

8525

Diag. Cht. No. 1266-3.

Form 504

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. ECFP-10-2-60 Office No. H-8525

LOCALITY

State Alabama

General locality Mobile Bay

Locality Northeast of Fort Morgan

1960

CHIEF OF PARTY

H. S. Cole

LIBRARY & ARCHIVES

DATE December 6, 1960

USCOMM-DC 5087

8525

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-8525

Field No. ECFP-10-2-60

State ALABAMA

General locality MOBILE BAY

Locality NORTHEAST OF FORT MORGAN

Scale 1:10,000 Date of survey 11 FEB. to 25 JULY 1960

Instructions dated 22/MEK, ECFP-2 18 SEPTEMBER 1959

Vessel LAUNCH CS-1177, SKIFF 758, AND A 14' ALUMINUM SKIFF

Chief of party HOWARD S. COLE CDR.

Surveyed by ENS. MELVIN J. UMBACH & ENS. ANTHONY DELUZIO

Soundings taken by ~~fathometer~~, graphic recorder, hand lead, ~~wire~~ 12' sounding pole

Fathograms scaled by PARTY PERSONNEL

Fathograms checked by PARTY PERSONNEL

Protracted by ENS. ANTHONY DELUZIO

Soundings penciled by ENS. ANTHONY DELUZIO

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

REMARKS:

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DESCRIPTIVE REPORT
TO ACCOMPANY

Hydrographic Survey H-8525 Field No. ECFP (10-2-60)
Northeast of Fort Morgan
Mobile Bay, Alabama

SCALE: 1;10,000
HOWARD S. COLE, CHIEF OF PARTY

PROJECT: 410
EAST COAST FIELD PARTY
SURVEYED BY: ENS. Melvin J. Umbach & ENS. Anthony Deluzio

A. PROJECT

Work on project CS-410 was executed in accordance with Instructions 22/MEK, ECFP-2 dated 18 September 1959.

B. SURVEY LIMITS AND DATES

The area covered by this survey is Mobile Bay, Alabama, Northeast of Fort Morgan.

Limits are from the Northside of the peninsula leading to Fort Morgan to Latitude $30^{\circ}17'50''$; Longitude $87^{\circ}55'00''$ to Longitude $88^{\circ}01'50''$. This survey makes juncture with contemporary survey H-8524, ECFP 10-1-60, scale 1:10,000 to the West, contemporary survey ECFP 20-1-60, scale 1:20,000, to the North, and contemporary survey H-8526, ECFP 10-3-60, scale 1:10,000, to the southwest.

Hydrography progressed slowly at times because of inclement weather conditions and long runs to and from working grounds.

C. VESSELS AND EQUIPMENT

Launch CS-1177, Skiff 758, and a 14' skiff were based at Dauphin Island Marina.

Launch CS-1177 was used for the offshore portion of the survey and covers most of the deeper area over 4 feet. Standard sounding speed at 1800 rpm. is approximately 7.5 knots.

An Edo-255C #13 graphic recorder was used throughout the entire launch work. Some difficulty was encountered during the hydrography due to faulty ground wire chafing the engine while underway.

Soundings shallower than 5.5* feet were taken with a 12ft. wooden sounding pole and were noted as such in the volume.

* see section H.

D. TIDE AND CURRENT STATIONS

A portable automatic tide gage, located at Fort Morgan, Alabama; Latitude $30^{\circ}13'46''$ N., Longitude $88^{\circ}01'45''$ W., controlled hydrography with no time or height corrections from "a" day, 11 Feb. 1960 to and including "j" day, 9 Mar. 1960. The same type of gage, located at Fort Gaines, Alabama, Latitude $30^{\circ}15'.03$, Longitude $88^{\circ}04'.49$, controlled hydrography with no time or height corrections from "k" day, 14 Mar. throughout the remainder of the survey.

There were no current stations occupied within the limits of this survey.

Fort Morgan Mean low water corresponds to 1.0 feet on the staff. *cks form 712 attached.*
Fort Gaines Mean low water corresponds to 0.7 feet on the staff.

