

5536

U. S. COAST & GEODETIC SURVEY
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FEB 28 1936

Acc. No. _____

Form 504
Rev. Dec. 1933
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

Topographic } Sheet No. T-5536
~~Hydrographic~~

State Alabama

LOCALITY

Mobile Bay

Mobile Bay Entrance

193 54

CHIEF OF PARTY

M. H. Reese

Applied to Oct 1266 - Apr. 1936. N.S. Gumble
Applied to chart 873 AVR

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY

REG. NO.

TOPOGRAPHIC TITLE SHEET

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

Field No.

REGISTER NO. T-5536

State..... Alabama

General locality..... Mobile Bay

Locality..... Mobile Bay Entrance

Scale..... 1:10,000 Date of ~~survey~~ photos June 23, 1934

~~Wessel~~ Air Photo Compilation Party No. 24, Pensacola, Fla.

Chief of party..... M. H. Reese

Surveyed by..... See data sheet in descriptive report.

Inked by..... S. S. Gill

Heights in feet above..... to ground to tops of trees

Contour, Approximate contour, Form line interval..... feet

Instructions dated..... June 7, 1934

Remarks: Compiled and printed on scale of 1:10,000, by photolithography. Scale factor 1.00.

...

Blueprint only, scale 1:10,000 filed 2/28/36

- STATISTICS -

on

SHEET, FIELD NO. _____, REG. NO. T-5536

PHOTOS, NO. C-13 TO NO. C-14
C-28 TO NO. C-30

DATE OF PHOTOGRAPHS 6/23/34 TIME 9 a.m.

	BY	DATE
		FROM TO
ROUGH RADIAL PLOT	--	
SCALE FACTOR (1.00)	--	
SCALE FACTOR CHECKED	--	
PROJECTION	<u>E.P. Hernandez Jr.</u> E. P. Hernandez, Jr.	7/2/35
PROJECTION CHECKED	<u>E.L. Fitch</u> E. L. Fitch	7/2/35
CONTROL PLOTTED	<u>E.L. Fitch</u> E. L. Fitch	7/3/35
CONTROL CHECKED	<u>E.P. Hernandez Jr.</u> E. P. Hernandez, Jr.	7/3/35
TOPOGRAPHY TRANSFERRED		
TOPOGRAPHY CHECKED		
SMOOTH RADIAL LINE PLOT	<u>S.S. Gill</u> S. S. Gill	7/6/35
RADIAL LINE PLOT CHECKED	<u>E.P. Hernandez Jr.</u> E. P. Hernandez, Jr.	7/6/35
DETAIL INKED	<u>S.S. Gill</u> S. S. Gill	7/10/35
PRELIMINARY REVIEW OF SHEET	<u>E.L. Fitch R.S. Poor</u> E. L. Fitch & R. S. Poor	7/29/35

TOTAL AREA OF SHEET 30.0 sq. Statute Miles
 AREA OF DETAIL INKED 4.0 sq. Statute Miles (Land Area)
 AREA OF DETAIL INKED --- sq. Statute Miles (Shoals in Water Area)

LENGTH OF SHORELINE (more than 200 m. from nearest opposite shore) 14.3 Statute Miles
 LENGTH OF SHORELINE (rivers and sloughs less than 200 m. wide) 5.0 Statute Miles

GENERAL LOCATION Mobile Bay

Fort Morgan, Tank, 1934

LOCATION Mobile Bay Entrance

30° 13' 49.673" (1529.5 m.) Unadjusted
88° 00' 49.966" (1336.3 m)

DATUM North American 1927

Latitude 30°13'42.022" (1293.9 m.)

STATION FORT MORGAN 1846-1935
(Adjusted)

Longitude 88°01'23.698" (633.7 m.)

COMPILER'S REPORT

FOR

PHOTO TOPOGRAPHIC SHEET NO. T-5536

I. GENERAL INFORMATION:

Instructions dated June 7, 1934.

The information used in the compilation of this sheet was obtained from notes and sketches on field photographs and from members of the field inspection party in localities where the draftsman could not completely determine the exact nature of the detail from the photographs.

No detail within the boundaries of Fort Morgan and Fort Gaines has been shown on this compilation.

The land area of this sheet is composed of two peninsulas forming the entrance to Mobile Bay. The eastern part at Fort Morgan is covered with pines, grass and scrub oaks with a small amount of marsh along the northern shore and a wide sand beach on the Gulf side.

Dauphin Island is composed of comparatively high ground, thickly covered with pines. There is a marshy area along the northern side. There are a few houses located on a graded sand road running east and west to Fort Gaines.

Little Dauphin Island is mostly marsh except along the northern shore where there is sand, and a few pines and scrub oaks.

