		5	59	3 "k"	30°18.12' ✓ 87°44.14'
Private Nun Buoy	Launch 1177		5	59	4 "k"	30°18.01' ✓ 87°44.25'
Private Nun Buoy	Launch 1177		5	60	5 "k"	30°17.92' ✓ 87°44.34'
Private Nun Buoy	Launch 1177		5	60	6 "k"	30°17.84' ✓ 87°44.52'
Private Nun Buoy	Launch 1177		5	60	7 "k"	30°17.79' ✓ 87°44.65'
Private Nun Buoy	Launch 1177		5	60	8 "k"	30°17.71' ✓ 87°44.86'
Private Nun Buoy	Launch 1177		5	55	8 "j"	30°17.23' ✓ 87°45.05'
Private Nun Buoy	Launch 1177		5	55	9 "j"	30°17.33' ✓ 87°44.98'
Spar (Tubular) Buoy (Red)	Launch 1177		5	56	10 "j"	30°17.53' ✓ 87°44.94'

It is recommended the above listed private aids be charted and listed as permanently maintained. (Refer this matter to compilation, See Mr. Carstens and Mr. Anderson)

NORFOLK PROCESSING OFFICE  
LIST OF  
FLOATING AIDS TO NAVIGATION  
H-8634

Item numbers  
from Atlantic  
light list

BUOY

LATITUDE    LONGITUDE    DEPTH    POS. NO.    DATE

PENSACOLA-MOBILE

8054 Buoy 140	30-16.73'	87-43.55'	8'	26p (red)	6/23/61 ✓
8054 Buoy 141	16.69	43.72	7	27p "	" ✓
8054 Buoy 142	16.73	43.75	6	28p "	" ✓
8054 Buoy 143	16.71	43.97	10	29p "	" ✓
8056 Buoy 149	16.99	45.45	7	1g (bl)	6/7/61 ✓
8056 Buoy 150	17.02	45.47	8	2g "	" ✓
8056 Buoy 151	17.04	45.72	8	3g "	" ✓
8057 Buoy 152	17.09	45.72	5	4g "	" ✓
8057 Buoy 153	17.05	45.85	7	5g "	" ✓
8057 Buoy 156	17.08	46.01	9	6g "	" ✓
8057 Buoy 157	17.04	46.23	7	7g "	" ✓
8057 Buoy 159	17.03	46.39	7	9g "	" ✓
8057 Buoy 160	17.08	46.39	7	8g "	" ✓

PRIVATELY MAINTAINED AIDS TO NAVIGATION (FLOATING)

Nun Buoy	30-18.18'	87-43.82'	2'	1k (bl)	6/13/61 ✓
Nun Buoy	18.16	44.01	3	2k "	" ✓
Nun Buoy	18.12	44.14	3	3k "	" ✓
Nun Buoy	18.01	44.25	5	4k "	" ✓
Nun Buoy	17.92	44.34	6	5k "	" ✓
Nun Buoy	17.84	44.52	4	6k "	" ✓
Nun Buoy	17.79	44.65	5	7k "	" ✓
Nun Buoy	17.71	44.86	7	8k "	" ✓
Nun Buoy	17.23	45.05	5	8j "	6/12/61 ✓
Nun Buoy	17.33	44.98	6	9j "	" ✓
Spar Buoy	17.53	44.96	8	10j "	" ✓

PRIVATELY MAINTAINED CHANNEL MARKERS (FIXED)

Channel Marker	30-17.08	87-45.23'	5'	401 (red)	6/1/61 ✓
Channel Marker	17.44	44.96	7	41-1 "	" ✓
Channel Marker	17.96	44.32	3	6k "	5/24/61 ✓
Channel Marker	18.38	43.62	5	1p "	6/23/61 ✓

N. STATISTICS

<u>Vessel</u>	<u>No. of Volumes</u>	<u>No. of Positions</u>	<u>Naut. Miles of Sdg. Line</u>
Skiff 758	4	721	75.7
Launch 1177	2	226	30.5
Skiff #2	<u>1</u>	<u>51</u>	<u>6.1</u>
TOTAL	7	998	112.3

Total area of hydrography for this sheet is 7.3 square nautical miles. There were 9 bottom samples.

