

8636

Diag. Cht. No. 1266-2.

Form 504

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. ECFP-10-6-61 Office No. H-8636

LOCALITY

State Alabama

General locality Mobile Bay

Locality Weeks Bay

1961

CHIEF OF PARTY

J. R. Plaggmier

LIBRARY & ARCHIVES

DATE April 24, 1963

USCOMM-DC 5087

8636

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-8636

Field No. ECFP 10-6-61

State ALABAMA

General locality MOBILE BAY

Locality WEEKS BAY

Scale 1:10,000 Date of survey 4/25/61 to 7/14/61

Instructions dated 18 September 1959

Vessel Skiff 758 and Skiff #2

Chief of party LCDR John R. Plaggmier

Surveyed by R.R. Floyd & J. LaBastie

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

Fathograms scaled by Party Personnel

Fathograms checked by Party Personnel

Protracted by D.C. Calland (Norfolk Processing Office)

Soundings penciled by D.C. Calland " " "

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

REMARKS:

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016

DESCRIPTIVE REPORT
TO ACCOMPANY HYDROGRAPHIC SURVEY H-8636
(Field No. ECFP 10-6-61)

PROJECT: OPR-410

SCALE: 1:10,000

EAST COAST FIELD PARTY

LCDR John R. Plaggmier,
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 locality of the survey is Weeks Bay, a small inland bay, in the southeastern part of Mobile Bay, Mobile, Alabama. The area surveyed extends from Latitude $30^{\circ}22'00''$ to Latitude $30^{\circ}29'00''$, and from Longitude $87^{\circ}47'00''$ to Longitude $87^{\circ}53'00''$.

This survey makes junction with contemporary survey H-8635 (ECFP 10-5-61) at its southern limit, H-8562 (ECFP 10-6-60) on its western limit. To the north and east there are no contemporary surveys.

Prior survey, registry No. 4023, scale 1:40,000, 1918, covers the entire area of this survey with the exceptions of Fish River from Latitude $30^{\circ}25'00''$ north and Magnolia River from Longitude $87^{\circ}49'00''$.

The survey was conducted between 25 April 1961 and 14 July 1961.

C. SOUNDING VESSELS

Skiff 758 was used for the major part of the survey and is indicated by red day letters, (a - f day).

Skiff #2 was operated for one day and is indicated by green day letters.

D. SOUNDING EQUIPMENT

An 808j fathometer No. 113s and a 12-foot sounding pole were used to obtain all soundings.

Bar Check data and simultaneous comparisons were used to determine the amount the fathometer was in error at given depths. Using the data thus obtained, a velocity curve was drawn, and the corrections applied to the soundings.

All corrections applied to the echo sounder are tabulated in Appendix B, "Abstract of Corrections to Echo Sounders".

E. SMOOTH SHEET

The smooth sheet was ^{computed} projected and ruled in the Washington Office.

F. CONTROL

Horizontal control was obtained by the standard three-point visual fix as described in the Hydrographic Manual. Positioning by estimation from shoreline on control points was used when a three-point fix was unobtainable. This method was used in the upper parts of the Fish and Magnolia Rivers.

Photo-hydro signals were located on advance manuscripts T-10986, T-10987, T-10988, and T-10989.

Appendix C of this report contains a complete list of control used and the quality and source of control.

G. SHORELINE * see Review, par 3.

The shoreline was transferred from the blue-line prints of Advance Manuscripts T-10986, T-10987, T-10988, and T-10989. No noticeable change in shoreline was observed.

The project limits of project Ph-5704 stopped at latitude 30°26'15"; therefore the shoreline of Fish River from this point north was transferred direct from the Nine Lens photograph 5707S. (BA-43859)

H. CROSSLINES

Crosslines were run to the extent of 10 to 12 per cent of the regular system of sounding lines. Favorable crossings were found.

I. JUNCTIONS

Junctions made with the surveys listed in section "B" are in good agreement and depth curves can be adequately drawn at the junctions.

J. COMPARISON WITH PRIOR SURVEYS

Preliminary Review Item No. 15 (snag) was investigated by wire drag with negative findings. The investigation was not thorough enough to dispell doubt of the existance of this item, therefore it is felt the snag should continue to be charted. See Review, par 6B.