Due to the small range of tide, 1.1 ft., only the high water line was shown.

The area covered by this sheet was traced from photographs taken by the Aero Service Corp. single-lens camera. Two flights covered the area, one (Nos. C-13 and C-14) running approximately east and west ~~parallel to~~ ^{along} Lat. $30^{\circ}13'30''$, and another (Nos. C-28 to C-30) running east and west, approximately ~~parallel to~~ ^{along} Lat. $30^{\circ}15'$ -- both dated June 23, 1934, 9 a.m.

Since only one picture covered the western end of Mobile Pt., Mobile Pt. Lts. Front and Rear Range were picked on the celluloid as no intersection could be made. These positions were scaled

Mobile Pt. Range Lights

On July 29, 1939 an examination of the original celluloid map drawing T-5536 together with the photographs from which it was originally made was undertaken in order to determine as nearly as possible the true direction of the range. The Lighthouse Service was publishing in its light lists at this time the range as bearing $18^{\circ} T$ and the Coast Pilot gave $20\frac{1}{2} T$, (the latter value said to have been derived from T-5536.) Examination showed that the Front Range ^(on T-5536) should be moved approximately 0.5 mm. and that the range then would read $19\frac{1}{2} T$. This should be taken as the best value obtainable from the present data in the office, for the range, however since the change in the position of the Front Range was so small, no correction has been applied to T-5536.

T.M. Price

July 29, 1939

from the celluloid and are considered accurate enough for charting purposes, as the photo was very close to the scale of the projection and very little adjustment was necessary.

After examination of the photographs in the office the estimated accuracy of location of these range lights is 0.3 to 0.6 m.m.

II. CONTROL:

*See opposite 79E.
page*

(A) Sources

1. Triangulation by Lieut. G. L. Anderson, 1934-35.

Triangulation station FT. GAINES 1908 (U.S.E.) was on the North American Datum. A factor was derived from station FT. MORGAN 1846 to bring this station to the North American 1927 Datum. This factor, $-.22$ in Lat. and $+.47$ in Long., was applied and the station is shown on the celluloid accordingly.

The geographic positions as established by the above party were computed on the North American 1927 Datum from adjusted values.

(B) Character

The control in this area is adequate.

(C) Errors

No errors were found in the control used in compiling this sheet.

III. COMPILATION:

(A) Method

The usual single-lens radial line method of plotting was used in the compilation of this sheet.

(B) Adjustment of plot

There were only two cut intersections on Mobile Point, due to these pictures not having enough overlap. Since the detail is a small island, and this appearing in the center of the single-lens photographs, the intersections were very flat.

Because the radial line plot in the vicinity of Big Pass Margaret and Bayou Matagua established

only flat intersections, the tracing of this area should be considered only approximately correct. *The Control for these pictures was very weak and the plot is subject to*

(C) Interpretation

question See opposite page

The graphic symbols used are those authorized by the Board of Surveys & Maps (1932), except the symbol (?) used to denote brush.

(D) Information from other sources

There was no information from sources other than those mentioned above.

(E) Conflicting names

None.

(F) New names

There were no new names. All names appearing on this compilation were taken from U. S. C. & G. Survey chart No. 1266.

IV. COMPARISON WITH OTHER SURVEYS:

The junctions of this sheet with sheets to the East (No. T-5535) and to the West (No. T-5537) are satisfactory.

V. LANDMARKS:

Landmarks of value to navigation are submitted on form 567.

VI. RECOMMENDATIONS FOR FURTHER SURVEYS:

To the best of my knowledge this sheet is complete in all details of importance for charting purposes, and no further surveys are needed at this time.

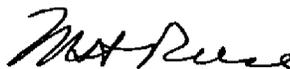
S. S. Gill
Submitted by: S. S. Gill,
Draftsman.

M. H. Reese
Approved by: M. H. Reese,
Chief of Party.

MEMORANDUM TO ACCOMPANY SHEET NO. T-5536

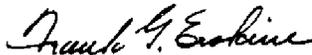
Since the last surveys in this section, as shown on Chart No. 1266, there has been formed an island between West Sand Island and Sand Island Light House. This island begins at about 400 meters east of Sand Island and extends eastward to within about 400 meters of Sand Island Light House.

The photographs taken by the Aero Service Corporation did not show this island. A flight was flown by the U. S. Navy, which showed up this island, but due to lack of control it was impossible to make a compilation sufficiently accurate for charting.