Respectfully submitted,

*Dave W. George*  
Dave W. George  
Surveying Technician



APPENDIX A

TIDAL NOTES

GAGE LOCATION:

Bon Secour River  
Bon Secour, Alabama

Lat. 30°18.05'

Long. 87°44.24'

GAGE TYPE:

Portable Automatic

STAFF:

MLW corresponds to 1.2 feet on  
the staff.

TIME CORRECTION:

None

The 90th time meridian was used  
at this station.

APPENDIX B

## ABSTRACT OF CORRECTIONS TO ECHO SOUNDINGS

Skiff 758

<u>Day Letter</u>	<u>Date</u>	<u>Recorder No.</u>	<u>Depths (ft.)</u>	<u>Corr. (ft.)</u>
a	4/24/61	Sounding Pole used for all depths		
b	4/25/61	Sounding pole used for all depths		
c	5/4/61	808j-113s	2.0 to 5.4	0.0
			5.5 to 8.6	-0.2
			8.7 to 12.0	-0.4
d	5/12/61	808j-113s	2.0 to 8.0	0.0
			8.1 to 12.0	-0.2
e	5/13/61	808j-113s	2.5 to 4.4	0.0
			4.5 to 12.0	+0.2
f	5/16/61	808j-113s	2.8 to 6.0	0.0
g	5/17/61	808j-113s	2.8 to 16.0	0.0
h	5/18/61	808j-113s	2.0 to 15.0	0.0
j	5/19/61	808j-113s	2.0 to 15.0	0.0
k	5/24/61	Sounding pole used for all depths		
l	6/1/61	808j-113s	0.0 to 8.6	+0.2
			8.7 to Deeper	+0.4
m	6/2/61	808j-113s	0.0 to 8.0	0.0
			8.1 to Deeper	+0.2
n	6/22/61	808j-113s	0.0 to 2.4	-0.2
			2.5 to 4.8	0.0
			4.9 to 12.0	+0.2
			12.1 to 16.0	0.0
p	6/23/61	808j-113s	2.1 to 2.4	0.0
			2.5 to 2.9	-0.2
			3.0 to 3.2	0.0
			3.3 to 3.8	+0.2
			3.9 to 10.2	+0.4
			10.3 to 13.2	+0.2
			13.3 to 15.6	0.0
			15.7 to 17.8	-0.2
			17.9 to 20.0	-0.4

APPENDIX B

(Continued)

Launch 1177

<u>Day Letter</u>	<u>Date</u>	<u>Recorder No.</u>	<u>Depths (ft.)</u>	<u>Corr. (ft.)</u>
a	5/8/61	255c-16	5.7	-0.6
b	5/9/61	255c-16	5.8 to 6.3	-0.4
			6.4 to 7.1	-0.2
			7.2 to 7.8	0.0
			7.9 to Deeper	+0.2
c	5/10/61	255c-13	6.0	-0.4
d	5/11/61	255c-13	6.1 to 10.0	-0.6
			10.1 to 14.0	-0.8
			14.1 to Deeper	-1.0
e	5/22/61	255c-13	5.0 to 10.6	-0.6
			10.7 to 12.9	-0.8
			13.0 to 14.4	-0.6
			14.5 to Deeper	-0.4
f	6/6/61	255c-13	6.0 to 6.9	-0.4
			7.0 to 8.9	-0.6
			9.0 to 10.9	-0.8
			11.0 to Deeper	-1.0
g	6/7/61	Leadline was used for all depths.		
h	6/8/61	255c-13	6.0 to 8.9	-0.8
			9.0 to Deeper	-1.0
j	6/12/61	255c-16	6.0 to Deeper	-0.2
k	6/13/61	Sounding Pole was used for all depths		
l	6/14/61	255c-13	6.0 to 10.9	-0.8
m	6/15/61	255c-13	11.0 to Deeper	-1.0
n	6/27/61	255c-13	6.0 to 7.4	0.0
p	6/28/61	255c-13	7.5 to 10.4	-0.2
q	7/12/61	255c-13	10.5 to 12.6	-0.4
			12.7 to 13.8	-0.6
			13.9 to Deeper	-0.8
r	7/18/61	255c-13	4.0 to 6.0	+0.2
			6.1 to 12.0	0.0
			12.1 to Deeper	-0.2