A comparison was made with prior survey Register No. 4023, Scale 1:40,000, 1918, and no appreciable change was noted.

K. COMPARISON WITH THE CHART

A comparison with C&GS Chart 1266, 16th edition, 30 January 1961, scale 1:80,000, indicated generally good agreement.

L. ADEQUACY OF THE SURVEY

This survey is complete and considered adequate to supersede prior surveys.

M. AIDS TO NAVIGATION

Refer to Photo Party 720's report on Landmarks for Charts and

Fixed Aids to Navigation.

There is one fixed aid to navigation on the sheet; Weeks Bay Entrance Light #1, Latitude 30°22'13", Longitude 88°51'17", Light List No. 6674, located in 1959.

There are no floating aids within the limits of the survey.

N. STATISTICS

<u>Vessel</u>	<u>No. of Positions</u>	<u>Nautical Miles Soundings</u>
Skiff 758	704	78.0
Skiff #2	<u>59</u>	<u>8.9</u>
	763	86.9

Total area of the survey is 4.3 square nautical miles.

One tide station was used for control of the entire survey.

This was a portable automatic tide gage located in Bon Secour River. Data for reduction of the soundings was taken directly from the station records without time or range corrections. See Appendix A, "Tidal Note", for additional information on this station. Tide station H-8636

There were 20 bottom samples obtained on this survey. These samples were spaced and taken in accordance with the specifications of the Hydrographic Manual. There were no current stations within the limits of this survey.

O. MISCELLANEOUS

None.

Submitted by

Wesley V. Hull
Lt., C&GS

APPENDIX ATTACHMENTS

- A. TIDAL NOTES
- B. ABSTRACT OF CORRECTIONS TO ECHO SOUNDINGS
- C. LIST OF SIGNALS
- D. APPROVAL SHEET

APPENDIX A

TIDAL NOTES

GAGE LOCATION:

Bon Secour River
Bon Secour, Alabama
Lat. 30°18.05'
Long. 87°44.24' } not on H-8636

GAGE TYPE:

Portable Automatic

STAFF:

MLW corresponds to 1.2
feet on the staff. The
90th time meridian was
used at this tide station.

CORRECTION:

None

APPENDIX B

ABSTRACT OF CORRECTIONS TO ECHO SOUNDINGS

Skiff 758

Day & Date	Recorder No.	Fath. Depth (ft.)	Corr. (ft.)
a - 4/25/61	A 12-foot sounding pole used all day.		
b - 4/26/61	808j No. 113s	2.0 to 9.2	+0.2
		9.3 to 12.5	0.0
		12.6 to 15.3	-0.2
		15.4 to 18.0	-0.4
		18.1 to deeper	-0.6
c - 4/28/61	808j No. 113s	2.0 to 5.2	+0.4
		5.3 to 9.5	+0.2
		9.6 to 24.0	0.0
d - 5/1/61	808j No. 113s	2.0 to 6.0	+0.4
		6.1 to 10.0	+0.2
		10.0 to deeper	0.0
e - 5/3/61	808j No. 113 s	2.0 to 6.0	+0.4
		6.1 to 10.0	+0.2
		10.0 to deeper	0.0
f - 5/4/61	808j No. 113s	2.0 to 6.0	+0.4
		6.1 to 10.0	+0.2
		10.0 to deeper	0.0

Skiff #2

a - 7/14/61	808j No. 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 24.0	-0.2

APPENDIX C

LIST OF SIGNALS
Hydrographic Sheet H-8636 (ECFP 10-6-61)