*J.T.G.
Not shown*

*T.G.
Off sheet*

763

E SMOOTH SHEET

The projection was made in the Washington Office by a ruling machine. The shoreline and signals were transferred by the usual methods and were verified in accordance with section 757 in the hydrographic Manual. ✓

F. CONTROL STATIONS

The geographic positions of the following triangulation stations used for control were plotted from unadjusted field computations and were obtained from the following sources:

Joseph K. Wilson, Chief of Party	Oct.-Nov. 1959
R.F. Lanier, Chief of Party	August 1958
East Coast Field Party	1960

STATIONS

<u>STATIONS</u>	<u>CHIEF OF PARTY</u>
Mobile Point Range Rear <u>L</u> ight 1958	R.F.L.
<u>MO</u> bile Point Range Front Light 1942-1958	R.F.L.
Fort Morgan, U.S. Coast Gaurd <u>R</u> adio Mast 1958-1960	R.F.L. - ECFP
Intercoastal Waterway Pen <u>S</u> acola Mobile Light 277 1960	ECFP
Intercoastal Waterway <u>P</u> ENSacola Mobile Light 267 1958	R.F.L.
Intercoastal Water <u>W</u> AY Pensacola Mobile Light 257 1959	J.K.W.
Inter co <u>A</u> stal Waterway Pensacola Mobile Light 247 1959	J.K.W.
Mobile Chan <u>N</u> EL Light 3 1959-1960	J.K.W.-ECFP
Mobile CHAN <u>n</u> el Light 4 1959	J.K.W.
<u>MO</u> BILE Channel Light 6 1960	ECFP
<u>L</u> ear 2 1934	Volume 1. page 39, G 2042
<u>NA</u> Vy 2 1960	ECFP
<u>W</u> eeks 1959	LIPPOLD

The following Topographic Stations were used for control in this survey:

<u>STATION</u>	<u>DESCRIPTION</u>	<u>YEAR</u>	<u>SOURCE</u>
NICK	Marked	1958	Photo-Man. T-10774 ✓
OUT	Abandoned	1958	Photo-Man. T-10774
TOP	Navy Lookout Tower Top of small building on piling		Photo-Man. T-10773

See Appendix A for complete list of control stations.

G. SHORELINE AND TOPOGRAPHY

Shoreline and Topography details were obtained from Photogrametric Manuscript T-10775, T-10774, and T-10773.

A small change of shoreline was found by the hydrographer at the entrance to Three Rivers, and is outlined on the smooth sheet in pencil. Sextant fixes were used to locate the area.

Slight changes were noticed by the hydrographer in the creeks. Sextant fixes in this area were impossible. Wherever possible changes were sketched in pencil on the smooth sheet by the hydrographer.

* The depths stated here and in Section C are approximate. All entry of pale sdgs into the volume are adequately marked.

H. SOUNDINGS

Soundings deeper than 6 feet were determined by an Edo.-255C graphic recorder, and those less than 6 feet were obtained by a 12.0' wooden sounding pole at fifteen second intervals and recorded as such in the volume. ✓

On preceding page it says soundings shallower than 5.5' were taken with a 12' sound. pole

H. cont'd

A leadline was occasionally used for verification of soundings. Velocity correction curves were determined from the results of bar checks. No soundings were over 60 feet.

Many strays were found on the fathograms. However, the high gain setting used, mullet schools and porpoises encountered, and air under the keel in choppy seas will account for most of these.

The soundings on the smooth sheet are corrected for both tides and velocity.

I. CONTROL OF HYDROGRAPHY

Most hydrographic control was by standard visual methods with sextant angles taken on fixed shore objects and fixed aids to navigation.

Occasionally during skiff hydrography, where a sextant fix was impossible, the hydrographer had to rely on his judgement relative to shore objects to place a fix or position.

J. ADEQUACY OF SURVEY *see review.*

This survey is considered complete and adequate and can be used to supersede all prior surveys. Junctions with contemporary surveys H-8524, ECFP 10-1-60, is satisfactory and no excessive differences exist. Depth curves can be adequately drawn at the junctions.

K. CROSSLINES AND BOTTOM SAMPLES

Crosslines were run at approximately 5 to 7 percent which meets the requirements of the project instructions. Bottom samples were taken at representative areas throughout the survey. No noteworthy discrepancies were found.

L. COMPARISON WITH PRIOR SURVEYS *see review also.*

(1917-18)

A comparison was made with the following prior surveys:

1. No. ~~4023 (1918)~~ scale 1:40,000 *(Superseded in area common with H-6685(1941))*

This is a survey of the southerly section of Mobile Bay including the entrance.