Skiff #2

a	7/17/61	808j-113s	0.0 to 6.0	0.0
			6.1 to 6.7	-0.2
			6.8 to 7.8	-0.4
			7.9 to 10.6	-0.6
			10.7 to 12.0	-0.4
			12.1 to 19.6	-0.2
			19.7 to 23.8	0.0
			23.9 to Deeper	-0.2

APPENDIX C

LIST OF SIGNALS  
TO ACCOMPANY HYDROGRAPHIC SURVEY H-8634  
(Field No. ECFP 10-4-61)

<u>Name of Signal</u>	<u>Source</u>
ABE	T-10990
AHA	T-10993 (A)* and T-10991
AIM <i>ALP - T-10993</i>	T-10993 (A)
ARO	Intercoastal Waterway Pensacola-Mobile Lt. No. 175, 1959
AMP	T-10993 (A)
AMY	T-10990
ANN	Same
BEH	T-10993 (A) and T-10991
BIL	Intercoastal Waterway Pensacola-Mobile Lt. No. 163, 1959
BON	BON, 1934
BOX	T-10991
BUT	Hydrographic Signal, Vol. 4, page 4, Skiff 758
CAB	T-10990
COD	T-10992 (A)
COO	T-10993 (A)
COP	T-10993 (A)
COW	Same
CRY	T-10990
CUE <i>DER - T-10993</i>	Same
DIF	T-10991
DUD	Same
EON	T-10992 (A)
EST	T-10993 (A)
EVA	Same
FAR	T-10990
FUN	T-10991
GAM	T-10993 (A)
GIL	T-10993 (A) and T-10991
GUS	T-10993 (A)
GUY	T-10993 (A)
HAG	T-10990
HID	T-10991
HON	Same
HOP	T-10993 (A)
HUB	T-10991
ISLE <i>JIB - T-10992</i>	Topographic (M) 1959
JOY	T-10993 (A)
JUG	T-10992 (A)
LEX	T-10993 (A)
LUG	T-10993 (A)
MAR	T-10993 (A)
MET	T-10992 (A)
MOB	Intercoastal Waterway Pensacola-Mobile Lt. No. 139, 1959
MID	T-10993 (A)
MUG	T-10993 (A)
MUM	T-10992 (A)
NAB	T-10993 (A)
NAT	T-10990
NIX	T-10991
NOD	T-10993 (A)

APPENDIX C  
(Continued)

<u>Name of Signal</u>	<u>Source</u>
NOW	T-10993 (Advanced)
NUT	T-10993 (Advanced) & T-10991
OLA	T-10992 (Advanced)
OUT	T-10992 (Advanced)
PAL	T-10993 (Advanced)
PAR	T-10990
PEN	Intercoastal Waterway Pensacola-Mobile Lt. No. 152, 1959
PIE	T-10991
RUE	T-10992 (Advanced)
SAC	Intercoastal Waterway Pensacola-Mobile Lt. No. 189, 1959
SAG	T-10993 (Advanced)
SAL	SKUNK 2, 1953
SAM	T-10990
VIA <i>SOW</i> T-10993	T-10993 (Advanced)
VIM	T-10990
VOP	T-10993 (Advanced)
WHY	T-10991
WIT <i>WEE</i> T-10993	T-10993 (Advanced)
YAM	T-10993 (Advanced)

APPENDIX D

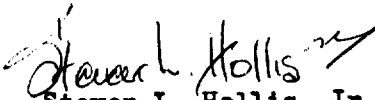
APPROVAL SHEET TO ACCOMPANY  
Hydrographic Sheet H-8634 (ECFP 10-4-61)

The records, corrections, and all field and office work was supervised by LCDR John R. Plaggmier.