M. H. Reese,
Chief of Party, C. & G. S.

As mentioned above, due to lack of control an accurate compilation of the strip of photographs from Dauphin Island to Sand Island Lighthouse (photos. 1 - 8, Acc. #596) is impossible. However, a mosaic was made tying to triangulation station Sand Island Lighthouse 1930 and detail on Dauphin Island. This location of the islands probably is within 50 meters of the correct position. These islands are of a changeable nature and will be reduced eight times in charting. While not of the desired accuracy, the detail in this area should be charted in place of the obsolete data shown on the present edition of chart 1266. *These islands will not be shown on the published copies of T-5536, nor on the printed Whatman copy. The celluloid is on file in room 1209.*



2/11/36

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

Pensacola, Florida,

July 29, 1935

DIRECTOR, U.S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted:

M. H. Reese

Chief of Party.

DESCRIPTION	POSITION					METHOD OF DETERMINATION	CHARTS AFFECTED
	LATITUDE		LONGITUDE		DATUM		
	°	'	°	'			
		D.M. METERS		D.P. METERS			
Mobile Pt. Lt. R.R.	30	13	(633.0) 1214.0	(876.0) 728.0	N.A. 1927	AirPhoto	1266 ✓
Mobile Pt. Lt. F.R.	30	13	(863.0) 984.0	(793.0) 811.0	"	"	" ✓
Mobile Chan. Bn. #4	30	16	(1374.6) 472.9	(1408.6) 195.2	"	Triangul.	" ✓
Tank Pt. Morgan ✓	30	13	(318.0) 1529.5	(268.3) 1336.0	"	"	" ✓
						Scaled by: S. S. Gill <i>S.S. Gill</i>	
						Checked by: H. A. Butterfield, Jr. <i>H.A. Butterfield</i>	

A list of objects carefully selected because of their value as landmarks as determined from seaward, together with individual descriptions, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report.

The selection, determination, and description of these points are an important factor in the value of the chart. Landmarks selected at appropriate intervals can be clearly charted. However, when none is outstanding, a group of two or three objects may by their interrelationship provide positive identification. A group so selected should be indicated.

The description of each object should be short, but such as will clearly identify it; for example, a standpipe, elevated tank, gas tank, church spire, tall stack, red chimney, radio mast, etc. Assign numerals to landmarks to indicate: (1) Offshore, (2) inshore, (3) harbor, 1, 2, 3 would be a mark useful on all charts. Generally, flagstaffs and like objects are not sufficiently permanent to chart.

Remarks

Decisions

	Remarks	Decisions
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GEOGRAPHIC NAMES

Survey No. T-5536

Name on Survey	Source									
	A	B	C	D	E	F	G	H	K	
✓ <u>Little Dauphin Island</u>	1266									1
✓ <u>Bayou Mataqua</u>	1266									2
✓ <u>Dauphin Island Bay</u>	1266									3
✓ <u>Pass Drury</u>	1266									4
✓ <u>Mobile Bay</u>	1266									5
✓ <u>Dauphin Island</u>	1266			(G.M.)						6
✓ <u>Fort Gaines</u>	1266									7
✓ <u>Gulf of Mexico</u>										8
✓ <u>Mobile Point</u>	1266									9
✓ <u>Fort Morgan</u>	1266									10
✓ <u>South Bank</u>										11
✓ <u>Pelican Passage</u>										12
✓ <u>Pelican Bay</u>										13
* <u>Middle Ground</u>										14
* <u>Pelican Island</u>										15
West Sand Island										16
* <u>Sand Island</u>										17
East Pt ✓										18
<u>Dauphin Island Spit</u>										19
<u>West Bank</u>										20
										21
										22
										23
										24
										25
										26
										27

Names underlined in red approved
by *O. Leguon* on 2-6-36.

Investigated and checked for previous photo-emulsions.

called from name standard 1266 on 8/3/36, 1938

REVIEW OF AIR PHOTO COMPILATION T 5536

Scale 1:10,000

There are no graphic control surveys in this area.

Comparison with Previous Topographic Surveys

Misc. 2 (1845), 1:200,000 - Reconnaissance survey
T 240 (1847), 1:20,000
T 1066 (1868), 1:20,000
T 2086 (1892), 1:10,000
T 2865 (1908), 1:20,000
T 3711 (1917), 1:40,000
T 3712 (1917), 1:40,000
T 3714 (1918), 1:40,000

Considerable change has taken place since the earliest of the above surveys. The entrance has shifted west some 200 meters. The shoreline has continued to build seaward since the 1917 surveys. The islands south of the Mobile Bay entrance are of a changeable nature and are quite different on all the surveys. No detail has been shown inside either Fort Gaines or Fort Morgan.

T 5536 is adequate to supersede the above surveys over the common area except for detail inside the two forts.

There are no contemporary hydrographic surveys in this area.

Comparison with Chart 1266

The small island just north of Chugae Pt. has disappeared.

The small island in Dauphin Island Bay at Pass Dary has disappeared.