<u>Name of Signal</u>	<u>Origin of Station</u>
ACE	T-10987
ADD	T-10987
ADO	T-10987
BON	T-10987
CAM	T-10987
CAT	T-10987
CAW	T-10988 ⁸⁷
COD	T-10987
DOT	T-10987
EEK	T-10989 (Weeks Bay Entrance Light #1, 1959, Topographic)
ELF	T-10987
EMO	T-10987
END	T-10988 ⁸⁷
EST	T-10987
EVE	T-10986 (EVER 1959, Topographic)
FOX	T-10987
GEO	T-10987
GET	T-10986
GIG	T-10987
GIN	T-10988 ⁸⁷
HOD → HUG	T-10987 → T-10987
JAW	T-10987
JAY	T-10987
JIB	T-10988 ⁸⁷
JIM	T-10987
JUG	T-10987
LAX	T-10987
LAY	T-10987
MAX	T-10987
MET	T-10988 ⁸⁷
MID	T-10987
MIK	T-10987
NEO	T-10987
NIL	T-10987
OLD	T-10987
OUT	T-10987
OWL	T-10987
PIX	T-10987
REV	T-10987
RIM	T-10987
ROT	T-10989
RUB	T-10987
RUE	T-10987
RUM	T-10987
SOT	T-10986
TUB	T-10989
VAL	T-10987
VAN — WIN	T-10987 — T-10987
YEA	T-10987

YOU PON, 1935

APPENDIX D

APPROVAL SHEET TO ACCOMPANY
Hydrographic Sheet H-8636 (ECFP 10-6-61)

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

All office work was supervised by LCDR Steven L. Hollis, Jr.

The Descriptive Report was written by Lt. Wesley V. Hull.

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

Approved and forwarded,

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

NORFOLK PROCESSING OFFICE
ADDENDUM
To Accompany

HYDROGRAPHIC SURVEY H-8636 (ECFP-10-6-61)

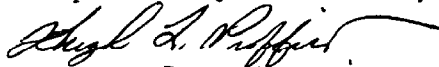
GENERAL

This appears to be an excellent basic survey except for the sparsity of development lines in the approaches to, and in Weeks Bay and its tributaries. Deeps on the fathograms in the area of Weeks Bay indicate the existence of dredged channels, how-ever, there are not enough soundings to establish their continuity nor to delineate their limits. It is believed that air-photographs will be helpful in determining the limits of these channels. *Photos inspected were helpful in 30°23'N, 87°50'W. More development would have been desirable ^{and necessary} to give a complete portrayal of the channels.*

SHORELINE

As mentioned in paragraph "G", the project limits for PH-5704 stopped at Lat. 30-26'-15". Shoreline for Fish River north of this point was transferred to the smooth sheet from an overlay furnished by the Field Party, and which is being submitted with the smooth sheet. This shoreline was left in pencil for confirmation and inking in Washington Office. See BR # 63,859

Respectfully submitted,



Hugh L. Proffitt
Cartographer

Norfolk, Va.
18 April 1963

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

REGISTRY NO. H-8636

FIELD NO. ECFP 10-6-61

Alabama, Mobile Bay, Weeks Bay

SURVEYED: April - July 1961

SCALE: 1:10,000

PROJECT NO. OPR-410

SOUNDINGS: 808 Depth Recorder
12' Sounding Pole

CONTROL: Sextant fixes on
shore objects.
Estimated positions
from shore.

Chief of Party-----J.K. Plaggmier

Surveyed by-----R.R. Floyd

J.G. Bastie

Protracted by-----D.C. Calland

Soundings plotted by-----D.C. Calland

Verified and inked by-----V.J. Mosesso

Reviewed by-----G.K. Myers

Inspected by-----R.H. Carstens

Date: 12/5/66

1. Description of the Area

This is an inshore survey of a portion of Bon Secour Bay off Weeks Bay entrance, Weeks Bay, Fish River and a portion of Magnolia River.

The bottom of Bon Secour Bay is generally hard sand and gently sloping from the shoreline to the 3-ft. curve where it drops more abruptly to an 8 to 9-ft. flat bottom covered with soft mud. The channel in the approach to Weeks Bay is limited by 3 to 4-ft. depths. At the entrance to Weeks Bay there are depths as great as 28 feet.

Weeks Bay has a soft muddy bottom which is relatively shallow and flat except for the narrow channels in its southern and eastern parts and near its inlets and outlet.

Fish River has a channel of 5 to 36-ft. depths from its mouth to a distance of 5 miles upstream.

2. Control and Shoreline

The source of control is given in the Descriptive Report.

The shoreline originates with reviewed photogrammetric manuscripts T-10986, T-10987, and T-10988 of 1957 - 1961, and advanced manuscript T-10989 (1957 - 1961).