The Descriptive Report was written by Dave W. George (Surveying Technician).

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

Approved and Forwarded,

  
Steven L. Hollis, Jr.  
LCDR, C&GS  
Officer-in-Charge

NORFOLK PROCESSING OFFICE  
ADDENDUM  
To Accompany

HYDROGRAPHIC SURVEY H-8634 (ECFP-10-4-61)

GENERAL

This appears to be an excellent basic survey except for a sparcity of developement lines in irregular bottom and in channels, particularly in Bon Secour River. Soundings are<sup>in</sup>generally good agreement at crossings, how-ever, the lack of developement prevented the proper delineation of channels and affected the continuity of depth curves.

Sounding line 2 thru 7j (blue) is being submitted on a smooth overlay. The line falls in a critical area along the edge of a dredged channel, and the control methods are questionable because all positions are referenced from floating aids.

*agreement with channel depths adequate*

Respectfully submitted,

*Hugh L. Proffitt*  
Hugh L. Proffitt  
Cartographer

Norfolk, Va.  
26 March 1963

87° 46'

ECFP 10-4-61

H 8634

30° 17'

<sup>1</sup>6 <sup>2</sup>6 <sup>3</sup>5 <sup>4</sup>5 <sup>5</sup>5 <sup>6</sup>5 <sup>7</sup>5 <sup>8</sup>5 <sup>9</sup>5 <sup>10</sup>5 <sup>11</sup>5 <sup>12</sup>5 <sup>13</sup>5 <sup>14</sup>5 <sup>15</sup>5 <sup>16</sup>5 <sup>17</sup>5 <sup>18</sup>5 <sup>19</sup>5 <sup>20</sup>6 <sup>21</sup>6 <sup>22</sup>6 <sup>23</sup>6 <sup>24</sup>6 <sup>25</sup>7 <sup>26</sup>51157

Eastern Portion of Channel  
 Approaching Intracoastal Waterway.



OFFICE OF HYDROGRAPHY AND OCEANOGRAPHY  
REVIEW SECTION -- MARINE CHART DIVISION

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8634

FIELD NO. ECFP 10-4-61

Alabama, Mobile Bay, Bon Secour Bay

SURVEYED: April 24 - July 18, 1961

SCALE: 1:10,000

PROJECT NO. OPR-410

SOUNDINGS: 808 Depth Recorder  
EDO 255 Depth Recorder  
Leadline

CONTROL: Sextant angles  
on shore signals.

Chief of Party-----J. R. Plaggmier  
S. L. Hollis  
Surveyed by-----J. G. La Bastie  
R. R. Floyd  
Protracted by-----F. Bean  
Soundings plotted by -----D. G. Hickerson  
Verified and inked by-----R. S. House  
Reviewed by-----G. K. Myers  
Inspected by-----R. H. Carstens

Date: 11/11/66

1. Description of the Area

This is an inshore survey of the eastern part of Bon Secour Bay, Bon Secour River, and Oyster Bay. Bon Secour Bay bottom, consisting of soft mud, slopes gently off shore ~~ward~~ from the shoreline except along the southern edge of the Intracoastal Waterway where spoil areas exist. Bon Secour River bottom is very irregular and has a 5-ft. bar controlling its entrance. Oyster Bay is very shallow with a flat muddy bottom except where the Intracoastal Waterway cuts through its northern part.

2. Control and Shoreline

The source of control is given in the Descriptive Report. The shoreline originates with advanced photogrammetric surveys T-10990, T-10991, T-10992 and T-10993 of 1957-1961.

3. Hydrography

Depths at crossings are in good agreement. The following deficiencies are noted:

- a. Adequate bottom samples were not obtained.
- b. Soundings in Bon Secour River and in Oyster Bay approach channel were too sparse for complete portrayal of the bottom configuration. Continuity of channels in some areas is questionable.
- c. Information is not adequate regarding the remains of numerous piling, platforms, and beacons charted in this area. Only one was investigated and submerged remains were found.