- a. The major discrepancy occurs at latitude $30^{\circ} 16.65'$, longitude $87^{\circ} 56.00'$. The old survey indicates depths of 13 and 14 feet where depths of 11 and 12 feet were found in the present survey. This change is reasonable as the shoal off Little Point Clear appears to be slowly shifting northward. *Isolated deep which has silted-in.*
- b. Soundings north of Fort Morgan between latitudes $30^{\circ} 14.00'$ and $30^{\circ} 15.00'$; longitudes $88^{\circ} 01.00'$ and $88^{\circ} 01.50'$ are, in general, two to four feet ^{deeper} than that found in the present survey. Dredging operations in the Mobile Channel could possibly account for this discrepancy. *H-4023(1917-18) superseded this area by H-6685(1941)*
- c. Soundings in the general area of latitude $30^{\circ} 16.00'$ and longitude $87^{\circ} 58.00'$ show depths of 13 and 14 feet, which are two feet deeper than that found in the present survey. This area is also in the vicinity of Little Point Clear. *Same as above - survey superseded.*
- d. see section U. MISCELLANEOUS
preliminary review item # 21

L. cont'd

2. No. 6685 (1941) Scale 1: 20,000

This survey covers the southerly limits of Mobile Bay and the entrance, and shows a general agreement of soundings with the following minor exceptions:

- a. Between latitudes $30^{\circ} 16.00'$ and $30^{\circ} 17.00'$; longitudes $87^{\circ} 58.00'$ and $88^{\circ} 00.00'$, the ^{Prior} old survey shows depths of 10 and 11 feet. *see review*
Soundings in the present survey are 11 and 12 feet.
- b. In Navy Cove the twelve foot depth curve on the ^{Prior} old survey extends to longitude $87^{\circ} 59.50'$ or approximately 800 meters east of that drawn on the present survey. *See review*
- c. see section U. Miscellaneous preliminary review items 19, 21, and 22

M. COMPARISON WITH CHART *See review also.*

A comparison with C&GS chart 873, 2nd edition, 2 July 1951, and revised 16 June 1960 shows a general agreement of soundings with the following exceptions:

- a. At latitude $30^{\circ} 15.18'$, longitude $88^{\circ} 01.58'$ C&GS chart 873 shows a 12 foot sounding. Investigation did not verify this sounding. *see review*
- b. At latitude $30^{\circ} 15.48'$ longitude $88^{\circ} 01.00'$, C&GS chart 873 shows a 13 foot sounding. Investigation did not verify this sounding. *see review*
- c. The twelve foot depth curve, in the vicinity of Light 277, extends approximately 600 meters northeast of that drawn on the chart. *see review*
- d. The chart shows the three foot depth curve in, the vicinity of Light 277, closer to the six foot depth curve and the Intracoastal Waterway Channel than that which is drawn on the present survey. *see review*
- e. see section U. Misc. preliminary review items 19 and 22.
- f. see section L. Comparison with Prior Surveys paragraph 2 part b.

N. DANGERS AND SHOALS

- a. see preliminary review item 20, and Special Report to Washington dated 25 May 1960
- b. see preliminary review item 21

All dangers and shoals were found as charted except those listed in section M. Comparison with Chart paragraphs a and b, and preliminary review items 19 and 22 (Section U.)

O. COAST PILOT INFORMATION

The courses prescribed by C&GS chart 873 for the Intercoastal Waterway Channel were found to be satisfactory.

P. AIDS TO NAVIGATION

Bouy No.	Location		Depth	Vol.	Pos.	Date Located
	latitude	longitude				
277	30°15.52'	87°58.82'	13	1	1a	11 February 1960
275	30°15.59'	87°58.64'	13	1	2a	"
271	30°15.69'	87°58.36'	13	1	3a	"
269	30°15.82'	87°58.05'	13	1	4a	"
267	30°15.95'	87°57.72'	13	1	5a	"
265	30°16.05'	87°57.41'	12	1	6a	"
263	30°16.26'	87°57.14'	13	1	7a	"
261	30°16.25'	87°56.90'	11	1	8a	"
259	30°16.35'	87°56.66'	11	1	9a	"
255	30°16.60'	87°56.00'	11	2	2f	4 March 1960
253	30°16.70'	87°55.70'	10	2	3f	"
251	30°16.82'	87°55.47'	13	2	4f	"
249	30°16.91'	87°55.20'	11	2	5f	"
248	30°17.05'	87°54.94'		2	6f	"

Navy Cove Entrance Bouy No. 1 was also located at latitude 30°14.46' longitude 87°59.70' in 10 feet of water. The bouy was located on "b" day position 1b February 23, 1960.

