

5530

U. S. COAST & GEODETIC SURVEY
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DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

Topographic } Sheet No. T-5530
Hydrographic }

State Alabama

LOCALITY

Mobile Bay

Mobile River to D'Olive Bay

Tensaw River and Vicinity

1934

CHIEF OF PARTY

M. H. Reese

5530

Applied to drawing of Chart 1266 - Apr. 5, 1939 - JFWalkey

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-5530

T5530

State..... Alabama

General locality..... Mobile Bay

Locality..... ~~Mobile River to D'Olive Bay~~ *Tensaw River and vicinity*

Scale..... 1:20,833 Date of ^{photos} survey..... July 18, 1934

Vessel..... 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 on scale of 1:20,833. Enlarged and printed

by photolithography to 1:20,000 scale. Scale factor 0.96.

..

*Blueprints only, scale 1:20,833 registered
3/26/36*

- STATISTICS -

on

SHEET, FIELD NO. _____, REG. NO. T-5530

PHOTOS, NO. 593 TO NO. 609
575 592

DATE OF PHOTOGRAPHS 7/18/34 TIME 8:30 a.m.

	BY	DATE	
		FROM	TO
ROUGH RADIAL PLOT	<i>G. O. Coignet</i> G. O. Coignet	5/29/35	
SCALE FACTOR (0.96)	<i>G. O. Coignet</i> G. O. Coignet	5/29/35	
SCALE FACTOR CHECKED	<i>M. H. Reese</i> M. H. Reese	5/29/35	
PROJECTION	<i>E. P. Hernandez, Jr.</i> E. P. Hernandez, Jr.	5/30/35	
PROJECTION CHECKED	<i>G. O. Coignet</i> G. O. Coignet	5/30/35	
CONTROL PLOTTED	<i>S. S. Gill</i> S. S. Gill	6/3/35	
CONTROL CHECKED	A. J. McCorkle	6/3/35	
TOPOGRAPHY TRANSFERRED			
TOPOGRAPHY CHECKED			
SMOOTH RADIAL LINE PLOT	<i>S. S. Gill</i> S. S. Gill	6/10 - 6/17/35	
RADIAL LINE PLOT CHECKED			
DETAIL INKED	<i>S. S. Gill</i> S. S. Gill	6/17 - 7/3/35	
PRELIMINARY REVIEW OF SHEET	<i>E. L. Fitch</i> E. L. Fitch	7/17/35	

TOTAL AREA OF SHEET 126 sq. Statute Miles
 AREA OF DETAIL INKED 99 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) 106 Statute Miles
 LENGTH OF SHORELINE (rivers and sloughs less than 200 m. wide) 214 Statute Miles

GENERAL LOCATION Mobile Bay

LOCATION Mobile River to Olive Bay *Tensaw River and vicinity*

Datum North American 1927

Latitude 30°40'19.757" (608.4 m.)

STATION COCHRANE 1935
(Unadjusted)

Longitude 87°56'56.642" (1507.9 m.)

COMPILER'S REPORT

FOR

PHOTO TOPOGRAPHIC SHEET NO. T-5530

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 detail from the photographs.

The land area of this sheet west of Longitude $87^{\circ}55'$ is, in general, low marshy land. That part that is north of Latitude $30^{\circ}45'$ is covered with brush, cypress and water oaks. South of this latitude there is nothing but low marshy ground with very few trees.

East of Longitude $87^{\circ}55'$ there is a bluff running almost north. This bluff is highest at Latitude $30^{\circ}40'$ and decreases to northward toward Bay Minette. There is about a ten-foot bluff from Bay Minette Creek north to Latitude $30^{\circ}48'$. The land area east of Longitude $87^{\circ}55'$ is covered with pines and scrub oak, and consists of cultivated land and high rolling hills.

The rivers and small lakes and bays have grass growing along the shorelines. ~~The shoreline was shown with the solid line, and the edge of the grass with a broken line.~~

In the small inland bays, ~~the grass is growing from the bottom and seems to be filling the bays.~~ *there is considerable grass which*

There is a retaining wall just east of Triangulation Station TOLL 1935 extending for about a mile. This was not shown on the sheet, due to small scale, but was indicated on overlay.