The shoreline of Fish River north of Lat. $30^{\circ}26.15'$ was obtained from the nine lens photograph 5707S (see BP-63859).

3. Hydrography

Depths at crossings are in good agreement.

The 3-foot curve was added to define the bottom configuration more adequately.

The development of bottom configuration ^{is} considered adequate except in the channels approaching and within Weeks Bay where more development would have been desirable to determine the width and continuity of the channels.

4. Condition of the Survey

- a. The field plotting is adequate and conforms to the requirements of the Hydrographic Manual.
- b. The Descriptive Report is complete and comprehensive.
- c. The sounding records were complete, except that changes in speed of the launch were not recorded.
- d. The smooth plotting was accurately done.

5. Junctions

Adequate junctions were effected with H-8562 (1960) on the west and H-8635 (1961) on the south.

6. Comparison with Prior Surveys

H-263 (1851) 1:20,000
H-4023 (1917) 1:40,000

These prior surveys cover most of the area of the present survey. Comparison of prior and present surveys reveals no noteworthy change. The larger scale and more completely developed present survey is adequate to supersede the prior surveys in the common area except for the two snags located at Lat. $30^{\circ}23.48'$, Long. $87^{\circ}49.62'$ and Lat. $30^{\circ}23.67'$, Long. $87^{\circ}49.9'$ from H-4023 were neither verified nor disproved and, therefore, have been carried forward.

7. Comparison with Chart 1266

A. Hydrography

Most of the charted hydrography originates with the previously discussed surveys which requires no further consideration.

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

B. Topography

The ruins charted at Lat. $30^{\circ}22.98'$, Long. $87^{\circ}49.91'$ from 1955 photography were not investigated by the survey party and should be retained on the chart.

Several topographic features shown on the present survey from T-10987 such as the dredged canals in Lat. $30^{\circ}25'$, Long. $87^{\circ}50.8'$ and the narrow channel in Lat. $87^{\circ}25.6'$ have not been charted.

C. Aids to Navigation

The aid to navigation on the present survey is in substantial agreement with the charted position and adequately marks the feature intended.

8. Compliance with Instructions

The survey adequately complies with the project instructions.

9. Additional Field Work

This is an adequate basic survey. No additional field work is recommended.

Examined and Approved:

Wallace A. Bruders, for
Chief,
Marine Chart Division

Raymond M. Stone
Acting Associate Director,
Hydrography and Oceanography

RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

May 9, 1963

Nautical Chart Division: R. H. Carstens

Plane of reference approved in
5 volumes of sounding records for

HYDROGRAPHIC SHEET 8636

Locality Mobile Bay, Alabama

Chief of Party: J. R. Plaggmier 1961

Plane of reference is mean low water, reading

1.2 ft. on tide staff at Bon Secour, Alabama

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

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

Condition of records satisfactory except as noted below:


Chief, Tides and Currents Branch

GEOGRAPHIC NAMES

Survey No. H-8636

Name on Survey	Sources										BGN
	A	B	C	D	E	F	G	H	K		
Bon Secour Bay	✓									✓	1
Fish River	✓										2
Fish River Pt.	✓										3
Magnolia River	✓										4
Nolthe Creek	✓										5
Turkey Branch	✓										6
Waterhole Branch	✓										7
Weeks Bay	✓										8
											9
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											27

George S. Bull
Geographic Names
8 May 1963

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8636....

Records accompanying survey: Smooth sheets .1....;
 boat sheets .1....; sounding vols. .5....; wire drag vols.;
 Descriptive Reports .1....; graphic recorder envelopes .2....;
 special reports, etc. .1-Shoreline overlay.....

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

Number of positions on sheet	..761..
Number of positions checked	..76..
Number of positions revised	..0..
Number of soundings revised (refers to depth only)	..4..
Number of soundings erroneously spaced
Number of signals erroneously plotted or transferred	..0..
Topographic details	Time ..8..
Junctions	Time ..0..
Verification of soundings from graphic record	Time ..5..
Special adjustments	Time ..0..

Verification by *Miosesso, Victor J.* Total time *480 hrs* Date *Nov 4, 1963*

Reviewed by *George K. Myers* Time *60 hrs* Date *Dec 5, 1966*