There are no submarine cables, Ferry routes, or bridges within the limits of this survey. ✓

Q. LANDMARKS FOR CHARTS

None to be reported

R. GEOGRAPHIC NAMES

None to be reported

S. SILTED AREAS

None to be reported

T. BY* PRODUCT INFORMATION

A least depth of 7 feet was found on the edge (marked by can bouys in their present position) of the Intracoastal Waterway Channel at latitude 30°16.74' longitude 87°55.67'. It appears that the shoal off Little Point Clear may be slowly shifting into the Waterway. ✓

U. MISCELLANEOUS Preliminary Review Items

a. Item 19

Snag from H-6685 (1941) and on chart 873 *delete Snag*

Investigated by Skiff 758 at latitude 30°14.90' longitude 87°57.77' position 1b .

A weighted rope was dragged along the bottom in three feet of water covering an area of 100 meters by 150 meters where snag was reported.

Investigation was complete and adequate. There is nothing to report in this area; however a stranded tree trunk, 15 meters long, bare 2 feet was found at latitude 30°15.20' longitude 87°58.16' ✓

U. cont'd

b. Item 20

Several rock piles reported in this locality from Coast Pilot 5, 1958 edition. ✓

Two rock piles were located in the vicinity of latitude $30^{\circ}14.15'$ longitude $88^{\circ}00.77'$ positions 26ca and 33ca respectively. They were carefully investigated.

Least depths of 7 and 9 feet were found and verified by a sounding pole. The remainder of the area was thoroughly investigated. Nothing further to report.

c. Item 21

11 ft. sounding carried forward from H-4023 is "remains of a rock pile". Shown on survey H-6685. ✓

Investigated by Launch 1177 at latitude $30^{\circ}15.54'$ longitude $88^{\circ}00.32'$ position 18da.

A least depth of 8 feet was found and verified by a sounding pole. See Special Report to Washington dated 25 May 1960.

d. Item 22

Piling from H-6685 (1941) and on chart 873.

Investigated by Skiff 758 at latitude $30^{\circ}13.86'$ longitude $88^{\circ}01.30'$

A weighted rope was dragged along the bottom in three feet of water covering an area of 100 by 100 meters where piling was reported.

The remains of a rotted piling was found projecting 2 inches above the bottom. Nothing else was found.

It is recommended by the hydrographer that the piling in this locality be deleted from the chart. All other piling was found and located. ✓

*Revised to remove piles on chart 873 12-20-60
RKO*

Respectfully Submitted,

Anthony J. DeLuzio
Ensign C&GS

APPENDIX ATTACHMENTS

- A. LIST OF CONTROL STATIONS
- B. STATISTICS
- C. ABSTRACT OF GRAPHIC RECORDER CORRECTIONS
- D. APPROVAL SHEET

APPENDIX A

PHOTO-HYDRO
MANUSCRIPT T-10773

AVE	COT	SHE	WIL
AXE	HIM	TON	ZAG

MANUSCRIPT T-10774

COO	FIN	HEX	NOB	VAL
DOC	GIG	ICE	POT	WAG
EEL	GUM	LIZ	PLY	

MANUSCRIPT T-10775

HAT	LEO	MOP	NOD
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TRIANGULATION

AST	LIG	NEL	RAD	WEEKS
HAN	MOB	OBI	SAC	
LEAR	NAV	PEN	WAY	

TOPO.