4. Condition of the Survey

- a. The field work conformed to the requirements of the Hydrographic Manual except that closer development in areas of irregular bottom would have been appropriate in delineating the configuration of the bottom.
- b. The Descriptive Report is complete and comprehensive.
- c. The sounding records were complete, except that the latitude and longitude at the beginning of some sounding lines were not recorded.
- d. The smooth plotting was accurately done.

5. Junctions

Adequate junctions were made with H-8633 (1961) on the southwest, and with H-8635 (1961) on the northwest.

6. Comparison with Prior Surveys

- A. H-263 (1851), 1:20,000  
H-4023 (1918), 1:40,000

Comparison of these prior surveys with the northwestern part of the present survey reveals general shoaling of 1 to 2 feet. The larger scale present survey is adequate to supersede the prior surveys in the common areas.

- B. H-2220 (1894), 1:40,000

This reconnaissance survey contains nothing of value for comparative purposes and is superseded by the present survey in the common areas.

- C. H-5707 (1935), 1:10,000

The present survey covers the area of this prior survey. A comparison between the prior and present surveys reveals considerable changes throughout the survey area. Bon Secour Bay has shoaled from 1 to 3 feet except in the spoil area south of the Intracoastal Waterway where some settling apparently has occurred. Bon Secour River and Oyster Bay approach channel, which junctions with Bon Secour River, have shoaled as much as 6 feet since the prior survey. Oyster Bay is from 1 foot to 2 feet shallower.

At the time of the prior survey the above mentioned channels were used as a part of the Intracoastal Waterway. Since that time a new channel has been dredged and the Oyster Bay approach channel and Bon Secour Channel are no longer maintained as part of the waterway. The two channels at the time of the present survey are gradually being filled by current and tide deposits, hence the decreasing depth.

Considerable change has occurred in the HWL at approximate Lat.  $30^{\circ}17'$ , Long.  $87^{\circ}45'$  due to the dredging of the Intracoastal Waterway channel from Bon Secour Bay to Oyster Bay.

The spit at the north shore of the entrance to Bon Secour River has accreted about 130 meters in an easterly direction.

Attention is also directed to the following items:

(1) The charted piles along the east and south side of Bon Secour River Channel and the east and west side of Oyster Bay approach channel were neither verified nor disproved by the present survey. These piles are remains of beacons and lights originating with H-5707 (1935) that were maintained until 1943. The ruins of Beacon No. 14, Lat.  $30^{\circ}17.77'$ , Long.  $87^{\circ}44.90'$  were investigated and found to be submerged to 3.8 feet at MLW. Since the aids were maintained till a given date and the one aid investigated was found, it is logical to assume other aids have deteriorated at the same rate and could exist at a submerged level. All such items have been carried forward to the present survey.

(2) The piles, platforms and stakes along the north and west sides of the Bon Secour River Channel were neither verified nor disproved by the present survey and have been carried forward.

(3) The pier located at Lat.  $30^{\circ}17.2'$ , Long.  $87^{\circ}44.12'$  appeared on the prior survey as piling. Recent survey information shows a pier in this location. The chart should be revised accordingly.

(4) The piers located in Lat.  $30^{\circ}17.10'$ , Long.  $87^{\circ}44.07'$  and Lat.  $30^{\circ}17.33'$ , Long.  $87^{\circ}44.40'$  appear as ruins on the present survey (from T-10993) and should be charted as such.

(5) The fish stakes as noted to be in Oyster Bay were

✓ 872-50  
DJK  
7-27-68

✓ DJK  
7-27-68  
872-50

not disproved on the present survey. The note has been carried forward.

(6) The soundings of 2-feet and greater from H-5707 in the vicinity of Lat.  $30^{\circ}16.89'$ , Long.  $87^{\circ}46.35'$  and westward to the survey limits were not disproved and have been carried forward to the present survey.

With the addition of the above items, the present survey is adequate to supersede the prior survey for charting.