*(30° 40' N)
(87° 59' W)
01-59*

U. S. Highway No. 90 running approximately east and west along the northern shore of Mobile Bay is a toll causeway that is known as Cochrane Bridge.

The settlement of Blakely, which consists of only a few houses, is shown on this sheet as it appears on U. S. C. & G. Survey Chart No. 1266.

The range of tide in this area is approximately a foot and a half. Due to the small scale of photographs and negligible variation of tide in this area, only the high water line was shown.

These stations of the Alabama geodetic survey will probably be filled as second or third order traverses in the Division of Geology at some time in the future. However since no positions are yet available in Woodway and since the final position may differ appreciably from those computed by Renee and shown on T.S. 30 the stations are shown on this sheet by circles T.C.P.

The tide does not have as much effect on high water in this area as do the winds. When the wind is out of the south, it backs the water into the numerous rivers and bays, making the water considerably higher. The bridge clearances on this sheet were taken when there was considerable water backed into the rivers and bays.

The area covered by this sheet was traced from photographs taken by the Aero Service Corporation with five-lens camera H.U.I.-33. There were two flights; (1) Nos. 609-593 dated 7/18/34 at 8:30 a.m., and (2) Nos. 575-592 dated 7/18/34, 8:30 a.m. These flights were started about six miles apart but converged at the northern part of the sheet.

The T.T. stations and beacons are shown on this sheet with a 2.5 mm. circle.

II. CONTROL:

(A) Sources

1. Triangulation by Lieut. George L. Anderson, 1935.
2. Transit traverse by Local State Control - Alabama.

The traverse run by the Alabama State Control in conjunction with the U. S. C. & G. Survey was computed on the Mercator projection for the State of Alabama and recomputed to geographic positions for the U. S. C. & G. Survey on the North American 1927 Datum from adjusted values. The geographic positions are listed below:

Filed under this survey on form 524.

	Lat. 30° ³ 28'	(722.2)
		1125.4
		(424.0)
✓ T.T. 260-N	Long. 87°54'	1173.8
	Lat. 30° ³ 28'	(1012.9) ✓
		834.8 ✓
✓ T.T. 260-M	Long. 87°54' ✓	(585.6) ✓
		1012.1 ✓
	Lat. 30°39'	(1179.6)
		668.1
✓ T.T. 260-P	Long. 87°54'	(502.5)
		1095.0
	Lat. 30°39'	(1292.4)
		555.2
✓ T.T. 260-Q	Long. 87°54'	(608.6)
		989.0

	Lat. 30°39'	(1253.1)
		594.6
✓ T.T. 260-R	Long. 87°52'	(886.8)
		710.7
	Lat. 30°39'	(1241.8)
		605.8
✓ T.T. 260-S	Long. 87°52'	(1455.6)
		141.9

It was impossible to tie in Station DIXON 1935 on photographs. A road intersection was picked on photographs and a traverse run to this point and its position computed. This intersection was used for control of photographs in this area. The position was not shown on celluloid, but the geographic position of the triangulation station was shown.

Triangulation Station APALACHEE 1910 was not held in the radial line plot. This station was under water and was impossible to tie in accurately enough to be used in radial line plot. This station was not on the North American 1927 Datum and was not cut in by Lieut. Anderson, hence a factor was obtained to bring it to North American 1927 Datum. This factor was obtained by using triangulation stations MINETTE 1897-1935 and DAPHNE 1897-1935 and the factor was found to be -6.8 in latitude and +12.5 in longitude. This factor was applied to the old position and the station plotted on the celluloid.

The geographic positions established by the above parties were computed from the North American Datum, 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 five-lens radial line method of plotting was used in the compilation of this sheet.

(B) Adjustments of plot

The majority of the photos used in tracing this sheet were free from excessive tilt. The scale was slightly different in the "C" prints of flight 577-592 due to the difference in elevation.

(C) Interpretation

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

No information was obtained from sources other than the photographs and notes and sketches submitted by the field inspection party.

(E) Conflicting names

None.

(F) New names

The name "Cochrane Bridge" was obtained from sign boards on the highway. This name is used throughout the country and is seen on several sign boards in and around Mobile.