NIC	1958	T-10775
OUT	1958	T-10774
TOP		T-10773

HYDRO-SIGNALS

ABE	RED	MAX
JOE	RAT	MUD

APPENDIX B

Launch CS-1177

STATISTICS

1960 DATE	VOL	DAY	NO. D. P.	POS	NAUT. MILES
2/11	1	a	9	9	0
2/23	1	b	1	14	2.2
2/24	1	c	0	12	1.7
2/26	1	d	0	103	17.2
3/1	1&2	e	0	111	18
3/4	2	f	6	6	0
3/7	2	g	0	66	8.4
3/8	2	h	0	75	10.2
3/9	3	j	3	35	3.7
3/14	3	k	0	109	15.0
3/16	3&4	l	0	116	19.8
3/22	4	m	0	17	2.0
3/24	4	n	1	84	11.2
3/25	4	p	0	57	9.2
3/28	4&5	q	0	145	24.9
3/31	5	r	0	85	13.6
4/1	5&6	s	1	126	15.8
4/5	6	t	0	27	3.8
4/6	6&7	u	0	140	22.5
4/7	7	v	0	60	8.0
4/8	7&8	w	0	154	25.7
4/11	8	x	1	97	10.0
4/12	8	y	0	107	16.9
4/15	9	z	0	70	12.0
4/19	9	aa	0	125	17.0
4/20	9&10	ba	1	28	4.6
4/21	10	ca	4	33	4.5
4/26	10	da	5	50	5.9
			32	2,061	303.1 TOTAL

SKIFF #1

6/20	11	a	10	77	6.0
6/21	11	b	3	89	9.1
6/22	11&12	c	2	66	6.8
6/23	12	d	4	97	10.1
6/24	12	e	0	53	5.0
6/27	13	f	0	24	2.7
6/28	13	g	0	51	4.3
7/7	13	h	1	72	4.8
			20	529	48.8 TOTAL

SKIFF #758

7/5	14	a	0	67	8.2
7/8	14	b	5	38	3.8
			5	105	12.0 TOTAL

*Depth Recorder #16 EDO

(APPENDIX B. cont.)

Launch CS-183 *bar check tabulation not shown here for this work, daily bar checks were applied direct and are adequate.

DATE	VOL	DAY	NO.D.P.	POS	NAUT.MILES
7/18	15	a	0	17	1.0
7/19	15	b	0	49	3.4
7/25	15	c	0	35	3.6
			0	101	8.0 TOTAL

Total square miles for this sheet 14.5

APPENDIX C

ABSTRACT OF GRAPHIC RECORDER CORRECTION

what number?

Launch CS-1177
RECORDER DEPTH

RECORDER CORRECTIONS

"a" day through "j" day (data)

5.0 to 8.5 ft.	-0.6
8.6 to 18.0 ft.	-0.4
18.1 to 24.0 ft.	-0.2
24.1 to 30.0 ft.	0.0
30.1 to 39.0 ft.	+0.2

"k" day ()

6.0 to 24.0 ft.	-0.2
24.1 to 33.0 ft.	0.0
33.1 to 40.0 ft.	+0.2

"l" & "m" day ()

4.0 to 7.5 ft.	-1.0
7.6 to 12.0 ft.	-0.8
12.1 to 24.0 ft.	-0.6

"n" day

6.0 to 7.0 ft.	-0.4
7.1 to 8.0 ft.	-0.2
8.1 to 10.0 ft.	0.0
10.1 to 20.5 ft.	+0.2
20.6 to 33.5 ft.	+0.4

"p", "u", "t", "v", "w" day

5.0 to 15.5 ft.	-0.2
15.5 to 21.5 ft.	0.0
21.6 to 33.0 ft.	+0.2

"q" day

6.0 to 24.0 ft.	-0.2
24.1 to 33.0 ft.	0.0

"x", "y", & "z" day

5.0 to 5.9 ft.	0.0
6.0 to 8.5 ft.	-0.2
8.6 to 25.5 ft.	-0.4

"aa", "ba", "ca" day

0.0 to 14.0 ft.	0.0
14.1 to 18.0 ft.	-0.2
18.1 to 24.0 ft.	0.0
24.1 to 28.0 ft.	+0.2
28.1 to 32.0 ft.	+0.4
32.1 to 36.0 ft.	+0.6

"ca" day

No Corrections.

APPENDIX D
APPROVAL SHEET TO ACCOMPANY
HYDROGRAPHIC SHEET H*8525 (ECFP 10-2-60)

The record, corrections and all field and office work was supervised by CDR. Howard S. Cole.

All soundings were taken with an EDO 255C graphic recorder and a 12' sounding pole, and lead line.

The descriptive report was written by ENS. Anthony DeLuzio and ENS. Melvin J. Umbach.