#### 7. Comparison with Charts

Chart 1266 1:80,000 (latest print date 6-20-66)

Chart 872 (SC) 1:40,000 (latest print date 1-29-66)

#### A. Hydrography

Most of the charted hydrography originates with the previously discussed surveys which require no further consideration, supplemented by the partial application of depths from the boat sheet and verified smooth sheet of the present survey. Subsequent to the present survey a channel was dredged from the entrance to Lat.  $30^{\circ}19'$  in Bon Secour River. It is charted from Corps of Engineers blueprints of the area.

(1) The piles located at Lat.  $30^{\circ}18.10'$ , Long.  $87^{\circ}44.14'$  are the remnants of a platform and end of pier shown on H-5707, 1935. The structures fall within a ten-foot channel dredged by the U.S. Corps of Engineers subsequent to the present survey. It is, therefore, considered that these obstructions no longer exist.

(2) The easterly pile of two at Lat.  $30^{\circ}17.90'$ , Long.  $87^{\circ}44.55'$  as indicated on the smooth sheet and in the Descriptive Report falls on a charted pier. The structures do not appear on the advanced manuscript T-10993. At this position a pier is shown correctly on the chart as proved by 1965 air photos (see chart letter 281, 1966) and should be retained on the chart.

(3) The two adjacent piles at Lat.  $30^{\circ}17.4'$ , Long.  $87^{\circ}44.3'$  in Oyster Bay approach channel appear as

*currently ch'd as  
pier - SIC 7-27-68*

a pier on the prior and present surveys. Since this structure is verified by 1965 air photos (see chart letter 281, 1966), it is recommended that the charted piles be changed to a pier.

(4) The slip charted at Lat.  $30^{\circ}17.55'$ , Long.  $87^{\circ}44.85'$  originates with chart letter no. 632, 1964 subsequent to the present survey and should be retained on the chart.

With the exception of items (1) (2) and (4) above the present survey is adequate to supersede the charted hydrography within the common area.

#### B. Controlling Depths

The charted controlling depth notes of the Bon Secour River Channel and the Gulf Intracoastal Waterway are based on data furnished by the U.S. Corps of Engineers subsequent to the date of the present survey information.

#### C. Aids to Navigation

The aids to navigation along the Intracoastal Waterway located on the present survey are in substantial agreement with the chart with the following exceptions:

(1) Pensacola-Mobile Buoy 150 located on the present survey at Lat.  $30^{\circ}17.02'$ , Long.  $87^{\circ}45.46'$  was removed subsequent to the date of the survey and reported in H.O. Notice to Mariners 51 of 1964.

(2) Pensacola-Mobile Buoy 152 located on the present survey at Lat.  $30^{\circ}17.09'$ , Long.  $87^{\circ}45.72'$  was removed subsequent to the date of the survey and reported in H.O. Notice to Mariners 31 of 1965.

(3) Pensacola-Mobile Buoy 155 charted at Lat.  $30^{\circ}17.03'$ , Long.  $87^{\circ}46.08'$  is not shown on the present survey, and apparently was not on station at the time of the survey.

(4) The privately maintained floating aids delineating a natural channel within the Bon Secour River have been replaced by a marked dredged channel subsequent to the date of the survey and reported in H.O. Notice to Mariners 51 of 1964.

(5) The Bon Secour River Junction Light charted outside the channel limit in Lat.  $30^{\circ}17.0'$ , Long.  $87^{\circ}45.48'$  was established subsequent to the date of the present survey and reported in H.O. Notice to Mariners 48 of 1964.

8. Compliance with Instructions

The survey adequately complies with the Project Instructions.

9. Additional Field Work

This survey is considered to be an adequate basic survey and no additional hydrography is recommended. Investigation of the remains of numerous piling, platforms, and beacons should be made.

Examined and Approved:

*Wallace A. Bruder, for*  
Chief,  
Marine Chart Division

*Raymond M. Stone*  
Acting Associate Director,  
Hydrography and Oceanography

Information for Future Pre-Survey Review

Shoaling in the Oyster Bay approaches may be expected to continue.

The numerous submerged piles carried forward from visible features on H-5707 should be investigated, possibly with modified wire-drag equipment and the existence of these features verified.