The name "Bay Minette Creek" was also obtained from a sign board on the bridge over the creek. This name was derived from the town Bay Minette which does not appear on this sheet.

The name "Twelve Mile Island" was obtained from the bridge tender at the Louisville & Nashville Bridge over Mobile River. This man is an old inhabitant of this region and has been tender since the bridge was built.

These names are considered well established in local use and it is recommended that they be included on future charts.

IV. COMPARISON WITH OTHER SURVEYS:

The junctions of this sheet with Sheet No. T-5529 to the South and Sheet No. T-5531 to the West are correct.

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.

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

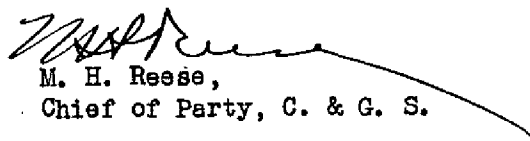
Approved by: *H. H. Reese*
H. H. Reese,
Chief of Party.

*This compilation is considered correct within 0.3 to 0.5 m.m.
for intersected points and 0.3 to 0.8 m.m. for other detail.
F. G. E.*

MEMORANDUM TO ACCOMPANY SHEET NO. T-5530

Twelve Mile Island Light was located by radial line plot and shown on sheet with a 2.5 mm. circle.

Spanish River Light could not be identified on the photograph but its position in relation to the surroundings was picked by the field inspection party and shown on the sheet with a 2.5 mm. circle. Its position is believed to be exact enough to warrant showing on sheet.


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

Remarks

Decisions

1		
2	ALABAMA R. ON T 288.	
3		
4		U.S. G-B
5		
6		
7		
8		U.S. G-B
9		
10		
11		
12	FROM SETTLEMENT "BAY MINETTE" NEAR BY.	U.S. G-B
13		
14	APALACHA ON T 288	
15	Spelled with 2 ^{Ns} Es on T 288.	U.S. G-B
16		
17		
18		U.S. G-B
19		U.S. G-B
20		
21		U.S. G-B
22		
23		
24		
25		
26		
27		

GEOGRAPHIC NAMES

Survey No. T-5530

Name on Survey	On Chart No.		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		
	A	B	C	D								E
<u>Twelve Mile Island</u>						✓						1
<u>Mobile River</u>	1266	T298						✓				2
<u>Spanish River</u>	1266	T3713										3
<u>Tensaw River</u>	1266	T288										4
<u>Grand Bay</u>	1266	T3713								3/11/41		5
<u>Raft River</u>	1266	T288										6
<u>Blakely Blakeley</u>	1266											7
<u>Devon Bay</u>	1266	T288										8
<u>Little Bateau Bay</u>	1266	T3713								Delvan Bay (3-11-41)		9
<u>Polecat Bay</u>	1266	T288										10
<u>Big Bateau Bay</u>	1266	T3713										11
<u>Bay Minette Creek</u>						✓						12
<u>Chacaloochee Bay</u>	1266	T288								3-11-41		13
<u>Apalachee River</u>	1266	T3713										14
<u>Minetta Bay</u>	1266	T3713										15
<u>U.S. Highway No. 90</u>						✓						16
<u>U.S. Highway No. 31</u>						✓						17
<u>Ducker Bay</u>	1266	T288										18
<u>Blakely River</u>	1266	T3713								3-11-41		19
<u>Mobile Bay</u>	1266	T3713								Blakely (3-11-41 decision)		20
<u>D'olive Bay</u>	1266	T3713										21
<u>Clump Point</u>	1266	T3713								3-11-41		22
<u>Cochrane Bridge</u>						✓						23
												24
												25
												26
												27

Names underlined in red approved
by *[Signature]* on 2-5-36

Note Telephone Line Crossing
The ~~cable crossing~~; Mobile river,
lat 30°42' long 88°-00' is labelled
on field inspection print as,
"Telephone Line Approx location". No
information is given as to whether
this is overhead or submerged. ~~Since~~
~~the river is navigable the line~~
~~is evidently situated in the bottom~~
~~and has been labelled "Submerged~~
~~Cable Crossing on the competition".~~

D.B. J.G. 3/5/37

REVIEW OF AIR PHOTO COMPILATION T 5530
Scale 1:20,000

There are no graphic control surveys in this area.