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

Approved and Forwarded,

John R. Flaggmier

John R. Flaggmier
LCDR., C&GS
Officer-in-charge, ECFP

RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~DIVISION OF COASTAL SURVEYS~~
Division of Coastal Surveys

30 December 1960

Division of Charts: R.H. Carstens

Plane of reference approved in
15 volumes of sounding records for

HYDROGRAPHIC SHEET 8525

Locality Mobile Bay, Alabama

Chief of Party: H.S. Cole (1960)
Plane of reference is mean low water reading.
1.0 ft. on tide staff at Fort Morgan, Ala.
5.5 ft. below B. M. 1 (1940)
0.7 ft. on tide staff at Fort Gaines, Ala.
18.3 ft. below B. M. 1 (1960)

Height of mean high water above plane of reference is:

Fort Morgan, Ala. 1.2 ft.
Fort Gaines, Ala. 1.1 ft.

Condition of records satisfactory except as noted below:

Burt W. Wilcox

Chief, Tides and Currents Branch

~~Chief, Division of Tides and Currents~~

GEOGRAPHIC NAMES

Survey No. H-8525

Name on Survey	<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">On Chart No. 873</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 style="writing-mode: vertical-rl; transform: rotate(180deg);">BGN</div> </div>										
	A	B	C	D	E	F	G	H	K		
Fort Morgan	x										1
Intracoastal Waterway	x									x	2
Little Point Clear	x										3
Mobile Bay (title)	x										4
Navy Cove	x										5
St. Andrews Bay	x										6
Saxon Cove	x										7
Three Rivers	x										8
											9
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George J. Bee
 GEOGRAPHIC NAMES SECTION
 14 DECEMBER 1960

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8525....

Records accompanying survey: Smooth sheets¹;
 boat sheets¹.; sounding vols.¹⁵.; wire drag vols.;
 Descriptive Reports¹.; graphic recorder envelopes¹⁵;
 special reports, etc.

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

Number of positions on sheet	.....	2796
Number of positions checked	.....	165
Number of positions revised	.....	0
Number of soundings revised (refers to depth only)	.....	30
Number of soundings erroneously spaced	.....	None
Number of signals erroneously plotted or transferred	.....	0
Topographic details	Time	8 hours <i>see diagrams</i>
Junctions	Time	no junctions
Verification of soundings from graphic record	Time	10 hours
Special adjustments	Time	None

Verification by *Richard S. Bayne* Total time *280* Date *May 15, 1962*

Reviewed by *E. E. Honor* Time *8/16/62* Date *63*
(6/11/63) 18
 81

OFFICE OF CARTOGRAPHY

REVIEW SECTION -- NAUTICAL CHART DIVISION

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8525

FIELD NO. ECFP 10-2-60

Alabama, Mobile Bay, Northeast of Fort Morgan

SURVEYED: February-July, 1960

SCALE: 1:10,000

PROJECT NO. 410

SOUNDINGS: Edo Depth Recorder
Sounding Pole

CONTROL: Sextant
fixes on shore
objects. Estim-
ed distances from
shore.

Chief of Party-----Howard S. Cole
Surveyed by-----M. J. Umbach, A. Deluzio
Protracted by-----A. Deluzio
Soundings plotted by-----A. Deluzio
Verified and inked by-----R. S. Bajwa
Reviewed by-----E. Thomas
Inspected by-----R. H. Carstens

Date: 8/16/62

1. Description of the Area

This survey is located at the entrance to Mobile Bay and covers the area from Fort Morgan to Little Point Clear.

The bottom is generally smooth, with a natural slope into the channel at Mobile Pt. Alongshore flats with general depths of 1 to 3 ft. extend .2 to .5 mile offshore and in several areas rise abruptly from comparatively smooth bottom with depths of 7 to 15 ft.

2. Control and Shoreline

The shoreline originates with advance information from photogram-metric manuscripts T-10773, T-10774, and T-10775 of 1957-62.

The source of the control is adequately discussed in the Descriptive Report.

3. Hydrography

- a. Depths at crossings are in adequate agreement.
- b. The standard depth curves are adequately delineated. The low-water line was determined where practicable. The 3-ft curve was added to further delineate the bottom configuration.
- c. The wreck charted in an approximate position in lat. $30^{\circ}13.9'$ long. $88^{\circ}01.55'$ was searched for, but not located. There are no recorded positions or graphic records, nor period of time expended. Because of the uncertainty of position and the relationship of the charted location to the junctional survey H-8526 the feature should be retained until disposal of in the review of that survey.