The dock on the south side of Dauphin Island at Fort Grimes is no longer in existence.

The detail inside Fort Gaines and Fort Morgan is not shown on the compilation.

The two radio towers inside Fort Morgan should be deleted from the chart. The position for these towers came from the 1917 survey. There is no indication of towers (at ^{the charted} this location) on the photographs.

The dock on the north side of Mobile Pt. (Long. $88^{\circ} 00 \frac{3}{4}'$) is in ruins.

Considerable change has occurred in the islands extending from Dauphin Island to Sand Island Lighthouse.

All landmarks and lights shown on the chart within the limits of the compilation are shown except the two radio towers mentioned above and the lighted buoys. A list of landmarks and aids to navigation have been submitted with this compilation.

Feb. 12, 1936.


Frank G. Erskine.

REVIEW OF AIR PHOTO COMPILATION NO. T-5536

Chief of Party: M. H. Reese

Compiled by: S. S. Gill

Project: Alabama - Florida Compilation Instructions dated: June 7, 1934

1. The charts of this area have been examined and topographic information necessary to bring the charts up to date is shown on this compilation. (Par. 16a, b,c,d,e,g and i; 26; and 64)

Yes.

2. Change in position, or non-existence of wharfs, lights, and other topographic detail of particular importance to navigation which affect the chart, is discussed in the descriptive report. (Par. 26; and 66 g,n)

Yes.

3. Ground surveys by plane table, sextant, or theodolite have been used to supplement the photographic plot where necessary to obtain complete information, and all such surveys are discussed in the descriptive report. (Par. 65; and 66 d,e)

None necessary.

4. Blue-prints and maps from other sources which were transmitted by the field party contain sufficient control for their application to the charts. (Par. 28)

None submitted.

5. Differences between this compilation and contemporary plane table and hydrographic surveys have been examined and rectified in the field before forwarding the compilations to the office and are discussed in the descriptive report.

No surveys in this area.

6. The control and adjustment of the photo plot are discussed in the descriptive report. Unusual or large adjustments are discussed in detail and limits of the area affected are stated. (Par. 12b; 44; and 66 c,h,i)

Discussed in descriptive report.

7. High water line on marshy and ~~marshy~~^{sandy} coast is clear and adequate for chart compilation. (Par. 16a, 43, and 44)

Yes.

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Refer also to the pamphlet "Notes on the Compilation of Planimetric Line Maps from Five Lens Air Photographs."

high

8. The representation of low water lines, ~~marks, notes, and~~ ~~notes~~, and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41)

Yes.

9. Recoverable objects have been located and described on Form 524 in accordance with circular 30, 1933, circular letter of March 3, 1933, and circular 31, 1934. (Par. 29, 30, and 57)

None.

10. A list of landmarks was furnished on Form 567 and instructions in the Director's letter of July 16, 1934, Landmarks for Charts, complied with. (Par. 16d, e; and 60)

Yes.

11. All bridges shown on the compilation are accompanied by a note stating whether fixed or draw, clearance, and width of draw if a draw bridge. Additional information of importance to navigation is given in the descriptive report. (Par. 16c)

None.

12. Geographic names are shown on the overlay tracing. The accepted local usage of new names has been determined and they are listed in the report, together with a general statement as to source of information and a specific statement when advisable. Complete discussion of place names differing from the charts and from the U. S. G. S. Quadrangles is given in the descriptive report, together with reasons for recommendations made. (Par. 64, and 66k)

Yes.

13. The geographic datum of the compilation is N. A. 1927 and the reference station is correctly noted. (Unadjusted)

14. Junctions with adjoining compilations have been examined and are in agreement. (Par. 66j)

Yes.

15. The drafting is satisfactory and particular attention has been given the following:

1. Standard symbols authorized by the Board of Surveys and Maps have been used throughout except as noted in the report.
2. The degrees and minutes of Latitude and Longitude are correctly marked.

3. All station points are exactly marked by fine black dots.
4. Closely spaced lines are drawn sharp and clear for printing.
5. Topographic symbols for similar features are of uniform weight.
6. All drawing has been retouched where partially rubbed off.
7. Buildings are drawn with clear straight lines and square corners where such is the case on the ground.

(Par. 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48)

16. No additional surveying is recommended at this time.

17. Remarks: *Control for sheets is very weak.*

18. Examined and approved;

M. H. Reese
M. H. Reese,
Chief of Party

19. Remarks after review in office:

Reviewed in office by: *Frank G. Eskine*

Examined and approved:

C. N. Green
Chief, Section of Field Records

L. O. Pollock
Chief, Division of Charts

Fred. L. Peacock
Chief, Section of Field Work

Stude
Chief, Division of Hydrography
and Topography.