Comparison with Previous Topographic Surveys

Misc. 2 (1845), 1:200,000, Reconnaissance
T 288 (1850), 1:20,000
T 294 (1849), 1:10,000
T 295 (1850), 1:10,000
T 3713 (1917), 1:40,000

The greatest changes since the 1850 surveys have been the reduction in size of the several bays. Minetta Bay, for instance, is now about one quarter the size it was in 1850.

Practically all of the docks on T 3713 in D'Olive Bay are now in ruins.

T 5530 is adequate to supersede the above surveys over the common area except for contours on T 288 and T 294 and for the telephone lines on T 3713.

There are no contemporary hydrographic surveys in this area.

Comparison with chart 1266

The photographs have been examined in connection with the review of T 5530 and all of the small islands which now exist are shown.

The row of piles, lat. $30^{\circ} 40 \frac{3}{4}'$, long. $87^{\circ} 55 \frac{1}{2}'$ are not shown on this survey. These piles were not mentioned by the field inspection, and they are not visible in the photographs. It is recommended that they be deleted from the chart.

The partly submerged piling, lat. $30^{\circ} 39'$, long. $88^{\circ} 01'$ is not shown on this survey. This piling was not mentioned by the field inspection and is not visible in the photographs. However, it is recommended that this piling be continued on the chart.

Other corrections to the chart as a result of this survey are discussed under Comparison with Previous Topographic Surveys.

Landmarks and Aids to Navigation

There are no landmarks or aids on the present edition of the chart. All recommended landmarks and aids are shown on this survey.

See also opposite page.

Frank G. Eskue

March 17, 1936.

BRIDGES

List of Bridges over
Navigable Waters of
U.S., 1927-1935Field Inspection

Cochrane Bridge at 30° 41', 88° 00.5'	Vertical Lift		Horizontal clearance, 192 ft. *Clearance 23.5 ft.
Cochrane Bridge over Apalachee River	Fixed	30-foot clearance between bents. H.W.clearance, 12.5 ft.	30-foot clearance be- tween bents. *Clearance 12 ft.
Cochrane Bridge over Blakeley River	Fixed	30-foot clearance between bents. H.W.clearance, 12.5 ft.	30-foot clearance be- tween bents. *Clearance 12 ft.
L. & N.R.R. Bridge over Tensaw River	Swing	(Tensas River) Left span 131.3 ft. Right span 131.3 ft. H.W. Clearance 5.0 ft.	Horizontal clearance 132 ft. Clearance 12 ft.
L. & N.R.R. Bridge over Mobile River	Swing	Left span 146.7 ft. Right span 146.7 ft. H.W. clearance <u>5.3 ft.</u>	Horizontal clearance 164 ft. Clearance 8.0 ft.
L. & N.R.R. Bridge at 30° 49' 87° 59.75'	Fixed		Horizontal clearance 61.0 ft. *Clearance 7.0 ft.

*Shown on T 5530

~~shown on T 5530~~

REVIEW OF AIR PHOTO COMPILATION NO. T-5530

Chief of Party: M. H. Reese

Compiled by: S. S. Gill

Project: Florida-Alabama 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)

This has been complied with.

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)

This has been complied with.

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.

There were no hydrographic and topographic 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 mangrove~~ 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."

8. The representation of ^{high} low water lines, ~~reefs, coral reefs and rocks, and legends pertaining to them~~ is satisfactory. (Par. 36, 37, 38, 39, 40, 41)
- Only the high water line was shown due to small scale of photographs and small tide variation.
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)
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)
- This has been complied with.
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)
- Yes.
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)

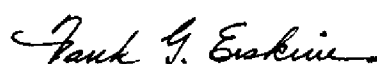
16. No additional surveying is recommended at this time.

17. Remarks:


18. Examined and approved;



M. H. Reese
Chief of Party

19. Remarks after review in office:


Reviewed in office by: 

Examined and approved:


Chief, Section of Field Records


Chief, Division of Charts


Chief, Section of Field Work


Chief, Division of Hydrography
and Topography.