4. Condition of Survey

The field plotting, sounding records, and Descriptive Report are adequate and conform to the requirements of the Hydrographic Manual.

5. Junctions

The junctions with unverified surveys H-8526 on the southwest, H-8524 on the west, and H-8563 on the north will be discussed in the reviews of those surveys. The survey to the east has not as yet been smooth plotted.

6. Comparison with Prior Surveys

- A. H-193 (1848) 1/20,000
- H-263 (1851) 1/20,000
- H-2124(1892) 1/20,000
- H-2125(1892) 1/20,000
- H-2939(1908) 1/20,000
- H-4023(1917-18) 1/40,000

Portions of the above prior surveys are superseded by H-6685 (1941) in the area common with that survey.

B. H-263 (1851) 1/20,000
H-4023(1917-18) 1/40,000

The portion of the above prior surveys which fall east of the limits of survey H-6685 (1941) and within the area common with the present survey reveals that shoaling of 1 to 5 ft has occurred in depths greater than 12 ft since 1851 (H-263). The amount of shoaling which has occurred since 1918 (H-4023) in similar depths has been about 1-ft, except the deep in lat. $30^{\circ}16.75'$ long. $87^{\circ}55.65'$ where 13 to 15-ft depths from H-4023 has filled to depths of 10 to 13 ft.

The 3-ft shoal flat extending northeastward from Little Pt. Clear is approximately 230 meters farther offshore than the 1851 (H-263) position. Generally the 6 ft. portion of the shoal which has its most offshore point in lat. $30^{\circ}16.72'$ long. $87^{\circ}55.65'$ has not varied appreciably since its 1918 position.

The shoreline west of Little Pt. Clear to long. $87^{\circ}57.5'$ has eroded approximately 160 meters since the earliest survey H-263 of 1851.

C. H-6685 (1941) 1/20,000

A comparison of this prior survey and the present survey reveals that present depths are about 1 ft deeper in general depths at 10-12 ft. and 1-2 ft shoaler in depths greater than 18 ft. A deepening of 1' occurs over portions of The Spit.

The 12-ft sounding charted in lat. $30^{\circ}15.48'$, long. $88^{\circ}01.00'$ from H-4023 and carried forward on H-6685 falls in depths of 13 to 15 ft. on the present survey where specific development of the area was made. The development reveals the area to have a smooth bottom configuration and adequately depicts the present depths. The 12-ft sounding is considered to be non-existent and should be disregarded.

The 12-ft sounding charted in lat. $30^{\circ}15.20'$, long. $88^{\circ}01.58'$ from H-4023 and carried forward on H-6685 falls in depth of 14 to 16 ft on the present survey where specific development of the area was made. The development reveals the area to have an undulating bottom configuration of approximately 1 ft. caused by sand ridging and adequately depicts the present depths. The 12 ft sounding is considered to be nonexistent in the charted position and should be disregarded. Attention

is directed to a 12 ft sounding on the present survey 250 meters north of the position of the above discussed sounding.

The present survey is considered adequate to supersede the prior surveys within the common area.

7. Comparison with Chart 873 (Latest Print Date 5/7/62)

A. Hydrography

The charted hydrography originates with the previously discussed surveys, supplemented by partial application of the present survey through the boat sheet (Bp 60007) and the unverified smooth sheet.

The present survey supersedes the charted hydrography within the common area.

B. Controlling Depth

The present survey information in the intracoastal waterway is not in agreement with the published project depth and reveals a controlling depth of 9 ft in lat. $30^{\circ}16.74'$ long. $87^{\circ}55.67'$.

C. Aids to Navigation

The aids from the present survey are in substantial agreement with the charted positions and adequately mark the features intended.

8. Compliance with Instructions

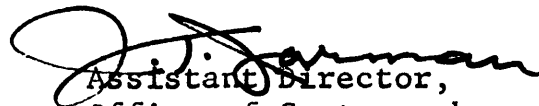
The survey adequately complies with the project instructions.