GEOGRAPHIC NAMES

Survey No. H-8634

Name on Survey	Source										
	A	B	C	D	E	F	G	H	K		
		On Chart No. 1266	On previous survey No.	On U. S. quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List		
BON SECOUR	✓										1
BON SECOUR Bay	✓								✓		2
BON SECOUR RIVER	✓								✓		3
INTRACOASTAL WATERWAY	✓								✓		4
OSTER Bay	✓										5
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*James S. Ball*  
*Geographic Names*  
*1 May 1963*

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. ...8634...

Records accompanying survey: Smooth sheets ...<sup>1</sup>...;  
 boat sheets ...<sup>1</sup>...; sounding vols. ...<sup>7</sup>...; wire drag vols. ....;  
 Descriptive Reports ...<sup>1</sup>...; graphic recorder envelopes ...<sup>6</sup>...;  
 special reports, etc. 1-Overlay, Hydrography.....  
 .....

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

Number of positions on sheet	..998..
Number of positions checked	..390..
Number of positions revised	..3...
Number of soundings revised (refers to depth only)	..2...
Number of soundings erroneously spaced	..10..
Number of signals erroneously plotted or transferred	..0...
Topographic details	Time ..4 hrs.
Junctions	Time ..1 hr.
Verification of soundings from graphic record	Time ..8 hrs.
Special adjustments	Time ..0...

Verification by Robert S. House..... Total time 3.48 hrs. Date 11/21/63

Reviewed by George K. Smyers..... Time 90 min Date 11-8-66

RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

April 24, 1963

Nautical Chart Division: R. H. Carstens

Plane of reference approved in  
7 volumes of sounding records for

HYDROGRAPHIC SHEET 8634

Locality Mobile Bay, Alabama

Chief of Party: S. L. Hollis 1961

Plane of reference is mean low water

1.2 ft. on tide staff at Bon Secour, Mobile Bay, Alabama

4.5 ft. below B. M. 4 (1961)

Height of mean high water above plane of reference is 1.6.

Condition of records satisfactory except as noted below:

  
\_\_\_\_\_  
Chief, Tides and Currents Branch



**INTRACOASTAL WATERWAY**  
 Use charts 872, 873 and 874  
 The project depth is 12 feet from  
 Florida, to New Orleans, Louisiana.  
 The controlling depths are published  
 weekly Notice to Mariners.

**INTRACOASTAL**  
 OVERHEAD POWER CABLES  
 AUTHORIZED CL. 93 FT.

Chart - 1266

# NAUTICAL CHARTS BRANCH

SURVEY NO. H-8634

## Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
5/14/63	873	R.D. House	Before <del>After</del> Verification and Review <sup>applied</sup> seven Shoaler soundings & minor changes to 3' & 6' env.
6-3-63	1266	J.S. McMillan	<del>Added 2 land cuts</del> Before <del>After</del> Verification and Review <sup>Applied</sup> seven <del>Shoaler soundings &amp; minor changes to 6' curve</del>
5-12-63	872	J.T. Callahan	Before After Verification and Review <sup>before</sup> added small depth slip, depth 10' marker & soundings also revise 6 ft curve.
12/2/64	1266	John P. Wein	Before After Verification and Review <sup>before</sup> Part. Applied, added four soundings in Bon Secour River
1/13/65	872	John P. Wein	Before After Verification and Review <sup>before</sup> Part. Applied in extension of Bon Secour River.
6/13/68	872-SC	R.A. Lellia	Before After Verification and Review <sup>after</sup> Part. applied added 2 pier in ruins
4-11-73	872-SC	C.E. Harrington	Before After Verification and Review & Inspection Fully Applied
6-15-73	1266	C.E. Harrington	Before After Verification and Review & Inspection - Fully Applied thru Cht. 872 SC
3-27-80	411	J.M. Perkins	fully Before After Verification and Review + Insp. EXAMINED - No Correction
3-27-80	11360	J.M. Perkins	fully Before After Verification and Review + Insp. EXAMINED - NO CORRECTIONS
4/9/80	11006	J.M. Perkins	FULLY APPLIED After Verif., Review, + Insp.

M-2168-1

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.