9. Additional Field Work

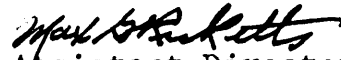
This survey is considered to be a good basic survey and no additional field work is necessary.

Examined and Approved:


Chief,
Nautical Chart Division


Assistant Director,
Office of Cartography


Projects Officer,
Operations Division


Assistant Director,
Office of Oceanography

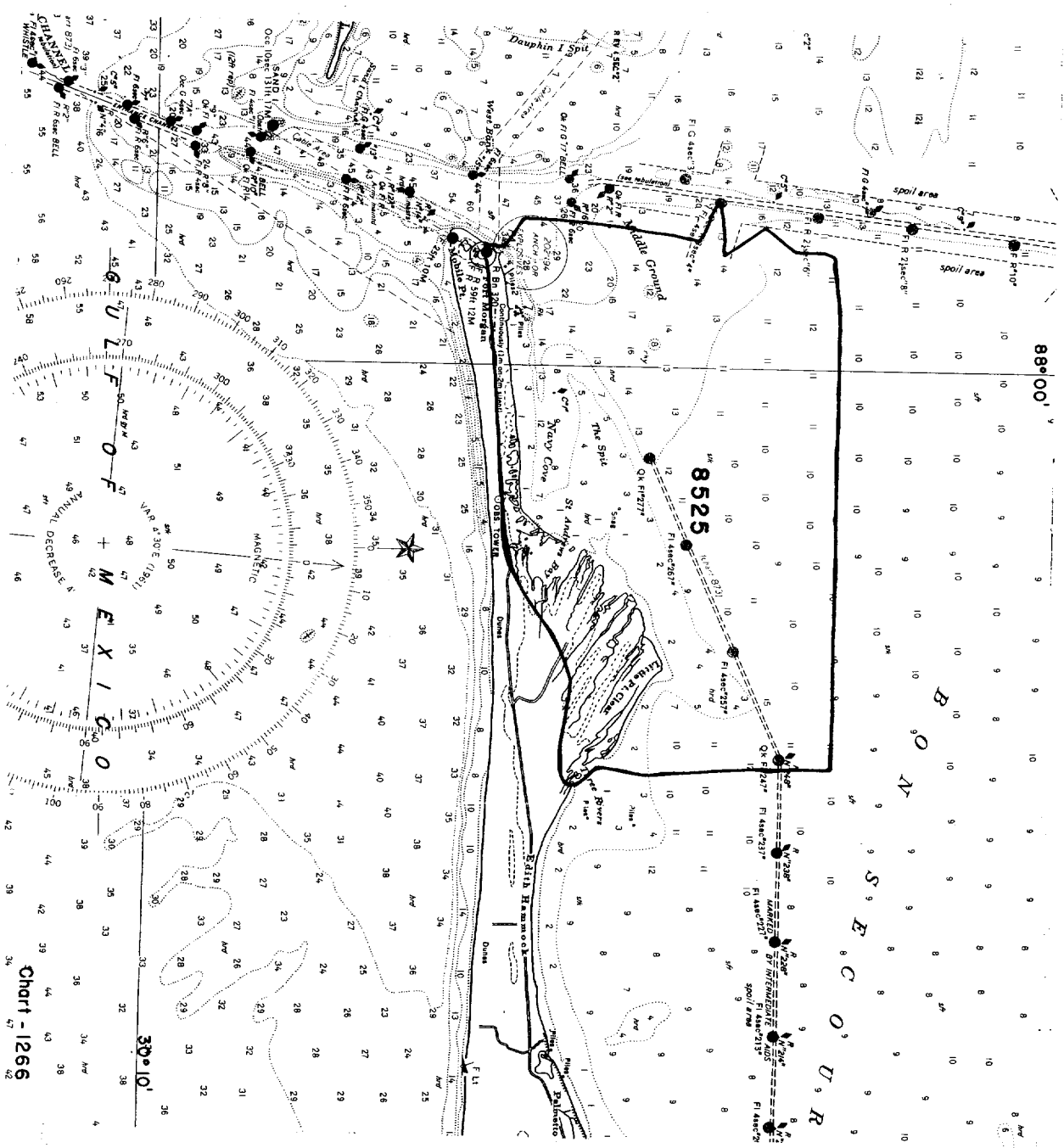


Chart - 1266

30° 10'

89° 00'

